APPENDIX H

BIOLOGICAL BASELINE INFORMATION REPORT

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FLORIN VINEYARD GAP COMMUNITY PLAN

GIBSON & SKORDAL, LLC
Wetland Consultants
2277 Fair Oaks Blvd., Suite 105
Sacramento, California 95825

BIOLOGICAL BASELINE INFORMATION REPORT

FLORIN VINEYARD GAP COMMUNITY PLAN

SACRAMENTO COUNTY, CALIFORNIA

August 2007

Prepared For:

Florin Vineyard Property Owners Group
The Brewer Law Firm
980 9th Street, Suite 2050
Sacramento, California 95814

Prepared By:

GIBSON & SKORDAL, LLC
Wetland Consultants
2277 Fair Oaks Blvd., Suite 105
Sacramento, California 95825

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INTRODUCTION

This report describes the existing biological resources within the Florin Vineyard Gap Community Plan Area (Plan Area) based on the results of rare plant surveys, detailed wetland delineations, biological assessments, arborist reports, protocol branchiopod surveys, and/or information derived from the interpretation of aerial photography. Thirty-four participant properties within the Plan Area have requested Tentative Subdivision Maps or rezone approvals from Sacramento County. The remaining properties currently seek no authorizations from the county.

This report summarizes the biological conditions of parcels within the Plan Area based on one of two levels of evaluation. For some of the properties, survey and/or assessment reports involving site visits were prepared. For the remaining properties biological baseline information was derived from aerial photo interpretation.

LOCATION

The Plan Area is located south of Sacramento on the floor of the Great Central Valley in Section 36, Township 8 North, Range 5 East; Sections 29, 30, 31, 32, and 33, Township 8 North, Range 6 East; Sections 1 and 12, Township 7 North, Range 5 East; Sections 4, 5, 6, 7, and 8, Township 7 North, Range 6 East; MDB&M, Sacramento County, California. The Plan Area is portrayed on the Elk Grove, Florin, Sacramento East, and Carmichael, California 7. 5 Minute Series Quadrangle. Figure 1 is a vicinity map.

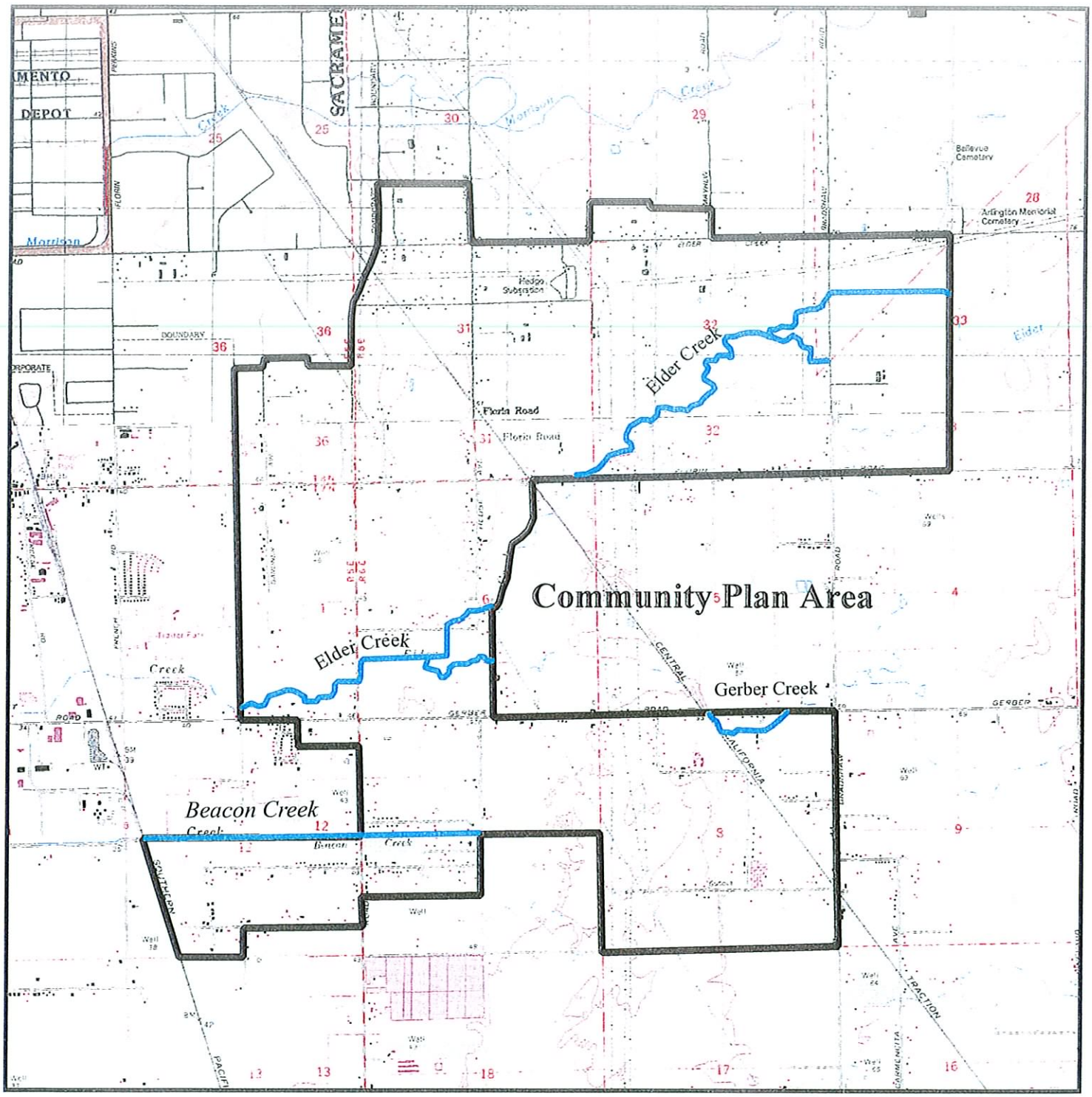
HABITAT TYPES PRESENT WITHIN THE PLAN AREA

General Description

The parcels within the Plan Area contain several habitat types including non-native annual grasslands, agricultural lands, irrigated pastures, vernal pool/swales, seasonal wetlands, emergent marshes, ponds, channels, trees/shrubs, and urban areas. A general description of each habitat type follows.

FIGURE 1

Community Plan Vicinity Map



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Source: USGS Elk Grove, Florin, Sacramento East, and Carmichael, California 7.5 Minute Quadrangles. N.T.S.

Non-Native Annual Grasslands

Non-native annual grasslands associated with the various properties support plant communities typical of historically farmed/ranched areas. Usually these are dominated by exotic grasses and forbs such as soft chess (*Bromus mollis*), perennial rye (*Lolium perenne*), medusa head (*Taeniatherum caput-medusae*), rip-gut brome (*Bromus diandrus*), Mediterranean barley (*Hordeum hystrix*), tarweed (*Holocarpha virgata*), and rattail fescue (*Vulpia myuros*). Other common species include filaree (*Erodium botrys*), curly dock (*Rumex crispus*), prickly lettuce (*Lactuca serriola*), wild radish (*Raphanus sativus*), yellow star-thistle (*Centaurea solstitialis*), hairy hawkbit (*Leontodon leysseri*), and wild oats (*Avena fatua*). In many cases these areas have been leveled, graded, and/or drained to accommodate past or present agricultural practices. For the purpose of this report, this habitat category also applies to lands utilized for hay production, non-irrigated pasturage/rangeland, or fallow fields that historically supported row crops.

Agricultural Lands

Agricultural lands include habitats actively and currently cultivated for the production of crops such as strawberries, bamboo, and walnuts. Like many non-native annual grasslands, agricultural lands have been altered by historic and on-going earth moving activities, which have changed topography, soil profiles, and drainage patterns. Dairy farming operations are also considered agricultural lands for the purpose of this evaluation.

Irrigated Pastures

The study area contains several pastures which are flood irrigated during the dry season to facilitate the growth of grazeable vegetation. The vegetative communities often include species associated with wetter habitats such as perennial rye grass, tall flat-sedge (*Cyperus eragrostis*), bird's foot-trefoil (*Lotus corniculatus*), knotweed (*Polygonum aviculare*) loosestrife (*Lythrum hyssopifolia*) white clover (*Trifolium repens*), and dallis grass (*Paspalum dilatatum*). Soils in these areas often develop hydric indicators such as oxidized rhizospheres, mottles, and manganese concretions. The artificially enhanced hydrology of irrigated pastures sometimes creates or enlarges on-site wetlands

Vernal Pools

Vernal pools are wetlands that will sustain long-term ponding and/or saturated soil conditions during and following periods of heavy precipitation in the winter and early spring. Additional water is provided by surface sheet flow and subsurface discharge onto the perched water-tables or impermeable surfaces which underlie vernal pools. Plants commonly observed within vernal pools include native California species such as coyote thistle (*Eryngium vaseyi*), dwarf wooly marbles (*Psilocarphus brevissimus*), slender popcorn flower (*Plagiobothrys stipitatus*), double-horned downingia (*Downingia bicornuta*), goldfields (*Lasthenia sp*.), and purple hairgrass (*Deschampsia danthonioides*).

Seasonal Wetlands

Seasonal wetlands, including depressional seasonal wetlands, maintain similar hydrology regimens as vernal pools but lack the endemic native plant communities. Often seasonal plant communities are dominated by loosestrife, perennial ryegrass, and Mediterranean barley. Also included in this category are wet swales, which occur in linear sloping drainages that lack a defined bed and bank, and support a wetland plant community. Perennial rye, Mediterranean barley, spiny-fruited buttercup (*Ranunculus muricatus*), and curly dock (*Rumex crispus*) are some species typically found in swales.

Emergent Marsh

Emergent marshes, also referred to as depressional perennial marsh for the purpose of this report, generally occur in deep, defined basins that sustain long term ponding during most, if not all, of the growing season. They can be found along the periphery of ponds, lakes, and other open water habitats as well as in abandoned rice fields and ditches or canals. Common plants include cattails (*Typha sp.*), floating primrose (*Ludwigia peploides*), smartweed (*Polygonum sp.*), and broadleaf arrowhead (*Sagittaria latifolia*).

Ponds

The Plan Area encompasses many human-made ponds. These include golf course water hazards, stock ponds, and ornamental pools as well as detention basins designed to hold irrigation tailwater, flood water, and cattle waste. Ponds generally support a mix of open water habitat, emergent marsh along the edges, and seasonal wetlands during period of water draw-down.

Channels

For the purpose of this report streams, creeks, drainage/irrigation/roadside ditches, and ephemeral drainages are classified as channels. Several major channel features including Gerber Creek, Elder Creek, Union House (also known as Beacon) Creek, and numerous smaller unnamed tributaries traverse the study area. Many within the Plan Area have been heavily impacted to accommodate various rural and urban projects. As a result most have been captured, channelized, denuded of natural vegetation, and redirected from their original courses. Large reaches presently possess steep banks and support emergent species including floating primrose, tall flatsedge, smartweed, and dallis grass as well as various trees and shrubs. Ephemeral drainages are typically described as smaller channels that receives all or the vast majority of its hydrological impetus from overland flow, rather than from subsurface discharge. They usually display a bed, bank, and an ordinary high water mark, but not of the same magnitude as that of a creek, river, or stream. The bed often is composed of bedrock, gravel, sand, or cobble, and the plant community may be absent during times of flow.

Trees/Shrubs

Trees represent the minority of plant species and plant biomass in the study area, and most occur in conjunction with maintained ornamental landscaping, windbreaks, or creek corridors. Recorded species associated with ranchettes and residences include fruitless mulberry (*Morus alba*), gum (*Eucalyptus sp.*), Lombardi poplar (*Populus lombardii*), apple (*Malus sp.*), fig (*Ficus carica*), and California walnut (*Juglans californica*), while California sycamore (*Platanus racemosa*), willow (*Salix sp.*), and cottonwood (*Populus fremontii*) are some of the tree species found along creek corridors.

Urban Areas

For the purpose of this report, urban areas denote commercial and residential locations with manipulated plant communities such as maintained lawns and decorative landscaping. The trees in urban areas include many of the above listed ornamental/fruit species as well. Often, leveling or grading has occurred to accommodate building foundations, roads, utility lines, and other infrastructure.

SPECIAL STATUS SPECIES AND HABITAT ASSOCIATIONS

The special status species habitat evaluation considers those species identified as having relative scarcity and/or declining populations by the United States Fish & Wildlife Service (FWS) or California Department of Fish & Game (CDFG). Special status species include those formally listed as threatened or endangered, those proposed for formal listing, candidates for federal listing, and those classified as species of concern by FWS or species of special concern by CDFG. Also included in some cases were those species considered to be "special animals" or "fully protected" by the CDFG and those plant species considered to be rare, threatened, or endangered in California by the California Native Plant Society (CNPS). Habitat evaluations preformed through aerial photo interpretation involved a record search of the California Natural Diversity Database (CNDDB) to identify all documented sightings of special status species within the portions of the Plan Area not evaluated in previous reports. Several species not listed in the CNDDB search were evaluated based on historic range data. Table 1 combines the potentially occurring special status species listed in the various biological assessment reports and the CNDDB search of the unsurveyed areas; it also presents the habitats associated with these species.

Mammals

American Badger

American badger (*Taxidea taxus*) is a listed CDFG species of special concern. This burrowing carnivorous mammal is solitary, territorial, and prefers to feed on small mammals, lizards, snakes, insects, and carrion. It has no known natural enemies and inhabits dry open fields, grasslands, and pastures.

Birds

Swainson's Hawk

Swainson's hawk (*Buteo swainsoni*) is a raptor species currently listed as threatened in California by the CDFG. They typically nest in tall cottonwoods, valley oaks, or willows associated with riparian corridors, grasslands, irrigated pastures, and croplands with a high density of rodents. The Central Valley population typically breeds and nests in late spring through early summer before migrating to Central and South America for the winter.

TABLE 1: Potentially Occurring Special Status Species and Associated Habitats

Species	State Status	Federal Status	CNPS Listing	Habitat Association	Potentially Present
Mammals					
Taxidea taxus (American badger)	Species of Special Concern	None		This species prefers dry open fields, grasslands, and pastures	Unlikely.
Birds					
Accipiter cooperi (Cooper's hawk)	Species of Special Concern	None		Inhabits forested habitats, forest edge, and riparian habitat, may forage in adjacent grassland and fields.	Yes.
Accipiter striatus (sharp-shinned hawk)	Species of Special Concern	None		Inhabits forested habitats, forest edge, and riparian habitat; may forage in adjacent grassland and fields.	Yes.
Agelaius tricolor (tricolored blackbird)	Species of Special Concern	Species of Concern		Colonial nester in cattails, bullrush, or blackberries associated with marsh habitats.	Yes.
Aquila chrysaetos (golden eagle)	CDFG-Species of Special Concern/Fully Protected Species	None		Solitary nester preferring larger trees. Forages in open areas.	Yes.
Ardea alba (great egret)	CDFG-Special Animals	None		Rivers, streams, lakes, marshes, and other aquatic habitats.	Yes.
Ardea herodias (great blue heron)	CDFG-Special Animals	None		Rivers, streams, lakes, marshes, and other aquatic habitats.	Yes.
Athene cunicularia (burrowing owl)	Species of Special Concern	Species of Concern		Nests in abandoned ground squirrel burrows associated with open grassland habitats.	Yes.
Buteo regalis (ferruginous hawk)	None	None		Solitary tree nester. Forages in open areas such as grasslands and fields for ground squirrels as well as other small mammals, birds, lizards, snakes, and rabbits.	Yes.
Buteo swainsoni (Swainson's hawk)	Threatened	None		Nests in tall cottonwoods, valley oaks or willows. Forages in fields, cropland, irrigated pasture, and grassland near large riparian corridors.	Yes.

TABLE 1: Potentially Occurring Special Status Species and Associated Habitats

Species	State Status	Federal Status	CNPS Listing	Habitat Association	Potentially Present
Circus cyaneus (northern harrier)	Species of Special Concern	None		Forages in open grasslands, nests on ground in shrubby vegetation.	Yes.
Elanus leucurus (white-tailed kite)	Fully Protected	None		Nests in riparian corridors along streams and rivers, and forages in nearby grasslands and fields.	Yes.
Eromophila alpestris actia (California horned lark)	Species of Special Concern	None		Forages and breeds in open grasslands and fields.	Yes.
Falco columbarius (Merlin)	None	None		It is not known to nest in California, but it is a winter transient throughout most of California with wintering populations in the Central Valley.	Yes.
Lanius ludovicianus (loggerhead shrike)	Species of Special Concern	None		Forages in open habitats such as central oak woodland and creosote bush scrub. It nests in mid-canopy	Yes.
Phalacrocorax auritus (double-crested cormorant)	None	Species of Concern		This aquatic bird nests in colonies on rocks, cliff, or in trees. It prefers open water habitats such as coastlines, ponds, rivers, lakes, estuaries, or lagoons.	Yes.
Progne subis (purple martin)	Species of Special Concern	None		This insectivore prefers open areas near bodies of water or wetlands. It is a colonial nester which utilizes cavities in trees, cliff faces, buildings.	Yes.
Riparia riparia (bank swallow)	Threatened	Species of Concern		Colonial nester in vertical cliffs and banks associated with riparian zones along streams, rivers, and lakes.	Yes.
Amphibians & Reptiles					
Ambystoma californiense (California tiger salamander)	Species of Special Concern	Threatened		Breeds in ponds or other deeply ponded wetlands, and uses gopher holes and ground squirrel burrows in adjacent grasslands for upland refugia/foraging.	Yes.
Clemmys marmorata marmorata (western pond turtle)	Species of Special Concern	Species of Concern		Ponds, rivers, streams, wetlands, and irrigation ditches with associated marsh habitat.	Yes.

TABLE 1: Potentially Occurring Special Status Species and Associated Habitats

Species	State Status	Federal Status	CNPS Listing	Habitat Association	Potentially Present
Spea (=Scaphiopus) hammondii (western spadefoot toad)	Species of Special Concern	Species of Concern		Breeds in vernal pools, seasonal wetlands and associated swales. Forages and hibernates in adjacent grasslands.	Yes.
Thamnophis gigas (giant garter snake)	Threatened	Threatened		Rivers, canals, irrigation ditches, rice fields, and other aquatic habitats with slow moving water and heavy emergent vegetation.	Yes.
Fish					
Pogonichthys macrolepidotus (Sacramento splittail)	Species of Special Concern	Species of Concern		Adults migrate upstream from brackish areas to spawn in freshwater on submerged vegetation in temporarily flooded upland and riparian habitat in the lower reaches of rivers, bypasses, sloughs. The young remain in shallow, weedy areas inshore near spawning sites and move to deeper offshore habitat as they mature.	Yes.
Invertebrates					
Branchinecta lynchi (vernal pool fairy shrimp)	None	Threatened		Vernal pools.	Yes.
Branchinecta mesovallensis (midvalley fairy shrimp)	None	None		Vernal pools.	Yes.
Desmocerus californicus dimorphus (valley elderberry longhorn beetle)	None	Threatened		Dependent upon elderberry plant (*Sambucus mexicana*) as primary host species.	Yes.
Lepidurus packardi (vernal pool tadpole shrimp)	None	Endangered		Vernal pools.	Yes.
Linderiella occidentalis (California linderiella)	None	None		Vernal pools.	Yes.
Plants					
Downingia pusilla (dwarf downingia)	None	None	CNPS-2	Vernal pools.	Yes.
Gratiola heterosepala (Bogg's Lake hedge-hyssop)	Endangered	None	CNPS-1B	Vernal pools and margins of lakes/ponds	Yes.

TABLE 1: Potentially Occurring Special Status Species and Associated Habitats

Species	State Status	Federal Status	CNPS Listing	Habitat Association	Potentially Present
Juglans hindsii (Northern California black walnut)	None	None	CNPS-1B	Only two of three known native stands are still in existence. This species prefers riparian scrub and riparian woodland habitats.	Yes.
Juncus leiospermus var. ahartii (Ahart's dwarf rush)	None	Species of Concern	CNPS-1B	Vernal pools.	Yes.
Legenere limosa (legenere)	None	Species of Concern	CNPS-1B	Vernal pools.	Yes.
Orcuttia tenuis (slender orcutt grass)	Endangered	Threatened	CNPS-1B	Vernal pools.	Yes.
Orcuttia viscida (Sacramento orcutt grass)	Endangered	Threatened	CNPS-1B	Vernal pools.	Yes.
Sagittaria sanfordii (Sanford's arrowhead)	None	Species of Concern	CNPS-1B	Emergent marsh habitat, typically associated with drainages, canals, or irrigation ditches.	Yes.

Cooper's Hawk

Cooper's hawk (*Accipiter cooperi*), which is also known as the blue darter or chicken hawk, is listed by CDFG as a species of special concern. This raptor is an ambush predator that prefers to forage in or near wooded locations for birds, domestic poultry, and small mammals. Unlike falcons which use their beaks to kill, Cooper's hawks subdue prey by continuously squeezing with talon-equipped feet. The species nests in trees in wooded areas typically 10 to 60 feet above ground level.

Sharp-Shinned Hawk

Sharp-shinned hawk (*Accipiter striatus*) is a CDFG-listed species of special concern. Many are known to migrate to Canada and Alaska during the summer to nest and rear young, though other populations including some in California remain local during the breeding season. Sharp-shinned hawks prefer to nest and forage in larger wooded areas, but they have been observed hunting in open fields and pastures near forests for small birds, reptiles, and mammals, which compose the majority of their diet.

Burrowing Owl

Burrowing owl (*Athene cunicularia*) is a ground nesting raptor species that is afforded protection by CDFG as a species of special concern due to potentially declining populations in the Central Valley of California. They typically inhabit open grassland habitats where they nest in abandoned ground squirrel burrows and cavities associated with raised mounds, levees, or soft berm features.

White-Tailed Kite

White-tailed kite (*Elanus leucurus*), also known as black-shouldered kite, is a CDFG fully protected species. This non-migrating bird attains a wingspan of approximately 40 inches and feeds primarily on insects, small mammals, reptiles, and amphibians, which it forages from open grasslands. It builds a platform-like nest of sticks in trees or shrubs and lays 3 to 5 eggs, but may brood a second clutch if prey is abundant. The kite's distinct style of hunting includes hovering before diving onto its target.

Tricolored Blackbird

Tricolored blackbirds (*Agelaius tricolor*) are afforded protection by CDFG as a species of special concern due to declining populations in the region. They are colonial nesters favoring dense stands of cattails, bullrush, or blackberry thickets associated with drainages, ditches, and canals. They commonly forage in areas adjacent to the central colony for a variety of insects.

Northern Harrier

The northern harrier (*Circus cyaneus*), which is also known as the marsh hawk, is listed by CDFG as a special animal. It feeds on small birds, mammals, reptiles, and frogs foraged from open wetlands, meadows, croplands, grasslands, and riparian woodlands. Northern harriers construct nests of vegetation on the ground in open fields and meadows.

Golden Eagle

The golden eagle (*Aquila chrysaetos*) is afforded protection by CDFG as a species of special concern and a fully protected species. It is a very large solitary tree nesting raptor which feeds on mammals, carrion, and reptiles. Though its natural densities are low, it once was relatively common to the open areas of California. Today, it is rarely observed in the Central Valley.

Loggerhead Shrike

Loggerhead shrike (*Lanius ludovicianus*), which is also known as the butcher bird, is a solitary hunter that feeds on small mammals, insects, reptiles, and birds. It favors open habitats such as central oak woodland and creosote bush scrub and mostly nests in mid-canopy.

Merlin

The Merlin (*Falco columbarius*) is a CDFG species of special concern that has never been observed nesting in California. Though it is a transient throughout most of the state, wintering populations are known to occur in the Central Valley and along the coast.

Ferruginous Hawk

The ferruginous hawk (*Buteo regalis*) is a solitary tree nester that prefers to forage in grasslands or other open areas for small mammals, birds, reptiles, and large insects. This large and powerful buteo often winters in California.

Great Egret

The great egret (*Ardea alba*) is listed by CDFG as a special animal. This bird usually forages alone in shallow open water and wetlands for fish, amphibians, and aquatic invertebrates. Great egrets favor breeding habitat in or near open waters and wetlands.

Bank Swallow

The bank swallow (*Riparia riparia*) is a federal species of concern and a California threatened species. This bird nests in colonies of two or three pairs to a few thousand in vertical cliffs and banks associated with riparian zones, lakes, and streams. This species is known to colonize human-made vertical banks or building structures.

California Horned Lark

The California horned lark (*Eremophila alpestris actia*) is a CDFG species of special concern. This bird prefers to forage and nest in areas with sparse vegetation and exposed soil, such as agricultural fields, desert brushlands, grasslands, and similar open habitats. The California horned lark, which feeds on seeds and insects, seems to avoid all habitats dominated by dense vegetation.

Purple Martin

The purple martin (*Progne subis*) is a California species of special concern. This bird winters in South America and migrates to Mexico, the United States, and southern Canada to breed. It is a colonial nester and utilizes natural cavities such as hollow trees, cliffs, and abandon woodpecker dens, but it will also take advantage of created hollows such as bird houses or gourds. Purple martins feed on winged insects which they catch on the fly commonly in open areas near lakes, ponds, marshes or other water features.

Great Blue Heron

The great blue heron (*Ardea herodias*) is listed by CDFG as a special animal. This wading bird forages in wetlands and shallow open waters for fish, aquatic invertebrates, small mammals, and amphibians. It usually nests in rookeries that are situated in wetlands or near open waters.

Double-Crested Cormorant

Double-crested cormorant (*Phalacrocorax auritus*) is listed by CDFG as a species of special concern. This diving aquatic bird is the most widespread cormorant in North America. It prefers open water habitats such as ponds, rivers, estuaries, lagoons, and open coastlines where it forages for fish, amphibians, and crustaceans. It builds its nests near water in colonies on cliffs, rocks, or in trees.

Fish

Sacramento Splittail

Sacramento splittail (*Pogonichthys macrolepidotus*) is a California species of special concern and a federal species of concern that was recently de-listed by the FWS. Adult fish migrate upstream from brackish areas to spawn in freshwater on submerged vegetation in temporarily flooded upland and riparian habitat. The young remain in shallow, vegetated areas near spawning sites and eventually migrate to deeper waters upon maturation.

Amphibians and Reptiles

California Tiger Salamander

The California tiger salamander (*Ambystoma californiense*) is a federally-listed threatened species and a California species of special concern that typically breeds in fish-free seasonal or permanent ponds associated with grassland communities. California tiger salamander may also breed in deeper vernal pools, seasonal wetlands, and/or other seasonal pools within swales or channels. They spend the majority of their life cycle below ground in ground squirrel or pocket gopher burrows in grasslands situated adjacent to breeding sites.

Giant Garter Snake

Giant garter snake (*Thamnophis gigas*) is designated as a federal threatened and state threatened species afforded special protection by FWS and CDFG. This species is generally associated with larger canals, irrigation ditches, and other semi-permanent to permanent aquatic sites with slow moving water and an abundance of emergent vegetation.

Western Spadefoot Toad

The western spadefoot toad (*Spea hamondii)* is a California species of special concern and a federal species of concern. It is a nocturnally active animal that prefers to forage in grassland, scrub, and chaparral for a variety of insects, worms, and other invertebrates. This species breeds from January to May in vernal pools, pools in ephemeral stream courses, and other fish-free water features. Females commonly lay more than 500 eggs in one season. The tadpoles develop in 3 to 11 weeks, and must complete their metamorphosis before the temporary pools dry.

Western Pond Turtle

The western pond turtle (*Clemmys marmorata marmorata*) is a California species of special concern and a federal species of concern. Its preferred habitat includes streams, large rivers and canals with slow-moving water, and marshes. Although the turtles must live near water, they can tolerate drought by burrowing into the muddy beds of dried drainages. This species feeds mainly on invertebrates such as insects and worms, but will also eat small fish, frogs, mammals, and some plants. Western pond turtle predators include raccoons, coyotes, raptors, weasels, large fish, and bullfrogs. This species breeds from mid to late spring and may live up to 50 years.

Invertebrates

Valley Elderberry Longhorn Beetle

The valley elderberry longhorn beetle (*Desmocerus californicus*) is a federal threatened species that is dependent upon the elderberry plant (*Sambucus sp.*) as a primary host species. Though elderberry shrubs are a common component of riparian areas throughout the Sacramento Valley region, they are also found considerable distances from drainages.

Vernal Pool Branchiopods

The federally threatened vernal pool fairy shrimp *(Branchinecta lynchi*) and the endangered vernal pool tadpole shrimp (*Lepidurus packardi*) as well as the non-listed California linderiella (*Linderiella occidentalis*) and midvalley fairy shrimp (*Branchinecta mesovallensis*) have been documented by the CNDDB as occurring within the vicinity of the Plan Area. These branchiopod species exclusively inhabit vernal pools or other seasonally ponded wetlands that sustain inundation during the winter before drying in the late spring.

Plants

Vernal Pool Plants

Special status plant species identified on the CNDDB as occurring close proximity of the Plan Area include dwarf downingia (*Downinia pusila*), Ahart's dwarf rush (*Juncus leiospermus var. ahartii*), Sacramento orcutt grass (*Orcuttia viscida*), slender orcutt grass (*Orcuttia tenuis*), and legenere (*Legenere limosa*). All are strongly associated with vernal pools and other seasonally ponded wetlands.

Bogg's Lake Hedge-Hyssop

Bogg's Lake hedge-hyssop (*Gratiola heterosepala*) is a state-listed endangered species and a CNPS 1B plant. Though it is found in vernal pools, it also favors other shallow water habitats such as lake margins and marshes.

Northern Californian Black Walnut

Northern California black walnut (*Juglans hindsii*) is listed as a 1B plant by the CNPS. It presently occurs in only two of three known natural stands, but it has been widely introduced into California's cismontane habitats. Though it favors riparian scrub and riparian woodlands under natural circumstances, historically it was widely cultivated as rootstock for English walnut (*Juglans regia*).

Sanford's Arrowhead

Sanford's arrowhead (*Sagittaria sanfordii*) is listed as a 1B plant by the CNPS. It favors deeper aquatic habitats associated with drainages, canals, and larger ditches that sustain inundation and/or slow moving water into early summer.

WETLAND RESOURCES AND SPECIAL STATUS SPECIES HABITAT ASSESSMENT

Below are textual descriptions of the biological conditions within the Plan Area based on rare plant surveys, arborist reports, wetland delineations, biological assessments, protocol branchiopod surveys, and/or aerial photo interpretation. Appendix A contains a wetland composite map titled "Florin Vineyard Community Plan Wetlands Exhibit." Table 2 outlines the acreage totals and types of water features, and Table 3 summarizes special status species potentially present within the Plan Area based on the presence of suitable habitat

Champion Oaks EGR (04-0139)

The majority of this site is maintained as a golf course and driving range with concomitant ponds, maintenance buildings, paved driveways, parking lots, and a clubhouse. Approximately 0.46 acre of pond was delineated within the 18.43 acre parcel (Gibson & Skordal, 2005). The site contains 4 potentially protected trees consisting of solely non-native species with 19"+ diameter(s) at breast height (DBH) (Sierra Nevada Arborists, 2004).

Habitat types present: *non-native annual grasslands, pond, trees/shrubs, urban areas.*

Based on the presence of suitable habitat, the following special status species may be present (Gibson & Skordal, 2005):

Mammals: none.
Fish: none.
Birds: Cooper's hawk, sharp-shinned hawk, tricolored blackbird, burrowing owl, Swainson's hawk, northern harrier, white-tailed kite.
Reptiles/Amphibians: northwestern pond turtle, giant garter snake.
Invertebrates: none.
Plants: Sanford's arrowhead.

Table 2. Wetland Acreage Totals by Feature Type

Control No.	Project Name	Delineation Status	Assessor's Parcel Number	Channel/Drainage/Ditch*	Emergent Marsh	Pond	Seasonal Wetland**	Vernal Pool	Total
04-0139	Champion Oaks EGR	Verified by Corps	065-0080-017, 065-0080-018, 065-0080-088	0.00	0.00	0.46	0.00	0.00	0.4600
06-0709	Champion Oaks CENTEX	Verified by Corps	065-0080-017, 065-0080-018, 065-0080-088	1.07	0.67	1.62	0.00	0.00	3.3600
04-0143	Florin Vineyard Retail Center	#	065-0042-062	0.00	0.00	0.00	0.024	0.00	0.0240
04-0177	Legends Meadows	Verified by Corps	121-0010-015, 121-0010-021, 121-0010-029, 121-0010-030	0.259	0.00	0.00	1.403	0.00	1.6620
04-0187	Gerber Creek	Verified by Corps	065-0070-007, 065-0070-014, 065-0070-021, 065-0070-022, 065-0070-027	0.67	0.00	0.00	0.8912	1.24	2.8083
04-0204	Florin Bradshaw NE	Verified by Corps	066-0050-009	0.78	0.00	0.00	0.02	0.00	0.8000
04-0205	Portico Acres	Verified by Corps	121-0070-014	0.318	0.00	0.00	0.027	0.15	0.4950
04-0206	Lelani Village	Verified by Corps	065-0070-006	0.041	0.00	0.00	0.046	0.00	0.0870
04-0207	Florin Vineyards	Verified by Corps	064-0020-044, 064-0071-045, 064-0072-003, 064-0072-009, 064-0020-011, 064-0072-012, 064-0072-015, 064-0072-016, 064-0072-020, 064-0072-021, 064-0072-024, 064-0072-025, 064-0072-026, 064-0080-043, 064-0080-045, 064-0080-046	1.0244	0.00	0.00	0.9707	0.1270	2.1221
04-0208	Villages at Elder Creek Estates	Verified by Corps	065-0051-009, 065-0051-016, 065-0051-028, 065-0051-030, 065-0051-031, 065-0051-032, 065-0051-045, 065-0051-046, 065-0051-047, 065-0080-001	0.10	0.00	0.22	4.92	3.49	8.7300
04-0209	Vineyard Market Square	Verified by Corps	121-0010-044, 121-0010-050, 121-0010-051	0.053	0.00	0.00	0.938	0.00	0.9910
04-0211	Stonehedge	Verified by Corps	064-0080-001, 064-0080-002, 064-0080-017, 064-0080-039, 064-0080-040, 064-0080-057, 064-0080-058	0.272	0.00	1.57	0.010	0.093	1.9450
04-0215	Porter	Verified by Corps	121-0010-009	0.0600	0.00	0.00	0.4858	0.3719	0.9177
04-0217	Dakuzaku	Verified by Corps	121-0040-003, 121-0040-016, 121-0040-019, 121-0040-020	0.00	0.00	0.00	0.64	0.08	0.7200
04-0218	Gardner Parke***	No Verification	065-0042-017, 065-0042-028, 065-0042-031, 065-0042-040, 065-0042-041, 065-0042-042, 065-0042-043, 065-0042-044, 065-0042-045, 065-0042-046	0.00	0.00	0.00	0.09	0.00	0.0900
04-0219	Roemer Ranch	Verified by Corps	064-0032-002, 064-0032-003, 064-0032-004, 064-0032-005, 064-0032-006, 064-0034-005, 064-0034-007, 064-0034-009, 064-0034-010,064-0080-009, 064-0080-010, 064-0080-011, 064-0080-059, 064-0036-002, 064-0080-031, 064-0080-034, 064-0080-035, 064-0080-047	0.924	0.00	0.243	6.171	0.881	8.2190

#Acreages from aerial photos; totals not undergoing Corps review.
*Includes irrigation, drainage, and roadside ditches, creeks, ephemeral drainages. **Includes swales and depressional seasonal wetlands. ***Jurisdictional status unknown, not verified by the Corps.

Table 2. Wetland Acreage Totals by Feature Type

Control No.	Project Name	Delineation Status	Assessor's Parcel Number	Channel/Drainage/Ditch*	Emergent Marsh	Pond	Seasonal Wetland**	Vernal Pool	Total
04-0226	Taylor Gerber/Bradshaw SW	Verified by Corps	121-0060-022	0.082	0.00	0.00	0.1384	0.8441	1.0645
04-0233	Carson Development Co.	Verified by Corps	115-0091-002, 115-0091-003, 115-0091-004, 115-0091-005, 115-0091-006	0.00	0.00	0.00	0.1400	0.00	0.1400
04-0234	Gardner Country Estates	#	065-0160-011	0.00	0.00	0.00	0.00	0.00	0.0000
04-0241	Phan Court	#	064-0071-051	0.00	0.00	0.00	0.00	0.00	0.0000
04-0247	Gasnakis & Kumar	#	121-0010-002, 121-0010-020	0.00	0.00	0.00	0.00	0.00	0.0000
04-0412	Millers Family Trust	#	065-0080-036	0.0449	0.00	0.00	0.00	0.00	0.0449
04-0423	Martin	#	121-0050-040	0.00	0.00	0.6776	0.00	0.366	1.0436
04-0445	Enoch	#	121-0080-046	0.00	0.00	0.00	0.00	0.00	0.0000
04-0449	7415 Gardner Avenue	#	065-0070-028	0.00	0.00	0.00	0.0632	0.00	0.0632
04-0450	Black***	No Verification	121-0080-024	0.0580	0.00	0.0000	0.4370	0.5070	1.0020
04-0457	Rancho Siesta	#	065-0080-046, 065-0080-047	0.00	0.00	0.00	0.00	0.00	0.0000
04-0460	Sikich Acres	Verified by Corps	065-0042-048	0.005	0.00	0.00	0.394	0.00	0.3990
04-0469	Vintage Creek #3	Verified by Corps	115-0092-003, 115-0092-005	0.030	0.00	0.00	0.122	0.00	0.1520
04-0471	Vintage Ranch	Verified by Corps	006-0050-005, 006-0050-006	0.00	0.00	0.00	0.415	0.2003	0.6153
04-0474	Vintage Creek #1	Verified by Corps	115-0091-016, 115-0091-017, 115-0091-022, 115-0091-033, 115-0091-034,115-0091-035, 115-0091-036, 115-0091-054, 115-0091-057, 115-0091-078, 115-0091-078, 115-0091-079, 115-0091-080, 115-0091-088, 115-0091-089	0.06	0.00	0.00	2.920	0.00	2.9800
04-0480	Vintage Creek #2	Verified by Corps	115-0091-075, 115-0091-076, 115-0091-077, 115-1091-010	0.00	0.00	0.00	1.5374	0.00	1.5374
04-0870	Gardner Parke West***	No Verification	065-0041-013, 065-0041-014, 065-0041-015, 065-0041-024, 065-0041-025, 065-0160-003	0.17	0.78	0.00	0.02	0.00	0.9700
04-0906	Hedgerow	Verified by Corps	065-0052-006, 065-0052-008, 065-0052-013, 065-0052-020, 065-0052-024, 065-0052-028, 065-0052-030, 065-0052-031	0.228	0.00	0.00	1.353	0.00	1.5810
05-0329	Elk Trail LLC	Verified by Corps	121-0010-010, 121-0010-011	0.00	0.00	0.00	0.6231	0.2394	0.8625
	Participant Properties		Numerous	6.2537	1.4500	4.7906	24.7998	8.5924	45.8865
	Non-Participant Properties	N/A	Numerous	1.7845	0.0002	3.5156	18.9089	36.0399	60.2491
	Plan Area								**106.1356**
	Total Waters			**8.0382**	**1.4502**	**8.3062**	**43.7087**	**44.6323**	**106.1356**

#Acreages from aerial photos; totals not undergoing Corps review.
*Includes irrigation, drainage, and roadside ditches, creeks, ephemeral drainages. **Includes swales and depressional seasonal wetlands. ***Jurisdictional status unknown, not verified by the Corps.

TABLE 3: Potentially Occurring Special Status Species and Survey Results

Control No.	Project Name	Assessor's Parcel Number	Mammals	Birds	Reptiles/Amphibians	Fish	Invertebrates	Plants
04-0052	Bradshaw Mini-Storage	066-0040-049	None - based on information derived from aerial photo.	Cooper's hawk, sharp-shinned hawk, tricolored blackbird, great egret, great blue heron, burrowing owl, Swainson's hawk, northern harrier, white-tailed kite, California horned lark, purple martin - based on information derived from aerial photo.	northwestern pond turtle, giant garter snake, California tiger salamander, western spadefoot toad - based on information derived from aerial photo.	None - based on information derived from aerial photo.	vernal pool fairy shrimp, midvalley fairy shrimp, vernal pool tadpole shrimp, California linderiella - based on information derived from aerial photo.	dwarf downingia, Bogg's Lake hedge-hyssop, Ahart's dwarf rush, legenere, slender orcutt grass, Sacramento orcutt grass, Sanford's arrowhead - based on information derived from aerial photo.
04-0139	Champion Oaks EGR	065-0080-017, 065-0080-018, 065-0080-088	None	Cooper's hawk, sharp-shinned hawk, tricolored blackbird, burrowing owl, Swainson's hawk, northern harrier, white-tailed kite - no surveys performed.	northwestern pond turtle, giant garter snake - no surveys performed.	None	None	Sanford's arrowhead - no surveys performed.
06-0709	Champion Oaks CENTEX	065-0080-017, 065-0080-018, 065-0080-088	None	Cooper's hawk, sharp-shinned hawk, tricolored blackbird, burrowing owl, Swainson's hawk, northern harrier, white-tailed kite - no surveys performed.	northwestern pond turtle, giant garter snake - no surveys performed.	None	None	Sanford's arrowhead - no surveys performed. Northern California black walnut on-site (Sierra Nevada Arborists).
04-0143	Florin Vineyard Retail Center	065-0042-062	None - based on information derived from aerial photo.	Cooper's hawk, sharp-shinned hawk, tricolored blackbird, great egret, great blue heron, burrowing owl, Swainson's hawk, northern harrier, white-tailed kite, California horned lark, purple martin - based on information derived from aerial photo.	northwestern pond turtle, California tiger salamander, western spadefoot toad - no surveys performed.	None - based on information derived from aerial photo.	vernal pool fairy shrimp, midvalley fairy shrimp, vernal pool tadpole shrimp, California linderiella, valley elderberry longhorn beetle - based on information derived from aerial photo.	Northern California black walnut, dwarf downingia, Bogg's Lake hedge-hyssop, Ahart's dwarf rush, legenere, slender orcutt grass, Sacramento orcutt grass, Sanford's arrowhead - based on information derived from aerial photo.
04-0177	Legends Meadows	121-0010-015, 121-0010-021, 121-0010-029, 121-0010-030	None	Cooper's hawk, sharp-shinned hawk, burrowing owl, Swainson's hawk, northern harrier, white-tailed kite - no surveys performed.	western spadefoot toad - no surveys performed.	None	vernal pool fairy shrimp, midvalley fairy shrimp, vernal pool tadpole shrimp, California linderiella. Dry season sampling performed 2005/wet season surveys performed 2004-5: California linderiella observed (Helm Biological Consulting).	None
04-0187	Gerber Creek	065-0070-007, 065-0070-014, 065-0070-021, 065-0070-022, 065-0070-027	None	Cooper's hawk, sharp-shinned hawk, tricolored blackbird, burrowing owl, Swainson's hawk, northern harrier, white-tailed kite - no surveys performed.	California tiger salamander, western spadefoot toad, northwestern pond turtle, giant garter snake - no surveys performed.	None	vernal pool fairy shrimp, midvalley fairy shrimp, vernal pool tadpole shrimp, California linderiella - no surveys performed.	dwarf downingia, Bogg's Lake hedge-hyssop, Ahart's dwarf rush, legenere, slender orcutt grass, Sacramento orcutt grass, Sanford's arrowhead - no surveys performed.
04-0204	Florin Bradshaw NE	066-0050-009	None	Cooper's hawk, sharp-shinned hawk, tricolored blackbird, burrowing owl, Swainson's hawk, northern harrier, white-tailed kite - no surveys performed.	northwestern pond turtle, giant garter snake - no surveys performed.	None	None	Sanford's arrowhead - no surveys performed.

TABLE 3: Potentially Occurring Special Status Species and Survey Results

Control No.	Project Name	Assessor's Parcel Number	Mammals	Birds	Reptiles/Amphibians	Fish	Invertebrates	Plants
04-0205	Portico Acres	121-0070-014	None	Cooper's hawk, sharp-shinned hawk, burrowing owl, Swainson's hawk, northern harrier, white-tailed kite - no surveys performed.	western spadefoot toad - no surveys performed.	None	vernal pool fairy shrimp, midvalley fairy shrimp, vernal pool tadpole shrimp, California linderiella. Dry season sampling performed 2005/wet season surveys performed 2004-5: none observed (Helm Biological Consulting).	dwarf downingia, Bogg's Lake hedge-hyssop, Ahart's dwarf rush, legenere, slender orcutt grass, Sacramento orcutt grass, Sanford's arrowhead - no surveys performed.
04-0206	Lelani Village	065-0070-006	None - based on information derived from aerial photo.	Cooper's hawk, sharp-shinned hawk, tricolored blackbird, great egret, great blue heron, burrowing owl, Swainson's hawk, northern harrier, white-tailed kite, California horned lark, purple martin - based on information derived from aerial photo.	northwestern pond turtle, giant garter snake, California tiger salamander, western spadefoot toad - based on information derived from aerial photo.	None - based on information derived from aerial photo.	vernal pool fairy shrimp, midvalley fairy shrimp, vernal pool tadpole shrimp, California linderiella, valley elderberry longhorn beetle - based on information derived from aerial photo.	Northern California black walnut, dwarf downingia, Bogg's Lake hedge-hyssop, Ahart's dwarf rush, legenere, slender orcutt grass, Sacramento orcutt grass, Sanford's arrowhead - based on information derived from aerial photo.
04-0207	Florin Vineyards	064-0020-044, 064-0071-045, 064-0072-003, 064-0072-009, 064-0020-011, 064-0072-012, 064-0072-015, 064-0072-016, 064-0072-020, 064-0072-021, 064-0072-024, 064-0072-025, 064-0072-026, 064-0080-043, 064-0080-045, 064-0080-046	None	Cooper's hawk, sharp-shinned hawk, burrowing owl, Swainson's hawk, northern harrier, white-tailed kite - no surveys performed.	California tiger salamander, western spadefoot toad - no surveys performed.	None	vernal pool fairy shrimp, midvalley fairy shrimp, vernal pool tadpole shrimp, California linderiella - no surveys performed.	dwarf downingia, Bogg's Lake hedge-hyssop, Ahart's dwarf rush, legenere - no surveys performed. Northern California black walnuts are present.
04-0208	Villages at Elder Creek Estates	065-0051-009, 065-0051-016, 065-0051-028, 065-0051-030, 065-0051-031, 065-0051-032, 065-0051-045, 065-0051-046, 065-0051-047, 065-0080-001	None	Cooper's hawk, sharp-shinned hawk, burrowing owl, Swainson's hawk, northern harrier, white-tailed kite - no surveys performed.	western spadefoot toad - no surveys performed.	None	vernal pool fairy shrimp, midvalley fairy shrimp, vernal pool tadpole shrimp, California linderiella. Dry season sampling performed 2005/wet season surveys performed 2004-5: none observed (Helm Biological Consulting).	dwarf downingia, Bogg's Lake hedge-hyssop, Ahart's dwarf rush, legenere, slender orcutt grass, Sacramento orcutt grass - no surveys performed.
04-0209	Vineyard Market Square	121-0010-044, 121-0010-050, 121-0010-051	None	Cooper's hawk, burrowing owl, Swainson's hawk, northern harrier, white-tailed kite, loggerhead shrike, tricolored blackbird, golden eagle, Merlin, ferruginous hawk - no surveys performed.	California tiger salamander, western spadefoot toad - no surveys performed.	None	vernal pool fairy shrimp, midvalley fairy shrimp, vernal pool tadpole shrimp, California linderiella - no surveys performed.	dwarf downingia, Bogg's Lake hedge-hyssop, Ahart's dwarf rush, legenere, slender orcutt grass, Sacramento orcutt grass - no surveys performed.
04-0211	Stonehedge	064-0080-001, 064-0080-002, 064-0080-017, 064-0080-039, 064-0080-040, 064-0080-057, 064-0080-058	None	Cooper's hawk, sharp-shinned hawk, burrowing owl, Swainson's hawk, northern harrier, white-tailed kite - no surveys performed.	California tiger salamander, western spadefoot toad, northwestern pond turtle - no surveys performed.	None	vernal pool fairy shrimp, midvalley fairy shrimp, California linderiella - no surveys performed.	dwarf downingia, Bogg's Lake hedge-hyssop, Ahart's dwarf rush, legenere, Sanford's arrowhead - no surveys performed.
04-0215	Porter	121-0010-009	None	Cooper's hawk, sharp-shinned hawk, burrowing owl, Swainson's hawk, northern harrier, white-tailed kite - no surveys performed.	western spadefoot toad - no surveys performed.	None	vernal pool fairy shrimp, midvalley fairy shrimp, vernal pool tadpole shrimp, California linderiella. Dry season sampling performed 2005/wet season surveys performed 2004-5: none observed (Helm Biological Consulting).	dwarf downingia, Bogg's Lake hedge-hyssop, Ahart's dwarf rush, legenere - no surveys performed.

TABLE 3: Potentially Occurring Special Status Species and Survey Results

Control No.	Project Name	Assessor's Parcel Number	Mammals	Birds	Reptiles/Amphibians	Fish	Invertebrates	Plants
04-0216	Lawson	121-0050-013	None - based on information derived from aerial photo.	Cooper's hawk, sharp-shinned hawk, tricolored blackbird, great egret, great blue heron, burrowing owl, Swainson's hawk, northern harrier, white-tailed kite, California horned lark, purple martin, double-crested cormorant - based on information derived from aerial photo.	northwestern pond turtle, giant garter snake, California tiger salamander, western spadefoot toad - based on information derived from aerial photo.	None - based on information derived from aerial photo.	vernal pool fairy shrimp, midvalley fairy shrimp, vernal pool tadpole shrimp, California linderiella, valley elderberry longhorn beetle - based on information derived from aerial photo.	dwarf downingia, Bogg's Lake hedge-hyssop, Ahart's dwarf rush, legenere, slender orcutt grass, Sacramento orcutt grass, Sanford's arrowhead - based on information derived from aerial photo. Northern California black walnut documented on-site (Sierra Nevada Arborists).
04-0217	Dakuzaku	121-0040-003, 121-0040-016, 121-0040-019, 121-0040-020	None	Cooper's hawk, burrowing owl, Swainson's hawk, northern harrier, white-tailed kite, California horned lark - no surveys performed.	California tiger salamander - no surveys performed.	None	vernal pool fairy shrimp, midvalley fairy shrimp, vernal pool tadpole shrimp, California linderiella - no surveys performed.	dwarf downingia, Bogg's Lake hedge-hyssop, legenere, slender orcutt grass - no surveys performed.
04-0218	Gardner Parke	065-0042-017, 065-0042-028, 065-0042-031, 065-0042-040, 065-0042-041, 065-0042-042, 065-0042-043, 065-0042-044, 065-0042-045, 065-0042-046	None	loggerhead shrike, burrowing owl, Swainson's hawk, kite, ferruginous hawk, and other raptors - no surveys performed. White-tailed kite and red-tailed hawk were observed on-site (Foothill Associates).	None	None	None	Sanford's arrowhead - no surveys performed.
04-0219	Roemer Ranch	064-0032-002, 064-0032-003, 064-0032-004, 064-0032-005, 064-0032-006, 064-0034-005, 064-0034-007, 064-0034-009, 064-0034-010,064-0080-009, 064-0080-010, 064-0080-011, 064-0080-059, 064-0036-002, 064-0080-031, 064-0080-034, 064-0080-035, 064-0080-047	None	Cooper's hawk, loggerhead shrike, tricolored blackbird, burrowing owl, Swainson's hawk, northern harrier, white-tailed kite, Merlin, golden eagle, ferruginous hawk - no surveys performed.	northwestern pond turtle, giant garter snake, California tiger salamander, western spadefoot toad - no surveys performed.	None	vernal pool fairy shrimp. Midvalley fairy shrimp, vernal pool tadpole shrimp, and California linderiella were observed during 2004-5 wet season surveys (ECORP).	Species specific surveys performed for dwarf downingia, Bogg's Lake hedge-hyssop, Ahart's dwarf rush, legenere, slender orcutt grass, Sacramento orcutt grass, Sanford's arrowhead May 6 and June 21 2005: none observed (ECORP).
04-0226	Taylor Gerber/Bradshaw SW	121-0060-022	None	Cooper's hawk, sharp-shinned hawk, burrowing owl, Swainson's hawk, northern harrier, white-tailed kite - no surveys performed.	northwestern pond turtle, giant garter snake, California tiger salamander, western spadefoot toad - no surveys performed.	None	vernal pool fairy shrimp, midvalley fairy shrimp, vernal pool tadpole shrimp, California linderiella - no surveys performed.	dwarf downingia, Bogg's Lake hedge-hyssop, Ahart's dwarf rush, legenere, slender orcutt grass, Sacramento orcutt grass, Sanford's arrowhead - based on information derived from aerial photo. Northern California black walnuts documented on-site (Sierra Nevada Arborists).
04-0233	Carson Development Co.	115-0091-002, 115-0091-003, 115-0091-004, 115-0091-005, 115-0091-006	None	Cooper's hawk, sharp-shinned hawk, burrowing owl, Swainson's hawk, northern harrier, white-tailed kite - no surveys performed.	None	None	None	None
04-0234	Gardner Country Estates	065-0160-011	None - based on information derived from aerial photo.	Cooper's hawk, sharp-shinned hawk, tricolored blackbird, burrowing owl, Swainson's hawk, northern harrier, white-tailed kite, California horned lark - based on information derived from aerial photo.	None - based on information derived from aerial photo.	None - based on information derived from aerial photo.	Valley elderberry longhorn beetle - based on information derived from aerial photo.	Northern California black walnut - based on information derived from aerial photo.

TABLE 3: Potentially Occurring Special Status Species and Survey Results

Control No.	Project Name	Assessor's Parcel Number	Mammals	Birds	Reptiles/Amphibians	Fish	Invertebrates	Plants
04-0241	Phan Court	064-0071-051	None - based on information derived from aerial photo.	Cooper's hawk, sharp-shinned hawk, tricolored blackbird, burrowing owl, Swainson's hawk, northern harrier, white-tailed kite, California horned lark - based on information derived from aerial photo.	None - based on information derived from aerial photo.	None - based on information derived from aerial photo.	Valley elderberry longhorn beetle - based on information derived from aerial photo.	Northern California black walnut - based on information derived from aerial photo.
04-0247	Gasnakis & Kumar	121-0010-002, 121-0010-020	None - based on information derived from aerial photo.	Cooper's hawk, sharp-shinned hawk, tricolored blackbird, burrowing owl, Swainson's hawk, northern harrier, white-tailed kite, California horned lark - based on information derived from aerial photo.	None - based on information derived from aerial photo.	None - based on information derived from aerial photo.	Valley elderberry longhorn beetle - based on information derived from aerial photo.	Northern California black walnut - based on information derived from aerial photo.
04-0412	Millers Family Trust	065-0080-036	None - based on information derived from aerial photo.	Cooper's hawk, sharp-shinned hawk, tricolored blackbird, burrowing owl, Swainson's hawk, northern harrier, white-tailed kite, California horned lark, great egret, great blue heron, double-crested cormorant, bank swallow, purple martin - based on information derived from aerial photo.	northwestern pond turtle, giant garter snake - based on information derived from aerial photo.	None - based on information derived from aerial photo.	Valley elderberry longhorn beetle - based on information derived from aerial photo.	Northern California black walnut - based on information derived from aerial photo.
04-0423	Martin	121-0050-040	None - based on information derived from aerial photo.	Cooper's hawk, sharp-shinned hawk, tricolored blackbird, burrowing owl, Swainson's hawk, northern harrier, white-tailed kite, California horned lark, great egret, great blue heron, double-crested cormorant, purple martin - based on information derived from aerial photo.	northwestern pond turtle, California tiger salamander, western spadefoot toad - based on information derived from aerial photo.	None - based on information derived from aerial photo.	vernal pool fairy shrimp, midvalley fairy shrimp, vernal pool tadpole shrimp, California linderiella. Dry season sampling performed 2005/wet season surveys performed 2005-6: none observed (Helm Biological Consulting).	Northern California black walnut, dwarf downingia, Bogg's Lake hedge-hyssop, Ahart's dwarf rush, legenere, slender orcutt grass, Sacramento orcutt grass, Sanford's arrowhead - based on information derived from aerial photo.
04-0445	Enoch	121-0080-046	None - based on information derived from aerial photo.	Cooper's hawk, sharp-shinned hawk, tricolored blackbird, burrowing owl, Swainson's hawk, northern harrier, white-tailed kite, California horned lark - based on information derived from aerial photo.	None - based on information derived from aerial photo.	None - based on information derived from aerial photo.	Valley elderberry longhorn beetle - based on information derived from aerial photo.	Northern California black walnut - based on information derived from aerial photo.
04-0449	7415 Gardner Avenue	065-0070-028	None - based on information derived from aerial photo.	Cooper's hawk, sharp-shinned hawk, tricolored blackbird, burrowing owl, Swainson's hawk, northern harrier, white-tailed kite, California horned lark, great egret, great blue heron, purple martin - based on information derived from aerial photo.	northwestern pond turtle, California tiger salamander, western spadefoot toad - based on information derived from aerial photo.	None - based on information derived from aerial photo.	vernal pool fairy shrimp, midvalley fairy shrimp, vernal pool tadpole shrimp, California linderiella, valley elderberry longhorn beetle - based on information derived from aerial photo.	Northern California black walnut, dwarf downingia, Bogg's Lake hedge-hyssop, Ahart's dwarf rush, legenere, slender orcutt grass, Sacramento orcutt grass, Sanford's arrowhead - based on information derived from aerial photo.

TABLE 3: Potentially Occurring Special Status Species and Survey Results

Control No.	Project Name	Assessor's Parcel Number	Mammals	Birds	Reptiles/Amphibians	Fish	Invertebrates	Plants
04-0450	Black	121-0080-024	None - based on information derived from aerial photo.	Cooper's hawk, sharp-shinned hawk, tricolored blackbird, burrowing owl, Swainson's hawk, northern harrier, white-tailed kite, California horned lark, great egret, great blue heron, purple martin, double-crested cormorant - based on information derived from aerial photo.	giant garter snake, northwestern pond turtle, California tiger salamander, western spadefoot toad - based on information derived from aerial photo.	None - based on information derived from aerial photo.	vernal pool fairy shrimp, midvalley fairy shrimp, vernal pool tadpole shrimp, California linderiella, valley elderberry longhorn beetle - based on information derived from aerial photo.	Northern California black walnut, dwarf downingia, Bogg's Lake hedge-hyssop, Ahart's dwarf rush, legenere, slender orcutt grass, Sacramento orcutt grass, Sanford's arrowhead - based on information derived from aerial photo.
04-0457	Rancho Siesta	065-0080-046, 065-0080-047	None - based on information derived from aerial photo.	Cooper's hawk, sharp-shinned hawk, tricolored blackbird, burrowing owl, Swainson's hawk, northern harrier, white-tailed kite, California horned lark - based on information derived from aerial photo.	None - based on information derived from aerial photo.	None - based on information derived from aerial photo.	Valley elderberry longhorn beetle - based on information derived from aerial photo.	Northern California black walnut - based on information derived from aerial photo.
04-0460	Sikich Acres	065-0042-048	None - based on information derived from aerial photo.	Cooper's hawk, sharp-shinned hawk, tricolored blackbird, burrowing owl, Swainson's hawk, northern harrier, white-tailed kite, California horned lark - based on information derived from aerial photo.	None - based on information derived from aerial photo.	None - based on information derived from aerial photo.	vernal pool fairy shrimp, midvalley fairy shrimp, vernal pool tadpole shrimp, California linderiella, valley elderberry longhorn beetle - based on information derived from aerial photo.	Northern California black walnut, dwarf downingia, Bogg's Lake hedge-hyssop, Ahart's dwarf rush, legenere, slender orcutt grass, Sacramento orcutt grass, Sanford's arrowhead - based on information derived from aerial photo.
04-0469	Vintage Creek #3	115-0092-003, 115-0092-005	None	Cooper's hawk, sharp-shinned hawk, burrowing owl, Swainson's hawk, northern harrier, white-tailed kite - no surveys performed.	western spadefoot toad - no surveys performed.	None	vernal pool fairy shrimp, midvalley fairy shrimp, California linderiella - no surveys performed.	None
04-0471	Vintage Ranch	006-0050-005, 006-0050-006	None	Cooper's hawk, sharp-shinned hawk, burrowing owl, Swainson's hawk, northern harrier, white-tailed kite - no surveys performed.	California tiger salamander, western spadefoot toad - no surveys performed.	None	vernal pool fairy shrimp, midvalley fairy shrimp, vernal pool tadpole shrimp, California linderiella - no surveys performed.	dwarf downingia, Bogg's Lake hedge-hyssop, Ahart's dwarf rush, legenere, slender orcutt grass, Sacramento orcutt grass - no surveys performed.
04-0474	Vintage Creek #1	115-0091-016, 115-0091-017, 115-0091-022, 115-0091-033, 115-0091-034,115-0091-035, 115-0091-036, 115-0091-054, 115-0091-057, 115-0091-078, 115-0091-078, 115-0091-079, 115-0091-080, 115-0091-088, 115-0091-089	None	Swainson's hawk, white-tailed kite - no surveys performed.	California tiger salamander, western spadefoot toad - no surveys performed.	None	vernal pool fairy shrimp, midvalley fairy shrimp, vernal pool tadpole shrimp, California linderiella - no surveys performed.	dwarf downingia, Bogg's Lake hedge-hyssop, Ahart's dwarf rush, legenere, slender orcutt grass - no surveys performed. Northern California black walnut on-site (Sierra Nevada Arborist).
04-0480	Vintage Creek #2	115-0091-075, 115-0091-076, 115-0091-077, 115-1091-010	None	Cooper's hawk, sharp-shinned hawk, burrowing owl, Swainson's hawk, northern harrier, white-tailed kite - no surveys performed.	None	None	None	None
04-0870	Gardner Parke West	065-0041-013, 065-0041-014, 065-0041-015, 065-0041-024, 065-0041-025, 065-0160-003	None	Cooper's hawk, Swainson's hawk, white-tailed kite - no surveys performed.	None	None	None	None

TABLE 3: Potentially Occurring Special Status Species and Survey Results

Control No.	Project Name	Assessor's Parcel Number	Mammals	Birds	Reptiles/Amphibians	Fish	Invertebrates	Plants
04-0906	Hedgerow	065-0052-006, 065-0052-008, 065-0052-013, 065-0052-020, 065-0052-024, 065-0052-028, 065-0052-030, 065-0052-031	None	burrowing owl, Swainson's hawk, northern harrier, tricolored blackbird, golden eagle, Merlin, ferruginous hawk - no surveys performed. White-tailed kite was observed on-site during field surveys (ECORP, Inc.).	California tiger salamander, western spadefoot toad - no surveys performed.	None	vernal pool fairy shrimp, midvalley fairy shrimp, vernal pool tadpole shrimp, California linderiella. 2004-5 wet season surveys performed: none observed (ECORP).	dwarf downingia, Bogg's Lake hedge-hyssop, Ahart's dwarf rush, legenere, slender orcutt grass, Sacramento orcutt grass. Species specific surveys preformed April 21 and June 21 2005: none observed (ECORP).
05-0329	Elk Trail LLC	121-0010-010, 121-0010-011	None	Cooper's hawk, sharp-shinned hawk, tricolored blackbird, burrowing owl, Swainson's hawk, white-tailed kite - no surveys performed.	western spadefoot toad - no surveys performed.	None	vernal pool fairy shrimp, midvalley fairy shrimp, vernal pool tadpole shrimp, California linderiella - no surveys performed.	dwarf downingia, Bogg's Lake hedge-hyssop, Ahart's dwarf rush, legenere, slender orcutt grass, Sacramento orcutt grass - no surveys performed.
None	Non-Participant Properties	Numerous	None - based on information derived from aerial photo.	Cooper's hawk, sharp-shinned hawk, tricolored blackbird, golden eagle, burrowing owl, ferruginous hawk, Swainson's hawk, northern harrier, white-tailed kite, California horned lark, great egret, great blue heron, purple martin, double-crested cormorant, bank swallow - based on information derived from aerial photo.	northwestern pond turtle, giant garter snake, California tiger salamander, western spadefoot toad - based on information derived from aerial photo.	None - based on information derived from aerial photo.	vernal pool fairy shrimp, midvalley fairy shrimp, vernal pool tadpole shrimp, California linderiella, valley elderberry longhorn beetle - based on information derived from aerial photo.	Northern California black walnut, dwarf downingia, Bogg's Lake hedge-hyssop, Ahart's dwarf rush, legenere, slender orcutt grass, Sacramento orcutt grass, Sanford's arrowhead - based on information derived from aerial photo.

Champion Oaks CENTEX (06-0709)

The majority of this site is maintained as a golf course and driving range with concomitant ponds. Approximately 3.36 acres of waters features were delineated within the 41.27 acre parcel including 0.67 acre of emergent marsh, 1.07 acre of channel/drainage/ditch, and 1.62 acre of ponds (Gibson & Skordal, 2005). Portions of Elder and Gerber Creeks enter the northeastern corner and provide channel habitat, while a fallow field in the southeast corner supports non-native annual grassland habitat. The site contains 104 potentially protected trees including one interior live oak (*Quercus wislizenii*), 60 northern California black walnut (*Juglans hindsii*), one Goodding black willow (*Salix gooddingii*), 18 white alders (*Alnus rhombifolia*), and 22 non-native species with 19”+ diameter(s) at breast height (DBH) (Sierra Nevada Arborists, 2004).

Habitat types present: *non-native annual grasslands, emergent marsh, ponds, channels, trees/shrubs, urban areas.*

Based on the presence of suitable habitat, the following special status species may be present (Gibson & Skordal, 2005):

Mammals: none.
Fish: none.
Birds: Cooper’s hawk, sharp-shinned hawk, tricolored blackbird, burrowing owl, Swainson’s hawk, northern harrier, white-tailed kite.
Reptiles/Amphibians: northwestern pond turtle, giant garter snake.
Invertebrates: none.
Plants: Sanford’s arrowhead. Sixty northern California black walnuts are present within the parcel (Sierra Nevada Arborists, 2004).

Florin Vineyard Retail Center (04-0143)

As no studies or wetland delineations were conducted for the project area, all of the following information is based on estimates derived from aerial photography flown May 2002. Approximately 0.024 acre of seasonal wetlands potentially occurs within the 7.65 acre parcel. The majority of the site appears to contain rangeland which likely supports non-native annual grasslands. Small trees/shrubs are present along the west and south edges of the parcel.

Habitat types present: *non-native annual grasslands, seasonal wetlands, trees/shrubs.*

Based on the possible presence of suitable habitat, the following special status species may be present:

Mammals: none.
Fish: none.
Birds: Cooper's hawk, sharp-shinned hawk, tricolored blackbird, great egret, great blue heron, burrowing owl, Swainson's hawk, northern harrier, white-tailed kite, California horned lark, purple martin.
Reptiles/Amphibians: California tiger salamander, northwestern pond turtle, western spadefoot toad.
Invertebrates: vernal pool fairy shrimp, midvalley fairy shrimp, vernal pool tadpole shrimp, California linderiella, valley elderberry longhorn beetle.
Plants: northern California black walnut, dwarf downingia, Bogg's Lake hedge-hyssop, Ahart's dwarf rush, legenere, slender orcutt grass, Sacramento orcutt grass, Sanford's arrowhead.

Legends Meadows (04-0177)

Several residences with associated out-structures, barns, and sheds are located in the northwest corner and along the eastern boundary of the study area, and many trees are clustered around the houses and include sycamore, California walnut, and Modesto ash. The majority of the site contains historically, but not presently, irrigated pastures. Approximately 1.662 acres of water features including 0.259 acre of channel/drainage/ditch and 1.403 acres of seasonal wetlands were delineated within the 44.3-acre study area (Gibson & Skordal, 2006).

Habitat types present: *non-native annual grasslands, seasonal wetlands, channel, trees/shrubs, urban areas.*

Based on the presence of suitable habitat, the following special status species may be present (Gibson & Skordal, 2004):

Mammals: none.
Fish: none.
Birds: Cooper's hawk, sharp-shinned hawk, burrowing owl, Swainson's hawk, northern harrier, white-tailed kite.
Reptiles/Amphibians: western spadefoot toad.

Invertebrates: vernal pool fairy shrimp, midvalley fairy shrimp, vernal pool tadpole shrimp, California linderiella. Dry season sampling was performed in 2005 and 2006: no specimens were observed (Helm Biological Consulting, 2005, 2007). Wet season sampling was performed in 2005-6 and 2006-7: California Fairy Shrimp was observed (Helm Biological Consulting, 2006).
Plants: none.

Gerber Creek (04-0187)

The majority of this site contains historically leveled, ditched, and drained irrigated pastures. Approximately 2.8083 acre of water features including 1.2427 acres of vernal pools, 0.8912 acre of seasonal wetlands, and 0.6744 acre of channels were delineated within the 77-acre parcel (Gibson & Skordal, 2007). Residences, several barns, and out-structures are located along the east and west boundaries of the study area. Numerous trees are situated around the houses and along Elder Creek, which meanders across the south side of the study area, and include mulberry (*Morus alba*), olive (*Olea europaea*), valley oak, sycamore, California walnut, and arroyo willow (*Salix lasiolepis*).

Habitat types present: *non-native annual grasslands, vernal pools/swales, seasonal wetlands, channels, trees/shrubs, urban areas.*

Based on the presence of suitable habitat, the following special status species may be present (Gibson & Skordal, 2007):

Mammals: none.
Fish: none.
Birds: Cooper's hawk, sharp-shinned hawk, tricolored blackbird, burrowing owl, Swainson's hawk, northern harrier, white-tailed kite.
Reptiles/Amphibians: California tiger salamander, western spadefoot toad, northwest pond turtle, giant garter snake.
Invertebrates: vernal pool fairy shrimp, midvalley fairy shrimp, vernal pool tadpole shrimp, California linderiella. Dry season sampling was performed in 2006: cysts belonging to an unidentified *Branchinecta sp*. were observed. Wet season sampling was performed in 2006-7: no specimens were observed (Helm Biological Consulting, 2007a).
Plants: dwarf downingia, Bogg's Lake hedge-hyssop, Ahart's dwarf rush, legenere, slender orcutt grass, Sacramento orcutt grass, Sanford's arrowhead.

Florin/Bradshaw NE (04-0204)

Relicts from an abandoned commercial nursery operation occupy the 47.4-acre site and include a pump house, a steam house, gravel beds, and a water tank. The primary habitat within the study area is non-native annual grassland. A total of 0.80 acre of water features has been delineated on-site and include 0.78 acre of channel/drainage/ditch and 0.02 acre of seasonal wetland (Gibson & Skordal, 2003). Several cottonwoods, willows, and ornamental trees and shrubs associated with the abandoned nursery are scattered about the site.

Habitat types present: *non-native annual grasslands, vernal pools/swales, seasonal wetlands, channel, trees/shrubs, urban areas.*

Based on the presence of suitable habitat, the following special status species may be present (Gibson & Skordal, 2004):

Mammals: none.
Fish: none.
Birds: Cooper's hawk, sharp-shinned hawk, tricolored blackbird, burrowing owl, Swainson's hawk, northern harrier, white-tailed kite.
Reptiles/Amphibians: northwestern pond turtle, giant garter snake.
Invertebrates: none.
Plants: Sanford's arrowhead.

Portico Acres (04-0205)

The majority of the 9.5-acre site supports non-native annual grasslands that were historically, but not presently, irrigated and grazed. The site currently contains several residences with associated out-structures. Approximately 0.495 acre of water features including 0.150 acre of vernal pools, 0.027 acre of seasonal wetlands, and 0.318 acre of channel/drainage/ditch was delineated within the parcel (Gibson & Skordal, 2006a). Trees are scattered near the home sites along Bradshaw Road on the east end of the parcel and include mulberry, fig, sycamore, California walnut, and blue gum.

Habitat types present: *non-native annual grasslands, vernal pools/swales, seasonal wetlands, channel, trees/shrubs, urban areas.*

Based on the presence of suitable habitat, the following special status species may be present (Gibson & Skordal, 2006a):

Mammals: none.
Fish: none.
Birds: Cooper's hawk, sharp-shinned hawk, burrowing owl, Swainson's hawk, northern harrier, white-tailed kite.
Reptiles/Amphibians: western spadefoot toad.
Invertebrates: vernal pool fairy shrimp, midvalley fairy shrimp, vernal pool tadpole shrimp, California linderiella. Wet season branchiopod surveys were performed in 2004-5 and 2006-7: no specimens were observed (Helm Biological Consulting, 2005a, 2007b). Dry season branchiopod surveys were performed in 2005 and 2007: no specimens were observed (Helm Biological Consulting, 2005b, 2007b).
Plants: dwarf downingia, Bogg's Lake hedge-hyssop, Ahart's dwarf rush, legenere, slender orcutt grass, Sacramento orcutt grass, Sanford's arrowhead.

Lelani Village (04-0206)

Approximately 0.087 acre of water features was delineated within the 9.8-acre parcel including 0.046 acre of seasonal wetlands and 0.041 acre of channel/drainage/ditch (ECORP, 2006). Though the majority of the site is used to farm strawberries, a disturbed, non-native grassland is located along the south edge of the study area.

As no biological assessment was conducted for the project area, all of the following information is derived from interpretations of aerial photography flown May 2002.

Habitat types present: *non-native annual grasslands, seasonal wetlands, channel, trees/shrubs, urban areas, agricultural lands.*

Based on the possible presence of suitable habitat, the following special status species may be present:

Mammals: none.
Fish: none.
Birds: Cooper's hawk, sharp-shinned hawk, tricolored blackbird, great egret, great blue heron, burrowing owl, Swainson's hawk, northern harrier, white-tailed kite, California horned lark, purple martin.

Reptiles/Amphibians: California tiger salamander, northwestern pond turtle, western spadefoot toad, giant garter snake.
Invertebrates: vernal pool fairy shrimp, midvalley fairy shrimp, vernal pool tadpole shrimp, California linderiella, valley elderberry longhorn beetle. Wet season branchiopod surveys were performed in 2006-7: no specimens were observed (Gibson & Skordal, 2007a).
Plants: northern California black walnut, dwarf downingia, Bogg's Lake hedge-hyssop, Ahart's dwarf rush, legenere, slender orcutt grass, Sacramento orcutt grass, Sanford's arrowhead.

Florin Vineyards (04-0207)

The majority of the 131.7-acre site, which is located on two parcels on either side of Watt Avenue, encompasses several private residences as well as non-native annual grasslands that have been historically farmed. Approximately 2.1223 acres of water features were mapped within the parcel and include 0.1270 acre of vernal pools, 0.9709 acre of seasonal wetlands, and 1.0244 acres of channel/drainage/ditch (Gibson & Skordal, 2006b). The site supports 42 potentially protected trees dispersed throughout the site including one coastal live oak (*Quercus agrifolia*), one valley oak, thirteen northern California black walnut, one Oregon ash (*Fraxinalus latifolia*), and 26 non-native species with 19"+ DBH (Sierra Nevada Arborists, 2004).

Habitat types present: *non-native annual grasslands, vernal pools/swales, seasonal wetlands, channel, trees/shrubs, urban areas.*

Based on the presence of suitable habitat, the following special status species may be present (Gibson & Skordal, 2004c):

Mammals: none.
Fish: none.
Birds: Cooper's hawk, sharp-shinned hawk, burrowing owl, Swainson's hawk, northern harrier, white-tailed kite.
Reptiles/Amphibians: California tiger salamander, western spadefoot toad.
Invertebrates: vernal pool fairy shrimp, midvalley fairy shrimp, vernal pool tadpole shrimp, California linderiella.
Plants: dwarf downingia, Bogg's Lake hedge-hyssop, Ahart's dwarf rush, legenere, slender orcutt grass, Sacramento orcutt grass. Thirteen northern California black walnuts are present within the parcel (Sierra Nevada Arborists, 2004).

Villages at Elder Creek Estates (04-0208)

The 89.2-acre site contains private residences with associated out-structures, a commercial driving range, and actively grazed irrigated pastures. Approximately 8.73 acres of water features have been delineated within the parcel and consist of 3.49 acres of vernal pools, 4.92 acres of seasonal wetlands, 0.10 acre of channel/drainage/ditch, and 0.22 acre of ponds are mapped within the parcel (Gibson & Skordal, 2004b). Several trees are associated with the houses and, include mulberry, olive, valley oak, sycamore, California walnut, and apple.

Habitat types present: *non-native annual grasslands, irrigated pastures, vernal pools/swales, seasonal wetlands, channel, ponds, trees/shrubs, urban areas.*

Based on the presence of suitable habitat, the following special status species may be present (Gibson & Skordal, 2004b):

Mammals: none.
Fish: none.
Birds: Cooper's hawk, sharp-shinned hawk, burrowing owl, Swainson's hawk, northern harrier, white-tailed kite.
Reptiles/Amphibians: California tiger salamander, western spadefoot toad.
Invertebrates: vernal pool fairy shrimp, midvalley fairy shrimp, vernal pool tadpole shrimp, California linderiella. Wet season branchiopod surveys were performed in 2004-5: no specimens were observed (Helm Biological Consulting, 2005c). Dry season branchiopod surveys were performed in 2004: no specimens were observed (Helm Biological Consulting, 2004).
Plants: dwarf downingia, Bogg's Lake hedge-hyssop, Ahart's dwarf rush, legenere, slender orcutt grass, Sacramento orcutt grass.

Vineyard Market Square (04-0209)

The 37-acre site contains a private residence, farm buildings, and a bamboo orchard. The majority of the study area supports non-native annual grasslands that have been historically leveled and farmed. Approximately 0.991 acre of water features were delineated within the parcel including 0.938 acre of seasonal wetlands, and 0.053 acre of ditches (ECORP, 2006a). According to a tree survey performed by Connor Arborist Services dated May 18, 2004, fifteen potentially protected trees occur on-site.

Habitat types present: *non-native annual grasslands, seasonal wetlands, channel, trees/shrubs, urban areas, agricultural lands.*

Based on the presence of suitable habitat, the following special status species may be present (ECORP, 2005):

Mammals: none.
Fish: none.
Birds: Cooper's hawk, burrowing owl, Swainson's hawk, northern harrier, white-tailed kite, loggerhead shrike, tricolored blackbird, golden eagle, Merlin, ferruginous hawk.
Reptiles/Amphibians: western spadefoot toad.
Invertebrates: vernal pool fairy shrimp, midvalley fairy shrimp, vernal pool tadpole shrimp, California linderiella.
Plants: dwarf downingia, Bogg's Lake hedge-hyssop, Ahart's dwarf rush, legenere, slender orcutt grass, Sacramento orcutt grass.

<u>Stonehedge (04-0211)</u>

The majority of the 87-acre site contains non-native grasslands that were historically leveled, ditched, drained, and used for farming and livestock grazing. The northwest portion consists of actively irrigated pastures and the southwest area contains a long-term parking/staging area for automobiles and trucks. Several residences with associated out-structures are located in the study area. Approximately 1.945 acres of water features including 0.093 acres of vernal pools, 0.010 acre of seasonal wetlands, 1.570 acres of ponds, and 0.272 acre of channel/drainage/ditch were delineated within the study area (Gibson & Skordal, 2006c). Several trees are situated around the home sites and include mulberry, olive, valley oak, sycamore, California walnut, and a variety of ornamentals.

Habitat types present: *non-native annual grasslands, irrigated pastures, vernal pools/swales, seasonal wetlands, ponds, channel, trees/shrubs, urban areas.*

Based on the presence of suitable habitat, the following special status species may be present (Gibson & Skordal, 2006c):

Mammals: none.
Fish: none.

Birds: Cooper's hawk, sharp-shinned hawk, burrowing owl, Swainson's hawk, northern harrier, white-tailed kite.
Reptiles/Amphibians: California tiger salamander, western spadefoot toad, northwest pond turtle.
Invertebrates: vernal pool fairy shrimp, midvalley fairy shrimp, California linderiella. Wet season branchiopod surveys were performed in 2006-7: no specimens were observed. Dry season branchiopod surveys were performed in 2006: no specimens were observed (Helm Biological Consulting, 2007c).
Plants: dwarf downingia, Bogg's Lake hedge-hyssop, Ahart's dwarf rush, legenere, Sanford's arrowhead.

Porter (04-0215)

Most of the 18-acre site contains non-native annual grasslands historically, but not presently, irrigated for pasturage. An existing residence with out-structures is located in the north part of the study area. Approximately 0.9177 acres of water features were delineated within the study area including 0.3719 acre of vernal pools, 0.4858 acre of seasonal wetlands, and 0.0600 acre of ditches (Gibson & Skordal, 2006d). Trees are situated around the house and include mulberry, apple, valley oak, two potentially protected California black walnut, and a variety of ornamentals (Sierra Nevada Arborists, 2004).

Habitat types present: *non-native annual grasslands, vernal pools/swales, seasonal wetlands, channel, ponds, trees/shrubs, urban areas.*

Based on the presence of suitable habitat, the following special status species may be present (Gibson & Skordal, 2006d):

Mammals: none.
Fish: none.
Birds: Cooper's hawk, sharp-shinned hawk, burrowing owl, Swainson's hawk, northern harrier, white-tailed kite.
Reptiles/Amphibians: western spadefoot toad.
Invertebrates: vernal pool fairy shrimp, midvalley fairy shrimp, vernal pool tadpole shrimp, California linderiella. Wet season branchiopod surveys were performed in 2004-5: no specimens were observed (Helm Biological Consulting, 2005d). Dry season branchiopod surveys were performed in 2004: no specimens were observed (Helm Biological Consulting, 2004a).

Plants: dwarf downingia, Bogg's Lake hedge-hyssop, Ahart's dwarf rush, legenere.

Dakuzaku (04-0217)

The study area primarily consists of non-native annual grassland and supports an existing home site with associated ornamental trees and shrubs. The site was previously used as livestock pasturage, but it is currently ungrazed. Approximately 0.72 acre of water features have been surveyed within the 38.7-acre parcel and include 0.08 acre of vernal pools and 0.64 acre of seasonal wetlands (Gibson & Skordal, 2006e). Thirteen native tree species are present including seven interior live oaks, three blue oaks, and three northern California black walnuts (Sierra Nevada Arborists, 2004c).

Habitat types present: *non-native annual grasslands, vernal pools/swales, seasonal wetlands, trees/shrubs, urban areas.*

Based on the presence of suitable habitat, the following special status species may be present (Gibson & Skordal, 2006e):

Mammals: none.
Fish: none.
Birds: Cooper's hawk, burrowing owl, Swainson's hawk, northern harrier, white-tailed kite, California horned lark.
Reptiles/Amphibians: California tiger salamander.
Invertebrates: vernal pool fairy shrimp, midvalley fairy shrimp, vernal pool tadpole shrimp, California linderiella. Dry season branchiopod surveys were performed in 2006: cysts belonging to California linderiella were observed (Helm Biological Consulting, 2006a).
Plants: dwarf downingia, Bogg's Lake hedge-hyssop, legenere, slender orcutt grass. Three northern California black walnuts are present within the parcel (Sierra Nevada Arborists, 2004c).

Gardner Parke (04-0218)

The majority of the site supports annual grasslands, which are utilized as pasturage. Dominant grasses include ripgut brome, wild oats, and soft chess. Other common herbaceous species consist of red-stemmed filaree (*Erodium cicutarium*), curly dock, bindweed, vetch (*Vicia sativa*), lupine (*Lupinus sp.*), and butter and eggs (*Triphysaria eriantha*). Approximately 0.09 acre of depressional seasonal wetlands was delineated within the 80-acre parcel (Foothill Associates, 2004). The surrounding lands contain residential areas, a commercial complex, pastures, annual

grasslands, and agricultural fields. The site contains three potentially protected trees including one blue gum eucalyptus and two date palms with 19”+ DBH (Sierra Nevada Arborists, 2004d).

Habitat types present: *non-native annual grasslands, seasonal wetlands, trees/shrubs.*

The following special status species may be present (Foothill Associates, 2004a):

Mammals: none.
Fish: none.
Birds: loggerhead shrike, ferruginous hawk, burrowing owl, Swainson’s hawk, and other raptor species. During field surveys white-tailed kite and red-tailed hawk were observed on-site.
Reptiles/Amphibians: none.
Invertebrates: none.
Plants: Sanford’s arrowhead.

Roemer Ranch (04-0219)

The site contains private residences as well as the Roemer Dairy with its concomitant out-structures such as feeding pens, equipment landing area, cattle paddocks, and cattle waste ponds. Much of the study area has been leveled to accommodate historic and current hay farming associated with the dairy. Another significant portion supports non-native annual grasslands. Approximately 8.219 acres of water features including 0.881 acre of vernal pools, 6.171 acres of seasonal wetlands, 0.243 acre of pond, and 0.924 acre of channel/drainage/ditches were delineated within the 302-acre parcel (ECORP, 2007). The site contains 185 potentially protected trees including eight valley oaks, two interior live oaks, 62 northern California black walnut, and 113 non-native species with 19”+ DBH (Sierra Nevada Arborists, 2004e).

Habitat types present: *non-native annual grasslands, vernal pools/swales, seasonal wetlands, channel, ponds, trees/shrubs, urban areas, agricultural lands, channel.*

Based on the presence of suitable habitat, the following special status species may be present (ECORP Consulting, August 2004b):

Mammals: none.
Fish: none.
Birds: Cooper’s hawk, loggerhead shrike, tricolored blackbird, burrowing owl, Swainson’s hawk, northern harrier, white-tailed kite, Merlin, golden eagle, ferruginous hawk.

Reptiles/Amphibians: California tiger salamander, western spadefoot toad, northwest pond turtle, giant garter snake.
Invertebrates: vernal pool fairy shrimp, midvalley fairy shrimp, vernal pool tadpole shrimp, California linderiella. Midvalley fairy shrimp, vernal pool tadpole shrimp, vernal pool fairy shrimp and California linderiella were observed during 2004-5 wet season branchiopod surveys (ECORP Consulting, 2005b).
Plants: dwarf downingia, Bogg's Lake hedge-hyssop, Ahart's dwarf rush, legenere, slender orcutt grass, Sacramento orcutt grass, Sanford's arrowhead. Species specific surveys were performed for these species on May 6 and June 21, 2005: no specimens were observed (ECORP Consulting, 2005c). Sixty-two northern California black walnuts are present within the parcel (Sierra Nevada Arborists, 2004e).

Taylor Gerber/Bradshaw SW (04-0226)

The majority of this site supports non-native annual grasslands and is presently in oat/hay production. Approximately 1.0645 acres of water features were survey within the 20-acre parcel including 0.8441 acre of vernal pools, 0.1384 acre of seasonal wetlands, and 0.0820 acre of channel (Gibson & Skordal, 2007 (Map)). The site contains twenty potentially protected trees including seven valley oaks, nine northern California black walnut, and four non-native species with 19"+ DBH (Sierra Nevada Arborists, 2004f).

Habitat types present: *non-native annual grasslands, vernal pools/swales, seasonal wetlands, ponds, channel, trees/shrubs.*

Based on the presence of suitable habitat, the following special status species may be present (Gibson & Skordal, 2004h):

Mammals: none.
Fish: none.
Birds: Cooper's hawk, sharp shinned hawk, burrowing owl, Swainson's hawk, northern harrier, white-tailed kite.
Reptiles/Amphibians: California tiger salamander, western spadefoot toad, northwest pond turtle, giant garter snake.
Invertebrates: vernal pool fairy shrimp, midvalley fairy shrimp, vernal pool tadpole shrimp, California linderiella. Wet season branchiopod surveys were performed in 2005-6: vernal pool fairy shrimp and California linderiella were observed (Helm Biological Consulting, 2006b).

Plants: dwarf downingia, Bogg's Lake hedge-hyssop, Ahart's dwarf rush, legenere, slender orcutt grass, Sacramento orcutt grass, Sanford's arrowhead. Nine northern California black walnuts are present within the parcel (Sierra Nevada Arborists, 2004f).

Carson Development Company (04-0233)

The majority of the site contains lands historically ditched, drained, disced, and irrigated for various agricultural uses. Presently, the site supports non-native annual grassland with various internal relic irrigation canals. Several private residences with maintained lawns are located in the southeast corner along Caselman Road. Approximately 0.14 acre of depressional seasonal wetlands was delineated within the 48-acre parcel (Gibson & Skordal, 2007b). Situated around the houses are several trees including mulberry, olive, valley oak, sycamore, California walnut, and various fruit species.

Habitat types present: *non-native annual grasslands, seasonal wetlands, trees/shrubs, urban areas.*

Based on the presence of suitable habitat, the following special status species may be present (Gibson & Skordal, 2007b):

Mammals: none.
Fish: none.
Birds: Cooper's hawk, sharp-shinned hawk, burrowing owl, Swainson's hawk, northern harrier, white-tailed kite.
Reptiles/Amphibians: none.
Invertebrates: none.
Plants: none.

Gardner Country Estates (04-0234)

As no studies or wetland delineations were conducted for the project area, all of the following information is based on estimates derived from aerial photography flown May 2002. No wetlands or other waters of the U.S. appear to be located within the 5-acre parcel. The majority of the site contains rangeland which likely support non-native annual grasslands. A ranchette/private residence is located in the southern half of site, around which are clustered several trees and bushes. Larger trees appear on the aerial photo in the northwest and southwest

corners and may provide raptor nesting habitat. Residential developments, including a trailer park, are situated to the north, west, and south while rural lands lie to the east.

Habitat types present: *non-native annual grasslands, trees/shrubs, urban areas.*

Based on the possible presence of suitable habitat, the following special status species may be present:

Mammals: none.
Fish: none.
Birds: Cooper's hawk, sharp-shinned hawk, tricolored blackbird, burrowing owl, Swainson's hawk, northern harrier, white-tailed kite, California horned lark.
Reptiles/Amphibians: none.
Invertebrates: valley elderberry longhorn beetle.
Plants: northern California black walnut.

Phan Court (04-0241)

As no studies or wetland delineations were conducted for the project area, all of the following information is based on estimates derived from aerial photography flown May 2002. It appears that no water features are present within the 4.19-acre parcel. The majority of the site contains rangeland which likely support non-native annual grasslands. A row of trees/shrubs skirts the western edge of the parcel and may provide nesting habitat for raptors. No building or other structures are readily apparent on-site. Lands directly to the west contain a trailer park and other residential developments; properties to the east support various ranching/farming operations.

Habitat types present: *non-native annual grasslands, trees/shrubs.*

Based on the possible presence of suitable habitat, the following special status species may be present:

Mammals: none.
Fish: none.
Birds: Cooper's hawk, sharp-shinned hawk, tricolored blackbird, burrowing owl, Swainson's hawk, northern harrier, white-tailed kite, California horned lark.
Reptiles/Amphibians: none.
Invertebrates: valley elderberry longhorn beetle.

Plants: northern California black walnut.

Gasnakis & Kumar (04-0247)

As no studies or wetland delineations were conducted for the project area, all of the following information is based on estimates derived from aerial photography flown May 2002. It appears that no water features are present within the 13.83-acre parcel. The majority of the site is composed of rangeland which likely supports non-native annual grasslands. Several buildings and the majority of on-site trees/shrubs are located on the west side of the study area.

Habitat types present: *non-native annual grasslands, irrigated pastures, trees/shrubs, urban areas.*

Based on the possible presence of suitable habitat, the following special status species may be present:

Mammals: none.
Fish: none.
Birds: Cooper's hawk, sharp-shinned hawk, tricolored blackbird, burrowing owl, Swainson's hawk, northern harrier, white-tailed kite, California horned lark.
Reptiles/Amphibians: none.
Invertebrates: valley elderberry longhorn beetle.
Plants: northern California black walnut.

Millers Family Trust (04-0412)

As no studies or wetland delineations were conducted for the project area, all of the following information is based on estimates derived from aerial photography flown May 2002. Approximately 0.0449 acre of Elder Creek channel, which parallels the south edge of the 5.05-acre parcel, is contained within the study area. Nearly half of the site is composed of rangeland or non-native annual grasslands. Several buildings and fences are readily discernable on the aerial, and trees/shrubs are concentrated around the buildings and along the Elder Creek corridor.

Habitat types present: *non-native annual grasslands, trees/shrubs, urban areas, channel.*

Based on the possible presence of suitable habitat, the following special status species may be present:

Mammals: none.
Fish: none.
Birds: Cooper's hawk, sharp-shinned hawk, tricolored blackbird, great egret, great blue heron, burrowing owl, Swainson's hawk, northern harrier, white-tailed kite, California horned lark, purple martin, double-crested cormorant, bank swallow.
Reptiles/Amphibians: northwestern pond turtle, giant garter snake.
Invertebrates: valley elderberry longhorn beetle.
Plants: northern California black walnut.

Martin (04-0423)

With the exception of protocol wet and dry season branchiopod surveys, no other studies or wetland delineations were conducted for the project area. As a result, most of the following information is based on estimates derived from aerial photography flown May 2002 and site descriptions in the above mentioned survey reports. Approximately 1.0436 acres of water features including a 0.6776 acre pond and 0.3660 acre of vernal pools are located within the 10.01-acre parcel. The majority of the site appears to contain rangeland, which likely support non-native annual grasslands. Two trees/shrubs are located in the northeast corner, and a private residence with a permanent, man-made pond is situated in the northern half of the site. The immediately surrounding lands support agricultural/ranching operations; new residential developments are situated to the west and southwest.

Habitat types present: *non-native annual grasslands, vernal pools/swales, ponds, trees/shrubs, urban areas.*

Based on the possible presence of suitable habitat, the following special status species may be present:

Mammals: none.
Fish: none.
Birds: Cooper's hawk, sharp-shinned hawk, tricolored blackbird, great egret, great blue heron, burrowing owl, Swainson's hawk, northern harrier, white-tailed kite, California horned lark, purple martin, double-crested cormorant.
Reptiles/Amphibians: California tiger salamander, northwestern pond turtle, western spadefoot toad.

Invertebrates: vernal pool fairy shrimp, midvalley fairy shrimp, vernal pool tadpole shrimp, California linderiella. Dry season branchiopod surveys were performed in 2005: no specimens were observed (Helm Biological Consulting, September 2005). Wet season branchiopod surveys were performed in 2005-6: no specimens were observed (Helm Biological Consulting, 2006c).
Plants: dwarf downingia, Bogg's Lake hedge-hyssop, Ahart's dwarf rush, legenere, slender orcutt grass, Sacramento orcutt grass, Sanford's arrowhead, northern California black walnut.

Enoch (04-0445)

As no studies or wetland delineations were conducted for the project area, all of the following information is based on estimates derived from aerial photography flown May 2002. It appears that no water features are present within the 9.81-acre parcel. Approximately half of the site appears to contain rangeland which likely supports non-native annual grasslands. Several trees and shrubs, along with numerous buildings, are generally located on the west side of the parcel. New residential developments abut the west border while ranchettes occupy lands to the north and east.

Habitat types present: *non-native annual grasslands, trees/shrubs, urban areas.*

Based on the possible presence of suitable habitat, the following special status species may be present:

Mammals: none.
Fish: none.
Birds: Cooper's hawk, sharp-shinned hawk, tricolored blackbird, burrowing owl, Swainson's hawk, northern harrier, white-tailed kite, California horned lark.
Reptiles/Amphibians: none.
Invertebrates: valley elderberry longhorn beetle.
Plants: northern California black walnut.

7415 Gardner Avenue (04-0449)

As no studies or wetland delineations were conducted for the project area, all of the following information is based on estimates derived from aerial photography flown May 2002. It appears that 0.0632 acre of seasonal wetlands is present within the 4.75-acre parcel. Approximately two-thirds of the site appears to contain rangeland which likely supports non-native annual grasslands. A private residence with maintained landscaping and out-structures occupies the

northeast corner of the lot. Numerous trees and shrubs are intermixed with the developed portion of the parcel. New residential developments abut the west border while ranchettes occupy lands to the north and east.

Habitat types present: *non-native annual grasslands, seasonal wetlands, trees/shrubs, urban areas.*

Based on the possible presence of suitable habitat, the following special status species may be present:

Mammals: none.
Fish: none.
Birds: Cooper's hawk, sharp-shinned hawk, tricolored blackbird, great egret, great blue heron, burrowing owl, Swainson's hawk, northern harrier, white-tailed kite, California horned lark, purple martin.
Reptiles/Amphibians: California tiger salamander, northwestern pond turtle, western spadefoot toad.
Invertebrates: valley elderberry longhorn beetle, vernal pool fairy shrimp, midvalley fairy shrimp, vernal pool tadpole shrimp, California linderiella.
Plants: dwarf downingia, Bogg's Lake hedge-hyssop, Ahart's dwarf rush, legenere, slender orcutt grass, Sacramento orcutt grass, Sanford's arrowhead, northern California black walnut.

<u>Black (04-0450)</u>

The following information is based on the Preliminary Wetland Delineation prepared by Valley Mountain and Consulting, dated November 12, 2004. The site contains a private residence with pool and out-structures in the northern end of the rectangular parcel. Also present are rangelands, which support non-native annual grasslands. Approximately 1.002 acres of water features including 0.5070 acre of vernal pools, 0.051 acre of seasonal wetlands, 0.386 acre of enhanced wetlands, and 0.058 acre of roadside ditches have been delineated within the 10-acre parcel. Several landscaped trees/shrubs are located around the buildings. Recently built residential allotments lie to the southwest and ranchettes and rangeland occupy lands to the west, north and east.

Habitat types present: *non-native annual grasslands, vernal pools/swales, seasonal wetlands, pond, trees/shrubs, urban areas.*

As no biological assessment was conducted for the project area, all of the following information is derived from interpretations of aerial photography flown May 2002.

Based on the possible presence of suitable habitat, the following special status species may be present:

Mammals: none.
Fish: none.
Birds: Cooper's hawk, sharp-shinned hawk, tricolored blackbird, great egret, great blue heron, burrowing owl, Swainson's hawk, northern harrier, white-tailed kite, California horned lark, purple martin, double-crested cormorant.
Reptiles/Amphibians: California tiger salamander, northwestern pond turtle, western spadefoot toad, giant garter snake.
Invertebrates: vernal pool fairy shrimp, midvalley fairy shrimp, vernal pool tadpole shrimp, California linderiella, valley elderberry longhorn beetle.
Plants: northern California black walnut, dwarf downingia, Bogg's Lake hedge-hyssop, Ahart's dwarf rush, legenere, slender orcutt grass, Sacramento orcutt grass, Sanford's arrowhead.

Rancho Siesta (04-0457)

As no studies or wetland delineations were conducted for the project area, all of the following information is based on estimates derived from aerial photography flown May 2002. It appears that no water features are present within the 8.3-acre parcel. About one-third of the site contains rangeland, which likely supports non-native annual grasslands. The site harbors several structures including private residences as well as numerous large trees that are probably the result of landscaping. Lands to the north consist of rangeland while parcels to the east, west, and south support ranchettes/private residences.

Habitat types present: *non-native annual grasslands, trees/shrubs, urban areas.*

Based on the possible presence of suitable habitat, the following special status species may be present:

Mammals: none.
Fish: none.
Birds: Cooper's hawk, sharp-shinned hawk, tricolored blackbird, burrowing owl, Swainson's hawk, northern harrier, white-tailed kite, California horned lark.

Reptiles/Amphibians: none.
Invertebrates: valley elderberry longhorn beetle.
Plants: northern California black walnut.

Sikich Acres (04-0460)

The site supports a pair of irrigated horse pastures, an orchard, and a rural residence with associated out-structures including barns, a swimming pool, and an orchard. Approximately 0.399 acre of water features were delineated within the 4.15-acre parcel including 0.394 acre of seasonal wetlands and 0.005 acre of ditches (Area West Environmental, 2004). On-site tree species consist of non-native ornamentals.

As no biological assessment was conducted for the project area, all of the following information is derived from the interpretation of aerial photography flown May 2002 and ground level photographs and information provided with the delineation report.

Habitat types present: *irrigated pastures, seasonal wetlands, trees/shrubs, urban areas, agricultural lands.*

Based on the possible presence of suitable habitat, the following special status species may be present:

Mammals: none.
Fish: none.
Birds: Cooper's hawk, sharp-shinned hawk, tricolored blackbird, burrowing owl, Swainson's hawk, northern harrier, white-tailed kite, California horned lark.
Reptiles/Amphibians: none.
Invertebrates: vernal pool fairy shrimp, midvalley fairy shrimp, vernal pool tadpole shrimp, California linderiella, valley elderberry longhorn beetle.
Plants: northern California black walnut, dwarf downingia, Bogg's Lake hedge-hyssop, Ahart's dwarf rush, legenere, slender orcutt grass, Sacramento orcutt grass, Sanford's arrowhead.

Vintage Creek #3 (04-0469)

The site contains one private residence with associated out-structures and maintained lawn. The south half is composed of non-native annual grasslands that historically were irrigated for pasturage, but presently are fallow. Approximately 0.152 acre of water features including 0.122

acre of seasonal wetlands and 0.034 acre of channel/drainage/ditch was mapped within the 5-acre parcel (Gibson & Skordal, 2004b). Several trees are situated around the houses including sycamore, California walnut, and Modesto ash, and ornamental species.

Habitat types present: *non-native annual grasslands, seasonal wetlands, channel, trees/shrubs, urban areas.*

Based on the presence of suitable habitat, the following special status species may be present (Gibson & Skordal, 2004b):

Mammals: none.
Fish: none.
Birds: Cooper's hawk, sharp-shinned hawk, burrowing owl, Swainson's hawk, northern harrier, white-tailed kite.
Reptiles/Amphibians: western spadefoot toad.
Invertebrates: vernal pool fairy shrimp, midvalley fairy shrimp, California linderiella.
Plants: none.

Vintage Ranch (04-0471)

The undeveloped site, which contains no structures, predominantly supports open non-native annual grasslands and a line of trees along the southwestern edge. The site was historically, but is not presently, irrigated as livestock pasturage. Surrounding lands support a mix of ranchettes with rangelands and irrigated pastures. A total of approximately 0.6153 acres of water features were mapped within 20-acre the parcel including 0.2003 acre of vernal pools and 0.4150 acre of seasonal wetlands (Gibson & Skordal, 2006f). The site contains one potentially protected tree, an interior live oak (Sierra Nevada Arborists, 2004f).

Habitat types present: *non-native annual grasslands, vernal pools/swales, seasonal wetlands, trees/shrubs.*

Based on the presence of suitable habitat, the following special status species may be present (Gibson & Skordal, 2006f):

Mammals: none.
Fish: none.

Birds: Cooper's hawk, sharp-shinned hawk, burrowing owl, Swainson's hawk, northern harrier, white-tailed kite.
Reptiles/Amphibians: California tiger salamander, western spadefoot toad.
Invertebrates: vernal pool fairy shrimp, midvalley fairy shrimp, vernal pool tadpole shrimp, California linderiella.
Plants: dwarf downingia, Bogg's Lake hedge-hyssop, Ahart's dwarf rush, legenere, slender orcutt grass, Sacramento orcutt grass.

Vintage Creek #1 (04-0474)

The majority of this site contains non-native annual grasslands that are presently used as livestock pasturage. Several residences with associated out-structures, landscaping, and a stock pond are located within the study area. Approximately 2.98 acres of water features were delineated within the 73-acre parcel including 2.92 acres of seasonal wetlands and 0.06 acre of channel/drainage/ditch (LSA, 2006). The site harbors 106 potentially protected trees including one box elder, five valley oak, 25 northern California black walnut, and 75 non-native species with 19"+ DBH (Sierra Nevada Arborists, 2004g).

Habitat types present: *non-native annual grasslands, irrigated pastures, vernal pools/swales, depressional seasonal wetlands, emergent marsh, ponds, channel, trees/shrubs, urban areas.*

Based on the presence of suitable habitat, the following special status species may be present (LSA, 2004):

Mammals: none.
Fish: none.
Birds: Swainson's hawk, white-tailed kite.
Reptiles/Amphibians: California tiger salamander, western spadefoot toad.
Invertebrates: vernal pool fairy shrimp, midvalley fairy shrimp, vernal pool tadpole shrimp, California linderiella.
Plants: dwarf downingia, Bogg's Lake hedge-hyssop, Ahart's dwarf rush, legenere, slender orcutt grass. Twenty-five northern California black walnuts are present within the parcel (Sierra Nevada Arborists, 2004g).

Vintage Creek #2 (04-0480)

The site encompasses four parcels with associated home sites and out-structures. At the time of field studies, the two eastern parcels supported irrigated and mowed pastures while the western parcels contained walnut orchards. Approximately 1.5374 acres of seasonal wetlands were delineated within the 14-acre study area (Gibson & Skordal, 2004c). Numerous trees are maintained around the residences including mulberry, sycamore, California walnut, and a variety of ornamental species.

Habitat types present: *non-native annual grasslands, irrigated pastures, seasonal wetlands, trees/shrubs, urban areas, agricultural lands.*

Based on the presence of suitable habitat, the following special status species may be present (Gibson & Skordal, 2004c):

Mammals: none.
Fish: none.
Birds: Cooper's hawk, sharp-shinned hawk, burrowing owl, Swainson's hawk, northern harrier, white-tailed kite.
Reptiles/Amphibians: none.
Invertebrates: none.
Plants: none.

<u>Gardner Parke West (04-0870)</u>

The 19-acre study area is dominated by non-native annual grassland and irrigated pasture. Several residences are located on the northeast edge of the site along Gardner Avenue. Approximately 0.97 acre of water features including 0.78 acre of emergent marsh, 0.17 acre of channel/drainage/ditch, and 0.02 acre of depressional seasonal wetland has been mapped on-site. Though the site does not contain any native trees, some of the non-natives may possess 19+ DBH (Foothill Associates, 2005; Foothill Associates 2005a).

Habitat types present: *non-native annual grasslands, irrigated pastures, seasonal wetlands, channel, emergent marsh, trees/shrubs, urban areas.*

Based on the possible presence of suitable habitat, the following special status species may be present (Foothill Associates, 2004a; Foothill Associates 2004b):

Mammals: none.

Fish: none.
Birds: Cooper's hawk, Swainson's hawk, white-tailed kite.
Reptiles/Amphibians: none.
Invertebrates: none.
Plants: none.

Hedgerow (04-0906)

The 37-acre parcel site contains several rural homes, non-native annual grasslands, and irrigated pastures; a reach of Elder Creek is situated just outside the study area. Approximately 1.581 acres of water features were surveyed within the parcel and include 1.353 acre of seasonal wetlands and 0.228 acre of channel/drainage/ditch (ECORP, 2005b).

Habitat types present: *irrigated pastures, seasonal wetlands, trees/shrubs, urban areas, channels.*

Based on the presence of suitable habitat, the following special status species may be present (ECORP, 2005c):

Mammals: none.
Fish: none.
Birds: burrowing owl, Swainson's hawk, northern harrier. White-tailed kite was observed in the study area during field surveys.
Reptiles/Amphibians: California tiger salamander, western spadefoot toad.
Invertebrates: vernal pool fairy shrimp, midvalley fairy shrimp, vernal pool tadpole shrimp, California linderiella. Wet season branchiopod surveys performed in 2004-5: no specimens were observed (ECORP, 2005d).
Plants: dwarf downingia, Bogg's Lake hedge-hyssop, Ahart's dwarf rush, legenere, slender orcutt grass, Sacramento orcutt grass. Species specific surveys were preformed on April 21 and June 21, 2005; no specimens were observed (ECORP, 2005e).

Elk Trail, LLC. (05-0329)

The majority of the 18.5-acre site is dominated by non-native annual grasslands. The study area contains several private residences, which are clustered in the northwest corner. Approximately 0.8625 acre of water features were surveyed including 0.2394 acre of vernal pools and 0.6231 acres of seasonal wetlands (Gibson & Skordal, 2006g). The site contains twelve potentially

protected trees including three California box elder, three Oregon ash, and six non-native species with 19”+ diameter DBH (Sierra Nevada Arborists, 2004h).

Habitat types present: *non-native annual grasslands, vernal pools/swales, seasonal wetlands, trees/shrubs, urban areas.*

Based on the presence of suitable habitat, the following special status species may be present (Gibson & Skordal, 2006g):

Mammals: none.
Fish: none.
Birds: Cooper’s hawk, sharp-shinned hawk, tricolored blackbird, burrowing owl, Swainson’s hawk, white-tailed kite.
Reptiles/Amphibians: western spadefoot toad.
Invertebrates: vernal pool fairy shrimp, midvalley fairy shrimp, vernal pool tadpole shrimp, California linderiella.
Plants: dwarf downingia, Bogg’s Lake hedge-hyssop, Ahart’s dwarf rush, legenere, slender orcutt grass, Sacramento orcutt grass. Two northern California black walnuts are present within the parcel (Sierra Nevada Arborists, 2004h).

RESULTS

Based on the presence of the appropriate habitats, several special status species may occupy participant and non-participant parcels within the Plan Area. These include Cooper’s hawk, sharp-shinned hawk, tricolored blackbird, burrowing owl, Swainson’s hawk, northern harrier, white-tailed kite, California horned lark, northwest pond turtle, giant garter snake, California tiger salamander, vernal pool fairy shrimp, midvalley fairy shrimp, vernal pool tadpole shrimp, California linderiella, dwarf downingia, Bogg’s Lake hedge-hyssop, Ahart’s dwarf rush, legenere, slender orcutt grass, Sacramento orcutt grass, and Sanford’s arrowhead.

Based on detailed delineation reports and aerial photo interpretation, approximately 106.1095 acres of water features occur within the Plan Area. This total includes 8.0138 acres of channel/drainage/ditch, 1.4502 acres of emergent marsh, 8.3062 acres of pond, 43.7097 acres of seasonal wetland, and 44.6296 acres of vernal pools. Approximately 45.8604 acres of water features occur within the participant properties including 6.2293 acres of channel/drainage/ditch, 1.4500 acres of emergent marsh, 4.7906 acres of pond, 24.8008 acres of seasonal wetland, and 8.5897 acres of vernal pools. Lastly, approximately 60.2491 acres of water features occur within

the non-participant properties including 1.7845 acres of channel/drainage/ditch, 0.0002 acre of emergent marsh, 3.5156 acres of pond, 18.9089 acres of seasonal wetland, and 36.0399 acres of vernal pools.

RECOMMENDATIONS

Due to the potential presence of several special status species within the Plan Area, we recommend the completion of species specific protocol surveys for rare plants and animals on properties where habitat is present prior to the initiation of work. Branchiopod surveys are not necessary if the participant "assumes presence" and provides the appropriate mitigation as required by FWS. If future development of the parcels within the Plan Area will occur during the raptor nesting season, which extends from February to September, we recommend that a pre-construction nesting survey be completed two weeks before of the initiation of work. Additionally, construction crews should undergo training by a qualified wildlife biologist at pre-construction meetings to prevent potential impacts to special status species. All protected and preserved wetland areas should be fenced with orange construction fencing to protect inadvertent impacts by heavy equipment.

Works Cited

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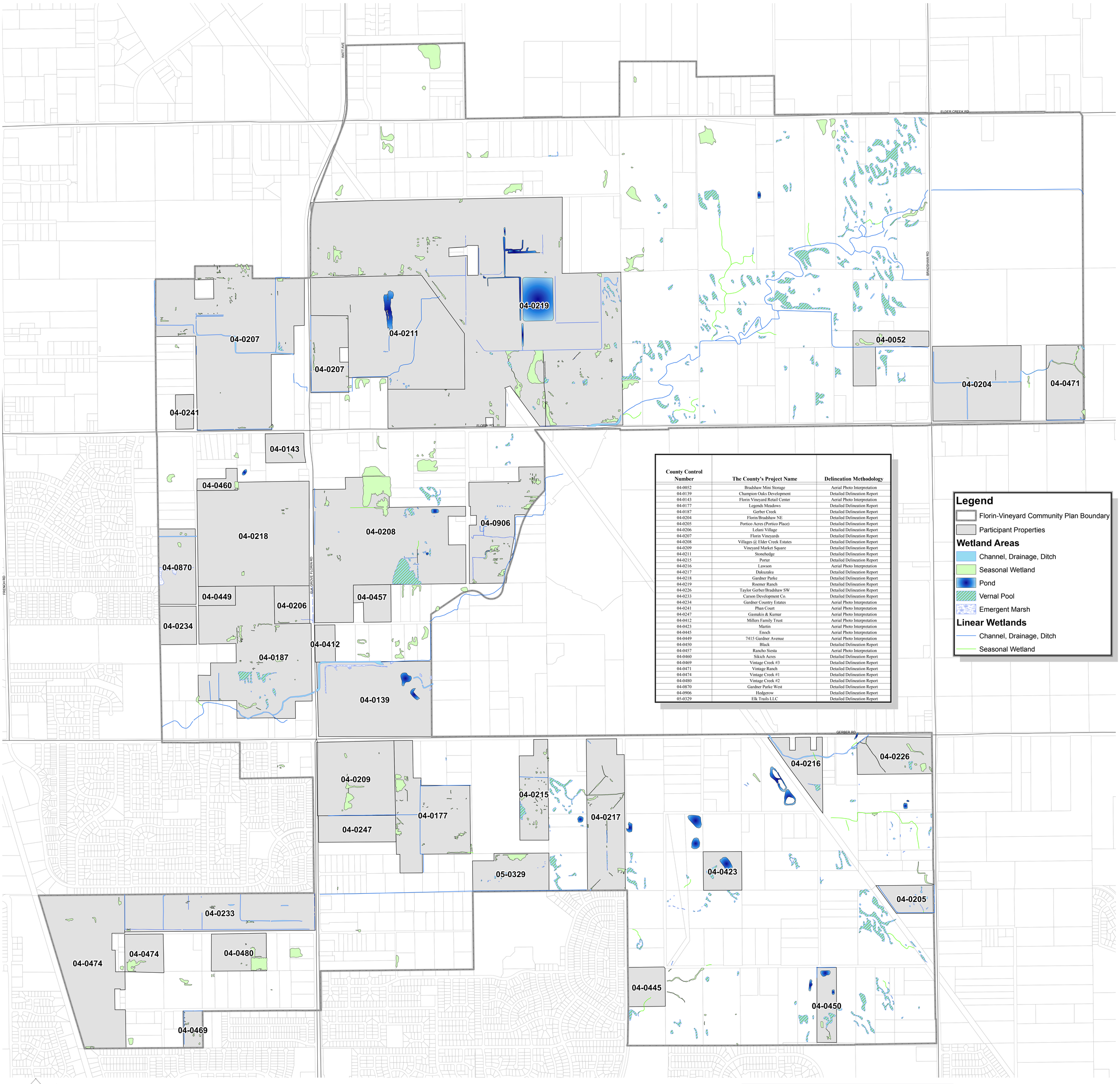
APPENDIX A

FLORIN VINEYARD COMMUNITY PLAN
WETLANDS EXHIBIT

Florin Vineyard Community Plan
Wetlands Exhibit
Sacramento County, California 08/09/2006



County Control Number	The County's Project Name	Delineation Methodology
04-0052	Bradshaw Mini Storage	Aerial Photo Interpretation
04-0139	Champion Oaks Development	Detailed Delineation Report
04-0143	Florin Vineyard Retail Center	Aerial Photo Interpretation
04-0177	Legends Meadows	Detailed Delineation Report
04-0187	Gerber Creek	Detailed Delineation Report
04-0204	Florin/Bradshaw NE	Detailed Delineation Report
04-0205	Portico Acres (Portico Place)	Detailed Delineation Report
04-0206	Lelani Village	Detailed Delineation Report
04-0207	Florin Vineyards	Detailed Delineation Report
04-0208	Villages @ Elder Creek Estates	Detailed Delineation Report
04-0209	Vineyard Market Square	Detailed Delineation Report
04-0211	Stonehedge	Detailed Delineation Report
04-0215	Porter	Detailed Delineation Report
04-0216	Lawson	Aerial Photo Interpretation
04-0217	Dakuzaku	Detailed Delineation Report
04-0218	Gardner Parke	Detailed Delineation Report
04-0219	Roemer Ranch	Detailed Delineation Report
04-0226	Taylor Gerber/Bradshaw SW	Detailed Delineation Report
04-0233	Carson Development Co.	Detailed Delineation Report
04-0234	Gardner Country Estates	Aerial Photo Interpretation
04-0241	Phan Court	Aerial Photo Interpretation
04-0247	Gasnakis & Kumar	Aerial Photo Interpretation
04-0412	Millers Family Trust	Aerial Photo Interpretation
04-0423	Martin	Aerial Photo Interpretation
04-0445	Enoch	Aerial Photo Interpretation
04-0449	7415 Gardner Avenue	Aerial Photo Interpretation
04-0450	Black	Detailed Delineation Report
04-0457	Rancho Siesta	Aerial Photo Interpretation
04-0460	Sikich Acres	Detailed Delineation Report
04-0469	Vintage Creek #3	Detailed Delineation Report
04-0471	Vintage Ranch	Detailed Delineation Report
04-0474	Vintage Creek #1	Detailed Delineation Report
04-0480	Vintage Creek #2	Detailed Delineation Report
04-0870	Gardner Parke West	Detailed Delineation Report
04-0906	Hedgerow	Detailed Delineation Report
05-0329	Elk Trails LLC	Detailed Delineation Report

GIBSON & SKORDAL LLC
WETLAND CONSULTANTS
2277 Fair Oaks Blvd, Suite 105
Sacramento, CA 95825
(916)569-1830

MACKAY & SOMPS
CIVIL ENGINEERS, INC.
CIVIL ENGINEERING • LAND PLANNING • LAND SURVEYING
SACRAMENTO, CALIFORNIA (916)929-6092

APPENDIX I

TRAFFIC IMPACT ANALYSIS REPORT

Traffic Impact Analysis Report for the Florin-Vineyard Community Plan

Final

September 19, 2008

Prepared for:
County of Sacramento

1042-1973

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EXECUTIVE SUMMARY

The purpose of this study is to analyze the short- and long-term impacts of the Florin-Vineyard Community Plan project on the adjacent transportation system. This study analyzes the traffic impacts due to the project and identifies the improvements needed to mitigate deficiencies caused by the project in accordance with the Sacramento County, City of Sacramento, and City of Elk Grove transportation impact significance criteria.

PROPOSED PROJECT

The Florin-Vineyard Community Plan is located in unincorporated Sacramento County east of the City of Sacramento and north of the City of Elk Grove. Figure ES-1 shows the location of the project and the adjacent roadway network. The project is generally located north of Calvine Road, south of State Route 16 (SR 16), east of Power Inn Road, and west of Bradshaw Road. U.S. Highway 50 (U.S. 50) and State Route 99 (SR 99) will provide primary freeway commute routes for the proposed project.

The community plan encompasses approximately 3,770 acres. Two plan-area concepts are being evaluated and are referred to as the Citizens Advisory Committee (CAC) Plan and Planning Department (PD) Plan. Figure ES-2 shows and compares proposed land use for the CAC Plan and PD Plan. In general, the PD Plan has higher residential densities than the CAC Plan with higher density clusters located around major intersections.

EXISTING CONDITIONS

The existing transportation system near the project site is heavily dependent on the roadway system for the movement of people and goods. Automobiles are the primary travel mode for most trips in this area, although limited transit service is provided within the study area. However, no transit service is provided in the project area. The transit service that is available generally serves Regional Transit's Watt Avenue/Manlove LRT station. To a much lesser degree, the area is served by bicycle and pedestrian facilities.

Thirty-six of the sixty-nine study roadway segments are two lanes and fourteen of the forty-two study intersections (under existing conditions) are stop controlled.

CUMULATIVE CONDITIONS

Traffic volume forecasts for existing and cumulative conditions were developed using a combination of the 2001 SACMET Travel Demand Forecasting (TDF) model and the VISSUM software. The development of the traffic volume forecasts was coordinated with Sacramento County Department of Transportation (DOT) staff prior to their use in the traffic operations analysis.

The proposed project will generate approximately 132,000 (140,600 with 15% Housing Density Bonus) and 145,000 (156,400 with 15% Housing Density Bonus) vehicle trips per day with the CAC and PD plans, respectively. About nine percent of the trips will occur in the AM and PM peak hours. In December, 2004, Sacramento County adopted an Affordable Housing Policy that includes a "density bonus" provision intended to offset the cost of providing affordable housing. For the Florin-Vineyard Specific Plan, the density bonus could result in an additional 1,342 single family dwelling units with the CAC Plan and 1,809 single family dwelling units with the PD Plan if the density bonus were applied.

TRAFFIC OPERATIONS WITH THE PROPOSED PROJECT

Table ES-1 summarizes the number of study facilities that operate unacceptably and the number of impacts (both primary and secondary) caused by the two plan-area concepts.

TABLE ES-1
SUMMARY OF FINDINGS

STUDY FACILITY	EXISTING CONDITIONS			CUMULATIVE CONDITIONS		
	NO PROJECT	CAC	PD	NO PROJECT	CAC	PD
ROADWAY SEGMENTS	(69 STUDY SEGMENTS)			(72 STUDY SEGMENTS)		
Unacceptable Operations	12	27	29	28	37	35
Project Impacts (Primary & Secondary)	-	32	36	-	33	35
INTERSECTIONS	(43 STUDY INTERSECTIONS)			(45 STUDY INTERSECTIONS)		
Unacceptable Operations	13	32	34	39	42	42
Project Impacts (Primary & Secondary)	-	33	35	-	34	35

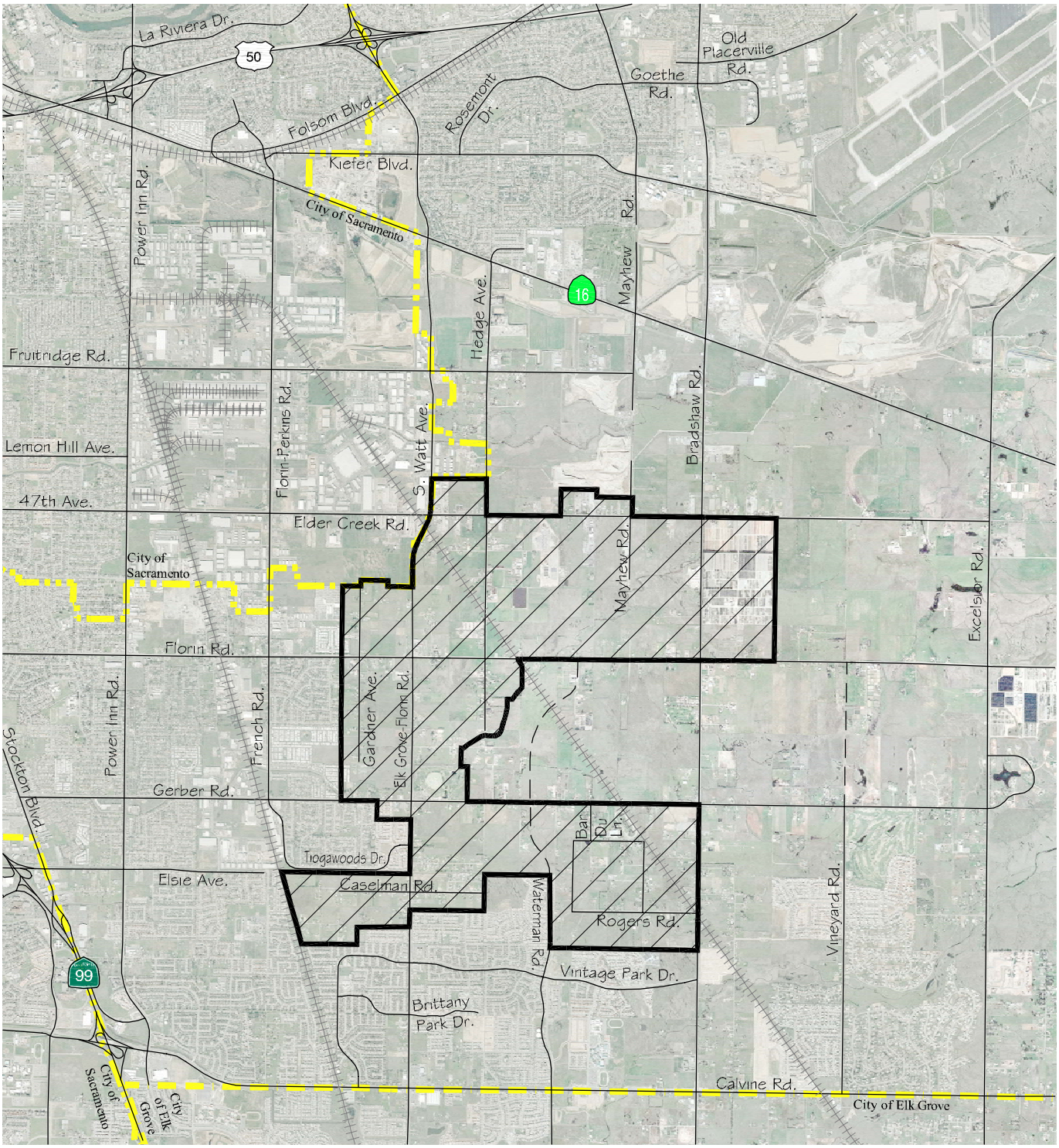
Note: Sacramento County, City of Sacramento, and City of Elk Grove intersections and roadway segments were analyzed using their respective impact significance criteria.
Source: Fehr & Peers, 2007

The following figures summarize proposed mitigation for study-area roadways and intersections under existing and cumulative conditions:

- Figure ES-3 – Summarizes proposed study roadway segment mitigation under existing conditions with the CAC and PD plans.
- Figure ES-4 – Summarizes proposed study intersection mitigation under existing conditions with the CAC Plan.
- Figure ES-5 – Summarizes proposed study intersection mitigation under existing conditions with the PD Plan.
- Figure ES-6 – Summarizes proposed study roadway segment mitigation under cumulative conditions with the CAC and PD plans.
- Figure ES-7 – Summarizes proposed study intersection mitigation under cumulative conditions with the CAC Plan.
- Figure ES-8 – Summarizes proposed study intersection mitigation under cumulative conditions with the PD Plan.

All mitigation shown on Figures ES-3 and ES-6 are consistent with General Plan roadway designations.

BICYCLE/PEDESTRIAN/TRANSIT
The addition of the proposed project was found to have no impact on existing or planned bicycle and pedestrian facilities, or existing transit system operations or planned transit facilities.



LEGEND

- Project Boundary

- Future Roadway

N

NOT TO SCALE

FEHR & PEERS
TRANSPORTATION CONSULTANTS

Nov 30, 2004 MJF
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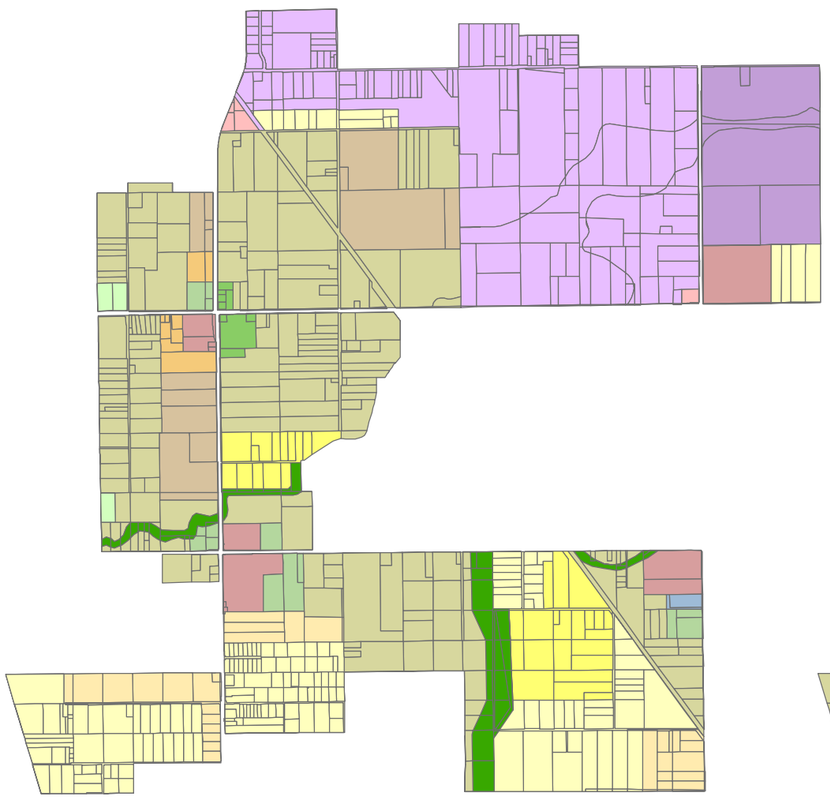
PROJECT LOCATION

FIGURE ES-1

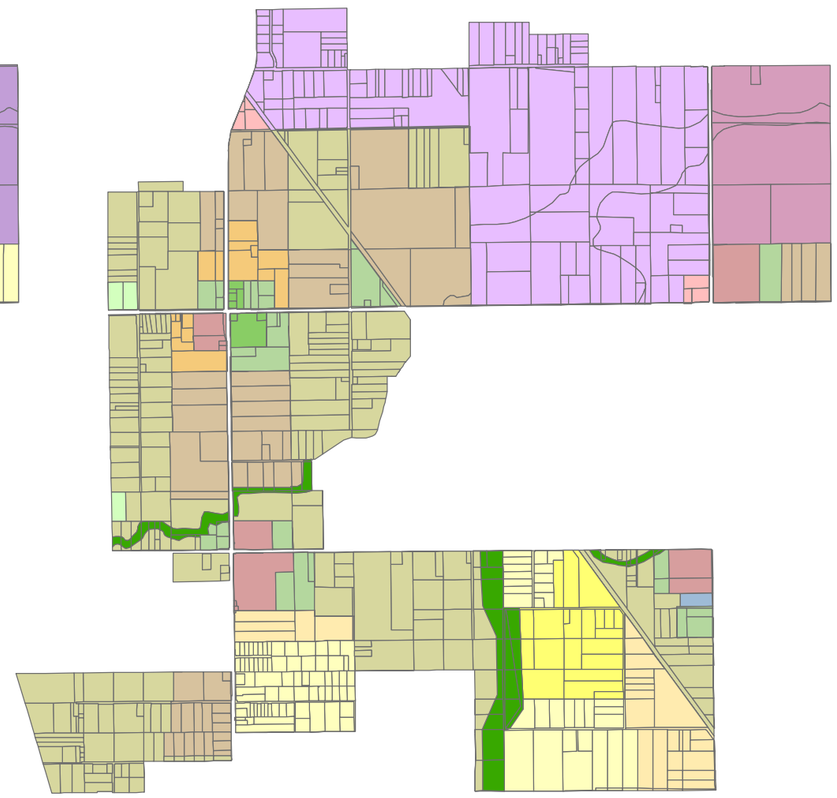
LEGEND

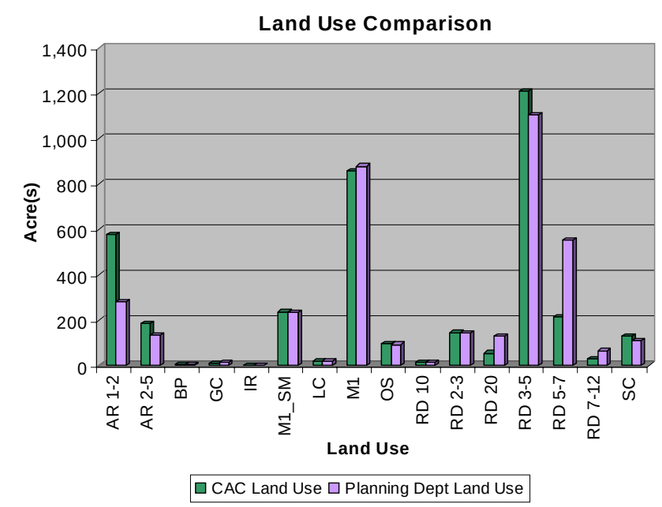
AR 1-2	RD 7-12	GC
AR 2-5	RD 10	SC
RD 2-3	RD 20	BP
RD 3-5	M1	OS
RD 5-7	M1 (SM)	LC

Citizens Advisory Committee (CAC) Land Use Concept



Planning Department (PD) Land Use Concept





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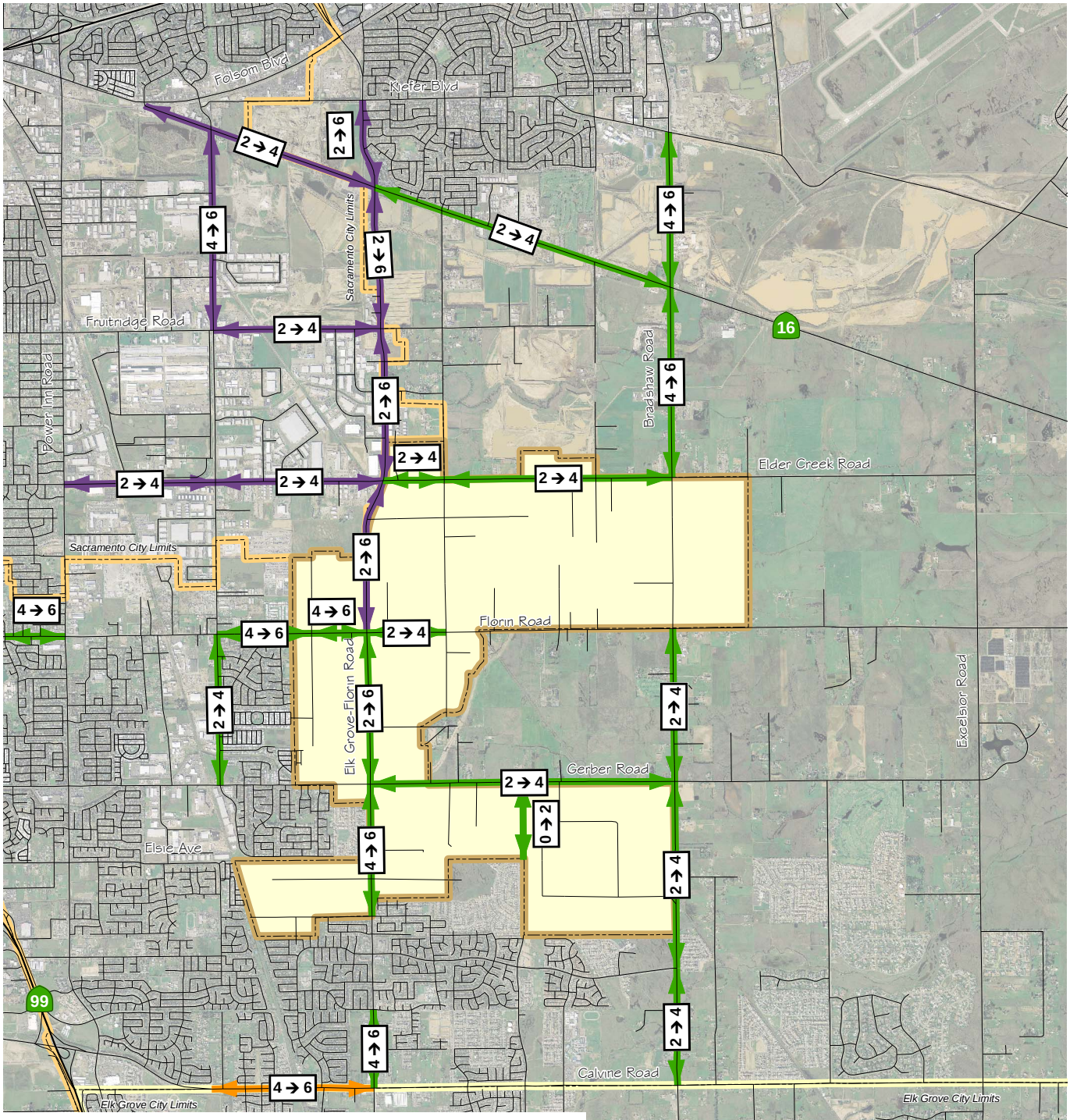
LANDUSE CONCEPT COMPARISON
FIGURE ES-2



LEGEND

- Impact/Mitigation Based on City of Sacramento Impact Significance Criteria
- Impact/Mitigation Based on County Impact Significance Criteria
- Impact/Mitigation Based on City of Elk Grove Impact Significance Criteria
- Project Location

Note: Mitigation is for both primary and secondary impacts.

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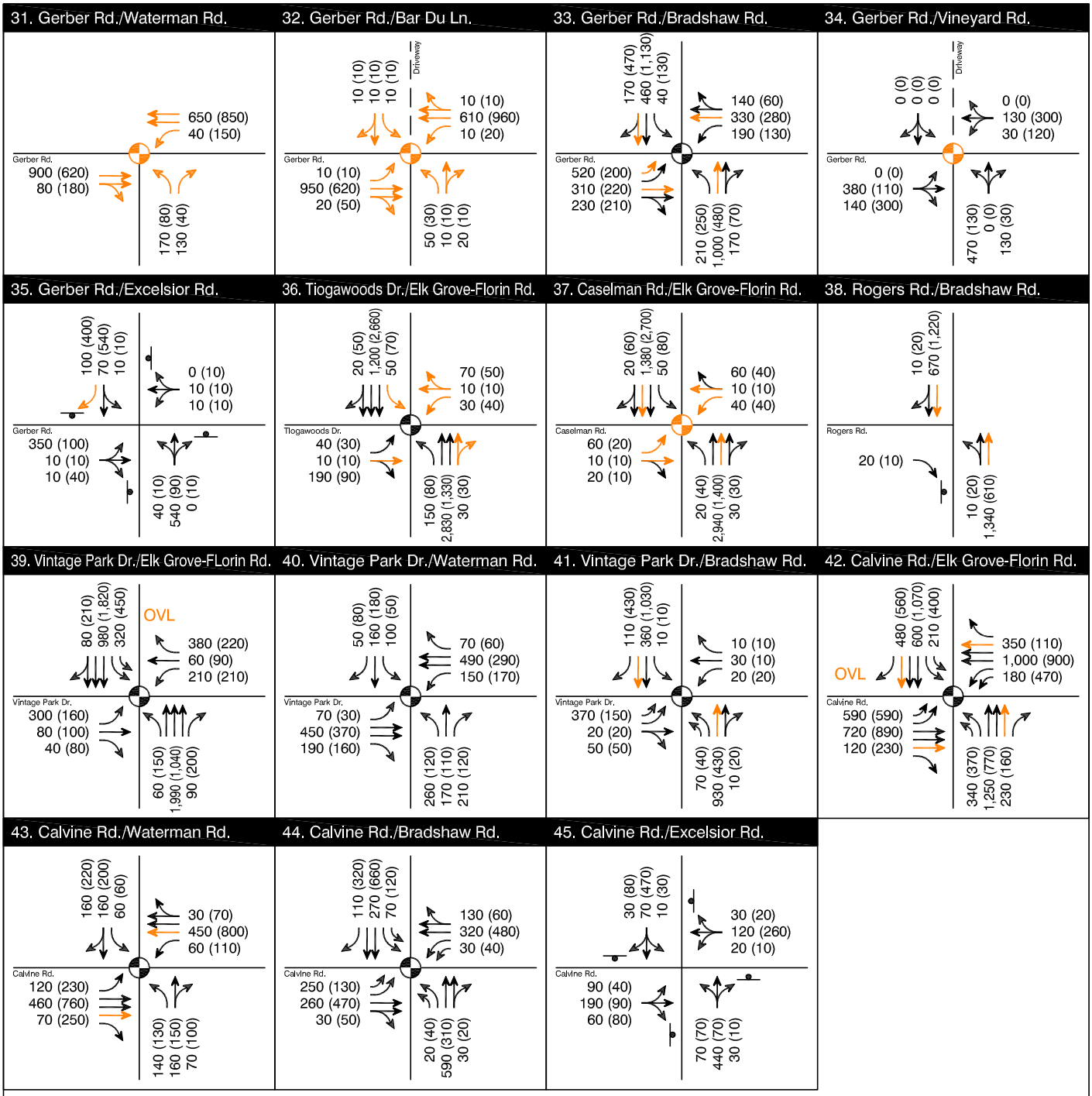
PROPOSED ROADWAY MITIGATION EXISTING WITH PROJECT CONDITIONS

FIGURE ES-3



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PEAK HOUR TRAFFIC VOLUMES, INTERSECTION TRAFFIC CONTROL, AND LANE CONFIGURATIONS - EXISTING PLUS CITIZENS ADVISORY COMMITTEE (CAC) LAND USE CONDITIONS WITH MITIGATION

FIGURE ES-4B

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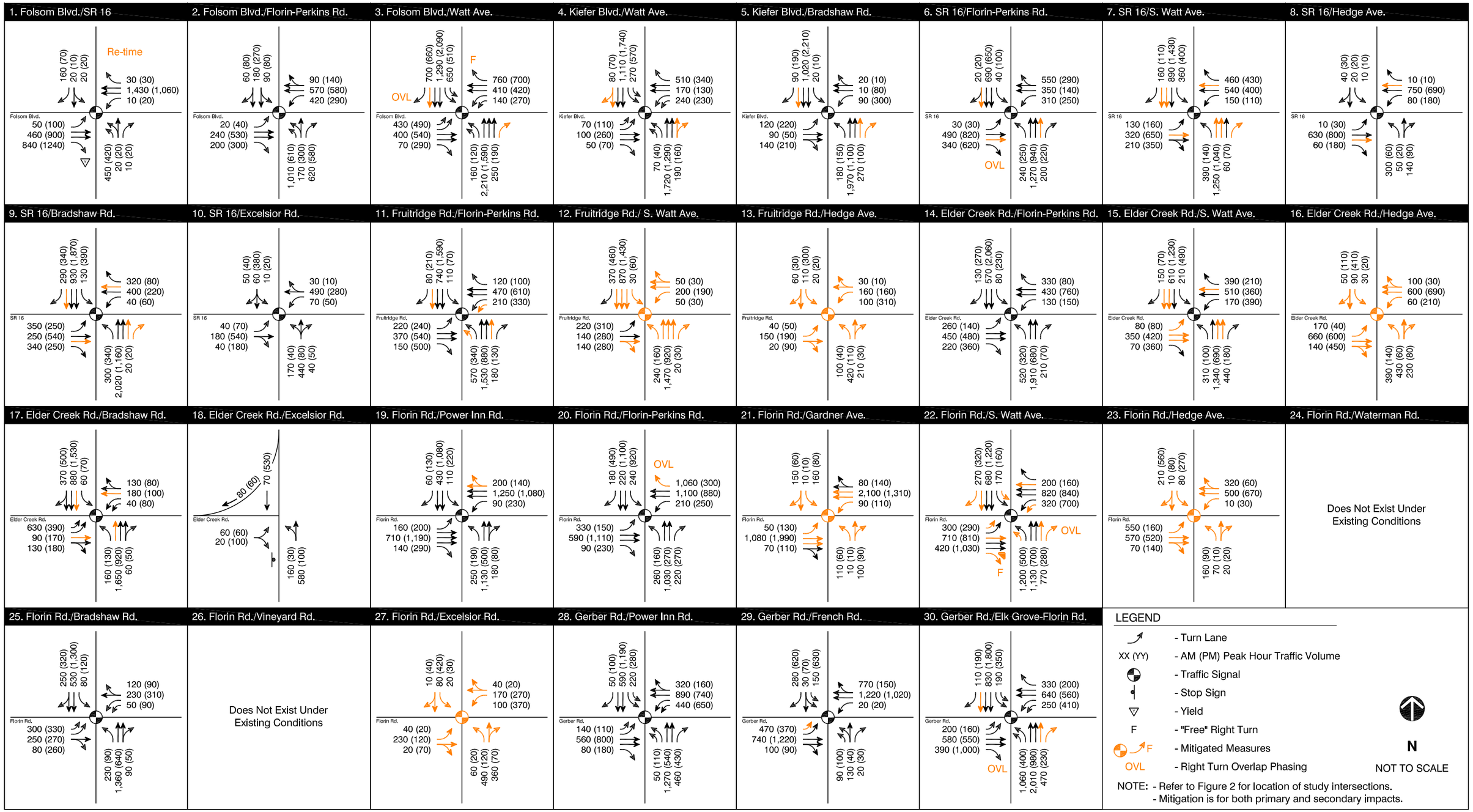

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TRANSPORTATION CONSULTANTS

Apr 12, 2008 MJC
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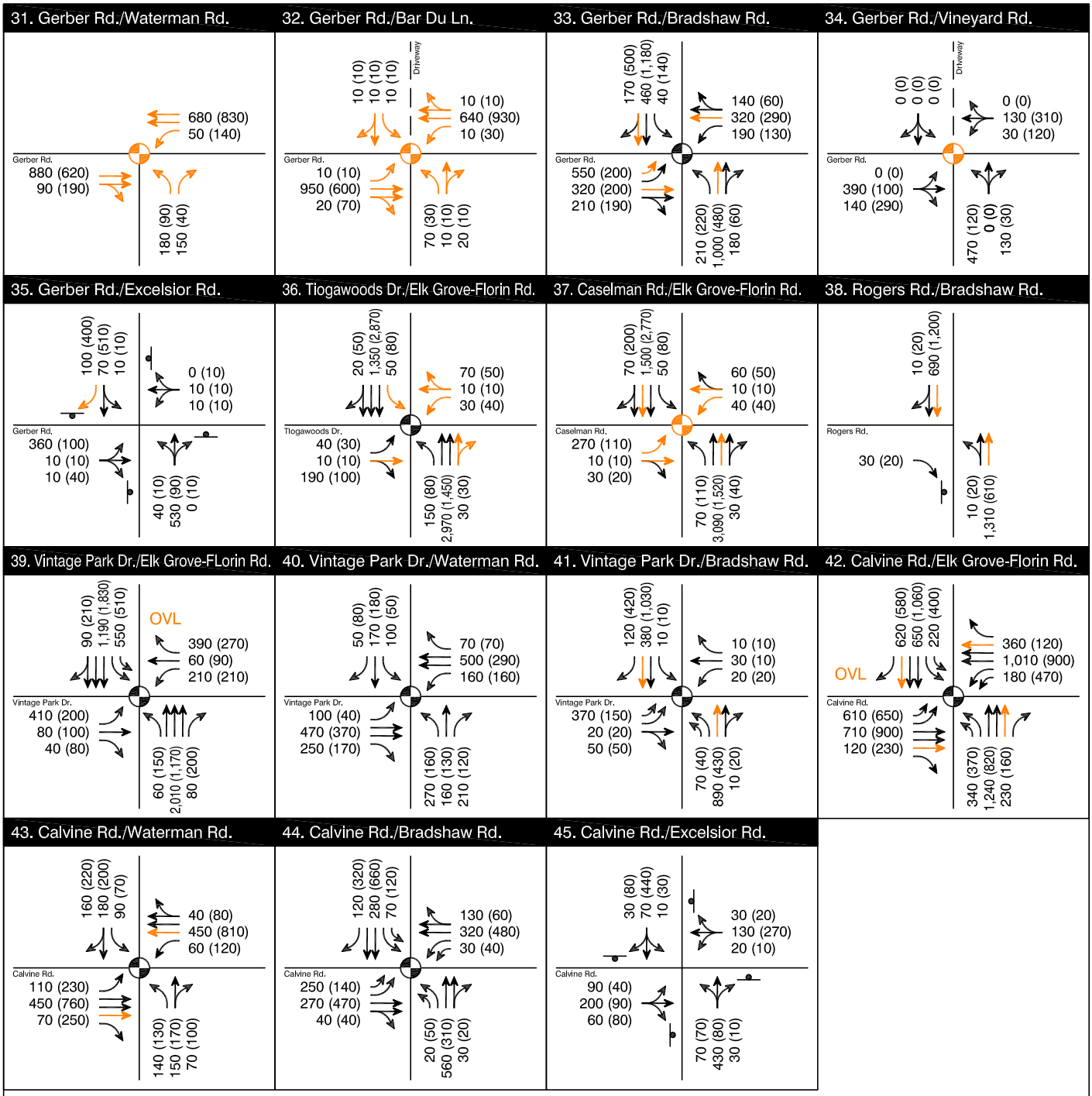
PEAK HOUR TRAFFIC VOLUMES, INTERSECTION TRAFFIC CONTROL, AND LANE CONFIGURATIONS - EXISTING PLUS PLANNING DEPARTMENT (PD) LAND USE CONDITIONS WITH MITIGATION

FIGURE ES-5A



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PEAK HOUR TRAFFIC VOLUMES, INTERSECTION TRAFFIC CONTROL, AND LANE CONFIGURATIONS - EXISTING PLUS PLANNING DEPARTMENT (PD) LAND USE CONDITIONS WITH MITIGATION

Mar 26, 2008 MJC
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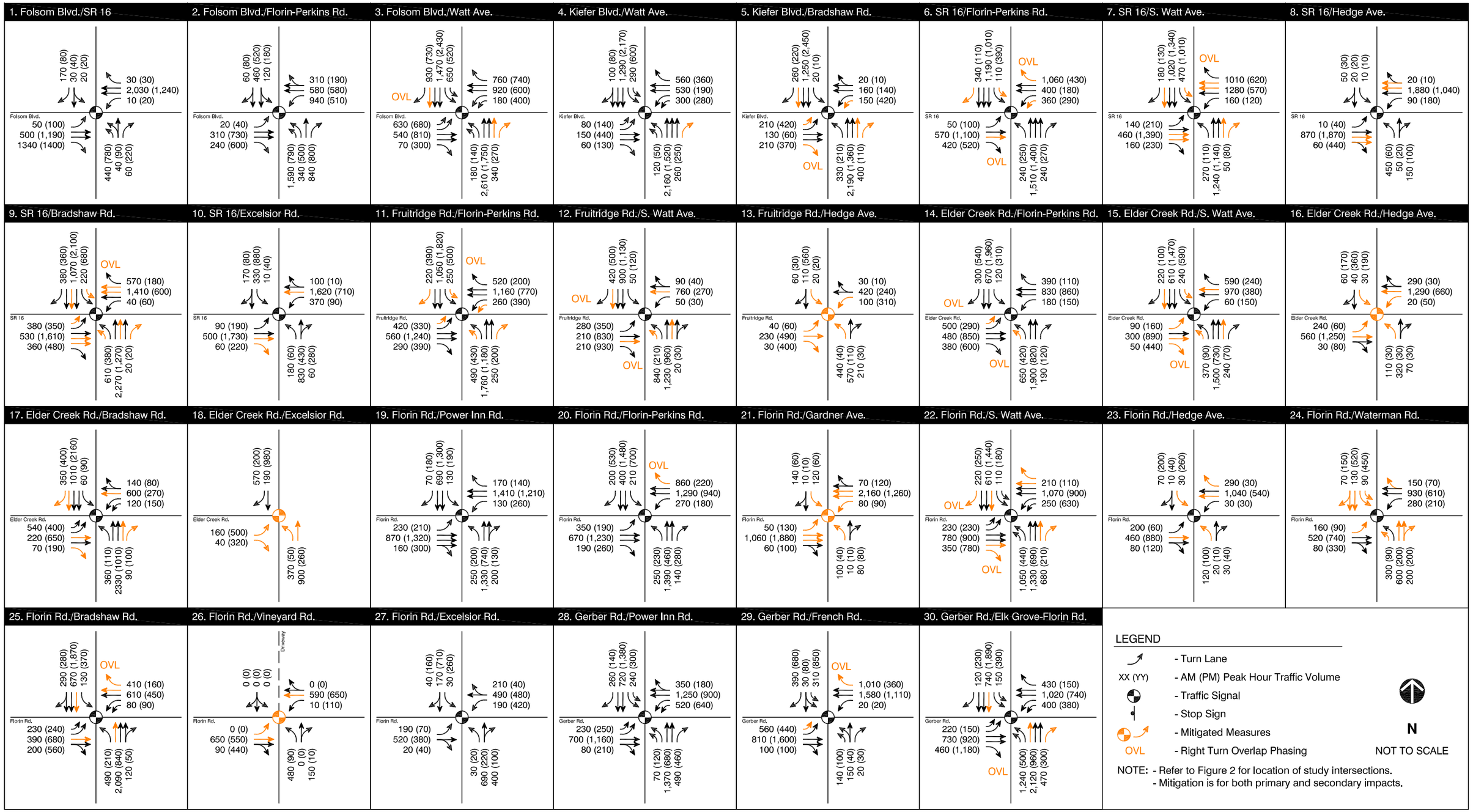
FIGURE ES-5B



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May 27, 2008 MJC
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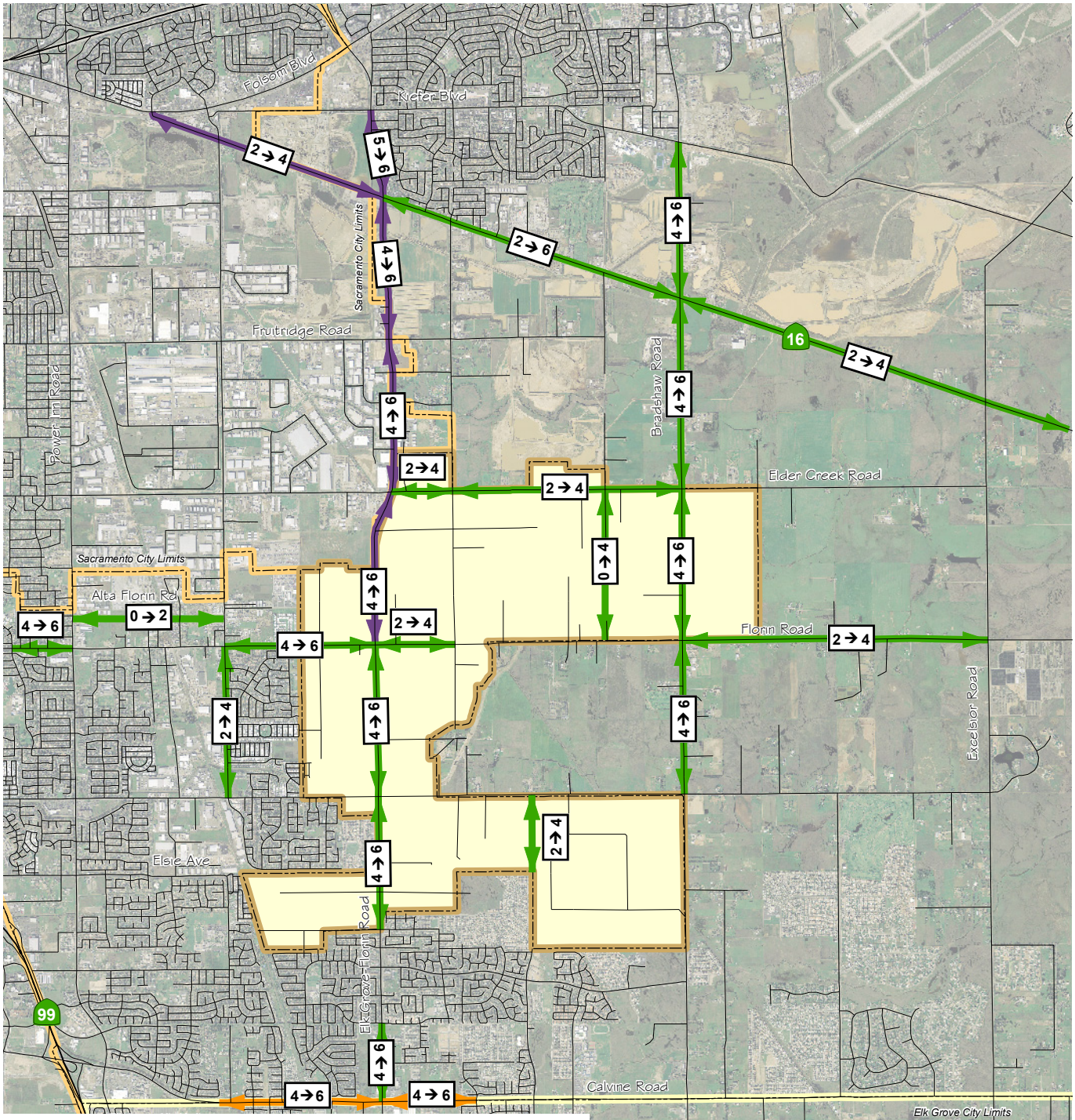
PEAK HOUR TRAFFIC VOLUMES, INTERSECTION TRAFFIC CONTROL, AND LANE CONFIGURATIONS - CUMULATIVE PLUS CITIZENS ADVISORY COMMITTEE (CAC) LAND USE CONDITIONS WITH MITIGATION

FIGURE ES-7A



LEGEND

- Impact/Mitigation Based on City of Sacramento Impact Significance Criteria
- Impact/Mitigation Based on County Impact Significance Criteria
- Impact/Mitigation Based on City of Elk Grove Impact Significance Criteria
- Project Location

Note: Mitigation is for both primary and secondary impacts.

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PROPOSED ROADWAY MITIGATION CUMULATIVE WITH PROJECT CONDITIONS

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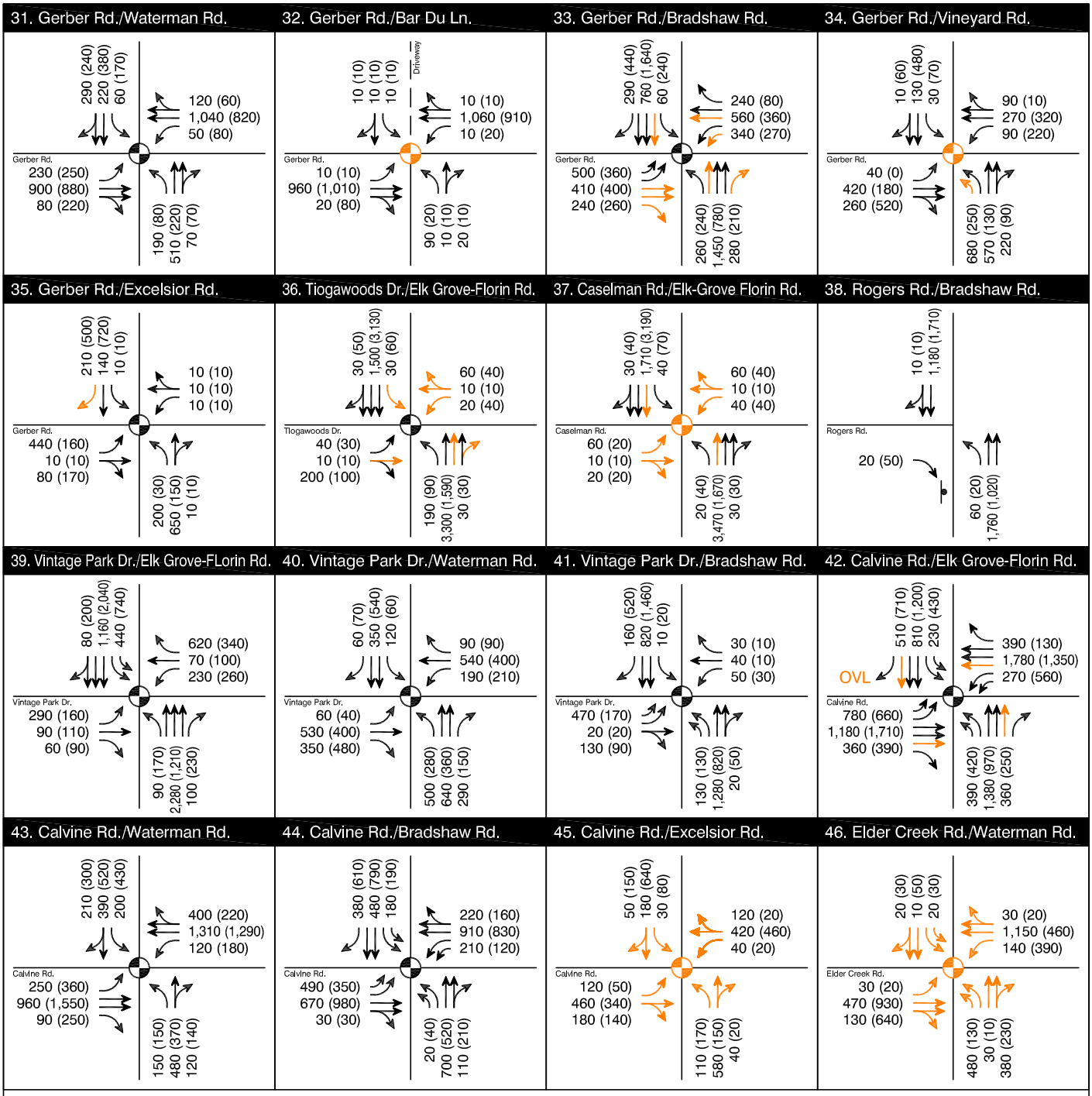
FIGURE ES-6



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PEAK HOUR TRAFFIC VOLUMES, INTERSECTION TRAFFIC CONTROL, AND LANE CONFIGURATIONS - CUMULATIVE PLUS CITIZENS ADVISORY COMMITTEE (CAC) LAND USE CONDITIONS WITH MITIGATION

Sep 05, 2008 MJC
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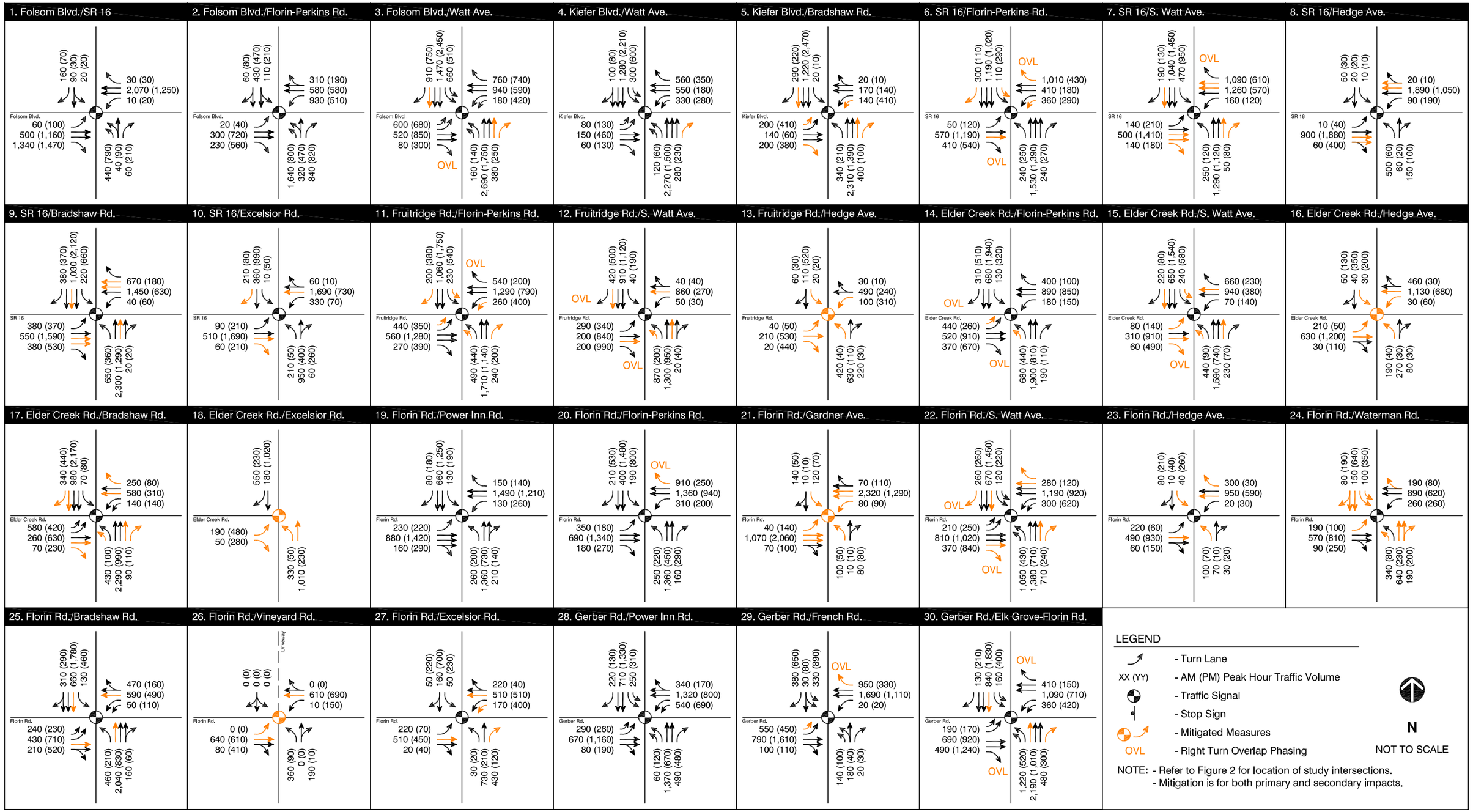
FIGURE ES-7B



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May 27, 2008 MJC
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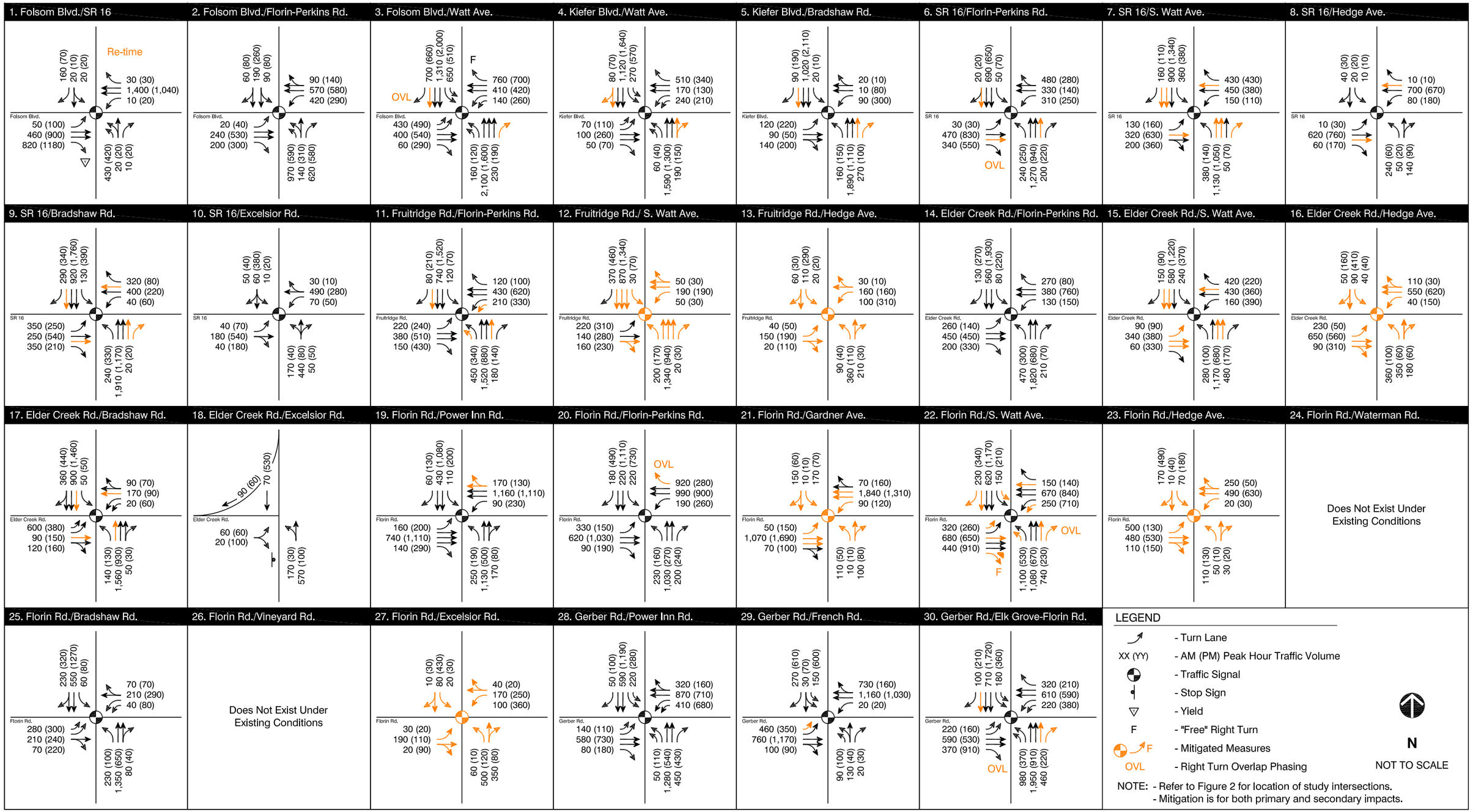
PEAK HOUR TRAFFIC VOLUMES, INTERSECTION TRAFFIC CONTROL, AND LANE CONFIGURATIONS - CUMULATIVE PLUS PLANNING DEPARTMENT (PD) LAND USE CONDITIONS WITH MITIGATION

FIGURE ES-8A



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Apr 12, 2008 MJC
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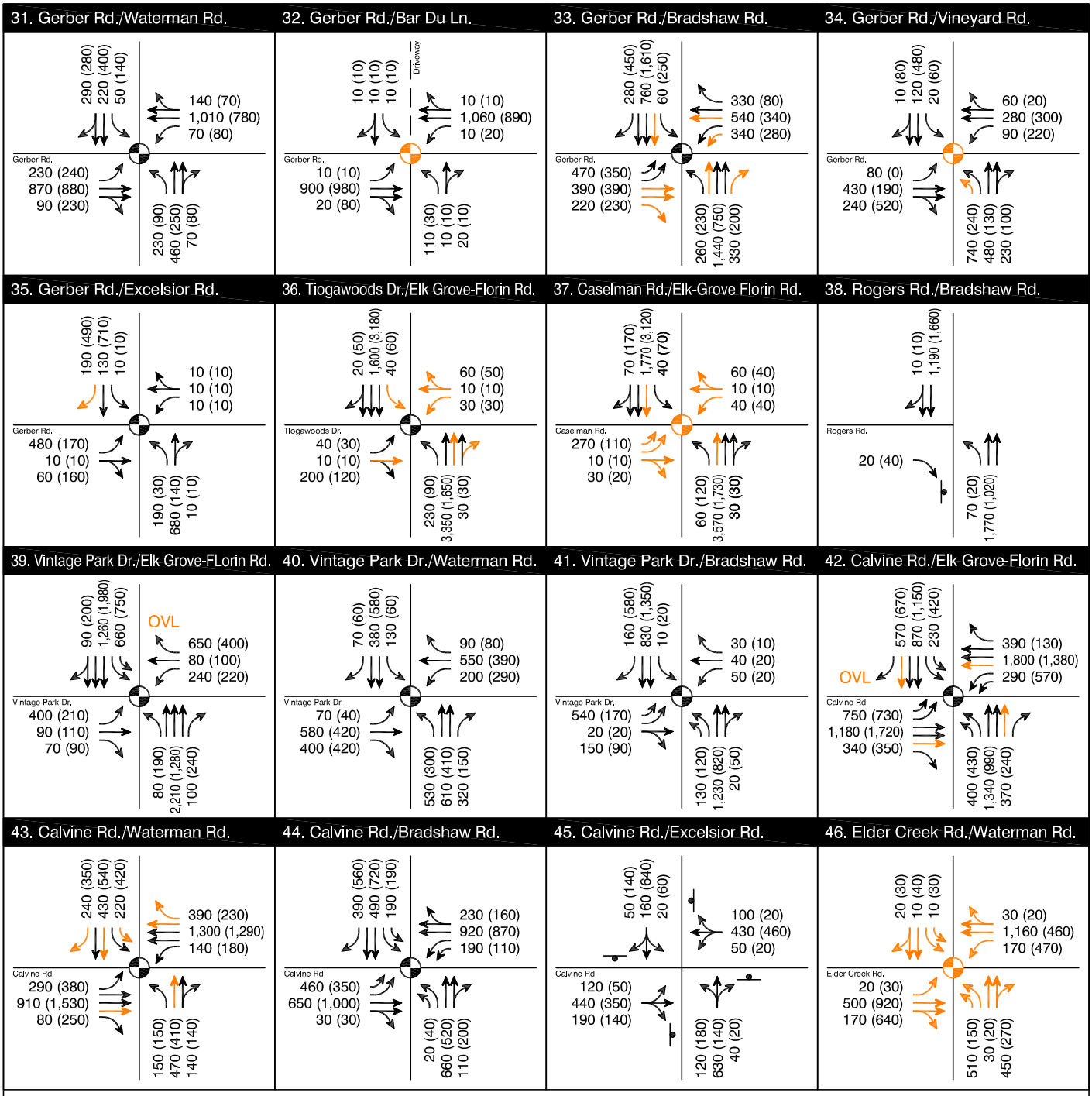
PEAK HOUR TRAFFIC VOLUMES, INTERSECTION TRAFFIC CONTROL, AND LANE CONFIGURATIONS - EXISTING PLUS CITIZENS ADVISORY COMMITTEE (CAC) LAND USE CONDITIONS WITH MITIGATION

FIGURE ES-4A



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PEAK HOUR TRAFFIC VOLUMES, INTERSECTION TRAFFIC CONTROL, AND LANE CONFIGURATIONS - CUMULATIVE PLUS PLANNING DEPARTMENT (PD) LAND USE CONDITIONS WITH MITIGATION

FIGURE ES-8B

Sep 05, 2008 MJC
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I. INTRODUCTION

The purpose of this study is to analyze the short- and long-term impacts of the Florin-Vineyard Community Plan project on the adjacent transportation system. This study evaluates the traffic impacts due to the project and identifies the improvements needed to mitigate deficiencies caused by the project in accordance with the Sacramento County, City of Sacramento, and City of Elk Grove transportation impact significance criteria.

Project Location and Description

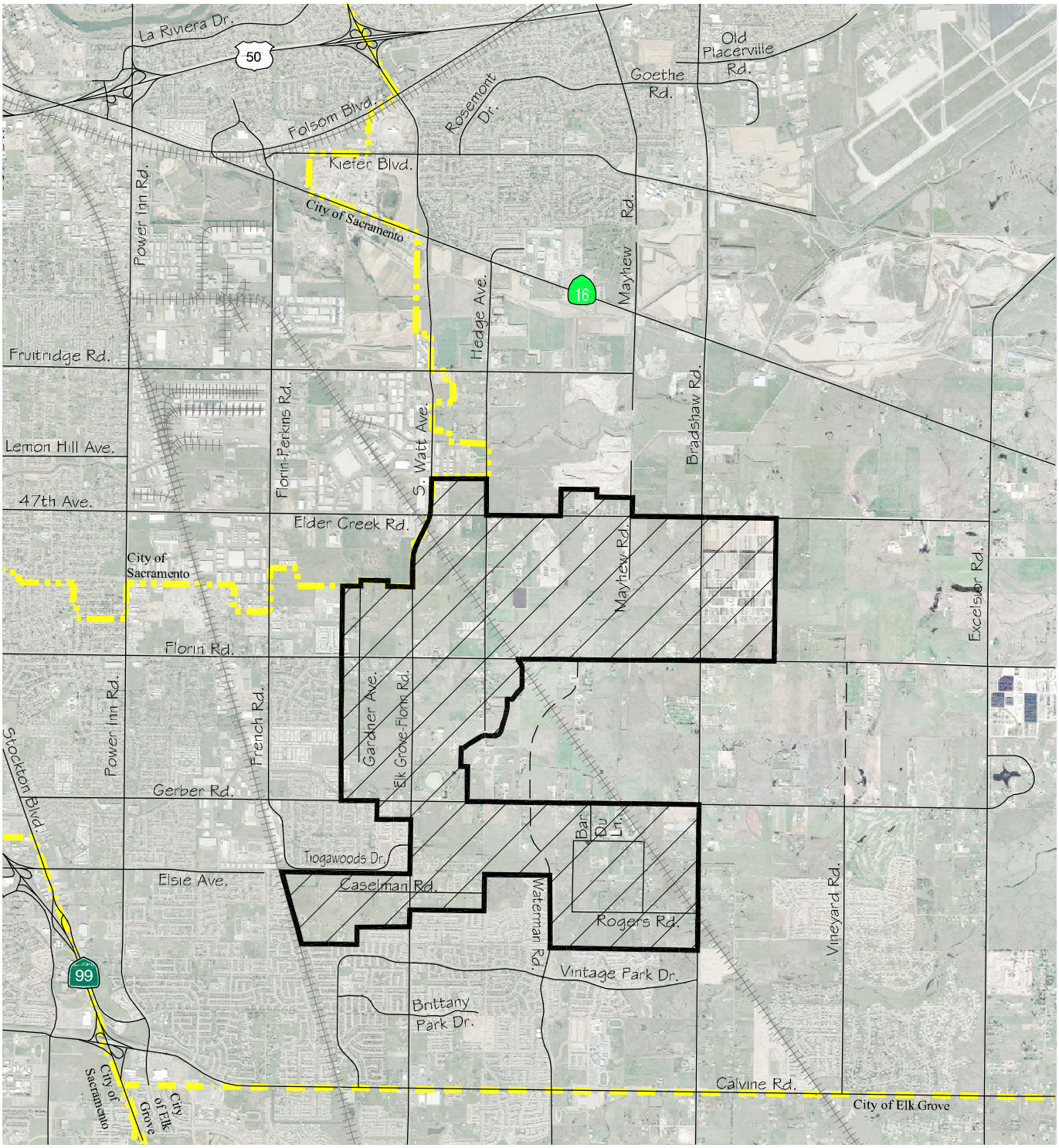
The Florin-Vineyard Community Plan is located in unincorporated Sacramento County east of the City of Sacramento and north of the City of Elk Grove. Figure 1 shows the location of the project and the adjacent roadway network. The project is generally located north of Calvine Road, south of State Route 16 (SR 16), east of Power Inn Road, and west of Bradshaw Road. U.S. Highway 50 (U.S. 50) and State Route 99 (SR 99) will provide primary freeway commute routes for the proposed project.

The community plan encompasses approximately 3,770 acres. Two plan-area concepts are being evaluated and are referred to as the CAC Plan and PD Plan. Figure 2 shows and compares proposed land use for the two plans. In general, the PD Plan has higher residential densities than the CAC Plan with higher density clusters located around major intersections.

Study Area

Detailed traffic analyses were preformed for intersections and roadway segments on the following study area roadways.

- Folsom Boulevard
- Kiefer Boulevard
- SR 16
- Fruitridge Road
- Elder Creek Road
- Florin Road
- Gerber Road
- Vintage Park Drive
- Calvine Road
- Power Inn Road
- Florin-Perkins Road
- Watt Avenue/South Watt Avenue/Elk Grove-Florin Road
- Hedge Avenue
- Waterman Road
- Bradshaw road
- Vineyard Road
- Excelsior Road



LEGEND

- Project Boundary

- Future Roadway

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Dec 22, 2004 MJF
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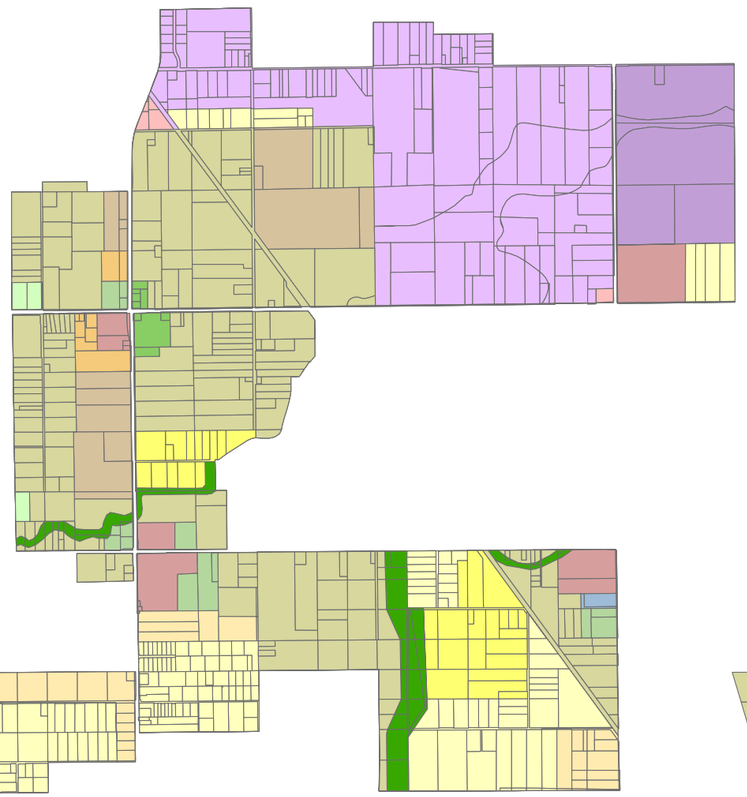
PROJECT LOCATION

FIGURE 1

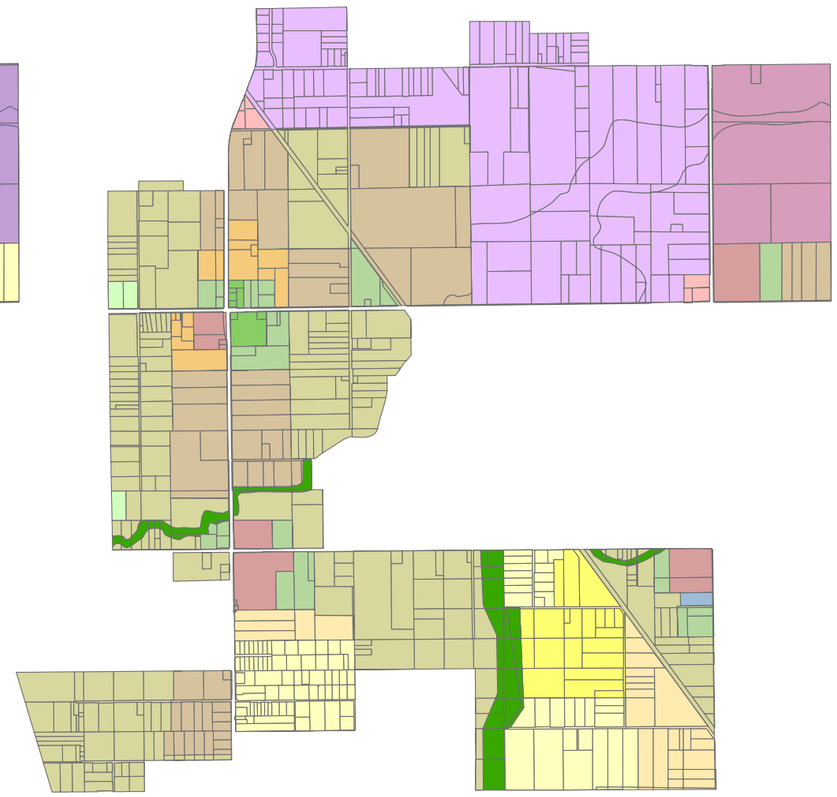
LEGEND

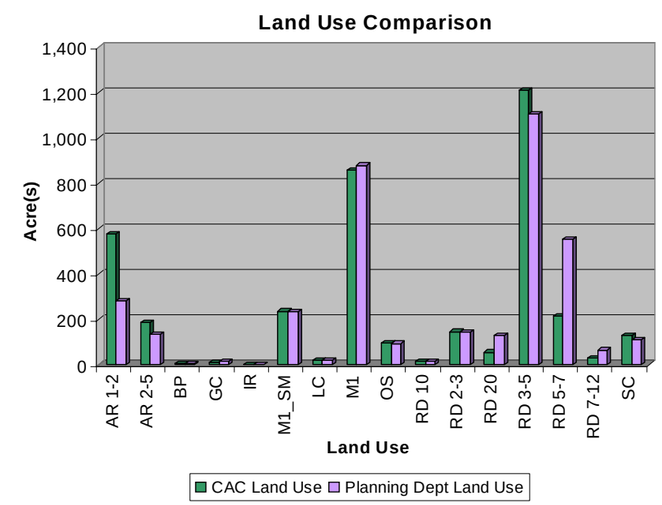
AR 1-2	RD 7-12	GC
AR 2-5	RD 10	SC
RD 2-3	RD 20	BP
RD 3-5	M1	OS
RD 5-7	M1 (SM)	LC

Citizens Advisory Committee (CAC) Land Use Concept



Planning Department (PD) Land Use Concept





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LANDUSE CONCEPT COMPARISON
FIGURE 2

Report Organization

The remainder of this report contains the following four sections:

- Section II – Analysis Methodology
- Section III – Existing Conditions
- Section IV – Traffic Volume Forecasts
- Section V – Traffic Impact Analysis

Section II details the methodology used to analyze roadway and intersection traffic operations. Section III presents the analysis of existing traffic operations on study roadway segments and at study intersections. Section IV presents the methodology used to generate traffic volume forecasts under existing "plus project" conditions and cumulative conditions without and with the proposed project. Section V presents the traffic impact analysis for existing "plus project" conditions and cumulative conditions without and with the proposed project.

II. ANALYSIS METHODOLOGY

This section describes the analysis methodology and impact significance criteria used to analyze traffic operations. The analysis methodology and impact significance criteria used for the study facilities varies because the study area includes intersections and roadways in Sacramento County, the City of Sacramento, and the City of Elk Grove. The following study roadway segments and intersections are located in the City of Sacramento:

Roadway Segments

- Folsom Boulevard – SR 16 to Watt Avenue
- Kiefer Boulevard – Florin-Perkins Road to Watt Avenue
- SR 16 – Folsom Boulevard to Watt Avenue
- Fruitridge Road – Power Inn Road to Florin-Perkins Road
- Fruitridge Road – Florin-Perkins Road to South Watt Avenue
- Fruitridge Road – South Watt Avenue to Hedge Avenue
- Elder Creek Road – Power Inn Road to Florin-Perkins Road
- Elder Creek Road – Florin-Perkins Road to South Watt Avenue
- Power Inn Road – Elder Creek Road to Florin Road
- Florin-Perkins Road – Folsom Boulevard to SR 16
- Florin-Perkins Road – SR 16 to Fruitridge Road
- Florin-Perkins Road – Fruitridge Road to Elder Creek Road
- Florin-Perkins Road – Elder Creek Road to Florin Road
- South Watt Avenue – SR 16 to Fruitridge Road
- South Watt Avenue – Fruitridge Road to Elder Creek Road
- South Watt Avenue – Elder Creek Road to Florin Road
- Hedge Avenue – Fruitridge Road to Elder Creek Road

Intersections

- Folsom Boulevard/SR 16
- Folsom Boulevard/Florin-Perkins Road
- Folsom Boulevard/Watt Avenue
- SR 16/Florin-Perkins Road
- Fruitridge Road/Florin-Perkins Road
- Fruitridge Road/South Watt Avenue
- Elder Creek Road/Florin-Perkins Road
- Elder Creek Road/South Watt Avenue

The following study roadway segments and intersections are located in the City of Elk Grove:

Roadway Segments

- Calvine Road – Power Inn Road to Elk Grove-Florin Road
- Calvine Road – Elk Grove-Florin Road to Grand Cru Drive
- Calvine Road – Grand Cru Drive to Waterman Road
- Calvine Road – Waterman Road to Bradshaw Road
- Calvine Road – Bradshaw Road to Vineyard Road
- Calvine Road – Vineyard Road to Excelsior Road
- Calvine Road – Excelsior Road to Grant Line Road

Intersections

- Calvine Road/Elk Grove-Florin Road
- Calvine Road/Waterman Road
- Calvine Road/Bradshaw Road
- Calvine Road/Excelsior Road

Analysis Methodology

Traffic operations on study roadway segments and at study intersections were analyzed in accordance with Sacramento County's *Traffic Impact Analysis Guidelines*, (July 2004) for Sacramento County roadways and intersections, the *Revised Guidelines for the Preparation of Traffic Impact Analysis Study,* (July 2002) for City of Sacramento roadways and intersections, and the *City of Elk Grove Traffic Impact Analysis Guidelines* for the City of Elk Grove roadways and intersections. The following summarizes the methodologies utilized for study roadway segments and intersections based on these three sources.

Roadway Segments

Roadway segments were analyzed by comparing the average daily traffic volume to daily traffic volume thresholds developed for the *Sacramento County General Plan* (1993). Table 1 displays the daily volume thresholds for various facility types. These thresholds are used by all three jurisdictions as a guide to identify the need for new or upgraded facilities based on daily traffic volumes.

TABLE 1
LEVEL OF SERVICE CRITERIA - ROADWAYS

Facility Type	Number of Lanes	Daily Volume Threshold				
		LOS [7] A	LOS B	LOS C	LOS D	LOS E
Arterial - Low Access Control [1]	2	9,000	10,500	12,000	13,500	15,000
	4	18,000	21,000	24,000	27,000	30,000
	6	27,000	31,500	36,000	40,500	45,000
Arterial - Moderate Access Control [2]	2	10,800	12,600	14,400	16,200	18,000
	4	21,600	25,200	28,800	32,400	36,000
	6	32,400	37,800	43,200	48,600	54,000
Arterial - High Access Control [3]	2	12,000	14,000	16,000	18,000	20,000
	4	24,000	28,000	32,000	36,000	40,000
	6	36,000	42,000	48,000	54,000	60,000
Rural 2-lane roadway, paved shoulders [4]	2	2,200	4,300	7,100	12,200	20,000
Rural 2-lane roadway, no shoulders [5]	2	1,800	3,600	5,900	10,100	17,000
Rural 2-lane highway [6]	2	2,400	4,800	7,900	13,500	22,900

Notes:
[1] Low access control roads generally have frequent driveways and speeds of 25 to 35 mph.
[2] Medium access control roads generally have limited driveways and speeds of 35 to 45 mph.
[3] High access control roads generally have no driveways and speeds of 45 to 55 mph.
[4] Assumed to consist of 24'-36' of pavement with paved shoulders.
[5] Assumed to consist of 24'-36' of pavement with no paved shoulders.
[6] Assumed to consist of 12-foot lanes, 6-foot shoulders, and 60 mph design speed.
[7] LOS = Level of Service

Source: *Sacramento County General Plan Update, Technical Appendix* (DKS Associates, February 1992) and *Fehr & Peers*, 2007.

Signalized Intersections

Sacramento County, the City of Sacramento, and the City of Elk Grove apply different methodologies for signalized intersection operation analysis.

Sacramento County applies the methods described in *Interim Materials on Highway Capacity* (Circular No. 212, Transportation Research Board, January 1980) with adjustments for higher capacities as specified in the County's *Traffic Impact Analysis Guidelines.* The capacities used for signalized intersections in this study are presented below.

- Two-phase signal - 1650 critical movements per hour
- Three-phase signal - 1550 critical movements per hour
- Four or more phase signal - 1500 critical movements per hour

The characteristics of traffic operations for each Level of Service (LOS) with respect to signalized intersections are shown in Table 2. Corresponding to each LOS is a volume-to-capacity (V/C) ratio. This is the ratio of the existing or projected volume to the theoretical capacity of the intersection. An intersection is defined to be "at capacity" when the V/C ratio is 1.00.

TABLE 2
LEVEL OF SERVICE CRITERIA (SACRAMENTO COUNTY) – SIGNALIZED INTERSECTIONS

LOS	Description	Volume-to-Capacity Ratio
A	Represents free flow. Individual users are virtually unaffected by others in the traffic stream.	≤ 0.60
B	Stable flow, but the presence of other users in the traffic stream begins to be noticeable.	0.61 - 0.70
C	Stable flow, but the beginning of the range of flow in which the operation of individual users becomes significantly affected by interactions with others in the traffic stream.	0.71 - 0.80
D	Represents high-density, but stable flow.	0.81 - 0.90
E	Represents operating conditions at or near the capacity level.	0.91 - 1.00
F	Represents forced or breakdown flow.	> 1.00

Source: *Interim Materials on Highway Capacity* (Circular 212, Transportation Research Board, 1980).

The City of Sacramento and the City of Elk Grove apply the procedures and methodologies contained in the *Highway Capacity Manual 2000* (HCM 2000), Transportation Research Board, 2000 to evaluate signalized intersection operations. Table 3 describes the LOS criteria from HCM 2000 for signalized intersections.

TABLE 3
LEVEL OF SERVICE CRITERIA (CITY OF SACRAMENTO) – SIGNALIZED INTERSECTIONS

LOS	Description	Volume-to-Capacity Ratio
A	Operations with very low delay occurring with favorable progression and/or short cycle length.	≤ 10
B	Operations with low delay occurring with good progression and/or short cycle lengths.	> 10 to 20
C	Operations with average delays resulting from fair progression and/or longer cycle lengths. Individual cycle failures begin to appear.	> 20 to 35
D	Operations with longer delays due to a combination of unfavorable progression, long cycle lengths, or high volume-to-capacity ratios. Many vehicles stop and individual cycle failures are noticeable.	> 35 to 55
E	Operations with high delay values indicating poor progression, long cycle lengths, and high volume-to-capacity ratios. Individual cycle failures are frequent occurrences. This is considered to be the limit of acceptable delay.	> 55 to 80
F	Operation with delays unacceptable to most drivers occurring due to over saturation, poor progression, or very long cycle lengths.	> 80

Source: *Highway Capacity Manual* (Transportation Research Board, 2000)

Unsignalized Intersections

Intersections controlled by stop signs on the minor street approaches (two-way stop control) and on all four approaches (all-way stop control) were analyzed using the procedures and methodologies described in the *Highway Capacity Manual* (Transportation Research Board, 2000). This methodology computes the intersection LOS based on the control delay for each minor movement for minor-street stop controlled intersections and weighted average of control delay for all approaches for all-way stop controlled intersections. The LOS criteria at stop sign-controlled intersections are shown in Table 4.

TABLE 4
LEVEL OF SERVICE CRITERIA - UNSIGNALIZED INTERSECTIONS

LOS	Average Control Delay [seconds/vehicle]
A	≤ 10
B	> 10 and ≤ 15
C	> 15 and ≤ 25
D	> 25 and ≤ 35
E	> 35 and ≤ 50
F	> 50

Source: *Highway Capacity Manual* (Transportation Research Board, 2000).

Significance Criteria

Significance criteria for Sacramento County, City of Sacramento, and City of Elk Grove study roadways and intersections are summarized below.

Consistent with Sacramento County's *Traffic Impact Guidelines*, the following thresholds of significance were used to determine if an impact was significant and required mitigation:

Roadways/Signalized Intersections: A project is considered to have a significant effect if it would:

1) Result in a roadway or signalized intersection operating at an acceptable LOS (LOS E or better) to deteriorate to LOS F

2) Increase the volume-to-capacity (V/C) ratio by more than 0.05 at a roadway or at a signalized intersection that is operating at LOS F without the project.

Unsignalized Intersections: A project is considered to have a significant effect if it would:

1) Result in an unsignalized intersection movement/approach operating at an acceptable LOS (LOS E or better) to deteriorate to LOS F and also cause the intersection to meet a traffic signal warrant.

2) Increase the delay by more than 5 seconds at a movement/approach that is operating at LOS F without the project for an unsignalized intersection that meets a signal warrant.

Bicycle and Pedestrian Facilities: A project is considered to have a significant effect if it would:

1) Eliminate or adversely affect an existing bikeway or pedestrian facility in a way that would discourage its use.

2) Interfere with the implementation of a planned bikeway as shown in the Bicycle Master Plan, or be in conflict with the Pedestrian Master Plan.

3) Result in unsafe conditions for bicyclists or pedestrians, including unsafe bicycle/pedestrian, bicycle/motor vehicle, or pedestrian/motor vehicle conflict.

Safety: A project is considered to have a significant effect if it would:

1) Substantially increase hazards due to a design feature (e.g. sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment).

Consistent with the City of Sacramento's *Revised Guidelines for the Preparation of Traffic Impact Analysis Study*, the following thresholds of significance were used to determine if an impact to a study roadway or intersection was significant and required mitigation:

Roadways: An impact is considered significant for roadways when the project causes:

1) A roadway to degrade from LOS C or better to LOS D or worse.

2) Increases the volume-to-capacity (V/C) ratio by 0.02 or more on a roadway that is operating worse than LOS C without the project.

Intersections: A project is considered to have a significant effect if it would:

1) Cause an intersection to degrade from LOS C or better to LOS D or worse.

2) Increase the average delay by 5 seconds or more at an intersection that is operating worse than LOS C without the project.

Consistent with the *City of Elk Grove Traffic Impact Analysis Guidelines*, the following thresholds of significance were used to determine if an impact to a study roadway or intersection was significant and required mitigation:

Roadways: An impact is considered significant for roadways when the project causes:

3) A roadway to degrade from LOS D or better to LOS E or worse.

4) Increases the volume-to-capacity (V/C) ratio by 0.05 or more on a roadway that is operating worse than LOS D without the project.

Intersections: A project is considered to have a significant effect if it would:

3) Cause an intersection to degrade from LOS D or better to LOS E or worse.

4) Increase the average delay by 5 seconds or more at an intersection that is operating worse than LOS D without the project.

III. EXISTING CONDITIONS

The existing transportation system in the vicinity of the project site is heavily dependent on the roadway system for the movement of people and goods. Automobiles are the primary travel mode for most trips in this area, although limited transit service is provided within the study area. To a much lesser degree, the area is served by bicycle and pedestrian facilities. Each of the potentially affected travel modes is discussed in this section. Appendix A contains detailed technical calculations for existing conditions.

Roadway Network

Figure 3 shows the existing number of lanes on study area roadways. Study area roadways range from two to six lanes and have speed limits from 35 to 55 miles per hour. These roadways provide access to the industrial and residential uses in the vicinity of the project. Several study roadway segments are considered rural roadways with 24 to 36 feet of pavement and paved shoulders and generally have a rural character. The following study roadway segments were evaluated as rural roadways:

- Fruitridge Road – South Watt Avenue to Mayhew Road
- Elder Creek Road – South Watt Avenue to Excelsior Road
- Florin Road – South Watt Avenue to Sunrise Boulevard
- Gerber Road – Elk Grove-Florin Road to Excelsior Road
- Calvine Road – Vineyard Road Road to Grant Line Road
- Hedge Avenue – SR 16 to Florin Road
- Excelsior Road – SR 16 to Calvine Road

Existing Traffic Volumes

Fehr & Peers conducted daily roadway segment and AM and PM peak hour intersection turning movement counts in May 2004. New counts were collected at 36 of the 69 study roadway segments and 29 of the 45 study intersections in January and April of 2007. Figure 4 shows the study roadway segments and intersections, Figure 5 shows existing daily roadway segment traffic volumes, and Figure 6 shows existing AM and PM peak hour intersection turning movement volumes.

Existing Traffic Operations

Existing traffic operations of the study roadways and intersections are discussed below.

<u>Roadway Segments</u>

The daily volumes shown on Figure 5 were compared to the capacity criteria for arterial roadway segments presented in Section II. The roadway segment operations analysis is summarized below by jurisdiction.

Sacramento County Facilities

Most of the Sacramento County study roadway segments operate acceptably, LOS E or better, except for the following:

- Elk Grove-Florin Road – Florin Road to Gerber Road
- Bradshaw Road - Florin Road to Gerber Road.
- South Watt Avenue – Folsom Boulevard to Kiefer Boulevard
- South Watt Avenue – Kiefer Boulevard to SR 16

City of Sacramento Facilities

Most of the City of Sacramento study roadway segments operate acceptably, LOS C or better, except for the following:

- Fruitridge Road – Florin-Perkins Road to South Watt Avenue
- Elder Creek Road – Power Inn Road to Florin-Perkins Road
- Power Inn Road – Elder Creek Road to Florin Road
- Florin-Perkins Road – Fruitridge Road to Elder Creek Road
- South Watt Avenue – SR 16 to Fruitridge Road
- South Watt Avenue – Fruitridge Road to Elder Creek Road
- South Watt Avenue – Elder Creek Road to Florin Road

City of Elk Grove Facilities

Most of the City of Elk Grove study roadway segments operate acceptably, LOS D or better, except for Calvine Road between Power Inn Road and Elk Grove-Florin Road, which operates at LOS E.

Table 5 summarizes study roadway segment operations.

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Nov 13, 2007 MJF
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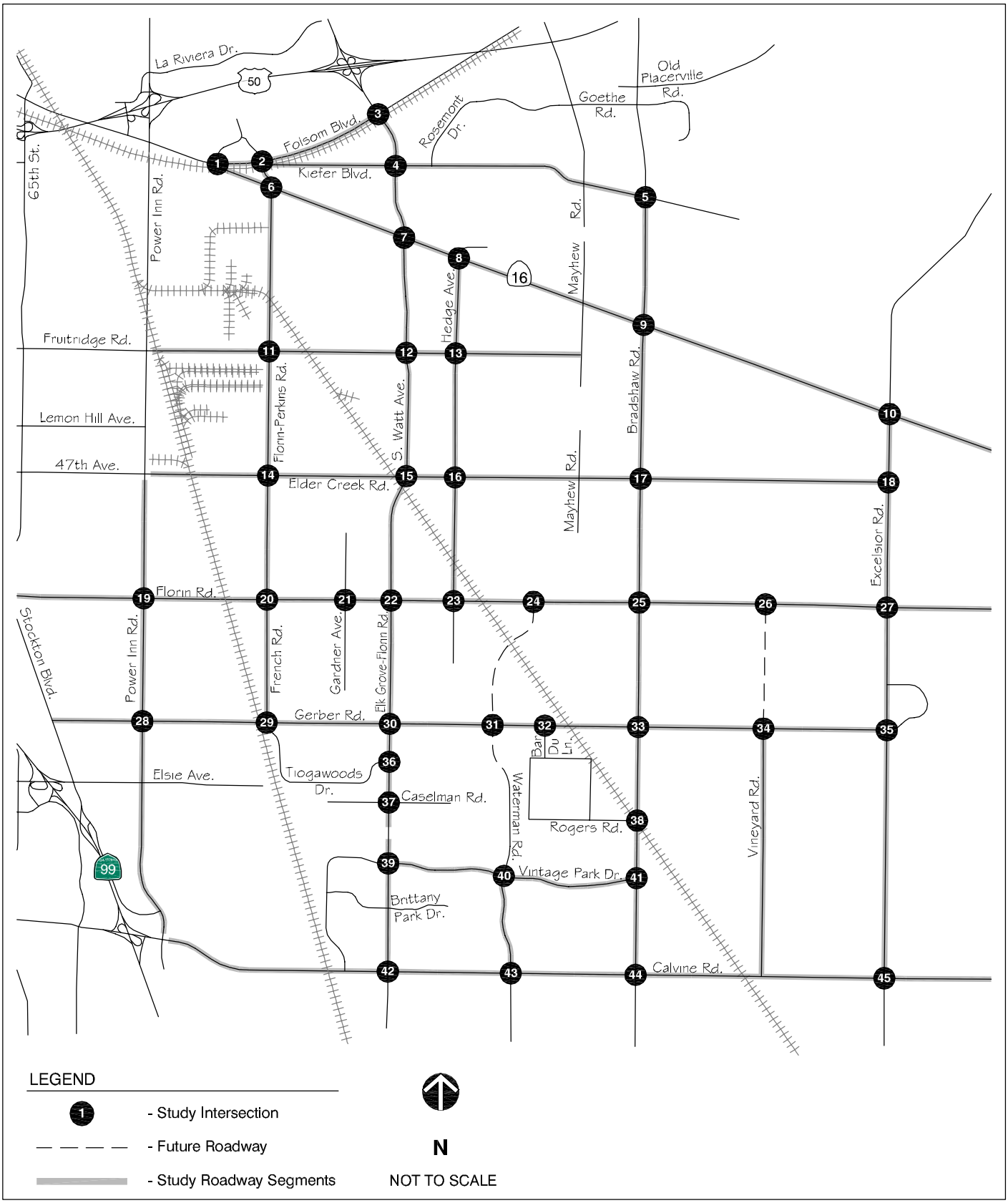
EXISTING ROADWAY SYSTEM

FIGURE 3



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STUDY ROADWAY SEGMENTS AND INTERSECTIONS

FIGURE 4

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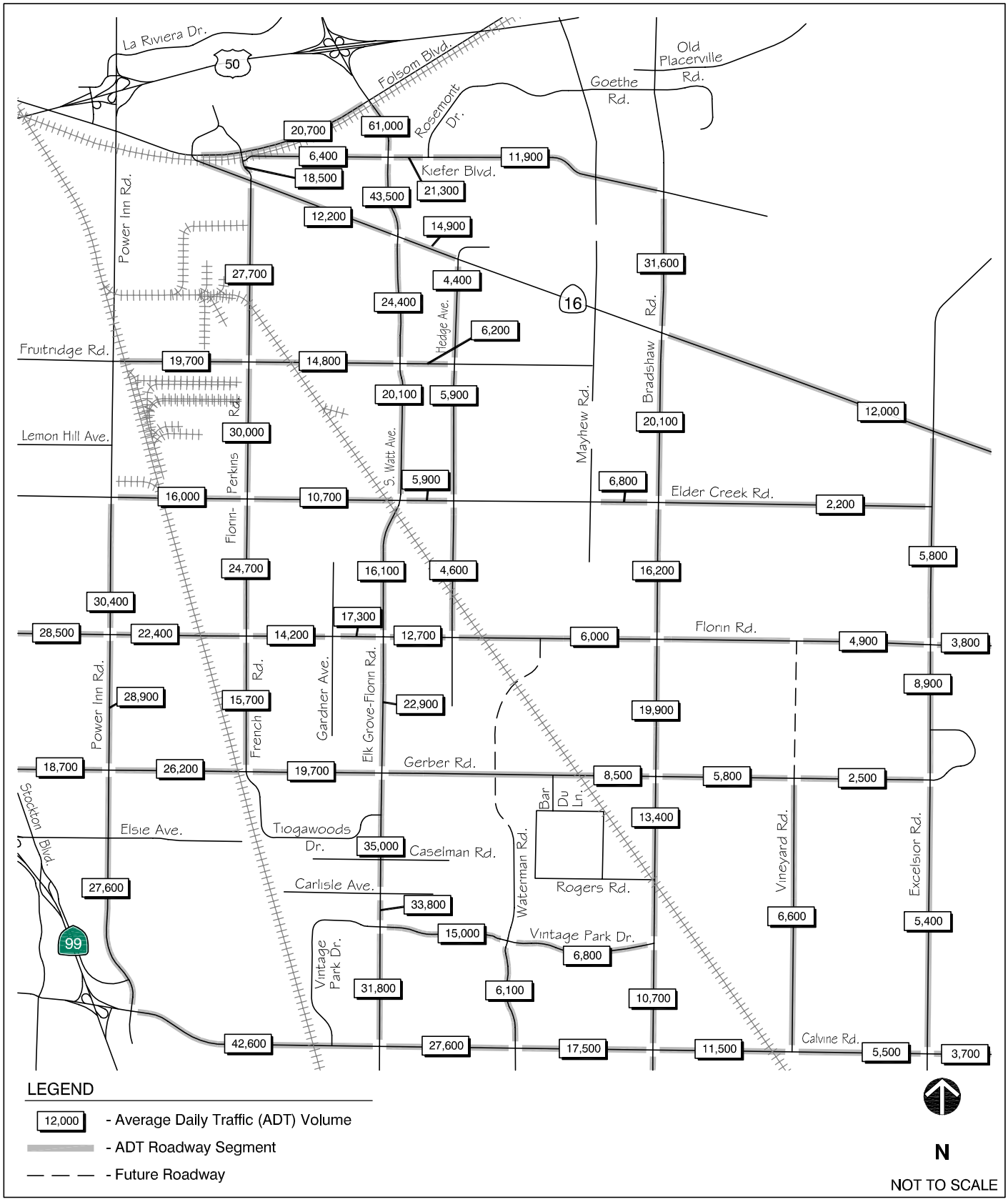

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Apr 27, 2007 MJC
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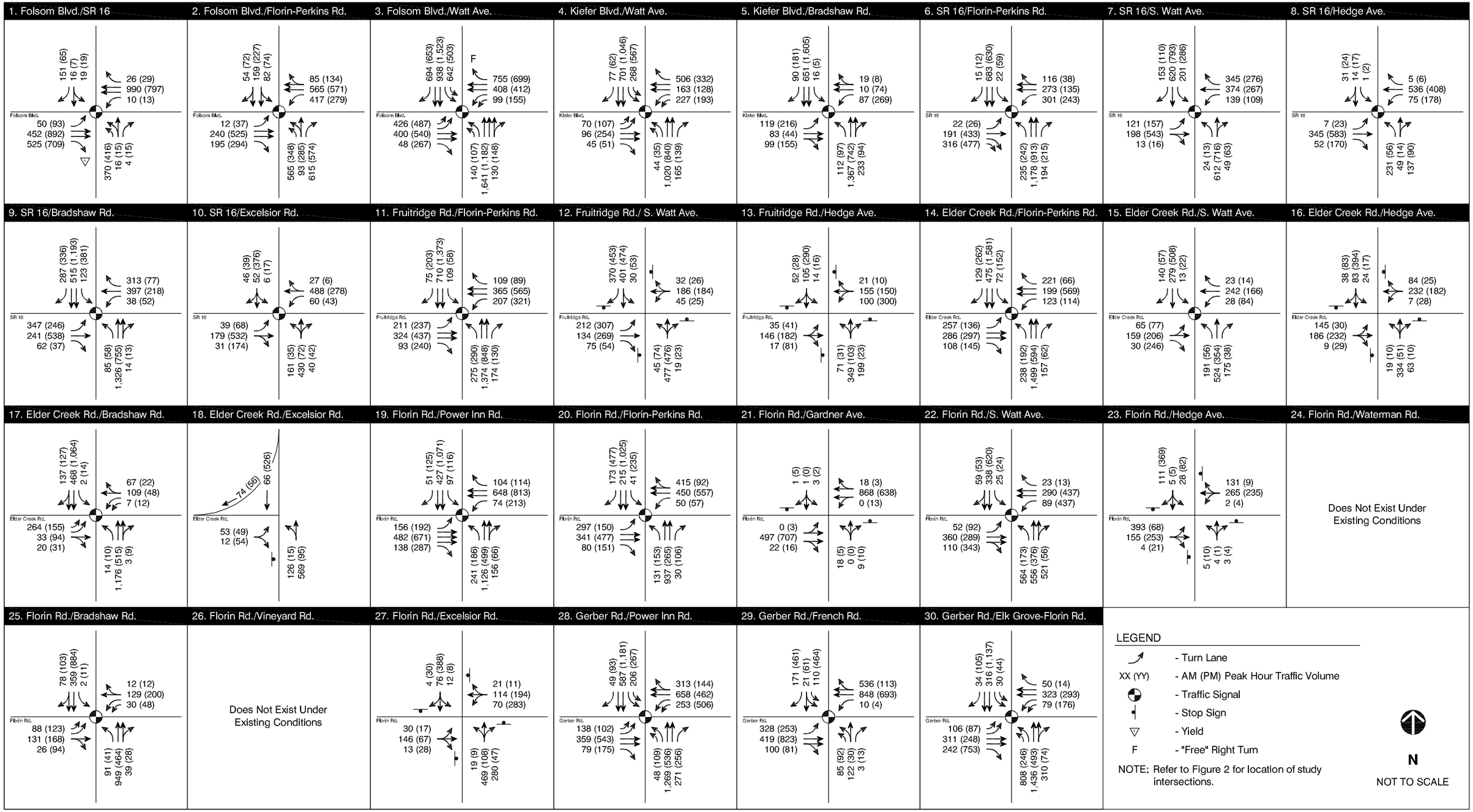
AVERAGE DAILY TRAFFIC VOLUMES - EXISTING CONDITIONS

FIGURE 5



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Nov 07, 2007 MJC
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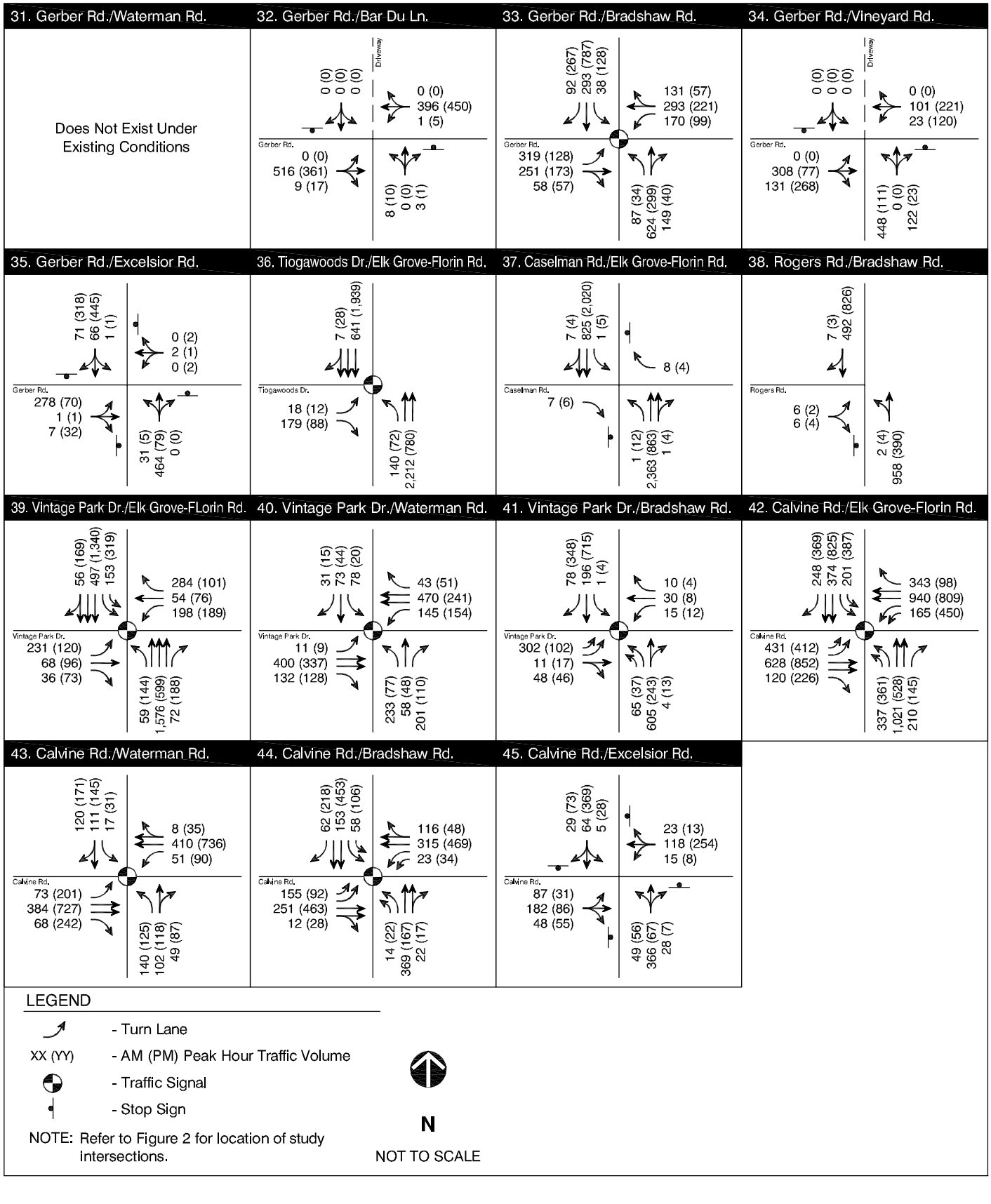
PEAK HOUR TRAFFIC VOLUMES AND LANE CONFIGURATIONS - EXISTING CONDITIONS

FIGURE 6A



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PEAK HOUR TRAFFIC VOLUMES AND LANE CONFIGURATIONS - EXISTING CONDITIONS

FIGURE 6B

TABLE 5
ROADWAY LEVEL OF SERVICE – EXISTING CONDITIONS

Roadway Segment		Existing Conditions				
		Lanes	Type	Vol	V/C	LOS
1.	Folsom Blvd. - State Route 16 to Watt Ave.	4	Arterial	20,700	0.58	A
2.	Kiefer Blvd. - Florin-Perkins Rd. to Watt Ave.	2	Arterial	6,400	0.36	A
3.	Kiefer Blvd. - Watt Ave. to Rosemont Dr.	4	Arterial	21,300	0.59	A
4.	Kiefer Blvd. - Rosemont Dr. to Bradshaw Rd.	4	Arterial	11,900	0.33	A
5.	SR 16 - Folsom Blvd. to Watt Ave.	2	Arterial	12,200	0.68	B
6.	SR 16 - Watt Ave. to Bradshaw Rd.	2	Arterial	14,900	0.83	D
7.	SR 16 - Bradshaw Rd. to Sunrise Blvd	2	Arterial	12,000	0.60	A
8.	Fruitridge Rd. - Power Inn Rd. to Florin-Perkins Rd.	4	Arterial	19,700	0.55	A
9.	Fruitridge Rd. - Florin-Perkins Rd. to South Watt Ave.	2	Arterial	14,800	0.82	D
10.	Fruitridge Rd. - South Watt Ave. to Hedge Ave.	2	Rural	6,200	0.31	C
11.	Elder Creek Rd. - Power Inn Rd. to Florin-Perkins Rd.	2	Arterial	16,000	0.89	D
12.	Elder Creek Rd. - Florin-Perkins Rd. to South Watt Ave.	2	Arterial	10,700	0.59	A
13.	Elder Creek Rd. - South Watt Ave. to Hedge Ave.	2	Rural	5,900	0.30	C
14.	Elder Creek Rd. – Hedge Ave. to Bradshaw Rd.	2	Rural	6,800	0.34	C
15.	Elder Creek Rd. - Bradshaw Rd. to Excelsior Rd.	2	Rural	2,200	0.11	A
16.	Florin Rd. - Stockton Blvd to Power Inn Rd.	4	Arterial	28,500	0.79	C
17.	Florin Rd. - Power Inn Rd. to Florin-Perkins Rd.	4	Arterial	22,400	0.62	B
18.	Florin Rd. - Florin-Perkins Rd. to Gardner Ave.	4	Arterial	14,200	0.39	A
19.	Florin Rd. - Gardner Ave. to South Watt Ave.	4	Arterial	17,300	0.48	A
20.	Florin Rd. - South Watt Ave. to Hedge Ave.	2	Rural	12,700	0.64	E
21.	Florin Rd. - Hedge Ave. to Bradshaw Rd.	2	Rural	6,000	0.30	C
22.	Florin Rd. - Bradshaw Rd. to Excelsior Rd.	2	Rural	4,900	0.25	C
23.	Florin Rd. - Excelsior Rd. to Sunrise Blvd	2	Rural	3,800	0.19	B
24.	Gerber Rd. - Stockton Blvd to Power Inn Rd.	4	Arterial	18,700	0.52	A
25.	Gerber Rd. - Power Inn Rd. to French Rd.	4	Arterial	26,200	0.73	C
26.	Gerber Rd. - French Rd. to Elk Grove-Florin Rd.	4	Arterial	19,700	0.55	A
27.	Gerber Rd. - Elk Grove-Florin Rd. to Bradshaw Rd.	2	Rural	8,500	0.43	D
28.	Gerber Rd. - Bradshaw Rd. to Vineyard Rd.	2	Rural	5,800	0.29	C
29.	Gerber Rd. - Vineyard Rd. to Excelsior Rd.	2	Rural	2,500	0.13	B
30.	Vintage Park Dr. - Elk Grove-Florin Rd. to Waterman Rd.	4	Arterial	15,000	0.42	A
31.	Vintage Park Dr. - Waterman Rd. to Bradshaw Rd.	4	Arterial	6,800	0.19	A
32.	Calvine Rd. - Power Inn Rd. to Elk Grove-Florin Rd.[1]	5	Arterial	42,600	0.95	E
33.	Calvine Rd. - Elk Grove-Florin Rd. to Grand Cru Dr.	4	Arterial	27,600	0.77	C
34.	Calvine Rd. - Grand Cru Dr. to Waterman Rd.	6	Arterial	27,600	0.51	A
35.	Calvine Rd. - Waterman Rd. to Bradshaw Rd.	4	Arterial	17,500	0.49	A
36.	Calvine Rd. - Bradshaw Rd. to Vineyard Rd.	4	Arterial	11,500	0.32	A
37.	Calvine Rd. - Vineyard Rd. to Excelsior Rd.	2	Rural	5,500	0.28	C
38.	Calvine Rd. - Excelsior Rd. to Grant Line Rd.	2	Rural	3,700	0.19	B
39.	Power Inn Rd - Elder Creek Rd. to Florin Rd.	4	Arterial	30,400	0.84	D
40.	Power Inn Rd - Florin Rd. to Gerber Rd.	4	Arterial	28,900	0.80	D
41.	Power Inn Rd - Gerber Rd. to Calvine Rd.	4	Arterial	27,600	0.77	C
42.	Florin-Perkins Rd. - Folsom Blvd. to SR 16	4	Arterial	18,500	0.51	A
43.	Florin-Perkins Rd. - SR 16 to Fruitridge Rd.	4	Arterial	27,700	0.77	C
44.	Florin-Perkins Rd. - Fruitridge Rd. to Elder Creek Rd.	4	Arterial	30,000	0.83	D
45.	Florin-Perkins Rd. - Elder Creek Rd. to Florin Rd.	4	Arterial	24,700	0.69	B
46.	French Rd. - Florin Rd. to Gerber Rd.	2	Arterial	15,700	0.87	D
47.	Watt Ave. - Folsom Blvd. to Kiefer Blvd.	6	Arterial	61,000	1.02	F
48.	South Watt Ave. - Kiefer Blvd. to SR 16	2	Arterial	43,500	2.42	F
49.	South Watt Ave. - SR 16 to Fruitridge Rd.	2	Arterial	24,400	1.22	F
50.	South Watt Ave. - Fruitridge Rd. to Elder Creek Rd.	2	Arterial	20,100	1.12	F

TABLE 5 (CONT.)
ROADWAY LEVEL OF SERVICE – EXISTING CONDITIONS

Roadway Segment	Existing Conditions				
	Lanes	Type	Vol	V/C	LOS
51. South Watt Ave. - Elder Creek Rd. to Florin Rd.	2	Arterial	16,100	0.89	D
52. Elk Grove-Florin Rd. - Florin Rd. to Gerber Rd.	2	Arterial	22,900	1.27	F
53. Elk Grove-Florin Rd. - Gerber Rd. to Carlisle Ave.	4	Arterial	35,000	0.97	E
54. Elk Grove-Florin Rd. - Carlisle Ave. to Vintage Park Dr.	6	Arterial	33,800	0.63	B
55. Elk Grove-Florin Rd. - Vintage Park Dr. to Calvine Rd.	4	Arterial	31,800	0.88	D
56. Hedge Ave. - SR 16 to Fruitridge Rd.	2	Rural	4,400	0.22	C
57. Hedge Ave. - Fruitridge Rd. to Elder Creek Rd.	2	Rural	5,900	0.30	C
58. Hedge Ave. - Elder Creek Rd. to Florin Rd.	2	Rural	4,600	0.23	C
59. Waterman Rd. - Vintage Park Dr. to Calvine Rd.	4	Arterial	6,100	0.17	A
60. Bradshaw Rd. - Kiefer Blvd. to SR 16	4	Arterial	31,600	0.88	D
61. Bradshaw Rd. - SR 16 to Elder Creek Rd.	4	Arterial	20,100	0.56	A
62. Bradshaw Rd. - Elder Creek Rd. to Florin Rd.	4	Arterial	16,200	0.45	A
63. Bradshaw Rd. - Florin Rd. to Gerber Rd.	2	Arterial	19,900	1.11	F
64. Bradshaw Rd. - Gerber Rd. to Vintage Park Dr.	2	Arterial	13,400	0.74	C
65. Bradshaw Rd. - Vintage Park Dr. to Calvine Rd.	2	Arterial	10,700	0.59	A
66. Vineyard Rd. - Gerber Rd. to Calvine Rd.	2	Arterial	6,600	0.37	A
67. Excelsior Rd. - SR 16 to Florin Rd.	2	Rural	5,800	0.29	C
68. Excelsior Rd. - Florin Rd. to Gerber Rd.	2	Rural	8,900	0.45	D
69. Excelsior Rd. - Gerber Rd. to Calvine Rd.	2	Rural	5,400	0.27	C

Notes: Shaded areas indicate unacceptable operations.
All arterial roadway segments assumed to have moderate access control except for Segments 7, 47, and 49, which were assumed to have high access control.
Blue – City of Sacramento Study Roadway Segments
Green – City of Elk Grove Study Roadway Segments
[1]This segment of Calvine Road is four to six lanes.
Source: *Fehr & Peers*, 2007

Study Intersections

The existing AM and PM peak hour intersection turning movement volumes and lane configurations shown on Figure 6 were used to calculate levels of service at the study intersections based on the methodology presented in Section II. LOS for each study intersection is presented in Table 6.

TABLE 6
INTERSECTION LEVEL OF SERVICE – EXISTING CONDITIONS

Intersection	Control	AM Peak		PM Peak	
		V/C or Delay	LOS	V/C or Delay	LOS
1. Folsom Boulevard/State Route 16 (SR 16)	Signal	22	C	22	C
2. Folsom Boulevard/Florin-Perkins Road	Signal	55	D	52	D
3. Folsom Boulevard/South Watt Avenue	Signal	>80	F	>80	F
4. Kiefer Boulevard/South Watt Avenue	Signal	0.79	C	0.73	C
5. Kiefer Boulevard/Bradshaw Road	Signal	0.67	B	0.88	D
6. SR 16/Florin-Perkins Road	Signal	45	D	60	E
7. SR 16/South Watt Avenue	Signal	0.91	E	1.16	F
8. SR 16/Hedge Avenue	Signal	0.55	A	0.58	A
9. SR 16/Bradshaw Road	Signal	1.03	F	0.90	E
10. SR 16/Excelsior Road	Signal	0.86	D	0.89	D
11. Fruitridge Road/Florin-Perkins Road	Signal	54	D	>80	F
12. Fruitridge Road/South Watt Avenue	4-Way Stop	>50	F	>50	F
13. Fruitridge Road/Hedge Avenue	4-Way Stop	31	D	21	C
14. Elder Creek Road/Florin-Perkins Road	Signal	>80	F	>80	F
15. Elder Creek Road/South Watt Avenue	Signal	30	C	28	C
16. Elder Creek Road/Hedge Avenue	4-Way Stop	18	C	17	C
17. Elder Creek Road/Bradshaw Road	Signal	0.60	A	0.50	A

TABLE 6 (CONT.)
INTERSECTION LEVEL OF SERVICE – EXISTING CONDITIONS

Intersection	Control	AM Peak		PM Peak	
		V/C or Delay	LOS	V/C or Delay	LOS
18. Elder Creek Road/Excelsior Road	2-Way Stop	18	C	14	B
19. Florin Road/Power Inn Road	Signal	0.81	D	0.88	D
20. Florin Road/Florin-Perkins Road	Signal	0.83	D	0.76	C
21. Florin Road/Gardner Avenue	2-Way Stop	25	D	16	C
22. Florin Road/South Watt Avenue	Signal	0.72	C	0.86	D
23. Florin Road/Hedge Avenue	4-Way Stop	17	C	15	B
24. Florin Road/Waterman Road (cumulative only)					
25. Florin Road/Bradshaw Road	Signal	0.45	A	0.55	A
26. Florin Road/Vineyard Road (cumulative only)					
27. Florin Road/Excelsior Road	4-Way Stop	>50	F	23	C
28. Gerber Road/Power Inn Road	Signal	0.86	D	0.78	D
29. Gerber Road/French Road	Signal	0.88	D	0.79	C
30. Gerber Road/Elk Grove-Florin Road	Signal	0.78	C	1.02	F
31. Gerber Road/Waterman Road (plus proj/cumulative)					
32. Gerber Road/Bar Du Lane	2-Way Stop	16	C	15	C
33. Gerber Road/Bradshaw Road	Signal	1.04	F	0.82	D
34. Gerber Road/Vineyard Road	2-Way Stop	>50	F	17	C
35. Gerber Road/Excelsior Road	4-Way Stop	15	B	23	C
36. Tiogawoods Drive/Elk Grove-Florin Road	Signal	0.83	D	0.53	A
37. Caselman Road/Elk Grove-Florin Road	2-Way Stop	25	D	20	C
38. Rogers Road/Bradshaw Road	2-Way Stop	22	C	18	C
39. Vintage Park Drive/Elk Grove-Florin Road	Signal	0.75	C	0.62	B
40. Vintage Park Drive/Waterman Road	Signal	0.43	A	0.30	A
41. Vintage Park Drive/Bradshaw Road	Signal	0.52	A	0.52	A
42. Calvine Road/Elk Grove-Florin Road	Signal	66	E	65	E
43. Calvine Road/Waterman Road	Signal	36	D	37	D
44. Calvine Road/Bradshaw Road	Signal	26	C	36	D
45. Calvine Road/Excelsior Road	4-Way Stop	15	B	15	C

Notes: Signal Control- Circular 212 Planning Methodology- Results present volume/capacity ratio and LOS
2-Way Stop Control- 2000 HCM Methodology- Results present delay and LOS for worst minor-street approach
4-Way Stop Control- 2000 HCM Methodology- Results present average delay and LOS
Shaded areas indicate unacceptable operations.
Blue – City of Sacramento Study Intersections
Green – City of Elk Grove Study Intersections
Source: *Fehr & Peers,* 2007

As shown in Table 6, 7 of the 33 Sacramento County study intersections operate unacceptably, LOS F, during at least one peak hour, 6 of the 8 City of Sacramento study intersections operate unacceptably, LOS D or worse, during both peak hours, and one 1 the 4 City of Elk Grove study intersections operate unacceptably, LOS E or worse, during both peak hours.

Unsignalized intersections were evaluated using the peak hour volume warrant (Warrant 11) published in the California Department of Transportation's *Traffic Manual* (1996) to determine if signal control is warranted under existing conditions[1]. Most of the unsignalized intersections meet the Caltrans peak hour volume warrant except for the Florin Road/Excelsior Road intersection.

[1] This analysis is intended to examine the general correlation between the planned level of future development and the need to install new traffic signals. It estimates future development-generated traffic compared against a sub-set of the standard traffic signal warrants recommended in the Federal Highway Administration *Manual on Uniform Traffic Control Devices* and associated State guidelines. This analysis should not serve as the only basis for deciding whether and when to install a signal. To reach such a decision, the full set of warrants should be investigated based on field-measured, rather than forecast, traffic data and a thorough study of traffic and roadway conditions by an experienced engineer. Furthermore, the decision to install a signal should not be based solely upon the warrants, since the installation of signals can lead to certain types of collisions. Sacramento County DOT

Transit System

In the greater Sacramento area, transit service is provided by Regional Transit (RT). The City of Elk Grove's E-Tran provides service on the southern edge of the study area along Calvine Road. The project site lies on the outskirts of the urbanized Sacramento area where existing transit service is limited. Figure 7 shows the existing transit service near the study area, which is available on the edges of the study area along Power Inn Road, Florin-Perkins Road, Folsom Boulevard, Kiefer Boulevard, and Calvine Road. There is no transit service within the project area. A description of these transit routes is provided below.

Light Rail (Gold Line) provides service between the Sacramento Valley Station and Historic Folsom in the City of Folsom. At the Sacramento Valley Station, service is provided during weekdays, weekends, and holidays. During weekdays service headways are generally 15 minutes and service hours are from 3:50 AM to 11:28 PM. Service headways increase to 30 minutes after 6:30 PM (outbound) and 6:25 PM (inbound). Service in the City of Folsom begins at about 5:00 AM and ends at about 7:23 PM. Headways in Folsom are generally 30 minutes.

Route 4 (Meadowview-Gerber) provides service between the Elk Grove Unified School District Student Center and the Meadowview Light Rail Transit (LRT) station where there is a connection with e-tran to Elk Grove. Service is provided on weekdays. Service headways are generally 60 minutes Monday through Friday.

Route 5 (Meadowview-Valley Hi) provides service between the Florin High School and the Meadowview Light Rail Transit (LRT) station where there is a connection with e-tran to Elk Grove. Service is provided during weekdays, weekends, and holidays. Service headways are generally 60 minutes Monday through Friday and 60 minutes on weekends and holidays.

Route 8 (Power Inn-Florin Mall) provides service between the Florin Mall and the Power Inn Light Rail Transit (LRT) station. Service is provided during weekdays, weekends, and holidays. Service headways are generally 30 to 45 minutes Monday through Friday and 60 minutes on weekends and holidays.

Route 55 (Scottsdale) provides service between the Florin Mall and Cosumnes River College. Service is provided during weekdays, weekends, and holidays. Service headways are generally 60 minutes Monday through Friday and 60 minutes on weekends and holidays. On Sundays and holidays service terminates at Kaiser South Hospital.

Route 61 (Fruitridge) provides service between the Power Inn Light Rail Transit (LRT) station and South Land Park Drive and 35th Avenue. Service is provided during weekdays, weekends, and holidays. Service headways are generally 30 minutes Monday through Friday and 60 minutes on weekends and holidays.

Route 72 (Rosemont-Lincoln Village) provides service between the Mather Field/Mills LRT station and the Watt/Manlove LRT station. Service is provided during weekdays, weekends, and holidays. Weekday service headways are generally 30 minutes with service hours between 6:00 AM and 11:00 PM.

Route 80 (Watt Ave-Elkhorn) provides service between the Watt/Manlove LRT station and Greenback Lane/Auburn Boulevard. Service is provided during weekdays, weekends, and holidays. Weekday service headways are generally 60 minutes with service hours between 5:30 AM and 11:00 PM.

should undertake regular monitoring of actual traffic conditions and accident data, and timely re-evaluation of the full set of warrants in order to prioritize and program intersections for signalization.

Route 84 (Watt Ave-North Highlands) provides service between the Watt/Manlove LRT station and Watt Avenue/Elverta Road. Service is provided Monday through Friday and Saturdays. Weekday service headways are generally 60 minutes with service hours between 5:30 AM and 9:00 PM.

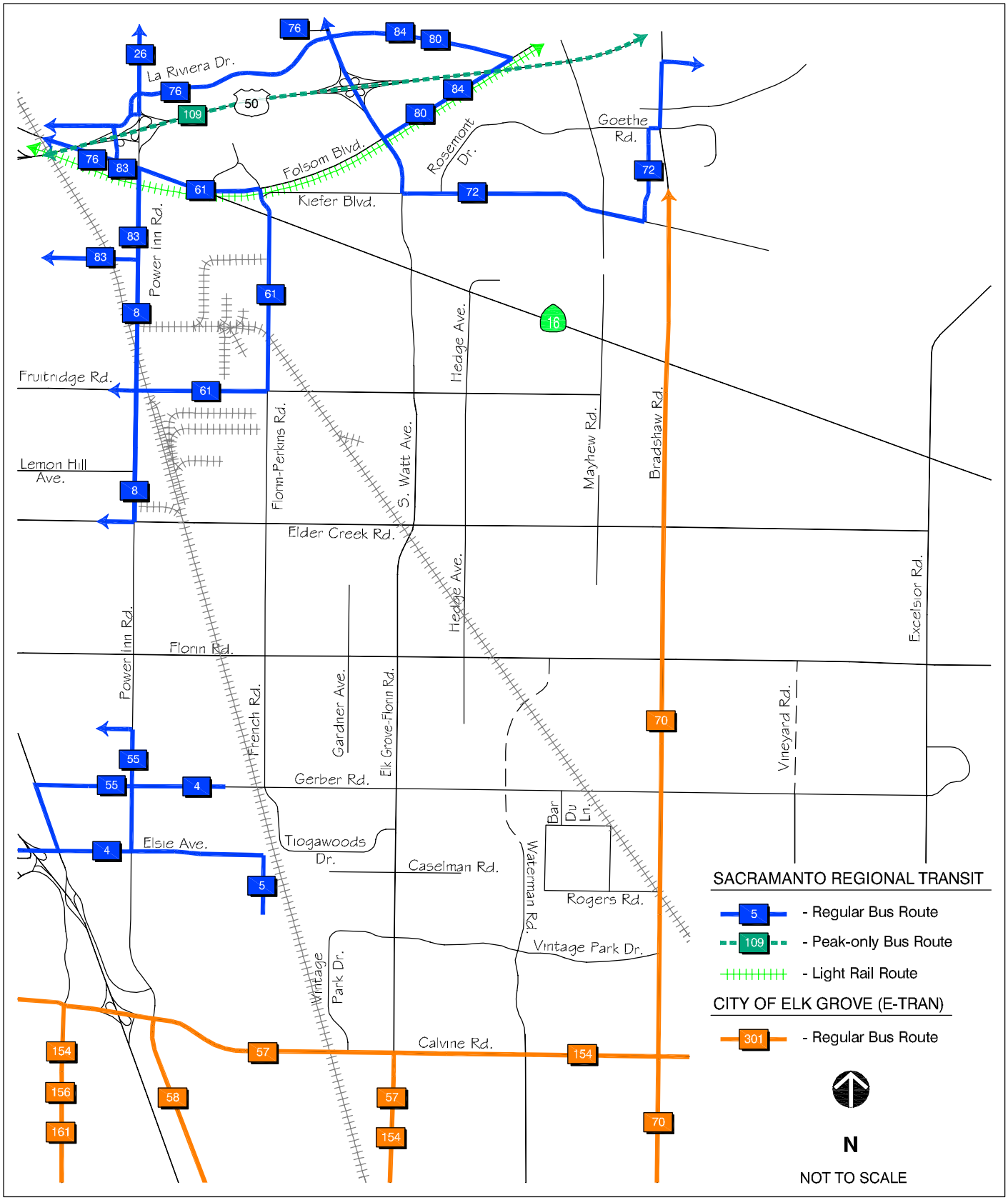
Elk Grove e-tran

Route 70 (Bradshaw Express) provides AM and PM peak period service between Laguna Boulevad/Harbour Point Drive in Elk Grove and the Franchise Tax Board and Butterfield LRT station. There are three buses in the morning and two busses in the evening with 30 minute service headways. There is no weekend or holiday service.

Route 57 (Elk Grove Florin Express) provides AM and PM peak period service between south Elk Grove along Hampton Oaks Drive and downtown Sacramento at 7th and G Streets. There are three buses in the morning and evening with 30 minute service headways. There is no weekend or holiday service.

Route 58 (East Elk Grove Express) provides AM and PM peak period service between south Elk Grove along Mosher Road and downtown Sacramento at 7th and G Streets. There are three buses in the morning and evening with 30 minute service headways. There is no weekend or holiday service.

Route 154 (Calvine) provides service to Cosumnes River College from the Calvine Road and Sheldon Road areas. Service is provided Monday through Friday with 30 minute service headways in the morning peak and 60 minute service headways in the evening. There is no weekend service.



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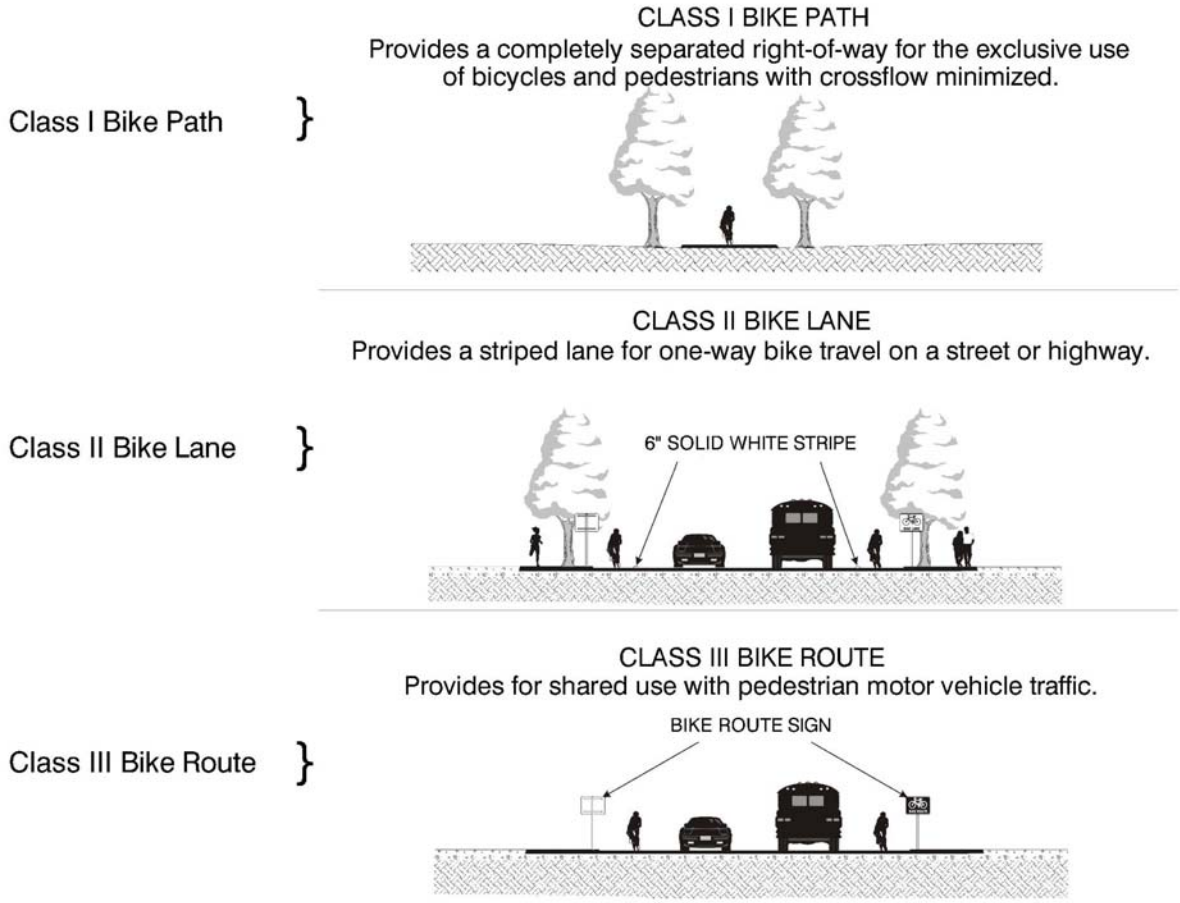
EXISTING TRANSIT SYSTEM

FIGURE 7

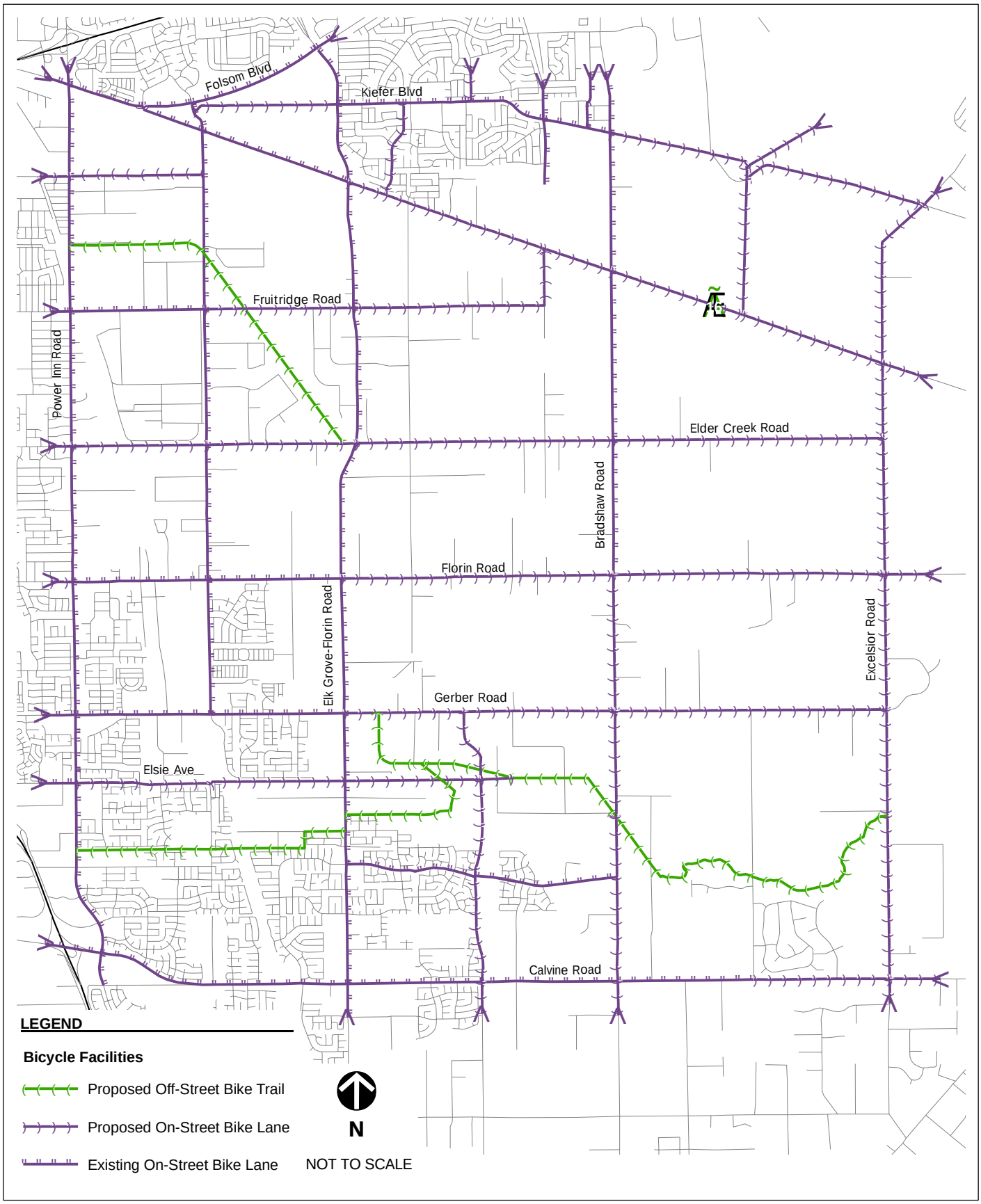
Bicycle and Pedestrian Facilities

Bicycling and walking account for about 5.0 percent of work trips and about 6.2 percent of all trips made in the Sacramento metropolitan area according to the Sacramento Area Council of Governments' (SACOG) *Pre-Census Travel Behavior Report – Analysis of the 2000 SACOG Household Travel Survey*, (July 25, 2001). SACOG's household travel survey was conducted in Spring 2000 and included surveys of 9,130 people in 3,941 households living in Sacramento, Yolo, Yuba, and Sutter Counties, and western portions of Placer and El Dorado Counties.

Figure 8 shows existing and planned on- and off-street bicycle facilities within the study area. Proposed bicycle facilities are based on Exhibit 4-1b of the *Sacramento City/County 2010 Bikeway Master Plan*. The California Department of Transportation's *Highway Design Manual*, *Fourth Edition*, identifies three categories of bikeways, which are summarized below.



Pedestrian facilities are limited in the vicinity of the proposed project and generally exist only along improved frontages. For example, on Gerber Road pedestrian sidewalks are provided along residential frontages west of the Elk Grove-Florin Road/South Watt Avenue intersection. The following picture illustrates pedestrian facilities in the vicinity of the project site.



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EXISTING AND PLANNED BICYCLE FACILITIES

FIGURE 8

IV. TRAFFIC VOLUME FORECASTS

This section summarizes the methodology used to develop traffic volume forecasts and presents daily roadway segment and AM and PM peak hour intersection turning movement forecasts for existing "plus project" conditions and cumulative year conditions without and with the proposed project. As outlined in Section I, two plan-area concepts are being evaluated and are referred to as the CAC Plan and PD Plan. Traffic volume forecasts were developed for the following scenarios

- Existing (2007 Base Year) Plus CAC Project Conditions – This scenario assumes build-out of the Florin-Vineyard Community Plan based on the CAC Plan.

- Existing (2007 Base Year) Plus PD Project Conditions – This scenario assumes build-out of the Florin-Vineyard Community Plan based on the PD Plan.

- Cumulative Conditions – This scenario assumes cumulative year development levels that represent conditions beyond year 2025.

- Cumulative Plus CAC Project Conditions – This scenario assumes build-out of the Florin-Vineyard Community Plan based on the CAC Plan under cumulative conditions.

- Cumulative Plus PD Project Conditions – This scenario assumes build-out of the Florin-Vineyard Community Plan based on the PD Plan under cumulative conditions.

The traffic volume forecasts presented in this section are used in Section V to identify impacts to the roadway system under the scenarios identified above.

Travel Demand Forecasting Methodology

Traffic volume forecasts for the scenarios listed above were developed using a combination of the 2001 SACMET Travel Demand Forecasting (TDF) model and the VISSUM software. In general, the forecasting methodology included the development of an origin-destination (OD) vehicle trip "growth" matrix for the study area using the 2001 SACMET TDF model and assignment of the OD vehicle trip matrix to the study area roadway network using the VISSUM software. Before the daily roadway segment and AM and PM peak hour intersection turning movement forecasts could be developed, the 2001 SACMET TDF model land use and roadway network components were modified to accurately reflect each scenario.

Land Use Modifications

The 2004 base year SACMET model land uses within the study area were reviewed and modified as necessary to reflect existing residential and commercial development. This review included the use of aerial photography.

Cumulative land use assumptions for planned and approved development projects in the City of Sacramento, City of Elk Grove, City of Rancho Cordova, City of Folsom, and unincorporated Sacramento County were reviewed. Specifically, the Rancho Cordova General Plan, Easton Estates, and Bradshaw Landing projects were added to the traffic model. In addition, expected project-area employment levels for cumulative conditions were identified based on current project-area zoning. Consequently, the cumulative year land use assumptions likely represent conditions beyond the 2001 SACMET TDF model 2025 land use projections.

The 2001 SACMET TDF model includes approximately 963,000 households, 1.04 million non-retail jobs, and 239,000 retail jobs. These land use forecasts were developed by SACOG in 2001 based on regional

growth projections and allocated in the SACMET model to areas within the region likely to develop based on local general plans and pending projects. Since the SACMET model already contains the anticipated amount of growth that is expected to occur through 2025, accurately analyzing the potential transportation effects of a new (i.e., post 2001) large specific plan project demands that the allocation of future land use development be reconsidered and modified.

Traditionally in the Sacramento region, traffic impact studies added proposed development on top of land use growth already anticipated in the region. The traditional methodology assumes that the proposed land uses will develop in addition to the growth expected to accommodate future population and economic conditions. This results in a cumulative land use scenario that does not represent market-based conditions.

The traditional approach results in a higher regional development levels that creates a disconnect between the land use forecasts and planned transportation system improvements that are constrained to only those improvements that are programmed to be constructed. To develop a reasonable assessment of future transportation system needs and the impacts of an individual project, the future year transportation system and land use development should be commensurate. To avoid this potential disconnect, the SACMET development levels (with the adjustments outlined above) are maintained for all cumulative analysis scenarios. Therefore, the addition of the proposed project results in a reallocation of housing and employment from the City of Sacramento, City of Elk Grove, City of Rancho Cordova, City of Folsom, and unincorporated Sacramento County to the project area.

Figures 9 and 10 show the CAC and PD plan-area land use concept traffic analysis zone (TAZ) system boundaries and corresponding land use, respectively.

Roadway Network Modifications

Roadway network changes included adding new roads within the project area and creating new connections to the existing and planned roadway systems under base year and cumulative conditions.

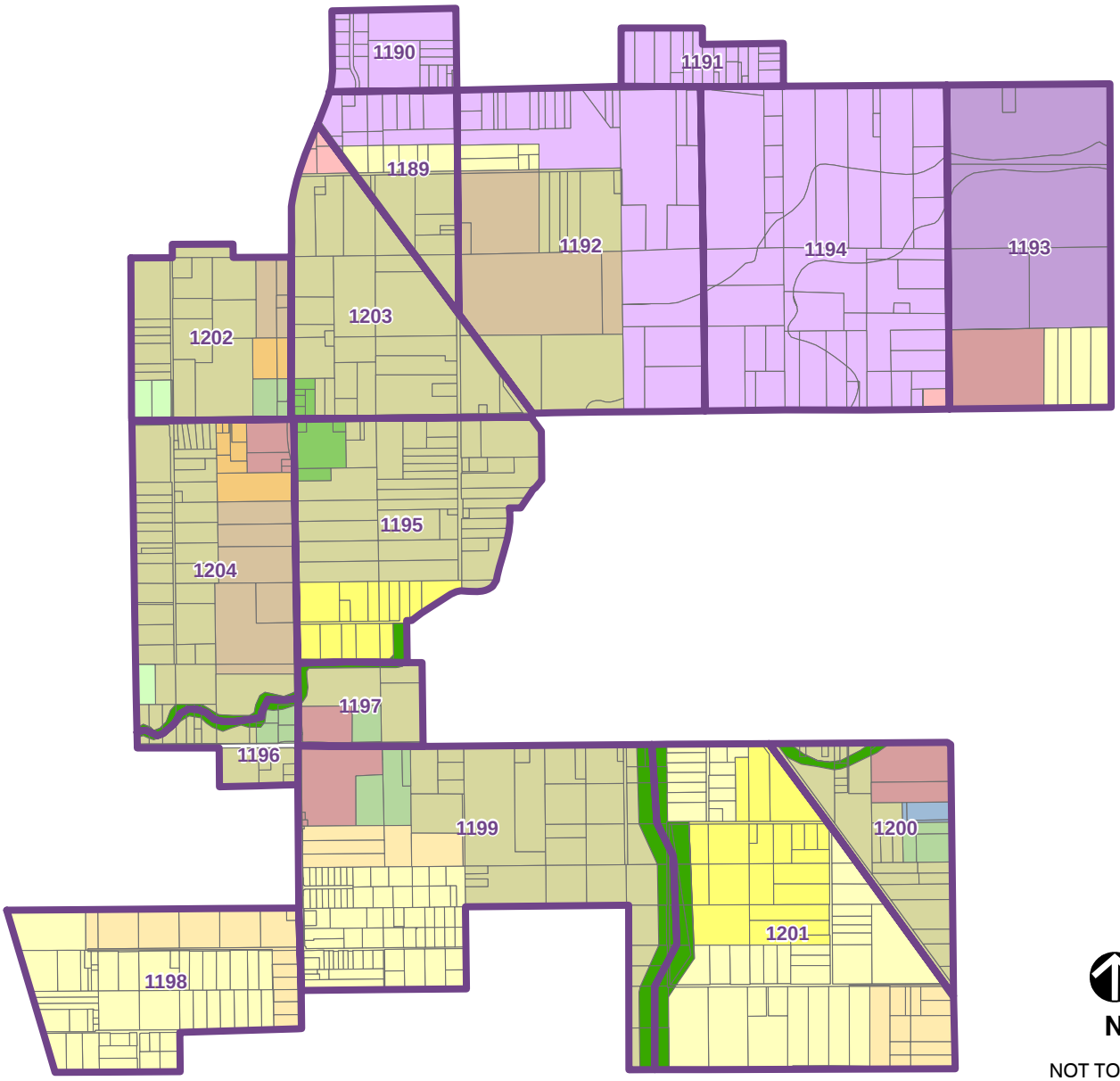
Specific modifications included adding traffic analysis zone (TAZ) and roadway network detail to the traffic model to provide more accurate loading of vehicle trips on the transportation network. For the cumulative traffic model, detail was added to reflect new (proposed) development in the North Vineyard Station Specific Plan, which included the extension of Waterman Road and Vineyard Road to Florin Road.

Regional and local roadway improvements are generally consistent with Tier 1 improvements included in the MTP for 2025 and Sacramento County's Seven Year Transportation Improvement Plan with exceptions identified by Sacramento County staff due to uncertain funding sources like the widening of SR 16. Figure 11 shows the cumulative roadway system.

LEGEND

TAZ	AR 1-2	RD 7-12	GC
	AR 2-5	RD 10	SC
	RD 2-3	RD 20	BP
	RD 3-5	M1	OS
	RD 5-7	M1 (SM)	LC

TAZ	Total Acre	Dwelling Units	Employment				
				Non-Retail			
			Retail	Office	Medical Office	Manufacturing	Other
1189	117.8	278	35	47	-	53	48
1190	56.9	-	71	285	17	320	294
1191	48.0	-	40	56	-	61	58
1192	453.1	1,132	189	254	14	288	264
1193	312.0	21	201	269	18	303	279
1194	475.9	-	398	538	28	606	554
1195	282.8	928	291	89	40	-	53
1196	42.4	261	-	-	-	-	-
1197	58.5	280	243	10	2	-	16
1198	233.0	288	-	-	-	-	-
1199	473.5	1,536	659	26	4	-	43
1200	138.9	606	610	204	34	-	46
1201	422.3	309	-	-	-	-	-
1202	157.3	946	-	-	-	-	-
1203	221.4	932	117	68	17	37	49
1204	284.5	1,433	298	11	2	-	21
Total	**3,778**	**8,950**	**3,152**	**1,857**	**176**	**1,668**	**1,725**



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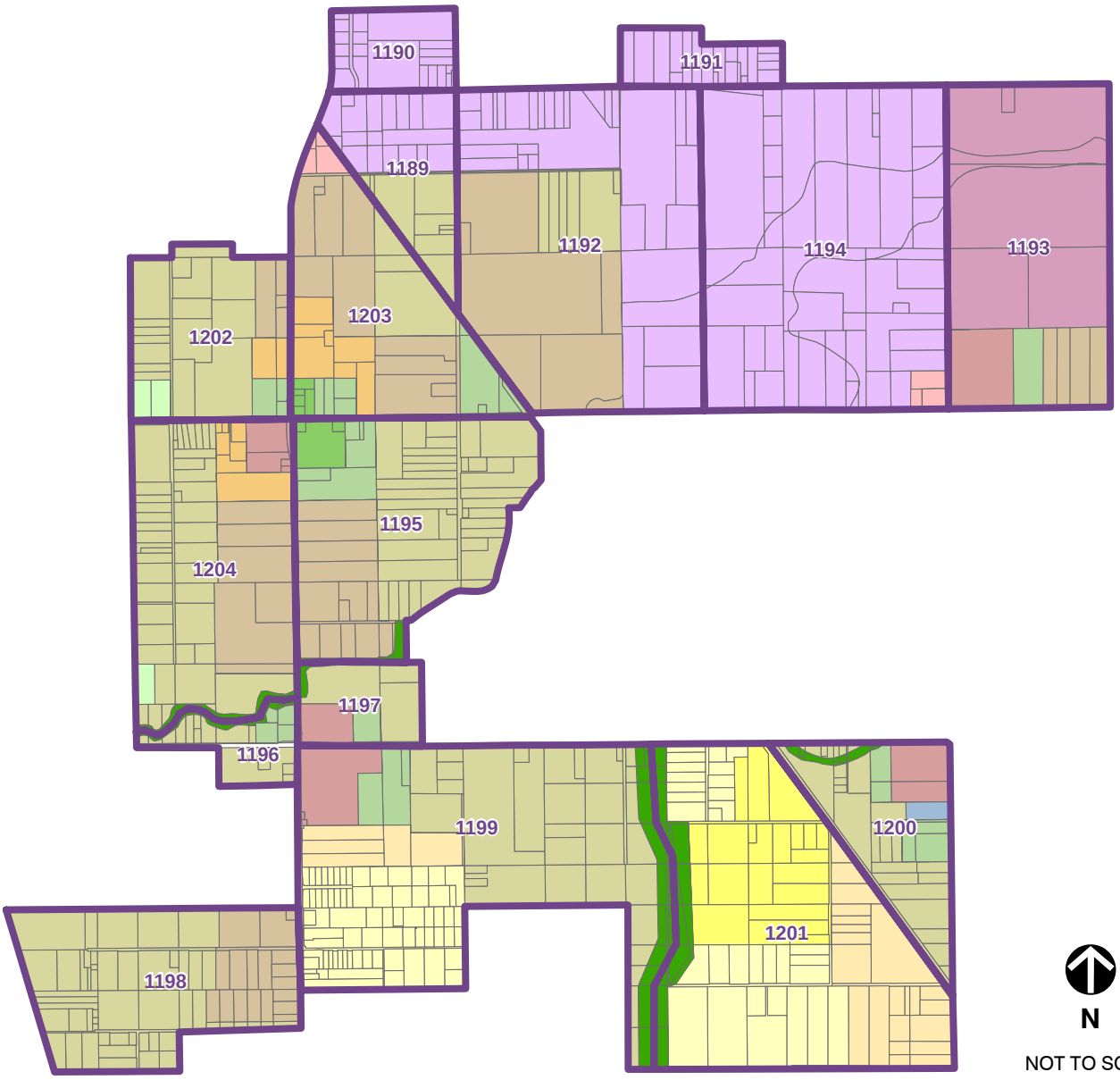
TRAFFIC ANALYSIS ZONES
CITIZENS ADVISORY COMMITTEE (CAC) LAND USE PLAN
FIGURE 9

LEGEND

- TAZ
- AR 1-2
- AR 2-5
- RD 2-3
- RD 3-5
- RD 5-7
- RD 7-12
- RD 10
- RD 20
- M1
- M1 (SM)
- GC
- SC
- BP
- OS
- LC
- IR
- IR (SM)

TAZ	Total Acre	Dwelling Units	Employment				
				Non-Retail			
			Retail	Office	Medical Office	Manufacturing	Other
1189	117.8	211	50	67	-	75	69
1190	56.9	-	46	68	2	73	69
1191	48.0	-	40	56	-	61	58
1192	453.1	1,283	199	269	18	306	278
1193	312.0	523	199	271	22	305	278
1194	475.9	-	422	570	35	639	583
1195	282.8	1,636	245	75	34	-	45
1196	42.4	256	-	-	-	-	-
1197	58.5	277	264	10	2	-	17
1198	233.0	1,123	-	-	-	-	-
1199	473.5	1,570	672	27	5	-	44
1200	138.9	735	465	162	27	-	35
1201	422.3	409	-	-	-	-	-
1202	157.3	929	-	-	-	-	-
1203	221.4	1,687	116	67	17	36	48
1204	284.5	1,427	298	11	2	-	21
Total	**3,778**	**12,066**	**3,016**	**1,653**	**164**	**1,495**	**1,545**



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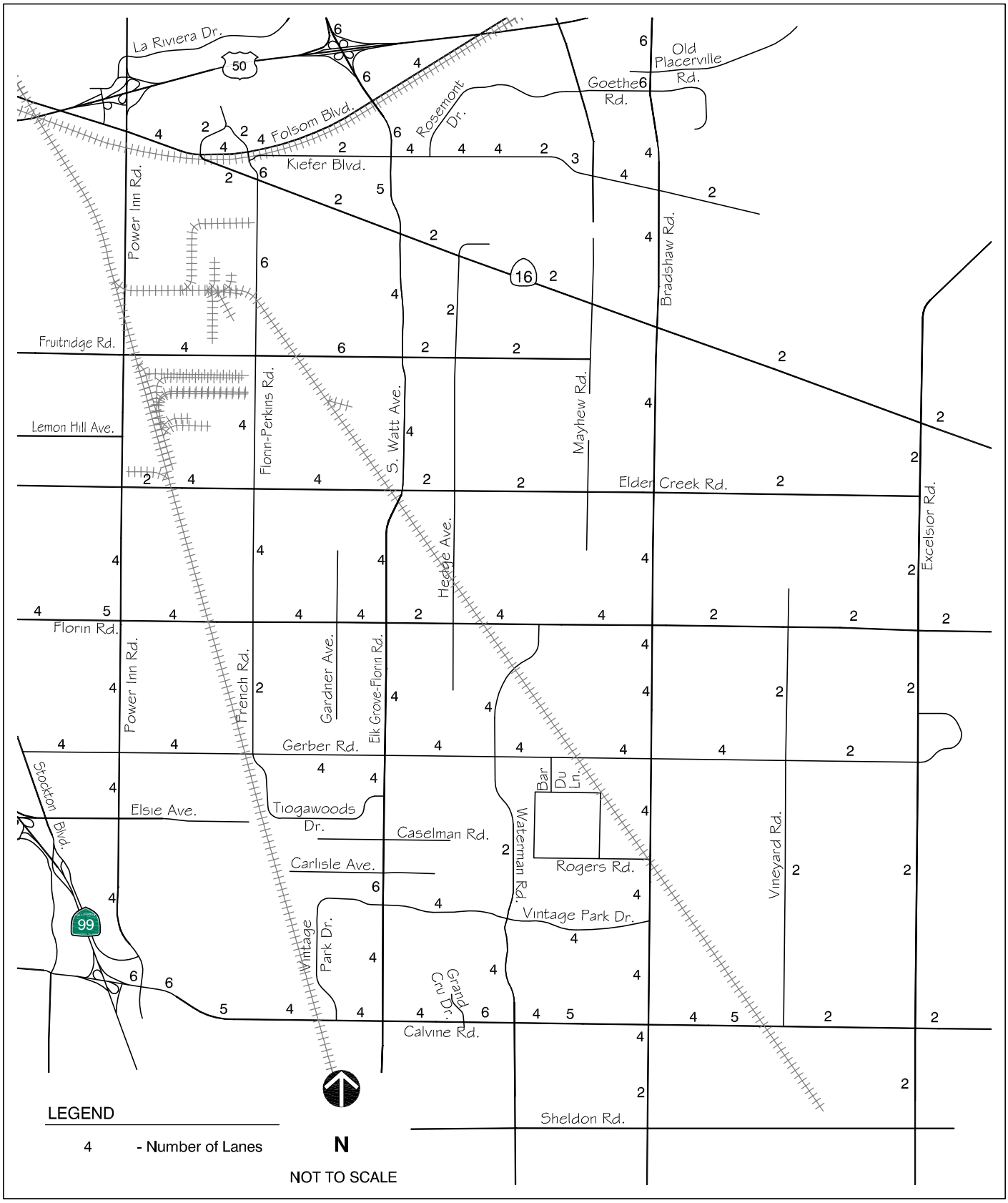
TRAFFIC ANALYSIS ZONES
PLANNING DEPARTMENT (PD) LAND USE PLAN
FIGURE 10



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CUMULATIVE ROADWAY SYSTEM

FIGURE 11

Vehicle-Trip Generation Estimates

After the changes described above were completed, the TDF model was run for each analysis scenario. Table 7 summarizes the final AM peak hour, PM peak hour, and daily vehicle-trip estimates for the CAC and PD Plans for the Florin-Vineyard Community Plan under cumulative conditions with and without the potential 15% housing density bonus.

TABLE 7
Vehicle-Trip Generation Summary

Land Use Plan	Total Vehicle Trips[1]		
	AM Peak Hour	**PM Peak Hour**	**Daily (15% Density Bonus)**
CAC	11,200	11,800	132,100 (140,600)
PD	12,500	12,800	145,000 (156,400)

Notes: [1]Trip summary based on 2001 Version of the SACMET TDF Model. Represents total vehicle trips assigned to the traffic model roadway network and not trips internal to a TAZ.

Source: *Fehr & Peers*, 2007.

Table 7 shows that the proposed project will generate approximately 132,000 and 145,000 vehicle trips per day with the CAC and PD plans, respectively. About nine percent of the trips will occur in the AM and PM peak hours. In December, 2004, Sacramento County adopted an Affordable Housing Policy that includes a "density bonus" provision intended to offset the cost of providing affordable housing. For the Florin-Vineyard Specific Plan, the density bonus could result in an additional 1,342 single family dwelling units with the CAC Plan and 1,809 single family dwelling units with the PD Plan if the density bonus were applied. Analysis of the potential density bonus is presented at the end of this document.

Origin-destination vehicle trip tables from the SACMET TDF model and a separate VISSUM model were used to produce traffic volume forecasts for roadway segments and intersection turning movements under daily, and AM and PM peak hour conditions, respectively. The discussion below describes this final step in the travel demand forecasting process.

Traffic Volume Forecasts

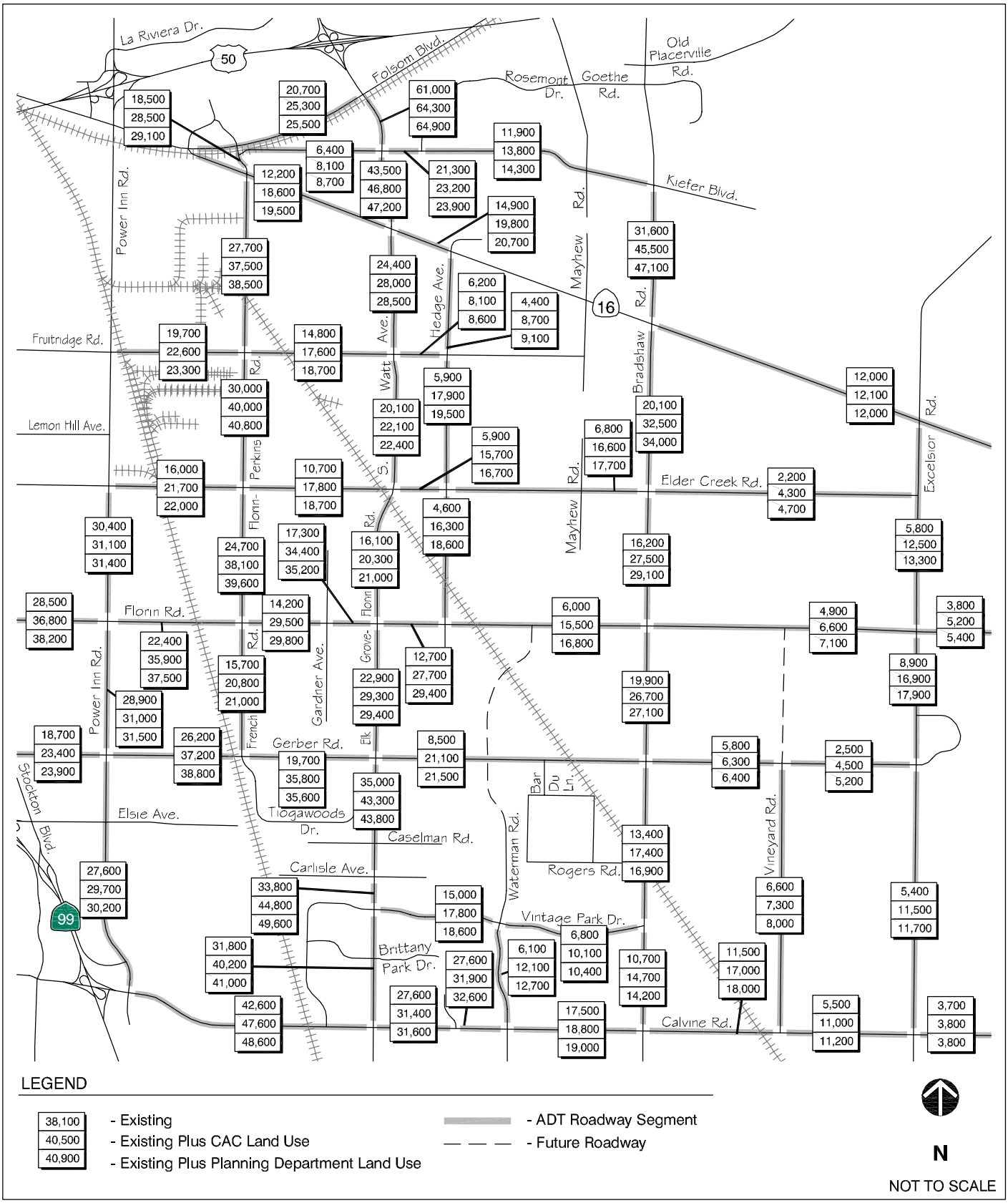
Under existing plus project and cumulative conditions, the final adjusted traffic volume forecasts were developed using the VISSUM software. This process included the following steps:

- Developing and validating a base year VISSUM network of the study area.
- Outputting origin-destination (OD) vehicle trip "growth" tables from the SACMET model for each analysis scenario.
- Assigning each OD vehicle trip table to the base year VISSUM network using congested travel times.
- Adding project trips to the existing daily roadway segment and AM and PM peak hour intersection turning movement counts.

The VISSUM software provided more control of the assignment process. For example, each OD path could be reviewed for reasonableness and adjusted as necessary to correct illogical paths.

The development of these forecasts was coordinated with Sacramento County Department of Transportation (DOT) staff prior to their use in the traffic operations analysis. The final adjusted daily roadway segment and AM and PM peak hour turning movement forecasts are shown on the following figures:

- Figure 12 – Average Daily Traffic Volumes for Existing Plus Project Conditions
- Figure 13 – Peak Hour Traffic Volumes and Lane Configurations for Existing Plus CAC Land Use Conditions
- Figure 14 – Peak Hour Traffic Volumes and Lane Configurations for Existing Plus PD Land Use Conditions
- Figure 15 – Average Daily Traffic Volumes for Cumulative Conditions
- Figure 16 – Peak Hour Traffic Volumes and Lane Configurations for Cumulative Conditions
- Figure 17 – Peak Hour Traffic Volumes and Lane Configurations for Cumulative Plus CAC Land Use Conditions
- Figure 18 – Peak Hour Traffic Volumes and Lane Configurations for Cumulative Plus PD Land Use Conditions



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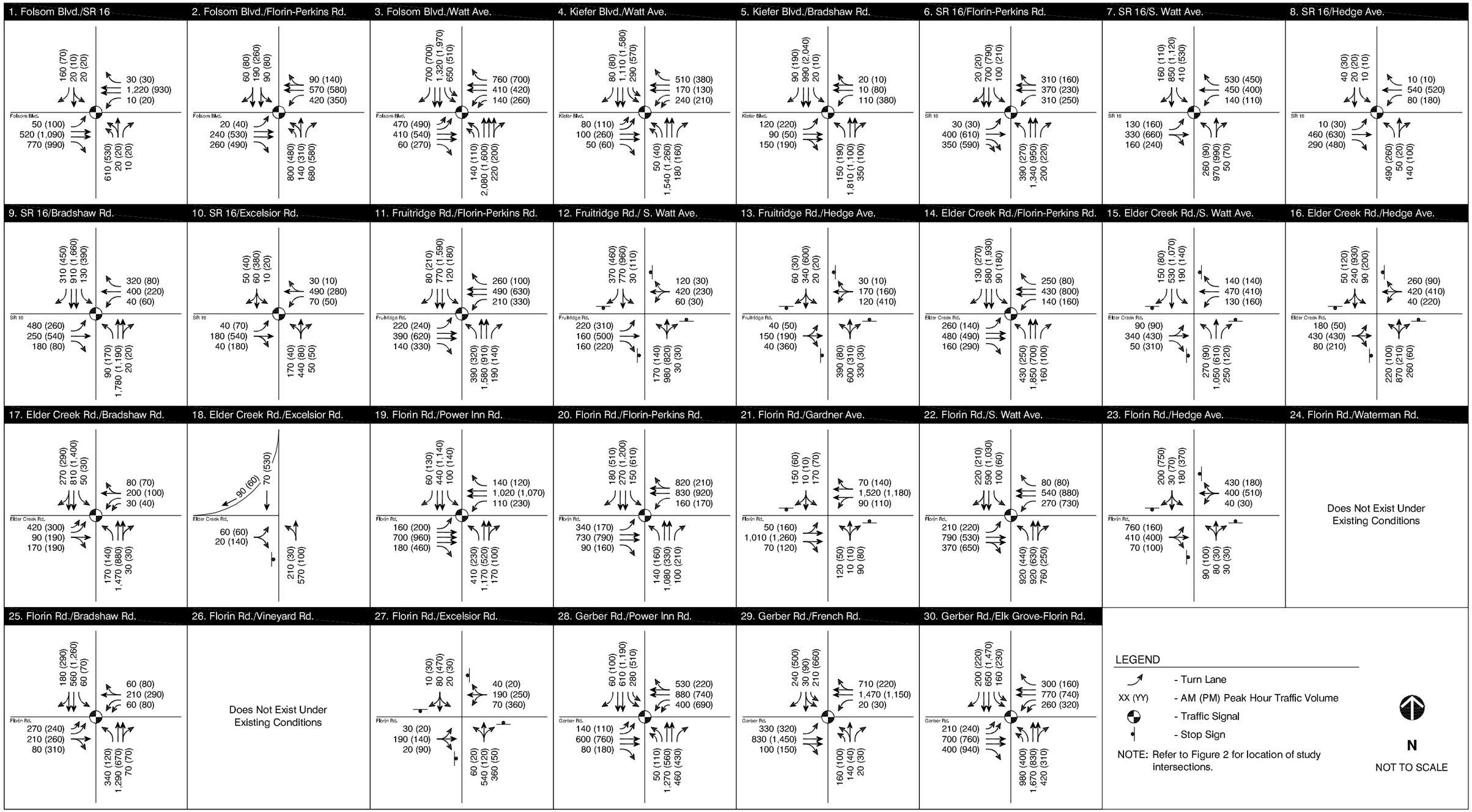
AVERAGE DAILY TRAFFIC VOLUMES - EXISTING PLUS PROJECT CONDITIONS

FIGURE 12



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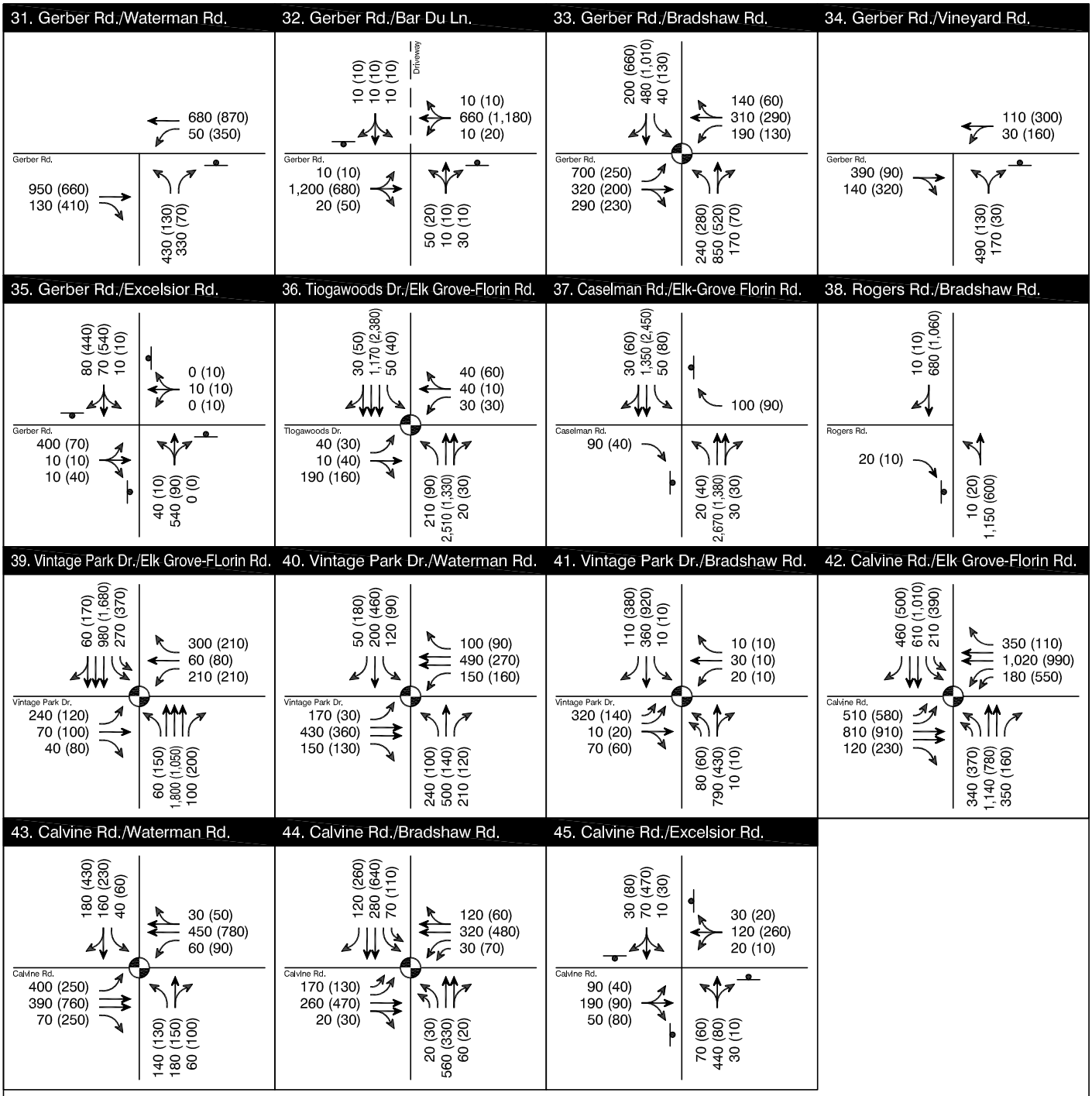
PEAK HOUR TRAFFIC VOLUMES AND LANE CONFIGURATIONS - EXISTING PLUS CITIZENS ADVISORY COMMITTEE (CAC) LAND USE CONDITIONS

FIGURE 13A



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PEAK HOUR TRAFFIC VOLUMES AND LANE CONFIGURATIONS - EXISTING PLUS CITIZENS ADVISORY COMMITTEE (CAC) LAND USE CONDITIONS

FIGURE 13B

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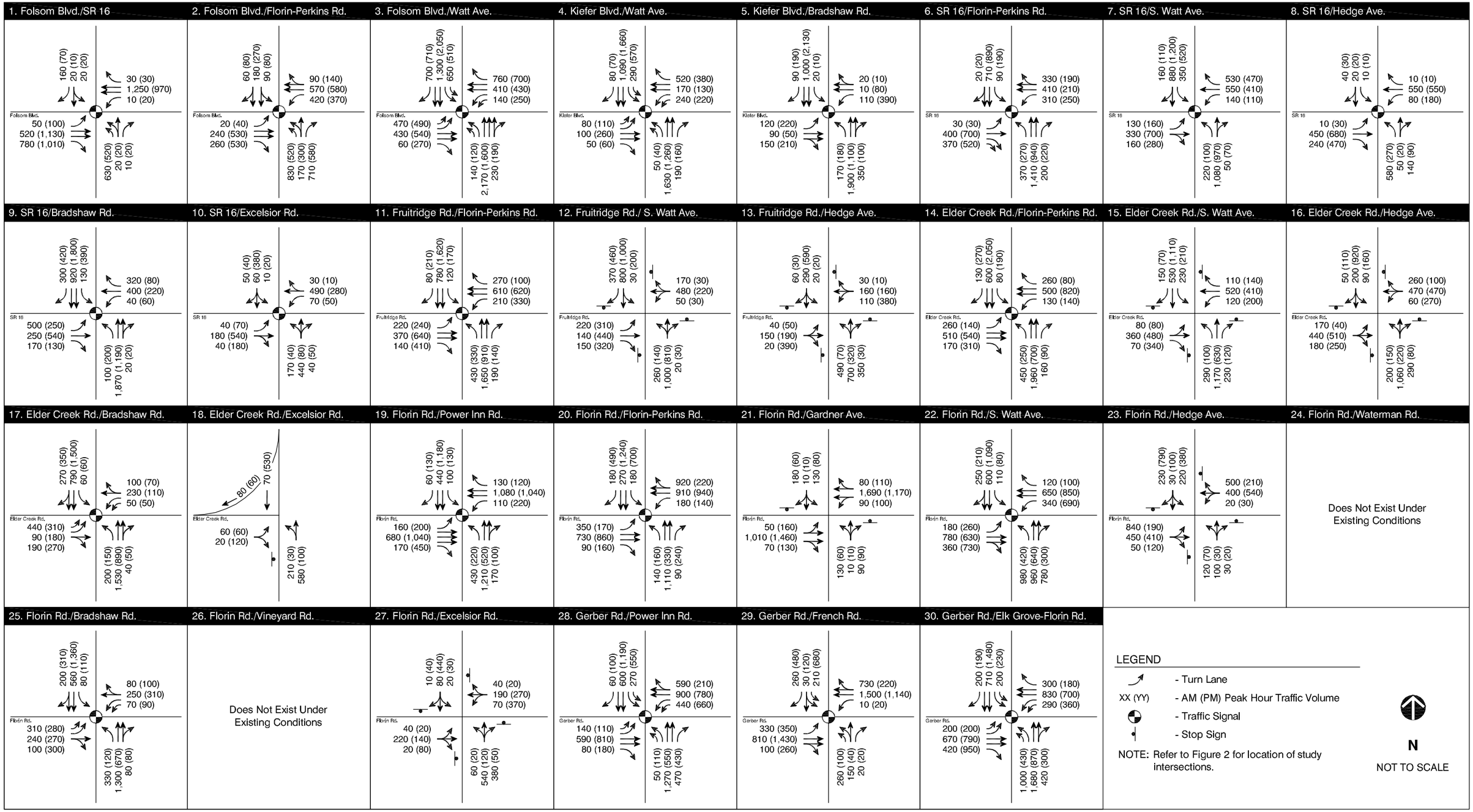

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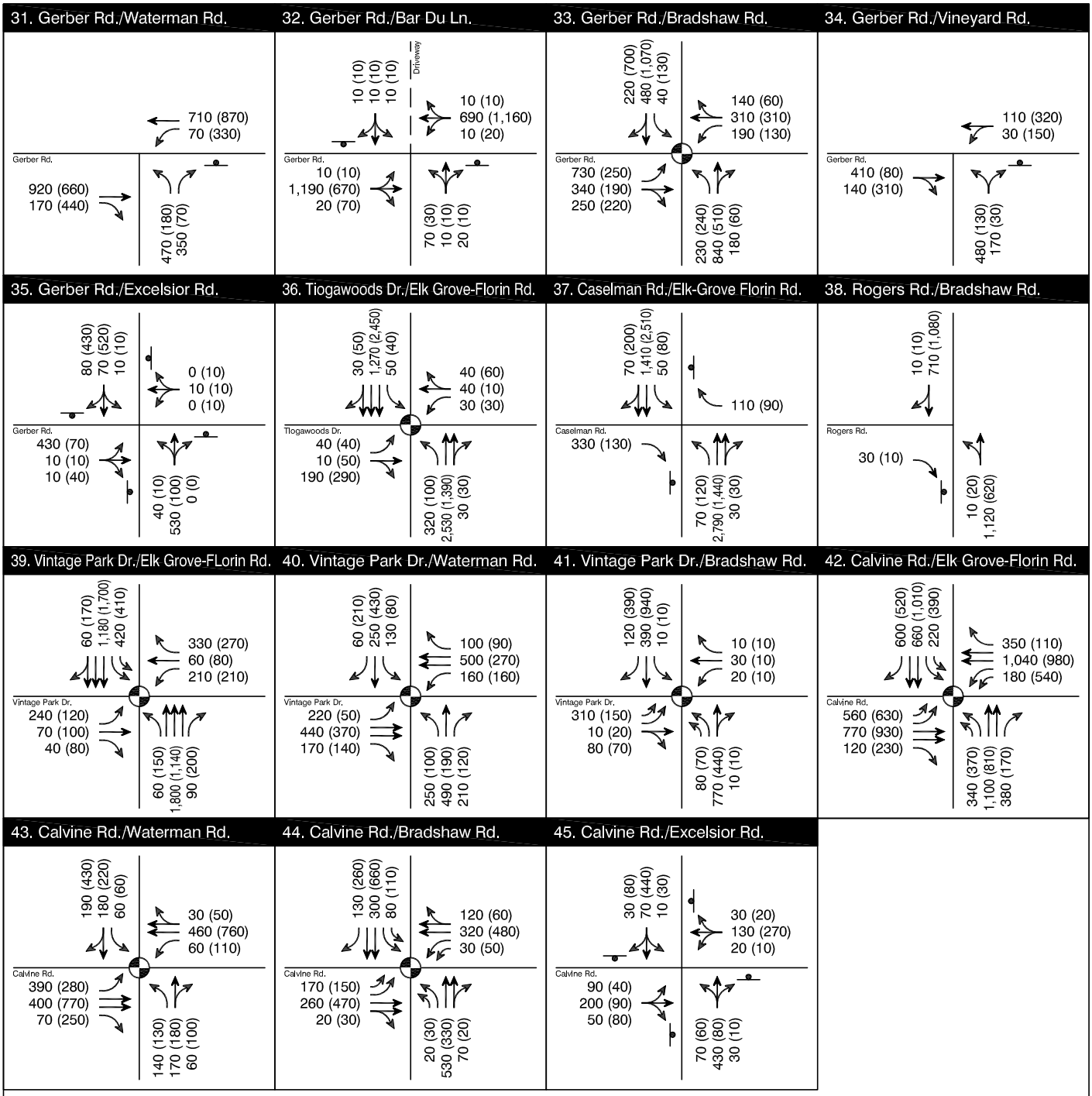
PEAK HOUR TRAFFIC VOLUMES AND LANE CONFIGURATIONS - EXISTING PLUS PLANNING DEPARTMENT (PD) LAND USE CONDITIONS

FIGURE 14A



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PEAK HOUR TRAFFIC VOLUMES AND LANE CONFIGURATIONS - EXISTING PLUS PLANNING DEPARTMENT (PD) LAND USE CONDITIONS

FIGURE 14B

Mar 24, 2008 MJC
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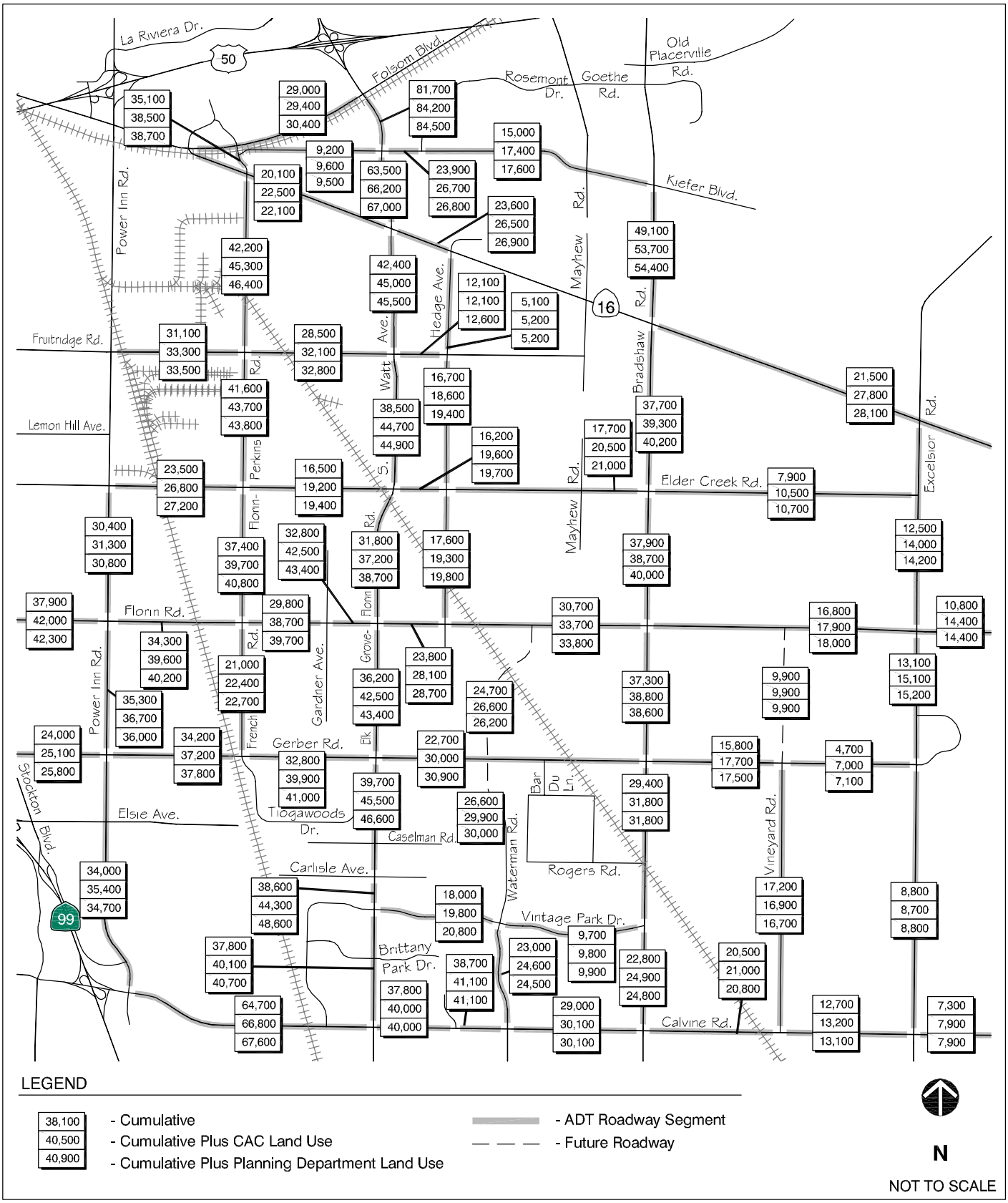

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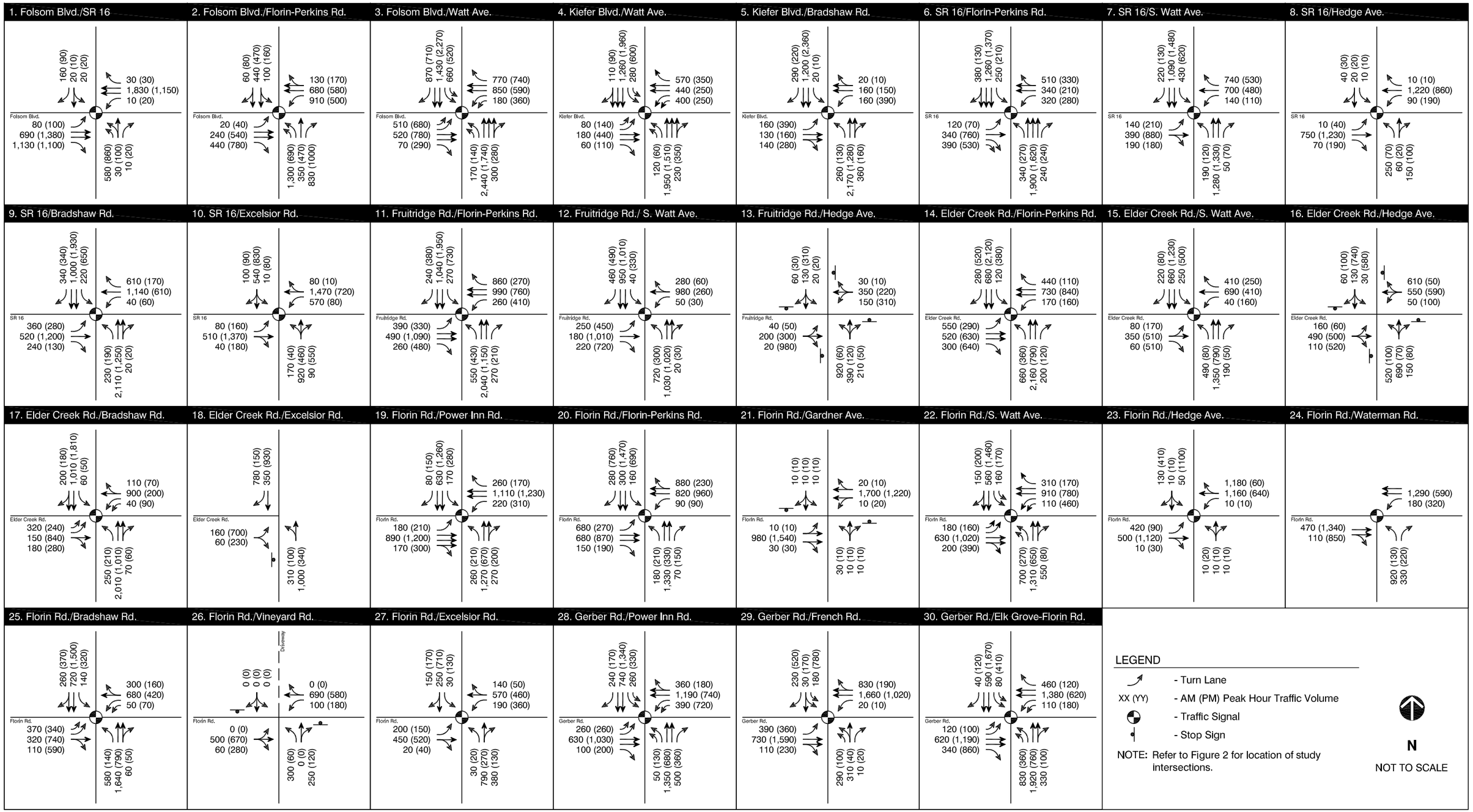
AVERAGE DAILY TRAFFIC VOLUMES - CUMULATIVE CONDITIONS

FIGURE 15



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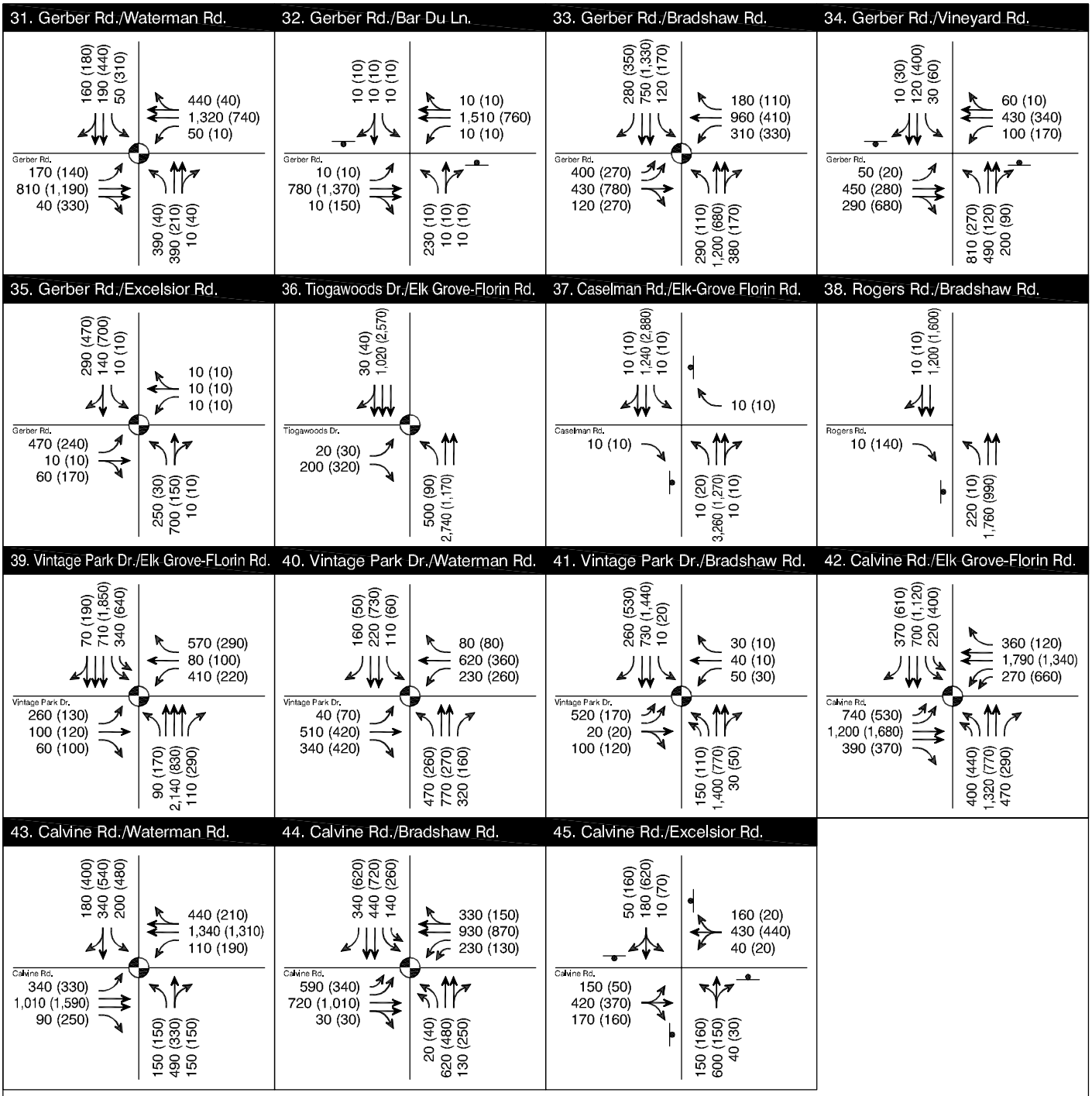
PEAK HOUR TRAFFIC VOLUMES AND LANE CONFIGURATIONS - CUMULATIVE CONDITIONS

FIGURE 16A



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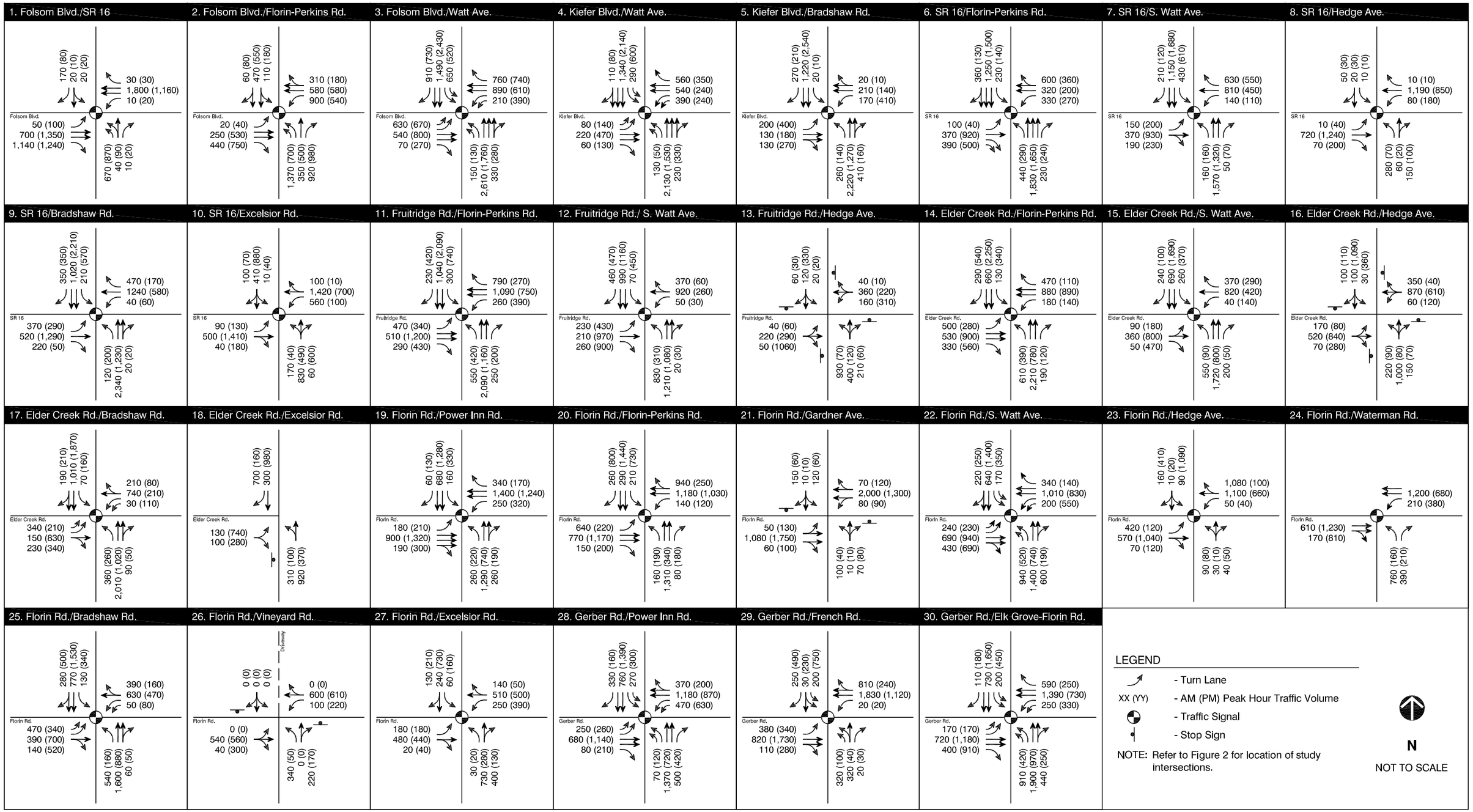
PEAK HOUR TRAFFIC VOLUMES AND LANE CONFIGURATIONS - CUMULATIVE CONDITIONS

FIGURE 16B



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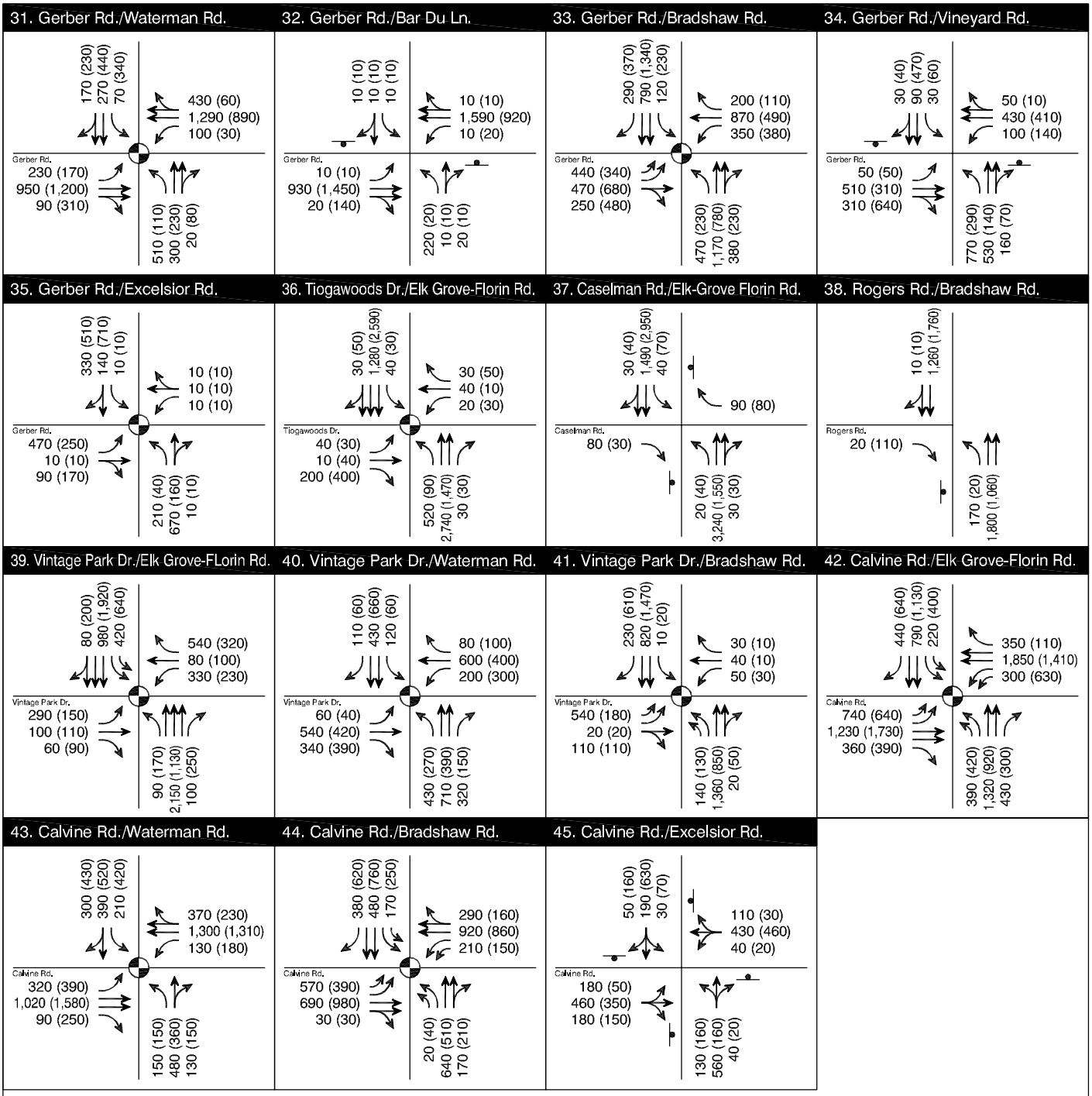
PEAK HOUR TRAFFIC VOLUMES AND LANE CONFIGURATIONS - CUMULATIVE PLUS CITIZENS ADVISORY COMMITTEE (CAC) LAND USE CONDITIONS

FIGURE 17A



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PEAK HOUR TRAFFIC VOLUMES AND LANE CONFIGURATIONS - CUMULATIVE PLUS CITIZENS ADVISORY COMMITTEE (CAC) LAND USE CONDITIONS

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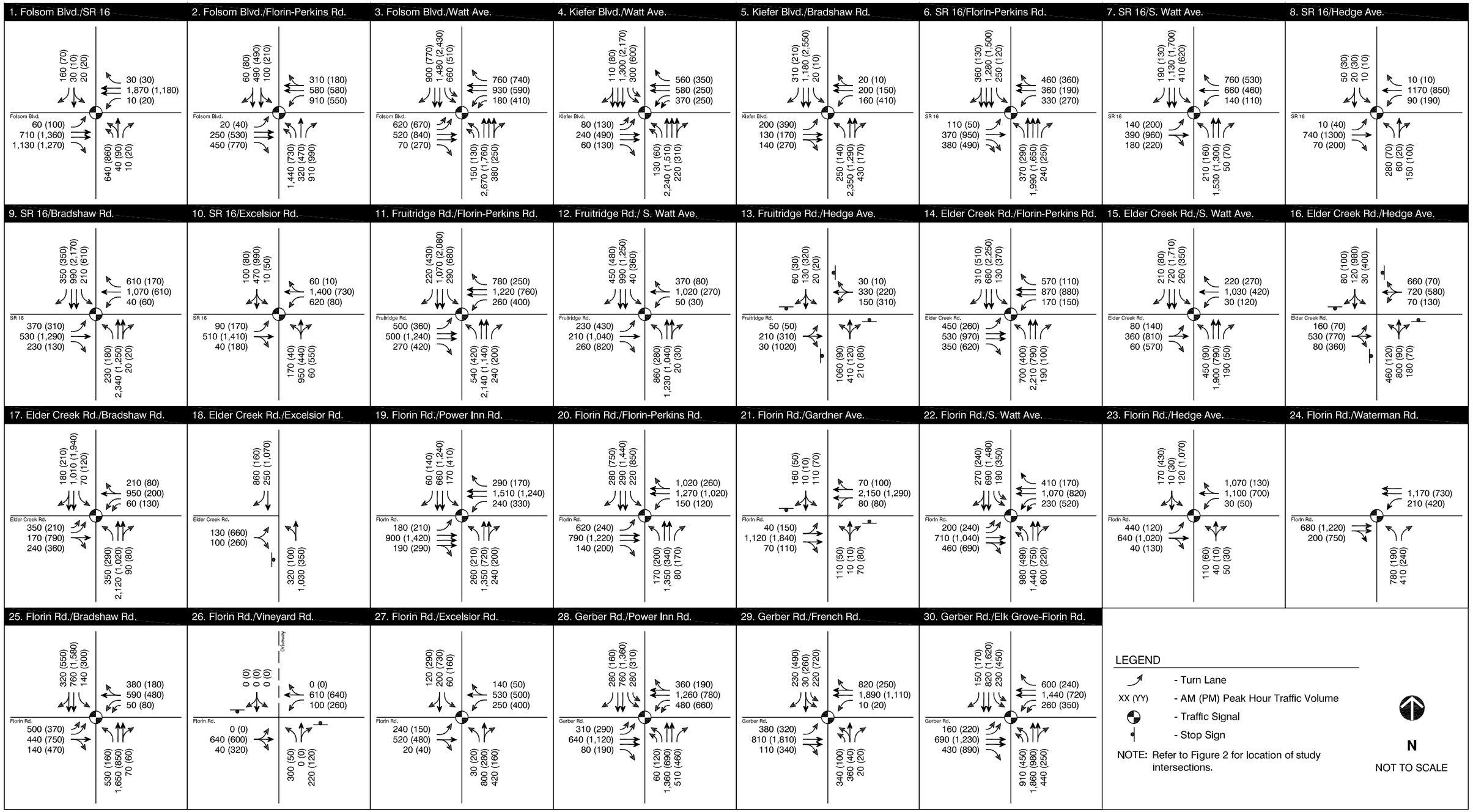
FIGURE 17B



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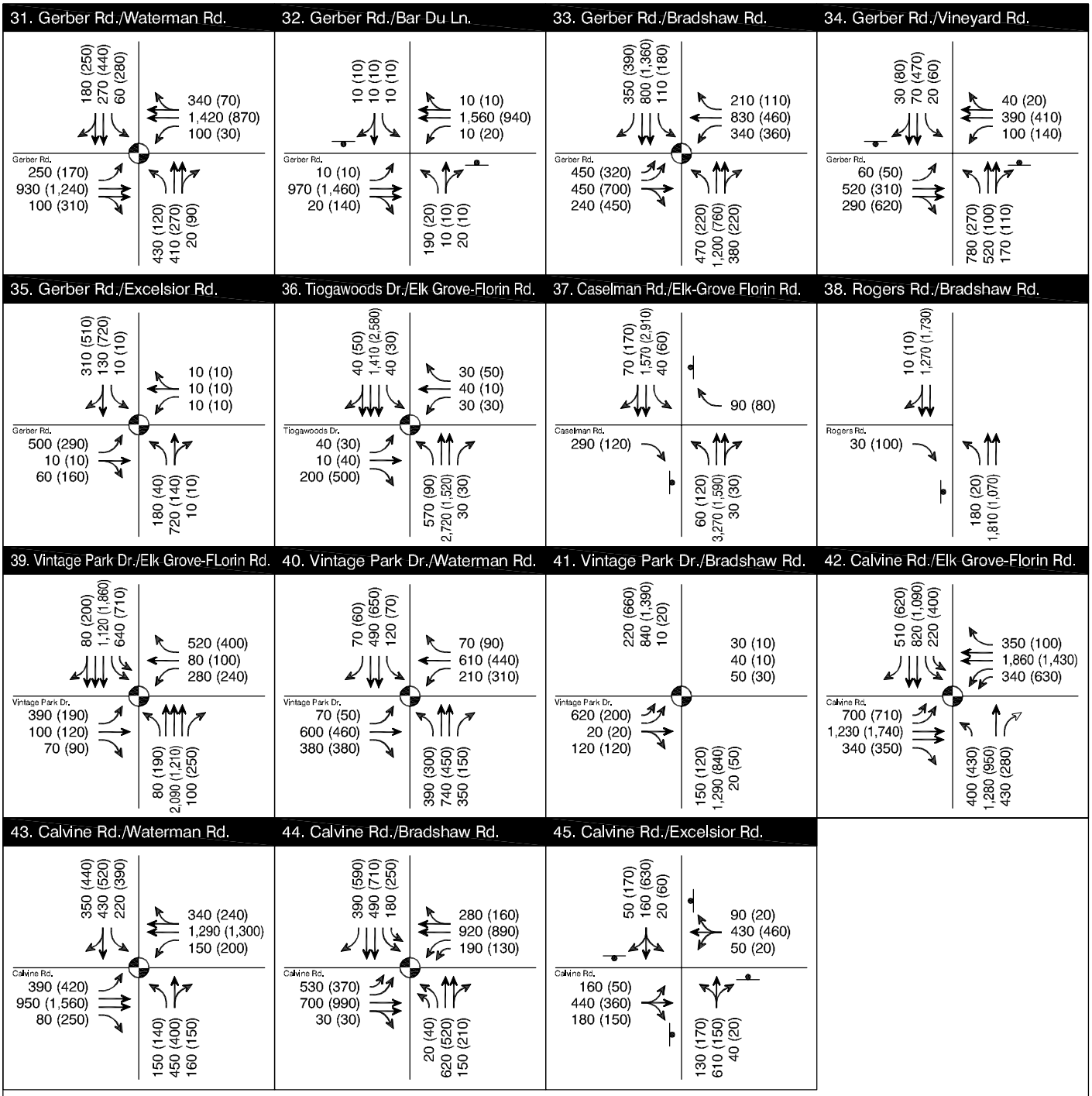
PEAK HOUR TRAFFIC VOLUMES AND LANE CONFIGURATIONS - CUMULATIVE PLUS PLANNING DEPARTMENT (PD) LAND USE CONDITIONS

FIGURE 18A



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PEAK HOUR TRAFFIC VOLUMES AND LANE CONFIGURATIONS - CUMULATIVE PLUS PLANNING DEPARTMENT (PD) LAND USE CONDITIONS

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FIGURE 18B

V. TRAFFIC IMPACT ANALYSIS

This section identifies the traffic impacts of the proposed project on the existing roadway, transit, pedestrian, and bikeway systems and also identifies if implementation of the proposed project, in addition to cumulative background growth, will impact the planned transportation system. This section also describes the improvements required to mitigate identified project impacts. Appendix B and C contain detailed technical calculations for the existing "plus project" and cumulative conditions, respectively.

Existing "Plus Project" Conditions – Roadway System Operations

Traffic operations of the existing transportation system with the addition of both the CAC and PD Plans are discussed below.

Roadway Segments

The daily traffic volumes shown on Figures 1 and 2 were compared to the capacity criteria for roadway segments presented in Section II. Tables 8 and 9 summarize the roadway segment analysis under existing conditions with the addition of the CAC and PD Plans, respectively. Twenty-seven and twenty-nine roadway segments will operate unacceptably with the addition of project traffic under the CAC and PD Plans, respectively. Project impacts based on the significance criteria presented in Section II are discussed below.

TABLE 8
ROADWAY LEVEL OF SERVICE – EXISTING PLUS PROJECT CONDITIONS: CAC PREFERRED PLAN

Roadway Segment		Lanes	Type	Existing Conditions			Existing Plus CAC Project Conditions		
				Vol	V/C	LOS	Vol	V/C	LOS
1.	Folsom Blvd. - State Route 16 to Watt Ave.	4	Arterial	20,700	0.58	A	25,300	0.70	C
2.	Kiefer Blvd. - Florin-Perkins Rd. to Watt Ave.	2	Arterial	6,400	0.36	A	8,100	0.45	A
3.	Kiefer Blvd. - Watt Ave. to Rosemont Dr.	4	Arterial	21,300	0.59	A	23,200	0.64	B
4.	Kiefer Blvd. - Rosemont Dr. to Bradshaw Rd.	4	Arterial	11,900	0.33	A	13,800	0.38	A
5.	SR 16 - Folsom Blvd. to Watt Ave.	2	Arterial	12,200	0.68	B	18,600	1.03	F
6.	SR 16 - Watt Ave. to Bradshaw Rd.	2	Arterial	14,900	0.83	D	19,800	1.10	F
7.	SR 16 - Bradshaw Rd. to Sunrise Blvd	2	Arterial	12,000	0.60	A	12,100	0.60	B
8.	Fruitridge Rd. - Power Inn Rd. to Florin-Perkins Rd.	4	Arterial	19,700	0.55	A	22,600	0.63	B
9.	Fruitridge Rd. - Florin-Perkins Rd. to South Watt Ave.	2	Arterial	14,800	0.82	D	17,600	0.98	E
10.	Fruitridge Rd. - South Watt Ave. to Hedge Ave.	2	Rural	6,200	0.31	C	8,100	0.41	D
11.	Elder Creek Rd. - Power Inn Rd. to Florin-Perkins Rd.	2	Arterial	16,000	0.89	D	21,700	1.21	F
12.	Elder Creek Rd. - Florin-Perkins Rd. to South Watt Ave.	2	Arterial	10,700	0.59	A	17,800	0.99	E
13.	Elder Creek Rd. - South Watt Ave. to Hedge Ave.	2	Rural	5,900	0.30	C	15,700	0.79	E
14.	Elder Creek Rd. – Hedge Ave. to Bradshaw Rd.	2	Rural	6,800	0.34	C	16,600	0.83	E
15.	Elder Creek Rd. - Bradshaw Rd. to Excelsior Rd.	2	Rural	2,200	0.11	A	4,300	0.22	B
16.	Florin Rd. - Stockton Blvd to Power Inn Rd.	4	Arterial	28,500	0.79	C	36,800	1.02	F
17.	Florin Rd. - Power Inn Rd. to Florin-Perkins Rd.	4	Arterial	22,400	0.62	B	35,900	1.00	E
18.	Florin Rd. - Florin-Perkins Rd. to Gardner Ave.	4	Arterial	14,200	0.39	A	29,500	0.82	D
19.	Florin Rd. - Gardner Ave. to South Watt Ave.	4	Arterial	17,300	0.48	A	34,400	0.96	E
20.	Florin Rd. - South Watt Ave. to Hedge Ave.	2	Rural	12,700	0.64	E	27,700	1.39	F
21.	Florin Rd. - Hedge Ave. to Bradshaw Rd.	2	Rural	6,000	0.30	C	15,500	0.78	E
22.	Florin Rd. - Bradshaw Rd. to Excelsior Rd.	2	Rural	4,900	0.25	C	6,600	0.33	C
23.	Florin Rd. - Excelsior Rd. to Sunrise Blvd	2	Rural	3,800	0.19	B	5,200	0.26	C
24.	Gerber Rd. - Stockton Blvd to Power Inn Rd.	4	Arterial	18,700	0.52	A	23,400	0.65	B
25.	Gerber Rd. - Power Inn Rd. to French Rd.	4	Arterial	26,200	0.73	C	37,200	1.03	F
26.	Gerber Rd. - French Rd. to Elk Grove-Florin Rd.	4	Arterial	19,700	0.55	A	35,800	0.99	E
27.	Gerber Rd. - Elk Grove-Florin Rd. to Bradshaw Rd.	2	Rural	8,500	0.43	D	21,100	1.06	F
28.	Gerber Rd. - Bradshaw Rd. to Vineyard Rd.	2	Rural	5,800	0.29	C	6,300	0.32	C
29.	Gerber Rd. - Vineyard Rd. to Excelsior Rd.	2	Rural	2,500	0.13	B	4,500	0.23	C

TABLE 8 (CONT.)
ROADWAY LEVEL OF SERVICE – EXISTING PLUS PROJECT CONDITIONS: CAC PREFERRED PLAN

Roadway Segment	Lanes	Type	Existing Conditions			Existing Plus CAC Project Conditions		
			Vol	V/C	LOS	Vol	V/C	LOS
30. Vintage Park Dr. - Elk Grove-Florin Rd. to Waterman Rd.	4	Arterial	15,000	0.42	A	17,800	0.49	A
31. Vintage Park Dr. - Waterman Rd. to Bradshaw Rd.	4	Arterial	6,800	0.19	A	10,100	0.28	A
32. Calvine Rd. - Power Inn Rd. to Elk Grove-Florin Rd. [1]	5	Arterial	42,600	0.95	E	47,600	1.06	F
33. Calvine Rd. - Elk Grove-Florin Rd. to Grand Cru Dr.	4	Arterial	27,600	0.77	C	31,400	0.87	D
34. Calvine Rd. - Grand Cru Dr. to Waterman Rd.	6	Arterial	27,600	0.51	A	31,900	0.59	A
35. Calvine Rd. - Waterman Rd. to Bradshaw Rd.	4	Arterial	17,500	0.49	A	18,800	0.52	A
36. Calvine Rd. - Bradshaw Rd. to Vineyard Rd.	4	Arterial	11,500	0.32	A	17,000	0.47	A
37. Calvine Rd. - Vineyard Rd. to Excelsior Rd.	2	Rural	5,500	0.28	C	11,000	0.55	D
38. Calvine Rd. - Excelsior Rd. to Grant Line Rd.	2	Rural	3,700	0.19	B	3,800	0.19	B
39. Power Inn Rd - Elder Creek Rd. to Florin Rd.	4	Arterial	30,400	0.84	D	31,100	0.86	D
40. Power Inn Rd - Florin Rd. to Gerber Rd.	4	Arterial	28,900	0.80	D	31,000	0.86	D
41. Power Inn Rd - Gerber Rd. to Calvine Rd.	4	Arterial	27,600	0.77	C	29,700	0.83	D
42. Florin-Perkins Rd. - Folsom Blvd. to SR 16	4	Arterial	18,500	0.51	A	28,500	0.79	C
43. Florin-Perkins Rd. - SR 16 to Fruitridge Rd.	4	Arterial	27,700	0.77	C	37,500	1.04	F
44. Florin-Perkins Rd. - Fruitridge Rd. to Elder Creek Rd.	4	Arterial	30,000	0.83	D	40,000	1.11	F
45. Florin-Perkins Rd. - Elder Creek Rd. to Florin Rd.	4	Arterial	24,700	0.69	B	38,100	1.06	F
46. French Rd. - Florin Rd. to Gerber Rd.	2	Arterial	15,700	0.87	D	20,800	1.16	F
47. Watt Ave. - Folsom Blvd. to Kiefer Blvd.	6	Arterial	61,000	1.02	F	64,300	1.07	F
48. South Watt Ave. - Kiefer Blvd. to SR 16	2	Arterial	43,500	2.42	F	46,800	2.60	F
49. South Watt Ave. - SR 16 to Fruitridge Rd.	2	Arterial	24,400	1.22	F	28,000	1.40	F
50. South Watt Ave. - Fruitridge Rd. to Elder Creek Rd.	2	Arterial	20,100	1.12	F	22,100	1.23	F
51. South Watt Ave. - Elder Creek Rd. to Florin Rd.	2	Arterial	16,100	0.89	D	20,300	1.13	F
52. Elk Grove-Florin Rd. - Florin Rd. to Gerber Rd.	2	Arterial	22,900	1.27	F	29,300	1.63	F
53. Elk Grove-Florin Rd. - Gerber Rd. to Carlisle Ave.	4	Arterial	35,000	0.97	E	43,300	1.20	F
54. Elk Grove-Florin Rd. - Carlisle Ave. to Vintage Park Dr.	6	Arterial	33,800	0.63	B	44,800	0.83	D
55. Elk Grove-Florin Rd. - Vintage Park Dr. to Calvine Rd.	4	Arterial	31,800	0.88	D	40,200	1.12	F
56. Hedge Ave. - SR 16 to Fruitridge Rd.	2	Rural	4,400	0.22	C	8,700	0.44	D
57. Hedge Ave. - Fruitridge Rd. to Elder Creek Rd.	2	Rural	5,900	0.30	C	17,900	0.90	E
58. Hedge Ave. - Elder Creek Rd. to Florin Rd.	2	Rural	4,600	0.23	C	16,300	0.82	E
59. Waterman Rd. - Vintage Park Dr. to Calvine Rd.	4	Arterial	6,100	0.17	A	12,100	0.34	A
60. Bradshaw Rd. - Kiefer Blvd. to SR 16	4	Arterial	31,600	0.88	D	45,500	1.26	F
61. Bradshaw Rd. - SR 16 to Elder Creek Rd.	4	Arterial	20,100	0.56	A	32,500	0.90	E
62. Bradshaw Rd. - Elder Creek Rd. to Florin Rd.	4	Arterial	16,200	0.45	A	27,500	0.76	C
63. Bradshaw Rd. - Florin Rd. to Gerber Rd.	2	Arterial	19,900	1.11	F	26,700	1.48	F
64. Bradshaw Rd. - Gerber Rd. to Vintage Park Dr.	2	Arterial	13,400	0.74	C	17,400	0.97	E
65. Bradshaw Rd. - Vintage Park Dr. to Calvine Rd.	2	Arterial	10,700	0.59	A	14,700	0.81	D
66. Vineyard Rd. - Gerber Rd. to Calvine Rd.	2	Arterial	6,600	0.37	A	7,300	0.41	A
67. Excelsior Rd. - SR 16 to Florin Rd.	2	Rural	5,800	0.29	C	12,500	0.63	E
68. Excelsior Rd. - Florin Rd. to Gerber Rd.	2	Rural	8,900	0.45	D	16,900	0.85	E
69. Excelsior Rd. - Gerber Rd. to Calvine Rd.	2	Rural	5,400	0.27	C	11,500	0.58	D

Note: Shaded areas indicate unacceptable operations.
All arterial roadway segments assumed to have moderate access control except for Segments 7, 47, and 49, which were assumed to have high access control.
Blue – City of Sacramento Study Roadway Segments
Green – City of Elk Grove Study Roadway Segments
[1]This segment of Calvine Road is four to six lanes.
Source: *Fehr & Peers*, 2007

TABLE 9
ROADWAY LEVEL OF SERVICE – EXISTING PLUS PROJECT CONDITIONS: PLANNING DEPARTMENT PLAN

Roadway Segment		Lanes	Type	Existing Conditions			Existing Plus PD Project Conditions		
				Vol	V/C	LOS	Vol	V/C	LOS
1.	Folsom Blvd. - State Route 16 to Watt Ave.	4	Arterial	20,700	0.58	A	25,500	0.71	C
2.	Kiefer Blvd. - Florin-Perkins Rd. to Watt Ave.	2	Arterial	6,400	0.36	A	8,700	0.48	A
3.	Kiefer Blvd. - Watt Ave. to Rosemont Dr.	4	Arterial	21,300	0.59	A	23,900	0.66	B
4.	Kiefer Blvd. - Rosemont Dr. to Bradshaw Rd.	4	Arterial	11,900	0.33	A	14,300	0.40	A
5.	SR 16 - Folsom Blvd. to Watt Ave.	2	Arterial	12,200	0.68	B	19,500	1.08	F
6.	SR 16 - Watt Ave. to Bradshaw Rd.	2	Arterial	14,900	0.83	D	20,700	1.15	F
7.	SR 16 - Bradshaw Rd. to Sunrise Blvd	2	Arterial	12,000	0.60	A	12,000	0.60	A
8.	Fruitridge Rd. - Power Inn Rd. to Florin-Perkins Rd.	4	Arterial	19,700	0.55	A	23,300	0.65	B
9.	Fruitridge Rd. - Florin-Perkins Rd. to South Watt Ave.	2	Arterial	14,800	0.82	D	18,700	1.04	F
10.	Fruitridge Rd. - South Watt Ave. to Hedge Ave.	2	Rural	6,200	0.31	C	8,600	0.43	D
11.	Elder Creek Rd. - Power Inn Rd. to Florin-Perkins Rd.	2	Arterial	16,000	0.89	D	22,000	1.22	F
12.	Elder Creek Rd. - Florin-Perkins Rd. to South Watt Ave.	2	Arterial	10,700	0.59	A	18,700	1.04	F
13.	Elder Creek Rd. - South Watt Ave. to Hedge Ave.	2	Rural	5,900	0.30	C	16,700	0.84	E
14.	Elder Creek Rd. – Hedge Ave. to Bradshaw Rd.	2	Rural	6,800	0.34	C	17,700	0.89	E
15.	Elder Creek Rd. - Bradshaw Rd. to Excelsior Rd.	2	Rural	2,200	0.11	A	4,700	0.24	C
16.	Florin Rd. - Stockton Blvd to Power Inn Rd.	4	Arterial	28,500	0.79	C	38,200	1.06	F
17.	Florin Rd. - Power Inn Rd. to Florin-Perkins Rd.	4	Arterial	22,400	0.62	B	37,500	1.04	F
18.	Florin Rd. - Florin-Perkins Rd. to Gardner Ave.	4	Arterial	14,200	0.39	A	29,800	0.83	D
19.	Florin Rd. - Gardner Ave. to South Watt Ave.	4	Arterial	17,300	0.48	A	35,200	0.98	E
20.	Florin Rd. - South Watt Ave. to Hedge Ave.	2	Rural	12,700	0.64	E	29,400	1.47	F
21.	Florin Rd. - Hedge Ave. to Bradshaw Rd.	2	Rural	6,000	0.30	C	16,800	0.84	E
22.	Florin Rd. - Bradshaw Rd. to Excelsior Rd.	2	Rural	4,900	0.25	C	7,100	0.36	C
23.	Florin Rd. - Excelsior Rd. to Sunrise Blvd	2	Rural	3,800	0.19	B	5,400	0.27	C
24.	Gerber Rd. - Stockton Blvd to Power Inn Rd.	4	Arterial	18,700	0.52	A	23,900	0.66	B
25.	Gerber Rd. - Power Inn Rd. to French Rd.	4	Arterial	26,200	0.73	C	38,800	1.08	F
26.	Gerber Rd. - French Rd. to Elk Grove-Florin Rd.	4	Arterial	19,700	0.55	A	35,600	0.99	E
27.	Gerber Rd. - Elk Grove-Florin Rd. to Bradshaw Rd.	2	Rural	8,500	0.43	D	21,500	1.08	F
28.	Gerber Rd. - Bradshaw Rd. to Vineyard Rd.	2	Rural	5,800	0.29	C	6,400	0.32	C
29.	Gerber Rd. - Vineyard Rd. to Excelsior Rd.	2	Rural	2,500	0.13	B	5,200	0.26	C
30.	Vintage Park Dr. - Elk Grove-Florin Rd. to Waterman Rd.	4	Arterial	15,000	0.42	A	18,600	0.52	A
31.	Vintage Park Dr. - Waterman Rd. to Bradshaw Rd.	4	Arterial	6,800	0.19	A	10,400	0.29	A
32.	Calvine Rd. - Power Inn Rd. to Elk Grove-Florin Rd.[1]	5	Arterial	42,600	0.95	E	48,600	1.08	F
33.	Calvine Rd. - Elk Grove-Florin Rd. to Grand Cru Dr.	4	Arterial	27,600	0.77	C	31,600	0.88	D
34.	Calvine Rd. - Grand Cru Dr. to Waterman Rd.	6	Arterial	27,600	0.51	A	32,600	0.60	B
35.	Calvine Rd. - Waterman Rd. to Bradshaw Rd.	4	Arterial	17,500	0.49	A	19,000	0.53	A
36.	Calvine Rd. - Bradshaw Rd. to Vineyard Rd.	4	Arterial	11,500	0.32	A	18,000	0.50	A
37.	Calvine Rd. - Vineyard Rd. to Excelsior Rd.	2	Rural	5,500	0.28	C	11,200	0.56	D
38.	Calvine Rd. - Excelsior Rd. to Grant Line Rd.	2	Rural	3,700	0.19	B	3,800	0.19	B
39.	Power Inn Rd - Elder Creek Rd. to Florin Rd.	4	Arterial	30,400	0.84	D	31,400	0.87	D
40.	Power Inn Rd - Florin Rd. to Gerber Rd.	4	Arterial	28,900	0.80	D	31,500	0.88	D
41.	Power Inn Rd - Gerber Rd. to Calvine Rd.	4	Arterial	27,600	0.77	C	30,200	0.84	D
42.	Florin-Perkins Rd. - Folsom Blvd. to SR 16	4	Arterial	18,500	0.51	A	29,100	0.81	D
43.	Florin-Perkins Rd. - SR 16 to Fruitridge Rd.	4	Arterial	27,700	0.77	C	38,500	1.07	F
44.	Florin-Perkins Rd. - Fruitridge Rd. to Elder Creek Rd.	4	Arterial	30,000	0.83	D	40,800	1.13	F
45.	Florin-Perkins Rd. - Elder Creek Rd. to Florin Rd.	4	Arterial	24,700	0.69	B	39,600	1.10	F
46.	French Rd. - Florin Rd. to Gerber Rd.	2	Arterial	15,700	0.87	D	21,000	1.17	F
47.	Watt Ave. - Folsom Blvd. to Kiefer Blvd.	6	Arterial	61,000	1.02	F	64,900	1.08	F
48.	South Watt Ave. - Kiefer Blvd. to SR 16	2	Arterial	43,500	2.42	F	47,200	2.62	F
49.	South Watt Ave. - SR 16 to Fruitridge Rd.	2	Arterial	24,400	1.22	F	28,500	1.43	F
50.	South Watt Ave. - Fruitridge Rd. to Elder Creek Rd.	2	Arterial	20,100	1.12	F	22,400	1.24	F

TABLE 9 (CONT.)
ROADWAY LEVEL OF SERVICE – EXISTING PLUS PROJECT CONDITIONS: PLANNING DEPARTMENT PLAN

Roadway Segment	Lanes	Type	Existing Conditions			Existing Plus PD Project Conditions		
			Vol	V/C	LOS	Vol	V/C	LOS
51. South Watt Ave. - Elder Creek Rd. to Florin Rd.	2	Arterial	16,100	0.89	D	21,000	1.17	F
52. Elk Grove-Florin Rd. - Florin Rd. to Gerber Rd.	2	Arterial	22,900	1.27	F	29,400	1.63	F
53. Elk Grove-Florin Rd. - Gerber Rd. to Carlisle Ave.	4	Arterial	35,000	0.97	E	43,800	1.22	F
54. Elk Grove-Florin Rd. - Carlisle Ave. to Vintage Park Dr.	6	Arterial	33,800	0.63	B	49,600	0.92	E
55. Elk Grove-Florin Rd. - Vintage Park Dr. to Calvine Rd.	4	Arterial	31,800	0.88	D	41,000	1.14	F
56. Hedge Ave. - SR 16 to Fruitridge Rd.	2	Rural	4,400	0.22	C	9,100	0.46	D
57. Hedge Ave. - Fruitridge Rd. to Elder Creek Rd.	2	Rural	5,900	0.30	C	19,500	0.98	E
58. Hedge Ave. - Elder Creek Rd. to Florin Rd.	2	Rural	4,600	0.23	C	18,600	0.93	E
59. Waterman Rd. - Vintage Park Dr. to Calvine Rd.	4	Arterial	6,100	0.17	A	12,700	0.35	A
60. Bradshaw Rd. - Kiefer Blvd. to SR 16	4	Arterial	31,600	0.88	D	47,100	1.31	F
61. Bradshaw Rd. - SR 16 to Elder Creek Rd.	4	Arterial	20,100	0.56	A	34,000	0.94	E
62. Bradshaw Rd. - Elder Creek Rd. to Florin Rd.	4	Arterial	16,200	0.45	A	29,100	0.81	D
63. Bradshaw Rd. - Florin Rd. to Gerber Rd.	2	Arterial	19,900	1.11	F	27,100	1.51	F
64. Bradshaw Rd. - Gerber Rd. to Vintage Park Dr.	2	Arterial	13,400	0.74	C	16,900	0.94	E
65. Bradshaw Rd. - Vintage Park Dr. to Calvine Rd.	2	Arterial	10,700	0.59	A	14,200	0.79	C
66. Vineyard Rd. - Gerber Rd. to Calvine Rd.	2	Arterial	6,600	0.37	A	8,000	0.44	A
67. Excelsior Rd. - SR 16 to Florin Rd.	2	Rural	5,800	0.29	C	13,300	0.67	E
68. Excelsior Rd. - Florin Rd. to Gerber Rd.	2	Rural	8,900	0.45	D	17,900	0.90	E
69. Excelsior Rd. - Gerber Rd. to Calvine Rd.	2	Rural	5,400	0.27	C	11,700	0.59	D

Notes: Shaded areas indicate unacceptable operations.
All arterial roadway segments assumed to have moderate access control except for Segments 7, 47, and 49, which were assumed to have high access control.
Blue – City of Sacramento Study Roadway Segments
Green – City of Elk Grove Study Roadway Segments
[1]This segment of Calvine Road is four to six lanes.

Source: *Fehr & Peers*, 2007

The addition of the CAC Plan or PD Plan will cause impacts on the following study roadway segments:

IMPACT EP-1: (SR 16 – Folsom Boulevard to South Watt Avenue)

CAC – The addition of the proposed project will increase the daily traffic volume on the existing two-lane section of SR 16 between Folsom Boulevard and South Watt Avenue from 12,200 vehicles per day (VPD) to 18,600 VPD, which exceeds the capacity of 18,000 VPD for two-lane roadways with moderate access control. This volume increase will cause the LOS to change from B to F. This is considered a significant impact based on the City of Sacramento significance criteria.

PD – The addition of the proposed project will increase the daily traffic volume on the existing two-lane section of SR 16 between Folsom Boulevard and South Watt Avenue from 12,200 vehicles per day (VPD) to 19,500 VPD, which exceeds the capacity of 18,000 VPD for two-lane roadways with moderate access control. This volume increase will cause the LOS to change from B to F. This is considered a significant impact based on the City of Sacramento significance criteria.

IMPACT EP-2: (SR 16 – South Watt Avenue to Bradshaw Road)

CAC – The addition of the proposed project will increase the daily traffic volume on the existing two-lane section of SR 16 between South Watt Avenue and Bradshaw Road from 14,900 vehicles per day (VPD) to 19,800 VPD, which exceeds the capacity of 18,000 VPD for two-lane roadways with

moderate access control. This volume increase will cause the LOS to change from D to F. This is considered a significant impact based on the Sacramento County significance criteria.

PD – The addition of the proposed project will increase the daily traffic volume on the existing two-lane section of SR 16 between South Watt Avenue and Bradshaw Road from 14,900 vehicles per day (VPD) to 20,700 VPD, which exceeds the capacity of 18,000 VPD for two-lane roadways with moderate access control. This volume increase will cause the LOS to change from D to F. This is considered a significant impact based on the Sacramento County significance criteria.

IMPACT EP-3: (Fruitridge Road – Florin-Perkins Road to South Watt Avenue)

CAC – The addition of the proposed project will increase the daily traffic volume on the existing two-lane section of Fruitridge Road between Florin-Perkins Road and South Watt Avenue from 14,800 vehicles per day (VPD) to 17,600 VPD, which will cause the volume-to-capacity ratio to increase by 0.02 or more on a roadway that operates unacceptably. This volume increase will cause the LOS to change from D to E. This is considered a significant impact based on the City of Sacramento significance criteria.

PD – The addition of the proposed project will increase the daily traffic volume on the existing two-lane section of Fruitridge Road between Florin-Perkins Road and South Watt Avenue from 14,800 vehicles per day (VPD) to 18,700 VPD, which will cause the volume-to-capacity ratio to increase by 0.02 or more on a roadway that operates unacceptably. This volume increase will cause the LOS to change from D to F. This is considered a significant impact based on the City of Sacramento significance criteria.

IMPACT EP-4: (Fruitridge Road –South Watt Avenue to Hedge Avenue)

CAC – The addition of the proposed project will increase the daily traffic volume on the existing two-lane section of Fruitridge Road between South Watt Avenue and Hedge Avenue from 6,200 vehicles per day (VPD) to 8,100 VPD. This volume increase will cause the LOS to change from C to D. This is considered a significant impact based on the City of Sacramento significance criteria.

PD – The addition of the proposed project will increase the daily traffic volume on the existing two-lane section of Fruitridge Road between South Watt Avenue and Hedge Avenue from 6,200 vehicles per day (VPD) to 8,600 VPD. This volume increase will cause the LOS to change from C to D. This is considered a significant impact based on the City of Sacramento significance criteria.

IMPACT EP-5: (Elder Creek Road – Power Inn Road to Florin-Perkins Road)

CAC – The addition of the proposed project will increase the daily traffic volume on the existing two-lane section of Elder Creek Road between Power Inn Road and Florin-Perkins Road from 16,000 vehicles per day (VPD) to 21,700 VPD, which will cause the volume-to-capacity ratio to increase by 0.02 or more on a roadway that operates unacceptably. This volume increase will cause the LOS to change from D to F. This is considered a significant impact based on the City of Sacramento significance criteria.

PD – The addition of the proposed project will increase the daily traffic volume on the existing two-lane section of Elder Creek Road between Power Inn Road and Florin-Perkins Road from 16,000 vehicles per day (VPD) to 22,000 VPD, which will cause the volume-to-capacity ratio to increase by 0.02 or more on a roadway that operates unacceptably. This volume increase will cause the LOS to change from D to F. This is considered a significant impact based on the City of Sacramento significance criteria.

IMPACT EP-6: (Elder Creek Road – Florin-Perkins Road to South Watt Avenue)

CAC – The addition of the proposed project will increase the daily traffic volume on the existing two-lane section of Elder Creek Road between Florin-Perkins Road and South Watt Avenue from 10,700 vehicles per day (VPD) to 17,800 VPD. This volume increase will cause the LOS to change from A to E. This is considered a significant impact based on the City of Sacramento significance criteria.

PD – The addition of the proposed project will increase the daily traffic volume on the existing two-lane section of Elder Creek Road between Florin-Perkins Road and South Watt Avenue from 10,700 vehicles per day (VPD) to 18,700 VPD, which exceeds the capacity of 18,000 VPD for two-lane roadways with moderate access control. This volume increase will cause the LOS to change from A to F. This is considered a significant impact based on the City of Sacramento significance criteria.

IMPACT EP-7: (Florin Road – Stockton Boulevard to Power Inn Road)

CAC – The addition of the proposed project will increase the daily traffic volume on the existing four-lane section of Florin Road between Stockton Boulevard and Power Inn Road from 28,500 vehicles per day (VPD) to 36,800 VPD, which exceeds the capacity of 36,000 VPD for four-lane roadways with moderate access control. This volume increase will cause the LOS to change from C to F. This is considered a significant impact based on the Sacramento County significance criteria.

PD – The addition of the proposed project will increase the daily traffic volume on the existing four-lane section of Florin Road between Stockton Boulevard and Power Inn Road from 28,500 vehicles per day (VPD) to 38,200 VPD, which exceeds the capacity of 36,000 VPD for four-lane roadways with moderate access control. This volume increase will cause the LOS to change from C to F. This is considered a significant impact based on the Sacramento County significance criteria.

IMPACT EP-8: (Florin Road – Power Inn Road to Florin-Perkins Road)

CAC – Less than significant

PD – The addition of the proposed project will increase the daily traffic volume on the existing four-lane section of Florin Road between Power Inn Road to Florin-Perkins Road from 22,400 vehicles per day (VPD) to 37,500 VPD, which exceeds the capacity of 36,000 VPD for four-lane roadways with moderate access control. This volume increase will cause the LOS to change from B to F. This is considered a significant impact based on the Sacramento County significance criteria.

IMPACT EP-9: (Florin Road – South Watt Avenue to Hedge Avenue)

CAC – The addition of the proposed project will increase the daily traffic volume on the existing two-lane section of Florin Road between South Watt Avenue to Hedge Avenue from 12,700 vehicles per day (VPD) to 27,700 VPD, which exceeds the capacity of 20,000 VPD for two-lane rural roadways with paved shoulders. This volume increase will cause the LOS to change from E to F. This is considered a significant impact based on the Sacramento County significance criteria.

PD – The addition of the proposed project will increase the daily traffic volume on the existing two-lane section of Florin Road between South Watt Avenue to Hedge Avenue from 12,700 vehicles per day (VPD) to 29,400 VPD, which exceeds the capacity of 20,000 VPD for two-lane rural roadways with paved shoulders. This volume increase will cause the LOS to change from E to F. This is considered a significant impact based on the Sacramento County significance criteria.

IMPACT EP-10: (Gerber Road – Power Inn Road to French Road)

CAC – The addition of the proposed project will increase the daily traffic volume on the existing four-lane section of Gerber Road between Power Inn Road and French Road from 26,200 vehicles per day (VPD) to 37,200 VPD, which exceeds the capacity of 36,000 VPD for four-lane roadways with moderate access control. This volume increase will cause the LOS to change from C to F. This is considered a significant impact based on the Sacramento County significance criteria.

PD – The addition of the proposed project will increase the daily traffic volume on the existing four-lane section of Gerber Road between Power Inn Road and French Road from 26,200 vehicles per day (VPD) to 38,800 VPD, which exceeds the capacity of 36,000 VPD for four-lane roadways with moderate access control. This volume increase will cause the LOS to change from C to F. This is considered a significant impact based on the Sacramento County significance criteria.

IMPACT EP-11: (Gerber Road – Elk Grove-Florin Road to Bradshaw Road)

CAC – The addition of the proposed project will increase the daily traffic volume on the existing two-lane section of Gerber Road between Elk Grove-Florin Road and Bradshaw Road from 8,500 vehicles per day (VPD) to 21,100 VPD, which exceeds the capacity of 20,000 VPD for two-lane rural roadways with paved shoulders. This volume increase will cause the LOS to change from D to F. This is considered a significant impact based on the Sacramento County significance criteria.

PD – The addition of the proposed project will increase the daily traffic volume on the existing two-lane section of Gerber Road between Elk Grove-Florin Road and Bradshaw Road from 8,500 vehicles per day (VPD) to 21,500 VPD, which exceeds the capacity of 20,000 VPD for two-lane rural roadways with paved shoulders. This volume increase will cause the LOS to change from D to F. This is considered a significant impact based on the Sacramento County significance criteria.

IMPACT EP-12: (Calvine Road – Power Inn Road to Elk Grove-Florin Road)

CAC – The addition of the proposed project will increase the daily traffic volume on the existing four-lane section of Calvine Road between Power Inn Road and Elk Grove-Florin Road from 42,600 vehicles per day (VPD) to 47,600 VPD, which will cause the volume-to-capacity ratio to increase by more than 0.05 on a roadway that operates unacceptably. This is considered a significant impact based on the City of Elk Grove significance criteria.

PD – The addition of the proposed project will increase the daily traffic volume on the existing five-lane section of Calvine Road between Power Inn Road and Elk Grove-Florin Road from 42,600 vehicles per day (VPD) to 48,600 VPD, which will cause the volume-to-capacity ratio to increase by more than 0.05 on a roadway that operates unacceptably. This is considered a significant impact based on the City of Elk Grove significance criteria.

IMPACT EP-13: (Power Inn Road – Elder Creek Road to Florin Road)

CAC – Less than significant

PD – The addition of the proposed project will increase the daily traffic volume on the existing four-lane section of Power Inn Road between Elder Creek Road and Florin Road from 30,400 vehicles per day (VPD) to 31,400 VPD. This volume increase will cause the volume-to-capacity ratio to increase by 0.02 or more on a roadway that operates unacceptably (LOS D). This is considered a significant impact based on the City of Sacramento significance criteria.

IMPACT EP-14: (Florin-Perkins Road – Folsom Boulevard to SR 16)

CAC – Less than significant

PD – The addition of the proposed project will increase the daily traffic volume on the existing four-lane section of Florin-Perkins Road between Folsom Boulevard and SR 16 from 18,500 vehicles per day (VPD) to 29,100 VPD. This volume increase will cause the LOS to change from A to D. This is considered a significant impact based on the City of Sacramento significance criteria.

IMPACT EP-15: (Florin-Perkins Road – SR 16 to Fruitridge Road)

CAC – The addition of the proposed project will increase the daily traffic volume on the existing four-lane section of Florin-Perkins Road between SR 16 and Fruitridge Road from 27,700 vehicles per day (VPD) to 37,500 VPD. This volume increase will cause the LOS to change from C to F. This is considered a significant impact based on the City of Sacramento significance criteria.

PD – The addition of the proposed project will increase the daily traffic volume on the existing four-lane section of Florin-Perkins Road between SR 16 and Fruitridge Road from 27,700 vehicles per day (VPD) to 38,500 VPD. This volume increase will cause the LOS to change from C to F. This is considered a significant impact based on the City of Sacramento significance criteria.

IMPACT EP-16: (Florin-Perkins Road – Fruitridge Road to Elder Creek Road)

CAC – The addition of the proposed project will increase the daily traffic volume on the existing four-lane section of Florin-Perkins Road between Fruitridge Road and Elder Creek Road from 30,000 vehicles per day (VPD) to 40,000 VPD, which will cause the volume-to-capacity ratio to increase by 0.02 or more on a roadway that operates unacceptably.. This volume increase will also cause the LOS to change from D to F. This is considered a significant impact based on the City of Sacramento significance criteria.

PD – The addition of the proposed project will increase the daily traffic volume on the existing four-lane section of Florin-Perkins Road between Fruitridge Road and Elder Creek Road from 30,000 vehicles per day (VPD) to 40,800 VPD, which will cause the volume-to-capacity ratio to increase by 0.02 or more on a roadway that operates unacceptably.. This volume increase will also cause the LOS to change from D to F. This is considered a significant impact based on the City of Sacramento significance criteria.

IMPACT EP-17: (Florin-Perkins Road – Elder Creek Road to Florin Road)

CAC – The addition of the proposed project will increase the daily traffic volume on the existing four-lane section of Florin-Perkins Road between Elder Creek Road and Florin Road from 24,700 vehicles per day (VPD) to 38,100 VPD. This volume increase will cause the LOS to change from B to F. This is considered a significant impact based on the City of Sacramento significance criteria.

PD – The addition of the proposed project will increase the daily traffic volume on the existing four-lane section of Florin-Perkins Road between Elder Creek Road and Florin Road from 24,700 vehicles per day (VPD) to 39,600 VPD. This volume increase will cause the LOS to change from B to F. This is considered a significant impact based on the City of Sacramento significance criteria.

IMPACT EP-18: (French Road – Florin Road to Gerber Road)

CAC – The addition of the proposed project will increase the daily traffic volume on the existing two-lane section of Florin-Perkins Road between Florin Road and Gerber Road from 15,700 vehicles per day (VPD) to 20,800 VPD, which exceeds the capacity of 18,000 VPD for two-lane roadways with moderate access control. This volume increase will cause the LOS to change from D to F. This is considered a significant impact based on the Sacramento County significance criteria.

PD – The addition of the proposed project will increase the daily traffic volume on the existing two-lane section of Florin-Perkins Road between Florin Road and Gerber Road from 15,700 vehicles per day (VPD) to 21,000 VPD, which exceeds the capacity of 18,000 VPD for two-lane roadways with moderate access control. This volume increase will cause the LOS to change from D to F. This is considered a significant impact based on the Sacramento County significance criteria.

IMPACT EP-19: (South Watt Avenue – Folsom Boulevard to Kiefer Boulevard)

CAC – The addition of the proposed project will increase the daily traffic volume on the existing six-lane section of South Watt Avenue between Folsom Boulevard and Kiefer Boulevard from 61,000 vehicles per day (VPD) to 64,300 VPD, which exceeds the capacity of 60,000 VPD for six-lane roadways with high access control. This volume increase will cause the volume-to-capacity ratio to increase by more than 0.05 on a roadway that operates unacceptably (LOS F). This is considered a significant impact based on the Sacramento County significance criteria.

PD – The addition of the proposed project will increase the daily traffic volume on the existing six-lane section of South Watt Avenue between Folsom Boulevard and Kiefer Boulevard from 61,000 vehicles per day (VPD) to 64,900 VPD, which exceeds the capacity of 60,000 VPD for six-lane roadways with high access control. This volume increase will cause the volume-to-capacity ratio to increase by more than 0.05 on a roadway that operates unacceptably (LOS F). This is considered a significant impact based on the Sacramento County significance criteria.

IMPACT EP-20: (South Watt Avenue – Kiefer Boulevard to SR 16)

CAC – The addition of the proposed project will increase the daily traffic volume on the existing two-lane section of South Watt Avenue between Kiefer Boulevard and SR 16 from 43,500 vehicles per day (VPD) to 46,800 VPD, which exceeds the capacity of 18,000 VPD for two-lane roadways with moderate access control. This volume increase will cause the volume-to-capacity ratio to increase by more than 0.05 on a roadway that operates unacceptably (LOS F). This is considered a significant impact based on the Sacramento County significance criteria.

PD – The addition of the proposed project will increase the daily traffic volume on the existing two-lane section of South Watt Avenue between Kiefer Boulevard and SR 16 from 43,500 vehicles per day (VPD) to 47,200 VPD, which exceeds the capacity of 18,000 VPD for two-lane roadways with moderate access control. This volume increase will cause the volume-to-capacity ratio to increase by more than 0.05 on a roadway that operates unacceptably (LOS F). This is considered a significant impact based on the Sacramento County significance criteria.

IMPACT EP-21: (South Watt Avenue – SR 16 to Fruitridge Road)

CAC – The addition of the proposed project will increase the daily traffic volume on the existing two-lane section of South Watt Avenue between SR 16 and Fruitridge Road from 24,400 vehicles per day (VPD) to 28,000 VPD, which exceeds the capacity of 18,000 VPD for two-lane roadways with moderate access control. This volume increase will cause the volume-to-capacity ratio to increase by more than 0.02 on a roadway that operates unacceptably (LOS F). This is considered a significant impact based on the City of Sacramento significance criteria.

PD – The addition of the proposed project will increase the daily traffic volume on the existing two-lane section of South Watt Avenue between SR 16 and Fruitridge Road from 24,400 vehicles per day (VPD) to 28,500 VPD, which exceeds the capacity of 18,000 VPD for two-lane roadways with moderate access control. This volume increase will cause the volume-to-capacity ratio to increase by more than 0.02 on a roadway that operates unacceptably (LOS F). This is considered a significant impact based on the City of Sacramento significance criteria.

IMPACT EP-22: (South Watt Avenue – Fruitridge Road to Elder Creek Road)

CAC – The addition of the proposed project will increase the daily traffic volume on the existing two-lane section of South Watt Avenue between Fruitridge Road and Elder Creek Road from 20,100 vehicles per day (VPD) to 22,100 VPD, which exceeds the capacity of 18,000 VPD for two-lane roadways with moderate access control. This volume increase will cause the volume-to-capacity ratio to increase by 0.02 or more on a roadway that operates unacceptably (LOS F). This is considered a significant impact based on the City of Sacramento significance criteria.

PD – The addition of the proposed project will increase the daily traffic volume on the existing two-lane section of South Watt Avenue between Fruitridge Road and Elder Creek Road from 20,100 vehicles per day (VPD) to 22,400 VPD, which exceeds the capacity of 18,000 VPD for two-lane roadways with moderate access control. This volume increase will cause the volume-to-capacity ratio to increase by 0.02 or more on a roadway that operates unacceptably (LOS F). This is considered a significant impact based on the City of Sacramento significance criteria.

IMPACT EP-23: (South Watt Avenue – Elder Creek Road to Florin Road)

CAC – The addition of the proposed project will increase the daily traffic volume on the existing two-lane section of South Watt Avenue between Elder Creek Road and Florin Road from 16,100 vehicles per day (VPD) to 20,300 VPD, which exceeds the capacity of 18,000 VPD for two-lane roadways with moderate access control. This volume increase will cause the volume-to-capacity ratio to increase by 0.02 or more on a roadway that operates unacceptably. This is considered a significant impact based on the City of Sacramento significance criteria.

PD – The addition of the proposed project will increase the daily traffic volume on the existing two-lane section of South Watt Avenue between Elder Creek Road and Florin Road from 16,100 vehicles per day (VPD) to 21,000 VPD, which exceeds the capacity of 18,000 VPD for two-lane roadways with moderate access control. This volume increase will cause the volume-to-capacity ratio to increase by 0.02 or more on a roadway that operates unacceptably. This is considered a significant impact based on the City of Sacramento significance criteria.

IMPACT EP-24: (Elk Grove-Florin Road – Florin Road to Gerber Road)

CAC – The addition of the proposed project will increase the daily traffic volume on the existing two-lane section of Elk Grove-Florin Road between Florin Road and Gerber Road from 22,900 vehicles per day (VPD) to 29,300 VPD, which exceeds the capacity of 18,000 VPD for two-lane roadways with moderate access control. This volume increase will cause the volume-to-capacity ratio to increase by more than 0.05 on a roadway that operates unacceptably (LOS F). This is considered a significant impact based on the Sacramento County significance criteria.

PD – The addition of the proposed project will increase the daily traffic volume on the existing two-lane section of Elk Grove-Florin Road between Florin Road and Gerber Road from 22,900 vehicles per day (VPD) to 29,400 VPD, which exceeds the capacity of 18,000 VPD for two-lane roadways with moderate access control. This volume increase will cause the volume-to-capacity ratio to increase by more than 0.05 on a roadway that operates unacceptably (LOS F). This is considered a significant impact based on the Sacramento County significance criteria.

IMPACT EP-25: (Elk Grove-Florin Road – Gerber Road to Carlisle Avenue)

CAC – The addition of the proposed project will increase the daily traffic volume on the existing four-lane section of Elk Grove-Florin Road between Gerber Road and Carlisle Avenue from 35,000 vehicles per day (VPD) to 43,300 VPD, which exceeds the capacity of 36,000 VPD for four-lane

roadways with moderate access control. This volume increase will cause the LOS to change from E to F. This is considered a significant impact based on the Sacramento County significance criteria.

PD – The addition of the proposed project will increase the daily traffic volume on the existing four-lane section of Elk Grove-Florin Road between Gerber Road and Carlisle Avenue from 35,000 vehicles per day (VPD) to 43,800 VPD, which exceeds the capacity of 36,000 VPD for four-lane roadways with moderate access control. This volume increase will cause the LOS to change from E to F. This is considered a significant impact based on the Sacramento County significance criteria.

IMPACT EP-26: (Elk Grove-Florin Road – Vintage Park Drive to Calvine Road)

CAC – The addition of the proposed project will increase the daily traffic volume on the existing four-lane section of Elk Grove-Florin Road between Vintage Park Drive and Calvine Road from 31,800 vehicles per day (VPD) to 40,200 VPD, which exceeds the capacity of 36,000 VPD for four-lane roadways with moderate access control. This volume increase will cause the LOS to change from D to F. This is considered a significant impact based on the Sacramento County significance criteria.

PD – The addition of the proposed project will increase the daily traffic volume on the existing four-lane section of Elk Grove-Florin Road between Vintage Park Drive and Calvine Road from 31,800 vehicles per day (VPD) to 41,000 VPD, which exceeds the capacity of 36,000 VPD for four-lane roadways with moderate access control. This volume increase will cause the LOS to change from D to F. This is considered a significant impact based on the Sacramento County significance criteria.

IMPACT EP-27: (Hedge Avenue – Fruitridge Road to Elder Creek Road)

CAC – The addition of the proposed project will increase the daily traffic volume on the existing two-lane section of Hedge Avenue between Fruitridge Road and Elder Creek Road from 5,900 vehicles per day (VPD) to 17,900 VPD. This volume increase will cause the LOS to change from C to E. This is considered a significant impact based on the City of Sacramento significance criteria.

PD – The addition of the proposed project will increase the daily traffic volume on the existing two-lane section of Hedge Avenue between Fruitridge Road and Elder Creek Road from 5,900 vehicles per day (VPD) to 19,500 VPD. This volume increase will cause the LOS to change from C to E. This is considered a significant impact based on the City of Sacramento significance criteria.

IMPACT EP-28: (Bradshaw Road – Kiefer Boulevard to SR 16)

CAC – The addition of the proposed project will increase the daily traffic volume on the existing four-lane section of Bradshaw Road between Kiefer Boulevard and SR 16 from 31,600 vehicles per day (VPD) to 45,500 VPD, which exceeds the capacity of 36,000 VPD for four-lane roadways with moderate access control. This volume increase will cause the LOS to change from D to F. This is considered a significant impact based on the Sacramento County significance criteria.

PD – The addition of the proposed project will increase the daily traffic volume on the existing four-lane section of Bradshaw Road between Kiefer Boulevard and SR 16 from 31,600 vehicles per day (VPD) to 47,100 VPD, which exceeds the capacity of 36,000 VPD for four-lane roadways with moderate access control. This volume increase will cause the LOS to change from D to F. This is considered a significant impact based on the Sacramento County significance criteria.

IMPACT EP-29: (Bradshaw Road – Florin Road to Gerber Road)

CAC – The addition of the proposed project will increase the daily traffic volume on the existing two-lane section of Bradshaw Road between Florin Road and Gerber Road from 19,900 vehicles per day (VPD) to 26,700 VPD, which exceeds the capacity of 18,000 VPD for two-lane roadways with

moderate access control. This volume increase will cause the volume-to-capacity ratio to increase by more than 0.05 on a roadway that operates unacceptably (LOS F). This is considered a significant impact based on the Sacramento County significance criteria.

PD – The addition of the proposed project will increase the daily traffic volume on the existing two-lane section of Bradshaw Road between Florin Road and Gerber Road from 19,900 vehicles per day (VPD) to 27,100 VPD, which exceeds the capacity of 18,000 VPD for two-lane roadways with moderate access control. This volume increase will cause the volume-to-capacity ratio to increase by more than 0.05 on a roadway that operates unacceptably (LOS F). This is considered a significant impact based on the Sacramento County significance criteria.

IMPACT EP-30: (Elder Creek Road – South Watt Avenue to Hedge Avenue)

CAC – The addition of the proposed project and the recommended system-wide roadway mitigation measures will cause a secondary impact by increasing the daily traffic volume on the existing two-lane section of Elder Creek Road between South Watt Avenue and Hedge Avenue from 5,900 vehicles per day (VPD) to 21,200 VPD, which exceeds the capacity of 20,000 VPD for two-lane rural roadways. This volume increase will cause the LOS to change from C to F. This is considered a significant impact based on the Sacramento County significance criteria.

PD – The addition of the proposed project and the recommended system-wide roadway mitigation measures will cause a secondary impact by increasing the daily traffic volume on the existing two-lane section of Elder Creek Road between South Watt Avenue and Hedge Avenue from 5,900 vehicles per day (VPD) to 22,600 VPD, which exceeds the capacity of 20,000 VPD for two-lane rural roadways. This volume increase will cause the LOS to change from C to F. This is considered a significant impact based on the Sacramento County significance criteria.

IMPACT EP-31: (Elder Creek Road – Hedge Avenue to Bradshaw Road)

CAC – The addition of the proposed project and the recommended system-wide roadway mitigation measures will cause a secondary impact by increasing the daily traffic volume on the existing two-lane section of Elder Creek Road between Hedge Avenue and Bradshaw Road from 6,800 vehicles per day (VPD) to 19,900 VPD, which is close to the capacity of 20,000 VPD for two-lane rural roadways. This volume increase will cause the LOS to change from C to E. This is not considered a significant impact based on the Sacramento County significance criteria.

PD – The addition of the proposed project and the recommended system-wide roadway mitigation measures will cause a secondary impact by increasing the daily traffic volume on the existing two-lane section of Elder Creek Road between Hedge Avenue and Bradshaw Road from 6,800 vehicles per day (VPD) to 21,300 VPD, which exceeds the capacity of 20,000 VPD for two-lane rural roadways. This volume increase will cause the LOS to change from C to F. This is considered a significant impact based on the Sacramento County significance criteria.

IMPACT EP-32: (Bradshaw Road – SR 16 to Elder Creek Road)

CAC – The addition of the proposed project and the recommended system-wide roadway mitigation measures will cause a secondary impact by increasing the daily traffic volume on the existing four-lane section of Bradshaw Road between SR 16 and Elder Creek Road from 20,100 vehicles per day (VPD) to 36,800 VPD, which exceeds the capacity of 36,000 VPD for four-lane roadways with moderate access control. This volume increase will cause the LOS to change from A to F. This is considered a significant impact based on the Sacramento County significance criteria.

PD – The addition of the proposed project and the recommended system-wide roadway mitigation measures will cause a secondary impact by increasing the daily traffic volume on the existing four-

lane section of Bradshaw Road between SR 16 and Elder Creek Road from 20,100 vehicles per day (VPD) to 38,900 VPD, which exceeds the capacity of 36,000 VPD for four-lane roadways with moderate access control. This volume increase will cause the LOS to change from A to F. This is considered a significant impact based on the Sacramento County significance criteria.

IMPACT EP-33: (Bradshaw Road – Gerber Road to Vintage Park Drive)

CAC – The addition of the proposed project and the recommended system-wide roadway mitigation measures will cause a secondary impact by increasing the daily traffic volume on the existing two-lane section of Bradshaw Road between Gerber Road and Vintage Park Drive from 13,400 vehicles per day (VPD) to 20,300 VPD, which exceeds the capacity of 18,000 VPD for two-lane roadways with moderate access control. This volume increase will cause the LOS to change from C to F. This is considered a significant impact based on the Sacramento County significance criteria.

PD – The addition of the proposed project and the recommended system-wide roadway mitigation measures will cause a secondary impact by increasing the daily traffic volume on the existing two-lane section of Bradshaw Road between Gerber Road and Vintage Park Drive from 13,400 vehicles per day (VPD) to 20,200 VPD, which exceeds the capacity of 18,000 VPD for two-lane roadways with moderate access control. This volume increase will cause the LOS to change from C to F. This is considered a significant impact based on the Sacramento County significance criteria.

IMPACT EP-34: (Bradshaw Road – Vintage Park Drive to Calvine Road)

CAC – The addition of the proposed project and the recommended system-wide roadway mitigation measures will cause a secondary impact by increasing the daily traffic volume on the existing two-lane section of Bradshaw Road between Vintage Park Drive and Calvine Road from 10,700 vehicles per day (VPD) to 18,600 VPD, which exceeds the capacity of 18,000 VPD for two-lane roadways with moderate access control. This volume increase will cause the LOS to change from A to F. This is considered a significant impact based on the Sacramento County significance criteria.

PD – The addition of the proposed project and the recommended system-wide roadway mitigation measures will cause a secondary impact by increasing the daily traffic volume on the existing two-lane section of Bradshaw Road between Vintage Park Drive and Calvine Road from 10,700 vehicles per day (VPD) to 18,300 VPD, which exceeds the capacity of 18,000 VPD for two-lane roadways with moderate access control. This volume increase will cause the LOS to change from A to F. This is considered a significant impact based on the Sacramento County significance criteria.

IMPACT EP-35: (Florin Road – Florin-Perkins Road to Gardner Avenue)

CAC – The addition of the proposed project and the recommended system-wide roadway mitigation measures will cause a secondary impact by increasing the daily traffic volume on the existing four-lane section of Florin Road between Florin Perkins Road and Gardner Avenue from 14,300 vehicles per day (VPD) to 36,300 VPD, which exceeds the capacity of 36,000 VPD for four-lane roadways with moderate access control. This volume increase will cause the LOS to change from A to F. This is considered a significant impact based on the Sacramento County significance criteria.

PD – The addition of the proposed project and the recommended system-wide roadway mitigation measures will cause a secondary impact by increasing the daily traffic volume on the existing four-lane section of Florin Road between Florin Perkins Road and Gardner Avenue from 14,300 vehicles per day (VPD) to 39,500 VPD, which exceeds the capacity of 36,000 VPD for four-lane roadways with moderate access control. This volume increase will cause the LOS to change from A to F. This is considered a significant impact based on the Sacramento County significance criteria.

IMPACT EP-36: (Florin Road – Gardner Avenue to South Watt Avenue)

CAC – The addition of the proposed project and the recommended system-wide roadway mitigation measures will cause a secondary impact by increasing the daily traffic volume on the existing four-lane section of Florin Road between Gardner Avenue and South Watt Avenue from 17,300 vehicles per day (VPD) to 42,300 VPD, which exceeds the capacity of 36,000 VPD for four-lane roadways with moderate access control. This volume increase will cause the LOS to change from A to F. This is considered a significant impact based on the Sacramento County significance criteria.

PD – The addition of the proposed project and the recommended system-wide roadway mitigation measures will cause a secondary impact by increasing the daily traffic volume on the existing four-lane section of Florin Road between Gardner Avenue and South Watt Avenue from 17,300 vehicles per day (VPD) to 45,400 VPD, which exceeds the capacity of 36,000 VPD for four-lane roadways with moderate access control. This volume increase will cause the LOS to change from A to F. This is considered a significant impact based on the Sacramento County significance criteria.

Study Intersections

The traffic volumes shown on Figures 13 and 14 were used to calculate peak hour levels of service at the study intersections. Tables 10 and 11 summarize intersection LOS with the addition of the CAC and PD plans, respectively. Thirty-one of the forty-five intersections (20 signalized and 11 unsignalized) will operate unacceptably with the addition of the CAC Plan. Thirty-three of the forty-five intersections (22 signalized and 11 unsignalized) will operate unacceptably with the addition of the PD Plan. Project impacts based on the significance criteria presented in Section II are discussed below.

TABLE 10
INTERSECTION LEVEL OF SERVICE – EXISTING PLUS PROJECT CONDITIONS: CAC PREFERRED PLAN

Intersection	Control	Existing Conditions				Existing Plus CAC Project Conditions			
		AM Peak		PM Peak		AM Peak		PM Peak	
		V/C or Delay	LOS	V/C or Delay	LOS	V/C or Delay	LOS	V/C or Delay	LOS
1. Folsom Blvd./State Route 16	Signal	22	C	22	C	32	C	**36**	**D**
2. Folsom Blvd./Florin-Perkins Rd	Signal	55	D	52	D	**69**	**E**	**67**	**E**
3. Folsom Blvd./South Watt Ave	Signal	>80	F	>80	F	**>80**	**F**	**>80**	**F**
4. Kiefer Blvd./South Watt Ave	Signal	0.79	C	0.73	C	0.98	E	0.90	D
5. Kiefer Blvd./Bradshaw Rd.	Signal	0.67	B	0.88	D	0.91	E	**1.19**	**F**
6. SR 16/Florin-Perkins Rd.	Signal	45	D	60	E	**>80**	**F**	**>80**	**F**
7. SR 16/South Watt Ave.	Signal	0.91	E	1.16	F	**1.39**	**F**	**1.73**	**F**
8. SR 16/Hedge Ave.	Signal	0.55	A	0.58	A	0.73	C	0.75	C
9. SR 16/Bradshaw Rd.	Signal	1.03	F	0.90	E	**1.27**	**F**	**1.06**	**F**
10. SR 16/Excelsior Rd.	Signal	0.86	D	0.89	D	0.89	D	0.92	E
11. Fruitridge Rd./Florin-Perkins Rd.	Signal	54	D	>80	F	**80**	**F**	**>80**	**F**
12. Fruitridge Rd./South Watt Ave.	4-Way Stop	>50	F	>50	F	**>50**	**F**	**>50**	**F**
13. Fruitridge Rd./Hedge Ave.	4-Way Stop	31	D	21	C	**>50**	**F**	**>50**	**F**
14. Elder Creek Rd./Florin-Perkins Rd.	Signal	>80	F	>80	F	**>80**	**F**	**>80**	**F**
15. Elder Creek Rd./South Watt Ave.	Signal	30	C	28	C	**>80**	**F**	**>80**	**F**
16. Elder Creek Rd./Hedge Ave.	4-Way Stop	18	C	17	C	**>50**	**F**	**>50**	**F**
17. Elder Creek Rd./Bradshaw Rd.	Signal	0.60	A	0.50	A	0.86	D	0.92	E
18. Elder Creek Rd./Excelsior Rd.	2-Way Stop	18	C	14	B	24	C	17	C
19. Florin Rd./Power Inn Rd.	Signal	0.81	D	0.88	D	0.96	E	**1.02**	**F**
20. Florin Rd./Florin-Perkins Rd.	Signal	0.83	D	0.76	C	**1.24**	**F**	**1.04**	**F**
21. Florin Rd./Gardner Ave.	2-Way Stop	25	D	16	C	**>50**	**F**	**>50**	**F**
22. Florin Rd./South Watt Ave.	Signal	0.72	C	0.86	D	**1.45**	**F**	**1.63**	**F**
23. Florin Rd./Hedge Ave.	4-Way Stop	17	C	15	B	**>50**	**F**	**>50**	**F**
24. Florin Rd./Waterman Rd.	Cumulative-scenario Intersection								
25. Florin Rd./Bradshaw Rd.	Signal	0.45	A	0.55	A	0.76	C	**1.00**	**F**

TABLE 10 (CONT.)
INTERSECTION LEVEL OF SERVICE – EXISTING PLUS PROJECT CONDITIONS: CAC PREFERRED PLAN

Intersection	Control	Existing Conditions				Existing Plus CAC Project Conditions			
		AM Peak		PM Peak		AM Peak		PM Peak	
		V/C or Delay	LOS	V/C or Delay	LOS	V/C or Delay	LOS	V/C or Delay	LOS
26. Florin Rd./Vineyard Rd.	Cumulative-scenario Intersection								
27. Florin Rd./Excelsior Rd.	4-Way Stop	>50	F	23	C	**>50**	**F**	**>50**	**F**
28. Gerber Rd./Power Inn Rd.	Signal	0.86	D	0.78	D	**1.03**	**F**	0.94	E
29. Gerber Rd./French Rd.	Signal	0.88	D	0.79	C	**1.21**	**F**	**1.05**	**F**
30. Gerber Rd./Elk Grove-Florin Rd.	Signal	0.78	C	1.02	F	**1.10**	**F**	**1.36**	**F**
31. Gerber Rd./Waterman Rd.	2-Way Stop	Not an existing Intersection				**>50**	**F**	**>50**	**F**
32. Gerber Rd./Bar Du Lane	2-Way Stop	16	C	15	C	**>50**	**F**	**>50**	**F**
33. Gerber Rd./Bradshaw Rd.	Signal	1.04	F	0.82	D	**1.47**	**F**	**1.26**	**F**
34. Gerber Rd./Vineyard Rd.	2-Way Stop	>50	F	17	C	**>50**	**F**	26	D
35. Gerber Rd./Excelsior Rd.	4-Way Stop	15	B	23	C	28	D	**>50**	**F**
36. Tiogawoods Dr./Elk Grove-Florin Rd.	Signal	0.83	D	0.53	A	**1.03**	**F**	0.75	C
37. Caselman Rd./Elk Grove-Florin Rd.	2-Way Stop	25	D	20	C	**>50**	**F**	34	D
38. Rogers Rd./Bradshaw Rd.	2-Way Stop	22	C	18	C	13	B	19	C
39. Vintage Park Dr./Elk Grove-Florin Rd	Signal	0.75	C	0.62	B	0.85	D	0.73	C
40. Vintage Park Dr./Waterman Rd.	Signal	0.43	A	0.30	A	0.69	B	0.60	A
41. Vintage Park Dr./Bradshaw Rd.	Signal	0.52	A	0.52	A	0.65	B	0.68	B
42. Calvine Rd./Elk Grove-Florin Rd.	Signal	66	E	65	E	**>80**	**F**	**>80**	**F**
43. Calvine Rd./Waterman Rd.	Signal	36	D	37	D	**51**	**F**	**>80**	**E**
44. Calvine Rd./Bradshaw Rd.	Signal	26	C	36	D	35	C	50	D
45. Calvine Rd./Excelsior Rd.	4-Way Stop	15	B	15	C	22	C	27	D

Notes: Signal Control- Circular 212 Planning Methodology- Results present volume/capacity ratio and LOS
2-Way Stop Control- 2000 HCM Methodology- Results present delay and LOS for worst minor-street approach
4-Way Stop Control- 2000 HCM Methodology- Results present average delay and LOS
Shaded areas indicate unacceptable operations.
Blue – City of Sacramento Study Intersections
Green – City of Elk Grove Study Intersections

Source: *Fehr & Peers*, 2007

TABLE 11
Intersection Level of Service – Existing Plus Project Conditions: Planning Department Plan

Intersection	Control	Existing Conditions				Existing Plus PD Project Conditions			
		AM Peak		PM Peak		AM Peak		PM Peak	
		V/C or Delay	LOS	V/C or Delay	LOS	V/C or Delay	LOS	V/C or Delay	LOS
1. Folsom Blvd./State Route 16	Signal	22	C	22	C	33	C	**36**	**D**
2. Folsom Blvd./Florin-Perkins Rd	Signal	55	D	52	D	**74**	**E**	**74**	**E**
3. Folsom Blvd./South Watt Ave	Signal	>80	F	>80	F	**>80**	**F**	**>80**	**F**
4. Kiefer Blvd./South Watt Ave	Signal	0.79	C	0.73	C	**1.01**	**F**	0.9	D
5. Kiefer Blvd./Bradshaw Rd.	Signal	0.67	B	0.88	D	0.94	E	**1.23**	**F**
6. SR 16/Florin-Perkins Rd.	Signal	45	D	60	E	**>80**	**F**	**>80**	**F**
7. SR 16/South Watt Ave.	Signal	0.91	E	1.16	F	**1.44**	**F**	**1.77**	**F**
8. SR 16/Hedge Ave.	Signal	0.55	A	0.58	A	0.8	C	0.79	C
9. SR 16/Bradshaw Rd.	Signal	1.03	F	0.90	E	**1.32**	**F**	**1.13**	**F**
10. SR 16/Excelsior Rd.	Signal	0.86	D	0.89	D	0.89	D	0.92	E
11. Fruitridge Rd./Florin-Perkins Rd.	Signal	54	D	>80	F	**>80**	**F**	**>80**	**F**
12. Fruitridge Rd./South Watt Ave.	4-Way Stop	>50	F	>50	F	**>50**	**F**	**>50**	**F**
13. Fruitridge Rd./Hedge Ave.	4-Way Stop	31	D	21	C	**>50**	**F**	**>50**	**F**
14. Elder Creek Rd./Florin-Perkins Rd.	Signal	>80	F	>80	F	**>80**	**F**	**>80**	**F**
15. Elder Creek Rd./South Watt Ave.	Signal	30	C	28	C	**>80**	**F**	**>80**	**F**
16. Elder Creek Rd./Hedge Ave.	4-Way Stop	18	C	17	C	**>50**	**F**	**>50**	**F**
17. Elder Creek Rd./Bradshaw Rd.	Signal	0.60	A	0.50	A	0.93	E	**1.03**	**F**
18. Elder Creek Rd./Excelsior Rd.	2-Way Stop	18	C	14	B	24	C	17	C
19. Florin Rd./Power Inn Rd.	Signal	0.81	D	0.88	D	0.99	E	**1.02**	**F**
20. Florin Rd./Florin-Perkins Rd.	Signal	0.83	D	0.76	C	**1.34**	**F**	**1.13**	**F**
21. Florin Rd./Gardner Ave.	2-Way Stop	25	D	16	C	**>50**	**F**	**>50**	**F**
22. Florin Rd./South Watt Ave.	Signal	0.72	C	0.86	D	**1.54**	**F**	**1.66**	**F**
23. Florin Rd./Hedge Ave.	4-Way Stop	17	C	15	B	**>50**	**F**	**>50**	**F**
24. Florin Rd./Waterman Rd.	Cumulative-scenario Intersection								
25. Florin Rd./Bradshaw Rd.	Signal	0.45	A	0.55	A	0.84	D	**1.05**	**F**
26. Florin Rd./Vineyard Rd.	Cumulative-scenario Intersection								
27. Florin Rd./Excelsior Rd.	4-Way Stop	>50	F	23	C	**>50**	**F**	**>50**	**F**
28. Gerber Rd./Power Inn Rd.	Signal	0.86	D	0.78	D	**1.06**	**F**	0.96	E
29. Gerber Rd./French Rd.	Signal	0.88	D	0.79	C	**1.27**	**F**	**1.05**	**F**
30. Gerber Rd./Elk Grove-Florin Rd.	Signal	0.78	C	1.02	F	**1.14**	**F**	**1.39**	**F**
31. Gerber Rd./Waterman Rd.	2-Way Stop					**>50**	**F**	**>50**	**F**
32. Gerber Rd./Bar Du Lane	2-Way Stop	16	C	15	C	**>50**	**F**	**>50**	**F**
33. Gerber Rd./Bradshaw Rd.	Signal	1.04	F	0.82	D	**1.49**	**F**	**1.29**	**F**
34. Gerber Rd./Vineyard Rd.	2-Way Stop	>50	F	17	C	**>50**	**F**	25	D
35. Gerber Rd./Excelsior Rd.	4-Way Stop	15	B	23	C	29	D	**>50**	**F**
36. Tiogawoods Dr./Elk Grove-Florin Rd.	Signal	0.83	D	0.53	A	**1.04**	**F**	0.87	D
37. Caselman Rd./Elk Grove-Florin Rd.	2-Way Stop	25	D	20	C	**>50**	**F**	**>50**	**F**
38. Rogers Rd./Bradshaw Rd.	2-Way Stop	22	C	18	C	14	B	19	C
39. Vintage Park Dr./Elk Grove-Florin Rd	Signal	0.75	C	0.62	B	0.92	E	0.78	C
40. Vintage Park Dr./Waterman Rd.	Signal	0.43	A	0.30	A	0.73	C	0.58	A
41. Vintage Park Dr./Bradshaw Rd.	Signal	0.52	A	0.52	A	0.63	B	0.70	C
42. Calvine Rd./Elk Grove-Florin Rd.	Signal	66	E	65	E	**>80**	**F**	**>80**	**F**
43. Calvine Rd./Waterman Rd.	Signal	36	D	37	D	**56**	**F**	**>80**	**E**
44. Calvine Rd./Bradshaw Rd.	Signal	26	C	36	D	35	C	51	D
45. Calvine Rd./Excelsior Rd.	4-Way Stop	15	B	15	C	21	C	23	C

Notes: Signal Control- Circular 212 Planning Methodology- Results present volume/capacity ratio and LOS
2-Way Stop Control- 2000 HCM Methodology- Results present delay and LOS for worst minor-street approach
4-Way Stop Control- 2000 HCM Methodology- Results present average delay and LOS
Shaded areas indicate unacceptable operations.
Blue – City of Sacramento Study Intersections
Green – City of Elk Grove Study Intersections
Source: *Fehr & Peers*, 2007

Unsignalized intersections were evaluated using the peak hour volume warrant (Warrant 11) published in the California Department of Transportation's *Traffic Manual* (1996) to determine if signal control is warranted under existing conditions[2]. Most of the unsignalized intersections meet the Caltrans peak hour volume warrant except for the Gerber Road/Bar Du Lane and Gerber Road/Excelsior Road intersections.

The addition of the CAC or PD plans will cause impacts at the following study intersections:

IMPACT EP-37: (Folsom Boulevard/SR 16)

CAC & PD - The addition of the proposed project will increase peak hour traffic through the Folsom Boulevard/SR 16 intersection. The traffic volume increase will cause the level of service (LOS) to change from LOS C in the PM peak hour to LOS D. This is considered a significant impact based on the City of Sacramento significance criteria.

IMPACT EP-38: (Folsom Boulevard/Florin-Perkins Road)

CAC & PD - The addition of the proposed project will increase peak hour traffic through the Folsom Boulevard/Florin-Perkins Road intersection. The traffic volume increase will cause delay to increase by five or more seconds, which will exceed the City of Sacramento's five second criteria for signalized intersections operating unacceptably (LOS D, E, or F) under "no project" conditions. This is considered a significant impact based on the City of Sacramento significance criteria.

IMPACT EP-39: (Folsom Boulevard/South Watt Avenue)

CAC & PD - The addition of the proposed project will increase peak hour traffic through the Folsom Boulevard/South Watt Avenue intersection. The traffic volume increase will cause delay to increase by five or more seconds, which will exceed the City of Sacramento's five second criteria for signalized intersections operating unacceptably (LOS D, E, or F) under "no project" conditions. This is considered a significant impact based on the City of Sacramento significance criteria.

IMPACT EP-40: (Kiefer Boulevard/South Watt Avenue)

CAC – Less than significant Impact

PD – The addition of the proposed project will increase peak hour traffic through the Kiefer Boulevard/South Watt Avenue intersection. The traffic volume increase will cause the level of service (LOS) to change from LOS D in the AM peak hour to LOS F. This is considered a significant impact based on the Sacramento County significance criteria.

IMPACT EP-41: (Kiefer Boulevard/Bradshaw Road)

CAC & PD – The addition of the proposed project will increase peak hour traffic through the Kiefer Boulevard/Bradshaw Road intersection. The traffic volume increase will cause the level of service

[2] This analysis is intended to examine the general correlation between the planned level of future development and the need to install new traffic signals. It estimates future development-generated traffic compared against a sub-set of the standard traffic signal warrants recommended in the Federal Highway Administration *Manual on Uniform Traffic Control Devices* and associated State guidelines. This analysis should not serve as the only basis for deciding whether and when to install a signal. To reach such a decision, the full set of warrants should be investigated based on field-measured, rather than forecast, traffic data and a thorough study of traffic and roadway conditions by an experienced engineer. Furthermore, the decision to install a signal should not be based solely upon the warrants, since the installation of signals can lead to certain types of collisions. Sacramento County DOT should undertake regular monitoring of actual traffic conditions and accident data, and timely re-evaluation of the full set of warrants in order to prioritize and program intersections for signalization.

(LOS) to change from LOS D in the PM peak hour to LOS F. This is considered a significant impact based on the Sacramento County significance criteria.

IMPACT EP-42: (SR 16/Florin-Perkins Road)

CAC & PD - The addition of the proposed project will increase peak hour traffic through the SR 16/Florin-Perkins Road intersection. The traffic volume increase will cause delay to increase by five or more seconds, which will exceed the City of Sacramento's five second criteria for signalized intersections operating unacceptably (LOS D, E, or F) under "no project" conditions. This is considered a significant impact based on the City of Sacramento significance criteria.

IMPACT EP-43: (SR 16/South Watt Avenue)

CAC & PD - The addition of the proposed project will increase peak hour traffic through the SR 16/South Watt Avenue intersection. The traffic volume increase will cause the level of service (LOS) to change from LOS E in the AM peak hour to LOS F and will increase the volume-to-capacity ratio by more than 0.05 in the PM peak hour, which will exceed the County's 0.05 criteria for signalized intersections operating unacceptably (LOS F) under "no project" conditions. This is considered a significant impact based on the Sacramento County significance criteria.

IMPACT EP-44: (SR 16/Bradshaw Road)

CAC & PD - The addition of the proposed project will increase peak hour traffic through the SR 16/Bradshaw Road intersection. The traffic volume increase will increase the volume-to-capacity ratio by more than 0.05 in the AM peak hour, which will exceed the County's 0.05 criteria for signalized intersections operating unacceptably (LOS F) under "no project" conditions and will cause the level of service (LOS) to change from LOS E in the PM peak hour to LOS F. This is considered a significant impact based on the Sacramento County significance criteria.

IMPACT EP-45: (Fruitridge Road/Florin-Perkins Road)

CAC & PD - The addition of the proposed project will increase peak hour traffic through the Fruitridge Road/Florin-Perkins Road intersection. The traffic volume increase will cause delay to increase by five or more seconds in both the AM and PM peak hours, which will exceed the City of Sacramento's five second criteria for signalized intersections operating unacceptably (LOS D, E, or F) under "no project" conditions. This is considered a significant impact based on the City of Sacramento significance criteria.

IMPACT EP-46: (Fruitridge Road/South Watt Avenue)

CAC & PD - The addition of the proposed project will increase peak hour traffic through the Fruitridge Road/South Watt Avenue intersection. The traffic volume increase will add more than five seconds of delay in the AM and PM peak hours, which will exceed the City of Sacramento's five second criteria for stop controlled intersections operating unacceptably (LOS D, E, or F) under "no project" conditions. This is considered a significant impact based on the City of Sacramento significance criteria.

IMPACT EP-47: (Fruitridge Road/Hedge Avenue)

CAC & PD - The addition of the proposed project will increase peak hour traffic through the Fruitridge Road/Hedge Avenue intersection. The traffic volume increase will cause the level of service (LOS) to change from LOS D in the AM peak hour to LOS F and from LOS C in the PM peak hour to LOS F. This is considered a significant impact based on the Sacramento County significance criteria.

IMPACT EP-48: (Elder Creek Road/Florin-Perkins Road)

CAC & PD - The addition of the proposed project will increase peak hour traffic through the Elder Creek Road/Florin-Perkins Road intersection. The traffic volume increase will cause delay to increase by five or more seconds in the AM and PM peak hours, which will exceed the City of Sacramento's five second criteria for signalized intersections operating unacceptably (LOS D, E, or F) under "no project" conditions. This is considered a significant impact based on the City of Sacramento significance criteria.

IMPACT EP-49: (Elder Creek Road/South Watt Avenue)

CAC & PD - The addition of the proposed project will increase peak hour traffic through the Elder Creek Road/South Watt Avenue intersection. The traffic volume increase will cause the level of service (LOS) to change from LOS C in both the AM and the PM peak hours to LOS F. This is considered a significant impact based on the City of Sacramento significance criteria.

IMPACT EP-50: (Elder Creek Road/Hedge Avenue)

CAC & PD - The addition of the proposed project will increase peak hour traffic through the Elder Creek Road/Hedge Avenue intersection. The traffic volume increase will cause the level of service (LOS) to change from LOS C in both the AM and PM Peak Hours to LOS F. This is considered a significant impact based on the Sacramento County significance criteria.

IMPACT EP-51: (Elder Creek Road/Bradshaw Road)

CAC – Less than significant Impact

PD - The addition of the proposed project will increase peak hour traffic through the Elder Creek Road/Bradshaw Road intersection. The traffic volume increase will cause the level of service (LOS) to change from LOS A in the PM peak hour to LOS F. This is considered a significant impact based on the Sacramento County significance criteria.

IMPACT EP-52: (Florin Road/Power Inn Road)

CAC & PD - The addition of the proposed project will increase peak hour traffic through the Florin Road/Power Inn Road intersection. The traffic volume increase will cause the level of service (LOS) to change from LOS D to LOS F in the PM peak hour. This is considered a significant impact based on the Sacramento County significance criteria.

IMPACT EP-53: (Florin Road/Florin-Perkins Road)

CAC & PD - The addition of the proposed project will increase peak hour traffic through the Florin Road/Florin-Perkins Road intersection. The traffic volume increase will cause the level of service (LOS) to change from LOS D and LOS C in the AM and PM peak hours, respectively, to LOS F. This is considered a significant impact based on the Sacramento County significance criteria.

IMPACT EP-54: (Florin Road/Gardner Avenue)

CAC & PD - The addition of the proposed project will increase peak hour traffic through the Florin Road/Gardner Avenue intersection. The traffic volume increase will cause the level of service (LOS) to change from LOS D in the AM peak hour to LOS F and from LOS C in the PM peak hour to LOS F. This is considered a significant impact based on the Sacramento County significance criteria.

IMPACT EP-55: (Florin Road/South Watt Avenue)

CAC & PD - The addition of the proposed project will increase peak hour traffic through the Florin Road/South Watt Avenue intersection. The traffic volume increase will cause the level of service (LOS) to change from LOS B in the AM peak hour to LOS F and from LOS D in the PM peak hour to LOS F. This is considered a significant impact based on the Sacramento County significance criteria.

IMPACT EP-56: (Florin Road/Hedge Avenue)

CAC & PD - The addition of the proposed project will increase peak hour traffic through the Florin Road/Hedge Avenue intersection. The traffic volume increase will cause the level of service (LOS) to change from LOS C in the AM peak hour to LOS F and from LOS B in the PM peak hour to LOS F. This is considered a significant impact based on the Sacramento County significance criteria.

IMPACT EP-57: (Florin Road/Bradshaw Road)

CAC & PD - The addition of the proposed project will increase peak hour traffic through the Florin Road/Bradshaw Road intersection. The traffic volume increase will cause the level of service (LOS) to change from LOS A in the PM peak hour to LOS F. This is considered a significant impact based on the Sacramento County significance criteria.

IMPACT EP-58: (Florin Road/Excelsior Road)

CAC & PD - The addition of the proposed project will increase peak hour traffic through the Florin Road/Excelsior Road intersection. The traffic volume increase will add more than five seconds of delay in the AM peak hour, which will exceed the County's five second criteria for stop controlled intersections operating unacceptably (LOS F) under "no project" conditions and will cause the level LOS to change from LOS C in the PM peak hour to LOS F. This is considered a significant impact based on the Sacramento County significance criteria.

IMPACT EP-59: (Gerber Road/Power Inn Road)

CAC & PD - The addition of the proposed project will increase peak hour traffic through the Gerber Road/Power Inn Road intersection. The traffic volume increase will cause the level of service (LOS) to change from LOS D in the AM peak hour to LOS F. This is considered a significant impact based on the Sacramento County significance criteria.

IMPACT EP-60: (Gerber Road/French Road)

CAC & PD - The addition of the proposed project will increase peak hour traffic through the Gerber Road/French Road intersection. The traffic volume increase will cause the level of service (LOS) to change from LOS D in the AM peak hour to LOS F and from LOS C in the PM peak hour to LOS F. This is considered a significant impact based on the Sacramento County significance criteria.

IMPACT EP-61: (Gerber Road/Elk Grove-Florin Road)

CAC & PD - The addition of the proposed project will increase peak hour traffic through the Gerber Road/Elk Grove-Florin Road intersection. The traffic volume increase will cause the level of service (LOS) to change from LOS C in the AM peak hour to LOS F and will increase the volume-to-capacity ratio by more than 0.05 in the PM peak hour, which will exceed the County's 0.05 criteria for signalized intersections operating unacceptably (LOS F) under "no project" conditions. This is considered a significant impact based on the Sacramento County significance criteria.

IMPACT EP-62: (Gerber Road/Waterman Road)

CAC & PD - The addition of the proposed project will create the Gerber Road/Waterman Road intersection and result in LOS F during the AM and PM peak hours assuming stop control. This is considered a significant impact based on the Sacramento County significance criteria.

IMPACT EP-63: (Gerber Road/Bar Du Lane)

CAC & PD - The addition of the proposed project will increase peak hour traffic through the Gerber Road/Bar Du Lane intersection. The traffic volume increase will cause the level of service (LOS) to change from LOS C in the AM peak hour to LOS F and from LOS C in the PM peak hour to LOS F. This is considered a significant impact based on the Sacramento County significance criteria.

IMPACT EP-64: (Gerber Road /Bradshaw Road)

CAC & PD - The addition of the proposed project will increase peak hour traffic through the Gerber Road /Bradshaw Road intersection. The traffic volume increase will increase the volume-to-capacity ratio by more than 0.05 in the AM peak hour, which will exceed the County's 0.05 criteria for signalized intersections operating unacceptably (LOS F) under "no project" conditions and will cause the level of service (LOS) to change from LOS D in the PM peak hour to LOS F. This is considered a significant impact based on the Sacramento County significance criteria.

IMPACT EP-65: (Gerber Road/Vineyard Road)

CAC & PD - The addition of the proposed project will increase peak hour traffic through the Gerber Road/Vineyard Road intersection. The traffic volume increase will add more than five seconds of delay in the AM peak hour, which will exceed the County's five second criteria for stop controlled intersections operating unacceptably (LOS F) under "no project" conditions. This is considered a significant impact based on the Sacramento County significance criteria.

IMPACT EP-66: (Gerber Road/Excelsior Road)

CAC & PD - The addition of the proposed project will increase peak hour traffic through the Gerber Road/Excelsior Road intersection. The traffic volume increase will cause the level of service (LOS) to change from LOS C in the PM peak hour to LOS F. This is considered a significant impact based on the Sacramento County significance criteria.

IMPACT EP-67: (Tiogawoods Drive/Elk Grove-Florin Road)

CAC & PD - The addition of the proposed project will increase peak hour traffic through the Tiogawoods Drive/Elk Grove-Florin Road intersection. The traffic volume increase will cause the level of service (LOS) to change from LOS D in the AM peak hour to LOS F. This is considered a significant impact based on the Sacramento County significance criteria.

IMPACT EP-68: (Caselman Road/Elk Grove-Florin Road)

CAC - The addition of the proposed project will increase peak hour traffic through the Caselman Road/Elk Grove-Florin Road intersection. The traffic volume increase will cause the level of service (LOS) to change from LOS D in the AM peak hour to LOS F. This is considered a significant impact based on the Sacramento County significance criteria.

PD - The addition of the proposed project will increase peak hour traffic through the Caselman Road/Elk Grove-Florin Road intersection. The traffic volume increase will cause the level of service (LOS) to change from LOS D in the AM peak hour to LOS F and from LOS C in the PM peak hour to LOS F. This is considered a significant impact based on the Sacramento County significance criteria.

IMPACT EP-69: (Calvine Road/Elk Grove-Florin Road)

CAC & PD - The addition of the proposed project will increase peak hour traffic through the Calvine Road/Elk Grove-Florin Road intersection. The traffic volume increase will cause the level of service (LOS) to change from LOS E in the AM peak hour to LOS F and from LOS E in the PM peak hour to LOS F. This is considered a significant impact based on the City of Elk Grove significance criteria.

IMPACT EP-70: (Calvine Road/Waterman Road)

CAC & PD - The addition of the proposed project will increase peak hour traffic through the Calvine Road/Waterman Road intersection. The traffic volume increase will cause the level of service (LOS) to change from LOS D in the AM peak hour to LOS F and from LOS D in the PM peak hour to LOS E. This is considered a significant impact based on the City of Elk Grove significance criteria.

IMPACT EP-71: (Vintage Park Drive/Elk Grove-Florin Road)

CAC & PD - The addition of the proposed project and the recommended system-wide roadway mitigation measures will cause a secondary impact by increasing the AM peak hour traffic using the through the Vintage Park Drive/Elk Grove-Florin Road intersection. The traffic volume increase will cause the level of service (LOS) to change from LOS D in the AM peak hour to LOS F with the CAC plan and from LOS E to LOS F with the PD plan. This is considered a significant impact based on the Sacramento County significance criteria.

Transit System Operations

Transit system operations were evaluated by considering the potential effects of the project on existing transit services near the project site. All major arterial and collector streets within the project would be designed to accommodate transit facilities such as turnouts, bus stops, and shelters. Therefore, implementation of the proposed project is not expected to disrupt or interfere with existing transit operations.

IMPACT EP-72:

CAC & PD - The addition of the proposed project will not disrupt or interfere with existing transit operations in the study area. No impact.

Bicycle and Pedestrian System Operations

All major arterial and collector streets within the project would be designed to accommodate planned bikeways and pedestrian sidewalks. Therefore, implementation of the proposed project will not disrupt or interfere with existing or planned bikeways and pedestrian facilities in the study area

IMPACT EP-73:

CAC & PD - The addition of the proposed project will not disrupt or interfere with existing bicycle and pedestrian facilities in the study area. No impact.

Proposed Mitigation Measures

The following mitigation measures are proposed to reduce the significance of Impacts EP-1 through EP-73. Each mitigation measure is listed according to the corresponding impact number. Figures 19, 20 and 21 (at the end of this section) show the existing roadway system, intersection traffic control, and lane configurations with proposed mitigation, respectively. Tables 12 and 13 summarize roadway segment operations with proposed mitigation for the CAC and PD Plans, respectively. Tables 14 and 15 summarize intersection traffic operations with proposed mitigation for the CAC and PD Plans, respectively. The mitigation was developed using a systemic approach that considered ultimate improvements consistent with the General Plan circulation diagram. The approach included the following steps:

- Step 1 – Identify initial impacts and mitigation based on the results of the no project and with project analysis.
- Step 2 – Test sensitivity of identified mitigation to roadway improvements consistent with the General Plan circulation diagram and develop a refined set of mitigation.
- Step 3 – Develop new traffic volume forecasts based on the refined mitigation and update impact and mitigation analysis.
- Step 4 – Identify and document potential secondary impacts caused by refined mitigation.

MITIGATION MEASURE EP-1: (SR 16 – Folsom Boulevard to South Watt Avenue)

CAC & PD – Widen the section of SR 16 between Folsom Boulevard and South Watt Avenue from one to two lanes in each direction. Based on the traffic volume thresholds presented in Section II, this improvement would accommodate the projected daily traffic volume and provide LOS A (volume-to-capacity ratio: CAC=0.52, PD=0.53) operations. Implementation of this mitigation measure would reduce the impact to a less than significant level.

MITIGATION MEASURE EP-2: (SR 16 – South Watt Avenue to Bradshaw Road)

CAC & PD – Widen the section of SR SR 16 between South Watt Avenue and Bradshaw Road from one to two lanes in each direction. Based on the traffic volume thresholds presented in Section II, this improvement would accommodate the projected daily traffic volume and provide LOS B (volume-to-capacity ratio: CAC=0.63, PD=0.65) operations. Implementation of this mitigation measure would reduce the impact to a less than significant level.

MITIGATION MEASURE EP-3: (Fruitridge Road – Florin-Perkins Road to South Watt Avenue)

CAC & PD – Widen the section of Fruitridge Road between Florin-Perkins Road and South Watt Avenue from one to two lanes in each direction. Based on the traffic volume thresholds presented in Section II, this improvement would accommodate the projected daily traffic volume and provide LOS A (volume-to-capacity ratio: CAC=0.51, PD=0.51) operations and would reduce the volume-to-capacity ratio to within 0.02 or less of “no project” conditions. Implementation of this mitigation measure would reduce the impact to a less than significant level.

MITIGATION MEASURE EP-4: (Fruitridge Road – South Watt Avenue to Hedge Avenue)

CAC & PD – Widen the section of South Watt Avenue between Elder Creek Road and SR 16 from one to three lanes in each direction. Based on the traffic volume thresholds presented in Section II,

this improvement would divert traffic from Hedge Avenue and Fruitridge Road reducing the projected daily traffic volume and result in LOS A (volume-to-capacity ratio: CAC=0.34, PD=0.34) operations. Implementation of this mitigation measure would reduce the impact to a less than significant level.

MITIGATION MEASURE EP-5: (Elder Creek Road – Power Inn Road to Florin-Perkins Road)

CAC & PD – Widen the section of Elder Creek Road between Power Inn Road and Florin-Perkins Road from one to two lanes in each direction. Based on the traffic volume thresholds presented in Section II, this improvement would accommodate the projected daily traffic volume and provide LOS B (volume-to-capacity ratio: CAC=0.60, PD=0.61) operations and would reduce the volume-to-capacity ratio to within 0.02 or less of "no project" conditions.. Implementation of this mitigation measure would reduce the impact to a less than significant level.

MITIGATION MEASURE EP-6: (Elder Creek Road – Florin-Perkins Road to South Watt Avenue)

CAC & PD – Widen the section of Elder Creek Road between Florin-Perkins Road and South Watt Avenue from one to two lanes in each direction. Based on the traffic volume thresholds presented in Section II, this improvement would accommodate the projected daily traffic volume and provide LOS A (volume-to-capacity ratio: CAC=0.50, PD=0.51) operations. Implementation of this mitigation measure would reduce the impact to a less than significant level.

MITIGATION MEASURE EP-7: (Florin Road – Stockton Boulevard to Power Inn Road)

CAC & PD – Widen the section of Florin Road between Stockton Boulevard and Power Inn Road from two to three lanes in each direction. Based on the traffic volume thresholds presented in Section II, this improvement would accommodate the projected daily traffic volume and provide LOS B (volume-to-capacity ratio = 0.68) operations with the CAC Plan and LOS C (volume-to-capacity ratio = 0.71) operations with the PD Plan. Implementation of this mitigation measure would reduce the impact to a less than significant level.

MITIGATION MEASURE EP-8: (Florin Road – Power Inn Road to Florin-Perkins Road)

PD – Widen the section of French Road between Florin Road and Gerber Road from one to two lanes in each direction. Based on the traffic volume thresholds presented in Section II, this improvement would divert traffic from this section of Florin Road reducing the projected daily traffic volume and result in LOS C (volume-to-capacity ratio: PD=0.78) operations. Implementation of this mitigation measure would reduce the impact to a less than significant level.

MITIGATION MEASURE EP-9: (Florin Road – South Watt Avenue to Hedge Avenue)

CAC & PD – Widen the section of Florin Road between South Watt Avenue and Hedge Avenue from one to two lanes in each direction. Based on the traffic volume thresholds presented in Section II, this improvement would accommodate the projected daily traffic volume and provide LOS C (volume-to-capacity ratio = 0.73) operations with the CAC Plan and LOS D (volume-to-capacity ratio = 0.81) operations with the PD Plan. Implementation of this mitigation measure would reduce the impact to a less than significant level.

MITIGATION MEASURE EP-10: (Gerber Road – Power Inn Road to French Road)

CAC & PD – Widen the section of Gerber Road between Power Inn Road and French Road from two to three lanes in each direction. Based on the traffic volume thresholds presented in Section II, this improvement would accommodate the projected daily traffic volume and provide LOS C (volume-to-capacity ratio = 0.78) operations with the CAC Plan and LOS C (volume-to-capacity ratio = 0.79) operations with the PD Plan. Implementation of this mitigation measure would reduce the impact to a

less than significant level. However, with this improvement, Gerber Road would be widened beyond its designation as a 4-lane arterial in the General Plan. Consequently, there may not be sufficient right-of-way to construct the improvement, so this impact is considered significant and unavoidable.

MITIGATION MEASURE EP-11: (Gerber Road – Elk Grove-Florin Road to Bradshaw Road)

CAC & PD – Widen the section of Gerber Road between Elk Grove-Florin Road and Bradshaw Road from one to two lanes in each direction. Based on the traffic volume thresholds presented in Section II, this improvement would accommodate the projected daily traffic volume and provide LOS A (volume-to-capacity ratio: CAC=0.59) operations with the CAC Plan and LOS B (volume-to-capacity ratio: PD=0.60). Implementation of this mitigation measure would reduce the impact to a less than significant level.

MITIGATION MEASURE EP-12: (Calvine Road – Power Inn Road to Elk Grove-Florin Road)

CAC & PD – Widen the four-lane section of Calvine Road between Power Inn Road and Elk Grove-Florin Road from two to three lanes in each direction. Based on the traffic volume thresholds presented in Section II, this improvement would accommodate the projected daily traffic volume and provide LOS D (volume-to-capacity ratio = 0.88) operations with the CAC Plan and reduce the volume-to-capacity ratio to within 0.05 or less compared to "no project" conditions, and provide LOS E (volume-to-capacity ratio = 0.90) operations with the PD Plan and reduce the volume-to-capacity ratio to within 0.05 or less compared to "no project" conditions. Implementation of this mitigation measure would reduce the impact to a less than significant level.

MITIGATION MEASURE EP-13: (Power Inn Road – Elder Creek Road to Florin Road)

PD – Widen the section of Power Inn Road between Elder Creek Road and Florin Road from two to three lanes in each direction. Based on the traffic volume thresholds presented in Section II, this improvement would accommodate the projected daily traffic volume and provide LOS A (volume-to-capacity ratio = 0.58) operations with the PD Plan and reduce the volume-to-capacity ratio to within 0.02 or less of "no project" conditions. Implementation of this mitigation measure would reduce the impact to a less than significant level. However, with this improvement, Power Inn Road would be widened beyond its designation as a 4-lane arterial in the City of Sacramento General Plan. Consequently, there may not be sufficient right-of-way to construct the improvement, so this impact is considered significant and unavoidable.

MITIGATION MEASURE EP-14: (Florin-Perkins Road – Folsom Boulevard to SR 16)

PD – Widen the section of SR 16 between Folsom Boulevard and South Watt Avenue from one to two lanes in each direction. Based on the traffic volume thresholds presented in Section II, this improvement would accommodate the projected daily traffic volume and provide LOS B (volume-to-capacity ratio = 0.67) operations with the PD Plan. Implementation of this mitigation measure would reduce the impact to a less than significant level.

MITIGATION MEASURE EP-15: (Florin-Perkins Road – SR 16 to Fruitridge Road)

CAC & PD – Widen the section of Florin-Perkins Road between SR 16 and Fruitridge Road from two to three lanes in each direction. Based on the traffic volume thresholds presented in Section II, this improvement would accommodate the projected daily traffic volume and provide LOS A (volume-to-capacity ratio = 0.51) operations with the CAC Plan and LOS A (volume-to-capacity ratio = 0.51) operations with the PD Plan. Implementation of this mitigation measure would reduce the impact to a less than significant level. This improvement is included in the 2006 MTP as a Tier 1 improvement.

MITIGATION MEASURE EP-16: (Florin-Perkins Road – Fruitridge Road to Elder Creek Road)

CAC & PD – Widen the section of Florin-Perkins Road between Fruitridge Road and Elder Creek Road from two to three lanes in each direction. Based on the traffic volume thresholds presented in Section II, this improvement would accommodate the projected daily traffic volume and provide LOS B (volume-to-capacity ratio: CAC=0.61, PD=0.66) operations and reduce the volume-to-capacity ratio to within 0.02 or less of "no project" conditions. Implementation of this mitigation measure would reduce the impact to a less than significant level. However, with this improvement, Florin-Perkins Road would be widened beyond its designation as a 4-lane arterial in the General Plan. Consequently, there may not be sufficient right-of-way to construct the improvement, so this impact is considered significant and unavoidable.

MITIGATION MEASURE EP-17: (Florin-Perkins Road – Elder Creek Road to Florin Road)

CAC & PD – Widen the section of Florin-Perkins Road between Elder Creek Road and Florin Road from two to three lanes in each direction. Based on the traffic volume thresholds presented in Section II, this improvement would accommodate the projected daily traffic volume and provide LOS B (volume-to-capacity ratio: CAC=0.61, PD=0.65) operations. Implementation of this mitigation measure would reduce the impact to a less than significant level. With this improvement, Florin-Perkins Road would be widened beyond its designation as a 4-lane arterial in the General Plan. Consequently, there may not be sufficient right-of-way to construct the improvement, so this impact is considered significant and unavoidable.

MITIGATION MEASURE EP-18: (French Road – Florin Road to Gerber Road)

CAC & PD – Widen the section of French Road between Florin Road and Gerber Road from one to two lanes in each direction. Based on the traffic volume thresholds presented in Section II, this improvement would accommodate the projected daily traffic volume and provide LOS B (volume-to-capacity ratio: = 0.68) operations with the CAC Plan and LOS C (volume-to-capacity ratio: = 0.72) operations with the PD Plan. Implementation of this mitigation measure would reduce the impact to a less than significant level.

MITIGATION MEASURE EP-19: (South Watt Avenue – Folsom Boulevard to Kiefer Boulevard)

CAC & PD – The section of South Watt Avenue between Folsom Boulevard and Kiefer Boulevard is currently six lanes, which is consistent with the County of Sacramento's *General Plan* designation as a 108-foot wide thoroughfare. Widening from three to four lanes in each direction would eliminate the impact; however, widening to eight lanes would require additional right-of-way. Implement planned improvements along the Watt Avenue/South Watt Avenue corridor, which include the grade-separation of the Regional Transit LRT and improvements at the South Watt Avenue/Folsom Boulevard. Technical studies are currently being conducted for operational improvements along the Watt Avenue/South Watt Avenue corridor, which include the grade-separation of the Regional Transit LRT and improvements at the South Watt Avenue/Folsom Boulevard intersection. Due to the right-of-way constraints and the uncertainty of planned improvements, implementation of this mitigation measure is infeasible; therefore, this impact would remain significant and unavoidable.

MITIGATION MEASURE EP-20: (South Watt Avenue – Kiefer Boulevard to SR 16)

CAC & PD – Widen the section of South Watt Avenue between Kiefer Boulevard and SR 16 from one lane to three lanes in each direction. Based on the traffic volume thresholds presented in Section II, this improvement would accommodate the projected daily traffic volume, reduce the volume-to-capacity ratio to within 0.05 or less compared to "no project" conditions, and provide LOS F (volume-to-capacity ratio: CAC=1.08, PD=1.09) operations. Implementation of this mitigation measure would reduce the impact to a less than significant level.

MITIGATION MEASURE EP-21: (South Watt Avenue – SR 16 to Fruitridge Road)

CAC & PD – Widen the section of South Watt Avenue between SR 16 and Fruitridge Road from one to three lanes in each direction. Based on the traffic volume thresholds presented in Section II, this improvement would accommodate the projected daily traffic volume and provide LOS C (volume-to-capacity ratio = 0.78) operations with the CAC Plan and LOS C (volume-to-capacity ratio = 0.78) operations with the PD Plan and would also reduce the volume-to-capacity ratio to less than 0.02 of "no project" conditions. Implementation of this mitigation measure would reduce the impact to a less than significant level.

MITIGATION MEASURE EP-22: (South Watt Avenue – Fruitridge Road to Elder Creek Road)

CAC & PD – Widen the section of Watt Avenue between Fruitridge Road and Elder Creek Road from one to three lanes in each direction. Based on the traffic volume thresholds presented in Section II, this improvement would accommodate the projected daily traffic volume and provide LOS C (volume-to-capacity ratio = 0.78) operations with the CAC Plan and LOS C (volume-to-capacity ratio = 0.79) operations with the PD Plan and would reduce the volume-to-capacity ratio to less than 0.02 of "no project" conditions. Implementation of this mitigation measure would reduce the impact to a less than significant level.

MITIGATION MEASURE EP-23: (South Watt Avenue – Elder Creek Road to Florin Road)

CAC & PD – Widen the section of South Watt Avenue between Elder Creek Road and Florin Road from one to three lanes in each direction. Based on the traffic volume thresholds presented in Section II, this improvement would accommodate the projected daily traffic volume and provide LOS C (volume-to-capacity ratio = 0.77) operations with the CAC Plan and LOS D (volume-to-capacity ratio = 0.80) operations with the PD Plan and would reduce the volume-to-capacity ratio to less than 0.02 of "no project" conditions. Implementation of this mitigation measure would reduce the impact to a less than significant level.

MITIGATION MEASURE EP-24: (Elk Grove-Florin Road – Florin Road to Gerber Road)

CAC & PD – Widen the section of Elk Grove-Florin Road between Florin Road and Gerber Road from one to three lanes in each direction. Based on the traffic volume thresholds presented in Section II, this improvement would accommodate the projected daily traffic volume, reduce the volume-to-capacity ratio to within 0.05 or less compared to "no project" conditions, and provide LOS E (volume-to-capacity ratio: CAC=0.92, PD=0.94) operations. Implementation of this mitigation measure would reduce the impact to a less than significant level.

MITIGATION MEASURE EP-25: (Elk Grove-Florin Road – Gerber Road to Carlisle Avenue)

CAC & PD – Widen the section of Elk Grove-Florin Road between Gerber Road and Carlisle Avenue from two to three lanes in each direction. Based on the traffic volume thresholds presented in Section II, this improvement would accommodate the projected daily traffic volume and provide LOS E (volume-to-capacity ratio: CAC=0.92, PD=0.95) operations. Implementation of this mitigation measure would reduce the impact to a less than significant level.

MITIGATION MEASURE EP-26: (Elk Grove-Florin Road – Vintage Park Drive to Calvine Road)

CAC & PD – Widen the four-lane section of Elk Grove-Florin Road between Vintage Park Drive and Calvine Road from two to three lanes in each direction and construct Waterman Road as a two-lane roadway between Gerber Road and its current terminus. Based on the traffic volume thresholds presented in Section II, this improvement would accommodate the projected daily traffic volume and provide LOS C (volume-to-capacity ratio: = 0.79) operations with the CAC Plan and provide LOS D

(volume-to-capacity ratio: PD = 0.82) operations with the PD Plan. Implementation of this mitigation measure would reduce the impact to a less than significant level.

MITIGATION MEASURE EP-27: (Hedge Avenue – Fruitridge Road to Elder Creek Road)

CAC & PD – Widen the section of South Watt Avenue between Elder Creek Road and SR 16 from one to three lanes in each direction. Based on the traffic volume thresholds presented in Section II, this improvement would divert traffic from Hedge Avenue reducing the projected daily traffic volume and result in LOS C (volume-to-capacity ratio: CAC=0.32, PD=0.30) operations. Implementation of this mitigation measure would reduce the impact to a less than significant level

MITIGATION MEASURE EP-28: (Bradshaw Road – Kiefer Boulevard to SR 16)

CAC & PD – Widen the section of Bradshaw Road between Kiefer Boulevard and SR 16 from two to three lanes in each direction. Based on the traffic volume thresholds presented in Section II, this improvement would accommodate the projected daily traffic volume and provide LOS C (volume-to-capacity ratio: CAC=0.73, PD=0.75) operations. Implementation of this mitigation measure would reduce the impact to a less than significant level.

MITIGATION MEASURE EP-29: (Bradshaw Road – Florin Road to Gerber Road)

CAC & PD – Widen the section of Bradshaw Road between Florin Road and Gerber Road from one to two lanes in each direction. Based on the traffic volume thresholds presented in Section II, this improvement would accommodate the projected daily traffic volume, reduce the volume-to-capacity ratio to within 0.05 or less compared to "no project" conditions, and provide LOS D (volume-to-capacity ratio: CAC=0.81, PD=0.82) operations. Implementation of this mitigation measure would reduce the impact to a less than significant level.

MITIGATION MEASURE EP-30: (Elder Creek Road – South Watt Avenue to Hedge Avenue)

CAC & PD – Widen the section of Elder Creek Road between South Watt Avenue and Hedge Avenue from one to two lanes in each direction. Based on the traffic volume thresholds presented in Section II, this improvement would accommodate the projected daily traffic volume and provide LOS A (volume-to-capacity ratio: = 0.59) operations with the CAC Plan and LOS A (volume-to-capacity ratio: = 0.63) operations with the PD Plan. Implementation of this mitigation measure would reduce the impact to a less than significant level.

MITIGATION MEASURE EP-31: (Elder Creek Road – Hedge Avenue to Bradshaw Road)

PD – Widen the section of Elder Creek Road between Hedge Avenue and Bradshaw Road from one to two lanes in each direction. Based on the traffic volume thresholds presented in Section II, this improvement would accommodate the projected daily traffic volume and provide LOS A (volume-to-capacity ratio: = 0.59) operations with the PD Plan. Implementation of this mitigation measure would reduce the impact to a less than significant level.

MITIGATION MEASURE EP-32: (Bradshaw Road – SR 16 to Elder Creek Road)

CAC & PD – Widen the section of Bradshaw Road between SR 16 and Elder Creek Road from two to three lanes in each direction. Based on the traffic volume thresholds presented in Section II, this improvement would accommodate the projected daily traffic volume and provide LOS B (volume-to-capacity ratio: = 0.68) operations with the CAC Plan and LOS C (volume-to-capacity ratio: = 0.72) operations with the PD Plan. Implementation of this mitigation measure would reduce the impact to a less than significant level.

MITIGATION MEASURE EP-33: (Bradshaw Road – Gerber Road to Vintage Park Drive)

CAC & PD – Widen the section of Bradshaw Road between Gerber Road and Vintage Park Drive from one to two lanes in each direction. Based on the traffic volume thresholds presented in Section II, this improvement would accommodate the projected daily traffic volume and provide LOS A (volume-to-capacity ratio CAC=0.56, PD=0.56) operations with the CAC and PD Plans Implementation of this mitigation measure would reduce the impact to a less than significant level.

MITIGATION MEASURE EP-34: (Bradshaw Road – Vintage Park Drive to Calvine Road)

CAC & PD – Widen the section of Bradshaw Road between Vintage Park Drive and Calvine Road from one to two lanes in each direction. Based on the traffic volume thresholds presented in Section II, this improvement would accommodate the projected daily traffic volume and provide LOS A (volume-to-capacity ratio: CAC=0.51, PD=0.51) operations with the CAC and PD Plans Implementation of this mitigation measure would reduce the impact to a less than significant level.

MITIGATION MEASURE EP-35: (Florin Road – Florin-Perkins Road to Gardner Avenue)

CAC & PD – Widen the section of Florin Road between Florin-Perkins Road to Gardner Avenue from two to three lanes in each direction. Based on the traffic volume thresholds presented in Section II, this improvement would accommodate the projected daily traffic volume and provide LOS B (volume-to-capacity ratio = 0.67) operations with the CAC Plan and LOS C (volume-to-capacity ratio = 0.73) operations with the PD Plan. Implementation of this mitigation measure would reduce the impact to a less than significant level.

MITIGATION MEASURE EP-36: (Florin Road – Gardner Avenue to South Watt Avenue)

CAC & PD – Widen the section of Florin Road between Gardner Avenue and South Watt Avenue from two to three lanes in each direction. Based on the traffic volume thresholds presented in Section II, this improvement would accommodate the projected daily traffic volume and provide LOS C (volume-to-capacity ratio = 0.78) operations with the CAC Plan and LOS D (volume-to-capacity ratio = 0.84) operations with the PD Plan. Implementation of this mitigation measure would reduce the impact to a less than significant level.

TABLE 12
ROADWAY LEVEL OF SERVICE – EXISTING PLUS PROJECT WITH MITIGATION CONDITIONS: CAC PREFERRED PLAN

Roadway Segment	Lanes (Mitigated)	Type[1]	Existing Plus CAC Project Conditions			Existing Plus CAC Project Conditions With Mitigation		
			Vol	V/C	LOS	Vol	V/C	LOS
1. Folsom Blvd. - State Route 16 to Watt Ave.	4	Arterial	25,300	0.70	C	22,000	0.61	B
2. Kiefer Blvd. - Florin-Perkins Rd. to Watt Ave.	2	Arterial	8,100	0.45	A	6,400	0.36	A
3. Kiefer Blvd. - Watt Ave. to Rosemont Dr.	4	Arterial	23,200	0.64	B	21,300	0.59	A
4. Kiefer Blvd. - Rosemont Dr. to Bradshaw Rd.	4	Arterial	13,800	0.38	A	11,900	0.33	A
5. SR 16 - Folsom Blvd. to Watt Ave.	2(4)	Arterial	18,600	1.03	F	18,600	0.52	A
6. SR 16 - Watt Ave. to Bradshaw Rd.	2(4)	Arterial	19,800	1.10	F	22,700	0.63	B
7. SR 16 - Bradshaw Rd. to Sunrise Blvd	2	Arterial	12,100	0.61	B	12,100	0.61	B
8. Fruitridge Rd. - Power Inn Rd. to Florin-Perkins Rd.	4	Arterial	22,600	0.63	B	22,600	0.63	B
9. Fruitridge Rd. - Florin-Perkins Rd. to South Watt Ave.	2(4)	Arterial	17,600	0.98	E	18,200	0.51	A
10. Fruitridge Rd. - South Watt Ave. to Hedge Ave.	2	Rural	8,100	0.41	D	6,200	0.34	A
11. Elder Creek Rd. - Power Inn Rd. to Florin-Perkins Rd.	2(4)	Arterial	21,700	1.21	F	21,700	0.60	B
12. Elder Creek Rd. - Florin-Perkins Rd. to South Watt Ave.	2(4)	Arterial	17,800	0.99	E	17,900	0.50	A
13. Elder Creek Rd. - South Watt Ave. to Hedge Ave.	2(4)	Rural	15,700	0.79	E	21,200	0.59	A
14. Elder Creek Rd. – Hedge Ave. to Bradshaw Rd.	2	Rural	16,600	0.83	E	19,900	1.00	E
15. Elder Creek Rd. - Bradshaw Rd. to Excelsior Rd.	2	Rural	4,300	0.22	B	4,000	0.22	A
16. Florin Rd. - Stockton Blvd to Power Inn Rd.	4(6)	Arterial	36,800	1.02	F	36,800	0.68	B
17. Florin Rd. - Power Inn Rd. to Florin-Perkins Rd.	4	Arterial	35,900	1.00	E	26,500	0.74	C
18. Florin Rd. - Florin-Perkins Rd. to Gardner Ave.	4(6)	Arterial	29,500	0.82	D	36,300	0.67	B
19. Florin Rd. - Gardner Ave. to South Watt Ave.	4(6)	Arterial	34,400	0.96	E	42,300	0.78	C
20. Florin Rd. - South Watt Ave. to Hedge Ave.	2(4)	Rural	27,700	1.39	F	26,300	0.73	C
21. Florin Rd. - Hedge Ave. to Bradshaw Rd.	2	Rural	15,500	0.78	E	11,700	0.59	D
22. Florin Rd. - Bradshaw Rd. to Excelsior Rd.	2	Rural	6,600	0.33	C	6,500	0.33	C
23. Florin Rd. - Excelsior Rd. to Sunrise Blvd	2	Rural	5,200	0.26	C	5,200	0.26	C
24. Gerber Rd. - Stockton Blvd to Power Inn Rd.	4	Arterial	23,400	0.65	B	23,400	0.65	B
25. Gerber Rd. - Power Inn Rd. to French Rd.	4	Arterial	37,200	1.03	F	42,000	1.17	F
26. Gerber Rd. - French Rd. to Elk Grove-Florin Rd.	4	Arterial	35,800	0.99	E	29,100	0.81	D
27. Gerber Rd. - Elk Grove-Florin Rd. to Bradshaw Rd.	2(4)	Rural	21,100	1.06	F	21,200	0.59	A

TABLE 12 (CONT.)
ROADWAY LEVEL OF SERVICE – EXISTING PLUS PROJECT WITH MITIGATION CONDITIONS: CAC PREFERRED PLAN

Roadway Segment	Lanes (Mitigated)	Type[1]	Existing Plus CAC Project Conditions			Existing Plus CAC Project Conditions With Mitigation		
			Vol	V/C	LOS	Vol	V/C	LOS
28. Gerber Rd. - Bradshaw Rd. to Vineyard Rd.	2	Rural	6,300	0.32	C	6,800	0.34	C
29. Gerber Rd. - Vineyard Rd. to Excelsior Rd.	2	Rural	4,500	0.23	C	3,000	0.15	B
30. Vintage Park Dr. - Elk Grove-Florin Rd. to Waterman Rd.	4	Arterial	17,800	0.49	A	15,100	0.42	A
31. Vintage Park Dr. - Waterman Rd. to Bradshaw Rd.	4	Arterial	10,100	0.28	A	7,100	0.20	A
32. Calvine Rd. - Power Inn Rd. to Elk Grove-Florin Rd.[2]	5(6)	Arterial	47,600	1.06	F	47,600	0.88	D
33. Calvine Rd. - Elk Grove-Florin Rd. to Grand Cru Dr.	4	Arterial	31,400	0.87	D	29,700	0.83	D
34. Calvine Rd. - Grand Cru Dr. to Waterman Rd.	6	Arterial	31,900	0.59	A	29,600	0.55	A
35. Calvine Rd. - Waterman Rd. to Bradshaw Rd.	4	Arterial	18,800	0.52	A	19,600	0.54	A
36. Calvine Rd. - Bradshaw Rd. to Vineyard Rd.	4	Arterial	17,000	0.47	A	12,000	0.33	A
37. Calvine Rd. - Vineyard Rd. to Excelsior Rd.	2	Rural	11,000	0.55	D	5,800	0.29	C
38. Calvine Rd. - Excelsior Rd. to Grant Line Rd.	2	Rural	3,800	0.19	B	3,800	0.19	B
39. Power Inn Rd - Elder Creek Rd. to Florin Rd.	4	Arterial	31,100	0.86	D	31,100	0.86	D
40. Power Inn Rd - Florin Rd. to Gerber Rd.	4	Arterial	31,000	0.86	D	28,900	0.80	D
41. Power Inn Rd - Gerber Rd. to Calvine Rd.	4	Arterial	29,700	0.83	D	27,600	0.77	C
42. Florin-Perkins Rd. - Folsom Blvd. to SR 16	4	Arterial	28,500	0.79	C	23,200	0.64	B
43. Florin-Perkins Rd. - SR 16 to Fruitridge Rd.	4(6)	Arterial	37,500	1.04	F	27,700	0.51	A
44. Florin-Perkins Rd. - Fruitridge Rd. to Elder Creek Rd.	4	Arterial	40,000	1.11	F	33,000	0.91	E
45. Florin-Perkins Rd. - Elder Creek Rd. to Florin Rd.	4	Arterial	38,100	1.06	F	32,700	0.91	E
46. French Rd. - Florin Rd. to Gerber Rd.	2(4)	Arterial	20,800	1.16	F	24,400	0.68	B
47. Watt Ave. - Folsom Blvd. to Kiefer Blvd.	6	Arterial	64,300	1.07	F	68,500	1.14	F
48. South Watt Ave. - Kiefer Blvd. to SR 16	2(6)	Arterial	46,800	2.60	F	64,500	1.08	F
49. South Watt Ave. - SR 16 to Fruitridge Rd.	2(6)	Arterial	28,000	1.40	F	46,500	0.78	C
50. South Watt Ave. - Fruitridge Rd. to Elder Creek Rd.	2(6)	Arterial	22,100	1.23	F	42,000	0.78	C
51. South Watt Ave. - Elder Creek Rd. to Florin Rd.	2(6)	Arterial	20,300	1.13	F	41,700	0.77	C
52. Elk Grove-Florin Rd. - Florin Rd. to Gerber Rd.	2(6)	Arterial	29,300	1.63	F	49,600	0.92	E
53. Elk Grove-Florin Rd. - Gerber Rd. to Carlisle Ave.	4(6)	Arterial	43,300	1.20	F	49,500	0.92	E
54. Elk Grove-Florin Rd. - Carlisle Ave. to Vintage Park Dr.	6	Arterial	44,800	0.83	D	46,600	0.86	D
55. Elk Grove-Florin Rd. - Vintage Park Dr. to Calvine Rd.	4(6)	Arterial	40,200	1.12	F	42,500	0.79	C
56. Hedge Ave. - SR 16 to Fruitridge Rd.	2	Rural	8,700	0.44	D	4,400	0.22	C
57. Hedge Ave. - Fruitridge Rd. to Elder Creek Rd.	2	Rural	17,900	0.90	E	6,500	0.33	C
58. Hedge Ave. - Elder Creek Rd. to Florin Rd.	2	Rural	16,300	0.82	E	8,900	0.45	D
59. Waterman Rd. - Vintage Park Dr. to Calvine Rd.	4	Arterial	12,100	0.34	A	9,300	0.26	A
60. Bradshaw Rd. - Kiefer Blvd. to SR 16	4(6)	Arterial	45,500	1.26	F	39,200	0.73	C
61. Bradshaw Rd. - SR 16 to Elder Creek Rd.	4(6)	Arterial	32,500	0.90	E	36,800	0.68	B
62. Bradshaw Rd. - Elder Creek Rd. to Florin Rd.	4	Arterial	27,500	0.76	C	25,600	0.71	C
63. Bradshaw Rd. - Florin Rd. to Gerber Rd.	2(4)	Arterial	26,700	1.48	F	29,100	0.81	D
64. Bradshaw Rd. - Gerber Rd. to Vintage Park Dr.	2(4)	Arterial	17,400	0.97	E	20,300	0.56	A
65. Bradshaw Rd. - Vintage Park Dr. to Calvine Rd.	2(4)	Arterial	14,700	0.81	D	18,600	0.51	A
66. Vineyard Rd. - Gerber Rd. to Calvine Rd.	2	Arterial	7,300	0.41	A	6,800	0.38	A
67. Excelsior Rd. - SR 16 to Florin Rd.	2	Rural	12,500	0.63	E	6,400	0.36	A
68. Excelsior Rd. - Florin Rd. to Gerber Rd.	2	Rural	16,900	0.85	E	10,000	0.56	A
69. Excelsior Rd. - Gerber Rd. to Calvine Rd.	2	Rural	11,500	0.58	D	6,100	0.34	A

Note: Shaded areas indicate unacceptable operations.
All arterial roadway segments assumed to have moderate access control except for Segments 7, 47, and 49, which were assumed to have high access control.
Blue – City of Sacramento Study Roadway Segments
Green – City of Elk Grove Study Roadway Segments
[1]Facility type for unmitigated condition
[2]This segment of Calvine Road is four to six lanes.
Mitigation is for both primary and secondary impacts.
Source: *Fehr & Peers*, 2007

TABLE 13
ROADWAY LEVEL OF SERVICE – EXISTING PLUS PROJECT WITH MITIGATION CONDITIONS: PLANNING DEPARTMENT PLAN

Roadway Segment	Lanes	Type[1]	Existing Plus PD Project Conditions			Existing Plus PD Project Conditions With Mitigation		
			Vol	V/C	LOS	Vol	V/C	LOS
1. Folsom Blvd. - State Route 16 to Watt Ave.	4	Arterial	25,500	0.71	C	22,200	0.62	B
2. Kiefer Blvd. - Florin-Perkins Rd. to Watt Ave.	2	Arterial	8,700	0.48	A	6,400	0.36	A
3. Kiefer Blvd. - Watt Ave. to Rosemont Dr.	4	Arterial	23,900	0.66	B	21,300	0.59	A
4. Kiefer Blvd. - Rosemont Dr. to Bradshaw Rd.	4	Arterial	14,300	0.40	A	11,900	0.33	A
5. SR 16 - Folsom Blvd. to Watt Ave.	2(4)	Arterial	19,500	1.08	F	18,900	0.53	A
6. SR 16 - Watt Ave. to Bradshaw Rd.	2(4)	Arterial	20,700	1.15	F	23,500	0.65	B
7. SR 16 - Bradshaw Rd. to Sunrise Blvd	2	Arterial	12,000	0.60	A	12,000	0.60	A
8. Fruitridge Rd. - Power Inn Rd. to Florin-Perkins Rd.	4	Arterial	23,300	0.65	B	23,300	0.65	B
9. Fruitridge Rd. - Florin-Perkins Rd. to South Watt Ave.	2(4)	Arterial	18,700	1.04	F	18,300	0.51	A
10. Fruitridge Rd. - South Watt Ave. to Hedge Ave.	2	Rural	8,600	0.43	D	6,200	0.34	A
11. Elder Creek Rd. - Power Inn Rd. to Florin-Perkins Rd.	2(4)	Arterial	22,000	1.22	F	22,000	0.61	B
12. Elder Creek Rd. - Florin-Perkins Rd. to South Watt Ave.	2(4)	Arterial	18,700	1.04	F	18,200	0.51	A
13. Elder Creek Rd. - South Watt Ave. to Hedge Ave.	2(4)	Rural	16,700	0.84	E	22,700	0.63	B
14. Elder Creek Rd. – Hedge Ave. to Bradshaw Rd.	2(4)	Rural	17,700	0.89	E	21,300	0.59	A
15. Elder Creek Rd. - Bradshaw Rd. to Excelsior Rd.	2	Rural	4,700	0.24	C	4,400	0.24	A
16. Florin Rd. - Stockton Blvd to Power Inn Rd.	4(6)	Arterial	38,200	1.06	F	38,200	0.71	C
17. Florin Rd. - Power Inn Rd. to Florin-Perkins Rd.	4	Arterial	37,500	1.04	F	28,000	0.78	C
18. Florin Rd. - Florin-Perkins Rd. to Gardner Ave.	4(6)	Arterial	29,800	0.83	D	39,500	0.73	C
19. Florin Rd. - Gardner Ave. to South Watt Ave.	4(6)	Arterial	35,200	0.98	E	45,500	0.84	D
20. Florin Rd. - South Watt Ave. to Hedge Ave.	2(4)	Rural	29,400	1.47	F	29,000	0.81	D
21. Florin Rd. - Hedge Ave. to Bradshaw Rd.	2	Rural	16,800	0.84	E	13,400	0.67	E
22. Florin Rd. - Bradshaw Rd. to Excelsior Rd.	2	Rural	7,100	0.36	C	7,000	0.35	C
23. Florin Rd. - Excelsior Rd. to Sunrise Blvd	2	Rural	5,400	0.27	C	5,400	0.27	C
24. Gerber Rd. - Stockton Blvd to Power Inn Rd.	4	Arterial	23,900	0.66	B	23,900	0.66	B
25. Gerber Rd. - Power Inn Rd. to French Rd.	4(6)	Arterial	38,800	1.08	F	42,900	0.79	C
26. Gerber Rd. - French Rd. to Elk Grove-Florin Rd.	4	Arterial	35,600	0.99	E	30,700	0.85	D
27. Gerber Rd. - Elk Grove-Florin Rd. to Bradshaw Rd.	2(4)	Rural	21,500	1.08	F	21,700	0.60	B
28. Gerber Rd. - Bradshaw Rd. to Vineyard Rd.	2	Rural	6,400	0.32	C	6,800	0.34	C
29. Gerber Rd. - Vineyard Rd. to Excelsior Rd.	2	Rural	5,200	0.26	C	3,100	0.16	B
30. Vintage Park Dr. - Elk Grove-Florin Rd. to Waterman Rd.	4	Arterial	18,600	0.52	A	15,000	0.42	A
31. Vintage Park Dr. - Waterman Rd. to Bradshaw Rd.	4	Arterial	10,400	0.29	A	7,300	0.20	A
32. Calvine Rd. - Power Inn Rd. to Elk Grove-Florin Rd.[2]	5(6)	Arterial	48,600	1.08	F	48,600	0.90	D
33. Calvine Rd. - Elk Grove-Florin Rd. to Grand Cru Dr.	4	Arterial	31,600	0.88	D	29,700	0.83	D
34. Calvine Rd. - Grand Cru Dr. to Waterman Rd.	6	Arterial	32,600	0.60	B	29,500	0.55	A
35. Calvine Rd. - Waterman Rd. to Bradshaw Rd.	4	Arterial	19,000	0.53	A	19,500	0.54	A
36. Calvine Rd. - Bradshaw Rd. to Vineyard Rd.	4	Arterial	18,000	0.50	A	12,000	0.33	A
37. Calvine Rd. - Vineyard Rd. to Excelsior Rd.	2	Rural	11,200	0.56	D	5,800	0.29	C
38. Calvine Rd. - Excelsior Rd. to Grant Line Rd.	2	Rural	3,800	0.19	B	3,800	0.19	B
39. Power Inn Rd - Elder Creek Rd. to Florin Rd.	4(6)	Arterial	31,400	0.87	D	31,400	0.58	A
40. Power Inn Rd - Florin Rd. to Gerber Rd.	4	Arterial	31,500	0.88	D	28,900	0.80	D
41. Power Inn Rd - Gerber Rd. to Calvine Rd.	4	Arterial	30,200	0.84	D	27,600	0.77	C
42. Florin-Perkins Rd. - Folsom Blvd. to SR 16	4	Arterial	29,100	0.81	D	24,000	0.67	B
43. Florin-Perkins Rd. - SR 16 to Fruitridge Rd.	4(6)	Arterial	38,500	1.07	F	27,700	0.51	A
44. Florin-Perkins Rd. - Fruitridge Rd. to Elder Creek Rd.	4(6)	Arterial	40,800	1.13	F	35,400	0.66	B
45. Florin-Perkins Rd. - Elder Creek Rd. to Florin Rd.	4(6)	Arterial	39,600	1.10	F	35,300	0.65	B
46. French Rd. - Florin Rd. to Gerber Rd.	2(4)	Arterial	21,000	1.17	F	25,800	0.72	C
47. Watt Ave. - Folsom Blvd. to Kiefer Blvd.	6	Arterial	64,900	1.08	F	68,900	1.15	F
48. South Watt Ave. - Kiefer Blvd. to SR 16	2(6)	Arterial	47,200	2.62	F	65,400	1.09	F
49. South Watt Ave. - SR 16 to Fruitridge Rd.	2(6)	Arterial	28,500	1.43	F	46,900	0.78	C
50. South Watt Ave. - Fruitridge Rd. to Elder Creek Rd.	2(6)	Arterial	22,400	1.24	F	42,700	0.79	C

TABLE 13 (CONT.)
ROADWAY LEVEL OF SERVICE – EXISTING PLUS PROJECT WITH MITIGATION CONDITIONS: PLANNING DEPARTMENT PLAN

Roadway Segment	Lanes	Type[1]	Existing Plus PD Project Conditions			Existing Plus PD Project Conditions With Mitigation		
			Vol	V/C	LOS	Vol	V/C	LOS
51. South Watt Ave. - Elder Creek Rd. to Florin Rd.	2(6)	Arterial	21,000	1.17	F	43,400	0.80	D
52. Elk Grove-Florin Rd. - Florin Rd. to Gerber Rd.	2(6)	Arterial	29,400	1.63	F	50,600	0.94	E
53. Elk Grove-Florin Rd. - Gerber Rd. to Carlisle Ave.	4(6)	Arterial	43,800	1.22	F	51,100	0.95	E
54. Elk Grove-Florin Rd. - Carlisle Ave. to Vintage Park Dr.	6	Arterial	49,600	0.92	E	50,700	0.94	E
55. Elk Grove-Florin Rd. - Vintage Park Dr. to Calvine Rd.	4(6)	Arterial	41,000	1.14	F	44,100	0.82	D
56. Hedge Ave. - SR 16 to Fruitridge Rd.	2	Rural	9,100	0.46	D	4,400	0.22	C
57. Hedge Ave. - Fruitridge Rd. to Elder Creek Rd.	2	Rural	19,500	0.98	E	6,100	0.31	C
58. Hedge Ave. - Elder Creek Rd. to Florin Rd.	2	Rural	18,600	0.93	E	10,000	0.50	D
59. Waterman Rd. - Vintage Park Dr. to Calvine Rd.	4	Arterial	12,700	0.35	A	9,500	0.26	A
60. Bradshaw Rd. - Kiefer Blvd. to SR 16	4(6)	Arterial	47,100	1.31	F	40,600	0.75	C
61. Bradshaw Rd. - SR 16 to Elder Creek Rd.	4(6)	Arterial	34,000	0.94	E	38,900	0.72	C
62. Bradshaw Rd. - Elder Creek Rd. to Florin Rd.	4	Arterial	29,100	0.81	D	27,200	0.76	C
63. Bradshaw Rd. - Florin Rd. to Gerber Rd.	2(4)	Arterial	27,100	1.51	F	29,400	0.82	D
64. Bradshaw Rd. - Gerber Rd. to Vintage Park Dr.	2(4)	Arterial	16,900	0.94	E	20,200	0.56	A
65. Bradshaw Rd. - Vintage Park Dr. to Calvine Rd.	2(4)	Arterial	14,200	0.79	C	18,300	0.51	A
66. Vineyard Rd. - Gerber Rd. to Calvine Rd.	2	Arterial	8,000	0.44	A	6,800	0.38	A
67. Excelsior Rd. - SR 16 to Florin Rd.	2	Rural	13,300	0.67	E	6,500	0.36	A
68. Excelsior Rd. - Florin Rd. to Gerber Rd.	2	Rural	17,900	0.90	E	10,100	0.56	A
69. Excelsior Rd. - Gerber Rd. to Calvine Rd.	2	Rural	11,700	0.59	D	6,100	0.34	A

Notes: Shaded areas indicate unacceptable operations.
All arterial roadway segments assumed to have moderate access control except for Segments 7, 47, and 49, which were assumed to have high access control.
Blue – City of Sacramento Study Roadway Segments
Green – City of Elk Grove Study Roadway Segments
[1]Facility type for unmitigated condition
[2]This segment of Calvine Road is four to six lanes.
Mitigation is for both primary and secondary impacts.
Source: *Fehr & Peers*, 2007

MITIGATION MEASURE EP-37: (Folsom Boulevard/SR 16)

CAC & PD – Modify the traffic signal timings at the Folsom Boulevard/SR 16 intersection to accommodate the projected PM peak hour traffic volumes, which would require reallocating traffic signal green time to critical turning movements. This improvement would provide LOS C operations in the PM peak hour. Implementation of this mitigation measure would reduce the impact to a less than significant level.

MITIGATION MEASURE EP-38: (Folsom Boulevard/Florin-Perkins Road)

CAC & PD - Widen the westbound approach to the Folsom Boulevard/Florin-Perkins Road intersection to provide two left-turn lanes, one through lane, and one shared through/right-turn lane. This improvement would provide LOS D operations in the both the AM and PM peak hours with the CAC and PD Plans. However, this improvement would require additional right-of-way. Due to the right-of-way constraints, implementation of this mitigation measure is infeasible; therefore, this impact would remain significant and unavoidable.

MITIGATION MEASURE EP-39: (Folsom Boulevard/South Watt Avenue)

CAC & PD – Widen the northbound and southbound approaches to the Folsom Boulevard/South Watt Avenue intersection to provide the following lane configurations:

- Two left-turn lanes, three through lanes, and one right-turn lane on the northbound approach
- Two left-turn lanes, three through lanes, and one right-turn lane on the southbound approach (with overlap phasing).

This improvement would provide LOS E and D operations in the AM and PM peak hours with the CAC Plan and would provide LOS E and D operations in the AM and PM peak hours with the PD Plan. In the AM peak hour with the PD Plan, delay would be reduced by more than five seconds compared to “no project” conditions. Technical studies are currently being conducted for operational improvements along the Watt Avenue/South Watt Avenue corridor, which include the grade-separation of the Regional Transit LRT and improvements at the South Watt Avenue/Folsom Boulevard intersection. Implementation of this mitigation measure would reduce the impact to a less than significant level.

MITIGATION MEASURE EP-40: (Kiefer Boulevard/South Watt Avenue)

PD – Widen the northbound and southbound approach to the Kiefer Boulevard/South Watt Avenue intersection to provide the two left-turn lanes, two through lanes, and a shared through/right-turn lane. This improvement, which is consistent with the widening of South Watt Avenue identified in Mitigation Measure EP-20, would provide LOS D operations in both the AM and LOS C in the PM peak hours. Implementation of this mitigation measure would reduce the impact to a less than significant level.

MITIGATION MEASURE EP-41: (Kiefer Boulevard/Bradshaw Road)

CAC & PD - Widen the northbound and southbound approaches to the Kiefer Boulevard/Bradshaw Road intersection to provide the following lane configurations:

- One left-turn lane, three through lanes, and one right-turn lane on the northbound approach
- One left-turn lane, three through lanes, and one right-turn lane on the southbound approach

This improvement, which is consistent with the widening of Bradshaw Road identified in Mitigation Measure EP-28, would provide LOS A and E operations in the AM and PM peak hours, respectively, with the CAC Plan and would provide LOS B and E operations in the AM and PM peak hour, respectively, with the PD Plan. Implementation of this mitigation measure would reduce the impact to a less than significant level.

MITIGATION MEASURE EP-42: (SR 16/Florin-Perkins Road)

CAC & PD - Widen the northbound, southbound, and eastbound approaches to the SR 16/Florin-Perkins Road intersection to provide the following lane configurations:

- One left-turn lane, three through lanes, and one right-turn lane on the northbound approach
- One left-turn lane, two through lanes, and a shared through/right-turn lane on the southbound approach
- One left-turn lane, two through lanes, and a right-turn lane on the eastbound approach with overlap phasing

This improvement, which is consistent with the widening of SR 16 and Florin-Perkins Road identified in Mitigation Measures EP-1, EP-14 and EP-15, would provide LOS C operations in AM and LOS D in the PM peak hours with the CAC and LOS D in both the AM and PM peak hours with the PD Plan. Implementation of this mitigation measure would reduce the impact to a less than significant level.

MITIGATION MEASURE EP-43: (SR 16/South Watt Avenue)

CAC & PD - Widen the northbound, southbound, eastbound, and westbound approaches to the SR 16/South Watt Avenue intersection to provide the following lane configurations:

- One left-turn lane, three through lanes, and a right-turn lane on the northbound approach
- One left-turn lane, three through lanes, and a right-turn lane on the southbound approach
- One left-turn lane, one through lane, and a shared through/right-turn lane on the eastbound approach
- On left-turn lane, two through lanes, and one right-turn lane on the westbound approach

This improvement, which is consistent with the widening of SR 16 and South Watt Avenue identified in Mitigation Measures EP-1, EP-2, EP-20, and EP-21, would provide LOS D operations in both the AM and PM peak hours with the CAC Plan and LOS E in both the AM and PM peak hours with the PD Plan. Implementation of this mitigation measure would reduce the impact to a less than significant level.

MITIGATION MEASURE EP-44: (SR 16/Bradshaw Road)

CAC & PD – Widen the northbound, southbound, eastbound, and westbound approaches to the SR 16/Bradshaw Road intersection to provide the following lane configurations:

- One left-turn lane, three through lanes, and a right-turn lane on the northbound approach
- One left-turn lane, three through lanes, and a right-turn lane on the southbound approach
- One left-turn lane, two through lanes, and a right-turn lane on the eastbound approach
- One left-turn lane, two through lanes, and a right-turn lane on the westbound approach

This improvement, which is consistent with the widening of SR 16 and Bradshaw Road identified in Mitigation Measures EP-2, EP-28, and EP-32, would provide LOS E operations in the AM peak hour and LOS D operations in the PM peak hour. Implementation of this mitigation measure would reduce the impact to a less than significant level.

MITIGATION MEASURE EP-45: (Fruitridge Road/Florin-Perkins Road)

CAC & PD – Widen the northbound, southbound, and westbound approaches to the Fruitridge Road/Florin-Perkins Road intersection to provide the following lane configurations:

- Two left-turn lane, three through lanes, and right-turn lane on the northbound approach
- One left-turn lane, three through lanes, and right-turn lane on the southbound approach
- Two left-turn lane, two through lanes, and right-turn lane on the westbound approach

This improvement, which is consistent with the widening of Florin-Perkins Road identified in Mitigation Measures EP-15 and EP-16, would provide LOS D operations in both the AM and PM peak hours and would. However, this improvement would reduce delay compared to "no project" conditions. Implementation of this mitigation measure would reduce the impact to a less than significant level.

MITIGATION MEASURE EP-46: (Fruitridge Road/South Watt Avenue)

CAC & PD – Install a traffic signal and widen the northbound, southbound, eastbound, and westbound approaches to the Fruitridge Road/South Watt Avenue intersection to provide the following lane configurations:

- One left-turn lane, three through lanes, and a right-turn lane on the northbound approach
- One left-turn lane, three through lanes, and a right-turn lane on the southbound approach
- One left-turn lane, one through lane, and a shared through/right-turn lane on the eastbound approach
- One left-turn lane, one through lane, and a shared through/right-turn lane on the westbound approach

This improvement, which is consistent with the widening of Fruitridge Road and South Watt Avenue identified in Mitigation Measures EP-3, EP-21, and EP-22, would provide LOS C operations in both the AM and PM peak hours with the CAC and PD Plans and delay would reduce by more than five seconds compared to "no project" conditions. Implementation of this mitigation measure would reduce the impact to a less than significant level.

MITIGATION MEASURE EP-47: (Fruitridge Road/Hedge Avenue)

CAC & PD – Install a traffic signal and widen the northbound, southbound, eastbound, and westbound approaches to the Fruitridge Road/Hedge Avenue intersection to provide the following lane configurations:

- One left-turn lane and a shared through/right-turn lane on the northbound approach
- One left-turn lane and a shared through/right-turn lane on the southbound approach
- One left-turn lane and a shared through/right-turn lane on the eastbound approach
- One left-turn lane and a shared through/right-turn lane on the westbound approach

This improvement would provide LOS A and B operations in AM and PM peak hours, respectively, with the CAC Plan and would provide LOS B in both the AM and PM peak hours with the PD Plan. Implementation of this mitigation measure would reduce the impact to a less than significant level.

MITIGATION MEASURE EP-48: (Elder Creek Road/Florin-Perkins Road)

CAC & PD – Widen South Watt Avenue between Florin Road and Fruitridge Road from two to three lane in each direction. This improvement would result in a redistribution of study are traffic, and would result in LOS F operations in both the AM and PM peak hours with the CAC Plan and PD

Plans. However, this improvement would reduce delay compared "no project" conditions. Implementation of this mitigation measure would reduce the impact to a less than significant level.

MITIGATION MEASURE EP-49: (Elder Creek Road/South Watt Avenue)

CAC & PD – Widen the northbound, southbound, eastbound, and westbound approaches to the Elder Creek Road/South Watt Avenue intersection to provide the following lane configurations:

- One left-turn lane, three through lanes, and a right-turn lane on the northbound approach
- One left-turn lane, three through lanes, and a right-turn lane on the southbound approach
- One left-turn lane, two through lanes, and right-turn lane on the eastbound approach
- One left-turn lane, two through lanes, and right-turn lane on the westbound approach

This improvement, which is consistent with the widening of Elder Creek Road and South Watt Avenue identified Mitigation Measures EP-6, EP-30, EP-22, and EP-23 would provide LOS C in both the AM and PM peak hours with the CAC Plan and would provide LOS C in the AM peak hour and LOS D operations in the PM peak hours, respectively, with the PD Plan. Implementation of this mitigation measure would reduce the impact to a less than significant level for the CAC Plan and PD Plan in the AM peak hour. However, the impact would remain significant and unavoidable during the PM Peak hour with the PD Plan.

MITIGATION MEASURE EP-50: (Elder Creek Road/Hedge Avenue)

CAC & PD – Install a traffic signal and widen the northbound, southbound, eastbound, and westbound approaches to the Elder Creek Road/Hedge Avenue intersection to provide the following lane configurations:

- One left-turn lane and a shared through/right-turn lane on the northbound approach
- One left-turn lane and a shared through/right-turn lane on the southbound approach
- One left-turn lane, one through lane, and a shared through/right-turn lane on the eastbound approach
- One left-turn lane, one through lane, and a shared through/right-turn lane on the westbound approach

This improvement would provide LOS C and D operations in the AM and PM peak hours, respectively, with the CAC Plan and would provide LOS D and E operations in both the AM and PM peak hours, respectively, with the PD Plan. Implementation of this mitigation measure would reduce the impact to a less than significant level.

MITIGATION MEASURE EP-51: (Elder Creek Road/Bradshaw Road)

PD – Widen the northbound and southbound approaches to the Elder Creek Road/Bradshaw Road intersection to provide one left-turn lane, two through lanes, and shared through/right-turn lane. This improvement would provide LOS C operations in the AM and PM peak hours with the PD Plan. Implementation of this mitigation measure would reduce the impact to a less than significant level.

MITIGATION MEASURE EP-52: (Florin Road/Power Inn Road)

CAC & PD – Widen the westbound approach to the Florin Road/Power Inn Road intersection to provide one left-turn lane, two through lanes, and a shared through/right-turn lane. This improvement would provide LOS E operations in the AM peak hour and LOS D in the PM peak hour with the CAC Plan and LOS E in the AM and PM peak hours with the PD Plan. Implementation of this mitigation measure would reduce the impact to a less than significant level.

MITIGATION MEASURE EP-53: (Florin Road/Florin-Perkins Road)

CAC & PD – Widen the westbound approach to the Florin Road/Florin-Perkins Road intersection to provide the following lane configurations:

- One left-turn lane, two through lanes, and a right-turn lane (with overlap phasing) on the westbound approach

This improvement would provide LOS F in both the AM and PM peak hours, respectively, with the CAC and PD Plans. With this improvement, the impact would remain significant and unavoidable.

MITIGATION MEASURE EP-54: (Florin Road/Gardner Avenue)

CAC & PD – Install a traffic signal and widen the northbound and southbound approaches and modify the eastbound, and westbound approaches to the Florin Road/Gardner Avenue intersection to provide the following lane configurations:

- One left-turn lane and a shared through/right-turn lane on the northbound approach
- One left-turn lane and a shared through/right-turn lane on the southbound approach
- One left-turn lane, two through lanes, and a shared through/right-turn lane on the eastbound approach
- One left-turn lane, two through lanes, and a shared through/right-turn lane on the westbound approach

This improvement would provide LOS B and A operations in the AM and PM peak hours, respectively, with the CAC Plan and would provide LOS B operations in the AM and PM peak hours with the PD Plan. Implementation of this mitigation measure would reduce the impact to a less than significant level.

MITIGATION MEASURE EP-55: (Florin Road/South Watt Avenue)

CAC & PD – Widen the northbound, southbound, eastbound, and westbound approaches to the Florin Road/South Watt Avenue intersection to provide the following lane configurations:

- Two left-turn lanes, three through lanes, and a right-turn lane (with overlap phasing) on the northbound approach
- Two left-turn lane, three through lanes, and a right-turn lane on the southbound approach
- Two left-turn lanes, three through lanes, and a free right-turn lane on the eastbound approach (this would require a lane transition east of South Watt Avenue, a southbound receiving lane for the free right-turn lane, and a island separating the eastbound through and free right turn)
- Two left-turn lanes, three through lanes, and a right-turn lane on the westbound approach

This improvement, which is consistent with the widening of South Watt Avenue and Florin Road identified in Mitigation Measures EP-23, EP-24, and EP-36, would provide LOS C and LOS D in the AM and PM peak hours, respectively, with the CAC Plan and LOS D in both the AM and PM peak hours with the PD Plan. Implementation of this mitigation measure would reduce the impact to a less than significant level.

It should be noted that the construction of a free right-turn lane on the eastbound approach may not be feasible due to right-of-way availability for the southbound receiving lane or may not be desired due to the potential difficulty for pedestrians to navigate. Without this feature, the impact would remain significant and unavoidable.

MITIGATION MEASURE EP-56: (Florin Road/Hedge Avenue)

CAC & PD – Install a traffic signal and widen the northbound, southbound, eastbound, and westbound approaches to the Florin Road/Hedge Avenue intersection to provide the following lane configurations:

- One left-turn lane and a shared through/right-turn lane on the northbound approach
- One left-turn lane and a shared through/right-turn lane on the southbound approach
- One left-turn lane, one through lane, and a shared through/right-turn lane on the eastbound approach
- One left-turn lane, one through lane, and a shared through/right-turn lane on the westbound approach

This improvement would provide LOS C operations in both the AM and PM peak hours with the CAC Plan and LOS D in both the AM and PM peak hours with the PD plan. Implementation of this mitigation measure would reduce the impact to a less than significant level.

MITIGATION MEASURE EP-57: (Florin Road/Bradshaw Road)

CAC & PD – Implement the system-wide study area roadway mitigation, which would reduce traffic volume on critical turning movements and reduce the volume-to-capacity ratio at the intersection during the PM peak hour. The intersection would operate at LOS C and LOS E in the AM and PM peak hours, respectively, with the CAC Plan and would operate at LOS D and LOS E in the AM and PM peak hours, respectively, with the PD Plan. Implementation of this mitigation measure would reduce the impact to a less than significant level.

MITIGATION MEASURE EP-58: (Florin Road/Excelsior Road)

CAC & PD – Install a traffic signal and widen the northbound, southbound, eastbound, and westbound approaches to the Florin Road/Excelsior Road intersection to provide the following lane configurations:

- One left-turn lane and a shared through/right-turn lane on the northbound approach
- One left-turn lane and a shared through/right-turn lane on the southbound approach
- One left-turn lane and a shared through/right-turn lane on the eastbound approach
- One left-turn lane and a shared through/right-turn lane on the westbound approach

This improvement would provide LOS C and B operations in the AM and PM peak hours, respectively, with the CAC Plan and would provide LOS D and B operations in the AM and PM peak hours, respectively, with the PD Plan. Implementation of this mitigation measure would reduce the impact to a less than significant level.

MITIGATION MEASURE EP-59: (Gerber Road/Power Inn Road)

CAC & PD – Implement the system-wide study area roadway mitigation, which would reduce traffic volume on critical turning movements and reduce the volume-to-capacity ratio at the intersection during the AM peak hour. The intersection would operate at LOS E in both the AM and PM peak hours with the CAC and PD Plans. Implementation of this mitigation measure would reduce the impact to a less than significant level.

MITIGATION MEASURE EP-60: (Gerber Road/French Road)

CAC & PD – Widen the eastbound approach to the Gerber Road/French Road intersection to provide the following lane configurations:

- Two left-turn lanes, one through lane, and a shared through/right-turn lane on the eastbound approach

This improvement would result in LOS F operations in AM peak hour and LOS E operations in the PM peak hours with the CAC and PD Plans, which would improve operations compared to the "Existing Plus CAC" conditions; however, it will not reduce the impact to a less than significant level. Therefore, this impact would remain significant and unavoidable.

MITIGATION MEASURE EP-61: (Gerber Road/Elk Grove-Florin Road)

CAC & PD – Widen the northbound and southbound approaches to the Gerber Road/Elk Grove-Florin Road intersection to provide the following lane configurations in addition to right-turn overlap phasing for the eastbound right-turn lane:

- Two left-turn lanes, three through lanes, and a right-turn lane on the northbound approach
- Two left-turn lanes, three through lanes, and a right-turn lane on the southbound approach

This improvement, which is consistent with the widening of Elk Grove-Florin Road identified in Mitigation Measures EP-24 and EP-25, would provide LOS C and F operations in the AM and PM peak hours, respectively, with the CAC Plan and would provide LOS D and F operations in the AM and PM peak hours, respectively, with the PD Plan. This improvement would reduce the volume-to-capacity ration in the PM peak hour, but not to within 0.05 of "no project" conditions. Therefore, this impact would remain significant and unavoidable.

MITIGATION MEASURE EP-62: (Gerber Road/Waterman Road)

CAC & PD – Install a traffic signal and widen the eastbound approach to provide one through lane and a shared through/ right-turn lane, widen the westbound approach to one left-turn lane and two through lanes, and widen the northbound approach to provide one left-turn lane and one right-turn lane. This improvement would provide LOS A operations in both the AM and PM peak hours. Implementation of this mitigation measure would reduce the impact to a less than significant level.

MITIGATION MEASURE EP-63: (Gerber Road/Bar Du Lane)

CAC & PD – Install a traffic signal and widen the intersection approaches to include the following lane configurations:

- One left-turn lane and a shared through/right-turn lane on the northbound approach
- One left-turn lane and a shared through/right-turn lane on the southbound approach
- One left-turn lane, one through lane, and a shared through/right-turn lane on the eastbound approach
- One left-turn lane, one through lane, and a shared through/right-turn lane on the westbound approach

This improvement, which is consistent with the widening of Gerber Road identified in Mitigation Measure EP-11, would provide LOS A in both the AM and PM peak hours. Implementation of this mitigation measure would reduce the impact to a less than significant level.

MITIGATION MEASURE EP-64: (Gerber Road /Bradshaw Road)

CAC & PD – Widen the northbound, southbound, eastbound, and westbound approaches to the Gerber Road /Bradshaw Road intersection to provide the following lane configurations:

- One left-turn lane, one through lane, and a shared through/right-turn lane on the northbound approach
- One left-turn lane, one through lane, and a shared through/right-turn lane on the southbound approach
- Two left-turn lanes, one through lane, and a shared through/right-turn lane on the eastbound approach
- One left-turn lane, one through lane, and a shared through/right-turn lane on the westbound approach

This improvement, which is consistent with the widening of Gerber Road and Bradshaw Road identified in Mitigation Measures EP-11, EP-29, and EP-33, would provide LOS C and E operations in the AM and PM peak hours, respectively, with the CAC and PD Plans. Implementation of this mitigation measure would reduce the impact to a less than significant level.

MITIGATION MEASURE EP-65: (Gerber Road/Vineyard Road)

CAC & PD – Install a traffic signal at the Gerber Road/Vineyard Road intersection. This improvement would provide LOS D and B operations in the AM and PM peak hours, respectively, for both the CAC and PD plans. Implementation of this mitigation measure would reduce the impact to a less than significant level.

MITIGATION MEASURE EP-66: (Gerber Road/Excelsior Road)

CAC & PD – Widen the southbound approach to the Gerber Road/Excelsior Road intersection to provide a shared through/left-turn lane and a right-turn lane. This improvement would provide LOS D and C operations in the AM and PM peak hours, respectively, for both the CAC and PD plans. Implementation of this mitigation measure would reduce the impact to a less than significant level.

MITIGATION MEASURE EP-67: (Tiogawoods Drive/Elk Grove-Florin Road)

CAC & PD – Widen the northbound approach to the Tiogawoods Drive/Elk Grove-Florin Road intersection to provide a one left-turn lane, two through lanes, and a shared through/right-turn lane. This improvement would provide LOS C and C operations in the AM and PM peak hours, respectively, for the CAC plan and LOS D and C in the AM and PM peak hours, respectively, for the and PD plan. Implementation of this mitigation measure would reduce the impact to a less than significant level.

MITIGATION MEASURE EP-68 (Caselman Road/Elk Grove-Florin Road)

CAC & PD – Install a traffic signal, provide full access, and widen the northbound, southbound, eastbound, and westbound approaches to the Caselman Road/Elk Grove-Florin Road intersection to provide the following lane configurations:

- One left-turn lane, two through lanes, and a shared through/right-turn lane on the northbound approach
- One left-turn lane, two through lanes, and a shared through/right-turn lane on the southbound approach
- One left-turn lane and a shared through/right-turn lane on the eastbound approach
- One left-turn lane and a shared through/right-turn lane on the westbound approach

This improvement would provide LOS C and B operations in both the AM and PM peak hours, respectively, with the CAC Plan and would provide LOS E and D operations in the AM and PM peak hours, respectively, with the PD Plan. Implementation of this mitigation measure would reduce the impact to a less than significant level.

MITIGATION MEASURE EP-69: (Calvine Road/Elk Grove-Florin Road)

CAC & PD – Widen the northbound and southbound approaches to the Calvine Road/Elk Grove-Florin Road intersection to provide the following lane configurations:

- Two left-turn lanes, three through lanes, and a right-turn lane on the northbound approach
- Two left-turn lanes, three through lanes, and a right-turn lane (with overlap phasing) on the southbound approach

This improvement, which is consistent with the widening of Elk Grove-Florin Road identified in Mitigation Measures EP-26, would provide LOS D and E operations in the AM and PM peak hours, respectively, with both the CAC and PD Plans. Implementation of this mitigation measure would reduce the impact to a less than significant level.

MITIGATION MEASURE EP-70: (Calvine Road/Waterman Road)

CAC & PD – Widen the eastbound and westbound approaches to the Calvine Road/Waterman Road intersection to provide the following lane configurations:

- One left-turn lane, three through lanes, and a right-turn lane on the eastbound approach
- One left-turn lane, two through lanes, and a shared through/right-turn lane on the westbound approach

This improvement would provide LOS C in both the AM and PM peak hours with the CAC Plan and would provide LOS D in the AM and PM peak hours with the PD Plan. Implementation of this mitigation measure would reduce the impact to a less than significant level.

MITIGATION MEASURE EP-71: (Vintage Park Drive/Elk Grove-Florin Road)

CAC & PD – Provide right-turn overlap phasing for the westbound right-turn lane, which would require prohibiting southbound u-turn movements. This improvement would provide LOS D and C operations in the AM and PM peak hours, respectively, with the CAC plan, and LOS E and C in the AM and PM peak hours, respectively with the PD Plan. Implementation of this mitigation measure would reduce the impact to a less than significant level.

TABLE 14
INTERSECTION LEVEL OF SERVICE – EXISTING PLUS PROJECT MITIGATED CONDITIONS: CAC PREFERRED PLAN

Intersection	Control	Existing Plus CAC Project Conditions				Existing Mitigated Plus CAC Project Conditions			
		AM Peak		PM Peak		AM Peak		PM Peak	
		V/C or Delay	LOS	V/C or Delay	LOS	V/C or Delay	LOS	V/C or Delay	LOS
1. Folsom Blvd./State Route 16	Signal	32	C	**36**	**D**	30	C	27	C
2. Folsom Blvd./Florin-Perkins Rd	Signal	**69**	**E**	**67**	**E**	51	D	52	D
3. Folsom Blvd./South Watt Ave	Signal	**>80**	**F**	**>80**	**F**	57	E	43	D
4. Kiefer Blvd./South Watt Ave	Signal	0.98	E	0.90	D	0.85	D	0.78	C
5. Kiefer Blvd./Bradshaw Rd.	Signal	0.91	E	**1.19**	**F**	0.59	A	0.90	E
6. SR 16/Florin-Perkins Rd.	Signal	**>80**	**F**	**>80**	**F**	34	C	49	D
7. SR 16/South Watt Ave.	Signal	**1.39**	**F**	**1.73**	**F**	0.86	D	0.89	D
8. SR 16/Hedge Ave.	Signal	0.73	C	0.75	C	0.46	A	0.45	A
9. SR 16/Bradshaw Rd.	Signal	**1.27**	**F**	**1.06**	**F**	0.96	E	0.85	D
10. SR 16/Excelsior Rd.	Signal	0.89	D	0.92	E	0.89	D	0.92	E
11. Fruitridge Rd./Florin-Perkins Rd.	Signal	**>80**	**F**	**>80**	**F**	51	D	53	D
12. Fruitridge Rd./South Watt Ave.	4-Way Stop	**>50**	**F**	**>50**	**F**	28	C	29	C
13. Fruitridge Rd./Hedge Ave.	4-Way Stop	**>50**	**F**	**>50**	**F**	0.57	A	0.65	B
14. Elder Creek Rd./Florin-Perkins Rd.	Signal	**>80**	**F**	**>80**	**F**	>80	F	>80	F
15. Elder Creek Rd./South Watt Ave.	Signal	**>80**	**F**	**>80**	**F**	31	C	26	C
16. Elder Creek Rd./Hedge Ave.	4-Way Stop	**>50**	**F**	**>50**	**F**	0.75	C	0.84	D
17. Elder Creek Rd./Bradshaw Rd.	Signal	0.86	D	0.92	E	0.68	B	0.69	B
18. Elder Creek Rd./Excelsior Rd.	2-Way Stop	24	C	17	C	21	C	16	C
19. Florin Rd./Power Inn Rd.	Signal	0.96	E	**1.02**	**F**	0.91	E	0.90	D
20. Florin Rd./Florin-Perkins Rd.	Signal	**1.24**	**F**	**1.04**	**F**	1.18	F	1.16	F
21. Florin Rd./Gardner Ave.	2-Way Stop	**>50**	**F**	**>50**	**F**	0.64	B	0.58	A
22. Florin Rd./South Watt Ave.	Signal	**1.45**	**F**	**1.63**	**F**	0.78	C	0.82	D
23. Florin Rd./Hedge Ave.	4-Way Stop	**>50**	**F**	**>50**	**F**	0.77	C	0.75	C
24. Florin Rd./Waterman Rd.	Cumulative-Scenario Intersection								
25. Florin Rd./Bradshaw Rd.	Signal	0.76	C	**1.00**	**F**	0.80	C	0.94	E
26. Florin Rd./Vineyard Rd.	Cumulative-Scenario Intersection								
27. Florin Rd./Excelsior Rd.	4-Way Stop	**>50**	**F**	**>50**	**F**	0.79	C	0.69	B
28. Gerber Rd./Power Inn Rd.	Signal	**1.03**	**F**	0.94	E	0.94	E	0.9	E
29. Gerber Rd./French Rd.	Signal	**1.21**	**F**	**1.05**	**F**	1.05	F	0.97	E
30. Gerber Rd./Elk Grove-Florin Rd.	Signal	**1.10**	**F**	**1.36**	**F**	0.78	C	1.12	F
31. Gerber Rd./Waterman Rd.	2-Way Stop	**>50**	**F**	**>50**	**F**	0.45	A	0.41	A
32. Gerber Rd./Bar Du Lane	2-Way Stop	**>50**	**F**	**>50**	**F**	0.38	A	0.36	A
33. Gerber Rd./Bradshaw Rd.	Signal	**1.47**	**F**	**1.26**	**F**	0.75	C	0.93	E
34. Gerber Rd./Vineyard Rd.	2-Way Stop	**>50**	**F**	26	D	0.83	D	0.64	B
35. Gerber Rd./Excelsior Rd.	4-Way Stop	28	D	**>50**	**F**	26	D	17	C
36. Tiogawoods Dr./Elk Grove-Florin Rd.	Signal	**1.03**	**F**	0.68	B	0.80	C	0.73	C
37. Caselman Rd./Elk Grove-Florin Rd.	2-Way Stop	**>50**	**F**	34	D	0.78	C	0.69	B
38. Rogers Rd./Bradshaw Rd.	2-Way Stop	13	B	19	C	11	B	14	B
39. Vintage Park Dr./Elk Grove-Florin Rd	Signal	0.85	D	0.73	C	0.90	D	0.76	C
40. Vintage Park Dr./Waterman Rd.	Signal	0.69	B	0.60	A	0.53	A	0.44	A
41. Vintage Park Dr./Bradshaw Rd.	Signal	0.65	B	0.68	B	0.75	C	0.74	C
42. Calvine Rd./Elk Grove-Florin Rd.	Signal	**>80**	**F**	**>80**	**F**	43	D	47	D
43. Calvine Rd./Waterman Rd.	Signal	**51**	**F**	**>80**	**E**	22	C	28	C
44. Calvine Rd./Bradshaw Rd.	Signal	35	C	50	D	36	D	50	D
45. Calvine Rd./Excelsior Rd.	4-Way Stop	22	C	27	D	22	C	24	C

Notes: Signal Control- Circular 212 Planning Methodology- Results present volume/capacity ratio and LOS
2-Way Stop Control- 2000 HCM Methodology- Results present delay and LOS for worst minor-street approach
4-Way Stop Control- 2000 HCM Methodology- Results present average delay and LOS
Shaded areas indicate unacceptable operations.
Blue – City of Sacramento Study Intersections
Green – City of Elk Grove Study Intersections
Mitigation is for both primary and secondary impacts.
Bold indicates project impact.

Source: *Fehr & Peers*, 2007

TABLE 15
INTERSECTION LEVEL OF SERVICE – EXISTING PLUS PROJECT MITIGATED CONDITIONS: PLANNING DEPARTMENT PLAN

Intersection	Control	Existing Plus PD Project Conditions				Existing Mitigated Plus PD Project Conditions			
		AM Peak		PM Peak		AM Peak		PM Peak	
		V/C or Delay	LOS	V/C or Delay	LOS	V/C or Delay	LOS	V/C or Delay	LOS
1. Folsom Blvd./State Route 16	Signal	33	C	**36**	**D**	33	C	27	C
2. Folsom Blvd./Florin-Perkins Rd	Signal	**74**	**E**	**74**	**E**	44	D	42	D
3. Folsom Blvd./South Watt Ave	Signal	**>80**	**F**	**>80**	**F**	66	E	44	D
4. Kiefer Blvd./South Watt Ave	Signal	1.01	F	0.90	D	0.88	D	0.78	C
5. Kiefer Blvd./Bradshaw Rd.	Signal	0.94	E	**1.23**	**F**	0.60	B	0.93	E
6. SR 16/Florin-Perkins Rd.	Signal	**>80**	**F**	**>80**	**F**	44	D	53	D
7. SR 16/South Watt Ave.	Signal	**1.44**	**F**	**1.77**	**F**	0.91	E	0.9	E
8. SR 16/Hedge Ave.	Signal	0.8	C	0.79	C	0.50	A	0.47	A
9. SR 16/Bradshaw Rd.	Signal	1.32	F	1.13	F	0.98	E	0.88	D
10. SR 16/Excelsior Rd.	Signal	0.89	D	0.92	E	0.89	D	0.92	E
11. Fruitridge Rd./Florin-Perkins Rd.	Signal	**>80**	**F**	**>80**	**F**	52	D	54	D
12. Fruitridge Rd./South Watt Ave.	4-Way Stop	**>50**	**F**	**>50**	**F**	32	C	31	C
13. Fruitridge Rd./Hedge Ave.	4-Way Stop	**>50**	**F**	**>50**	**F**	0.61	B	0.61	B
14. Elder Creek Rd./Florin-Perkins Rd.	Signal	**>80**	**F**	**>80**	**F**	>80	F	>80	F
15. Elder Creek Rd./South Watt Ave.	Signal	**>80**	**F**	**>80**	**F**	30	C	36	D
16. Elder Creek Rd./Hedge Ave.	4-Way Stop	**>50**	**F**	**>50**	**F**	0.81	D	0.93	E
17. Elder Creek Rd./Bradshaw Rd.	Signal	0.93	E	**1.03**	**F**	0.73	C	0.73	C
18. Elder Creek Rd./Excelsior Rd.	2-Way Stop	24	C	17	C	20	C	16	C
19. Florin Rd./Power Inn Rd.	Signal	0.99	E	**1.02**	**F**	0.94	E	0.90	E
20. Florin Rd./Florin-Perkins Rd.	Signal	**1.34**	**F**	**1.13**	**F**	1.27	F	1.33	F
21. Florin Rd./Gardner Ave.	2-Way Stop	**>50**	**F**	**>50**	**F**	0.7	B	0.66	B
22. Florin Rd./South Watt Ave.	Signal	**1.54**	**F**	**1.66**	**F**	0.86	D	0.85	D
23. Florin Rd./Hedge Ave.	4-Way Stop	**>50**	**F**	**>50**	**F**	0.89	D	0.84	D
24. Florin Rd./Waterman Rd.	Cumulative-scenario Intersection								
25. Florin Rd./Bradshaw Rd.	Signal	0.84	D	**1.05**	**F**	0.87	D	0.98	E
26. Florin Rd./Vineyard Rd.	Cumulative-scenario Intersection								
27. Florin Rd./Excelsior Rd.	4-Way Stop	**>50**	**F**	**>50**	**F**	0.81	D	0.69	B
28. Gerber Rd./Power Inn Rd.	Signal	**1.06**	**F**	0.96	E	0.95	E	0.92	E
29. Gerber Rd./French Rd.	Signal	**1.27**	**F**	**1.05**	**F**	1.09	F	0.97	E
30. Gerber Rd./Elk Grove-Florin Rd.	Signal	**1.14**	**F**	**1.39**	**F**	0.82	D	1.20	F
31. Gerber Rd./Waterman Rd.	2-Way Stop	**>50**	**F**	**>50**	**F**	0.46	A	0.41	A
32. Gerber Rd./Bar Du Lane	2-Way Stop	**>50**	**F**	**>50**	**F**	0.39	A	0.35	A
33. Gerber Rd./Bradshaw Rd.	Signal	**1.49**	**F**	**1.29**	**F**	0.76	C	0.92	E
34. Gerber Rd./Vineyard Rd.	2-Way Stop	**>50**	**F**	25	D	0.83	D	0.63	B
35. Gerber Rd./Excelsior Rd.	4-Way Stop	29	D	**>50**	**F**	26	D	15	C
36. Tiogawoods Dr./Elk Grove-Florin Rd.	Signal	**1.04**	**F**	0.79	C	0.83	D	0.78	C
37. Caselman Rd./Elk Grove-Florin Rd.	2-Way Stop	**>50**	**F**	**>50**	**F**	0.95	E	0.82	D
38. Rogers Rd./Bradshaw Rd.	2-Way Stop	26	D	35	E	11	B	14	B
39. Vintage Park Dr./Elk Grove-Florin Rd	Signal	0.92	E	0.78	C	0.98	E	0.76	C
40. Vintage Park Dr./Waterman Rd.	Signal	0.73	C	0.58	A	0.57	A	0.46	A
41. Vintage Park Dr./Bradshaw Rd.	Signal	0.63	B	0.70	C	0.73	C	0.74	C
42. Calvine Rd./Elk Grove-Florin Rd.	Signal	**>80**	**F**	**>80**	**F**	42	D	48	D
43. Calvine Rd./Waterman Rd.	Signal	**56**	**F**	**>80**	**E**	36	D	48	D
44. Calvine Rd./Bradshaw Rd.	Signal	35	C	51	D	35	D	51	D
45. Calvine Rd./Excelsior Rd.	4-Way Stop	21	C	23	C	22	C	24	C

Notes: Signal Control- Circular 212 Planning Methodology- Results present volume/capacity ratio and LOS
2-Way Stop Control- 2000 HCM Methodology- Results present delay and LOS for worst minor-street approach
4-Way Stop Control- 2000 HCM Methodology- Results present average delay and LOS
Shaded areas indicate unacceptable operations.
Blue – City of Sacramento Study Intersections
Green – City of Elk Grove Study Intersections
Mitigation is for both primary and secondary impacts.
Bold indicates project impact.

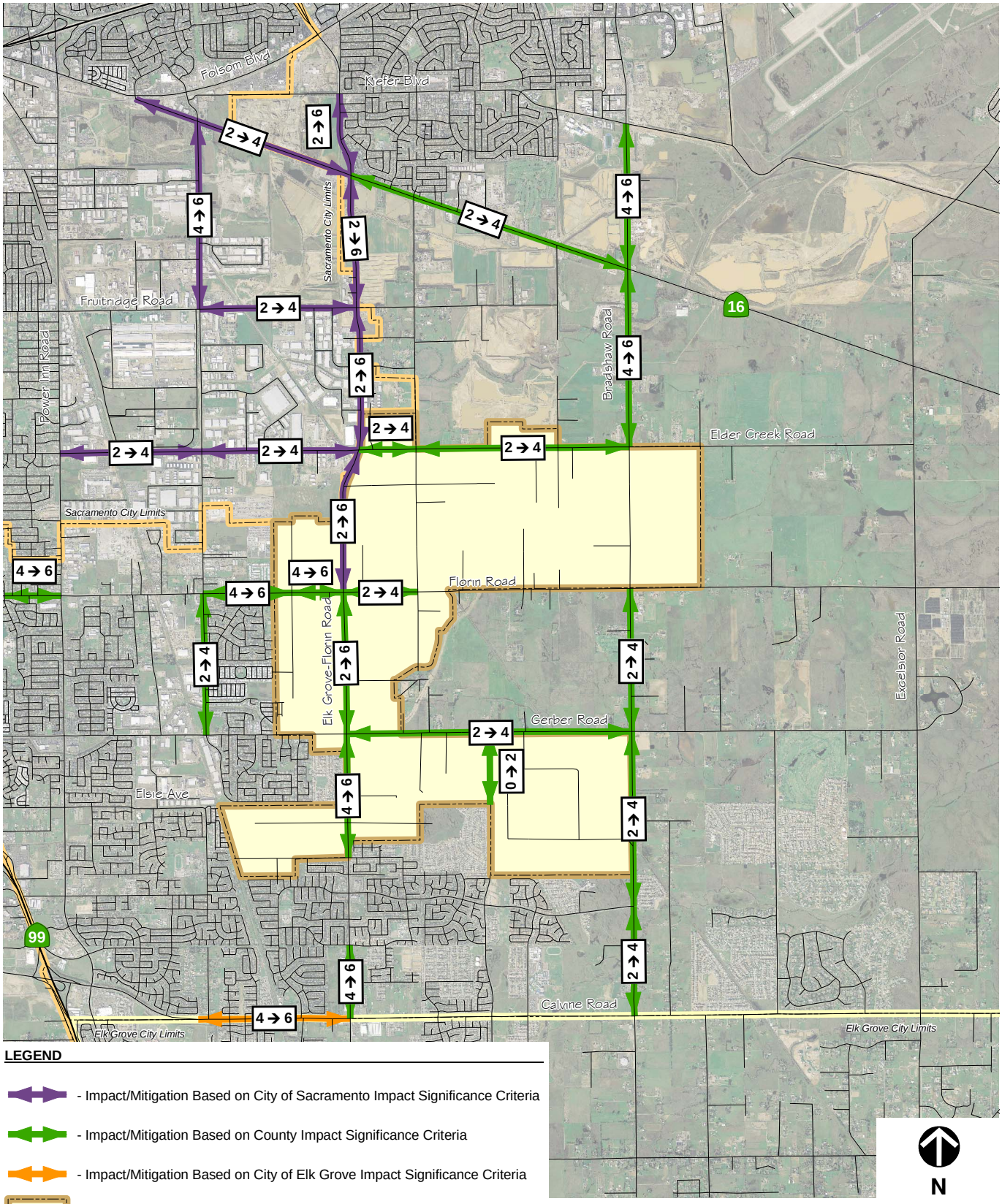
Source: *Fehr & Peers*, 2007

MITIGATION MEASURE EP-70:

CAC & PD - The addition of the proposed project will not disrupt or interfere with existing transit operations in the study area. No impact; therefore, no mitigation is proposed.

MITIGATION MEASURE EP-71:

CAC & PD - The addition of the proposed project will not disrupt or interfere with existing bicycle and pedestrian facilities in the study area. No impact; therefore, no mitigation is proposed.



LEGEND

- Impact/Mitigation Based on City of Sacramento Impact Significance Criteria
- Impact/Mitigation Based on County Impact Significance Criteria
- Impact/Mitigation Based on City of Elk Grove Impact Significance Criteria
- Project Location

Note: Mitigation is for both primary and secondary impacts.

NOT TO SCALE

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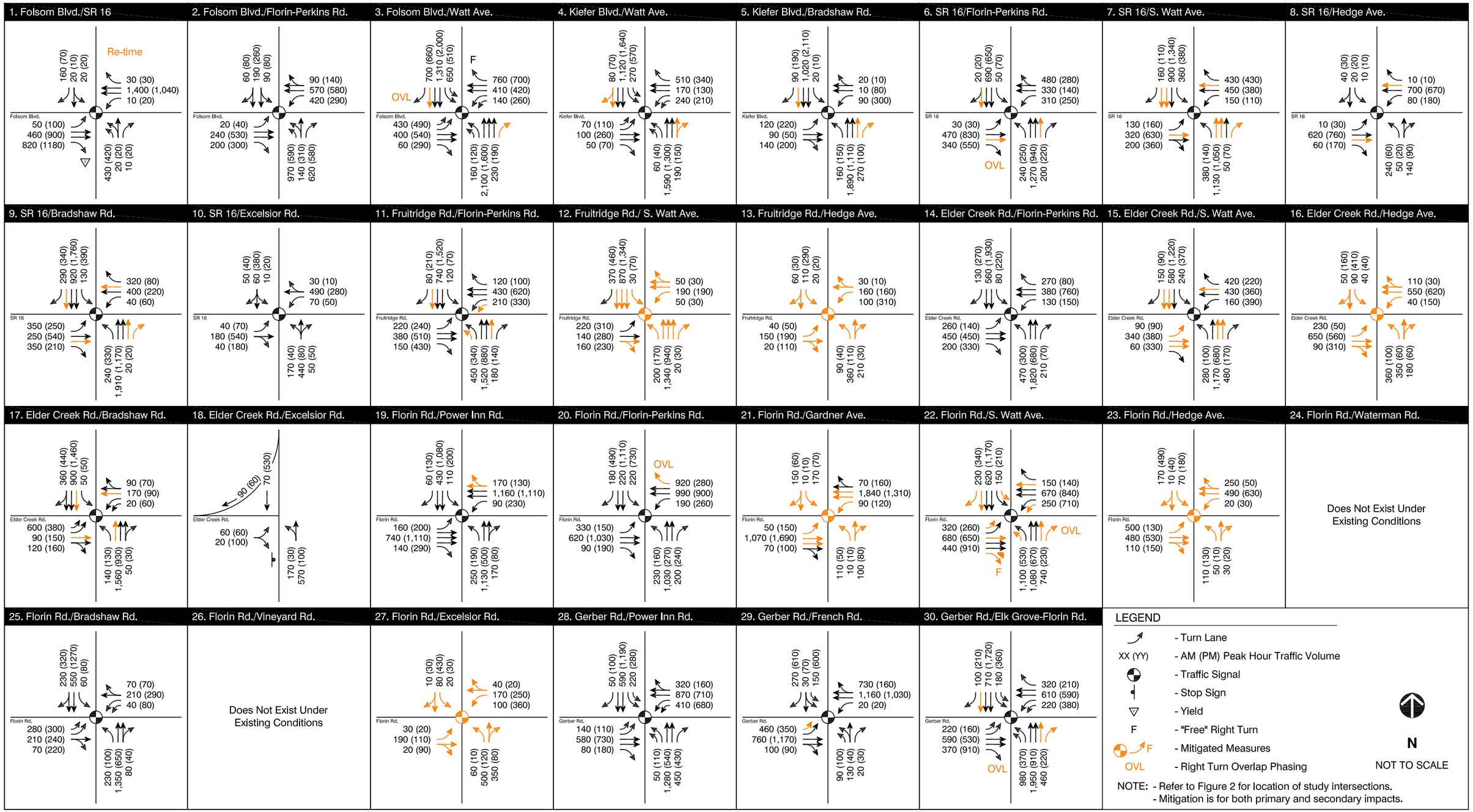
PROPOSED ROADWAY MITIGATION
EXISTING WITH PROJECT CONDITIONS

FIGURE 19



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Apr 12, 2008 MJC
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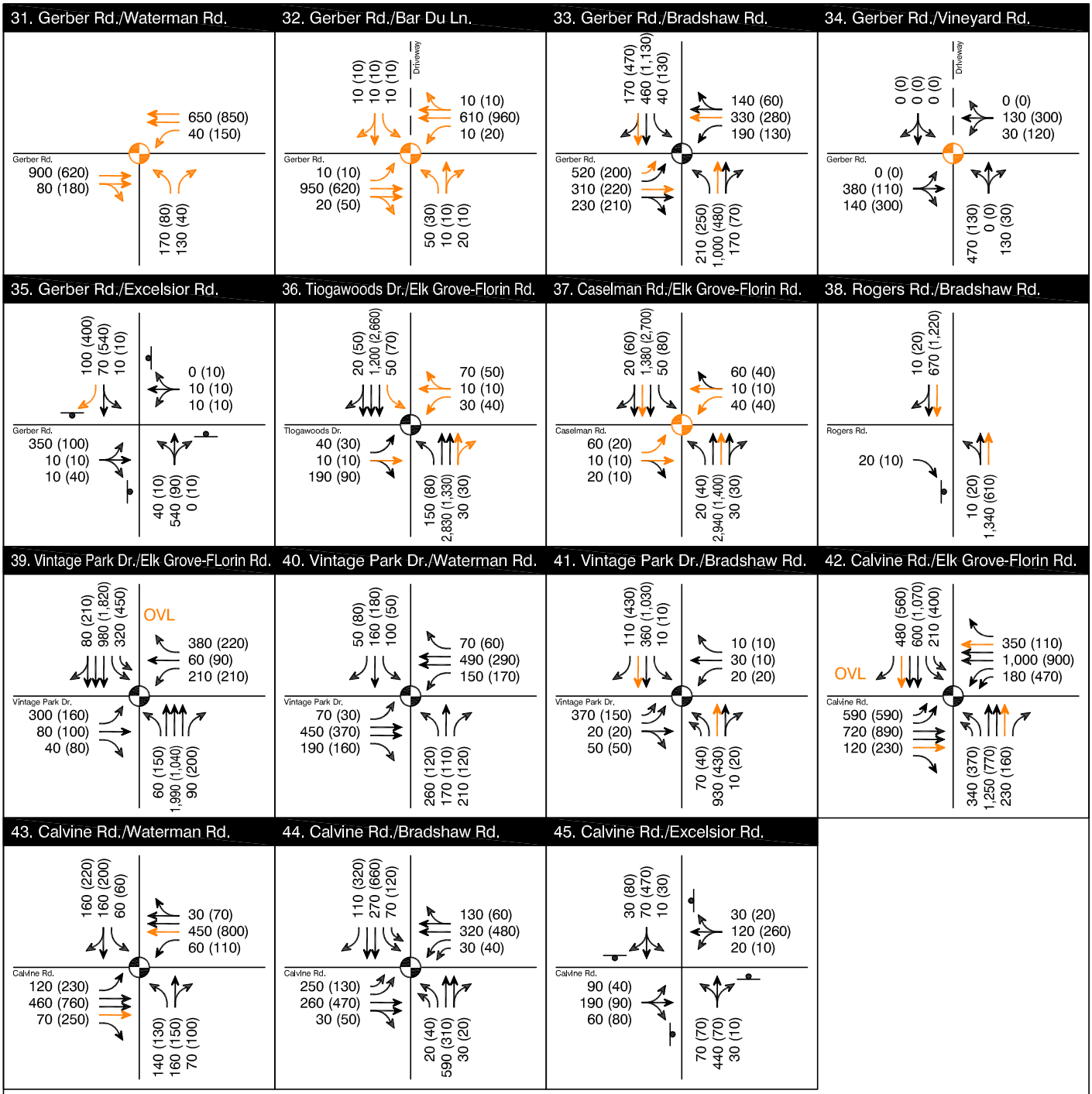
PEAK HOUR TRAFFIC VOLUMES, INTERSECTION TRAFFIC CONTROL, AND LANE CONFIGURATIONS - EXISTING PLUS CITIZENS ADVISORY COMMITTEE (CAC) LAND USE CONDITIONS WITH MITIGATION

FIGURE 20A



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PEAK HOUR TRAFFIC VOLUMES, INTERSECTION TRAFFIC CONTROL, AND LANE CONFIGURATIONS - EXISTING PLUS CITIZENS ADVISORY COMMITTEE (CAC) LAND USE CONDITIONS WITH MITIGATION

FIGURE 20B

Mar 26, 2008 MJC
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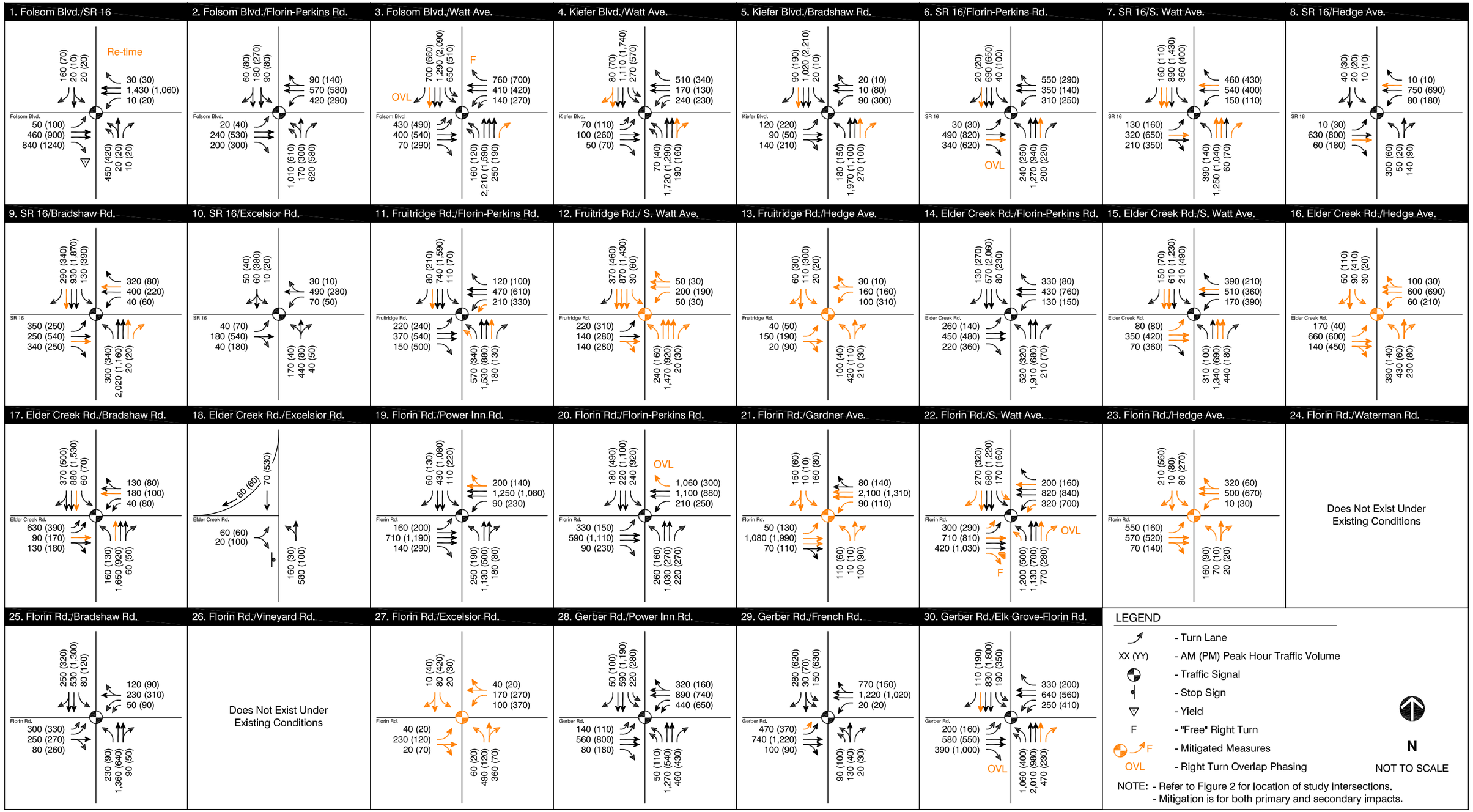

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Apr 12, 2008 MJC
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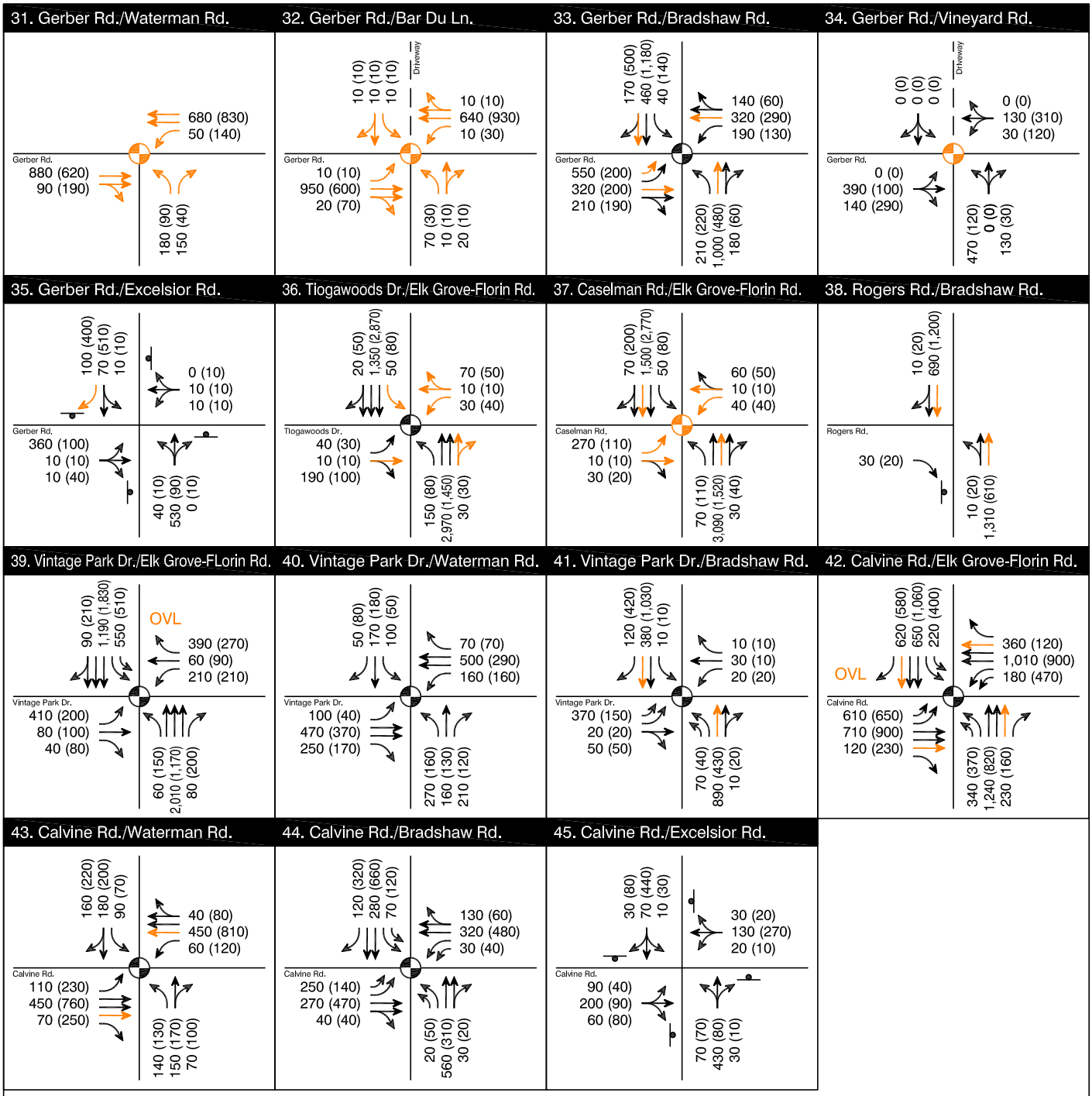
PEAK HOUR TRAFFIC VOLUMES, INTERSECTION TRAFFIC CONTROL, AND LANE CONFIGURATIONS - EXISTING PLUS PLANNING DEPARTMENT (PD) LAND USE CONDITIONS WITH MITIGATION

FIGURE 21A



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PEAK HOUR TRAFFIC VOLUMES, INTERSECTION TRAFFIC CONTROL, AND LANE CONFIGURATIONS - EXISTING PLUS PLANNING DEPARTMENT (PD) LAND USE CONDITIONS WITH MITIGATION

FIGURE 21B

Mar 26, 2008 MJC
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Cumulative Conditions – Roadway System Operations

Traffic operations of the cumulative transportation system with the addition of both the CAC and PD plans are discussed below.

Roadway Segments

The daily traffic volumes shown on Figures 15 were compared to the capacity criteria for roadway segments presented in Section II. Tables 16 and 17 summarize the roadway segment analysis under cumulative conditions with the addition of the CAC and PD plans, respectively. Thirty-two and thirty-one roadway segments will operate unacceptably with the addition of project traffic under the CAC and PD Plans, respectively. Project impacts based on the significance criteria presented in Section II are discussed below.

TABLE 16
ROADWAY LEVEL OF SERVICE – CUMULATIVE CONDITIONS: CAC PREFERRED PLAN

Roadway Segment		Lanes	Type	Cumulative Conditions			Cumulative Plus CAC Project Conditions		
				Vol	V/C	LOS	Vol	V/C	LOS
1.	Folsom Blvd. - State Route 16 to Watt Ave.	4	Arterial	29,000	0.81	D	29,400	**0.82**	**D**
2.	Kiefer Blvd. - Florin-Perkins Rd. to Watt Ave.	2	Arterial	9,200	0.51	A	9,600	0.53	A
3.	Kiefer Blvd. - Watt Ave. to Rosemont Dr.	4	Arterial	23,900	0.66	B	26,700	0.74	C
4.	Kiefer Blvd. - Rosemont Dr. to Bradshaw Rd.	4	Arterial	15,000	0.42	A	17,400	0.48	A
5.	SR 16 - Folsom Blvd. to Watt Ave.	2	Arterial	20,100	1.12	F	22,500	1.25	F
6.	SR 16 - Watt Ave. to Bradshaw Rd.	2	Arterial	23,600	1.31	F	26,500	1.47	F
7.	SR 16 - Bradshaw Rd. to Sunrise Blvd	2	Arterial	21,500	1.08	F	27,800	1.39	F
8.	Fruitridge Rd. - Power Inn Rd. to Florin-Perkins Rd.	4	Arterial	31,100	0.86	D	33,300	0.93	E
9.	Fruitridge Rd. - Florin-Perkins Rd. to South Watt Ave.	6	Arterial	28,500	0.53	A	32,100	0.59	A
10.	Fruitridge Rd. - South Watt Ave. to Hedge Ave.	2	Rural	12,100	0.61	D	12,100	0.61	D
11.	Elder Creek Rd. - Power Inn Rd. to Florin-Perkins Rd.	4	Arterial	23,500	0.65	B	26,800	0.74	C
12.	Elder Creek Rd. - Florin-Perkins Rd. to South Watt Ave.	4	Arterial	16,500	0.46	A	19,200	0.53	A
13.	Elder Creek Rd. - South Watt Ave. to Hedge Ave.	2	Rural	16,200	0.81	E	19,600	0.98	E
14.	Elder Creek Rd. – Hedge Ave. to Bradshaw Rd.	2	Rural	17,700	0.89	E	20,500	1.03	F
15.	Elder Creek Rd. - Bradshaw Rd. to Excelsior Rd.	2	Rural	7,900	0.40	D	10,500	0.53	D
16.	Florin Rd. - Stockton Blvd to Power Inn Rd.	4	Arterial	37,900	1.05	F	42,000	1.17	F
17.	Florin Rd. - Power Inn Rd. to Florin-Perkins Rd.	4	Arterial	34,300	0.95	E	39,600	1.10	F
18.	Florin Rd. - Florin-Perkins Rd. to Gardner Ave.	4	Arterial	29,800	0.83	D	38,700	1.08	F
19.	Florin Rd. - Gardner Ave. to South Watt Ave.	4	Arterial	32,800	0.91	E	42,500	1.18	F
20.	Florin Rd. - South Watt Ave. to Hedge Ave.	2	Rural	23,800	1.19	F	28,100	1.41	F
21.	Florin Rd. - Hedge Ave. to Bradshaw Rd.	4	Arterial	30,700	0.85	D	33,700	0.94	E
22.	Florin Rd. - Bradshaw Rd. to Excelsior Rd.	2	Rural	16,800	0.84	E	17,900	0.90	E
23.	Florin Rd. - Excelsior Rd. to Sunrise Blvd	2	Rural	10,800	0.54	D	14,400	0.72	E
24.	Gerber Rd. - Stockton Blvd to Power Inn Rd.	4	Arterial	24,000	0.67	B	25,100	0.70	B
25.	Gerber Rd. - Power Inn Rd. to French Rd.	4	Arterial	34,200	0.95	E	37,200	1.03	F
26.	Gerber Rd. - French Rd. to Elk Grove-Florin Rd.	4	Arterial	32,800	0.91	E	39,900	1.11	F
27.	Gerber Rd. - Elk Grove-Florin Rd. to Bradshaw Rd.	4	Arterial	22,700	0.63	B	30,000	0.83	D
28.	Gerber Rd. - Bradshaw Rd. to Vineyard Rd.	4	Arterial	15,800	0.44	A	17,700	0.49	A
29.	Gerber Rd. - Vineyard Rd. to Excelsior Rd.	2	Rural	4,700	0.24	C	7,000	0.35	C
30.	Vintage Park Dr. - Elk Grove-Florin Rd. to Waterman Rd.	4	Arterial	18,000	0.50	A	19,800	0.55	A
31.	Vintage Park Dr. - Waterman Rd. to Bradshaw Rd.	4	Arterial	9,700	0.27	A	9,800	0.27	A
32.	Calvine Rd. - Power Inn Rd. to Elk Grove-Florin Rd.[1]	5	Arterial	64,700	1.44	F	66,800	1.48	F
33.	Calvine Rd. - Elk Grove-Florin Rd. to Grand Cru Dr.	4	Arterial	37,800	1.05	F	40,000	1.11	F
34.	Calvine Rd. - Grand Cru Dr. to Waterman Rd.	6	Arterial	38,700	0.72	C	41,100	0.76	C
35.	Calvine Rd. - Waterman Rd. to Bradshaw Rd.	4	Arterial	29,000	0.81	D	30,100	0.84	D
36.	Calvine Rd. - Bradshaw Rd. to Vineyard Rd.	4	Arterial	20,500	0.57	A	21,000	0.58	A
37.	Calvine Rd. - Vineyard Rd. to Excelsior Rd.	2	Arterial	12,700	0.71	C	13,200	0.73	C
38.	Calvine Rd. - Excelsior Rd. to Grant Line Rd.	2	Rural	7,300	0.37	D	7,900	0.40	D
39.	Power Inn Rd - Elder Creek Rd. to Florin Rd.	4	Arterial	30,400	0.84	D	31,300	0.87	D

TABLE 16 (CONT.)
ROADWAY LEVEL OF SERVICE – CUMULATIVE CONDITIONS: CAC PREFERRED PLAN

Roadway Segment		Lanes	Type	Cumulative Conditions			Cumulative Plus CAC Project Conditions		
				Vol	V/C	LOS	Vol	V/C	LOS
40.	Power Inn Rd - Florin Rd. to Gerber Rd.	4	Arterial	35,300	0.98	E	36,700	1.02	F
41.	Power Inn Rd - Gerber Rd. to Calvine Rd.	4	Arterial	34,000	0.94	E	35,400	0.98	E
42.	Florin-Perkins Rd. - Folsom Blvd. to SR 16	6	Arterial	35,100	0.65	B	38,500	0.71	C
43.	Florin-Perkins Rd. - SR 16 to Fruitridge Rd.	6	Arterial	42,200	0.78	C	45,300	0.84	D
44.	Florin-Perkins Rd. - Fruitridge Rd. to Elder Creek Rd.	4	Arterial	41,600	1.16	F	43,700	1.21	F
45.	Florin-Perkins Rd. - Elder Creek Rd. to Florin Rd.	4	Arterial	37,400	1.04	F	39,700	1.10	F
46.	French Rd. - Florin Rd. to Gerber Rd.	2	Arterial	21,000	1.17	F	22,400	1.24	F
47.	Watt Ave. - Folsom Blvd. to Kiefer Blvd.	6	Arterial	81,700	1.36	F	84,200	1.40	F
48.	South Watt Ave. - Kiefer Blvd. to SR 16	5	Arterial	63,500	1.41	F	66,200	1.47	F
49.	South Watt Ave. - SR 16 to Fruitridge Rd.	4	Arterial	42,400	1.06	F	45,000	1.13	F
50.	South Watt Ave. - Fruitridge Rd. to Elder Creek Rd.	4	Arterial	38,500	1.07	F	44,700	1.24	F
51.	South Watt Ave. - Elder Creek Rd. to Florin Rd.	4	Arterial	31,800	0.88	D	37,200	1.03	F
52.	Elk Grove-Florin Rd. - Florin Rd. to Gerber Rd.	4	Arterial	36,200	1.01	F	42,500	1.18	F
53.	Elk Grove-Florin Rd. - Gerber Rd. to Carlisle Ave.	4	Arterial	39,700	1.10	F	45,500	1.26	F
54.	Elk Grove-Florin Rd. - Carlisle Ave. to Vintage Park Dr.	6	Arterial	38,600	0.71	C	44,300	0.82	D
55.	Elk Grove-Florin Rd. - Vintage Park Dr. to Calvine Rd.	4	Arterial	37,800	1.05	F	40,100	1.11	F
56.	Hedge Ave. - SR 16 to Fruitridge Rd.	2	Rural	5,100	0.26	C	5,200	0.26	C
57.	Hedge Ave. - Fruitridge Rd. to Elder Creek Rd.	2	Rural	16,700	0.84	E	18,600	0.93	E
58.	Hedge Ave. - Elder Creek Rd. to Florin Rd.	2	Rural	17,600	0.88	E	19,300	0.97	E
59.	Waterman Rd. - Vintage Park Dr. to Calvine Rd.	4	Arterial	23,000	0.64	B	24,600	0.68	B
60.	Bradshaw Rd. - Kiefer Blvd. to SR 16	4	Arterial	49,100	1.36	F	53,700	1.49	F
61.	Bradshaw Rd. - SR 16 to Elder Creek Rd.	4	Arterial	37,700	1.05	F	39,300	1.09	F
62.	Bradshaw Rd. - Elder Creek Rd. to Florin Rd.	4	Arterial	37,900	1.05	F	38,700	1.08	F
63.	Bradshaw Rd. - Florin Rd. to Gerber Rd.	4	Arterial	37,300	1.04	F	38,800	1.08	F
64.	Bradshaw Rd. - Gerber Rd. to Vintage Park Dr.	4	Arterial	29,400	0.82	D	31,800	0.88	D
65.	Bradshaw Rd. - Vintage Park Dr. to Calvine Rd.	4	Arterial	22,800	0.63	B	24,900	0.69	B
66.	Vineyard Rd. - Gerber Rd. to Calvine Rd.	2	Arterial	17,200	0.96	E	16,900	0.94	E
67.	Excelsior Rd. - SR 16 to Florin Rd.	2	Rural	12,500	0.63	E	14,000	0.70	E
68.	Excelsior Rd. - Florin Rd. to Gerber Rd.	2	Rural	13,100	0.66	E	15,100	0.76	E
69.	Excelsior Rd. - Gerber Rd. to Calvine Rd.	2	Rural	8,800	0.44	D	8,700	0.44	D
70.	Waterman Rd. – Vintage Park Dr. to Gerber Rd.	2	Arterial	26,600	1.48	F	29,900	1.66	F
71.	Waterman Rd. – Gerber Rd. to Florin Rd.	4	Arterial	24,700	0.69	B	26,600	0.74	C
72.	Vineyard Rd. – Gerber Rd. to Florin Rd.	2	Arterial	9,900	0.55	A	9,900	0.54	A

Notes: Shaded areas indicate unacceptable operations.
All arterial roadway segments assumed to have moderate access control except for Segments 7, 47, and 49, which were assumed to have high access control.
Blue – City of Sacramento Study Roadway Segments
Green – City of Elk Grove Study Roadway Segments
[1]This segment of Calvine Road is four to six lanes.

Source: *Fehr & Peers*, 2007

TABLE 17
ROADWAY LEVEL OF SERVICE – CUMULATIVE CONDITIONS: PLANNING DEPARTMENT PLAN

Roadway Segment	Lanes	Type	Cumulative Conditions			Cumulative Plus PD Project Conditions		
			Vol	V/C	LOS	Vol	V/C	LOS
1. Folsom Blvd. - State Route 16 to Watt Ave.	4	Arterial	29,000	0.81	D	30,400	0.84	D
2. Kiefer Blvd. - Florin-Perkins Rd. to Watt Ave.	2	Arterial	9,200	0.51	A	9,500	0.53	A
3. Kiefer Blvd. - Watt Ave. to Rosemont Dr.	4	Arterial	23,900	0.66	B	26,800	0.74	C
4. Kiefer Blvd. - Rosemont Dr. to Bradshaw Rd.	4	Arterial	15,000	0.42	A	17,600	0.49	A
5. SR 16 - Folsom Blvd. to Watt Ave.	2	Arterial	20,100	1.12	F	22,100	1.23	F
6. SR 16 - Watt Ave. to Bradshaw Rd.	2	Arterial	23,600	1.31	F	26,900	1.49	F
7. SR 16 - Bradshaw Rd. to Sunrise Blvd	2	Arterial	21,500	1.08	F	28,100	1.41	F
8. Fruitridge Rd. - Power Inn Rd. to Florin-Perkins Rd.	4	Arterial	31,100	0.86	D	33,500	0.93	E
9. Fruitridge Rd. - Florin-Perkins Rd. to South Watt Ave.	6	Arterial	28,500	0.53	A	32,800	0.61	B
10. Fruitridge Rd. - South Watt Ave. to Hedge Ave.	2	Rural	12,100	0.61	D	12,600	0.63	E
11. Elder Creek Rd. - Power Inn Rd. to Florin-Perkins Rd.	4	Arterial	23,500	0.65	B	27,200	0.76	C
12. Elder Creek Rd. - Florin-Perkins Rd. to South Watt Ave.	4	Arterial	16,500	0.46	A	19,400	0.54	A
13. Elder Creek Rd. - South Watt Ave. to Hedge Ave.	2	Rural	16,200	0.81	E	19,700	0.99	E
14. Elder Creek Rd. – Hedge Ave. to Bradshaw Rd.	2	Rural	17,700	0.89	E	21,000	1.05	F
15. Elder Creek Rd. - Bradshaw Rd. to Excelsior Rd.	2	Rural	7,900	0.40	D	10,700	0.54	D
16. Florin Rd. - Stockton Blvd to Power Inn Rd.	4	Arterial	37,900	1.05	F	42,300	1.18	F
17. Florin Rd. - Power Inn Rd. to Florin-Perkins Rd.	4	Arterial	34,300	0.95	E	40,200	1.12	F
18. Florin Rd. - Florin-Perkins Rd. to Gardner Ave.	4	Arterial	29,800	0.83	D	39,700	1.10	F
19. Florin Rd. - Gardner Ave. to South Watt Ave.	4	Arterial	32,800	0.91	E	43,400	1.21	F
20. Florin Rd. - South Watt Ave. to Hedge Ave.	2	Rural	23,800	1.19	F	28,700	1.44	F
21. Florin Rd. - Hedge Ave. to Bradshaw Rd.	4	Arterial	30,700	0.85	D	33,800	0.94	E
22. Florin Rd. - Bradshaw Rd. to Excelsior Rd.	2	Rural	16,800	0.84	E	18,000	0.90	E
23. Florin Rd. - Excelsior Rd. to Sunrise Blvd	2	Rural	10,800	0.54	D	14,400	0.72	E
24. Gerber Rd. - Stockton Blvd to Power Inn Rd.	4	Arterial	24,000	0.67	B	25,800	0.72	C
25. Gerber Rd. - Power Inn Rd. to French Rd.	4	Arterial	34,200	0.95	E	37,800	1.05	F
26. Gerber Rd. - French Rd. to Elk Grove-Florin Rd.	4	Arterial	32,800	0.91	E	41,000	1.14	F
27. Gerber Rd. - Elk Grove-Florin Rd. to Bradshaw Rd.	4	Arterial	22,700	0.63	B	30,900	0.86	D
28. Gerber Rd. - Bradshaw Rd. to Vineyard Rd.	4	Arterial	15,800	0.44	A	17,500	0.49	A
29. Gerber Rd. - Vineyard Rd. to Excelsior Rd.	2	Rural	4,700	0.24	C	7,100	0.36	C
30. Vintage Park Dr. - Elk Grove-Florin Rd. to Waterman Rd.	4	Arterial	18,000	0.50	A	20,800	0.58	A
31. Vintage Park Dr. - Waterman Rd. to Bradshaw Rd.	4	Arterial	9,700	0.27	A	9,900	0.28	A
32. Calvine Rd. - Power Inn Rd. to Elk Grove-Florin Rd.[1]	5	Arterial	64,700	1.44	F	67,600	1.50	F
33. Calvine Rd. - Elk Grove-Florin Rd. to Grand Cru Dr.	6	Arterial	37,800	1.05	F	40,000	1.11	F
34. Calvine Rd. - Grand Cru Dr. to Waterman Rd.	6	Arterial	38,700	0.72	C	41,100	0.76	C
35. Calvine Rd. - Waterman Rd. to Bradshaw Rd.	4	Arterial	29,000	0.81	D	30,100	0.84	D
36. Calvine Rd. - Bradshaw Rd. to Vineyard Rd.	4	Arterial	20,500	0.57	A	20,800	0.58	A
37. Calvine Rd. - Vineyard Rd. to Excelsior Rd.	2	Arterial	12,700	0.71	C	13,100	0.73	C
38. Calvine Rd. - Excelsior Rd. to Grant Line Rd.	2	Rural	7,300	0.37	D	7,900	0.40	D
39. Power Inn Rd - Elder Creek Rd. to Florin Rd.	4	Arterial	30,400	0.84	D	30,800	0.86	D
40. Power Inn Rd - Florin Rd. to Gerber Rd.	4	Arterial	35,300	0.98	E	36,000	1.00	E
41. Power Inn Rd - Gerber Rd. to Calvine Rd.	4	Arterial	34,000	0.94	E	34,700	0.96	E
42. Florin-Perkins Rd. - Folsom Blvd. to SR 16	6	Arterial	35,100	0.65	B	38,700	0.72	C
43. Florin-Perkins Rd. - SR 16 to Fruitridge Rd.	6	Arterial	42,200	0.78	C	46,400	0.86	D
44. Florin-Perkins Rd. - Fruitridge Rd. to Elder Creek Rd.	4	Arterial	41,600	1.16	F	43,800	1.22	F
45. Florin-Perkins Rd. - Elder Creek Rd. to Florin Rd.	4	Arterial	37,400	1.04	F	40,800	1.13	F
46. French Rd. - Florin Rd. to Gerber Rd.	2	Arterial	21,000	1.17	F	22,700	1.26	F
47. Watt Ave. - Folsom Blvd. to Kiefer Blvd.	6	Arterial	81,700	1.36	F	84,500	1.41	F
48. South Watt Ave. - Kiefer Blvd. to SR 16	5	Arterial	63,500	1.41	F	67,000	1.49	F
49. South Watt Ave. - SR 16 to Fruitridge Rd.	4	Arterial	42,400	1.06	F	45,500	1.14	F
50. South Watt Ave. - Fruitridge Rd. to Elder Creek Rd.	4	Arterial	38,500	1.07	F	44,900	1.25	F

TABLE 17 (CONT.)
ROADWAY LEVEL OF SERVICE – CUMULATIVE CONDITIONS: PLANNING DEPARTMENT PLAN

Roadway Segment	Lanes	Type	Cumulative Conditions			Cumulative Plus PD Project Conditions		
			Vol	V/C	LOS	Vol	V/C	LOS
51. South Watt Ave. - Elder Creek Rd. to Florin Rd.	4	Arterial	31,800	0.88	D	38,700	1.08	F
52. Elk Grove-Florin Rd. - Florin Rd. to Gerber Rd.	4	Arterial	36,200	1.01	F	43,400	1.21	F
53. Elk Grove-Florin Rd. - Gerber Rd. to Carlisle Ave.	4	Arterial	39,700	1.10	F	46,600	1.29	F
54. Elk Grove-Florin Rd. - Carlisle Ave. to Vintage Park Dr.	6	Arterial	38,600	0.71	C	48,600	0.90	D
55. Elk Grove-Florin Rd. - Vintage Park Dr. to Calvine Rd.	4	Arterial	37,800	1.05	F	40,700	1.13	F
56. Hedge Ave. - SR 16 to Fruitridge Rd.	2	Rural	5,100	0.26	C	5,200	0.26	C
57. Hedge Ave. - Fruitridge Rd. to Elder Creek Rd.	2	Rural	16,700	0.84	E	19,400	0.97	E
58. Hedge Ave. - Elder Creek Rd. to Florin Rd.	2	Rural	17,600	0.88	E	19,800	0.99	E
59. Waterman Rd. - Vintage Park Dr. to Calvine Rd.	4	Arterial	23,000	0.64	B	24,500	0.68	B
60. Bradshaw Rd. - Kiefer Blvd. to SR 16	4	Arterial	49,100	1.36	F	54,400	1.51	F
61. Bradshaw Rd. - SR 16 to Elder Creek Rd.	4	Arterial	37,700	1.05	F	40,200	1.12	F
62. Bradshaw Rd. - Elder Creek Rd. to Florin Rd.	4	Arterial	37,900	1.05	F	40,000	1.11	F
63. Bradshaw Rd. - Florin Rd. to Gerber Rd.	4	Arterial	37,300	1.04	F	38,600	1.07	F
64. Bradshaw Rd. - Gerber Rd. to Vintage Park Dr.	4	Arterial	29,400	0.82	D	31,800	0.88	D
65. Bradshaw Rd. - Vintage Park Dr. to Calvine Rd.	4	Arterial	22,800	0.63	B	24,800	0.69	B
66. Vineyard Rd. - Gerber Rd. to Calvine Rd.	2	Arterial	17,200	0.96	E	16,700	0.93	E
67. Excelsior Rd. - SR 16 to Florin Rd.	2	Rural	12,500	0.63	E	14,200	0.71	E
68. Excelsior Rd. - Florin Rd. to Gerber Rd.	2	Rural	13,100	0.66	E	15,200	0.76	E
69. Excelsior Rd. - Gerber Rd. to Calvine Rd.	2	Rural	8,800	0.44	D	8,800	0.44	D
70. Waterman Rd. - Vintage Park Dr. to Gerber Rd.	2	Arterial	26,600	1.48	F	30,000	1.67	F
71. Waterman Rd. - Gerber Rd. to Florin Rd.	4	Arterial	24,700	0.69	B	26,200	0.73	C
72. Vineyard Rd. - Gerber Rd. to Florin Rd.	2	Arterial	9,900	0.55	A	9,900	0.54	A

Notes: Shaded areas indicate unacceptable operations.
All arterial roadway segments assumed to have moderate access control except for Segments 7, 47, and 49, which were assumed to have high access control.
Blue – City of Sacramento Study Roadway Segments
Green – City of Elk Grove Study Roadway Segments
[1]This segment of Calvine Road is four to six lanes.

Source: *Fehr & Peers*, 2007

The addition of the CAC or PD plans will cause impacts on the following study roadway segments:

IMPACT CP-1: (Folsom Boulevard – SR 16 to Watt Avenue)

CAC – The addition of the proposed project and the recommended system-wide roadway mitigation measures will cause a secondary impact by increasing the daily traffic volume on the existing four-lane section of Folsom Boulevard between SR 16 and Watt Avenue from 29,400 vehicles per day (VPD) to 30,000 VPD, which exceeds the capacity of 36,000 VPD for four-lane arterial roadways. This volume increase will cause the volume-to-capacity ratio to increase by 0.02 or more on a roadway that operates unacceptably (LOS D). This is considered a significant impact based on the City of Sacramento significance criteria.

PD – The addition of the proposed project will increase the daily traffic volume on the four-lane section of Folsom Boulevard between SR 16 and Watt Avenue from 29,000 vehicles per day (VPD) to 30,400 VPD. This volume increase will cause the volume-to-capacity ratio to increase by 0.02 or more on a roadway that operates unacceptably (LOS D). This is considered a significant impact based on the City of Sacramento significance criteria.

IMPACT CP-2: (SR 16 – Folsom Boulevard to South Watt Avenue)

CAC – The addition of the proposed project will increase the daily traffic volume on the two-lane section of SR 16 between Folsom Boulevard and South Watt Avenue from 20,100 vehicles per day (VPD) to 22,500 VPD, which exceeds the capacity of 18,000 VPD for two-lane roadways with moderate access control. This volume increase will cause the volume-to-capacity ratio to increase by 0.02 or more on a roadway that operates unacceptably (LOS F). This is considered a significant impact based on the City of Sacramento significance criteria.

PD – The addition of the proposed project will increase the daily traffic volume on the two-lane section of SR 16 between Folsom Boulevard and South Watt Avenue from 20,100 vehicles per day (VPD) to 22,100 VPD, which exceeds the capacity of 18,000 VPD for two-lane roadways with moderate access control. This volume increase will cause the volume-to-capacity ratio to increase by 0.02 or more on a roadway that operates unacceptably (LOS F). This is considered a significant impact based on the City of Sacramento significance criteria.

IMPACT CP-3: (SR 16 –South Watt Avenue to Bradshaw Road)

CAC – The addition of the proposed project will increase the daily traffic volume on the two-lane section of SR 16 between South Watt Avenue and Bradshaw Road from 23,600 vehicles per day (VPD) to 26,500 VPD, which exceeds the capacity of 18,000 VPD for two-lane roadways with moderate access control. This volume increase will cause the volume-to-capacity ratio to increase by 0.05 or more on a roadway that operates unacceptably (LOS F). This is considered a significant impact based on the City of Sacramento significance criteria.

PD – The addition of the proposed project will increase the daily traffic volume on the two-lane section of SR 16 between South Watt Avenue and Bradshaw Road from 23,600 vehicles per day (VPD) to 26,900 VPD, which exceeds the capacity of 18,000 VPD for two-lane roadways with moderate access control. This volume increase will cause the volume-to-capacity ratio to increase by 0.05 or more on a roadway that operates unacceptably (LOS F). This is considered a significant impact based on the City of Sacramento significance criteria.

IMPACT CP-4: (SR 16 – Bradshaw Road to Sunrise Boulevard)

CAC – The addition of the proposed project will increase the daily traffic volume on the two-lane section of SR 16 between Bradshaw Road to Sunrise Boulevard from 21,500 vehicles per day (VPD) to 27,800 VPD, which exceeds the capacity of 20,000 VPD for two-lane roadways with high access control. This volume increase will cause the volume-to-capacity ratio to increase by 0.05 or more on a roadway that operates unacceptably (LOS F). This is considered a significant impact based on the City of Sacramento significance criteria.

PD – The addition of the proposed project will increase the daily traffic volume on the two-lane section of SR 16 between Bradshaw Road to Sunrise Boulevard from 21,500 vehicles per day (VPD) to 28,100 VPD, which exceeds the capacity of 20,000 VPD for two-lane roadways with high access control. This volume increase will cause the volume-to-capacity ratio to increase by 0.05 or more on a roadway that operates unacceptably (LOS F). This is considered a significant impact based on the City of Sacramento significance criteria.

IMPACT CP-5: (Fruitridge Road – Power Inn Road to Florin-Perkins Road)

CAC – The addition of the proposed project will increase the daily traffic volume on the four-lane section of Fruitridge Road between Power Inn Road and Florin-Perkins Road from 31,100 vehicles per day (VPD) to 33,300 VPD. This volume increase will cause the volume-to-capacity ratio to increase by 0.02 or more on a roadway that operates unacceptably (LOS D). This is considered a significant impact based on the City of Sacramento significance criteria.

PD – The addition of the proposed project will increase the daily traffic volume on the four-lane section of Fruitridge Road between Power Inn Road and Florin-Perkins Road from 31,100 vehicles per day (VPD) to 33,500 VPD. This volume increase will cause the volume-to-capacity ratio to increase by 0.02 or more on a roadway that operates unacceptably (LOS D). This is considered a significant impact based on the City of Sacramento significance criteria.

IMPACT CP-6: (Fruitridge Road – South Watt Avenue to Hedge Avenue)

CAC – Less than significant.

PD – The addition of the proposed project will increase the daily traffic volume on the two-lane section of Fruitridge Road between South Watt Avenue and Hedge Avenue from 12,100 vehicles per day (VPD) to 12,600 VPD. This volume increase will cause the volume-to-capacity ratio to increase by 0.02 or more on a roadway that operates unacceptably (LOS D). This is considered a significant impact based on the City of Sacramento significance criteria.

IMPACT CP-7: (Elder Creek Road – Hedge Avenue to Bradshaw Road)

CAC – The addition of the proposed project will increase the daily traffic volume on the two-lane section of Elder Creek Road between Hedge Avenue and Bradshaw Road from 17,700 vehicles per day (VPD) to 20,500 VPD, which exceeds the capacity of 20,000 VPD for two-lane rural roadways with paved shoulders. This volume increase will cause the LOS to change from E to F. This is considered a significant impact based on the Sacramento County significance criteria.

PD – The addition of the proposed project will increase the daily traffic volume on the two-lane section of Elder Creek Road between Hedge Avenue and Bradshaw Road from 17,700 vehicles per day (VPD) to 21,000 VPD, which exceeds the capacity of 20,000 VPD for two-lane rural roadways with paved shoulders. This volume increase will cause the LOS to change from E to F. This is considered a significant impact based on the Sacramento County significance criteria.

IMPACT CP-8: (Florin Road – Stockton Boulevard to Power Inn Road)

CAC – The addition of the proposed project will increase the daily traffic volume on the four-lane section of Florin Road between Stockton Boulevard and Power Inn Road from 37,900 vehicles per day (VPD) to 42,000 VPD. This volume increase will cause the volume-to-capacity ratio to increase by 0.05 or more on a roadway that operates unacceptably (LOS F). This is considered a significant impact based on the Sacramento County significance criteria.

PD – The addition of the proposed project will increase the daily traffic volume on the four-lane section of Florin Road between Stockton Boulevard and Power Inn Road from 37,900 vehicles per day (VPD) to 42,300 VPD. This volume increase will cause the volume-to-capacity ratio to increase by 0.05 or more on a roadway that operates unacceptably (LOS F). This is considered a significant impact based on the Sacramento County significance criteria.

IMPACT CP-9: (Florin Road – Power Inn Road to Florin-Perkins Road)

CAC – The addition of the proposed project will increase the daily traffic volume on the four-lane section of Florin Road between Power Inn Road and Florin-Perkins Road from 34,300 vehicles per day (VPD) to 39,600 VPD, which exceeds the capacity of 36,000 VPD for four-lane roadways with moderate access control. This volume increase will cause the LOS to change from E to F. This is considered a significant impact based on the Sacramento County significance criteria.

PD – The addition of the proposed project will increase the daily traffic volume on the four-lane section of Florin Road between Power Inn Road and Florin-Perkins Road from 34,300 vehicles per day (VPD) to 40,200 VPD, which exceeds the capacity of 36,000 VPD for four-lane roadways with moderate access control. This volume increase will cause the LOS to change from E to F. This is considered a significant impact based on the Sacramento County significance criteria.

IMPACT CP-10: (Florin Road – Florin-Perkins Road to Gardner Avenue)

CAC – The addition of the proposed project will increase the daily traffic volume on the four-lane section of Florin Road between Florin-Perkins Road and Gardner Avenue from 29,800 vehicles per day (VPD) to 38,700 VPD, which exceeds the capacity of 36,000 VPD for four-lane roadways with moderate access control. This volume increase will cause the LOS to change from D to F. This is considered a significant impact based on the Sacramento County significance criteria.

PD – The addition of the proposed project will increase the daily traffic volume on the four-lane section of Florin Road between Florin-Perkins Road and Gardner Avenue from 29,800 vehicles per day (VPD) to 39,700 VPD, which exceeds the capacity of 36,000 VPD for four-lane roadways with moderate access control. This volume increase will cause the LOS to change from D to F. This is considered a significant impact based on the Sacramento County significance criteria.

IMPACT CP-11: (Florin Road – Gardner Avenue to South Watt Avenue)

CAC – The addition of the proposed project will increase the daily traffic volume on the four-lane section of Florin Road between Gardner Avenue and South Watt Avenue from 32,800 vehicles per day (VPD) to 42,500 VPD, which exceeds the capacity of 36,000 VPD for four-lane roadways with moderate access control. This volume increase will cause the LOS to change from E to F. This is considered a significant impact based on the Sacramento County significance criteria.

PD – The addition of the proposed project will increase the daily traffic volume on the four-lane section of Florin Road between Gardner Avenue and South Watt Avenue from 32,800 vehicles per day (VPD) to 43,400 VPD, which exceeds the capacity of 36,000 VPD for four-lane roadways with moderate access control. This volume increase will cause the LOS to change from E to F. This is considered a significant impact based on the Sacramento County significance criteria.

IMPACT CP-12: (Florin Road – South Watt Avenue to Hedge Avenue)

CAC – The addition of the proposed project will increase the daily traffic volume on the two-lane section of Florin Road between South Watt Avenue and Hedge Avenue from 23,800 vehicles per day (VPD) to 28,100 VPD. This volume increase will cause the volume-to-capacity ratio to increase by 0.05 or more on a roadway that operates unacceptably (LOS F). This is considered a significant impact based on the Sacramento County significance criteria.

PD – The addition of the proposed project will increase the daily traffic volume on the two-lane section of Florin Road between South Watt Avenue and Hedge Avenue from 23,800 vehicles per day (VPD) to 28,700 VPD. This volume increase will cause the volume-to-capacity ratio to increase by 0.05 or more on a roadway that operates unacceptably (LOS F). This is considered a significant impact based on the Sacramento County significance criteria.

IMPACT CP-13: (Gerber Road – Power Inn Road to French Road)

CAC – The addition of the proposed project will increase the daily traffic volume on the four-lane section of Gerber Road between Power Inn Road and French Road from 34,200 vehicles per day (VPD) to 37,200 VPD, which exceeds the capacity of 36,000 VPD for four-lane roadways with moderate access control. This volume increase will cause the LOS to change from E to F. This is considered a significant impact based on the Sacramento County significance criteria.

PD – The addition of the proposed project will increase the daily traffic volume on the four-lane section of Gerber Road between Power Inn Road and French Road from 34,200 vehicles per day (VPD) to 37,800 VPD, which exceeds the capacity of 36,000 VPD for four-lane roadways with moderate access control. This volume increase will cause the LOS to change from E to F. This is considered a significant impact based on the Sacramento County significance criteria.

IMPACT CP-14: (Gerber Road – French Road to Elk Grove-Florin Road)

CAC – The addition of the proposed project will increase the daily traffic volume on the four-lane section of Gerber Road between French Road and Elk Grove-Florin Road from 32,800 vehicles per day (VPD) to 39,900 VPD, which exceeds the capacity of 36,000 VPD for four-lane roadways with moderate access control. This volume increase will cause the LOS to change from E to F. This is considered a significant impact based on the Sacramento County significance criteria.

PD – The addition of the proposed project will increase the daily traffic volume on the four-lane section of Gerber Road between French Road and Elk Grove-Florin Road from 34,000 vehicles per day (VPD) to 41,000 VPD, which exceeds the capacity of 36,000 VPD for four-lane roadways with moderate access control. This volume increase will cause the LOS to change from E to F. This is considered a significant impact based on the Sacramento County significance criteria.

IMPACT CP-15: (Calvine Road – Power Inn Road to Elk Grove-Florin Road)

CAC – The addition of the proposed project will increase the daily traffic volume on the four-lane section of Calvine Road between Power Inn Road and Elk Grove-Florin Road from 64,700 vehicles per day (VPD) to 66,800 VPD. This volume increase will cause the volume-to-capacity ratio to increase by 0.05 or more on a roadway that operates unacceptably (LOS F). This is considered a significant impact based on the City of Elk Grove significance criteria.

PD – The addition of the proposed project will increase the daily traffic volume on the four-lane section of Calvine Road between Power Inn Road and Elk Grove-Florin Road from 64,700 vehicles per day (VPD) to 67,600 VPD. This volume increase will cause the volume-to-capacity ratio to increase by 0.05 or more on a roadway that operates unacceptably (LOS F). This is considered a significant impact based on the City of Elk Grove significance criteria.

IMPACT CP-16: (Calvine Road – Elk Grove-Florin Road to Grand Cru Drive)

CAC – The addition of the proposed project will increase the daily traffic volume on the four-lane section of Calvine Road between Elk Grove-Florin Road and Grand Cru Drive from 37,800 vehicles per day (VPD) to 40,000 VPD. This volume increase will cause the volume-to-capacity ratio to increase by 0.05 or more on a roadway that operates unacceptably (LOS F). This is considered a significant impact based on the City of Elk Grove significance criteria.

PD – The addition of the proposed project will increase the daily traffic volume on the four-lane section of Calvine Road between Elk Grove-Florin Road and Grand Cru Drive from 37,800 vehicles per day (VPD) to 40,000 VPD. This volume increase will cause the volume-to-capacity ratio to increase by 0.05 or more on a roadway that operates unacceptably (LOS F). This is considered a significant impact based on the City of Elk Grove significance criteria.

IMPACT CP-17: (Power Inn Road – Elder Creek Road to Florin Road)

CAC – The addition of the proposed project will increase the daily traffic volume on the four-lane section of Power Inn Road between Elder Creek Road and Florin Road from 30,400 vehicles per day (VPD) to 31,300 VPD. This volume increase will cause the volume-to-capacity ratio to increase by more than 0.02 on a roadway that operates unacceptably (LOS D). This is considered a significant impact based on the City of Sacramento significance criteria.

PD – Less than significant impact

IMPACT CP-18: (Power Inn Road –Florin Road to Gerber Road)

CAC – The addition of the proposed project will increase the daily traffic volume on the four-lane section of Power Inn Road between Florin Road and Gerber Road from 35,300 vehicles per day (VPD) to 36,700 VPD, which exceeds the capacity of 36,000 VPD for four-lane roadways with moderate access control. This volume increase will cause the LOS to change from E to F. This is considered a significant impact based on the Sacramento County significance criteria.

PD – Less than significant impact

IMPACT CP-19: (Florin-Perkins Road – SR 16 to Fruitridge Road)

CAC – The addition of the proposed project will increase the daily traffic volume on the four-lane section of Florin-Perkins Road between SR 16 and Fruitridge Road from 42,200 vehicles per day (VPD) to 45,300 VPD. This volume increase will cause the LOS to change from C to D. This is considered a significant impact based on the City of Sacramento significance criteria.

PD – The addition of the proposed project will increase the daily traffic volume on the four-lane section of Florin-Perkins Road between SR 16 and Fruitridge Road from 42,200 vehicles per day (VPD) to 46,400 VPD. This volume increase will cause the LOS to change from C to D. This is considered a significant impact based on the City of Sacramento significance criteria.

IMPACT CP-20: (Florin-Perkins Road – Fruitridge Road to Elder Creek Road)

CAC – The addition of the proposed project will increase the daily traffic volume on the four-lane section of Florin-Perkins Road between Fruitridge Road and Elder Creek Road from 41,600 vehicles per day (VPD) to 43,700 VPD. This volume increase will cause the volume-to-capacity ratio to increase by 0.02 or more on a roadway that operates unacceptably (LOS F). This is considered a significant impact based on the City of Sacramento significance criteria.

PD – The addition of the proposed project will increase the daily traffic volume on the four-lane section of Florin-Perkins Road between Fruitridge Road and Elder Creek Road from 41,600 vehicles per day (VPD) to 43,800 VPD. This volume increase will cause the volume-to-capacity ratio to increase by 0.02 or more on a roadway that operates unacceptably (LOS F). This is considered a significant impact based on the City of Sacramento significance criteria.

IMPACT CP-21: (Florin-Perkins Road – Elder Creek Road to Florin Road)

CAC – The addition of the proposed project will increase the daily traffic volume on the four-lane section of Florin-Perkins Road between Elder Creek Road and Florin Road from 37,400 vehicles per day (VPD) to 39,700 VPD, which exceeds the capacity of 36,000 VPD for four-lane roadways with moderate access control. This volume increase will cause the volume-to-capacity ratio to increase by 0.02 or more on a roadway that operates unacceptably (LOS F). This is considered a significant impact based on the City of Sacramento significance criteria.

PD – The addition of the proposed project will increase the daily traffic volume on the four-lane section of Florin-Perkins Road between Elder Creek Road and Florin Road from 37,400 vehicles per day (VPD) to 40,800 VPD, which exceeds the capacity of 36,000 VPD for four-lane roadways with moderate access control. This volume increase will cause the volume-to-capacity ratio to increase by 0.02 or more on a roadway that operates unacceptably (LOS F). This is considered a significant impact based on the City of Sacramento significance criteria.

IMPACT CP-22: (French Road – Florin Road to Gerber Road)

CAC – The addition of the proposed project will increase the daily traffic volume on the two-lane section of Florin-Perkins Road between French Road and Gerber Road from 21,000 vehicles per day (VPD) to 22,400 VPD. This volume increase will cause the volume-to-capacity ratio to increase by 0.05 or more on a roadway that operates unacceptably (LOS F). This is considered a significant impact based on the Sacramento County significance criteria.

PD – The addition of the proposed project will increase the daily traffic volume on the two-lane section of Florin-Perkins Road between French Road and Gerber Road from 21,000 vehicles per day (VPD) to 22,700 VPD. This volume increase will cause the volume-to-capacity ratio to increase by 0.05 or more on a roadway that operates unacceptably (LOS F). This is considered a significant impact based on the Sacramento County significance criteria.

IMPACT CP-23: (South Watt Avenue – Kiefer Boulevard to SR 16)

CAC – The addition of the proposed project will increase the daily traffic volume on the five-lane section of South Watt Avenue between Kiefer Boulevard and SR 16 from 63,500 vehicles per day (VPD) to 66,200 VPD, which exceeds the capacity of 45,000 VPD for five-lane roadways with moderate access control. This volume increase will cause the volume-to-capacity ratio to increase by more than 0.05 on a roadway that operates unacceptably (LOS F). This is considered a significant impact based on the Sacramento County significance criteria.

PD – The addition of the proposed project will increase the daily traffic volume on the five-lane section of South Watt Avenue between Kiefer Boulevard and SR 16 from 63,500 vehicles per day (VPD) to 67,000 VPD, which exceeds the capacity of 45,000 VPD for five-lane roadways with moderate access control. This volume increase will cause the volume-to-capacity ratio to increase by more than 0.05 on a roadway that operates unacceptably (LOS F). This is considered a significant impact based on the Sacramento County significance criteria.

IMPACT CP-24: (South Watt Avenue – SR 16 to Fruitridge Road)

CAC – The addition of the proposed project will increase the daily traffic volume on the four-lane section of South Watt Avenue between SR 16 and Fruitridge Road from 42,400 vehicles per day (VPD) to 45,000 VPD, which exceeds the capacity of 40,000 VPD for four-lane roadways with high access control. This volume increase will cause the volume-to-capacity ratio to increase by 0.02 or more on a roadway that operates unacceptably (LOS F). This is considered a significant impact based on the City of Sacramento significance criteria.

PD – The addition of the proposed project will increase the daily traffic volume on the four-lane section of South Watt Avenue between SR 16 and Fruitridge Road from 42,400 vehicles per day (VPD) to 45,500 VPD, which exceeds the capacity of 40,000 VPD for four-lane roadways with high access control. This volume increase will cause the volume-to-capacity ratio to increase by 0.02 or

more on a roadway that operates unacceptably (LOS F). This is considered a significant impact based on the City of Sacramento significance criteria.

IMPACT CP-25: (South Watt Avenue – Fruitridge Road to Elder Creek Road)

CAC – The addition of the proposed project will increase the daily traffic volume on the four-lane section of South Watt Avenue between Fruitridge Road and Elder Creek Road from 38,500 vehicles per day (VPD) to 44,700 VPD, which exceeds the capacity of 36,000 VPD for four-lane roadways with moderate access control. This volume increase will cause the volume-to-capacity ratio to increase by 0.02 or more on a roadway that operates unacceptably (LOS F). This is considered a significant impact based on the City of Sacramento significance criteria.

PD – The addition of the proposed project will increase the daily traffic volume on the four-lane section of South Watt Avenue between Fruitridge Road and Elder Creek Road from 38,500 vehicles per day (VPD) to 44,900 VPD, which exceeds the capacity of 36,000 VPD for four-lane roadways with moderate access control. This volume increase will cause the volume-to-capacity ratio to increase by 0.02 or more on a roadway that operates unacceptably (LOS F). This is considered a significant impact based on the City of Sacramento significance criteria.

IMPACT CP-26: (South Watt Avenue – Elder Creek Road to Florin Road)

CAC – The addition of the proposed project will increase the daily traffic volume on the four-lane section of South Watt Avenue between Elder Creek Road and Florin Road from 31,800 vehicles per day (VPD) to 37,200 VPD, which exceeds the capacity of 36,000 VPD for four-lane roadways with moderate access control. This volume increase will cause the volume-to-capacity ratio to increase by 0.02 or more on a roadway that operates unacceptably (LOS D). This is considered a significant impact based on the City of Sacramento significance criteria.

PD – The addition of the proposed project will increase the daily traffic volume on the four-lane section of South Watt Avenue between Elder Creek Road and Florin Road from 31,800 vehicles per day (VPD) to 38,700 VPD, which exceeds the capacity of 36,000 VPD for four-lane roadways with moderate access control. This volume increase will cause the volume-to-capacity ratio to increase by 0.02 or more on a roadway that operates unacceptably (LOS D). This is considered a significant impact based on the City of Sacramento significance criteria.

IMPACT CP-27: (Elk Grove-Florin Road – Florin Road to Gerber Road)

CAC – The addition of the proposed project will increase the daily traffic volume on the four-lane section of Elk Grove-Florin Road between Florin Road and Gerber Road from 36,200 vehicles per day (VPD) to 42,500 VPD, which exceeds the capacity of 36,000 VPD for four-lane roadways with moderate access control. This volume increase will cause the volume-to-capacity ratio to increase by more than 0.05 on a roadway that operates unacceptably (LOS F). This is considered a significant impact based on the Sacramento County significance criteria.

PD – The addition of the proposed project will increase the daily traffic volume on the four-lane section of Elk Grove-Florin Road between Florin Road and Gerber Road from 36,200 vehicles per day (VPD) to 43,400 VPD, which exceeds the capacity of 36,000 VPD for four-lane roadways with moderate access control. This volume increase will cause the volume-to-capacity ratio to increase by more than 0.05 on a roadway that operates unacceptably (LOS F). This is considered a significant impact based on the Sacramento County significance criteria.

IMPACT CP-28: (Elk Grove-Florin Road – Gerber Road to Carlisle Avenue)

CAC – The addition of the proposed project will increase the daily traffic volume on the four-lane section of Elk Grove-Florin Road between Gerber Road and Carlisle Avenue from 39,700 vehicles per day (VPD) to 45,500 VPD, which exceeds the capacity of 36,000 VPD for four-lane roadways with moderate access control. This volume increase will cause the volume-to-capacity ratio to increase by more than 0.05 on a roadway that operates unacceptably (LOS F). This is considered a significant impact based on the Sacramento County significance criteria.

PD – The addition of the proposed project will increase the daily traffic volume on the four-lane section of Elk Grove-Florin Road between Gerber Road and Carlisle Avenue from 39,700 vehicles per day (VPD) to 46,600 VPD, which exceeds the capacity of 36,000 VPD for four-lane roadways with moderate access control. This volume increase will cause the volume-to-capacity ratio to increase by more than 0.05 on a roadway that operates unacceptably (LOS F). This is considered a significant impact based on the Sacramento County significance criteria.

IMPACT CP-29: (Elk Grove-Florin Road – Vintage Park Drive to Calvine Road)

CAC – The addition of the proposed project will increase the daily traffic volume on the four-lane section of Elk Grove-Florin Road between Vintage Park Drive and Calvine Road from 37,800 vehicles per day (VPD) to 40,100 VPD, which exceeds the capacity of 36,000 VPD for four-lane roadways with moderate access control. This volume increase will cause the volume-to-capacity ratio to increase by more than 0.05 on a roadway that operates unacceptably (LOS F). This is considered a significant impact based on the Sacramento County significance criteria.

PD – The addition of the proposed project will increase the daily traffic volume on the four-lane section of Elk Grove-Florin Road between Vintage Park Drive and Calvine Road from 37,800 vehicles per day (VPD) to 40,700 VPD, which exceeds the capacity of 36,000 VPD for four-lane roadways with moderate access control. This volume increase will cause the volume-to-capacity ratio to increase by more than 0.05 on a roadway that operates unacceptably (LOS F). This is considered a significant impact based on the Sacramento County significance criteria.

IMPACT CP-30: (Hedge Avenue – Fruitridge Road to Elder Creek Road)

CAC – The addition of the proposed project will increase the daily traffic volume on the two-lane section of Hedge Avenue between Fruitridge Road and Elder Creek Road from 16,700 vehicles per day (VPD) to 18,600 VPD. This volume increase will cause the volume-to-capacity ratio to increase by more than 0.02 on a roadway that operates unacceptably (LOS E). This is considered a significant impact based on the City of Sacramento significance criteria.

PD – The addition of the proposed project will increase the daily traffic volume on the two-lane section of Hedge Avenue between Fruitridge Road and Elder Creek Road from 16,700 vehicles per day (VPD) to 19,400 VPD. This volume increase will cause the volume-to-capacity ratio to increase by more than 0.02 on a roadway that operates unacceptably (LOS E). This is considered a significant impact based on the City of Sacramento significance criteria.

IMPACT CP-31: (Bradshaw Road – Kiefer Boulevard to SR 16)

CAC – The addition of the proposed project will increase the daily traffic volume on the four-lane section of Bradshaw Road between Kiefer Boulevard and SR 16 from 49,100 vehicles per day (VPD) to 53,700 VPD, which exceeds the capacity of 36,000 VPD for four-lane roadways with moderate access control. This volume increase will cause the volume-to-capacity ratio to increase by more than 0.05 on a roadway that operates unacceptably (LOS F). This is considered a significant impact based on the Sacramento County significance criteria.

PD – The addition of the proposed project will increase the daily traffic volume on the four-lane section of Bradshaw Road between Kiefer Boulevard and SR 16 from 49,100 vehicles per day (VPD) to 54,400 VPD, which exceeds the capacity of 36,000 VPD for four-lane roadways with moderate access control. This volume increase will cause the volume-to-capacity ratio to increase by more than 0.05 on a roadway that operates unacceptably (LOS F). This is considered a significant impact based on the Sacramento County significance criteria.

IMPACT CP-32: (Bradshaw Road – SR 16 to Elder Creek Road)

CAC – Less than significant impact

PD – The addition of the proposed project will increase the daily traffic volume on the four-lane section of Bradshaw Road between SR 16 and Elder Creek Road from 37,700 vehicles per day (VPD) to 40,200 VPD, which exceeds the capacity of 36,000 VPD for four-lane roadways with moderate access control. This volume increase will cause the volume-to-capacity ratio to increase by more than 0.05 on a roadway that operates unacceptably (LOS F). This is considered a significant impact based on the Sacramento County significance criteria.

IMPACT CP-33: (Bradshaw Road – Elder Creek Road to Florin Road)

CAC – Less than significant impact

PD – The addition of the proposed project will increase the daily traffic volume on the four-lane section of Bradshaw Road between Elder Creek Road and Florin Road from 37,900 vehicles per day (VPD) to 40,000 VPD, which exceeds the capacity of 36,000 VPD for four-lane roadways with moderate access control. This volume increase will cause the volume-to-capacity ratio to increase by more than 0.05 on a roadway that operates unacceptably (LOS F). This is considered a significant impact based on the Sacramento County significance criteria.

IMPACT CP-34: (Waterman Road – Vintage Park Drive to Gerber Road)

CAC – The addition of the proposed project will increase the daily traffic volume on the two-lane section of Waterman Road between Vintage Park Drive and Gerber Road from 26,600 vehicles per day (VPD) to 29,900 VPD, which exceeds the capacity of 18,000 VPD for two-lane roadways with moderate access control. This volume increase will cause the volume-to-capacity ratio to increase by more than 0.05 on a roadway that operates unacceptably (LOS F). This is considered a significant impact based on the Sacramento County significance criteria.

PD – The addition of the proposed project will increase the daily traffic volume on the two-lane section of Waterman Road between Vintage Park Drive and Gerber Road from 26,600 vehicles per day (VPD) to 30,000 VPD, which exceeds the capacity of 18,000 VPD for two-lane roadways with moderate access control. This volume increase will cause the volume-to-capacity ratio to increase by more than 0.05 on a roadway that operates unacceptably (LOS F). This is considered a significant impact based on the Sacramento County significance criteria.

IMPACT CP-35: (Elder Creek Road – South Watt Avenue to Hedge Avenue)

CAC – The addition of the proposed project and the recommended system-wide roadway mitigation measures will cause a secondary impact by increasing the daily traffic volume on the existing two-

lane section of Elder Creek Road between South Watt Avenue and Hedge Avenue from 16,200 vehicles per day (VPD) to 19,900 VPD, which exceeds the capacity of 18,000 VPD for two-lane roadways with moderate access control. This is considered a significant impact based on the Sacramento County significance criteria.

PD – The addition of the proposed project and the recommended system-wide roadway mitigation measures will cause a secondary impact by increasing the daily traffic volume on the existing two-lane section of Elder Creek Road between South Watt Avenue and Hedge Avenue from 16,200 vehicles per day (VPD) to 21,000 VPD, which exceeds the capacity of 18,000 VPD for two-lane roadways with moderate access control. This is considered a significant impact based on the Sacramento County significance criteria.

IMPACT CP-36: (Florin Road – Bradshaw Road to Excelsior Road)

CAC – The addition of the proposed project and the recommended system-wide roadway mitigation measures will cause a secondary impact by increasing the daily traffic volume on the existing two-lane section of Florin Road between Bradshaw Road and Excelsior Road from 16,800 vehicles per day (VPD) to 19,200 VPD, which exceeds the capacity of 18,000 VPD for two-lane roadways with moderate access control. This is considered a significant impact based on the Sacramento County significance criteria.

PD – The addition of the proposed project and the recommended system-wide roadway mitigation measures will cause a secondary impact by increasing the daily traffic volume on the existing two-lane section of Florin Road between Bradshaw Road and Excelsior Road from 16,800 vehicles per day (VPD) to 19,500 VPD, which exceeds the capacity of 18,000 VPD for two-lane roadways with moderate access control. This is considered a significant impact based on the Sacramento County significance criteria.

IMPACT CP-37: (Bradshaw Road – Florin Road to Gerber Road)

CAC – The addition of the proposed project and the recommended system-wide roadway mitigation measures will cause a secondary impact by increasing the daily traffic volume on the existing two-lane section of Bradshaw Road between Florin Road and Gerber Road from 37,300 vehicles per day (VPD) to 41,100 VPD, which exceeds the capacity of 36,000 VPD for four-lane roadways with moderate access control. This is considered a significant impact based on the Sacramento County significance criteria.

PD – The addition of the proposed project and the recommended system-wide roadway mitigation measures will cause a secondary impact by increasing the daily traffic volume on the existing two-lane section of Bradshaw Road between Florin Road and Gerber Road from 37,300 vehicles per day (VPD) to 41,000 VPD, which exceeds the capacity of 36,000 VPD for four-lane roadways with moderate access control. This is considered a significant impact based on the Sacramento County significance criteria.

Study Intersections

The traffic volumes shown on Figures 16, 17, and 18 were used to calculate peak hour levels of service at the study intersections. Tables 18 and 19 summarize intersection LOS with the addition of the CAC and PD plans, respectively. Project impacts based on the significance criteria presented in Section II are discussed below.

Unsignalized intersections were evaluated using the peak hour volume warrant (Warrant 11) published in the California Department of Transportation's *Traffic Manual* (1996) to determine if signal control is

warranted under cumulative conditions[3]. Most of the unsignalized intersections meet the Caltrans peak hour volume warrant except for the Rogers Road/Bradshaw Road intersection with the addition of either the CAC or PD plans.

[3] This analysis is intended to examine the general correlation between the planned level of future development and the need to install new traffic signals. It estimates future development-generated traffic compared against a sub-set of the standard traffic signal warrants recommended in the Federal Highway Administration *Manual on Uniform Traffic Control Devices* and associated State guidelines. This analysis should not serve as the only basis for deciding whether and when to install a signal. To reach such a decision, the full set of warrants should be investigated based on field-measured, rather than forecast, traffic data and a thorough study of traffic and roadway conditions by an experienced engineer. Furthermore, the decision to install a signal should not be based solely upon the warrants, since the installation of signals can lead to certain types of collisions. Sacramento County DOT should undertake regular monitoring of actual traffic conditions and accident data, and timely re-evaluation of the full set of warrants in order to prioritize and program intersections for signalization.

TABLE 18
INTERSECTION LEVEL OF SERVICE – CUMULATIVE CONDITIONS: CAC PREFERRED PLAN

Intersection	Control	Cumulative No Project Conditions				Cumulative Plus CAC Project Conditions			
		AM Peak		PM Peak		AM Peak		PM Peak	
		V/C or Delay	LOS	V/C or Delay	LOS	V/C or Delay	LOS	V/C or Delay	LOS
1. Folsom Blvd./State Route 16	Signal	58	E	47	D	**62**	**E**	**54**	**D**
2. Folsom Blvd./Florin-Perkins Rd	Signal	>80	F	>80	F	**>80**	**F**	>80	F
3. Folsom Blvd./South Watt Ave	Signal	>80	F	>80	F	**>80**	**F**	**>80**	**F**
4. Kiefer Blvd./South Watt Ave	Signal	0.98	E	0.89	D	**1.02**	**F**	0.89	D
5. Kiefer Blvd./Bradshaw Rd.	Signal	1.06	F	1.32	F	1.10	F	**1.39**	**F**
6. SR 16/Florin-Perkins Rd.	Signal	>80	F	>80	F	**>80**	**F**	**>80**	**F**
7. SR 16/South Watt Ave.	Signal	1.30	F	1.64	F	**1.45**	**F**	**1.69**	**F**
8. SR 16/Hedge Ave.	Signal	1.03	F	1.03	F	1.03	F	1.03	F
9. SR 16/Bradshaw Rd.	Signal	1.86	F	1.70	F	**2.00**	**F**	**1.77**	**F**
10. SR 16/Excelsior Rd.	Signal	2.31	F	2.45	F	2.13	F	**2.54**	**F**
11. Fruitridge Rd./Florin-Perkins Rd.	Signal	>80	F	>80	F	**>80**	**F**	**>80**	**F**
12. Fruitridge Rd./South Watt Ave.	Signal	>80	F	>80	F	**>80**	**F**	**>80**	**F**
13. Fruitridge Rd./Hedge Ave.	4-Way Stop	>50	F	>50	F	**>50**	**F**	**>50**	**F**
14. Elder Creek Rd./Florin-Perkins Rd.	Signal	>80	F	>80	F	>80	F	**>80**	**F**
15. Elder Creek Rd./South Watt Ave.	Signal	>80	F	>80	F	**>80**	**F**	**>80**	**F**
16. Elder Creek Rd./Hedge Ave.	4-Way Stop	>50	F	>50	F	**>50**	**F**	**>50**	**F**
17. Elder Creek Rd./Bradshaw Rd.	Signal	1.51	F	1.58	F	1.49	F	**1.68**	**F**
18. Elder Creek Rd./Excelsior Rd.	2-Way Stop	>50	F	>50	F	>50	F	**>50**	**F**
19. Florin Rd./Power Inn Rd.	Signal	1.12	F	1.11	F	**1.21**	**F**	1.15	F
20. Florin Rd./Florin-Perkins Rd.	Signal	1.59	F	1.22	F	**1.71**	**F**	1.23	F
21. Florin Rd./Gardner Ave.	2-Way Stop	>50	F	>50	F	**>50**	**F**	**>50**	**F**
22. Florin Rd./South Watt Ave.	Signal	1.04	F	1.27	F	**1.16**	**F**	**1.45**	**F**
23. Florin Rd./Hedge Ave.	Signal	1.99	F	1.81	F	2.01	F	**1.91**	**F**
24. Florin Rd./Waterman Rd.	Signal	1.01	F	1.06	F	0.88	D	1.04	F
25. Florin Rd./Bradshaw Rd.	Signal	1.49	F	1.63	F	**1.55**	**F**	1.62	F
26. Florin Rd./Vineyard Rd.	2-Way Stop	>50	F	>50	F	**>50**	**F**	42	E
27. Florin Rd./Excelsior Rd.	Signal	1.41	F	1.21	F	1.35	F	1.22	F
28. Gerber Rd./Power Inn Rd.	Signal	1.14	F	1.07	F	1.15	F	1.09	F
29. Gerber Rd./French Rd.	Signal	1.45	F	1.04	F	**1.51**	**F**	1.06	F
30. Gerber Rd./Elk Grove-Florin Rd.	Signal	1.28	F	1.31	F	**1.37**	**F**	**1.41**	**F**
31. Gerber Rd./Waterman Rd.	Signal	1.08	F	0.80	D	**1.21**	**F**	0.85	D
32. Gerber Rd./Bar Du Lane	2-Way Stop	>50	F	>50	F	**>50**	**F**	**>50**	**F**
33. Gerber Rd./Bradshaw Rd.	Signal	1.38	F	1.44	F	1.32	F	**1.63**	**F**
34. Gerber Rd./Vineyard Rd.	2-Way Stop	>50	F	>50	F	>50	F	**>50**	**F**
35. Gerber Rd./Excelsior Rd.	Signal	0.81	D	0.97	E	0.79	C	**1.02**	**F**
36. Tiogawoods Dr./Elk Grove-Florin Rd.	Signal	1.01	F	0.83	D	1.06	F	0.90	E
37. Caselman Rd./Elk Grove-Florin Rd.	2-Way Stop	49	E	37	E	**>50**	**F**	47	E
38. Rogers Rd./Bradshaw Rd.	2-Way Stop	13	B	24	C	14	B	25	C
39. Vintage Park Dr./Elk Grove-Florin Rd	Signal	1.14	F	0.85	D	1.17	F	0.90	D
40. Vintage Park Dr./Waterman Rd.	Signal	0.91	E	0.87	D	0.92	E	0.88	D
41. Vintage Park Dr./Bradshaw Rd.	Signal	0.68	B	0.63	B	0.67	B	0.64	B
42. Calvine Rd./Elk Grove-Florin Rd.	Signal	>80	F	>80	F	**>80**	**F**	**>80**	**F**
43. Calvine Rd./Waterman Rd.	Signal	>80	F	>80	F	>80	F	>80	F
44. Calvine Rd./Bradshaw Rd.	Signal	69	E	46	D	68	E	50	D
45. Calvine Rd./Excelsior Rd.	4-Way Stop	>50	F	>50	F	**>50**	**F**	>50	F

Notes: Signal Control- Circular 212 Planning Methodology- Results present volume/capacity ratio and LOS
2-Way Stop Control- 2000 HCM Methodology- Results present delay and LOS for worst minor-street approach
4-Way Stop Control- 2000 HCM Methodology- Results present average delay and LOS
Shaded areas indicate unacceptable operations.
Blue – City of Sacramento Study Intersections
Green – City of Elk Grove Study Intersections
Bold indicates project impact.
Source: *Fehr & Peers*, 2007

TABLE 19
Intersection Level of Service – Cumulative Conditions: PLANNING DEPARTMENT PLAN

Intersection	Control	Cumulative No Project Conditions				Cumulative Plus PD Project Conditions			
		AM Peak		PM Peak		AM Peak		PM Peak	
		V/C or Delay	LOS	V/C or Delay	LOS	V/C or Delay	LOS	V/C or Delay	LOS
1. Folsom Blvd./State Route 16	Signal	58	E	47	D	**65**	**E**	**53**	**D**
2. Folsom Blvd./Florin-Perkins Rd	Signal	>80	F	>80	F	**>80**	**F**	**>80**	**F**
3. Folsom Blvd./South Watt Ave	Signal	>80	F	>80	F	**>80**	**F**	**>80**	**F**
4. Kiefer Blvd./South Watt Ave	Signal	0.98	E	0.89	D	**1.05**	**F**	0.88	D
5. Kiefer Blvd./Bradshaw Rd.	Signal	1.06	F	1.32	F	**1.15**	**F**	**1.40**	**F**
6. SR 16/Florin-Perkins Rd.	Signal	>80	F	>80	F	**>80**	**F**	**>80**	**F**
7. SR 16/South Watt Ave.	Signal	1.30	F	1.64	F	**1.38**	**F**	**1.71**	**F**
8. SR 16/Hedge Ave.	Signal	1.03	F	1.03	F	1.02	F	1.08	F
9. SR 16/Bradshaw Rd.	Signal	1.86	F	1.70	F	1.89	F	1.74	F
10. SR 16/Excelsior Rd.	Signal	2.31	F	2.45	F	2.21	F	**2.55**	**F**
11. Fruitridge Rd./Florin-Perkins Rd.	Signal	>80	F	>80	F	**>80**	**F**	**>80**	**F**
12. Fruitridge Rd./South Watt Ave.	Signal	>80	F	>80	F	**>80**	**F**	**>80**	**F**
13. Fruitridge Rd./Hedge Ave.	4-Way Stop	>50	F	>50	F	**>50**	**F**	**>50**	**F**
14. Elder Creek Rd./Florin-Perkins Rd.	Signal	>80	F	>80	F	**>80**	**F**	**>80**	**F**
15. Elder Creek Rd./South Watt Ave.	Signal	>80	F	>80	F	**>80**	**F**	**>80**	**F**
16. Elder Creek Rd./Hedge Ave.	4-Way Stop	>50	F	>50	F	**>50**	**F**	**>50**	**F**
17. Elder Creek Rd./Bradshaw Rd.	Signal	1.51	F	1.58	F	**1.67**	**F**	**1.72**	**F**
18. Elder Creek Rd./Excelsior Rd.	2-Way Stop	>50	F	>50	F	>50	F	**>50**	**F**
19. Florin Rd./Power Inn Rd.	Signal	1.12	F	1.11	F	**1.27**	**F**	**1.18**	**F**
20. Florin Rd./Florin-Perkins Rd.	Signal	1.59	F	1.22	F	**1.77**	**F**	1.27	F
21. Florin Rd./Gardner Ave.	2-Way Stop	>50	F	>50	F	**>50**	**F**	**>50**	**F**
22. Florin Rd./South Watt Ave.	Signal	1.04	F	1.27	F	**1.21**	**F**	**1.49**	**F**
23. Florin Rd./Hedge Ave.	Signal	1.99	F	1.81	F	**2.07**	**F**	**1.89**	**F**
24. Florin Rd./Waterman Rd.	Signal	1.01	F	1.06	F	0.92	E	1.06	F
25. Florin Rd./Bradshaw Rd.	Signal	1.49	F	1.63	F	1.53	F	1.66	F
26. Florin Rd./Vineyard Rd.	2-Way Stop	>50	F	>50	F	**>50**	**F**	**>50**	**F**
27. Florin Rd./Excelsior Rd.	Signal	1.41	F	1.21	F	**1.46**	**F**	**1.31**	**F**
28. Gerber Rd./Power Inn Rd.	Signal	1.14	F	1.07	F	1.19	F	1.09	F
29. Gerber Rd./French Rd.	Signal	1.45	F	1.04	F	**1.55**	**F**	**1.10**	**F**
30. Gerber Rd./Elk Grove-Florin Rd.	Signal	1.28	F	1.31	F	**1.38**	**F**	**1.40**	**F**
31. Gerber Rd./Waterman Rd.	Signal	1.08	F	0.80	D	**1.19**	**F**	0.84	D
32. Gerber Rd./Bar Du Lane	2-Way Stop	>50	F	>50	F	**>50**	**F**	**>50**	**F**
33. Gerber Rd./Bradshaw Rd.	Signal	1.38	F	1.44	F	1.30	F	**1.61**	**F**
34. Gerber Rd./Vineyard Rd.	2-Way Stop	>50	F	>50	F	>50	F	**>50**	**F**
35. Gerber Rd./Excelsior Rd.	Signal	0.81	D	0.97	E	0.84	D	**1.05**	**F**
36. Tiogawoods Dr./Elk Grove-Florin Rd.	Signal	1.01	F	0.83	D	1.06	F	0.97	E
37. Caselman Rd./Elk Grove-Florin Rd.	2-Way Stop	49	E	37	E	**>50**	**F**	**>50**	**F**
38. Rogers Rd./Bradshaw Rd.	2-Way Stop	13	B	24	C	14	B	23	C
39. Vintage Park Dr./Elk Grove-Florin Rd	Signal	1.14	F	0.85	D	**1.28**	**F**	0.98	E
40. Vintage Park Dr./Waterman Rd.	Signal	0.91	E	0.87	D	0.96	E	0.93	E
41. Vintage Park Dr./Bradshaw Rd.	Signal	0.68	B	0.63	B	0.68	B	0.62	B
42. Calvine Rd./Elk Grove-Florin Rd.	Signal	>80	F	>80	F	**>80**	**F**	**>80**	**F**
43. Calvine Rd./Waterman Rd.	Signal	>80	F	>80	F	**>80**	**F**	**>80**	**F**
44. Calvine Rd./Bradshaw Rd.	Signal	69	E	46	D	62	E	48	D
45. Calvine Rd./Excelsior Rd.	4-Way Stop	>50	F	>50	F	>50	F	>50	F

Notes: Signal Control- Circular 212 Planning Methodology- Results present volume/capacity ratio and LOS
2-Way Stop Control- 2000 HCM Methodology- Results present delay and LOS for worst minor-street approach
4-Way Stop Control- 2000 HCM Methodology- Results present average delay and LOS
Shaded areas indicate unacceptable operations.
Blue – City of Sacramento Study Intersections
Green – City of Elk Grove Study Intersections
Bold indicates project impact.
Source: *Fehr & Peers*, 2007

The addition of the CAC or PD plans will cause impacts at the following study intersections:

IMPACT CP-38: (Folsom Boulevard/SR 16)

CAC & PD - The addition of the proposed project will increase peak hour traffic through the Folsom Boulevard/SR 16 intersection. The traffic volume increase will cause delay to increase by five or more seconds, which will exceed the City of Sacramento's five second criteria for signalized intersections operating unacceptably (LOS D, E, or F) under "no project" conditions. This is considered a significant impact based on the City of Sacramento significance criteria.

IMPACT CP-39: (Folsom Boulevard/Florin-Perkins Road)

CAC & PD - The addition of the proposed project will increase peak hour traffic through the Folsom Boulevard/Florin-Perkins Road intersection. The traffic volume increase will cause delay to increase by five or more seconds, which will exceed the City of Sacramento's five second criteria for signalized intersections operating unacceptably (LOS D, E, or F) under "no project" conditions. This is considered a significant impact based on the City of Sacramento significance criteria.

IMPACT CP-40: (Folsom Boulevard/South Watt Avenue)

CAC & PD - The addition of the proposed project will increase peak hour traffic through the Folsom Boulevard/South Watt Avenue intersection. The traffic volume increase will cause delay to increase by five or more seconds, which will exceed the City of Sacramento's five second criteria for signalized intersections operating unacceptably (LOS D, E, or F) under "no project" conditions. This is considered a significant impact based on the City of Sacramento significance criteria.

IMPACT CP-41: (Kiefer Boulevard/South Watt Avenue)

CAC & PD –The addition of the proposed project will increase peak hour traffic through the Kiefer Boulevard/South Watt Avenue. The traffic volume increase will cause the LOS to change for LOS E in the AM peak hour to LOS F with the CAC and PD plans. This is considered a significant impact based on the Sacramento County significance criteria.

IMPACT CP-42: (Kiefer Boulevard/Bradshaw Road)

CAC – The addition of the proposed project will increase peak hour traffic through the Kiefer Boulevard/Bradshaw Road intersection. The traffic volume increase will increase the volume-to-capacity ratio by more than 0.05 in the PM peak hour, which will exceed the County's 0.05 criteria for signalized intersections operating unacceptably (LOS F) under "no project" conditions. This is considered a significant impact based on the Sacramento County significance criteria.

PD – The addition of the proposed project will increase peak hour traffic through the Kiefer Boulevard/Bradshaw Road intersection. The traffic volume increase will increase the volume-to-capacity ratio by more than 0.05 in the AM and PM peak hours, which will exceed the County's 0.05 criteria for signalized intersections operating unacceptably (LOS F) under "no project" conditions. This is considered a significant impact based on the Sacramento County significance criteria.

IMPACT CP-43: (SR 16/Florin-Perkins Road)

CAC & PD - The addition of the proposed project will increase peak hour traffic through the SR 16/Florin-Perkins Road intersection. The traffic volume increase will cause delay to increase by five or more seconds, which will exceed the City of Sacramento's five second criteria for signalized

intersections operating unacceptably (LOS D, E, or F) under "no project" conditions. This is considered a significant impact based on the City of Sacramento significance criteria.

IMPACT CP-44: (SR 16/South Watt Avenue)

CAC & PD - The addition of the proposed project will increase peak hour traffic through the SR 16/South Watt Avenue intersection. The traffic volume increase will increase the volume-to-capacity ratio by more than 0.05 in the AM and PM peak hours, which will exceed the County's 0.05 criteria for signalized intersections operating unacceptably (LOS F) under "no project" conditions. This is considered a significant impact based on the Sacramento County significance criteria.

IMPACT CP-45: (SR 16/Bradshaw Road)

CAC – The addition of the proposed project will increase peak hour traffic through the SR 16/Hedge Avenue intersection. The traffic volume increase will increase the volume-to-capacity ratio by more than 0.05 in the AM and PM peak hour, which will exceed the County's 0.05 criteria for signalized intersections operating unacceptably (LOS F) under "no project" condition. This is considered a significant impact based on the Sacramento County significance criteria.

PD – Less than significant impact

IMPACT CP-46: (SR 16/Excelsior Road)

CAC & PD - The addition of the proposed project will increase peak hour traffic through the SR 16/Excelsior Road intersection. The traffic volume increase will increase the volume-to-capacity ratio by more than 0.05 in the PM peak hour, which will exceed the County's 0.05 criteria for signalized intersections operating unacceptably (LOS F) under "no project" condition. This is considered a significant impact based on the Sacramento County significance criteria.

IMPACT CP-47: (Fruitridge Road/Florin-Perkins Road)

CAC & PD - The addition of the proposed project will increase peak hour traffic through the Fruitridge Road/Florin-Perkins Road intersection. The traffic volume increase will cause delay to increase by five or more seconds in the AM and PM peak hours, which will exceed the City of Sacramento's five second criteria for signalized intersections operating unacceptably (LOS D, E, or F) under "no project" conditions. This is considered a significant impact based on the City of Sacramento significance criteria.

IMPACT CP-48: (Fruitridge Road/South Watt Avenue)

CAC & PD - The addition of the proposed project will increase peak hour traffic through the Fruitridge Road/South Watt Avenue intersection. The traffic volume increase will cause delay to increase by five or more seconds in the AM and PM peak hours, which will exceed the City of Sacramento's five second criteria for signalized intersections operating unacceptably (LOS D, E, or F) under "no project" conditions. This is considered a significant impact based on the City of Sacramento significance criteria.

IMPACT CP-49: (Fruitridge Road/Hedge Avenue)

CAC & PD - The addition of the proposed project will increase peak hour traffic through the Fruitridge Road/Hedge Avenue intersection. The traffic volume increase will add more than five seconds of delay in the AM and PM peak hours, which will exceed the County's five second criteria for stop controlled intersections operating unacceptably (LOS F) under "no project" conditions. This is considered a significant impact based on the Sacramento County significance criteria.

IMPACT CP-50: (Elder Creek Road/Florin-Perkins Road)

CAC & PD - The addition of the proposed project will increase peak hour traffic through the Elder Creek Road/Florin-Perkins Road intersection. The traffic volume increase will cause delay to increase by five or more seconds in the PM peak hour with the CAC Plan and in both the AM and PM peak hour with PD Plan, which will exceed the City of Sacramento's five second criteria for signalized intersections operating unacceptably (LOS D, E, or F) under "no project" conditions. This is considered a significant impact based on the City of Sacramento significance criteria.

IMPACT CP-51: (Elder Creek Road/South Watt Avenue)

CAC & PD - The addition of the proposed project will increase peak hour traffic through the Elder Creek Road/South Watt Avenue intersection. The traffic volume increase will cause delay to increase by five or more seconds in the AM and PM peak hours, which will exceed the City of Sacramento's five second criteria for signalized intersections operating unacceptably (LOS D, E, or F) under "no project" conditions. This is considered a significant impact based on the City of Sacramento significance criteria.

IMPACT CP-52: (Elder Creek Road/Hedge Avenue)

CAC & PD - The addition of the proposed project will increase peak hour traffic through the Elder Creek Road/Hedge Avenue intersection. The traffic volume increase will add more than five seconds of delay in the AM and PM peak hours, which will exceed the County's five second criteria for stop controlled intersections operating unacceptably (LOS F) under "no project" conditions. This is considered a significant impact based on the Sacramento County significance criteria.

IMPACT CP-53: (Elder Creek Road/Bradshaw Road)

CAC & PD - The addition of the proposed project will increase peak hour traffic through the Elder Creek Road/Bradshaw Road intersection. The traffic volume increase will increase the volume-to-capacity ratio by more than 0.05 in the PM peak hour with the CAC Plan and in the AM and PM peak hours with the PD Plan, which will exceed the County's 0.05 criteria for signalized intersections operating unacceptably (LOS F) under "no project" conditions. This is considered a significant impact based on the Sacramento County significance criteria.

IMPACT CP-54: (Elder Creek Road/Excelsior Road)

CAC & PD - The addition of the proposed project will increase peak hour traffic through the Elder Creek Road/Excelsior Road intersection. The traffic volume increase will add more than five seconds of delay in the PM peak hour, which will exceed the County's five second criteria for stop controlled intersections operating unacceptably (LOS F) under "no project" conditions. This is considered a significant impact based on the Sacramento County significance criteria.

IMPACT CP-55: (Florin Road/Power Inn Road)

CAC & PD - The addition of the proposed project will increase peak hour traffic through the Florin Road/Power Inn Road intersection. The traffic volume increase will increase the volume-to-capacity ratio by more than 0.05 in the AM peak hour with the CAC Plan and in both the AM and PM peak hour with the PD Plan, which will exceed the County's 0.05 criteria for signalized intersections operating unacceptably (LOS F) under "no project" conditions. This is considered a significant impact based on the Sacramento County significance criteria.

IMPACT CP-56: (Florin Road/Florin-Perkins Road)

CAC & PD - The addition of the proposed project will increase peak hour traffic through the Florin Road/Florin-Perkins Road intersection. The traffic volume increase will increase the volume-to-capacity ratio by more than 0.05 in the AM peak hour, which will exceed the County's 0.05 criteria for signalized intersections operating unacceptably (LOS F) under "no project" conditions. This is considered a significant impact based on the Sacramento County significance criteria.

IMPACT CP-57: (Florin Road/Gardner Avenue)

CAC & PD - The addition of the proposed project will increase peak hour traffic through the Florin Road/Gardner Avenue intersection. The traffic volume increase will add more than five seconds of delay in the AM and PM peak hours, which will exceed the County's five second criteria for stop controlled intersections operating unacceptably (LOS F) under "no project" conditions. This is considered a significant impact based on the Sacramento County significance criteria.

IMPACT CP-58: (Florin Road/South Watt Avenue)

CAC & PD - The addition of the proposed project will increase peak hour traffic through the Florin Road/South Watt Avenue intersection. The traffic volume increase will increase the volume-to-capacity ratio by more than 0.05 in the AM and PM peak hours, which will exceed the County's 0.05 criteria for signalized intersections operating unacceptably (LOS F) under "no project" conditions. This is considered a significant impact based on the Sacramento County significance criteria.

IMPACT CP-59: (Florin Road/Hedge Avenue)

CAC & PD - The addition of the proposed project will increase peak hour traffic through the Florin Road/Hedge Avenue intersection. The traffic volume increase will add more than five seconds of delay in the PM peak hour with the CAC Plan and in both the AM and PM peak hours with the PD Plan, which will exceed the County's five second criteria for stop controlled intersections operating unacceptably (LOS F) under "no project" conditions. This is considered a significant impact based on the Sacramento County significance criteria.

IMPACT CP-60: (Florin Road/Bradshaw Road)

CAC - The addition of the proposed project will increase peak hour traffic through the Florin Road/Bradshaw Road intersection. The traffic volume increase will add more than five seconds of delay in the AM peak hour, which will exceed the County's five second criteria for stop controlled intersections operating unacceptably (LOS F) under "no project" conditions. This is considered a significant impact based on the Sacramento County significance criteria.

PD – Less than significant impact

IMPACT CP-61: (Florin Road/Vineyard Road)

CAC & PD - The addition of the proposed project will increase peak hour traffic through the Florin Road/Vineyard Road intersection. The traffic volume increase will add more than five seconds of delay in the AM peak hour with the CAC Plan and both the AM and PM peak hour with the PD Plan, which will exceed the County's five second criteria for stop controlled intersections operating unacceptably (LOS F) under "no project" conditions and will cause the LOS to change from LOS E in the PM peak hour to LOS F. This is considered a significant impact based on the Sacramento County significance criteria.

IMPACT CP-62: (Florin Road/Excelsior Road)

CAC – Less than significant impact

PD - The addition of the proposed project will increase peak hour traffic through the Florin Road/Excelsior Road intersection. The traffic volume increase will add more than five seconds of delay in the AM and PM peak hours, which will exceed the County's five second criteria for stop controlled intersections operating unacceptably (LOS F) under "no project". This is considered a significant impact based on the Sacramento County significance criteria.

IMPACT CP-63: (Gerber Road/French Road)

CAC & PD - The addition of the proposed project will increase peak hour traffic through the Gerber Road/French Road intersection. The traffic volume increase will increase the volume-to-capacity ratio by more than 0.05 in the AM peak hour with the CAC Plan and in both the AM and PM peak hours with the PD Plan, which will exceed the County's 0.05 criteria for signalized intersections operating unacceptably (LOS F) under "no project" conditions. This is considered a significant impact based on the Sacramento County significance criteria.

IMPACT CP-64: (Gerber Road/Elk Grove-Florin Road)

CAC & PD - The addition of the proposed project will increase peak hour traffic through the Gerber Road/Elk Grove-Florin Road intersection. The traffic volume increase will increase the volume-to-capacity ratio by more than 0.05 in the AM and PM peak hours, which will exceed the County's 0.05 criteria for signalized intersections operating unacceptably (LOS F) under "no project" conditions. This is considered a significant impact based on the Sacramento County significance criteria.

IMPACT CP-65: (Gerber Road/Waterman Road)

CAC & PD - The addition of the proposed project will increase peak hour traffic through the Gerber Road/Waterman Road intersection. The traffic volume increase will increase the volume-to-capacity ratio by more than 0.05 in the AM peak hours, which will exceed the County's 0.05 criteria for signalized intersections operating unacceptably (LOS F) under "no project" conditions. This is considered a significant impact based on the Sacramento County significance criteria.

IMPACT CP-66: (Gerber Road/Bar Du Lane)

CAC & PD - The addition of the proposed project will increase peak hour traffic through the Gerber Road/Bar Du Lane intersection. The traffic volume increase will add more than five seconds of delay in the AM and PM peak hours, which will exceed the County's five second criteria for stop controlled intersections operating unacceptably (LOS F) under "no project" conditions. This is considered a significant impact based on the Sacramento County significance criteria.

IMPACT CP-67: (Gerber Road/Bradshaw Road)

CAC & PD - The addition of the proposed project will increase peak hour traffic through the Gerber Road /Bradshaw Road intersection. The traffic volume increase will increase the volume-to-capacity ratio by more than 0.05 in the PM peak hour, which will exceed the County's 0.05 criteria for signalized intersections operating unacceptably (LOS F) under "no project" conditions. This is considered a significant impact based on the Sacramento County significance criteria.

IMPACT CP-68: (Gerber Road/Vineyard Road)

CAC & PD - The addition of the proposed project will increase peak hour traffic through the Gerber Road/Vineyard Road intersection. The traffic volume increase will add more than five seconds of delay in the PM peak hour, which will exceed the County's five second criteria for stop controlled intersections operating unacceptably (LOS F) under "no project" conditions. This is considered a significant impact based on the Sacramento County significance criteria.

IMPACT CP-69: (Gerber Road/Excelsior Road)

CAC & PD - The addition of the proposed project will increase peak hour traffic through the Gerber Road/Excelsior Road intersection. The traffic volume increase will cause the LOS to change from LOS E to LOS F in the PM peak hour. This is considered a significant impact based on the Sacramento County significance criteria.

IMPACT CP-70: (Caselman Road/Elk Grove-Florin Road)

CAC & PD – The addition of the proposed project will increase peak hour traffic through the Caselman Road/Elk Grove-Florin Road intersection. The traffic volume increase will cause the level of service (LOS) to change from LOS E to LOS F in the AM peak hour with the CAC Plan and change the LOS from E to F in both the AM and PM peak hours with the PD Plan. This is considered a significant impact based on the Sacramento County significance criteria.

IMPACT CP-71: (Vintage Park Drive/Elk Grove-Florin Road)

CAC – Less than significant impact

PD - The addition of the proposed project will increase peak hour traffic through the Vintage Park Drive/Elk Grove-Florin Road intersection. The traffic volume increase will increase the volume-to-capacity ratio by more than 0.05 in the AM peak hour, which will exceed the County's 0.05 criteria for signalized intersections operating unacceptably (LOS F) under "no project" conditions. This is considered a significant impact based on the Sacramento County significance criteria.

IMPACT CP-72: (Calvine Road/Elk Grove-Florin Road)

CAC & PD - The addition of the proposed project will increase peak hour traffic through the Calvine Road/Elk Grove-Florin Road intersection. The traffic volume increase will cause delay to increase by five or more seconds in the AM and PM peak hours, which will exceed the City of Elk Grove's five second criteria for signalized intersections operating unacceptably (LOS E or F) under "no project" conditions. This is considered a significant impact based on the City of Elk Grove significance criteria.

IMPACT CP-73: (Calvine Road/Waterman Road)

CAC – Less than significant impact

PD - The addition of the proposed project will increase peak hour traffic through the Calvine Road/Waterman Road intersection. The traffic volume increase will cause delay to increase by five or more seconds in the AM and PM peak hours, which will exceed the City of Elk Grove's five second criteria for signalized intersections operating unacceptably (LOS E or F) under "no project" conditions. This is considered a significant impact based on the City of Elk Grove significance criteria.

IMPACT CP-74: (Calvine Road/Excelsior Road)

CAC – The addition of the proposed project will increase peak hour traffic through the Calvine Road/Excelsior Road intersection. The traffic volume increase will add more than five seconds of delay in the AM peak hour, which will exceed the City of Elk Grove's five second criteria for stop controlled intersections operating unacceptably (LOS E or F) under "no project" conditions. This is considered a significant impact based on the City of Elk Grove significance criteria.

PD – Less than significant impact

Transit System Operations

Transit system operations were evaluated by considering the potential effects of the project on planned transit services in the vicinity of the project site. Regional Transit (RT) maintains a 20-year master plan of transit facilities for the Sacramento region. RT's 20-year Vision Map is shown below.

The 20-year vision includes the following elements near the proposed project:

- Bus trunk line service on Bradshaw Road, Calvine Road, and portions of Florin Road and Fruitridge Road
- An enhanced bus corridor on Watt Avenue/South Watt Avenue/Elk Grove-Florin Road and portions of Florin Road.
- Light Rail Transit (LRT) along the Central California Traction Railroad (CCTR) corridor.
- Transfer points along the CCTR corridor on Calvine Road, Florin Road, and Fruitridge Road.

All major arterial and collector streets in the vicinity of the project site would be designed to accommodate transit facilities such as turnouts, bus stops, and shelters. Therefore, implementation of the proposed project is not expected to disrupt or interfere with planned transit operations in the area.

IMPACT CP-75:

The addition of the proposed project will not disrupt or interfere with existing or planned transit operations in the study area. No impact.

Bicycle and Pedestrian System Operations

The planned bicycle facilities identified in the *Final Environmental Impact Report for the 2010 Sacramento City/County Bikeway Master Plan (*July 1993) are shown on Figure 8. All major arterial and collector streets in the vicinity of the project site would be designed to accommodate planned bikeways and pedestrian sidewalks. Therefore, implementation of the proposed project will not disrupt or interfere with existing or planned bikeways and pedestrian facilities in the study area

IMPACT CP-76:

The addition of the proposed project will not disrupt or interfere with existing or planned bicycle and pedestrian facilities in the study area. No impact.

Proposed Mitigation Measures

The following mitigation measures are proposed to reduce the significance of Impacts CP-1 through CP-76. Each mitigation measure is listed according to the corresponding impact number. Figure 22 shows the cumulative roadway system with proposed mitigation. Figure 23 shows the cumulative intersection traffic control and lane configurations with proposed mitigation for the CAC Plan. Figure 24 shows the cumulative intersection traffic control and lane configurations with proposed mitigation for the PD Plan. Tables 20 and 21 summarize roadway segment operations with proposed mitigation for the CAC and PD Plans, respectively. Tables 22 and 23 summarize intersection traffic operations with proposed mitigation for the CAC and PD Plans, respectively. The mitigation was developed using a systemic approach that considered ultimate improvements consistent with the General Plan circulation diagram. The approach included the following steps:

- Step 1 – Identify initial impacts and mitigation based on the results of the no project and with project analysis.
- Step 2 – Test sensitivity of identified mitigation to roadway improvements consistent with the General Plan circulation diagram and develop a refined set of mitigation.
- Step 3 – Develop new traffic volume forecasts based on the refined mitigation and update impact and mitigation analysis.
- Step 4 – Identify and document potential secondary impacts caused by refined mitigation.

MITIGATION MEASURE CP-1: (Folsom Boulevard – SR 16 to Watt Avenue)

CAC & PD – Widen the four-lane section of Folsom Boulevard between SR 16 and Watt Avenue from two to three lanes in each direction. Based on the traffic volume thresholds presented in Section II, this improvement would accommodate the projected daily traffic volume and provide LOS A (volume-to-capacity ratio = 0.56) operations with the PD Plan and would reduce the volume-to-capacity ratio to less than “no project” conditions. Implementation of this mitigation measure would reduce the impact to a less than significant level. With this improvement, Folsom Boulevard would be widened beyond its designation as a 4-lane arterial in the General Plan. Consequently, there may not be sufficient right-of-way to construct the improvement, so this impact is considered significant and unavoidable.

MITIGATION MEASURE CP-2: (SR 16 – Folsom Boulevard to South Watt Avenue)

CAC & PD – Widen the two-lane section of SR 16 between Folsom Boulevard and South Watt Avenue from one to two lanes in each direction. Based on the traffic volume thresholds presented in Section II, this improvement would accommodate the projected daily traffic volume and provide LOS C (volume-to-capacity ratio = 0.74) operations with the CAC Plan and LOS C (volume-to-capacity ratio = 0.76) operations with the PD Plan. The volume-to-capacity ratio would decrease to less than "no project" conditions. Implementation of this mitigation measure would reduce the impact to a less than significant level. With this improvement, SR 16 would be widened less than its designation as a 6-lane arterial in the General Plan.

MITIGATION MEASURE CP-3: (SR 16 – South Watt Avenue to Bradshaw Road)

CAC & PD – Widen the section of SR 16 between South Watt Avenue and Bradshaw Road from one to three lanes in each direction. Based on the traffic volume thresholds presented in Section II, this improvement would accommodate the projected daily traffic volume, reduce the volume-to-capacity ratio to less than "no project" conditions, and provide LOS B (volume-to-capacity ratio: = 0.70) operations with CAC Plan and LOS C (volume-to-capacity ratio: = 0.71) operations with PD plan. Implementation of this mitigation measure would reduce the impact to a less than significant level. With this improvement, SR 16 would be widened to its designation as a 6-lane arterial in the General Plan.

MITIGATION MEASURE CP-4: (SR 16 – Bradshaw Road to Sunrise Boulevard)

CAC & PD – Widen the section of SR 16 between Bradshaw Road and Sunrise Boulevard from one to two lanes in each direction. Based on the traffic volume thresholds presented in Section II, this improvement would accommodate the projected daily traffic volume, reduce the volume-to-capacity ratio to less than "no project" conditions, and provide LOS C (volume-to-capacity ratio: = 0.73) operations with CAC Plan and LOS C (volume-to-capacity ratio: = 0.73) operations with PD plan. Implementation of this mitigation measure would reduce the impact to a less than significant level. With this improvement, SR 16 would be widened less than its designation as a 6-lane arterial in the General Plan.

MITIGATION MEASURE CP-5: (Fruitridge Road – Power Inn Road to Florin-Perkins Road)

CAC & PD – Widen the section of Fruitridge Road between Power Inn Road and Florin-Perkins Road from two to three lanes in each direction. Based on the traffic volume thresholds presented in Section II, this improvement would accommodate the projected daily traffic volume and provide LOS B (volume-to-capacity ratio = 0.62) operations with the CAC Plan and LOS B (volume-to-capacity ratio = 0.62) operations with the PD Plan. Implementation of this mitigation measure would reduce the impact to a less than significant level. With this improvement, Fruitridge Road would be widened beyond its designation as a 4-lane arterial in the General Plan. Consequently, there may not be sufficient right-of-way to construct the improvement, so this impact is considered significant and unavoidable.

MITIGATION MEASURE CP-6: (Fruitridge Road – South Watt Avenue to Hedge Avenue)

PD – Widen the section of South Watt Avenue between Elder Creek Road and SR 16 from two to three lanes in each direction. Based on the traffic volume thresholds presented in Section II, this improvement would divert traffic from Hedge Avenue and Fruitridge Road reducing the projected daily traffic volume and result in LOS D (volume-to-capacity ratio = 0.53) operations with the PD Plan and reduce the volume-to-capacity ratio to less than "no project" conditions. Implementation of this mitigation measure would reduce the impact to a less than significant level.

MITIGATION MEASURE CP-7: (Elder Creek Road – Hedge Avenue to Bradshaw Road)

CAC & PD – Widen the section of Elder Creek Road between Hedge Avenue and Bradshaw Road from one to two lanes in each direction. Based on the traffic volume thresholds presented in Section II, this improvement would accommodate the projected daily traffic volume and provide LOS C (volume-to-capacity ratio: CAC=0.71, PD=0.74) operations with the CAC and PD plans, respectively. Implementation of this mitigation measure would reduce the impact to a less than significant level.

MITIGATION MEASURE CP-8: (Florin Road – Stockton Boulevard to Power Inn Road)

CAC & PD – Widen the section of Florin Road between Stockton Boulevard and Power Inn Road from two to three lanes in each direction. Based on the traffic volume thresholds presented in Section II, this improvement would accommodate the projected daily traffic volume and provide LOS A (volume-to-capacity ratio: CAC=0.78, PD=0.78) operations with the CAC and PD plans, respectively, and reduce the volume-to-capacity ratio to less than "no project" conditions. Implementation of this mitigation measure would reduce the impact to a less than significant level.

MITIGATION MEASURE CP-9: (Florin Road – Power Inn Road to Florin-Perkins Road)

CAC & PD – Construction of Alta Florin Road north of Florin Road between Power Inn Road and Florin-Perkins Road. Based on the traffic volume thresholds presented in Section II, this improvement would reduce the projected daily traffic volume but the LOS would remain LOS F (volume-to-capacity ratio = 1.03) operations with the CAC Plan and LOS F (volume-to-capacity ratio = 0.04) operations with the PD Plan. Implementation of this mitigation measure would reduce the impact. However, this improvement would exacerbate conditions at the Florin Road/Power Inn Road intersection resulting in a significant and unavoidable impact. With this improvement, the project shall pay its fair share towards the construction of the roadway segment in accordance with the county's fee study program.

MITIGATION MEASURE CP-10: (Florin Road – Florin-Perkins Road to Gardner Avenue)

CAC & PD – Widen the section of Florin Road between Florin-Perkins Road and Gardner Avenue from two to three lanes in each direction. Based on the traffic volume thresholds presented in Section II, this improvement would accommodate the projected daily traffic volume and provide LOS C (volume-to-capacity ratio = 0.74) operations with the CAC Plan and LOS C (volume-to-capacity ratio = 0.77) operations with the PD Plan. Implementation of this mitigation measure would reduce the impact to a less than significant level.

MITIGATION MEASURE CP-11: (Florin Road – Gardner Avenue to South Watt Avenue)

CAC & PD – Widen the section of Florin Road between Gardner Avenue and South Watt Avenue from two to three lanes in each direction. Based on the traffic volume thresholds presented in Section II, this improvement would accommodate the projected daily traffic volume and provide LOS D (volume-to-capacity ratio = 0.81) operations with the CAC Plan and LOS D (volume-to-capacity ratio = 0.83) operations with the PD Plan. Implementation of this mitigation measure would reduce the impact to a less than significant level.

MITIGATION MEASURE CP-12: (Florin Road – South Watt Avenue to Hedge Avenue)

CAC & PD – Widen the section of Florin Road between South Watt Avenue and Hedge Avenue from one to two lanes in each direction. Based on the traffic volume thresholds presented in Section II, this improvement would accommodate the projected daily traffic volume and provide LOS D (volume-to-capacity ratio: CAC=0.84, PD=0.87) operations with the CAC and PD plans, respectively, and

reduce the volume-to-capacity ratio to less than "no project" conditions. Implementation of this mitigation measure would reduce the impact to a less than significant level.

MITIGATION MEASURE CP-13: (Gerber Road – Power Inn Road to French Road)

CAC & PD – Widen the section of Gerber Road between Power Inn Road and French Road from two to three lanes in each direction. Based on the traffic volume thresholds presented in Section II, this improvement would accommodate the projected daily traffic volume and provide LOS C (volume-to-capacity ratio: CAC=0.71, PD=0.72) operations with the CAC and PD plans, respectively. Implementation of this mitigation measure would reduce the impact to a less than significant level. With this improvement, Gerber Road would be widened beyond its designation as a 4-lane arterial in the General Plan. Consequently, there may not be sufficient right-of-way to construct the improvement, so this impact is considered significant and unavoidable.

MITIGATION MEASURE CP-14: (Gerber Road – French Road to Elk Grove-Florin Road)

CAC & PD – Widen the section of Gerber Road between French Road and Elk Grove-Florin Road from two to three lanes in each direction. Based on the traffic volume thresholds presented in Section II, this improvement would accommodate the projected daily traffic volume and provide LOS C (volume-to-capacity ratio: CAC=0.74, PD=0.76) operations with the CAC and PD plans, respectively. Implementation of this mitigation measure would reduce the impact to a less than significant level. With this improvement, Gerber Road would be widened beyond its designation as a 4-lane arterial in the General Plan. Consequently, there may not be sufficient right-of-way to construct the improvement, so this impact is considered significant and unavoidable.

MITIGATION MEASURE CP-15: (Calvine Road – Power Inn Road to Elk Grove-Florin Road)

PD – Widen the four-lane section of Calvine Road between Power Inn Road and Elk Grove-Florin Road from two to three lanes in each direction. Based on the traffic volume thresholds presented in Section II, this improvement would continue to operate at LOS F but would reduce the volume-to-capacity ratio to less than "no project" conditions. Implementation of this mitigation measure would reduce the impact to a less than significant level.

MITIGATION MEASURE CP-16: (Calvine Road – Elk Grove-Florin Road to Grand Cru Drive)

CAC & PD – Widen the four-lane section of Calvine Road between Elk Grove-Florin Road and Grand Cru Drive from two to three lanes in each direction. Based on the traffic volume thresholds presented in Section II, this improvement would accommodate the projected daily traffic volume and provide LOS C (volume-to-capacity ratio: CAC=0.71, PD=0.71) operations with the CAC and PD plans and reduce the volume-to-capacity ratio to less than "no project" conditions. Implementation of this mitigation measure would reduce the impact to a less than significant level.

MITIGATION MEASURE CP-17: (Power Inn Road – Elder Creek Road to Florin Road)

CAC – Widen the section of Power Inn Road between Elder Creek Road and Florin Road from two to three lanes in each direction. Based on the traffic volume thresholds presented in Section II, this improvement would accommodate the projected daily traffic volume and provide LOS A (volume-to-capacity ratio = 0.58) operations and reduce the volume-to-capacity ratio to less than "no project" conditions. Implementation of this mitigation measure would reduce the impact to a less than significant level. With this improvement, Power Inn Road would be widened beyond its designation as a 4-lane arterial in the General Plan. Consequently, there may not be sufficient right-of-way to construct the improvement, so this impact is considered significant and unavoidable.

MITIGATION MEASURE CP-18: (Power Inn Road – Florin Road to Gerber Road)

CAC – Widen the section of French Road between Florin Road and Gerber Road from one to two lanes in each direction. Based on the traffic volume thresholds presented in Section II, this improvement would divert traffic from this section of Power Inn Road and accommodate the projected daily traffic volume and provide LOS E (volume-to-capacity ratio = 0.98) operations. Implementation of this mitigation measure would reduce the impact to a less than significant level.

MITIGATION MEASURE CP-19: (Florin-Perkins Road – SR 16 to Fruitridge Road)

CAC & PD – Widen the section of South Watt Avenue between SR 16 and Fruitridge Road from two to three lanes in each direction. Based on the traffic volume thresholds presented in Section II, this improvement would divert traffic from this section of Florin-Perkins Road and accommodate the projected daily traffic volume and provide LOS C (volume-to-capacity ratio CAC=0.71, PD=0.72) operations with the CAC and PD Plans. Implementation of this mitigation measure would reduce the impact to a less than significant level.

MITIGATION MEASURE CP-20: (Florin-Perkins Road – Fruitridge Road to Elder Creek Road)

CAC & PD – Widen the section of Florin-Perkins Road between Fruitridge Road and Elder Creek Road from two to three lanes in each direction. Based on the traffic volume thresholds presented in Section II, this improvement would accommodate the projected daily traffic volume and provide LOS C (volume-to-capacity ratio: CAC=0.77, PD=0.76) operations with the CAC and PD plans, respectively. Implementation of this mitigation measure would reduce the impact to a less than significant level. With this improvement, Florin-Perkins Road would be widened beyond its designation as a 4-lane arterial in the General Plan. Consequently, there may not be sufficient right-of-way to construct the improvement, so this impact is considered significant and unavoidable.

MITIGATION MEASURE CP-21: (Florin-Perkins Road – Elder Creek Road to Florin Road)

CAC – Widen the section of South Watt Avenue between Elder Creek Road and Florin Road from two to three lanes in each direction. Based on the traffic volume thresholds presented in Section II, this improvement would divert traffic from this section of Florin-Perkins Road and reduce the volume-to-capacity ratio to less than “no project” conditions. Implementation of this mitigation measure would reduce the impact to a less than significant level.

PD – Widen the section of South Watt Avenue between Elder Creek Road and Florin Road from two to three lanes in each direction. Based on the traffic volume thresholds presented in Section II, this improvement would divert traffic from this section of Florin-Perkins Road and reduce the volume-to-capacity ratio. However, the volume to capacity would remain 0.02 higher than “no project” conditions. Widening Florin-Perkins Road between Elder Creek Road and Florin Road from two to three lanes in each direction would provide LOS C (volume-to-capacity ratio: 0.71) operations with the PD Plan. With this improvement, Florin-Perkins Road would be widened beyond its designation as a 4-lane arterial in the General Plan. Consequently, there may not be sufficient right-of-way to construct the improvement, so this impact is considered significant and unavoidable.

MITIGATION MEASURE CP-22: (French Road – Florin Road to Gerber Road)

CAC & PD – Widen the section of French Road between Florin Road and Gerber Road from one to two lanes in each direction. Based on the traffic volume thresholds presented in Section II, this improvement would accommodate the projected daily traffic volume and provide LOS C (volume-to-capacity ratio: CAC=0.73, PD=0.73) operations with the CAC and PD plans, respectively. Implementation of this mitigation measure would reduce the impact to a less than significant level.

MITIGATION MEASURE CP-23: (South Watt Avenue – Kiefer Boulevard to SR 16)

CAC & PD – Widen the section of South Watt Avenue between Kiefer Boulevard and SR 16 from three lanes (northbound) and two lanes (southbound) to three lanes (northbound) and three lanes (southbound). Based on the traffic volume thresholds presented in Section II, this improvement would reduce the volume-to-capacity ratio to within 0.05 or less compared to "no project" conditions, and provide LOS F (volume-to-capacity ratio: CAC=1.14, PD=1.15) operations with the CAC and PD plans, respectively. Implementation of this mitigation measure would reduce the impact to a less than significant level.

MITIGATION MEASURE CP-24: (South Watt Avenue – SR 16 to Fruitridge Road)

CAC & PD – Widen the section of South Watt Avenue between SR 16 and Fruitridge Road from two to three lanes in each direction. Based on the traffic volume thresholds presented in Section II, this improvement would reduce the volume-to-capacity ratio to less than "no project" conditions and provide LOS D (volume-to-capacity ratio: CAC=0.80, PD=0.82) operations with the CAC and PD Plans, respectively. Implementation of this mitigation measure would reduce the impact to a less than significant level.

MITIGATION MEASURE CP-25: (South Watt Avenue – Fruitridge Road to Elder Creek Road)

CAC & PD – Widen the section of South Watt Avenue between Fruitridge Road and Elder Creek Road from two to three lanes in each direction. Based on the traffic volume thresholds presented in Section II, this improvement would accommodate the projected daily traffic volume and provide LOS D (volume-to-capacity ratio: CAC=0.86, PD=0.88) operations with the CAC and PD plans, respectively, and reduce the volume-to-capacity ratio to within 0.02 of "no project" conditions. Implementation of this mitigation measure would reduce the impact to a less than significant level.

MITIGATION MEASURE CP-26: (South Watt Avenue – Elder Creek Road to Florin Road)

CAC & PD – Widen the section of South Watt Avenue between Elder Creek Road and Florin Road from two to three lanes in each direction. Based on the traffic volume thresholds presented in Section II, this improvement would accommodate the projected daily traffic volume and provide LOS B and LOS C (volume-to-capacity ratio: CAC=0.69, PD=0.70) operations with the CAC and PD plans, respectively, and reduce the volume-to-capacity ratio to within 0.02 of "no project" conditions. Implementation of this mitigation measure would reduce the impact to a less than significant level.

MITIGATION MEASURE CP-27: (Elk Grove-Florin Road – Florin Road to Gerber Road)

CAC & PD – Widen the section of Elk Grove-Florin Road between Florin Road and Gerber Road from two to three lanes in each direction. Based on the traffic volume thresholds presented in Section II, this improvement would accommodate the projected daily traffic volume and provide LOS D (volume-to-capacity ratio: CAC=0.82, PD=0.82) operations with the CAC and PD plans, respectively. Implementation of this mitigation measure would reduce the impact to a less than significant level.

MITIGATION MEASURE CP-28: (Elk Grove-Florin Road – Gerber Road to Carlisle Avenue)

CAC & PD – Widen the section of Elk Grove-Florin Road between Gerber Road and Carlisle Avenue from two to three lanes in each direction. Based on the traffic volume thresholds presented in Section II, this improvement would accommodate the projected daily traffic volume and provide LOS E (volume-to-capacity ratio: CAC=0.94, PD=0.97) operations with the CAC and PD plans, respectively. Implementation of this mitigation measure would reduce the volume-to-capacity ratio to a less than "no project" conditions and reduce the impact to a less than significant level.

MITIGATION MEASURE CP-29: (Elk Grove-Florin Road – Vintage Park Drive to Calvine Road)

CAC & PD – Widen the four-lane section of Elk Grove-Florin Road between Vintage Park Drive and Calvine Road from two to three lanes in each direction. Based on the traffic volume thresholds presented in Section II, this improvement would accommodate the projected daily traffic volume and provide LOS C (volume-to-capacity ratio: CAC=0.78, PD=0.80) operations with the CAC and PD plans, respectively. Implementation of this mitigation measure would reduce the volume-to-capacity ratio to a less than "no project" conditions and reduce the impact to a less than significant level.

MITIGATION MEASURE CP-30: (Hedge Avenue – Fruitridge Road to Elder Creek Road)

CAC & PD – Widen the section of South Watt Avenue between Elder Creek Road and SR 16 from two to three lanes in each direction. Based on the traffic volume thresholds presented in Section II, this improvement would divert traffic from Hedge Avenue reducing the projected daily traffic volume and result in LOS D (volume-to-capacity ratio = CAC=0.44, PD=0.46) operations with the CAC and PD plans, respectively, and reduce the volume-to-capacity ratio to less than "no project" conditions. Implementation of this mitigation measure would reduce the impact to a less than significant level.

MITIGATION MEASURE CP-31: (Bradshaw Road – Kiefer Boulevard to SR 16)

CAC & PD – Widen the section of Bradshaw Road between Kiefer Boulevard and SR 16 from two to three lanes in each direction. Based on the traffic volume thresholds presented in Section II, this improvement would accommodate the projected daily traffic volume and provide LOS E (volume-to-capacity ratio: CAC=0.97, PD=0.98) operations with the CAC and PD plans, and reduce the volume-to-capacity ratio to less than "no project" conditions. Implementation of this mitigation measure would reduce the impact to a less than significant level.

MITIGATION MEASURE CP-32: (Bradshaw Road – SR 16 to Elder Creek Road)

PD – Widen the section of Bradshaw Road between SR 16 and Elder Creek Road from two to three lanes in each direction. Based on the traffic volume thresholds presented in Section II, this improvement would accommodate the projected daily traffic volume and provide LOS E (volume-to-capacity ratio = 0.91) operations with the PD Plan, and reduce the volume-to-capacity ratio to less than "no project" conditions. Implementation of this mitigation measure would reduce the impact to a less than significant level.

MITIGATION MEASURE CP-33: (Bradshaw Road – Elder Creek Road to Florin Road)

PD – Widen the section of Bradshaw Road between Elder Creek Road and Florin Road from two to three lanes in each direction. Based on the traffic volume thresholds presented in Section II, this improvement would accommodate the projected daily traffic volume and provide LOS C (volume-to-capacity ratio = 0.70) operations with the PD Plan, and reduce the volume-to-capacity ratio to less than "no project" conditions. Implementation of this mitigation measure would reduce the impact to a less than significant level.

MITIGATION MEASURE CP-34: (Waterman Road – Vintage Park Drive to Gerber Road)

CAC & PD – Widen the section of Waterman Road between Vintage Park Drive and Gerber Road from one to two lanes in each direction. Based on the traffic volume thresholds presented in Section II, this improvement would accommodate the projected daily traffic volume and provide LOS C (volume-to-capacity ratio: CAC=0.74, PD=0.75) operations with the CAC and PD plans, and reduce

the volume-to-capacity ratio to less than "no project" conditions. Implementation of this mitigation measure would reduce the impact to a less than significant level.

MITIGATION MEASURE CP-35: (Elder Creek Road – South Watt Avenue to Hedge Avenue)

CAC & PD – Widen the section of Elder Creek Road between South Watt Avenue and Hedge Avenue from one to two lanes in each direction. Based on the traffic volume thresholds presented in Section II, this improvement would accommodate the projected daily traffic volume and provide LOS A (volume-to-capacity ratio: = 0.56) operations with the CAC Plan and LOS A (volume-to-capacity ratio: = 0.59) operations with the PD Plan. Implementation of this mitigation measure would reduce the impact to a less than significant level.

MITIGATION MEASURE CP-36: (Florin Road – Bradshaw Road to Excelsior Road)

CAC & PD – Widen the section of Florin Road between Bradshaw Road and Excelsior Road from one to two lanes in each direction. Based on the traffic volume thresholds presented in Section II, this improvement would accommodate the projected daily traffic volume and provide LOS A (volume-to-capacity ratio: = 0.52) operations with the CAC Plan and LOS A (volume-to-capacity ratio: = 0.52) operations with the PD Plan. Implementation of this mitigation measure would reduce the impact to a less than significant level.

MITIGATION MEASURE CP-37: (Bradshaw Road – Florin Road to Gerber Road)

CAC & PD – Widen the section of Bradshaw Road between Florin Road and Gerber Road from two to three lanes in each direction. Based on the traffic volume thresholds presented in Section II, this improvement would accommodate the projected daily traffic volume and provide LOS C (volume-to-capacity ratio: = 0.75) operations with the CAC Plan and LOS C (volume-to-capacity ratio: = 0.74) operations with the PD Plan. Implementation of this mitigation measure would reduce the impact to a less than significant level.

TABLE 20
ROADWAY LEVEL OF SERVICE – CUMULATIVE WITH MITIGATION CONDITIONS: CAC PREFERRED PLAN

Roadway Segment	Lanes	Type[1]	Cumulative Plus CAC Project Conditions			Cumulative Plus CAC Project Conditions With Mitigation		
			Vol	V/C	LOS	Vol	V/C	LOS
1. Folsom Blvd. - State Route 16 to Watt Ave.	4	Arterial	29,400	0.82	D	30,000	0.83	D
2. Kiefer Blvd. - Florin-Perkins Rd. to Watt Ave.	2	Arterial	9,600	0.53	A	8,700	0.48	A
3. Kiefer Blvd. - Watt Ave. to Rosemont Dr.	4	Arterial	26,700	0.74	C	24,100	0.67	B
4. Kiefer Blvd. - Rosemont Dr. to Bradshaw Rd.	4	Arterial	17,400	0.48	A	15,700	0.44	A
5. SR 16 - Folsom Blvd. to Watt Ave.	2(4)	Arterial	22,500	1.25	F	26,800	0.74	C
6. SR 16 - Watt Ave. to Bradshaw Rd.	2(6)	Arterial	26,500	1.47	F	37,800	0.70	B
7. SR 16 - Bradshaw Rd. to Sunrise Blvd	2(4)	Arterial	27,800	1.39	F	29,100	0.73	C
8. Fruitridge Rd. - Power Inn Rd. to Florin-Perkins Rd.	4	Arterial	33,300	0.93	E	33,300	0.93	E
9. Fruitridge Rd. - Florin-Perkins Rd. to South Watt Ave.	6	Arterial	32,100	0.59	A	27,200	0.50	A
10. Fruitridge Rd. - South Watt Ave. to Hedge Ave.	2	Rural	12,100	0.61	D	10,200	0.51	D
11. Elder Creek Rd. - Power Inn Rd. to Florin-Perkins Rd.	4	Arterial	26,800	0.74	C	26,800	0.74	C
12. Elder Creek Rd. - Florin-Perkins Rd. to South Watt Ave.	4	Arterial	19,200	0.53	A	18,500	0.51	A
13. Elder Creek Rd. - South Watt Ave. to Hedge Ave.	2(4)	Rural	19,600	0.98	E	20,200	0.56	A
14. Elder Creek Rd. – Hedge Ave. to Bradshaw Rd.	2(4)	Rural	20,500	1.03	F	25,700	0.71	C
15. Elder Creek Rd. - Bradshaw Rd. to Excelsior Rd.	2	Rural	10,500	0.53	D	10,700	0.54	D
16. Florin Rd. - Stockton Blvd to Power Inn Rd.	4(6)	Arterial	42,000	1.17	F	42,000	0.78	C
17. Florin Rd. - Power Inn Rd. to Florin-Perkins Rd.	4	Arterial	39,600	1.10	F	37,000	1.03	F
18. Florin Rd. - Florin-Perkins Rd. to Gardner Ave.	4(6)	Arterial	38,700	1.08	F	39,900	0.74	C
19. Florin Rd. - Gardner Ave. to South Watt Ave.	4(6)	Arterial	42,500	1.18	F	44,000	0.81	D
20. Florin Rd. - South Watt Ave. to Hedge Ave.	2(4)	Rural	28,100	1.41	F	30,200	0.84	D
21. Florin Rd. - Hedge Ave. to Bradshaw Rd.	4	Arterial	33,700	0.94	E	21,700	0.60	B
22. Florin Rd. - Bradshaw Rd. to Excelsior Rd.	2(4)	Rural	17,900	0.90	E	18,600	0.52	A
23. Florin Rd. - Excelsior Rd. to Sunrise Blvd	2	Rural	14,400	0.72	E	14,400	0.72	E
24. Gerber Rd. - Stockton Blvd to Power Inn Rd.	4	Arterial	25,100	0.70	B	25,100	0.70	B
25. Gerber Rd. - Power Inn Rd. to French Rd.	4	Arterial	37,200	1.03	F	38,400	1.07	F
26. Gerber Rd. - French Rd. to Elk Grove-Florin Rd.	4	Arterial	39,900	1.11	F	40,100	1.11	F
27. Gerber Rd. - Elk Grove-Florin Rd. to Bradshaw Rd.	4	Arterial	30,000	0.83	D	26,400	0.73	C
28. Gerber Rd. - Bradshaw Rd. to Vineyard Rd.	4	Arterial	17,700	0.49	A	14,100	0.39	A
29. Gerber Rd. - Vineyard Rd. to Excelsior Rd.	2	Rural	7,000	0.35	C	7,200	0.36	D
30. Vintage Park Dr. - Elk Grove-Florin Rd. to Waterman Rd.	4	Arterial	19,800	0.55	A	21,600	0.60	A
31. Vintage Park Dr. - Waterman Rd. to Bradshaw Rd.	4	Arterial	9,800	0.27	A	9,200	0.26	A
32. Calvine Rd. - Power Inn Rd. to Elk Grove-Florin Rd.[2]	5(6)	Arterial	66,800	1.48	F	66,800	1.24	F
33. Calvine Rd. - Elk Grove-Florin Rd. to Grand Cru Dr.	4(6)	Arterial	40,000	1.11	F	38,600	0.71	C
34. Calvine Rd. - Grand Cru Dr. to Waterman Rd.	6	Arterial	41,100	0.76	C	39,100	0.72	C
35. Calvine Rd. - Waterman Rd. to Bradshaw Rd.	4	Arterial	30,100	0.84	D	29,900	0.83	D
36. Calvine Rd. - Bradshaw Rd. to Vineyard Rd.	4	Arterial	21,000	0.58	A	20,600	0.57	A
37. Calvine Rd. - Vineyard Rd. to Excelsior Rd.	2	Arterial	13,200	0.73	C	13,000	0.72	A
38. Calvine Rd. - Excelsior Rd. to Grant Line Rd.	2	Rural	7,900	0.40	D	7,900	0.40	D
39. Power Inn Rd - Elder Creek Rd. to Florin Rd.	4	Arterial	31,300	0.87	D	31,300	0.87	D
40. Power Inn Rd - Florin Rd. to Gerber Rd.	4	Arterial	36,700	1.02	F	35,200	0.98	E
41. Power Inn Rd - Gerber Rd. to Calvine Rd.	4	Arterial	35,400	0.98	E	33,900	0.94	E
42. Florin-Perkins Rd. - Folsom Blvd. to SR 16	6	Arterial	38,500	0.71	C	36,200	0.67	B
43. Florin-Perkins Rd. - SR 16 to Fruitridge Rd.	6	Arterial	45,300	0.84	D	38,200	0.71	C
44. Florin-Perkins Rd. - Fruitridge Rd. to Elder Creek Rd.	4	Arterial	43,700	1.21	F	41,600	1.16	F
45. Florin-Perkins Rd. - Elder Creek Rd. to Florin Rd.	4	Arterial	39,700	1.10	F	37,600	1.04	F
46. French Rd. - Florin Rd. to Gerber Rd.	2(4)	Arterial	22,400	1.24	F	26,200	0.73	C
47. Watt Ave. - Folsom Blvd. to Kiefer Blvd.	6	Arterial	84,200	1.40	F	84,100	1.40	F
48. South Watt Ave. - Kiefer Blvd. to SR 16	5(6)	Arterial	66,200	1.47	F	68,300	1.14	F
49. South Watt Ave. - SR 16 to Fruitridge Rd.	4	Arterial	45,000	1.13	F	43,400	1.09	F
50. South Watt Ave. - Fruitridge Rd. to Elder Creek Rd.	4(6)	Arterial	44,700	1.24	F	46,600	0.86	D
51. South Watt Ave. - Elder Creek Rd. to Florin Rd.	4(6)	Arterial	37,200	1.03	F	37,400	0.69	B
52. Elk Grove-Florin Rd. - Florin Rd. to Gerber Rd.	4(6)	Arterial	42,500	1.18	F	44,300	0.82	D
53. Elk Grove-Florin Rd. - Gerber Rd. to Carlisle Ave.	4(6)	Arterial	45,500	1.26	F	50,900	0.94	E

TABLE 20 (CONT.)
ROADWAY LEVEL OF SERVICE – CUMULATIVE WITH MITIGATION CONDITIONS: CAC PREFERRED PLAN

Roadway Segment	Lanes	Type[1]	Cumulative Plus CAC Project Conditions			Cumulative Plus CAC Project Conditions With Mitigation		
			Vol	V/C	LOS	Vol	V/C	LOS
54. Elk Grove-Florin Rd. - Carlisle Ave. to Vintage Park Dr.	6	Arterial	44,300	0.82	D	48,500	0.90	D
55. Elk Grove-Florin Rd. - Vintage Park Dr. to Calvine Rd.	4(6)	Arterial	40,100	1.11	F	42,100	0.78	C
56. Hedge Ave. - SR 16 to Fruitridge Rd.	2	Rural	5,200	0.26	C	4,900	0.25	C
57. Hedge Ave. - Fruitridge Rd. to Elder Creek Rd.	2	Rural	18,600	0.93	E	8,700	0.44	D
58. Hedge Ave. - Elder Creek Rd. to Florin Rd.	2	Rural	19,300	0.97	E	10,800	0.54	D
59. Waterman Rd. - Vintage Park Dr. to Calvine Rd.	4	Arterial	24,600	0.68	B	23,400	0.65	B
60. Bradshaw Rd. - Kiefer Blvd. to SR 16	4(6)	Arterial	53,700	1.49	F	52,300	0.97	E
61. Bradshaw Rd. - SR 16 to Elder Creek Rd.	4(6)	Arterial	39,300	1.09	F	48,000	0.89	D
62. Bradshaw Rd. - Elder Creek Rd. to Florin Rd.	4(6)	Arterial	38,700	1.08	F	36,200	0.67	B
63. Bradshaw Rd. - Florin Rd. to Gerber Rd.	4(6)	Arterial	38,800	1.08	F	40,300	0.75	C
64. Bradshaw Rd. - Gerber Rd. to Vintage Park Dr.	4	Arterial	31,800	0.88	D	31,200	0.87	D
65. Bradshaw Rd. - Vintage Park Dr. to Calvine Rd.	4	Arterial	24,900	0.69	B	24,000	0.67	B
66. Vineyard Rd. - Gerber Rd. to Calvine Rd.	2	Arterial	16,900	0.94	E	16,900	0.94	E
67. Excelsior Rd. - SR 16 to Florin Rd.	2	Rural	14,000	0.70	E	13,200	0.66	E
68. Excelsior Rd. - Florin Rd. to Gerber Rd.	2	Rural	15,100	0.76	E	14,600	0.73	E
69. Excelsior Rd. - Gerber Rd. to Calvine Rd.	2	Rural	8,700	0.44	D	8,400	0.42	D
70. Waterman Rd. - Vintage Park Dr. to Gerber Rd.	2(4)	Arterial	29,900	1.66	F	26,600	0.74	C
71. Waterman Rd. - Gerber Rd. to Florin Rd.	4	Arterial	26,600	0.74	C	27,600	0.77	C
72. Vineyard Rd. - Gerber Rd. to Florin Rd.	2	Arterial	9,900	0.54	A	8,000	0.44	A
73. Waterman Rd. - Florin Rd. to Elder Creek Rd.	0(4)	-	-	-	-	21,900	0.61	B

Notes: Shaded areas indicate unacceptable operations.
All arterial roadway segments assumed to have moderate access control except for Segments 7, 47, and 49, which were assumed to have high access control.
Blue – City of Sacramento Study Roadway Segments
Green – City of Elk Grove Study Roadway Segments
[1]Facility type for unmitigated condition
[2]This segment of Calvine Road is four to six lanes.
Mitigation is for both primary and secondary impacts.

Source: *Fehr & Peers*, 2007

TABLE 21
ROADWAY LEVEL OF SERVICE – CUMULATIVE WITH MITIGATION CONDITIONS: PLANNING DEPARTMENT PLAN

Roadway Segment	Lanes	Type[1]	Cumulative Plus PD Project Conditions			Cumulative Plus PD Project Conditions With Mitigation		
			Vol	V/C	LOS	Vol	V/C	LOS
1. Folsom Blvd. - State Route 16 to Watt Ave.	4	Arterial	30,400	0.84	D	30,300	0.84	D
2. Kiefer Blvd. - Florin-Perkins Rd. to Watt Ave.	2	Arterial	9,500	0.53	A	8,800	0.49	A
3. Kiefer Blvd. - Watt Ave. to Rosemont Dr.	4	Arterial	26,800	0.74	C	24,100	0.67	B
4. Kiefer Blvd. - Rosemont Dr. to Bradshaw Rd.	4	Arterial	17,600	0.49	A	15,800	0.44	A
5. SR 16 - Folsom Blvd. to Watt Ave.	2(4)	Arterial	22,100	1.23	F	27,200	0.76	C
6. SR 16 - Watt Ave. to Bradshaw Rd.	2(6)	Arterial	26,900	1.49	F	38,500	0.71	C
7. SR 16 - Bradshaw Rd. to Sunrise Blvd	2(4)	Arterial	28,100	1.41	F	29,300	0.73	C
8. Fruitridge Rd. - Power Inn Rd. to Florin-Perkins Rd.	4	Arterial	33,500	0.93	E	33,500	0.93	E
9. Fruitridge Rd. - Florin-Perkins Rd. to South Watt Ave.	6	Arterial	32,800	0.61	B	27,900	0.52	A
10. Fruitridge Rd. - South Watt Ave. to Hedge Ave.	2	Rural	12,600	0.63	E	10,500	0.53	D
11. Elder Creek Rd. - Power Inn Rd. to Florin-Perkins Rd.	4	Arterial	27,200	0.76	C	27,200	0.76	C
12. Elder Creek Rd. - Florin-Perkins Rd. to South Watt Ave.	4	Arterial	19,400	0.54	A	19,000	0.53	A
13. Elder Creek Rd. - South Watt Ave. to Hedge Ave.	2(4)	Rural	19,700	0.99	E	21,300	0.59	A
14. Elder Creek Rd. – Hedge Ave. to Bradshaw Rd.	2(4)	Rural	21,000	1.05	F	26,800	0.74	C
15. Elder Creek Rd. - Bradshaw Rd. to Excelsior Rd.	2	Rural	10,700	0.54	D	11,000	0.55	D
16. Florin Rd. - Stockton Blvd to Power Inn Rd.	4(6)	Arterial	42,300	1.18	F	42,300	0.78	C
17. Florin Rd. - Power Inn Rd. to Florin-Perkins Rd.	4	Arterial	40,200	1.12	F	37,500	1.04	F
18. Florin Rd. - Florin-Perkins Rd. to Gardner Ave.	4(6)	Arterial	39,700	1.10	F	41,600	0.77	C
19. Florin Rd. - Gardner Ave. to South Watt Ave.	4(6)	Arterial	43,400	1.21	F	45,000	0.83	D
20. Florin Rd. - South Watt Ave. to Hedge Ave.	2(4)	Rural	28,700	1.44	F	31,200	0.87	D
21. Florin Rd. - Hedge Ave. to Bradshaw Rd.	4	Arterial	33,800	0.94	E	22,400	0.62	B
22. Florin Rd. - Bradshaw Rd. to Excelsior Rd.	2(4)	Rural	18,000	0.90	E	18,900	0.52	A
23. Florin Rd. - Excelsior Rd. to Sunrise Blvd	2	Rural	14,400	0.72	E	14,400	0.72	E
24. Gerber Rd. - Stockton Blvd to Power Inn Rd.	4	Arterial	25,800	0.72	C	25,800	0.72	C
25. Gerber Rd. - Power Inn Rd. to French Rd.	4	Arterial	37,800	1.05	F	39,000	1.08	F
26. Gerber Rd. - French Rd. to Elk Grove-Florin Rd.	4	Arterial	41,000	1.14	F	40,800	1.13	F
27. Gerber Rd. - Elk Grove-Florin Rd. to Bradshaw Rd.	4	Arterial	30,900	0.86	D	26,400	0.73	C
28. Gerber Rd. - Bradshaw Rd. to Vineyard Rd.	4	Arterial	17,500	0.49	A	13,700	0.38	A
29. Gerber Rd. - Vineyard Rd. to Excelsior Rd.	2	Rural	7,100	0.36	C	7,400	0.37	D
30. Vintage Park Dr. - Elk Grove-Florin Rd. to Waterman Rd.	4	Arterial	20,800	0.58	A	21,900	0.61	B
31. Vintage Park Dr. - Waterman Rd. to Bradshaw Rd.	4	Arterial	9,900	0.28	A	9,100	0.25	A
32. Calvine Rd. - Power Inn Rd. to Elk Grove-Florin Rd.[2]	5(6)	Arterial	67,600	1.50	F	67,600	1.25	F
33. Calvine Rd. - Elk Grove-Florin Rd. to Grand Cru Dr.	4(6)	Arterial	40,000	1.11	F	38,300	0.71	C
34. Calvine Rd. - Grand Cru Dr. to Waterman Rd.	6	Arterial	41,100	0.76	C	38,800	0.72	C
35. Calvine Rd. - Waterman Rd. to Bradshaw Rd.	4	Arterial	30,100	0.84	D	29,700	0.83	D
36. Calvine Rd. - Bradshaw Rd. to Vineyard Rd.	4	Arterial	20,800	0.58	A	20,500	0.57	A
37. Calvine Rd. - Vineyard Rd. to Excelsior Rd.	2	Arterial	13,100	0.73	C	12,700	0.71	C
38. Calvine Rd. - Excelsior Rd. to Grant Line Rd.	2	Rural	7,900	0.40	D	7,900	0.40	D
39. Power Inn Rd - Elder Creek Rd. to Florin Rd.	4	Arterial	30,800	0.86	D	30,800	0.86	D
40. Power Inn Rd - Florin Rd. to Gerber Rd.	4	Arterial	36,000	1.00	E	34,400	0.96	E
41. Power Inn Rd - Gerber Rd. to Calvine Rd.	4	Arterial	34,700	0.96	E	33,100	0.92	E
42. Florin-Perkins Rd. - Folsom Blvd. to SR 16	6	Arterial	38,700	0.72	C	36,900	0.68	B
43. Florin-Perkins Rd. - SR 16 to Fruitridge Rd.	6	Arterial	46,400	0.86	D	38,900	0.72	C
44. Florin-Perkins Rd. - Fruitridge Rd. to Elder Creek Rd.	4	Arterial	43,800	1.22	F	41,200	1.14	F
45. Florin-Perkins Rd. - Elder Creek Rd. to Florin Rd.	4	Arterial	40,800	1.13	F	38,200	1.06	F
46. French Rd. - Florin Rd. to Gerber Rd.	2(4)	Arterial	22,700	1.26	F	26,200	0.73	C
47. Watt Ave. - Folsom Blvd. to Kiefer Blvd.	6	Arterial	84,500	1.41	F	84,300	1.41	F
48. South Watt Ave. - Kiefer Blvd. to SR 16	5(6)	Arterial	67,000	1.49	F	69,200	1.15	F
49. South Watt Ave. - SR 16 to Fruitridge Rd.	4(6)	Arterial	45,500	1.14	F	44,200	0.82	D
50. South Watt Ave. - Fruitridge Rd. to Elder Creek Rd.	4(6)	Arterial	44,900	1.25	F	47,400	0.88	D

TABLE 21 (CONT.)
ROADWAY LEVEL OF SERVICE – CUMULATIVE CONDITIONS WITH MITIGATION: PLANNING DEPARTMENT PLAN

Roadway Segment	Lanes	Type[1]	Cumulative Plus PD Project Conditions			Cumulative Plus PD Project Conditions With Mitigation		
			Vol	V/C	LOS	Vol	V/C	LOS
51. South Watt Ave. - Elder Creek Rd. to Florin Rd.	4(6)	Arterial	38,700	1.08	F	38,000	0.70	C
52. Elk Grove-Florin Rd. - Florin Rd. to Gerber Rd.	4(6)	Arterial	43,400	1.21	F	46,600	0.82	D
53. Elk Grove-Florin Rd. - Gerber Rd. to Carlisle Ave.	4(6)	Arterial	46,600	1.29	F	52,500	0.97	E
54. Elk Grove-Florin Rd. - Carlisle Ave. to Vintage Park Dr.	6	Arterial	48,600	0.90	D	52,400	0.97	E
55. Elk Grove-Florin Rd. - Vintage Park Dr. to Calvine Rd.	4(6)	Arterial	40,700	1.13	F	43,000	0.80	C
56. Hedge Ave. - SR 16 to Fruitridge Rd.	2	Rural	5,200	0.26	C	5,000	0.25	C
57. Hedge Ave. - Fruitridge Rd. to Elder Creek Rd.	2	Rural	19,400	0.97	E	9,100	0.46	D
58. Hedge Ave. - Elder Creek Rd. to Florin Rd.	2	Rural	19,800	0.99	E	12,700	0.64	E
59. Waterman Rd. - Vintage Park Dr. to Calvine Rd.	4	Arterial	24,500	0.68	B	23,500	0.65	B
60. Bradshaw Rd. - Kiefer Blvd. to SR 16	4(6)	Arterial	54,400	1.51	F	52,900	0.98	E
61. Bradshaw Rd. - SR 16 to Elder Creek Rd.	4(6)	Arterial	40,200	1.12	F	49,100	0.91	E
62. Bradshaw Rd. - Elder Creek Rd. to Florin Rd.	4(6)	Arterial	40,000	1.11	F	37,800	0.70	C
63. Bradshaw Rd. - Florin Rd. to Gerber Rd.	4(6)	Arterial	38,600	1.07	F	40,200	0.74	C
64. Bradshaw Rd. - Gerber Rd. to Vintage Park Dr.	4	Arterial	31,800	0.88	D	30,700	0.85	D
65. Bradshaw Rd. - Vintage Park Dr. to Calvine Rd.	4	Arterial	24,800	0.69	B	23,600	0.66	B
66. Vineyard Rd. - Gerber Rd. to Calvine Rd.	2	Arterial	16,700	0.93	E	16,800	0.93	E
67. Excelsior Rd. - SR 16 to Florin Rd.	2	Rural	14,200	0.71	E	13,300	0.67	E
68. Excelsior Rd. - Florin Rd. to Gerber Rd.	2	Rural	15,200	0.76	E	14,600	0.73	E
69. Excelsior Rd. - Gerber Rd. to Calvine Rd.	2	Rural	8,800	0.44	D	8,200	0.41	D
70. Waterman Rd. - Vintage Park Dr. to Gerber Rd.	2(4)	Arterial	30,000	1.67	F	27,100	0.75	C
71. Waterman Rd. - Gerber Rd. to Florin Rd.	4	Arterial	26,200	0.73	C	28,600	0.79	C
72. Vineyard Rd. - Gerber Rd. to Florin Rd.	2	Arterial	9,900	0.54	A	7,800	0.43	A
73. Waterman Rd. - Florin Rd. to Elder Creek Rd.	0(4)	-	-	-	-	22,900	0.64	B

Notes: Shaded areas indicate unacceptable operations.
All arterial roadway segments assumed to have moderate access control except for Segments 7, 47, and 49, which were assumed to have high access control.
Blue – City of Sacramento Study Roadway Segments
Green – City of Elk Grove Study Roadway Segments
[1]Facility type for unmitigated condition
[2]This segment of Calvine Road is four to six lanes.
Mitigation is for both primary and secondary impacts.
Source: *Fehr & Peers*, 2007

MITIGATION MEASURE CP-38: (Folsom Boulevard/SR 16)

CAC – Widen the eastbound approach to the Folsom Boulevard/SR 16 intersection to provide one left-turn lane, two through lanes, and two right-turn lanes (with overlap phasing). This improvement would provide LOS E and D operations in the AM and PM peak hours, respectively, with the CAC Plan. This improvement would require additional right-of-way. Due to the right-of-way constraints, implementation of this mitigation measure is infeasible; therefore, this impact would remain significant and unavoidable.

PD – Widen the eastbound approach to the Folsom Boulevard/SR 16 intersection to provide one left-turn lane, two through lanes, and two right-turn lanes (with overlap phasing). This improvement, would provide LOS E and C operations in the AM and PM peak hours, respectively, with the PD Plan. The delay would increase under AM peak hour conditions with this improvement. This improvement would require additional right-of-way. Due to the right-of-way constraints this impact would remain significant and unavoidable.

MITIGATION MEASURE CP-39: (Folsom Boulevard/Florin-Perkins Road)

CAC & PD - Widen the westbound approach to the Folsom Boulevard/Florin-Perkins Road intersection to provide two left-turn lanes, one through lane, and one shared through/right-turn lane. This improvement would provide LOS F operations in both the AM and PM peak hours, respectively, with the CAC and PD plans; however, it would not reduce delay to within five seconds of delay under cumulative "no project" conditions. In addition, this improvement would require additional right-of-way. Due to the right-of-way constraints and unacceptable LOS this impact would remain significant and unavoidable.

MITIGATION MEASURE CP-40: (Folsom Boulevard/South Watt Avenue)

CAC & PD - Widen the northbound and southbound approaches to the Folsom Boulevard/South Watt Avenue intersection to provide the following lane configurations:

- Two left-turn lanes, three through lanes, and one right-turn lane on the northbound approach
- Two left-turn lanes, three through lanes, and one right-turn lane on the southbound approach (with overlap phasing)

This improvement would provide LOS F and LOS E operations in both the AM and PM peak hours, respectively, with the CAC and PD plans. In the AM peak hour it would reduce the delay to less than cumulative "no project" conditions. Technical studies are currently being conducted for operational improvements along the Watt Avenue/South Watt Avenue corridor, which include the grade-separation of the Regional Transit LRT and improvements at the South Watt Avenue/Folsom Boulevard intersection. Implementation of this mitigation measure would reduce the impact to a less than significant level.

MITIGATION MEASURE CP-41: (Kiefer Boulevard/South Watt Avenue)

CAC & PD – Widen the Kiefer Boulevard/South Watt Avenue intersection northbound approach to provide the two left-turn lanes, three through lanes, and a right-turn lane. This improvement, which is consistent with the widening of South Watt Avenue identified in Mitigation Measure CP-23, would provide LOS E and D operations in the AM and PM peak hours, respectively, with the CAC Plan and LOS E and C in the AM and PM peak hour, respectively, with the PD Plan. Implementation of this mitigation measure would reduce the impact to a less than significant level.

MITIGATION MEASURE CP-42: (Kiefer Boulevard/Bradshaw Road)

CAC & PD - Widen the northbound, southbound, eastbound, and westbound approaches to the Kiefer Boulevard/Bradshaw Road intersection to provide the following lane configurations:

- One left-turn lane, three through lanes, and one right-turn lane on the northbound approach
- One left-turn lane, three through lanes, and one right-turn lane on the southbound approach
- Two left-turn lanes, two through lanes, and one right-turn lane (with overlap phasing) on the eastbound approach
- Two left-turn lanes, one through lane, and a shared through/right-turn lane on the westbound approach

This improvement, which is consistent with the widening of Bradshaw Road identified in Mitigation Measure CP-31 and CP-32, would provide LOS B and E operations in the AM and PM peak hours, respectively, with the CAC and PD Plans. Implementation of this mitigation measure would reduce the impact to a less than significant level.

MITIGATION MEASURE CP-43: (SR 16/Florin-Perkins Road)

CAC & PD - Widen the southbound and westbound approaches and modify the lane configurations on the eastbound approach to provide the following lane configurations:

- Two left-turn lanes, three through lanes, and a right-turn lane on the southbound approach
- One left-turn lane, two through lanes, and one right-turn lane (with overlap phasing) on the eastbound approach
- Two left-turn lanes, two through lanes, and one right-turn lane (with overlap phasing) on the westbound approach

This improvement, which is consistent with the widening of SR 16 identified in Mitigation Measure CP-2, would provide LOS F and E operations in the AM and PM peak hours, respectively, with the CAC and PD Plans; however, it would reduce delay to within five seconds of the delay under cumulative “no project” conditions. Implementation of this mitigation measure would reduce the impact to a less than significant level.

MITIGATION MEASURE CP-44: (SR 16/South Watt Avenue)

CAC & PD - Widen the northbound, southbound, eastbound, and westbound approaches to the SR 16/South Watt Avenue intersection to provide the following lane configurations:

- One left-turn lane, three through lanes, and a right-turn lane on the northbound approach
- Two left-turn lanes, three through lanes, and a right-turn lane on the southbound approach
- One left-turn lane, three through lanes, and a right-turn lane on the eastbound approach
- One left-turn lane, three through lanes, and a right-turn lane (with overlap phasing) on the westbound approach

This improvement, which is consistent with the widening of SR 16 and South Watt Avenue identified in Mitigation Measures CP-2, CP-3, CP-23, and CP-24 would provide LOS F and E operations in both the AM and PM peak hours, respectively, with the CAC and PD Plans; however, it would reduce the volume-to-capacity ratio to within 0.05 of cumulative “no project” conditions. Implementation of this mitigation measure would reduce the impact to a less than significant level.

MITIGATION MEASURE CP-45: (SR 16/Bradshaw Road)

CAC – Widen the northbound, eastbound, and westbound approaches to the SR 16/Bradshaw Road intersection to provide the following lane configurations:

- Two left-turn lanes, three through lanes, and a right-turn lane on the northbound approach
- Two left-turn lanes, three through lanes, and a right-turn lane on the southbound approach
- Two left-turn lanes, three through lanes, and a right-turn lane on the eastbound approach
- One left-turn lane, three through lanes, and a right-turn lane (with overlap phasing) on the westbound approach

This improvement, which is consistent with the widening of SR 16 and Bradshaw Road identified in Mitigation Measures CP-2 and CP-26, would provide LOS F and E operations in both the AM and PM peak hours with the CAC Plan. However, this improvement would reduce the volume-to-capacity ratio to less than "no project" conditions volume-to-capacity ratio. Implementation of this mitigation measure would reduce the impact to a less than significant level.

MITIGATION MEASURE CP-46: (SR 16/Excelsior Road)

CAC – Widen the northbound, southbound, and eastbound, and westbound approaches to the SR 16/Excelsior Road intersection to provide the following lane configurations:

- One left-turn lane and a shared through/right-turn lane on the northbound approach
- One left-turn lane and a shared through/right-turn lane on the southbound approach
- One left-turn lane, two through lanes, and a right-turn lane on the eastbound approach
- One left-turn lane, one through lane, and a shared through/right-turn lane on the westbound approach

This improvement would provide LOS F operations in both the AM and PM peak hours with the CAC Plan. However, this improvement would reduce the volume-to-capacity ratio to less than "no project" conditions volume-to-capacity ratio. Implementation of this mitigation measure would reduce the impact to a less than significant level.

PD – Widen the northbound, southbound, eastbound, and westbound approaches to the SR 16/Excelsior Road intersection to provide the following lane configurations:

- One left-turn lane and a shared through/right-turn lane on the northbound approach
- One left-turn lane, one through lane, and a right-turn lane on the southbound approach
- One left-turn lane, two through lanes, and a right-turn lane on the eastbound approach
- One left-turn lane, one through lane, and a shared through/right-turn lane on the westbound approach

This improvement would provide LOS F operations in both the AM and PM peak hours with the PD plan. However, this improvement would reduce the volume-to-capacity ratio to less than "no project" conditions volume-to-capacity ratio. Implementation of this mitigation measure would reduce the impact to a less than significant level.

MITIGATION MEASURE CP-47: (Fruitridge Road/Florin-Perkins Road)

CAC & PD – Widen the northbound, southbound, eastbound, and westbound approaches to the Fruitridge Road/Florin-Perkins Road intersection to provide the following lane configurations:

- Two left-turn lanes, two through lanes, and right-turn lane on the northbound approach
- Two left-turn lanes, two through lanes, and right-turn lane on the southbound approach
- Two left-turn lanes, two through lanes, and right-turn lane on the eastbound approach
- Two left-turn lanes, two through lanes, and right-turn lane (with overlap phasing) on the westbound approach

This improvement would result LOS F operations in the AM and PM peak hours, both the CAC and PD Plans; however, although it would reduce delay it would not reduce delay to less than cumulative "no project" conditions. Therefore, this impact would remain significant and unavoidable..

MITIGATION MEASURE CP-48: (Fruitridge Road/South Watt Avenue)

CAC & PD – Widen the northbound, southbound, eastbound, and westbound approaches to the Fruitridge Road/South Watt Avenue intersection to provide the following lane configurations:

- Two left-turn lanes, two through lanes, and a shared through/right-turn lane on the northbound approach
- One left-turn lane, three through lanes, and one right-turn lane (with overlap phasing) on the southbound approach
- One left-turn lane, two through lanes, and one right-turn lane (with overlap phasing) on the eastbound approach
- One left-turn lane, one through lane, and a shared through/right-turn lane on the westbound approach

This improvement, which is consistent with the widening of South Watt Avenue identified in Mitigation Measures CP-24 and CP-25, would provide LOS E and D operations in the AM and PM peak hours, respectively, with the CAC Plan and LOS E in both the AM and PM peak hours with the PD plan; however, it would reduce the volume-to-capacity ratio to within 0.05 of cumulative "no project" conditions. Implementation of this mitigation measure would reduce the impact to a less than significant level.

MITIGATION MEASURE CP-49: (Fruitridge Road/Hedge Avenue)

CAC & PD – Install a traffic signal and widen the northbound, southbound, eastbound, and westbound approaches to the Fruitridge Road/Hedge Avenue intersection to provide the following lane configurations:

- One left-turn lane and a shared through/right-turn lane on the northbound approach
- One left-turn lane and a shared through/right-turn lane on the southbound approach
- One left-turn lane, one through lane, and a right-turn lane on the eastbound approach
- One left-turn lane and a shared through/right-turn lane on the westbound approach

This improvement would provide LOS D and E operations in AM and PM peak hours, respectively, with the CAC Plan and LOS E operations in both the AM and PM peak hours with the PD Plan. Implementation of this mitigation measure would reduce the impact to a less than significant level.

MITIGATION MEASURE CP-50: (Elder Creek Road/Florin-Perkins Road)

CAC & PD – Widen the northbound, southbound, and eastbound approaches to the Elder Creek Road/Florin-Perkins Road intersection to provide the following lane configurations:

- Two left-turn lanes, two through lanes, and one right-turn lane on the northbound approach
- One left-turn lane, two through lanes, and one right-turn lane (with overlap phasing) on the southbound approach
- Two left-turn lanes, two through lanes, and one right-turn lane (with overlap phasing) on the eastbound approach

This improvement would result in LOS F operations in both the AM and PM peak hours with the CAC and PD plans; however, although it would reduce delay it would not reduce delay to less than cumulative "no project" conditions. Therefore, this impact would remain significant and unavoidable.

MITIGATION MEASURE CP-51: (Elder Creek Road/South Watt Avenue)

CAC & PD – Widen the northbound, southbound, eastbound, and westbound approaches to provide the following lane configurations:

- Two left-turn lanes, three through lanes, and a right-turn lane on the northbound approach
- Two left-turn lanes, three through lane, and a right-turn lane on the southbound approach
- One left-turn lane, two through lanes, and a right-turn lane (with overlap phasing) on the eastbound approach
- One left-turn lane, two through lanes, and a right-turn lane on the westbound approach

This improvement, which is consistent with the widening of South Watt Avenue identified in Mitigation Measure CP-25 and CP-26, would provide LOS D operations in both the AM and PM peak hours with the CAC Plan and LOS D and E operations in the AM and PM peak hours, respectively, with the PD Plan. Implementation of this mitigation measure would reduce the impact to a less than significant level.

MITIGATION MEASURE CP-52: (Elder Creek Road/Hedge Avenue)

CAC & PD – Install a traffic signal and widen the northbound, southbound, eastbound, and westbound approaches to the Elder Creek Road/Hedge Avenue intersection to provide the following lane configurations:

- One left-turn lane, one through lane, and a shared through/right-turn lane on the northbound approach (This improvement would require a lane transition north of Elder Creek Road)
- One left-turn lane, one through lane, and a shared through/right-turn lane on the southbound approach (This improvement would require a lane transition south of Elder Creek Road)
- One left-turn lane, one through lane, and a shared through/right-turn lane on the eastbound approach
- One left-turn lane, one through lane, and a shared through/right-turn lane on the westbound approach

This improvement would provide LOS E operations in both the AM and PM peak hours with the CAC and PD plans. However, this improvement requires widening to provide two through lanes on the northbound and southbound approaches at the intersection only, which would require lane transitions north of Elder Creek Road (northbound) and south of Elder Creek Road (southbound). The lane transitions are not consistent with County design standards. Therefore, these improvements are considered infeasible.

Alternatively, construct a four-lane extension of Waterman Road between Florin Road and Elder Creek Road in the plan area. The draft circulation plan for the Sacramento County General Plan Update shows the extension of Waterman Road as a four-lane arterial (Pre – 2030) between Florin Road and SR 16. The Waterman Road extension would provide an alternative to Hedge Avenue and other parallel roadways like South Watt Avenue and Bradshaw Road. Also Install a traffic signal and

widen the northbound, southbound, eastbound, and westbound approaches to the Elder Creek Road/Hedge Avenue intersection to provide the following lane configurations:

- One left-turn lane and a shared through/right-turn lane on the northbound approach
- One left-turn lane and a shared through/right-turn lane on the southbound approach
- One left-turn lane, one through lane, and a shared through/right-turn lane on the eastbound approach
- One left-turn lane, one through lane, and a shared through/right-turn lane on the westbound approach

In addition, the Waterman Road extension would result in needed modifications to the Florin Road/Waterman Road intersection (discussed in Mitigation Measure CP-60) and construction of a new traffic signal controlled intersection at the Elder Creek Road/Waterman Road.

At the Elder Creek Road/Waterman Road intersection, install a traffic signal and provide the following lane configurations:

- Two left-turn lanes, one through lane, and a shared through/right-turn lane on the northbound approach
- Two left-turn lanes, one through lane, and a shared through/right-turn lane on the southbound approach
- One left-turn lane, one through lane, and a shared through/right-turn lane on the eastbound approach
- One left-turn lane, one through lane, and a shared through/right-turn lane on the westbound approach

The Elder Creek Road/Waterman Road intersection would operate at LOS B and D in the AM and PM peak hours, respectively, with the CAC Plan and would operate at LOS C and D in the AM and PM peak hours, respectively, with the PD Plan.

Implementation of this mitigation measure would provide LOS E and D operations in the AM and PM peak hours, respectively, with the CAC and PD Plans and would reduce the impact to a less than significant level at the Elder Creek Road/Hedge Avenue intersection.

MITIGATION MEASURE CP-53: (Elder Creek Road/Bradshaw Road)

<u>CAC</u> – Widen the northbound, southbound, eastbound, and westbound approaches to the Elder Creek Road/Bradshaw Road intersection to provide the following lane configurations:

- One left-turn lane, three through lanes, and a right-turn lane on the northbound approach
- One left-turn lane, three through lanes, and a right-turn lane on the southbound approach
- Two left-turn lanes, two through lanes, and a right-turn lane on the eastbound approach (this will require a lane transition east of Bradshaw Road)
- Two left-turn lanes, one through lane, and a shared through/right-turn lane on the westbound approach

This improvement, which is consistent with the widening of Elder Creek Road and Bradshaw Road identified in Mitigation Measure CP-7 CP-32, and CP 33, would provide LOS E operations during the AM peak hour and LOS D during the PM peak hour with the CAC Plan. Implementation of this mitigation measure would reduce the impact to a less than significant level.

<u>PD</u> – Widen the northbound, southbound, eastbound, and westbound approaches to the Elder Creek Road/Bradshaw Road intersection to provide the following lane configurations:

- One left-turn lane, three through lanes, and a right-turn lane on the northbound approach
- One left-turn lane, three through lanes, and a right-turn lane on the southbound approach
- Two left-turn lanes, two through lanes, and a right-turn lane on the eastbound approach (this will require a lane transition east of Bradshaw Road)
- Two left-turn lanes, two through lanes, and a right-turn lane on the westbound approach

This improvement, which is consistent with the widening of Elder Creek Road and Bradshaw Road identified in Mitigation Measure CP-7 CP-32, and CP 33, would provide LOS E operations in both the AM and PM peak hours with the PD Plan. Implementation of this mitigation measure would reduce the impact to a less than significant level.

MITIGATION MEASURE CP-54: (Elder Creek Road/Excelsior Road)

CAC & PD – Install a traffic signal and widen the northbound and eastbound approaches to the Elder Creek Road/Excelsior Road intersection to provide the following lane configurations:

- One left-turn lane and one through lane on the northbound approach
- One left-turn lane and one right-turn lane on the eastbound approach

This improvement would provide LOS C and E operations in the AM and PM peak hours, respectively, with the CAC and PD Plans. Implementation of this mitigation measure would reduce the impact to a less than significant level.

MITIGATION MEASURE CP-55: (Florin Road/Power Inn Road)

CAC & PD – Widen the southbound approach to the Florin Road/Power Inn Road intersection to provide the following lane configurations:

- One left-turn lane, two through lanes, and a shared through/right-turn lane on the southbound approach

This improvement would provide LOS F operations in both the AM and PM peak hours with the CAC and PD plans but does not reduce the volume-to-capacity ratio to within 0.05 of the “no project” conditions volume-to-capacity ratio due to the construction of Alta Florin identified in Mitigation Measure CP-6. This roadway improvement would reduce the impact to the roadway segment to a less than significant level but exacerbates conditions at the Florin Road/Power Inn Road intersection. Due to the right-of-way constraints, implementation of a further mitigation measures are infeasible; therefore, this impact would remain significant and unavoidable.

MITIGATION MEASURE CP-56: (Florin Road/Florin-Perkins Road)

CAC & PD – Widen the westbound approach to the Florin Road/Florin-Perkins Road intersection to provide the following lane configurations:

- One left-turn lane, two through lanes, and right-turn lane (with overlap phasing) on the westbound approach

This improvement would provide LOS F operations in both the AM and PM peak hours with the CAC and PD plans. However, this improvement would reduce the volume-to-capacity ratio to within 0.05 of the “no project” conditions volume-to-capacity ratio. Implementation of this mitigation measure would reduce the impact to a less than significant level.

MITIGATION MEASURE CP-57: (Florin Road/Gardner Avenue)

CAC & PD – Install a traffic signal and widen the northbound, southbound, eastbound, and westbound approaches to the Florin Road/Gardner Avenue intersection to provide the following lane configurations:

- One left-turn lane and a shared through/right-turn lane on the northbound approach
- One left-turn lane and a shared through/right-turn lane on the southbound approach
- One left-turn lane, two through lanes, and a shared through/right-turn lane on the eastbound approach
- One left-turn lane, two through lanes, and a shared through/right-turn lane on the westbound approach

This improvement, which is consistent with the widening of Florin Road in Mitigation Measure CP-10 and CP-11, would provide LOS B in both the AM and PM peak hours, respectively, with the CAC Plan and LOS C and B operations in the AM and PM peak hours, respectively, with the PD Plan. Implementation of this mitigation measure would reduce the impact to a less than significant level.

MITIGATION MEASURE CP-58: (Florin Road/South Watt Avenue)

CAC & PD – Widen the northbound, southbound, eastbound, and westbound approaches to the Florin Road/South Watt Avenue intersection to provide the following lane configurations:

- Two left-turn lanes, three through lanes, and a right-turn lane on the northbound approach
- Two left-turn lanes, three through lanes, and right-turn (with overlap phasing) on the southbound approach
- Two left-turn lanes, three through lanes, and a right-turn lane (with overlap phasing) on the eastbound approach
- Two left-turn lanes, three through lanes, and a right-turn lane on the westbound approach

This improvement, which is consistent with the widening of Florin Road and South Watt Avenue identified in Mitigation Measures CP-11, CP-12, CP-26, and CP-27, would provide LOS D and F operations in AM and PM peak hours, respectively, with the CAC and PD Plans. However, this improvement would reduce the volume-to-capacity ratio to less than the “no project” conditions volume-to-capacity ratio. Implementation of this mitigation measure would reduce the impact to a less than significant level.

MITIGATION MEASURE CP-59: (Florin Road/Hedge Avenue)

CAC & PD – Widen the northbound, southbound, eastbound, and westbound approaches to the Florin Road/Hedge Avenue intersection to provide the following lane configurations:

- One left-turn lane and a shared through/right-turn lane on the northbound approach
- Two left-turn lanes and a shared through/right-turn lane on the southbound approach
- Two left-turn lanes, one through lane, and a shared through/right-turn lane on the eastbound approach (this improvement will require a northbound transition lane north of Florin Road)
- One left-turn lane, two through lanes, and a right-turn lane on the westbound approach

This improvement would provide LOS D and C operations in the AM and PM peak hours, respectively, with the CAC Plan and LOS D operations in both the AM and PM peak hours with the PD Plan. However, this improvement requires widening to provide two southbound left-turn lanes and two eastbound left-turn lanes. Providing two eastbound left-turn lanes on the eastbound

approach would require a lane transition north of Florin Road. The lane transition is not consistent with County design standards. Therefore, these improvements are considered infeasible.

Alternatively, construct a four-lane extension of Waterman Road between Florin Road and Elder Creek Road in the plan area. The draft circulation plan for the Sacramento County General Plan Update shows the extension of Waterman Road as a four-lane arterial (Pre – 2030) between Florin Road and SR 16. The Waterman Road extension would provide an alternative to Hedge Avenue and other parallel roadways like South Watt Avenue and Bradshaw Road. Also widen the northbound, southbound, eastbound, and westbound approaches to the Florin Road/Hedge Avenue intersection to provide the following lane configurations:

- One left-turn lane and a shared through/right-turn lane on the northbound approach
- One left-turn lane and a shared through/right-turn lane on the southbound approach
- One left-turn lane, one through lane, and a shared through/right-turn lane on the eastbound approach
- One left-turn lane, two through lanes, and a right-turn lane on the westbound approach

In addition, the Waterman Road extension would result in needed modifications to the Florin Road/Waterman Road intersection, specifically, construct the north leg and widen the northbound, eastbound, and westbound approaches to provide the following lane configurations:

- Two left-turn lanes, one through lane, and a shared through/right-turn lane on the northbound approach
- Two left-turn lanes, one through lane, and a shared through/right-turn lane on the southbound approach
- One left-turn lane, one through lane, and a shared through/right-turn lane on the eastbound approach
- One left-turn lane, one through lane, and a shared through/right-turn lane on the westbound approach

The addition of the north leg of the intersections is due to the extension of Waterman Road between Florin Road and Elder Creek Road would result in LOS C in the AM and PM peak hours with the CAC Plan and would operate at LOS C and D in the AM and PM peak hours, respectively, with the PD Plan.

Also, install a traffic signal Elder Creek Road/Waterman Road intersection and provide the following lane configurations:

- Two left-turn lanes, one through lane, and a shared through/right-turn lane on the northbound approach
- Two left-turn lanes, one through lane, and a shared through/right-turn lane on the southbound approach
- One left-turn lane, one through lane, and a shared through/right-turn lane on the eastbound approach
- One left-turn lane, one through lane, and a shared through/right-turn lane on the westbound approach

The Elder Creek Road/Waterman Road intersection would operate at LOS B and D in the AM and PM peak hours, respectively, with the CAC Plan and would operate at LOS C and D in the AM and PM peak hours, respectively, with the PD Plan.

Implementation of this mitigation measure would provide LOS B and A operations in the AM and PM peak hours, respectively, with the CAC and PD Plans and would reduce the impact to a less than significant level at the Florin Road/Hedge Avenue intersection.

MITIGATION MEASURE CP-60: (Florin Road/Bradshaw Road)

CAC – Widen the westbound approach to the Florin Road/Bradshaw Road intersection to provide the following lane configurations in addition to through lane improvements associated with roadway mitigation:

- Two left-turn lanes and two through lanes and a right-turn lane (with overlap phasing) on the westbound approach

This improvement would provide LOS D and F operations in the AM and PM peak hours, respectively, with the CAC plan. However, this improvement would reduce the volume-to-capacity ratio to less than the "no project" conditions volume-to-capacity ratio during the PM peak hour. Implementation of this mitigation measure would reduce the impact to a less than significant level.

MITIGATION MEASURE CP-61: (Florin Road/Vineyard Road)

CAC & PD – Install a traffic signal at the Florin Road/Vineyard Road intersection and widen the eastbound and westbound approaches to the intersection to provide the following lane configurations:

- One left-turn lane, one through lane, and a shared through/right-turn lane on the eastbound approach
- One left-turn lane, one through lane, and a shared through/right-turn lane on the westbound approach

This improvement would provide LOS A in both the AM and PM peak hours, respectively, with the CAC and PD plans. Implementation of this mitigation measure would reduce the impact to a less than significant level.

MITIGATION MEASURE CP-62: (Florin Road/Excelsior Road)

PD – Widen the northbound, eastbound, and westbound approaches to the Florin Road/Excelsior Road intersection to provide the following lane configurations:

- One left-turn lane, one through lane, and a right-turn lane on the northbound approach
- One left-turn lane, one through lane, and a shared through/right-turn lane on the eastbound approach
- Two left-turn lanes, one through lane, and a shared through/right-turn lane on the westbound approach

This improvement would provide LOS E operations in both the AM and PM peak hours with the PD plan. Implementation of this mitigation measure would reduce the impact to a less than significant level.

MITIGATION MEASURE CP-63: (Gerber Road/French Road)

CAC & PD – Widen the eastbound and westbound approaches to the Gerber Road/French Road intersection to provide the following lane configurations:

- Two left-turn lane, one through lane, and a shared through/right-turn lane on the eastbound approach

- One left-turn lane, two through lanes, and a right-turn lane (with overlap phasing) on the westbound approach

This improvement would result in LOS E and D operations in the AM and PM peak hours, respectively, with the CAC and LOS F in the AM and PM peak hours with the PD plan. However, this improvement would reduce the volume-to-capacity ratio to less than the "no project" conditions volume-to-capacity ratio. Implementation of this mitigation measure would reduce the impact to a less than significant level.

MITIGATION MEASURE CP-64: (Gerber Road/Elk Grove-Florin Road)

CAC & PD – Widen the northbound, southbound, eastbound, and westbound approaches to the Gerber Road/Elk Grove-Florin Road intersection to provide the following lane configurations:

- Two left-turn lanes, three through lanes, and a right-turn lane on the northbound approach
- Two left-turn lanes, three through lanes, and a right-turn lane on the southbound approach
- Two left-turn lanes, two through lanes, and a right-turn lane (with overlap phasing) on the eastbound approach
- Two left-turn lanes, two through lanes, and a right-turn lane (with overlap phasing) on the westbound approach

This improvement would result in LOS E and F operations in the AM and PM peak hours, respectively, with the CAC Plan and would result in LOS F in the AM and PM peak hours with the PD Plan. However, the improvement would reduce the volume-to-capacity ratio to within 0.05 of "no project" conditions. Implementation of this mitigation measure would reduce the impact to a less than significant level.

MITIGATION MEASURE CP-65: (Gerber Road/Waterman Road)

CAC & PD – Implementation of study area system-wide roadway mitigation measures would change traffic volume using the Gerber Road/Waterman Road intersection. This volume change would reduce traffic volume on critical turning movements at the intersection providing LOS D and C operations and reducing the volume-to-capacity ratio to within 0.05 or less of "no project" conditions. Implementation of system-wide roadway mitigation measure would reduce the impact to a less than significant level.

MITIGATION MEASURE CP-66: (Gerber Road/Bar Du Lane)

CAC & PD – Install a traffic signal and at the Gerber Road/Bar Du Lane intersection. This improvement would provide LOS A operations in both the AM and PM peak hours, respectively, with the CAC and PD plans. Implementation of this mitigation measure would reduce the impact to a less than significant level.

MITIGATION MEASURE CP-67: (Gerber Road/Bradshaw Road)

CAC& PD – Widen the northbound, southbound, eastbound, and westbound approachs to the Gerber Road/Bradshaw Road intersection to provide the following lane configurations:

- One left-turn lane, three through lanes, and a right-turn lane on the northbound approach
- One left-turn lane, three through lanes, and a right-turn lane on the southbound approach
- Two left-turn lanes, two through lanes, and a right-turn lane on the eastbound approach
- Two left-turn lanes, two through lanes, and a right-turn lane on the westbound approach

This improvement would provide LOS C operations in both the AM and PM peak hours with the CAC and PD Plans. Implementation of this mitigation measure would reduce the impact to a less than significant level.

MITIGATION MEASURE CP-68: (Gerber Road/Vineyard Road)

CAC & PD – Install a traffic signal and widen the northbound approach to the Gerber Road/Vineyard Road intersection to provide two left-turn lanes, one through lane, and a shared through/right-turn lane. This improvement would provide LOS A and C operations in the AM and PM peak hours, respectively, with the CAC Plan and LOS B and E in the AM and PM peak hours, respectively, with the PD plan. Implementation of this mitigation measure would reduce the impact to a less than significant level.

MITIGATION MEASURE CP-69: (Gerber Road/Excelsior Road)

CAC & PD – Widen the southbound approach to the Gerber Road/Excelsior Road intersection to provide one left-turn lane, one through lane and right-turn lane. This improvement (along with eastbound and westbound through lanes associated with roadway widening on Gerber Road) would provide LOS C and B operations in the AM and PM peak hours, respectively, with the CAC Plan and LOS D and B in the AM and PM peak hours, respectively, with the PD Plan. Implementation of this mitigation measure would reduce the impact to a less than significant level.

MITIGATION MEASURE CP-70: (Caselman Road/Elk Grove-Florin Road)

CAC – Install a traffic signal and widen the northbound, southbound, eastbound, and westbound approaches to the Caselman Road/Elk Grove-Florin Road intersection to provide the following lane configurations:

- One left-turn lane, two through lanes, and a shared through/right-turn lane on the northbound approach
- One left-turn lane, two through lanes, and a shared through/right-turn lane on the southbound approach
- One left-turn lane and a shared through/right-turn lane on the eastbound approach
- One left-turn lane and a shared through/right-turn lane on the westbound approach

This improvement would provide LOS D operation in both the AM and PM peak hours with the CAC Plan Implementation of this mitigation measure would reduce the impact to a less than significant level.

PD – Install a traffic signal and widen the northbound, southbound, eastbound, and westbound approaches to the Caselman Road/Elk Grove-Florin Road intersection to provide the following lane configurations:

- One left-turn lane, two through lanes, and a shared through/right-turn lane on the northbound approach
- One left-turn lane, two through lanes, and a shared through/right-turn lane on the southbound approach
- Two left-turn lanes and a shared through/right-turn lane on the eastbound approach
- One left-turn lane and a shared through/right-turn lane on the westbound approach

This improvement would provide LOS E and D operations in both the AM and PM peak hours, respectively, with the PD Plan. Implementation of this mitigation measure would reduce the impact to a less than significant level.

MITIGATION MEASURE CP-71: (Vintage Park Drive/Elk Grove-Florin Road)

PD – Modify the traffic signal to include right-turn overlap phasing on the westbound approach to the Vintage Park Drive/Elk Grove-Florin Road intersection. This improvement would provide LOS F and D operations in the AM and PM peak hours, respectively, with the PD plan. However, the improvement would reduce the volume-to-capacity ratio to within 0.05 of "no project" conditions. Implementation of this mitigation measure would reduce the impact to a less than significant level.

MITIGATION MEASURE CP-72: (Calvine Road/Elk Grove-Florin Road)

CAC & PD – Restripe the northbound, southbound, eastbound, and westbound approaches to the Calvine Road/Elk Grove-Florin Road intersection to provide the following lane configurations:

- Two left-turn lanes, three through lanes, and a right-turn lane on the northbound approach
- Two left-turn lanes, three through lanes, and a right-turn lane (with overlap phasing) on the southbound approach
- Two left-turn lanes, three through lanes, and a right-turn lane on the eastbound approach
- Two left-turn lanes, three through lanes, and a right-turn lane on the westbound approach

This improvement, which is consistent with the widening of Elk Grove-Florin Road and Calvine Road identified in Mitigation Measure CP-15, CP-16, and CP-29, would provide LOS F and E operations in the AM and PM peak hours, respectively, with the CAC and PD Plans. However, this improvement would reduce the delay to within five seconds of the "no project" conditions. Implementation of this mitigation measure would reduce the impact to a less than significant level

MITIGATION MEASURE CP-73: (Calvine Road/Waterman Road)

PD – Widen the northbound, southbound, eastbound, and westbound approaches to the Calvine Road/Waterman Road intersection to provide the following lane configurations:

- One left-turn lane, one through lane, and a shared through/right-turn lane on the northbound approach
- Two left-turn lanes, two through lanes, and a right-turn lane on the southbound approach
- One left-turn lane, three through lanes, and a right-turn lane on the eastbound approach
- One left-turn lane, three through lanes, and a right-turn lane on the westbound approach

This improvement would provide LOS D operations in the AM and PM peak hours with the PD plan. Implementation of this mitigation measure would reduce the impact to a less than significant level.

MITIGATION MEASURE CP-74: (Calvine Road/Excelsior Road)

CAC – Install a traffic signal and widen the northbound, southbound, eastbound, and westbound approach to the Calvine Road/Excelsior Road intersection to provide the following lane configurations:

- One left-turn lane and a shared through/right-turn lane on all approaches

This improvement would provide LOS D and F operations in the AM and PM peak hours, respectively, with the CAC Plan. Implementation of this mitigation measure would reduce the impact to a less than significant level.

TABLE 22
INTERSECTION LEVEL OF SERVICE – CUMULATIVE CONDITIONS: MITIGATED CAC PREFERRED PLAN

Intersection	Control	Cumulative Plus CAC Project Conditions				Cumulative Mitigated Plus CAC Project Conditions			
		AM Peak		PM Peak		AM Peak		PM Peak	
		V/C or Delay	LOS	V/C or Delay	LOS	V/C or Delay	LOS	V/C or Delay	LOS
1. Folsom Blvd./State Route 16	Signal	62	E	54	D	64	E	36	D
2. Folsom Blvd./Florin-Perkins Rd	Signal	**>80**	**F**	>80	F	>80	F	>80	F
3. Folsom Blvd./South Watt Ave	Signal	**>80**	**F**	**>80**	**F**	>80	F	77	E
4. Kiefer Blvd./South Watt Ave	Signal	**1.02**	**F**	0.89	D	0.98	E	0.82	D
5. Kiefer Blvd./Bradshaw Rd.	Signal	1.1	F	**1.39**	**F**	0.63	B	0.93	E
6. SR 16/Florin-Perkins Rd.	Signal	**>80**	**F**	**>80**	**F**	>80	F	76	E
7. SR 16/South Watt Ave.	Signal	**1.45**	**F**	**1.69**	**F**	1.04	F	0.98	E
8. SR 16/Hedge Ave.	Signal	1.03	F	1.03	F	0.78	C	0.72	C
9. SR 16/Bradshaw Rd.	Signal	**2.0**	**F**	**1.77**	**F**	1.02	F	0.99	E
10. SR 16/Excelsior Rd.	Signal	2.13	F	**2.54**	**F**	1.23	F	1.32	F
11. Fruitridge Rd./Florin-Perkins Rd.	Signal	**>80**	**F**	**>80**	**F**	>80	F	>80	F
12. Fruitridge Rd./South Watt Ave.	Signal	**>80**	**F**	**>80**	**F**	62	E	51	D
13. Fruitridge Rd./Hedge Ave.	4-Way Stop	**>50**	**F**	**>50**	**F**	0.86	D	0.95	E
14. Elder Creek Rd./Florin-Perkins Rd.	Signal	>80	F	**>80**	**F**	>80	F	>80	F
15. Elder Creek Rd./South Watt Ave.	Signal	**>80**	**F**	**>80**	**F**	41	D	42	D
16. Elder Creek Rd./Hedge Ave.	4-Way Stop	**>50**	**F**	**>50**	**F**	0.97	E	0.85	D
17. Elder Creek Rd./Bradshaw Rd.	Signal	1.49	F	**1.68**	**F**	0.98	E	0.82	D
18. Elder Creek Rd./Excelsior Rd.	2-Way Stop	>50	F	**>50**	**F**	0.71	C	0.99	E
19. Florin Rd./Power Inn Rd.	Signal	**1.21**	**F**	1.15	F	1.22	F	1.01	F
20. Florin Rd./Florin-Perkins Rd.	Signal	**1.71**	**F**	1.23	F	1.27	F	1.18	F
21. Florin Rd./Gardner Ave.	2-Way Stop	**>50**	**F**	**>50**	**F**	0.70	B	0.60	B
22. Florin Rd./South Watt Ave.	Signal	**1.16**	**F**	**1.45**	**F**	0.80	D	1.05	F
23. Florin Rd./Hedge Ave.	Signal	2.01	F	**1.91**	**F**	0.61	B	0.58	A
24. Florin Rd./Waterman Rd.	2-Way Stop	0.88	D	1.04	F	0.76	C	0.78	C
25. Florin Rd./Bradshaw Rd.	Signal	**1.55**	**F**	1.62	F	0.86	D	1.06	F
26. Florin Rd./Vineyard Rd.	2-Way Stop	**>50**	**F**	42	E	0.56	A	0.45	A
27. Florin Rd./Excelsior Rd.	Signal	1.35	F	1.22	F	0.84	D	0.87	D
28. Gerber Rd./Power Inn Rd.	Signal	1.15	F	1.09	F	1.15	F	**1.17**	**F**
29. Gerber Rd./French Rd.	Signal	**1.51**	**F**	1.06	F	0.96	E	0.89	D
30. Gerber Rd./Elk Grove-Florin Rd.	Signal	**1.37**	**F**	**1.41**	**F**	0.99	E	1.33	F
31. Gerber Rd./Waterman Rd.	Signal	**1.21**	**F**	0.85	D	0.86	D	0.72	C
32. Gerber Rd./Bar Du Lane	2-Way Stop	**>50**	**F**	**>50**	**F**	0.44	A	0.40	A
33. Gerber Rd./Bradshaw Rd.	Signal	1.32	F	**1.63**	**F**	0.72	C	0.79	C
34. Gerber Rd./Vineyard Rd.	2-Way Stop	>50	F	**>50**	**F**	0.57	A	0.76	C
35. Gerber Rd./Excelsior Rd.	Signal	0.79	C	**1.02**	**F**	0.75	C	0.63	B
36. Tiogawoods Dr./Elk Grove-Florin Rd.	Signal	1.06	F	0.90	E	0.88	D	0.84	D
37. Caselman Rd./Elk Grove-Florin Rd.	2-Way Stop	**>50**	**F**	47	E	0.89	D	0.89	D
38. Rogers Rd./Bradshaw Rd.	2-Way Stop	14	B	25	C	13	B	19	C
39. Vintage Park Dr./Elk Grove-Florin Rd	Signal	1.17	F	0.90	D	1.11	F	0.86	D
40. Vintage Park Dr./Waterman Rd.	Signal	0.92	E	0.88	D	0.93	E	0.83	D
41. Vintage Park Dr./Bradshaw Rd.	Signal	0.67	B	0.64	B	0.62	B	0.62	B
42. Calvine Rd./Elk Grove-Florin Rd.	Signal	**>80**	**F**	**>80**	**F**	>80	F	78	E
43. Calvine Rd./Waterman Rd.	Signal	>80	F	>80	F	>80	F	>80	F

TABLE 22 (CONT.)
INTERSECTION LEVEL OF SERVICE – CUMULATIVE CONDITIONS: MITIGATED CAC PREFERRED PLAN

44.	Calvine Rd./Bradshaw Rd.	Signal	68	E	50	D	47	D	40	D
45.	Calvine Rd./Excelsior Rd.	4-Way Stop	**>50**	**F**	>50	F	54	D	>80	F
46.	Elder Creek /Waterman Road	Signal	**-**	**-**	-	-	0.66	B	0.82	D

Notes: Signal Control- Circular 212 Planning Methodology- Results present volume/capacity ratio and LOS
2-Way Stop Control- 2000 HCM Methodology- Results present delay and LOS for worst minor-street approach
4-Way Stop Control- 2000 HCM Methodology- Results present average delay and LOS
Shaded areas indicate unacceptable operations.
Blue – City of Sacramento Study Intersections
Green – City of Elk Grove Study Intersections
Mitigation is for both primary and secondary impacts.
Bold indicates project impact

Source: *Fehr & Peers,* 2007

TABLE 23
Intersection Level of Service – Cumulative Conditions: MITIGATED PLANNING DEPARTMENT PLAN

Intersection	Control	Cumulative Plus PD Project Conditions				Cumulative Mitigated Plus PD Project Conditions			
		AM Peak		PM Peak		AM Peak		PM Peak	
		V/C or Delay	LOS	V/C or Delay	LOS	V/C or Delay	LOS	V/C or Delay	LOS
1. Folsom Blvd./State Route 16	Signal	65	E	53	D	68	E	34	C
2. Folsom Blvd./Florin-Perkins Rd	Signal	**>80**	**F**	**>80**	**F**	>80	F	>80	F
3. Folsom Blvd./South Watt Ave	Signal	**>80**	**F**	**>80**	**F**	>80	F	78	E
4. Kiefer Blvd./South Watt Ave	Signal	**1.05**	**F**	0.88	D	0.90	E	0.78	C
5. Kiefer Blvd./Bradshaw Rd.	Signal	**1.15**	**F**	**1.4**	**F**	0.66	B	0.94	E
6. SR 16/Florin-Perkins Rd.	Signal	**>80**	**F**	**>80**	**F**	>80	F	76	E
7. SR 16/South Watt Ave.	Signal	**1.38**	**F**	**1.71**	**F**	1.11	F	0.96	E
8. SR 16/Hedge Ave.	Signal	1.02	F	1.08	F	0.81	D	0.72	C
9. SR 16/Bradshaw Rd.	Signal	1.89	F	1.74	F	1.36	F	1.12	F
10. SR 16/Excelsior Rd.	Signal	2.21	F	**2.55**	**F**	1.32	F	1.30	F
11. Fruitridge Rd./Florin-Perkins Rd.	Signal	**>80**	**F**	**>80**	**F**	>80	F	>80	F
12. Fruitridge Rd./South Watt Ave.	Signal	**>80**	**F**	**>80**	**F**	70	E	58	E
13. Fruitridge Rd./Hedge Ave.	4-Way Stop	**>50**	**F**	**>50**	**F**	0.95	E	0.95	E
14. Elder Creek Rd./Florin-Perkins Rd.	Signal	**>80**	**F**	**>80**	**F**	>80	F	>80	F
15. Elder Creek Rd./South Watt Ave.	Signal	**>80**	**F**	**>80**	**F**	50	D	44	D
16. Elder Creek Rd./Hedge Ave.	4-Way Stop	**>50**	**F**	**>50**	**F**	0.92	E	0.82	D
17. Elder Creek Rd./Bradshaw Rd.	Signal	**1.67**	**F**	**1.72**	**F**	0.94	E	0.77	C
18. Elder Creek Rd./Excelsior Rd.	2-Way Stop	>50	F	**>50**	**F**	0.77	C	1.00	E
19. Florin Rd./Power Inn Rd.	Signal	**1.27**	**F**	**1.18**	**F**	1.26	F	1.10	F
20. Florin Rd./Florin-Perkins Rd.	Signal	**1.77**	**F**	1.27	F	1.29	F	1.31	F
21. Florin Rd./Gardner Ave.	2-Way Stop	**>50**	**F**	**>50**	**F**	0.72	C	0.65	B
22. Florin Rd./South Watt Ave.	Signal	**1.21**	**F**	**1.49**	**F**	0.85	D	1.09	F
23. Florin Rd./Hedge Ave.	Signal	**2.07**	**F**	**1.89**	**F**	0.59	A	0.59	A
24. Florin Rd./Waterman Rd.	Signal	0.92	E	**1.06**	**F**	0.79	C	0.83	D
25. Florin Rd./Bradshaw Rd.	Signal	1.53	F	1.66	F	1.01	F	1.05	F
26. Florin Rd./Vineyard Rd.	2-Way Stop	**>50**	**F**	**>50**	**F**	0.47	A	0.48	A
27. Florin Rd./Excelsior Rd.	Signal	**1.46**	**F**	**1.31**	**F**	0.91	E	0.92	E
28. Gerber Rd./Power Inn Rd.	Signal	1.19	F	1.09	F	1.19	F	**1.16**	**F**
29. Gerber Rd./French Rd.	Signal	**1.55**	**F**	**1.10**	**F**	1.12	F	1.07	F
30. Gerber Rd./Elk Grove-Florin Rd.	Signal	**1.38**	**F**	**1.40**	**F**	1.02	F	1.37	F
31. Gerber Rd./Waterman Rd.	Signal	**1.19**	**F**	0.84	D	0.88	D	0.73	C
32. Gerber Rd./Bar Du Lane	2-Way Stop	**>50**	**F**	**>50**	**F**	0.45	A	0.40	A
33. Gerber Rd./Bradshaw Rd.	Signal	1.3	F	**1.61**	**F**	0.74	C	0.76	C
34. Gerber Rd./Vineyard Rd.	2-Way Stop	>50	F	**>50**	**F**	0.62	B	0.95	E
35. Gerber Rd./Excelsior Rd.	Signal	0.84	D	**1.05**	**F**	0.80	D	0.62	B
36. Tiogawoods Dr./Elk Grove-Florin Rd.	Signal	1.06	F	0.97	E	0.90	E	0.85	D
37. Caselman Rd./Elk Grove-Florin Rd.	2-Way Stop	**>50**	**F**	**>50**	**F**	0.96	E	0.89	D
38. Rogers Rd./Bradshaw Rd.	2-Way Stop	14	B	23	C	13	B	18	C
39. Vintage Park Dr./Elk Grove-Florin Rd	Signal	**1.28**	**F**	0.98	E	1.19	F	0.83	D
40. Vintage Park Dr./Waterman Rd.	Signal	0.96	E	0.93	E	1.00	E	0.87	D
41. Vintage Park Dr./Bradshaw Rd.	Signal	0.68	B	0.62	B	0.63	B	0.58	A
42. Calvine Rd./Elk Grove-Florin Rd.	Signal	**>80**	**F**	**>80**	**F**	>80	F	79	E
43. Calvine Rd./Waterman Rd.	Signal	**>80**	**F**	**>80**	**F**	40	D	53	D
44. Calvine Rd./Bradshaw Rd.	Signal	62	E	48	D	45	D	40	D
45. Calvine Rd./Excelsior Rd.	4-Way Stop	>50	F	>50	F	57	E	55	E
46. Elder Creek Rd./Waterman Rd.	Signal	-	-	-	-	0.71	C	0.87	D

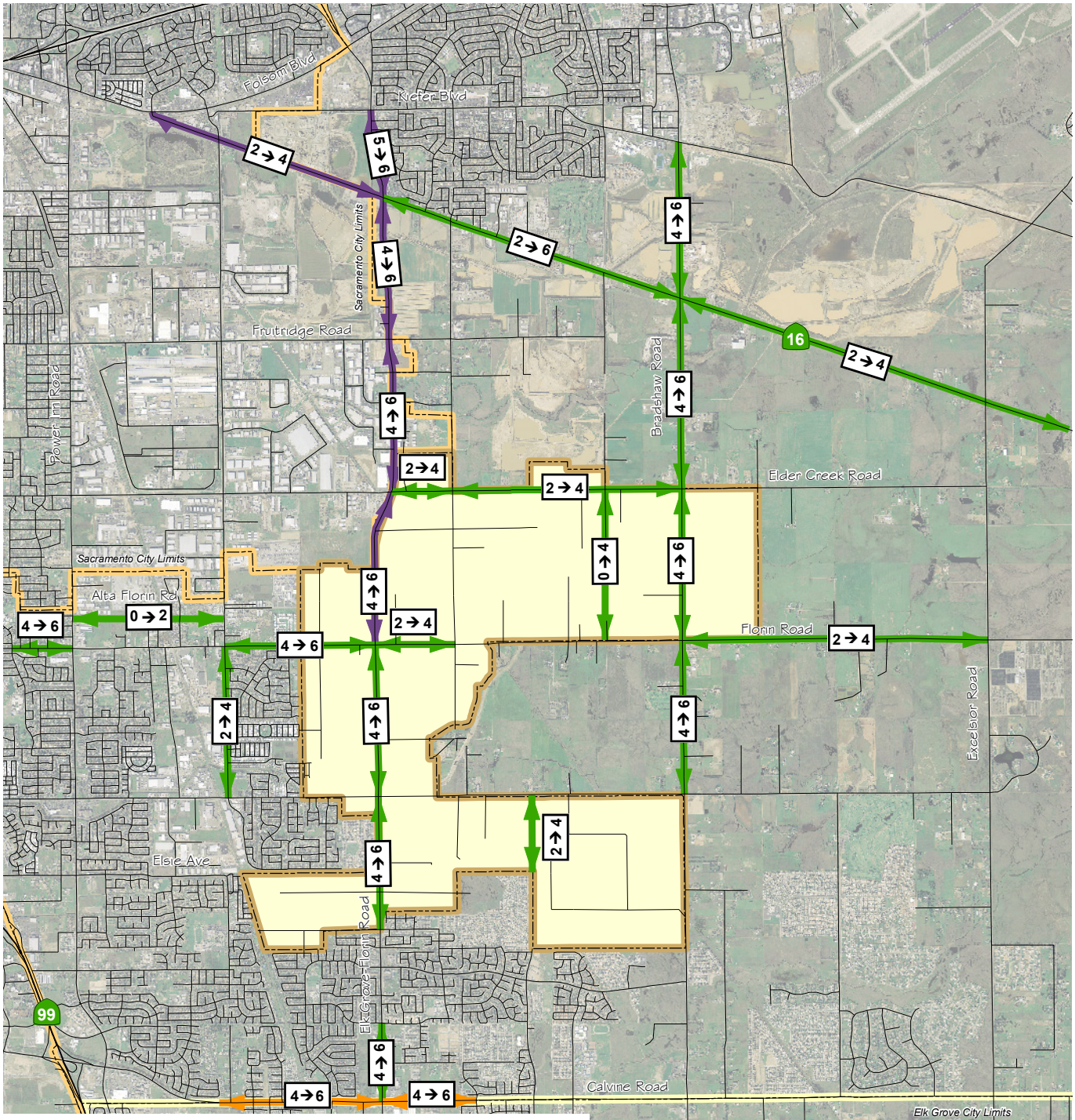
Notes:	Signal Control- Circular 212 Planning Methodology- Results present volume/capacity ratio and LOS 2-Way Stop Control- 2000 HCM Methodology- Results present delay and LOS for worst minor-street approach 4-Way Stop Control- 2000 HCM Methodology- Results present average delay and LOS Shaded areas indicate unacceptable operations. Blue – City of Sacramento Study Intersections Green – City of Elk Grove Study Intersections Bold indicates project impact Mitigation is for both primary and secondary impacts.
Source:	*Fehr & Peers,* 2007

MITIGATION MEASURE CP-75:

CAC & PD - The addition of the proposed project will not disrupt or interfere with planned transit operations in the study area. No impact; therefore, no mitigation is proposed.

MITIGATION MEASURE CP-76:

CAC & PD - The addition of the proposed project will not disrupt or interfere with planned bicycle and pedestrian facilities in the study area. No impact; therefore, no mitigation is proposed.



LEGEND

- Impact/Mitigation Based on City of Sacramento Impact Significance Criteria
- Impact/Mitigation Based on County Impact Significance Criteria
- Impact/Mitigation Based on City of Elk Grove Impact Significance Criteria
- Project Location

Note: Mitigation is for both primary and secondary impacts.

N

NOT TO SCALE

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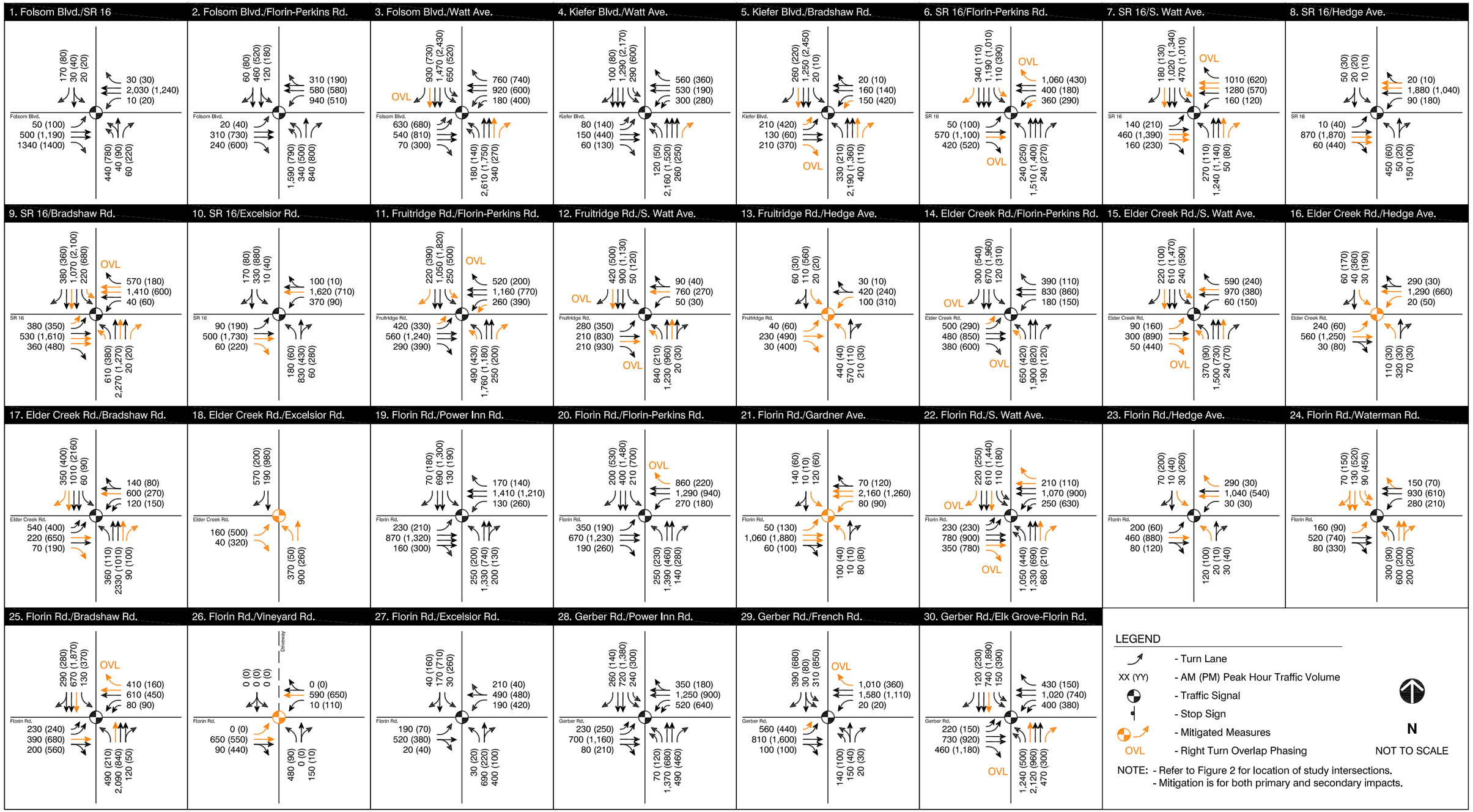
PROPOSED ROADWAY MITIGATION CUMULATIVE WITH PROJECT CONDITIONS

FIGURE 22



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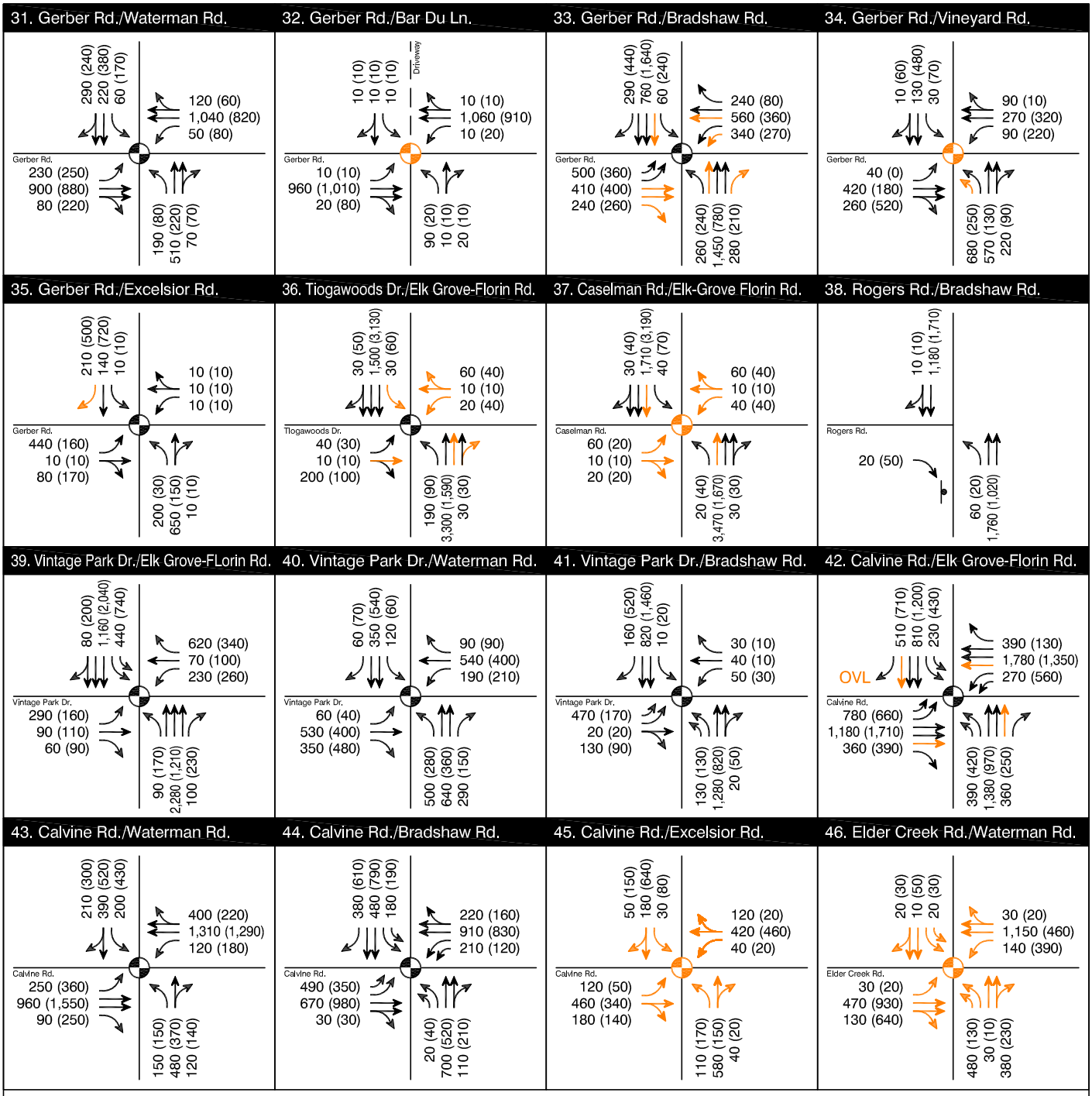
PEAK HOUR TRAFFIC VOLUMES, INTERSECTION TRAFFIC CONTROL, AND LANE CONFIGURATIONS - CUMULATIVE PLUS CITIZENS ADVISORY COMMITTEE (CAC) LAND USE CONDITIONS WITH MITIGATION

FIGURE 23A



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PEAK HOUR TRAFFIC VOLUMES, INTERSECTION TRAFFIC CONTROL, AND LANE CONFIGURATIONS - CUMULATIVE PLUS CITIZENS ADVISORY COMMITTEE (CAC) LAND USE CONDITIONS WITH MITIGATION

Sep 05, 2008 MJC
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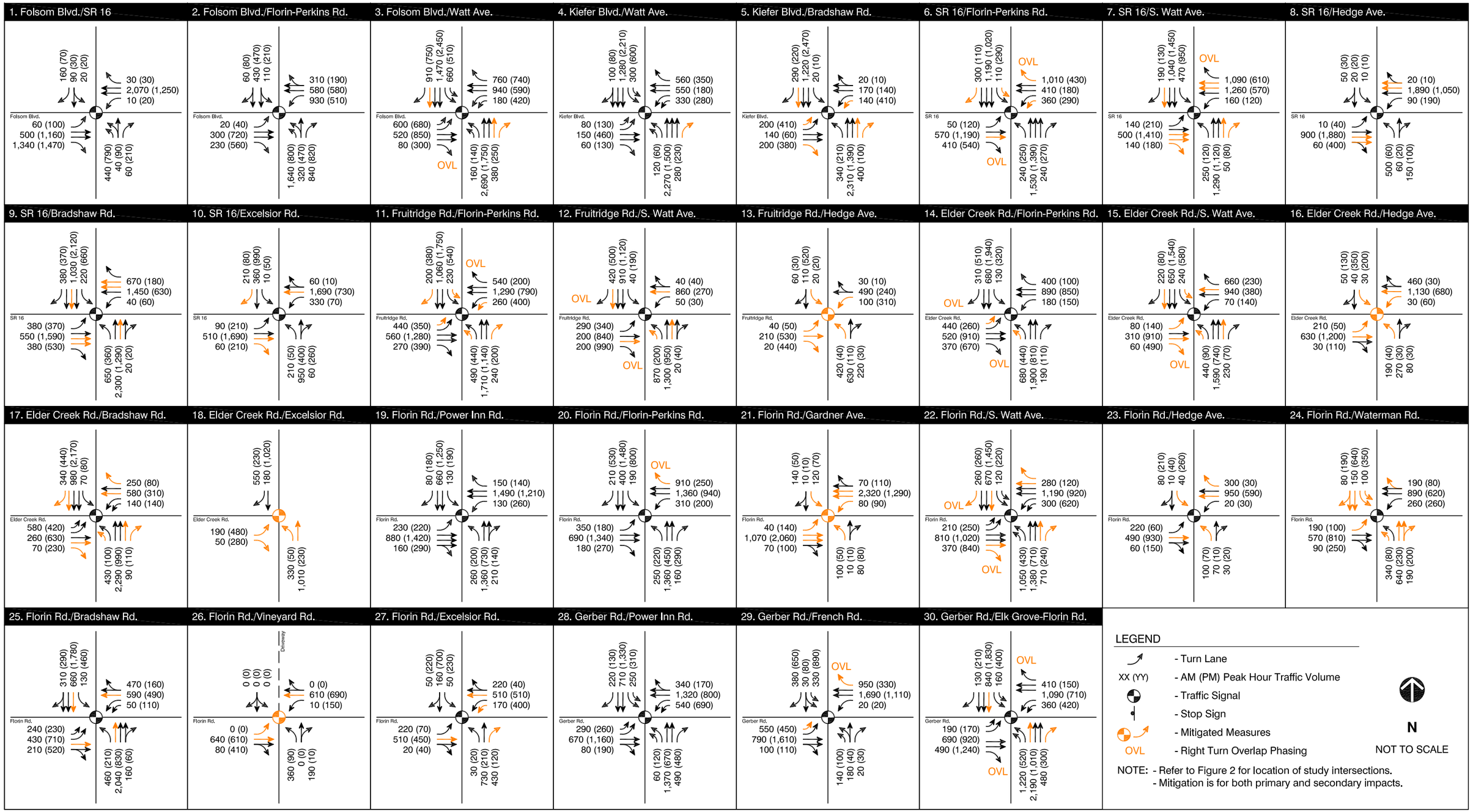
FIGURE 23B



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May 27, 2008 MJC
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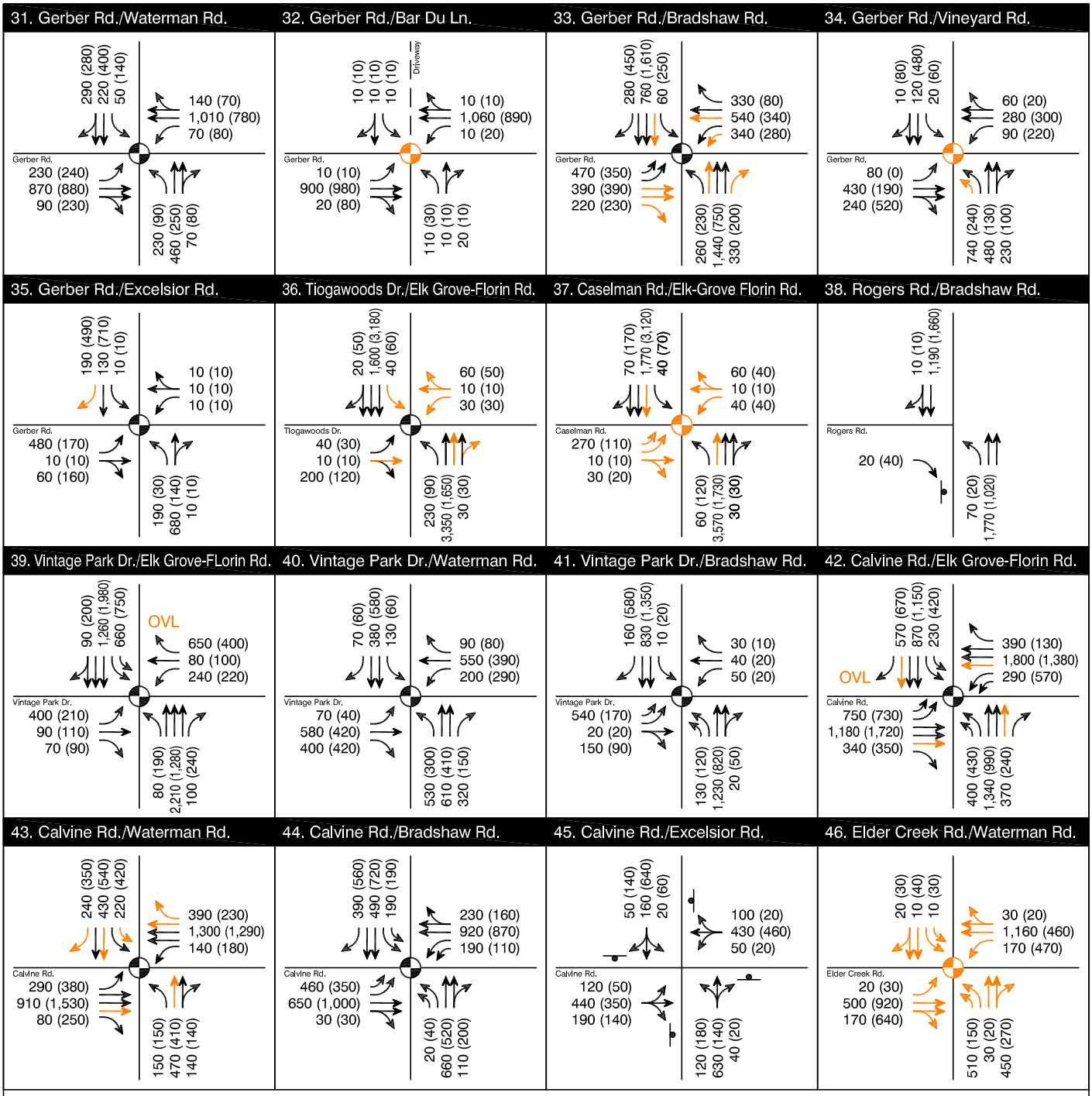
PEAK HOUR TRAFFIC VOLUMES, INTERSECTION TRAFFIC CONTROL, AND LANE CONFIGURATIONS - CUMULATIVE PLUS PLANNING DEPARTMENT (PD) LAND USE CONDITIONS WITH MITIGATION

FIGURE 24A



FEHR & PEERS
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PEAK HOUR TRAFFIC VOLUMES, INTERSECTION TRAFFIC CONTROL, AND LANE CONFIGURATIONS - CUMULATIVE PLUS PLANNING DEPARTMENT (PD) LAND USE CONDITIONS WITH MITIGATION

FIGURE 24B

Sep 05, 2008 MJC
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Cumulative Conditions – Density Bonus

Traffic operations of the cumulative transportation system with the addition of both the CAC and PD plans and the density bonus provision are discussed below.

In December, 2004, Sacramento County adopted an Affordable Housing Policy that includes a "density bonus" provision intended to offset the cost of providing affordable housing. For the Florin-Vineyard Specific Plan, the density bonus could result in an additional 1,342 single family dwelling units with the CAC Plan and 1,809 single family dwelling units with the PD Plan if the density bonus were applied.

Roadway Segments

Consistent with the analysis methodologies documented in Section II, we added the trip generation from the additional dwelling units allowed under the density bonus (for the CAC and PD plans) to the study roadway segments under Cumulative "Plus Project" conditions.

Please note that it is not known at this time if the density bonus will be applied or if it is applied where the additional dwelling units would be located in the plan area. Therefore, the analysis assumes the total density bonus potential (outlined above) and allocates the additional dwelling units proportionally (based on density) to the areas of the plan designated for residential land uses.

Tables 24 and 25 summarize the roadway segment analysis under cumulative conditions with the density bonus for the CAC and PD plans, respectively. The analysis shown in Tables 24 and 25 are based on the mitigated roadway network to identify additional impacts and mitigation beyond what was identified previously.

TABLE 24
ROADWAY LEVEL OF SERVICE – CUMULATIVE MITIGATED CONDITIONS WITH DENSITY BONUS: CAC PREFERRED PLAN

Roadway Segment	Lanes[1]	Type[1]	Without 15% Housing Density Bonus			With 15% Housing Density Bonus		
			Vol	V/C	LOS	Vol	V/C	LOS
1. Folsom Blvd. - State Route 16 to Watt Ave.	4	Arterial	30,000	0.83	D	30,300	0.84	D
2. Kiefer Blvd. - Florin-Perkins Rd. to Watt Ave.	2	Arterial	8,700	0.48	A	8,800	0.49	A
3. Kiefer Blvd. - Watt Ave. to Rosemont Dr.	4	Arterial	24,100	0.67	B	24,200	0.67	B
4. Kiefer Blvd. - Rosemont Dr. to Bradshaw Rd.	4	Arterial	15,700	0.44	A	15,700	0.44	A
5. SR 16 - Folsom Blvd. to Watt Ave.	4	Arterial	26,800	0.74	C	26,900	0.75	C
6. SR 16 - Watt Ave. to Bradshaw Rd.	6	Arterial	37,800	0.70	B	37,800	0.70	B
7. SR 16 - Bradshaw Rd. to Sunrise Blvd	4	Arterial	29,100	0.73	C	29,100	0.73	C
8. Fruitridge Rd. - Power Inn Rd. to Florin-Perkins Rd.	4	Arterial	33,300	0.93	E	33,600	0.93	E
9. Fruitridge Rd. - Florin-Perkins Rd. to South Watt Ave.	6	Arterial	27,200	0.50	A	27,700	0.51	A
10. Fruitridge Rd. - South Watt Ave. to Hedge Ave.	2	Rural	10,200	0.51	D	10,400	0.52	D
11. Elder Creek Rd. - Power Inn Rd. to Florin-Perkins Rd.	4	Arterial	26,800	0.74	C	27,100	0.75	C
12. Elder Creek Rd. - Florin-Perkins Rd. to South Watt Ave.	4	Arterial	18,500	0.51	A	19,200	0.53	A
13. Elder Creek Rd. - South Watt Ave. to Hedge Ave.	4	Rural	20,200	0.56	A	21,500	0.60	A
14. Elder Creek Rd. – Hedge Ave. to Bradshaw Rd.	4	Rural	25,700	0.71	C	26,800	0.74	C
15. Elder Creek Rd. - Bradshaw Rd. to Excelsior Rd.	4	Rural	10,700	0.30	A	10,800	0.30	A
16. Florin Rd. - Stockton Blvd to Power Inn Rd.	6	Arterial	42,000	0.78	C	42,800	0.79	C
17. Florin Rd. - Power Inn Rd. to Florin-Perkins Rd.	4	Arterial	37,000	1.03	F	38,000	1.06	F
18. Florin Rd. - Florin-Perkins Rd. to Gardner Ave.	6	Arterial	39,900	0.74	C	41,800	0.77	C
19. Florin Rd. - Gardner Ave. to South Watt Ave.	6	Arterial	44,000	0.81	D	45,800	0.85	D
20. Florin Rd. - South Watt Ave. to Hedge Ave.	4	Rural	30,200	0.84	D	31,200	0.87	D
21. Florin Rd. - Hedge Ave. to Bradshaw Rd.	4	Arterial	21,700	0.60	B	22,700	0.63	B
22. Florin Rd. - Bradshaw Rd. to Excelsior Rd.	4	Rural	18,600	0.52	A	18,900	0.53	A
23. Florin Rd. - Excelsior Rd. to Sunrise Blvd	2	Rural	14,400	0.72	E	14,600	0.73	E

TABLE 24 (CONT.)
ROADWAY LEVEL OF SERVICE – CUMULATIVE MITIGATED CONDITIONS WITH DENSITY BONUS: CAC PREFERRED PLAN

Roadway Segment	Lanes[1]	Type[1]	Without 15% Housing Density Bonus			With 15% Housing Density Bonus		
			Vol	V/C	LOS	Vol	V/C	LOS
24. Gerber Rd. - Stockton Blvd to Power Inn Rd.	4	Arterial	25,100	0.70	B	25,500	0.71	C
25. Gerber Rd. - Power Inn Rd. to French Rd.	4	Arterial	38,400	1.07	F	39,200	1.09	F
26. Gerber Rd. - French Rd. to Elk Grove-Florin Rd.	4	Arterial	40,100	1.11	F	41,000	1.14	F
27. Gerber Rd. - Elk Grove-Florin Rd. to Bradshaw Rd.	4	Arterial	26,400	0.73	C	27,000	0.75	C
28. Gerber Rd. - Bradshaw Rd. to Vineyard Rd.	4	Arterial	14,100	0.39	A	14,300	0.40	A
29. Gerber Rd. - Vineyard Rd. to Excelsior Rd.	2	Rural	7,200	0.36	D	7,300	0.37	D
30. Vintage Park Dr. - Elk Grove-Florin Rd. to Waterman Rd.	4	Arterial	21,600	0.60	A	22,000	0.61	B
31. Vintage Park Dr. - Waterman Rd. to Bradshaw Rd.	4	Arterial	9,200	0.26	A	9,400	0.26	A
32. Calvine Rd. - Power Inn Rd. to Elk Grove-Florin Rd.	6	Arterial	66,800	1.24	F	67,300	1.25	F
33. Calvine Rd. - Elk Grove-Florin Rd. to Grand Cru Dr.	6	Arterial	38,600	0.71	C	38,700	0.72	C
34. Calvine Rd. - Grand Cru Dr. to Waterman Rd.	6	Arterial	39,100	0.72	C	39,200	0.73	C
35. Calvine Rd. - Waterman Rd. to Bradshaw Rd.	4	Arterial	29,900	0.83	D	30,000	0.83	D
36. Calvine Rd. - Bradshaw Rd. to Vineyard Rd.	4	Arterial	20,600	0.57	A	20,700	0.58	A
37. Calvine Rd. - Vineyard Rd. to Excelsior Rd.	2	Arterial	13,000	0.36	A	13,000	0.36	A
38. Calvine Rd. - Excelsior Rd. to Grant Line Rd.	2	Rural	7,900	0.40	D	7,900	0.40	D
39. Power Inn Rd - Elder Creek Rd. to Florin Rd.	4	Arterial	31,300	0.87	D	31,400	0.87	D
40. Power Inn Rd - Florin Rd. to Gerber Rd.	4	Arterial	35,200	0.98	E	35,200	0.98	E
41. Power Inn Rd - Gerber Rd. to Calvine Rd.	4	Arterial	33,900	0.94	E	33,900	0.94	E
42. Florin-Perkins Rd. - Folsom Blvd. to SR 16	6	Arterial	36,200	0.67	B	36,900	0.68	B
43. Florin-Perkins Rd. - SR 16 to Fruitridge Rd.	6	Arterial	38,200	0.71	C	38,700	0.72	C
44. Florin-Perkins Rd. - Fruitridge Rd. to Elder Creek Rd.	4	Arterial	41,600	1.16	F	42,000	1.17	F
45. Florin-Perkins Rd. - Elder Creek Rd. to Florin Rd.	4	Arterial	37,600	1.04	F	37,800	1.05	F
46. French Rd. - Florin Rd. to Gerber Rd.	4	Arterial	26,200	0.73	C	26,900	0.75	C
47. Watt Ave. - Folsom Blvd. to Kiefer Blvd.	6	Arterial	84,100	1.40	F	84,500	1.41	F
48. South Watt Ave. - Kiefer Blvd. to SR 16	6	Arterial	68,300	1.14	F	69,100	1.15	F
49. South Watt Ave. - SR 16 to Fruitridge Rd.	6	Arterial	43,400	0.80	D	44,300	0.82	D
50. South Watt Ave. - Fruitridge Rd. to Elder Creek Rd.	6	Arterial	46,600	0.86	D	47,500	0.88	D
51. South Watt Ave. - Elder Creek Rd. to Florin Rd.	6	Arterial	37,400	0.69	B	38,300	0.71	C
52. Elk Grove-Florin Rd. - Florin Rd. to Gerber Rd.	6	Arterial	44,300	0.82	D	45,700	0.85	D
53. Elk Grove-Florin Rd. - Gerber Rd. to Carlisle Ave.	6	Arterial	50,900	0.94	E	52,700	0.98	E
54. Elk Grove-Florin Rd. - Carlisle Ave. to Vintage Park Dr.	6	Arterial	48,500	0.90	D	50,200	0.93	E
55. Elk Grove-Florin Rd. - Vintage Park Dr. to Calvine Rd.	6	Arterial	42,100	0.78	C	43,200	0.80	C
56. Hedge Ave. - SR 16 to Fruitridge Rd.	2	Rural	4,900	0.25	C	4,900	0.25	C
57. Hedge Ave. - Fruitridge Rd. to Elder Creek Rd.	2	Rural	8,700	0.44	D	9,500	0.48	D
58. Hedge Ave. - Elder Creek Rd. to Florin Rd.	2	Rural	10,800	0.54	D	12,400	0.62	E
59. Waterman Rd. - Vintage Park Dr. to Calvine Rd.	4	Arterial	23,400	0.65	B	23,900	0.66	B
60. Bradshaw Rd. - Kiefer Blvd. to SR 16	6	Arterial	52,300	0.97	E	52,800	0.98	E
61. Bradshaw Rd. - SR 16 to Elder Creek Rd.	6	Arterial	48,000	0.89	D	48,500	0.90	D
62. Bradshaw Rd. - Elder Creek Rd. to Florin Rd.	6	Arterial	36,200	0.67	B	37,200	0.69	B
63. Bradshaw Rd. - Florin Rd. to Gerber Rd.	6	Arterial	40,300	0.75	C	40,900	0.78	C
64. Bradshaw Rd. - Gerber Rd. to Vintage Park Dr.	4	Arterial	31,200	0.87	D	31,600	0.88	D
65. Bradshaw Rd. - Vintage Park Dr. to Calvine Rd.	4	Arterial	24,000	0.67	B	24,200	0.67	B
66. Vineyard Rd. - Gerber Rd. to Calvine Rd.	2	Arterial	16,900	0.94	E	16,900	0.94	E
67. Excelsior Rd. - SR 16 to Florin Rd.	2	Rural	13,200	0.66	E	13,200	0.66	E
68. Excelsior Rd. - Florin Rd. to Gerber Rd.	2	Rural	14,600	0.73	E	14,700	0.74	E
69. Excelsior Rd. - Gerber Rd. to Calvine Rd.	2	Rural	8,400	0.42	D	8,400	0.42	D
70. Waterman Rd. - Vintage Park Dr. to Gerber Rd.	4	Arterial	26,600	0.74	C	27,200	0.76	C
71. Waterman Rd. - Gerber Rd. to Florin Rd.	4	Arterial	27,600	0.77	C	28,900	0.80	D
72. Vineyard Rd. - Gerber Rd. to Florin Rd.	2	Arterial	8,000	0.44	A	8,000	0.44	A
73. Waterman Rd. - Florin Rd. to Elder Creek Rd.	4	Arterial	21,900	0.61	B	22,500	0.63	B

Notes: Shaded areas indicate unacceptable operations.
All arterial roadway segments assumed to have moderate access control except for Segments 7, 47, and 49, which were assumed to have high access control.
Blue – City of Sacramento Study Roadway Segments
Green – City of Elk Grove Study Roadway Segments
Yellow Highlight and Bold Text Identifies Impact with 15% Housing Density Bonus
[1]Lanes and Facility type for mitigated condition
Mitigation is for both primary and secondary impacts.
Source: *Fehr & Peers*, 2007

TABLE 25
ROADWAY LEVEL OF SERVICE – CUMULATIVE MITIGATED CONDITIONS WITH DENSITY BONUS: PLANNING DEPARTMENT PLAN

Roadway Segment	Lanes[1]	Type[1]	Without 15% Housing Density Bonus			With 15% Housing Density Bonus		
			Vol	V/C	LOS	Vol	V/C	LOS
1. Folsom Blvd. - State Route 16 to Watt Ave.	4	Arterial	30,300	0.84	D	31,000	0.86	D
2. Kiefer Blvd. - Florin-Perkins Rd. to Watt Ave.	2	Arterial	8,800	0.49	A	8,800	0.49	A
3. Kiefer Blvd. - Watt Ave. to Rosemont Dr.	4	Arterial	24,100	0.67	B	24,200	0.67	B
4. Kiefer Blvd. - Rosemont Dr. to Bradshaw Rd.	4	Arterial	15,800	0.44	A	15,800	0.44	A
5. SR 16 - Folsom Blvd. to Watt Ave.	4	Arterial	27,200	0.76	C	27,500	0.76	C
6. SR 16 - Watt Ave. to Bradshaw Rd.	6	Arterial	38,500	0.71	C	38,700	0.72	C
7. SR 16 - Bradshaw Rd. to Sunrise Blvd	4	Arterial	29,300	0.73	C	29,400	0.74	C
8. Fruitridge Rd. - Power Inn Rd. to Florin-Perkins Rd.	4	Arterial	33,500	0.93	E	33,900	0.94	E
9. Fruitridge Rd. - Florin-Perkins Rd. to South Watt Ave.	6	Arterial	27,900	0.52	A	28,900	0.54	A
10. Fruitridge Rd. - South Watt Ave. to Hedge Ave.	2	Rural	10,500	0.53	D	10,800	0.54	D
11. Elder Creek Rd. - Power Inn Rd. to Florin-Perkins Rd.	4	Arterial	27,200	0.76	C	27,800	0.77	C
12. Elder Creek Rd. - Florin-Perkins Rd. to South Watt Ave.	4	Arterial	19,000	0.53	A	19,800	0.55	A
13. Elder Creek Rd. - South Watt Ave. to Hedge Ave.	4	Rural	21,300	0.59	A	22,600	0.63	B
14. Elder Creek Rd. – Hedge Ave. to Bradshaw Rd.	4	Rural	26,800	0.74	C	27,900	0.78	C
15. Elder Creek Rd. - Bradshaw Rd. to Excelsior Rd.	4	Rural	11,000	0.31	A	11,200	0.31	A
16. Florin Rd. - Stockton Blvd to Power Inn Rd.	6	Arterial	42,300	0.78	C	43,400	0.80	D
17. Florin Rd. - Power Inn Rd. to Florin-Perkins Rd.	4	Arterial	37,500	1.04	F	38,600	1.07	F
18. Florin Rd. - Florin-Perkins Rd. to Gardner Ave.	6	Arterial	41,600	0.77	C	43,400	0.80	D
19. Florin Rd. - Gardner Ave. to South Watt Ave.	6	Arterial	45,000	0.83	D	47,200	0.87	D
20. Florin Rd. - South Watt Ave. to Hedge Ave.	4	Rural	31,200	0.87	D	32,900	0.91	E
21. Florin Rd. - Hedge Ave. to Bradshaw Rd.	4	Arterial	22,400	0.62	B	23,800	0.66	B
22. Florin Rd. - Bradshaw Rd. to Excelsior Rd.	4	Rural	18,900	0.52	A	19,200	0.53	A
23. Florin Rd. - Excelsior Rd. to Sunrise Blvd	2	Rural	14,400	0.72	E	14,700	0.74	E
24. Gerber Rd. - Stockton Blvd to Power Inn Rd.	4	Arterial	25,800	0.72	C	26,300	0.73	C
25. Gerber Rd. - Power Inn Rd. to French Rd.	4	Arterial	39,000	1.08	F	40,100	1.11	F
26. Gerber Rd. - French Rd. to Elk Grove-Florin Rd.	4	Arterial	40,800	1.13	F	42,500	1.18	F
27. Gerber Rd. - Elk Grove-Florin Rd. to Bradshaw Rd.	4	Arterial	26,400	0.73	C	27,600	0.77	C
28. Gerber Rd. - Bradshaw Rd. to Vineyard Rd.	4	Arterial	13,700	0.38	A	14,200	0.39	A
29. Gerber Rd. - Vineyard Rd. to Excelsior Rd.	2	Rural	7,400	0.37	D	7,700	0.39	D
30. Vintage Park Dr. - Elk Grove-Florin Rd. to Waterman Rd.	4	Arterial	21,900	0.61	B	21,800	0.61	B
31. Vintage Park Dr. - Waterman Rd. to Bradshaw Rd.	4	Arterial	9,100	0.25	A	9,500	0.26	A
32. Calvine Rd. - Power Inn Rd. to Elk Grove-Florin Rd.	6	Arterial	67,600	1.25	F	68,300	1.26	F
33. Calvine Rd. - Elk Grove-Florin Rd. to Grand Cru Dr.	6	Arterial	38,300	0.71	C	38,600	0.71	C
34. Calvine Rd. - Grand Cru Dr. to Waterman Rd.	6	Arterial	38,800	0.72	C	39,000	0.72	C
35. Calvine Rd. - Waterman Rd. to Bradshaw Rd.	4	Arterial	29,700	0.83	D	29,800	0.83	D
36. Calvine Rd. - Bradshaw Rd. to Vineyard Rd.	4	Arterial	20,500	0.57	A	20,600	0.57	A
37. Calvine Rd. - Vineyard Rd. to Excelsior Rd.	2	Arterial	12,700	0.35	A	12,800	0.36	A
38. Calvine Rd. - Excelsior Rd. to Grant Line Rd.	2	Rural	7,900	0.40	D	7,900	0.40	D
39. Power Inn Rd - Elder Creek Rd. to Florin Rd.	4	Arterial	30,800	0.86	D	30,900	0.86	D
40. Power Inn Rd - Florin Rd. to Gerber Rd.	4	Arterial	34,400	0.96	E	34,400	0.96	E
41. Power Inn Rd - Gerber Rd. to Calvine Rd.	4	Arterial	33,100	0.92	E	33,100	0.92	E
42. Florin-Perkins Rd. - Folsom Blvd. to SR 16	6	Arterial	36,900	0.68	B	38,000	0.70	C
43. Florin-Perkins Rd. - SR 16 to Fruitridge Rd.	6	Arterial	38,900	0.72	C	39,600	0.73	C
44. Florin-Perkins Rd. - Fruitridge Rd. to Elder Creek Rd.	4	Arterial	41,200	1.14	F	41,600	1.15	F
45. Florin-Perkins Rd. - Elder Creek Rd. to Florin Rd.	4	Arterial	38,200	1.06	F	38,400	**1.07**	**F**

TABLE 25 (CONT.)
ROADWAY LEVEL OF SERVICE – CUMULATIVE MITIGATED CONDITIONS WITH DENSITY BONUS: PLANNING DEPARTMENT PLAN

Roadway Segment	Lanes[1]	Type[1]	Without 15% Housing Density Bonus			With 15% Housing Density Bonus		
			Vol	V/C	LOS	Vol	V/C	LOS
46. French Rd. - Florin Rd. to Gerber Rd.	4	Arterial	26,200	0.73	C	27,000	0.75	C
47. Watt Ave. - Folsom Blvd. to Kiefer Blvd.	6	Arterial	84,300	1.41	F	84,600	1.41	F
48. South Watt Ave. - Kiefer Blvd. to SR 16	6	Arterial	69,200	1.15	F	70,000	1.17	F
49. South Watt Ave. - SR 16 to Fruitridge Rd.	6	Arterial	44,200	0.82	D	45,100	0.84	D
50. South Watt Ave. - Fruitridge Rd. to Elder Creek Rd.	6	Arterial	47,400	0.88	D	48,600	0.90	D
51. South Watt Ave. - Elder Creek Rd. to Florin Rd.	6	Arterial	38,000	0.70	C	39,800	0.73	C
52. Elk Grove-Florin Rd. - Florin Rd. to Gerber Rd.	6	Arterial	46,600	0.82	D	46,300	0.86	D
53. Elk Grove-Florin Rd. - Gerber Rd. to Carlisle Ave.	6	Arterial	52,500	0.97	E	54,300	1.01	F
54. Elk Grove-Florin Rd. - Carlisle Ave. to Vintage Park Dr.	6	Arterial	52,400	0.97	E	54,500	**1.01**	**F**
55. Elk Grove-Florin Rd. - Vintage Park Dr. to Calvine Rd.	6	Arterial	43,000	0.80	C	44,400	0.82	D
56. Hedge Ave. - SR 16 to Fruitridge Rd.	2	Rural	5,000	0.25	C	5,400	0.27	C
57. Hedge Ave. - Fruitridge Rd. to Elder Creek Rd.	2	Rural	9,100	0.46	D	10,600	0.53	D
58. Hedge Ave. - Elder Creek Rd. to Florin Rd.	2	Rural	12,700	0.64	E	14,500	0.73	E
59. Waterman Rd. - Vintage Park Dr. to Calvine Rd.	4	Arterial	23,500	0.65	B	24,200	0.67	B
60. Bradshaw Rd. - Kiefer Blvd. to SR 16	6	Arterial	52,900	0.98	E	53,600	0.99	E
61. Bradshaw Rd. - SR 16 to Elder Creek Rd.	6	Arterial	49,100	0.91	E	49,800	0.92	E
62. Bradshaw Rd. - Elder Creek Rd. to Florin Rd.	6	Arterial	37,800	0.70	C	39,100	0.72	C
63. Bradshaw Rd. - Florin Rd. to Gerber Rd.	6	Arterial	40,200	0.74	C	41,100	0.76	C
64. Bradshaw Rd. - Gerber Rd. to Vintage Park Dr.	4	Arterial	30,700	0.85	D	31,400	0.87	D
65. Bradshaw Rd. - Vintage Park Dr. to Calvine Rd.	4	Arterial	23,600	0.66	B	24,000	0.67	B
66. Vineyard Rd. - Gerber Rd. to Calvine Rd.	2	Arterial	16,800	0.93	E	17,000	0.94	E
67. Excelsior Rd. - SR 16 to Florin Rd.	2	Rural	13,300	0.67	E	13,400	0.67	E
68. Excelsior Rd. - Florin Rd. to Gerber Rd.	2	Rural	14,600	0.73	E	14,900	0.75	E
69. Excelsior Rd. - Gerber Rd. to Calvine Rd.	2	Rural	8,200	0.41	D	8,300	0.42	D
70. Waterman Rd. - Vintage Park Dr. to Gerber Rd.	4	Arterial	27,100	0.75	C	28,600	0.79	C
71. Waterman Rd. - Gerber Rd. to Florin Rd.	4	Arterial	28,600	0.79	C	30,000	0.83	D
72. Vineyard Rd. - Gerber Rd. to Florin Rd.	2	Arterial	7,800	0.43	A	7,900	0.44	A
73. Waterman Rd. - Florin Rd. to Elder Creek Rd.	4	Arterial	22,900	0.64	B	24,400	0.68	B

Notes: Shaded areas indicate unacceptable operations.
All arterial roadway segments assumed to have moderate access control except for Segments 7, 47, and 49, which were assumed to have high access control.
Blue – City of Sacramento Study Roadway Segments
Green – City of Elk Grove Study Roadway Segments
Yellow Highlight and Bold Text Identifies Impact with 15% Housing Density Bonus
[1]Lanes and Facility type for mitigated condition
Mitigation is for both primary and secondary impacts.
Source: *Fehr & Peers*, 2007

As shown in Tables 24 and 25, the addition of the density bonus would result in the following additional project impacts to study roadway segments.

IMPACT CPD-77: (Elk Grove-Florin Road – Carlisle Avenue to Vintage Park Drive)

CAC – No Impact

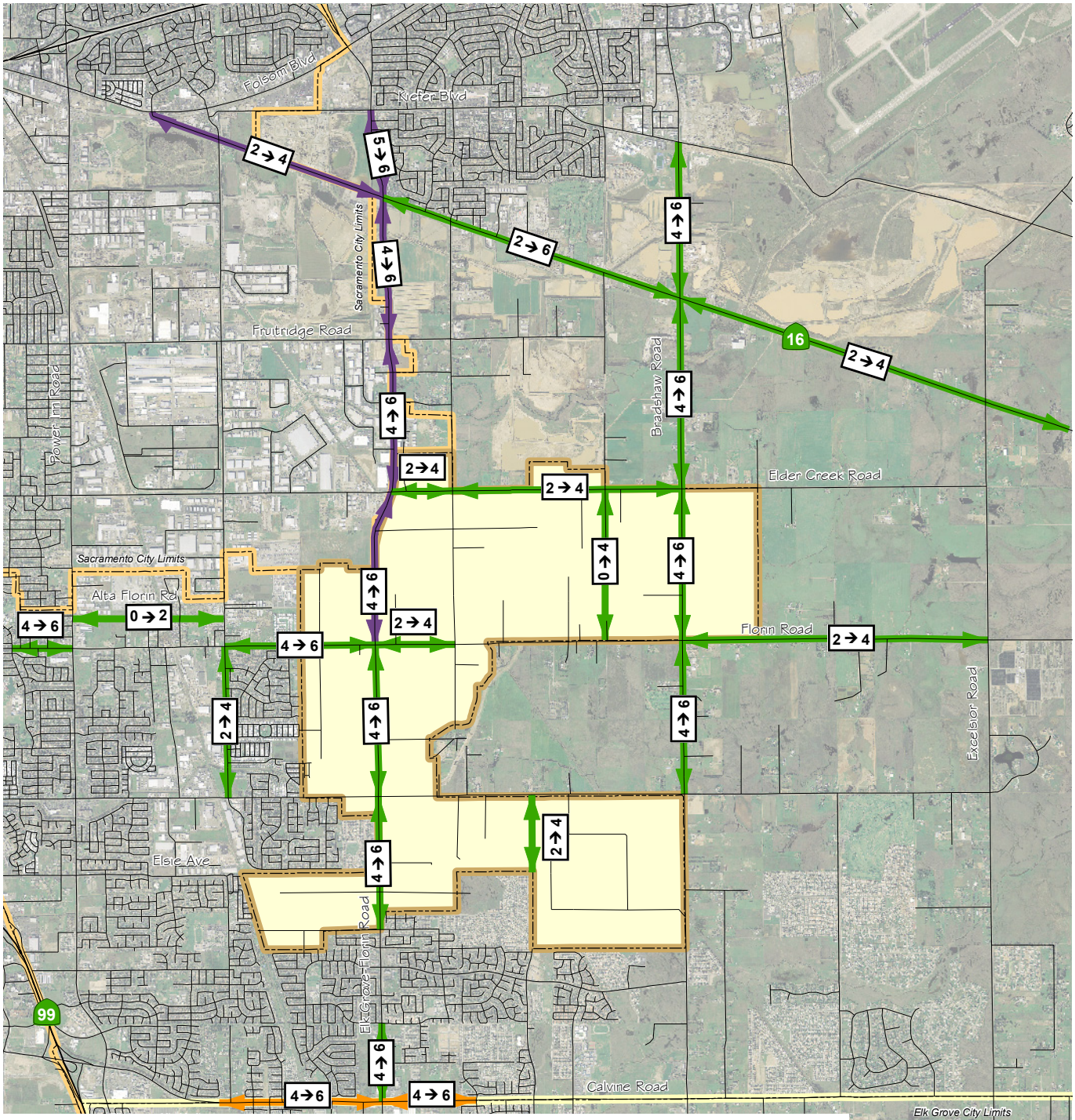
PD – The addition of the proposed project with the 15-percent housing density bonus will increase the daily traffic volume on the six-lane section of Elk Grove-Florin Road between Carlisle Avenue and Vintage Park Drive from 52,500 vehicles per day (VPD) to 54,500 VPD, which exceeds the capacity of 54,000 VPD for six-lane roadways with moderate access control. This volume increase will cause the LOS to change from LOS E to LOS F. This is considered a significant impact based on the Sacramento County significance criteria.

Proposed Mitigation Measures

The following mitigation measures are proposed to reduce the significance of Impact CPD-77. Figure 25 shows proposed mitigation under cumulative conditions with the 15-percent housing density bonus.

MITIGATION MEASURE CPD-77: (Elk Grove-Florin Road – Carlisle Avenue to Vintage Park Drive)

> PD – Widen the section of Elk Grove-Florin Road between Carlisle Avenue and Vintage Park Drive from a six-lane arterial to an eight-lane arterial. This improvement would accommodate the projected daily traffic volume and provide LOS C (volume-to-capacity ratio = 0.76) operations with the PD Plan. With this improvement, Elk Grove-Florin Road would be widened beyond its General Plan designation as a six-lane arterial. Implementation of this mitigation measure would reduce the impact to a less than significant level; however, due to right-of-way constraints, the impact would remain significant and unavoidable.



LEGEND

- Impact/Mitigation Based on City of Sacramento Impact Significance Criteria (Dashed lines are with Density Bonus)
- Impact/Mitigation Based on County Impact Significance Criteria (Dashed lines are with Density Bonus)
- Impact/Mitigation Based on City of Elk Grove Impact Significance Criteria
- Project Location

Note: Mitigation is for both primary and secondary impacts.

N

NOT TO SCALE

FEHR & PEERS
TRANSPORTATION CONSULTANTS

PROPOSED ROADWAY MITIGATION CUMULATIVE WITH PROJECT CONDITIONS (PLUS 15% HOUSING DENSITY BONUS)

N:\2006Projects\2317_Florin-Vineyard_Gap\GIS\2008_March_Update\MXD\fig25_Rd_Mitiation_Cumul_bonus.mxd

FIGURE 25

Cumulative Conditions – SR 99 and U.S. 50

Traffic operations of SR 99 and U.S. 50 with the addition of addition of both the CAC and PD plans and the density bonus provision are discussed below.

The Caltrans District 3 *Highway Congestion Monitoring Program (HICOMP) for Sacramento Metropolitan Area*, Fall 2005 identifies congested (LOS F) conditions on the following segments of SR 99 and U.S. 50 during the AM and PM peak hours:

SR 99 AM Peak Hour
- Laguna Boulevard to U.S. 50 (northbound)

SR 99 PM Peak Hour
- Mack Road to Florin Road (northbound)
- U.S. 50 to Sheldon Road (southbound)

U.S. 50 AM Peak Hour
- Bass Lake Road to 59th Street (westbound)
- South River Road to Mayhew Road Overcrossing (eastbound)

U.S. 50 PM Peak Hour
- Zinfandel Drive to 16th Street (westbound)
- 59th Street to Mayhew Road Overcrossing and Bradshaw Road to Folsom Boulevard (eastbound)

According to the Sacramento Area Council of Governments (SACOG), the Sacramento region is forecast to see a 49% increase in population, a 50% increase in housing, and a 60% increase in employment by 2025. Over the same time period, SACOG forecasts that vehicle miles of travel (VMT) will increase by about 58%. However, the current regional transportation plan will only increase the capacity of the transportation system (if fully realized) by about 20%. Consequently, the number of congested locations and the duration of congestion will continue to increase.

IMPACT CP-81: (SR 99 – Calvine Road to U.S. 50 & U.S. 50 – Watt Avenue to SR 99)

CAC & PD – The addition of the proposed project will increase demand for travel on SR 99 and U.S. 50, which will exacerbate LOS F conditions. This is considered a significant impact.

MITIGATION MEASURE CP-81: (SR 99 – Calvine Road to U.S. 50 & U.S. 50 – Watt Avenue to SR 99)

CAC & PD **–** Pay a fair share contribution towards SR 99 and U.S. 50 corridor improvements. Improvements could include to the following:

SR 99
- Installation of ramp metering at interchange on-ramps on southbound SR 99
- Completion of ITS communication infrastructure (like fiber optic lines)
- Upgrade of the Florin Road, 47th Street, and Fruitridge Road interchanges from full cloverleaf to partial cloverleaf configurations
- Construction of auxiliary lanes
- Traffic signal coordination at freeway interchanges to minimize impact of vehicle queue spillback onto SR 99

U.S. 50

- Upgrade of the Watt Avenue interchange from a full cloverleaf to partial cloverleaf configuration
- Traffic signal coordination at freeway interchanges to minimize impact of vehicle queue spillback onto U.S. 50
- The extension of HOV lanes from Sunrise Boulevard to Downtown Sacramento (or an interim project to Watt Avenue)
- HOV enhancements to existing interchanges such as bypass lanes at existing metered on-ramps
- Completion of ITS improvements on U.S. 50 like the installation of a changeable message sign east of the Mayhew Road overcrossing

Table 26 summarizes traffic share estimates for both the CAC and PD plans on SR 99 between Calvine Road and U.S. 50 and on U.S. 50 between Watt Avenue and SR 99. The estimates were developed using the modified version of the SACMET regional travel demand forecasting model developed for this study. Specifically, a select zone assignment was used to identify the percentage of total traffic on SR 99 and U.S. 50 with an origin or destination in the proposed project. As appropriate, the traffic share estimates in Table 26 should be applied to improvements identified through coordination with Caltrans, which could include those outlined above.

TABLE 26
FREEWAY SEGMENT TRAFFIC SHARE ESTIMATES – CUMULATIVE CONDITIONS

Freeway Segment	CAC Preferred Plan	Planning Department Plan
SR 99		
Calvine Road to Mack Road	0.2%	0.4%
Mack Road to Florin Road	1.0%	1.2%
Florin Road to 47th Street	3.1%	3.6%
47th Street to Martin Luther King Jr. Boulevard	2.8%	3.3%
Martin Luther King Jr. Boulevard to Fruitridge Road	2.8%	3.4%
Fruitridge Road to Sutterville Road	2.2%	2.7%
Sutterville Road to U.S. 50	1.7%	2.1%
U.S. 50		
Watt Avenue to Howe Avenue	0.5%	0.5%
Howe Avenue to 65th Street	1.2%	1.4%
65th Street to 59th Street	1.6%	1.7%
59th Street to SR 99	1.4%	1.6%

Notes: Traffic shares developed using select zone assignment of the SACMET travel demand forecasting model.
Source: *Fehr & Peers*, 2006

Implementation of this mitigation measure would lessen the impact; however, the impact would remain significant and unavoidable.

APPENDIX J

SANITARY SEWER MASTER PLAN

SANITARY SEWER MASTER PLAN

for the

FLORIN-VINEYARD GAP COMMUNITY PLAN

June 8, 2006

PREPARED FOR:

Sacramento County
Water Quality Division, CSD-1
10545 Armstrong Avenue, Suite 101
Mather, CA 95655

PREPARED BY:

MacKay & Somps, Civil Engineers, Inc.
1771 Tribute Road, Suite E
Sacramento, CA 95815

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Executive Summary

Large amounts of development are expected to take place in the central-western portion of Sacramento County in an area called Florin-Vineyard. To ensure orderly growth the County Board of Supervisors initiated the Florin-Vineyard Gap Community Plan (FVGCP) process in 1999. Two possible land use plans are under consideration as a result of that planning effort: the Citizens Advisory Committee (CAC) Land Use Plan and Planning Department Options Land Use Plan. Private development applications for areas within the 3,766+/- acre planning area were allowed to be filed for concurrent processing with the Community Plan Land Use Plan during two specific time periods (February 1 to March 31, 2004 and June 1 to July 1, 2004), so long as those applications were consistent with either of the two Community Plan land use plan options, as described in Board Resolution Numbers 2002-1312 and 2004-0578. A total of 34 applications were filed for re-zone and/or tentative subdivision in this predominantly agricultural-residential area. Of the two land use alternatives being considered for the FVGCP area, the Planning Department Options Land Use Plan would result in higher densities, and therefore was used as the basis for analysis in this study. Historical land uses within the FVGCP include grazing and low intensity farming. Proposed land uses include 1,115 acres of light industrial zoning, 413 acres of agricultural-residential, 1,248 acres of low density residential (RD 2-5), 612 acres of medium density residential (RD 5-12), and 142 acres of high density residential (RD 10-20). The plan area also included 236 acres reserved for schools, light commercial, business parks, and open space.

Existing sanitary sewer facilities within the plan area include a 102-inch interceptor in Elk Grove-Florin Road (the Central Interceptor) and various private septic systems serving the approximately 550 existing residences scattered throughout. Proposed facilities include an additional interceptor and two new trunk sewers: the Bradshaw 6A Interceptor (currently under construction), the Florin Road Trunk and the Gerber Road Trunk. Collector sewers will be designed and constructed by individual developers as needed.

Sacramento Regional County Sanitation District (SRCSD) created a master plan entitled Sacramento Regional County Sanitation District Interceptor Master Plan, (SRCSD IMP) (updated 2000), which outlines the interceptor mater plan for Sacramento County. The March 2002 Sacramento County Sewerage Facilities Expansion Master Plan (SFEMP) is a county-wide sewer system master plan created by County Sanitation District –1 (CSD-1). Both Master plans use General Plan land use information and projections, as well as the most current design criteria to analyze capacities of existing and future proposed facilities within Sacramento County.

This Sanitary Sewer Master Plan for the FVGCP is a detailed review of the SFEMP as it relates to serviceability of the FVGCP area. It replaces the SFEMP land use assumptions with the Planning Department Options Land Use Plan endorsed by the Board of Supervisors for the FVGCP and evaluates how individual sub-sheds within the FVGCP may best be served. A much more detailed analysis of existing topography and thereby serviceability by gravity sewer was done which resulted in changes to major shed boundaries, their subsheds, and associated infrastructure.

The FVGCP boundary encompasses portions of six sewer trunk sheds designated in the

SFEMP: the CE West Gravel Shed, CE Elk Grove-Florin Shed, BR Elder Creek Shed, BR Florin Shed, BR Gerber Shed, and the SEA Southeast Shed. The CEI Central Interceptor Shed lies to the south of FVGCP while the CE Gravel East Trunk Shed lies to the north. An additional shed originally identified in the North Vineyard Station Sewer Master Plan, the Gerber-Florin Supplemental Trunk Shed, is proposed to be modified with this study.

This particular study was prepared to allow the County Department of Environmental Review and Assessment (DERA) to prepare an environmental analysis of the backbone facilities required to serve proposed development of the FVGCP and to allow preparation of a financing plan as required by County General Plan policy LU-8 related to public facility financing. It demonstrates that gravity sanitary sewer facilities designed in accordance with minimum design criteria can serve the majority of proposed development within the FVGCP. Each pipe was sized to serve designated shed areas as well as surrounding tributary shed areas in compliance with the Sacramento County General Plan policies. Depth and minimum coverage issues occurred in the western portion of the CE Elk Grove-Florin Shed, in the southern portion of the Gerber-Florin Supplemental Trunk Shed, and in the southern portion of the BR Gerber Road Trunk Shed. These sheds, their associated issues and potential solutions are discussed in detail within the body of this report. In addition, it was determined that the existing Elsie Avenue sewer would not be able to accommodate the sewage flows generated under buildout conditions by the tributary FVGCP sub-shed, thus requiring modifications to said shed area in lieu of sewer facility upgrades. More detailed studies will be required in the future as part of project-specific applications, prior to preparation of improvement plans.

The following tables summarize total acreages, equivalent single-family dwelling units (ESD) and PWWF for each trunk shed as indicated within the SFEMP and as adjusted within this report.

Projected CSD-1 Trunk Shed Summary

Trunk Shed	*Total Acres*	*Total ESDs*	*PWWF [MGD]*
CE Gravel West	2,389.0	14,332	9.040
CE Elk Grove-Florin	1,278.0	7,728	4.974
BR Elder Creek	2,760.0	16,558	10.387
BR Florin	2,454.0	15,043	9.407
BR Gerber	2,541.0	15,919	9.866

Trunk Shed Summary*

Trunk Shed	*Total Acres*	*Total ESDs*	*PWWF [MGD]*
CE Gravel West	1,021.4	6,128	3.986
CE Elk Grove-Florin	1,191.9	8,232	5.451
BR Elder Creek	2,762.3	16,574	10.396
BR Florin	2,006.7	14,621	8.699
BR Gerber	2,426.1	15,871	9.966
Gerber-Florin Supplemental	1,233.2	7,833.9	5.352
SEA Southeast	241.6	1665	1.232

**This table is a summary of calculations provided within the appendix of this report and is not intended to be an independent calculation of flow based on total acres and ESDs. See color coded calculations in the Appendix on Tables 1A thru 7A, Pages A-1 thru A-4.

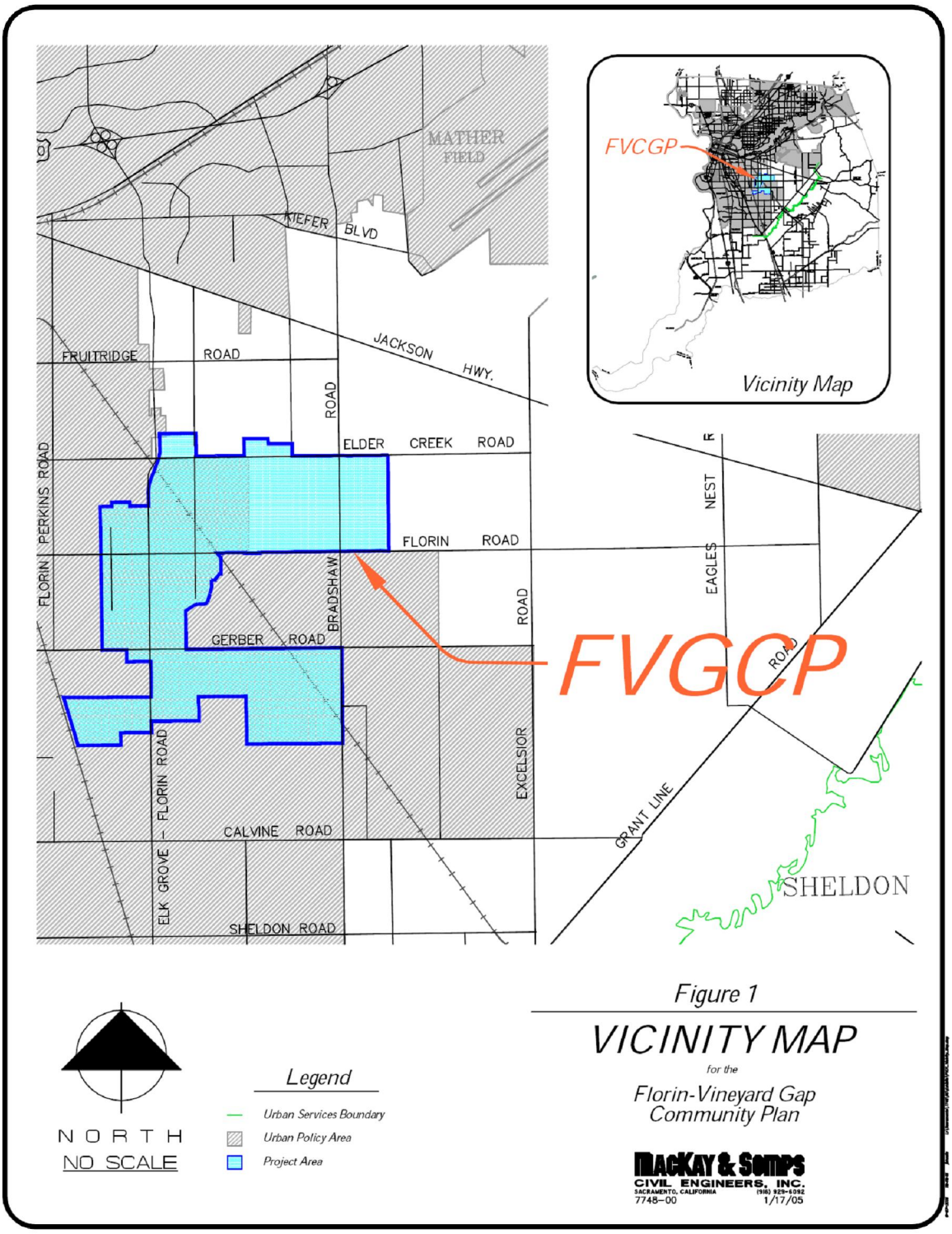
I – Introduction

A community plan serves as a tool to implement the Sacramento County General Plan. The Florin-Vineyard Gap Community Plan (FVGCP) was initiated so future development could take place in an orderly, predetermined fashion in the central-eastern portion of Sacramento County as shown in Figure 1.

Site elevations range from 70+/- feet near the northeast boundary to 40+/- feet near the west boundary, resulting in a visually flat plan area across nearly 3 miles. The area is roughly bounded by: Elder Creek Road on the north, the Churchill Downs neighborhood on the south, Bradshaw Road on the east and the Union Pacific Railroad Tracks to the west. Historical land uses within the FVGCP include grazing and low intensity farming. Approximately 3,766 acres engross predominantly agricultural-residential and aggregate mining land uses, with scattered easements throughout. High voltage power line easements, a 75-foot PG&E easement and the Central California Traction Railroad 100-foot wide right-of-way are the major easements in the plan area.

Figure 2 shows the Community Advisory Council (CAC) Land Use Plan and the County Planning Department Options Land Use Plan for the FVGCP. The County Planning Department Options Land Use Plan reflects a more dense land use option and is used as a base for this study. Proposed land uses within the Community Plan include 1,113 acres of light industrial zoning, 413 acres of agricultural-residential, 1,248 acres of low density residential (RD 2-5), 612 acres of medium density residential (RD 5-12), and 142 acres of high density residential (RD 10-20). The plan area also included 236 acres reserved for schools, light commercial, business parks, and open space. It should be noted that these acreages are based on County GIS data base information and that slight, yet insignificant, inconsistencies with the County's Land Use Plan Summaries cannot be explained due to a lack of background data supporting the County's own Land Use Summary.

This study is a detailed expansion of the Sewerage Facilities Expansion Master Plan (SFEMP), describing how the FVGCP and outlying areas will be served. It provides a more detailed analysis incorporating the most current land use and topographic information. Further analysis within the FVGCP will need to be prepared on a project-specific basis prior to the preparation of improvement plans.


MATHER FIELD
KIEFER BLVD
JACKSON HWY.
FRUITRIDGE ROAD
ROAD
ELDER CREEK ROAD
FLORIN ROAD
PERKINS ROAD
FLORIN
BRADSHAW
GERBER ROAD
ROAD
EAGLES NEST
ROAD
FVGCP
FLORIN ROAD
EXCELSIOR
GRANT LINE
CALVINE ROAD
ELK GROVE
SHELDON ROAD
SHELDON
FVCGP
Vicinity Map
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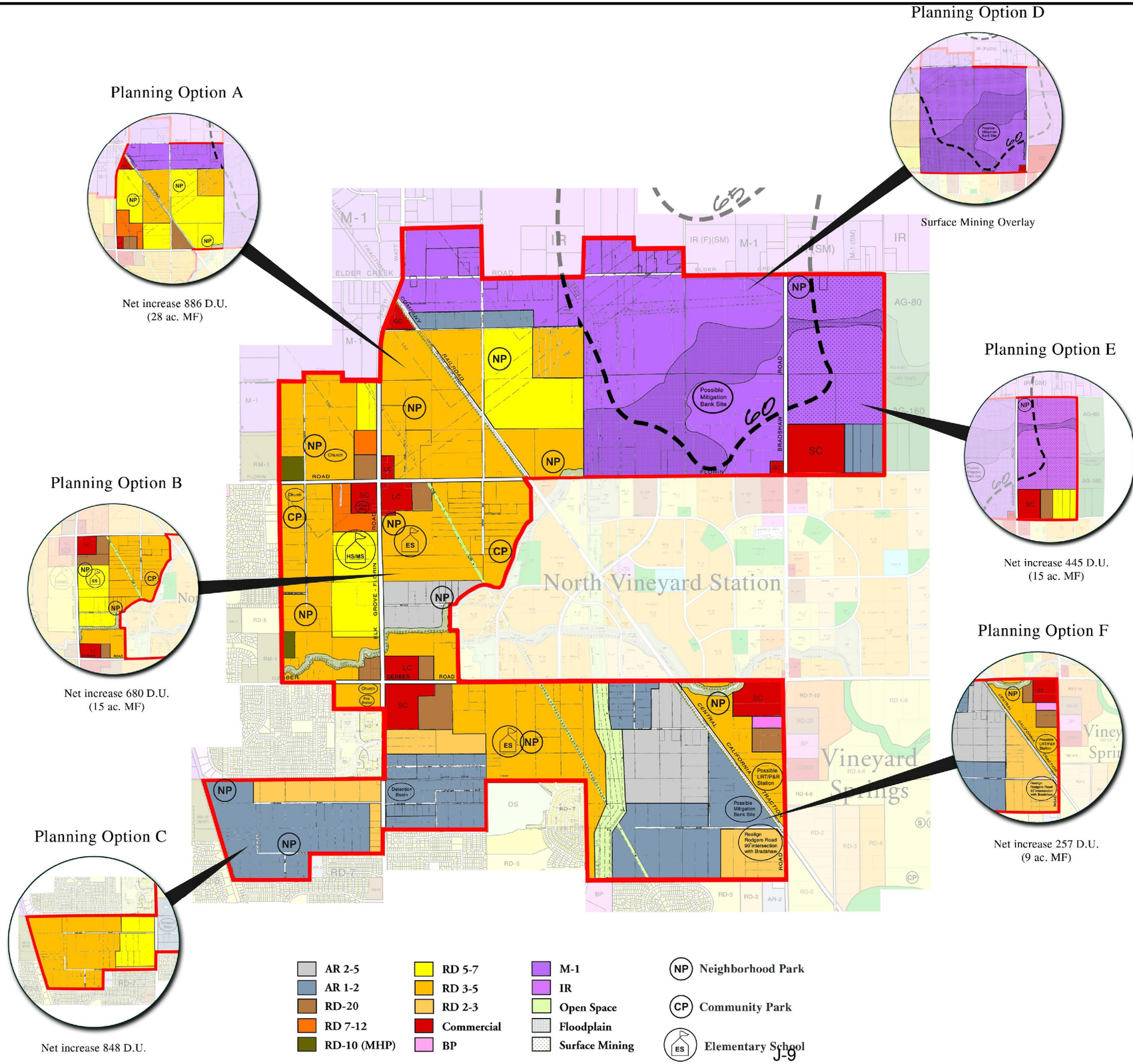
Legend
Urban Services Boundary
Urban Policy Area
Project Area
Figure 1
VICINITY MAP
for the
Florin-Vineyard Gap Community Plan
MACKAY & SOMPS
CIVIL ENGINEERS, INC.
SACRAMENTO, CALIFORNIA
7748-00
1/17/05



NORTH
NO SCALE

Planning Options A-F represent the Planning Department Options Land Use Plan

Figure 2

CAC LAND USE PLAN

and

PLANNING DEPARTMENT OPTIONS LAND USE PLAN

for the

Florin-Vineyard Gap Community Plan

MACKAY & SOMPS
CIVIL ENGINEERS, INC.
SACRAMENTO, CALIFORNIA (916) 929-6092
7748-00 1/17/05

II – Design

The March 2002 Sewerage Facilities Expansion Master Plan (SFEMP) is a county-wide sewer system master plan that uses General Plan land use information and other development projections to analyze capacities of existing and future facilities. Based on analysis of existing topography and the desire to sewer by gravity, numerous tributary trunk sewer sheds have been designated in the SFEMP to serve specified locations throughout the County.

An interceptor is a sewer pipeline that carries 10 million gallons per day (mgd) or more; a trunk line is one that carries 1 mgd to 10 mgd, and a collector carries less than 1 mgd. Interceptors are designed, funded, and maintained by SRCSD while trunks are funded, owned and maintained by CSD-1. Collectors are funded and designed by individual developers and once built they, too, are maintained by CSD-1.

The following assumptions have been made in completing this study: the Bradshaw 6A & Central Interceptors are appropriately sized to accommodate existing and future flows; the approved July 2002 NVSSP sewer master plan represents more current information than the SFEMP and thus takes precedence over the SFEMP information. Existing and proposed streets result in specific identifiable sewer alignments, thus allowing the use of fixed alignment slopes in the design of sewer pipes. Where future street alignments are not yet determined, schematic alignments and average weighted slopes are used. These schematic slopes have been extended to the furthest reaches of each sub-shed to show that there will be adequate cover. Existing topography was used to analyze sewers such that they can flow by gravity. Proposed land uses based on the higher density land use plan proposed by County Planning Department Options Plan are used to calculate flows.

Preliminary analysis of the six sheds covering the FVGCP (CE West Gravel Shed, CE Elk Grove-Florin Road Shed, BR Elder Creek Shed, BR Florin Road Shed, BR Gerber Road Shed, and SEA Southeast Shed) raised some concerns about the ability to gravity sewer these sheds as indicated in the SFEMP while maintaining adequate cover. Figure 3 shows how these sheds, as identified within the SFEMP, relate to the proposed FVGCP. The first six shed areas were originally designated in the SFEMP. The Gerber-Florin Supplemental Shed was originally separated and renamed for clarity in the North Vineyard Station Sewer Study.

The Bradshaw 6A Interceptor designed by Sacramento County Regional Sanitation District (SRCSD) is under construction. This interceptor is projected to go into service in late 2006. The interceptor consists of a 108” pipe at 0.00069 slope from Bradshaw Road to Elk Grove-Florin Road. The Central Interceptor is an existing 102” pipe at 0.00063 slope from Fruitridge Road to Brittany Park Drive.

The trunks and interceptors with their respective shed areas are shown in Figure 5. The background colors of this figure represent the Planning Department Options Land Use Plan (Figure 2).

Because areas beyond and upstream of the Florin-Vineyard Gap Community Plan (FCVP) boundaries must eventually be served, sizing of pipes must accommodate flows larger than that generated within the FVGCP area. The sewer master plan must and does comply with the County's General Plan Policy PF-9, which states that trunk and interceptor systems must be designed to "accommodate flows generated by full urban development at urban densities within the ultimate service area. This could include phased construction where deferred capital costs are appropriate."[1]

Based on interceptor depths and connection requirements it was determined that several major sheds along with associated subsheds had to be adjusted in order to make gravity service of the system possible and to avoid the need for parallel trunks and lift stations. Figure 4 shows the major shed boundary changes that occurred as a result of this analysis. A discussion for each proposed major shed change as a result of the proposed FVGCP and upstream sheds including subshed adjustments follows.

CE Gravel Area West Trunk Shed:

The area associated with this shed was expanded to include properties south of Elder Creek Road. Three new subsheds were created: CEB-10, 11, & 12. This was done to eliminate minimum pipe cover problems with lands previously within the CE Elk Grove Florin Shed (CEA01 & 02) and the BR Florin Road Trunk Shed (BRF-10) that could not sewer by gravity to their SFEMP-designated connections.

Sub-sheds CEB-01, CEB-04, CEB-07, CEB-05 and CEB-08 sewer south into the proposed 21" trunk within Elder Creek Road. Any remaining sub-sheds within the CE Gravel West Trunk Shed sewer into the existing Northeast Interceptor. Detailed design for these sheds has not been included because said sheds are not within the FVGCP.

CE Elk Grove-Florin Trunk Shed:

The CEA Elk Grove-Florin Trunk Shed and subsheds required significant rework in order to obtain gravity sewer ability for almost the entire shed. As mentioned in the above CE Gravel West Trunk Shed section, lands previously within the CE Elk Grove-Florin Trunk Shed (portions of subsheds CEA-01 & 02) were re-aligned with the CE Gravel Area West Trunk Shed. In addition, a portion of subshed BRF-06 from the BR Florin Road Trunk Shed has been redirected to flow through CEA-02 & 03. Based on this report's preliminary calculations and findings a 33ac area located in the north east corner of subshed CEA-02 and zoned single family 3-5du/ac, was found to have pipe coverage issues no matter what direction/ shed it was associated with. As a result preliminary calculations indicate a 0.10MGD Lift Station will be needed to service this area. A more detailed analysis is required at the time of development to determine the exact requirements and sizes. The southwest corner of subshed CEA-03, designated for high density residential and commercial zoning, has the potential for direct tie into an existing 8" line located within Elk Grove Florin Road at the intersection with Florin Road. Currently this line serves a portion of the planned high density parcel.

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[1]County of Sacramento Planning and Community Development Department. *Public Facilities Element of the County of Sacramento General Plan*, December 15, 1993, amended by Resolution 980979 August 12, 1998, Page 7.

Subsheds CEA-09 & 10, designated within the SFEMP to connect to the Central Interceptor in Elk Grove-Florin Road, have been schematically designed to flow north west to an existing 18" main line in Elder Creek Road. This 18" line flows to an existing lift station on Elder Creek Road from which the flows are pumped east towards Elk Grove-Florin Road. The force main connects to an existing 21" line that continues to convey the flows east to its eventual connection to the Central Interceptor at the intersection of Elk Grove-Florin Road and Elder Creek Road. Preliminary conversations with Wendy Haggard and Steven Moore, both with CSD-1, indicated there to be available capacity in this line to accommodate additional flows from these subsheds. If, in the future, capacity constraints are identified in the existing 18" line and lift station, a portion of CEA-09 could connect directly to the existing 21" in Elder Creek Road. The natural fall of the land is in a northwesterly direction, making connection directly to the Central Interceptor in Elk Grove-Florin Road unrealistic and impractical.

Subsheds CEA-07 & 08, similar to subsheds CEA-09 & 10, topographically falls away from the Central Interceptor, their intended connection point. Upon investigation of the existing surrounding facilities for possible options, other than a lift station, a dry 12" line was discovered in Florin Road stubbed out to Gardner Avenue north of CEA-07 and south of CEA-08. This was brought to CSD-1's attention and the question posed as to whether this shed could sewer to that existing 12" line. CSD-1 requested a trace of the line to check capacity and returned with the recommendation of using it as the point of connection for portions of subsheds CEA-07 & 08. As a result, portions of these sheds have been removed from the CE Elk Grove-Florin Shed and diverted into the SEA Southeast Shed, SEA-03 & 04.

Subshed CEA-06, similar to subsheds CEA-09 & 10, topographically falls away from the Central Interceptor, its intended connection point. Upon investigation of the existing surrounding facilities for possible options, other than a lift station, an 18" line was discovered in Gerber Road along the sheds southern boundary. This line currently services the properties to the south (portions of the Tamarindo Subdivision) via a 12" line running north in Elk Grove Florin Road and also services two parcels within the original CEA-06 subshed. Although the above mentioned parcels already being served fall within the FVGCP area, flows from these sites have already been accounted for within the existing pipe system and therefore were left out of this report's calculations. Conversations with CSD-1 concerning the servicability via gravity to the southern and western portions of the existing shed resulted in an agreement to divert portions of this shed to the SEA Southeast Shed via the existing 18" pipe. This resulted in the creation of two additional subshed SEA-01 & 02.

Subsheds CEA-04 & 05 have had their connection points to the Central Interceptor combined and its location changed from that outlined in the SFEMP. In addition, subsheds BRF-04 & 05 from the BR Gerber Road Trunk Shed have been redirected to flow through CEA-04 & 05 ultimately connecting to the Central Interceptor. Service to BRF-04 & 05 via the SFEMP planned Gerber Road Trunk connection is not feasible due to existing topography and existing invert elevations.

BR Elder Creek Trunk Shed:

No major shed or subshed changes were found necessary for this shed.

BR Florin Road Trunk Shed:

Subshed BRF-06 has a portion redirected through CEA-02 & 03 and subshed BRF-10 has a portion redirected through new subshed CEB-10. For more details on these subshed changes see above CE Gravel Area West Trunk Shed and CE Elk Grove-Florin Trunk Shed descriptions. It should be noted that there have been slight changes to subsheds internal to the BR Florin Road Trunk Shed due to more accurate topographic information and planned land uses.

BR Gerber Road Trunk Shed:

Subsheds BRF-02 & 03 still tie-in to their planned points of connection on the Bradshaw Interceptor but are no longer considered a part of the BR Gerber Road Trunk Shed. They are instead associated with the Gerber Florin Supplemental Shed.

Subsheds BRD-03 & 04 still connect at their planned location of connection on Elk Grove Florin Road, but instead of connecting to the Bradshaw Interceptor as indicated in the SFEMP, they are shown connecting to the Central Interceptor. They were associated with the Gerber-Florin Supplemental Trunk Shed, rather than the BR Gerber Trunk Shed as indicated in the SFEMP. It is understood that the proposed connection to the Central Interceptor is for schematic reasons since it was found to be shallower than the Bradshaw Interceptor at that point. Future in-depth design may result in a connection to the Bradshaw Interceptor upon development.

Subsheds BRF-04, & 05, as indicated in the CE Elk Grove-Florin Trunk Shed description above, are unable to connect to the Bradshaw Interceptor as depicted in the SFEMP. The North Vineyard Station Specific Plan Sanitary Sewer Master Plan (NVSSP SSMP) associated these sheds with the new Gerber Florin Supplemental Trunk Shed. This study identified a better service solution by incorporating these subsheds into the CE Elk Grove-Florin Trunk Shed and redirecting their associated flows to the Central Interceptor via subsheds CEA-04 & 05. For more details on these subshed changes see above CE Elk Grove-Florin Trunk Shed description. It should be noted that there have been slight changes to subsheds internal to the BR Gerber Road Trunk Shed due to more accurate topographic information and planned land uses.

According to the SFEMP BR Gerber Road Trunk Shed master plan, sub-shed BRD-02 sewers directly west into Node BRD020, which in turn is connected via an existing local collector located in the Churchill Downs neighborhood along Giant Panda Way. It then connects to the Central Interceptor. However, current and more detailed land use information and topography indicates that the majority of this sub-shed can be sewered to the Gerber Road Trunk. The remaining portion, as shown in Figure 5 is directed west into Node BRD020 as described above.

Gerber Florin Supplemental Trunk Shed:

Subsheds within the Gerber Florin Supplemental Trunk Shed have been modified as needed in order to accomplish a pure gravity based sewer system. The SFEMP originally depicted subsheds BRF-01, 03, & 04 as being within the BR Gerber Road Trunk. Approval of the North Vineyard Station Specific Plan Sanitary Sewer Master Plan (NVSSP SSMP) associated these subsheds with the Gerber Florin Supplemental Shed. These sheds have been identified as having pipe cover issues when connected as indicated in the NVSSP SSMP and therefore have been shifted again. Their flows are

now directed to the west through CE Elk Grove-Florin Trunk Shed subshed CEA-05 to the Central Interceptor. For more details on these subshed changes see above CE Elk Grove-Florin Trunk Shed description.

SEA Southeast Shed:

Subsheds CEA-06, 07, & 08, as mentioned above in the CEA Elk Grove-Florin Trunk Shed description, were subdivided into subsheds SEA-01, 02, 03, & 04. Their flows were direct westward into existing lines determined by CSD-1 to have available capacity. As with all other major shed changes outlined previously, these shed changes were determined necessary so as to ensure proper design of a gravity based system along with maintaining adequate pipe coverage at the upper reaches of a shed.

MacKay & Somps recommends that the Gerber-Florin Supplemental Shed be extended to serve the southwest portion of the FVGCP, so that all flows within said sub-shed are directed to the Central Interceptor in Elk Grove-Florin Road. Based on buildout conditions and the approximate tributary shed area for the 12" Elsie Avenue sewer, flows from the FVGCP cannot be directed to this sewer. The capacity downstream of the point of connection (P.O.C.) at the 12" sewer is 1.713 cubic feet per second (cfs) (1.107 MGD). Calculations in Table 6A (in the Appendix) show the southwestern panhandle of the FVGCP to generate 1.598 cfs (1.032 MGD) Peak Wet Weather Flow (PWWF). The combination of these flows and those downstream of the P.O.C. west of the railroad corridor exceeds the Elsie Avenue pipe capacity, thus not allowing all tributary FVGCP flows to be directed to the Elsie Avenue sewer.

MacKay & Somps is therefore proposing to direct all sanitary sewer flows from this FVGCP subshed to the Central Interceptor within Elk Grove-Florin Road. Two new subsheds, BRD-05 & 06 and a lift station west of Elk Grove-Florin Road have thus been designated to serve this area. As future project-specific studies are done, there is a possibility that a portion of said area may be directed to the 12" trunk in Elsie Avenue such that a lift station may not be required. MacKay & Somps recommends that a point of connection to the Central Interceptor be located at Caselman Road to accommodate this future service.

The small portion of the FVGCP directly south of sub-shed CEA-06 is within the existing SEA Southeast Shed and flows from said portion are expected to be directed to the 18" trunk sewer within Gerber Road west of Elk Grove-Florin Road.

Water Treatment Facilities:

During the initial planning stages for this region two separate raw water treatment plants were proposed, specifically, one on Gerber Road and one on Florin Road. Base on the recent update of the Water Supply Master Plan for this region by the County of Sacramento Department of Water Resources, the Gerber Road treatment plant was eliminated in favor of two water storage tanks. The water storage tanks do not discharge into the Gerber Trunk, though the site was evaluated at the minimum 6ESD/ac in accordance with CSD-1 design standards. Mike Crooks, County of Sacramento Department of Water Resources, has provided the design discharge flow of 500gpm from the Florin Road WTP into the Florin Trunk at the intersection of Florin Road and Knox Road.

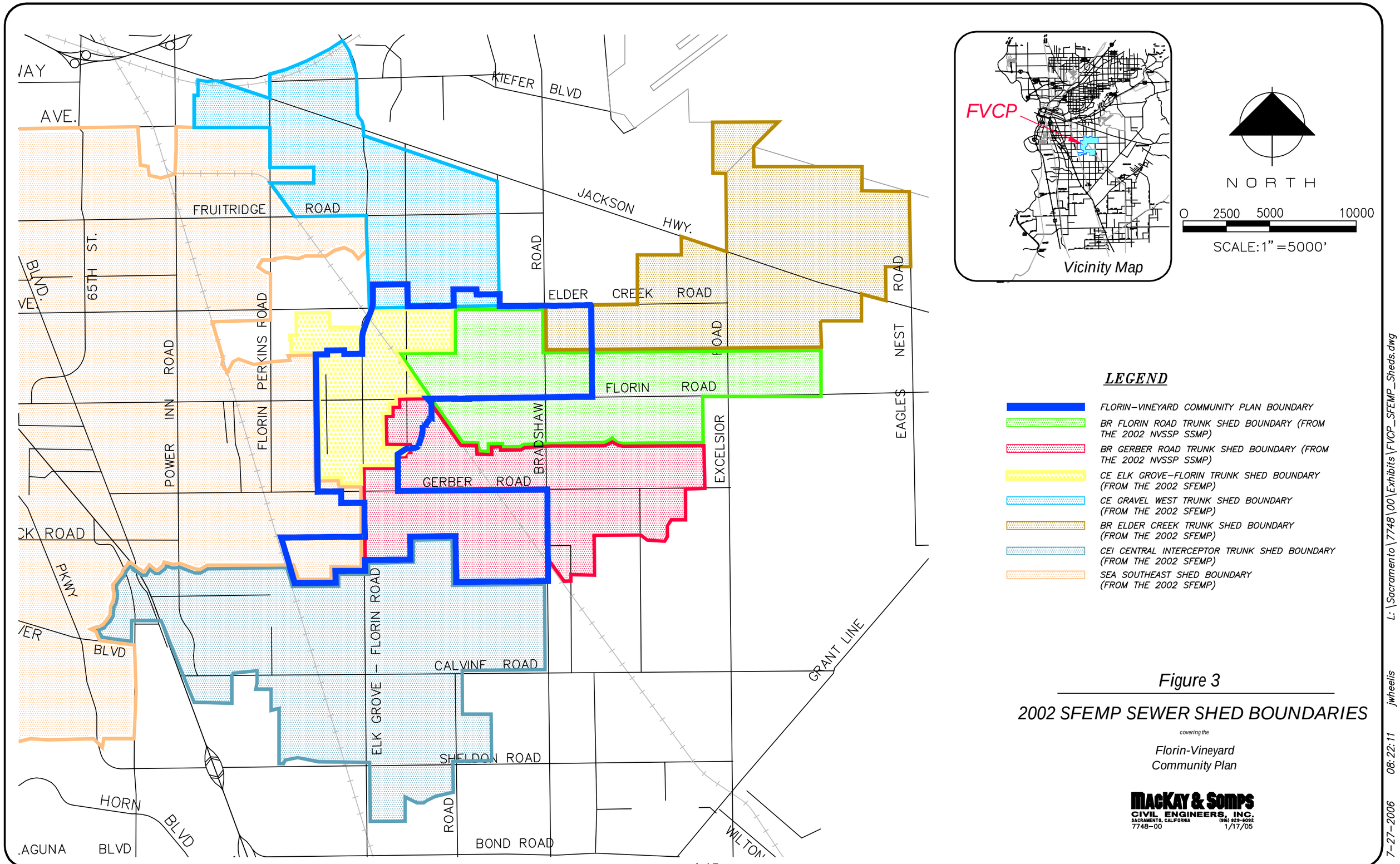

Figure 3

2002 SFEMP SEWER SHED BOUNDARIES

covering the

Florin-Vineyard Community Plan

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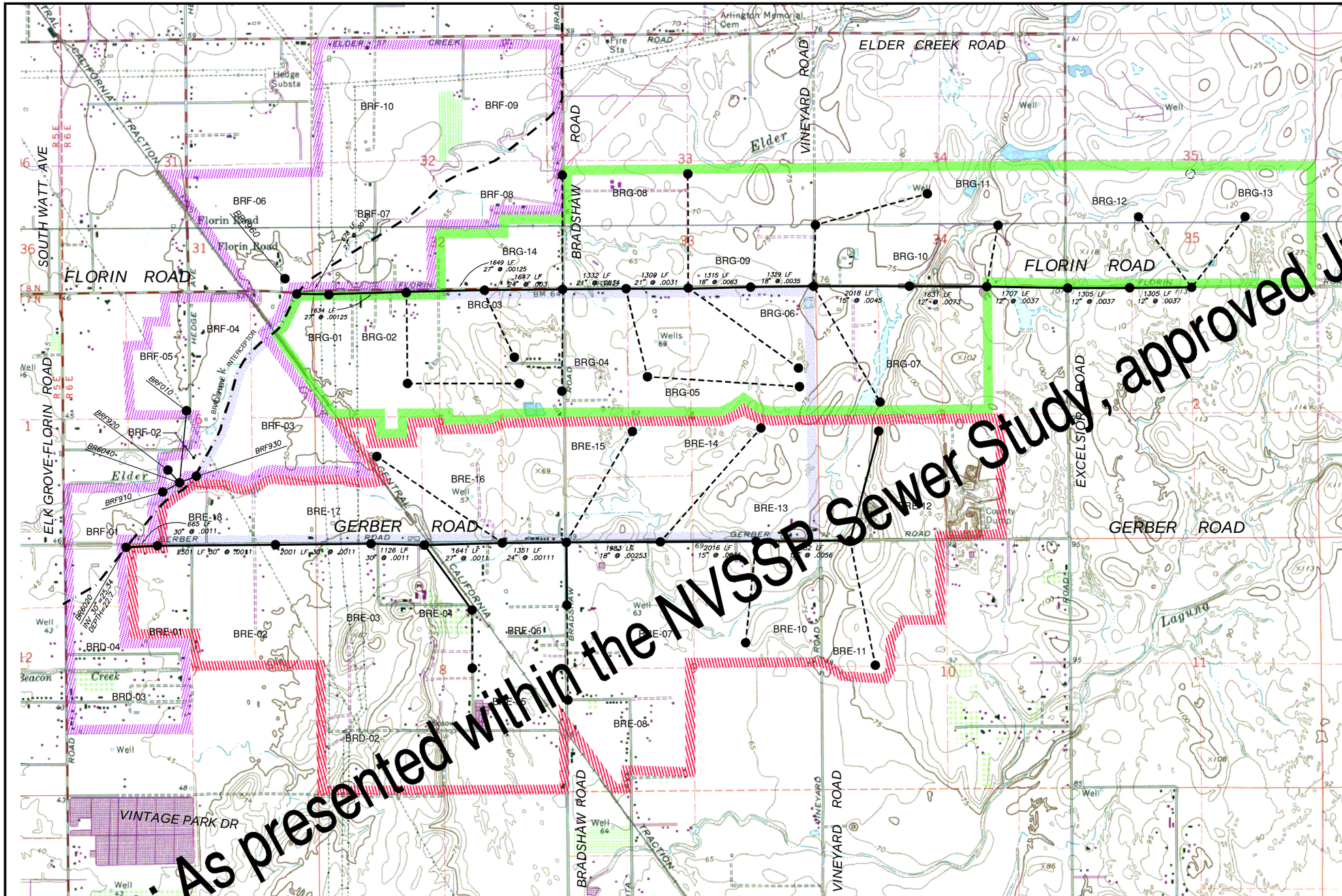

SUBSHED TABLE

Subshed	Developed Area (acres)	ESD's Per Acre	Landuse
BRF-03	107.7	6.2	SFR 3-5; SFR 4-7; SCHOOL; PARK; OPEN SPACE
BRG-01	36.0	6.7	SFR 3-5; SFR 4-7; PUB SERV
BRG-02	133.0	7.4	SFR 3-5; SFR 4-7; MFR 12-22; PARK; PUB SERV; OPEN SPACE
BRG-03	47.0	9.4	SFR 3-5; SFR 4-7; MFR 12-22
BRG-04	105.5	7.3	C/P; COMMERCIAL; SFR 1-3; SFR 3-5; MDR 7-12; MFR 12-22; PARK
BRG-05	104.0	6.0	SFR 3-5; SFR 3-5; SCHOOL; PARK
BRG-06	219.0	6.0	SFR 1-3; SFR 3-5; PARK
BRG-07	219.0	6.0	
BRG-08	155.0	6.0	
BRG-09	155.0	6.0	
BRG-10	158.0	6.0	
BRG-11	161.0	6.0	
BRG-12	157.0	6.0	
BRG-13	158.0	6.0	
BRG-14	516.0	6.0	
BRE-01	59.0	6.0	
BRE-02	116.0	6.0	
BRE-03	78.0	6.0	
BRE-04	82.0	6.0	
BRE-05	183.0	6.0	
BRE-06	111.0	6.0	
BRE-07	149.0	8.3	
BRE-08	149.0	6.0	
BRE-10	149.0	7.6	
BRE-11	147.0	6.0	
BRE-12	235.0	6.0	
BRE-13	49.0	6.0	SFR 1-3
BRE-14	141.0	6.0	SFR 1-3; SFR 3-5; PARK
BRE-15	116.0	7.3	COMMERCIAL ; SFR 1-3; SFR 3-5; PARK SFR 4-7; MDR 7-12; MFR 12-22
BRE-16	155.0	6.2	SFR 3-5; SFR 4-7; SCHOOL; PARK; OS
BRE-17	62.0	6.0	SFR 1-3; SFR 3-5
BRE-18	32.0	6.5	SFR 3-5; SFR 4-7

LEGEND

- NORTH VINEYARD STATION BOUNDARY
- BR FLORIN ROAD TRUNK SHED BOUNDARY
- GERBER FLORIN SUPPLEMENTAL SHED BOUNDARY
- BR GERBER ROAD TRUNK SHED BOUNDARY
- SUB-SHED BOUNDARY
- BRG-13 — SUB-SHED DESIGNATION (CSD-1)
- XX LF 10" @ .XXXX — CONCEPTUAL LOCAL SEWER PIPE ALIGNMENT AND PIPE DATA
- NODE, INV IN, INV OUT — MANHOLE DATA

Figure 3a

Note: See Figure 4 (Sewer System Master Plan) for detailed flow data.

NORTH

0 500 1000 2000
SCALE: 1" = 1000'

SEWER SYSTEM SHED MAP
for
North Vineyard Station Specific Plan

DATE: April, 2002
DESIGN BY: JPD
CHK'D BY:

MACKAY & SOMPS
CIVIL ENGINEERING • LAND PLANNING • LAND SURVEYING
SACRAMENTO, CA. 95815 (916) 929-6092

JOB NO.: 7536-10
DWG. NO.: SS-shed
SHEET 1 OF 1

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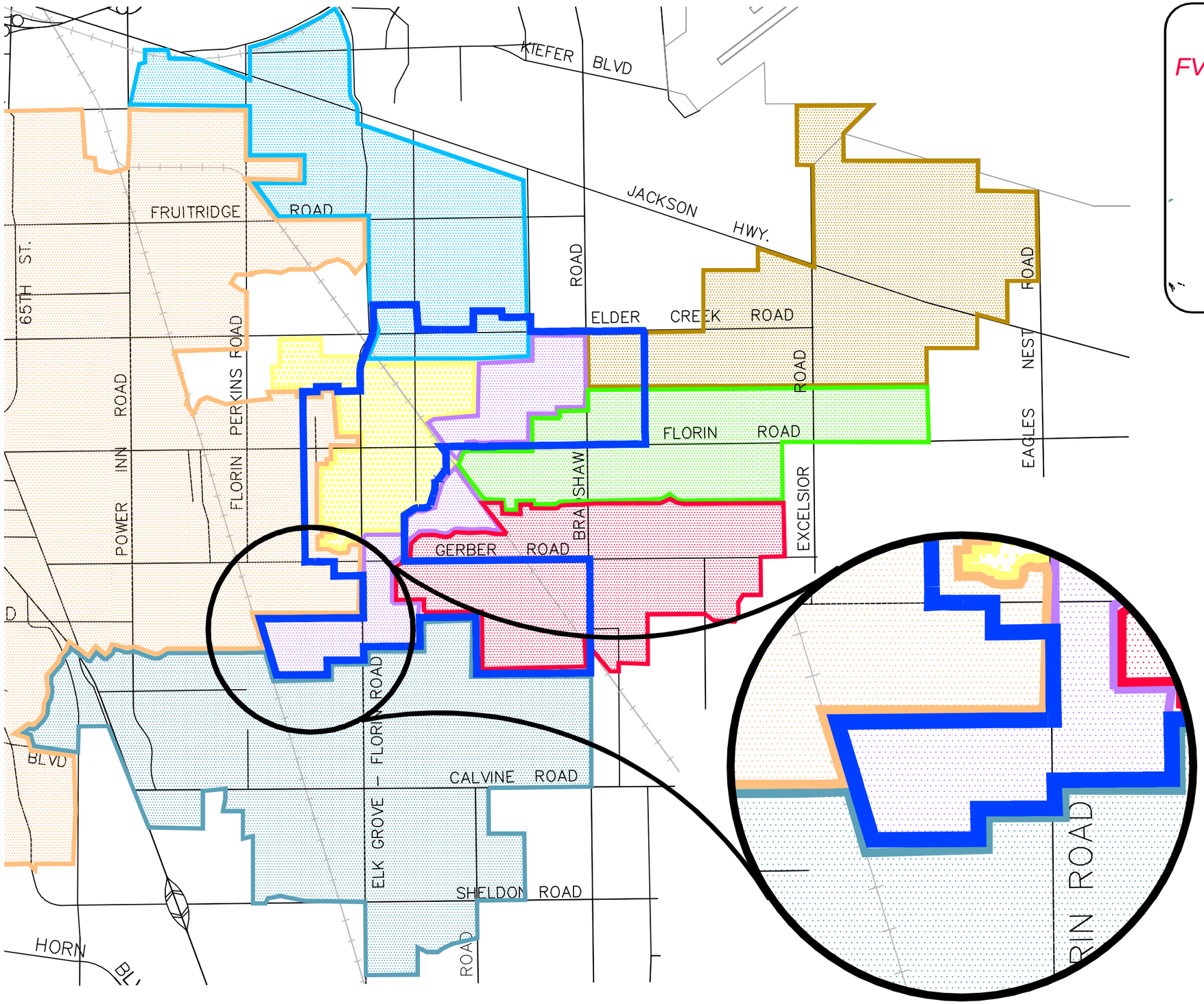
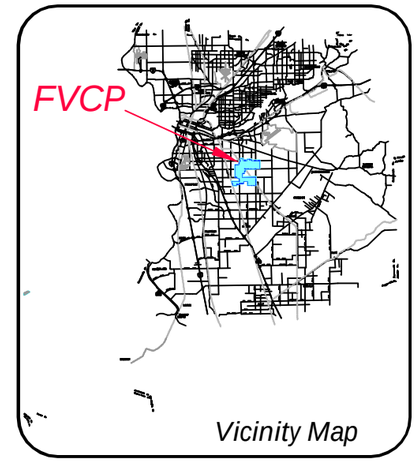




NORTH

0 2500 5000 10000

SCALE: 1" = 5000'

LEGEND

- FLORIN–VINEYARD COMMUNITY PLAN BOUNDARY
- GERBER FLORIN SUPPLEMENTAL SHED BOUNDARY (MODIFIED FROM THE 2002 NVSSP SSMP)
- BR FLORIN ROAD TRUNK SHED BOUNDARY (FROM THE 2002 NVSSP SSMP)
- BR GERBER ROAD TRUNK SHED BOUNDARY (FROM THE 2002 NVSSP SSMP)
- CE ELK GROVE–FLORIN TRUNK SHED BOUNDARY (FROM THE 2002 SFEMP)
- CE GRAVEL WEST TRUNK SHED BOUNDARY (FROM THE 2002 SFEMP)
- BR ELDER CREEK TRUNK SHED BOUNDARY (FROM THE 2002 SFEMP)
- CEI CENTRAL INTERCEPTOR TRUNK SHED BOUNDARY (FROM THE 2002 SFEMP)
- SEA SOUTHEAST SHED BOUNDARY (MODIFIED FROM THE 2002 SFEMP)

Figure 4

PROPOSED SANITARY SEWER SHED BOUNDARY MODIFICATION

for the

Florin-Vineyard Gap Community Plan

MACKAY & SOMPS
CIVIL ENGINEERS, INC.
SACRAMENTO, CALIFORNIA (916) 929-6092
7748-00 06/08/06

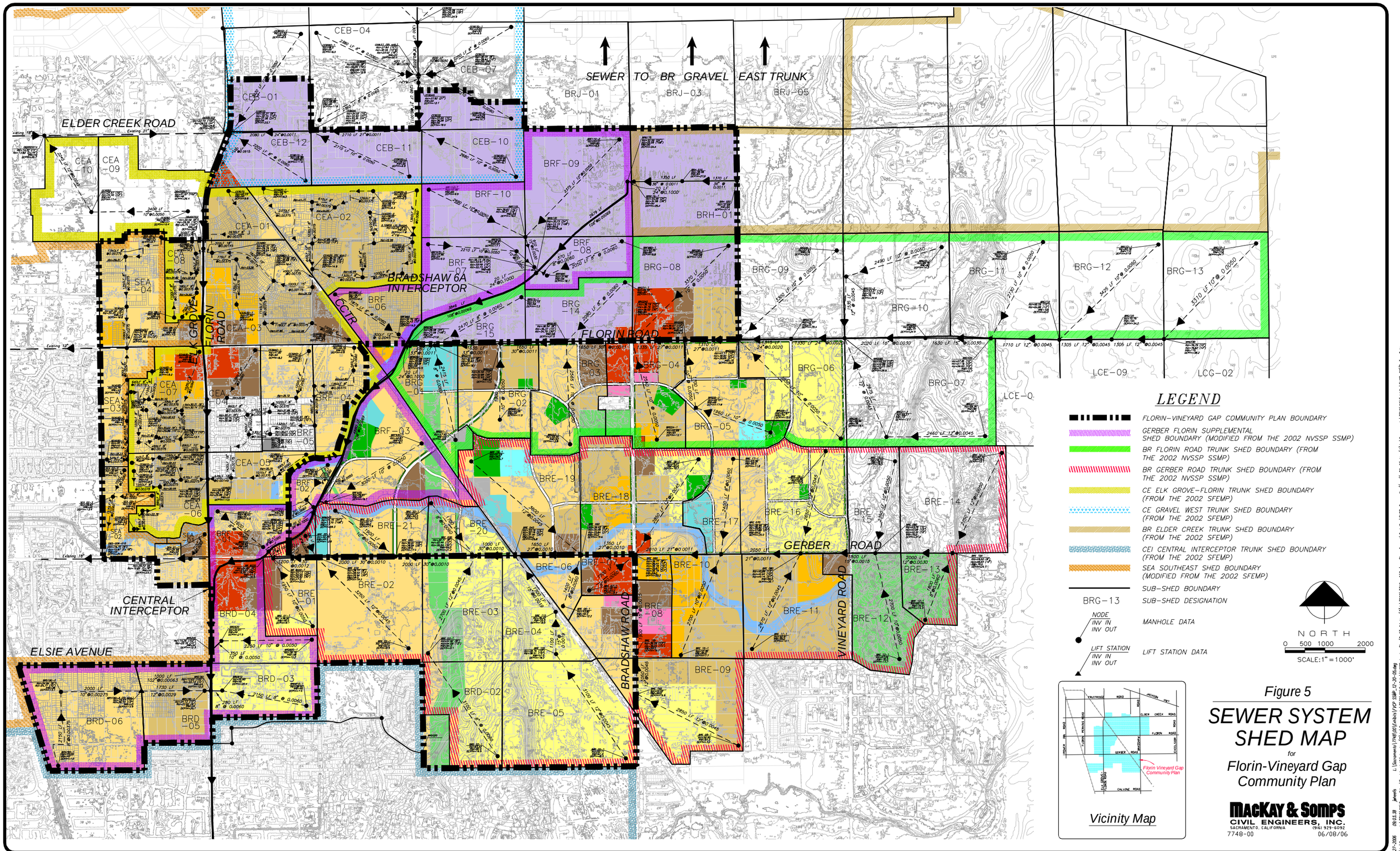


Figure 5

SEWER SYSTEM SHED MAP

for

Florin-Vineyard Gap Community Plan

MacKay & Somps
CIVIL ENGINEERS, INC.
SACRAMENTO, CALIFORNIA (916) 929-6092
7748-00 06/08/06

Design Criteria

The SFEMP explains the methodology used in calculating trunk and interceptor flows; the June 1999 Sacramento County Improvement Standards present the design criteria standards and formulas as shown below.

Table 1 – Equivalent Single-family Dwelling (ESD) Values

Land Use	ESD Value
Business/Professional	6 Per Acre
Commercial	6 Per Acre
Single-Family Residential	1 Per Dwelling Unit (Minimum 6 Per Acre)
Medium Density Residential 7-12	12 Per Acre
Multi-Family Residential 12-22	16.5 Per Acre (0.75 Per Dwelling Unit)
Elementary School (assumed 11-acre sites ea.)	0.025 MGD flat rate,[a] (81 ESD equivalence)
Parks	6 Per Acre
Public Service	6 Per Acre
Railroad Corridor	6 Per Acre
Open Space/Non-Constrained Areas (Including golf course)	6 Per Acre
Open Space/Constrained Areas (Detention, drainage channels, and power line corridor)	6 Per Acre
Off-Site/Non-Constrained Areas	Per SFEMP (Minimum 6 Per Acre)

[a] Use 8.3 ESD/Acre for elementary school sites larger than 13.5 acres, but less than 32.5 acres.

Table 2 – Design Values

Item	Value
ESD Flow Factor	310 gpd/ESD
Dry Weather Peaking Factor	Curve[a]
I/I (Rainfall-Dependent ~10 year storm)	1,000 gpd/acre (<15 years)
I/I (Rainfall-Dependent ~10 year storm)	1,400 gpd/acre (>015 years)
Groundwater Infiltration	200 gpd/acre

For average flows greater than or equal to 1 mgd, the peaking factor is expressed by the following equation: $PF_{collectors} = 3.5 – 1.8Q^{0.05}$

For average flows less that 1 mgd, the peaking factor is expressed by the following equation: $PF_{trunk} = 3.3 – 1.8Q^{0.04}$

PF = dry weather peaking factor (minimum = 1.2)

Q = average flow (mgd)

In the case where using the PF_{trunk} results in an AWWF below 1mgd but using the $PF_{collector}$ results in an AWWF greater then 1mgd, $PF_{collector}$, the resulting greater of the two, will be used.

Table 3 – Key Hydraulic Design Criteria

Item	*Value*
Manning "n"	0.013
Minimum Velocity (feet per second)	2 fps
Maximum Velocity (feet per second)	8 fps
Maximum depth of flow / diameter of pipe (d/D) (pipes less than 12" diameter)	0.7
Maximum d/D (pipes 12" diameter or greater)	1.0[a]

[a]d/D = 0.93 for this study (0.93 yields maximum gravity flow capacity).

Design Flow Formulas

The following formulas were used to calculate required pipe sizes, peak flows and velocity of sewage at peak flows:

ESD = Area [Acres] x Density [ESD/Acre]

Dry Weather Flow = DWF = Q_{AVE} [MGD] = (ESD's x 310) ÷ 1,000,000

Infiltration & Inflow (I/I) Flow = $Q_{I/I}$ [MGD] = (Area x 1,200) ÷ 1,000,000

Peaking Factor (collector) = PF = 3.5 - (1.8 x $Q_{AVE}^{0.05}$)

Peaking Factor (trunk) = PF = 3.3 - (1.8 x $Q_{AVE}^{0.04}$)

Peak Dry Weather Flow = PDWF [MGD] = Q_{AVE} x PF

Peak Wet Weather Flow = PWWF [MGD] = PDWF + $Q_{I/I}$

Table 4 gives the fixed and schematic minimum pipe slopes used in determining peak flow and velocity of proposed trunk and interceptor lines. Sub-shed areas with existing streets and/or proposed development plans/applications resulting in specific sewer alignments, allow the use of fixed alignment slopes in the design of sewer pipes.

Table 4 - Minimum Pipe Slopes

Pipe Diameter	*Minimum Design Slope*	*Alignment in Existing/Proposed Roads*	*Alignment in Undeveloped Land*
8"	0.0035	0.00375	0.0060
10"	0.0025	0.00275	0.0050
12"	0.0020	0.00225	0.0045
15"	0.0015	0.00175	0.0019
18"	0.0012	0.00145	0.0016
21"	0.0011	0.0012	0.0013
24"	0.0010	0.0011	0.0012
27"	0.0010	0.0011	0.0012
30"	0.0010	0.0011	0.0012
33"	0.0010	0.0011	0.0012
36"	0.0010	0.0011	0.0012

Source: 2002 Sewerage Facilities Expansion Master Plan, CSD-1

Due to depth and coverage issues with the furthest upstream reaches of this plan area, discussions with CSD-1 have yielded an agreed upon exception (for this plan only) to the typical schematic slopes used to verify serviceability to undeveloped areas. In an

attempt to use more realistic design criteria (pipe sizes and slopes) a simplified "weighted average" slope has been applied. It takes into account a more realistic approach by accounting for the fact that pipe sizes may vary at the upper reaches of a shed from the pipe size determined based simply on total flows from that sub-shed. For example, a sub-shed requiring a 12" diameter pipe to service the entire shed assumes that 50 percent of the pipes within said shed are 8" diameter (which have a 0.0060 slope in undeveloped land), 30 percent are 10" diameter (0.0035 slope) and 20 percent are 12" diameter (0.0024 slope). The same approach is used in calculating a sub-shed requiring a 10" pipe. Calculations showing these weighted average slopes for 10" and 12" pipe are shown below.

$Slope_{12"} = 0.50 \times (0.0060) + 0.30 \times (0.0035) + 0.20 \times (0.0024) = 0.0045$

$Slope_{10"} = 0.60 \times (.0060) + 0.40 \times (0.0035) = 0.0050$

Slopes used to illustrate serviceability within proposed street alignments and tentative map areas were determined by taking into account two 0.05' thru-manhole drops for every 400ft of pipe.

$Slope_{8"} = 0.0035 + (0.1/400) = 0.00375$

$Slope_{10"} = 0.0025 + (0.1/400) = 0.00275$

$Slope_{12"} = 0.0020 + (0.1/400) = 0.00225$

It should be noted that this study is meant to determine serviceability. Therefore, the pipes are shown at 1000' - 2000'+ stretches at times and do not take into account every manhole and associated manhole drops. The downstream portion of the Gerber Road Trunk has been designed in detail and found to differ from this study at manhole BRE050 by 1.5' on the 27" out invert. Review of the upstream sheds and their schematically determined inverts shows that even with a 1.5' – 3' difference gravity sewer service can still be achieved. It should be noted, however, that shed BRE-19, though shown to sewer completely to manhole BRE050, will not realistically do so. This was done in accordance with the CSD-1 standard of making sure shed flows can be handled at any point along it's potential connection pipe length. Pipe coverage for this shed will not be an issue when downstream connections are considered.

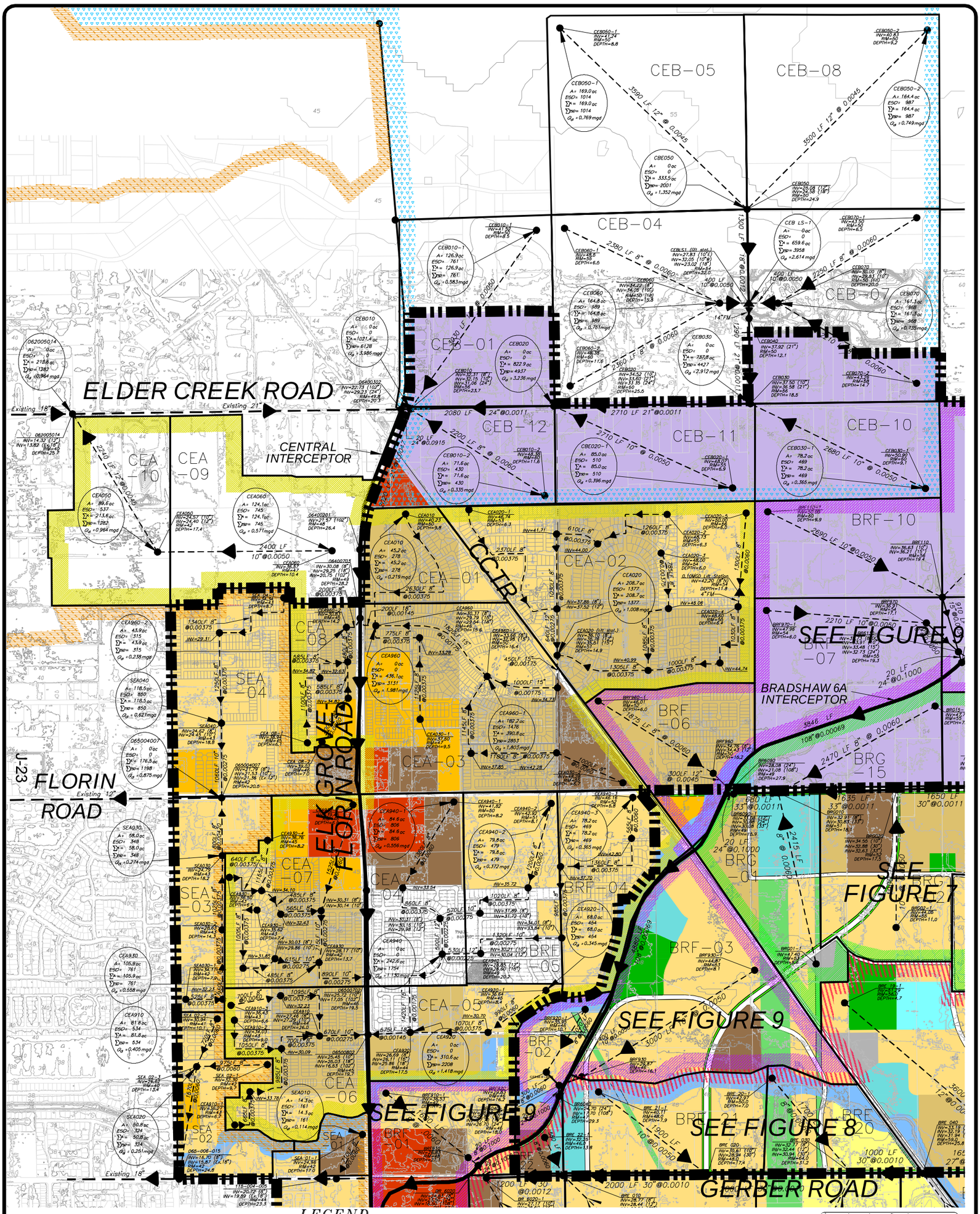
III – Results

Figures 6, 7, 8 and 9 show the pipe depths, slopes, lengths, acreage, ESD equivalent and resulting peak wet weather flow (PWWF) going into each pipe. Associated calculation Tables 7A through 14A are located in the Appendix. In each pipe and/or node shown in Tables 7A through 14A, the PWWF is less than the pipe capacity. The flow capacity for pipes 12" and smaller with estimated flows less than 1mgd was determined based on CSD-1 collector design criteria of 70 percent full, while flow capacity for pipes greater than 12" with estimated flows of 1mgd and greater was determined based on CSD-1 Trunk Sewer Design allowing for 100 percent fullness (93% was used since it yields maximum gravity flow in a line). In addition, the velocity in each pipe is greater than two feet per second, with pipes having been sized to accommodate surrounding area flows in accordance with the Sacramento County Improvement Standards and the County's General Plan Policy PF-9. Table 5 summarizes each shed area's total acres, Equivalent Single Family Dwellings (ESD) and peak wet weather flows within the scope of this report.

Table 5 Trunk Shed Summary

Trunk Shed	*Total Acres*	*Total ESDs*	*PWWF [MGD]*
CE Gravel West	1,021.4	6,128	3.986
CE Elk Grove-Florin	1,191.9	8,232	5.451
BR Elder Creek	2,762.3	16,574	10.396
BR Florin	2,006.7	14,621	8.699
BR Gerber	2,426.1	15,871	9.966
Gerber-Florin Supplemental	1,233.2	7,833.9	5.352
SEA Southeast	241.6	1665	1.232

**This table is a summary of calculations provided within the appendix of this report and is not intended to be an independent calculation of flow based on total acres and ESDs. See color coded calculations in the Appendix on Tables 1A thru 7A, Pages A-1 thru A-4.



LEGEND

- FLORIN-VINEYARD GAP COMMUNITY PLAN BOUNDARY
- GERBER FLORIN SUPPLEMENTAL SHED BOUNDARY (MODIFIED FROM THE 2002 NVSSP SSMP)
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- SEA SOUTHEAST SHED BOUNDARY (MODIFIED FROM THE 2002 SFEMP)
- SUB-SHED BOUNDARY
- BRG-13 — SUB-SHED DESIGNATION
- XX LF X"@0.XXXX — CONCEPTUAL TRUNK SEWER ALIGNMENT AND PIPE DATA
- MANHOLE/JUNCTION POINT NUMBER
- A= --- ac — CONTRIBUTING AREA
- ESQ= --- — CONTRIBUTING EQUIVALENT SINGLE FAMILY DWELLING UNITS
- Σ= --- ac — TOTAL CONTRIBUTING AREA
- Σ= --- — TOTAL CONTRIBUTING DWELLING UNITS
- Q= --- mgd — PEAK WET WEATHER FLOW

- BUSINESS / PROFESSIONAL
- COMMERCIAL
- PUBLIC SERVICES WATER STORAGE TANK
- SINGLE FAMILY RESIDENTIAL (1-3)
- SINGLE FAMILY RESIDENTIAL (3-5)
- SINGLE FAMILY RESIDENTIAL (4-7)
- MEDIUM DENSITY RESIDENTIAL (7-12)
- MULTI-FAMILY RESIDENTIAL (12-22)
- AGRICULTURE RES (10-160 AC/DWELLING)
- INDUSTRIAL/INDUSTRIAL RESERVE
- LANDSCAPE CORRIDOR
- DRAINAGE PARKWAY
- PARKWAY

- STORM WATER DETENTION BASIN
- OPEN SPACE
- SCHOOL — SCHOOLS
- PARK — PARKS

NORTH

0 300 600 1200

SCALE: 1" = 600'

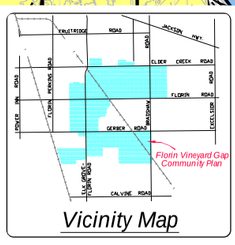

Figure 6

CE ELK GROVE-FLORIN & SEA SOUTHEAST SHED MASTER PLAN

for the

Florin-Vineyard Gap Community Plan

MACKAY & SOMPS
CIVIL ENGINEERS, INC.
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7748-00 06/08/06
Revised 07/26/06

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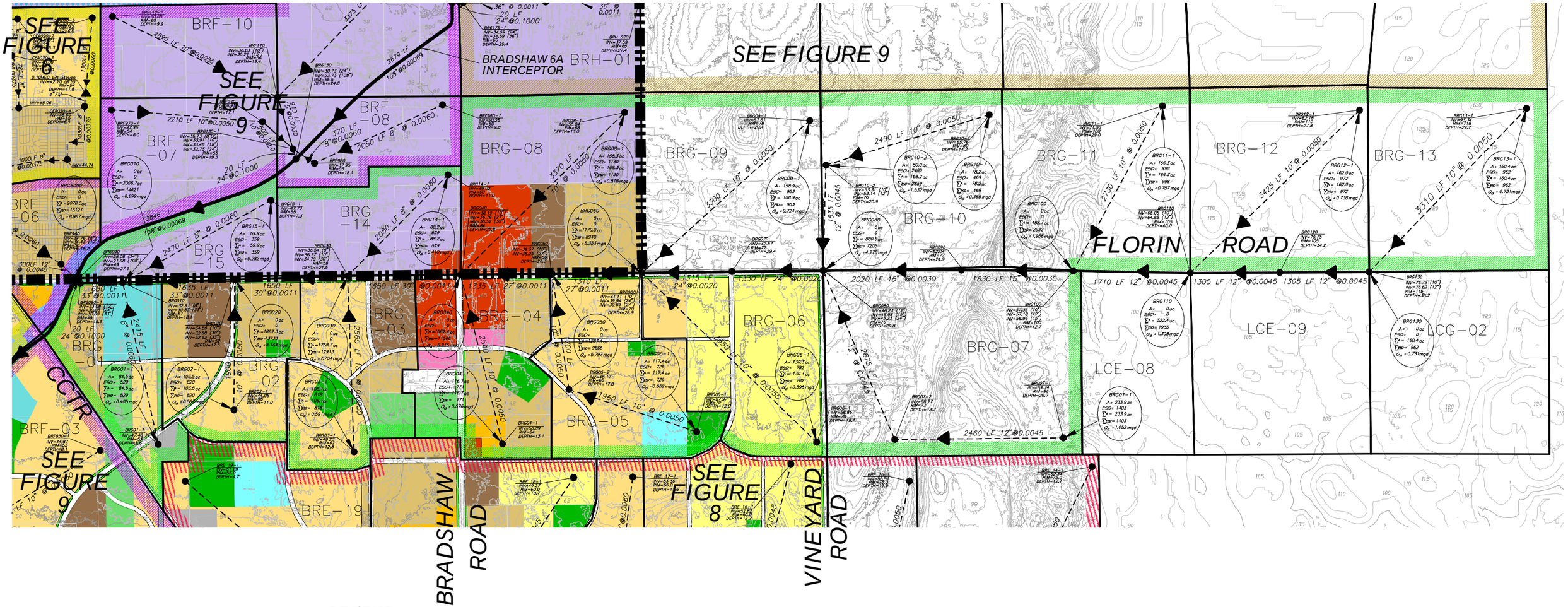

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- ΣA= ---ac — TOTAL CONTRIBUTING AREA
- ΣDU= --- — TOTAL CONTRIBUTING DWELLING UNITS
- Qp= ---mgd — PEAK WET WEATHER FLOW

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- PARKWAY
- STORM WATER DETENTION BASIN
- OPEN SPACE
- SCHOOL — SCHOOLS
- PARK — PARKS

NORTH

0 300 600 1200

SCALE: 1" = 600'

Vicinity Map

Figure 7

BR FLORIN MASTER PLAN

for the

Florin-Vineyard Gap Community Plan

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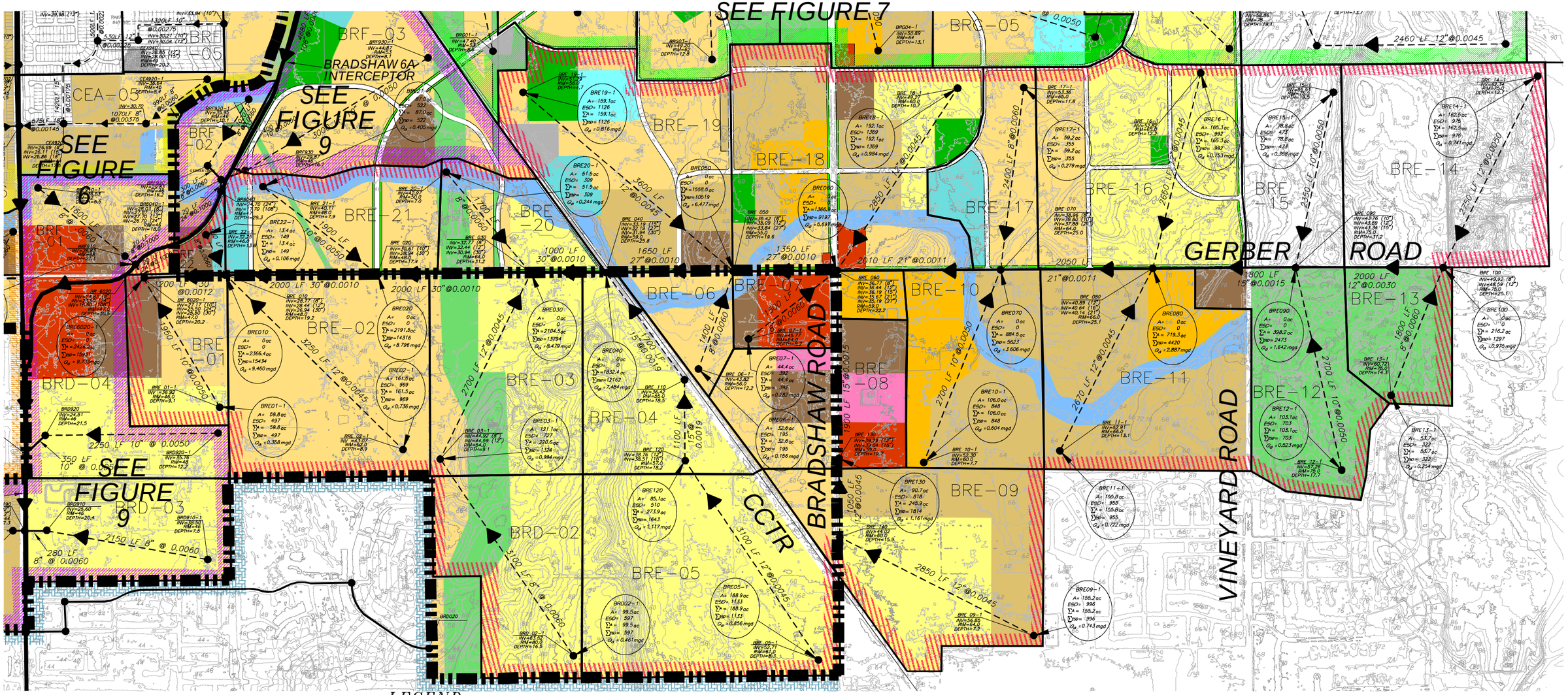

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- PARKWAY
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- OPEN SPACE
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- PARK — PARKS

NORTH

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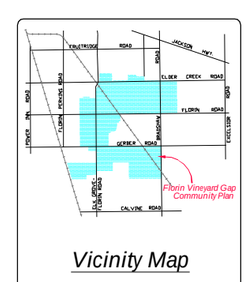
SCALE: 1" = 600'



Vicinity Map

Figure 8

BR GERBER MASTER PLAN

for the

Florin-Vineyard Gap Community Plan

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SACRAMENTO, CALIFORNIA (916) 929-6092
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Revised: 07/26/06

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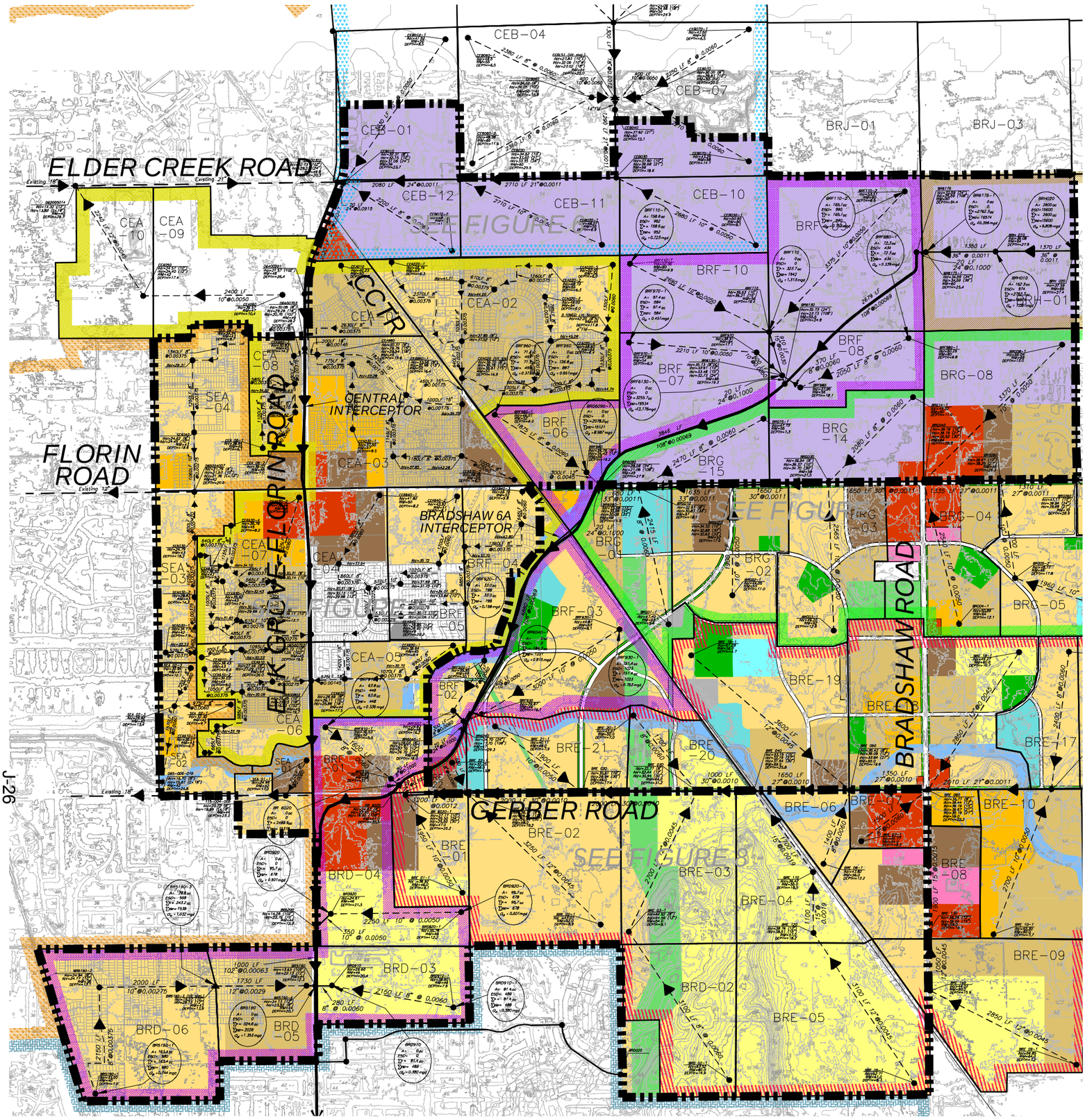

NORTH

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SCALE: 1" = 800'

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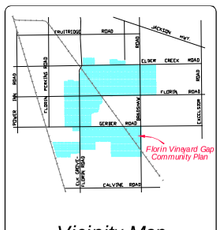

Vicinity Map

Figure 9

GERBER FLORIN SUPPLEMENTAL MASTER PLAN

for the

Florin-Vineyard Gap Community Plan

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7748-00 06/08/06
Revised: 07/26/06

IV – Conclusion

MacKay and Somps concludes that the Florin Road Trunk and Gerber Road Trunk as designed are sufficient to accommodate the Florin-Vineyard Gap Community Plan (FVGCP) and outlying areas. In all cases, the Peak Wet Weather Flow (PWWF) is sufficiently under the maximum pipe capacity (Q_{max}), and velocities are above the minimum 2 feet per second. It is assumed that the Bradshaw 6A Interceptor and the Central Interceptor as designed are sufficient to accommodate these flows.

Not unexpectedly, the calculated flows and pipe sizes in this study differ from those identified in the Sewerage Facilities Expansion Master Plan (SFEMP). The landuse information used in this study represents updated and more detailed information than what is assumed in the Sacramento County General Plan and as such provides an updated representation of future buildout densities within the FVGCP.

Phasing of development within the FVGCP has not yet been determined, although the first phase will likely occur along Elk Grove-Florin Road. It is expected that the Florin Road and Gerber Road trunk sewers will have been completed by development within the North Vineyard Station Specific Plan (NVSSP) by the time entitlements for the FVGCP are approved. No interim facilities are expected to be needed at this time to serve development in the FVGCP area.

Backbone sanitary sewer facilities identified herein (trunks and interceptors) will be funded via the existing CSD-1 and SRCSD fee programs. Construction costs for the Florin Road and Gerber Road trunk lines are as identified in the North Vineyard Station Specific Plan Public Facilities Financing Plan (NVSSP PFFP, initial approval November 10, 2004 and updated periodically per the ENR Construction Cost Index.)

V – References

1. County Sanitation District One (CSD-1) & Sacramento County Regional Sanitation District (SRCSD). *Sewerage Facilities Expansion Master Plan: Final Report*, vol. 1, no. 1, March 2002.

2. County of Sacramento Public Works Agency. *Sacramento County Improvement Standards*. June 1, 1999.

3. MacKay & Somps Civil Engineers, Inc. Sanitary Sewer Study for the North Vineyard Station Specific Plan, July 1, 2002.

4. County of Sacramento Planning and Community Development Department. *Public Facilities Element of the County of Sacramento General Plan*, December 15, 1993, amended by Resolution 980979 August 12, 1998, Pages 5-10 and 57-64.

VI – Appendix

Table 1A – CE Gravel West Shed Calculations A-1
Table 2A – CE Elk Grove-Florin Road Shed Calculations A-1
Table 3A – BR Elder Creek Road Shed Calculations A-1
Table 4A – BR Florin Road Shed Calculations A-2
Table 5A – BR Gerber Road Shed Calculations A-3
Table 6A – Gerber-Florin Supplemental Shed Calculations A-4
Table 7A – SEA Southeast Shed Calculations A-4
Table 8A – CE Gravel West Shed Design A-5
Table 9A – CE Elk Grove-Florin Shed Design A-6
Table 10A – BR Elder Creek Shed Design A-6
Table 11A – BR Florin Road Shed Design A-7
Table 12A – BR Gerber Road Shed Design A-8
Table 13A – Gerber-Florin Supplemental Shed Design A-9
Table 14A – SEA Southeast Shed Design A-9

Sub-Shed	Node	LAND USE AREAS B/P	ESD's (6/ac)	Comm.	ESD's (6/ac)	SFR 1-3[11]	ESD's (6/ac)	SFR 3-5	ESD's (6/ac)	SFR 4-7	ESD's (7/ac)	MDR 7-12	ESD's (10/ac)	MFR 12-22	ESD's (16.5/ac)	School[8]	ESD's (6/ac min.)	Park	ESD's (6/ac)	Pub. Serv.	ESD's (6/ac)	WTP	ESD (30/ac)	Open Space[10]	ESD's (6/ac)	Total Area	Total ESD's	Cumulative Area	Cumulative ESD's	Q_{AVG} (MGD)	$Q_{I/I}$ (MGD)	Peaking Factor	Q Peak PDWF (MGD)	Q Peak PWWF (MGD)	Required Pipe Dia (In)	Required Pipe Slope (ft/ft)	Q (cfs)	Velocity @ Q Peak (fps)
Table 1A - CE Gravel West Shed Calculations																																						
CEB 05[5]	CEB050-1	169.0	1014																							169.0	1014	169.0	1014	0.314	0.203	1.801	0.566	0.769	12	0.0045	1.190	3.03
CEB 08[5]	CEB050-2	164.4	987																							164.4	987	164.4	987	0.306	0.197	1.804	0.552	0.749	12	0.0045	1.159	3.014
	CEB050																											**333.5**	**2001**	**0.620**	**0.400**	**1.534**	**0.951**	**1.352**	**18**	**0.0012**	**2.091**	**2.132**
CEB 07[5]	CEB070	161.3	968																							161.3	968	161.3	968	0.300	0.194	1.805	0.542	0.735	10	0.0050	1.138	3.112
CEB 04[5]	CEB060	164.8	989																							164.8	989	164.8	989	0.307	0.198	1.803	0.553	0.751	10	0.0050	1.161	3.125
	CEB LS-1																											**659.6**	**3958**	**1.227**	**0.792**	**1.485**	**1.822**	**2.614**	**21**	**0.0011**	**4.044**	**2.136**
CEB 10	CEB030-1	78.2	469																							78.2	469	78.2	469	0.145	0.094	1.865	0.271	0.365	10	0.0050	0.565	2.603
	CEB030																											**737.8**	**4427**	**1.372**	**0.885**	**1.477**	**2.027**	**2.912**	**21**	**0.0011**	**4.506**	**2.458**
CEB 011[5]	CEB 020-1	85.0	510																							85.0	510	85.0	510	0.158	0.102	1.859	0.294	0.396	10	0.0050	0.613	2.715
	CEB 020																											**822.9**	**4937**	**1.531**	**0.987**	**1.469**	**2.248**	**3.236**	**24**	**0.0011**	**5.007**	**2.559**
CEB 01[5]	CEB 010-1	126.9	761																							126.9	761	126.9	761	0.236	0.152	1.825	0.431	0.583	10	0.0050	0.902	2.956
CEB 012	CEB 010-2	64.1	385	7.5	45																					71.6	430	71.6	430	0.133	0.086	1.873	0.249	0.335	8	0.0060	0.519	2.763
	CEB 010																											**1021.4**	**6128**	**1.900**	**1.226**	**1.453**	**2.761**	**3.986**	**24**	**0.0915**	**6.168**	**30.353**
																									Major Shed Acreage, ESD, and Flow Contribution Totals	1021.4	6128							3.986				
Table 2A - CE Elk Grove-Florin Shed Calculations																																						
CEA 02[3]	CEA 020							83.3	500	125.4	878															208.7	1377	208.7	1377	0.427	0.250	1.775	0.758	1.008	15	0.0018	1.560	2.310
CEA 03	CEA 960-1			5.2	31			80.3	482	66.6	466			30.1	497											182.2	1476	390.8	2853	0.884	0.469	1.509	1.335	1.803	15	0.0018	2.791	2.324
CEA 01[5]	CEA 010							38.7	232	6.5	46															45.2	278	45.2	278	0.086	0.054	1.908	0.164	0.219	8	0.0038	0.338	2.062
CEA 08	CEA960-2							19.1	115	15.8	111	9.0	90													43.9	315	43.9	315	0.098	0.053	1.898	0.186	0.238	8	0.0038	0.369	
	CEA 960																											436.1	3131	**0.971**	**0.523**	**1.502**	**1.458**	**1.981**	18	**0.0015**	**3.066**	**2.249**
	6400703[12]																											480.0	3447	**1.068**	**0.576**	**1.495**	**1.598**	2.174	18	**0.0015**	**3.363**	**2.249**
CEA 09	CEA 060							124.1	745																	124.1	745	124.1	745	0.231	0.149	1.827	0.422	0.571	10	0.0050	0.883	2.940
CEA 10	CEA 050							89.6	537																	89.6	537	213.6	1282	0.397	0.256	1.781	0.708	0.964	12	0.0045	1.492	3.216
	62005014[12]																											**213.6**	**1282**	**0.397**	**0.256**	**1.781**	**0.708**	**0.964**	**12**	**0.0045**	**1.492**	**3.216**
CEA 07	CEA 930			13.5	81			32.8	197	37.4	262	22.2	222													105.9	761	105.9	761	0.236	0.127	1.825	0.431	0.558	10	0.0028	0.863	2.542
	6500702[12]																											105.9	761	**0.236**	**0.127**	**1.825**	**0.431**	0.558	**10**	**0.0028**	**0.863**	2.542
BRF 04	CEA 940-3							78.2	469																	78.2	469	78.2	469	0.146	0.094	1.865	0.271	0.365	8	0.0038	0.565	2.35
BRF 05	CEA 940-2							79.8	479																	79.8	479	79.8	479	0.148	0.096	1.864	0.277	0.372	8	0.0038	0.576	2.351
CEA 04	CEA 940-1			14.0	84					46.6	326			24.0	396											84.6	806	84.6	806	0.250	0.101	1.821	0.455	0.556	10	0.0028	0.861	2.318
	CEA 940																											242.6	1754	**0.544**	**0.291**	**1.543**	**0.839**	**1.130**	**15**	**0.0015**	**1.749**	2.209
CEA 06	CEA 910							38.9	233	43.0	301															81.8	534	81.8	534	0.166	0.098	1.855	0.307	0.405	10	0.0028	0.627	2.243
CEA 05	CEA920-1							16.1	97	46.1	323													5.9	35	68.0	454	68.0	454	0.141	0.082	1.868	0.263	0.345	8	0.0038	0.533	2.318
	CEA920																											310.6	2208	**0.684**	**0.373**	**1.527**	**1.045**	**1.418**	**18**	**0.0012**	**2.194**	2.244
	6500802[12]																											392.4	2742	**0.850**	**0.471**	**1.512**	**1.285**	1.756	**102**	**0.0006**	**2.717**	2.243
																									Major Shed Acreage, ESD, and Flow Contribution Totals	1191.9	8231.6							5.451				
Table 3A - BR Elder Creek Shed Calculations																																						
BRH 01	**BRH 020**	*(includes entire BR Elder Creek Shed flows (assuming 6 ESD/acre) minus subshed BRH 01, which is accounted for below)*																								2600.0	15600	2600.0	15600	4.836	3.120	1.383	6.688	9.808	36	0.0011	15.176	3.372
	BRH 010	162.3	974																							162.3	974	2762.3	16574	5.138	3.315	1.378	7.081	10.396	36	0.0011	16.086	3.414
	BR6175-1																											**2762.3**	**16574**	**5.138**	**3.315**	**1.378**	**7.081**	10.396	**24**	**0.1000**	**16.086**	**3.414**
																									Major Shed Acreage, ESD, and Flow Contribution Totals	2762.3	16574							10.396				

Table 4A - BR Florin Shed Calculations *(from the approved North Vineyard Station Specific Plan Sanitary Sewer Study by MacKay & Somps Civil Engineers, dated July 1, 2002; revised to include current FVCP land uses (subsheds BRG 08 & BRG 14)*

Sub-Shed	Node	LAND USE AREAS																								Total		Cumulative		Q_{AVG} (MGD)	$Q_{I/I}$ (MGD)	Peaking Factor	Q Peak		Required Pipe		Q (cfs)	Velocity @ Q Peak (fps)
		B/P	ESD's (6/ac)	Comm.	ESD's (6/ac)	SFR 1-3[11]	ESD's (6/ac)	SFR 3-5	ESD's (6/ac)	SFR 4-7	ESD's (7/ac)	MDR 7-12	ESD's (10/ac)	MFR 12-22	ESD's (16.5/ac)	School[8]	ESD's (6/ac min.)	Park	ESD's (6/ac)	Pub. Serv.	ESD's (6/ac)	WTP	ESD (30/ac)	Open Space[10]	ESD's (6/ac)	Area	ESD's	Area	ESD's				PDWF (MGD)	PWWF (MGD)	Dia (In)	Slope (ft/ft)		
BRG 13	BRG13-1							160.4	962																	160.4	962	160.4	962	0.298	0.192	1.806	0.539	0.731	10	0.0050	1.131	3.107
	BRG130																											**160.4**	**962**	**0.298**	**0.192**	**1.806**	**0.539**	**0.731**	**12**	**0.0045**	**1.131**	2.992
	BRG120																											**160.4**	**962**	**0.298**	**0.192**	**1.806**	**0.539**	**0.731**	**12**	**0.0045**	**1.131**	2.992
BRG 12	BRG12-1							162.0	972																	162.0	972	162.0	972	0.301	0.194	1.805	0.544	0.738	10	0.0050	1.143	3.115
	BRG110																											**322.4**	**1935**	**0.600**	**0.387**	**1.536**	**0.921**	**1.308**	**12**	**0.0045**	**2.024**	**3.419**
BRG 11	BRG11-1							166.3	998																	166.3	998	166.3	998	0.309	0.200	1.803	0.557	0.757	10	0.0050	1.171	3.131
	BRG100																											**488.7**	**2932**	**0.909**	**0.586**	**1.507**	**1.370**	**1.956**	**15**	**0.0030**	**3.027**	**3.243**
	BRG090																											**488.7**	**2932**	**0.909**	**0.586**	**1.507**	**1.370**	**1.956**	**15**	**0.0030**	**3.027**	**3.243**
BRG 10	BRG10-1							78.2	469																	78.2	469	78.2	469	0.146	0.094	1.865	0.271	0.365	10	0.0050	0.565	2.603
BRG 10	BRG10-2																					80.0	2400			80.0	2400	158.2	2869	0.890	0.190	1.508	1.342	1.532	12	0.0045	2.370	3.474
BRG 07	BRG07-1							233.9	1403																	233.9	1403	233.9	1403	0.435	0.281	1.773	0.772	1.052	12	0.0045	1.628	3.278
BRG 07	BRG07-2																											233.9	1403	0.435	0.281	1.773	0.772	1.052	12	0.0045	1.628	3.278
	BRG080																											**880.8**	**7205**	**2.234**	**1.057**	**1.441**	**3.219**	**4.276**	**24**	**0.0020**	**6.616**	**3.435**
	BRG070																											**880.8**	**7205**	**2.234**	**1.057**	**1.441**	**3.219**	**4.276**	**24**	**0.0020**	**6.616**	**3.435**
BRG 09	BRG09-1							158.9	953																	158.9	953	158.9	953	0.295	0.191	1.806	0.534	0.724	10	0.0050	1.121	3.101
BRG 06	BRG06-1					117.3	704	13.0	78																	130.3	782	130.3	782	0.242	0.156	1.823	0.442	0.598	10	0.0050	0.925	2.975
	BRG060																											**1170.0**	**8940**	**2.771**	**1.404**	**1.425**	**3.949**	**5.353**	**27**	**0.0011**	**8.283**	**2.875**
BRG 05	BRG05-1					9.2	55	89.7	538							10.0	81	8.5	51							117.4	725	117.4	725	0.225	0.141	1.829	0.411	0.552	10	0.0050	0.854	2.921
	BRG05-2																											117.4	725	0.225	0.141	1.829	0.411	0.552	10	0.0050	0.854	2.921
	BRG050																											**1287.4**	**9665**	**2.996**	**1.545**	**1.419**	**4.252**	**5.797**	**27**	**0.0011**	**8.970**	**2.913**
BRG 08[3]	BRG08-1	79.8	479	32.1	192					32.3	226			14.1	233				0							158.3	1130	158.3	1130	0.350	0.190	1.792	0.628	0.818	10	0.0050	1.265	3.175
BRG 04*	BRG04-1	7.1	43	25.2	151	9.4	56	17.8	107	42.3	296	7.0	70					7.9	47							116.7	771	116.7	771	0.239	0.140	1.824	0.436	0.576	10	0.0050	0.891	2.947
	BRG040																											**1562.4**	**11566**	**3.585**	**1.875**	**1.406**	**5.040**	**6.915**	**30**	**0.0011**	**10.699**	**3.070**
BRG 03	BRG03-1					10.3	62	56.4	339	9.8	68			15.2	251			6.4	38					10.1	61	108.1	818	108.1	818	0.254	0.130	1.819	0.461	0.591	10	0.0050	0.915	2.967
BRG 14[3]	BRG14-1	83.6	502	4.6	28																					88.2	529	88.2	529	0.164	0.106	1.856	0.305	0.410	8	0.0060	0.635	2.891
	BRG030																											**1758.7**	**12913**	**4.003**	**2.110**	**1.397**	**5.593**	**7.704**	**30**	**0.0011**	**11.921**	**3.126**
BRG 02	BRG02-1					11.3	68	42.7	256	31.6	221			16.0	263			2.0	12							103.5	820	103.5	820	0.254	0.124	1.819	0.463	0.587	10	0.0050	0.908	2.961
	BRG020																											**1862.3**	**13733**	**4.257**	**2.235**	**1.393**	**5.929**	**8.164**	**30**	**0.0011**	**12.632**	**3.148**
BRG 01	BRG01-1					8.1	48	13.0	78	21.5	150									5.3	32			36.6	220	84.5	529	84.5	529	0.164	0.101	1.856	0.304	0.405	8	0.0060	0.627	2.844
BRG 15	BRG15-1	59.9	359																							59.9	359	59.9	359	0.111	0.072	1.887	0.210	0.282	8	0.0060	0.437	2.625
	BRG010																											**2006.7**	**14621**	**4.533**	**2.408**	**1.388**	**6.291**	**8.699**	**33**	**0.0011**	**13.460**	**3.255**
	BRG6090-1[13]																											**2078.0**	**15121**	**4.687**	**2.494**	**1.385**	**6.493**	**8.987**	**24**	**0.1000**	**13.906**	**18.024**
																										Major Shed Acreage, ESD, and Flow Contribution Totals		2006.7	14621.5					8.699				

*This sub-shed is 79 acres in the March 2002 CSD-1 SFEMP. Actual acreage is ~106+/-.

Table 5A - BR Gerber Shed Calculations (from the Gerber Road Trunk Sewer Sanitary Sewer Master Plan by MacKay & Somps, Civil Engineers dated November, 2004 MODIFIED FOR THIS STUDY)

Sub-Shed	Node	LAND USE AREAS																								Total		Cumulative		Q_{AVG} (MGD)	$Q_{I/I}$ (MGD)	Peaking Factor	Q Peak		Required Pipe		Q (cfs)	Velocity @ Q Peak (fps)
		B/P	ESD's (6/ac)	Comm.	ESD's (6/ac)	SFR 1-3[11]	ESD's (6/ac)	SFR 3-5	ESD's (6/ac)	SFR 4-7	ESD's (7/ac)	MDR 7-12	ESD's (10/ac)	MFR 12-22	ESD's (16.5/ac)	School[8]	ESD's (6/ac min.)	Park	ESD's (6/ac)	Pub. Serv.	ESD's (6/ac)	WTP	ESD (30/ac)	Open Space[10]	ESD's (6/ac)	Area	ESD's	Area	ESD's				PDWF (MGD)	PWWF (MGD)	Dia (In)	Slope (ft/ft)		
BRE 14	BRE 14-1							162.5	975																	162.5	975	162.5	975	0.302	0.195	1.805	0.55	0.741	12	0.0050	1.146	3.004
BRE 13	BRE 13-1																							53.7	322	53.7	322	53.7	322	0.100	0.064	1.896	0.19	0.254	8	0.0060	0.392	2.540
	BRE 100																											**216.2**	**1297**	**0.40**	**0.26**	**1.78**	**0.72**	**0.975**	**12**	**0.0030**	**1.509**	**2.747**
BRE 15	BRE 15-1							78.8	473																	78.8	473	78.8	473	0.147	0.095	1.865	0.27	0.368	10	0.0050	0.570	2.609
BRE 12	BRE 12-1													8.0	132									95.1	571	103.1	703	103.1	703	0.218	0.124	1.832	0.40	0.523	10	0.0050	0.809	2.884
	BRE 090																											**398.2**	**2473**	**0.77**	**0.48**	**1.52**	**1.16**	**1.642**	**15**	**0.0015**	**2.541**	**2.326**
BRE 16*	BRE 16-1					125.8	755	37.5	225									2.0	12							165.3	992	165.3	992	0.307	0.198	1.803	0.55	0.753	12	0.0045	1.165	3.019
BRE 11	BRE 11-1							119.8	719	20.0	140													16.0	96	155.8	955	155.8	955	0.296	0.187	1.806	0.53	0.722	12	0.0045	1.117	2.987
	BRE 080																											**719.3**	**4420**	**1.37**	**0.86**	**1.48**	**2.02**	**2.887**	**21**	**0.0011**	**4.468**	**2.455**
BRE 17*	BRE 17-1					4.5	27	39.1	234															15.7	94	59.2	355	59.2	355	0.110	0.071	1.888	0.21	0.279	8	0.0060	0.432	2.616
BRE 10	BRE 10-1									56.0	392	38.9	389											11.0	66	106.0	848	106.0	848	0.263	0.127	1.816	0.48	0.604	10	0.0050	0.935	2.984
	BRE 070																											**884.5**	**5623**	**1.74**	**1.06**	**1.46**	**2.54**	**3.606**	**21**	**0.0011**	**5.579**	**2.466**
BRE 18*	BRE 18-1			4.9	29	61.8	371	21.4	128	66.8	467	18.6	186	7.1	118			11.5	69							192.1	1369	192.1	1369	0.424	0.231	1.776	0.75	0.984	12	0.0045	1.523	3.232
BRE 09	BRE 09-1					75.0	450	16.0	96	64.2	449															155.2	996	155.2	996	0.309	0.186	1.803	0.56	0.743	12	0.0045	1.149	3.006
	BRE 140																											155.2	996	0.309	0.186	1.803	0.56	0.743	12	0.0045	1.149	3.006
BRE 08	BRE 130	17.7	106	12.0	72	4.2	25	30.7	184					26.1	431											90.7	818	245.9	1814	0.562	0.295	1.54	0.87	1.161	15	0.0015	1.797	2.222
BRE 07	BRE 07-1			20.7	124	3.6	22					13.1	131	7.0	115											44.4	392	44.4	392	0.121	0.053	1.880	0.23	0.282	8	0.0060	0.436	2.623
	BRE 060																											**1366.9**	**9197**	**2.85**	**1.64**	**1.42**	**4.06**	**5.697**	**27**	**0.0010**	**8.816**	**2.789**
BRE 19*	BRE 19-1					17.5	105	54.7	328	34.0	238			7.4	122	11.9	71	14.2	85	6.0	36			13.4	80	159.0	1066	159.0	1066	0.330	0.191	1.797	0.59	0.784	12	0.0045	1.214	3.092
BRE 06	BRE 06-1							25.6	154															6.9	42	32.6	195	32.6	195	0.061	0.039	1.935	0.12	0.156	8	0.0060	0.242	2.231
	BRE 050																											**1558.5**	**10458**	**3.24**	**1.87**	**1.41**	**4.58**	**6.452**	**27**	**0.0010**	**9.984**	**2.805**
BRE 05	BRE 05-1							188.9	1133																	188.9	1133	188.9	1133	0.351	0.227	1.792	0.63	0.856	12	0.0045	1.325	3.127
BRE 04	BRE 120							85.1	510																	85.1	510	273.9	1643	0.509	0.329	1.55	0.79	1.117	15	0.0019	1.729	2.415
	BRE 110																											273.9	1643	0.509	0.329	1.548	0.79	1.117	15	0.0019	1.729	2.415
	BRE 040																											**1832.4**	**12102**	**3.75**	**2.20**	**1.40**	**5.26**	**7.459**	**30**	**0.0010**	**11.542**	**2.988**
BRE 20*	BRE 20-1					21.7	130	7.7	46															22.0	132	51.5	309	51.5	309	0.096	0.062	1.899	0.18	0.244	8	0.0060	0.377	2.526
BRD 02	BRD 02-1					70.2	421	11.0	66															18.3	110	99.5	597	99.5	597	0.185	0.119	1.846	0.34	0.461	8	0.0060	0.713	2.961
BRE 03	BRE 03-1					70.9	425	17.3	104															32.9	197	121.1	727	220.6	1324	0.410	0.265	1.778	0.73	0.994	12	0.0045	1.539	3.240
	BRE 030																											**2104.5**	**13734**	**4.26**	**2.53**	**1.39**	**5.93**	**8.454**	**30**	**0.0010**	**13.082**	**3.012**
BRE 21*	BRE 21-1							80.0	480															7.0	42	87.0	522	87.0	522	0.162	0.104	1.857	0.30	0.405	10	0.0050	0.626	2.678
	BRE 020																											**2191.5**	**14256**	**4.42**	**2.63**	**1.39**	**6.14**	**8.772**	**30**	**0.0010**	**13.573**	**2.995**
BRE 22*	BRE 22-1							3.6	21					6.5	107									3.3	20	13.4	149	13.4	149	0.046	0.016	1.957	0.09	0.106	8	0.0060	0.165	2.062
BRE 02	BRE 02-1							161.5	969																	161.5	969	161.5	969	0.300	0.194	1.805	0.54	0.736	12	0.0045	1.139	2.998
	BRE 010																											**2366.4**	**15374**	**4.77**	**2.84**	**1.38**	**6.60**	**9.436**	**30**	**0.0012**	**14.600**	**3.294**
BRE 01	BRE 01-1							46.6	280					13.2	217											59.8	497	59.8	497	0.154	0.072	1.861	0.29	0.358	10	0.0050	0.555	2.590
	BRE 6020-1																											**2426.1**	**15871**	**4.920**	**2.911**	**1.38**	**6.80**	**9.708**	**24**	**0.1000**	**15.022**	**18.040**
	BR 6020[12]																											**2489.9**	**16318**	**5.059**	**2.988**	**1.38**	**6.98**	9.966	**108**	**0.0006**	**15.421**	**18.040**
																										Major Shed Acreage, ESD, and Flow Contribution Totals		2426.1	15871					9.966				

Sub-Shed	Node	LAND USE AREAS B/P	ESD's (6/ac)	Comm.	ESD's (6/ac)	SFR 1-3[11]	ESD's (6/ac)	SFR 3-5	ESD's (6/ac)	SFR 4-7	ESD's (7/ac)	MDR 7-12	ESD's (10/ac)	MFR 12-22	ESD's (16.5/ac)	School[8]	ESD's (6/ac min.)	Park	ESD's (6/ac)	Pub. Serv.	ESD's (6/ac)	WTP	ESD (30/ac)	Open Space[10]	ESD's (6/ac)	Total Area	Total ESD's	Cumulative Area	Cumulative ESD's	Q_{AVG} (MGD)	$Q_{I/I}$ (MGD)	Peaking Factor	Q Peak PDWF (MGD)	Q Peak PWWF (MGD)	Required Pipe Dia (In)	Required Pipe Slope (ft/ft)	Q (cfs)	Velocity @ Q Peak (fps)
Table 6A - Gerber-Florin Supplemental Shed Calculations																																						
BRF 10[3]	BRF 110-1	158.6	952																							158.6	952	158.6	952	0.295	0.190	1.807	0.533	0.723	10	0.0050	1.119	3.100
BRF 09[3]	BRF 110-2	165.1	990																							165.1	990	165.1	990	0.307	0.198	1.803	0.554	0.752	10	0.0050	1.163	3.126
	BRF110		0																									**323.7**	**1942**	**0.602**	**0.388**	**1.536**	**0.925**	**1.313**	**15**	**0.0030**	**2.032**	**2.985**
BRF 08[3]	BRF 980-1	72.3	434																							72.3	434	72.3	434	0.135	0.087	1.872	0.252	0.339	8	0.0060	0.524	2.770
	BRF 980																											**72.3**	**434**	**0.135**	**0.087**	**1.872**	**0.252**	**0.339**	**8**	**0.0060**	**0.524**	**2.770**
BRF 07[3]	BRF 970-1	97.4	584																							97.4	584	97.4	584	0.181	0.117	1.847	0.335	0.451	10	0.0050	0.699	2.761
	BRF 970																											**97.4**	**584**	**0.181**	**0.117**	**1.847**	**0.335**	**0.451**	**10**	**0.0050**	**0.699**	2.761
	BRF6130-1																											**493.4**	**2960**	**0.918**	**0.592**	**1.506**	**1.382**	1.974	**24**	**0.1000**	**3.055**	**18.286**
BRF 06	BRF 960-1									71.3	499															71.3	499	71.3	499	0.155	0.086	1.860	0.288	0.373	8	0.0060	0.578	2.615
	BRF 960																											**71.3**	**499**	**0.155**	**0.086**	**1.860**	**0.288**	0.373	**12**	**0.0045**	**0.578**	**2.304**
	BR6090-1																											**2078.0**	**15121**	**4.687**	**2.494**	**1.385**	**6.493**	**8.987**	**24**	**0.1000**	**13.906**	**17.965**
BRF 03	BRF 930-1							93.6	562					11.0	181			14.3	86					32.5	195	151.4	1023	151.4	1023	0.317	0.182	1.800	0.571	0.753	10	0.0050	1.165	3.128
BRF 02	BRF 920-1					4.3	26	23.0	138															5.6	34	33.0	198	33.0	198	0.061	0.040	1.935	0.119	0.158	8	0.0060	0.245	**2.239**
	BR6040-1																											**184.3**	**1221**	**0.379**	**0.221**	**1.569**	**0.594**	0.815	**24**	**0.1000**	**1.261**	**8.689**
BRF 01	BRF 910 -1			15.5	93			36.3	218					6.2	102									5.7	34	63.8	448	63.8	448	0.139	0.077	1.869	0.259	0.336	8	0.0060	0.520	2.764
	BRF 910																											**63.8**	**448**	**0.139**	**0.077**	**1.869**	**0.259**	0.336	**8**	**0.1000**	**0.520**	**7.670**
	BR 6020[12]																											**2489.9**	**16318**	**5.059**	**2.988**	**1.379**	**6.978**	**9.966**	**108**	**0.0006**	**15.421**	**18.040**
BRD 04[4]	BRD 920-1			28.3	170	57.5	345							9.9	163											95.7	678	95.7	678	0.210	0.115	1.835	0.386	0.501	10	0.0050	0.775	2.842
	BRD 920																											**95.7**	**678**	**0.210**	**0.115**	**1.835**	**0.386**	0.501	**10**	**0.0050**	**0.775**	**2.842**
BRD 03	BRD 910-1					81.4	489																			81.4	489	81.4	489	0.151	0.098	1.862	0.282	0.380	8	0.0060	0.588	2.846
BRD 06	BR5190-1							163.4	980																	163.4	980	163.4	980	0.304	0.196	1.804	0.548	0.744	10	0.0028	1.152	2.411
BRD 05	BR5190-3									79.8	558															79.8	558	243.2	1539	0.477	0.292	1.553	0.741	1.032	12	0.0029	1.598	3.177
	BR5190[12]	(Does NOT include any upstream existing flows in the Central Interceptor)																										**324.6**	**2028**	**0.629**	**0.390**	1.533	**0.964**	1.353	**12**	**0.1000**	**2.094**	**11.269**
																									Major Shed Acreage, ESD, and Flow Contribution Totals	1233.2	7834							5.352				
Table 7A - SEA Southeast Shed																																						
SEA 01[12]	SEA010													7.3	119									7.0	42	14.3	161	14.3	161	0.050	0.017	1.951	0.097	0.114	8	0.0060	0.177	2.076
	115004005[12]																											**14.3**	**161**	**0.050**	**0.017**	**1.951**	**0.097**	0.114	**18**	**0.0015**	**0.177**	**2.076**
SEA 02[12]	SEA020							38.3	230			4.7	47											7.8	47	50.8	324	50.8	324	0.100	0.061	1.895	0.190	0.251	8	0.0060	0.389	2.534
	065006015[12]																											**50.8**	**324**	**0.100**	**0.061**	**1.895**	**0.190**	0.251	**18**	**0.0015**	**0.389**	**2.534**
SEA 03	SEA030							58.0	348																	58.0	348	58.0	348	0.108	0.070	1.890	0.204	0.274	8	0.0042	0.423	2.204
SEA 04	SEA040							101.4	608			8.9	89	8.2	135											118.5	832	118.5	832	0.258	0.142	1.818	0.469	0.611	10	0.0028	0.946	2.582
	065004007																											**176.5**	**1180**	**0.366**	**0.212**	**1.788**	**0.654**	0.866	**12**	**0.0020**	**1.340**	**2.280**
																									Major Shed Acreage, ESD, and Flow Contribution Totals	241.8	1664.7							1.232				

GENERAL NOTES

1. All calculations based on the County Planning Staff Land Use Alternative of the Florin-Vineyard Community Plan
2. Land uses that generate no sewage (industrial, mining, detention basins) are included in the surrounded zoning land use.
3. Industrial land use is considered business/professional.
4. AR1-5 land use is included in SFR 1-3.
5. The average flow determination for elementary schools is 1,860 gallons per day (6 ESD's) per acre or 0.025 MGD, whichever is larger.
6. The average flow determination for the water treatment plant is based on 20 gpm per Mike Crooks from the County of Sacramento.
7. Collector PF were used for all lines less than 1 MGD and Trunk PF were used for all lines greater then 1 MGD, except when the flow varied at 1 MGD in which case the Collector (more conservative) PF was used.
8. School thing
9. 6 acres of this is atributed to existing residences
10. Includes lands dedicated as Golf Course, Storm Drainage Corridors, and Storm Water Detention Basins
11. Includes Roadways and Railroad lands
12. Represents flows entering that trunk and/or interceptor line, does not include existing upstream flows in those lines
13. Includes flows from subshed BRF-06 within the Gerber Florin Supplemental Shed

Table 8A - CE Gravel West Shed Design

US	Figures	DS	Pipe Diameter [in]	Slope [ft/ft]	PWWF [MGD]	Capacity (1) Q [cfs]	Capacity (1) Q [MGD]
CEB 050-1	5 & 6	CEB 050	12	0.0045	0.769	2.001	1.293
CEB 050-2	5 & 6	CEB 050	12	0.0045	0.749	2.001	1.293
CEB 050	5 & 6	CEB LS1	18	0.0012	1.352	3.912	2.528
CEB 060	5 & 6	CEB LS1	10	0.0050	0.751	1.297	0.838
CEB 070	5 & 6	CEB LS1	10	0.0050	0.735	1.297	0.838
CEB LS1	5 & 6	CEB 030	21	0.0011	2.614	5.650	3.651
CEB 030-1	5 & 6	CEB 030	10	0.0050	0.365	1.297	0.838
CEB 030	5 & 6	CEB 020	21	0.0011	2.912	5.650	3.651
CEB 020-1	5 & 6	CEB 020	10	0.0050	0.396	1.297	0.838
CEB 020	5 & 6	CEB 010	24	0.0011	3.236	8.067	5.213
CEB 010-1	5 & 6	CEB 010	10	0.0050	0.583	1.297	0.838
CEB 010-2	5 & 6	CEB 010	8	0.0060	0.335	0.784	0.507
CEB 010	5 & 6	6400302	24	0.0915	3.986	73.576	47.550

(1) Capacity within the lines was calculated based on 70% fullness for Collector Lines and 93% fullness for Trunk Lines

Table 9A - CE Elk Grove-Florin Shed Design

US	Figure	DS	Pipe Diameter [in]	Slope [ft/ft]	PWWF [MGD]	Capacity (1) Q [cfs]	Capacity (1) Q [MGD]
CEA 020	**5 & 6**	CEA960-1	15	0.0018	1.008	3.804	2.458
CEA960-1	**5 & 6**	CEA960	15	0.0018	1.803	3.804	2.458
CEA 010	**5 & 6**	CEA960	8	0.0038	0.219	0.620	0.401
CEA960-2	**5 & 6**	CEA960	8	0.0038	0.238	0.620	0.401
CEA960	**5 & 6**	6400703	18	0.0015	1.981	3.912	2.528
CEA060	**5 & 6**	CEA050	10	0.0050	0.571	1.297	0.838
CEA050	**5 & 6**	62005014	12	0.0045	0.964	2.001	1.293
CEA930	**5 & 6**	6500702	10	0.0028	0.558	1.415	0.914
CEA940-3	**5 & 6**	CEA940	8	0.0038	0.365	0.620	0.401
CEA940-2	**5 & 6**	CEA940	8	0.0038	0.372	0.620	0.401
CEA940-1	**5 & 6**	CEA940	10	0.0028	0.556	0.962	0.622
CEA940	**5 & 6**	CEA920	15	0.0015	1.130	2.690	1.738
CEA910	**5 & 6**	6500802	10	0.0028	0.405	0.962	0.622
CEA920-1	**5 & 6**	CEA920	8	0.0038	0.345	0.620	0.401
CEA920	**5 & 6**	6500802	18	0.0012	1.418	3.912	2.528

(1) Capacity within the lines was calculated based on 70% fullness for Collector Lines and 93% fullness for Trunk Lines

Table 10A - BR Elder Creek Shed Design

US	Figure	DS	Pipe Diameter [in]	Slope [ft/ft]	PWWF [MGD]	Capacity (1) Q [cfs]	Capacity (1) Q [MGD]
BRH 020	**5 & 9**	BRH 010	36	0.0011	9.808	23.785	15.372
BRH 010	**5 & 9**	BR6175-1	36	0.0011	10.396	23.785	15.372
BR6175-1	**5 & 9**	BR6175	24	0.1000	10.396	76.917	49.709

(1) Capacity within the lines was calculated based on 70% fullness for Collector Lines and 93% fullness for Trunk Lines

Table 11A - BR Florin Shed Design

US	Figure	DS	Pipe Diameter [in]	Slope [ft/ft]	PWWF [MGD]	Capacity (1) Q [cfs]	Capacity (1) Q [MGD]
BRG13-1	**5 & 7**	BRG130	10	0.0050	0.731	1.297	0.838
BRG130	**5 & 7**	BRG120	12	0.0045	0.731	2.001	1.293
BRG120	**5 & 7**	BRG110	12	0.0045	0.731	2.001	1.293
BRG12-1	**5 & 7**	BRG110	10	0.0050	0.738	1.297	0.838
BRG110	**5 & 7**	BRG100	12	0.0045	1.308	2.570	1.661
BRG11-1	**5 & 7**	BRG100	10	0.0050	0.757	1.297	0.838
BRG100	**5 & 7**	BRG090	15	0.0030	1.956	3.804	2.458
BRG090	**5 & 7**	BRG080	15	0.0030	1.956	3.804	2.458
BRG10-1	**5 & 7**	BRG10-2	10	0.0050	0.365	1.297	0.838
BRG10-2	**5 & 7**	BRG080	12	0.0045	1.532	2.570	1.661
BRG07-1	**5 & 7**	BRG07-2	12	0.0045	1.052	2.570	1.661
BRG07-2	**5 & 7**	BRG080	12	0.0045	1.052	2.570	1.661
BRG080	**5 & 7**	BRG070	24	0.0020	4.276	10.878	7.030
BRG070	**5 & 7**	BRG060	24	0.0020	4.276	10.878	7.030
BRG09-1	**5 & 7**	BRG060	10	0.0050	0.724	1.297	0.838
BRG06-1	**5 & 7**	BRG060	10	0.0050	0.598	1.297	0.838
BRG060	**5 & 7**	BRG050	27	0.0011	5.353	11.044	7.137
BRG05-1	**5 & 7**	BRG05-2	10	0.0050	0.552	1.297	0.838
BRG05-2	**5 & 7**	BRG050	10	0.0050	0.552	1.297	0.838
BRG050	**5 & 7**	BRG040	27	0.0011	5.797	11.044	7.137
BRG08-1	**5 & 7**	BRG040	10	0.0050	0.818	1.297	0.838
BRG04-1	**5 & 7**	BRG040	10	0.0050	0.576	1.297	0.838
BRG040	**5 & 7**	BRG030	30	0.0011	6.915	14.627	9.453
BRG14-1	**5 & 7**	BRG030	8	0.0060	0.410	0.784	0.507
BRG03-1	**5 & 7**	BRG030	10	0.0050	0.591	1.297	0.838
BRG030	**5 & 7**	BRG020	30	0.0011	7.704	14.627	9.453
							0.000
BRG02-1	**5 & 7**	BRG020	10	0.0050	0.587	1.297	0.838
BRG020	**5 & 7**	BRG010	30	0.0011	8.164	14.627	9.453
BRG15-1	**5 & 7**	BRG010	8	0.0060	0.282	0.784	0.507
BRG01-1	**5 & 7**	BRG010	8	0.0060	0.405	0.784	0.507
BRG010	**5 & 7**	BR6090-1	33	0.0011	8.699	18.859	12.188
BR6090-1	**5 & 7**	BR6090	24	0.1000	8.987	76.917	49.709

(1) Capacity within the lines was calculated based on 70% fullness for Collector Lines and 93% fullness for Trunk Lines

Table 12A - BR Gerber Shed Design *(from the NVSSP Sanitary Sewer Master Plan dated Nov*

US	Figure	DS	Pipe Diameter [in]	Slope [ft/ft]	PWWF [MGD]	Capacity (1) Q [cfs]	Capacity (1) Q [MGD]
BRE 14-1	**5 & 8**	BRE 100	12	0.0050	0.741	2.001	1.293
BRE 13-1	**5 & 8**	BRE 100	8	0.0060	0.254	0.784	0.507
BRE 100	**5 & 8**	BRE 090	12	0.0030	0.975	1.634	1.056
BRE 15-1	**5 & 8**	BRE 090	10	0.0050	0.368	1.297	0.838
BRE 12-1	**5 & 8**	BRE 090	10	0.0050	0.523	1.297	0.838
BRE 090	**5 & 8**	BRE 080	15	0.0015	1.642	2.690	1.738
BRE 16-1	**5 & 8**	BRE 080	12	0.0045	0.753	2.001	1.293
BRE 11-1	**5 & 8**	BRE 080	12	0.0045	0.722	2.001	1.293
BRE 080	**5 & 8**	BRE 070	21	0.0011	2.887	5.650	3.651
BRE 17-1	**5 & 8**	BRE 070	8	0.0060	0.279	0.784	0.507
BRE 10-1	**5 & 8**	BRE 070	10	0.0050	0.604	1.297	0.838
BRE 070	**5 & 8**	BRE 060	21	0.0011	3.606	5.650	3.651
BRE 18-1	**5 & 8**	BRE 060	12	0.0045	0.984	2.001	1.293
BRE 09-1	**5 & 8**	BRE 140	12	0.0045	0.743	2.001	1.293
BRE 140	**5 & 8**	BRE 130	12	0.0045	0.743	2.001	1.293
BRE 130	**5 & 8**	BRE 060	15	0.0015	1.161	2.690	1.738
BRE 07-1	**5 & 8**	BRE 060	8	0.0060	0.282	0.784	0.507
BRE 060	**5 & 8**	BRE 050	27	0.0010	5.697	10.530	6.805
BRE 19-1	**5 & 8**	BRE 050	12	0.0045	0.784	2.001	1.293
BRE 06-1	**5 & 8**	BRE 050	8	0.0060	0.156	0.784	0.507
BRE 050	**5 & 8**	BRE 040	27	0.0010	6.452	10.530	6.805
BRE 05-1	**5 & 8**	BRE 120	12	0.0045	0.856	2.001	1.293
BRE 120	**5 & 8**	BRE 110	15	0.0019	1.117	3.027	1.956
BRE 110	**5 & 8**	BRE 040	15	0.0019	1.117	3.027	1.956
BRE 040	**5 & 8**	BRE 030	30	0.0010	7.459	13.946	9.013
BRE 20-1	**5 & 8**	BRE 030	8	0.0060	0.244	0.784	0.507
BRD 02-1	**5 & 8**	BRE 03-1	8	0.0060	0.461	0.784	0.507
BRE 03-1	**5 & 8**	BRE 030	12	0.0045	0.994	2.001	1.293
BRE 030	**5 & 8**	BRE 020	30	0.0010	8.454	13.946	9.013
BRE 21-1	**5 & 8**	BRE 020	10	0.0050	0.405	1.297	0.838
BRE 020	**5 & 8**	BRE 010	30	0.0010	8.772	13.946	9.013
BRE 22-1	**5 & 8**	BRE 010	8	0.0060	0.106	0.784	0.507
BRE 02-1	**5 & 8**	BRE010	12	0.0045	0.736	2.001	1.293
BRE 010	**5 & 8**	BRE 6020-1	30	0.0012	9.436	15.277	9.873
BRE 01-1	**5 & 8**	BRE 010	10	0.0050	0.358	1.297	0.838
BR 6020-1	**5 & 8**	BR 6020	24	0.1000	9.708	76.917	49.709

(1) Capacity within the lines was calculated based on 70% fullness for Collector Lines and 93% fullness for Trunk Lines

Table 13A - Gerber-Florin Supplemental Shed Design

US	Figure	DS	Pipe Diameter [in]	Slope [ft/ft]	PWWF [MGD]	Capacity (1) Q [cfs]	Capacity (1) Q [MGD]
BRF 110-1	5 & 9	BRF 110	10	0.0050	0.723	1.297	0.838
BRF 110-2	5 & 9	BRF 110	10	0.0050	0.752	1.297	0.838
BRF110	5 & 9	BR6130	15	0.0030	1.313	3.804	2.458
BRF 980-1	5 & 9	BRF 980	8	0.0060	0.339	0.784	0.507
BRF 980	5 & 9	BR6130	8	0.0060	0.339	0.784	0.507
BRF 970-1	5 & 9	BRF 970	10	0.0050	0.451	1.297	0.838
BRF 970	5 & 9	BR6130-1	10	0.0050	0.451	1.297	0.838
BR6130-1	5 & 9	BR6130	24	0.1000	1.974	76.917	49.709
BRF 960-1	5 & 9	BRF 960	8	0.0060	0.373	0.784	0.507
BRF 960	5 & 9	BR6090	12	0.0045	0.373	2.001	1.293
BRF 930-1	5 & 9	BRF930	10	0.0050	0.753	1.297	0.838
BRF 920-1	5 & 9	BRF920	8	0.0060	0.158	0.784	0.507
BR6040-1	5 & 9	BR6040	24	0.1000	0.815	76.917	49.709
BRF 910-1	5 & 9	BRF 910	8	0.0060	0.336	0.784	0.507
BRF 910	5 & 9	BR 6020	8	0.1000	0.336	3.199	2.067
BRD 920-1	5 & 9	BRD 920	10	0.0050	0.501	1.297	0.838
BRD 920	5 & 9	BR5200	10	0.0050	0.501	1.297	0.838
BRD 910-1	5 & 9	BRD 910	8	0.0060	0.380	0.784	0.507
BRE519-1	5 & 9	BR5190-2	10	0.0028	0.744	1.297	0.838
BR5190-3	5 & 9	BR5190-4	12	0.0029	1.032	2.063	1.333
BR5190-4	5 & 9	BR5190	12	0.1000	1.353	12.114	7.829

(1) Capacity within the lines was calculated based on 70% fullness for Collector Lines and 93% fullness for Trunk Lines

Table 14A - SEA Southeast Shed

US	Figure	DS	Pipe Diameter [in]	Slope [ft/ft]	PWWF [MGD]	Capacity (1) Q [cfs]	Capacity (1) Q [MGD]
SEA 010	5 & 6	115004005	8	0.0060	0.114	0.784	0.507
SEA 020	5 & 6	06500615	8	0.0060	0.251	0.784	0.507
SEA 030	5 & 6	065004007	8	0.0042	0.274	0.620	0.401
SEA 040	5 & 6	065004007	10	0.0028	0.611	1.415	0.914

(1) Capacity within the lines was calculated based on 70% fullness for Collector Lines and 93% fullness for Trunk Lines

APPENDIX K

MASTER WATER STUDY

SACRAMENTO COUNTY WATER AGENCY

Master Water Study for the Florin-Vineyard Community Plan

FINAL APPROVED

December 2006

Reviewed and Edited by:
Robert Gardner, P.E.

Prepared by:

MWH

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List of Acronyms

AAD – Annual Average Demand

ADD – Average Day Demand

Agency Act – Sacramento County Water Agency Act

Ag/res – agricultural/residential

AF – Acre Feet

Cal-Am – California-American Water Company

CEQA – California Environmental Quality Act

Central Basin – Central Sacramento County Groundwater Basin

CSA – Central Service Area

CVP – Central Valley Project

CVPIA – Central Valley Project Improvement Act

DEIR – Draft Environmental Impact Report

D-main – Smaller Water Distribution Main

DHS – Department of Health Services

EIR – Environmental Impact Report

FVCP – Florin-Vineyard Community Plan

ISO – International Organization of Standardization

GMP – Groundwater Management Plan

MGD – Million Gallons per Day

MDD – Max Day Demand

NVSSP – North Vineyard Station Specific Plan

psi – pounds per square inch

PHD – Peak Hour Demand

SACOG – Sacramento Area Council of Governments

SCWA – Sacramento County Water Agency

VSCP – Vineyard Springs Comprehensive Plan

WFA – Water Forum Agreement

WSIP – Water System Infrastructure Plan

WSMP – Water Supply Master Plan

SECTION 1. INTRODUCTION

1.1 Study Area

The Florin-Vineyard Community Plan is a 3,768-acre development area located within the communities of Florin, Vineyard and South Sacramento. The area encompassed by the Florin-Vineyard Community Plan was previously referred to as the "Florin Gap" due to its intermediate proximate to the urban area of Elk-Grove Florin Road to the west, and to the planned communities of the North Vineyard Station Specific Plan and Vineyard Springs Comprehensive Plan to the east. Specifically, the Florin-Vineyard Community Plan Area is bounded by Elder Creek Road and the Sacramento City limits to the north, Bradshaw Road (excluding the North Vineyard Station Specific Plan) to the east, the developed Churchill Downs and Vintage Park developments to the south, and Elk Grove Florin Road and Union Pacific Railroad tracks to the west. The majority of the Florin-Vineyard Community Plan falls within the City of Sacramento's (City) American River Place of Use (POU) boundary and within the SCWA Zone 40 boundary. Refer to **Figure 1** for the location of Florin-Vineyard Community Plan, which is depicted as the shaded blue area with dot hatching relative to the City of Sacramento's American River POU and Zone 40 boundaries.

1.2 Water Supply Setting

SCWA will serve as the water purveyor for most of the Florin-Vineyard Community Plan and all of the North Vineyard Station Specific Plan that fall within the SCWA Zone 40 boundary. Zone 40 was created by Sacramento County Water Agency (SCWA) Resolution No. 663 in May 1985, which describes the exact boundaries of the zone, and defines the projects to be undertaken as "... the acquisition, construction, maintenance and operation of facilities for the production, conservation, transmittal, distribution and sale of ground or surface water or both for the present and future beneficial use of the lands or inhabitants within the zone."

SCWA Zone 41 is a retail water supplier that provides safe and reliable drinking water to its various service areas located in both the unincorporated and incorporated (i.e., the Cities of Elk Grove and Rancho Cordova) portions of the County. Zone 41 service areas include Zone 40, a portion of Walnut Grove, Hood, Arden Park Vista, Northgate, Southwest Tract, and Zone 50.

Zone 41 is responsible for the operations and maintenance of all the water supply facilities within these service areas. Zone 41 revenues are collected by utility charges, connection permit fees, construction water permits, and grants - all of which fund replacement and rehabilitation of water supply capital facilities, replacement design, and day to day operations, maintenance, and administration. Water may come from wholesale water purveyors such as the City of Sacramento or Golden States Water Company (formerly known as American States Water Company) or may be developed using Zone 41 owned facilities where ownership is conveyed through Zone 40. Zone 40 plans, designs, finances, and constructs new water supply facility for the benefit of new development occurring within the zone. Once these water facilities are accepted by the County, the ownership is conveyed to Zone 41 for long term operations and maintenance. Zone 41 retails and wholesales water to its defined service areas and to agencies where agreements are in place to purchase water from SCWA.

Ultimate water supply for the Florin-Vineyard Community Plan will be the City's American River POU water entitlements wholesaled to SCWA Zone 41 through the City's Fairbairn water treatment plant (WTP). Prior to the introduction of the City's American River POU water supply, interim water supplies for the Florin-Vineyard Community Plan (and North Vineyard Station Specific Plan) area will come from offsite sources that either currently exist or are planned in accordance with the adopted 2005 Zone 40 Water Supply Master Plan (Water Supply Master Plan). This includes existing and future off-site groundwater and surface water treatment plants in Zone 40 as no new groundwater wells are proposed in the Florin-Vineyard Community Plan and North Vineyard Station Specific Plan areas. In order to satisfy SCWA operating parameters, development phasing for the Florin-Vineyard Community Plan area must coordinate with the construction, and capital improvement phasing of water supply infrastructure as it progresses over time.

1.3 Purpose and Objectives

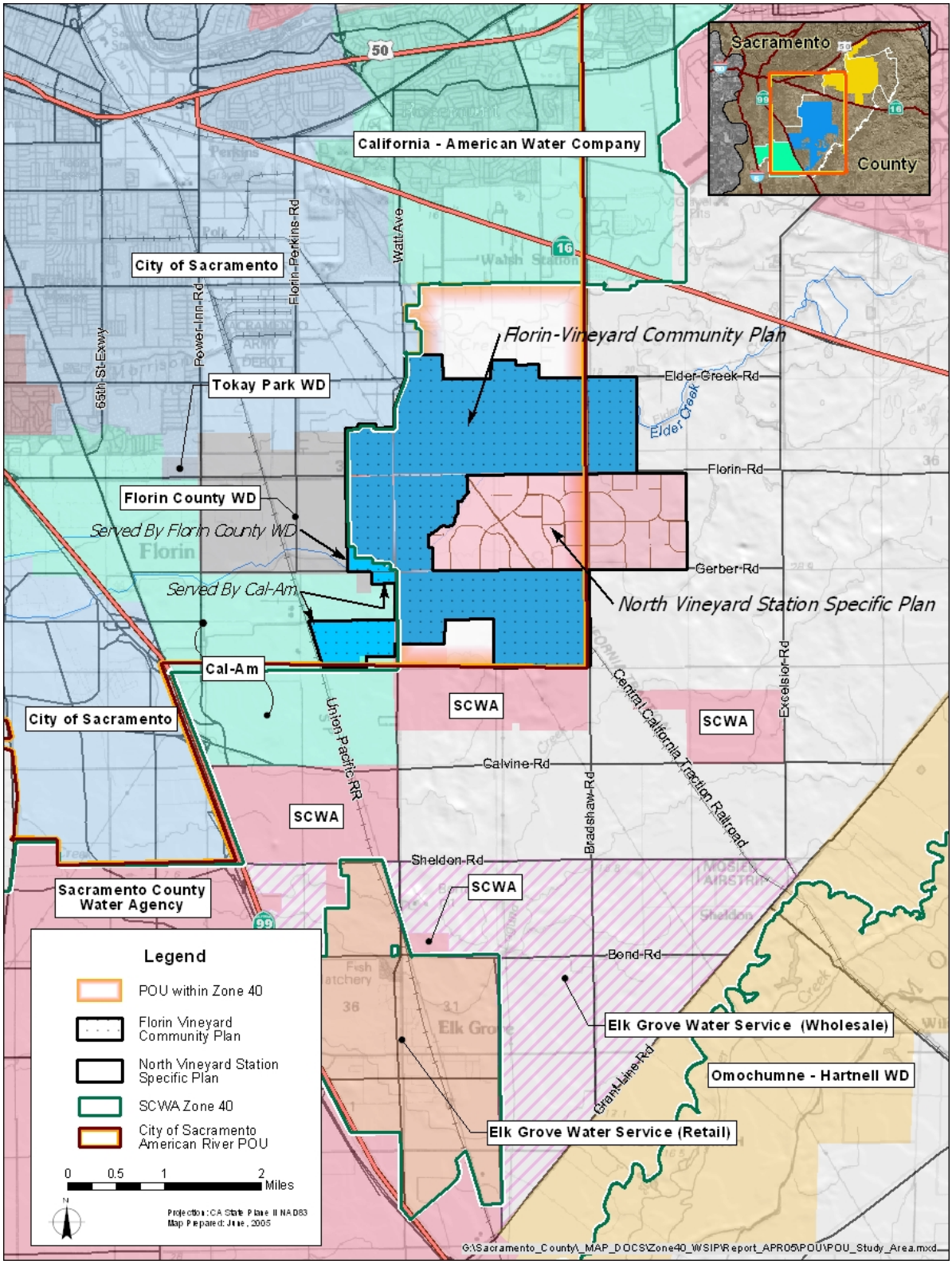
The primary objective of this study is to identify the long-term, interim, and initial development water supply sources, facilities, and capital improvements necessary to support development within the Florin-Vineyard Community Plan area while maintaining consistency with SCWA's operational parameters as identified in the *2005 SCWA Zone 40 Water Supply Master Plan* and

the *Zone 40 Water System Infrastructure Plan* (MWH, April 2006). In keeping with Zone 40's groundwater and surface water conjunctive use plan, three main water supply sources have been identified in this study; SCWA's Wildhawk and Waterman Groundwater Treatment Plants, the Vineyard Surface Water Treatment Plant, and the wholesale purchase of City of Sacramento American River POU water.

Water demand projections relative to each development scenario included in this study were estimated using land use-based unit water demand factors from the Zone 40 Water Supply Master Plan and land use information from the most current land use exhibits for the Florin-Vineyard Community Plan area. Areas outside of the Florin-Vineyard Community Plan area are also included in the modeling completed for this study based on the best available data including City and County General Plans and other Community Plans that make up the entirety of the region serviced by Zone 40. Facility sizing for the transmission and storage of water supply to the Florin-Vineyard Community Plan area, in addition to necessary capital facility improvements to the City's water transmission system servicing this area, have been identified in this study. In addition, construction phasing and presumed availability of all identified water supply sources and associated infrastructure coincide with the planned construction phasing of the Florin-Vineyard Community Plan, the North Vineyard Station Specific Plan, and the Vineyard Springs Community Plan. Evaluation of the smaller distribution facilities is not a part of this study and will be required as each development within the Florin-Vineyard Community Plan area submits improvement plans.

This report, in part, satisfies the need to provide sufficient information on the water demands, water supplies, and water transmission system to assist the policy makers and SCWA in the review and approval of the Florin-Vineyard Community Plan Draft Environmental Impact Report (DEIR). This report is not intended to satisfy SB 610 where the water retail provider is required to make a determination of water supply sufficiency. However, SCWA can use the information in this report for reference in the water supply sufficiency determination and in the identification of the needed water supply facilities.

Figure 1. Location of Florin-Vineyard Community Plan Area



SECTION 2. BACKGROUND

This section describes the existing geographical conditions, existing water facilities, and previous studies completed related to the Florin-Vineyard Community Plan area.

2.1 Existing Geographical Conditions

The Florin-Vineyard Community Plan area is fairly flat, ranging in elevation from 40 feet to 60 feet above mean sea level. The overall area is largely undeveloped and has historically been used for agriculture, light industrial, and agricultural residential housing (small ranchettes). Elder Creek runs through the Florin-Vineyard Community Plan area from northeast to southwest.

2.2 Water Purveyors for the Florin-Vineyard Community Plan

Three water purveyors are identified to provide service to the Florin-Vineyard Community Plan:

(1) Zone 41

The operations and maintenance responsibilities for water supply facilities constructed by Zone 40 is by SCWA Zone 41, the retail water purveyor of the SCWA. All water supply infrastructure constructed by Zone 40 for new development is conveyed in ownership to Zone 41 for maintenance and operations to provide adequate quantities of water to its retail customers and to its wholesale customers (e.g., Elk Grove Water Service Company and to Cal-Am in the future development of the Security Park service area). Zone 41 also has service areas locate outside of Zone 40 where retail water service is provided. It is the goal of SCWA's Zone 40 to develop long-term water supplies including surface water and recycled water supplies to be used conjunctively with groundwater supplies. Sustainability of the groundwater resources underlying Zone 40 is a primary goal of Zone 41's utilization and operation of the various supply sources and related water facilities.

(2) California American Water Company

A portion of the Florin-Vineyard Community Plan (approximately 250 out of 3,768 acres) is located outside of the Zone 40 service boundary. The area west of Elk Grove Florin Road and south of Gerber Road lies within the Cal-Am service area boundary. This study will mainly

investigate the water supply and facility requirements to meet the water demand for the portion of the Florin-Vineyard Community Plan that lies within Zone 40. The demand for the portion of the Florin-Vineyard Community Plan within the Cal-Am service area is assumed to be met by Cal-Am. An emergency inter-tie may be requested by either agency as improvement plans are submitted and reviewed.

(3) Florin County Water District

Another small fraction of the Florin-Vineyard Community Plan area lies outside of the Zone 40 service boundary near Gerber and Elk Grove-Florin Road and is identified to be served by the Florin County WD. Given the size of the area within the Florin County WD, its water demand and supply analysis is also included in this study. This implies that the Zone 40 water system will be designed to serve this small area, however, the decision as to which agency will be the retail water provider, is not certain at this time. For example, one scenario may be that Zone 40 wholesales water to Florin County WD.

2.3 Existing Water Facilities

Currently, there are no municipal water supply and water distribution facilities located within the Florin-Vineyard Community Plan area. Proposed water transmission and distribution facilities will be developed in accordance with the latest SCWA's standards for water system improvements as identified in the Zone 40 Water System Infrastructure Plan (transmission facilities) and in the Sacramento County Improvement Standards (distribution facilities), as they may change from time to time.

2.4 Previous Studies

Several previous reports and studies were reviewed in the preparation of this study. These studies provide the framework and guidance for the water system design and planning in the Florin-Vineyard Community Plan area. These studies include:

(1) The January 2000 Water Forum Agreement

Begun in 1993, the Sacramento Area Water Forum (Water Forum) is comprised of representatives from the business, environmental, public interest, and water purveyor

communities. The co-equal objectives of the Water Forum are: 1) to provide reliable and safe water supply for the region's economic health and planned development through the year 2030, and 2) to preserve the fishery, wildlife, recreational, and aesthetic values of the lower American River. The Water Forum Agreement (WFA) prescribed a conjunctive use plan for Folsom Lake, the lower American River, and the adjacent groundwater basins to achieve those goals. The Water Forum continues its role through the Water Forum Successor Effort and continuously monitors the progress in achieving the goals stated in the WFA.

(2) Zone 40 Water Supply Master Plan (SCWA, 2005)

In April 2005, SCWA approved the Zone 40 Water Supply Master Plan (Water Supply Master Plan) which updates the original 1987 Zone 40 Water Supply Master Plan and addresses changes made since the development of 1987 Master Plan. The most significant changes resulted from a major modification of the Central Valley Project's (CVP) contracting policy that occurred as a result of the Central Valley Project Improvement Act (CVPIA), the signing of the WFA, and the adoption of 1993 Sacramento County General Plan (General Plan) update that substantially increased the area designated for urban growth in the County.

The Zone 40 Water Supply Master Plan further defines SCWA's conjunctive use program of groundwater, surface water and recycled water supplies, as well as a financing program for the construction of surface water diversion and treatment facilities; water conveyance pipelines; groundwater extraction, treatment, storage, and distribution facilities; and recycled water storage and distribution facilities within Zone 40.

The Zone 40 Water Supply Master Plan also documents the unit water demand factors for various land use categories. These unit water demand factors along with the land use information will be used to estimate the water demand in the Florin-Vineyard Community Plan area.

(3) Central Sacramento County Groundwater Management Plan (MWH, 2006)

The Central Sacramento County Groundwater Management Plan (GMP) sets forth objectives for managing the groundwater basin underlying the Central Sacramento County Basin of which

Zone 40 overlies and establishes parameters for monitoring and reporting on the performance of the management strategies.

(4) Zone 40 Water System Infrastructure Plan (MWH, 2006)

The purpose of the Zone 40 Water System Infrastructure Plan is to describe and quantify the facilities necessary to extract, treat, convey, and retail groundwater; store and pump City of Sacramento (City) American River Place of Use (POU) water; and treat and convey surface water at the future Vineyard Surface Water Treatment Plant. The Zone 40 Water System Infrastructure Plan is intended to be a planning document for SCWA staff and design engineers for Zone 40 facilities. For instance, significant design issues related to the interaction of facilities and events such as the construction of the Vineyard Surface Water Treatment Plant or development within the wholesale area of the City's POU is investigated and detailed to show sizing and timing of facilities throughout Zone 40.

Unlike other planning documents where build-out facilities are typically viewed as the "project", the Zone 40 Water System Infrastructure Plan describes four phases of demand growth that represent significant milestones in water supply development within Zone 40 and reflect the anticipated pattern of development through build-out of the 2030 Zone 40 Water Supply Master Plan study area. These four phases represent existing conditions, first phase of the Vineyard Surface Water Treatment Plant (50 MGD), second phase of the Vineyard Surface Water Treatment Plant (expanding from 50 MGD to 100 MGD, the ultimate treatment capacity), and build-out conditions. The Zone 40 Water System Infrastructure Plan also considers the range in operation of the various water supply facilities (i.e., groundwater and surface water) to account for wet and dry hydrologic conditions.

SECTION 3. LAND USE AND WATER DEMAND PROJECTIONS

Water demand evaluations based on land use information is considered to be the preferred method of determining water demands for a proposed project. Water demand forecasting using population and per capita demand factors is used only when land use information is not available. The benefit of land use-based water demand factors is that it allows for geographic location of the water demands in terms of computer modeling and setting up demand areas for the model. A land use water demand factor is determined by using actual meter data for each land use category, normalizing the data to what is considered to be a design condition (e.g., hydrologic year, level of water conservation and enforcement, etc.) and then associate each factor with the land use categories of the Florin-Vineyard Community Plan area. This section describes the land uses and the associated water demand estimates for the Florin-Vineyard Community Plan area.

3.1 Proposed Land Uses

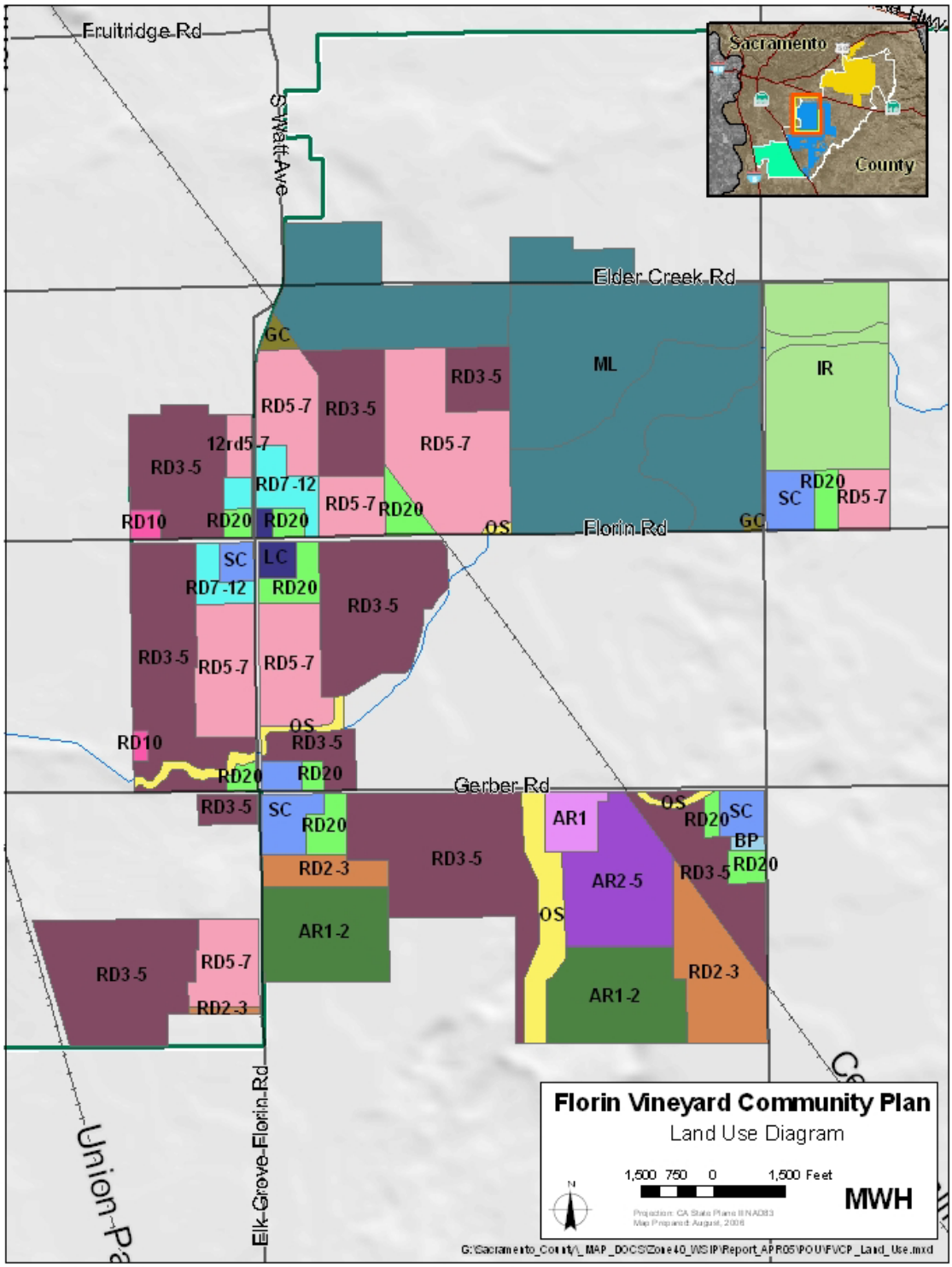
Proposed land uses for the Florin-Vineyard Community Plan area are based on the latest land use exhibit/diagram under consideration for the Florin-Vineyard Community Plan area. The land uses consist of a mix of residential, commercial, (light) industrial and open space designations. The land use diagram (the Planning Department Alternative) for the Florin-Vineyard Community Plan area is shown in **Figure 2**. In order to use the unit demand factors adopted in the Zone 40 Water Supply Master Plan to calculate the water demands, the land use classifications designated specifically for the Florin-Vineyard Community Plan are consolidated into the land use classifications identified in the Zone 40 Water Supply Master Plan, as shown in **Table 1**.

3.2 Water Demand Estimates

A water demand estimate determines the total quantity of water needed to serve a proposed development. **Table 2** summarizes the acreages for the consolidated land use classifications and the water demand estimates for the Florin-Vineyard Community Plan area. The water demands are calculated separately for areas inside and outside of Zone 40. Zone 41 is identified as the

water purveyor for the plan area inside Zone 40, while two other water purveyors are identified for the plan area outside of Zone 40: Cal-Am and Florin County WD. The demand for the

Figure 2. Proposed Land Use Diagram for Florin-Vineyard Community Plan



Note: Land uses shown for the Florin-Vineyard Community Plan Area are based on the Sacramento County Planning Department Alternative.

Table 1. Proposed Land Uses in Florin-Vineyard Community Plan and Corresponding Land Use Classifications in Zone 40 Water Supply Master Plan

Land Use Classifications in the Land Use Diagram	Corresponding Land Use Classification in Zone WSMP	Area (Acres)	
		Inside Zone 40	Outside Zone 40
AR1	Rural Estates	32.9	
AR1-2	Rural Estates	247.1	
AR2-5	Rural Estates	132.8	
Subtotal		**412.9**	
RD2-3	Single Family	143.7	4.6
RD3-5	Single Family	910.8	189.4
RD5-7	Single Family	490.0	57.2
RD10	Single Family	13.6	
RD7-12	Single Family	65.2	
Subtotal		**1,623.3**	**251.2**
RD20	Multi Family - High Density	128.4	
Subtotal		**128.4**	
BP	Commercial	4.7	
GC	Commercial	10.2	
SC	Commercial	107.2	
LC	Commercial	18.5	
Subtotal		**140.5**	
IR	Light Industrial	233.7	
M1	Light Industrial	882.0	
Subtotal		**1,115.7**	
OS	Open Space	95.9	
Subtotal		**95.9**	
TOTAL		**3,516.7**	**251.2**

Florin County WD portion is included in the water supply analysis and water distribution modeling because its water demand is small relative to the total water demand for the Florin-Vineyard Community Plan. The portion in the Cal-AM service area is not included for two reasons: (1) to be consistent with the adopted Zone 40 Water Supply Master Plan and accepted Zone 40 Water System Infrastructure Plan; and (2) Cal-AM has stated in correspondence with project proponents that they intend to provide water service to this area[1].

The quantity of water demand is usually expressed in four forms: Average Annual Demand (AAD), Average Day Demand (ADD), Max Day Demand (MMD), and Peak Hour Demand (PHD). Each one of these forms of water demands serves a specific purpose.

Average annual demand (AAD), often expressed as acre-feet per year (AF/year) provides very useful information for SCWA staff in developing their overall water supply for the Florin-Vineyard Community Plan area. ADD, represented in million gallons per day (MGD), represents the average daily water demand for a water system. ADD is often evaluated in order

[1] Based on conversation with project proponent and SCWA staff.

to obtain MDD and PHD by applying a peaking factor. MDD is useful in determining the capacity of the conveyance pipeline to deliver

Table 2. Land Use Acreage and Annual Average Water Demand Estimate for the Florin-Vineyard Community Plan Area

Land Use [1]	Unit Demand Factors (AF/Ac/Yr) [2]	Area (Acres)			Annual Average Water Demand (AF/Year)		
		Inside Zone 40 [3]	Outside Zone 40 [4]	Total	Inside Zone 40	Outside Zone 40	Total
Rural Estates	1.33	412.9	-	412.9	549.1	-	549.1
Single Family	2.89	1,623.3	251.2	1,874.5	4,691.5	726.0	5,417.4
Multi-Family	4.12	128.4	-	128.4	528.9	-	528.9
Commercial	2.75	140.5	-	140.5	386.4	-	386.4
Light Industrial	1.36 [5]	1,115.7	-	1,115.7	1,511.7	-	1,511.7
Open Space	0	95.9	-	95.9	-	-	-
Subtotal (w/o system loss)					7,667.7	726.0	8,393.7
Water System Loss (7.5%)					575.08	54.45	629.53
Total Land and Demand		**3,516.7**	**251.2**	**3,767.9**	**8,243**	**780**	**9,023**

Notes:
[1] Florin-Vineyard Community Plan land uses in Table 1 are consolidated into land use classifications in the Zone 40 Water Supply Master Plan.
[2] Unit water demand factors in the Zone 40 Water Supply Master Plan are use for demand estimation.
[3] A very small portion of the Florin-Vineyard Community Plan identified as the Florin County WD's service area is located outside of Zone 40 boundary. The water demand for this area is included in this column assuming that SCWA will provide water service to this area.
[4] Another portion the Florin-Vineyard Community Plan area outside of Zone 40 boundary is Cal-Am's. The water demand for this area is not included in the water distribution modeling.
[5] In the Zone 40 Water Supply Master Plan, 2.71 AF/Ac/Yr is identified as the unit water demand factor for "Industrial", and 0 AF/Ac/Yr for "Industrial - Unutilized". 1.36 AF/Ac/Yr is assumed for "Light Industrial" (50% of that of "Industrial").

groundwater/surface water (POU water) to a study area. PHD, often expressed in terms of gallons per minute (GPM) is used to size the water transmission and distribution pipelines, booster pumps, and on-site storage requirements to handle the PHD and ensure that service pressures are satisfied. Storage is a volume that is expressed in millions of gallons (MG).

The AAD is calculated first by applying unit water demand factors developed in the Zone 40 Water Supply Master Plan to the proposed land uses for the Florin-Vineyard Community Plan area. From this value, the ADD, MDD, and PHD are obtained subsequently as shown in the **Figure 3**. **Table 3** shows the AAD, MMD, and PHD for the Florin-Vineyard Community Plan

area located inside Zone 40 including the small area outside Zone 40 served by the Florin County WD.

Figure 3. The Relationships Between Various Forms of Water Demands of Zone 40

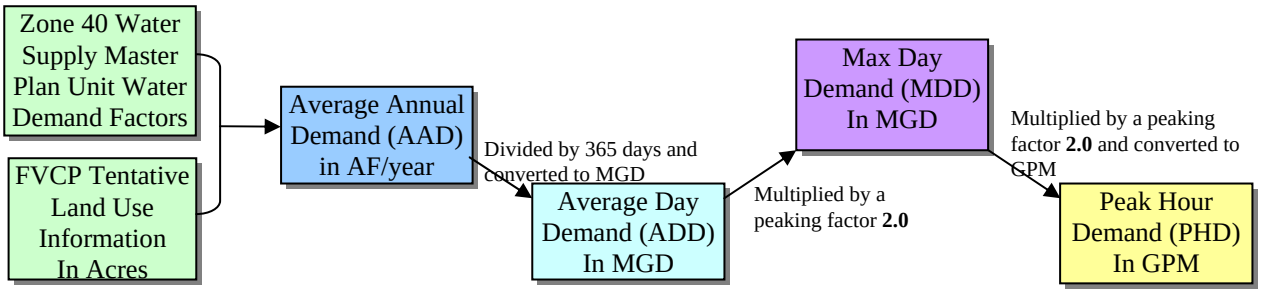


Table 3. Water Demand Estimates for the Florin-Vineyard Community Plan area within Zone 40

Average Annual Demand (AF/year)	Average Day Demand (MGD)	Max Day Demand (MGD)	Peak Hour Demand (gpm)
8,243	**7.36**	**14.72**	**20,436**

Note: All demands include 7.5% system loss.

SECTION 4. WATER SYSTEM OPERATING GOALS

This section describes SCWA's operating goals in the design of transmission main (T-main) pipelines within Zone 40. These T-main operating goals were established to ensure that adequate pressures are maintained under normal and fire flow operating conditions, as well as to maintain T-main flow velocities within an acceptable operating range. These T-main operating goals are included in **Table 4**.

Table 4. Table Zone 40 Transmission Main Operating Goals

CONDITION	OPERATING GOALS
Normal System Operation Condition	
Minimum pressure	40 psi
Maximum pressure	75 psi
Maximum Velocity	5 fps
Maximum head loss per 1,000 lf	5 ft [1]
Fire Flow Condition	
Minimum residual pressure at fire hydrant	20 psi

Note:
[1] This goal should be used as a general guideline for the system. Maintaining the minimum residual system pressure should be the controlling design criteria.

The water distribution system must be sized to provide adequate fire flows at minimum residual pressures specified by the International Organization of Standardization (ISO) and local fire departments. The Florin-Vineyard Community Plan area is located in the service area of the Sacramento Metropolitan Fire District. The fire flow requirements used for the Florin-Vineyard Community Plan area are shown in **Table 5**.

Table 5. Fire Flow Requirements for the Florin-Vineyard Community Plan area

LAND USE		Fire Flow Requirement (gpm)	Minimum Residual Pressure (psi)	Duration (Hours)
Residential				
	Homes up to 3,600 sq. ft.	1,500	20	2
	Homes up to 4,800 sq. ft.	1,750	20	2
	Homes up to 6,200 sq. ft.	2,000	20	2
Commercial		3,000	20	3
Industrial		4,000	20	4

SECTION 5. WATER INFRASTRUCTURE REQUIREMENTS AND PHASING

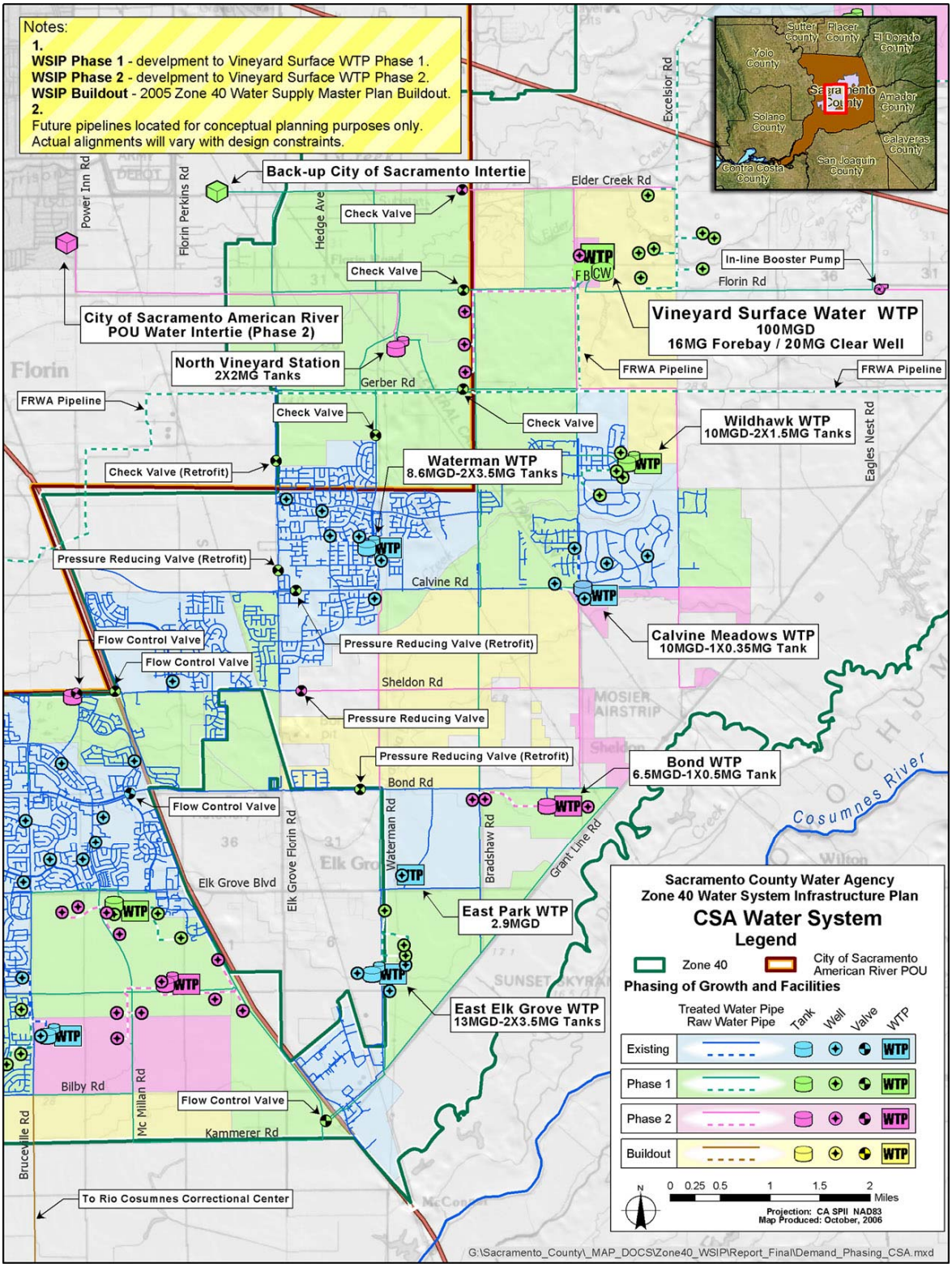
As any new development project proceeds in the land use entitlement and construction process, the water supply availability and method of providing water service to the project may change over time. This section best describes the water system infrastructure requirements and phasing to meet the water demands in the build-out and interim conditions based on the most current information and understandings of how, when and where potable water will come from to serve the Florin-Vineyard Community Plan area.

5.1 Facility Requirements and Phasing in the Zone 40 Water System Infrastructure Plan

The Zone 40 Water System Infrastructure Plan provides the framework for water facility requirements for the entire Zone 40 wholesale service area including the Florin-Vineyard Community Plan area. The facility phasing in the Zone 40 identifies /proposes two construction phases for the Vineyard Surface Water Treatment Plant. The first construction phase of the Vineyard Surface Water Treatment Plant (50 MGD) is currently under design and is anticipated to come online in the year 2010/11. The second construction phase of the Vineyard Surface Water Treatment Plant (adds another 50 MGD to reach the full 100 MGD build-out treatment capacity) is estimated to be constructed near 2022/25. **Figure 4** shows the facility requirements for Zone 40's Central Service Area in the build-out condition and the two interim facility configurations necessary to accommodate the construction phases of the Vineyard Surface Water Treatment Plant: Water System Infrastructure Plan Phase 1 and Water System Infrastructure Plan Phase 2.

The Florin-Vineyard Community Plan area is part of Zone 40's Central Service Area. Given the rapid, short-term projected growth in the Florin-Vineyard Community Plan and North Vineyard Station Specific Plan areas, additional interim phase conditions need to be considered within the Zone 40 Water System Infrastructure Plan framework. Such considerations serve to assist SCWA staff with the proper planning of water supply facilities that will ensure reliable water supplies for the Florin-Vineyard Community Plan area until ultimate build-out conditions are met.

Figure 4. Major Water Supply Facility Requirements for Build-out and Interim Conditions for Zone 40's Central Service Area



5.2 Description of Water Supply Sources and Phasing for the Florin-Vineyard Community Plan Area

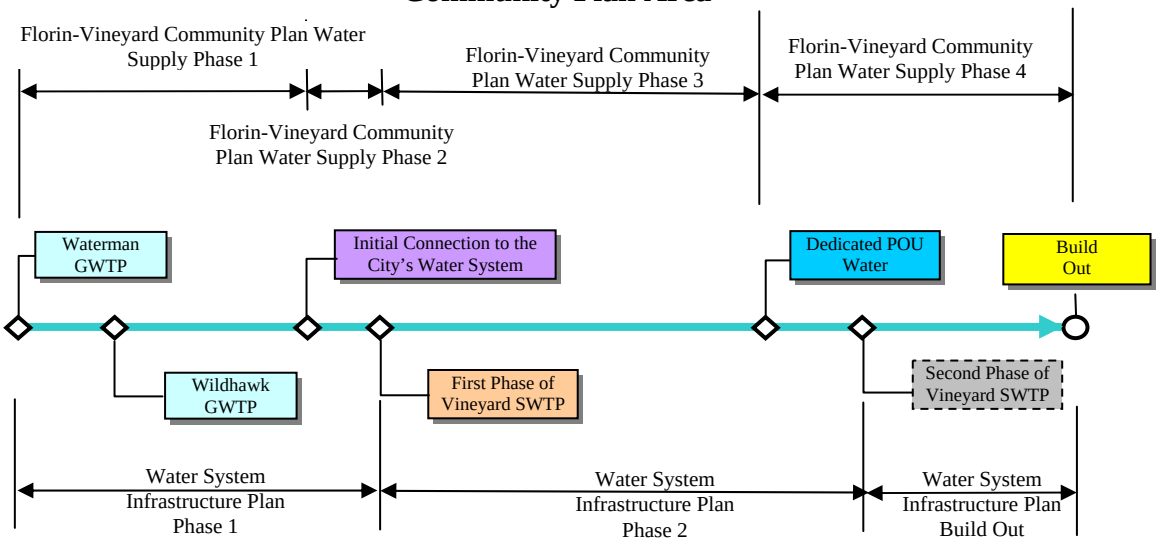
The water supply phasing for the Florin-Vineyard Community Plan area is defined and differentiated by the potential water supply sources expected to meet the demand increase in the Florin-Vineyard Community Plan area. The water supply sources and phasing for the Florin-Vineyard Community Plan area are summarized in **Table 6** and graphically shown in **Figure 5**. The description for each water supply phase is included in the following paragraphs.

Table 6. Water Supply Sources and Phasing for the Florin-Vineyard Community Plan Area

Water Supply Sources	Florin-Vineyard Community Plan Water Supply Phases			
	Phase 1	Phase 2	Phase 3	Phase 4 (Build Out)
	4,040 AF/Year demand level for the Florin-Vineyard Community Plan Area	7,670 AF/Year demand level for the Florin-Vineyard Community Plan	8,240 AF/Year demand level for the Florin-Vineyard Community Plan prior to the introduction of full amount of POU Water	8,240 AF/Year demand level for the Florin-Vineyard Community Plan
Waterman GWTP	X	X	O	O
Wildhawk GWTP	X	X	O	O
Initial Connection to the City's Water System		X	O	O
First phase of Vineyard WTP			X	O
American River POU Water				X

Notes:
X – Primary Water Supply Source(s)
O – Secondary/Backup Water Supply Source(s)

Figure 5. Graphic Illustration of Water Supply Sources and Phasing for the Florin-Vineyard Community Plan Area



Four water supply phases have been identified for the Florin-Vineyard Community Plan area. The water supply phasing described in this document does not specify in which year each water supply phase could actually start because the water supply is essentially water demand driven rather than time-driven. As most of the water supply sources identified serve the Florin-Vineyard Community Plan area and other surrounding areas including the North Vineyard Station Specific Plan and the Vineyard Springs Community Plan. The regional water demand growth projection will be needed to determine at what demand level a new water supply source should be introduced. The Sacramento Area Council of Governments' (SACOG) population growth projection is used for this purpose to estimate the projected water demand growth for the Florin-Vineyard Community Plan area and surrounding areas from existing to build-out, assuming that water demand growth is directly proportional to population growth. The description of water supply sources and the required major T-mains is provided below for each water supply phase for the Florin-Vineyard Community Plan area. Given the timing of the development of the North Vineyard Station Specific Plan and its relative location to the Florin-Vineyard Community Plan area, the water supply phasing discussed below inevitably includes the North Vineyard Station Specific Plan.

(1) Phase 1 Water Supply Sources for Florin-Vineyard Community Plan Area

The Phase 1 water supply sources for the Florin-Vineyard Community Plan area will be groundwater. Currently, there are two off-site groundwater treatment plants in the vicinity of the Florin-Vineyard Community Plan area: The Waterman Groundwater Treatment Plant and the Wildhawk Groundwater Treatment Plant, see **Figure 4**.

The Waterman Groundwater Treatment Plant has a treatment capacity of 8.6 MGD located south of the Florin-Vineyard Community Plan at Waterman Road north of Calvine Road. It currently serves the Vineyard and Vintage Park service areas. The Waterman Groundwater Treatment Plant is close to full utilization of its rated capacity to meet the existing service areas. As a result, the Waterman Groundwater Treatment Plant can only provide a small portion (approximately 1,000 gpm) of the water for the Florin-Vineyard Community Plan and the North Vineyard Station Specific Plan areas. The treated water from the Waterman Groundwater Treatment Plant is delivered to the Florin-Vineyard Community Plan and the North Vineyard Station Specific Plan areas via the existing 24-inch diameter T-main in Elk Grove-Florin Road that runs north and connects with the future 24-inch diameter T-main in Gerber Road. The 24-inch diameter T-main in Gerber Road extends east to Vineyard Road and then south in Vineyard Road and ultimately connects to the Wildhawk Groundwater Treatment Plant.

The Wildhawk Groundwater Treatment Plant has an ultimate treatment capacity of 10 MGD and is located east of Vineyard Road and south of Gerber Road and is anticipated to be operational by the end of calendar year 2006. The Wildhawk Groundwater Treatment Plant will be the major near-term water supply source for new developments in the Florin-Vineyard Community Plan, the North Vineyard Station Specific Plan, and the Vineyard Springs Community Plan areas. Even with the small contribution from the Waterman Groundwater Treatment Plant, the capacity of the Wildhawk Groundwater Treatment Plant will not be sufficient to meet the build-out maximum day demand (MDD) for the three areas mentioned previously. Therefore, SCWA must identify additional water supply sources in order to ensure a reliable water supply for its existing and future customers.

(2) Phase 2 Water Supply Sources for Florin-Vineyard Community Plan Area

The Phase 2 water supplies include the development of an initial POU water connection to the City's water system at Elder Creek Road and South Watt Avenue to supplement the Waterman Groundwater Treatment Plant and Wildhawk Groundwater Treatment Plant before the first construction phase of the Vineyard Surface Water Treatment Plant becomes operational. This initial POU water connection with the City will serve as a back up connection once the dedicated POU water facilities are constructed and become operational. The capacity of the initial POU connection is determined by a number of factors including the demand growth in the Florin-Vineyard Community Plan, the North Vineyard Station Specific Plan and Vineyard Springs Community Plan areas, the wheeling ability of the City's water distribution system, and the timing of when the Vineyard Surface Water Treatment Plant becomes operational. It is preliminarily estimated that up to 4,500 gpm of flow capacity will be needed at this interim connection. An in-line booster pump station is proposed near the connection to the City's water distribution system in Elder Creek Road west of South Watt Avenue. The in-line booster pump station will require three booster pumps installed (two service pumps plus one back-up pump). The design flow and head for each booster pump is 2,250 gmp and 150 feet, respectively.

The City of Sacramento will need to construct a 54-inch diameter transmission main from the E. A. Fairbairn Surface Water Treatment Plant to the Florin Booster Pumping Station prior to delivering water to any portion of the SCWA service area located within the POU. The transmission main project is currently in the planning phase, and design will begin in early 2007. Construction of the transmission main will occur in 2009 and end in 2010.

(3) Phase 3 Water Supply Sources for Florin-Vineyard Community Plan Area

The first 50 MGD of the Vineyard Surface Water Treatment Plant is identified as the primary phase 3 water supply source for the Florin-Vineyard Community Plan area. The treated water from the Vineyard Surface Water Treatment Plant will be used in Zone 40 in conjunction with groundwater to meet the water demand in Zone 40's North Service Area (Sunrise Douglas Community Plan, Rio del Oro, and Sun Creek Specific Plan, etc.) and the Central Service Area (includes the Florin-Vineyard Community Plan, the North Vineyard Station Plan, Vineyard Springs Community Plan areas). The Vineyard Surface Water Treatment Plant is identified as a critical water supply element in the Zone 40 Water Supply Master Plan and Water System

Infrastructure Plan to implement Zone 40's conjunctive use objectives. The objective is to maximize the use of surface water in wet and normal years and allow the groundwater basin to recharge naturally to allow for sufficient groundwater availability in dry years when surface water cutbacks will occur.

The water supply sources available in previous water supply phases such as the Waterman and Wildhawk groundwater treatment plant sources will serve as supplemental water sources to the Vineyard Surface Water Treatment Plant. As development continues across Zone 40, the capacity of 50 MGD for the first phase of the Vineyard Surface Water Treatment Plant will be at its maximum rated capacity at some point in the future prior to the construction of the additional 50 MGD of the Vineyard Surface Water Treatment Plant. This will necessitate the introduction of the ultimate water supply source for the City's American River Water POU area within Zone 40, including the majority of the Florin-Vineyard Community Plan area and the portion of the North Vineyard Station Specific Plan area west of Bradshaw Road.

(4) Phase 4 Water Supply Sources for Florin-Vineyard Community Plan Area (100% Reliance on the City's American River POU Water)

The ultimate water supply for the Florin-Vineyard Community Plan is the City's treated surface water diverted from the American River at the City's E. A. Fairbairn Surface Water Treatment Plant. This water supply source is also referred herein as the "POU water". The POU water will be wholesaled to SCWA based on a wholesale water agreement(s) between SCWA and the City that is currently being negotiated[2].

The reliability of the POU water is considered "high" in the Zone 40 Water Supply Master Plan and the Water System Infrastructure Plan. The POU water will be the primary water supply source once the POU water delivery is considered to be "dedicated capacity" from City water facilities. According to the Zone 40 Water System Infrastructure Plan, the maximum amount of POU water delivery is determined by the build-out water demand in the POU area within Zone 40 estimated to be 10,644 AF/Year including 7.5% system losses.

[2] An existing wholesale wheeling agreement currently exists for Zone 50 of the SCWA that is being amended to include all wholesale connections with the City.

The approximate time line that the ultimate POU water supply will be available is estimated to be year 2020. The required water supply facilities and the associated capital costs to make the full amount of POU water available to SCWA will be discussed in the following sections. SCWA will continue to work with the City on delivering the ultimate POU water (and interim POU water) to SCWA's service area.

5.3 Water Infrastructure Phasing for the Florin-Vineyard Community Plan Area

This section describes the facility phasing based on the proposed development phases for the Florin-Vineyard Community Plan Area and the water supply phases described in the previous section. This section is intended to facilitate SCWA staff in identifying the necessary infrastructure and phasing in order to provide a reliable water supply to the Florin-Vineyard Community Plan area during the development process, see **Table 7.**

Figure 6 through **Figure 9** graphically depict the water infrastructure phasing for all water supply phases for the Florin-Vineyard Community Plan, with build-out facility requirements presented first followed by facility requirements for Phase 1, Phase 2, and Phase 3.

Table 7. Water Supply Facility and Phasing Requirements for Florin-Vineyard Community Plan

PHASE	Water Supply Sources	SUB-PHASE	FACILITY REQUIREMETNS	DESCRIPTION
Water Supply PHASE 1	Waterman and Wildhawk GWTP's	1-A	(i) 24" T-main in Gerber Road from Elk Grove-Florin Road to Vineyard Road	Introduce treated water from Waterman and Wildhawk GWTPs to the initial development in NVSSP, and later to the Florin-Vineyard Community Plan area.
			(ii) 24" and 30" T-mains from Wildhawk GWTP to Gerber Road	Connect Wildhawk GWTP with the Gerber Road T-main.
			(iii) 18" T-main in the NVSSP area	Deliver water to the initial development area in the NVSSP.
		1-B	24" and 36" T-mains between Gerber and Florin Roads, and 24" in Florin Road in west NVSSP area	Introduce treated water from Waterman and Wildhawk GWTPs to the Florin-Vineyard Community Plan area through the NVSSP area.
		1-C	(i) 16" T-main in Elk Grove-Florin Road and 24" T-main in Florin Roads	Deliver water to the initial development area in FVCP.
			(ii) 48" T-main in Bradshaw Road between Florin and Gerber Roads and 24" in Florin Road west of Bradshaw	Serve the NVSSP area along Bradshaw Road. The T-main is also part of the "backbone" transmission line to deliver the treated water from the Vineyard WTP to the Zone 40 CSA[1] in the future.
Water Supply PHASE 2	Waterman and Wildhawk GWTP's and Interim Connection to the City	-	(i) 24" T-main in Elder Creek Road from S. Watt Ave. to Florin Perkins Road.	Connect to the City's water distribution system to provide interim POU water supply to the Study area
			(ii) Inline booster pump station in Elder Creek Road west of S. Watt Ave.	Maintain sufficient system head when connected to the City's water distribution system.
			(iii) 16" and 24" T-mains in Tokay Ln	Connect the City's intertie to the FVCP water distribution system.
			(iv) 16" T-main in Waterman south of Gerber Road	Deliver treated water to the development area south of Gerber Road
Water Supply PHASE 3	First Phase of Vineyard WTP	-	(i) First phase of the Vineyard WTP (50 MGD)	Treat surface water diverted from the Sacramento River through Freeport Diversion facility and FRWA transmission pipeline
			(ii) 60" T-main in Florin Road from the Vineyard WTP to Bradshaw Road	Connect the Vineyard WTP to the FVCP and NVSSP water distribution system. The T-main is also part of the "backbone" transmission line to deliver the treated water from the Vineyard WTP to the Zone 40 CSA[1] in the future.
			(iii) 48" T-main in Bradshaw Road south of Gerber Road	Serve the FVCP area south of Gerber Road and along Bradshaw Road. The T-main is also part of the "backbone" transmission line to deliver the treated water from the Vineyard WTP to the Zone 40 CSA[1] in the future.
Water Supply PHASE 4 (BUILD OUT)	POU Water	-	(i) 36" POU water transmission pipeline from Florin reservoir near Power Inn Road to the NVS storage tanks in the NVSSP area	Dedicated low-head transmission line conveying the full amount of the POU water from the City's system to the POU area within Zone 40.
			(ii) Two 2-MG NVS storage tanks and pump station	Store and distribute POU water to the POU area
			(iii) 16" and 24" T-mains in Florin, Bradshaw, and Vineyard Roads	Serve the last phase of the development areas in the FVCP and NVSSP areas.
			(iv) Check valves on the POU area boundaries	Isolate POU area from the rest of the Zone 40 area to ensure that the POU water is used in the POU area.

Keys:

GWTP – Groundwater Treatment Plant
NVSSP – North Vineyard Station Specific Plan
FVCP – Florin-Vineyard Community Plan
CSA – Central Service Area of Zone 40.

Figure 6. Water Infrastructure Requirements for the Florin-Vineyard Community Plan Build-out Water Supply

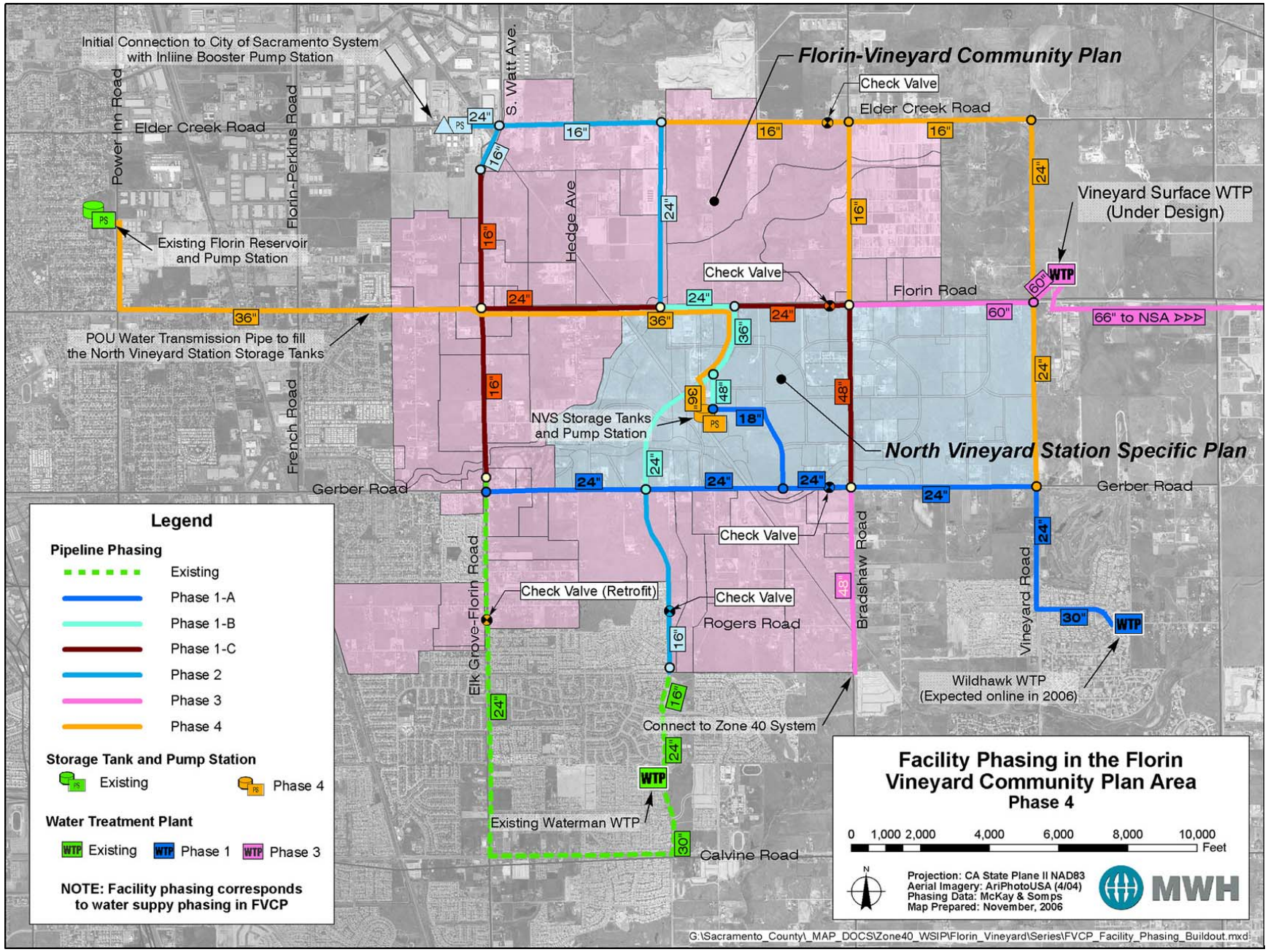


Figure 7. Water Infrastructure Requirements for the Florin-Vineyard Community Plan Phase 1 Water Supply

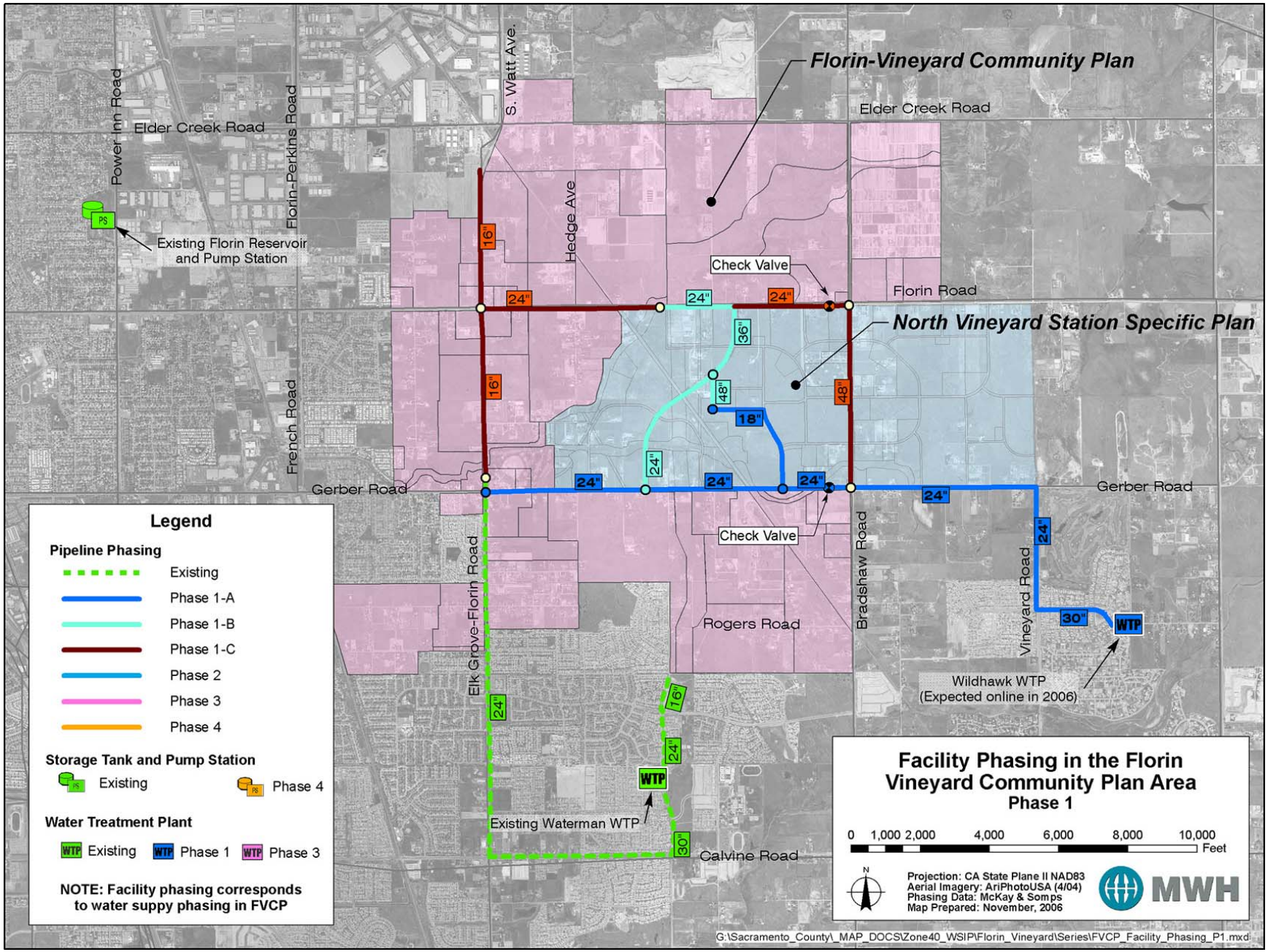


Figure 8. Water Infrastructure Requirements for the Florin-Vineyard Community Plan Phase 2 Water Supply

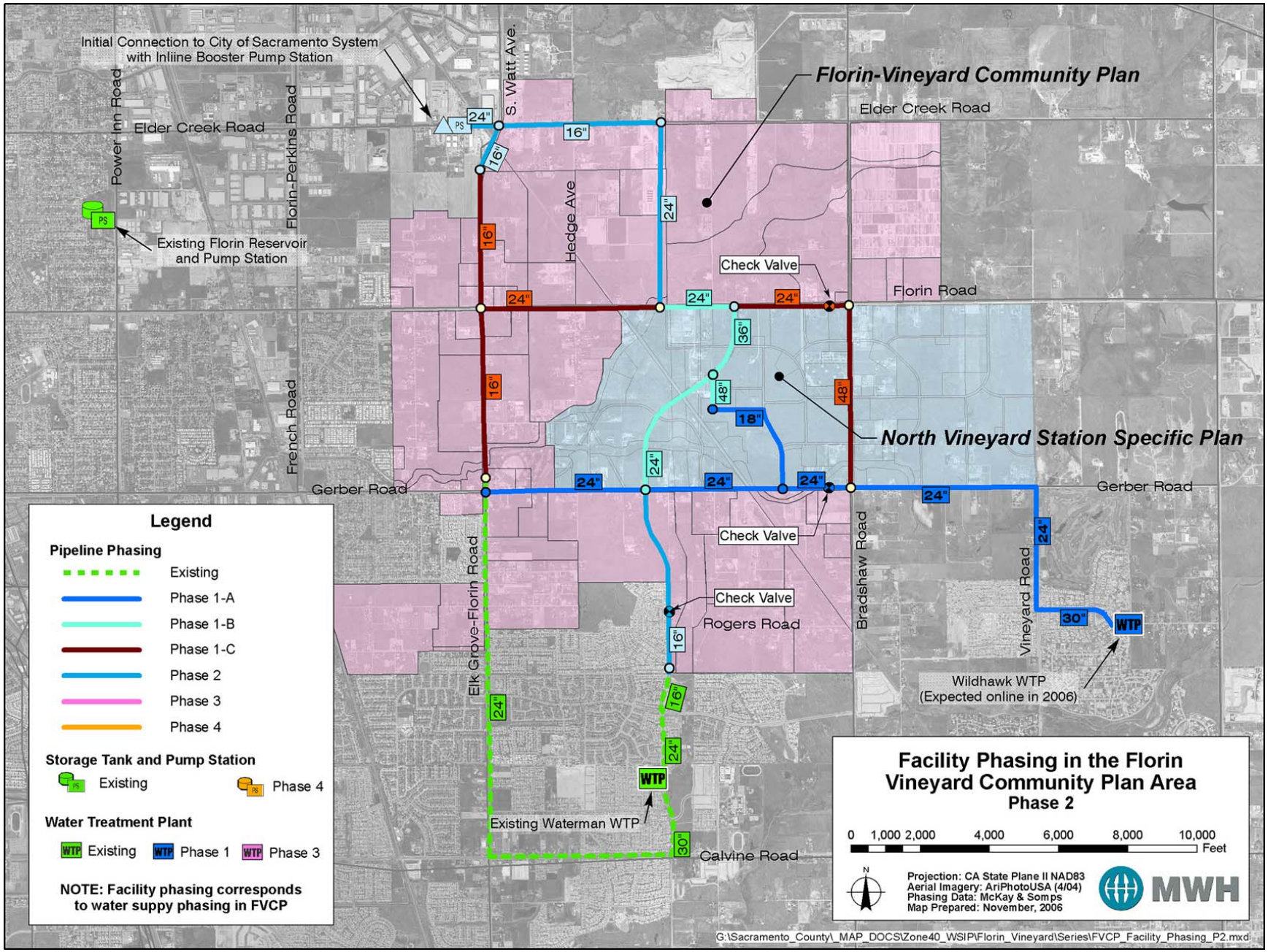
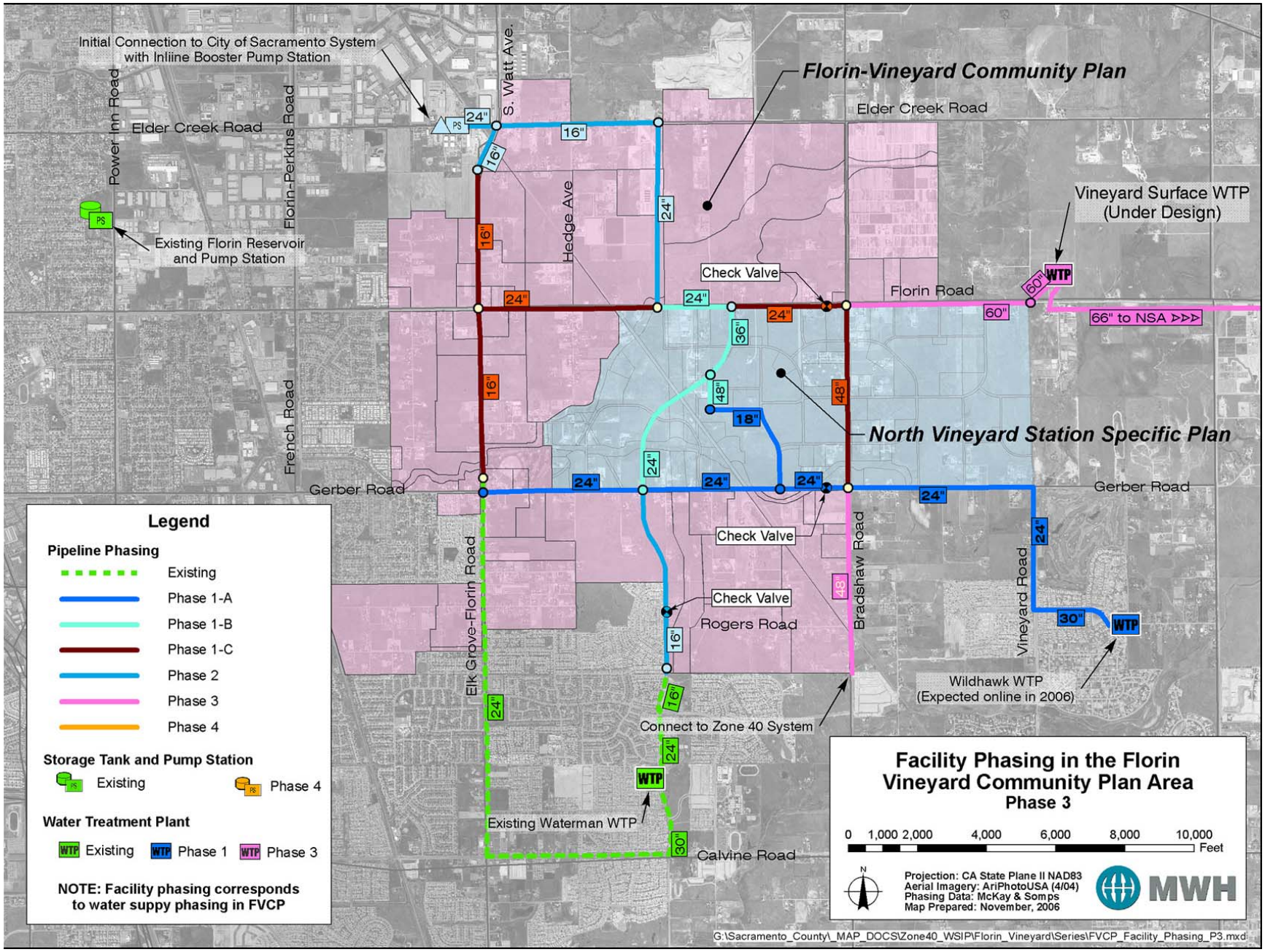


Figure 9. Water Infrastructure Requirements for the Florin-Vineyard Community Plan Phase 3 Water Supply



SECTION 6. WATER DISTRIBUTION MODELING RESULTS

Water distribution modeling completed for this study includes a number of scenarios to verify that the SCWA operating goals are met in the proposed water distribution system in the Florin-Vineyard Community Plan area. The water distribution modeling in this study uses the regional water distribution model developed for the Zone 40 Water System Infrastructure Plan.

6.1 Modeling Scenarios

The modeling scenarios evaluated in this study include:

Scenario 1 – Evaluate the proposed water distribution system in the Florin-Vineyard Community Plan area for water supply Phase 1.

Scenario 2 – Evaluate the proposed water distribution system in the Florin-Vineyard Community Plan area for water supply Phase 2.

Scenario 3 – Evaluate the proposed water distribution system in Florin-Vineyard Community Plan area water supply Phase 3.

Scenario 4 (Build-out) – Evaluate the proposed water distribution system in Florin-Vineyard Community Plan area for water supply Phase 4.

Fire Flow Scenarios – Verify that fire flow capacities are adequate throughout the proposed water distribution system in the Florin-Vineyard Community Plan area for all water supply phases.

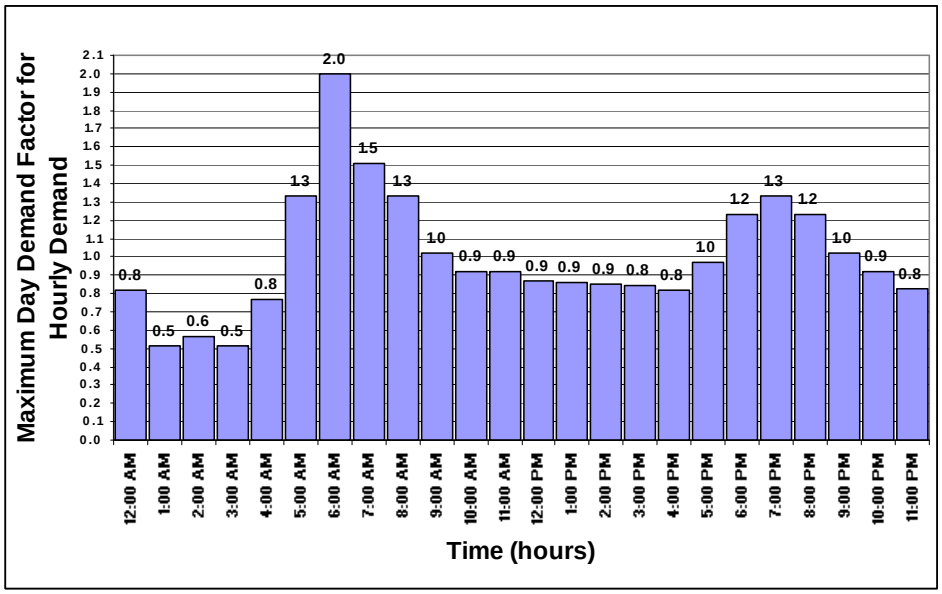
6.2 Modeling Assumptions

The following are assumptions used in the water distribution model:

- A Hazen William's "C" factor of 130 was used for new pipes and 125 used for existing pipes.
- A 72-hour Extend Period Simulation (EPS) was used to represent the system operations under various Florin-Vineyard Community Plan water supply phases.

- Maximum Day Demands and a diurnal curve for Maximum Day Demands were assigned to demand nodes for modeling scenarios 1- 4. The assumed Max Day diurnal curve is shown in **Figure 10**, which was also used in the Zone 40 Water System Infrastructure Plan.
- Maximum Day Demands plus fire flows are applied to fire flow scenarios.
- The sizes of T-main and other major facilities were determined from the Zone 40 Water System Infrastructure Plan regional model.
- Assume a maximum capacity of 4,500 gpm at the interim connection to the City at South Watt Ave. and Elder Creek Road.

Figure 10. Assumed Max Day Demand Diurnal Curve



6.3 Modeling Results

This section presents the modeling results for all the modeling scenarios described previously. The modeling results for operating conditions including Average Day Demand, Maximum Day Demand, and Peak Hour Demand conditions for all Florin-Vineyard Community Plan water supply phases are shown in **Table 8**. The modeling results for all Florin-Vineyard Community Plan water supply phases under Fire Flow conditions are presented in **Table 9**. More detailed

modeling results are included in **Appendices B** through **F** with reference to the demand nodes and pipes identifications shown in **Appendix A**.

The modeling results indicate that the proposed water supplies and the proposed T-main network are able to meet the demand growth in the Florin-Vineyard Community Plan area and also satisfy SCWA's operating goals. Note in **Table 8**, there are occasions where the system pressures are slightly above the 75 psi maximum operating goal in T-mains. However, these pressures can be considered acceptable given that they are localized and often occur immediately downstream of the booster pump station during off peak hours.

The residual pressures under fire flow conditions in the Florin-Vineyard Community Plan area also meet and exceed the fire flow residual pressure requirements of 20 psi. However, the residual pressures presented obtained in this study should not be used as the boundary conditions for fire flow analyses for individual subdivisions in the future. This is mainly because residual pressures vary across the entire Zone 40 area. SCWA desires to continue to use a consistent yet conservative 40 psi residual pressure as the boundary condition for future fire flow analyses for individual subdivisions.

Table 8. Modeling Results for Florin-Vineyard Community Plan Water Supply Phases Under Various Demand Conditions

	Average Day Demand Condition	Max Day Demand Condition	Peak Hour Demand Condition
Scenario 1 - Water Supply Phase 1			
Florin-Vineyard Community Plan Demand (gpm)	894	1,752	3,504
System Pressure Range (psi)	73.4 ~ 77.4	73.0 ~ 77.1	69.3 ~ 73.1
Velocity Range (ft/s)	0.1 ~ 1.5	0.1 ~ 1.7	0.4 ~ 3.0
Scenario 2 - Water Supply Phase 2			
Florin-Vineyard Community Plan Demand (gpm)	3,703	7,260	14,520
System Pressure Range (psi)	60.5 ~ 73.8	64.3 ~ 77.6	51.4 ~ 68.0
Velocity Range (ft/s)	0.1 ~ 1.7	0.1 ~ 3.2	0.1 ~ 4.3
Scenario 3 - Water Supply Phase 3			
Florin-Vineyard Community Plan Demand (gpm)	3,703	7,260	14,520
System Pressure Range (psi)	61.6 ~ 75.9	60.1 ~ 74.8	50.5 ~ 70.0
Velocity Range (ft/s)	0.1 ~ 2.9	0.1 ~ 3.6	0.1 ~ 5.0
Scenario 4 - Water Supply Phase 4			
Florin-Vineyard Community Plan Demand (gpm)	5,109	10,218	20,436
System Pressure Range (psi)	56.5 ~ 71.7	45.6 ~ 61.8	46.9 ~ 60.0
Velocity Range (ft/s)	0.1 ~ 3.7	0.1 ~ 4.7	0.1 ~ 5.8

Table 9. Modeling Results for Florin-Vineyard Community Plan Water Supply Phases Under Fire Flow Conditions

	Fire Flow Duration (Hours)	Minimum Residual Pressure (psi)
Fire Flow for Water Supply Phase 1		
2,000 gpm Fire Flows for Residential	2	70
3,000 gpm Fire Flows for Commercial	3	73
Fire Flow for Water Supply Phase 2		
2,000 gpm Fire Flows for Residential	2	66
3,000 gpm Fire Flows for Commercial	3	65
Fire Flow for Water Supply Phase 3		
2,000 gpm Fire Flows for Residential	2	61
3,000 gpm Fire Flows for Commercial	3	67
Fire Flow Water Supply Phase 4		
2,000 gpm Fire Flows for Residential	2	56
3,000 gpm Fire Flows for Commercial	3	65

SECTION 7. WATER FACILITY FINANCE SECTION

The purpose of this section is to provide, at a planning level, the estimated cost for construction of the necessary water supply facilities by Zone 40. The Zone 40 Development Fee and User Fee programs (Zone 40 Fee Program) will be used to finance the facilities identified in this study including the capital buy-in to obtain service from the City of Sacramento. Zone 41 user rates will be used to purchase treated surface water from the City of Sacramento within the POU area.

Table 10. Water Supply Facility Capital Costs

Water Supply Facilities	Total Units	Unit Cost	Cost
Water Supply Phase 1	(FT)	($/LF)	($)
16" Pipeline	8,902	$140	$1,246,340
18" Pipeline	3,869	$158	$611,282
24" Pipeline	31,004	$210	$6,510,860
30" Pipeline	2,370	$263	$623,423
36" Pipeline	3,647	$315	$1,148,800
48" Pipeline	5,260	$420	$2,209,209
Subtotal	**55,053**	**-**	**$12,349,914**
Water Supply Phase 2	(FT)	($/LF)	($)
16" Pipeline	11,902	$140	$1,666,225
24" Pipeline	28,529	$210	$5,991,086
	(HP)	($/HP)	
Inline Booster Pump	170.6	$1500	$255,900
Subtotal	-	-	**$7,913,210**
Water Supply Phase 3	(FT)	($/LF)	($)
24" Pipeline	3,324	$210	$697,952
48" Pipeline	5,380	$420	$2,259,395
60" Pipeline	6,166	$525	$3,237,212
Subtotal	-	-	**$6,194,559**
Water Supply Phase 4			
Capital Buy-in for City of Sacramento POU Water	(FT)	($/LF)	($)
36" POU Pipeline	22,630	$315	$7,128,450
	(MG)	($/MG)	($)
Hanfield (North Vineyard Station) Storage Tanks	4	$300,000	$1,200,000
	(HP)	($/HP)	($)
	1,026	$1,500	$1,539,000
Subtotal	-	-	**$9,867,450**
TOTAL	-	-	**$36,325,134**

The Zone 40 Fee Program accounts for all aspects of providing water service to the entire Zone 40 area including the Florin-Vineyard Community Plan area. The Zone 40 Water System Infrastructure Plan reflects the result of this study, and the Zone 40 Fee Program may be adjusted, if needed, to accommodate the all necessary water supply facilities identified in the Zone 40 Water System Infrastructure Plan.

For a more comprehensive discussion on the Zone 40 Fee Program, the reader is advised to review the Zone 40 Water Supply Master Plan and Water System Infrastructure Plan where the overall Capital Improvement Program and the necessary fees are identified. In addition, the Water System Infrastructure Plan provides a detailed description of the types of facilities constructed by SCWA and the types of facilities that are constructed by the developer and reimbursed through credits and reimbursement agreements. The developer is solely responsible for the distribution mains that are said to benefit the individual projects.

SECTION 8. NEXT STEPS

The primary objective of this study was to evaluate the water supply and large water distribution system requirements and facilities phasing for the portion of the Florin-Vineyard Community Plan area located within Zone 40 (including a small portion located with Florin County WD). Upon approval of the Florin-Vineyard Community Plan by the Sacramento County Board of Supervisors, individual development applications will be requested (or conditioned) to prepare a supplemental water supply studies that complement this report in terms of identifying the needed lands and rights-of-way for the facilities identified in this report, and to size the local distribution mains (not addressed in this report), that will serve individual homes.

APPENDIX A

Demand Nodes and Pipes IDs in the Model

Figure A-1. Nodes and Pipes IDs in the Phase 1 Model

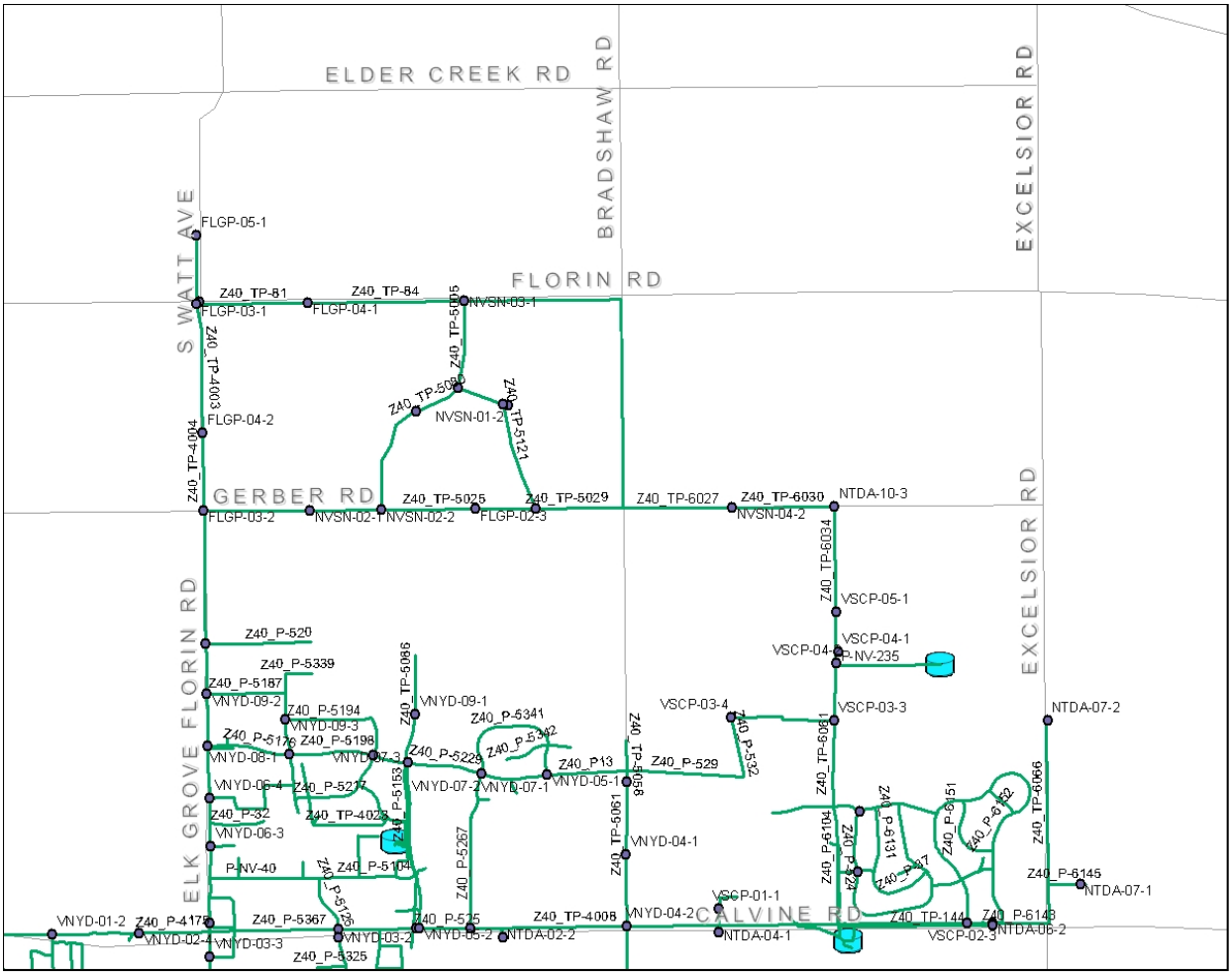
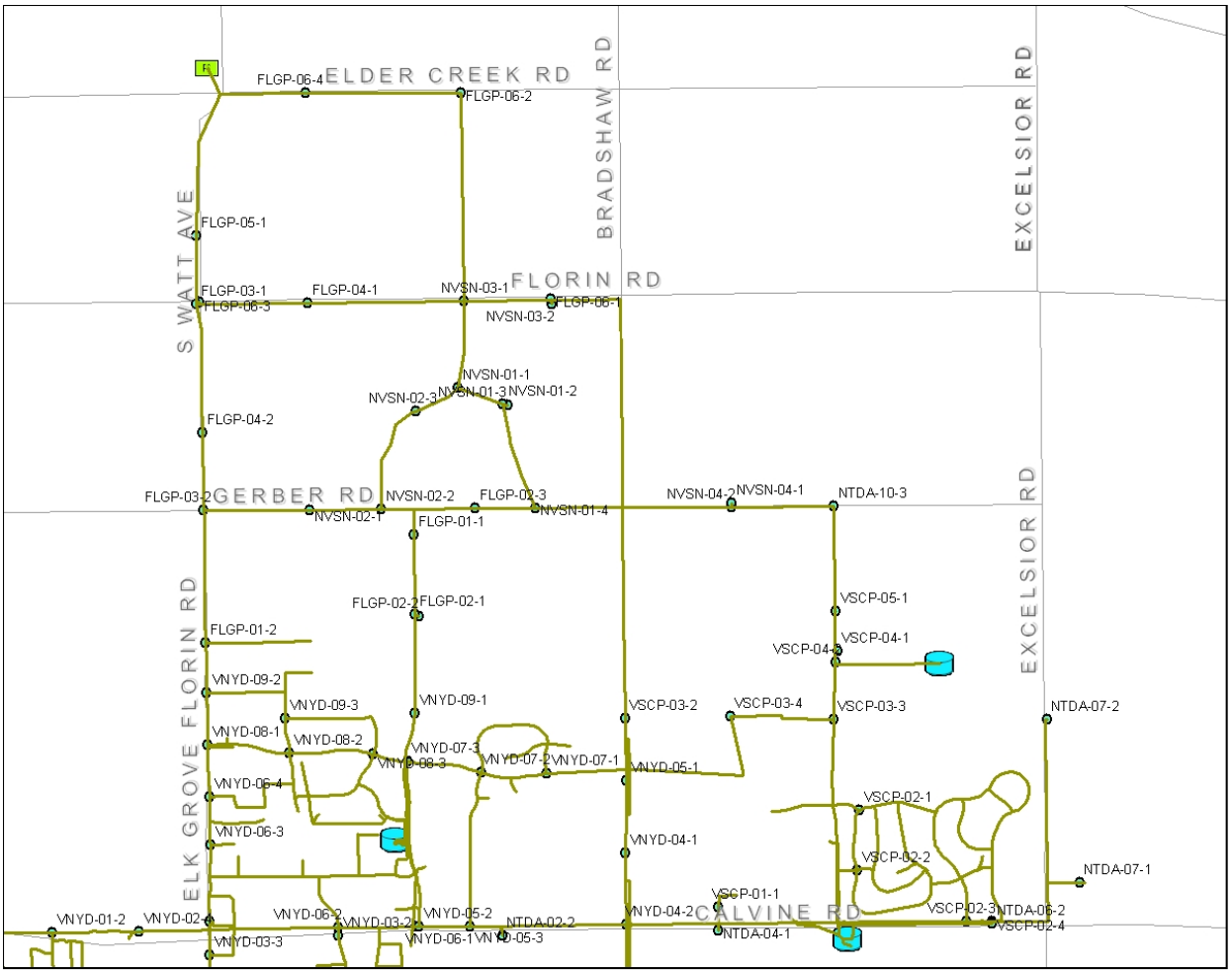


Figure A-2. Nodes and Pipes IDs in the Phase 2 Model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FLORIN RD
GERBER RD
CALVINE RD
S WATT AVE
BRADSHAW RD
EXCELSIOR RD
ELK GROVE FLORIN RD
FLGP-06-4
FLGP-06-2
FLGP-05-1
FLGP-03-1
FLGP-06-3
FLGP-04-1
NVSN-03-1
FLGP-06-1
NVSN-03-2
NVSN-01-1
NVSN-02-3
NVSN-01-3
NVSN-01-2
FLGP-04-2
FLGP-03-2
NVSN-02-2
FLGP-02-3
NVSN-02-1
NVSN-01-4
NVSN-04-2
NVSN-04-1
NTDA-10-3
FLGP-01-1
FLGP-02-2
FLGP-02-1
FLGP-01-2
VSCP-05-1
VSCP-04-1
VSCP-04-3
VNYD-09-2
VNYD-09-3
VNYD-09-1
VSCP-03-2
VSCP-03-4
VSCP-03-3
NTDA-07-2
VNYD-08-1
VNYD-08-2
VNYD-07-3
VNYD-08-3
VNYD-07-2
VNYD-07-1
VNYD-05-1
VNYD-06-4
VSCP-02-1
VNYD-06-3
VNYD-04-1
VSCP-02-2
NTDA-07-1
VSCP-01-1
VNYD-01-2
VNYD-02-1
VNYD-06-2
VNYD-03-2
VNYD-05-2
NTDA-02-2
VNYD-04-2
VSCP-02-3
NTDA-06-2
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VNYD-05-3
NTDA-04-1

Figure A-3. Nodes and Pipes IDs in the Phase 3 Model

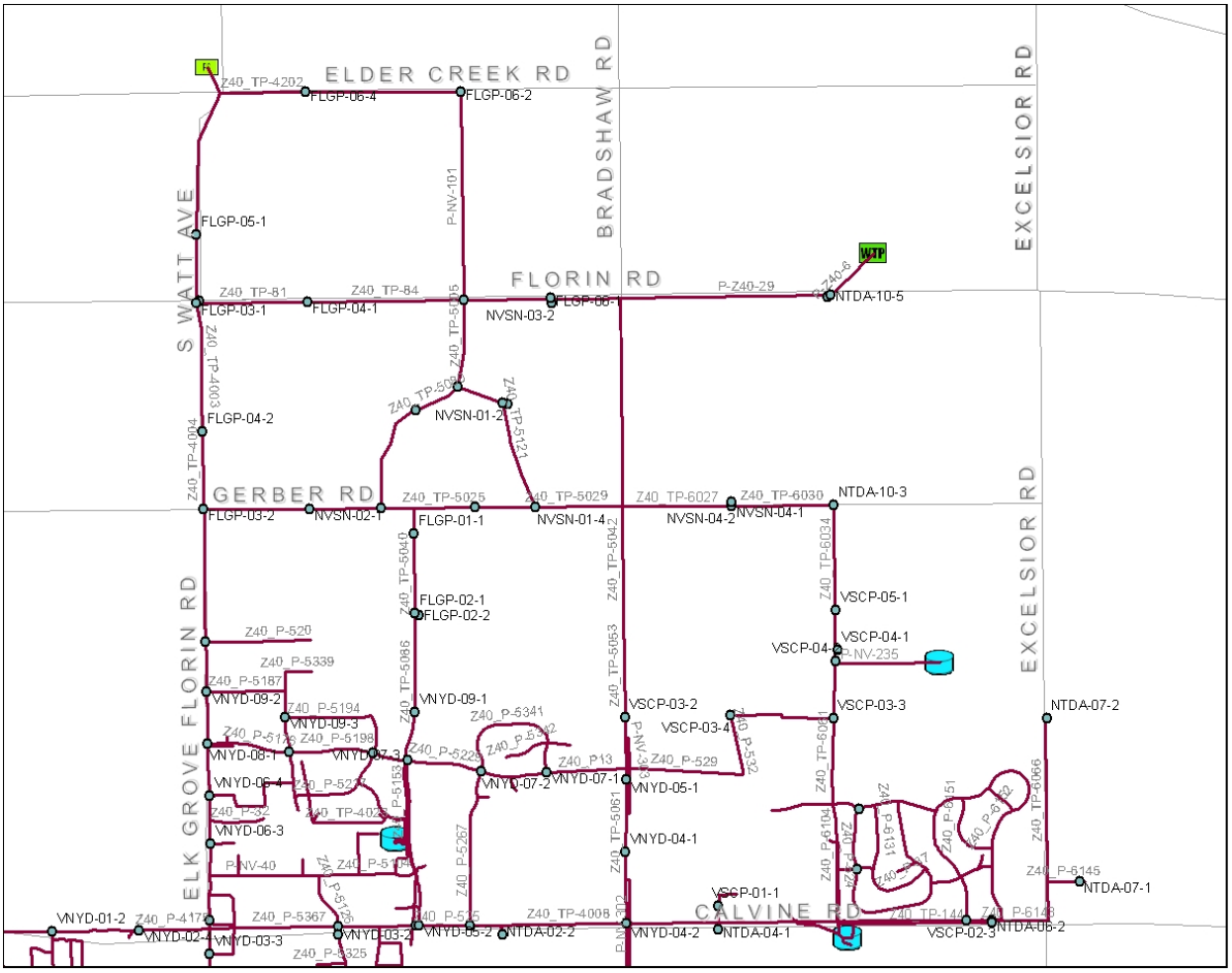
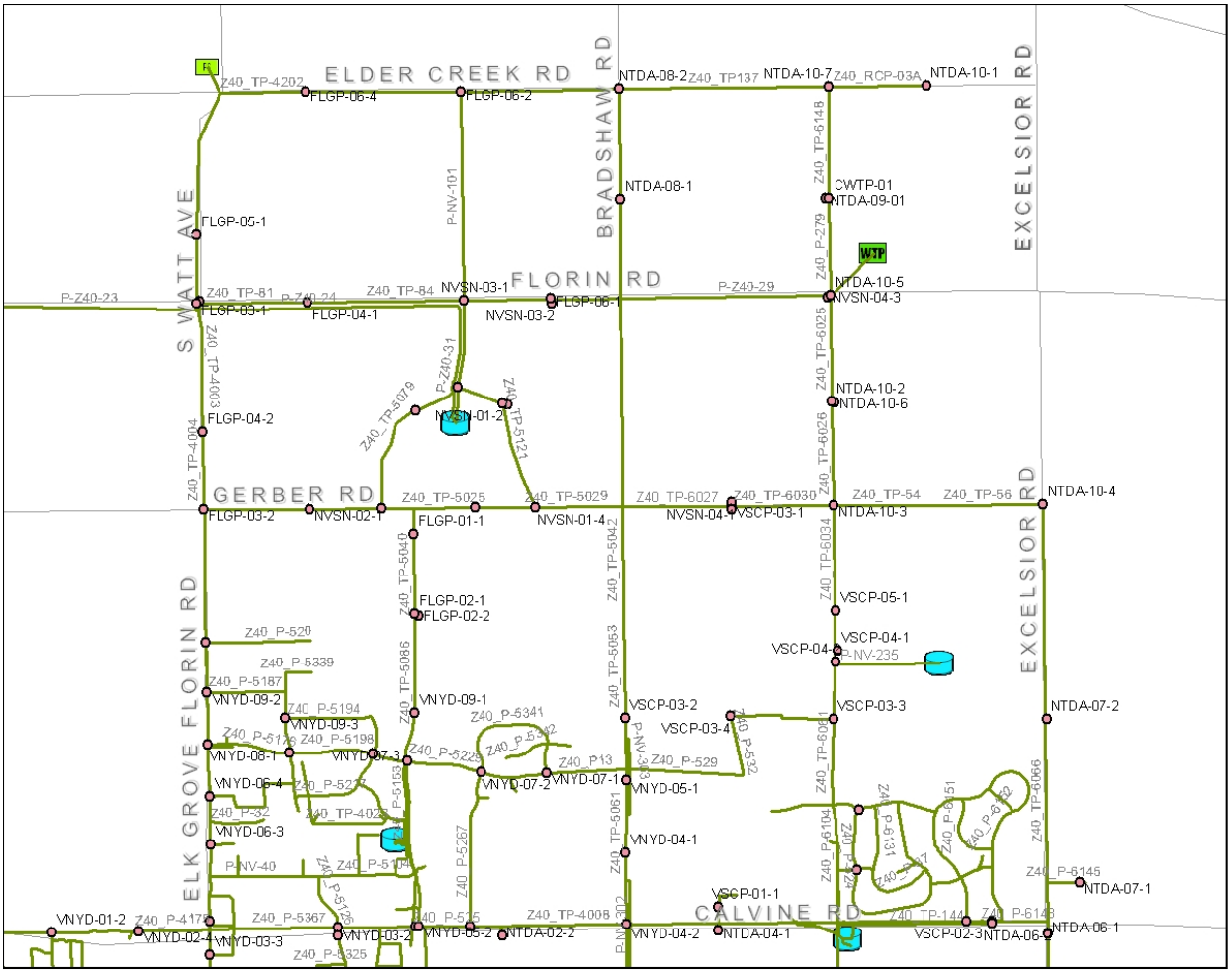


Figure A-4. Nodes and Pipes IDs in the Phase 4 Model



APPENDIX B

Modeling Results Scenario 1 – Water Supply Phase 1

Table B-1. Node Demand Ranges for Max Day Conditions – Water Supply Phase 1

ID	Max.Value (gpm)	Max.Time (hrs)	Min.Value (gpm)	Min.Time (hrs)	Average (gpm)	Difference (gpm)
FLGP-04-1	438.4	6:00	111.8	1:00	218.4	326.6
FLGP-03-1	438.4	6:00	111.8	1:00	218.4	326.6
FLGP-06-3	438.4	6:00	111.8	1:00	218.4	326.6
FLGP-04-2	438.4	6:00	111.8	1:00	218.4	326.6
FLGP-03-2	438.4	6:00	111.8	1:00	218.4	326.6
FLGP-02-3	438.4	6:00	111.8	1:00	218.4	326.6
FLGP-01-2	438.4	6:00	111.8	1:00	218.4	326.6
FLGP-05-1	438.4	6:00	111.8	1:00	218.4	326.6
NVSN-01-3	190.1	6:00	48.5	1:00	94.7	141.6
NVSN-01-2	190.1	6:00	48.5	1:00	94.7	141.6
NVSN-01-4	190.1	6:00	48.5	1:00	94.7	141.6
NVSN-02-1	190.1	6:00	48.5	1:00	94.7	141.6
NVSN-02-2	190.1	6:00	48.5	1:00	94.7	141.6
NVSN-02-3	190.1	6:00	48.5	1:00	94.7	141.6
NVSN-03-1	190.1	6:00	48.5	1:00	94.7	141.6
NVSN-04-2	190.1	6:00	48.5	1:00	94.7	141.6
NVSN-01-1	190.1	6:00	48.5	1:00	94.7	141.6
VSCP-05-1	139.5	6:00	35.6	1:00	69.5	104

Table B-2. Node Pressure Ranges under Max Day Conditions – Water Supply Phase 1

ID	Max.Value (psi)	Max.Time (hrs)	Min.Value (psi)	Min.Time (hrs)	Average (psi)	Difference (psi)
FLGP-04-1	76.3	1:00	70.6	6:00	74.8	5.7
FLGP-03-1	78.5	1:00	72.7	6:00	76.9	5.8
FLGP-06-3	78.5	1:00	72.7	6:00	76.9	5.8
FLGP-04-2	78.5	1:00	72.8	6:00	76.9	5.7
FLGP-03-2	78.5	1:00	73.1	6:00	77	5.4
FLGP-02-3	74.3	1:00	69.3	6:00	72.9	5
FLGP-01-2	78.5	1:00	73.1	6:00	77	5.3
FLGP-05-1	78	1:00	72.1	6:00	76.4	6
NVSN-01-3	72	1:00	66.6	6:00	70.6	5.4
NVSN-01-2	74.2	1:00	68.8	6:00	72.7	5.4
NVSN-01-4	74.3	1:00	69.5	6:00	73	4.8
NVSN-02-1	76.4	1:00	71	6:00	74.9	5.4
NVSN-02-2	76.4	49:00:00	71	6:00	74.9	5.3
NVSN-02-3	76.4	49:00:00	70.9	6:00	74.8	5.5
NVSN-03-1	74.2	1:00	68.6	6:00	72.6	5.6
NVSN-04-2	68.1	1:00	64.7	6:00	67.1	3.3
NVSN-01-1	76.4	1:00	70.8	6:00	74.8	5.5
VSCP-05-1	57.6	1:00	56.1	6:00	57.1	1.5

Table B-3. Flow Ranges in Pipes under Max Day Conditions – Water Supply Phase 1

ID	Max.Value (gpm)	Max.Time (hrs)	Min.Value (gpm)	Min.Time (hrs)	Average (gpm)	Difference (gpm)
P-NV-114	3,997	0	1,423	2	2,305	2,574
P-NV-44	542	0	401	2	486	141
P-NV-45	689	1	3	1	249	686
Z40_P23	876	0	343	2	527	533
Z40_P-4254	592	1	5	3	202	588
Z40_P-4255	592	1	5	3	202	588
Z40_P87	438	0	112	0	218	327
Z40_TP-4003	250	1	0	3	71	250
Z40_TP-4004	689	1	3	1	249	686
Z40_TP-4200	438	0	112	0	218	327
Z40_TP-5005	1,693	0	571	2	938	1,123
Z40_TP-5006	1,693	0	571	2	938	1,123
Z40_TP-5011	1,256	0	440	2	716	816
Z40_TP-5014	1,197	0	325	2	600	873
Z40_TP-5016	1,256	0	440	2	716	816
Z40_TP-5023	725	2	449	2	580	276
Z40_TP-5024	2,112	0	822	2	1,275	1,290
Z40_TP-5025	2,112	0	822	2	1,275	1,290
Z40_TP-5027	2,551	2	934	2	1,493	1,617
Z40_TP-5029	3,997	0	1,423	2	2,305	2,574
Z40_TP-5036	0	0	0	0	0	0
Z40_TP-5037	0	0	0	0	0	0
Z40_TP-5079	1,197	0	325	2	600	873
Z40_TP-5080	1,007	0	276	2	505	731
Z40_TP-5082	542	0	401	2	486	141
Z40_TP-5120	876	0	343	2	527	533
Z40_TP-5121	1,256	0	440	2	716	816
Z40_TP-5123	190	1	49	1	95	142
Z40_TP-6027	3,997	0	1,423	2	2,305	2,574
Z40_TP-6030	4,187	0	1,471	2	2,399	2,716
Z40_TP-6034	4,187	0	1,471	2	2,399	2,716
Z40_TP-6036	140	2	36	1	70	104
Z40_TP-81	1,065	0	410	2	625	654
Z40_TP-84	1,503	0	522	2	843	981

Table B-4. Velocity Ranges in Pipes under Max Day Conditions – Water Supply Phase 1

ID	Max.Value (ft/s)	Max.Time (hrs)	Min.Value (ft/s)	Min.Time (hrs)	Average (ft/s)	Difference (ft/s)
P-NV-114	2.8	0.3	1.0	2.0	1.6	1.8
P-NV-44	0.9	0.5	0.6	2.0	0.8	0.2
P-NV-45	1.1	1.3	0.0	1.1	0.4	1.1
Z40_P23	1.1	0.3	0.4	2.0	0.7	0.7
Z40_P-4254	0.4	1.3	0.0	2.7	0.1	0.4
Z40_P-4255	0.4	1.3	0.0	2.7	0.1	0.4
Z40_P87	0.0	0.3	0.0	0.1	0.0	0.0
Z40_TP-4003	0.4	1.3	0.0	2.5	0.1	0.4
Z40_TP-4004	1.1	1.3	0.0	1.1	0.4	1.1
Z40_TP-4200	0.7	0.3	0.2	0.0	0.3	0.5
Z40_TP-5005	0.5	0.3	0.2	2.0	0.3	0.4
Z40_TP-5006	0.5	0.3	0.2	2.0	0.3	0.4
Z40_TP-5011	1.6	0.3	0.6	2.0	0.9	1.0
Z40_TP-5014	0.8	0.3	0.2	2.0	0.4	0.6
Z40_TP-5016	1.6	0.3	0.6	2.0	0.9	1.0
Z40_TP-5023	0.5	2.3	0.3	2.0	0.4	0.2
Z40_TP-5024	1.5	0.3	0.6	2.0	0.9	0.9
Z40_TP-5025	1.5	0.3	0.6	2.0	0.9	0.9
Z40_TP-5027	1.8	2.3	0.7	2.0	1.1	1.1
Z40_TP-5029	2.8	0.3	1.0	2.0	1.6	1.8
Z40_TP-5036	0.0	3.0	0.0	2.9	0.0	0.0
Z40_TP-5037	0.0	1.4	0.0	2.9	0.0	0.0
Z40_TP-5079	0.8	0.3	0.2	2.0	0.4	0.6
Z40_TP-5080	0.7	0.3	0.2	2.0	0.4	0.5
Z40_TP-5082	0.4	0.5	0.3	2.0	0.3	0.1
Z40_TP-5120	1.1	0.3	0.4	2.0	0.7	0.7
Z40_TP-5121	1.6	0.3	0.6	2.0	0.9	1.0
Z40_TP-5123	0.0	1.3	0.0	1.1	0.0	0.0
Z40_TP-6027	2.8	0.3	1.0	2.0	1.6	1.8
Z40_TP-6030	3.0	0.3	1.0	2.0	1.7	1.9
Z40_TP-6034	3.0	0.3	1.0	2.0	1.7	1.9
Z40_TP-6036	0.0	2.3	0.0	1.1	0.0	0.0
Z40_TP-81	0.8	0.3	0.3	2.0	0.4	0.5
Z40_TP-84	1.1	0.3	0.4	2.0	0.6	0.7

APPENDIX C

Modeling Results Scenario 2 – Water Supply Phase 2

Table C-1. Node Demand Ranges for Max Day Conditions – Water Supply Phase 2

ID	Max.Value (gpm)	Max.Time (hrs)	Min.Value (gpm)	Min.Time (hrs)	Average (gpm)	Difference (gpm)
FLGP-06-3	2,676.40	6:00	682.5	1:00	1,333.30	1,993.90
FLGP-06-1	2,676.40	6:00	682.5	1:00	1,333.30	1,993.90
FLGP-01-2	1,055.20	6:00	269.1	1:00	525.7	786.1
FLGP-01-1	1,055.20	6:00	269.1	1:00	525.6	786.1
FLGP-03-1	965.1	6:00	246.1	1:00	480.8	719
FLGP-03-2	965.1	6:00	246.1	1:00	480.8	719
FLGP-05-1	936.8	6:00	238.9	1:00	466.7	697.9
FLGP-02-1	871.6	6:00	222.3	1:00	434.2	649.3
FLGP-02-2	871.6	6:00	222.3	1:00	434.2	649.3
FLGP-02-3	871.6	6:00	222.3	1:00	434.2	649.3
FLGP-04-1	787.8	6:00	200.9	1:00	392.4	586.9
FLGP-04-2	787.8	6:00	200.9	1:00	392.4	586.9
NVSN-03-2	624	6:00	159.1	1:00	310.8	464.9
NVSN-03-1	624	6:00	159.1	1:00	310.8	464.9
NVSN-04-1	596.6	6:00	152.1	1:00	297.2	444.5
NVSN-04-3	596.6	6:00	152.1	1:00	297.2	444.5
NVSN-04-2	596.6	6:00	152.1	1:00	297.2	444.5
NVSN-02-3	369	6:00	94.1	1:00	183.8	274.9
NVSN-02-1	368.9	6:00	94.1	1:00	183.8	274.9
NVSN-02-2	368.9	6:00	94.1	1:00	183.8	274.9
NVSN-01-3	239.8	6:00	61.1	1:00	119.5	178.7
NVSN-01-4	239.8	6:00	61.1	1:00	119.5	178.7
NVSN-01-1	239.8	6:00	61.1	1:00	119.5	178.7
NVSN-01-2	239.7	6:00	61.1	1:00	119.4	178.6
VSCP-05-1	140.2	6:00	35.8	1:00	69.8	104.4

Table C-2. Node Pressure Ranges for Max Day Conditions – Water Supply Phase 2

ID	Max.Value (psi)	Max.Time (hrs)	Min.Value (psi)	Min.Time (hrs)	Average (psi)	Difference (psi)
FLGP-06-3	77.3	9:00	65.2	6:00	71.9	12
FLGP-06-1	73.7	9:00	62	6:00	67.8	11.6
FLGP-01-2	77.6	9:00	65.4	6:00	72	12.2
FLGP-01-1	76	9:00	62.9	6:00	70.3	13.1
FLGP-03-1	77.3	9:00	65.2	6:00	71.9	12
FLGP-03-2	77.6	9:00	65.4	6:00	71.9	12.2
FLGP-05-1	76.8	9:00	67.5	6:00	72.5	9.3
FLGP-02-1	75.1	9:00	61.9	6:00	69.3	13.2
FLGP-02-2	64.3	9:00	51.1	6:00	58.5	13.2
FLGP-02-3	73.7	9:00	62.1	6:00	67.9	11.6
FLGP-04-1	75.3	9:00	63.3	6:00	69.8	11.9
FLGP-04-2	77.3	9:00	65.2	6:00	71.9	12.1
NVSN-03-2	71.5	9:00:00	59.8	6:00	65.7	11.6
NVSN-03-1	73.4	9:00:00	61.7	6:00	67.8	11.7
NVSN-04-1	73.1	9:00	61.7	20:00	66.4	11.4
NVSN-04-3	68.1	9:00	57.3	20:00	61.8	10.8
NVSN-04-2	68.8	9:00	57.4	20:00	62	11.4
NVSN-02-3	75.6	9:00	63.8	6:00	69.9	11.8
NVSN-02-1	75.5	9:00	63.6	54:00:00	69.8	11.9
NVSN-02-2	75.6	9:00	63.7	6:00	69.9	11.8
NVSN-01-3	71.3	9:00	59.7	6:00	65.6	11.7
NVSN-01-4	73.9	9:00:00	62.4	6:00	68	11.4
NVSN-01-1	75.6	9:00	63.9	6:00	69.9	11.7
NVSN-01-2	73.5	9:00	61.8	6:00	67.8	11.7
VSCP-05-1	60.5	9:00	46.7	20:00	51.9	13.9

Table C-3. Flow Ranges in Pipes under Max Day Conditions – Water Supply Phase 2

ID	Max.Value (gpm)	Max.Time (hrs)	Min.Value (gpm)	Min.Time (hrs)	Average (gpm)	Difference (gpm)
P-NV-101	1,927	20:00	11	32:00:00	980	1,916
P-NV-113	5,742	54:00:00	1,178	1:00	2,675	4,564
P-NV-114	4,941	54:00:00	956	1:00	2,305	3,985
P-NV-44	1,197	54:00:00	86	0:00	439	1,111
P-NV-45	750	8:00	28	41:00:00	333	722
P-NV-49	4,500	6:00	0	2:00	2,328	4,500
P-NV-84	0	0:00	0	0:00	0	0
P-Z40-29	597	6:00	152	1:00	297	445
P-Z40-67	624	6:00	159	1:00	311	465
Z40_P23	769	8:00	5	52:00:00	298	763
Z40_P-4254	1,142	4:00	10	65:00:00	408	1,132
Z40_P-4255	1,142	4:00	10	65:00:00	408	1,132
Z40_P79	1,526	54:00:00	109	2:00	748	1,417
Z40_P81	2,676	6:00	683	1:00	1,333	1,994
Z40_P85	597	6:00	152	27:00:00	297	445
Z40_P87	2,676	6:00	683	1:00	1,333	1,994
Z40_TP-253	2,682	54:00:00	199	25:00:00	1,398	2,483
Z40_TP-4003	407	20:00	10	49:00:00	160	397
Z40_TP-4004	750	8:00	28	41:00:00	333	722
Z40_TP-4200	1,902	20:00	40	25:00:00	940	1,862
Z40_TP-4201	2,682	54:00:00	199	25:00:00	1,398	2,483
Z40_TP-4202	1,927	20:00	11	32:00:00	980	1,916
Z40_TP-5005	1,033	20:00	5	15:00	444	1,028
Z40_TP-5006	1,033	20:00	5	15:00	444	1,028
Z40_TP-5011	1,181	54:00:00	190	52:00:00	537	991
Z40_TP-5014	822	20:00	0	26:00:00	365	822
Z40_TP-5016	1,181	54:00:00	190	52:00:00	537	991
Z40_TP-5023	1,566	54:00:00	106	3:00	610	1,460
Z40_TP-5024	1,346	8:00	42	52:00:00	466	1,304
Z40_TP-5025	2,649	54:00:00	385	4:00	1,214	2,264
Z40_TP-5027	3,521	54:00:00	646	1:00	1,648	2,874
Z40_TP-5029	4,941	54:00:00	956	1:00	2,305	3,985
Z40_TP-5036	6,338	54:00:00	1,330	1:00	2,972	5,008
Z40_TP-5037	6,338	54:00:00	1,330	1:00	2,972	5,008
Z40_TP-5040	471	54:00:00	30	1:00	233	442
Z40_TP-5079	822	20:00	0	26:00:00	365	822
Z40_TP-5080	1,181	54:00:00	31	57:00:00	517	1,151
Z40_TP-5082	1,197	54:00:00	86	0:00	439	1,111
Z40_TP-5088	872	6:00	222	3:00	434	649
Z40_TP-5120	769	8:00	5	52:00:00	298	763
Z40_TP-5121	1,181	54:00:00	190	52:00:00	537	991
Z40_TP-5123	240	6:00	61	1:00	120	179
Z40_TP-5200	1,927	20:00	11	32:00:00	980	1,916
Z40_TP-6027	4,394	54:00:00	1	4:00	961	4,393
Z40_TP-6030	5,588	54:00:00	347	60:00:00	1,476	5,240
Z40_TP-6034	5,588	54:00:00	347	60:00:00	1,476	5,240
Z40_TP-6036	140	30:00:00	36	27:00:00	70	104
Z40_TP-62	597	6:00	152	1:00	297	445
Z40_TP-81	2,128	54:00:00	256	52:00:00	942	1,873
Z40_TP-84	2,916	54:00:00	539	50:00:00	1,335	2,377
Z40_TP-87	2,625	8:00	40	4:00	1,031	2,585
Z40_TP-89	5,742	54:00:00	1,178	1:00	2,675	4,564

Table C-4. Velocity Ranges in Pipes under Max Day Conditions – Water Supply Phase 2

ID	Max.Value (ft/s)	Max.Time (hrs)	Min.Value (ft/s)	Min.Time (hrs)	Average (ft/s)	Difference (ft/s)
P-NV-101	1.4	20:00	0.0	32:00:00	0.7	1.4
P-NV-113	4.1	54:00:00	0.8	1:00	1.9	3.2
P-NV-114	3.5	54:00:00	0.7	1:00	1.6	2.8
P-NV-44	1.9	54:00:00	0.1	0:00	0.7	1.8
P-NV-45	1.2	8:00	0.0	41:00:00	0.5	1.2
P-NV-49	3.2	6:00	0.0	2:00	1.7	3.2
P-NV-84	0.0	0:00	0.0	0:00	0.0	0.0
P-Z40-29	0.1	6:00	0.0	1:00	0.0	0.1
P-Z40-67	0.0	6:00	0.0	1:00	0.0	0.0
Z40_P23	1.0	8:00	0.0	52:00:00	0.4	1.0
Z40_P-4254	0.8	4:00	0.0	65:00:00	0.3	0.8
Z40_P-4255	0.8	4:00	0.0	65:00:00	0.3	0.8
Z40_P79	2.4	54:00:00	0.2	2:00	1.2	2.3
Z40_P81	0.1	6:00	0.0	1:00	0.1	0.1
Z40_P85	0.0	6:00	0.0	27:00:00	0.0	0.0
Z40_P87	0.1	6:00	0.0	1:00	0.1	0.1
Z40_TP-253	4.3	54:00:00	0.3	25:00:00	2.2	4.0
Z40_TP-4003	0.6	20:00	0.0	49:00:00	0.3	0.6
Z40_TP-4004	1.2	8:00	0.0	41:00:00	0.5	1.2
Z40_TP-4200	3.0	20:00	0.1	25:00:00	1.5	3.0
Z40_TP-4201	4.3	54:00:00	0.3	25:00:00	2.2	4.0
Z40_TP-4202	3.1	20:00	0.0	32:00:00	1.6	3.1
Z40_TP-5005	0.3	20:00	0.0	15:00	0.1	0.3
Z40_TP-5006	0.3	20:00	0.0	15:00	0.1	0.3
Z40_TP-5011	1.5	54:00:00	0.2	52:00:00	0.7	1.2
Z40_TP-5014	0.6	20:00	0.0	26:00:00	0.3	0.6
Z40_TP-5016	1.5	54:00:00	0.2	52:00:00	0.7	1.2
Z40_TP-5023	1.1	54:00:00	0.1	3:00	0.4	1.0
Z40_TP-5024	1.0	8:00	0.0	52:00:00	0.3	0.9
Z40_TP-5025	1.9	54:00:00	0.3	4:00	0.9	1.6
Z40_TP-5027	2.5	54:00:00	0.5	1:00	1.2	2.0
Z40_TP-5029	3.5	54:00:00	0.7	1:00	1.6	2.8
Z40_TP-5036	1.1	54:00:00	0.2	1:00	0.5	0.9
Z40_TP-5037	1.1	54:00:00	0.2	1:00	0.5	0.9
Z40_TP-5040	0.8	54:00:00	0	1:00	0.4	0.7
Z40_TP-5079	0.6	20:00	0	26:00:00	0.3	0.6
Z40_TP-5080	0.8	54:00:00	0	57:00:00	0.4	0.8
Z40_TP-5082	0.8	54:00:00	0.1	0:00	0.3	0.8
Z40_TP-5088	0	6:00	0	3:00	0	0
Z40_TP-5120	1	8:00	0	52:00:00	0.4	1
Z40_TP-5121	1.5	54:00:00	0.2	52:00:00	0.7	1.2
Z40_TP-5123	0	6:00	0	1:00	0	0
Z40_TP-5200	3.1	20:00	0	32:00:00	1.6	3.1
Z40_TP-6027	3.1	54:00:00	0	4:00	0.7	3.1
Z40_TP-6030	4	54:00:00	0.2	60:00:00	1	3.7
Z40_TP-6034	4	54:00:00	0.2	60:00:00	1	3.7
Z40_TP-6036	0	30:00:00	0	27:00:00	0	0
Z40_TP-62	0	6:00	0	1:00	0	0
Z40_TP-81	1.5	54:00:00	0.2	52:00:00	0.7	1.3
Z40_TP-84	2.1	54:00:00	0.4	50:00:00	0.9	1.7
Z40_TP-87	1.9	8:00	0	4:00	0.7	1.8
Z40_TP-89	4.1	54:00:00	0.8	1:00	1.9	3.2

APPENDIX D

Modeling Results Scenario 3 – Water Supply Phase 3

Table D-1. Node Demand Ranges under Max Day Conditions – Water Supply Phase 3

ID	Max.Value (gpm)	Max.Time (hrs)	Min.Value (gpm)	Min.Time (hrs)	Average (gpm)	Difference (gpm)
FLGP-06-1	2,676.40	6:00	682.5	1:00	1,333.30	1,993.90
FLGP-06-3	2,676.30	6:00	682.5	1:00	1,333.20	1,993.90
FLGP-01-2	1,055.20	6:00	269.1	1:00	525.7	786.1
FLGP-01-1	1,055.20	6:00	269.1	1:00	525.6	786.1
FLGP-03-1	965.1	6:00	246.1	1:00	480.8	719
FLGP-03-2	965.1	6:00	246.1	1:00	480.8	719
FLGP-05-1	936.8	6:00	238.9	1:00	466.7	697.9
FLGP-02-1	871.6	6:00	222.3	1:00	434.2	649.3
FLGP-02-2	871.6	6:00	222.3	1:00	434.2	649.3
FLGP-02-3	871.6	6:00	222.3	1:00	434.2	649.3
FLGP-04-1	787.8	6:00	200.9	1:00	392.4	586.9
FLGP-04-2	787.8	6:00	200.9	1:00	392.4	586.9
NVSN-03-2	624	6:00	159.1	1:00	310.8	464.9
NVSN-03-1	624	6:00	159.1	1:00	310.8	464.9
NVSN-04-1	596.6	6:00	152.1	1:00	297.2	444.5
NVSN-04-3	596.6	6:00	152.1	1:00	297.2	444.5
NVSN-04-2	596.6	6:00	152.1	1:00	297.2	444.5
NVSN-02-3	369	6:00	94.1	1:00	183.8	274.9
NVSN-02-1	368.9	6:00	94.1	1:00	183.8	274.9
NVSN-02-2	368.9	6:00	94.1	1:00	183.8	274.9
NVSN-01-3	239.8	6:00	61.1	1:00	119.5	178.7
NVSN-01-4	239.8	6:00	61.1	1:00	119.5	178.7
NVSN-01-1	239.8	6:00	61.1	1:00	119.5	178.7
NVSN-01-2	239.7	6:00	61.1	1:00	119.4	178.6
VSCP-05-1	140.2	6:00	35.8	1:00	69.8	104.4

Table D-2. Node Pressure Ranges for Max Day Conditions – Water Supply Phase 3

ID	Max.Value (psi)	Max.Time (hrs)	Min.Value (psi)	Min.Time (hrs)	Average (psi)	Difference (psi)
FLGP-06-1	73.3	1:00	65.7	6:00	71.8	7.7
FLGP-06-3	77.6	1:00	66.4	6:00	75.2	11.2
FLGP-01-2	78.2	1:00	66.9	6:00	75.4	11.4
FLGP-01-1	76	1:00	61.6	6:00	72.8	14.4
FLGP-03-1	77.6	1:00	66.4	6:00	75.2	11.2
FLGP-03-2	77.9	1:00	66.9	6:00	75.4	11.1
FLGP-05-1	77.1	1:00	66	6:00	74.7	11.1
FLGP-02-1	74.9	1:00	58.5	6:00	71.3	16.4
FLGP-02-2	64.1	1:00	47.7	6:00	60.4	16.4
FLGP-02-3	73.4	1:00	65	6:00	71.7	8.3
FLGP-04-1	75.4	1:00	64.9	6:00	73.2	10.5
FLGP-04-2	77.7	1:00	66.4	6:00	75.2	11.3
NVSN-03-2	71.2	1:00:00	63.5	6:00	69.6	7.7
NVSN-03-1	73.3	1:00:00	64	6:00	71.4	9.3
NVSN-04-1	71.4	1:00	66.6	6:00	70.6	4.9
NVSN-04-3	67	1:00	65.2	6:00	66.9	1.8
NVSN-04-2	67.1	1:00	62.2	6:00	66.2	4.9
NVSN-02-3	75.5	1:00	66	6:00	73.5	9.5
NVSN-02-1	75.6	1:00	65.6	54:00:00	73.4	10
NVSN-02-2	75.5	1:00	65.9	6:00	73.5	9.6
NVSN-01-3	71.2	1:00	62.1	6:00	69.3	9
NVSN-01-4	73.4	1:00:00	65.6	6:00	71.8	7.8
NVSN-01-1	75.5	1:00	66.1	6:00	73.5	9.3
NVSN-01-2	73.3	1:00	64.3	6:00	71.4	9
VSCP-05-1	56.7	1:00	51.4	6:00	55.6	5.3

Table D-3. Flow Ranges in Pipes under Max Day Condition – Water Supply Phase 3

ID	Max.Value (gpm)	Max.Time (hrs)	Min.Value (gpm)	Min.Time (hrs)	Average (gpm)	Difference (gpm)
P-NV-101	872	2	168	0	414	705
P-NV-113	9,701	2	1,484	0	4,537	8,217
P-NV-114	7,163	2	1,161	0	3,409	6,003
P-NV-44	1,901	2	128	2	739	1,774
P-NV-45	1,060	0	346	0	551	714
P-NV-49	0	0	0	0	0	0
P-NV-84	0	0	0	0	0	0
P-Z40-29	29,187	2	49	0	12,476	29,138
P-Z40-67	624	0	159	0	311	465
Z40_P23	1,320	0	225	0	626	1,095
Z40_P-4254	1,634	0	7	3	471	1,626
Z40_P-4255	1,634	0	7	3	471	1,626
Z40_P79	2,798	0	714	1	1,394	2,085
Z40_P81	2,676	0	683	0	1,333	1,994
Z40_P85	597	0	152	0	297	445
Z40_P87	2,676	0	683	0	1,333	1,994
Z40_TP-253	872	2	168	0	414	705
Z40_TP-4003	365	0	9	3	170	356
Z40_TP-4004	1,060	0	346	0	551	714
Z40_TP-4200	100	0	7	3	53	93
Z40_TP-4201	872	2	168	0	414	705
Z40_TP-4202	872	2	168	0	414	705
Z40_TP-5005	520	0	0	2	186	519
Z40_TP-5006	520	0	0	2	186	519
Z40_TP-5011	1,799	0	347	0	865	1,452
Z40_TP-5014	1,179	2	95	2	465	1,084
Z40_TP-5016	1,799	0	347	0	865	1,452
Z40_TP-5023	2,270	2	25	2	890	2,246
Z40_TP-5024	1,461	2	93	1	609	1,368
Z40_TP-5025	4,259	2	530	0	1,990	3,729
Z40_TP-5027	5,131	2	753	0	2,425	4,378
Z40_TP-5029	7,163	2	1,161	0	3,409	6,003
Z40_TP-5036	19,486	2	757	0	8,045	18,729
Z40_TP-5037	19,486	2	757	0	8,045	18,729
Z40_TP-5040	1,743	0	445	1	868	1,299
Z40_TP-5079	1,179	2	95	2	465	1,084
Z40_TP-5080	1,548	2	9	2	617	1,539
Z40_TP-5082	1,901	2	128	2	739	1,774
Z40_TP-5088	872	0	222	0	434	649
Z40_TP-5120	1,320	0	225	0	626	1,095
Z40_TP-5121	1,799	0	347	0	865	1,452
Z40_TP-5123	240	0	61	0	120	179
Z40_TP-5200	872	2	168	0	414	705
Z40_TP-6027	1,370	0	2	2	611	1,367
Z40_TP-6030	1,674	0	46	2	1,093	1,628
Z40_TP-6034	1,674	0	46	2	1,093	1,628
Z40_TP-6036	140	0	36	1	70	104
Z40_TP-62	597	0	152	0	297	445
Z40_TP-81	3,643	2	635	0	1,709	3,008
Z40_TP-84	4,431	2	836	0	2,101	3,595
Z40_TP-87	6,401	2	643	0	2,892	5,758
Z40_TP-89	9,701	2	1,484	0	4,537	8,217

Table D-4. Velocity Ranges s in Pipes under Max Day Condition – Water Supply Phase 3

ID	Max.Value (ft/s)	Max.Time (hrs)	Min.Value (ft/s)	Min.Time (hrs)	Average (ft/s)	Difference (ft/s)
P-NV-101	0.6	2.3	0.1	0.0	0.3	0.5
P-NV-113	6.9	2.3	1.1	0.0	3.2	5.8
P-NV-114	5.1	2.3	0.8	0.0	2.4	4.3
P-NV-44	3.0	2.3	0.2	2.1	1.2	2.8
P-NV-45	1.7	0.3	0.6	0.4	0.9	1.1
P-NV-49	0.0	0.8	0.0	1.8	0.0	0.0
P-NV-84	0.0	0.0	0.0	0.0	0.0	0.0
P-Z40-29	3.3	2.3	0.0	0.1	1.4	3.3
P-Z40-67	0.0	0.3	0.0	0.0	0.0	0.0
Z40_P23	1.7	0.3	0.3	0.0	0.8	1.4
Z40_P-4254	1.2	0.0	0.0	3.0	0.3	1.2
Z40_P-4255	1.2	0.0	0.0	3.0	0.3	1.2
Z40_P79	4.5	0.3	1.1	1.1	2.2	3.3
Z40_P81	0.1	0.3	0.0	0.0	0.1	0.1
Z40_P85	0.0	0.3	0.0	0.0	0.0	0.0
Z40_P87	0.1	0.3	0.0	0.0	0.1	0.1
Z40_TP-253	1.4	2.3	0.3	0.0	0.7	1.1
Z40_TP-4003	0.6	0.0	0.0	2.9	0.3	0.6
Z40_TP-4004	1.7	0.3	0.6	0.4	0.9	1.1
Z40_TP-4200	0.2	0.3	0.0	2.8	0.1	0.1
Z40_TP-4201	1.4	2.3	0.3	0.0	0.7	1.1
Z40_TP-4202	1.4	2.3	0.3	0.0	0.7	1.1
Z40_TP-5005	0.2	0.0	0.0	2.0	0.1	0.2
Z40_TP-5006	0.2	0.0	0.0	2.0	0.1	0.2
Z40_TP-5011	2.3	0.3	0.4	0.0	1.1	1.8
Z40_TP-5014	0.8	2.3	0.1	2.1	0.3	0.8
Z40_TP-5016	2.3	0.3	0.4	0.0	1.1	1.8
Z40_TP-5023	1.6	2.3	0.0	2.1	0.6	1.6
Z40_TP-5024	1.0	2.3	0.1	1.0	0.4	1.0
Z40_TP-5025	3.0	2.3	0.4	0.0	1.4	2.6
Z40_TP-5027	3.6	2.3	0.5	0.0	1.7	3.1
Z40_TP-5029	5.1	2.3	0.8	0.0	2.4	4.3
Z40_TP-5036	3.5	2.3	0.1	0.0	1.4	3.3
Z40_TP-5037	3.5	2.3	0.1	0.0	1.4	3.3
Z40_TP-5040	2.8	6:00	0.7	27:00:00	1.4	2.1
Z40_TP-5079	0.8	54:00:00	0.1	50:00:00	0.3	0.8
Z40_TP-5080	1.1	54:00:00	0	50:00:00	0.4	1.1
Z40_TP-5082	1.3	54:00:00	0.1	50:00:00	0.5	1.3
Z40_TP-5088	0	6:00	0	0	0	0
Z40_TP-5120	1.7	6:00	0.3	1:00	0.8	1.4
Z40_TP-5121	2.3	6:00	0.4	1:00	1.1	1.8
Z40_TP-5123	0	6:00	0	1:00	0	0
Z40_TP-5200	1.4	54:00:00	0.3	1:00	0.7	1.1
Z40_TP-6027	1	1:00	0	56:00:00	0.4	1
Z40_TP-6030	1.2	1:00	0	54:00:00	0.8	1.2
Z40_TP-6034	1.2	1:00	0	54:00:00	0.8	1.2
Z40_TP-6036	0	6:00	0	27:00:00	0	0
Z40_TP-62	0	6:00	0	1:00	0	0
Z40_TP-81	2.6	54:00:00	0.5	1:00	1.2	2.1
Z40_TP-84	3.1	54:00:00	0.6	1:00	1.5	2.5
Z40_TP-87	4.5	54:00:00	0.5	1:00	2.1	4.1
Z40_TP-89	6.9	54:00:00	1.1	1:00	3.2	5.8

APPENDIX E

Modeling Results Scenario 4 – Water Supply Phase 4

Table E-1. Node Demand Ranges under Max Day Conditions – Water Supply Phase 4

ID	Max.Value (gpm)	Max.Time (hrs)	Min.Value (gpm)	Min.Time (hrs)	Average (gpm)	Difference (gpm)
FLGP-06-2	2,257.60	6:00	575.7	1:00	1,124.60	1,681.90
FLGP-06-1	2,257.60	6:00	575.7	1:00	1,124.60	1,681.90
FLGP-06-3	2,257.00	6:00	575.5	1:00	1,124.30	1,681.50
FLGP-06-4	2,257.00	6:00	575.5	1:00	1,124.30	1,681.50
NVSN-04-2	1,485.60	6:00	378.8	1:00	740.1	1,106.80
NVSN-04-1	1,484.80	6:00	378.6	1:00	739.7	1,106.20
NVSN-04-3	1,484.80	6:00	378.6	1:00	739.7	1,106.20
FLGP-04-2	1,282.20	6:00	327	1:00	638.7	955.2
FLGP-01-2	1,282.20	6:00	327	1:00	638.7	955.2
FLGP-01-1	1,282.20	6:00	327	1:00	638.7	955.2
FLGP-04-1	1,281.40	6:00	326.8	1:00	638.3	954.6
FLGP-05-1	1,251.20	6:00	319.1	1:00	623.3	932.1
FLGP-02-3	1,170.00	6:00	298.4	1:00	582.8	871.7
FLGP-02-1	1,170.00	6:00	298.4	1:00	582.8	871.7
FLGP-02-2	1,170.00	6:00	298.4	1:00	582.8	871.7
NTDA-08-2	1,075.40	6:00	274.2	1:00	535.7	801.2
NTDA-08-1	1,075.00	6:00	274.1	1:00	535.5	800.9
FLGP-03-1	1,041.00	6:00	265.5	1:00	518.6	775.5
FLGP-03-2	1,041.00	6:00	265.5	1:00	518.6	775.5
NVSN-03-2	1,014.80	6:00	258.8	1:00	505.5	756
NVSN-03-1	1,014.80	6:00	258.8	1:00	505.5	756
NTDA-09-01	882.8	6:00	225.1	1:00	439.8	657.7
VSCP-05-1	820.8	6:00	209.3	1:00	408.9	611.5
NTDA-10-1	653.6	6:00	166.7	1:00	325.6	486.9
NTDA-10-7	653.6	6:00	166.7	1:00	325.6	486.9
NTDA-10-5	653.6	6:00	166.7	1:00	325.6	486.9
NTDA-10-3	653.6	6:00	166.7	1:00	325.6	486.9
NVSN-02-3	600.8	6:00	153.2	1:00	299.3	447.6
NVSN-02-2	600.8	6:00	153.2	1:00	299.3	447.6
NVSN-02-1	600.8	6:00	153.2	1:00	299.3	447.6
NVSN-01-4	390	6:00	99.4	1:00	194.3	290.6
NVSN-01-3	390	6:00	99.4	1:00	194.3	290.6
NVSN-01-2	390	6:00	99.4	1:00	194.3	290.6
NVSN-01-1	390	6:00	99.4	1:00	194.3	290.6

Table E-2. Node Pressure Ranges under Max Day Conditions – Water Supply Phase 4

ID	Max.Value (psi)	Max.Time (hrs)	Min.Value (psi)	Min.Time (hrs)	Average (psi)	Difference (psi)
FLGP-06-2	71.3	3:00	58.5	30:00:00	67.4	12.8
FLGP-06-1	73.7	3:00	61.2	30:00:00	69.9	12.5
FLGP-06-3	77.7	3:00	63.6	30:00:00	73.5	14.1
FLGP-06-4	75.4	3:00	62.9	30:00:00	71.5	12.5
NVSN-04-2	78.6	27:00:00	63.5	54:00:00	67.1	15.1
NVSN-04-1	82.9	27:00:00	67.8	54:00:00	71.5	15.1
NVSN-04-3	78.7	27:00:00	64.2	54:00:00	67.5	14.5
FLGP-04-2	77.6	3:00	61.3	30:00:00	72.9	16.3
FLGP-01-2	77.6	3:00	61.1	30:00:00	72.9	16.5
FLGP-01-1	75.8	3:00	52.7	30:00:00	69.5	23.1
FLGP-04-1	75.7	3:00	62.2	30:00:00	71.6	13.5
FLGP-05-1	77.1	3:00	64.3	30:00:00	73.2	12.8
FLGP-02-3	73.5	3:00	58.2	30:00:00	69	15.3
FLGP-02-1	74.7	3:00	48.1	30:00:00	67.5	26.5
FLGP-02-2	63.8	3:00	37.3	30:00:00	56.7	26.5
NTDA-08-2	82.9	27:00:00	67.5	54:00:00	71.5	15.4
NTDA-08-1	82.9	27:00:00	67.9	54:00:00	71.6	15.1
FLGP-03-1	77.7	3:00	63.6	30:00:00	73.5	14.1
FLGP-03-2	77.6	3:00	61.3	30:00:00	72.9	16.4
NVSN-03-2	71.5	3:00	59	30:00:00	67.7	12.5
NVSN-03-1	73.7	3:00	61.6	30:00:00	70	12.1
NTDA-09-01	75.1	27:00:00	59.9	54:00:00	63.8	15.2
VSCP-05-1	68.3	27:00:00	53.5	41:00:00	56.8	14.8
NTDA-10-1	71.6	27:00:00	56	54:00:00	60.2	15.6
NTDA-10-7	78.6	27:00:00	63.2	54:00:00	67.2	15.3
NTDA-10-5	76.5	27:00:00	62	54:00:00	65.4	14.5
NTDA-10-3	77.8	27:00:00	63.1	54:00:00	66.4	14.7
NVSN-02-3	75.9	3:00	63.5	30:00:00	72.1	12.5
NVSN-02-2	75.6	3:00	60.5	30:00:00	71.2	15.2
NVSN-02-1	75.6	3:00	60.1	30:00:00	71.1	15.5
NVSN-01-4	73.5	3:00	58.3	30:00:00	69.1	15.1
NVSN-01-3	71.5	3:00	58.8	30:00:00	67.7	12.8
NVSN-01-2	73.7	3:00	60.9	30:00:00	69.9	12.8
NVSN-01-1	76	3:00	65	30:00:00	72.6	11

Table E-3. Flow Ranges in Pipes under Max Day Conditions – Water Supply Phase 4

ID	Max.Value (gpm)	Max.Time (hrs)	Min.Value (gpm)	Min.Time (hrs)	Average (gpm)	Difference (gpm)
P-NV-101	2,330	6:00	485	52:00:00	1,496	1,845
P-NV-113	0	0:00	0	0:00	0	0
P-NV-114	0	0:00	0	0:00	0	0
P-NV-44	1,994	6:00	668	51:00:00	1,098	1,326
P-NV-45	346	67:00:00	10	36:00:00	132	336
P-NV-49	4,500	6:00	0	1:00	1,472	4,500
P-NV-84	21,892	6:00	6,730	51:00:00	11,675	15,162
P-Z40-29	12,271	5:00	2,448	65:00:00	5,840	9,823
P-Z40-39	883	6:00	225	1:00	440	658
P-Z40-67	1,015	6:00	259	1:00	506	756
Z40_P23	3,359	6:00	904	51:00:00	1,704	2,455
Z40_P-279	2,683	6:00	690	49:00:00	1,343	1,994
Z40_P-4254	1,282	6:00	327	49:00:00	639	955
Z40_P-4255	1,282	6:00	327	49:00:00	639	955
Z40_P79	3,622	6:00	924	25:00:00	1,804	2,699
Z40_P81	2,258	6:00	576	1:00	1,125	1,682
Z40_P83	0	0:00	0	0:00	0	0
Z40_P85	1,485	6:00	379	1:00	740	1,106
Z40_P87	2,257	6:00	576	1:00	1,124	1,682
Z40_RCP-01A	1,940	54:00:00	487	1:00	960	1,453
Z40_RCP-01B	865	54:00:00	213	1:00	424	652
Z40_RCP-03A	654	6:00	167	1:00	326	487
Z40_TP137	212	6:00	59	49:00:00	112	152
Z40_TP-253	2,315	6:00	3	16:00	754	2,313
Z40_TP-4003	1,611	6:00	251	49:00:00	699	1,360
Z40_TP-4004	346	67:00:00	10	36:00:00	132	336
Z40_TP-4200	1,351	67:00:00	13	46:00:00	500	1,338
Z40_TP-4201	2,315	6:00	3	16:00	754	2,313
Z40_TP-4202	2,317	67:00:00	67	27:00:00	753	2,250
Z40_TP-5005	11,744	6:00	3,870	52:00:00	6,515	7,874
Z40_TP-5006	11,744	6:00	3,870	52:00:00	6,515	7,874
Z40_TP-5011	2,579	6:00	705	51:00:00	1,316	1,874
Z40_TP-5014	5,799	6:00	1,591	51:00:00	2,962	4,208
Z40_TP-5016	2,579	6:00	705	51:00:00	1,316	1,874
Z40_TP-5023	2,595	6:00	821	49:00:00	1,397	1,774
Z40_TP-5024	2,603	6:00	616	25:00:00	1,266	1,987
Z40_TP-5025	1,019	6:00	307	3:00	539	712
Z40_TP-5027	2,189	6:00	606	3:00	1,122	1,584
Z40_TP-5029	0	0:00	0	0:00	0	0
Z40_TP-5036	11,050	5:00	1,475	65:00:00	4,881	9,576
Z40_TP-5037	11,050	5:00	1,475	65:00:00	4,881	9,576
Z40_TP-5040	2,340	6:00	597	25:00:00	1,166	1,743
Z40_TP-5079	5,799	6:00	1,591	51:00:00	2,962	4,208
Z40_TP-5080	6,400	6:00	1,744	51:00:00	3,261	4,656
Z40_TP-5082	1,994	6:00	668	51:00:00	1,098	1,326
Z40_TP-5088	1,170	6:00	298	1:00	583	872
Z40_TP-5120	3,359	6:00	904	51:00:00	1,704	2,455
Z40_TP-5121	2,579	6:00	705	51:00:00	1,316	1,874
Z40_TP-5123	390	6:00	99	1:00	194	291
Z40_TP-5200	816	67:00:00	35	57:00:00	489	782
Z40_TP-6027	3,245	32:00:00	142	50:00:00	1,428	3,103
Z40_TP-6030	3,730	5:00	8	41:00:00	853	3,722
Z40_TP-6034	5,355	29:00:00	354	41:00:00	1,547	5,000
Z40_TP-6036	821	6:00	209	1:00	409	612
Z40_TP-6148	1,519	6:00	393	49:00:00	763	1,126
Z40_TP-62	1,485	6:00	379	1:00	740	1,106
Z40_TP-81	3,845	6:00	1,242	52:00:00	2,246	2,604
Z40_TP-84	5,127	6:00	1,735	52:00:00	2,884	3,392
Z40_TP-87	3,272	6:00	835	27:00:00	1,630	2,438
Z40_TP-89	0	0:00	0	0:00	0	0

Table E-4 Velocity Ranges in Pipes under Max Day Conditions – Water Supply Phase 4

ID	Max.Value (ft/s)	Max.Time (hrs)	Min.Value (ft/s)	Min.Time (hrs)	Average (ft/s)	Difference (ft/s)
P-NV-101	1.7	6:00	0.3	52:00:00	1.1	1.3
P-NV-113	0.0	36:00:00	0.0	63:00:00	0.0	0.0
P-NV-114	0.0	44:00:00	0.0	62:00:00	0.0	0.0
P-NV-44	3.2	6:00	1.1	51:00:00	1.8	2.1
P-NV-45	0.6	67:00:00	0.0	36:00:00	0.2	0.5
P-NV-49	3.2	6:00	0.0	1:00	1.0	3.2
P-NV-84	3.9	6:00	1.2	51:00:00	2.1	2.7
P-Z40-29	1.4	5:00	0.3	65:00:00	0.7	1.1
P-Z40-39	0.0	6:00	0.0	1:00	0.0	0.0
P-Z40-67	0.0	6:00	0.0	1:00	0.0	0.0
Z40_P23	4.2	6:00	1.1	51:00:00	2.1	3.1
Z40_P-279	1.9	6:00	0.5	49:00:00	1.0	1.4
Z40_P-4254	0.9	6:00	0.2	49:00:00	0.5	0.7
Z40_P-4255	0.9	6:00	0.2	49:00:00	0.5	0.7
Z40_P79	5.8	6:00	1.5	25:00:00	2.9	4.3
Z40_P81	0.1	6:00	0.0	1:00	0.0	0.1
Z40_P83	0.0	6:00	0.0	38:00:00	0.0	0.0
Z40_P85	0.1	6:00	0.0	1:00	0.0	0.0
Z40_P87	0.1	6:00	0.0	1:00	0.0	0.1
Z40_RCP-01A	1.4	54:00:00	0.3	1:00	0.7	1.0
Z40_RCP-01B	1.4	54:00:00	0.3	1:00	0.7	1.0
Z40_RCP-03A	1.0	6:00	0.3	1:00	0.5	0.8
Z40_TP137	0.3	6:00	0.1	49:00:00	0.2	0.2
Z40_TP-253	3.7	6:00	0.0	16:00	1.2	3.7
Z40_TP-4003	2.6	6:00	0.4	49:00:00	1.1	2.2
Z40_TP-4004	0.6	67:00:00	0.0	36:00:00	0.2	0.5
Z40_TP-4200	2.2	67:00:00	0.0	46:00:00	0.8	2.1
Z40_TP-4201	3.7	6:00	0.0	16:00	1.2	3.7
Z40_TP-4202	3.7	67:00:00	0.1	27:00:00	1.2	3.6
Z40_TP-5005	3.7	6:00	1.2	52:00:00	2.1	2.5
Z40_TP-5006	3.7	6:00	1.2	52:00:00	2.1	2.5
Z40_TP-5011	3.3	6:00	0.9	51:00:00	1.7	2.4
Z40_TP-5014	4.1	6:00	1.1	51:00:00	2.1	3.0
Z40_TP-5016	3.3	6:00	0.9	51:00:00	1.7	2.4
Z40_TP-5023	1.8	6:00	0.6	49:00:00	1	1.3
Z40_TP-5024	1.8	6:00	0.4	25:00:00	0.9	1.4
Z40_TP-5025	0.7	6:00	0.2	3:00	0.4	0.5
Z40_TP-5027	1.6	6:00	0.4	3:00	0.8	1.1
Z40_TP-5029	0	53:00:00	0	22:00	0	0
Z40_TP-5036	2	5:00	0.3	65:00:00	0.9	1.7
Z40_TP-5037	2	5:00	0.3	65:00:00	0.9	1.7
Z40_TP-5040	3.7	6:00	1	25:00:00	1.9	2.8
Z40_TP-5079	4.1	6:00	1.1	51:00:00	2.1	3
Z40_TP-5080	4.5	6:00	1.2	51:00:00	2.3	3.3
Z40_TP-5082	1.4	6:00	0.5	51:00:00	0.8	0.9
Z40_TP-5088	0	6:00	0	1:00	0	0
Z40_TP-5120	4.2	6:00	1.1	51:00:00	2.1	3.1
Z40_TP-5121	3.3	6:00	0.9	51:00:00	1.7	2.4
Z40_TP-5123	0	6:00	0	1:00	0	0
Z40_TP-5200	1.3	67:00:00	0.1	57:00:00	0.8	1.2
Z40_TP-6027	2.3	32:00:00	0.1	50:00:00	1	2.2
Z40_TP-6030	2.6	5:00	0	41:00:00	0.6	2.6
Z40_TP-6034	3.8	29:00:00	0.3	41:00:00	1.1	3.5
Z40_TP-6036	0	6:00	0	1:00	0	0
Z40_TP-6148	1.1	6:00	0.3	49:00:00	0.5	0.8
Z40_TP-62	0.1	6:00	0	1:00	0	0
Z40_TP-81	2.7	6:00	0.9	52:00:00	1.6	1.8
Z40_TP-84	3.6	6:00	1.2	52:00:00	2	2.4
Z40_TP-87	2.3	6:00	0.6	27:00:00	1.2	1.7
Z40_TP-89	0	36:00:00	0	31:00:00	0	0

APPENDIX F

Modeling Results
Fire Flows Scenarios

Table F-1. Fire Flow Analysis Results – Phase 1 and Phase 2

PHASE 1 - FIRE FLOW

ID	Static Demand (gpm)	Static Pressure (psi)	Static Head (ft)	Fire-Flow Demand (gpm)	Residual Pressure (psi)	Residual Head (ft)	Available Flow @Hydrant (gpm)
FLGP-01-2	189	77	224	2,000	76	220	16,779
FLGP-02-3	189	73	224	2,000	72	220	17,271
FLGP-03-2	189	77	224	3,000	74	215	16,915
FLGP-04-1	189	75	224	2,000	73	218	14,899
FLGP-04-2	189	77	224	2,000	75	217	13,136
FLGP-05-1	189	77	224	2,000	70	208	7,410
FLGP-06-3	189	77	224	3,000	73	213	14,544
NTDA-10-3	0	67	226	2,000	65	223	15,278
NVSN-01-1	82	75	224	3,000	71	215	15,980
NVSN-01-2	82	73	224	3,000	69	214	14,771
NVSN-01-4	82	73	224	2,000	72	220	17,580
NVSN-02-1	82	75	224	2,000	74	220	16,525
NVSN-02-2	82	75	224	2,000	74	220	17,132
NVSN-02-3	82	75	224	2,000	73	219	16,131
NVSN-03-1	82	73	224	2,000	71	219	15,450
NVSN-04-2	82	67	226	2,000	66	222	14,356
Z40_TD-5915	0	72	225	3,000	68	218	13,954

PHASE 2 - FIRE FLOW

ID	Static Demand (gpm)	Static Pressure (psi)	Static Head (ft)	Fire-Flow Demand (gpm)	Residual Pressure (psi)	Residual Head (ft)	Available Flow @Hydrant (gpm)
FLGP-01-1	454	72	214	2,000	68	204	11,847
FLGP-01-2	454	73	214	2,000	71	210	19,901
FLGP-02-1	375	71	214	2,000	66	201	9,431
FLGP-02-3	375	69	215	2,000	68	211	27,933
FLGP-03-2	415	73	214	3,000	71	208	21,469
FLGP-04-1	339	71	214	2,000	70	210	24,318
FLGP-04-2	339	73	214	2,000	71	208	15,825
FLGP-05-1	403	73	215	2,000	71	211	14,693
FLGP-06-1	1,151	69	215	3,000	67	210	29,538
FLGP-06-2	0	67	215	3,000	65	209	18,274
FLGP-06-3	1,151	73	214	3,000	71	208	24,159
FLGP-06-4	0	72	216	3,000	69	210	13,923
NTDA-10-3	0	62	215	2,000	61	212	24,758
NTDA-10-5	0	61	215	2,000	60	212	29,304
NVSN-01-1	103	71	214	3,000	69	210	28,640
NVSN-01-2	103	69	214	3,000	67	209	22,142
NVSN-01-4	103	69	215	2,000	68	211	28,783
NVSN-02-1	159	71	214	2,000	70	211	24,663
NVSN-02-2	159	71	214	2,000	70	211	27,709
NVSN-02-3	159	71	214	2,000	70	211	27,050
NVSN-03-1	268	69	214	2,000	68	211	28,416
VSCP-03-2	409	61	216	2,000	60	213	31,916
Z40_TD-5915	0	67	215	3,000	66	212	33,044

Table F-2. Fire Flow Analysis Results – Phase 3 and Phase 4

PHASE 3 - FIRE FLOW

ID	Static Demand (gpm)	Static Pressure (psi)	Static Head (ft)	Fire-Flow Demand (gpm)	Residual Pressure (psi)	Residual Head (ft)	Available Flow @Hydrant (gpm)
FLGP-01-1	454	74	218	2,000	67	203	8,194
FLGP-01-2	454	76	220	2,000	74	216	18,019
FLGP-02-1	375	72	217	2,000	61	191	5,807
FLGP-02-3	375	72	221	2,000	71	219	24,426
FLGP-03-2	415	76	220	3,000	74	215	19,567
FLGP-04-1	339	74	220	2,000	72	217	20,875
FLGP-04-2	339	76	220	2,000	74	215	14,707
FLGP-05-1	403	75	220	2,000	72	213	11,561
FLGP-06-1	1,151	72	221	3,000	71	219	26,443
FLGP-06-2	0	70	221	3,000	67	215	15,934
FLGP-06-3	1,151	76	220	3,000	73	214	20,680
FLGP-06-4	0	74	220	3,000	68	208	10,843
NTDA-10-3	0	65	223	2,000	65	222	22,378
NTDA-10-5	0	65	225	2,000	65	225	28,374
NVSN-01-1	103	74	221	3,000	73	218	24,769
NVSN-01-2	103	72	221	3,000	70	217	19,410
NVSN-01-4	103	72	221	2,000	71	220	25,395
NVSN-02-1	159	74	220	2,000	73	218	21,369
NVSN-02-2	159	74	220	2,000	73	218	23,680
NVSN-02-3	159	74	221	2,000	73	218	23,550
NVSN-03-1	268	72	221	2,000	71	219	24,477
NVSN-04-2	257	66	223	2,000	66	222	24,867
VSCP-03-2	409	64	222	2,000	63	221	28,237
Z40_TD-5915	0	71	223	3,000	70	222	30,268

PHASE 4 - FIRE FLOW

ID	Static Demand (gpm)	Static Pressure (psi)	Static Head (ft)	Fire-Flow Demand (gpm)	Residual Pressure (psi)	Residual Head (ft)	Available Flow @Hydrant (gpm)
FLGP-01-1	551	72	213	2,000	63	193	7,238
FLGP-01-2	551	74	216	2,000	70	207	13,950
FLGP-02-1	503	70	211	2,000	56	179	5,333
FLGP-02-3	503	70	217	2,000	68	211	21,621
FLGP-03-2	448	74	216	3,000	69	204	17,598
FLGP-04-1	551	73	217	2,000	71	214	26,009
FLGP-04-2	551	74	216	2,000	71	209	14,926
FLGP-05-1	538	74	216	2,000	72	213	14,746
FLGP-06-1	971	71	218	3,000	68	211	25,247
FLGP-06-2	971	68	218	3,000	65	210	20,472
FLGP-06-3	971	74	217	3,000	72	210	25,021
FLGP-06-4	971	72	216	3,000	69	209	14,476
NTDA-08-1	462	70	222	3,000	68	217	24,683
NTDA-08-2	462	70	222	3,000	66	213	14,808
NTDA-10-3	281	65	222	2,000	64	220	36,504
NTDA-10-5	281	64	223	2,000	63	221	38,644
NVSN-01-1	168	73	220	3,000	71	214	33,615
NVSN-01-2	168	71	219	3,000	67	210	22,413
NVSN-01-4	168	70	217	2,000	68	211	20,997
NVSN-02-1	258	72	217	2,000	70	211	21,601
NVSN-02-2	258	72	217	2,000	70	212	24,276
NVSN-02-3	258	73	219	2,000	71	214	28,363
NVSN-03-1	436	71	219	2,000	69	215	31,158
NVSN-04-2	639	66	222	2,000	65	220	36,259
VSCP-03-2	509	64	223	2,000	63	221	40,690
Z40_TD-5915	0	70	223	3,000	69	220	41,849

APPENDIX L

CULUTURAL RESOURCES REPORT

DETERMINATION OF ELIGIBILITY AND EFFECT FOR PARTICIPATING PROPERTIES WITHIN THE FLORIN VINEYARD GAP COMMUNITY PLAN PROJECT AREA COUNTY OF SACRAMENTO, CALIFORNIA

Prepared by

Melinda A. Peak and Robert A. Gerry
Peak & Associates, Inc.
3941 Park Drive, Suite 20-329
El Dorado Hills, CA 95762

Prepared for

Roy Brewer
The Brewer Law Firm
3727 Sutter Hill Lane
Carmichael, CA 95608

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(Job #05-145)

INTRODUCTION

The Florin Vineyard Gap Community Plan project area is located in south central Sacramento County, California, and contains about 3,766 acres (Figure 1). The northern boundary of the area is roughly along Elder Creek Road and South Watt/Elk Grove Florin Road forms a partial western boundary; Florin Road and Gerber Road also form partial project boundaries.

There are 35 associated individual development applications (known as "participant properties") within the Community Plan Area with parcels totaling about 1,386 acres. Some of the participant properties have been the subjects of previous cultural resource studies and a 36th property has been withdrawn since the original version of this report was submitted. The boundaries of the overall Florin Vineyard Gap study area are indicated on Figure 2. The Community Plan area lies within portions of section 36, Township 8 North, Range 5 East; sections 31, 32, and 33, Township 8 North, Range 6 East; sections 1 and 12, Township 7 North, Range 5 East; and sections 6, 7 and 8, Township 7 North, Range 6 East, mapped on the Sacramento East, Carmichael, Florin and Elk Grove USGS topographic quadrangles.

Because the proposed development work will require Clean Water Act permitting from the United States Army Corps of Engineers, the applicant will participate as a consulting party to assist the federal agency in demonstrating compliance with Section 106 of the NHPA (16 U.S.C. 470f; regulations codified at 36 CFR § 800). The Sacramento County Department of Environmental Review and Assessment (DERA) will review the document for CEQA compliance.

Melinda A. Peak, Senior Archeologist/Historian with Peak & Associates, Inc. served as principal investigator for the project, with Ann Peak leading the field survey effort. Robert Gerry assisted in the building recordation and report preparation (resumés, Appendix 1).

REGULATORY CONTEXT

The Section 106 review process is implemented using a five step procedure: 1) identification and evaluation of historic properties; 2) assessment of the effects of the undertaking on properties that are eligible for the National Register; 3) consultation with the State Historic Preservation Office (SHPO) and other agencies for the development of a memorandum of agreement (MOA) that addresses the treatment of historic properties; 4) receipt of Advisory Council on Historic Preservation comments on the MOA or results of consultation; and 5) the project implementation according to the conditions of the MOA.

The Section 106 compliance process may not consist of all the steps above, depending on the situation. For example, if identification and evaluation result in the documented conclusion that no properties included in or eligible for inclusion are present, the process ends with the identification and evaluation step.

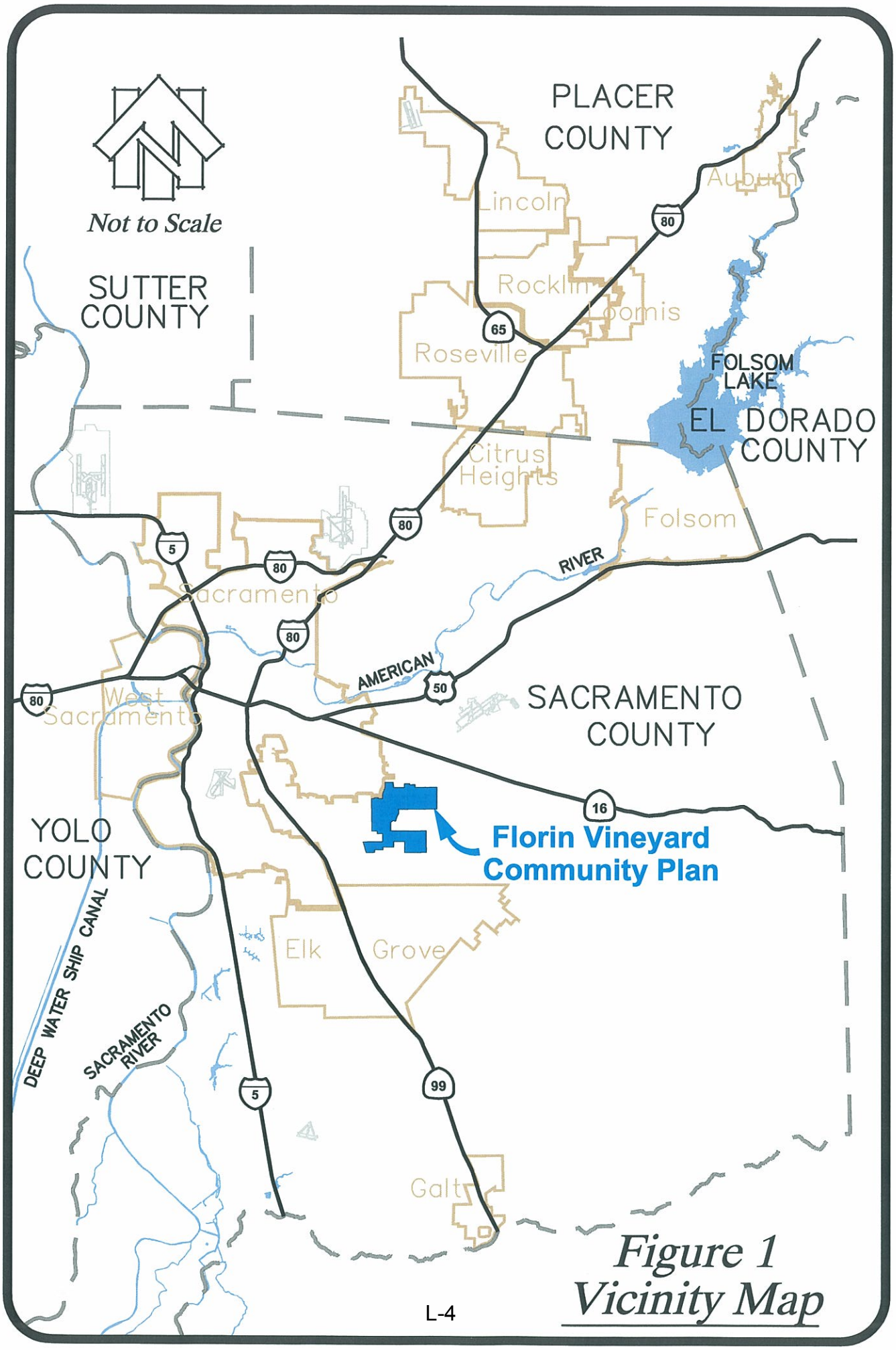


Figure 1
Vicinity Map

Figure 2 (oversize) here

FRAMEWORK FOR EVALUATION

Decisions regarding management of cultural resources hinge on their determination of significance (36 CFR 60.2). As part of this decision-making process the National Park Service has identified components which must be considered in the evaluation process, including:

- criteria for significance;
- historic context; and
- integrity.

Criteria for Significance

Significance of cultural resources is measured against the National Register criteria for evaluation:

The quality of significance in American history, architecture, archeology, engineering, and culture is present in districts, sites, buildings, structures, and objects that possess integrity of location, design, setting, materials, workmanship, feeling, and association, and,

(a) that are associated with events that have made a significant contribution to the broad patterns of our history; or

(b) that are associated with the lives of persons significant in our past; or

(c) that embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or

(d) that have yielded, or may be likely to yield, information important in prehistory or history (36 CFR 60.4).

Historic Context

The historic context is a narrative statement "that groups information about a series of historic properties based on a shared theme, specific time period, and geographical area "To evaluate resources in accordance with federal guidelines, these sites must be examined to determine whether they are examples of a defined "property type". The property type is a "grouping of individual properties based on shared physical or associative characteristics". Through this evaluation, each site is viewed as a representative of a class of similar properties rather than as a unique phenomenon.

A well-developed historical context helps determine the association between property types and broad patterns of American history. Once this linkage is established, each resource's potential to address specific research issues can be explicated.

Integrity

For a property to be eligible for listing in the National Register it must meet one of the criteria for significance (36 CFR 60.4 [a, b, c, or d]) and retain integrity. Integrity is defined as "the authenticity of a property's historic identity, evidenced by the survival of physical characteristics that existed during the property's historic or prehistoric period".

The following discussion is derived from National Register Bulletin 15 ("How to Apply the National Register Criteria for Evaluation").

Within the concept of integrity, there are seven aspects or qualities that define integrity in various combinations. The seven aspects are: location, design, setting, materials, workmanship, feeling, and association. To retain historic integrity, a property will possess several or usually most of these aspects. The retention of specific aspects is necessary for a property to convey this significance. Determining which of the seven aspects are important involves knowing why, where and when the property is significant.

The prescribed steps in assessing integrity are as follows:

- define the essential physical features that must be present for a property to represent its significance;
- determine whether the essential physical features are visible enough to convey their significance;
- determine whether the property needs to be compared with similar properties; and,
- determine, based on the significance and essential physical features, which aspects of integrity are particularly vital to the property being nominated and if they are present.

Ultimately, the question of integrity is answered by whether or not the property retains the identity for which it is significant.

All properties change over time. It is not necessary for a property to retain all its historic physical features or characteristics. However, the property must retain the essential physical features that enable it to convey its historic identity. The essential physical features are those features that define why a property is significant.

A property's historic significance depends on certain aspects of integrity. Determining which of the aspects is most important to a particular property requires an understanding of the property's significance and its essential physical features. For example, a property's historic significance can be related to its association with an important event, historical pattern or person. A property that is significant for its historic association is eligible for listing if it retains the essential physical features that made up its character or appearance during the period of its association with the important event, historical pattern, or person.

A property important for association with an event, historical pattern, or person ideally might retain some features of all seven aspects of integrity. Integrity of design and workmanship, however, might not be as important to the significance, and would not be relevant if the property were an archeological site. A basic integrity test for a property associated with an important event or person is whether a historical contemporary would recognize the property as it exists today. For archeological sites that are eligible under Criteria a and b, the seven aspects of integrity can be applied in much the same way as they are to buildings, structures, or objects.

In sum, the assessment of a resource's National Register eligibility hinges on meeting two conditions:

- the site must possess the potential to be eligible for listing in the National Register under one of the evaluation criteria either individually or as a contributing element of a district based on the historic context that is established; and

- the site must possess sufficient integrity, i.e. it must retain the qualities that make it eligible for the National Register.

For the National Register, "a district possesses a significant concentration, linkage, or continuity of ... objects united historically or aesthetically by plan or physical development." The identity of

a district derives from the relationship of its resources, which can be an arrangement of functionally related properties.

California Register of Historical Resources

For the purposes of CEQA, an historical resource is a resource listed in, or determined eligible for listing in the California Register of Historical Resources. When a project will impact a site, it needs to be determined whether the site is an historical resource, which is defined as any site which:

(A.) Is historically or archeologically significant, or is significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political or cultural annals of California; and

(B) Meets any of the following criteria:

1. Is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage;

2. Is associated with the lives of persons important in our past;

3. Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values; or

4. Has yielded, or may be likely to yield, information important in prehistory or history.

CULTURAL HISTORY

Archeological Background

The Sacramento Delta was one of the first regions in California to attract intensive archeological fieldwork. Between 1893 and 1901, avocational archeologist J. A. Barr excavated many prehistoric mounds in the Stockton area. He collected nearly 2000 artifacts during the course of his investigations. H. C. Meredith was another avocational archeologist of the period who pursued collecting in the same Stockton locality. Meredith (1899, 1900) did publish a compilation of his own and Barr's findings, and these appear to constitute the earliest accounts of Delta archeology. Holmes (1902), from the Smithsonian Institution, further elaborated on the Delta or "Stockton District" archeology, presenting illustrations of artifacts collected by Meredith and Barr.

It was Elmer J. Dawson who first recognized culture changes through time in Delta archeology. Though he was an amateur archeologist, Dawson understood the necessity of keeping accurate notes on grave associations and provenience of artifacts. He collaborated with W. E. Schenck to produce an overview of northern San Joaquin Valley archeology (Schenck and Dawson 1929). The overview contained information on more than 90 prehistoric sites as well as data on previous collections.

By 1931, the focus of archeological work was directed toward the Cosumnes River locality, where survey and exploration were conducted by Sacramento Junior College (Lillard and Purves 1936). Excavations, especially at the stratified Windmiller mound (CA-SAC-107), suggested three temporally distinct cultural traditions: Early, Transitional, and Late. Information grew as a result of excavations at other mounds in the Delta and lower Sacramento Valley by Sacramento Junior College and the University of California, Berkeley.

Previous investigations in the project region have focused upon very detailed archival research of Spanish sources (Bennyhoff 1977), and the archeological investigations at a number of small sites (Schulz et al. 1979; Schulz and Simons 1973; Soule 1976). A reexamination of earlier work has also been undertaken (Ragir 1972; Schulz 1981; Doran 1980). Several of the previously investigated sites probably represent satellite encampments or small villages associated with major villages.

The majority of the sites appear to be relatively late in time, and probably represent Plains Miwok. As mentioned above, the sites appear to be satellite encampments or small villages. The activities practiced are varied, but detailed studies on the faunal collection suggest seasonality of occupation and a focus on fish species other than the main channel varieties.

Writing the definitive summary of California archeology, Moratto (1984: 529-547) devoted an entire chapter to linguistic prehistory. For the Central Valley region, Moratto points out that some Early Horizon and Middle Horizon central California archeological sites appear at least in part, contemporaneous, based on existing radiocarbon dates. Cultural materials recovered from CA-SJO-68, an Early Horizon site, are thought to date to 4350 ± 250 B.P or 2350 B.C. On the other hand, a Middle Horizon component at CA-CCO-308 dates to 4450 ± 400 B.P. or 2450 B.C. The dates assigned to other Early and Middle Horizon sites demonstrate an overlap of the two horizons by a millennium or more.

One explanation proposes that the Middle Horizon represents an intrusion of ancestral Miwok speaking people into the lower Cosumnes, Mokelumne, and Sacramento River areas from the Bay Area. The Early Horizon may represent older Yokuts settlements or perhaps the speakers of a Utian language who were somehow replaced by a shift of population(s) from the bay.

Ethnological Background

The project area lies at the boundary of two different groups who occupied the Sacramento region at the time of historic contact, the Nisenan to the north and the Plains Miwok to the south. Brief summaries of the lifeways of the groups are presented below.

Nisenan

The project area lies in the territory attributed to the Nisenan, a branch of the Maidu group of the Penutian language family. Tribes of this language family dominated the Central Valley, San Francisco Bay areas, and western Sierra Nevada foothills at the coming of the white man. The Nisenan controlled the drainages of the Yuba, Bear, and American rivers, along with the lower portion of the Feather River. The tribes of this whole region referred to themselves as Nisenan, meaning "people," in contrast to the surrounding tribes, in spite of close linguistic and cultural similarities. For this reason, they are usually named by this term rather than the more technical "Southern Maidu." In any event, the local main village was of more importance to the people than the tribal designation, and groups identified themselves by the name of the central village.

Their northern boundary has not been clearly established due to similarity in language to neighboring groups. The eastern boundary was the crest of the Sierra Nevada mountains. Probably a few miles south to the confluence of the American and Sacramento rivers on the valley floor was their southern boundary. The western boundary extended from this point upstream to the mouth of the Feather River.

The Valley Maidu settlement pattern was basically oriented to major river drainages, with ancillary villages located on tributary streams and sloughs. Major villages often supported a population exceeding five hundred people (Wilson and Towne 1978:389). The flat grasslands between watercourses were used for collecting vegetable foods and hunting, but these activities leave little, if any, archeological evidence.

Both the valley and foothill Nisenan lived by hunting and gathering, with the latter being more important. Acorns in the forms of meal, soup or bread provided the staple diet, augmented by a wide variety of seeds and tubers. Hunting and fishing were regularly practiced, but provided less of the diet than vegetable foods. The bedrock mortar and pestle were employed to process the acorn meats into flour, and the mortar cups are frequently found throughout the range of oak trees. Both salmon and eel were caught at Salmon Falls near Folsom.

Religion was in the form of the "Kuksu Cult," a widespread pattern among the California Indians. Ceremonies congregated in the semi-subterranean dancehouse located at the central village and "cry sites" where the annual mourning ceremony for the dead took place. Later, the religious revival of the ghost dance also affected this area.

In 1833, the great epidemic swept through the Sacramento Valley. This epidemic has been attributed to malaria (Cook 1955:308), and is estimated to have killed seventy-five percent of the native population, leaving only a shadow of the original Maidu to face the intruding miners and settlers. The Nisenan of the mountain areas felt little of the impact of European settlement in California as compared to the Valley Nisenan, who were subjected to some missionization. The Mountain Nisenan, remote from these early impacts, were overwhelmed by the gold rush. Native ways of life were almost totally abandoned, and today only a few families in Placer, Nevada, Yuba, and El Dorado counties identify themselves as Nisenan and can speak the language (Wilson and Towne 1978).

Plains Miwok

The Eastern Miwok represent one of the two main divisions of the Miwokan subgroup of the Utian language family (Levy 1978:398). The Plains Miwok, one of five separate cultural and linguistic groups of the Eastern Miwok, occupied the lower reaches of the Mokelumne, Cosumnes and Sacramento Rivers including the area of south Sacramento County surrounding the project area. Linguistic studies and the application of a lexicostatistic model for language divergence suggests that Plains Miwok was a distinct linguistic entity for the last 2000 years (Levy 1970). This result led researchers such as Richard Levy (1978:398) to conclude that the Plains Miwok inhabited the Sacramento Delta for a considerable period of time.

The political organization of the Plains Miwok centered on the tribelet. Tribelets were comprised of 300 to 500 individuals (Levy 1978:410). Each tribelet was thought to control a specific area of resources and usually consisted of several villages or hamlets. Each tribelet also was divided along lineages. These lineages were apparently localized to a specific geographic setting and most likely represented a village site and their associated satellite sites where the seasonal collection of

resources occurred (Levy 1978:398-399). Each settlement apparently contained roughly 21 individuals according to data collected by Gifford (Cook 1955:35).

The diet of the Plains Miwok emphasized the collection of floral resources such as acorns, buckeye, digger pine nuts, seeds from the native grasses and various fresh greens. Faunal resources such as tule elk, pronghorn antelope, deer, jackrabbits, cottontails, beaver, gray squirrels, woodrats, quail and waterfowl were hunted. Fishing, particularly salmon and sturgeon, contributed significantly to the Plains Miwok diet (Levy 1978:402-403). The primary method of collecting fish was by nets, but the use of bone hooks, harpoons and obsidian-tipped spears is also known ethnographically (Levy 1978:404).

Both twined and coiled basketry were manufactured by the Eastern Miwok. The uses of baskets included the collection and storage of seeds, basketry cradles and gaming (Levy 1978:406). Tule mats were also known to have been used by the Plains Miwok primarily as a floor covering. Other uses of tule included the manufacture of the tule balsa, a water craft in which native people navigated and exploited adjacent delta and major river systems.

Four main types of structures were known among the Eastern Miwok, depending on the environmental setting. In the mountains, the primary structure was a conical structure of bark slabs. At lower elevations the structures consisted of thatched structures, semi-subterranean earth-covered dwellings and two types of assembly houses used for ceremonial purposes (Levy 1978:408-409).

Bennyhoff (1977:11) characterized the Plains Miwok as intensive hunter-gatherers, with an emphasis upon gathering. The seasonal availability of floral resources defined the limits of the group's economic pursuits. Hunting and fishing subsistence pursuits apparently accommodated the given distribution of resources. The Plains Miwok territory covered six seasonally productive biotic communities and as such native people could apparently afford to pick and choose the resources they ranked highest from each of these zones. The subsequent storage of floral resources (such as acorns in granaries) allowed for a more stable use of the resource base (Bennyhoff 1977:10). The acorn was apparently the subsistence base needed to provide an unusually productive environment as earlier non-acorn using peoples who resided in the same geographic setting apparently suffered some seasonal deprivation (Schulz 1981). Such an emphasis upon the gathering of acorns is consistent with the population increase evident during the Upper Emergent Period in California (Doran 1980).

The study of piscine (fish) remains from both CA-SAC-65 (Schulz et al. 1979) and CA-SAC-145 (Schulz n.d.; Schulz and Simons 1973) indicates that small villages away from the major rivers appear to concentrate on the collection of piscine species (particularly the Sacramento perch) that inhabited slow-moving waters. This would probably have been the case with any village located within or near the project area, if there was a village in the immediate area.

The project area vicinity is not known to be controlled by any particular tribelet of the Plains Miwok, but appears to lie in an unoccupied boundary zone between the Plains Miwok and the antagonistic Nisenan to the north (Bennyhoff 1977:58).

Historic Context

In 1844, the Mexican governor awarded a grant of over 35,500 acres of land on the south side of the American River to William A. Leidesdorff, born in the Virgin Islands to a Danish planter father and a woman of African descent. He came to California in 1841, settling in the village of Yerba Buena (later San Francisco), and became a prominent and wealthy citizen. Leidesdorff built an adobe house on his rancho in 1846, near the site of Routier. He died in 1848, and Joseph Folsom purchased the entire land grant from Leidesdorff's heirs.

The lands of this portion of Sacramento County are primarily dry plains, cut by occasional drainages. Elder Creek crosses the project area, with Morrison Creek just north of the project area. The lands along the major drainages were the first to be occupied with settlement occurring in the dry plains and on the lesser drainages such as Elder Creek in the late 1850s and early 1860s.

The lands of this portion of Sacramento County were used for dry land farming for crops such as grain and hay. With a permanent water source, some of the lands could be used for grapes and orchards, or for dairies.

The four townships involved were mapped in various years from 1855 to 1866 by the General Land Office. The two townships mapped in the earlier period in Township 7 North show no residences or developments other than several roadways. In the northern townships, Township 8 North Range 5 East has no buildings in the project area, but Township 8 North Range 6 East had three homes and a schoolhouse mapped in 1866. Elder Creek is shown as an "arroyo" suggesting that it was a fairly minor drainage. The lands of the project area were owned in parcels ranging in size from 40 to 640 acres (Official County Map 1885).

As with elsewhere in this portion of the County, parcels tended to become smaller over time. By 1903, an agricultural colony had been established in section 12 (T8NR5E), with some parcels subdivided as small as ten acres in size. It was known as the W & K No. 6 (Official County Map 1903). By 1911, the greater portion of the project area had been subdivided as agricultural colonies. The exception to the trend to subdivide is the holding of all of section 8 (T7NR6E) by the Gerber family (Official County Map 1911). By 1923, even this tract had been split into ten and twenty acre parcels as part of "Wolf Heights" (Official County Map 1923).

The early years of the twentieth century were an era of rapid development of a large number of interurban electrified railways. Technological advances related to the production and long-distance transmission of hydroelectric generated power in the late nineteenth century made this a popular form of transportation for passenger service and freight service throughout the virtually flat terrain of the Central Valley. One of the systems to be organized and built in this era was the Central California Traction Railroad (CCT). The corporation was organized in 1905 with three goals in mind: to compete with the Southern Pacific and Western Pacific railroads for transporting agricultural products from farms on the east side of the San Joaquin and Sacramento valleys; to develop farmland along the railroad right-of-way; and to provide a major customer for the power company owned by several of the corporate directors.

The 53-mile CCT main line connected Sacramento with Stockton, with a branch from the main line to Lodi. The section from Sheldon to Sacramento including the section near the project area was completed in 1910. Almost from the beginning, the railroad built up a substantial freight business, and was a financial success. In the 1920s, Southern Pacific, Santa Fe and Western Pacific purchased the railway jointly. Eventually, the increasing use of personal automobiles and bus lines brought a reduction in the number of passengers for the CCT, and passenger service was eliminated in 1933. In 1946, the use of electricity was discontinued in favor of diesel service (Hilton and Due 1960: 401; Fickewirth 1992:27).

NATIVE AMERICAN CONSULTATION

A letter was sent to the Native American Heritage Commission (NAHC) requesting a check of the Sacred Lands files. The check failed to reveal any properties listed as Sacred Lands. The NAHC did provide a list of individuals and groups to contact regarding the property. Letters were sent to Leland Daniels; Frank Navarrette, Glen Villa Jr., and Matthew Franklin of the Ione Band of Miwok Indians; Mary Daniels-Tarango of the Miwok Indian Community of the Wilton Rancheria; and Dwight Dutschke, Sierra Native American Council. No response has been received to date. The project area was discussed with Mr. Daniels on March 18, 2006. He had participated in a survey in 2004 on a portion of the project area (the proposed site, at the time, of Elk Grove Seventh School) and he said he did not believe there were any prehistoric resources present in the area.

Copies of Native American communications may be found in Appendix 2.

RESEARCH

A record search for the participating properties was conducted through the North Central Information Center of the California Historical Resources Information System for the Department of Environmental Review and Assessment on July 20, 2004 (Appendix 3). Some of the participant properties had been the subject of recent professional surveys. Gail Erwin summarized the results of the previous studies, and made recommendations regarding the need for additional surveys of participant properties (Erwin 2005). Table 1 indicates the results of the search, and the recommendations made, as well as which parcels have been subjected to the recommended survey measures.

Of all of the sites recorded in the overall community plan area, only two lie within or immediately adjacent to participant properties: CA-SAC-506H, the route of the California Central Traction Railroad, and CA-SAC-545H, Elk Grove-Florin Road. The routes of both of these features are clearly shown on topographic maps. The alignment of the railroad crosses a participating property, but the easement is not a part of the project.

Table 1: Record Search Summary/Survey Status

Note: This reflects, primarily, the 2004 record search results and includes project names and numbers that may not be current.

Project No./Study Name	Location	Recommendations (by Erwin)	Resources Identified (current study)	Current Study	Comments
04-RZ-UPZ-0052 Bradshaw Mini-Storage	T8N, R6E, Section 32	Survey or standard mitigation measures	None	Surveyed	
04-RZB-PMR-0139 Champions Golf Course	T7N, R6E, Section 6	Survey entire property	One abandoned building	Surveyed	Second building on property is gone
04-RZB-0143 Oates/Massie	T7N, R5E, Section 1	Survey not required	None	Surveyed	
04-RZB-SDP-0177 LAJ, Legends Meadow	T7N, R6E, Section 7	Survey all (possible historic features)	1950s residence	Surveyed	Concrete block house
04-RZB-SDP-0187 Kimball Hill, Gerber Creek	T7N, R5E, Section 1	Survey areas not already done	One foundation, residence and a residential complex	Surveyed	Peak 1999
04-RZB-PMR-0204 Taylor Properties	T8N, R6E, Section 33	Survey entire property (seasonal drainage)	Foundation recorded	Surveyed	Modern building
04-RZB-SDP-0205 Scotch, Portico Acres	T1N, R6E, Section 8	Survey entire property	Three residences	Survey access denied, done after main survey	Residences do not appear to be significant
04-RZB-SDP-0206 Stumbos, Lelani Village	T7N, R5E, Section 1	No survey if already completed	None	Previous survey	Peak 1999
04-RZB-SDP-0207 Natomas Gardens (Florin Vineyards)	T8N, R5E, Section 35, R6E, Section 31	Survey all, emphasis on historic	Three residences (one recently re-built) and a barn plus younger structures	Surveyed (four of the parcels, access denied originally, surveyed later)	
04-RZB-SDP-0208 Villages @ Elder Creek	T7N, R6E, Section. 6	Survey all (near creek, historic road)	Two residences and the sites of two others	Surveyed and previous survey	ECORP 2003
04-RZB-PMR-0209 Petrovich Development	T7N, R6E, Section 7	Survey all (near historic road)	Residence and barns, only frames left	Surveyed	
04-RZB-SDP-0211 Kimball Hill, Stonehedge	T8N, R6E, Section 31	Survey all (no previous survey, historic RR)	Residence with barn and tankhouse	Part surveyed, part denied access	1940s residence
04-RZB-SDP-0215 Dunmore, Porter	T7N, R6E, Section. 7	No survey required	None	Surveyed	Peak & Associates, 2004a

04-RZB-SDP-0215 Elk Trail (formerly Tovera)	T7N, R6E, Section. 7	No survey required	None	Surveyed	Peak & Associates, 2004a
04-RZB-SDP-0216 Dunmore, Lawson	T7N, R6E, Section 8	No survey required	None	Surveyed	Peak & Associates, 2004b
04-RZB-SDP-0217 Pulte, Dakuzaku	T7N, R6E, Section 7	Incorporate previous survey results	Foundations previously recorded	Surveyed	
04-RZB-SDP-0218 Kamilos, Gardner/Parke	T7N, R5E, Section 1	Incorporate previous survey results	One foundation	Previous survey	Peak & Associates, 1999; 2004c
04-RZB-SDP-0219 JAS, Roemer	T8N, R6E, Section 31	Incorporate previous survey results	Six residences and many new structures	Previous survey	Peak & Associates, 2004d
04-RZB-SDP-0226 Taylor Properties	T7N, R6E, Section 8	Survey all (no studies in area)	None	Surveyed	
04-RZB-SDP-0233 Carson Development	T7N, R5E, Section 12	Survey all	Fifteen buildings	Surveyed	Owner says houses are 1940s or 1950s
04-RZB-SDP-0234 MHL, Gardner Country Est.	T7N, R5E, Section 1	Survey all	None	Surveyed	
04-RZB-SDP-0241 Kevin Phan	T8N, R5E, Section 36	Survey all (previous study on street)	None	Surveyed	Windmiller, 2004
04-RZB-0247 Kumar/Gasnakis	T7N, R6E, Section 7	Survey all (no studies in area)	None	Access denied, surveyed after main survey	
040-0412 Millers	T7N, R6E, Section 6	Survey all (no previous study)	None	Surveyed	
04-0423 Martin	T7N, R6E, Section 8	Survey all (some old survey coverage)	None	Access denied, surveyed after main survey	
04-0445 Enoch	T7N, R6E, Section 8	Survey (previous linear surveys)	None	Surveyed	
04-0449 Hung	T7N, R5E, Section 1	Survey all (no previous study)	None	Surveyed	
04-0450 Black	T7N, R6E, Section 8	Survey all (no previous study)	None	Access denied, surveyed after main survey	
04-0457 Magana/Mohammed	T7N, R6E, Section 6	Survey all	One older residence plus modern structures	Surveyed	
04-0460 Sikich	T7N, R5E, Section 1	Survey all	1930s residence	Surveyed	

04-0469, -0474, -0480 Natomas Gardens Investment Group	T7N, R5E, Section 12	Survey all	1916 residence, three more recent residences	Surveyed all except one parcel, which was surveyed later	1916 is extensively altered
04-0471 Natomas Gardens Investment Group	T8N, R5E, Section 33	Survey all (no previous study)	None	Surveyed	
04-0906 Hedgerow	T7N, R6E, Section 6	None (application not submitted at the time)	Two old residences	Surveyed	

In addition, one report on a survey of a large portion of the JAS holding was not included in the record search. Peak & Associates completed a report on their survey of this tract in November 2004. This study resulted in the recordation of five historic period buildings/complexes. Four of these are within the boundries of current participating parties. These buildings are described with the field survey results.

Two other studies covered the buildings present on the Porter-Lawson-Tovera properties, as DERA had requested information on any pre-1950 buildings in the site for their preliminary land application. These studies determined that there were no buildings dating to before 1950 on any of the parcels.

FIELD SURVEY

The participating properties within the project area that had not already been surveyed were completely covered by a team of archeologists, primarily between January 14, 2006 and March 26, 2006. The team utilized complete coverage methods, with transects varying from 5 to 10 meters in width. Where necessary, small holes were dug by hand to check the sediments. The survey team covered portions of the project area on various dates, as access contacts and weather permitted. Therefore, small crews examined some parcels after the March 26 date, extending as late as January 2007. Ultimately, all participant parcels were inspected.

Properties that had already been inspected and those that were inspected during the current field study are shown on Figure 3.

FIELD SURVEY RESULTS

The field survey did not yield any evidence of prehistoric occupation or use. This is not surprising, as no sites have ever been recorded in the dry plain area in this portion of Sacramento County, even along any of the creeks or drainages.

Field observations for each participating parcel are given below. Structures of fifty years of age or more are described more fully on site records (appended) and are presented in Table 2.

04-0052–Bradshaw Mini-Storage

There are no structures on this property and no evidence that structures were present in the past.

Figure 3 (oversize) here

Table 2: Resources Present

Includes only structures that are or may be greater than fifty years of age and archeological resources.

APN	Address	Description	Date Constructed	Comments
065-0080-016	9051 Gerber (9059)	Abandoned House	1920?	No Assessor's record
121-0010-030	7700 Florencia	Residence	1954	Concrete block house
065-0070-027	7444 Gardner	Residence	1930	
065-0070-022	7584 Elk Grove-Florin	Residence, barn, shed	1956	Outbuildings may be a bit older
065-0070-007	None	Foundations		PA-99-071
066-0050-009	6901 Bradshaw	Foundation (mapped)	1954	Date from Assessor's record
121-0070-014	7800 Bradshaw	Residential Complex	1950s?	Extensive alterations
121-0070-014	7808 Bradshaw	Residential Complex	1950s?	Very plain
121-0070-014	7816 Bradshaw	Residential Complex	1950s?	Major additions
064-0080-045	7040 Bandy	Residence	1940	Many alterations and additions
064-0072-015	6890 South Watt	Residence	1953	Two story stucco
064-0080-043	7001 S. Watt	Residential Complex	1940	Many additions and associated buildings
065-0051-046	7328 Hedge	Residence	1916	Many modifications
065-0080-001	7411 Elk Grove-Florin	Residence	1915	Looks newer due to extensive remodeling
065-0051-045	7291 Elk Grove-Florin	Former residence and barn	?	Razed and burned
065-0051-032	7371 Elk Grove Florin	Former residence	?	Razed
064-0080-017	7001 Bandy	Farm complex/tankhouse.	1920?	No Assessor's record
121-0040-003	9282 Gerber	Foundations	1930s	Dakuzaku site
065-0042-031	None	Foundations		PA-99-070
064-0080-059	6900 Hedge	Abandoned residence	1935	Date from Assessor's record
064-0080-031	6851 Hedge	Residential complex	1947	Date from Assessor's record
064-0080-034	7106 Hedge	Residence	1945	
064-0032-004	8970 Tokay	Residence	?	No Assessor's building record
064-0032-003	8950 Tokay	Residence	1949	Date from Assessor's record, appears older
064-0032-006	8936 Tokay	Residence	1954	Appears earlier, may have been moved to site
115-0091-004	8799 Caselman	Residential Complex	1964	Date according to Assessor. Appears to be older
115-0091-005	8801 Caselman	Residential Complex	1940s	1919 according to Assessor's record
115-0091-005	8809 Caselman	Residential Complex	1940s	Assume coeval with 8801 (same lot)
115-0091-005	8817 Caselman	Residential Complex	1940s	Assume coeval with 8801 (same lot)
115-0091-005	8825 Caselman	Residential Complex	1940s	Assume coeval with 8801 (same lot)

115-0091-005	8833 Caselman	Residential Complex	1940s	Assume coeval with 8801 (same lot)
115-0091-005	8841 Caselman	Residential Complex	1940s	Assume coeval with 8801 (same lot)
115-0091-005	8849 Caselman	Residential Complex	1940s	Assume coeval with 8801 (same lot)
115-0091-006	8857 Caselman	Residential Complex	1940s	1918 according to Assessor's record
115-0091-006	8861 Caselman	Residential Complex	1940s	Assume coeval with 8857 (same lot)
115-0091-006	8865 Caselman	Residential Complex	1940s	Assume coeval with 8857 (same lot)
115-0091-006	8869 Caselman	Residential Complex	1940s	Assume coeval with 8857 (same lot)
115-0091-006	7842 Elk Grove-Florin	Residential Complex	?	Same lot as 8857, possibly same age
115-0091-006	7832 Elk Grove-Florin	Residential Complex	?	Extensively remodeled
115-0091-006	7800 Elk Grove-Florin	Residential Complex	1940s?	Looks like others on this lot
065-0080-046	8955 McCoy	Residential/Stable Complex	1920	Residence may be 1920, rest are much newer
065-0042-048	7255 Gardner	Residential Complex	1930	Date per Assessor's record
115-0092-003	8754 Carlisle	Residential Complex	1916	Extensive remodeling or newer house
115-0091-016	8678 Caselman	Residence	1950	
115-0091-033	8645 Carlisle	Two residences	?	One abandoned, the other heavy modifications
065-0052-008	7305 Hedge	Residence	1945	Highly modified Dutch Colonial
065-0052-006	7351 Hedge	Residential Complex	1900	Very poor condition
121-0010-051	7635 Elk Grove-Florin	Frames of a res. and barn	1910	Almost collapsed

04-0139–Champion Oaks Development

There is one streucture, located just east of the developed portion of the golf course that is greater than fifty years in age. 9051 Gerber (APN 065-0080-016) was a small residence very similar to others in the area with a cross gabled roof that appears to have been re-roofed not long before it was abandoned, judging by the excellent condition of the composite roofing. The rest of the house has not fared as well. The siding is lapped planks with not a trace of paint and the windows are gone, the gaps covered by plywood and tin sheeting. There is a small roof with separate gable over the entry supported by plain wood posts.

There are modern structures in the developed portion of the property (clubhouse, storage sheds, etc.) that have all been built after the advent of the golf course and are clearly not fifty years in age or near it.

04-0143–Florin Vineyard Retail Center

There are no structures on this property and no evidence that structures were present in the past.

04-0177--Legends Meadows

7700 Florencia (APN 121-0010-030) The construction of this residence is concrete block, setting it apart from all others in the plan area. It has an L-shaped footprint with cross-hipped roof and the entry is in the interior corner of the L. The roofing is tile and there is a wide exterior chimney on the east (front) elevation. Windows are aluminum framed, both fixed and pivoting, and some have a narrow transom. The house is in excellent repair and looks newer than the date of 1954 given on the building record. There is a shed to the north rear of the structure that appears older, but this is probably due to less maintenance, since the shed repeats the hipped roof style of the main structure.

Other structures on the property are more recent or clearly not significant.

9000 Gerber is given a date of 1977 on the assessor's building record, which appears reasonable from field inspection.

7690 Florencia and 7692 Florencia both appear to date to about the same age although not as well maintained. The Assessor's web site gives no date and no value for improvements for either address, so they may have been moved to their current locations.

7690

7692

At 9021 Leland there is a mobile home and a small barn/shed.

04-0187--Gerber Creek

7444 Gardner (APN 065-0070-027) is a small Minimal Traditional cottage, although it has open eaves suggesting some influence from Craftsman. It has a mix of aluminum framed windows with the original one-over-one wooden sashes. The siding is wood with wide horizontal lapping and the roofing is a rolled composite. There are no unusual architectural features of adornments. The Assessor's records indicate a date of 1930, which does not seem out of line for general appearance. The structure has been well maintained or, perhaps, the siding is a replacement.

7584 Elk Grove Florin (APN 065-0070-022) is dated at 1956 in the Assessor's records, but there are a shed and a barn behind the residence that appear to be older. The complex was recorded.

7505 Gardner is a small ranch style house dated at 1973 by the Assessor's office. It has several small sheds in association.

In addition to standing structures, one site consisting of foundations was recorded in an earlier project. PA-99-71 (APN 065-0070-007) is located near the mapped location of a structure on the World War II era map of the vicinity. However, the foundation recorded during the survey does not correlate with the earlier structure location. In contrast to the mapped structure, the foundation now present abuts Elk Grove-Florin Road. The older structure sat further back.

The site consists of a concrete slab foundation and other slabs of less certain function. It is unlikely that this was a residence since it is located directly adjacent to the road. There was a much more substantial operation of some sort here at one time, since there is a line of palm trees and an extensive graded and graveled flat near the foundation. Behind (west of) the flat are the remains of a small vineyard.

04-0204–Florin/Bradshaw NE

The field crew identified a concrete foundation slab on APN 066-0050-009 (6901 Bradshaw) and mapped it. A cistern, metal water tank and a stand pipe were associated with the foundation. According to the Assessor's office, there was a residence here that dated to 1954. A site record was prepared.

04-0205–Portico Acres

All of the three structures on the property are marginal in age, but since there is no solid information on construction dates, site records were prepared. One renter indicated that the houses had been moved to the property from elsewhere, but this could not be confirmed. If the structures were moved, it would explain the absence of construction dates in the Assessor's records.

7800 Bradshaw (APN 121-0070-014) The residence is essentially a narrow rectangle with a hipped roof. The long dimension of the house is north-south and entry is from the east, facing Bradshaw Road. There are two short extensions on either end of the east elevation, also with hipped roof, the northern one forming an attached garage. The area between the two extensions is occupied by a low entry porch covered by an extension of the main roof. The porch roof is supported by plain wood posts on opposite sides of the doorway, but the outer corners are not supported. Much of the front of the house is clad in a multi-colored faux-brick siding material with a composite material covering the rest of the sides. The windows are aluminum framed and both sliders and pivoting windows are used. The house appears to date to the 1950s, but it has been extensively modified.

7806 Bradshaw (APN 121-0070-014) This building is a simple box with end gable. The detached garage sits very near the south side of the house and is nearly as large as the residence. The roof is a composite rolled material and the windows are aluminum framed. It probably dates to the 1950s like 7800.

7816 Bradshaw (APN 121-0070-014) The one story frame residence is a cross gabled structure in Minimal Traditional Style, It has an odd appearance because the largest section of the house, oriented east-west does not include the entry. This is, instead, offset to the south via a porch covered by an extension of the cross gable, at a shallower pitch. A similar extension of the cross gable to the east is present on the north side of the house as well. In contrast, the rear of the house (west elevation) is an unbroken line, even though covered by the main gable and two cross gables. The windows are mostly double hung sashes and roofing is a composite rolled material. The house is clad in vinyl siding and there is a detached garage behind and north of the house. The structure sits on a high concrete wing wall foundation, like 7806 Bradshaw to the north, which does not fit very well with the style and presumed 1950s date.

04-0206–Lelani Village

There are no structures on this property and no evidence that structures were present in the past.

04-0207–Florin Vineyards

Four structures on this property were over fifty years of age and three were recorded. The other, a barn at 8891 Florin, has almost collapsed and was clearly not significant in the first place. The residence at 8891 is much more recent.

8891 Florin

The tenant said that there was a house at the site in 1957, but it was completely rebuilt in 1975 after a fire.

The remians of the barn at 8891 Florin.

7040 Bandy (APN 064-0080-045) The one story residence is a plain side gabled structure with few distinguishing characteristics. It has a rolled composite roof with aluminum-framed windows. There is a shed to the east that has been converted to living quarters. The Assessor's building record gives a date of 1940, but the only apparent evidence of this age is the landscaping around the house, which includes several mature trees, including to large palms.

6890 South Watt (APN 064-0072-015) is a two story stucco residence with two brick chimneys on the south elevation. It is a narrow, end gabled structure with a roof at the first story level extending east to cover a shallow entry room and porch. Another low roof forms a carport on the south-rear elevation and connects to a one story frame shed. The Assessor's building record gives a date of 1953 for the building, which seems accurate. The brickwork for the chimneys is the only external decoration.

7001 South Watt (APN 064-0080-043) The residence here is a Craftsman bungalow with two-pitch roof and a lot of modifications. The second pitch of the roof covers what is probably an addition on the rear (north) of the building. The siding has been replaced in some areas. The front of the residence shows typical Craftsman elements, such as a full width porch with stout pillars and exposed notched rafter ends, but the rest of the structure reveals repairs and additions. Also present are a tank house, reached by ladder, that is almost collapsed and a couple of small sheds. The tank house has a tapering tower topped by a larger area that houses the tank. Pitman (1992) would term this a "truncated taper tower." The date of construction is not known.

8765 Florin dates to 1958 according to the Assessor's records and this appears accurate from field inspection. It is a one story frame house in Minimal Traditional style with composite roof, metal framed widows and a cross gabled roof..

There are several modular homes located on an access road that extends east from Gardner. These are on two former parcels (064-0072-020 and-024) that were separate but are now part of 064-0072-

034. These consist of a group of modern modiular units on the west (the former 064-0072-020 property)

The structures to the east, on the former 064-0072-024, consist of two modulars

and two modern sheds.

04-0208-Villages @ Elder Creek Estates

There are two residences greater than fifty year old on the property.

7328 Hedge (APN065-0051-046) This small side gabled structure dates to 1916 according to the Assessor and has the appearance of a nondescript small residence of that era, although heavily modified. It is a simple rectangle except for a full width porch on the front (east) tcovered by an extension of the main roof at a lower pitch. There are turned wood posts supporting the porch roof and no other decorative touches. All the exterior materials, siding, widows and roofing, appear to be replacement.

7411 Elk Grove Florin (APN 065-0080-001) is a pyramidal roofed Craftsman Bungalow. It is well maintained and looks newer than the 1915 date given by the Assessor, but a tin stove pipe visible at the roof peak indicates that this is probably an accurate date. The front of the house includes an almost full-width porch under a gabled roof. The eaves of this roof are now closed, but this appears to be a later modification, as the rest of the styling is clearly Craftsman. Another addition is the stick work on angle braces that decorates the front gable end. This seems too elaborate for the era and is not entirely in keeping with the architectural style. Other additions are minor (metal porch railings) or standard maintenance items (new roof).

In addition the field crew identified a collapsed residence and barn at 7291 Elk Grove-Florin (APN 065-0051-045). This collapse must be of long standing since the Assessor's office has no building record at all for this property. There were no unusual features or artifacts to suggest that it could be considered an archeological property. This area has since suffered a grass fire which has removed most of what little evidence remained. Since the location appears on the USGS as a residence, a site record was prepared.

Also, a razed residence was identified at 7371 Elk Grove Florin, consisting primarily of a concrete slab. Again, the remains do not give the appearance of being very old but the property appears on the USGS, so a site record was prepared.

Other structures on the property include:

7311 Elk Grove Florin

There is no date given for this structure by the Assessor, but it appears to be recent and eclectic in style.

7375 Elk Grove Florin

A plain 1976 structure.

7334 Hedge

Two modern structures located on an access road to the west of Hedge Avenue.

04-0209–Vineyard Market Square

On APN 121-0010-051, at the corner of Elk Grove-Florin and Gerber (7635 Elk Grove-Florin), there are two structures, probably two barns, that are down to little more than framing. There is also a possible house site identified only by flat compacted earth. There was construction equipment at work on this parcel at the time of the survey, probably for the ongoing sewer project in this vicinity. The Assessor's building record gives a date of 1910 for the residence but there is now no indication of what it may have looked like.

The best preserved structure on the property.

04-0211--Stonehedge

7001 Bandy (APN 064-0080-017) The residence at this location is a simple side gabled Minimal Traditional house with a slight extension of the roof line to cover a narrow, centered entry porch of concrete with thin metal posts supporting the roof. The house is one story with a moderately pitched roof covered in rolled composite material. The siding was originally stucco, but the front (west elevation) is now covered in faux brick. A garage, originally detached but now connected by a flat roof, sits south of the house. The Assessor's building record gives a date of 1959 for the structure, but this may be a bit young. The structure could be, barely, fifty years old. Otherwise, there is nothing in any way remarkable about it.

Just north of 7001 Bandy there are two minor structures:

A small barn and

the remains of a tank house.

There are several structures on the property along the west side of Hedge Avenue. Going from north to south, these are:

6950 Hedge

A 1977 residence

No address, but adjacent to 6950

An old, tiny residence that has just been moved onto the property.

6987 Hedge

No Assessor's record, but clearly quite new

A barn north of 7000 Hedge

7000 Hedge

A 1973 residence

7050 Hedge

House about 1960

04-0215–Porter

There is one modern structure on this property:

9188 Gerber

An L-shaped residence that looks more recent than the 1960 date given by the Assessor

04-0216–Lawson

There are no structures on this property and no evidence that structures were present in the past.

04-0217–Dakuzaku

There are two structures at 9282 Gerber, both dating to 1991.

There is a site that lies just south of the modern structures. This is the remains of the original Dakuzaku farm structures, consisting of a metal-clad barn, an electric water pump and the house foundations. The house was originally built in 1925. The site record, by Pacific Legacy, is appended,

04-RZB-SDP-0218--Kamilos, Gardner/Parke

The eastern portion of this property, fronting on Elk Grove Florin, contains only the remains of residences. PA-99-70 (APN 065-0042-031) is at a location where historic maps indicate structures dating back to at least 1907. There is nothing left now but foundations and trash, most of it recent. In fact, most of the trash in this area appears to have been dumped after the buildings were abandoned, on the basis of location and apparent age of the dumped materials.

On the west side of the property, there are three modern residences fronting on Gardner.

7331 Gardner

A recent, 1979, two story tiled roof residence.

7383 Gardner

A 1985 residence.

7297 Gardner

A modern ranch-style residence, although there is an older shed in back of the house.

04-0219–Roemer Ranch

There are several fairly old structures on this property. Those with site records include the following.

6900 Hedge Avenue (APN 064-0080-059) This 1935 residence has been abandoned, and is in poor condition. There is plywood over the windows, and back door and a large patched area on the roof. The house was very plain and small in the first place. It is a narrow end-gabled structure with a small extension on the south covered by an extension of the main roof. The small front porch has a separate gable.

6851 Hedge Avenue (APN 064-0080-031) The buildings at 6851 Hedge Avenue are all modern except for an older house located in back (east) of the modern residence that fronts on Hedge. The older residence no longer faces Hedge, instead, it is now entered from the north. It does not appear that this was always the case. The western portion of the structure is square in plan with a hipped roof and closed eaves. This appears to be the 1947 portion of the building. However, extending east from this is a cross-gabled section where the entry is now located. An unusual feature of this structure is the metal clad roof. The house appears to be in an excellent state of repair.

8950 Tokay Lane (APN 064-032-003) The building record gives a 1949 date for this house but it appears older. It is a Craftsman bungalow in poor repair, likely moved to the property. It has a hipped roof with the unusual feature of small dormers cross gabled and off center. It also has a very small front entry porch and a large addition on the rear.

8936 Tokay Lane (APN 064-0032-006) This is another Craftsman bungalow with hipped roof. Though not in very good condition, it is much better maintained than the building on APN 64-032-04. It has more of the typical craftsman elements as well, including an almost full width front porch but the columns supporting the roof are square and unadorned. The 1954 date given for the residence suggests that it was moved to the site.

8970 Tokay Lane (APN 064-0032-004) This house is quite isolated, located near the railroad right-of-way well south of Tokay Lane. It is a small bungalow, well maintained, but with numerous additions. There is a modular unit on the back that has been built into the original structure. A small shack and a garage are also nearby. The main structure is so modified that it is impossible to determine a style or approximate date. It appears on the 1952 USGS map, so it is at least 50 years old. The Assessor's records do not describe it or indicate a structure on the property and the mailbox if too beat up to detrmine the address.

7106 Hedge (APN 064-0080-34) This residence looks similar to several others along this section of Hedge, a small Minimal Traditional with no adornments, but the Assessor's records indicate a date of 1945. Also, it includes two outbuildings that may be older.

Other structures in this parcel are as follows.

8936 Tokay

This is a second residence on this parcel. A much newer one than the Craftsman Bungalow that is behind the fence in the foreground of this photo.

9010 Tokay

A mid-50s residence and older barn located just west of the house

9054 Tokay

A 1985 residence.

6695 Hedge

This appears to be a modern residence that has replaced a much older one that once stood in this area, according to map research. It is surrounded by trees, making an illustrative photograph impossible.

Behind (east) 6695 Hedge is a modern dairy. All the structures are aluminum clad.

6700 Hedge

This is a small residence with a date of 1960 per Assessor's records. Like 6695, a good picture is difficult due to trees.

6724 Hedge

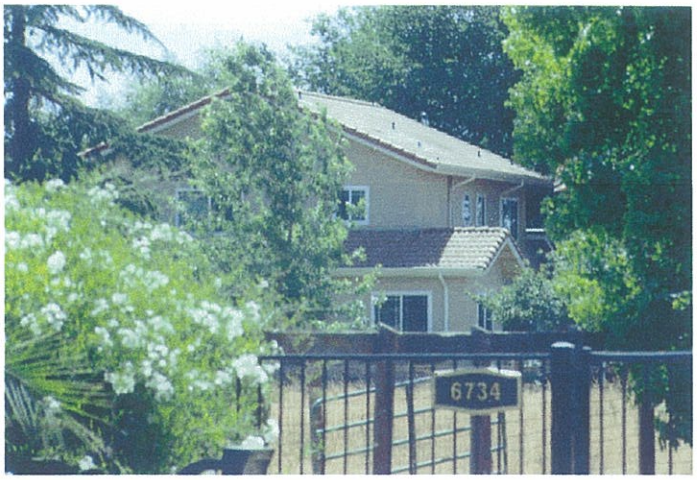
This is a heavily modified small residence that appears to date to the 1960s. (Poor photo due to glare on the lens)

6730 Hedge

A recent small residence.

6734 Hedge

A large, two story residence with a tile roof. Constructed 1976.



6851 Hedge

In addition to the metal roofed house that was recorded, there are several other structures on the property. These consist of:

The new residence just west of the older one

An access road north of the residence leads to the modern utilitarian structures associated with a working farm.

7112 Hedge

A 1961 residence

9133 Florin

A heavily modified 1950s residence.

04-0226–Gerber/Bradshaw SW

This property consists of a plowed agricultural field. There are no standing structures on the property and no indications of previous occupation, either historic or prehistoric, were observed during the field inspection..

04-0233--Caselman Ranch

Site records were prepared for all of the standing structures on this property. These included a string of very similar, very small residences along Caselman and three others fronting on Elk Grove Florin.

The series of residences on Caselman Avenue have a general similarity in that they are all small one-story stucco cottages. They appear to be coeval, built on lots of W & K Colony #6, according to the Assessor's residential building records. However, some care was given to making each one a little bit different from the others. Those on APN 115-0091-006, including the three that face Elk Grove-Florin Road are very similar in general style. Alternatively, the property owner states that the houses were built in the 1940s or 1950s and moved to the site from east Sacramento as rental properties (cited in Erwin 2005). This explanation has the advantage of being more in line with the appearance of the houses, which are mostly in the Minimal Traditional style popular immediately after World War II, and their current condition. The 1918 and 1919 dates given by the Assessor's building records would then apply to earlier houses, now gone, that occupied larger lots when the area was an agricultural colony.

8799 Caselman (APN 115-0091-004) This is one of the smallest and plainest of the group. The house has a hipped roof and square layout. There is no decoration at all. The entry, set near the eastern end of the front (south) elevation is covered by a small roof formed by an extension of the main roof at the same pitch. The outer edges of the entry roof are supported by angle brackets. The entry is from a low ramp that appears to be recently constructed, probably for an elderly occupant. The windows are aluminum-framed sliders and the front door has an aluminum security screen.

There is no chimney or garage. The Assessor's web site indicates a date of 1964 for this structure, but this may be when it was moved to the lot, since it is almost identical to the others in condition and general appearance.

8801 Caselman (APN 115-0091-005) The residence is the one given a 1919 date on the Assessor's building record, and is the most westerly building on parcel 5. It is the smallest and plainest of the group. The bulk of the house is a side gabled rectangle with a small partial width extension of the west side covered by a slightly lower gabled roof. There is a small entry on the eastern end of the south elevation covered by its own tiny gable, which is supported at the outer edges by plain wood pillars. The steps and porch are concrete. There is only one window on the front, the rest of the structure being a solid stucco wall. The property includes a detached one-car garage.

8809 Caselman (APN 115-0091-005) The end gabled structure is entirely plain in style except for a covered entry porch that is a bit more than half the width of the house, offset to the east. The porch roof is also gabled, formed by an extension of the main roof except that the peak is lower than the main roof. Thus the eastern part of the porch roof is an extension of the main roof, but the western side is at a lower level, but on the same pitch. The porch gable is enclosed above the entry level as if it were living space above, which gives a clumsy, too massive look to it. The concrete porch is at ground level on the east, with two steps up to the entry porch. The outer edges of the porch roof are supported by plain wood posts and there is a small wood railing on the raised section of the porch. There are angle brackets at the corners of the porch roof, which are not present on the main roof. The posts, railing and brackets are all in red-stained wood and appear to be recent additions or replacements. There is a detached garage northeast of the house.

8817 Caselman (APN 115-0091-005) This house is virtually identical to 8809 except that the entry porch is offset to the west and the garage is also west of the residence. In both cases the widows, aluminum sliders, and front door are clearly replacements. Unlike most of the houses in this group, which have closed eaves, the rafter ends are exposed on the sides of this house.

8825 Caselman (APN 115-0091-005) This differs from the other houses in this group in that it has a full width front porch and central entry. Otherwise, it is another end gabled rectangle with the porch covered by a boxed extension of the main roof.

8833 Caselman (APN 115-0091-005) The building appears to have started as identical to 8825, but the western portion of the living area of the house has been extended to occupy what was the western half of the front porch. Other than this, it is another one story, end gabled stucco with aluminum sliders and detached garage.

8841 Caselman (APN 115-0091-005) Another of the end gabled, full width porch styles, it differs in that some of the windows still have their original wood frames and the rafter ends are exposed on the sides. It has unusual angle brackets at the corners of the porch in that they begin near the top of the support posts and extend to the edge of the eave, instead of being contained within the gable.

8849 Caselman (APN 115-0091-005) This residence features a pyramidal roof and central entry covered by a small gable. The entry porch is approached from the west side. The sides feature open

eaves. Windows are aluminum sliders. A feature of this house and the adjoining 8857 that does not appear elsewhere in the group is a small oriel (a bay cantilevered from the wall instead of extending to ground level) centered on the west elevation.

8857 Caselman (APN 115-0091-006) The house also features a pyramidal roof but the porch roof is full width and formed by an extension of the main roof at a much lower pitch, a pattern that is repeated all around the house. There is living space on the second floor of this structure, evidenced by a small dormer with hipped roof facing south. This is the structure given a date of 1918 on the Assessor's building record and it is the most westerly on parcel 6.

8861 Caselman (APN 115-0091-006) The residence is side gabled with full width porches front and back covered by an extension of the main roof at a slightly lower pitch. The central entry is also covered by a slight extension of the porch roof under a cross gable. There are angle brackets on the gable ends and those at the front repeat the pattern seen at 8841, beginning near the top of the support posts and extending to the edge of the eave.

8865 Caselman (APN 115-0091-006) This is a very plain building that consists of a side gabled rectangle with a central entry covered by a small, separate gable. There are no brackets, no changes in roof pitch, or any other unusual features.

8869 Caselman (APN 115-0091-006) The immediately noticeable difference in appearance results from the mature trees and other landscaping that surround the house. The other houses described to this point are in barren settings, or nearly so. The explanation for this is that the couple who occupy the house have occupied it for the last forty years. It is of the pyramidal roof style with offset entry under a gable. The only unusual architectural feature is the use of a diamond-pane casement window, obviously a replacement, on the front.

The remaining three houses on APN 115-0091-006 face Elk Grove-Florin and two of them differ from the Caselman Avenue group in style. The other has been extensively remodeled and could well be 1940s or 1950s underneath it all.

7842 Elk Grove-Florin (APN 115-0091-006) The roof on this structure differs from all others in the area in being a hip-on-gable. This is basically a gable with the ends truncated at an angle, but the angled section starts well above eave-level instead of extending the full height of the roof as it does in a normal hipped roof. The building has an addition on the rear (west) side that is covered by a lower roof extension in a more normal gable pattern. On the front there is a half-width porch on the north covered by a short extension of the roof with offset, lower ridge, but still employing the hip-on-gable style. The depth of the porch is increased by recessing the front wall on the north half of the structure. Other than the very unusual roof, the structure is similar to the others in this area, a small, one story, stucco bungalow with detached garage.

7832 Elk Grove-Florin (APN 115-0091-006) This house has been so extensively remodeled that it is hard to say what the original architecture may have been, beyond one story frame with side gable. The front (east) elevation now has a two-thirds width porch on the north covered by an extension of the roof at the same pitch and supported by square posts. The southern third is an extension of

the house under a cross gable. This extension is now an entry with the front door facing north, onto the porch. All windows are now aluminum-framed sliders and the siding is vinyl. A small barn, now a garage/storage shed, is associated with the house but looks nothing like it and is in very poor repair. It is a frame, end gabled structure with a shed-roofed extension on the north.

7800 Elk Grove-Florin (APN 115-0091-007) This residence, although the farthest from the Caselman group of the three on Elk Grove-Florin, is the most like them architecturally. It is an end gabled stucco with a half width entry porch on the south covered by a roof extension with offset ridge. There are angle brackets at the corners of the porch roof and a substantial oriel on the south elevation. The standard one car detached garage is also present.

04-0234–Gardner Country Estates

There are no structures on this property and no evidence that structures were present in the past.

04-0241–Phan Court

There are no structures on this property and no evidence that structures were present in the past.

04-0247–Gasnakis and Kumar

There are two modern residences on the property:

7711 Elk Grove Florin

The base of this house is from the 1950s, but it has been modified so heavily it is hard to tell. A small garage and shed are also on the property.

7729 Elk Grove Florin

A plain modern residence.

04-0412–Millers Family Trust

There are two modern structures on this property.

7475 Elk Grove Florin

8920 McCoy (mobile)

04-0423–Martin

The only structure on this property, 9440 Bar Du, was barely completed before the survey.

04-0445–Enoch

9505 Waterman was constructed in 1980 according to the Assessor's Office. It is the only structure on the property.

04-0449–7415 Gardner

7415 Gardner has two structures on the property.

a large 1987 one in the rear (east)

and a converted barn, moved to the property, in front.

04-0450–Black

There are two structures on the property. The Assessor's records do not supply a date, but both are clearly very recent constructions.

9560 Rogers

9570 Rogers

04-0457–Rancho Siesta

At 8955 McCoy there are several modern structures and a residence dating to 1920, according to Assessor's building records. The residence has been modified so extensively that it is hard to tell it is that old, but a site record was prepared for the whole complex.

At 8971 McCoy there is a residence dating to 1969.

04-0460--Sikich Acres

The only structure on this property is 7255 Gardner, a 1930 residence which was recorded. The residence has a cross gabled roof except for one section in the back (probably an addition) that has a pyramidal roof. The siding is horizontal lapped planks and the roofing is a composite rolled material. There is a latticework railing on the centered entry porch. It includes an attached garage and retains wooden window frames, a rarity in this area, where most have been replaced with aluminum. The house is set well back from the street in a stand of mature trees. The appearance is essentially Craftsman.

04-0469–Vintage Creek #3

There is one structure on this property that was formally recorded.

8754 Carlisle (APN 115-0092-003) This is a small one-and-a-half story frame residence set well back from the street. It is also set sideways to Carlisle, that is, the entrance faces east but the street is north of the house. It is side gabled with a small centered entry porch covered by a cross gable. The moderately steep pitched roof is covered by shake shingles, siding is horizontal lapped planks (except where replaced) and there is a detached garage. There is new siding in the gable ends but not on the rest of the house except at the front (east elevation) where the wall north of the entry is covered in faux brick, but that portion south of the entry in plywood awaiting a finish layer. This dichotomy is repeated on the eaves. Closed eaves are present north of the entry and open eaves south. The Assessor's building record gives a construction date of 1916 for the house, but it has been very heavily modified.

04-0471–Vintage Ranch

There are no structures on this property and no evidence that structures were present in the past.

04-0474–Vintage Creek #1

Two residences were recorded on the properties that are part of this application.

8678 Caselman (APN 115-0091-016) There are two residences on this property. The younger one is at 8698. This one is a Minimal Traditional residence dating to 1950. It is an entirely plain, end gabled one story frame residence with a moderately pitched roof clad in rolled composite material. The siding is horizontal planks and windows are largely sluminum sliders. There is nothing unusual about the structure in style or execution.

8645 Carlisle (APN 115-0091-033) This lot contains two structures, but one is abandoned. A single survey record ws prepared covering both, since they are located very near each other. Both are plain, small residential structures.

A structure at 8626 Carlisle, listed as 1938 by the Assessor, has been razed.

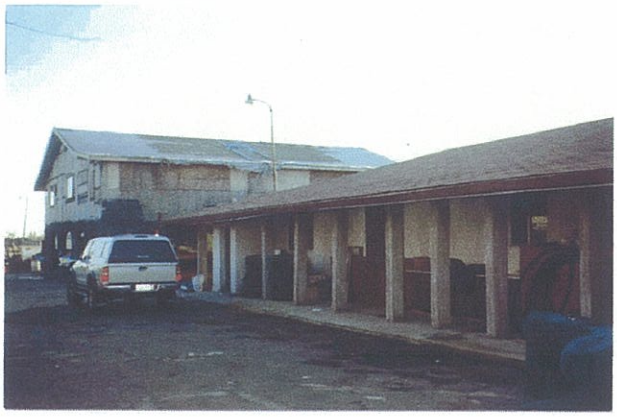
More modern residences found within the Vintage Creek #1 project are:

8595 Caselman

A late 50s residence

and a barn./shed

8698 Caselman
The newer residence on the same lot as 8595 has two outbuildings in association



8680 Caselman
A 1959 residence

8610 Carlisle
No date from Assessor, but very recent.

8611 Carlisle
no date

8621 Carlise
A 1962 residence

04-0480–Vintage Creek #2

The four Structures on this property are all modern.

8782 Caselman
A 1980 residence

8798 Caselman
A 1980 residence

8814 Caselman
A 1991 residence

8830 Caselman
A 1983 residence

04-0906–Hedgerow

Two properties were recorded in this area.

7305 Hedge (APN 065-0052-008) This unusual residence appears to be an extensively modified Dutch Colonial style barn. It is on the east side of Hedge with the entry facing north. The double-pitched roof is clad in shake shingles and there are a variety of window styles. On the second floor, multi-pane casements are the norm. Some in this style appear on the ground floor as well, but there are also fixed windows with wood shutters in various sizes. The entry door is surrounded by rather elaborate wood framing and topped by a broken pediment. In addition to the two story main section there is a one story extension to the east and an attached garage extending to the north under a cross

gable. Siding is stucco. The Assessor's building record gives 1945 as the construction date, which is probably correct for the underlying barn, but the only part of that structure now preserved is the overall shape.

7351 Hedge (APN 065-0052-006) The residence, set in a stand of mature imported trees, is an end gabled frame structure of one story with closed eaves, beveled siding, and one-over-one double hung sashes. It is a very small, plain house. Entry is on the west side, offset to the north with a porch formed by recessing the exterior walls. The porch is fronted by a low wooden railing between wood columns. Overall, the house is in poor repair. The Assessor's building record gives a date of 1900, which is not out of line with its appearance.

The newer structures on the properties in this group are:

7285 Hedge

A 1987 residence

7335 Hedge

A small ranch style home dating to 1980 according th the Assessor's office.

7361 Hedge

A 1966 residence.

05-0329–Elk Trail

There are two modern houses on this property.

7767 Florencia

A small 50s Minimal Traditional, very plain except for faux brick siding.

7767 Florencia

A "mother-in-law" house adjacent to the main residence and more recent

EVALUATION OF THE SITES

The recorded resources within the project area can be grouped into two categories: extant residences and residential complexes, and foundations of former residential complexes. There are no extant early residences relating to the period of ownership by larger landowners, prior to the subdivision into smaller family farms, beginning about 1900.

The era of the agricultural colonies brought a number of new residents to the region. The land is not of the highest quality for production of row crops or for orchards, and the result was that the farms may have allowed self-sufficiency, but in all likelihood, did not produce great wealth for the landowners. Residences therefore were fairly modest in size and nature, lacking ornamentation. There is no continuity of design or plan for the setting or location of the residences. In the later period, many appear to have been occupied by individuals who commuted to jobs in the City of Sacramento, rather than attempting to farm to make a living. A few others have been occupied by newer residents seeking a more rural lifestyle, and building their residences on the larger parcels of land in the area.

With development pressures encroaching on this part of Sacramento County, many of the landowners may have chosen to allow older residences from the 1910s to the 1950s to be removed, leaving only the slabs and foundations to be recorded.

None of the residential complexes or former residential complexes are associated with important events in local or State history [NRHP criterion a; CRHR criterion B (1)]. This is one of many areas in Sacramento County supported by small farms. There is no close by community or other social-defining mechanism for the region. Residents would have had to travel to obtain goods and services for the most part as there are no commercial enterprises in the vicinity. The area has remained rural until recent years, with a scattering of residences and farm operations.

Land ownership maps through 1923 for the County were reviewed, and names on building records checked. There are no associations with people important in State or local history [NRHP criterion b; CRHR criterion B (2)]. The residents were apparently small farmers, with no one of social prominence or historical importance associated with any of the residences.

None of the buildings are particularly good examples of any architectural style. They represent the nature of the farms, utilitarian in nature, lacking detail and generally small. A number of the buildings in the participant properties have been moved to the project area, and others have been extensively remodeled, obscuring original design features and even to a degree, the original form and size of the buildings. Most complexes contain buildings of different dates, with added outbuildings. As a result, it can be concluded that none of the extant buildings "embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values" [NRHP criterion c; CRHR criterion B (3)].

In consideration of the ability of any of the building sites or former building sites now represented only by foundations to yield information important in history, it should be noted that farm practices

limit the possibilities of finding subsurface materials. The farms were more or less subsistence farms in the earlier period. They were at a great distance from any commercial establishment. Manufactured items would have been costly and time-consuming to acquire. As a result, most farms tended to reuse manufactured items such as glass containers, fabric, metal implements, and milled lumber. Other waste was burned on site, resulting in a lack of subsurface features that might be useful in defining early lifeways. We do know from the historic record what was occurring in the area economically, and the ownership of each lot is present in the Sacramento county archival records. Since the great majority of the residences date to the 1920s or later, there is little to be learned from archeological excavations of essentially modern era properties, even in the unlikely event that such deposits exist. As a result, we do not believe that any of the sites are significant for their archeological values [NRHP criterion d; CRHR criterion B (4)].

As a result, it can be concluded that none of the sites are significant resources under the criteria of the National Register of Historic Places or under the criteria of the California Register of Historical Resources.

These conclusions apply as follows to the resources.

04-0139–Champions Golf Course

The unoccupied standing residence at 9051 Gerber was a small residence with no features to set it apart from others in the area. It is now in very poor repair.

04-RZB-SDP-0177--Legends Meadows

The construction material of the residence at 7700 Florencia is concrete block, setting it apart from all others in the plan area. This does not make it unusual in the region, however. It has no unusual architectural features.

04-0187--Gerber Creek

The structural foundations, concrete slabs recorded as PA-99-71, represent a commercial activity of some sort at this location, but it is difficult to determine what it may have been from the minimal surviving evidence. In the absence of artifacts other than the construction features, there is minimal opportunity for interpretation.

7584 Elk Grove Florin includes the usual small plain residence of no particular architectural interest. One shed may be older than the 1956 date of the residence, but it is a standard shed. The large barn associated with this property is clearly older then the fifties, but it has been converted to residential use and is in very poor repair.

7444 Gardner is another small Minimal Traditional residence. It is well maintained and attractive, but in no way unusual.

04-204–Florin/Bradshaw NE

The site at 6901 Bradshaw consists only of a concrete foundation slab, a cistern, metal water tank and a stand pipe. The Assessor's building record gives a date of 1954 to the house that used to stand here. There is nothing of historical interest in this.

04-0205–Portico Acres

The three residences on this property, 7800, 7806 and 7816 Bradshaw, follow the general pattern of small, one story frame residences. There is nothing architecturally interesting about any of these examples, and two of them have, as well, extensive alterations. Due to their similar age and proximity in an area characterized by open space between structures, it seems thes may have been moved in as rentals.

04-0207–Florin Vineyards

7040 Bandy is the usual plain, one story small residence dating to the 1940s. There is nothing unusual about it.

6890 South Watt is a two story stucco residence, which is relatively unusual in this project area, although common elsewhere. Other than this it is quite recent, very plain and generally of no particular artistic merit.

7001 South Watt, is similar as far as the residence is concerned, and heavily modified as well, but it also includes a tank house. These are scenic structures, but common in rural California from the 1870s to the 1940s. This sample appears to date toward the end of the period and the type, "truncated taper tower," represents roughly ten percent of the tank houses found in the Central Valley today.

8891 Florin, the residence, is of no architectural interest since it has been entirely rebuilt after a fire. The associated barn is, according to the resident, about 100 years old. It is a small plain barn, near collapse, and is not unusual in anything but age.

04-RZB-SDP-0208--Villages @ Elder Creek

7291 Elk Grove-Florin is now represented by the foundations of a residence and barn. There is nothing of historic interest.

7371 Elk Grove Florin is similar, except only the foundations of a residence are present.

7411 Elk Grove Florin is an attractive structure in good repair, but it has been extensively modified over the years, making it a poor example of an architectural style. As there is nothing unusual in its materials or construction, it is not significant.

7328 Hedge has an old date of construction (1916) in its favor, but other than age it is nothing unusual. It is yet another small plain residence without architectural interest.

04-0209–Vineyard Market Square

The remnants at the corner of Elk Grove-Florin and Gerber (7635 Elk Grove-Florin) represent a possible residence and two barns, that are down to little more than framing. There is almost nothing remaining here.

04-0211--Stonehedge

The 7001 Bandy residence a simple side gabled Minimal Traditional and may not be fifty years in age. It is certainly not architecturally significant.

North of 7001 Bandy, on a different parcel within the area covered by 04-RZB-SDP-0211, are a barn and tank house that look fairly old. However, examination of the Carmichael USGS map shows that they are printed in purple, indicating a date after 1967. It is difficult to see any reason that someone would move an entire tank house to this remote location. Apparently, some tank houses were built long after most such construction ended in the 1940s.

04-0217–Dakuzaku

The minimal remains of the original Dakuzaku house appear to have no significant interpretive value, since they have been seriously impacted by the newer structures on the property and the ongoing use of the land. The site was evaluated by Pacific Legacy (2004: 7-8) and found not to be eligible on the grounds that there was no longer any solid connection with the original Japanese farming community and that the minimal standing structures were not architecturally unusual. The artifacts noted in the area were associated with later dates of occupation, so the site did not satisfy any of the criteria.

04-0218--Garner/Parke

The only structural features here are the remains of residences, recorded as PA-99-70. There is domestic refuse in the area as well, but most of it appears to have been dumped after the buildings were abandoned, on the basis of location and apparent age of the dumped materials. Even if intact, this would be more remains of a small farming (or, possibly, dairying) operation with a small residence and a large barn. It is not unusual in any way.

04-0219–Roemer Ranch

Six small residences of fifty years in age or more were identified on this large holding: 7106, 6851 and 6900 Hedge Avenue and 8936, 8950 and 8970 Tokay Lane. All are small residences dating from the the 1940s or slightly earlier and the only one that is unusual, 6851 Hedge, is unusual because of a relatively recent alteration.

04-0233–Caselman Ranch

The series of residences on Caselman Avenue and Elk Grove-Florin near Caselman have a general similarity in that they are all small one-story stucco cottages. There is nothing architecturally unusual about any of them. Additionally, the property owner for part of this group stated that the houses were built in the 1940s or 1950s and moved to the site from east Sacramento as rental properties (cited in Erwin 2005). This explanation has the advantage of being more in line with the appearance of the houses, which are mostly in the Minimal Traditional style popular immediately after World War II, and their current condition, which is generally quite good. The only major way in which these residences differ from the others recorded during this project is in the fact that most other residences were the homes of small landowners/farmers in the area, while these were built (or moved in) as a group as rental properties.

04-0460--Sikich Acres

The Assessor's building record gives a date of 1930 for the structure at 7255 Gardner, which fits with the appearance, which is essentially Craftsman. It is in more of an original condition than most structures in the project area, retaining wooden window frames, for instance, but it is still a plain Craftsman bungalow with no unusual features.

04-0469–Vintage Creek #3

8754 Carlisle is a small one-and-a-half story frame residence that is currently being remodeled. As a result, it now presents a variety of materials and some architectural elements that are not in keeping with the original Craftman style. The Assessor's building record gives a construction date of 1916 for the house, but the heavy modifications limit any possible architectural significance..

04-0474–Vintage Creek #1

8645 Carlisle consists of two small residences in the very plain Minimal Traditional style that is common to the area. The one that is occupied and maintained has been extensively altered and the unoccupied one is close to collapse.

8678 Caselman is a very plain structure that berely meets the fifty years in age criterion. It has no architectural significance.

04-0906–Hedgerow

7305 Hedge is an extensively modified barn. The structure is entirely unlike its original appearance. Converting a barn for residential purposes is unique among the properties in the project area, but it is by no means unusual in a wider context

7351 Hedge has the oldest date from the Assessor's building record, 1900, of any property in the project area. However, age alone does not confer significance. Other than its age, there is nothing that is unusual about this small bungalow that is in poor repair and has had extensive alterations.

EFFECTS OF THE PROPOSED PROJECT

In addition to the recorded properties in participant parcels noted above, there are two previously recorded resources in the vicinity. The Central California Traction Railroad crosses the Roemer Ranch property, but the right-of-way is not part of the development. There will be no direct effect from construction. There may be visual effect, but since all the rails and ties have already been removed, there does not seem to be any historic appearance left to impact. Similarly, Elk Grove-Florin Road has been recorded as CA-SAC-545-H. This route is already lined with new subdivisions over much of its length and there is nothing more than this included in the currently proposed project.

As a result of the identification and evaluation efforts, an agency official may find that there are no historic properties present or there are historic properties present but the undertaking will have no effect upon them as defined in Section 800.16 (i).

If the agency official finds there are historic properties that may be affected by the undertaking, the agency official shall apply the criteria of adverse effect. "An adverse effect is found when an undertaking may alter, directly or indirectly, any of the characteristics of a historic property that qualify the property for inclusion in the National Register in a manner that would diminish the integrity of the property's location, design, setting, materials, workmanship, feeling or association" (Section 800.5 (a)).There are three possible findings:

- **Finding of no historic properties affected:** There is no effect of any kind on the historic properties.

- **Finding of no adverse effect:** There could be an effect, but the effect would not be harmful to the characteristics that qualify the property for inclusion in the National Register; or

- **Adverse effect:** There could be an effect, and that effect could diminish the integrity of such characteristics.

The historic period properties are not eligible for inclusion in the National Register of Historic Places. With regard to Section 106 of the NHPA, it is recommended that agency seek concurrence from the California SHPO with a finding of no historic properties affected per Section 800.4(d) (1). Similarly, we do not believe that the project will impact historical properties as defined by CEQA.

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APPENDIX 1

Resumes

PEAK & ASSOCIATES, INC.
RESUME

MELINDA A. PEAK
Senior Historian/Archeologist
3941 Park Drive, Suite 20 #329
El Dorado Hills, CA 95762
(916) 939-2405

January 2006

PROFESSIONAL EXPERIENCE

Ms. Peak has served as the principal investigator on a wide range of prehistoric and historic excavations throughout California. She has directed laboratory analyses of archeological materials, including the historic period. She has also conducted a wide variety of cultural resource assessments in California, including documentary research, field survey and report preparation.

In addition, Ms. Peak has developed a second field of expertise in applied history, specializing in site specific research. She is a registered professional historian and has completed a number of historical research projects. Ms. Peak has been a regular lecturer for courses in the Capital Campus Public History program (California State University, Sacramento), teaching cultural resource law and site-specific research methods.

Through her education and experience, Ms. Peak meets the Secretary of Interior Standards for historian, architectural historian, prehistoric archeologist and historic archeologist.

EDUCATION

M.A. - History - California State University, Sacramento, 1989
Thesis: *The Bellevue Mine: A Historical Resources Management Site Study in Plumas and Sierra Counties, California*
B.A. - Anthropology - University of California, Berkeley, 1976

RECENT PROJECTS

In recent months, Ms. Peak has completed several determinations of eligibility and effect documents in coordination with the Corps of Engineers for projects requiring federal permits, assessing the eligibility of a number of sites for the National Register of Historic Places. She has also completed historical research projects on a wide variety of topics for a number of projects including the development of navigation and landings on the Napa River, a farmhouse dating to the 1860s, an early roadhouse, and a section of an electric railway line. She also completed an NRHP evaluation of Folsom Dam for the Corps of Engineers.

In recent years, Ms. Peak has prepared a number of cultural resource overviews and predictive models for blocks of land proposed for future development for general and specific plans. She has been able to direct a number of surveys of these areas, allowing the model to be tested.

She served as principal investigator for the multi-phase Twelve Bridges Golf Club project in Placer County. She served as liaison with the various agencies, helped prepare the historic properties treatment plan, managed the various phases of test and data recovery excavations, and completed the final report on the analysis of the test phase excavations of a number of prehistoric sites. She is currently involved as the principal investigator for the Clover Valley Lakes project adjacent to Twelve Bridges in the City of Rocklin, coordinating contacts with Native Americans, the Corps of Engineers and the Office of Historic Preservation.

Ms. Peak has served as project manager for a number of major survey and excavation projects in recent years, including the many surveys and site definition excavations for the 172-mile-long Pacific Pipeline proposed for construction in Santa Barbara, Ventura and Los Angeles counties. She also completed an archival study in the City of Los Angeles for the project. She also served as principal investigator for the 1997 coaxial cable removal project for AT&T.

Additionally, she completed a number of small surveys, served as a construction monitor at several urban sites, and directed the excavations of several historic complexes in Sacramento, Placer and El Dorado Counties.

Ms. Peak is the author of a chapter and two sections of a published history (1999) of Sacramento County, *Sacramento: Gold Rush Legacy, Metropolitan Legacy*.

PEAK & ASSOCIATES, INC.
RESUME

ROBERT A. GERRY
Senior Archeologist
3941 Park Drive, Suite 20-329
El Dorado Hills, CA 95762

January 2006

PROFESSIONAL EXPERIENCE

Mr. Gerry has over thirty years of extensive experience in both the public and private sectors. He has directed all types of cultural resource-related projects, including field survey, test excavations, data recovery programs, intensive archival research and cultural resource management. He has completed archeological work in most cultural areas of California and in the western Great Basin.

EDUCATION

Graduate studies - Anthropology - California State University, Sacramento, 1972-1977
B.A. - Anthropology - University of Illinois, Chicago Circle, 1972

RECENT PROJECTS

Mr. Gerry was field director for a cultural resources survey of about 18,640 acres within the Naval Petroleum Reserve No. 1, Kern County, California. The project employed a stratified random sampling strategy and resulted in the recording of 112 cultural resources, and preparation of a management plan. He also directed a subsequent excavation program for evaluation of significance. Additionally, he served as field director for archeological surveys on the Plumas, Stanislaus, El Dorado and Six Rivers National Forests.

He was field director and primary report writer on several linear surveys of considerable length -- including the San Joaquin Valley Pipeline (157 miles) for Shell Oil, the Point Arena-Dunnigan fiber optic cable (137 miles) and the Medford, Oregon, to Redding, California fiber optic cable (151 miles), the Oregon and Idaho portions of the Spokane to Boise fiber optic cable, and the San Bernardino to San Diego fiber optic cable, for American Telephone & Telegraph Company. He also assisted on the 170 mile Pacific Pipeline survey on the southern coast of California.

He produced the computer program that stored, sorted and printed out data abstracts for 1604 sites involved in the Enlarged Shasta Dam and Alternatives Class I Cultural Resources Overview for the Bureau of Reclamation. He directed the transit-and-stadia mapping of a prehistoric/ historic site complex covering some 170 acres in El Dorado County and drafted the final map.

Mr. Gerry has developed a specialty in bridge replacement evaluations, completing five such studies in Tuolumne County, two in Santa Barbara County, two in Amador County and eight others in various areas of California.

Mr. Gerry has had extensive experience in the recordation of mining sites in northern California and Nevada for proposed mining undertakings as well as in the course of survey for proposed subdivisions, reservoirs, and other development projects. He directed the survey of two parcels totalling 2,240 acres in the Battle Mountain Mining District in Lander County, recording a number of mining sites and features. Within the Cook Ranch Project area in El Dorado County, he completed the recordation of several gold mines and a cinnabar mine.

Mr. Gerry has directed test excavations for evaluation of significance at a number of sites, both historic and prehistoric. Recent examples include CA-NAP-261, twelve sites on Naval Petroleum Reserve No. 1 and three sites on Russell Ranch in Sacramento County.

His work has included an important role in working with Native American peoples. He has surveyed eight allotments and rancherias in the Pit River area, the Point Arena/Manchester Rancheria in Mendocino County, the Susanville Rancheria in Lassen County, the Rumsey Rancheria in Yolo County, and three rancherias in northwestern California. In each of these projects, he has been closely involved with Native American organizations and individuals, including a number of native people he has directed as surveyor trainees.

APPENDIX 2

Native American Communication

Arnold Schwarzenegger, Governor

STATE OF CALIFORNIA

NATIVE AMERICAN HERITAGE COMMISSION
915 CAPITOL MALL, ROOM 364
SACRAMENTO, CA 95814
(916) 653-4082
Fax (916) 657-5390
Web Site www.nahc.ca.gov

August 16, 2006

Robert Gerry
Peak & Associates, Inc

Sent by Fax: 916-939-2406
Number of Pages: 6

RE: Proposed Magnigini Property, Sacramento County, Florin Vinyard project, Sacramento County, Aspen VIII and IX Quarries, Sacramento County, Mill Road Subdivision, Placer County, Elverta Specific Plan Area, Sacramento County, Fiver Bridges Project, Merced County

Dear Mr. Gerry:

A record search of the sacred land file has failed to indicate the presence of Native American cultural resources in the immediate project area. The absence of specific site information in the sacred lands file does not indicate the absence of cultural resources in any project area. Other sources of cultural resources should also be contacted for information regarding known and recorded sites.

Enclosed is a list of Native Americans individuals/organizations who may have knowledge of cultural resources in the project area. The Commission makes no recommendation or preference of a single individual, or group over another. This list should provide a starting place in locating areas of potential adverse impact within the proposed project area. I suggest you contact all of those indicated, if they cannot supply information, they might recommend others with specific knowledge. By contacting all those listed, your organization will be better able to respond to claims of failure to consult with the appropriate tribe or group. If a response has not been received within two weeks of notification, the Commission requests that you follow-up with a telephone call to ensure that the project information has been received.

If you receive notification of change of addresses and phone numbers from any of these individuals or groups, please notify me. With your assistance we are able to assure that our lists contain current information. If you have any questions or need additional information, please contact me at (916) 653-4038.

Sincerely,

For Debbie Pilas-Treadway
Environmental Specialist III

Native American Contacts
Sacramento County
August 16, 2006

Rose Enos
15310 Bancroft Road — Maidu
Auburn, CA 95603 — Washoe
(530) 878-2378

United Auburn Indian Community of the Auburn
Jessica Tavares, Chairperson
575 Menlo Drive, Suite 2 — Maidu
Rocklin, CA 95765 — Miwok
916 663-3720
916 663-3727 - Fax

Shingle Springs Band of Miwok Indians
Jeff Murray, Cultural Resources Manager
P.O. Box 1340 — Miwok
Shingle, CA 95682 — Maidu
shingle_springs_rancheria@hotmail.com
(530) 676-8010
(530) 676-8033 Fax

Shingle Springs Band of Miwok Indians
Nicholas Fonseca, Chairperson
P.O. Box 1340 — Miwok
Shingle, CA 95682 — Maidu
shingle_springs_rancheria@hotmail.com
(530) 676-8010
(530) 676-8033 Fax

Todd Valley Miwok-Maidu Cultural Foundation
Christopher Suehead, Cultural Representative
PO Box 1490 — Miwok
Foresthill, CA 95631 — Maidu
tvmmcf@foothill.net
(530) 367-3893 - Voice / Fax

This list is current only as of the date of this document.

Distribution of this list does not relieve any person of statutory responsibility as defined in Section 7050.5 of the Health and Safety Code, Section 5097.94 of the Public Resources Code and Section 5097.98 of the Public Resources Code.

This list is only applicable for contacting local Native Americans with regard to cultural resources for the proposed Elverta Specific Plan Area, Sacramento County.

PEAK & ASSOCIATES, INC.
CONSULTING ARCHEOLOGY
30 Years: 1975-2005

January 18, 2006

Ms. Debbie Pilas-Treadway
Native American Heritage Commission
915 Capitol Mall, Room 288
Sacramento, CA 95814

Dear Ms. Pilas-Treadway:

Peak & Associates, Inc. has contracted with The Brewer Law Firm to perform a cultural resources assessment of the Florin Vineyard Community Plan Area, Sacramento County, California. The project area is located generally in the vicinity of Florin, Gerber and Elder Creek roads between Gardner and Bradshaw between Sacramento and Elk Grove. The very large project area will not all be field inspected, only the parts owned by participating landowners, and some of it has already been field surveyed for earlier projects. We are doing background research on the whole plan area, as depicted on the enclosed copies of portions of the Sacramento East, Carmichael, Florin and Elk Grove 7.5' USGS maps. The project lies in T8N, R5E, Section 36; T8N, R6E, Sections 25, 29 and 31-33; T7N, R5E, Sections 1 and 12; T7N, R6E, Sections 6-8.

Because of wetland issues, this is a federal undertaking. In accordance with the Secretary of the Interior's Guidelines for implementing Section 106, we are requesting a list of appropriate Native American contacts for the project area. We also request a check of the Sacred Lands Inventory for any potential conflicts.

Thank you for your assistance.

Sincerely,

Robert A. Gerry
Consulting Archeologist

//RG
Encl.

■ 3941 Park Drive, Suite 20, #329, El Dorado Hills, CA 95762/Phone: (916)939-2405/Fax: 939-2406/email: peakinc@sbcglobal.net
□ 3161 Godman Avenue, Suite A, Chico, CA 95973/Phone: (530)342-2800/Fax: 342-0273/email: peakinc@cmc.net

PEAK & ASSOCIATES, INC.
CONSULTING ARCHEOLOGY

March 10.2006

Dear :

Peak & Associates, Inc. has contracted with The Brewer Law Firm to perform a cultural resources assessment of athe Florin Vineyard Community Plan Area, Sacramento County, California. The project area is located generally in the vicinity of Florin, Gerber and Elder Creek roads between Gardner and Bradshaw between Sacramento and Elk Grove. The very large project area will not all be field inspected, only the parts owned by participating landowners, and some of it has already been field surveyed for earlier projects. We are doing background research on the whole plan area, as depicted on the enclosed copies of portions of the Sacramento East, Carmichael, Florin and Elk Grove 7.5' USGS maps. The project lies in T8N, R5E, Section 36; T8N, R6E, Sections 25, 29 and 31-33; T7N, R5E, Sections 1 and 12; T7N, R6E, Sections 6-8.

We are contacting individuals identified by the Native American Heritage Commission as persons who might have information to contribute regarding potential Native American concerns in the project area. Any information or concerns that you may have regarding village sites, traditional properties or modern Native American uses in any portion of the project vicinity will be welcomed. If you know other individuals who are familiar with the vicinity, we would welcome this information as well.

We recognize that much of the information about protected and sacred sites may be confidential within your community and cannot be shared with those outside of your community. We will work with you to minimize impact on your cultural resources. Please contact me to discuss how we can accomplish protection of your cultural resources within your limits of confidentiality and the needs of the project. Any confidential information you share will be kept confidential, so long as you make it clear which information is confidential and to what extent. We will have to communicate to our client that an area must be avoided, but we do not have to go into detail as to why.

Thank you for your assistance.

Sincerely,

Robert A. Gerry
Consulting Archeologist

RG//
Encl.

■ 3941 Park Drive, Suite 20-329, El Dorado Hills, CA 95762/Phone: (916)939-2405/Fax: 939-2406/email: peakinc@jps.net
□ 3161 Godman Avenue, Suite A, Chico, CA 95973/Phone: (530)342-2800/Fax: 342-0273/email: peakinc@cmc.net

MAILING LIST

Mr. Leland Daniels
7531 Maple Leaf Lane
Sacramento, CA 94828

Ione Band of Miwok Indians
Mr.Frank Navarrette, Environmental Coordinator
PO Box 1190
Ione, CA 95640

Ione Band of Miwok Indians
Mr.Glenn Villa, Jr., Cultural Committee Chairperson
901 Quail Court
Ione, CA 95640

Ione Band of Miwok Indians
Mr.Matthew Franklin, Chairperson
PO Box 1190
Ione, CA 95640

Sierra Native American Council
Mr. Dwight Dutschke, Chairperson
PO Box 12045
Ione, CA 95640

Wilton Rancheria
Ms. Mary Daniels-Tarango
7916 Farnell Way
Sacramento, CA 95823

APPENDIX 3

Record Search

NORTH CENTRAL INFORMATION CENTER

CSU-SACRAMENTO - 6000 J STREET, ADAMS BLDG., #103, SACRAMENTO, CA 95819-6100
916-278-6217 FAX 916-278-5162

Summary of Results for Records Search

July 20, 2004 NCIC File No.: #430

To: Kate Brownfield
County of Sacramento
Department of Environmental Review and Assessment
827 7th Street, Room 220
Sacramento, CA 95814

From: Sally Torpy, Researcher
Project: **Florin Vineyard Community Plan (Control Number 04-CPB-0096)**

- Sites Within ¼ Mile of Project Radius:
  CA-SAC-506-H (P-34-606)
  CA-SAC-545-H (P-34-700)
  P-34-605
  P-34-684
  P-34-685
  P-34-686
  P-34-709
  P-34-710
  P-34-711
  P-34-712
  P-34-713
  P-34-714
  P-34-715
  P-34-716
  Structure 17 (9800 Gerber)
  Structure 18 (9820 Gerber)
  Structure 22 (7735 Bradshaw)
  Structure 23 (7981 Bradshaw)
  8792 Florin Road
  7207 Gardner Avenue
  8615 Florin Road
  8629 Florin Road
  8759 Florin Road
  8780 Florin Road
  8589 Florin Road

- NCIC Studies Within ¼ Mile Radius:
  #88 (Jerald J. Johnson 1974)
  #418 (Ann S. Peak 1979)
  #488 (Ann S. Peak 1980)
  #581 (Ann S. Peak 1980)
  #1865 (Peak & Associates, Inc. 1997)
  #1868 (Eleanor Derr 1998)
  #1878 (Stephen Dietz 1987)
  #2522 (Peak & Associates, Inc. 1999)
  #2676 (Jones & Stokes 2001)
  #3006 (Peak & Associates, Inc. 2001)
  #3545 (Lorna Billat 2000)
  #3853 (Wendy J. Nelson 2000)
  "Cultural Resources Inventory David Moravi Parkland" (Ecorp Consulting,Inc. 2004)
  "Florin Road Downgrade Project: Inventory and Evaluation of Historic buildings and Archaeological Resources Inventory" (Ric Windmiller & Napoli 2004)
  "Cultural Resources Inventory Vineyard Pointe" (Ecorp Consulting, Inc. 2004)
  "Cultural Resources Inventory and Evaluation Vineyard Creek" (Ecorp Consulting Inc. 2003)
  "Cultural Resource Assessment of the Wildhawk North Project Area" (Peak & Associates, Inc. 2003)
  "Cultural Resources Assessment of the Tamarindo Subdivision and Detention Basin Located in Sacramento County" (Peak & Associates, Inc. 2001)
  "Cultural Resource Assessment of the Vineyard Springs Comprehensive Plan Area" (Peak & Associates, Inc. 1996)
  Cingular Wireless SA-866-01 (Eleanor Derr 2002)
- OHP Historic Property Directory (HPD):Nothing Found
- NCIC Historic Resources Maps for Carmichael, Elk Grove, Florin and Sacramento East: Copies enclosed.
- California Inventory (1976): Nothing Found
- California Dept. of Transportation Bridge Inventory:
  BR#24C0118 Morrison Creek built in 1972 listed as "5 not eligible for NRHP."
  BR#24C0171 Elder Creek built in 1925 listed as "5 not eligible for NRHP."
  BR#24C0279 Elder Creek built in 1935 listed as "5 not eligible for NRHP."
  BR#24C0333 Horse Creek built in 1984 listed as "5 not eligible for NRHP."
  BR#24C0334 Horse Creek built in 1934 listed as "5 not eligible for NRHP."
- California Historical Landmark (1996): Nothing Found
- Point of Historical Interest (1992): Nothing Found
- Historic Spots in California (1990): Nothing Found
- 1855 GLO Plat Map (T7N, R5E): Historic roads in Sections 1 and 12 (copy enclosed).
- 1856 GLO Plat Map (T7N, R6E): Unnamed roads in Section 6, 7, and 8 (copy enclosed).

- 1865 GLO Plat Map (T8N, R5E): Historic road along the southern boundary of Sections 35 and 36 (copy enclosed).
- 1866 GLO Plat Map (T8N, R6E): Map shows "Schofield's House" in Section 30; "George Wilson's" house and a schoolhouse in Section 31; "C. Crocker's House," "Detrich's House" in Section 32; and the "Road from Cosumnes Riverto American River" between Sections 32 and 33. Copies enclosed.

Sensitivity:

Due to the settlement patterns within the project area, the likelihood of finding prehistoric resources is low with a moderate potential along the Morrison, Elder, and Beacon Creeks and their tributaries. Due to the presence of the historic areas in the vicinity of Florin and Elk Grove, the proposed project is located in an area considered to be of moderate sensitivity.

As indicated on the attached agreement form, the charge for this record search is **$441.90.** Payment instructions are included at the bottom of the form. Please sign where indicated and return the **YELLOW** copy with your payment. Thank you for using our services. If you have any questions please do not hesitate to call 916/278-6217.

APPENDIX 4

Site Records

State of California - The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
PRIMARY RECORD

Primary #
HRI#
Trinomial
NRHP Status Code 6Z

Other Listings:
Review Code: Reviewer: Date:

 Resource Name or #: (assigned by recorder) 9051 Gerber Road

P1. Other Identifier:

P2. Location: ☐ **Not for Publication** ☒ **Unrestricted** (P2b and P2c or P2d. Attach a Location Map as necessary)

a. County: Sacramento
b. USGS 7.5' Quad: Elk Grove Date: 1968 (PR79) T. 7N ;R. 6E ; SE ¼ of SW ¼ of Sec. 6 ; MD B.M.
c. Address: 9051 Gerber Road City: Sacramento Zip: 95829
d. UTM: (Give more than one for large and/or linear resources) Zone: 10 ; 06 42 575 mE/; 42 60 359 mN
e. Other Locational Data: (e.g. parcel #, directions to resource, elevation, etc., as appropriate)
APN 065-0080-016

P3a. Description: (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries)
This former residence is now unoccupied and has not seen any maintenance in years. It is now on the property of the Champions Golf Links. It was a small residence very similar to others in the area with a cross gabled roof that appears to have been re-roofed not long before it was abandoned, judging by the excellent condition of the composite roofing. The rest of the house has not fared as well. The siding is lapped planks with not a trace of paint and the windows are gone, the gaps covered by plywood and tin sheeting. There is a small roof with separate gable over the entry supported by plain wood posts.

P3b. Resource Attributes: (List attributes and codes) HP-2; Single family property

P4. Resources Present: ☒ Building ☐ Structure ☐ Object ☐ Site ☐ District ☐ Element of a District ☐ Other (Isolates etc.)

P5b. Description of Photo: (View, date, accession #) 1/21/06 Looking north at front (south elevation). Florin Vineyard Roll 7, Frame 11

P6. Date Construction/Age and Sources: Historic ☒ Prehistoric ☐ Both ☐
See P3a

P7. Owner and Address:

P8. Recorded By: (Name, affiliation, and address)
Ann Peak/Robert Gerry
Peak & Associates, Inc.
3941 Park Drive, Suite 20, #329
El Dorado Hills, CA 95762

P9. Date Recorded:
6/15/06

P10. Survey Type: (Describe)
Complete, project related

P11. Report Citation: (Cite Survey report and other resources, or enter "none") Determination of Eligibility and Effect for Participating Properties Within the Florin Vineyard Gap Community Plan Project Area County of Sacramento, California. Peak & Associates 2007

ATTACHMENTS: ☐ NONE ☒ Location Map ☐ Sketch Map ☐ Continuation Sheet ☒ Building, Structure, and Object Record ☐ Archaeological Record ☐ District Record ☐ Linear Feature Record ☐ Milling Station Record ☐ Rock Art Record ☐ Artifact Record ☐ Photograph Record ☐ Other:

State of California - The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
BUILDING, STRUCTURE, AND OBJECT RECORD

Primary #: _____
HRI #: _____

Page 2 of 3 ***NRHP Status Code:** 6Z Resource Name or #: (assigned by recorder) 9051 Gerber Road

B1. Historic Name: _____
B2. Common Name: _____
B3. Original Use: Residence B4. Present Use: Residence
B5. Architectural Style: Minimal Traditional
B6. Construction History: (Construction date, alterations, and date of alterations.)
There is no building record date a date of mid 1940s fits the style. It looks older due to lack of maintenance.

B7. Moved? ☒ No ☐ Yes ☐ Unknown Date: _____ Original Location: _____
B8. Related Features:

B9a. Architect: Unknown b. Builder: Unknown
B10. Significance: Theme Not significant **Area** _____
Period of Significance _____ **Property Type** _____ **Applicable Criteria** _____
(Discuss importance in terms of historical or architectural context as defined by theme, period, and geographic scope. Also address integrity.)

This residence is not associated with important events in local or State history [NRHP criterion a; CRHR criterion B (1)]. This is one of many areas in Sacramento County supported by small farms. There is no close by community or other social-defining mechanism for the region. The area has remained rural until recently, with a scattering of residences and farms.

Land ownership maps through 1923 for the County were reviewed, and names on building records checked. There are no associations with people important in State or local history [NRHP criterion b; CRHR criterion B (2)]. The residents were apparently small farmers, unassociated with anyone of social prominence or historical importance.

This small, plain residence is no longer a good example of any kind of architecture. It is near collapse and never was any more than a utilitarian small residence. It cannot be said that this building "embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values" [NRHP criterion c; CRHR criterion B (3)].

In consideration of the ability of this building or its immediate surroundings yield information important in history through archeological means, it should be noted that farm practices limit the possibilities of finding subsurface materials. The farms were more or less subsistence farms in the earlier period. They were at a great distance from any commercial establishment. Manufactured items would have been costly and time-consuming to acquire. As a result, most farms tended to reuse manufactured items such as glass containers, fabric, metal implements, and milled lumber. Other waste was burned on site, resulting in a lack of subsurface features that might be useful in defining early lifeways. Also, there is little to be learned from archeological excavations of essentially modern era properties, even in the unlikely event that such deposits exist. We do not believe that the residence is significant for its archeological values [NRHP criterion d; CRHR criterion B (4)].

B11. Additional Resource Attributes: (List attributes and codes) _____

B12. References:

B13. Remarks:

B14. Evaluator: M. Peak, Peak & Associates, Inc.

Date of Evaluation: June 2006

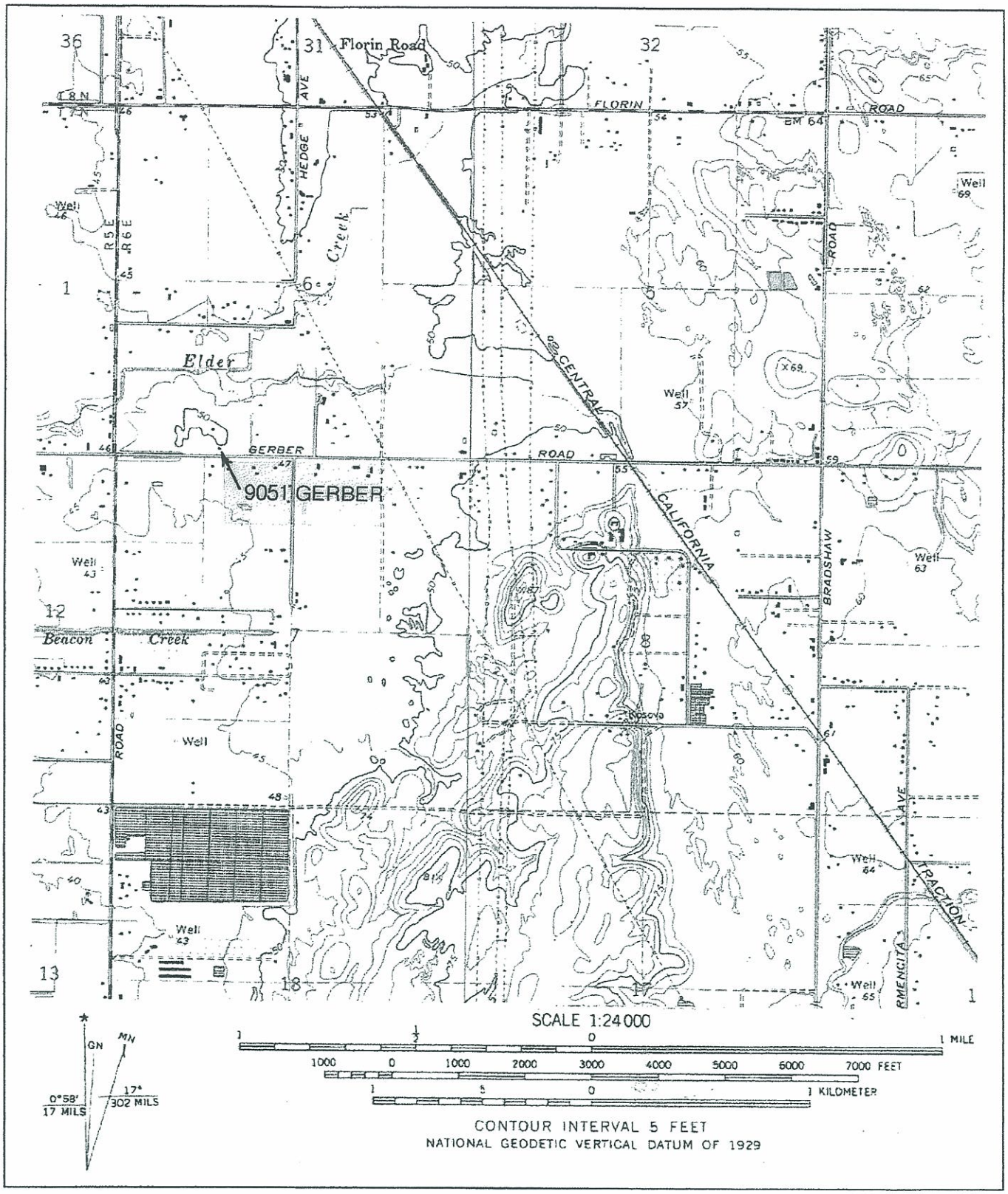
See attached location map

This space reserved for official comments.

State of California - The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
LOCATION MAP

Primary #: _____
HRI #: _____
Trinomial: _____

Page 3 of 3 **Resource Name or #:** (assigned by recorder) 9051 GERBER
Map Name: Elk Grove **Scale:** 1:24,000 **Date of Map:** 1968 (PR79)



State of California - The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
PRIMARY RECORD

Primary #
HRI#
Trinomial
NRHP Status Code 6Z

Other Listings:
Review Code: Reviewer: Date:

 Resource Name or #: (assigned by recorder) 7700 Florencia Avenue

P1. Other Identifier:

P2. Location: ☐ **Not for Publication** ☒ **Unrestricted** (P2b and P2c or P2d. Attach a Location Map as necessary)

a. County: Sacramento
b. USGS 7.5' Quad: Elk Grove Date: 1968 (PR79) T. 7N ;R. 6E ; SE ¼ of NW ¼ of Sec. 7 ; MD B.M.
c. Address: 7700 Florencia Avenue City: Sacramento Zip: 95829
d. UTM: (Give more than one for large and/or linear resources) Zone: 10 ; 06 42 897 mE/; 42 59 950 mN
e. Other Locational Data: (e.g. parcel #, directions to resource, elevation, etc., as appropriate)
APN 121-0010-030

P3a. Description: (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries)
The construction of this residence is concrete block, setting it apart from all others in the plan area. It has an L-shaped footprint with cross-hipped roof and the entry is in the interior corner of the L. The roofing is tile and there is a wide exterior chimney on the east (front) elevation. Windows are aluminum framed, both fixed and pivoting, and some have a narrow transom. The house is in excellent repair and looks newer than the date of 1954 given on the building record. There is a shed to the north rear of the structure that appears older, but this is probably due to less maintenance, since the shed repeats the hipped roof style of the main structure.

P3b. Resource Attributes: (List attributes and codes) HP-2; Single family property

P4. Resources Present: ☒ Building ☐ Structure ☐ Object ☐ Site ☐ District ☐ Element of a District ☐ Other (Isolates etc.)

P5b. Description of Photo: (View, date, accession #) 1/21/06 Looking west with entry inside the "L". Florin Vineyard Roll 6, Frame 2

P6. Date Construction/Age and Sources: Historic ☒ Prehistoric ☐ Both ☐
See P3a

P7. Owner and Address:

P8. Recorded By: (Name, affiliation, and address)
Ann Peak/Robert Gerry
Peak & Associates, Inc.
3941 Park Drive, Suite 20, #329
El Dorado Hills, CA 95762

P9. Date Recorded:
6/15/06

P10. Survey Type: (Describe)
Complete, project related

P11. Report Citation: (Cite Survey report and other resources, or enter "none") Determination of Eligibility and Effect for Participating Properties Within the Florin Vineyard Gap Community Plan Project Area County of Sacramento, California. Peak & Associates 2007

ATTACHMENTS: ☐ NONE ☒ Location Map ☐ Sketch Map ☐ Continuation Sheet ☒ Building, Structure, and Object Record
☐ Archaeological Record ☐ District Record ☐ Linear Feature Record ☐ Milling Station Record ☐ Rock Art Record
☐ Artifact Record ☐ Photograph Record ☐ Other:

State of California - The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
BUILDING, STRUCTURE, AND OBJECT RECORD

Primary #: _____
HRI #: _____

Page 2 of 3 ***NRHP Status Code:** 6Z Resource Name or #: (assigned by recorder) 7700 Florencia Avenue

B1. Historic Name: _____
B2. Common Name: _____
B3. Original Use: Residence B4. Present Use: Residence
B5. Architectural Style: Minimal Traditional
B6. Construction History: (Construction date, alterations, and date of alterations.)
The building record date of 1954 may be accepted, although the well maintained building looks even more recent. It does appear on the 1968 USGS quadrangle.

B7. Moved? ☒ No ☐ Yes ☐ Unknown Date: _____ Original Location: _____
B8. Related Features:

B9a. Architect: Unknown b. Builder: Unknown
B10. Significance: Theme Not significant **Area** _____
Period of Significance _____ **Property Type** _____ **Applicable Criteria** _____
(Discuss importance in terms of historical or architectural context as defined by theme, period, and geographic scope. Also address integrity.)

This residence is not associated with important events in local or State history [NRHP criterion a; CRHR criterion B (1)]. This is one of many areas in Sacramento County supported by small farms. There is no close by community or other social-defining mechanism for the region. The area has remained rural until recently, with a scattering of residences and farms.

Land ownership maps through 1923 for the County were reviewed, and names on building records checked. There are no associations with people important in State or local history [NRHP criterion b; CRHR criterion B (2)]. The residents were apparently small farmers, unassociated with anyone of social prominence or historical importance.

This small, plain residence is not a particularly good examples of its architectural style and is barely old enough to qualify for consideration of significance. It cannot be said that this building "embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values" [NRHP criterion c; CRHR criterion B (3)].

In consideration of the ability of this building or its immediate surroundings yield information important in history through archeological means, it should be noted that farm practices limit the possibilities of finding subsurface materials. The farms were more or less subsistence farms in the earlier period. They were at a great distance from any commercial establishment. Manufactured items would have been costly and time-consuming to acquire. As a result, most farms tended to reuse manufactured items such as glass containers, fabric, metal implements, and milled lumber. Other waste was burned on site, resulting in a lack of subsurface features that might be useful in defining early lifeways. Also, there is little to be learned from archeological excavations of essentially modern era properties, even in the unlikely event that such deposits exist. We do not believe that the residence is significant for its archeological values [NRHP criterion d; CRHR criterion B (4)].

B11. Additional Resource Attributes: (List attributes and codes) _____
B12. References:

B13. Remarks:

B14. Evaluator: M. Peak, Peak & Associates, Inc.

Date of Evaluation: June 2006

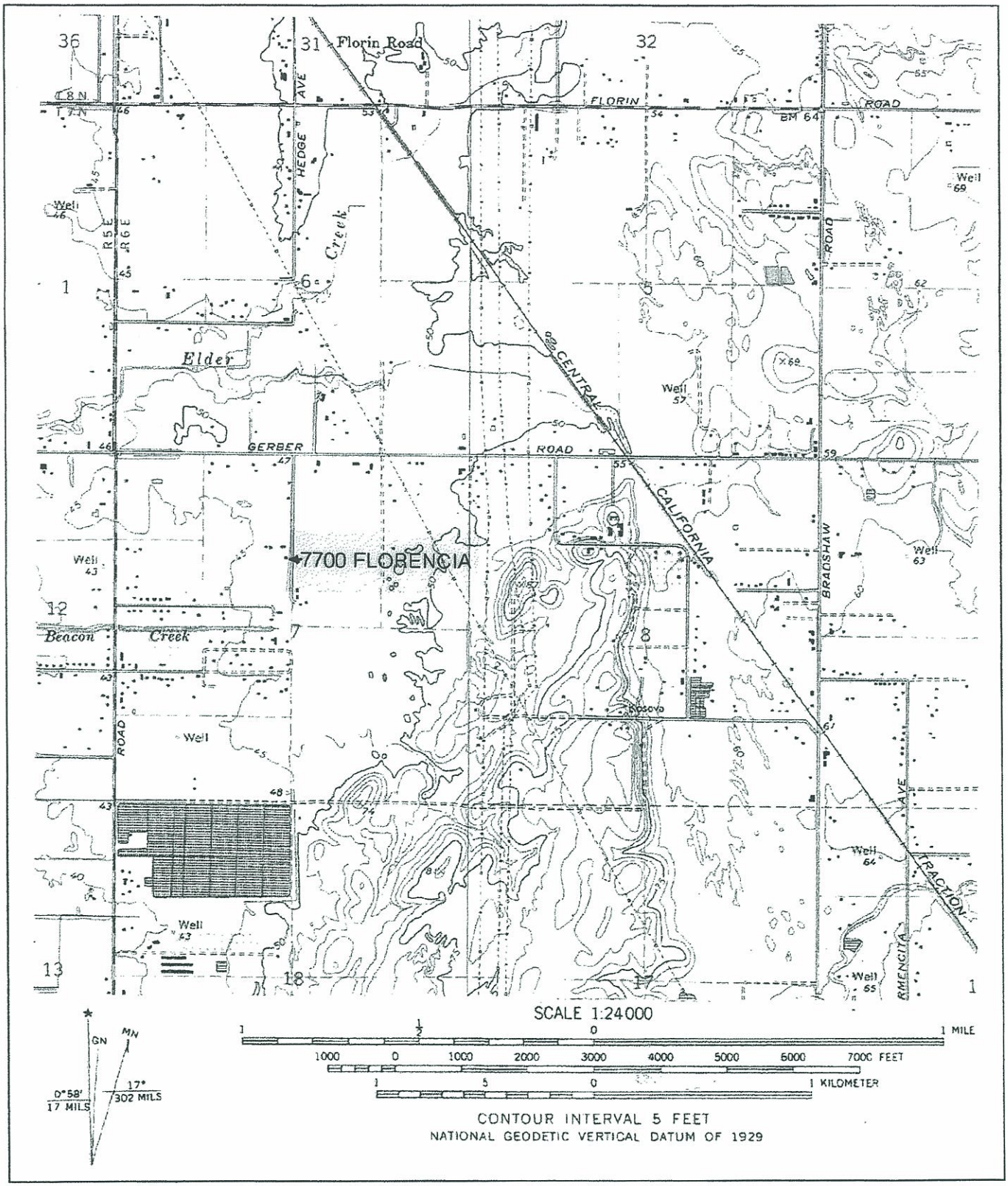
See attached location map

This space reserved for official comments.

State of California - The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
LOCATION MAP

Primary #:
HRI #:
Trinomial:

Page 3 of 3 **Resource Name or #:** (assigned by recorder) 7700 FLORENCIA
Map Name: Elk Grove **Scale:** 1:24,000 **Date of Map:** 1968 (PR79)



State of California - The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
PRIMARY RECORD

Primary #
HRI#
Trinomial
NRHP Status Code 6Z

Other Listings:
Review Code: Reviewer: Date:

 Resource Name or #: (assigned by recorder) 7444 Gardner

P1. Other Identifier:

P2. Location: ☐ **Not for Publication** ■ **Unrestricted** (P2b and P2c or P2d. Attach a Location Map as necessary)

a. County: Sacramento
b. USGS 7.5' Quad: Florin 7.5; Date: 1968 (PR80) T. 7N ;R. 5E ; NW ¼ of SE ¼ of Sec. 1 ;MD B.M.
c. Address: 74448 Gardner City: Sacramento Zip: 95829
d. UTM: (Give more than one for large and/or linear resources) Zone: 10 ; 06 41 510 mE/; 42 60 390 mN
e. Other Locational Data: (e.g. parcel #, directions to resource, elevation, etc., as appropriate)
APN 065-0070-027

P3a. Description: (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries)
This is a small Minimal Traditional cottage, although it has open eaves suggesting some influence from Craftsman. It has a mix of aluminum framed windows with the original one-over-one wooden sashes. The siding is wood with wide horizontal lapping and the roofing is a rolled composite. There are no unusual architectural features of adornments. The Assessor's records indicate a date of 1930, which does not seem out of line for general appearance. The structure has been well maintained or, perhaps, the siding is a replacement.

P3b. Resource Attributes: (List attributes and codes) HP-2, Single Family Property

P4. Resources Present: ■ Building ☐ Structure ☐ Object ☐ Site ☐ District ☐ Element of a District ☐ Other (Isolates etc.)

P5b. Description of Photo: (View, date, accession #)
6/14/06 Looking northeast

P6. Date Construction/Age and Sources: Historic ■ Prehistoric ☐ Both ☐

P7. Owner and Address:

P8. Recorded By: (Name, affiliation, and address)
Robert Gerry
Peak & Associates, Inc.
3941 Park Drive, Suite 20, #329
El Dorado Hills, CA 95762

P9. Date Recorded:
1/14/06

P10. Survey Type: (Describe)
Complete, Project Related

P11. Report Citation: (Cite Survey report and other resources, or enter "none") Determination of Eligibility and Effect For Participating Properties Within The Florin Vineyard Gap Community Plan Project Area, County of Sacramento, California. Peak & Associates, Inc. 2007

ATTACHMENTS: ☐ NONE ■ Location Map ☐ Sketch Map ☐ Continuation Sheet ■ Building, Structure, and Object Record ☐ Archaeological Record ☐ District Record ☐ Linear Feature Record ☐ Milling Station Record ☐ Rock Art Record ☐ Artifact Record ☐ Photograph Record ☐ Other:

State of California - The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
BUILDING, STRUCTURE, AND OBJECT RECORD

Primary #: _____
HRI #: _____

Page 2 of 3 ***NRHP Status Code:** 6Z Resource Name or #: (assigned by recorder) 7444 Gardner

B1. Historic Name: _____
B2. Common Name: _____
B3. Original Use: Residence B4. Present Use: Residence
B5. Architectural Style: Minimal Traditional
B6. Construction History: (Construction date, alterations, and date of alterations.)
Constructed about 1930 per County Assessor's office

B7. Moved? ☒ No ☐ Yes ☐ Unknown Date: _____ Original Location: _____
B8. Related Features: None

B9a. Architect: _____ b. Builder: _____
B10. Significance: Theme _____ **Area** _____
Period of Significance _____ **Property Type** _____ **Applicable Criteria** _____
(Discuss importance in terms of historical or architectural context as defined by theme, period, and geographic scope. Also address integrity.)

This residence is not associated with important events in local or State history [NRHP criterion a; CRHR criterion B (1)]. This is one of many areas in Sacramento County supported by small farms. There is no close by community or other social-defining mechanism for the region. The area has remained rural until recently, with a scattering of residences and farms.

Land ownership maps through 1923 for the County were reviewed, and names on building records checked. There are no associations with people important in State or local history [NRHP criterion b; CRHR criterion B (2)]. The residents were apparently small farmers, unassociated with anyone of social prominence or historical importance.

This small, plain residence is not an unusually good example of the architectural style. It cannot be said that this building "embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values" [NRHP criterion c; CRHR criterion B (3)].

In consideration of the ability of this building or its immediate surroundings yield information important in history through archeological means, it should be noted that farm practices limit the possibilities of finding subsurface materials. The farms were more or less subsistence farms in the earlier period. They were at a great distance from any commercial establishment. Manufactured items would have been costly and time-consuming to acquire. As a result, most farms tended to reuse manufactured items such as glass containers, fabric, metal implements, and milled lumber. Other waste was burned on site, resulting in a lack of subsurface features that might be useful in defining early lifeways. Also, there is little to be learned from archeological excavations of essentially modern era properties, even in the unlikely event that such deposits exist. We do not believe that the residence is significant for its archeological values [NRHP criterion d; CRHR criterion B (4)].

B11. Additional Resource Attributes: (List attributes and codes) None

B12. References:

B13. Remarks:

B14. Evaluator: R. Gerry, Peak & Associates, Inc.

Date of Evaluation: June 2007

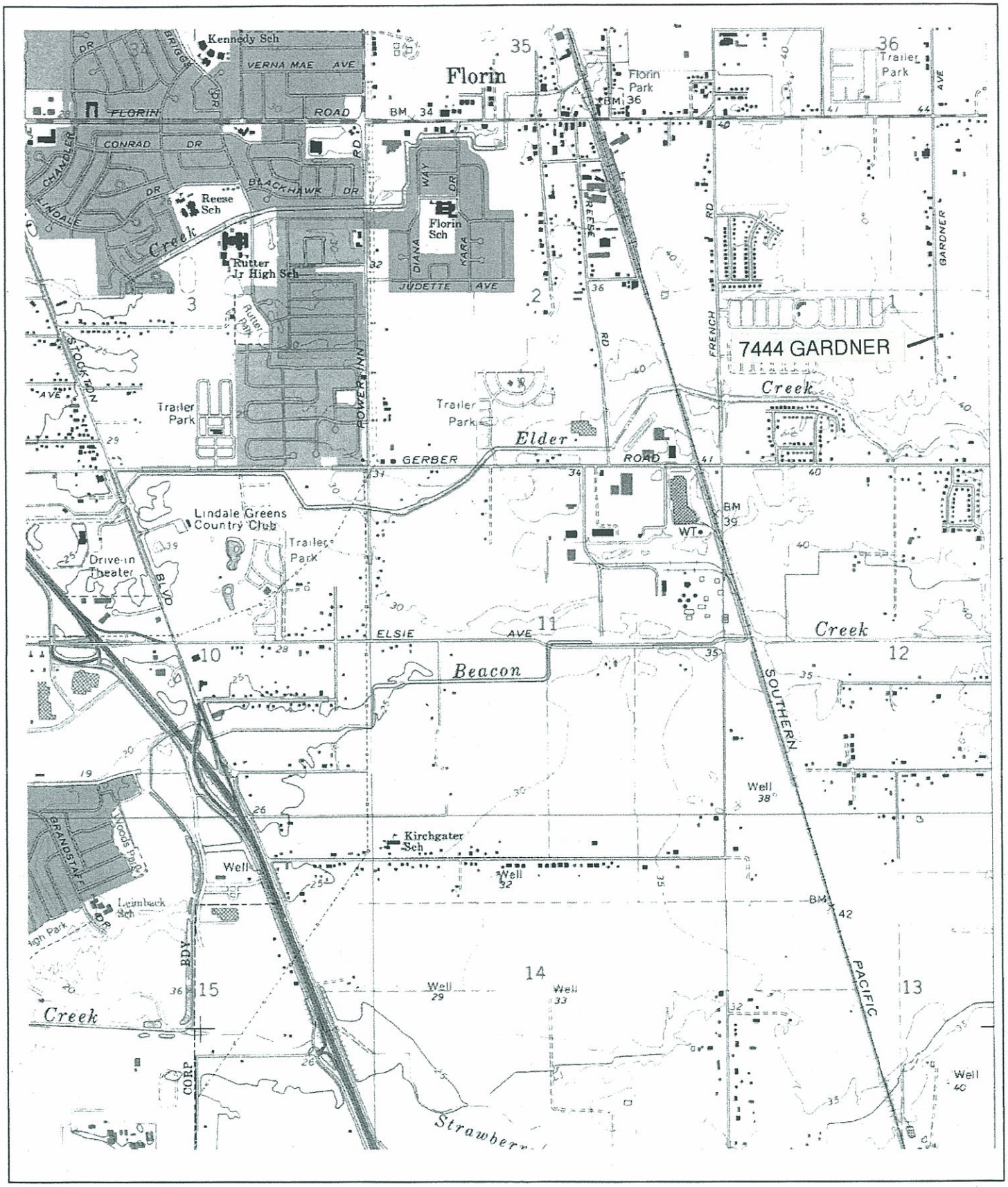
See Attached Sketch Map

This space reserved for official comments.

State of California - The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
LOCATION MAP

Primary #: _____
HRI #: _____
Trinomial: _____

Page 3 of 3 **Resource Name or #:** (assigned by recorder) 7444 GARDNER
Map Name: Florin 7.5' **Scale:** 1 : 24,000 **Date of Map:** 1968 (PR80)



State of California - The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
PRIMARY RECORD

Primary #
HRI#
Trinomial
NRHP Status Code 6Z

Other Listings:
Review Code: Reviewer: Date:

 Resource Name or #: (assigned by recorder) 7584 Elk Grove Florin

P1. Other Identifier:

P2. Location: ☐ **Not for Publication** ■ **Unrestricted** (P2b and P2c or P2d. Attach a Location Map as necessary)

a. County: Sacramento
b. USGS 7.5' Quad: Elk Grove 7.5; Date: 1968 (PR79) T. 7N ;R. 5E ; NE ¼ of SE ¼ of Sec. 1;MD B.M.
c. Address: 7584 Elk Grove Florin City: Sacramento Zip: 95829
d. UTM: (Give more than one for large and/or linear resources) Zone: 10 ; 06 42 035 mE/; 42 60 900 mN
e. Other Locational Data: (e.g. parcel #, directions to resource, elevation, etc., as appropriate)
APN 065-0070-022

P3a. Description: (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries)
7584 Elk Grove Florin includes the usual small plain residence of no particular architectural interest. One shed may be older than the 1956 date of the residence, but it is a standard shed. The large barn associated with this property is clearly older then the fifties, but it has been converted to residential use and is in very poor repair..

P3b. Resource Attributes: (List attributes and codes) HP-2, Single Family Property

P4. Resources Present: ■ Building ☐ Structure ☐ Object ☐ Site ☐ District ☐ Element of a District ☐ Other (Isolates etc.)

P5a. Photo or Drawing (Photo required for buildings, structures, and objects)

P5b. Description of Photo: (View, date, accession #)
See Continuation

P6. Date Construction/Age and Sources: Historic ■ Prehistoric ☐ Both ☐

P7. Owner and Address:

P8. Recorded By: (Name, affiliation, and address)
Robert Gerry
Peak & Associates, Inc.
3941 Park Drive, Suite 20, #329
El Dorado Hills, CA 95762

P9. Date Recorded:
1/14/06

P10. Survey Type: (Describe)
Complete, Project Related

P11. Report Citation: (Cite Survey report and other resources, or enter "none") Determination of Eligibility and Effect For Participating Properties Within The Florin Vineyard Gap Community Plan Project Area, County of Sacramento, California. Peak & Associates, Inc. 2007

ATTACHMENTS: ☐ NONE ■ Location Map ☐ Sketch Map ■ Continuation Sheet ■ Building, Structure, and Object Record ☐ Archaeological Record ☐ District Record ☐ Linear Feature Record ☐ Milling Station Record ☐ Rock Art Record ☐ Artifact Record ☐ Photograph Record ☐ Other:

State of California - The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
BUILDING, STRUCTURE, AND OBJECT RECORD

Primary #: _____
HRI #: _____

Page 2 of 4 ***NRHP Status Code:** 6Z Resource Name or #: (assigned by recorder) 7584 Elk Grove Florin

B1. Historic Name: _____
B2. Common Name: _____
B3. Original Use: Residence B4. Present Use: Residence
B5. Architectural Style: Minimal Traditional
B6. Construction History: (Construction date, alterations, and date of alterations.)
Constructed about 1956 per County Assessor's office

B7. Moved? ☒ No ☐ Yes ☐ Unknown Date: _____ Original Location: _____
B8. Related Features: None

B9a. Architect: _____ b. Builder: _____
B10. Significance: Theme _____ **Area** _____
Period of Significance _____ **Property Type** _____ **Applicable Criteria** _____
(Discuss importance in terms of historical or architectural context as defined by theme, period, and geographic scope. Also address integrity.)

This residence is not associated with important events in local or State history [NRHP criterion a; CRHR criterion B (1)]. This is one of many areas in Sacramento County supported by small farms. There is no close by community or other social-defining mechanism for the region. The area has remained rural until recently, with a scattering of residences and farms.

Land ownership maps through 1923 for the County were reviewed, and names on building records checked. There are no associations with people important in State or local history [NRHP criterion b; CRHR criterion B (2)]. The residents were apparently small farmers, unassociated with anyone of social prominence or historical importance.

This residence is too architecturally plain to be an unusually good example of the architectural style. The barn is older, but too heavily modified. It cannot be said that either building "embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values" [NRHP criterion c; CRHR criterion B (3)].

In consideration of the ability of this building or its immediate surroundings yield information important in history through archeological means, it should be noted that farm practices limit the possibilities of finding subsurface materials. The farms were more or less subsistence farms in the earlier period. They were at a great distance from any commercial establishment. Manufactured items would have been costly and time-consuming to acquire. As a result, most farms tended to reuse manufactured items such as glass containers, fabric, metal implements, and milled lumber. Other waste was burned on site, resulting in a lack of subsurface features that might be useful in defining early lifeways. Also, there is little to be learned from archeological excavations of essentially modern era properties, even in the unlikely event that such deposits exist. We do not believe that the residence is significant for its archeological values [NRHP criterion d; CRHR criterion B (4)].

B11. Additional Resource Attributes: (List attributes and codes) None

B12. References:

B13. Remarks:

B14. Evaluator: R. Gerry, Peak & Associates, Inc.

Date of Evaluation: June 2007

This space reserved for official comments.

See Attached Sketch Map

State of California - The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
CONTINUATION SHEET

Primary #:
HRI #:
Trinomial:

Page 3 of 4 **Resource Name or #:** (assigned by recorder) 7584 Elk Grove Florin
Recorded By: Gerry **Date:** June 2007 ■ Continuation ☐ Update

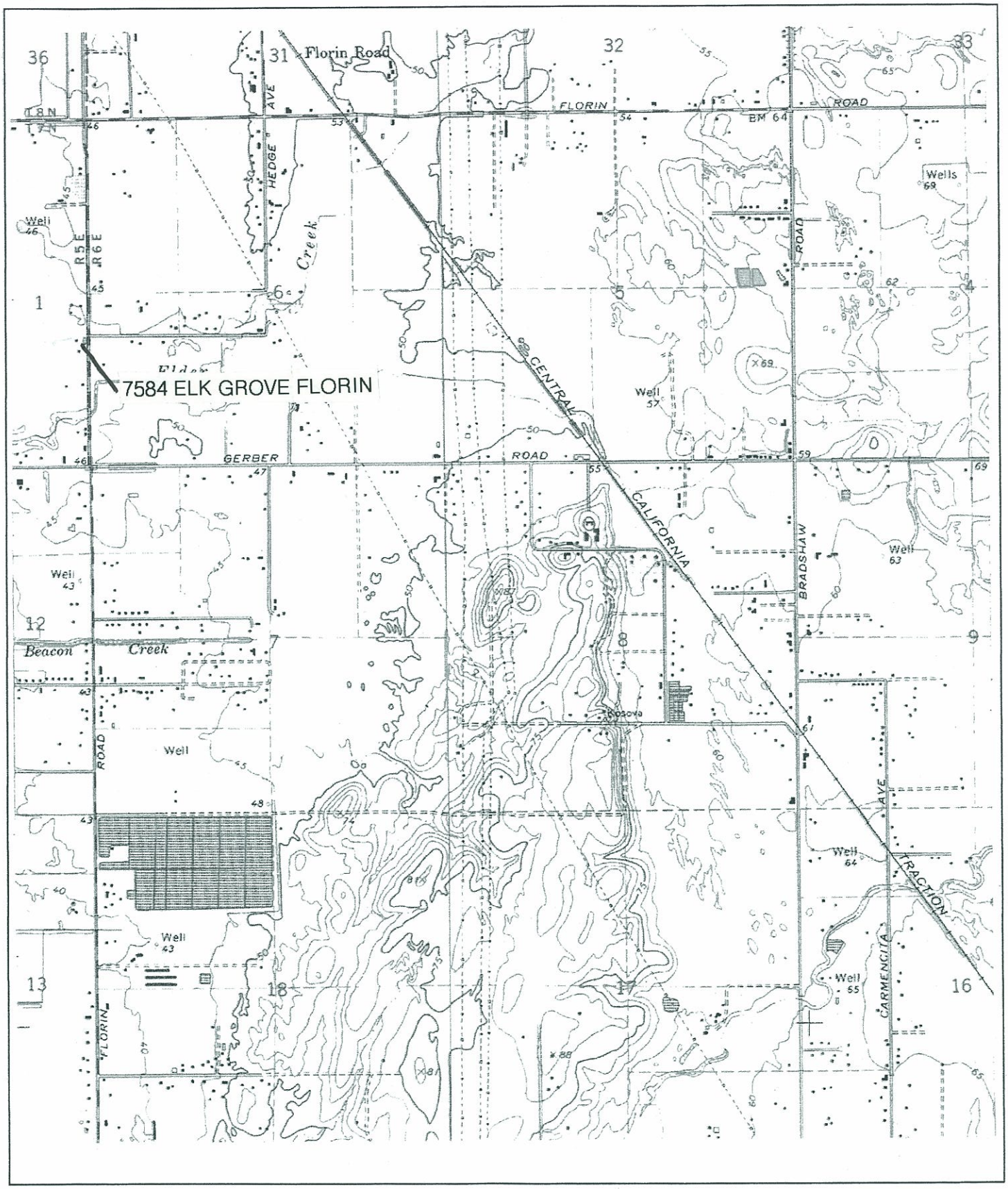
Residence looking northwest

Outbuildings, looking west

State of California - The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
LOCATION MAP

Primary #:
HRI #:
Trinomial:

Page 4 of 4 **Resource Name or #:** (assigned by recorder) 7584 ELK GROVE FLORIN
Map Name: Elk Grove 7.5' **Scale:** 1 : 24,000 **Date of Map:** 1968 (PR79)



State of California - The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
PRIMARY RECORD

Primary #
HRI#
Trinomial
NRHP Status Code 6Z
Other Listings:
Review Code: Reviewer: Date:

Page 1 of 4 **Resource Name or #:** (assigned by recorder) PA-99-071

P1. Other Identifier:

P2. Location: ☐ **Not for Publication** ☒ **Unrestricted** (P2b and P2c or P2d. Attach a Location Map as necessary)

a. County Sacramento
b. USGS 7.5' Quad: Elk Grove Date: 1968 (PR79) T. 7N ;R. 5E ; NE ¼ of SE ¼ of Sec. 1 ; MD B.M.
c. Address: City: Zip:
d. UTM: (Give more than one for large and/or linear resources) Zone: 10 ; 642060 mE/; 4260900 mN
e. Other Locational Data: (e.g.parcel #, directions to resource, elevation, etc., as appropriate)
APN 64-042-7. Adjacent to Elk Grove Florin Road 2,300 feet south of Florin Road.

P3a. Description: (Describe resource and it major elements. Include design, materials, condition, alterations, size, setting, and boundaries)
The site consists of a concrete slab foundation and other slabs of less certain function. It is unlikely that this was a residence since it is located directly adjacent to the road. There was a much more substantial operation of some sort here at one time, since there is a line of palm trees and an extensive graded and gravelled flat near the foundation. Behind (west of) the flat is the remains of a small vineyard.

The slab that is clearly a structural foundation is only 7 x 6.5 meters, with a small extension of the south, and is located just north of the entrance to the property, marked by a graveled drive with chain link fence and gate. North of this is a vague area of concrete slab, partially buried and partially broken up, that does not have a clear function. North of this is an 11 x 9.5 meter slab that had, until recently, its own connection to Elk Grove Florin Road. It is not clear if there was ever a structure on this slab. There is another concrete slab 37 meters long but only one meter wide located some 58.5 meters west of the others.and just east of the former vineyard. The purpose of this slab is also unclear.

P3b. Resource Attributes: (List attributes and codes) AH2, foundations

P4. Resources Present: ☐ Building ☐ Structure ☐ Object ☒ Site ☐ District ☐ Element of a District ☐ Other (Isolates etc.)

P5b. Description of Photo:(View, date, accession #)
Looking NNE across site. Elk Grove-Florin on right. 11/18/99

P6. Date Construction/Age and Sources: Historic ☒ Prehistoric ☐ Both ☐

P7. Owner and Address:
Elk Grove Unified School District

P8. Recorded By:(Name, affiliation, and address)
Robert Gerry/Leland Daniels
Peak & Associates, Inc.
3941 Park Drive, Suite 20-329
El Dorado hills, CA 95762

P9. Date Recorded: 11/18/99

P10. Survey Type:(Describe)
Complete, project related

P11. Report Citation: (Cite Survey report and other resources, or enter "none") Cultural Resources Assessment for the Elk Grove Seventh High School and Future Middle School, Sacramento County, California. Peak & Associates, Inc., 1999.

ATTACHMENTS: ☐ NONE ☒ Location Map ☒ Sketch Map ☐ Continuation Sheet ☐ Building, Structure, and Object Record
☒ Archaeological Record ☐ District Record ☐ Linear Feature Record ☐ Milling Station Record ☐ Rock Art Record
☐ Artifact Record ☐ Photograph Record ☐ Other: _

State of California - The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
ARCHAEOLOGICAL SITE RECORD

Primary #: _____
HRI #: _____
Trinomial: _____

Page 2 **of** 4 **Resource Name or #:** (assigned by recorder) PA-99-071

A1. Dimensions: a. Length 62 m (E-W)X b. Width 34 m (N-S)
Method of Determination: ☒ Paced ☒ Taped ☐ Visual estimate ☐ Other: _____
Method of Determination: (Check any that apply) ☐ Artifacts ☒ Features ☐ Soil ☐ Vegetation ☐ Topography
☐ Cut Bank ☐ Animal Burrow ☐ Excavation ☐ Property Boundary ☐ Other (Explain): _____

Reliability of Determination: ☒ High ☐ Medium ☐ Low ☐ Explain: Site consists entirely of surface features

Limitations (Check any that apply): ☐ Restricted access ☐ Paved/built over ☐ Site limits incompletely defined
☐ Disturbances ☐ Vegetation ☐ Other (Explain): _____

A2. Depth: _____ ☒ None ☐Unknown Method of Determination: Nature of the site

A3. Human Remains: ☐ Present ☒ Absent ☐ Possible ☐ Unknown (Explain): _____

A4. Features: (Number, briefly describe, indicate size, list associated cultural constituents, and show location of each feature on sketch map):
A = Concrete slab foundation for a structure of unknown function. B = concrete slab on two slightly different levels. May or may not have been a foundation. C = Concrete slab. Foundation for narrow shed (poultry/)

A5. Cultural Constituents (Describe and quantify artifacts, ecofacts, cultural residues, etc., not associated with features): None, area has been graded off by bulldozer. Any artifacts that were present are gone now.

A6. Were Specimens Collected? ☒ NO ☐ Yes (If yes, attach Artifact Record or catalog and identify where specimens are curated):

A7. Site Condition ☐ Good ☐ Fair ☒ Poor (Describe disturbances): Superstructures for any buildings once present are all gone. Difficult now to determine the function of the site.

A8. Nearest Water (Type, distance, and direction): Elder Creek, intermittent, 300 m south

A9. Elevation: 44 feet

A10. Environmental Setting (Describe culturally relevant variables such as vegetation, fauna, soils, geology, landform, slope, aspect, exposure, etc.):
Flat plain most recently used for agriculture. Formerly grass land. The only trees in the vicinity now are introduced.

A11. Historical Information:
A structure is shown at this location on the Elk Grove USGS topographic map of 1968 and not on earlier editions. Therefore, the site is post-World War II and may not be 50 years old.

A12. Age: ☐ Prehistoric ☐ Protohistoric ☐ 1542-1769 ☐ 1769-1848 ☐ 1848-1880 ☐ 1880-1914 ☐ 1914-1945
☒ Post 1945 ☐ Undetermined **Describe position in regional prehistoric chronology or factual historic dates if known:**
Map evidence as described in A11. 1942 map of the area does not show a structure here.

A13. Interpretations (Discuss data potential, functions, ethnic affiliation, and other interpretations):
Unknown function

A14. Remarks:

A15. References (Documents, informants, maps, and other references): Survey report (see primary record), 1942 Franklin 1:62,500 scale topographic map (Corps of Engineers) and 1968 USGS Elk Grove quadrangle (photorevised edition 1979).

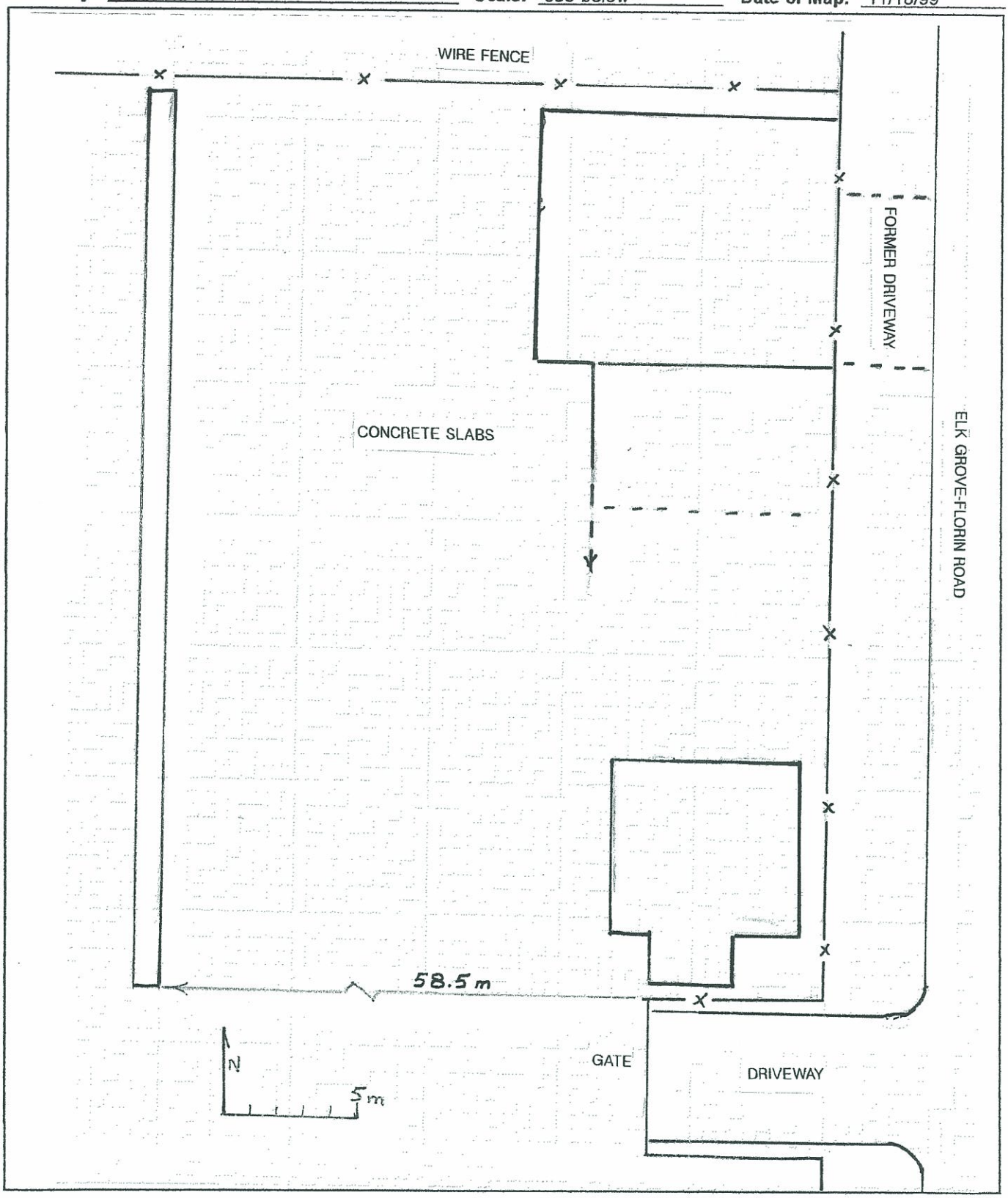
A16. Photographs (List subjects, direction of view, and accession numbers or attach a Photograph Record) See primary record.
Original Media/Negative Kept at: Peak & Associates, Inc.

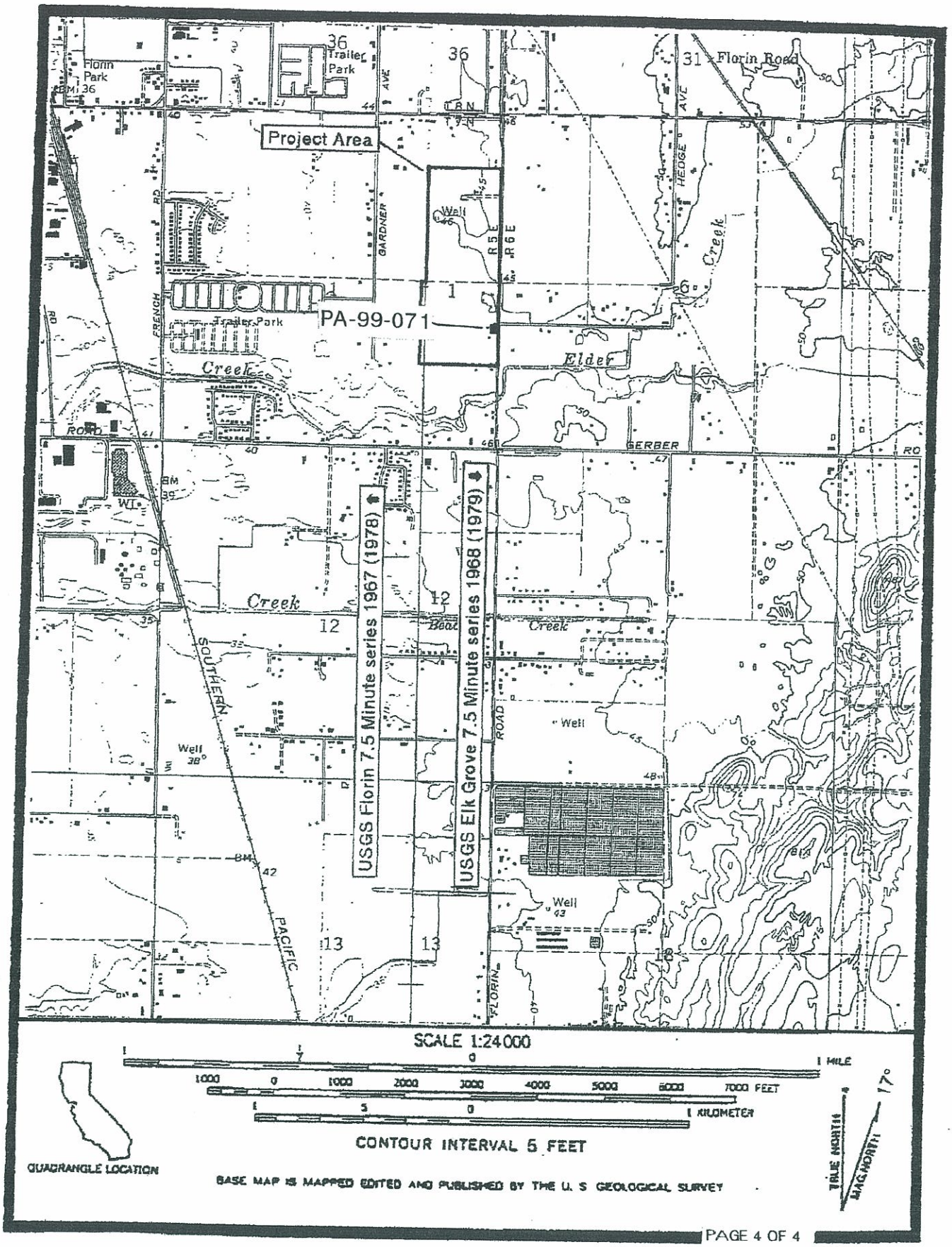
A17. Form Prepared by: Robert Gerry **Date:** 12/2/99
Affiliation and Address: Peak & Associates, Inc., 3941 Park Drive, Suite 20-329, El Dorado Hills, CA 95762

State of California - The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
SKETCH MAP

Primary #:
HRI #:
Trinomial:

Page 3 **of** 4 **Resource Name or #:** (assigned by recorder) PA-99-071
Drawn By: Gerry **Scale:** see below **Date of Map:** 11/18/99




Florin Park
Trailer Park
Project Area
PA-99-071
Florin Road
GARDNER AVE
HEDGE AVE
FRENCH RD
GERBER RD
Elder Creek
Beal Creek
SOUTHERN PACIFIC
FLORIN ROAD
USGS Florin 7.5 Minute series 1967 (1978)
USGS Elk Grove 7.5 Minute series 1968 (1979)
SCALE 1:24000
1 MILE
7000 FEET
1 KILOMETER
CONTOUR INTERVAL 5 FEET
QUADRANGLE LOCATION
BASE MAP IS MAPPED EDITED AND PUBLISHED BY THE U. S GEOLOGICAL SURVEY
TRUE NORTH
MAG NORTH
17°

PAGE 4 OF 4

State of California - The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
PRIMARY RECORD

Primary #
HRI#
Trinomial
NRHP Status Code 6Z

Other Listings:
Review Code: Reviewer: Date:

 Resource Name or #: (assigned by recorder) 6901 Bradshaw

P1. Other Identifier:

P2. Location: ☐ **Not for Publication** ☒ **Unrestricted** (P2b and P2c or P2d. Attach a Location Map as necessary)

a. County: Sacramento
b. USGS 7.5' Quad:Elk Grove Date: 1968 (PR79) T. 8N ;R. 6E ; SW ¼ of SW ¼ of Sec. 33 ; MD B.M.
c. Address: 6901 Bradshaw Road City: Sacramento Zip: 95829
d. UTM: (Give more than one for large and/or linear resources) Zone: 10 ; 06 45 345 mE/; 42 62 020 mN
e. Other Locational Data: (e.g. parcel #, directions to resource, elevation, etc., as appropriate)
APN 066-0050-009

P3a. Description: (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries)
There was a barn and residence at this location according to the USGS map. The barn is no loger apparent. The concrete foundation with a stone wall on the west represents what is left of the residence. There are also water management features still present: a small excavated cistern, a metal water tank and a stand pipe. There are sewer pipes still present at the foundation, but no artifacts.

P3b. Resource Attributes: (List attributes and codes) HP-2, Single Family property

P4. Resources Present: ☐ Building ☐ Structure ☐ Object ☒ Site ☐ District ☐ Element of a District ☐ Other (Isolates etc.)

P5b. Description of Photo: (View, date, accession #)
1/21/06 looking northwest at the tank and stand pipe, foundation in background.

P6. Date Construction/Age and Sources: Historic ☒ Prehistoric ☐ Both ☐

P7. Owner and Address:

P8. Recorded By: (Name, affiliation, and address)
Ann Peak
Peak & Associates, Inc.
3941 Park Drive, Suite 20, #329
El Dorado Hills, CA 95762

P9. Date Recorded:
1/21/06

P10. Survey Type: (Describe)
Complete, Project Related

P11. Report Citation: (Cite Survey report and other resources, or enter "none") Cultural Resources Assessment of the Florin Vineyard Project, Sacramento county, California. Peak & Associates 2004.

ATTACHMENTS: ☐ NONE ☒ Location Map ☒ Sketch Map ☐ Continuation Sheet ☐ Building, Structure, and Object Record ☒ Archaeological Record ☐ District Record ☐ Linear Feature Record ☐ Milling Station Record ☐ Rock Art Record ☐ Artifact Record ☐ Photograph Record ☐ Other:

State of California - The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
ARCHAEOLOGICAL SITE RECORD

Primary #: _____
HRI #: _____
Trinomial: _____

Page 2 of 4 ***NRHP Status Code:** 6Z Resource Name or #: (assigned by recorder) 6901 Bradshaw

A1. Dimensions: a. Length 28 m (E-W) x b. Width 12 m (NS)
Method of Determination: ☐ Paced ☒ Taped ☐ Visual estimate ☐ Other: _____
Method of Determination: (Check any that apply) ☐ Artifacts ☒ Features ☐ Soil ☐ Vegetation ☐ Topography
☐ Cut Bank ☐ Animal Burrow ☐ Excavation ☐ Property Boundary ☐ Other (Explain): _

Reliability of Determination: ☐ High ☒ Medium ☐ Low ☐ Explain: There probably were other features in the area at one time.

Limitations (Check any that apply): ☐ Restricted access ☐ Paved/built over ☐ Site limits incompletely defined
☒ Disturbances ☐ Vegetation ☐ Other (Explain): _____

A2. Depth: _____ ☒ None ☐Unknown Method of Determination: __

A3. Human Remains: ☐ Present ☒ Absent ☐ Possible ☐ Unknown (Explain): _____

A4. Features: (Number, briefly describe, indicate size, list associated cultural constituents, and show location of each feature on sketch map):
Concrete slab with raised foundation curbs. Cistern, water tank and stand pipe..

A5. Cultural Constituents (Describe and quantify artifacts, ecofacts, cultural residues, etc., not associated with features):
None

A6. Were Specimens Collected? ☒ No ☐ Yes (If yes, attach Artifact Record or catalog and identify where specimens are curated):

A7. Site Condition ☐ Good ☐ Fair ☒ Poor (Describe disturbances):
Buildings removed, few artifacts, all recent

A8. Nearest Water (Type, distance, and direction):
Intermitant drainage, 300 feet east

A9. Elevation: 60 feet

A10. Environmental Setting (Describe culturally relevant variables such as vegetation, fauna, soils, geology, landform, slope, aspect, exposure, etc.):
Farmland surrounds site

A11. Historical Information:

A12. Age: ☐ Prehistoric ☐ Protohistoric ☐ 1542-1769 ☐ 1769-1848 ☐ 1848-1880 ☐ 1880-1914 ☐ 1914-1945
☒ Post 1945 ☐ Undetermined **Describe position in regional prehistoric chronology or factual historic dates if known:**
The Assessor's building record gives 1954 as the building date..

A13. Interpretations (Discuss data potential, functions, ethnic affiliation, and other interpretations):
Another small family farm like most other properties in the area.

A14. Remarks:

A15. References (Documents, informants, maps, and other references):

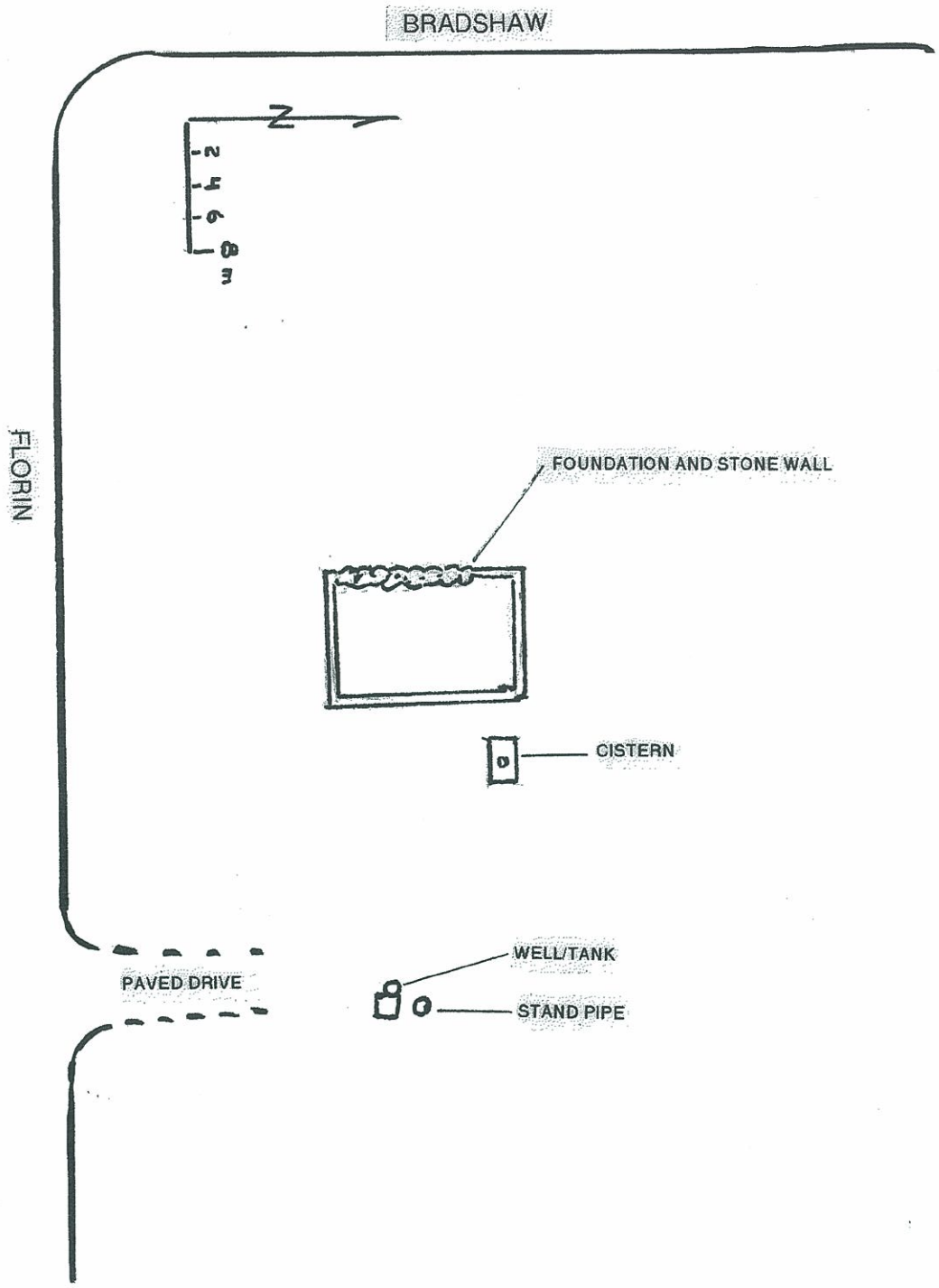
A16. Photographs (List subjects, direction of view, and accession numbers or attach a Photograph Record)
Original Media/Negative Kept at: Peak & Associates, Inc.

A17. Form Prepared by: R. Gerry **Date:** 3/2/07
Affiliation and Address: Peak & Associates, Inc., 3941 Park Drive, Suite 20-329, El Dorado Hills, CA 95762

State of California - The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
SKETCH MAP

Primary #:
HRI #:
Trinomial:

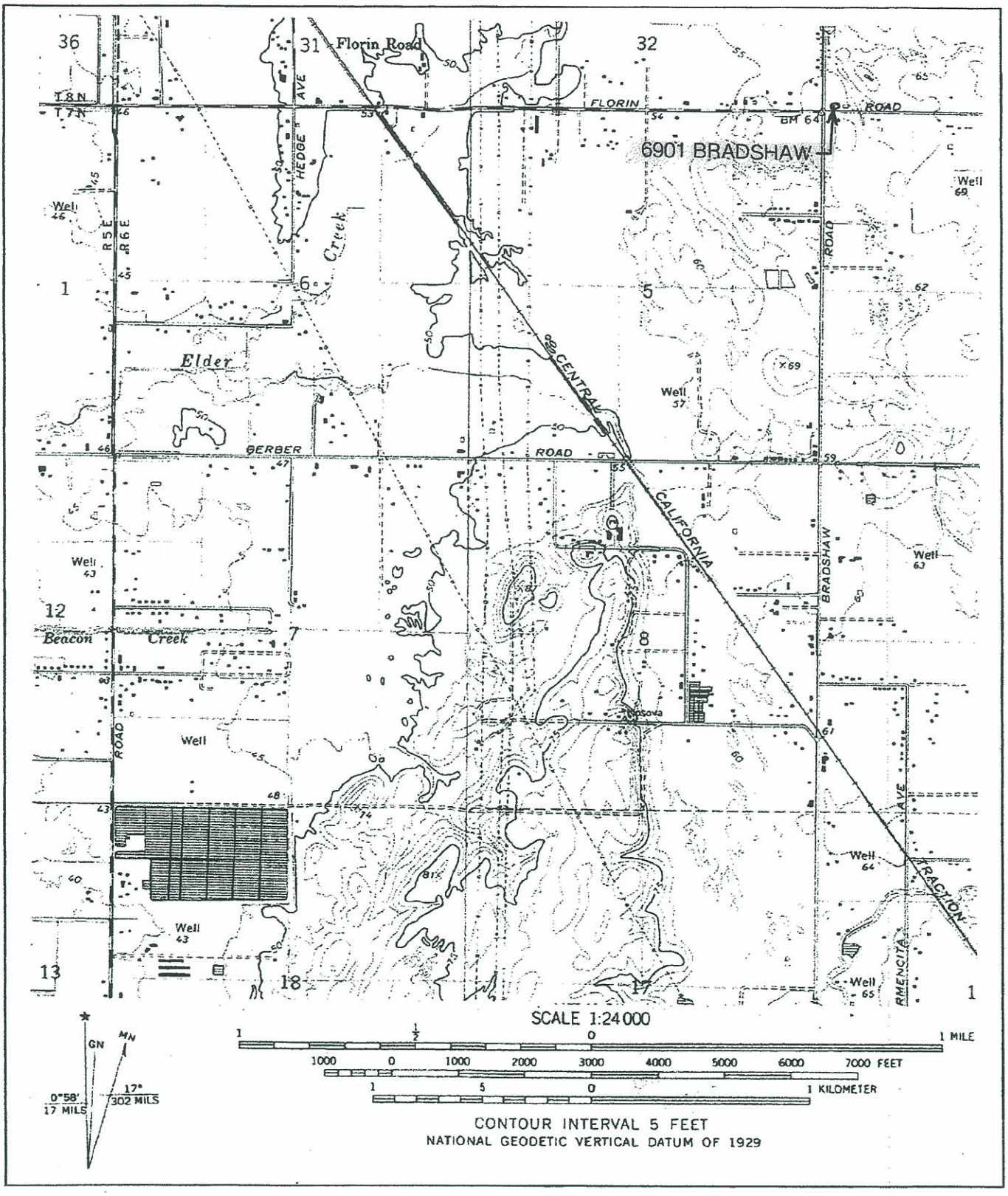
Page 3 of 4 **Resource Name or #:** (assigned by recorder) 6901 Bradshaw
Drawn By: Gerry **Scale:** 1 cm = 4 m **Date of Map:** 1/21/06



State of California - The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
LOCATION MAP

Primary #:
HRI #:
Trinomial:

Page 4 of 4 **Resource Name or #:** (assigned by recorder) 6901 BRADSHAW
Map Name: Elk Grove **Scale:** 1:24,000 **Date of Map:** 1968 (PR79)



State of California - The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
PRIMARY RECORD

Primary #
HRI#
Trinomial
NRHP Status Code 6Z

Other Listings:
Review Code: Reviewer: Date:

 Resource Name or #: (assigned by recorder) 7800 Bradshaw Road

P1. Other Identifier:

P2. Location: ☐ **Not for Publication** ☒ **Unrestricted** (P2b and P2c or P2d. Attach a Location Map as necessary)

a. County: Sacramento
b. USGS 7.5' Quad: Elk Grove Date: 1968 (PR79) T. 8N ; R. 6E ; SW ¼ of SW ¼ of Sec. 31 ; MD B.M.
c. Address: 7800 Bradshaw Road City: Sacramento Zip: 95829
d. UTM: (Give more than one for large and/or linear resources) Zone: 10 ; 06 45 317 mE/; 42 59 571 mN
e. Other Locational Data: (e.g. parcel #, directions to resource, elevation, etc., as appropriate)
APN 121-0070-014

P3a. Description: (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries)
The residence is essentially a narrow rectangle with a hipped roof. The long dimension of the house is north-south and entry is from the east, facing Bradshaw Road. There are two short extensions on either end of the east elevation, also with hipped roof, the northern one forming an attached garage. The area between the two extensions is occupied by a low entry porch covered by an extension of the main roof. The porch roof is supported by plain wood posts on opposite sides of the doorway, but the outer corners are not supported. Much of the front of the house is clad in a multi-colored faux-brick siding material with a composite material covering the rest of the sides. The windows are aluminum framed and both sliders and pivoting windows are used. The house appears to date to the 1950s, but it has been extensively modified.

P3b. Resource Attributes: (List attributes and codes) HP-2; Single family property

P4. Resources Present: ☒ Building ☐ Structure ☐ Object ☐ Site ☐ District ☐ Element of a District ☐ Other (Isolates etc.)

P5b. Description of Photo: (View, date, accession #) 3/26/06 Looking west at front (east elevation). Florin Vineyard Roll B1, Frame 12

P6. Date Construction/Age and Sources: Historic ☒ Prehistoric ☐ Both ☐
See P3a

P7. Owner and Address:

P8. Recorded By: (Name, affiliation, and address)
Ann Peak/Robert Gerry
Peak & Associates, Inc.
3941 Park Drive, Suite 20, #329
El Dorado Hills, CA 95762

P9. Date Recorded:
3/26/06

P10. Survey Type: (Describe)
Complete, project related

P11. Report Citation: (Cite Survey report and other resources, or enter "none") Determination of Eligibility and Effect for Participating Properties Within the Florin Vineyard Gap Community Plan Project Area County of Sacramento, California. Peak & Associates 2007

ATTACHMENTS: ☐ NONE ☒ Location Map ☐ Sketch Map ☐ Continuation Sheet ☒ Building, Structure, and Object Record
☐ Archaeological Record ☐ District Record ☐ Linear Feature Record ☐ Milling Station Record ☐ Rock Art Record
☐ Artifact Record ☐ Photograph Record ☐ Other:

State of California - The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
BUILDING, STRUCTURE, AND OBJECT RECORD

Primary #: _____
HRI #: _____

Page 2 of 3 ***NRHP Status Code:** 6Z Resource Name or #: (assigned by recorder) 7800 Bradshaw Road

B1. Historic Name:
B2. Common Name:
B3. Original Use: Residence B4. Present Use: Residence
B5. Architectural Style: Minimal Traditional
B6. Construction History: (Construction date, alterations, and date of alterations.)
Based on style and condition, the date appears to be 1950s. It has had remodeling since then, but not major additions.

B7. Moved? ☒ No ☐ Yes ☐ Unknown Date: _____ Original Location: _____
B8. Related Features:

B9a. Architect: Unknown b. Builder: Unknown
B10. Significance: Theme Not significant **Area**
Period of Significance **Property Type** **Applicable Criteria**
(Discuss importance in terms of historical or architectural context as defined by theme, period, and geographic scope. Also address integrity.)

This residence is not associated with important events in local or State history [NRHP criterion a; CRHR criterion B (1)]. This is one of many areas in Sacramento County supported by small farms. There is no close by community or other social-defining mechanism for the region. The area has remained rural until recently, with a scattering of residences and farms.

Land ownership maps through 1923 for the County were reviewed, and names on building records checked. There are no associations with people important in State or local history [NRHP criterion b; CRHR criterion B (2)]. The residents were apparently small farmers, unassociated with anyone of social prominence or historical importance.

This small, plain residence is not a particularly good example of its architectural style and it may be to young to qualify for the NRHP. It cannot be said that this building "embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values" [NRHP criterion c; CRHR criterion B (3)].

In consideration of the ability of this building or its immediate surroundings yield information important in history through archeological means, it should be noted that farm practices limit the possibilities of finding subsurface materials. The farms were more or less subsistence farms in the earlier period. They were at a great distance from any commercial establishment. Manufactured items would have been costly and time-consuming to acquire. As a result, most farms tended to reuse manufactured items such as glass containers, fabric, metal implements, and milled lumber. Other waste was burned on site, resulting in a lack of subsurface features that might be useful in defining early lifeways. Also, there is little to be learned from archeological excavations of essentially modern era properties, even in the unlikely event that such deposits exist. We do not believe that the residence is significant for its archeological values [NRHP criterion d; CRHR criterion B (4)].

B11. Additional Resource Attributes: (List attributes and codes)

B12. References:

B13. Remarks:

B14. Evaluator: M. Peak, Peak & Associates, Inc.

Date of Evaluation: June 2006

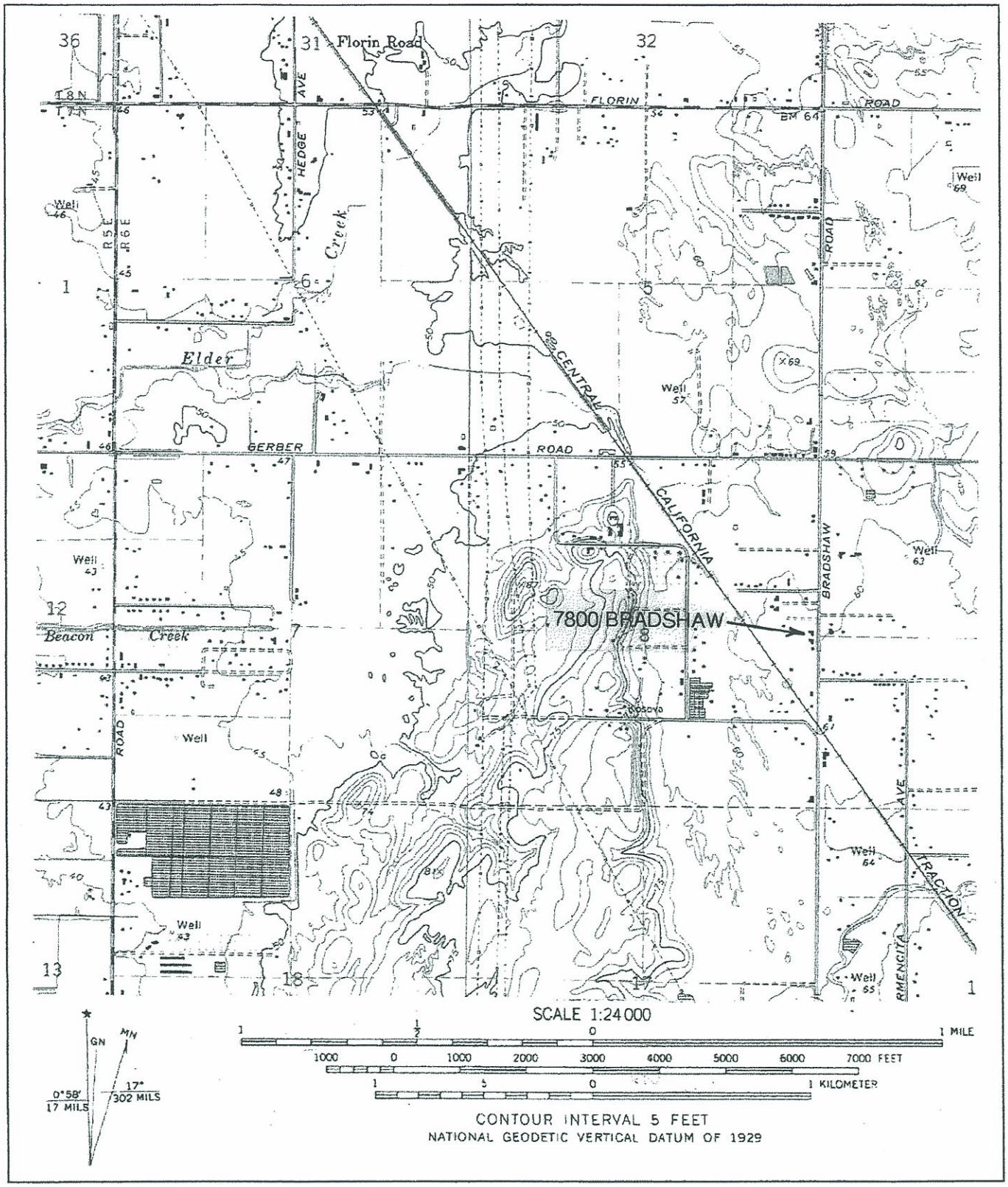
See attached location map

This space reserved for official comments.

State of California - The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
LOCATION MAP

Primary #:
HRI #:
Trinomial:

Page 3 of 3 **Resource Name or #:** (assigned by recorder) 7800 BRADSHAW
Map Name: Elk Grove **Scale:** 1:24,000 **Date of Map:** 1968 (PR79)



State of California - The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
PRIMARY RECORD

Primary #
HRI#
Trinomial
NRHP Status Code 6Z

Other Listings:
Review Code: Reviewer: Date:

 Resource Name or #: (assigned by recorder) 7806 Bradshaw Road

P1. Other Identifier:

P2. Location: ☐ **Not for Publication** ☒ **Unrestricted** (P2b and P2c or P2d. Attach a Location Map as necessary)

a. County: Sacramento
b. USGS 7.5' Quad: Elk Grove Date: 1968 (PR79) T. 8N ;R. 6E ; SW ¼ of SW ¼ of Sec. 31 ; MD B.M.
c. Address: 7806 Bradshaw Road City: Sacramento Zip: 95829
d. UTM: (Give more than one for large and/or linear resources) Zone: 10 ; 06 45 314 mE/; 42 59 533 mN
e. Other Locational Data: (e.g. parcel #, directions to resource, elevation, etc., as appropriate)
APN 121-0070-014

P3a. Description: (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries)
This building is a simple box with end gable except that a gabled roof extension, offset to the north, covers a half width entry porch on the east elevation. The detached garage sits very near the south side of the house and is nearly as large as the residence. Narrow drop siding (false bevel) is employed and the house rests on a concrete wing wall foundation. The roof is a composite rolled material and some of the windows arethe original wood-framed double hung sashes. The style is Craftsman Bungalow, but the only distinguishing features present are the wide pillars supporting the porch roof and the exposed rafter ends on the sides. There is an exterior brick chimney on the north. The only major addition is a shed roofed storage area tacked on to the rear (west) of the structure.

P3b. Resource Attributes: (List attributes and codes) HP-2; Single family property

P4. Resources Present: ☒ Building ☐ Structure ☐ Object ☐ Site ☐ District ☐ Element of a District ☐ Other (Isolates etc.)

P5b. Description of Photo: (View, date, accession #) 3/26/06 Looking west at front (east elevation). Florin Vineyard Roll B1, Frame 7

P6. Date Construction/Age and Sources: Historic ☒ Prehistoric ☐ Both ☐
See P3a

P7. Owner and Address:

P8. Recorded By: (Name, affiliation, and address)
Ann Peak/Robert Gerry
Peak & Associates, Inc.
3941 Park Drive, Suite 20, #329
El Dorado Hills, CA 95762

P9. Date Recorded:
3/26/06

P10. Survey Type: (Describe)
Complete, project related

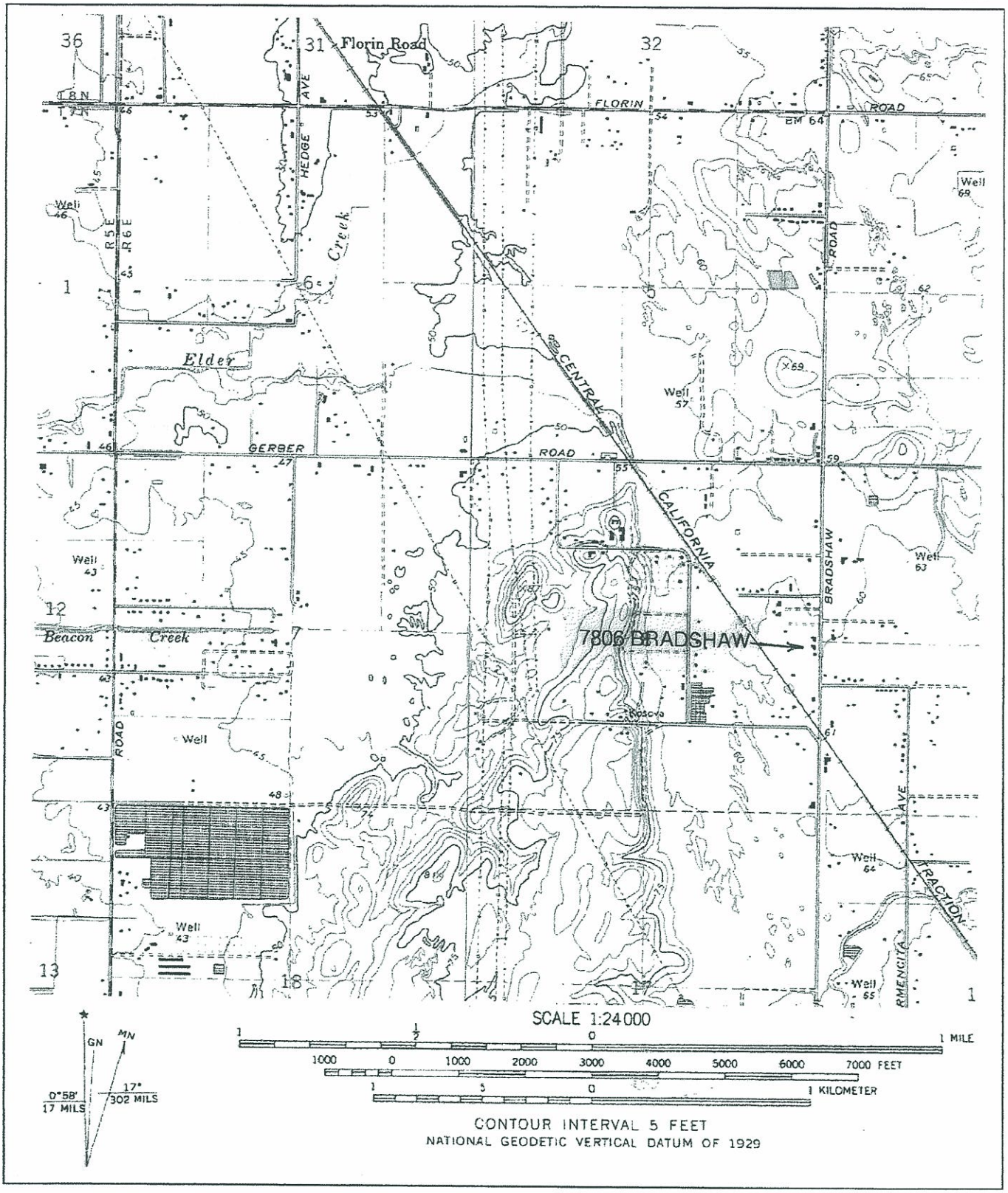
P11. Report Citation: (Cite Survey report and other resources, or enter "none") Determination of Eligibility and Effect for Participating Properties Within the Florin Vineyard Gap Community Plan Project Area County of Sacramento, California. Peak & Associates 2007

ATTACHMENTS: ☐ NONE ☒ Location Map ☐ Sketch Map ☐ Continuation Sheet ☒ Building, Structure, and Object Record ☐ Archaeological Record ☐ District Record ☐ Linear Feature Record ☐ Milling Station Record ☐ Rock Art Record ☐ Artifact Record ☐ Photograph Record ☐ Other:

State of California - The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
LOCATION MAP

Primary #:
HRI #:
Trinomial:

Page 3 of 3 **Resource Name or #:** (assigned by recorder) 7806 BRADSHAW
Map Name: Elk Grove **Scale:** 1:24,000 **Date of Map:** 1968 (PR79)



State of California - The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
PRIMARY RECORD

Primary #
HRI#
Trinomial
NRHP Status Code 6Z

Other Listings:
Review Code: Reviewer: Date:

 Resource Name or #: (assigned by recorder) 7816 Bradshaw Road

P1. Other Identifier:

P2. Location: ☐ **Not for Publication** ☒ **Unrestricted** (P2b and P2c or P2d. Attach a Location Map as necessary)

a. County: Sacramento
b. USGS 7.5' Quad: Elk Grove Date: 1968 (PR79) T. 8N ;R. 6E ; SW ¼ of SW ¼ of Sec. 31 ; MD B.M.
c. Address: 7816 Bradshaw Road City: Sacramento Zip: 95829
d. UTM: (Give more than one for large and/or linear resources) Zone: 10 ; 06 45 318 mE/; 42 59 498 mN
e. Other Locational Data: (e.g. parcel #, directions to resource, elevation, etc., as appropriate)
APN 121-0070-014

P3a. Description: (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries)
The one story frame residence is a cross gabled structure in Minimal Traditional Style, It has an odd appearance because the largest section of the house, oriented east-west does not include the entry. This is, instead, offset to the south via a porch covered by an extension of the cross gable, at a shallower pitch. A similar extension of the cross gable to the east is present on the north side of the house as well. In contrast, the rear of the house (west elevation) is an unbroken line, even though covered by the main gable and two cross gables. The windows are mostly double hung sashes and roofing is composite shingles material. The house is clad in vinyl siding and there is a detached garage behind and north of the house. The structure sits on a high concrete wing wall foundation, like 7806 Bradshaw to the north, which does not fit very well with the style and presumed 1950s date. The house may have been moved to this location.

P3b. Resource Attributes: (List attributes and codes) HP-2; Single family property

P4. Resources Present: ☒ Building ☐ Structure ☐ Object ☐ Site ☐ District ☐ Element of a District ☐ Other (Isolates etc.)

P5b. Description of Photo: (View, date, accession #) 3/26/06 Looking southeast at rear (west elevation). Florin Vineyard Roll B1, Frame 4

P6. Date Construction/Age and Sources: Historic ☒ Prehistoric ☐ Both ☐
See P3a

P7. Owner and Address:

P8. Recorded By: (Name, affiliation, and address)
Ann Peak/Robert Gerry
Peak & Associates, Inc.
3941 Park Drive, Suite 20, #329
El Dorado Hills, CA 95762

P9. Date Recorded:
3/26/06

P10. Survey Type: (Describe)
Complete, project related

P11. Report Citation: (Cite Survey report and other resources, or enter "none") Determination of Eligibility and Effect for Participating Properties Within the Florin Vineyard Gap Community Plan Project Area County of Sacramento, California. Peak & Associates 2007

ATTACHMENTS: ☐ NONE ☒ Location Map ☐ Sketch Map ☐ Continuation Sheet ☒ Building, Structure, and Object Record ☐ Archaeological Record ☐ District Record ☐ Linear Feature Record ☐ Milling Station Record ☐ Rock Art Record ☐ Artifact Record ☐ Photograph Record ☐ Other:

State of California - The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
BUILDING, STRUCTURE, AND OBJECT RECORD

Primary #: _____
HRI #: _____

Page 2 of 3 ***NRHP Status Code:** 6Z Resource Name or #: (assigned by recorder) 7816 Bradshaw Road

B1. Historic Name:
B2. Common Name:
B3. Original Use: Residence B4. Present Use: Residence
B5. Architectural Style: Craftsman Bungalow
B6. Construction History: (Construction date, alterations, and date of alterations.)
Based on style, it should be 1950s. The structure sits on a high concrete wing wall foundation, like 7806 Bradshaw to the north, which docs not fit very well with the style and presumed date. The house may have been moved to this location.

B7. Moved? ☐ No ☐ Yes ☒ Unknown Date: _____ Original Location: see B6
B8. Related Features:

B9a. Architect: Unknown b. Builder: Unknown
B10. Significance: Theme Not significant **Area**
Period of Significance **Property Type** **Applicable Criteria**
(Discuss importance in terms of historical or architectural context as defined by theme, period, and geographic scope. Also address integrity.)

This residence is not associated with important events in local or State history [NRHP criterion a; CRHR criterion B (1)]. This is one of many areas in Sacramento County supported by small farms. There is no close by community or other social-defining mechanism for the region. The area has remained rural until recently, with a scattering of residences and farms.

Land ownership maps through 1923 for the County were reviewed, and names on building records checked. There are no associations with people important in State or local history [NRHP criterion b; CRHR criterion B (2)]. The residents were apparently small farmers, unassociated with anyone of social prominence or historical importance.

This small, plain residence is not a particularly good example of its architectural style and, in fact, is rather aberrant. It cannot be said that this building "embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values" [NRHP criterion c; CRHR criterion B (3)].

In consideration of the ability of this building or its immediate surroundings yield information important in history through archeological means, it should be noted that farm practices limit the possibilities of finding subsurface materials. The farms were more or less subsistence farms in the earlier period. They were at a great distance from any commercial establishment. Manufactured items would have been costly and time-consuming to acquire. As a result, most farms tended to reuse manufactured items such as glass containers, fabric, metal implements, and milled lumber. Other waste was burned on site, resulting in a lack of subsurface features that might be useful in defining early lifeways. Also, there is little to be learned from archeological excavations of essentially modern era properties, even in the unlikely event that such deposits exist. We do not believe that the residence is significant for its archeological values [NRHP criterion d; CRHR criterion B (4)].

B11. Additional Resource Attributes: (List attributes and codes)

B12. References:

B13. Remarks:

B14. Evaluator: M. Peak, Peak & Associates, Inc.

Date of Evaluation: June 2006

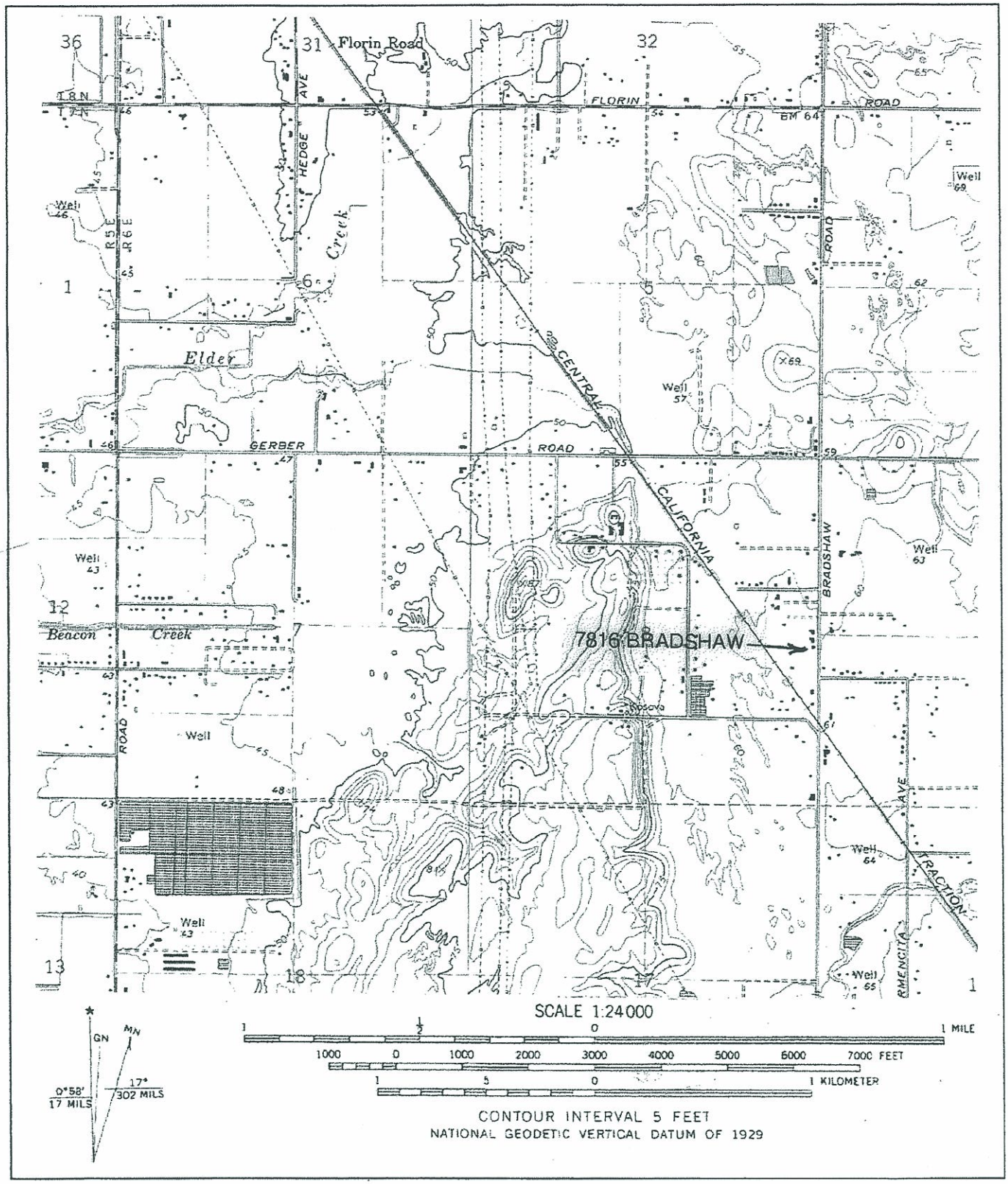
See attached location map

This space reserved for official comments.

State of California - The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
LOCATION MAP

Primary #:
HRI #:
Trinomial:

Page 3 of 3 **Resource Name or #:** (assigned by recorder) 7816 BRADSHAW
Map Name: Elk Grove **Scale:** 1:24,000 **Date of Map:** 1968 (PR79)



State of California - The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
PRIMARY RECORD

Primary #
HRI#
Trinomial
NRHP Status Code 6Z

Other Listings:
Review Code: Reviewer: Date:

 Resource Name or #: (assigned by recorder) 7040 Bandy Lane

P1. Other Identifier:

P2. Location: ☐ **Not for Publication** ☒ **Unrestricted** (P2b and P2c or P2d. Attach a Location Map as necessary)

a. County: Sacramento
b. USGS 7.5' Quad: Carmichael Date: 1967 (PR80) T. 8N ;R. 6E ; NW ¼ of SW ¼ of Sec. 31 ; MD B.M.
c. Address: 7040 Bandy Lane City: Sacramento Zip: 95829
d. UTM: (Give more than one for large and/or linear resources) Zone: 10 ; 06 42 222 mE/; 42 62 442 mN
e. Other Locational Data: (e.g. parcel #, directions to resource, elevation, etc., as appropriate)
APN 064-0080-045

P3a. Description: (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries)
The one story residence is a plain side gabled structure with few distinguishing characteristics. It has a rolled composite roof with aluminum-framed windows. There is a shed to the east that has been converted to living quarters. There is a large flat roof extension on the front (east) that is clearly a later addition. This forms a carport and covred entry. The Assessor's building record gives a date of 1940, but the only apparent evidence of this age is the landscaping around the house, which includes several mature trees, including two large palms.

P3b. Resource Attributes: (List attributes and codes) HP-2; Single family property

P4. Resources Present: ☒ Building ☐ Structure ☐ Object ☐ Site ☐ District ☐ Element of a District ☐ Other (Isolates etc.)

P5b. Description of Photo: (View, date, accession #) 1/21/06 Looking northwest at front (east elevation). Florin Vineyard Roll 7, Frame 18

P6. Date Construction/Age and Sources: Historic ☒ Prehistoric ☐ Both ☐
See P3a

P7. Owner and Address:

P8. Recorded By: (Name, affiliation, and address)
Ann Peak/Robert Gerry
Peak & Associates, Inc.
3941 Park Drive, Suite 20, #329
El Dorado Hills, CA 95762

P9. Date Recorded:
6/15/06

P10. Survey Type: (Describe)
Complete, project related

P11. Report Citation: (Cite Survey report and other resources, or enter "none") Determination of Eligibility and Effect for Participating Properties Within the Florin Vineyard Gap Community Plan Project Area County of Sacramento, California. Peak & Associates 2007

ATTACHMENTS: ☐ NONE ☒ Location Map ☐ Sketch Map ☐ Continuation Sheet ☒ Building, Structure, and Object Record
☐ Archaeological Record ☐ District Record ☐ Linear Feature Record ☐ Milling Station Record ☐ Rock Art Record
☐ Artifact Record ☐ Photograph Record ☐ Other:

State of California - The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
BUILDING, STRUCTURE, AND OBJECT RECORD

Primary #: _____
HRI #: _____

Page 2 of 3 ***NRHP Status Code:** 6Z Resource Name or #: (assigned by recorder) 7040 Bandy Lane

B1. Historic Name: _____
B2. Common Name: _____
B3. Original Use: Residence B4. Present Use: Residence
B5. Architectural Style: Minimal Traditional
B6. Construction History: (Construction date, alterations, and date of alterations.)
The building record date of 1940 may be a bit too old, but it is in the neighborhood. The large roof extending from the front is clearly a later addition, based on the clumsy join with the main mass of the structure, but the date is unknown.

B7. Moved? ☒ No ☐ Yes ☐ Unknown Date: _____ Original Location: _____
B8. Related Features:

B9a. Architect: Unknown b. Builder: Unknown
B10. Significance: Theme Not significant **Area** _____
Period of Significance _____ **Property Type** _____ **Applicable Criteria** _____
(Discuss importance in terms of historical or architectural context as defined by theme, period, and geographic scope. Also address integrity.)

This residence is not associated with important events in local or State history [NRHP criterion a; CRHR criterion B (1)]. This is one of many areas in Sacramento County supported by small farms. There is no close by community or other social-defining mechanism for the region. The area has remained rural until recently, with a scattering of residences and farms.

Land ownership maps through 1923 for the County were reviewed, and names on building records checked. There are no associations with people important in State or local history [NRHP criterion b; CRHR criterion B (2)]. The residents were apparently small farmers, unassociated with anyone of social prominence or historical importance.

This small, plain residence is not a particularly good examples of its architectural style and the massive roof on the front spoils what little style it possesses. It cannot be said that this building "embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values" [NRHP criterion c; CRHR criterion B (3)].

In consideration of the ability of this building or its immediate surroundings yield information important in history through archeological means, it should be noted that farm practices limit the possibilities of finding subsurface materials. The farms were more or less subsistence farms in the earlier period. They were at a great distance from any commercial establishment. Manufactured items would have been costly and time-consuming to acquire. As a result, most farms tended to reuse manufactured items such as glass containers, fabric, metal implements, and milled lumber. Other waste was burned on site, resulting in a lack of subsurface features that might be useful in defining early lifeways. Also, there is little to be learned from archeological excavations of essentially modern era properties, even in the unlikely event that such deposits exist. We do not believe that the residence is significant for its archeological values [NRHP criterion d; CRHR criterion B (4)].

B11. Additional Resource Attributes: (List attributes and codes) _____

B12. References:

B13. Remarks:

B14. Evaluator: M. Peak, Peak & Associates, Inc.

Date of Evaluation: June 2006

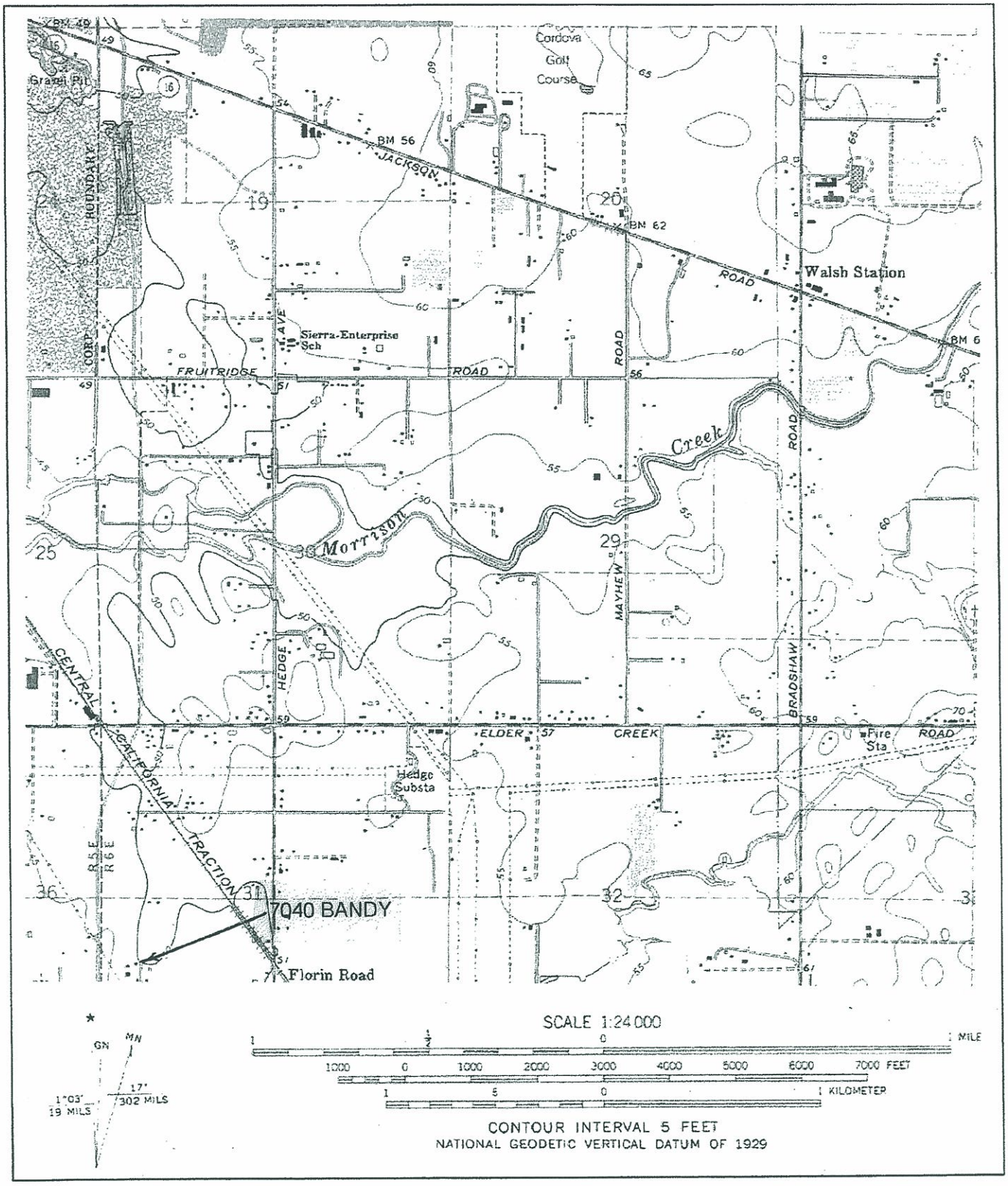
This space reserved for official comments.

See attached location map

State of California - The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
LOCATION MAP

Primary #:
HRI #:
Trinomial:

Page 3 of 3 **Resource Name or #:** (assigned by recorder) 7040 BANDY
Map Name: Carmichael **Scale:** 1:24,000 **Date of Map:** 1967 (PR80)



State of California - The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
PRIMARY RECORD

Primary #
HRI#
Trinomial
NRHP Status Code 6Z

Other Listings:
Review Code: Reviewer: Date:

 Resource Name or #: (assigned by recorder) 6890 South Watt

P1. Other Identifier:

P2. Location: ☐ **Not for Publication** ■ **Unrestricted** (P2b and P2c or P2d. Attach a Location Map as necessary)

a. County: Sacramento
b. USGS 7.5' Quad: Elk Grove 7.5; Date: 1968 (PR79) T. 7N ;R. 6E ; NE ¼ of SW ¼ of Sec. 6;MD B.M.
c. Address: 7328 Hedge City: Sacramento Zip: 95829
d. UTM: (Give more than one for large and/or linear resources) Zone: 10 ; 06 42 805 mE/; 42 61 040 mN
e. Other Locational Data: (e.g. parcel #, directions to resource, elevation, etc., as appropriate)
APN 064-0072-015

P3a. Description: (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries)
6890 South Watt is a two story stucco residence with two brick chimneys on the south elevation. It is a narrow, end gabled structure with a roof at the first story level extending east to cover a shallow entry room and porch. Another low roof forms a carport on the south-rear elevation and connects to a one story frame shed. The Assessor's building record gives a dte of 1953 for the building, which seems accurate. The brickwork for the chimneys is the only external decoration.

P3b. Resource Attributes: (List attributes and codes) HP-2, Single Family Property

P4. Resources Present: ■ Building ☐ Structure ☐ Object ☐ Site ☐ District ☐ Element of a District ☐ Other (Isolates etc.)

P5b. Description of Photo: (View, date, accession #)
1/11/07 Looking northwest

P6. Date Construction/Age and Sources: Historic ■ Prehistoric ☐ Both ☐

P7. Owner and Address:

P8. Recorded By: (Name, affiliation, and address)
Robert Gerry
Peak & Associates, Inc.
3941 Park Drive, Suite 20, #329
El Dorado Hills, CA 95762

P9. Date Recorded:
1/14/06

P10. Survey Type: (Describe)
Complete, Project Related

P11. Report Citation: (Cite Survey report and other resources, or enter "none") Determination of Eligibility and Effect For Participating Properties Within The Florin Vineyard Gap Community Plan Project Area, County of Sacramento, California. Peak & Associates, Inc. 2007

ATTACHMENTS: ☐ NONE ■ Location Map ☐ Sketch Map ☐ Continuation Sheet ■ Building, Structure, and Object Record
☐ Archaeological Record ☐ District Record ☐ Linear Feature Record ☐ Milling Station Record ☐ Rock Art Record
☐ Artifact Record ☐ Photograph Record ☐ Other:

State of California - The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
BUILDING, STRUCTURE, AND OBJECT RECORD

Primary #: _____
HRI #: _____

Page 2 of 3 ***NRHP Status Code:** 6Z Resource Name or #: (assigned by recorder) 6890 South Watt

B1. Historic Name: _____
B2. Common Name: _____
B3. Original Use: Residence B4. Present Use: Residence
B5. Architectural Style: Minimal Traditional
B6. Construction History: (Construction date, alterations, and date of alterations.)
Constructed about 1953 per County Assessor's office

B7. Moved? ☒ No ☐ Yes ☐ Unknown Date: _____ Original Location: _____
B8. Related Features: None

B9a. Architect: _____ b. Builder: _____
B10. Significance: Theme _____ **Area** _____
Period of Significance _____ **Property Type** _____ **Applicable Criteria** _____
(Discuss importance in terms of historical or architectural context as defined by theme, period, and geographic scope. Also address integrity.)

This residence is not associated with important events in local or State history [NRHP criterion a; CRHR criterion B (1)]. This is one of many areas in Sacramento County supported by small farms. There is no close by community or other social-defining mechanism for the region. The area has remained rural until recently, with a scattering of residences and farms.

Land ownership maps through 1923 for the County were reviewed, and names on building records checked. There are no associations with people important in State or local history [NRHP criterion b; CRHR criterion B (2)]. The residents were apparently small farmers, unassociated with anyone of social prominence or historical importance.

This residence is too architecturally plain to be an unusually good example of the architectural style. It cannot be said that this building "embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values" [NRHP criterion c; CRHR criterion B (3)].

In consideration of the ability of this building or its immediate surroundings yield information important in history through archeological means, it should be noted that farm practices limit the possibilities of finding subsurface materials. The farms were more or less subsistence farms in the earlier period. They were at a great distance from any commercial establishment. Manufactured items would have been costly and time-consuming to acquire. As a result, most farms tended to reuse manufactured items such as glass containers, fabric, metal implements, and milled lumber. Other waste was burned on site, resulting in a lack of subsurface features that might be useful in defining early lifeways. Also, there is little to be learned from archeological excavations of essentially modern era properties, even in the unlikely event that such deposits exist. We do not believe that the residence is significant for its archeological values [NRHP criterion d; CRHR criterion B (4)].

B11. Additional Resource Attributes: (List attributes and codes) None

B12. References:

B13. Remarks:

B14. Evaluator: R. Gerry, Peak & Associates, Inc.

Date of Evaluation: June 2007

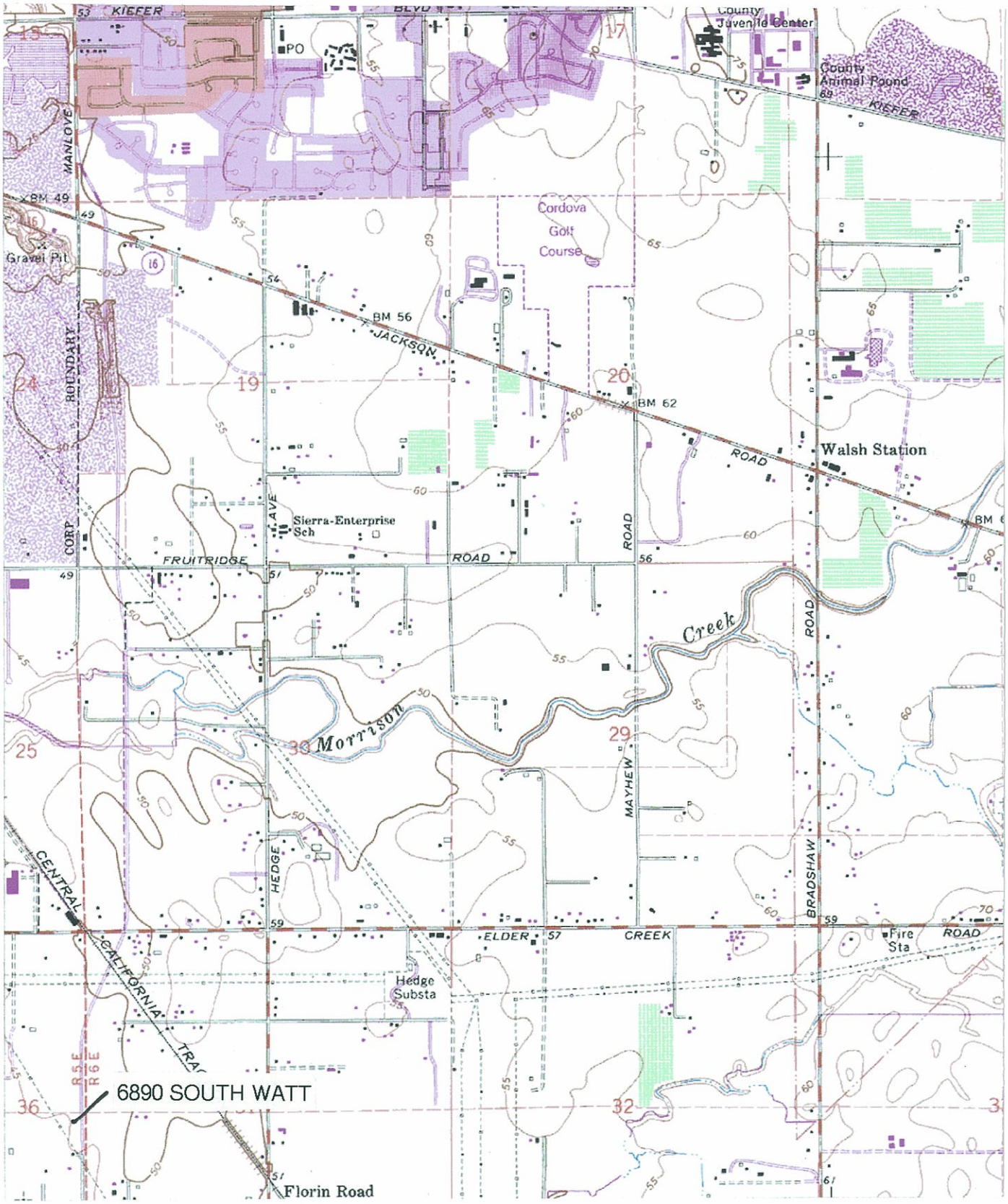
This space reserved for official comments.

See Attached Sketch Map

State of California - The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
LOCATION MAP

Primary #: _____
HRI #: _____
Trinomial: _____

Page 3 of 3 **Resource Name or #:** (assigned by recorder) 6890 S. WATT
Map Name: Carmichael **Scale:** 1 : 24,000 **Date of Map:** 1967 (PR80)



State of California - The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
PRIMARY RECORD

Primary #
HRI#
Trinomial
NRHP Status Code 6Z

Other Listings:
Review Code: Reviewer: Date:

 Resource Name or #: (assigned by recorder) 7001 South Watt

P1. Other Identifier:

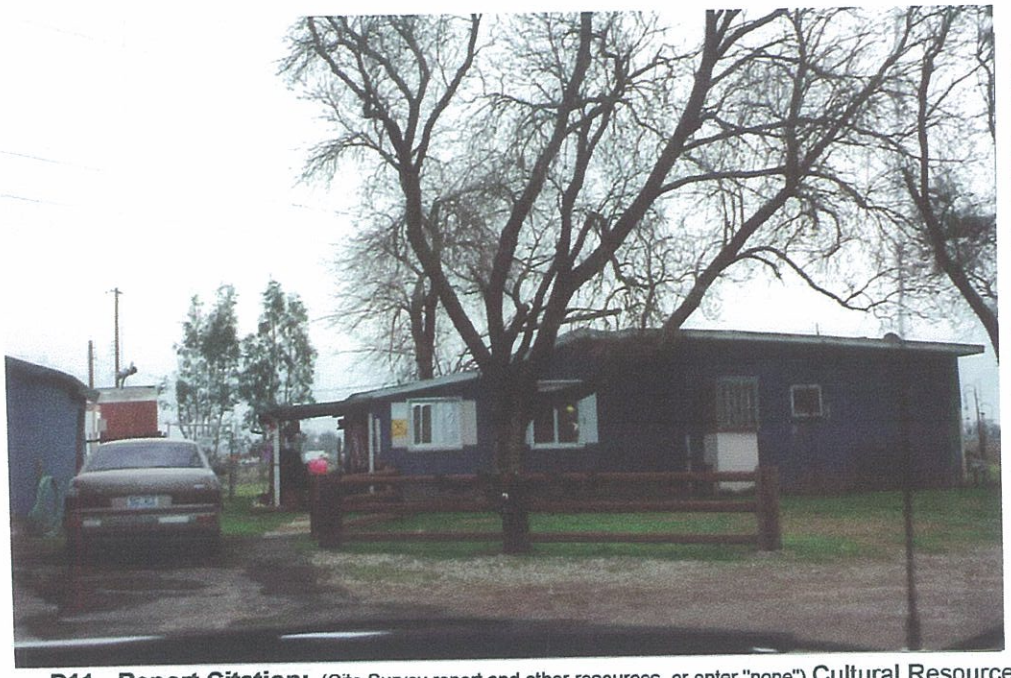
P2. Location: ☐ **Not for Publication** ☒ **Unrestricted** (P2b and P2c or P2d. Attach a Location Map as necessary)

a. County: Sacramento
b. USGS 7.5' Quad:Elk Grove Date: 1968 (PR79) T. 8N ;R. 6E ; SW ¼ of SW ¼ of Sec. 31 ; MD B.M.
c. Address: 7001 South Watt Avenue City: Sacramento Zip: 95829
d. UTM: (Give more than one for large and/or linear resources) Zone: 10 ; 06 42 215 mE/; 42 62 230 mN
e. Other Locational Data: (e.g. parcel #, directions to resource, elevation, etc., as appropriate)
APN 064-080-043

P3a. Description: (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries)
The residence here is a Craftsman bungalow with two-pitch roof and a lot of modifications. The second pitch of the roof covers what is probably an addition on the rear (north) of the building. The siding has been replaced in some areas. The front of the residence shows typical Craftsman elements, such as a full width porch with stout pillars and exposed notched rafter ends, but the rest of the structure reveals repairs and additions. Also present are a tank house, reached by ladder, that is almost collapsed and a couple of small sheds. The tank house has a tapering tower topped by a larger area that houses the tank. Pitman (1992) would term this a "truncated taper tower." The date of construction is not known.

P3b. Resource Attributes: (List attributes and codes) HP-2, Single Family property

P4. Resources Present: ☒ Building ☐ Structure ☐ Object ☐ Site ☐ District ☐ Element of a District ☐ Other (Isolates etc.)



P5b. Description of Photo: (View, date, accession #)
1/21/06 looking east at residence .

P6. Date Construction/Age and Sources: Historic ☒ Prehistoric ☐ Both ☐

P7. Owner and Address:

P8. Recorded By: (Name, affiliation, and address)
Robert Gerry
Peak & Associates, Inc.
3941 Park Drive, Suite 20, #329
El Dorado Hills, CA 95762

P9. Date Recorded:
1/21/06

P10. Survey Type: (Describe)
Complete, Project Related

P11. Report Citation: (Cite Survey report and other resources, or enter "none") Cultural Resources Assessment of the Florin Vineyard Project, Sacramento county, California. Peak & Associates 2004.

ATTACHMENTS: ☐ NONE ☒ Location Map ☐ Sketch Map ☐ Continuation Sheet ☒ Building, Structure, and Object Record ☐ Archaeological Record ☐ District Record ☐ Linear Feature Record ☐ Milling Station Record ☐ Rock Art Record ☐ Artifact Record ☐ Photograph Record ☐ Other:

State of California - The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
BUILDING, STRUCTURE, AND OBJECT RECORD

Primary #: _____
HRI #: _____

Page 2 of 4 ***NRHP Status Code:** 6Z Resource Name or #: (assigned by recorder) 7001 South Watt

B1. Historic Name: _____
B2. Common Name: _____
B3. Original Use: Residence and Tank House B4. Present Use: Residence and Storage
B5. Architectural Style: Residence: Craftsman, Tank House: Truncated Taper Tower
B6. Construction History: (Construction date, alterations, and date of alterat ions.)
No date in Assessor's building record. The house has been modified so much it is hard to say what the original date might be. Few tank houses were built after the 1940s (Pitman 1992:14) so it is probably from the end of the era..

B7. Moved? ☒ No ☐ Yes ☐ Unknown Date: _____ Original Location: _____
B8. Related Features: Two small sheds of modern date.

B9a. Architect: Unknown b. Builder: Unknown
B10. Significance: Theme _____ **Area** _____
Period of Significance _____ **Property Type** _____ **Applicable Criteria** _____
(Discuss importance in terms of historical or architectural context as defined by theme, period, and geographic scope. Also address integrity.)

This residence is not associated with important events in local or State history [NRHP criterion a; CRHR criterion B (1)]. This is one of many areas in Sacramento County supported by small farms. There is no close by community or other social-defining mechanism for the region. The area has remained rural until recently, with a scattering of residences and farms.

Land ownership maps through 1923 for the County were reviewed, and names on building records checked. There are no associations with people important in State or local history [NRHP criterion b; CRHR criterion B (2)]. The residents were apparently small farmers, unassociated with anyone of social prominence or historical importance.

The residence was once a small, plain building that has been modified many times. The tankhouse is a standard design for this type of structure. Although the straight sided tower was more popular in the Central Valley, this type is well known and is the dominant type in the north Bay Area. It cannot be said that either "embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values" [NRHP criterion c; CRHR criterion B (3)].

In consideration of the ability of this building or its immediate surroundings yield information important in history through archeological means, it should be noted that farm practices limit the possibilities of finding subsurface materials. The farms were more or less subsistence farms in the earlier period. They were at a great distance from any commercial establishment. Manufactured items would have been costly and time-consuming to acquire. As a result, most farms tended to reuse manufactured items such as glass containers, fabric, metal implements, and milled lumber. Other waste was burned on site, resulting in a lack of subsurface features that might be useful in defining early lifeways. Also, there is little to be learned from archeological excavations of essentially modern era properties, even in the unlikely event that such deposits exist. We do not believe that the residence is significant for its archeological values [NRHP criterion d; CRHR criterion B (4)].

B11. Additional Resource Attributes: (List attributes and codes) _____

B12. References: Pitman, Leon 1992 The Domestic Tankhouse as Vernacular Architecture in Rural California. In: Material Culture vol.24, No. 1.

B13. Remarks:

B14. Evaluator: M. Peak, Peak & Associates, Inc.

Date of Evaluation: 11/04

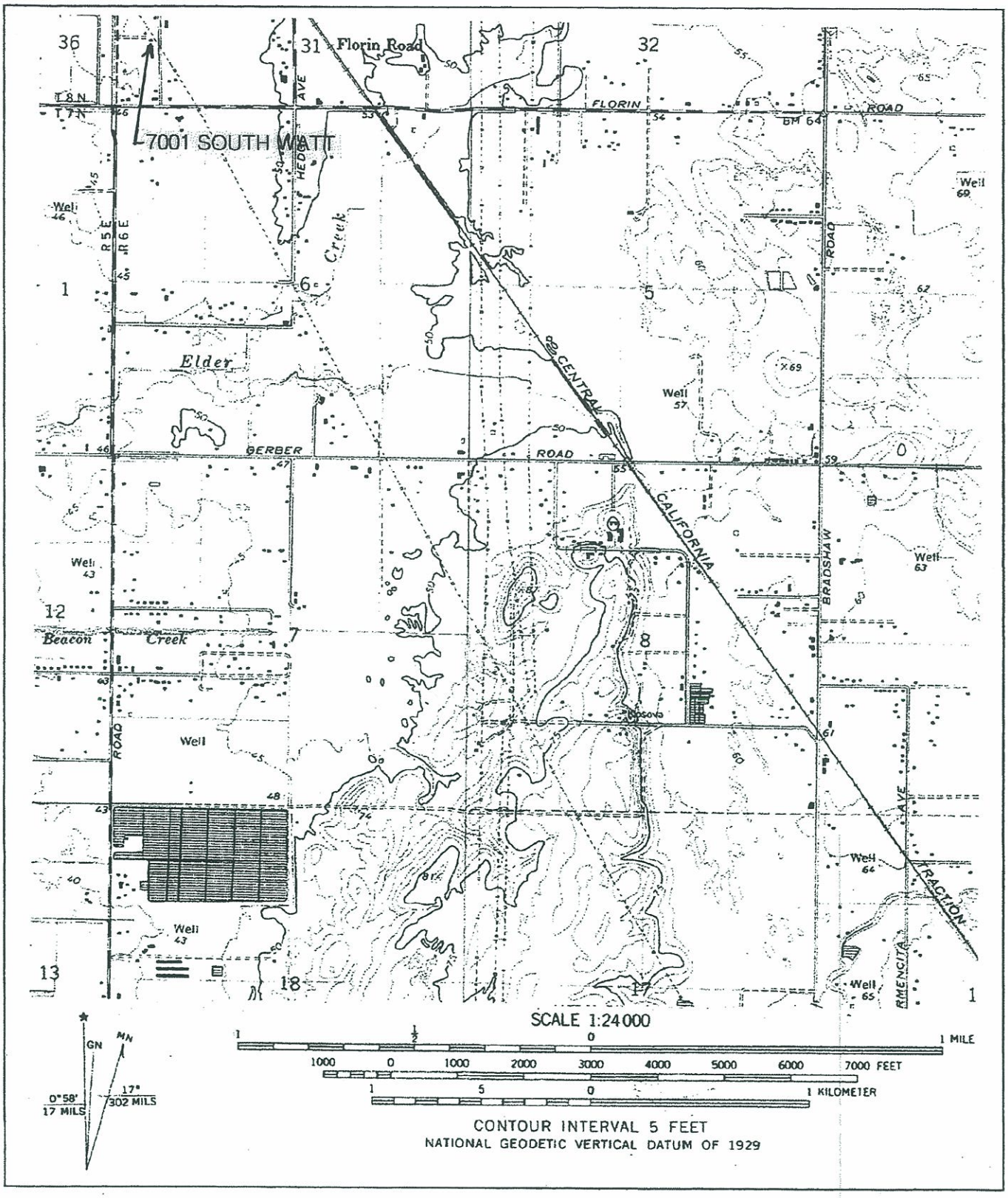
See attached location map.

This space reserved for official comments.

State of California - The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
LOCATION MAP

Primary #:
HRI #:
Trinomial:

Page 3 of 3 **Resource Name or #:** (assigned by recorder) 7001 SOUTH WATT
Map Name: Elk Grove **Scale:** 1:24,000 **Date of Map:** 1968 (PR79)



State of California - The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
PRIMARY RECORD

Primary #
HRI#
Trinomial
NRHP Status Code 6Z

Other Listings:
Review Code: Reviewer: Date:

 Resource Name or #: (assigned by recorder) 7328 Hedge

P1. Other Identifier:

P2. Location: ☐ **Not for Publication** ■ **Unrestricted** (P2b and P2c or P2d. Attach a Location Map as necessary)

a. County: Sacramento
b. USGS 7.5' Quad: Elk Grove 7.5; Date: 1968 (PR79) T. 7N ;R. 6E ; NE ¼ of SW ¼ of Sec. 6;MD B.M.
c. Address: 7328 Hedge City: Sacramento Zip: 95829
d. UTM: (Give more than one for large and/or linear resources) Zone: 10 ; 06 42 805 mE/; 42 61 040 mN
e. Other Locational Data: (e.g. parcel #, directions to resource, elevation, etc., as appropriate)
APN 065-0051-046

P3a. Description: (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries)
7328 Hedge This small side gabled structure dates to 1916 according to the Assessor and has the appearance of a nondescript small residence of that era, although heavily modified. It is a simple rectangle except for a full width porch on the front (east) covered by an extension of the main roof at a lower pitch. There are turned wood posts supporting the porch roof and no other decorative touches. All the exterior materials, siding, widows and roofing, appear to be replacement.

P3b. Resource Attributes: (List attributes and codes) HP-2, Single Family Property

P4. Resources Present: ■ Building ☐ Structure ☐ Object ☐ Site ☐ District ☐ Element of a District ☐ Other (Isolates etc.)

P5b. Description of Photo: (View, date, accession #)
1/21/06 Looking southwest

P6. Date Construction/Age and Sources: Historic ■ Prehistoric ☐ Both ☐

P7. Owner and Address:

P8. Recorded By: (Name, affiliation, and address)
Robert Gerry
Peak & Associates, Inc.
3941 Park Drive, Suite 20, #329
El Dorado Hills, CA 95762

P9. Date Recorded:
1/14/06

P10. Survey Type: (Describe)
Complete, Project Related

P11. Report Citation: (Cite Survey report and other resources, or enter "none") Determination of Eligibility and Effect For Participating Properties Within The Florin Vineyard Gap Community Plan Project Area, County of Sacramento, California. Peak & Associates, Inc. 2007

ATTACHMENTS: ☐ NONE ■ Location Map ☐ Sketch Map ☐ Continuation Sheet ■ Building, Structure, and Object Record ☐ Archaeological Record ☐ District Record ☐ Linear Feature Record ☐ Milling Station Record ☐ Rock Art Record ☐ Artifact Record ☐ Photograph Record ☐ Other:

State of California - The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
BUILDING, STRUCTURE, AND OBJECT RECORD

Primary #: _____
HRI #: _____

Page 2 of 3 ***NRHP Status Code:** 6Z Resource Name or #: (assigned by recorder) 7328 Hedge

B1. Historic Name: _____
B2. Common Name: _____
B3. Original Use: Residence B4. Present Use: Residence
B5. Architectural Style: Minimal Traditional
B6. Construction History: (Construction date, alterations, and date of alterations.)
Constructed about 1916 per County Assessor's office

B7. Moved? ☒ No ☐ Yes ☐ Unknown Date: _____ Original Location: _____
B8. Related Features: None

B9a. Architect: _____ b. Builder: _____
B10. Significance: Theme _____ **Area** _____
Period of Significance _____ **Property Type** _____ **Applicable Criteria** _____
(Discuss importance in terms of historical or architectural context as defined by theme, period, and geographic scope. Also address integrity.)

This residence is not associated with important events in local or State history [NRHP criterion a; CRHR criterion B (1)]. This is one of many areas in Sacramento County supported by small farms. There is no close by community or other social-defining mechanism for the region. The area has remained rural until recently, with a scattering of residences and farms.

Land ownership maps through 1923 for the County were reviewed, and names on building records checked. There are no associations with people important in State or local history [NRHP criterion b; CRHR criterion B (2)]. The residents were apparently small farmers, unassociated with anyone of social prominence or historical importance.

This small residence is too architecturally plain to be an unusually good example of the architectural style. It cannot be said that this building "embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values" [NRHP criterion c; CRHR criterion B (3)].

In consideration of the ability of this building or its immediate surroundings yield information important in history through archeological means, it should be noted that farm practices limit the possibilities of finding subsurface materials. The farms were more or less subsistence farms in the earlier period. They were at a great distance from any commercial establishment. Manufactured items would have been costly and time-consuming to acquire. As a result, most farms tended to reuse manufactured items such as glass containers, fabric, metal implements, and milled lumber. Other waste was burned on site, resulting in a lack of subsurface features that might be useful in defining early lifeways. Also, there is little to be learned from archeological excavations of essentially modern era properties, even in the unlikely event that such deposits exist. We do not believe that the residence is significant for its archeological values [NRHP criterion d; CRHR criterion B (4)].

B11. Additional Resource Attributes: (List attributes and codes) None

B12. References:

B13. Remarks:

B14. Evaluator: R. Gerry, Peak & Associates, Inc.

Date of Evaluation: June 2007

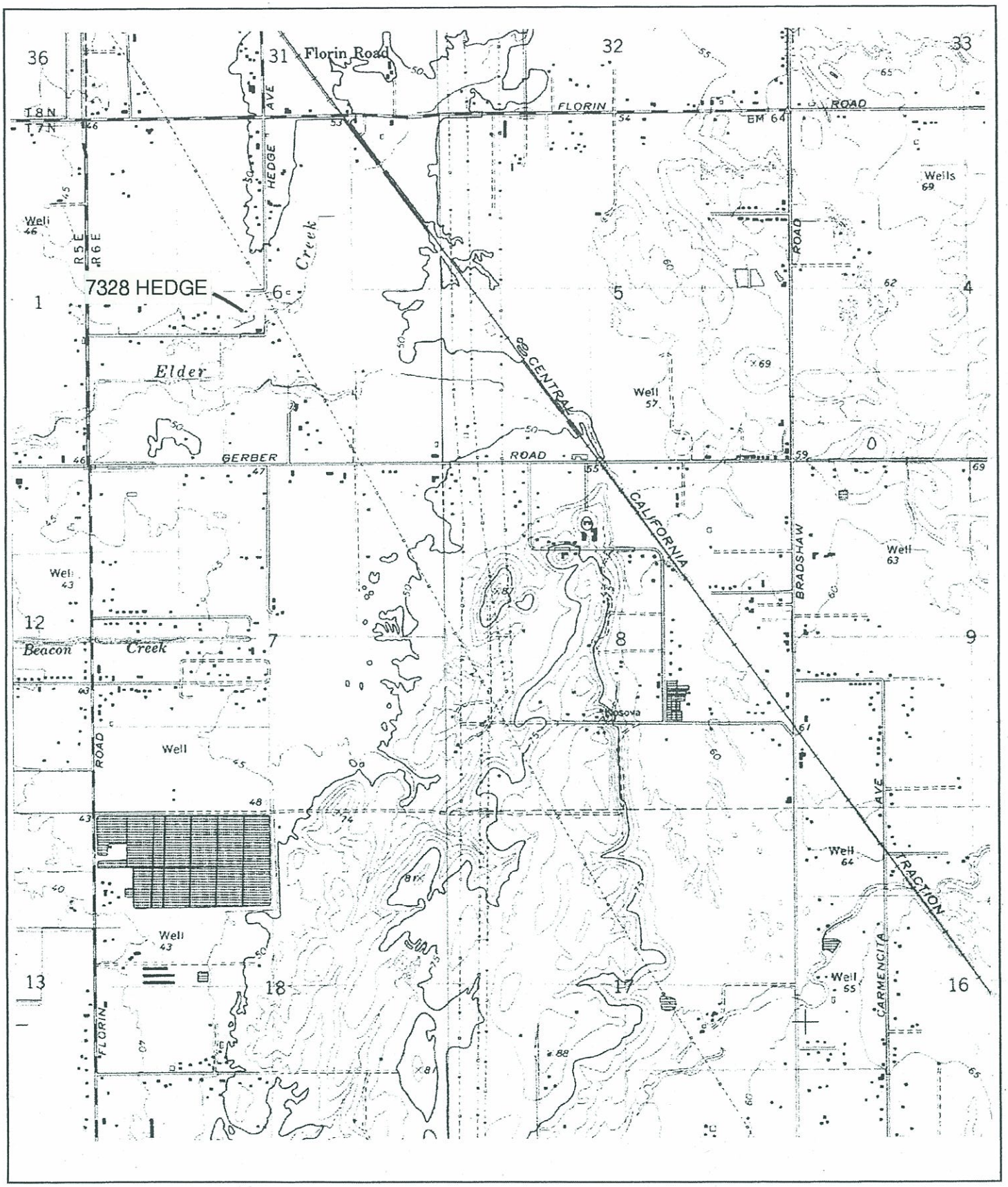
See Attached Sketch Map

This space reserved for official comments.

State of California - The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
LOCATION MAP

Primary #:
HRI #:
Trinomial:

Page 3 of 3 **Resource Name or #:** (assigned by recorder) 7328 HEDGE
Map Name: Elk Grove 7.5' **Scale:** 1 : 24,000 **Date of Map:** 1968 (PR79)



State of California - The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
PRIMARY RECORD

Primary #
HRI#
Trinomial
NRHP Status Code 6Z

Other Listings:
Review Code: Reviewer: Date:

 Resource Name or #: (assigned by recorder) 7411 Elk Grove Florin

P1. Other Identifier:

P2. Location: ☐ **Not for Publication** ■ **Unrestricted** (P2b and P2c or P2d. Attach a Location Map as necessary)

a. County: Sacramento
b. USGS 7.5' Quad: Elk Grove 7.5; Date: 1968 (PR79) T. 7N ;R. 6E ; SW ¼ of NW ¼ of Sec. 7;MD B.M.
c. Address: 7411 Elk Grove Florin City: Sacramento Zip: 95829
d. UTM: (Give more than one for large and/or linear resources) Zone: 10 ; 06 42 205 mE/; 42 59 640 mN
e. Other Locational Data: (e.g. parcel #, directions to resource, elevation, etc., as appropriate)
APN 065-0080-001

P3a. Description: (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries)
7411 Elk Grove Florin is a pyramidal roofed Craftsman Bungalow. It is well maintained and looks newer than the 1915 date given by the Assessor, but a tin stove pipe visible at the roof peak indicates that this is probably an accurate date. The front of the house includes an almost full-width porch under a gabled roof. The eaves of this roof are now closed, but this appears to be a later modification, as the rest of the styling is clearly Craftsman. Another addition is the stick work on angle braces that decorates the front gable end. Trhis seems too elaborate for the era and is not entirely in keeping with the architectural style. Other additions are minor (metal porch railings) or standard maintenance items (new roof).

P3b. Resource Attributes: (List attributes and codes) HP-2, Single Family Property

P4. Resources Present: ■ Building ☐ Structure ☐ Object ☐ Site ☐ District ☐ Element of a District ☐ Other (Isolates etc.)

P5b. Description of Photo: (View, date, accession #)
1/14/06 Looking northwest

P6. Date Construction/Age and Sources: Historic ■ Prehistoric ☐ Both ☐

P7. Owner and Address:

P8. Recorded By: (Name, affiliation, and address)
Robert Gerry
Peak & Associates, Inc.
3941 Park Drive, Suite 20, #329
El Dorado Hills, CA 95762

P9. Date Recorded:
1/14/06

P10. Survey Type: (Describe)
Complete, Project Related

P11. Report Citation: (Cite Survey report and other resources, or enter "none") Determination of Eligibility and Effect For Participating Properties Within The Florin Vineyard Gap Community Plan Project Area, County of Sacramento, California. Peak & Associates, Inc. 2007

ATTACHMENTS: ☐ NONE ■ Location Map ☐ Sketch Map ☐ Continuation Sheet ■ Building, Structure, and Object Record ☐ Archaeological Record ☐ District Record ☐ Linear Feature Record ☐ Milling Station Record ☐ Rock Art Record ☐ Artifact Record ☐ Photograph Record ☐ Other:

State of California - The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
BUILDING, STRUCTURE, AND OBJECT RECORD

Primary #: _____
HRI #: _____

Page 2 of 3 ***NRHP Status Code:** 6Z Resource Name or #: (assigned by recorder) 7411 Elk Grove Florin

B1. Historic Name: _____
B2. Common Name: _____
B3. Original Use: Residence B4. Present Use: Residence
B5. Architectural Style: Craftsman
B6. Construction History: (Construction date, alterations, and date of alterations.)
Constructed about 1915 per County Assessor's office

B7. Moved? ☒ No ☐ Yes ☐ Unknown Date: _____ Original Location: _____
B8. Related Features: None

B9a. Architect: _____ b. Builder: _____
B10. Significance: Theme _____ **Area** _____
Period of Significance _____ **Property Type** _____ **Applicable Criteria** _____
(Discuss importance in terms of historical or architectural context as defined by theme, period, and geographic scope. Also address integrity.)

This residence is not associated with important events in local or State history [NRHP criterion a; CRHR criterion B (1)]. This is one of many areas in Sacramento County supported by small farms. There is no close by community or other social-defining mechanism for the region. The area has remained rural until recently, with a scattering of residences and farms.

Land ownership maps through 1923 for the County were reviewed, and names on building records checked. There are no associations with people important in State or local history [NRHP criterion b; CRHR criterion B (2)]. The residents were apparently small farmers, unassociated with anyone of social prominence or historical importance.

This small residence has seen too many modificationsto be a good example of the architectural style. It cannot be said that this building "embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values" [NRHP criterion c; CRHR criterion B (3)].

In consideration of the ability of this building or its immediate surroundings yield information important in history through archeological means, it should be noted that farm practices limit the possibilities of finding subsurface materials. The farms were more or less subsistence farms in the earlier period. They were at a great distance from any commercial establishment. Manufactured items would have been costly and time-consuming to acquire. As a result, most farms tended to reuse manufactured items such as glass containers, fabric, metal implements, and milled lumber. Other waste was burned on site, resulting in a lack of subsurface features that might be useful in defining early lifeways. Also, there is little to be learned from archeological excavations of essentially modern era properties, even in the unlikely event that such deposits exist. We do not believe that the residence is significant for its archeological values [NRHP criterion d; CRHR criterion B (4)].

B11. Additional Resource Attributes: (List attributes and codes) None

B12. References:

B13. Remarks:

B14. Evaluator: R. Gerry, Peak & Associates, Inc.

Date of Evaluation: June 2007

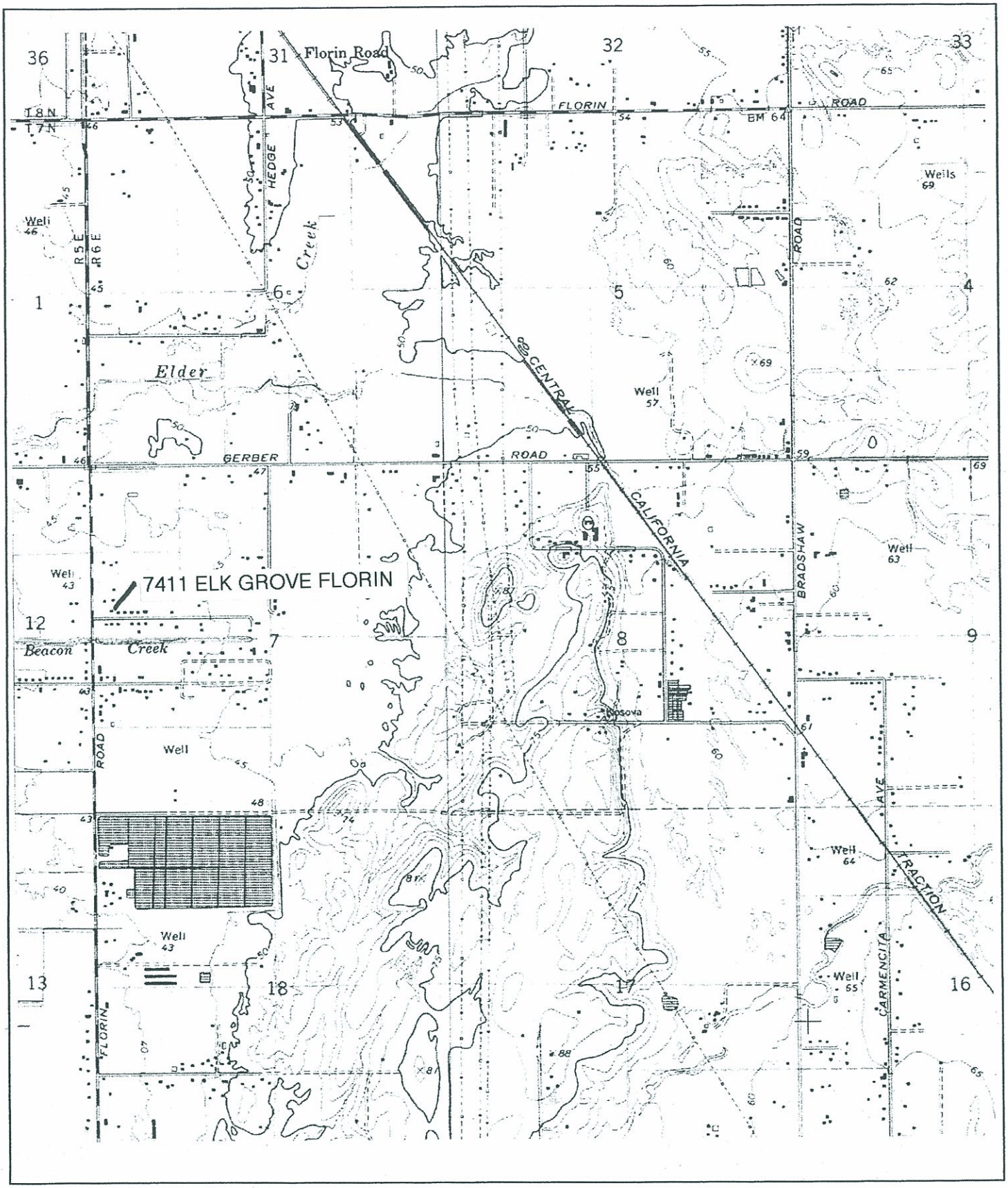
See Attached Sketch Map

This space reserved for official comments.

State of California - The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
LOCATION MAP

Primary #:
HRI #:
Trinomial:

Page 3 of 3 **Resource Name or #:** (assigned by recorder) 7411 ELK GROVE FLORIN
Map Name: Elk Grove 7.5' **Scale:** 1 : 24,000 **Date of Map:** 1968 (PR79)



State of California - The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
PRIMARY RECORD

Primary #
HRI#
Trinomial
NRHP Status Code 6Z

Other Listings:
Review Code: Reviewer: Date:

 Resource Name or #: (assigned by recorder) 7291 Elk Grove-Florin

P1. Other Identifier:

P2. Location: ☐ **Not for Publication** ☒ **Unrestricted** (P2b and P2c or P2d. Attach a Location Map as necessary)

a. County: Sacramento
b. USGS 7.5' Quad:Elk Grove Date: 1968 (PR79) T. 7N ;R. 6E ; NW ¼ of NW ¼ of Sec. 6 ; MD B.M.
c. Address: 7291 Elk Grove-Florin Road City: Sacramento Zip: 95829
d. UTM: (Give more than one for large and/or linear resources) Zone: 10 ; 06 42 250 mE/; 42 61 580 mN
e. Other Locational Data: (e.g. parcel #, directions to resource, elevation, etc., as appropriate)
APN 065-0051-045

P3a. Description: (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries)
There was a residence and barn at this location according to the USGS map, but they have been razed. Now there is only a concrete slab, probably indicating the house location, and a flattened area with concrete footings that probably indicates the barn. The two are connected by a concrete sidewalk. The area was burned over by a recent grass fire, but the structures were already removed by that time.

P3b. Resource Attributes: (List attributes and codes) HP-2, Single Family property

P4. Resources Present: ☐ Building ☐ Structure ☐ Object ☒ Site ☐ District ☐ Element of a District ☐ Other (Isolates etc.)

P5b. Description of Photo: (View, date, accession #)
10/12/07 looking east at the site area from Elk Grove-Florin Road near a driving range.

P6. Date Construction/Age and Sources:
Historic ☒
Prehistoric ☐ Both ☐

P7. Owner and Address:

P8. Recorded By: (Name, affiliation, and address)
Ann Peak
Peak & Associates, Inc.
3941 Park Drive, Suite 20, #329
El Dorado Hills, CA 95762

P9. Date Recorded:
1/21/06

P10. Survey Type: (Describe)
Complete, Project Related

P11. Report Citation: (Cite Survey report and other resources, or enter "none") Cultural Resources Assessment of the Florin Vineyard Project, Sacramento county, California. Peak & Associates 2004.

ATTACHMENTS: ☐ NONE ☒ Location Map ☐ Sketch Map ☐ Continuation Sheet ☐ Building, Structure, and Object Record ☒ Archaeological Record ☐ District Record ☐ Linear Feature Record ☐ Milling Station Record ☐ Rock Art Record ☐ Artifact Record ☐ Photograph Record ☐ Other:

State of California - The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
ARCHAEOLOGICAL SITE RECORD

Primary #: _____
HRI #: _____
Trinomial: _____

 ***NRHP Status Code:** 6Z Resource Name or #: (assigned by recorder) 7291 Elk Grove-Florin

A1. Dimensions: **a. Length** 170 feet (E-W) **X b. Width** 130 feet (NS)
Method of Determination: ☒ Paced ☐ Taped ☐ Visual estimate ☐ Other: _____
Method of Determination: (Check any that apply) ☐ Artifacts ☒ Features ☐ Soil ☐ Vegetation ☐ Topography
☐ Cut Bank ☐ Animal Burrow ☐ Excavation ☐ Property Boundary ☐ Other (Explain): _

Reliability of Determination: ☐ High ☐ Medium ☒ Low ☐ Explain:
Includes artifacts scattered around the features and, after a grass fire, there is very little evidence of what the original extent may have been.

Limitations (Check any that apply): ☐ Restricted access ☐ Paved/built over ☐ Site limits incompletely defined
☒ Disturbances ☐ Vegetation ☒ Other (Explain): Fire

A2. Depth: _____ ☒ None ☐Unknown Method of Determination: __

A3. Human Remains: ☐ Present ☒ Absent ☐ Possible ☐ Unknown (Explain): _____

A4. Features: (Number, briefly describe, indicate size, list associated cultural constituents, and show location of each feature on sketch map):
Concrete slab and flat area representing house and barn, respectively.

A5. Cultural Constituents (Describe and quantify artifacts, ecofacts, cultural residues, etc., not associated with features):
All artifacts still in the area are modern, including scores of golf balls from the driving range next door.

A6. Were Specimens Collected? ☒ No ☐ Yes (If yes, attach Artifact Record or catalog and identify where specimens are curated):

A7. Site Condition ☐ Good ☐ Fair ☒ Poor (Describe disturbances):
Buildings removed, few artifacts, all recent

A8. Nearest Water (Type, distance, and direction):
Elder Creek 1/4 mile SE

A9. Elevation: 45 feet

A10. Environmental Setting (Describe culturally relevant variables such as vegetation, fauna, soils, geology, landform, slope, aspect, exposure, etc.):
Farmland surrounds site

A11. Historical Information:

A12. Age: ☐ Prehistoric ☐ Protohistoric ☐ 1542-1769 ☐ 1769-1848 ☐ 1848-1880 ☐ 1880-1914 ☒ 1914-1945
☐ Post 1945 ☐ Undetermined **Describe position in regional prehistoric chronology or factual historic dates if known:**
Guess date, the Assessor's building record has no information. Earlier than 1968 since it appears on the USGS map.

A13. Interpretations (Discuss data potential, functions, ethnic affiliation, and other interpretations):
Another small family farm like most other properties in the area.

A14. Remarks:

A15. References (Documents, informants, maps, and other references):

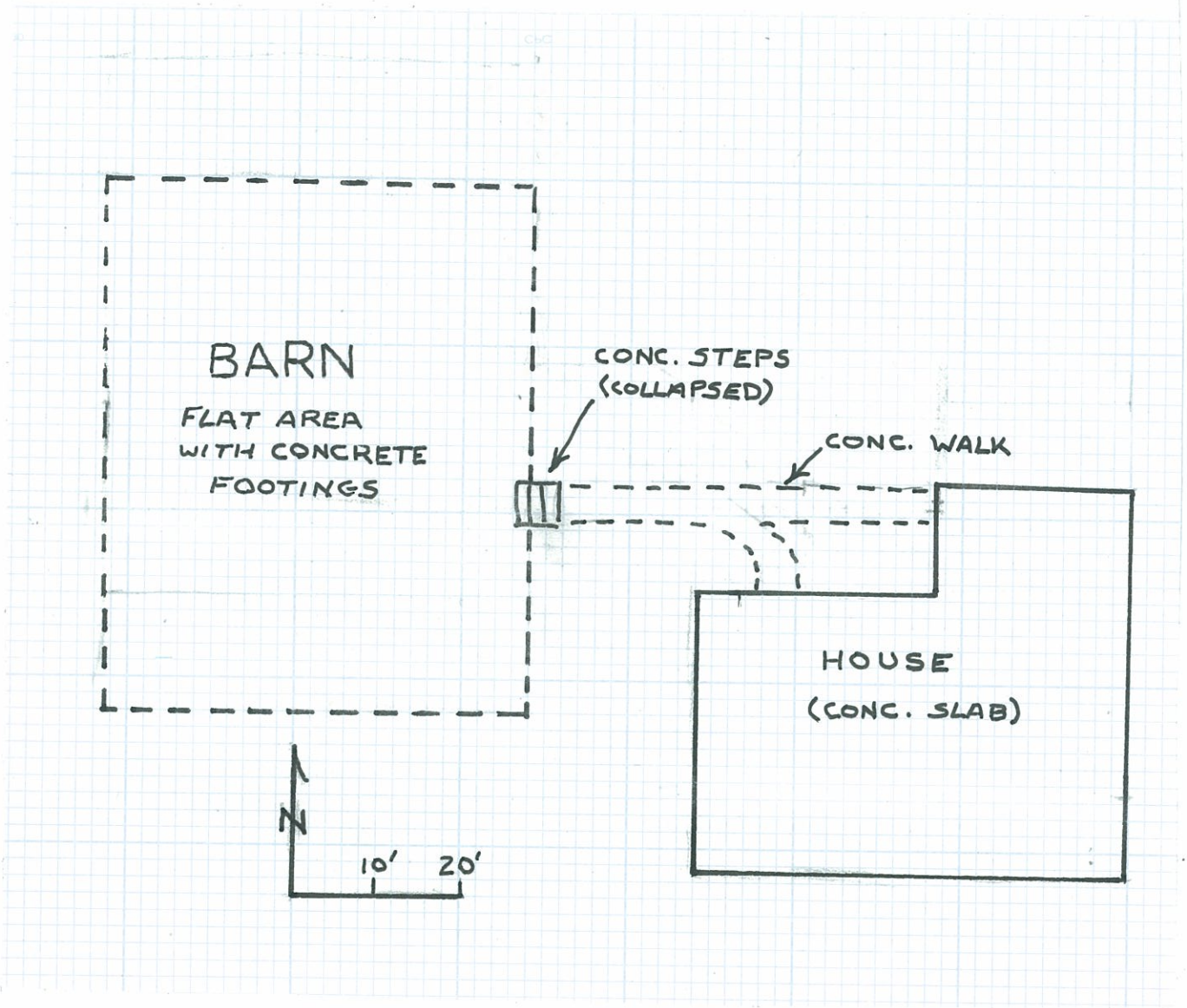
A16. Photographs (List subjects, direction of view, and accession numbers or attach a Photograph Record)
Original Media/Negative Kept at: Peak & Associates, Inc.

A17. Form Prepared by: R. Gerry **Date:** 3/2/07
Affiliation and Address: Peak & Associates, Inc., 3941 Park Drive, Suite 20-329, El Dorado Hills, CA 95762

State of California - The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
SKETCH MAP

Primary #: _____
HRI #: _____
Trinomial: _____

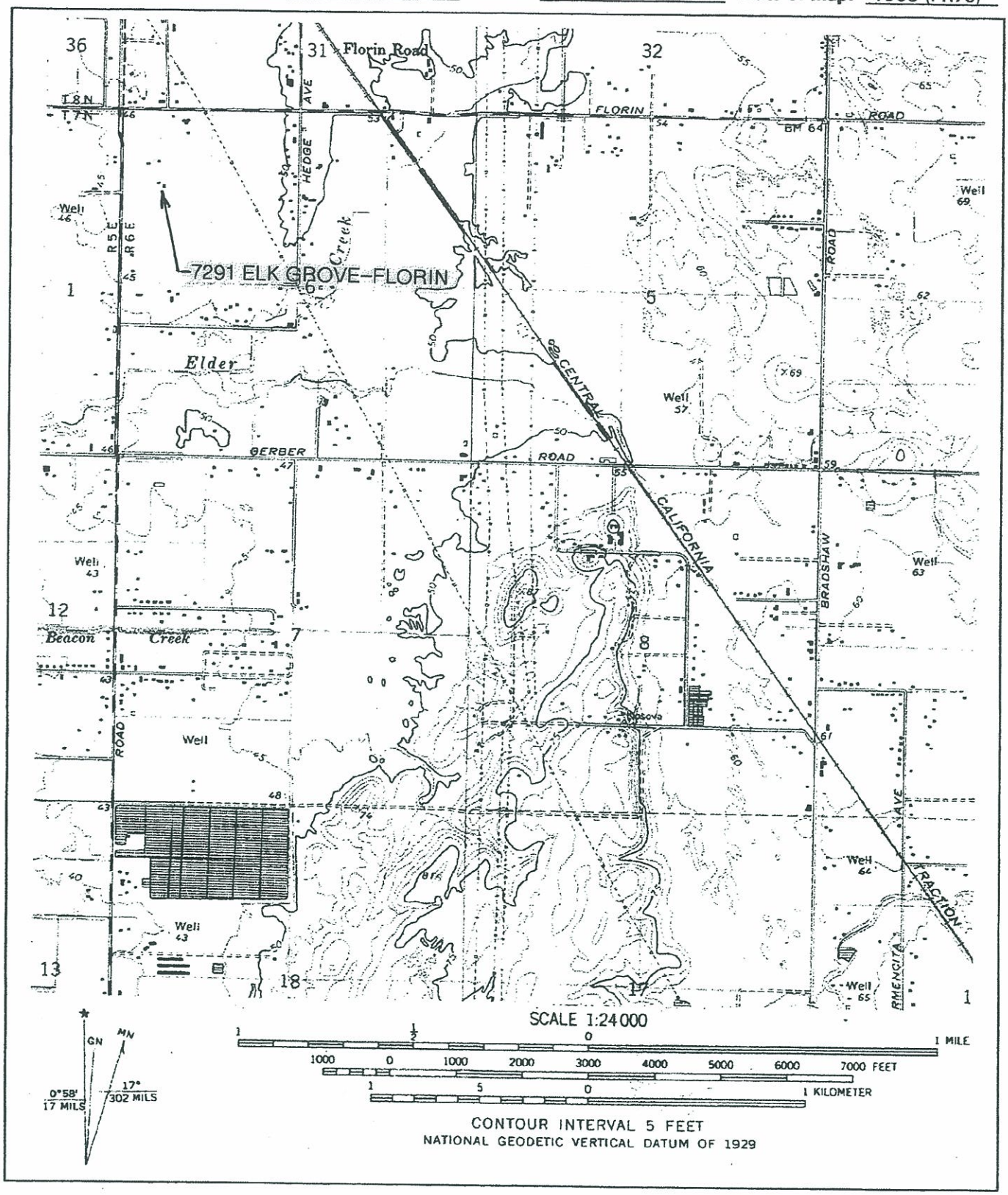
Page 3 of 4 **Resource Name or #:** (assigned by recorder) 7291 Elk Grove Florin
Drawn By: Gerry **Scale:** 1" = 20' **Date of Map:** 1/21/06



State of California - The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
LOCATION MAP

Primary #:
HRI #:
Trinomial:

Page 4 of 4 **Resource Name or #:** (assigned by recorder) 7291 ELK GROVE-FLORIN
Map Name: Elk Grove **Scale:** 1:24,000 **Date of Map:** 1968 (PR79)



State of California - The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
PRIMARY RECORD

Primary #
HRI#
Trinomial
NRHP Status Code 6Z

Other Listings:
Review Code: Reviewer: Date:

 Resource Name or #: (assigned by recorder) 7371 Elk Grove-Florin

P1. Other Identifier:

P2. Location: ☐ **Not for Publication** ☒ **Unrestricted** (P2b and P2c or P2d. Attach a Location Map as necessary)

a. County: Sacramento
b. USGS 7.5' Quad:Elk Grove Date: 1968 (PR79) T. 7N ;R. 6E ; SW ¼ of NW ¼ of Sec. 6 ; MD B.M.
c. Address: 7371 Elk Grove-Florin Road City: Sacramento Zip: 95829
d. UTM: (Give more than one for large and/or linear resources) Zone: 10 ; 06 42 120 mE/; 42 61 260 mN
e. Other Locational Data: (e.g. parcel #, directions to resource, elevation, etc., as appropriate)
APN 065-0051-032

P3a. Description: (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries)
There was a residence at this location according to the USGS map, but it has been razed. Now there is only a concrete slab, concrete entry pillars and decorative work, also in concrete, at the front (west) of the former house. There is no sign of the structure other than the slab.

P3b. Resource Attributes: (List attributes and codes) HP-2, Single Family property

P4. Resources Present: ☐ Building ☐ Structure ☐ Object ☒ Site ☐ District ☐ Element of a District ☐ Other (Isolates etc.)

P5b. Description of Photo: (View, date, accession #)
10/12/07 looking east at the site area from Elk Grove-Florin Road.

P6. Date Construction/Age and Sources: Historic ☒ Prehistoric ☐ Both ☐

P7. Owner and Address:

P8. Recorded By: (Name, affiliation, and address)
Ann Peak
Peak & Associates, Inc.
3941 Park Drive, Suite 20, #329
El Dorado Hills, CA 95762

P9. Date Recorded:
1/21/06

P10. Survey Type: (Describe)
Complete, Project Related

P11. Report Citation: (Cite Survey report and other resources, or enter "none") Cultural Resources Assessment of the Florin Vineyard Project, Sacramento county, California. Peak & Associates 2004.

ATTACHMENTS: ☐ NONE ☒ Location Map ☐ Sketch Map ☐ Continuation Sheet ☐ Building, Structure, and Object Record ☒ Archaeological Record ☐ District Record ☐ Linear Feature Record ☐ Milling Station Record ☐ Rock Art Record ☐ Artifact Record ☐ Photograph Record ☐ Other:

State of California - The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
ARCHAEOLOGICAL SITE RECORD

Primary #: _____
HRI #: _____
Trinomial: _____

 ***NRHP Status Code:** 6Z Resource Name or #: (assigned by recorder) 7371 Elk Grove-Florin

A1. Dimensions: **a. Length** 140 feet (E-W) **X b. Width** 80 feet (NS)
Method of Determination: ☒ Paced ☐ Taped ☐ Visual estimate ☐ Other: _____
Method of Determination: (Check any that apply) ☐ Artifacts ☒ Features ☐ Soil ☐ Vegetation ☐ Topography
☐ Cut Bank ☐ Animal Burrow ☐ Excavation ☐ Property Boundary ☐ Other (Explain): _

Reliability of Determination: ☐ High ☒ Medium ☐ Low ☐ Explain:
Includes the few artifacts artifacts scattered around the slab. The residence and surrounding features may have been larger at one time, but removal of the structures was very thorough.

Limitations (Check any that apply): ☐ Restricted access ☐ Paved/built over ☐ Site limits incompletely defined
☒ Disturbances ☐ Vegetation ☐ Other (Explain): _____

A2. Depth: _____ ☒ None ☐Unknown Method of Determination: __

A3. Human Remains: ☐ Present ☒ Absent ☐ Possible ☐ Unknown (Explain): _____

A4. Features: (Number, briefly describe, indicate size, list associated cultural constituents, and show location of each feature on sketch map):
Concrete slab and two entry posts.

A5. Cultural Constituents (Describe and quantify artifacts, ecofacts, cultural residues, etc., not associated with features):
All artifacts still in the area are modern, including PVC pipe, window pane fragments, concrete fragments.

A6. Were Specimens Collected? ☒ No ☐ Yes (If yes, attach Artifact Record or catalog and identify where specimens are curated):

A7. Site Condition ☐ Good ☐ Fair ☒ Poor (Describe disturbances):
Buildings removed, few artifacts, all recent

A8. Nearest Water (Type, distance, and direction):
Elder Creek 1/4 mile SE

A9. Elevation: 45 feet

A10. Environmental Setting (Describe culturally relevant variables such as vegetation, fauna, soils, geology, landform, slope, aspect, exposure, etc.):
Farmland surrounds site

A11. Historical Information:

A12. Age: ☐ Prehistoric ☐ Protohistoric ☐ 1542-1769 ☐ 1769-1848 ☐ 1848-1880 ☐ 1880-1914 ☒ 1914-1945
☐ Post 1945 ☐ Undetermined **Describe position in regional prehistoric chronology or factual historic dates if known:**
Guess date, the Assessor's building record has no information (the printout reads: Effective Year Built: 1111).. Earlier than 1968 since it appears on the USGS map.

A13. Interpretations (Discuss data potential, functions, ethnic affiliation, and other interpretations):
Another small family farm like most other properties in the area.

A14. Remarks:

A15. References (Documents, informants, maps, and other references):

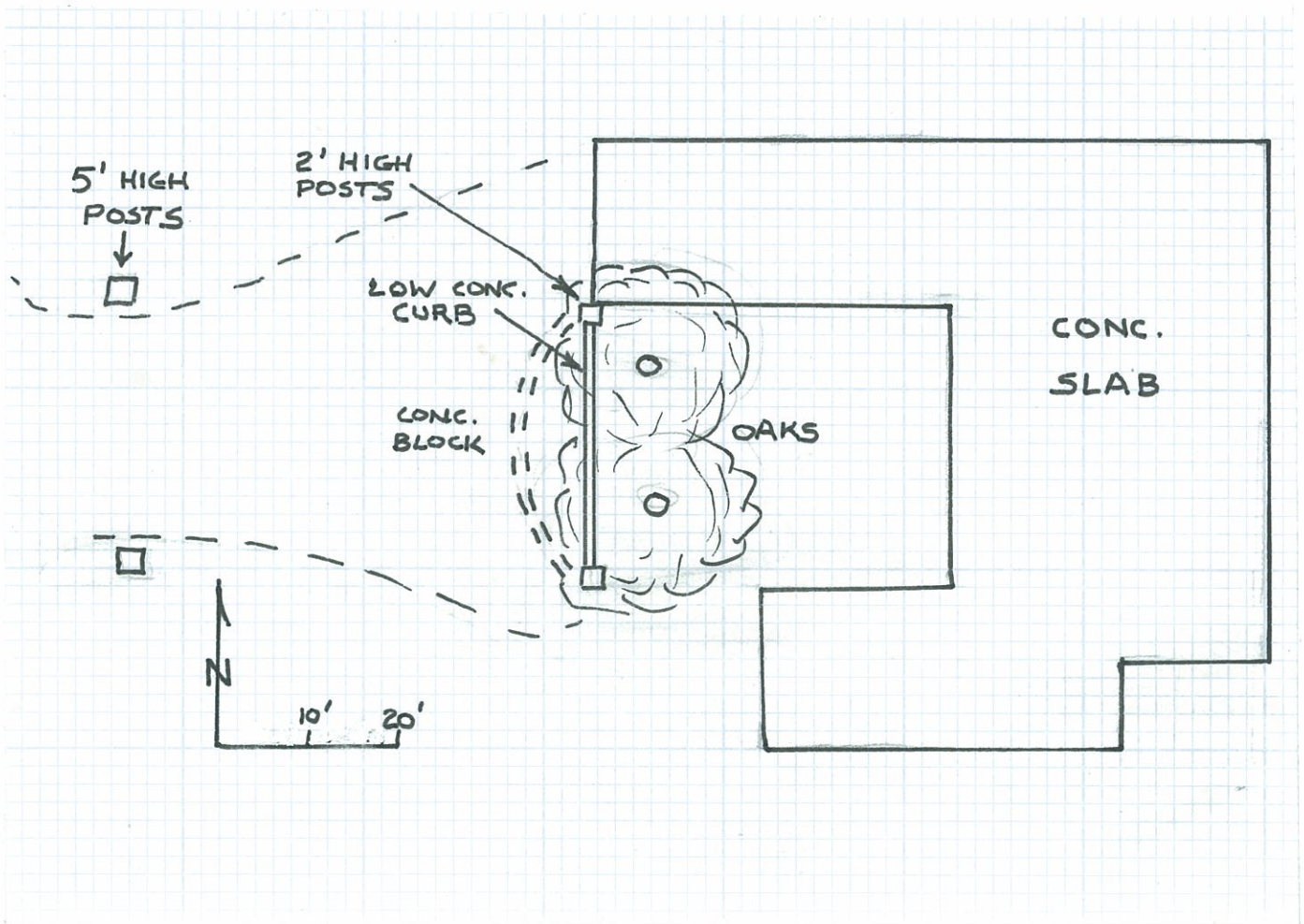
A16. Photographs (List subjects, direction of view, and accession numbers or attach a Photograph Record)
Original Media/Negative Kept at: Peak & Associates, Inc.

A17. Form Prepared by: R. Gerry **Date:** 3/2/07
Affiliation and Address: Peak & Associates, Inc., 3941 Park Drive, Suite 20-329, El Dorado Hills, CA 95762

State of California - The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
SKETCH MAP

Primary #:
HRI #:
Trinomial:

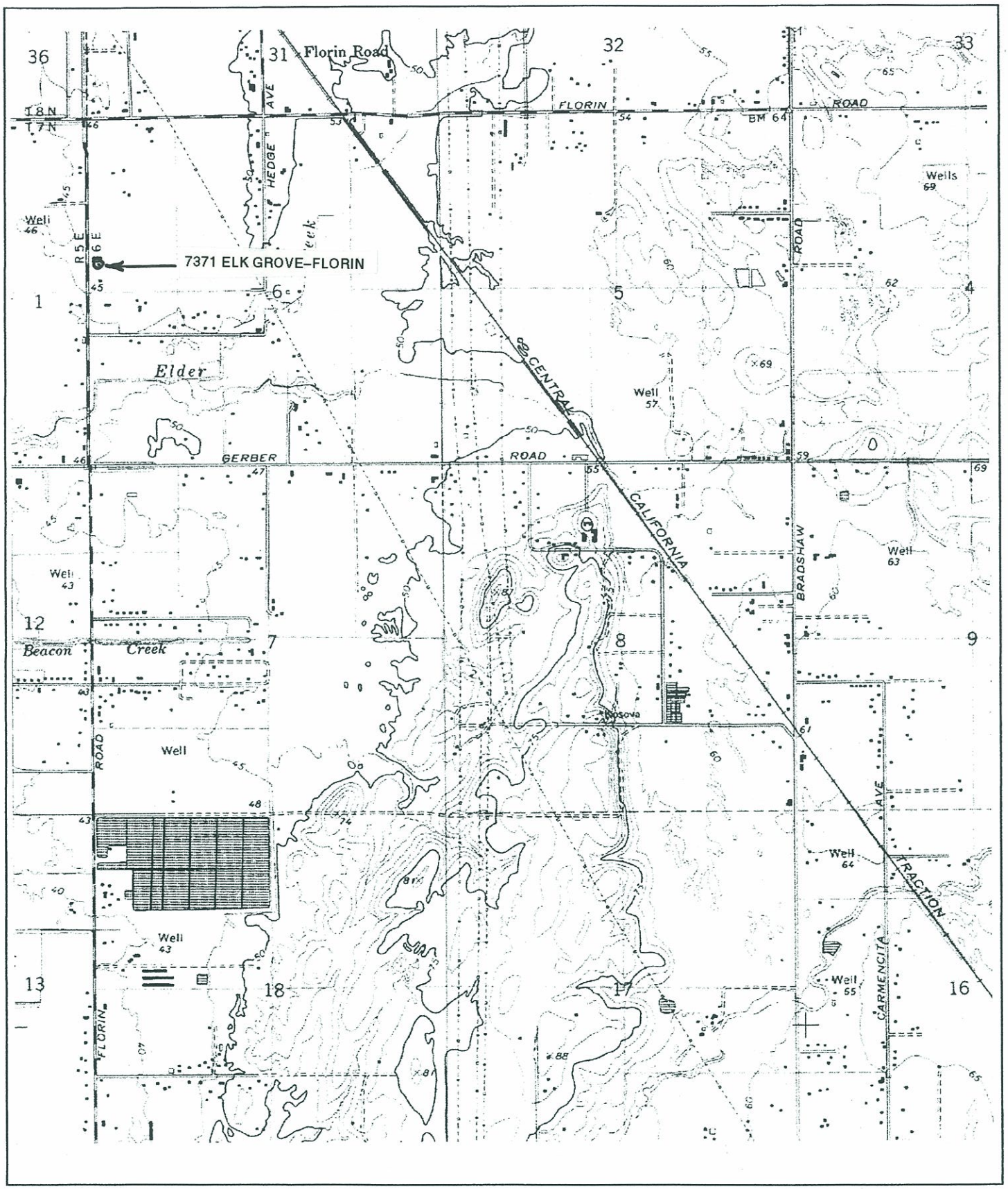
Page 3 of 4 **Resource Name or #:** (assigned by recorder) 7371 Elk Grove Florin
Drawn By: Gerry **Scale:** 1" = 20' **Date of Map:** 10/12/07



State of California - The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
LOCATION MAP

Primary #: _____
HRI #: _____
Trinomial: _____

Page 4 of 4 **Resource Name or #:** (assigned by recorder) 7371 ELK GROVE–FLORIN
Map Name: Elk Grove 7.5' **Scale:** 1 : 24,000 **Date of Map:** 1968 (PR79)



State of California - The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
PRIMARY RECORD

Primary #
HRI#
Trinomial
NRHP Status Code 6Z

Other Listings:
Review Code: Reviewer: Date:

 Resource Name or #: (assigned by recorder) 7001 Bandy Lane

P1. Other Identifier:

P2. Location: ☐ **Not for Publication** ☒ **Unrestricted** (P2b and P2c or P2d. Attach a Location Map as necessary)

a. County: Sacramento
b. USGS 7.5' Quad: Elk Grove Date: 1968 (PR79) T. 8N ;R. 6E ; SW ¼ of SW ¼ of Sec. 31 ; MD B.M.
c. Address: 7001 Bandy Lane City: Sacramento Zip: 95829
d. UTM: (Give more than one for large and/or linear resources) Zone: 10 ; 06 42 288 mE/; 42 62 309 mN
e. Other Locational Data: (e.g. parcel #, directions to resource, elevation, etc., as appropriate)
APN 064-0080-017

P3a. Description: (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries)
The residence at this location is a simple side gabled Minimal Traditional house with a slight extension of the roof line to cover a narrow, centered entry porch of concrete with thin metal posts supporting the roof. The house is one story with a moderately pitched roof covered in rolled composite material. The siding was originally stucco, but the front (west elevation) is now covered in faux brick. A garage, originally detached but now connected by a flat roof, sits south of the house. The Assessor's building record gives a date of 1959 for the structure, but this may be a bit young.

P3b. Resource Attributes: (List attributes and codes) HP-2; Single family property

P4. Resources Present: ☒ Building ☐ Structure ☐ Object ☐ Site ☐ District ☐ Element of a District ☐ Other (Isolates etc.)

P5b. Description of Photo: (View, date, accession #) 1/2/07 Looking northeast at front (west elevation). Florin Vineyard Roll G4, Frame 1

P6. Date Construction/Age and Sources: Historic ☒ Prehistoric ☐ Both ☐
See P3a

P7. Owner and Address:

P8. Recorded By: (Name, affiliation, and address)
Ann Peak/Robert Gerry
Peak & Associates, Inc.
3941 Park Drive, Suite 20, #329
El Dorado Hills, CA 95762

P9. Date Recorded:
1/2/07

P10. Survey Type: (Describe)
Complete, project related

P11. Report Citation: (Cite Survey report and other resources, or enter "none") Determination of Eligibility and Effect for Participating Properties Within the Florin Vineyard Gap Community Plan Project Area County of Sacramento, California. Peak & Associates 2007

ATTACHMENTS: ☐ NONE ☒ Location Map ☐ Sketch Map ☐ Continuation Sheet ☒ Building, Structure, and Object Record ☐ Archaeological Record ☐ District Record ☐ Linear Feature Record ☐ Milling Station Record ☐ Rock Art Record ☐ Artifact Record ☐ Photograph Record ☐ Other:

State of California - The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
BUILDING, STRUCTURE, AND OBJECT RECORD

Primary #: _____
HRI #: _____

Page 2 of 3 ***NRHP Status Code:** 6Z Resource Name or #: (assigned by recorder) 7001 Bandy Lane

B1. Historic Name: _____
B2. Common Name: _____
B3. Original Use: Residence B4. Present Use: Residence
B5. Architectural Style: Minimal Traditional
B6. Construction History: (Construction date, alterations, and date of alterations.)
The building record date of 1959 may be a bit too young, but it is in the neighborhood. The roof connecting the residence and garage is clearly a later addition, but the date is unknown. The garage appears to post-date the house as well.

B7. Moved? ☒ No ☐ Yes ☐ Unknown Date: _____ Original Location: _____
B8. Related Features:

B9a. Architect: Unknown b. Builder: Unknown
B10. Significance: Theme Not significant **Area** _____
Period of Significance _____ **Property Type** _____ **Applicable Criteria** _____
(Discuss importance in terms of historical or architectural context as defined by theme, period, and geographic scope. Also address integrity.)

This residence is not associated with important events in local or State history [NRHP criterion a; CRHR criterion B (1)]. This is one of many areas in Sacramento County supported by small farms. There is no close by community or other social-defining mechanism for the region. The area has remained rural until recently, with a scattering of residences and farms.

Land ownership maps through 1923 for the County were reviewed, and names on building records checked. There are no associations with people important in State or local history [NRHP criterion b; CRHR criterion B (2)]. The residents were apparently small farmers, unassociated with anyone of social prominence or historical importance.

This small, plain residence is not a particularly good example of its architectural style and it may be to young to qualify for the NRHP. It cannot be said that this building "embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values" [NRHP criterion c; CRHR criterion B (3)].

In consideration of the ability of this building or its immediate surroundings yield information important in history through archeological means, it should be noted that farm practices limit the possibilities of finding subsurface materials. The farms were more or less subsistence farms in the earlier period. They were at a great distance from any commercial establishment. Manufactured items would have been costly and time-consuming to acquire. As a result, most farms tended to reuse manufactured items such as glass containers, fabric, metal implements, and milled lumber. Other waste was burned on site, resulting in a lack of subsurface features that might be useful in defining early lifeways. Also, there is little to be learned from archeological excavations of essentially modern era properties, even in the unlikely event that such deposits exist. We do not believe that the residence is significant for its archeological values [NRHP criterion d; CRHR criterion B (4)].

B11. Additional Resource Attributes: (List attributes and codes) _____

B12. References:

B13. Remarks:

B14. Evaluator: M. Peak, Peak & Associates, Inc.

Date of Evaluation: June 2006

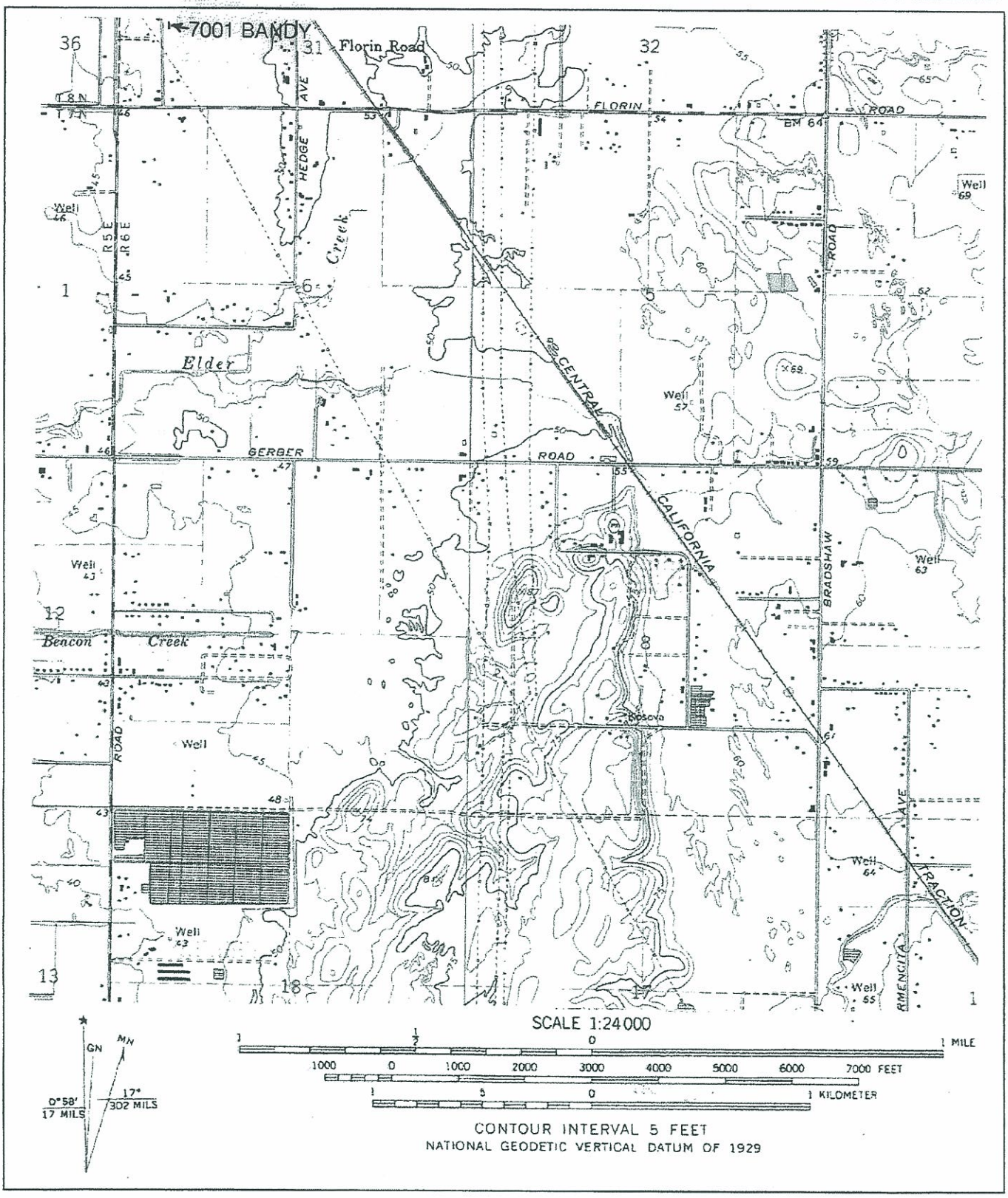
See attached location map

This space reserved for official comments.

State of California - The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
LOCATION MAP

Primary #:
HRI #:
Trinomial:

Page 3 of 3 **Resource Name or #:** (assigned by recorder) 7001 BANDY
Map Name: Elk Grove **Scale:** 1:24,000 **Date of Map:** 1968 (PR79)



State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
PRIMARY RECORD

Primary # _____
HRI # _____
Trinomial _____
NRHP Status Code _____
Other Listings _____
Review Code _____ Reviewer _____ Date _____

Page 1 of 8 *Resource Name or #: (Assigned by recorder) Dakuzaku

P1. Other Identifier: _____

*P2...Location: ■ Not for Publication ☐ Unrestricted *a. County Sacramento

and (P2c, P2e, and P2b or P2d. Attach a Location Map as necessary.)

*b. USGS 7.5' Quad Elk Grove Date 1980 T7N; R 6E; NE ¼ of NE ¼ of Sec 7 ; MD B.M

c. Address 9282 Gerber Rd. City Florin Zip _____

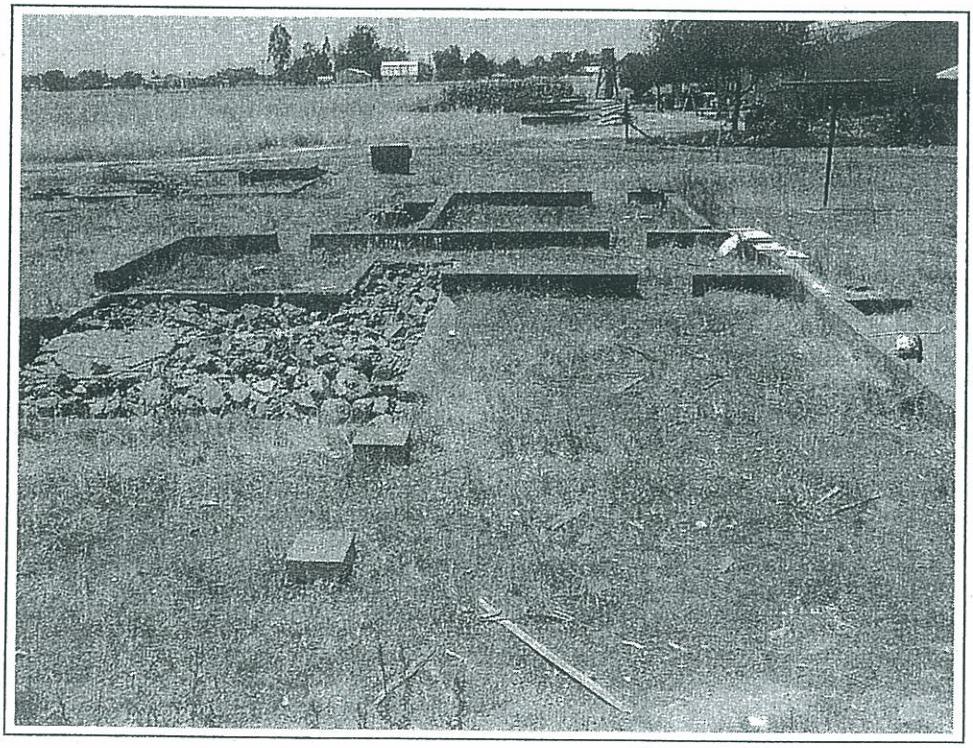
d. UTM: (Give more than one for large and/or linear resources) Zone 10, 644167mE/ 4259455mN

e. Other Locational Data: (e.g., parcel #, directions to resource, elevation, etc., as appropriate) From US 50 take the Bradshaw exit. Go south on Bradshaw for approximately 6 miles. Turn right on Gerber Road and continue for 1 mile to Admiral Lane. Turn left. Site is approximately 200 feet on the right.

*P3a. Description: (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries) The Dakuzaku property is located at 9282 Gerber Road. The project area consists of a large field, approximately 38 acres, once used for the cultivation of strawberries and grapes, as well as historic and contemporary buildings located in the north section of the property. The site consists of three features located on Admiral Lane just south of the contemporary homes and structures. Feature A is a corrugated metal barn with an associated concrete footing that is located approximately 35 feet west of the barn. The barn is a rectangular plan, one-story, wood framed building measuring 36.5 by 49 feet. It has a medium pitch corrugated metal roof. Both gable ends are covered with corrugated metal siding and have wood louvered vents installed. The exterior is covered with corrugated metal siding. The west elevation has a centrally positioned large sliding metal door measuring 9 by 12 feet. See Continuation Sheet.

*P3b. Resource Attributes: (List attributes and codes) AH2 (Foundations); HP4 (Ancillary Bldg.); AH6 (Water Conveyance).

*P4. Resources Present: ■ Building ■ Structure ☐ Object ■ Site ☐ District ☐ Element of District ☐ Other (Isolates, etc.)



P5b. Description of Photo: (View, date, accession #) Overview of Feature B, Facing west, July 1, 2004, # 1:20

*P6. Date Constructed/Age and Source: 1930-1947 ■ Historic ☐ Prehistoric ☐ Both 1930-1947 (2004 Pers. Comm. G. Dakuzaku).

*P7. Owner and Address: George Dakuzaku 9282 Gerber Rd. Sacramento, CA

*P8. Recorded by: (Name, affiliation, and address) K. Todd, T. Pitsenberger, Pacific Legacy, Inc., 3081 Alhambra Drive,Ste. 208, Cameron Park, CA 95682

*P9. Date Recorded: 7-1-04

*P10. Survey Type: (Describe): Intensive

*P11. Report Citation: (Cite survey report and other sources, or enter "none.") T. Pitsenberger & T. Fernandez, Cultural Resources Inventory and Evaluation Dakuzaku Property, Sacramento County, August 2004.

*Attachments: ☐ NONE ■ Location Map ■ Sketch Map ■ Continuation Sheet ■ Building, Structure, and Object Record ☐ Archaeological Record ☐ District Record ☐ Linear Feature Record ☐ Milling Station Record ☐ Rock Art Record ☐ Artifact Record ■ Photograph Record ☐ Other (List): _____

State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
Primary# _____
HRI# _____

BUILDING, STRUCTURE, AND OBJECT RECORD

***NRHP Status Code** _____

***Resource Name or #** (Assigned by recorder) Dakuzaku Feature A

B1. Historic Name: _____

B2. Common Name: Corrugated metal barn

B3. Original Use: Storage B4. Present Use: Storage

***B5. Architectural Style:** Storage

***B6. Construction History:** (Construction date, alterations, and date of alterations)

Barn was constructed in 1947.

***B7. Moved?** ☒No ☐Yes ☐Unknown **Date:** _____ **Original Location:** _____

***B8. Related Features:**

Concrete footings located approximately 35 feet east of barn once served as water tower foundation.

B9a. Architect: N/A b. Builder: George Dakuzaku

***B10. Significance: Theme** Agriculture **Area** Florin

Period of Significance WWII **Property Type** Farm **Applicable Criteria** N/A

(Discuss importance in terms of historical or architectural context as defined by theme, period, and geographic scope. Also address integrity.)

The Dakuzaku property does not appear to be associated with the lives of persons important to our past, nor does it appear to have the Dakuzaku property is associated with a Japanese farming family in the all-Japanese agricultural community of Florin (Taishoku). However, the historic-period physical remains on the property—the barn, concrete foundations and footings, and defunct water pump -- do not convey this historic association. The concrete foundations and footings are all that remain of the original house built by Taru Dakuzaku in the early 1930s. The Dakuzaku property does not appear to be associated with the lives of persons important to our past and the standing structures do not embody any distinctive characteristics of a type, period, region, or method of construction, nor do they represent the work of an important creative individual, or possesses high artistic values. Finally, the physical remains on the property do not appear to have the potential to yield information important to our prehistory or history. As a result, the Dakuzaku property does not appear to be eligible for listing in the CRHR or the NRHP.

B11. Additional Resource Attributes: (List attributes and codes) AH2(Foundations); HP4 (Ancillary Bldg.); AH6 (Water Conveyance).

***B12. References:** Cultural resources Inventory and Evaluation of the Dakuzaku Property, Sacramento County, California. T. Pitsenberger and T. Fernandez, August 2004.

B13. Remarks: None

***B14. Evaluator:** T. Fernandez

***Date of Evaluation:** August 4, 2004

(This space reserved for official comments.)

(Sketch Map with north arrow required.)

See Site Sketch Map

BUILDING, STRUCTURE, AND OBJECT RECORD

*NRHP Status Code _____

*Resource Name or # (Assigned by recorder) Dakuzaku Feature B

B1. Historic Name: _____

B2. Common Name: House foundation

B3. Original Use: House B4. Present Use: Destroyed

*B5. Architectural Style: N/A

*B6. Construction History: (Construction date, alterations, and date of alterations)

House was constructed in 1925 and was moved to this location in 1930. All that remains are foundations and footings which were constructed in their current location.

*B7. Moved? ☒No ☐Yes ☐Unknown Date: 1930 Original Location: _____ *B8. Related Features: _____

Concrete footings from a bath house located at the south-west corner of the homestead. Concrete footings from a metal shed are located directly north of the house foundations approximately 12 feet away.

B9a. Architect: N/A b. Builder: Taru Dakuzaku

*B10. Significance: Theme Agriculture Area Florin

Period of Significance WWII Property Type Farm Applicable Criteria N/A

(Discuss importance in terms of historical or architectural context as defined by theme, period, and geographic scope. Also address integrity.)

The Dakuzaku property does not appear to be associated with the lives of persons important to our past, nor does it appear to have the Dakuzaku property is associated with a Japanese farming family in the all-Japanese agricultural community of Florin (Taishoku). However, the historic-period physical remains on the property—the barn, concrete foundations and footings, and defunct water pump -- do not convey this historic association. The concrete foundations and footings are all that remain of the original house built by Taru Dakuzaku in the early 1930s. The Dakuzaku property does not appear to be associated with the lives of persons important to our past and the standing structures do not embody any distinctive characteristics of a type, period, region, or method of construction, nor do they represent the work of an important creative individual, or possesses high artistic values. Finally, the physical remains on the property do not appear to have the potential to yield information important to our prehistory or history. As a result, the Dakuzaku property does not appear to be eligible for listing in the CRHR or the NRHP.

B11. Additional Resource Attributes: (List attributes and codes) AH2(Foundations); HP4 (Ancillary Bldg.); AH6 (Water Conveyance).

*B12. References: Cultural resources Inventory and Evaluation of the Dakuzaku Property, Sacramento County, California. T. Pitsenberger and T. Fernandez, August 2004.

B13. Remarks: None

*B14. Evaluator: T. Fernandez

*Date of Evaluation: August 4, 2004

(Sketch Map with north arrow required.)

See Site Sketch Map

(This space reserved for official comments.)

State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
BUILDING, STRUCTURE, AND OBJECT RECORD

Primary# _____
HRI# _____

***NRHP Status Code** _____

***Resource Name or #** (Assigned by recorder) Dakuzaku Feature C

B1. Historic Name: _____

B2. Common Name: Electric "Superior" water pump and concrete stand pipe

B3. Original Use: Irrigation B4. Present Use: Non-functioning

***B5. Architectural Style:** N/A

***B6. Construction History:** (Construction date, alterations, and date of alterations)

Water pump installed in 1931.

***B7. Moved?** ☒No ☐Yes ☐Unknown **Date:** _____ **Original Location:** _____

***B8. Related Features:**

Concrete footings located approximately 35 feet east of barn once served as water tower foundation.

B9a. Architect: N/A b. Builder: N/A

***B10. Significance: Theme** Agriculture **Area** Florin

Period of Significance WWII **Property Type** Farm **Applicable Criteria** N/A

(Discuss importance in terms of historical or architectural context as defined by theme, period, and geographic scope. Also address integrity.)

The Dakuzaku property does not appear to be associated with the lives of persons important to our past, nor does it appear to have the Dakuzaku property is associated with a Japanese farming family in the all-Japanese agricultural community of Florin (Taishoku). However, the historic-period physical remains on the property—the barn, concrete foundations and footings, and defunct water pump -- do not convey this historic association. The concrete foundations and footings are all that remain of the original house built by Taru Dakuzaku in the early 1930s. The Dakuzaku property does not appear to be associated with the lives of persons important to our past and the standing structures do not embody any distinctive characteristics of a type, period, region, or method of construction, nor do they represent the work of an important creative individual, or possesses high artistic values. Finally, the physical remains on the property do not appear to have the potential to yield information important to our prehistory or history. As a result, the Dakuzaku property does not appear to be eligible for listing in the CRHR or the NRHP.

B11. Additional Resource Attributes: (List attributes and codes) AH2(Foundations); HP4 (Ancillary Bldg.); AH6 (Water Conveyance).

***B12. References:** Cultural resources Inventory and Evaluation of the Dakuzaku Property, Sacramento County, California. T. Pitsenberger and T. Fernandez, August 2004.

B13. Remarks: None

***B14. Evaluator:** T. Fernandez

***Date of Evaluation:** August 4, 2004

(Sketch Map with north arrow required.)

See Site Sketch Map

(This space reserved for official comments.)

State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
PHOTOGRAPH RECORD

Primary#
HRI#
Trinomial

Page 5 of 8 **Project Name:** Dakuzaku **Year:** 2004 **Camera Format:** Digital **Lens Size:** 35mm
Film Type and Speed: N/A **Negatives Kept at:** Pacific Legacy 3081 Alhambra Dr. Cameron Park, CA

Mo.	Day	Time	Exp./Frame	Subject/Description	View Toward	Accession #
July	1	13:30	1	Feature C, electric water pump and standpipe	N	1:01
July	1	13:30	2	Feature C, detail	NE	1:02
July	1	13:30	3	Feature C, detail	SE	1:03
July	1	13:30	4	Feature C, electric water pump and standpipe	SE	1:04
July	1	13:30	5	Feature A, corrugated metal barn with refuse	W	1:05
July	1	13:30	6	Feature A, concrete footing east of barn	W	1:06
July	1	13:30	7	Feature A, corrugated metal barn with refuse	N	1:07
July	1	13:45	8	Feature A, detail of roof line	W	1:08
July	1	13:45	9	Feature A, north door and window	S	1:09
July	1	13:45	10	Feature A, north facing door	S	1:10
July	1	13:45	11	Feature A	E	1:11
July	1	13:45	12	Feature B, overview of house foundation	NE	1:12
July	1	13:45	13	Feature B, overview of bath house foundation	E	1:13
July	1	13:45	14	Feature B, detail of sump covers	E	1:14
July	1	14:00	15	Feature B, brick detail of bath house foundation	E	1:15
July	1	14:00	16	Feature B, overview	E	1:16
July	1	14:00	17	Feature B, overview	N	1:17
July	1	14:00	18	Feature B, detail of collapsed concrete slab	N	1:18
July	1	14:00	19	Feature B, detail of steps and concrete porch	W	1:19
July	1	14:00	20	Feature B, overview	W	1:20
July	1	14:00	21	Feature B, detail of shed concrete pad	N	1:21
July	1	14:15	22	Feature B, overview with bath house foundation in distance	SW	1:22
July	1	14:15	23	Feature B, detail of porch	S	1:23
July	1	14:15	24	Dakuzaku's house and shop	NW	1:24
July	1	14:15	25	Well pump and water tower façade	W	1:25
July	1	14:15	26	Front of Dakuzaku's shop	SE	1:26
July	1	14:30	27	Front of Dakuzaku's house	SE	1:27
July	1	14:30	28	Dakuzaku's house and front yard	SW	1:28
July	1	14:30	29	Front of neighbor's house	S	1:29
July	1	14:30	30	Front of neighbor's garage	W	1:30
July	1	14:30	31	Feature B, View from Admiral Lane	W	1:31

DPR 523I (1/95)

State of California - The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

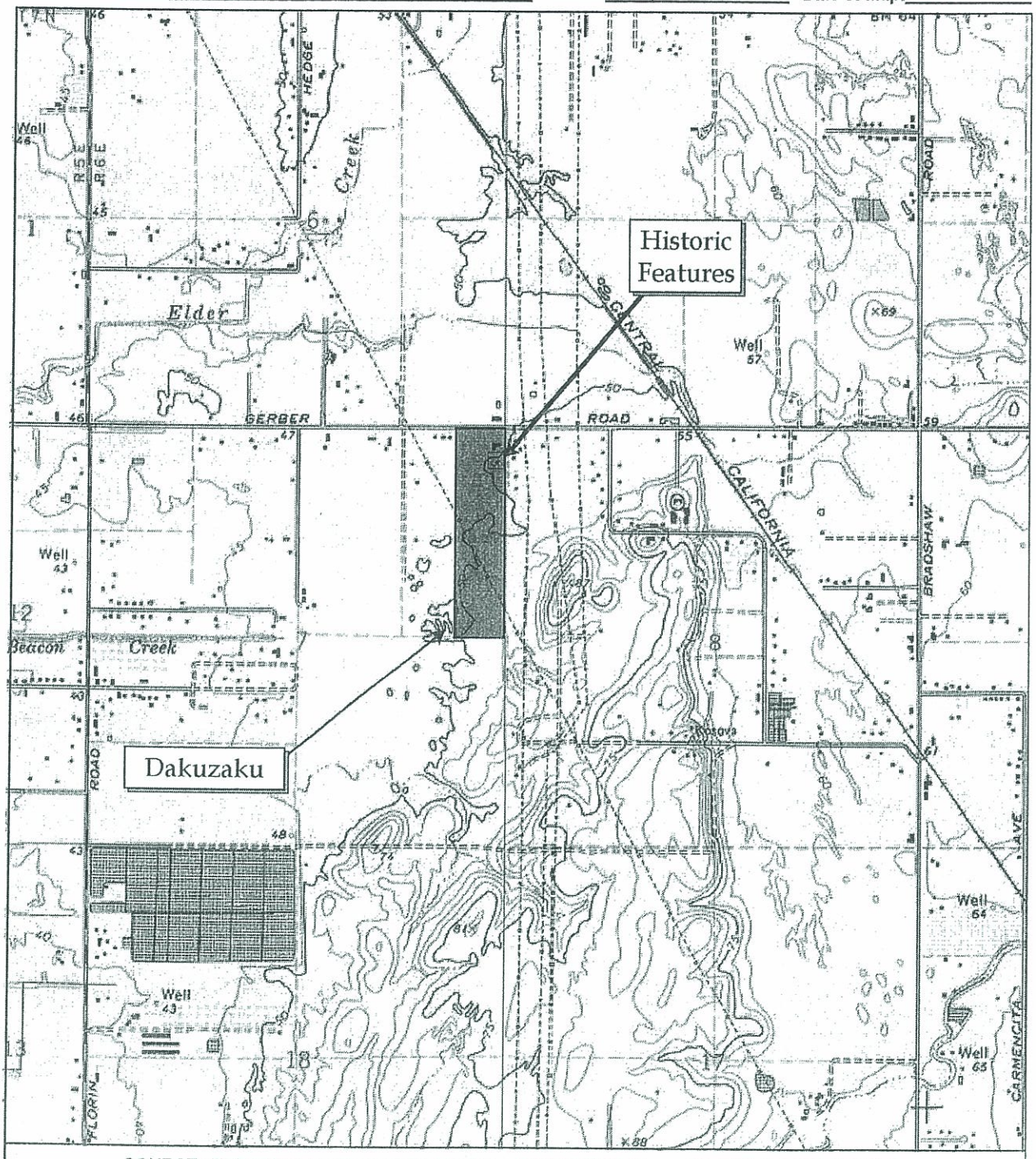
LOCATION MAP

Primary #:
HRI #:
Trinomial:

Page 6 of 8

*Resource Name or # (Assigned by recorder) Dakuzaku

*Map Name: USGS 7.5' Elk Grove, CA *Scale: 1:24,000 *Date of Map: 1979

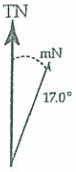


SOURCE: TOPO! National Geographic Holdings, USGS 7.5' Elk Grove, CA 1979, SCALE: 1:24,000.

QUADRANGLE LOCATION

MILES
0 0.5 1

0 0.5 1
KILOMETERS



DPR 523J (1/95)

*Required Information

State of California - The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

SKETCH MAP

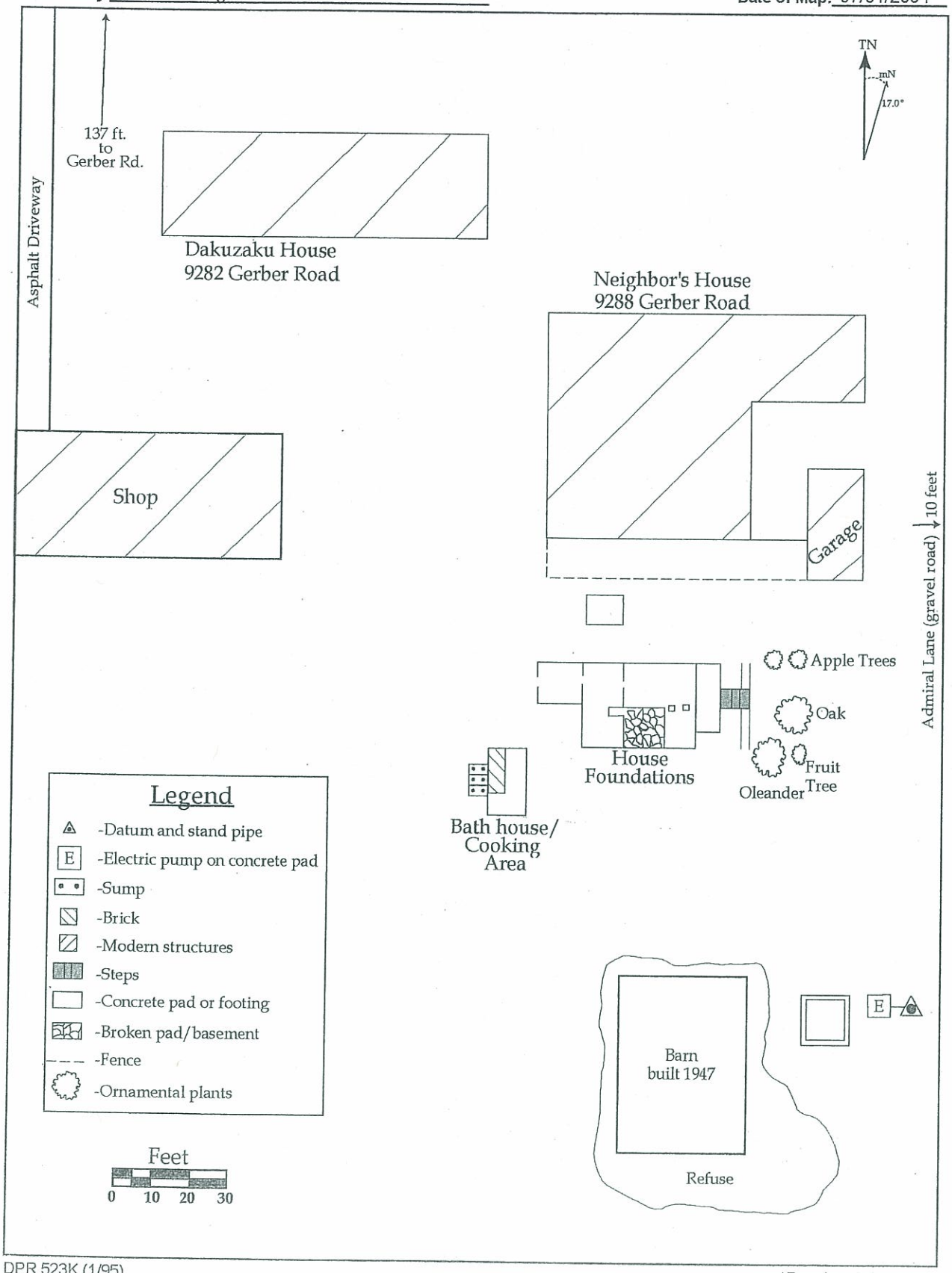
Primary #:
HRI #:
Trinomial:

Page 7 of 8

*Resource Name or # (Assigned by recorder) Dakuzaku

*Drawn By: T. Pitsenberger

*Date of Map: 07/01/2004



DPR 523K (1/95)

*Required Information

Continued from *P3a.: A wood framed window is located to the left of the sliding door. The east elevation has two large sliding metal doors each measuring 9 by 12 feet. The north elevation has a concrete stop with a wood framed door. To the right of the door, is a wood framed window. The barn is surrounded with refuse consisting of appliances, building materials, and farm equipment. The associated concrete footing measures 12 feet 4 inches by 12 feet 4 inches and has two vertical pipes measuring 1.5 inches in diameter that emerge from the south and west elevations.

Feature B consists of the concrete footings from the old house and two outbuildings. The house was built in another location in 1925 and subsequently moved to the foundations that were installed on this property in 1930. The exterior footings of the homestead measure 26 feet by 32 feet. A concrete walkway and steps lead to an elevated concrete porch facing east. One section of the house foundation contains a large collapsed concrete slab once a basement. The first of two outbuildings is located in the SW corner of the homestead and was the foundation for a cooking area and bathhouse. The cooking area/bathhouse consists of concrete footings measuring 18 ½ feet by 10 feet. There are piles of brick located within and adjacent to the bathhouse foundation. Located to the north-west of the bathhouse/cooking area are three concrete sump covers with rebar handles measuring 8 by 5. The second outbuilding measures 7 by 10 feet and is located approximately 10 feet north of the homestead. It consists of a concrete slab with metal rails affixed on three sides indicating that the foundation likely supported a metal shed. Several artifacts were found within and in close proximity to the homestead and related features. These artifacts include several transfer print ceramic sherds, white-improved earthenware sherds, a metal belt buckle, a ceramic and metal fuse, and window glass shards.

Feature C consists of an electric "Superior" water pump with a vertical concrete stand pipe. The pump was installed in 1931 to irrigate crops and is located adjacent to Admiral Lane east of Feature A. A metal water pipe, approximately 8 feet long and 6 inches in diameter, connects the pump to the concrete water pipe. There is also an electric fuse box on the ground next to the pump. The pump is no longer functioning.

State of California - The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
PRIMARY RECORD

Primary #
HRI#
Trinomial
NRHP Status Code 6Z
Other Listings:
Review Code: Reviewer: Date:

 Resource Name or #: (assigned by recorder) PA-99-070

P1. Other Identifier:

P2. Location: ☐ **Not for Publication** ☒ **Unrestricted** (P2b and P2c or P2d. Attach a Location Map as necessary)

a. County Sacramento
b. USGS 7.5' Quad: Elk Grove Date: 1968 (PR79) T. 7N ; R. 5E ; NE ¼ of NE ¼ of Sec. 1 ; MD B.M.
c. Address: City: Zip:
d. UTM: (Give more than one for large and/or linear resources) Zone: 10 ; 641960 mE/; 4261550 mN
e. Other Locational Data: (e.g.parcel #, directions to resource, elevation, etc., as appropriate)
APN 64-042-31. 1,150 feet south of Florin Road and 400 feet west of Elk Grove Florin Road.

P3a. Description: (Describe resource and it major elements. Include design, materials, condition, alterations, size, setting, and boundaries)
This site consists of the remains of residences and outbuildings at a location where historic maps indicate structures at least as early as 1910. There is nothing left now but foundations and trash, most of it recent. In fact, most of the trash in this area appears to have been dumped after the buildings were abandoned, on the basis of location and apparent age of the dumped materials.

The boundaries of the site on the east and south are defined by the base of a fence constructed by pouring a concrete curb and placing metal fence posts in the concrete. Near the southeast corner is the basement and foundations of the most recent residence on the property, since cinder block is employed in the construction. There is another foundation to the northwest, defined by a fragmentary concrete curb with plaster, that appears to represent an older and smaller residence. A concrete slab west of the newer residence is probably from a garage. West of both residences is another foundation, probably a garage for farm equipment. At the western edge of the site is an extensive area of concrete slabs and curbing that is clearly the remains of the barn.

P3b. Resource Attributes: (List attributes and codes) AH2, foundations; AH4, trash scatter, AH5, wells

P4. Resources Present: ☐ Building ☐ Structure ☐ Object ☒ Site ☐ District ☐ Element of a District ☐ Other (Isolates etc.)

P5b. Description of Photo:(View, date, accession #)
Barn remnants looking NE (Post Office in background) 11/18/99

P6. Date Construction/Age and Sources: Historic ☒ Prehistoric ☐ Both ☐

P7. Owner and Address:
Elk Grove Unified School District

P8. Recorded By:(Name, affiliation, and address)
Robert Gerry/Leland Daniels
Peak & Associates, Inc.
3941 Park Drive, Suite 20-329
El Dorado hills, CA 95762

P9. Date Recorded: 11/18/99

P10. Survey Type:(Describe)
Complete, project related

P11. Report Citation: (Cite Survey report and other resources, or enter "none") Cultural Resources Assessment for the Elk Grove Seventh High School and Future Middle School, Sacramento County, California. Peak & Associates, Inc., 1999.

ATTACHMENTS: ☐ NONE ☒ Location Map ☒ Sketch Map ☐ Continuation Sheet ☐ Building, Structure, and Object Record
☒ Archaeological Record ☐ District Record ☐ Linear Feature Record ☐ Milling Station Record ☐ Rock Art Record
☐ Artifact Record ☐ Photograph Record ☐ Other: _

State of California - The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
ARCHAEOLOGICAL SITE RECORD

Primary #: _____
HRI #: _____
Trinomial: _____

 Resource Name or #: (assigned by recorder) PA-99-070

A1. Dimensions: a. Length 97 m (E-W)X b. Width 50 m (N-S)
Method of Determination: ☒ Paced ☐ Taped ☐ Visual estimate ☐ Other: _____
Method of Determination: (Check any that apply) ☐ Artifacts ☒ Features ☐ Soil ☐ Vegetation ☐ Topography
☐ Cut Bank ☐ Animal Burrow ☐ Excavation ☐ Property Boundary ☐ Other (Explain): _____

Reliability of Determination: ☒ High ☐ Medium ☐ Low ☐ Explain: Site consists entirely of surface features

Limitations (Check any that apply): ☐ Restricted access ☐ Paved/built over ☐ Site limits incompletely defined
☐ Disturbances ☐ Vegetation ☐ Other (Explain): _____

A2. Depth: _____ ☒ None ☐Unknown Method of Determination: Nature of the site

A3. Human Remains: ☐ Present ☒ Absent ☐ Possible ☐ Unknown (Explain): _____

A4. Features: (Number, briefly describe, indicate size, list associated cultural constituents, and show location of each feature on sketch map):
A = Cellar and foundation of a residence. Excavation with cinder block wall foundation. Concrete steps present. B = Concrete slab foundation for garage and shed (?). C = Concrete curbing foundation for older residence (?). D = concrete curb (east and cinder block (north) foundations and a garage door. E = Concrete slab and curb foundations for barn. F = concrete curbs with metal fence posts.

A5. Cultural Constituents (Describe and quantify artifacts, ecofacts, cultural residues, etc., not associated with features): There is a good deal of recent domestic trash in the area, but it is hard to say if it is related to the site or results from dumping after the site was abandoned.

A6. Were Specimens Collected? ☒ NO ☐ Yes (If yes, attach Artifact Record or catalog and identify where specimens are curated):

A7. Site Condition ☐ Good ☐ Fair ☒ Poor (Describe disturbances): Superstructures for all the buildings once present are all gone. Difficult now to determine the function of some of the structures.

A8. Nearest Water (Type, distance, and direction): Elder Creek, intermittent, 900 m south

A9. Elevation: 46 feet

A10. Environmental Setting (Describe culturally relevant variables such as vegetation, fauna, soils, geology, landform, slope, aspect, exposure, etc.):
Flat plain most recently used for agriculture. Formerly grass land. The only trees in the vicinity now are introduced.

A11. Historical Information:
A Structure is shown at this location on the Elk Grove topographic map of 1909 (from 1907 surveys) At this time the property was owned by Niyakawa. Later map additions continue to show structures at this location through 1979. The property continues in Japanese-American hands throughout this period.

A12. Age: ☐ Prehistoric ☐ Protohistoric ☐ 1542-1769 ☐ 1769-1848 ☐ 1848-1880 ☒ 1880-1914 ☒ 1914-1945
☒ Post 1945 ☐ Undetermined **Describe position in regional prehistoric chronology or factual historic dates if known:**
First construction in the area, not necessarily represented by the surviving foundations, was post 1903 (death of previous land owner) and pre 1907 (map survey).

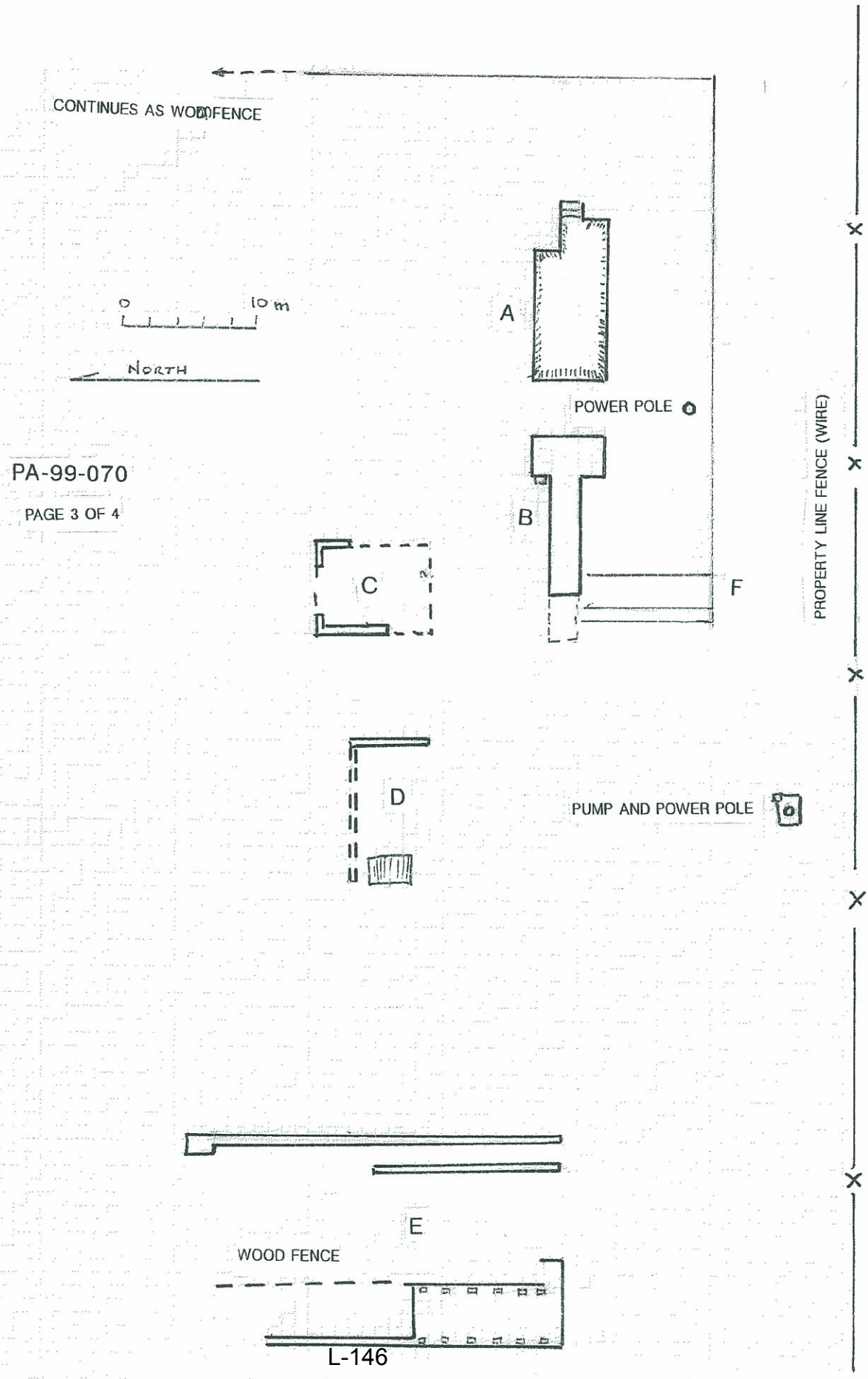
A13. Interpretations (Discuss data potential, functions, ethnic affiliation, and other interpretations):
Residential/farming complex, single family.

A14. Remarks:

A15. References (Documents, informants, maps, and other references): Survey report (see primary record), Elk Grove 1:31,680 scale topographic map published 1909; 1942 Franklin 1:62,500 scale topographic map (Corps of Engineers) and 1968 USGS Elk Grove quadrangle (photorevised edition 1979).

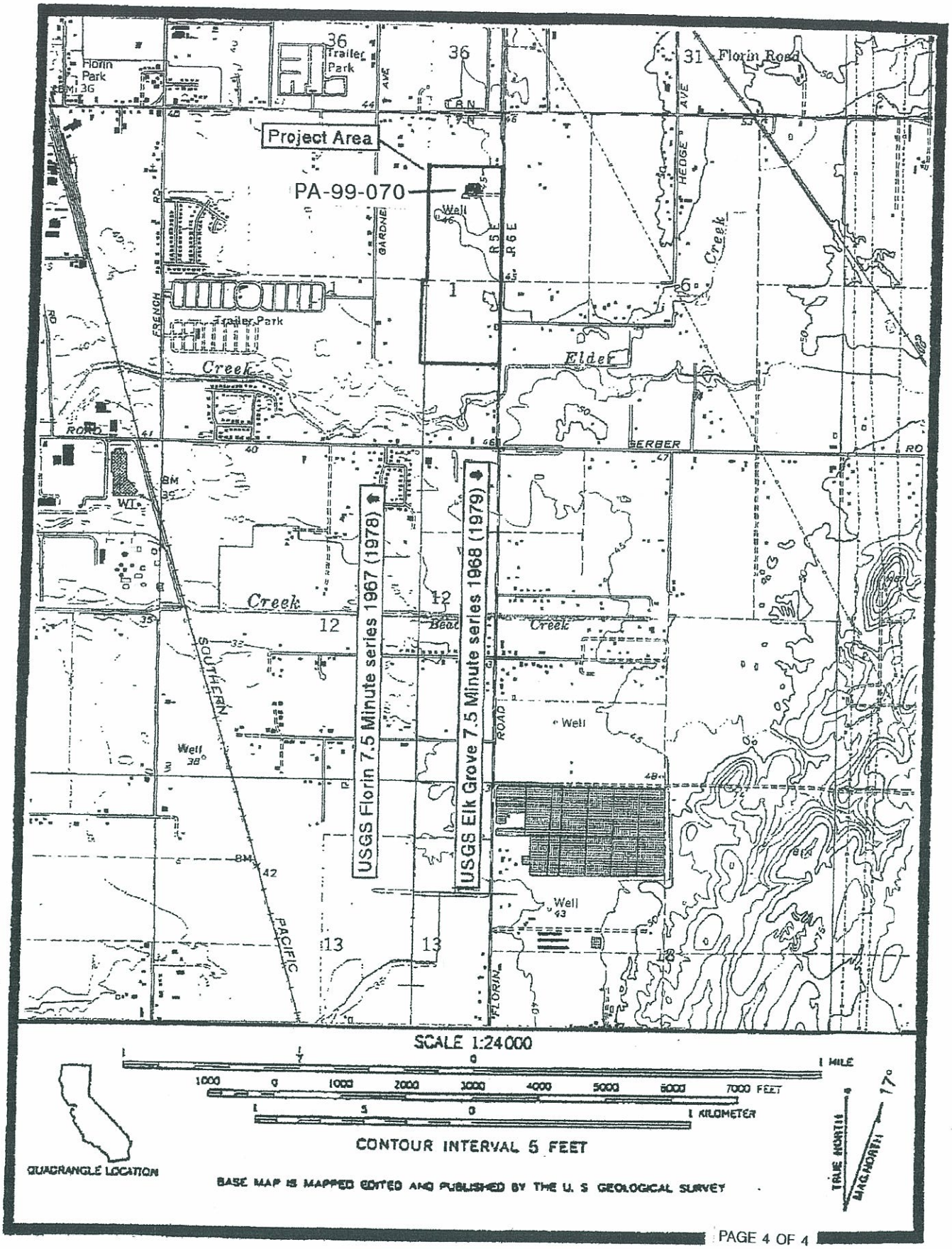
A16. Photographs (List subjects, direction of view, and accession numbers or attach a Photograph Record) See primary record.
Original Media/Negative Kept at: Peak & Associates, Inc.

A17. Form Prepared by: Robert Gerry **Date:** 12/2/99
Affiliation and Address: Peak & Associates, Inc., 3941 Park Drive, Suite 20-329, El Dorado Hills, CA 95762



PA-99-070

PAGE 3 OF 4


Project Area
PA-99-070
USGS Florin 7.5 Minute series 1967 (1978)
USGS Elk Grove 7.5 Minute series 1968 (1979)
Florin Park
Trailer Park
Florin Road
Elder Creek
Bear Creek
Gerber Rd
Southern Pacific
Florin Road
Hedge Ave
Gardner Ave
French Rd
R5E
R6E
T8N
Well
SCALE 1:24000
1 MILE
7000 FEET
1 KILOMETER
CONTOUR INTERVAL 5 FEET
QUADRANGLE LOCATION
BASE MAP IS MAPPED EDITED AND PUBLISHED BY THE U. S GEOLOGICAL SURVEY
TRUE NORTH
MAG NORTH
17°

PAGE 4 OF 4

State of California - The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
PRIMARY RECORD

Primary #
HRI#
Trinomial
NRHP Status Code 6Z

Other Listings:
Review Code: Reviewer: Date:

 Resource Name or #: (assigned by recorder) 6900 Hedge

P1. Other Identifier:
P2. Location: ☐ **Not for Publication** ☒ **Unrestricted** (P2b and P2c or P2d. Attach a Location Map as necessary)
a. County: Sacramento
b. USGS 7.5' Quad: Carmichael Date: 1967 (PR80) T. 8N ; R. 6E ; NE ¼ of SW ¼ of Sec. 31 ; MD B.M.
c. Address: 6900 Hedge Avenue City: Sacramento Zip: 95829
d. UTM: (Give more than one for large and/or linear resources) Zone: 10 ; 06 42 840 mE/; 42 62 560 mN
e. Other Locational Data: (e.g. parcel #, directions to resource, elevation, etc., as appropriate)
APN 064-080-059

P3a. Description: (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries)
This 1935 residence has been abandoned, and is in poor condition. There is plywood over the windows, and back door and a large patched area on the roof. The house was very plain and small in the first place. It is a narrow end-gabled structure with a small extension on the south covered by an extension of the main roof. The small front porch has a separate gable. The siding is wide lapped boards and roofing is composite shingles. The only intact door, on the front (east), is clearly a replacement.

P3b. Resource Attributes: (List attributes and codes) HP-2, Single Family property

P4. Resources Present: ☒ Building ☐ Structure ☐ Object ☐ Site ☐ District ☐ Element of a District ☐ Other (Isolates etc.)

P5b. Description of Photo: (View, date, accession #)
8/13/04 looking northwest at front and south side.

P6. Date Construction/Age and Sources: Historic ☒ Prehistoric ☐ Both ☐

P7. Owner and Address:

P8. Recorded By: (Name, affiliation, and address)
Robert Gerry
Peak & Associates, Inc.
3941 Park Drive, Suite 20, #329
El Dorado Hills, CA 95762

P9. Date Recorded:
8/13/04

P10. Survey Type: (Describe)
Complete, Project Related

P11. Report Citation: (Cite Survey report and other resources, or enter "none") Cultural Resources Assessment of the Florin Vineyard Project, Sacramento county, California. Peak & Associates 2004.

ATTACHMENTS: ☐ NONE ☒ Location Map ☐ Sketch Map ☐ Continuation Sheet ☒ Building, Structure, and Object Record
☐ Archaeological Record ☐ District Record ☐ Linear Feature Record ☐ Milling Station Record ☐ Rock Art Record
☐ Artifact Record ☐ Photograph Record ☐ Other:

State of California - The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
BUILDING, STRUCTURE, AND OBJECT RECORD

Primary #: _____
HRI #: _____

 ***NRHP Status Code:** 6Z Resource Name or #: (assigned by recorder) 6900 Hedge

B1. Historic Name:
B2. Common Name:
B3. Original Use: Residence B4. Present Use: Residence
B5. Architectural Style: Minimal Traditional
B6. Construction History: (Construction date, alterations, and date of alterations.)
Constructed about 1935 according to the Assessor's building record, which appears reasonable for the style and condition of the structure. No major additions are apparent..

B7. Moved? ☒ No ☐ Yes ☐ Unknown Date: _____ Original Location: _____
B8. Related Features: None.

B9a. Architect: Unknown b. Builder: Unknown
B10. Significance: Theme _____ **Area** _____
Period of Significance _____ **Property Type** _____ **Applicable Criteria** _____
(Discuss importance in terms of historical or architectural context as defined by theme, period, and geographic scope. Also address integrity.)

This residence is not associated with important events in local or State history [NRHP criterion a; CRHR criterion B (1)]. This is one of many areas in Sacramento County supported by small farms. There is no close by community or other social-defining mechanism for the region. The area has remained rural until recently, with a scattering of residences and farms.

Land ownership maps through 1923 for the County were reviewed, and names on building records checked. There are no associations with people important in State or local history [NRHP criterion b; CRHR criterion B (2)]. The residents were apparently small farmers, unassociated with anyone of social prominence or historical importance.

This small, plain residence was not a particularly good example of the architectural style originally and is now near collapse. It cannot be said that this building "embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values" [NRHP criterion c; CRHR criterion B (3)].

In consideration of the ability of this building or its immediate surroundings yield information important in history through archeological means, it should be noted that farm practices limit the possibilities of finding subsurface materials. The farms were more or less subsistence farms in the earlier period. They were at a great distance from any commercial establishment. Manufactured items would have been costly and time-consuming to acquire. As a result, most farms tended to reuse manufactured items such as glass containers, fabric, metal implements, and milled lumber. Other waste was burned on site, resulting in a lack of subsurface features that might be useful in defining early lifeways. Also, there is little to be learned from archeological excavations of essentially modern era properties, even in the unlikely event that such deposits exist. We do not believe that the residence is significant for its archeological values [NRHP criterion d; CRHR criterion B (4)].

B11. Additional Resource Attributes: (List attributes and codes) _____

B12. References:

B13. Remarks:

B14. Evaluator: M. Peak, Peak & Associates, Inc.

Date of Evaluation: 11/04

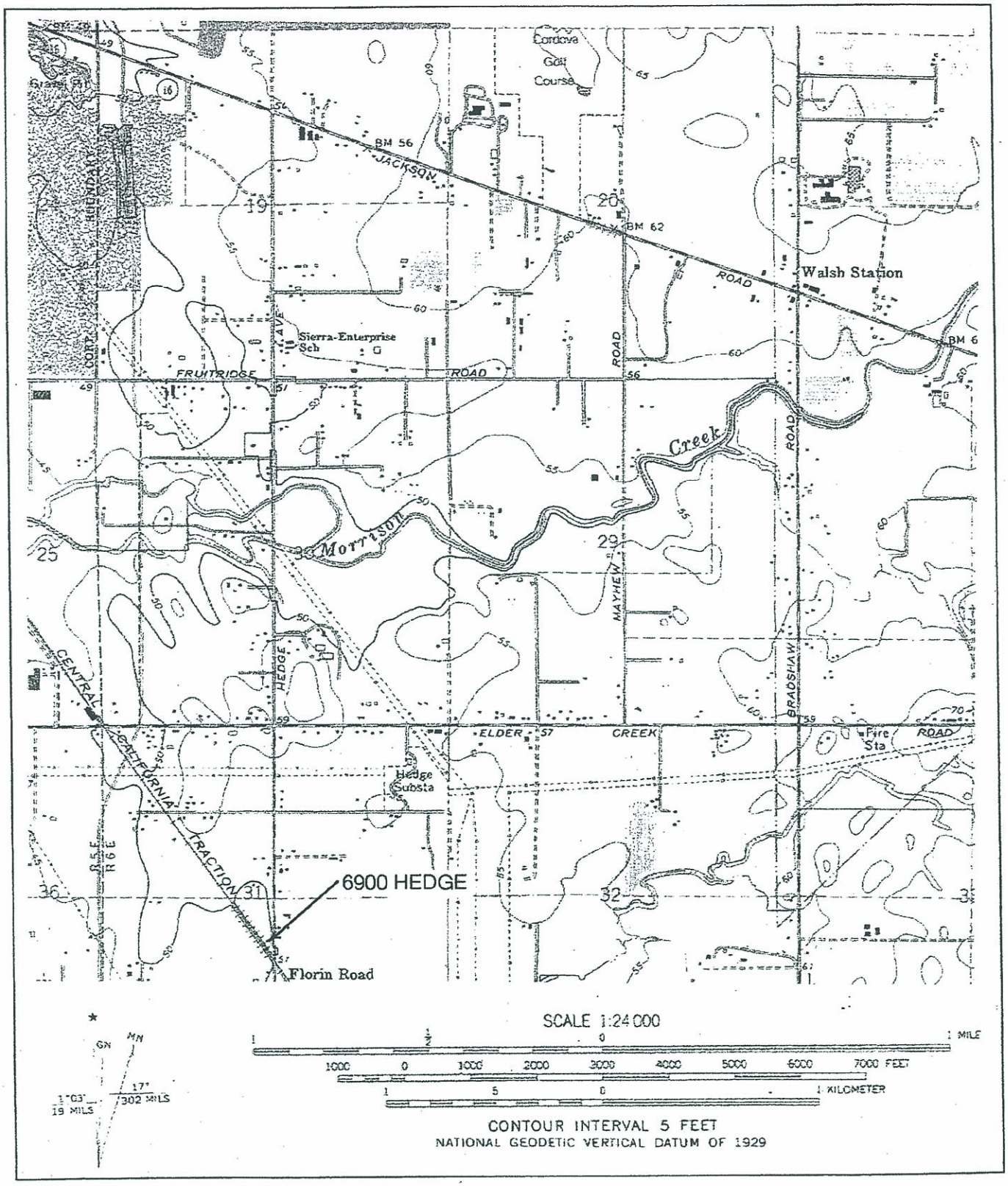
See attached location map.

This space reserved for official comments.

State of California - The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
LOCATION MAP

Primary #:
HRI #:
Trinomial:

Page 3 of 3 **Resource Name or #:** (assigned by recorder) 6900 HEDGE
Map Name: Carmichael **Scale:** 1:24,000 **Date of Map:** 1967 (PR80)



State of California - The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
PRIMARY RECORD

Primary #
HRI#
Trinomial
NRHP Status Code 6Z

Other Listings:
Review Code: Reviewer: Date:

 Resource Name or #: (assigned by recorder) 6851 Hedge

P1. Other Identifier:

P2. Location: ☐ **Not for Publication** ☒ **Unrestricted** (P2b and P2c or P2d. Attach a Location Map as necessary)

a. County: Sacramento
b. USGS 7.5' Quad: Carmichael Date: 1967 (PR80) T. 8N ;R. 6E ; NW ¼ of SE ¼ of Sec. 31 ; MD B.M.
c. Address: 6851 Hedge Avenue City: Sacramento Zip: 95829
d. UTM: (Give more than one for large and/or linear resources) Zone: 10 ; 06 42 925 mE/; 42 62 625 mN
e. Other Locational Data: (e.g. parcel #, directions to resource, elevation, etc., as appropriate)
APN 064-080-031

P3a. Description: (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries)
There are several buildings at 6851 Hedge Avenue but all are modern except for an older house located in back (east) of the modern residence that fronts on Hedge. The older residence no longer faces Hedge, instead, it is now entered from the north. It does not appear that this was always the case. The western portion of the structure is square in plan with a hipped roof and closed eaves. This appears to be the 1947 (Assessor's building record) portion of the building. However, extending east from this is a cross-gabled section where the entry is now located, under a separate shed roof over the entry porch. The west elevation has a door that was probably the original entry door. The western, older, section has one over one double hung sashes. An unusual feature of this structure is the metal clad roof. The house appears to be in an excellent state of repair.

P3b. Resource Attributes: (List attributes and codes) HP-2, Single Family property

P4. Resources Present: ☒ Building ☐ Structure ☐ Object ☐ Site ☐ District ☐ Element of a District ☐ Other (Isolates etc.)

P5b. Description of Photo: (View, date, accession #)
8/13/04 looking south at modern entry. The part on the right is the original house, the rest a later addition.

P6. Date Construction/Age and Sources: Historic ☒ Prehistoric ☐ Both ☐

P7. Owner and Address:

P8. Recorded By: (Name, affiliation, and address)
Robert Gerry
Peak & Associates, Inc.
3941 Park Drive, Suite 20, #329
El Dorado Hills, CA 95762

P9. Date Recorded:
8/13/04

P10. Survey Type: (Describe)
Complete, Project Related

P11. Report Citation: (Cite Survey report and other resources, or enter "none") Cultural Resources Assessment of the Florin Vineyard Project, Sacramento county, California. Peak & Associates 2004.

ATTACHMENTS: ☐ NONE ☒ Location Map ☐ Sketch Map ☐ Continuation Sheet ☒ Building, Structure, and Object Record ☐ Archaeological Record ☐ District Record ☐ Linear Feature Record ☐ Milling Station Record ☐ Rock Art Record ☐ Artifact Record ☐ Photograph Record ☐ Other:

State of California - The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
BUILDING, STRUCTURE, AND OBJECT RECORD

Primary #: _____
HRI #: _____

Page 2 of 3 ***NRHP Status Code:** 6Z Resource Name or #: (assigned by recorder) 6851 Hedge

B1. Historic Name: _____
B2. Common Name: _____
B3. Original Use: Residence B4. Present Use: Residence
B5. Architectural Style: Craftsman?
B6. Construction History: (Construction date, alterations, and date of alterations.)
Constructed about 1947 according to the Assessor's building record, which may be true of the bulk of the building but which is probably too young for the western portion. The western section looks generally Craftsman except that the eaves are closed, which may be a result of the installation of a metal roof. .

B7. Moved? ☒ No ☐ Yes ☐ Unknown Date: _____ Original Location: _____
B8. Related Features: Several houses and sheds in the area, all modern.

B9a. Architect: Unknown b. Builder: Unknown
B10. Significance: Theme _____ **Area** _____
Period of Significance _____ **Property Type** _____ **Applicable Criteria** _____
(Discuss importance in terms of historical or architectural context as defined by theme, period, and geographic scope. Also address integrity.)

This residence is not associated with important events in local or State history [NRHP criterion a; CRHR criterion B (1)]. This is one of many areas in Sacramento County supported by small farms. There is no close by community or other social-defining mechanism for the region. The area has remained rural until recently, with a scattering of residences and farms.

Land ownership maps through 1923 for the County were reviewed, and names on building records checked. There are no associations with people important in State or local history [NRHP criterion b; CRHR criterion B (2)]. The residents were apparently small farmers, unassociated with anyone of social prominence or historical importance.

This was once a small, plain residence that has had at least one additon that more than doubled its size. It is now difficult to determine the original style of the building. It cannot be said that this building "embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values" [NRHP criterion c; CRHR criterion B (3)].

In consideration of the ability of this building or its immediate surroundings yield information important in history through archeological means, it should be noted that farm practices limit the possibilities of finding subsurface materials. The farms were more or less subsistence farms in the earlier period. They were at a great distance from any commercial establishment. Manufactured items would have been costly and time-consuming to acquire. As a result, most farms tended to reuse manufactured items such as glass containers, fabric, metal implements, and milled lumber. Other waste was burned on site, resulting in a lack of subsurface features that might be useful in defining early lifeways. Also, there is little to be learned from archeological excavations of essentially modern era properties, even in the unlikely event that such deposits exist. We do not believe that the residence is significant for its archeological values [NRHP criterion d; CRHR criterion B (4)].

B11. Additional Resource Attributes: (List attributes and codes) _____

B12. References:

B13. Remarks:

B14. Evaluator: M. Peak, Peak & Associates, Inc.

Date of Evaluation: 11/04

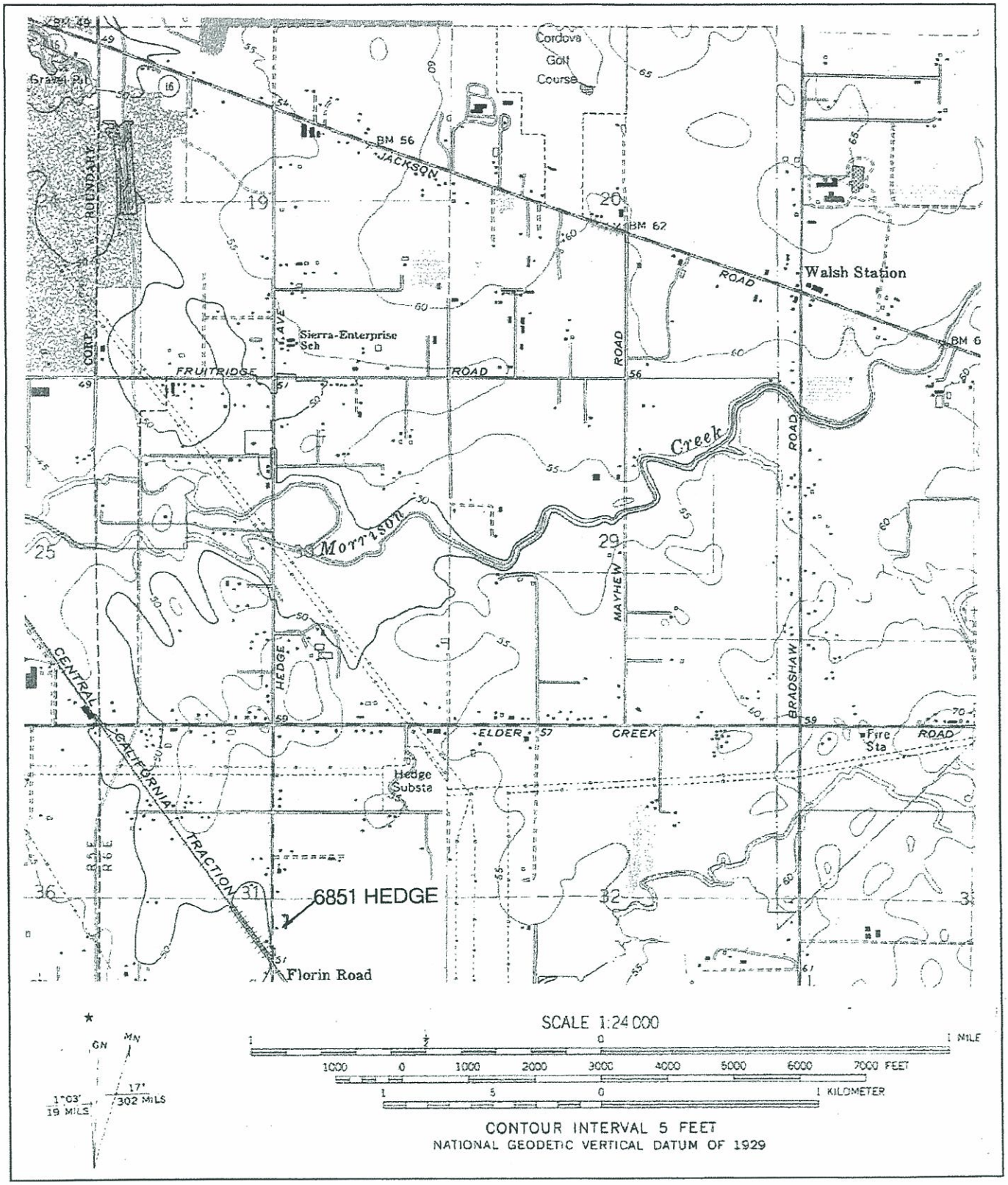
See attached location map.

This space reserved for official comments.

State of California - The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
LOCATION MAP

Primary #:
HRI #:
Trinomial:

Page 3 of 3 **Resource Name or #:** (assigned by recorder) 6851 HEDGE
Map Name: Carmichael **Scale:** 1:24,000 **Date of Map:** 1967 (PR80)



State of California - The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
PRIMARY RECORD

Primary #
HRI#
Trinomial
NRHP Status Code 6Z

Other Listings:
Review Code: Reviewer: Date:

 Resource Name or #: (assigned by recorder) 8950 Tokay Lane

P1. Other Identifier:

P2. Location: ☐ **Not for Publication** ☒ **Unrestricted** (P2b and P2c or P2d. Attach a Location Map as necessary)

a. County: Sacramento
b. USGS 7.5' Quad: Carmichael Date: 1967 (PR80) T. 8N ;R. 6E ; SW ¼ of NW ¼ of Sec. 31 ; MD B.M.
c. Address: 8970Tokay Lane City: Sacramento Zip: 95829
d. UTM: (Give more than one for large and/or linear resources) Zone: 10 ; 06 42 255 mE/; 42 63 125 mN
e. Other Locational Data: (e.g. parcel #, directions to resource, elevation, etc., as appropriate)
APN 064-032-003

P3a. Description: (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries)
The building record gives a 1949 date for this house but it appears older. It is a Craftsman bungalow in poor repair, likely moved to the property. It has a hipped roof with the unusual feature of small dormers off center near the peak of the main roof. The dormers are gabled. The structure has drop siding (false bevel) and composite shingle roof.. Most windows are one over one double-hung sashes. It also has a very small front entry porch and a large addition on the rear. These are both covered by gabled roofs at a lower level than the main.

P3b. Resource Attributes: (List attributes and codes) HP-2, Single Family property

P4. Resources Present: ☒ Building ☐ Structure ☐ Object ☐ Site ☐ District ☐ Element of a District ☐ Other (Isolates etc.)

P5b. Description of Photo: (View, date, accession #)
8/13/04 looking southwest at front and east side.

P6. Date Construction/Age and Sources: Historic ☒ Prehistoric ☐ Both ☐

P7. Owner and Address:

P8. Recorded By: (Name, affiliation, and address)
Robert Gerry
Peak & Associates, Inc.
3941 Park Drive, Suite 20, #329
El Dorado Hills, CA 95762

P9. Date Recorded:
8/13/04

P10. Survey Type: (Describe)
Complete, Project Related

P11. Report Citation: (Cite Survey report and other resources, or enter "none") Cultural Resources Assessment of the Florin Vineyard Project, Sacramento county, California. Peak & Associates 2004.

ATTACHMENTS: ☐ NONE ☒ Location Map ☐ Sketch Map ☐ Continuation Sheet ☒ Building, Structure, and Object Record ☐ Archaeological Record ☐ District Record ☐ Linear Feature Record ☐ Milling Station Record ☐ Rock Art Record ☐ Artifact Record ☐ Photograph Record ☐ Other:

State of California - The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
BUILDING, STRUCTURE, AND OBJECT RECORD

Primary #: _____
HRI #: _____

Page 2 of 3 ***NRHP Status Code:** 6Z Resource Name or #: (assigned by recorder) 8950 Tokay Lane

B1. Historic Name: _____
B2. Common Name: _____
B3. Original Use: Residence B4. Present Use: Residence
B5. Architectural Style: Craftsman Bungalow, Hipped roof subtype.
B6. Construction History: (Construction date, alterations, and date of alterations.)
County Assessor's building record says 1949, but this seems too young. This probably reflects the house being moved to this location. The rear addition and front porch were clearly added later..

B7. Moved? ☐ No ☐ Yes ☒ Unknown Date: 1949? Original Location: Unknown
B8. Related Features: None

B9a. Architect: Unknown b. Builder: Unknown
B10. Significance: Theme _____ **Area** _____
Period of Significance _____ **Property Type** _____ **Applicable Criteria** _____
(Discuss importance in terms of historical or architectural context as defined by theme, period, and geographic scope. Also address integrity.)

This residence is not associated with important events in local or State history [NRHP criterion a; CRHR criterion B (1)]. This is one of many areas in Sacramento County supported by small farms. There is no close by community or other social-defining mechanism for the region. The area has remained rural until recently, with a scattering of residences and farms.

Land ownership maps through 1923 for the County were reviewed, and names on building records checked. There are no associations with people important in State or local history [NRHP criterion b; CRHR criterion B (2)]. The residents were apparently small farmers, unassociated with anyone of social prominence or historical importance.

This is a standard example of an extremely common style of residence. The only unusual features are the dormers, which are odd rather than typical of Craftsman. It cannot be said that this building "embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values" [NRHP criterion c; CRHR criterion B (3)].

In consideration of the ability of this building or its immediate surroundings yield information important in history through archeological means, it should be noted that farm practices limit the possibilities of finding subsurface materials. The farms were more or less subsistence farms in the earlier period. They were at a great distance from any commercial establishment. Manufactured items would have been costly and time-consuming to acquire. As a result, most farms tended to reuse manufactured items such as glass containers, fabric, metal implements, and milled lumber. Other waste was burned on site, resulting in a lack of subsurface features that might be useful in defining early lifeways. Also, there is little to be learned from archeological excavations of essentially modern era properties, even in the unlikely event that such deposits exist. We do not believe that the residence is significant for its archeological values [NRHP criterion d; CRHR criterion B (4)].

B11. Additional Resource Attributes: (List attributes and codes) _____

B12. References:

B13. Remarks:

B14. Evaluator: M. Peak, Peak & Associates, Inc.

Date of Evaluation: 11/04

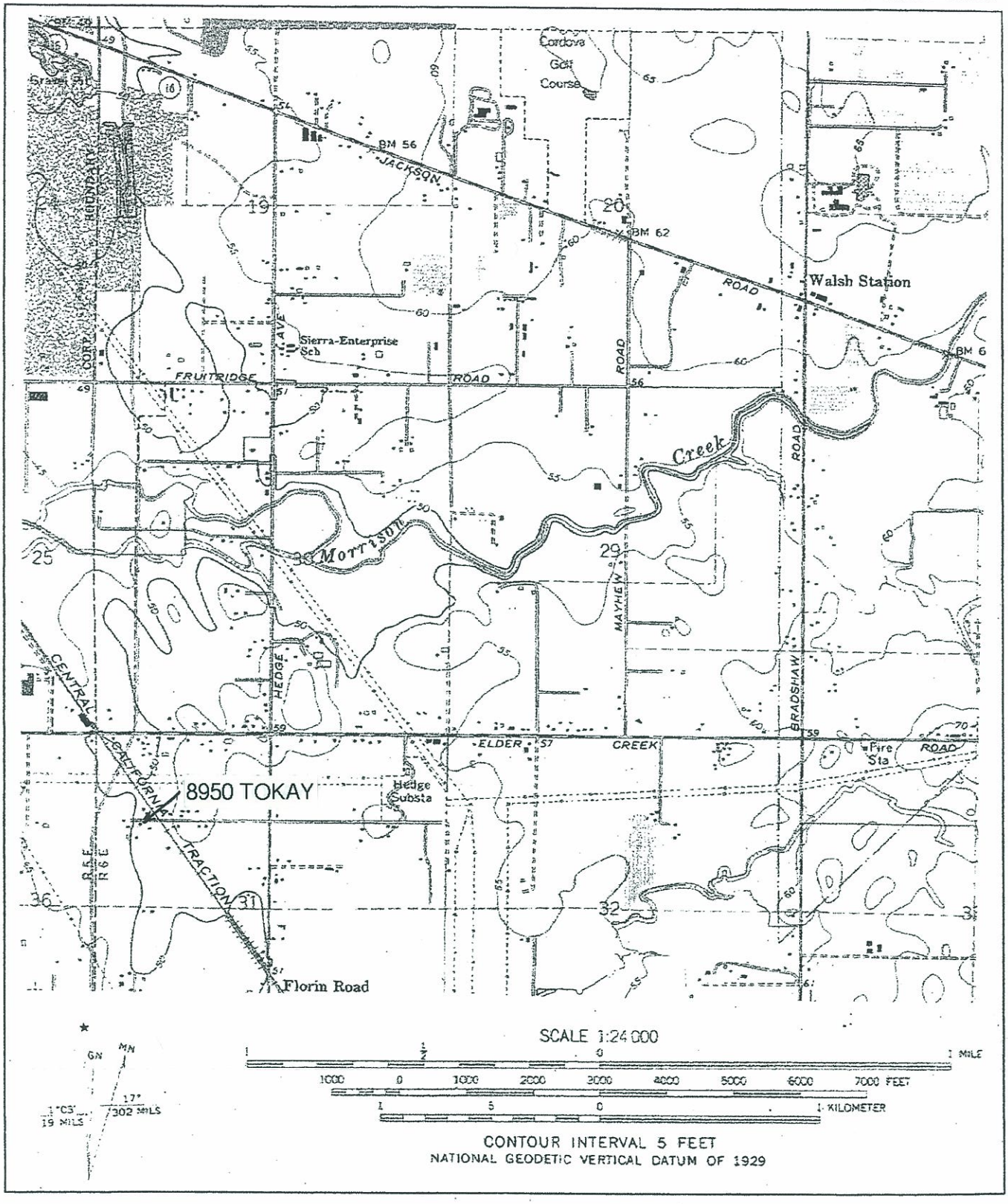
See attached location map.

This space reserved for official comments.

State of California - The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
LOCATION MAP

Primary #:
HRI #:
Trinomial:

Page 3 of 3 **Resource Name or #:** (assigned by recorder) 8950 TOKAY
Map Name: Carmichael **Scale:** 1:24,000 **Date of Map:** 1967 (PR80)



State of California - The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
PRIMARY RECORD

Primary #
HRI#
Trinomial
NRHP Status Code 6Z

Other Listings:
Review Code: Reviewer: Date:

 Resource Name or #: (assigned by recorder) 8936 Tokay Lane

P1. Other Identifier:

P2. Location: ☐ **Not for Publication** ☒ **Unrestricted** (P2b and P2c or P2d. Attach a Location Map as necessary)

a. County: Sacramento
b. USGS 7.5' Quad: Carmichael Date: 1967 (PR80) T. 8N ;R. 6E ; SW ¼ of NW ¼ of Sec. 31 ; MD B.M.
c. Address: 8936Tokay Lane City: Sacramento Zip: 95829
d. UTM: (Give more than one for large and/or linear resources) Zone: 10 ; 06 42 195 mE/; 42 63 110 mN
e. Other Locational Data: (e.g. parcel #, directions to resource, elevation, etc., as appropriate)
APN 064-032-006 At the western end point ofTokay Lane.

P3a. Description: (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries)
This is a Craftsman bungalow with hipped (pyramidal) roof. It includes an almost full width front porch with plain, square support columns for a separate, lower roof (still hipped) that covers the prorch. Windows are primaily one over one double-hung sashes. Siding is composite shingles as is the roof. Both are clearly replacements. There is also a rear entry on the west side tht is covered by a small gabled roof. This is an addition. The 1954 date given by the Assessor's building record for the residence suggests that it was moved to the site, since this is much too young for the style of building.

P3b. Resource Attributes: (List attributes and codes) HP-2, Single Family property

P4. Resources Present: ☒ Building ☐ Structure ☐ Object ☐ Site ☐ District ☐ Element of a District ☐ Other (Isolates etc.)

P5b. Description of Photo: (View, date, accession #)
8/13/04 looking SSE at the front.

P6. Date Construction/Age and Sources: Historic ☒ Prehistoric ☐ Both ☐

P7. Owner and Address:

P8. Recorded By: (Name, affiliation, and address)
Robert Gerry
Peak & Associates, Inc.
3941 Park Drive, Suite 20, #329
El Dorado Hills, CA 95762

P9. Date Recorded:
8/13/04

P10. Survey Type: (Describe)
Complete, Project Related

P11. Report Citation: (Cite Survey report and other resources, or enter "none") Cultural Resources Assessment of the Florin Vineyard Project, Sacramento county, California. Peak & Associates 2004.

ATTACHMENTS: ☐ NONE ☒ Location Map ☐ Sketch Map ☐ Continuation Sheet ☒ Building, Structure, and Object Record
☐ Archaeological Record ☐ District Record ☐ Linear Feature Record ☐ Milling Station Record ☐ Rock Art Record
☐ Artifact Record ☐ Photograph Record ☐ Other:

State of California - The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
BUILDING, STRUCTURE, AND OBJECT RECORD

Primary #: _____
HRI #: _____

Page 2 of 3 ***NRHP Status Code:** 6Z Resource Name or #: (assigned by recorder) 8936 Tokay Lane

B1. Historic Name: _____
B2. Common Name: _____
B3. Original Use: Residence B4. Present Use: Residence
B5. Architectural Style: Craftsman Bungalow, Hipped roof subtype.
B6. Construction History: (Construction date, alterations, and date of alterations.)
County Assessor's building record says 1954, but this seems too young. Changes have been mostly maintenance rather than major additions of alterations..

B7. Moved? ☐ No ☐ Yes ☒ Unknown Date: 1954? Original Location: Unknown
B8. Related Features: None

B9a. Architect: Unknown b. Builder: Unknown
B10. Significance: Theme _____ **Area** _____
Period of Significance _____ **Property Type** _____ **Applicable Criteria** _____
(Discuss importance in terms of historical or architectural context as defined by theme, period, and geographic scope. Also address integrity.)

This residence is not associated with important events in local or State history [NRHP criterion a; CRHR criterion B (1)]. This is one of many areas in Sacramento County supported by small farms. There is no close by community or other social-defining mechanism for the region. The area has remained rural until recently, with a scattering of residences and farms.

Land ownership maps through 1923 for the County were reviewed, and names on building records checked. There are no associations with people important in State or local history [NRHP criterion b; CRHR criterion B (2)]. The residents were apparently small farmers, unassociated with anyone of social prominence or historical importance.

This is a standard example of an extremely common style of residence. It includes no distinctive features to set it apart from the many other extant examples. It cannot be said that this building "embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values" [NRHP criterion c; CRHR criterion B (3)].

In consideration of the ability of this building or its immediate surroundings yield information important in history through archeological means, it should be noted that farm practices limit the possibilities of finding subsurface materials. The farms were more or less subsistence farms in the earlier period. They were at a great distance from any commercial establishment. Manufactured items would have been costly and time-consuming to acquire. As a result, most farms tended to reuse manufactured items such as glass containers, fabric, metal implements, and milled lumber. Other waste was burned on site, resulting in a lack of subsurface features that might be useful in defining early lifeways. Also, there is little to be learned from archeological excavations of essentially modern era properties, even in the unlikely event that such deposits exist. We do not believe that the residence is significant for its archeological values [NRHP criterion d; CRHR criterion B (4)].

B11. Additional Resource Attributes: (List attributes and codes) _____

B12. References:

B13. Remarks:

B14. Evaluator: M. Peak, Peak & Associates, Inc.

Date of Evaluation: 11/04

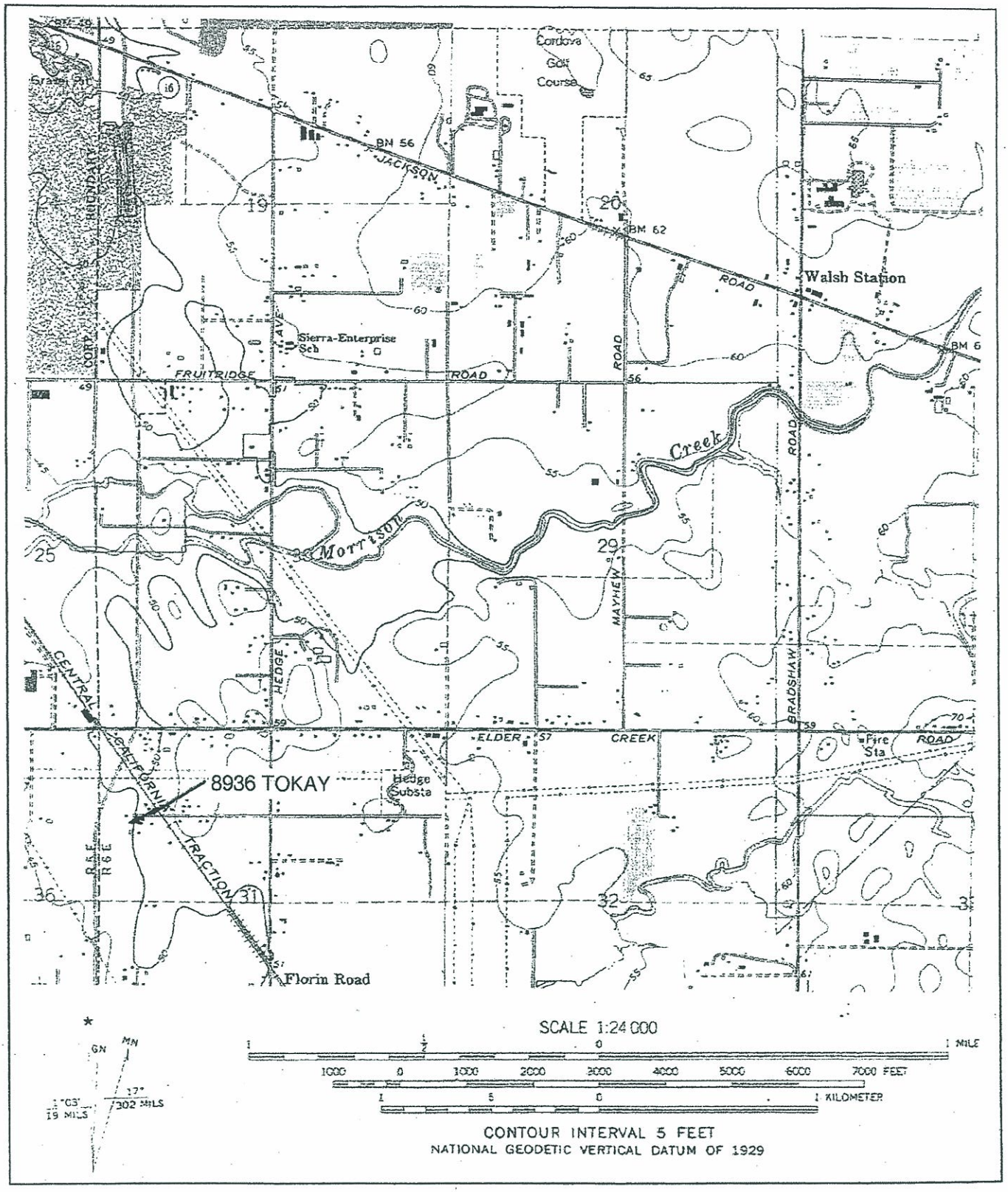
See attached location map.

This space reserved for official comments.

State of California - The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
LOCATION MAP

Primary #:
HRI #:
Trinomial:

Page 3 of 3 **Resource Name or #:** (assigned by recorder) 8936 TOKAY
Map Name: Carmichael **Scale:** 1:24,000 **Date of Map:** 1967 (PR80)



State of California - The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
PRIMARY RECORD

Primary #
HRI#
Trinomial
NRHP Status Code 6Z

Other Listings:
Review Code: Reviewer: Date:

 Resource Name or #: (assigned by recorder) 8970 Tokay Lane

P1. Other Identifier:

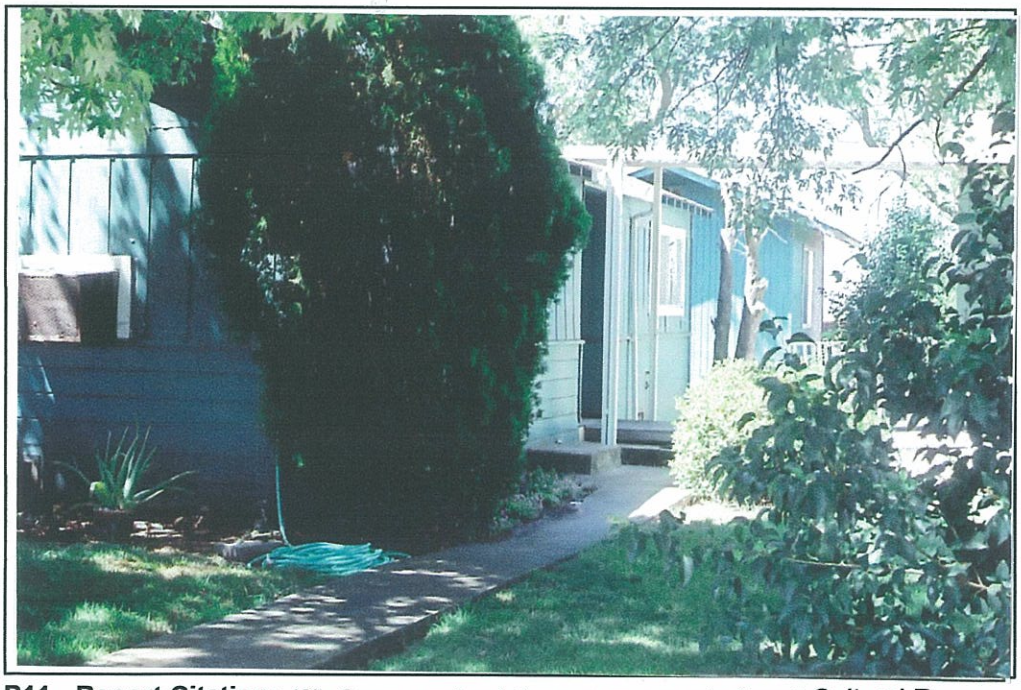
P2. Location: ☐ **Not for Publication** ☒ **Unrestricted** (P2b and P2c or P2d. Attach a Location Map as necessary)

a. County: Sacramento
b. USGS 7.5' Quad: Carmichael Date: 1967 (PR80) T. 8N ;R. 6E ; SW ¼ of NW ¼ of Sec. 31 ; MD B.M.
c. Address: Tokay Lane, no number apparent City: Sacramento Zip: 95829
d. UTM: (Give more than one for large and/or linear resources) Zone: 10 ; 06 42 390 mE/; 42 63 020 mN
e. Other Locational Data: (e.g. parcel #, directions to resource, elevation, etc., as appropriate)
APN 064-032-004 Accessed from Tokay Lane just west of the former Central California RR crossing. Access road parallels the railroad bed.

P3a. Description: (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries)
This house is quite isolated, located near the railroad right-of-way well south of Tokay Lane. It is a small bungalow, well maintained, but with numerous additions. There is a modular unit on the back that has been built into the original structure. A small shack and a garage are also nearby. Siding is board-and-batten, but runs vertically in some areas, horizontally in others. The main structure is so modified that it is impossible to determine a style or approximate date. It appears on the 1952 USGS map, so it is at least 50 years old.

P3b. Resource Attributes: (List attributes and codes) HP-2, Single Family property

P4. Resources Present: ☒ Building ☐ Structure ☐ Object ☐ Site ☐ District ☐ Element of a District ☐ Other (Isolates etc.)



P5b. Description of Photo: (View, date, accession #)
8/13/04 looking west at main section. An overview is impossible due to surrounding vegetation.

P6. Date Construction/Age and Sources: Historic ☒ Prehistoric ☐ Both ☐

P7. Owner and Address:

P8. Recorded By: (Name, affiliation, and address)
Robert Gerry
Peak & Associates, Inc.
3941 Park Drive, Suite 20, #329
El Dorado Hills, CA 95762

P9. Date Recorded:
8/13/04

P10. Survey Type: (Describe)
Complete, Project Related

P11. Report Citation: (Cite Survey report and other resources, or enter "none") Cultural Resources Assessment of the Florin Vineyard Project, Sacramento county, California. Peak & Associates 2004.

ATTACHMENTS: ☐ NONE ☒ Location Map ☐ Sketch Map ☐ Continuation Sheet ☒ Building, Structure, and Object Record ☐ Archaeological Record ☐ District Record ☐ Linear Feature Record ☐ Milling Station Record ☐ Rock Art Record ☐ Artifact Record ☐ Photograph Record ☐ Other:

State of California - The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
BUILDING, STRUCTURE, AND OBJECT RECORD

Primary #: _____
HRI #: _____

 ***NRHP Status Code:** 6Z Resource Name or #: (assigned by recorder) 8970 Tokay Lane

B1. Historic Name: _____
B2. Common Name: _____
B3. Original Use: Residence B4. Present Use: Residence
B5. Architectural Style: To the extent it has a style, it looks Craftsman, but it is much to recent for that
B6. Construction History: (Construction date, alterations, and date of alterations.)
Unknown, but it has several additions. It has been well maintained.

B7. Moved? ☒ No ☐ Yes ☐ Unknown Date: _____ Original Location: _____
B8. Related Features: A small storage shack and a garage.

B9a. Architect: None b. Builder: Unknown
B10. Significance: Theme _____ **Area** _____
Period of Significance _____ **Property Type** _____ **Applicable Criteria** _____
(Discuss importance in terms of historical or architectural context as defined by theme, period, and geographic scope. Also address integrity.)

This residence is not associated with important events in local or State history [NRHP criterion a; CRHR criterion B (1)]. This is one of many areas in Sacramento County supported by small farms. There is no close by community or other social-defining mechanism for the region. The area has remained rural until recently, with a scattering of residences and farms.

Land ownership maps through 1923 for the County were reviewed, and names on building records checked. There are no associations with people important in State or local history [NRHP criterion b; CRHR criterion B (2)]. The residents were apparently small farmers, unassociated with anyone of social prominence or historical importance.

This small, much-modified residence is not a good example of any architectural style and probably dates to the early 1950s. It cannot be said that this building "embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values" [NRHP criterion c; CRHR criterion B (3)].

In consideration of the ability of this building or its immediate surroundings yield information important in history through archeological means, it should be noted that farm practices limit the possibilities of finding subsurface materials. The farms were more or less subsistence farms in the earlier period. They were at a great distance from any commercial establishment. Manufactured items would have been costly and time-consuming to acquire. As a result, most farms tended to reuse manufactured items such as glass containers, fabric, metal implements, and milled lumber. Other waste was burned on site, resulting in a lack of subsurface features that might be useful in defining early lifeways. Also, there is little to be learned from archeological excavations of essentially modern era properties, even in the unlikely event that such deposits exist. We do not believe that the residence is significant for its archeological values [NRHP criterion d; CRHR criterion B (4)].

B11. Additional Resource Attributes: (List attributes and codes) _____

B12. References:

B13. Remarks:

B14. Evaluator: M. Peak, Peak & Associates, Inc.

Date of Evaluation: 11/04

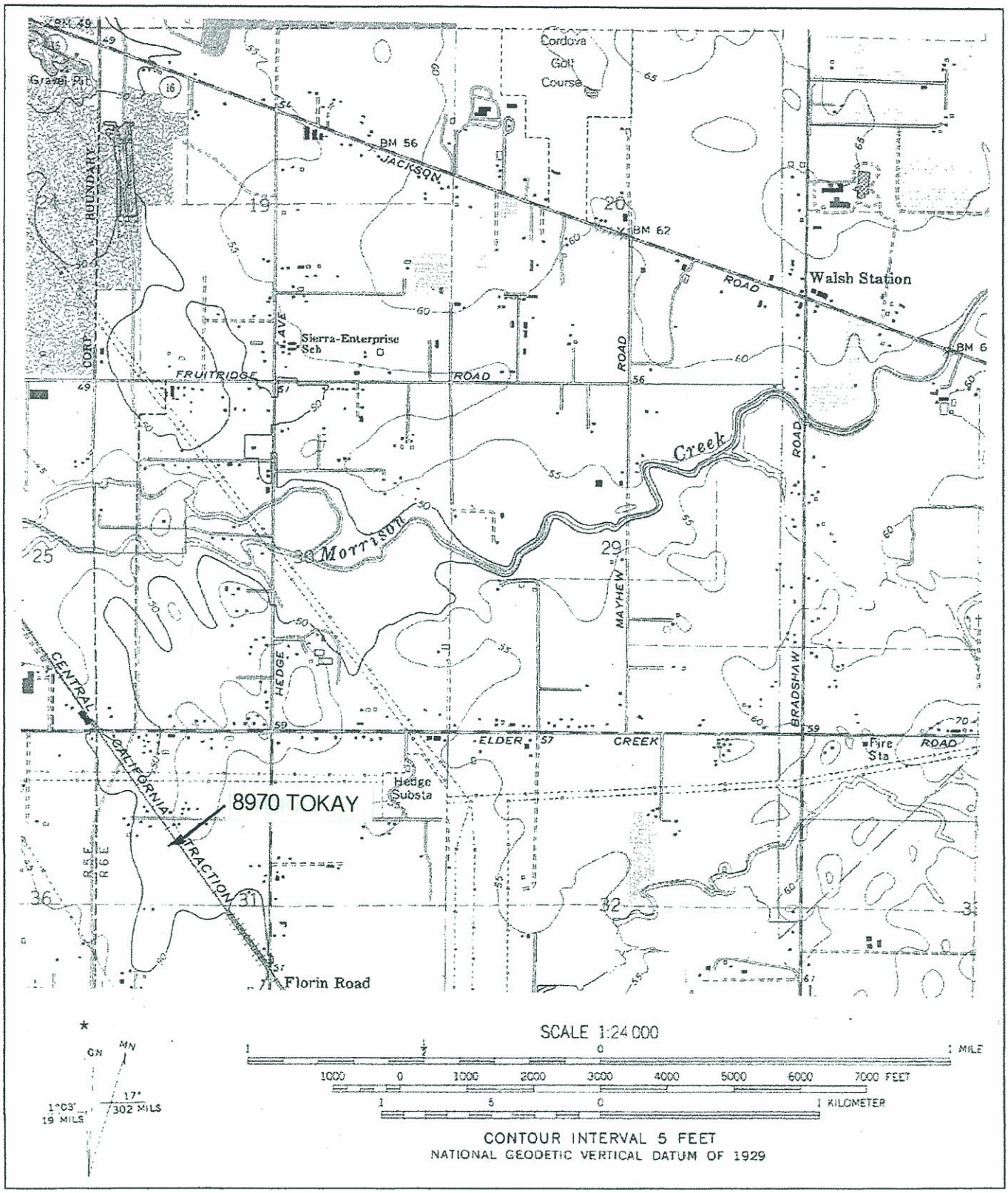
See attached location map.

This space reserved for official comments.

State of California - The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
LOCATION MAP

Primary #:
HRI #:
Trinomial:

Page 3 of 3 **Resource Name or #:** (assigned by recorder) 8970 TOKAY
Map Name: Carmichael **Scale:** 1:24,000 **Date of Map:** 1967 (PR80)



State of California - The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
PRIMARY RECORD

Primary #
HRI#
Trinomial
NRHP Status Code 6Z

Other Listings:
Review Code: Reviewer: Date:

 Resource Name or #: (assigned by recorder) 7106 Hedge

P1. Other Identifier:

P2. Location: ☐ **Not for Publication** ■ **Unrestricted** (P2b and P2c or P2d. Attach a Location Map as necessary)

a. County: Sacramento
b. USGS 7.5' Quad: Elk Grove 7.5; Date: 1968 (PR79) T. 8N ;R. 65E ; SE ¼ of SW ¼ of Sec. 31;MD B.M.
c. Address: 7106 Hedge City: Sacramento Zip: 95829
d. UTM: (Give more than one for large and/or linear resources) Zone: 10 ; 06 42 815 mE/; 42 62 105 mN
e. Other Locational Data: (e.g. parcel #, directions to resource, elevation, etc., as appropriate)
APN 064-0080-34

P3a. Description: (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries)
7106 Hedge This residence looks similar to several others along this section of Hedge, a small Minimal Traditional with no adornments, but the Assessor's records indicate a date of 1945. Also, it includes two outbuildings that may be older.

P3b. Resource Attributes: (List attributes and codes) HP-2, Single Family Property

P4. Resources Present: ■ Building ☐ Structure ☐ Object ☐ Site ☐ District ☐ Element of a District ☐ Other (Isolates etc.)

P5a. Photo or Drawing (Photo required for buildings, structures, and objects)

P5b. Description of Photo: (View, date, accession #)
See Continuation

P6. Date Construction/Age and Sources: Historic ■ Prehistoric ☐ Both ☐

P7. Owner and Address:

P8. Recorded By: (Name, affiliation, and address)
Robert Gerry
Peak & Associates, Inc.
3941 Park Drive, Suite 20, #329
El Dorado Hills, CA 95762

P9. Date Recorded:
1/14/06

P10. Survey Type: (Describe)
Complete, Project Related

P11. Report Citation: (Cite Survey report and other resources, or enter "none") Determination of Eligibility and Effect For Participating Properties Within The Florin Vineyard Gap Community Plan Project Area, County of Sacramento, California. Peak & Associates, Inc. 2007

ATTACHMENTS: ☐ NONE ■ Location Map ☐ Sketch Map ■ Continuation Sheet ■ Building, Structure, and Object Record ☐ Archaeological Record ☐ District Record ☐ Linear Feature Record ☐ Milling Station Record ☐ Rock Art Record ☐ Artifact Record ☐ Photograph Record ☐ Other:

State of California - The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
BUILDING, STRUCTURE, AND OBJECT RECORD

Primary #: _____
HRI #: _____

Page 2 of 4 ***NRHP Status Code:** 6Z Resource Name or #: (assigned by recorder) 7106 Hedge

B1. Historic Name: _____
B2. Common Name: _____
B3. Original Use: Residence B4. Present Use: Residence
B5. Architectural Style: Minimal Traditional
B6. Construction History: (Construction date, alterations, and date of alterations.)
Constructed about 1945 per County Assessor's office. Two outbuildings could be a bit older

B7. Moved? ☒ No ☐ Yes ☐ Unknown Date: _____ Original Location: _____
B8. Related Features: None

B9a. Architect: _____ b. Builder: _____
B10. Significance: Theme _____ **Area** _____
Period of Significance _____ **Property Type** _____ **Applicable Criteria** _____
(Discuss importance in terms of historical or architectural context as defined by theme, period, and geographic scope. Also address integrity.)

This residence is not associated with important events in local or State history [NRHP criterion a; CRHR criterion B (1)]. This is one of many areas in Sacramento County supported by small farms. There is no close by community or other social-defining mechanism for the region. The area has remained rural until recently, with a scattering of residences and farms.

Land ownership maps through 1923 for the County were reviewed, and names on building records checked. There are no associations with people important in State or local history [NRHP criterion b; CRHR criterion B (2)]. The residents were apparently small farmers, unassociated with anyone of social prominence or historical importance.

This residence is too architecturally plain to be an unusually good example of the architectural style. The barn and shed may be older, but there is nothing unusual about them.. It cannot be said that either building "embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values" [NRHP criterion c; CRHR criterion B (3)].

In consideration of the ability of this building or its immediate surroundings yield information important in history through archeological means, it should be noted that farm practices limit the possibilities of finding subsurface materials. The farms were more or less subsistence farms in the earlier period. They were at a great distance from any commercial establishment. Manufactured items would have been costly and time-consuming to acquire. As a result, most farms tended to reuse manufactured items such as glass containers, fabric, metal implements, and milled lumber. Other waste was burned on site, resulting in a lack of subsurface features that might be useful in defining early lifeways. Also, there is little to be learned from archeological excavations of essentially modern era properties, even in the unlikely event that such deposits exist. We do not believe that the residence is significant for its archeological values [NRHP criterion d; CRHR criterion B (4)].

B11. Additional Resource Attributes: (List attributes and codes) None

B12. References:

B13. Remarks:

B14. Evaluator: R. Gerry, Peak & Associates, Inc.

Date of Evaluation: June 2007

This space reserved for official comments.

See Attached Sketch Map

State of California - The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
CONTINUATION SHEET

Primary #: _____
HRI #: _____
Trinomial: _____

Page 3 of 4 **Resource Name or #:** (assigned by recorder) 7106 Hedge
Recorded By: Gerry **Date:** June 2007 ■ Continuation □ Update

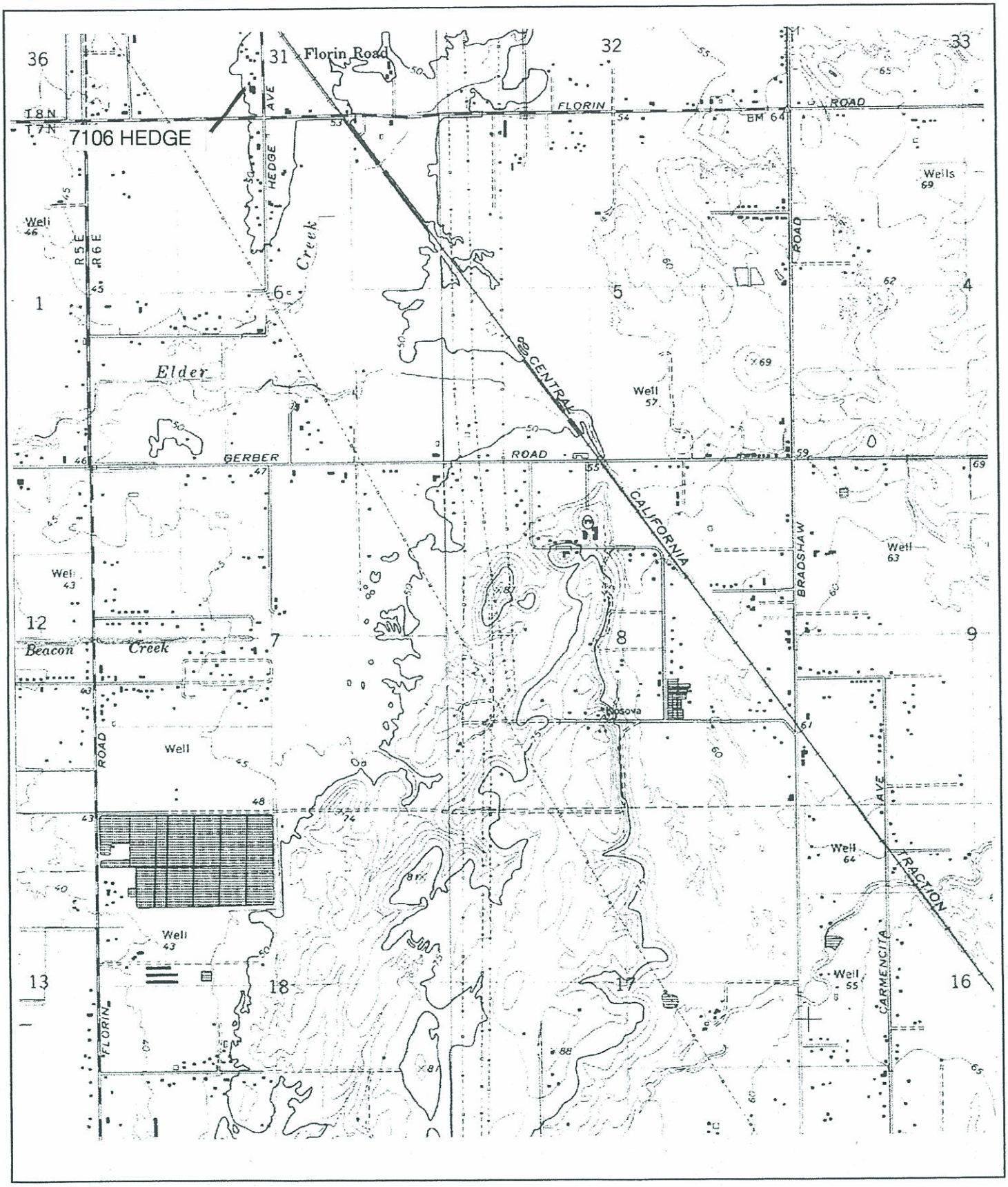
Residence looking southwest

Outbuildings, looking west southwest

State of California - The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
LOCATION MAP

Primary #:
HRI #:
Trinomial:

Page 4 of 4 **Resource Name or #:** (assigned by recorder) 7106 HEDGE
Map Name: Elk Grove 7.5' **Scale:** 1 : 24,000 **Date of Map:** 1968 (PR79)



State of California - The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
PRIMARY RECORD

Primary #
HRI#
Trinomial
NRHP Status Code 6Z

Other Listings:
Review Code: Reviewer: Date:

 Resource Name or #: (assigned by recorder) 8799 Caselman

P1. Other Identifier:

P2. Location: ☐ **Not for Publication** ☒ **Unrestricted** (P2b and P2c or P2d. Attach a Location Map as necessary)

a. County: Sacramento
b. USGS 7.5' Quad: Florin Date: 1968 (PR80) T. 7N ;R. 5E ; NW ¼ of SE ¼ of Sec. 12 ; MD B.M.
c. Address: 8799 Caselman Avenue City: Sacramento Zip: 95828
d. UTM: (Give more than one for large and/or linear resources) Zone: 10 ; 06 41 699 mE/; 42 59 316 mN
e. Other Locational Data: (e.g. parcel #, directions to resource, elevation, etc., as appropriate)
APN 115 0091 004

P3a. Description: (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries)
A one story frame residence with stucco walls. The house has a hipped roof and square layout. There is no decoration at all. The entry, set near the eastern end of the front (south) elevation is covered by a small roof formed by an extension of the main roof at the same pitch. The outer edges of the entry roof are supported by angle brackets. The entry is from a low ramp that appears to be recently constructed, probably for an elderly occupant. The windows are aluminum-framed sliders and the front door has an aluminum security screen. There is no chimney or garage. The Assessor's web site indicates a date of 1964 for this structure, but this may be when it was moved to the lot, since it is almost identical to the others in the area in condition and general appearance. An alternate date is provided by the USGS, since it is printed in purple, indicating 1968 to 1980–at this location.

P3b. Resource Attributes: (List attributes and codes) HP-2; Single family property

P4. Resources Present: ☒ Building ☐ Structure ☐ Object ☐ Site ☐ District ☐ Element of a District ☐ Other (Isolates etc.)

P5b. Description of Photo: (View, date, accession #) 1/15/06 Looking north at entry. Florin Vineyard roll 1, Frame 10

P6. Date Construction/Age and Sources: Historic ☒ Prehistoric ☐ Both ☐
See discussion on BSO record

P7. Owner and Address:

P8. Recorded By: (Name, affiliation, and address)
Ann Peak/Robert Gerry
Peak & Associates, Inc.
3941 Park Drive, Suite 20, #329
El Dorado Hills, CA 95762

P9. Date Recorded:
1/15/06

P10. Survey Type: (Describe)
Complete, project related

P11. Report Citation: (Cite Survey report and other resources, or enter "none") Determination of Eligibility and Effect for Participating Properties Within the Florin Vineyard Gap Community Plan Project Area County of Sacramento, California. Peak & Associates 2007

ATTACHMENTS: ☐ NONE ☒ Location Map ☐ Sketch Map ☐ Continuation Sheet ☒ Building, Structure, and Object Record
☐ Archaeological Record ☐ District Record ☐ Linear Feature Record ☐ Milling Station Record ☐ Rock Art Record
☐ Artifact Record ☐ Photograph Record ☐ Other:

State of California - The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
BUILDING, STRUCTURE, AND OBJECT RECORD

Primary #: _____
HRI #: _____

Page 2 of 3 ***NRHP Status Code:** 6Z Resource Name or #: (assigned by recorder) 8799 Caselman Ave

B1. Historic Name: _____
B2. Common Name: _____
B3. Original Use: Residence B4. Present Use: Residence
B5. Architectural Style: Minimal Traditional
B6. Construction History: (Construction date, alterations, and date of alterations.)
This is one of a series of residences on Caselman Avenue that have a general similarity in that they are all small one-story stucco cottages. They appear to be coeval, built on lots of W & K Colony #6, according to the Assessor's residential building records. Alternatively, the property owner states that the houses were built in the 1940s or 1950s and moved to the site from east Sacramento as rental properties (cited in Erwin 2005). This explanation has the advantage of being more in line with the appearance of the houses, which are mostly in the Minimal Traditional style popular immediately after World War II, and their current condition. The 1918 and 1919 dates given by the Assessor's building records would then apply to earlier houses, now gone, that occupied larger lots when the area was an agricultural colony.

B7. Moved? ☐ No ☐ Yes ☒ Unknown Date: pos 1950s (see B6) Original Location: East Sacramento
B8. Related Features:

B9a. Architect: Unknown b. Builder: Unknown
B10. Significance: Theme Not significant **Area** _____
Period of Significance _____ **Property Type** _____ **Applicable Criteria** _____
(Discuss importance in terms of historical or architectural context as defined by theme, period, and geographic scope. Also address integrity.)

This residence is not associated with important events in local or State history [NRHP criterion a; CRHR criterion B (1)]. This is one of many areas in Sacramento County supported by small farms. There is no close by community or other social-defining mechanism for the region. The area has remained rural until recently, with a scattering of residences and farms.

Land ownership maps through 1923 for the County were reviewed, and names on building records checked. There are no associations with people important in State or local history [NRHP criterion b; CRHR criterion B (2)]. The residents were apparently small farmers, unassociated with anyone of social prominence or historical importance.

The residence is not a particularly good examples of its architectural style. It is small, very plain and probably was moved to the project area. It cannot be said that this building "embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values" [NRHP criterion c; CRHR criterion B (3)].

In consideration of the ability of this building or its immediate surroundings yield information important in history through archeological means, it should be noted that farm practices limit the possibilities of finding subsurface materials. The farms were more or less subsistence farms in the earlier period. They were at a great distance from any commercial establishment. Manufactured items would have been costly and time-consuming to acquire. As a result, most farms tended to reuse manufactured items such as glass containers, fabric, metal implements, and milled lumber. Other waste was burned on site, resulting in a lack of subsurface features that might be useful in defining early lifeways. Also, there is little to be learned from archeological excavations of essentially modern era properties, even in the unlikely event that such deposits exist. We do not believe that the residence is significant for is archeological values [NRHP criterion d; CRHR criterion B (4)].

B11. Additional Resource Attributes: (List attributes and codes) _____

B12. References: Erwin, Gail
2005 Revised Cultural Resource Project Discussion, Florin-Vineyard CPA, 04-0096 *et al.* On file: County of Sacramento, Department of Environmental Review and Assessment.

B13. Remarks:

B14. Evaluator: M. Peak, Peak & Associates, Inc.

Date of Evaluation: June 2006

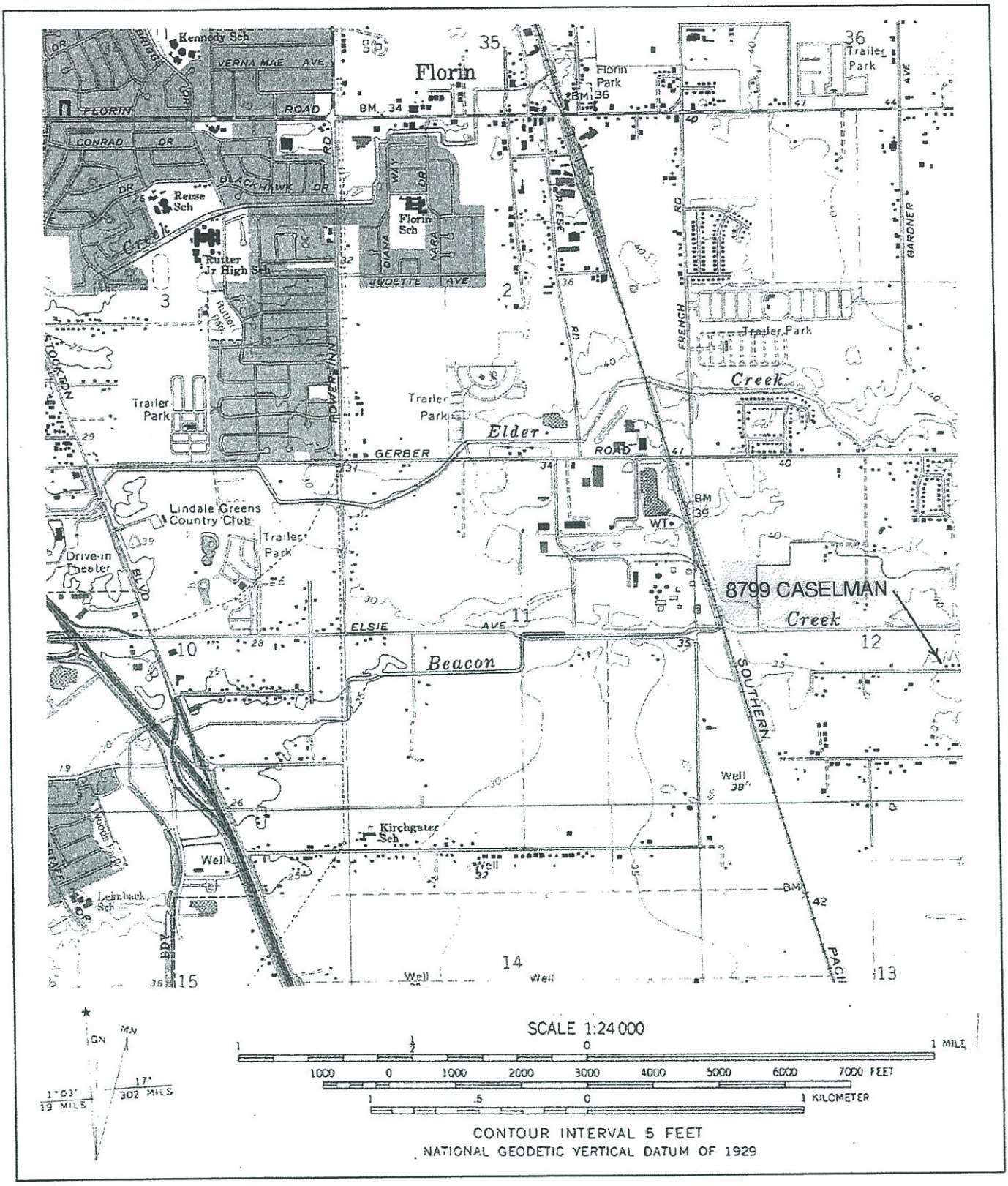
This space reserved for official comments.

See attached location map

State of California - The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
LOCATION MAP

Primary #:
HRI #:
Trinomial:

Page 3 of 3 **Resource Name or #:** (assigned by recorder) 8799 CASELMAN
Map Name: Florin **Scale:** 1:24,000 **Date of Map:** 1968 (PR80)



State of California - The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
PRIMARY RECORD

Primary #
HRI#
Trinomial
NRHP Status Code 6Z

Other Listings:
Review Code: Reviewer: Date:

 Resource Name or #: (assigned by recorder) 8801 Caselman

P1. Other Identifier:

P2. Location: ☐ **Not for Publication** ☒ **Unrestricted** (P2b and P2c or P2d. Attach a Location Map as necessary)

a. County: Sacramento
b. USGS 7.5' Quad: Florin Date: 1968 (PR80) T. 7N ;R. 5E ; NW ¼ of SE ¼ of Sec. 12 ; MD B.M.
c. Address: 8801 Caselman Avenue City: Sacramento Zip: 95828
d. UTM: (Give more than one for large and/or linear resources) Zone: 10 ; 06 41 704 mE/; 42 59 320 mN
e. Other Locational Data: (e.g. parcel #, directions to resource, elevation, etc., as appropriate)
APN 115 0091 005

P3a. Description: (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries)
The residence is given a 1919 date on the Assessor's building record, and is the most westerly building of 7 on parcel 5. It is the smallest and plainest of the group. The bulk of the house is a side gabled rectangle with a small partial width extension of the west side covered by a slightly lower gabled roof. There is a small entry on the eastern end of the south elevation covered by its own tiny gable, which is supported at the outer edges by plain wood pillars. The steps and porch are concrete. There is only one window on the front, the rest of the structure being a solid stucco wall. The property includes a detached one-car garage.

P3b. Resource Attributes: (List attributes and codes) HP-2; Single family property

P4. Resources Present: ☒ Building ☐ Structure ☐ Object ☐ Site ☐ District ☐ Element of a District ☐ Other (Isolates etc.)

P5b. Description of Photo: (View, date, accession #) 1/15/06 Looking north at entry. Florin Vineyard roll 1, Frame 15. Detached garage in background

P6. Date Construction/Age and Sources: Historic ☒ Prehistoric ☐ Both ☐
See discussion on BSO record

P7. Owner and Address:

P8. Recorded By: (Name, affiliation, and address)
Ann Peak/Robert Gerry
Peak & Associates, Inc.
3941 Park Drive, Suite 20, #329
El Dorado Hills, CA 95762

P9. Date Recorded:
1/15/06

P10. Survey Type: (Describe)
Complete, project related

P11. Report Citation: (Cite Survey report and other resources, or enter "none") Determination of Eligibility and Effect for Participating Properties Within the Florin Vineyard Gap Community Plan Project Area County of Sacramento, California. Peak & Associates 2007

ATTACHMENTS: ☐ NONE ☒ Location Map ☐ Sketch Map ☐ Continuation Sheet ☒ Building, Structure, and Object Record
☐ Archaeological Record ☐ District Record ☐ Linear Feature Record ☐ Milling Station Record ☐ Rock Art Record
☐ Artifact Record ☐ Photograph Record ☐ Other:

State of California - The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
BUILDING, STRUCTURE, AND OBJECT RECORD

Primary #: _____
HRI #: _____

Page 2 of 3 ***NRHP Status Code:** 6Z Resource Name or #: (assigned by recorder) 8801 Caselman Ave

B1. Historic Name:
B2. Common Name:
B3. Original Use: Residence B4. Present Use: Residence
B5. Architectural Style: Minimal Traditional
B6. Construction History: (Construction date, alterations, and date of alterations.)

This is one of a series of residences on Caselman Avenue that have a general similarity in that they are all small one-story stucco cottages. They appear to be coeval, built on lots of W & K Colony #6, according to the Assessor's residential building records. Alternatively, the property owner states that the houses were built in the 1940s or 1950s and moved to the site from east Sacramento as rental properties (cited in Erwin 2005). This explanation has the advantage of being more in line with the appearance of the houses, which are mostly in the Minimal Traditional style popular immediately after World War II, and their current condition. The 1918 and 1919 dates given by the Assessor's building records would then apply to earlier houses, now gone, that occupied larger lots when the area was an agricultural colony.

B7. Moved? ☐ No ☐ Yes ☒ Unknown Date: pos 1950s (see B6) Original Location: East Sacramento
B8. Related Features:

B9a. Architect: Unknown b. Builder: Unknown
B10. Significance: Theme Not significant **Area**
Period of Significance **Property Type** **Applicable Criteria**
(Discuss importance in terms of historical or architectural context as defined by theme, period, and geographic scope. Also address integrity.)

This residence is not associated with important events in local or State history [NRHP criterion a; CRHR criterion B (1)]. This is one of many areas in Sacramento County supported by small farms. There is no close by community or other social-defining mechanism for the region. The area has remained rural until recently, with a scattering of residences and farms.

Land ownership maps through 1923 for the County were reviewed, and names on building records checked. There are no associations with people important in State or local history [NRHP criterion b; CRHR criterion B (2)]. The residents were apparently small farmers, unassociated with anyone of social prominence or historical importance.

The residence is not a particularly good examples of its architectural style. It is small, very plain and probably was moved to the project area. It cannot be said that this building "embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values" [NRHP criterion c; CRHR criterion B (3)].

In consideration of the ability of this building or its immediate surroundings yield information important in history through archeological means, it should be noted that farm practices limit the possibilities of finding subsurface materials. The farms were more or less subsistence farms in the earlier period. They were at a great distance from any commercial establishment. Manufactured items would have been costly and time-consuming to acquire. As a result, most farms tended to reuse manufactured items such as glass containers, fabric, metal implements, and milled lumber. Other waste was burned on site, resulting in a lack of subsurface features that might be useful in defining early lifeways. Also, there is little to be learned from archeological excavations of essentially modern era properties, even in the unlikely event that such deposits exist. We do not believe that the residence is significant for is archeological values [NRHP criterion d; CRHR criterion B (4)].

B11. Additional Resource Attributes: (List attributes and codes)

B12. References: Erwin, Gail
2005 Revised Cultural Resource Project Discussion, Florin-Vineyard CPA, 04-0096 *et al.* On file: County of Sacramento, Department of Environmental Review and Assessment.

B13. Remarks:

B14. Evaluator: M. Peak, Peak & Associates, Inc.

Date of Evaluation: June 2006

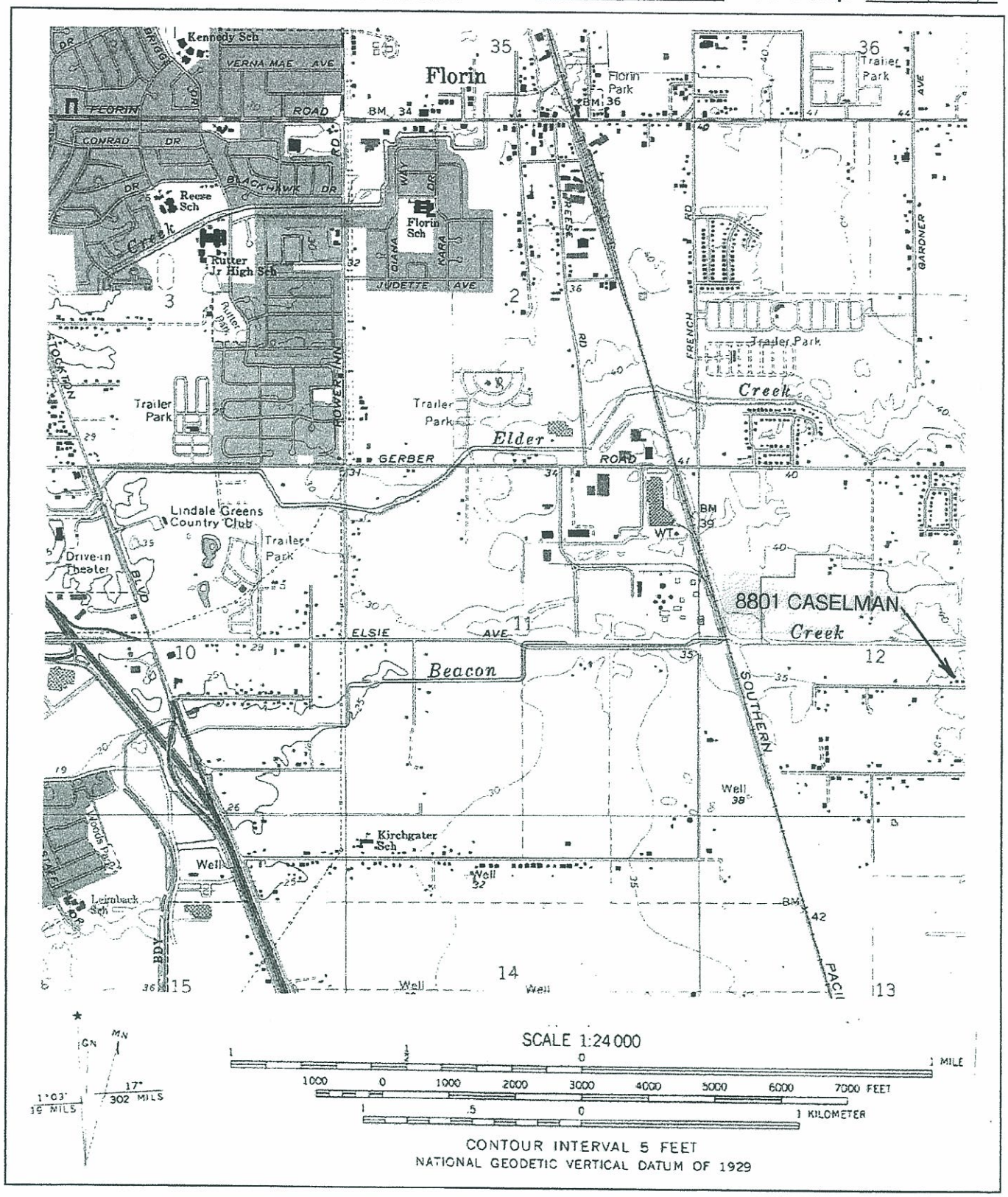
This space reserved for official comments.

See attached location map

State of California - The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
LOCATION MAP

Primary #:
HRI #:
Trinomial:

Page 3 of 3 **Resource Name or #:** (assigned by recorder) 8801 CASELMAN
Map Name: Florin **Scale:** 1:24,000 **Date of Map:** 1968 (PR80)



State of California - The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
PRIMARY RECORD

Primary #
HRI#
Trinomial
NRHP Status Code 6Z

Other Listings:
Review Code: Reviewer: Date:

 Resource Name or #: (assigned by recorder) 8809 Caslmlan

P1. Other Identifier:

P2. Location: ☐ **Not for Publication** ☒ **Unrestricted** (P2b and P2c or P2d. Attach a Location Map as necessary)

a. County: Sacramento
b. USGS 7.5' Quad: Florin Date: 1968 (PR80) T. 7N ;R. 5E ; NW ¼ of SE ¼ of Sec. 12 ; MD B.M.
c. Address: 8809 Caselman Avenue City: Sacramento Zip: 95828
d. UTM: (Give more than one for large and/or linear resources) Zone: 10 ; 06 41 731 mE/; 42 59 320 mN
e. Other Locational Data: (e.g. parcel #, directions to resource, elevation, etc., as appropriate)
APN 115 0091 005

P3a. Description: (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries)
The frame, one story stucco residence is end gabled and entirely plain in style except for a covered entry porch that is a bit more than half the width of the house, offset to the east. The porch roof is also gabled, formed by an extension of the main roof except that the peak is lower than the main roof. Thus the eastern part of the porch roof is an extension of the main roof, but the western side is at a lower level, but on the same pitch. The porch gable is enclosed above the entry level as if it were living space above, which gives a clumsy, too massive look to it. The concrete porch is at ground level on the east, with two steps up to the entry porch. The outer edges of the porch roof are supported by plain wood posts and there is a small wood railing on the raised section of the porch. There are angle brackets at the corners of the porch roof, which are not present on the main roof. The posts, railing and brackets are all all in red-stained wood and appear to be recent additions or replacements. There is a detached garage northeast of the house.

P3b. Resource Attributes: (List attributes and codes) HP-2; Single family property

P4. Resources Present: ☒ Building ☐ Structure ☐ Object ☐ Site ☐ District ☐ Element of a District ☐ Other (Isolates etc.)

P5b. Description of Photo: (View, date, accession #) 1/15/06 Looking north at entry. Florin Vineyard roll 1, Frame 20.

P6. Date Construction/Age and Sources: Historic ☒ Prehistoric ☐ Both ☐
See discussion on BSO record

P7. Owner and Address:

P8. Recorded By: (Name, affiliation, and address)
Ann Peak/Robert Gerry
Peak & Associates, Inc.
3941 Park Drive, Suite 20, #329
El Dorado Hills, CA 95762

P9. Date Recorded:
1/15/06

P10. Survey Type: (Describe)
Complete, project related

P11. Report Citation: (Cite Survey report and other resources, or enter "none") Determination of Eligibility and Effect for Participating Properties Within the Florin Vineyard Gap Community Plan Project Area County of Sacramento, California. Peak & Associates 2007

ATTACHMENTS: ☐ NONE ☒ Location Map ☐ Sketch Map ☐ Continuation Sheet ☒ Building, Structure, and Object Record
☐ Archaeological Record ☐ District Record ☐ Linear Feature Record ☐ Milling Station Record ☐ Rock Art Record
☐ Artifact Record ☐ Photograph Record ☐ Other:

State of California - The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
BUILDING, STRUCTURE, AND OBJECT RECORD

Primary #: _____
HRI #: _____

Page 2 of 3 ***NRHP Status Code:** 6Z Resource Name or #: (assigned by recorder) 8809 Caselman Ave

B1. Historic Name: _____
B2. Common Name: _____
B3. Original Use: Residence B4. Present Use: Residence
B5. Architectural Style: Minimal Traditional
B6. Construction History: (Construction date, alterations, and date of alterations.)
This is one of a series of residences on Caselman Avenue that have a general similarity in that they are all small one-story stucco cottages. They appear to be coeval, built on lots of W & K Colony #6, according to the Assessor's residential building records. Alternatively, the property owner states that the houses were built in the 1940s or 1950s and moved to the site from east Sacramento as rental properties (cited in Erwin 2005). This explanation has the advantage of being more in line with the appearance of the houses, which are mostly in the Minimal Traditional style popular immediately after World War II, and their current condition. The 1918 and 1919 dates given by the Assessor's building records would then apply to earlier houses, now gone, that occupied larger lots when the area was an agricultural colony.

B7. Moved? ☐ No ☐ Yes ☒ Unknown Date: pos 1950s (see B6) Original Location: East Sacramento
B8. Related Features:

B9a. Architect: Unknown b. Builder: Unknown
B10. Significance: Theme Not significant **Area** _____
Period of Significance _____ **Property Type** _____ **Applicable Criteria** _____
(Discuss importance in terms of historical or architectural context as defined by theme, period, and geographic scope. Also address integrity.)

This residence is not associated with important events in local or State history [NRHP criterion a; CRHR criterion B (1)]. This is one of many areas in Sacramento County supported by small farms. There is no close by community or other social-defining mechanism for the region. The area has remained rural until recently, with a scattering of residences and farms.

Land ownership maps through 1923 for the County were reviewed, and names on building records checked. There are no associations with people important in State or local history [NRHP criterion b; CRHR criterion B (2)]. The residents were apparently small farmers, unassociated with anyone of social prominence or historical importance.

The residence is not a particularly good examples of its architectural style. It is small, very plain and probably was moved to the project area. It cannot be said that this building "embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values" [NRHP criterion c; CRHR criterion B (3)].

In consideration of the ability of this building or its immediate surroundings yield information important in history through archeological means, it should be noted that farm practices limit the possibilities of finding subsurface materials. The farms were more or less subsistence farms in the earlier period. They were at a great distance from any commercial establishment. Manufactured items would have been costly and time-consuming to acquire. As a result, most farms tended to reuse manufactured items such as glass containers, fabric, metal implements, and milled lumber. Other waste was burned on site, resulting in a lack of subsurface features that might be useful in defining early lifeways. Also, there is little to be learned from archeological excavations of essentially modern era properties, even in the unlikely event that such deposits exist. We do not believe that the residence is significant for is archeological values [NRHP criterion d; CRHR criterion B (4)].

B11. Additional Resource Attributes: (List attributes and codes) _____

B12. References: Erwin, Gail
2005 Revised Cultural Resource Project Discussion, Florin-Vineyard CPA, 04-0096 *et al.* On file: County of Sacramento, Department of Environmental Review and Assessment.

B13. Remarks:

B14. Evaluator: M. Peak, Peak & Associates, Inc.

Date of Evaluation: June 2006

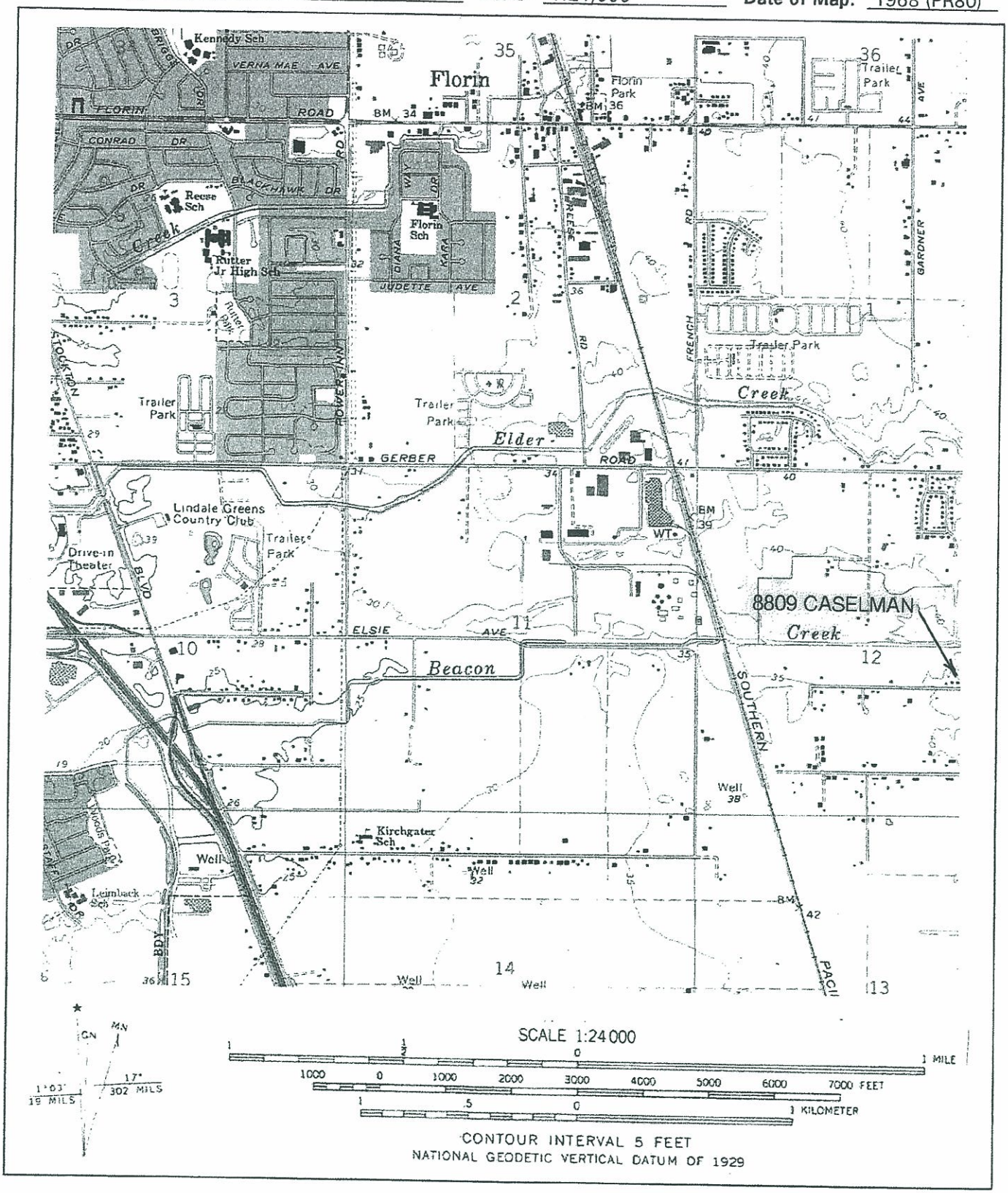
This space reserved for official comments.

See attached location map

State of California - The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
LOCATION MAP

Primary #:
HRI #:
Trinomial:

Page 3 of 3 **Resource Name or #:** (assigned by recorder) 8809 CASELMAN
Map Name: Florin **Scale:** 1:24,000 **Date of Map:** 1968 (PR80)



State of California - The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
PRIMARY RECORD

Primary #
HRI#
Trinomial
NRHP Status Code 6Z

Other Listings:
Review Code: Reviewer: Date:

 Resource Name or #: (assigned by recorder) 8817 Caselman

P1. Other Identifier:

P2. Location: ☐ **Not for Publication** ☒ **Unrestricted** (P2b and P2c or P2d. Attach a Location Map as necessary)

a. County: Sacramento
b. USGS 7.5' Quad: Elk Grove Date: 1968 (PR79) T. 7N ;R. 5E ; NE ¼ of SE ¼ of Sec. 12 ; MD B.M.
c. Address: 8817 Caselman Avenue City: Sacramento Zip: 95828
d. UTM: (Give more than one for large and/or linear resources) Zone: 10 ; 06 41 782 mE/; 42 59 321 mN
e. Other Locational Data: (e.g. parcel #, directions to resource, elevation, etc., as appropriate)
APN 115 0091 005

P3a. Description: (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries)
The frame, one story stucco residence is end gabled and entirely plain in style. The house is virtually identical to 8809, just west of it, except that the entry porch is offset to the west and the garage is also west of the residence. In both cases the widows, aluminum sliders, and front door are clearly replacements. Unlike most of the small cattages on this section of Caselman, which have closed eaves, the rafter ends are exposed on the sides of this house.

P3b. Resource Attributes: (List attributes and codes) HP-2; Single family property

P4. Resources Present: ☒ Building ☐ Structure ☐ Object ☐ Site ☐ District ☐ Element of a District ☐ Other (Isolates etc.)

P5b. Description of Photo: (View, date, accession #) 1/15/06 Looking north at entry. Garages for this house and 8809 in background. Florin Vineyard roll 2, Frame 2.

P6. Date Construction/Age and Sources: Historic ☒ Prehistoric ☐ Both ☐
See discussion on BSO record

P7. Owner and Address:

P8. Recorded By: (Name, affiliation, and address)
Ann Peak/Robert Gerry
Peak & Associates, Inc.
3941 Park Drive, Suite 20, #329
El Dorado Hills, CA 95762

P9. Date Recorded:
1/15/06

P10. Survey Type: (Describe)
Complete, project related

P11. Report Citation: (Cite Survey report and other resources, or enter "none") Determination of Eligibility and Effect for Participating Properties Within the Florin Vineyard Gap Community Plan Project Area County of Sacramento, California. Peak & Associates 2007

ATTACHMENTS: ☐ NONE ☒ Location Map ☐ Sketch Map ☐ Continuation Sheet ☒ Building, Structure, and Object Record ☐ Archaeological Record ☐ District Record ☐ Linear Feature Record ☐ Milling Station Record ☐ Rock Art Record ☐ Artifact Record ☐ Photograph Record ☐ Other:

State of California - The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
BUILDING, STRUCTURE, AND OBJECT RECORD

Primary #: _____
HRI #: _____

Page 2 of 3 ***NRHP Status Code:** 6Z Resource Name or #: (assigned by recorder) 8817 Caselman Ave

B1. Historic Name:
B2. Common Name:
B3. Original Use: Residence B4. Present Use: Residence
B5. Architectural Style: Minimal Traditional
B6. Construction History: (Construction date, alterations, and date of alterations.)
This is one of a series of residences on Caselman Avenue that have a general similarity in that they are all small one-story stucco cottages. They appear to be coeval, built on lots of W & K Colony #6, according to the Assessor's residential building records. Alternatively, the property owner states that the houses were built in the 1940s or 1950s and moved to the site from east Sacramento as rental properties (cited in Erwin 2005). This explanation has the advantage of being more in line with the appearance of the houses, which are mostly in the Minimal Traditional style popular immediately after World War II, and their current condition. The 1918 and 1919 dates given by the Assessor's building records would then apply to earlier houses, now gone, that occupied larger lots when the area was an agricultural colony.

B7. Moved? ☐ No ☐ Yes ☒ Unknown Date: pos 1950s (see B6) Original Location: East Sacramento
B8. Related Features:

B9a. Architect: Unknown b. Builder: Unknown
B10. Significance: Theme Not significant **Area**
Period of Significance **Property Type** **Applicable Criteria**
(Discuss importance in terms of historical or architectural context as defined by theme, period, and geographic scope. Also address integrity.)

This residence is not associated with important events in local or State history [NRHP criterion a; CRHR criterion B (1)]. This is one of many areas in Sacramento County supported by small farms. There is no close by community or other social-defining mechanism for the region. The area has remained rural until recently, with a scattering of residences and farms.

Land ownership maps through 1923 for the County were reviewed, and names on building records checked. There are no associations with people important in State or local history [NRHP criterion b; CRHR criterion B (2)]. The residents were apparently small farmers, unassociated with anyone of social prominence or historical importance.

The residence is not a particularly good examples of its architectural style. It is small, very plain and probably was moved to the project area. It cannot be said that this building "embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values" [NRHP criterion c; CRHR criterion B (3)].

In consideration of the ability of this building or its immediate surroundings yield information important in history through archeological means, it should be noted that farm practices limit the possibilities of finding subsurface materials. The farms were more or less subsistence farms in the earlier period. They were at a great distance from any commercial establishment. Manufactured items would have been costly and time-consuming to acquire. As a result, most farms tended to reuse manufactured items such as glass containers, fabric, metal implements, and milled lumber. Other waste was burned on site, resulting in a lack of subsurface features that might be useful in defining early lifeways. Also, there is little to be learned from archeological excavations of essentially modern era properties, even in the unlikely event that such deposits exist. We do not believe that the residence is significant for its archeological values [NRHP criterion d; CRHR criterion B (4)].

B11. Additional Resource Attributes: (List attributes and codes)

B12. References: Erwin, Gail
2005 Revised Cultural Resource Project Discussion, Florin-Vineyard CPA, 04-0096 *et al.* On file: County of Sacramento, Department of Environmental Review and Assessment.

B13. Remarks:

B14. Evaluator: M. Peak, Peak & Associates, Inc.

Date of Evaluation: June 2006

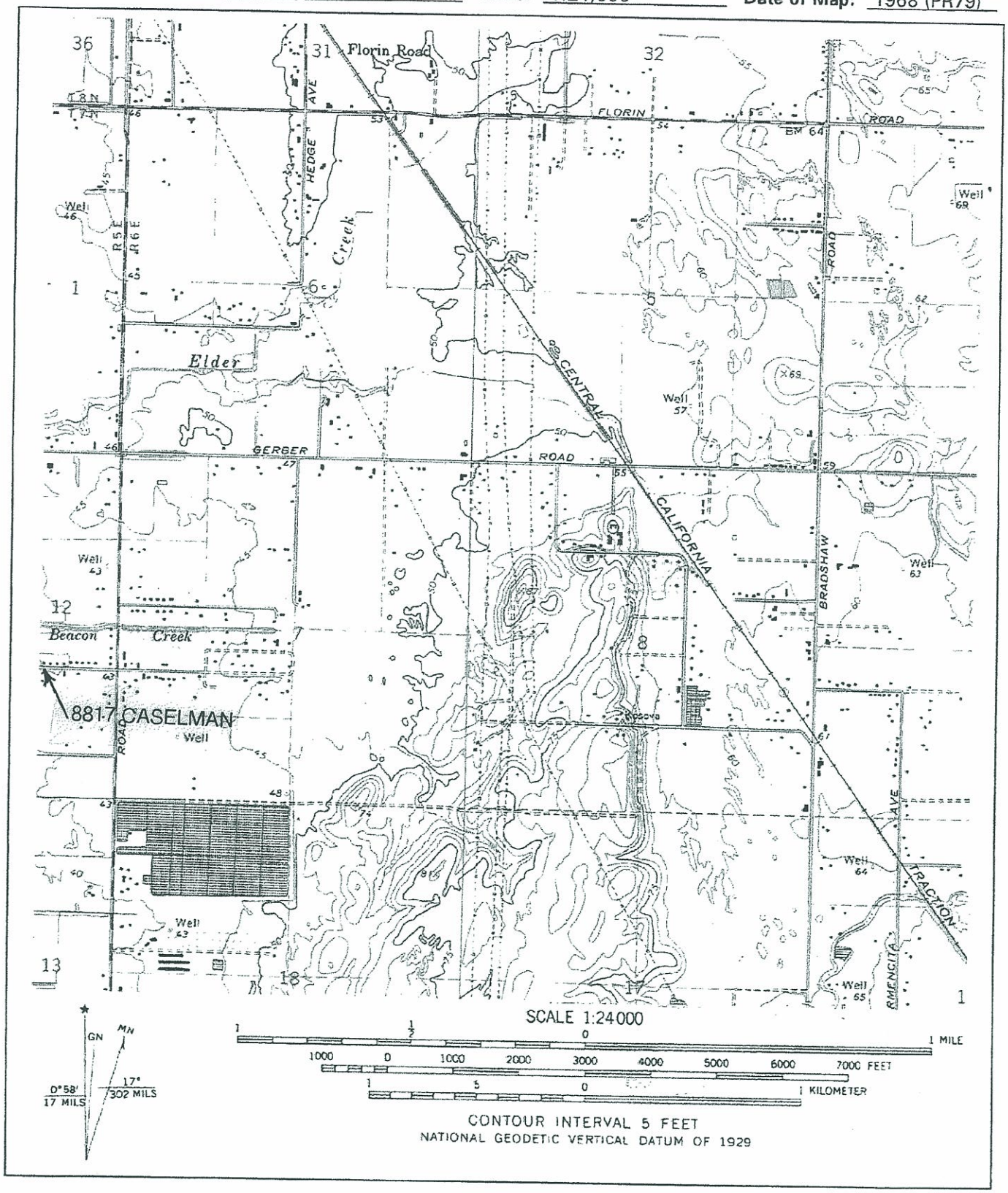
See attached location map

This space reserved for official comments.

State of California - The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
LOCATION MAP

Primary #:
HRI #:
Trinomial:

Page 3 of 3 **Resource Name or #:** (assigned by recorder) 8817 CASELMAN
Map Name: Elk Grove **Scale:** 1:24,000 **Date of Map:** 1968 (PR79)



State of California - The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
PRIMARY RECORD

Primary #
HRI#
Trinomial
NRHP Status Code 6Z

Other Listings:
Review Code: Reviewer: Date:

 Resource Name or #: (assigned by recorder) 8825 Caselman

P1. Other Identifier:

P2. Location: ☐ **Not for Publication** ☒ **Unrestricted** (P2b and P2c or P2d. Attach a Location Map as necessary)

a. County: Sacramento
b. USGS 7.5' Quad: Elk Grove Date: 1968 (PR79) T. 7N ;R. 5E ; NE ¼ of SE ¼ of Sec. 12 ; MD B.M.
c. Address: 8825 Caselman Avenue City: Sacramento Zip: 95828
d. UTM: (Give more than one for large and/or linear resources) Zone: 10 ; 06 41 813 mE/; 42 59 322 mN
e. Other Locational Data: (e.g. parcel #, directions to resource, elevation, etc., as appropriate)
APN 115 0091 005

P3a. Description: (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries)
The frame, one story stucco residence is end gabled and entirely plain in style. This differs from the other houses on the north side of Caselman in that it has a full width front porch and central entry. Otherwise, it is another end gabled rectangle with the porch covered by a boxed extension of the main roof. There are plain angle brackets in the eaves on the front elevation.

P3b. Resource Attributes: (List attributes and codes) HP-2; Single family property

P4. Resources Present: ☒ Building ☐ Structure ☐ Object ☐ Site ☐ District ☐ Element of a District ☐ Other (Isolates etc.)

P5b. Description of Photo: (View, date, accession #) 1/15/06 Looking north at entry. Florin Vineyard roll 2, Frame 7.

P6. Date Construction/Age and Sources: Historic ☒ Prehistoric ☐ Both ☐
See discussion on BSO record

P7. Owner and Address:

P8. Recorded By: (Name, affiliation, and address)
Ann Peak/Robert Gerry
Peak & Associates, Inc.
3941 Park Drive, Suite 20, #329
El Dorado Hills, CA 95762

P9. Date Recorded:
1/15/06

P10. Survey Type: (Describe)
Complete, project related

P11. Report Citation: (Cite Survey report and other resources, or enter "none") Determination of Eligibility and Effect for Participating Properties Within the Florin Vineyard Gap Community Plan Project Area County of Sacramento, California. Peak & Associates 2007

ATTACHMENTS: ☐ NONE ☒ Location Map ☐ Sketch Map ☐ Continuation Sheet ☒ Building, Structure, and Object Record
☐ Archaeological Record ☐ District Record ☐ Linear Feature Record ☐ Milling Station Record ☐ Rock Art Record
☐ Artifact Record ☐ Photograph Record ☐ Other:

State of California - The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
BUILDING, STRUCTURE, AND OBJECT RECORD

Primary #: _____
HRI #: _____

 ***NRHP Status Code:** 6Z Resource Name or #: (assigned by recorder) 8825 Caselman Ave

B1. Historic Name:
B2. Common Name:
B3. Original Use: Residence B4. Present Use: Residence
B5. Architectural Style: Minimal Traditional
B6. Construction History: (Construction date, alterations, and date of alterations.)
This is one of a series of residences on Caselman Avenue that have a general similarity in that they are all small one-story stucco cottages. They appear to be coeval, built on lots of W & K Colony #6, according to the Assessor's residential building records. Alternatively, the property owner states that the houses were built in the 1940s or 1950s and moved to the site from east Sacramento as rental properties (cited in Erwin 2005). This explanation has the advantage of being more in line with the appearance of the houses, which are mostly in the Minimal Traditional style popular immediately after World War II, and their current condition. The 1918 and 1919 dates given by the Assessor's building records would then apply to earlier houses, now gone, that occupied larger lots when the area was an agricultural colony.

B7. Moved? ☐ No ☐ Yes ☒ Unknown Date: pos 1950s (see B6) Original Location: East Sacramento
B8. Related Features:

B9a. Architect: Unknown b. Builder: Unknown
B10. Significance: Theme Not significant **Area**
Period of Significance **Property Type** **Applicable Criteria**
(Discuss importance in terms of historical or architectural context as defined by theme, period, and geographic scope. Also address integrity.)

This residence is not associated with important events in local or State history [NRHP criterion a; CRHR criterion B (1)]. This is one of many areas in Sacramento County supported by small farms. There is no close by community or other social-defining mechanism for the region. The area has remained rural until recently, with a scattering of residences and farms.

Land ownership maps through 1923 for the County were reviewed, and names on building records checked. There are no associations with people important in State or local history [NRHP criterion b; CRHR criterion B (2)]. The residents were apparently small farmers, unassociated with anyone of social prominence or historical importance.

The residence is not a particularly good examples of its architectural style. It is small, very plain and probably was moved to the project area. It cannot be said that this building "embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values" [NRHP criterion c; CRHR criterion B (3)].

In consideration of the ability of this building or its immediate surroundings yield information important in history through archeological means, it should be noted that farm practices limit the possibilities of finding subsurface materials. The farms were more or less subsistence farms in the earlier period. They were at a great distance from any commercial establishment. Manufactured items would have been costly and time-consuming to acquire. As a result, most farms tended to reuse manufactured items such as glass containers, fabric, metal implements, and milled lumber. Other waste was burned on site, resulting in a lack of subsurface features that might be useful in defining early lifeways. Also, there is little to be learned from archeological excavations of essentially modern era properties, even in the unlikely event that such deposits exist. We do not believe that the residence is significant for its archeological values [NRHP criterion d; CRHR criterion B (4)].

B11. Additional Resource Attributes: (List attributes and codes)

B12. References:
Erwin, Gail
2005 Revised Cultural Resource Project Discussion, Florin-Vineyard CPA, 04-0096 *et al.* On file: County of Sacramento, Department of Environmental Review and Assessment.

B13. Remarks:

B14. Evaluator: M. Peak, Peak & Associates, Inc.

Date of Evaluation: June 2006

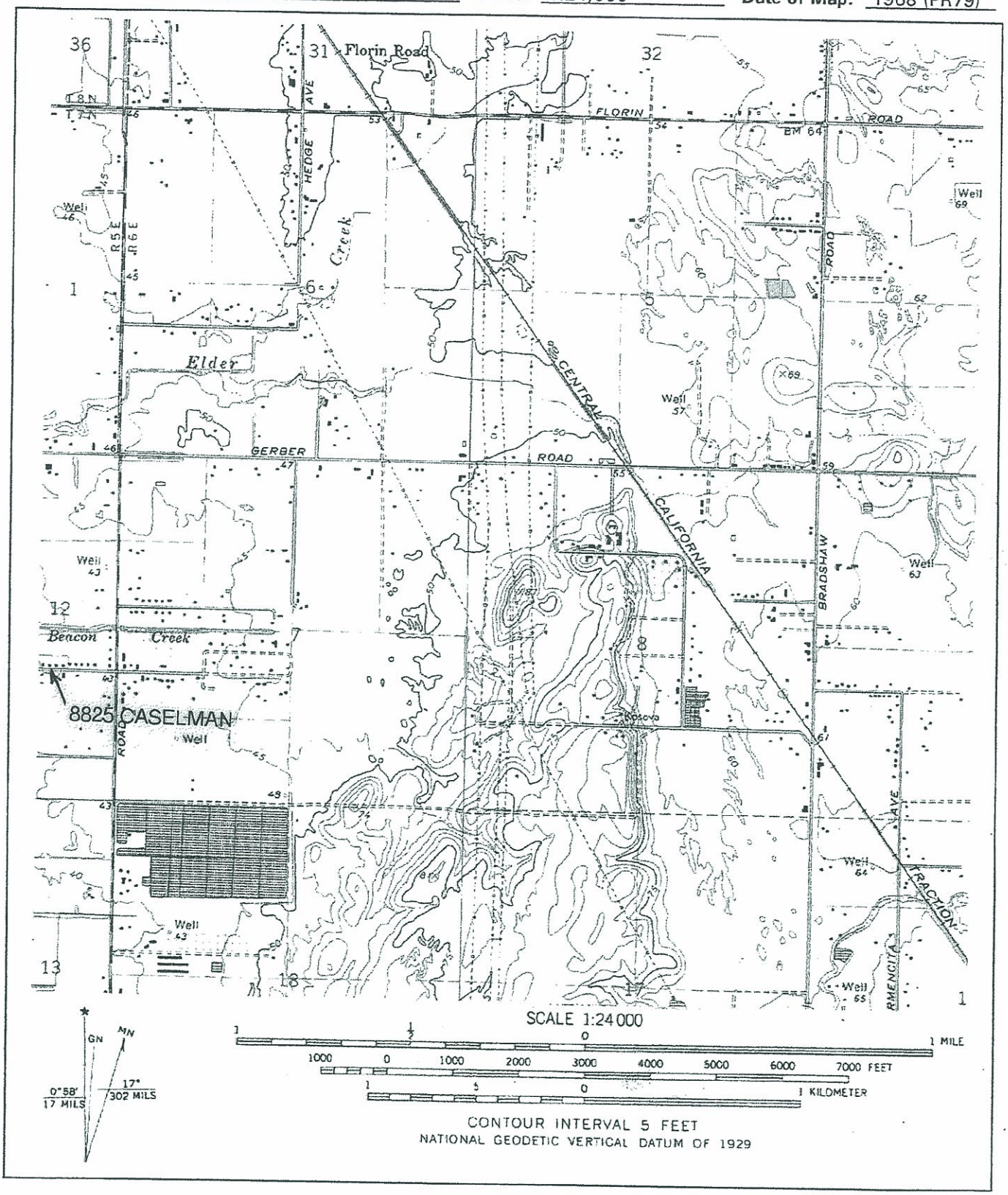
See attached location map

This space reserved for official comments.

State of California - The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
LOCATION MAP

Primary #:
HRI #:
Trinomial:

Page 3 of 3
Resource Name or #: (assigned by recorder) 8825 CASELMAN
Map Name: Elk Grove
Scale: 1:24,000
Date of Map: 1968 (PR79)



State of California - The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
PRIMARY RECORD

Primary #
HRI#
Trinomial
NRHP Status Code 6Z

Other Listings:
Review Code: Reviewer: Date:

 Resource Name or #: (assigned by recorder) 8833 Caselman

P1. Other Identifier:

P2. Location: ☐ **Not for Publication** ☒ **Unrestricted** (P2b and P2c or P2d. Attach a Location Map as necessary)

a. County: Sacramento
b. USGS 7.5' Quad: Elk Grove Date: 1968 (PR79) T. 7N ;R. 5E ; NE ¼ of SE ¼ of Sec. 12 ; MD B.M.
c. Address: 8833 Caselman Avenue City: Sacramento Zip: 95828
d. UTM: (Give more than one for large and/or linear resources) Zone: 10 ; 06 41 845 mE/; 42 59 322 mN
e. Other Locational Data: (e.g. parcel #, directions to resource, elevation, etc., as appropriate)
APN 115 0091 005

P3a. Description: (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries)
This building appears to have started as identical to 8825, its neighbor to the west, but what was a full width porch is now enclosed on the western portion to extend the living room. Other than this, it is a one story, end gabled stucco with aluminum sliders and detached garage.

P3b. Resource Attributes: (List attributes and codes) HP-2; Single family property

P4. Resources Present: ☒ Building ☐ Structure ☐ Object ☐ Site ☐ District ☐ Element of a District ☐ Other (Isolates etc.)

P5b. Description of Photo: (View, date, accession #) 1/15/06 Looking north at entry. Florin Vineyard roll 2, Frame 12.

P6. Date Construction/Age and Sources: Historic ☒ Prehistoric ☐ Both ☐
See discussion on BSO record

P7. Owner and Address:

P8. Recorded By: (Name, affiliation, and address)
Ann Peak/Robert Gerry
Peak & Associates, Inc.
3941 Park Drive, Suite 20, #329
El Dorado Hills, CA 95762

P9. Date Recorded:
1/15/06

P10. Survey Type: (Describe)
Complete, project related

P11. Report Citation: (Cite Survey report and other resources, or enter "none") Determination of Eligibility and Effect for Participating Properties Within the Florin Vineyard Gap Community Plan Project Area County of Sacramento, California. Peak & Associates 2007

ATTACHMENTS: ☐ NONE ☒ Location Map ☐ Sketch Map ☐ Continuation Sheet ☒ Building, Structure, and Object Record ☐ Archaeological Record ☐ District Record ☐ Linear Feature Record ☐ Milling Station Record ☐ Rock Art Record ☐ Artifact Record ☐ Photograph Record ☐ Other:

State of California - The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
BUILDING, STRUCTURE, AND OBJECT RECORD

Primary #: _____
HRI #: _____

Page 2 of 3 ***NRHP Status Code:** 6Z Resource Name or #: (assigned by recorder) 8833 Caselman Ave

B1. Historic Name: _____
B2. Common Name: _____
B3. Original Use: Residence B4. Present Use: Residence
B5. Architectural Style: Minimal Traditional
B6. Construction History: (Construction date, alterations, and date of alterations.)
This is one of a series of residences on Caselman Avenue that have a general similarity in that they are all small one-story stucco cottages. They appear to be coeval, built on lots of W & K Colony #6, according to the Assessor's residential building records. Alternatively, the property owner states that the houses were built in the 1940s or 1950s and moved to the site from east Sacramento as rental properties (cited in Erwin 2005). This explanation has the advantage of being more in line with the appearance of the houses, which are mostly in the Minimal Traditional style popular immediately after World War II, and their current condition. The 1918 and 1919 dates given by the Assessor's building records would then apply to earlier houses, now gone, that occupied larger lots when the area was an agricultural colony.

B7. Moved? ☐ No ☐ Yes ☒ Unknown Date: pos 1950s (see B6) Original Location: East Sacramento
B8. Related Features:

B9a. Architect: Unknown b. Builder: Unknown
B10. Significance: Theme Not significant **Area** _____
Period of Significance _____ **Property Type** _____ **Applicable Criteria** _____
(Discuss importance in terms of historical or architectural context as defined by theme, period, and geographic scope. Also address integrity.)

This residence is not associated with important events in local or State history [NRHP criterion a; CRHR criterion B (1)]. This is one of many areas in Sacramento County supported by small farms. There is no close by community or other social-defining mechanism for the region. The area has remained rural until recently, with a scattering of residences and farms.

Land ownership maps through 1923 for the County were reviewed, and names on building records checked. There are no associations with people important in State or local history [NRHP criterion b; CRHR criterion B (2)]. The residents were apparently small farmers, unassociated with anyone of social prominence or historical importance.

The residence is not a particularly good examples of its architectural style. It is small, very plain and probably was moved to the project area. It cannot be said that this building "embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values" [NRHP criterion c; CRHR criterion B (3)].

In consideration of the ability of this building or its immediate surroundings yield information important in history through archeological means, it should be noted that farm practices limit the possibilities of finding subsurface materials. The farms were more or less subsistence farms in the earlier period. They were at a great distance from any commercial establishment. Manufactured items would have been costly and time-consuming to acquire. As a result, most farms tended to reuse manufactured items such as glass containers, fabric, metal implements, and milled lumber. Other waste was burned on site, resulting in a lack of subsurface features that might be useful in defining early lifeways. Also, there is little to be learned from archeological excavations of essentially modern era properties, even in the unlikely event that such deposits exist. We do not believe that the residence is significant for its archeological values [NRHP criterion d; CRHR criterion B (4)].

B11. Additional Resource Attributes: (List attributes and codes) _____

B12. References: Erwin, Gail
2005 Revised Cultural Resource Project Discussion, Florin-Vineyard CPA, 04-0096 *et al.* On file: County of Sacramento, Department of Environmental Review and Assessment.

B13. Remarks:

B14. Evaluator: M. Peak, Peak & Associates, Inc.

Date of Evaluation: June 2006

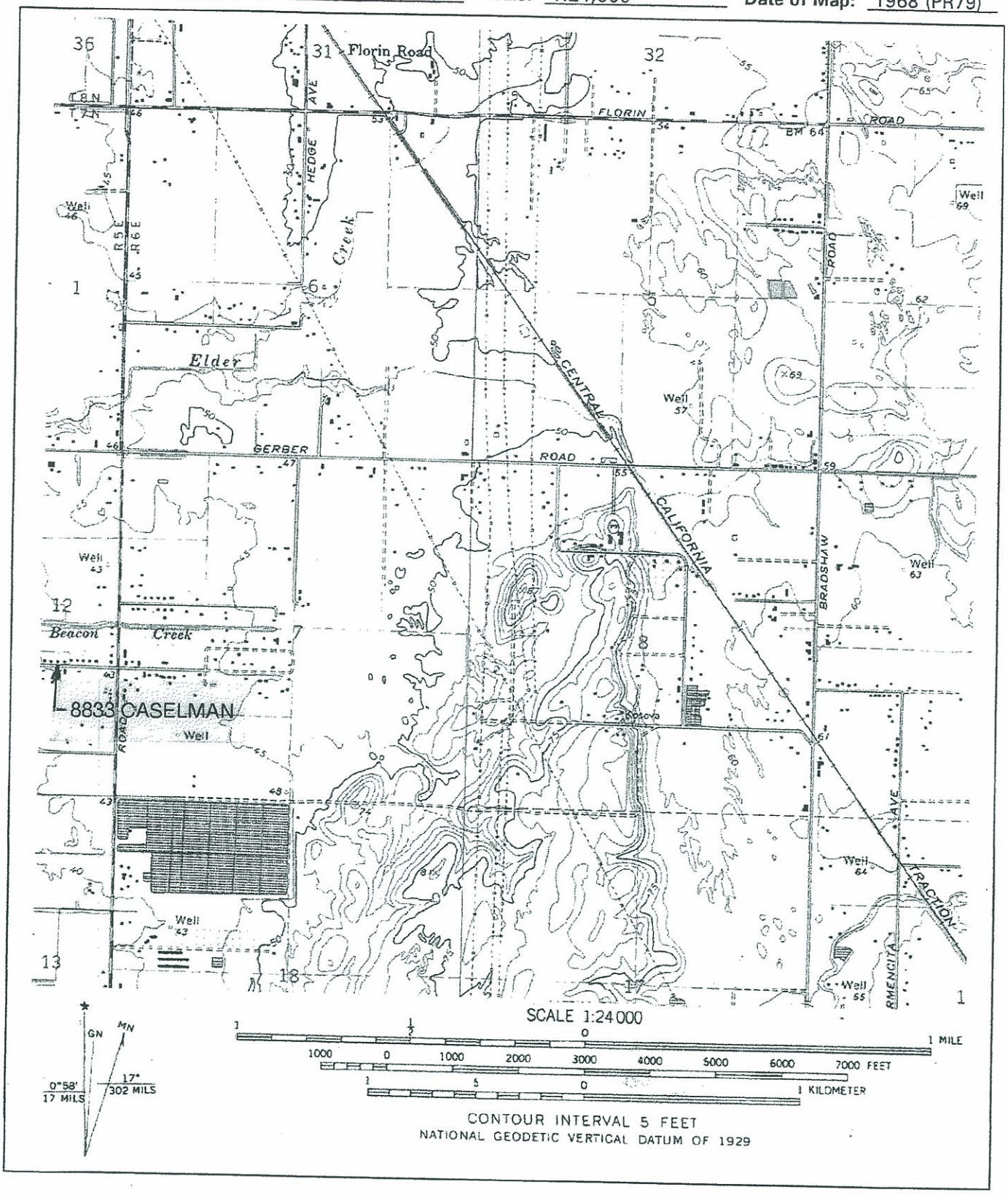
See attached location map

This space reserved for official comments.

State of California - The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
LOCATION MAP

Primary #:
HRI #:
Trinomial:

Page 3 of 3 **Resource Name or #:** (assigned by recorder) 8833 CASELMAN
Map Name: Elk Grove **Scale:** 1:24,000 **Date of Map:** 1968 (PR79)



State of California - The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
PRIMARY RECORD

Primary #
HRI#
Trinomial
NRHP Status Code 6Z

Other Listings:
Review Code: Reviewer: Date:

 Resource Name or #: (assigned by recorder) 8841 Caselman

P1. Other Identifier:

P2. Location: ☐ **Not for Publication** ☒ **Unrestricted** (P2b and P2c or P2d. Attach a Location Map as necessary)

a. County: Sacramento
b. USGS 7.5' Quad: Elk Grove Date: 1968 (PR79) T. 7N ;R. 5E ; NE ¼ of SE ¼ of Sec. 12 ; MD B.M.
c. Address: 8841 Caselman Avenue City: Sacramento Zip: 95828
d. UTM: (Give more than one for large and/or linear resources) Zone: 10 ; 06 41 876 mE/; 42 59 319 mN
e. Other Locational Data: (e.g. parcel #, directions to resource, elevation, etc., as appropriate)
APN 115 0091 005

P3a. Description: (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries)
This is a one story, end gable stucco residence with a full width front porch. It differs from some of its neighbors in that some of the windows still have their original wood frames and the rafter ends are exposed on the sides. It has unusual angle brackets at the corners of the porch in that they begin near the top of the support posts and extend to the edge of the eave, instead of being contained within the gable.

P3b. Resource Attributes: (List attributes and codes) HP-2; Single family property

P4. Resources Present: ☒ Building ☐ Structure ☐ Object ☐ Site ☐ District ☐ Element of a District ☐ Other (Isolates etc.)

P5b. Description of Photo: (View, date, accession #) 1/15/06 Looking north at entry. Florin Vineyard roll 2, Frame 17.

P6. Date Construction/Age and Sources: Historic ☒ Prehistoric ☐ Both ☐
See discussion on BSO record

P7. Owner and Address:

P8. Recorded By: (Name, affiliation, and address)
Ann Peak/Robert Gerry
Peak & Associates, Inc.
3941 Park Drive, Suite 20, #329
El Dorado Hills, CA 95762

P9. Date Recorded:
1/15/06

P10. Survey Type: (Describe)
Complete, project related

P11. Report Citation: (Cite Survey report and other resources, or enter "none") Determination of Eligibility and Effect for Participating Properties Within the Florin Vineyard Gap Community Plan Project Area County of Sacramento, California. Peak & Associates 2007

ATTACHMENTS: ☐ NONE ☒ Location Map ☐ Sketch Map ☐ Continuation Sheet ☒ Building, Structure, and Object Record
☐ Archaeological Record ☐ District Record ☐ Linear Feature Record ☐ Milling Station Record ☐ Rock Art Record
☐ Artifact Record ☐ Photograph Record ☐ Other:

State of California - The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
BUILDING, STRUCTURE, AND OBJECT RECORD

Primary #: _____
HRI #: _____

Page 2 of 3 ***NRHP Status Code:** 6Z Resource Name or #: (assigned by recorder) 8841 Caselman Ave

B1. Historic Name:
B2. Common Name:
B3. Original Use: Residence B4. Present Use: Residence
B5. Architectural Style: Minimal Traditional
B6. Construction History: (Construction date, alterations, and date of alterations.)
This is one of a series of residences on Caselman Avenue that have a general similarity in that they are all small one-story stucco cottages. They appear to be coeval, built on lots of W & K Colony #6, according to the Assessor's residential building records. Alternatively, the property owner states that the houses were built in the 1940s or 1950s and moved to the site from east Sacramento as rental properties (cited in Erwin 2005). This explanation has the advantage of being more in line with the appearance of the houses, which are mostly in the Minimal Traditional style popular immediately after World War II, and their current condition. The 1918 and 1919 dates given by the Assessor's building records would then apply to earlier houses, now gone, that occupied larger lots when the area was an agricultural colony.

B7. Moved? ☐ No ☐ Yes ☒ Unknown Date: pos 1950s (see B6) Original Location: East Sacramento
B8. Related Features:

B9a. Architect: Unknown b. Builder: Unknown
B10. Significance: Theme Not significant **Area**
Period of Significance **Property Type** **Applicable Criteria**
(Discuss importance in terms of historical or architectural context as defined by theme, period, and geographic scope. Also address integrity.)

This residence is not associated with important events in local or State history [NRHP criterion a; CRHR criterion B (1)]. This is one of many areas in Sacramento County supported by small farms. There is no close by community or other social-defining mechanism for the region. The area has remained rural until recently, with a scattering of residences and farms.

Land ownership maps through 1923 for the County were reviewed, and names on building records checked. There are no associations with people important in State or local history [NRHP criterion b; CRHR criterion B (2)]. The residents were apparently small farmers, unassociated with anyone of social prominence or historical importance.

The residence is not a particularly good examples of its architectural style. It is small, very plain and probably was moved to the project area. It cannot be said that this building "embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values" [NRHP criterion c; CRHR criterion B (3)].

In consideration of the ability of this building or its immediate surroundings yield information important in history through archeological means, it should be noted that farm practices limit the possibilities of finding subsurface materials. The farms were more or less subsistence farms in the earlier period. They were at a great distance from any commercial establishment. Manufactured items would have been costly and time-consuming to acquire. As a result, most farms tended to reuse manufactured items such as glass containers, fabric, metal implements, and milled lumber. Other waste was burned on site, resulting in a lack of subsurface features that might be useful in defining early lifeways. Also, there is little to be learned from archeological excavations of essentially modern era properties, even in the unlikely event that such deposits exist. We do not believe that the residence is significant for its archeological values [NRHP criterion d; CRHR criterion B (4)].

B11. Additional Resource Attributes: (List attributes and codes)

B12. References: Erwin, Gail
2005 Revised Cultural Resource Project Discussion, Florin-Vineyard CPA, 04-0096 *et al.* On file: County of Sacramento, Department of Environmental Review and Assessment.

B13. Remarks:

B14. Evaluator: M. Peak, Peak & Associates, Inc.

Date of Evaluation: June 2006

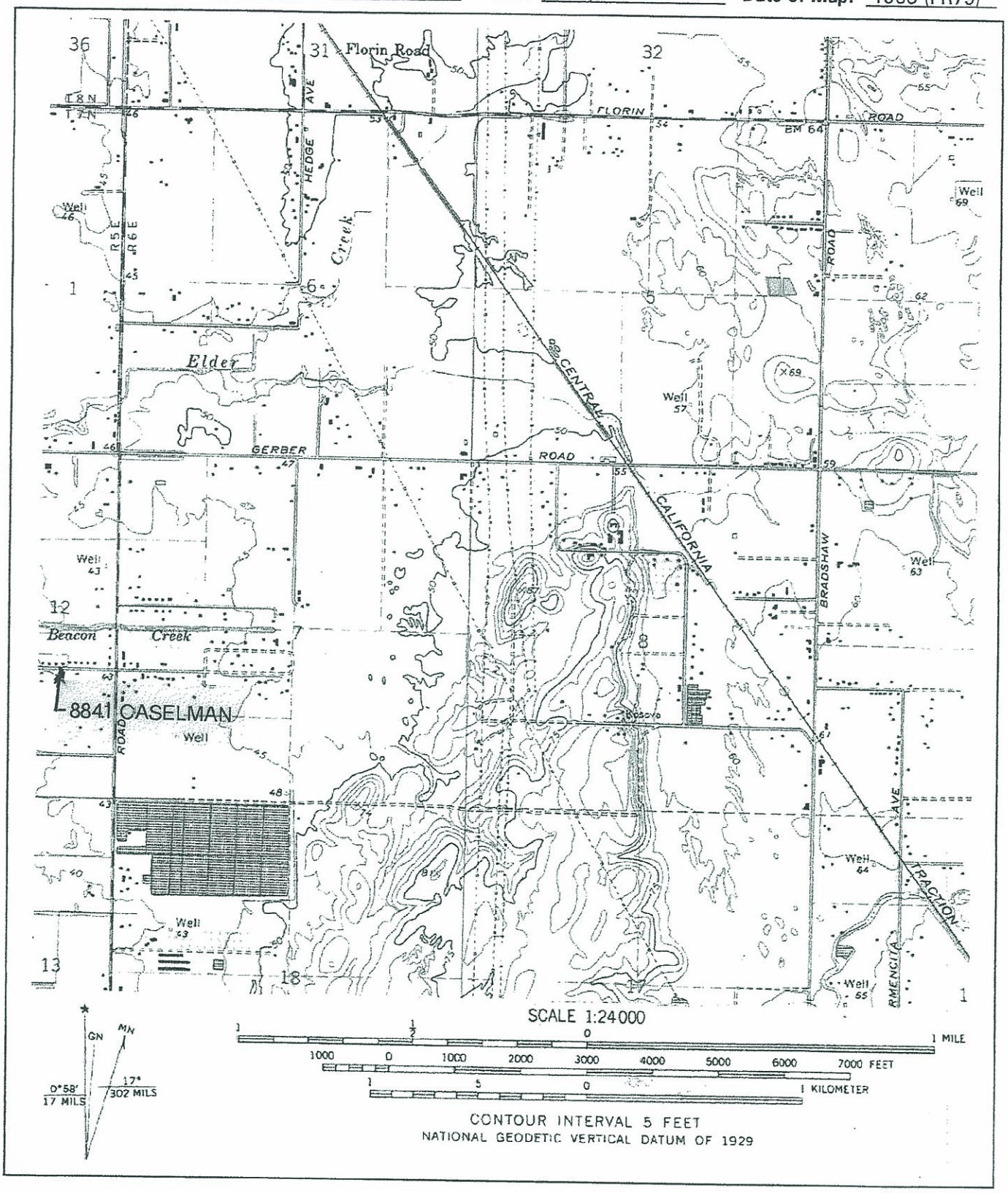
See attached location map

This space reserved for official comments.

State of California - The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
LOCATION MAP

Primary #:
HRI #:
Trinomial:

Page 3 of 3 **Resource Name or #:** (assigned by recorder) 8841 CASELMAN
Map Name: Elk Grove **Scale:** 1:24,000 **Date of Map:** 1968 (PR79)



State of California - The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
PRIMARY RECORD

Primary #
HRI#
Trinomial
NRHP Status Code 6Z

Other Listings:
Review Code: Reviewer: Date:

 Resource Name or #: (assigned by recorder) 8849 Caselman

P1. Other Identifier:

P2. Location: ☐ **Not for Publication** ☒ **Unrestricted** (P2b and P2c or P2d. Attach a Location Map as necessary)

a. County: Sacramento
b. USGS 7.5' Quad: Elk Grove Date: 1968 (PR79) T. 7N ;R. 5E ; NE ¼ of SE ¼ of Sec. 12 ; MD B.M.
c. Address: 8849 Caselman Avenue City: Sacramento Zip: 95828
d. UTM: (Give more than one for large and/or linear resources) Zone: 10 ; 06 41 905 mE/; 42 59 333 mN
e. Other Locational Data: (e.g. parcel #, directions to resource, elevation, etc., as appropriate)
APN 115 0091 005

P3a. Description: (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries)
This one story stucco residence features a pyramidal roof and central entry covered by a small gable. The entry porch is approached from the west side, although the house faces south. The sides feature open eaves. Windows are aluminum sliders. A feature of this house and 8857 Caselman to the east that does not appear elsewhere in the group is a small oriel (a bay cantilevered from the wall instead of extending to ground level) centered on the west elevation. This is a squared-off shallow rectangle.

P3b. Resource Attributes: (List attributes and codes) HP-2; Single family property

P4. Resources Present: ☒ Building ☐ Structure ☐ Object ☐ Site ☐ District ☐ Element of a District ☐ Other (Isolates etc.)

P5b. Description of Photo: (View, date, accession #) 1/15/06 Looking east at oriel. (Vegetation prevents a good front elevation photo.) Florin Vineyard roll 2, Frame 23.

P6. Date Construction/Age and Sources: Historic ☒ Prehistoric ☐ Both ☐
See discussion on BSO record

P7. Owner and Address:

P8. Recorded By: (Name, affiliation, and address)
Ann Peak/Robert Gerry
Peak & Associates, Inc.
3941 Park Drive, Suite 20, #329
El Dorado Hills, CA 95762

P9. Date Recorded:
1/15/06

P10. Survey Type: (Describe)
Complete, project related

P11. Report Citation: (Cite Survey report and other resources, or enter "none") Determination of Eligibility and Effect for Participating Properties Within the Florin Vineyard Gap Community Plan Project Area County of Sacramento, California. Peak & Associates 2007

ATTACHMENTS: ☐ NONE ☒ Location Map ☐ Sketch Map ☐ Continuation Sheet ☒ Building, Structure, and Object Record
☐ Archaeological Record ☐ District Record ☐ Linear Feature Record ☐ Milling Station Record ☐ Rock Art Record
☐ Artifact Record ☐ Photograph Record ☐ Other:

State of California - The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
BUILDING, STRUCTURE, AND OBJECT RECORD

Primary #: _____
HRI #: _____

Page 2 of 3 ***NRHP Status Code:** 6Z Resource Name or #: (assigned by recorder) 8849 Caselman Ave

B1. Historic Name: _____
B2. Common Name: _____
B3. Original Use: Residence B4. Present Use: Residence
B5. Architectural Style: Minimal Traditional
B6. Construction History: (Construction date, alterations, and date of alterations.)
This is one of a series of residences on Caselman Avenue that have a general similarity in that they are all small one-story stucco cottages. They appear to be coeval, built on lots of W & K Colony #6, according to the Assessor's residential building records. Alternatively, the property owner states that the houses were built in the 1940s or 1950s and moved to the site from east Sacramento as rental properties (cited in Erwin 2005). This explanation has the advantage of being more in line with the appearance of the houses, which are mostly in the Minimal Traditional style popular immediately after World War II, and their current condition. The 1918 and 1919 dates given by the Assessor's building records would then apply to earlier houses, now gone, that occupied larger lots when the area was an agricultural colony.

B7. Moved? ☐ No ☐ Yes ☒ Unknown Date: pos 1950s (see B6) Original Location: East Sacramento
B8. Related Features:

B9a. Architect: Unknown b. Builder: Unknown
B10. Significance: Theme Not significant **Area** _____
Period of Significance _____ **Property Type** _____ **Applicable Criteria** _____
(Discuss importance in terms of historical or architectural context as defined by theme, period, and geographic scope. Also address integrity.)

This residence is not associated with important events in local or State history [NRHP criterion a; CRHR criterion B (1)]. This is one of many areas in Sacramento County supported by small farms. There is no close by community or other social-defining mechanism for the region. The area has remained rural until recently, with a scattering of residences and farms.

Land ownership maps through 1923 for the County were reviewed, and names on building records checked. There are no associations with people important in State or local history [NRHP criterion b; CRHR criterion B (2)]. The residents were apparently small farmers, unassociated with anyone of social prominence or historical importance.

The residence is not a particularly good examples of its architectural style. It is small, very plain and probably was moved to the project area. It cannot be said that this building "embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values" [NRHP criterion c; CRHR criterion B (3)].

In consideration of the ability of this building or its immediate surroundings yield information important in history through archeological means, it should be noted that farm practices limit the possibilities of finding subsurface materials. The farms were more or less subsistence farms in the earlier period. They were at a great distance from any commercial establishment. Manufactured items would have been costly and time-consuming to acquire. As a result, most farms tended to reuse manufactured items such as glass containers, fabric, metal implements, and milled lumber. Other waste was burned on site, resulting in a lack of subsurface features that might be useful in defining early lifeways. Also, there is little to be learned from archeological excavations of essentially modern era properties, even in the unlikely event that such deposits exist. We do not believe that the residence is significant for its archeological values [NRHP criterion d; CRHR criterion B (4)].

B11. Additional Resource Attributes: (List attributes and codes) _____

B12. References: Erwin, Gail
2005 Revised Cultural Resource Project Discussion, Florin-Vineyard CPA, 04-0096 *et al.* On file: County of Sacramento, Department of Environmental Review and Assessment.

B13. Remarks:

B14. Evaluator: M. Peak, Peak & Associates, Inc.

Date of Evaluation: June 2006

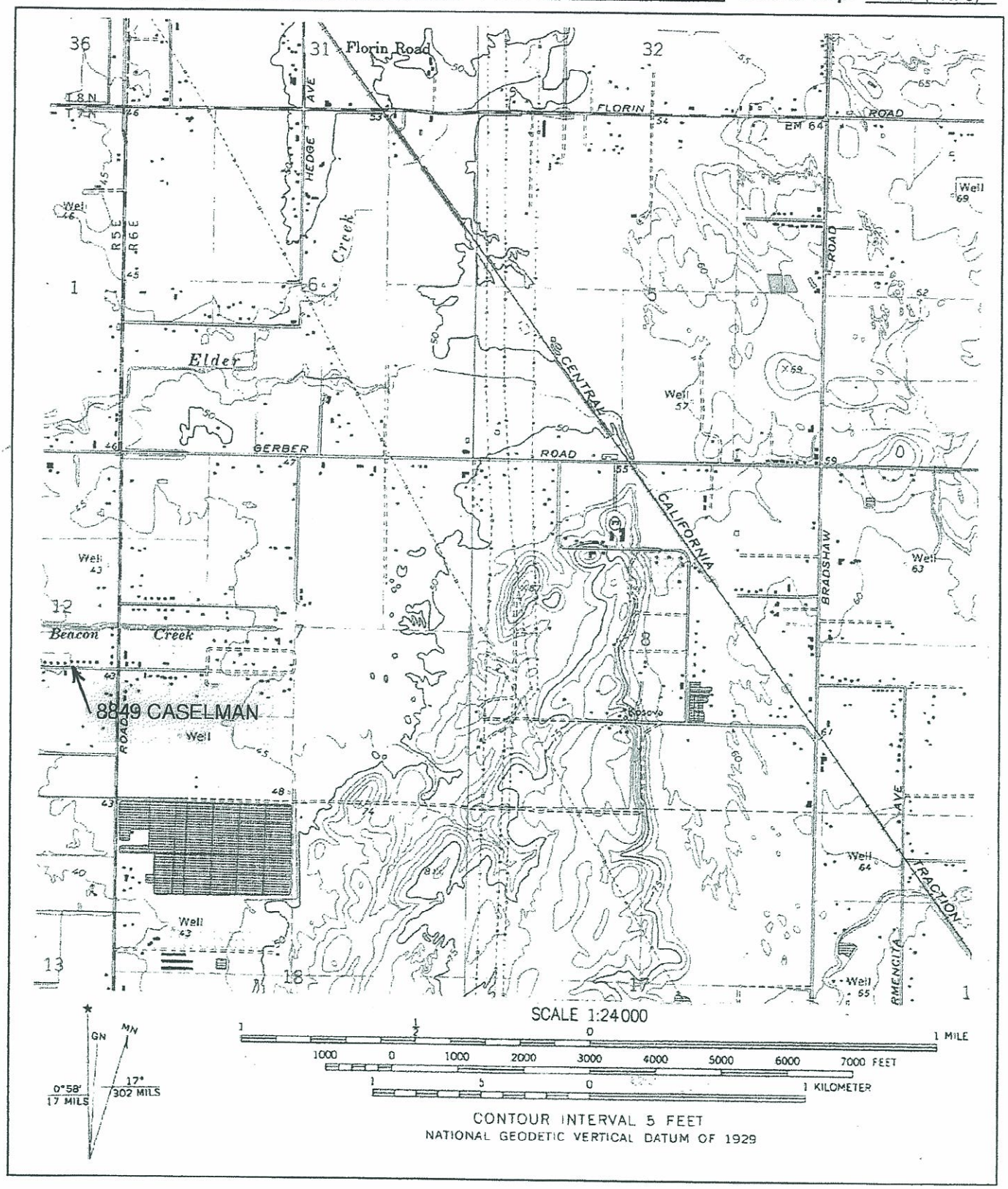
See attached location map

This space reserved for official comments.

State of California - The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
LOCATION MAP

Primary #:
HRI #:
Trinomial:

Page 3 of 3 **Resource Name or #:** (assigned by recorder) 8849 CASELMAN
Map Name: Elk Grove **Scale:** 1:24,000 **Date of Map:** 1968 (PR79)



State of California - The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
PRIMARY RECORD

Primary #
HRI#
Trinomial
NRHP Status Code 6Z

Other Listings:
Review Code: Reviewer: Date:

 Resource Name or #: (assigned by recorder) 8857 Caselman

P1. Other Identifier:

P2. Location: ☐ **Not for Publication** ☒ **Unrestricted** (P2b and P2c or P2d. Attach a Location Map as necessary)

a. County: Sacramento
b. USGS 7.5' Quad: Elk Grove Date: 1968 (PR79) T. 7N ;R. 5E ; NE ¼ of SE ¼ of Sec. 12 ; MD B.M.
c. Address: 8857 Caselman Avenue City: Sacramento Zip: 95828
d. UTM: (Give more than one for large and/or linear resources) Zone: 10 ; 06 41 935 mE/; 42 59 330 mN
e. Other Locational Data: (e.g. parcel #, directions to resource, elevation, etc., as appropriate)
APN 115 0091 006

P3a. Description: (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries)
The one story stucco house features a pyramidal roof and a full width porch formed by an extension of the main roof at a much lower pitch, a pattern that is repeated all around the house. There is living space on the second floor of this structure, evidenced by a small dormer with hipped roof facing south. The west elevation features a small oriel with angled sides, unlike the square-sided example at 8849, to the west. This structure is given a date of 1918 on the Assessor's building record and it is the most westerly on parcel 6.

P3b. Resource Attributes: (List attributes and codes) HP-2; Single family property

P4. Resources Present: ☒ Building ☐ Structure ☐ Object ☐ Site ☐ District ☐ Element of a District ☐ Other (Isolates etc.)

P5b. Description of Photo: (View, date, accession #) 1/15/06 Looking north at entry. Florin Vineyard roll 3, Frame 4.

P6. Date Construction/Age and Sources: Historic ☒ Prehistoric ☐ Both ☐
See discussion on BSO record

P7. Owner and Address:

P8. Recorded By: (Name, affiliation, and address)
Ann Peak/Robert Gerry
Peak & Associates, Inc.
3941 Park Drive, Suite 20, #329
El Dorado Hills, CA 95762

P9. Date Recorded:
1/15/06

P10. Survey Type: (Describe)
Complete, project related

P11. Report Citation: (Cite Survey report and other resources, or enter "none") Determination of Eligibility and Effect for Participating Properties Within the Florin Vineyard Gap Community Plan Project Area County of Sacramento, California. Peak & Associates 2007

ATTACHMENTS: ☐ NONE ☒ Location Map ☐ Sketch Map ☐ Continuation Sheet ☒ Building, Structure, and Object Record ☐ Archaeological Record ☐ District Record ☐ Linear Feature Record ☐ Milling Station Record ☐ Rock Art Record ☐ Artifact Record ☐ Photograph Record ☐ Other:

State of California - The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
BUILDING, STRUCTURE, AND OBJECT RECORD

Primary #: _____
HRI #: _____

Page 2 of 3 ***NRHP Status Code:** 6Z Resource Name or #: (assigned by recorder) 8857 Caselman Ave

B1. Historic Name:
B2. Common Name:
B3. Original Use: Residence B4. Present Use: Residence
B5. Architectural Style: Minimal Traditional
B6. Construction History: (Construction date, alterations, and date of alterations.)
This is one of a series of residences on Caselman Avenue that have a general similarity in that they are all small one-story stucco cottages. They appear to be coeval, built on lots of W & K Colony #6, according to the Assessor's residential building records. Alternatively, the property owner states that the houses were built in the 1940s or 1950s and moved to the site from east Sacramento as rental properties (cited in Erwin 2005). This explanation has the advantage of being more in line with the appearance of the houses, which are mostly in the Minimal Traditional style popular immediately after World War II, and their current condition. The 1918 and 1919 dates given by the Assessor's building records would then apply to earlier houses, now gone, that occupied larger lots when the area was an agricultural colony.

B7. Moved? ☐ No ☐ Yes ☒ Unknown Date: pos 1950s (see B6) Original Location: East Sacramento
B8. Related Features:

B9a. Architect: Unknown b. Builder: Unknown
B10. Significance: Theme Not significant **Area**
Period of Significance **Property Type** **Applicable Criteria**
(Discuss importance in terms of historical or architectural context as defined by theme, period, and geographic scope. Also address integrity.)

This residence is not associated with important events in local or State history [NRHP criterion a; CRHR criterion B (1)]. This is one of many areas in Sacramento County supported by small farms. There is no close by community or other social-defining mechanism for the region. The area has remained rural until recently, with a scattering of residences and farms.

Land ownership maps through 1923 for the County were reviewed, and names on building records checked. There are no associations with people important in State or local history [NRHP criterion b; CRHR criterion B (2)]. The residents were apparently small farmers, unassociated with anyone of social prominence or historical importance.

The residence is not a particularly good examples of its architectural style. It is small, very plain and probably was moved to the project area. It cannot be said that this building "embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values" [NRHP criterion c; CRHR criterion B (3)].

In consideration of the ability of this building or its immediate surroundings yield information important in history through archeological means, it should be noted that farm practices limit the possibilities of finding subsurface materials. The farms were more or less subsistence farms in the earlier period. They were at a great distance from any commercial establishment. Manufactured items would have been costly and time-consuming to acquire. As a result, most farms tended to reuse manufactured items such as glass containers, fabric, metal implements, and milled lumber. Other waste was burned on site, resulting in a lack of subsurface features that might be useful in defining early lifeways. Also, there is little to be learned from archeological excavations of essentially modern era properties, even in the unlikely event that such deposits exist. We do not believe that the residence is significant for its archeological values [NRHP criterion d; CRHR criterion B (4)].

B11. Additional Resource Attributes: (List attributes and codes)

B12. References: Erwin, Gail
2005 Revised Cultural Resource Project Discussion, Florin-Vineyard CPA, 04-0096 *et al.* On file: County of Sacramento, Department of Environmental Review and Assessment.

B13. Remarks:

B14. Evaluator: M. Peak, Peak & Associates, Inc.

Date of Evaluation: June 2006

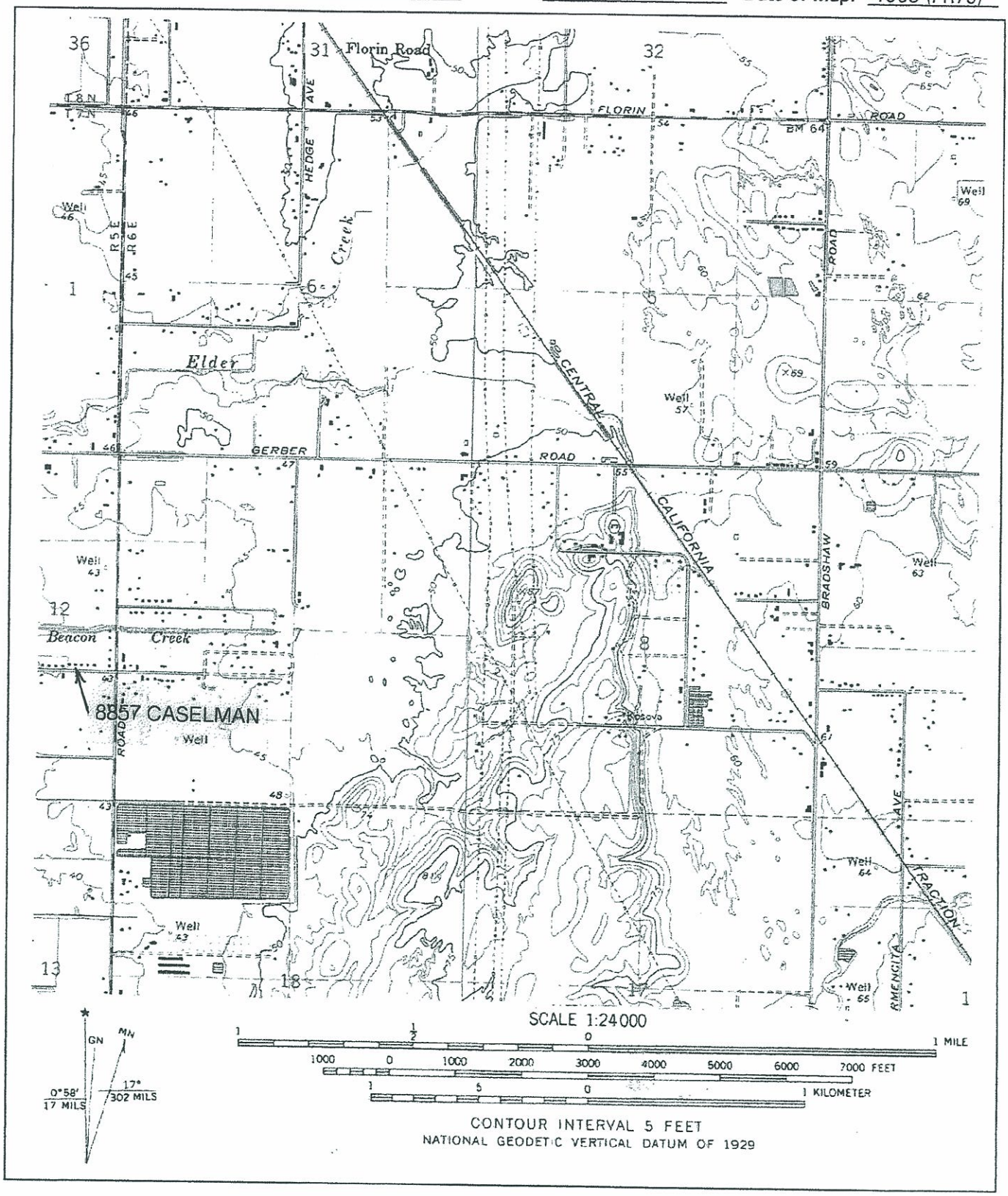
See attached location map

This space reserved for official comments.

State of California - The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
LOCATION MAP

Primary #:
HRI #:
Trinomial:

Page 3 of 3 **Resource Name or #:** (assigned by recorder) 8857 CASELMAN
Map Name: Elk Grove **Scale:** 1:24,000 **Date of Map:** 1968 (PR79)



State of California - The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
PRIMARY RECORD

Primary #
HRI#
Trinomial
NRHP Status Code 6Z

Other Listings:
Review Code: Reviewer: Date:

 Resource Name or #: (assigned by recorder) 8861 Caselman

P1. Other Identifier:

P2. Location: ☐ **Not for Publication** ☒ **Unrestricted** (P2b and P2c or P2d. Attach a Location Map as necessary)

a. County: Sacramento
b. USGS 7.5' Quad: Elk Grove Date: 1968 (PR79) T. 7N ;R. 5E ; NE ¼ of SE ¼ of Sec. 12 ; MD B.M.
c. Address: 8861 Caselman Avenue City: Sacramento Zip: 95828
d. UTM: (Give more than one for large and/or linear resources) Zone: 10 ; 06 41 961 mE/; 42 59 331 mN
e. Other Locational Data: (e.g. parcel #, directions to resource, elevation, etc., as appropriate)
APN 115 0091 006

P3a. Description: (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries)
The one story stucco residence is side gabled with full width porches front and back covered by an extension of the main roof at a slightly lower pitch. The central entry is also covered by a slight extension of the porch roof under a cross gable. There are angle brackets on the gable ends and those at the front repeat the pattern seen at 8841 Caselman, beginning near the top of the support posts and extending to the edge of the eave.

P3b. Resource Attributes: (List attributes and codes) HP-2; Single family property

P4. Resources Present: ☒ Building ☐ Structure ☐ Object ☐ Site ☐ District ☐ Element of a District ☐ Other (Isolates etc.)

P5b. Description of Photo: (View, date, accession #) 1/15/06 Looking north at entry. Florin Vineyard roll 3, Frame 9.

P6. Date Construction/Age and Sources: Historic ☒ Prehistoric ☐ Both ☐
See discussion on BSO record

P7. Owner and Address:

P8. Recorded By: (Name, affiliation, and address)
Ann Peak/Robert Gerry
Peak & Associates, Inc.
3941 Park Drive, Suite 20, #329
El Dorado Hills, CA 95762

P9. Date Recorded:
1/15/06

P10. Survey Type: (Describe)
Complete, project related

P11. Report Citation: (Cite Survey report and other resources, or enter "none") Determination of Eligibility and Effect for Participating Properties Within the Florin Vineyard Gap Community Plan Project Area County of Sacramento, California. Peak & Associates 2007

ATTACHMENTS: ☐ NONE ☒ Location Map ☐ Sketch Map ☐ Continuation Sheet ☒ Building, Structure, and Object Record
☐ Archaeological Record ☐ District Record ☐ Linear Feature Record ☐ Milling Station Record ☐ Rock Art Record
☐ Artifact Record ☐ Photograph Record ☐ Other:

State of California - The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
BUILDING, STRUCTURE, AND OBJECT RECORD

Primary #: _____
HRI #: _____

Page 2 of 3 ***NRHP Status Code:** 6Z Resource Name or #: (assigned by recorder) 8861 Caselman Ave

B1. Historic Name:
B2. Common Name:
B3. Original Use: Residence B4. Present Use: Residence
B5. Architectural Style: Minimal Traditional
B6. Construction History: (Construction date, alterations, and date of alterations.)
This is one of a series of residences on Caselman Avenue that have a general similarity in that they are all small one-story stucco cottages. They appear to be coeval, built on lots of W & K Colony #6, according to the Assessor's residential building records. Alternatively, the property owner states that the houses were built in the 1940s or 1950s and moved to the site from east Sacramento as rental properties (cited in Erwin 2005). This explanation has the advantage of being more in line with the appearance of the houses, which are mostly in the Minimal Traditional style popular immediately after World War II, and their current condition. The 1918 and 1919 dates given by the Assessor's building records would then apply to earlier houses, now gone, that occupied larger lots when the area was an agricultural colony.

B7. Moved? ☐ No ☐ Yes ☒ Unknown Date: pos 1950s (see B6) Original Location: East Sacramento
B8. Related Features:

B9a. Architect: Unknown b. Builder: Unknown
B10. Significance: Theme Not significant **Area**
Period of Significance **Property Type** **Applicable Criteria**
(Discuss importance in terms of historical or architectural context as defined by theme, period, and geographic scope. Also address integrity.)

This residence is not associated with important events in local or State history [NRHP criterion a; CRHR criterion B (1)]. This is one of many areas in Sacramento County supported by small farms. There is no close by community or other social-defining mechanism for the region. The area has remained rural until recently, with a scattering of residences and farms.

Land ownership maps through 1923 for the County were reviewed, and names on building records checked. There are no associations with people important in State or local history [NRHP criterion b; CRHR criterion B (2)]. The residents were apparently small farmers, unassociated with anyone of social prominence or historical importance.

The residence is not a particularly good examples of its architectural style. It is small, very plain and probably was moved to the project area. It cannot be said that this building "embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values" [NRHP criterion c; CRHR criterion B (3)].

In consideration of the ability of this building or its immediate surroundings yield information important in history through archeological means, it should be noted that farm practices limit the possibilities of finding subsurface materials. The farms were more or less subsistence farms in the earlier period. They were at a great distance from any commercial establishment. Manufactured items would have been costly and time-consuming to acquire. As a result, most farms tended to reuse manufactured items such as glass containers, fabric, metal implements, and milled lumber. Other waste was burned on site, resulting in a lack of subsurface features that might be useful in defining early lifeways. Also, there is little to be learned from archeological excavations of essentially modern era properties, even in the unlikely event that such deposits exist. We do not believe that the residence is significant for its archeological values [NRHP criterion d; CRHR criterion B (4)].

B11. Additional Resource Attributes: (List attributes and codes)

B12. References: Erwin, Gail
2005 Revised Cultural Resource Project Discussion, Florin-Vineyard CPA, 04-0096 *et al.* On file: County of Sacramento, Department of Environmental Review and Assessment.

B13. Remarks:

B14. Evaluator: M. Peak, Peak & Associates, Inc.

Date of Evaluation: June 2006

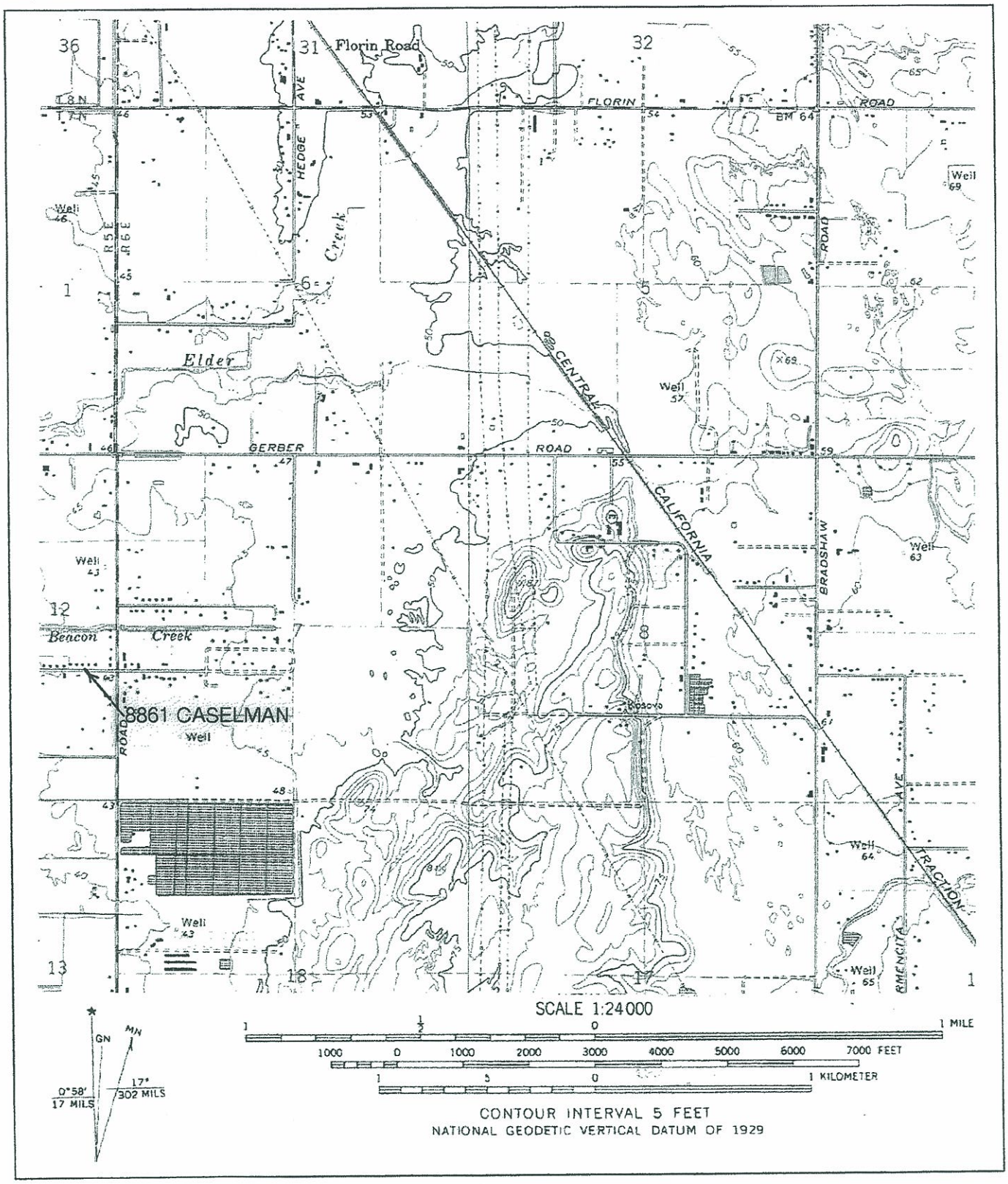
See attached location map

This space reserved for official comments.

State of California - The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
LOCATION MAP

Primary #:
HRI #:
Trinomial:

Page 3 of 3 **Resource Name or #:** (assigned by recorder) 8861 CASELMAN
Map Name: Elk Grove **Scale:** 1:24,000 **Date of Map:** 1968 (PR79)



State of California - The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
PRIMARY RECORD

Primary #
HRI#
Trinomial
NRHP Status Code 6Z

Other Listings:
Review Code: Reviewer: Date:

 Resource Name or #: (assigned by recorder) 8865 Caselman

P1. Other Identifier:

P2. Location: ☐ **Not for Publication** ☒ **Unrestricted** (P2b and P2c or P2d. Attach a Location Map as necessary)

a. County: Sacramento
b. USGS 7.5' Quad: Elk Grove Date: 1968 (PR79) T. 7N ;R. 5E ; NE ¼ of SE ¼ of Sec. 12 ; MD B.M.
c. Address: 8861 Caselman Avenue City: Sacramento Zip: 95828
d. UTM: (Give more than one for large and/or linear resources) Zone: 10 ; 06 41 990 mE/; 42 59 331 mN
e. Other Locational Data: (e.g. parcel #, directions to resource, elevation, etc., as appropriate)
APN 115 0091 006

P3a. Description: (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries)
This is a very plain one story stucco residence that consists of a side gabled rectangle with a central entry covered by a small, separate gable. There are no brackets, no changes in roof pitch, or any other unusual features.

P3b. Resource Attributes: (List attributes and codes) HP-2; Single family property

P4. Resources Present: ☒ Building ☐ Structure ☐ Object ☐ Site ☐ District ☐ Element of a District ☐ Other (Isolates etc.)

P5b. Description of Photo: (View, date, accession #) 1/15/06 Looking north at entry. Florin Vineyard roll 3, Frame 14.

P6. Date Construction/Age and Sources: Historic ☒ Prehistoric ☐ Both ☐
See discussion on BSO record

P7. Owner and Address:

P8. Recorded By: (Name, affiliation, and address)
Ann Peak/Robert Gerry
Peak & Associates, Inc.
3941 Park Drive, Suite 20, #329
El Dorado Hills, CA 95762

P9. Date Recorded:
1/15/06

P10. Survey Type: (Describe)
Complete, project related

P11. Report Citation: (Cite Survey report and other resources, or enter "none") Determination of Eligibility and Effect for Participating Properties Within the Florin Vineyard Gap Community Plan Project Area County of Sacramento, California. Peak & Associates 2007

ATTACHMENTS: ☐ NONE ☒ Location Map ☐ Sketch Map ☐ Continuation Sheet ☒ Building, Structure, and Object Record
☐ Archaeological Record ☐ District Record ☐ Linear Feature Record ☐ Milling Station Record ☐ Rock Art Record
☐ Artifact Record ☐ Photograph Record ☐ Other:

State of California - The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
BUILDING, STRUCTURE, AND OBJECT RECORD

Primary #: _____
HRI #: _____

Page 2 of 3 ***NRHP Status Code:** 6Z Resource Name or #: (assigned by recorder) 8865 Caselman Ave

B1. Historic Name: _____
B2. Common Name: _____
B3. Original Use: Residence B4. Present Use: Residence
B5. Architectural Style: Minimal Traditional
B6. Construction History: (Construction date, alterations, and date of alterations.)
This is one of a series of residences on Caselman Avenue that have a general similarity in that they are all small one-story stucco cottages. They appear to be coeval, built on lots of W & K Colony #6, according to the Assessor's residential building records. Alternatively, the property owner states that the houses were built in the 1940s or 1950s and moved to the site from east Sacramento as rental properties (cited in Erwin 2005). This explanation has the advantage of being more in line with the appearance of the houses, which are mostly in the Minimal Traditional style popular immediately after World War II, and their current condition. The 1918 and 1919 dates given by the Assessor's building records would then apply to earlier houses, now gone, that occupied larger lots when the area was an agricultural colony.

B7. Moved? ☐ No ☐ Yes ☒ Unknown Date: pos 1950s (see B6) Original Location: East Sacramento
B8. Related Features:

B9a. Architect: Unknown b. Builder: Unknown
B10. Significance: Theme Not significant **Area** _____
Period of Significance _____ **Property Type** _____ **Applicable Criteria** _____
(Discuss importance in terms of historical or architectural context as defined by theme, period, and geographic scope. Also address integrity.)

This residence is not associated with important events in local or State history [NRHP criterion a; CRHR criterion B (1)]. This is one of many areas in Sacramento County supported by small farms. There is no close by community or other social-defining mechanism for the region. The area has remained rural until recently, with a scattering of residences and farms.

Land ownership maps through 1923 for the County were reviewed, and names on building records checked. There are no associations with people important in State or local history [NRHP criterion b; CRHR criterion B (2)]. The residents were apparently small farmers, unassociated with anyone of social prominence or historical importance.

The residence is not a particularly good examples of its architectural style. It is small, very plain and probably was moved to the project area. It cannot be said that this building "embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values" [NRHP criterion c; CRHR criterion B (3)].

In consideration of the ability of this building or its immediate surroundings yield information important in history through archeological means, it should be noted that farm practices limit the possibilities of finding subsurface materials. The farms were more or less subsistence farms in the earlier period. They were at a great distance from any commercial establishment. Manufactured items would have been costly and time-consuming to acquire. As a result, most farms tended to reuse manufactured items such as glass containers, fabric, metal implements, and milled lumber. Other waste was burned on site, resulting in a lack of subsurface features that might be useful in defining early lifeways. Also, there is little to be learned from archeological excavations of essentially modern era properties, even in the unlikely event that such deposits exist. We do not believe that the residence is significant for its archeological values [NRHP criterion d; CRHR criterion B (4)].

B11. Additional Resource Attributes: (List attributes and codes) _____

B12. References: Erwin, Gail
2005 Revised Cultural Resource Project Discussion, Florin-Vineyard CPA, 04-0096 *et al.* On file: County of Sacramento, Department of Environmental Review and Assessment.

B13. Remarks:

B14. Evaluator: M. Peak, Peak & Associates, Inc.

Date of Evaluation: June 2006

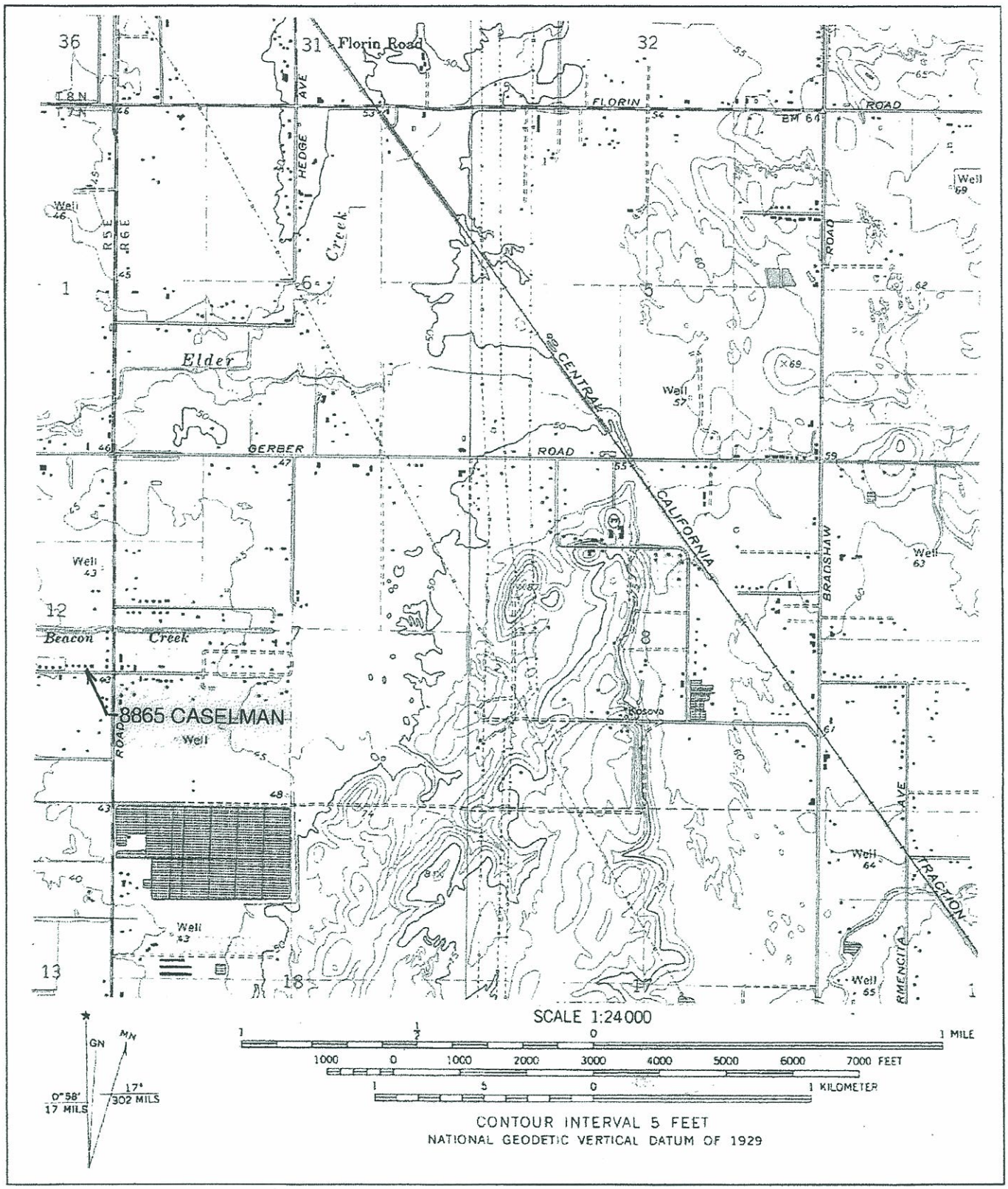
See attached location map

This space reserved for official comments.

State of California - The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
LOCATION MAP

Primary #:
HRI #:
Trinomial:

Page 3 of 3 **Resource Name or #:** (assigned by recorder) 8865 CASELMAN
Map Name: Elk Grove **Scale:** 1:24,000 **Date of Map:** 1968 (PR79)



State of California - The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
PRIMARY RECORD

Primary #
HRI#
Trinomial
NRHP Status Code 6Z

Other Listings:
Review Code: Reviewer: Date:

 Resource Name or #: (assigned by recorder) 8869 Caselman

P1. Other Identifier:

P2. Location: ☐ **Not for Publication** ☒ **Unrestricted** (P2b and P2c or P2d. Attach a Location Map as necessary)

a. County: Sacramento
b. USGS 7.5' Quad: Elk Grove Date: 1968 (PR79) T. 7N ;R. 5E ; NE ¼ of SE ¼ of Sec. 12 ; MD B.M.
c. Address: 8869 Caselman Avenue City: Sacramento Zip: 95828
d. UTM: (Give more than one for large and/or linear resources) Zone: 10 ; 06 42 020 mE/; 42 59 333 mN
e. Other Locational Data: (e.g. parcel #, directions to resource, elevation, etc., as appropriate)
APN 115 0091 006

P3a. Description: (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries)
In general appearance, this house differs markedly from the others along the north side of Caselman. This is a result of the mature trees and other landscaping that surround the house. The other houses in the area are in barren settings, or nearly so. The explanation for this is that the couple who occupy the house have occupied it for the last forty years. In structure, however, the house is very similar to its neighbors. It is a one story stucco residence with pyramidal roof and an offset entry under a gable. The only unusual architectural feature is the use of a diamond-pane casement window, obviously a replacement, on the front.

P3b. Resource Attributes: (List attributes and codes) HP-2; Single family property

P4. Resources Present: ☒ Building ☐ Structure ☐ Object ☐ Site ☐ District ☐ Element of a District ☐ Other (Isolates etc.)

P5b. Description of Photo: (View, date, accession #) 1/15/06 Looking east at exterior chimney. (Vegetation prevents a good front view.) Florin Vineyard roll 3, Frame 20.

P6. Date Construction/Age and Sources: Historic ☒ Prehistoric ☐ Both ☐
See discussion on BSO record

P7. Owner and Address:

P8. Recorded By: (Name, affiliation, and address)
Ann Peak/Robert Gerry
Peak & Associates, Inc.
3941 Park Drive, Suite 20, #329
El Dorado Hills, CA 95762

P9. Date Recorded:
1/15/06

P10. Survey Type: (Describe)
Complete, project related

P11. Report Citation: (Cite Survey report and other resources, or enter "none") Determination of Eligibility and Effect for Participating Properties Within the Florin Vineyard Gap Community Plan Project Area County of Sacramento, California. Peak & Associates 2007

ATTACHMENTS: ☐ NONE ☒ Location Map ☐ Sketch Map ☐ Continuation Sheet ☒ Building, Structure, and Object Record ☐ Archaeological Record ☐ District Record ☐ Linear Feature Record ☐ Milling Station Record ☐ Rock Art Record ☐ Artifact Record ☐ Photograph Record ☐ Other:

State of California - The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
BUILDING, STRUCTURE, AND OBJECT RECORD

Primary #: _____
HRI #: _____

Page 2 of 3 ***NRHP Status Code:** 6Z Resource Name or #: (assigned by recorder) 8869 Caselman Ave

B1. Historic Name: _____
B2. Common Name: _____
B3. Original Use: Residence B4. Present Use: Residence
B5. Architectural Style: Minimal Traditional
B6. Construction History: (Construction date, alterations, and date of alterations.)
This is one of a series of residences on Caselman Avenue that have a general similarity in that they are all small one-story stucco cottages. They appear to be coeval, built on lots of W & K Colony #6, according to the Assessor's residential building records. Alternatively, the property owner states that the houses were built in the 1940s or 1950s and moved to the site from east Sacramento as rental properties (cited in Erwin 2005). This explanation has the advantage of being more in line with the appearance of the houses, which are mostly in the Minimal Traditional style popular immediately after World War II, and their current condition. The 1918 and 1919 dates given by the Assessor's building records would then apply to earlier houses, now gone, that occupied larger lots when the area was an agricultural colony.

B7. Moved? ☐ No ☐ Yes ☒ Unknown Date: pos 1950s (see B6) Original Location: East Sacramento
B8. Related Features:

B9a. Architect: Unknown b. Builder: Unknown
B10. Significance: Theme Not significant **Area** _____
Period of Significance _____ **Property Type** _____ **Applicable Criteria** _____
(Discuss importance in terms of historical or architectural context as defined by theme, period, and geographic scope. Also address integrity.)

This residence is not associated with important events in local or State history [NRHP criterion a; CRHR criterion B (1)]. This is one of many areas in Sacramento County supported by small farms. There is no close by community or other social-defining mechanism for the region. The area has remained rural until recently, with a scattering of residences and farms.

Land ownership maps through 1923 for the County were reviewed, and names on building records checked. There are no associations with people important in State or local history [NRHP criterion b; CRHR criterion B (2)]. The residents were apparently small farmers, unassociated with anyone of social prominence or historical importance.

The residence is not a particularly good examples of its architectural style. It is small, very plain and probably was moved to the project area. It cannot be said that this building "embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values" [NRHP criterion c; CRHR criterion B (3)].

In consideration of the ability of this building or its immediate surroundings yield information important in history through archeological means, it should be noted that farm practices limit the possibilities of finding subsurface materials. The farms were more or less subsistence farms in the earlier period. They were at a great distance from any commercial establishment. Manufactured items would have been costly and time-consuming to acquire. As a result, most farms tended to reuse manufactured items such as glass containers, fabric, metal implements, and milled lumber. Other waste was burned on site, resulting in a lack of subsurface features that might be useful in defining early lifeways. Also, there is little to be learned from archeological excavations of essentially modern era properties, even in the unlikely event that such deposits exist. We do not believe that the residence is significant for its archeological values [NRHP criterion d; CRHR criterion B (4)].

B11. Additional Resource Attributes: (List attributes and codes) _____

B12. References: Erwin, Gail
2005 Revised Cultural Resource Project Discussion, Florin-Vineyard CPA, 04-0096 *et al.* On file: County of Sacramento, Department of Environmental Review and Assessment.

B13. Remarks:

B14. Evaluator: M. Peak, Peak & Associates, Inc.

Date of Evaluation: June 2006

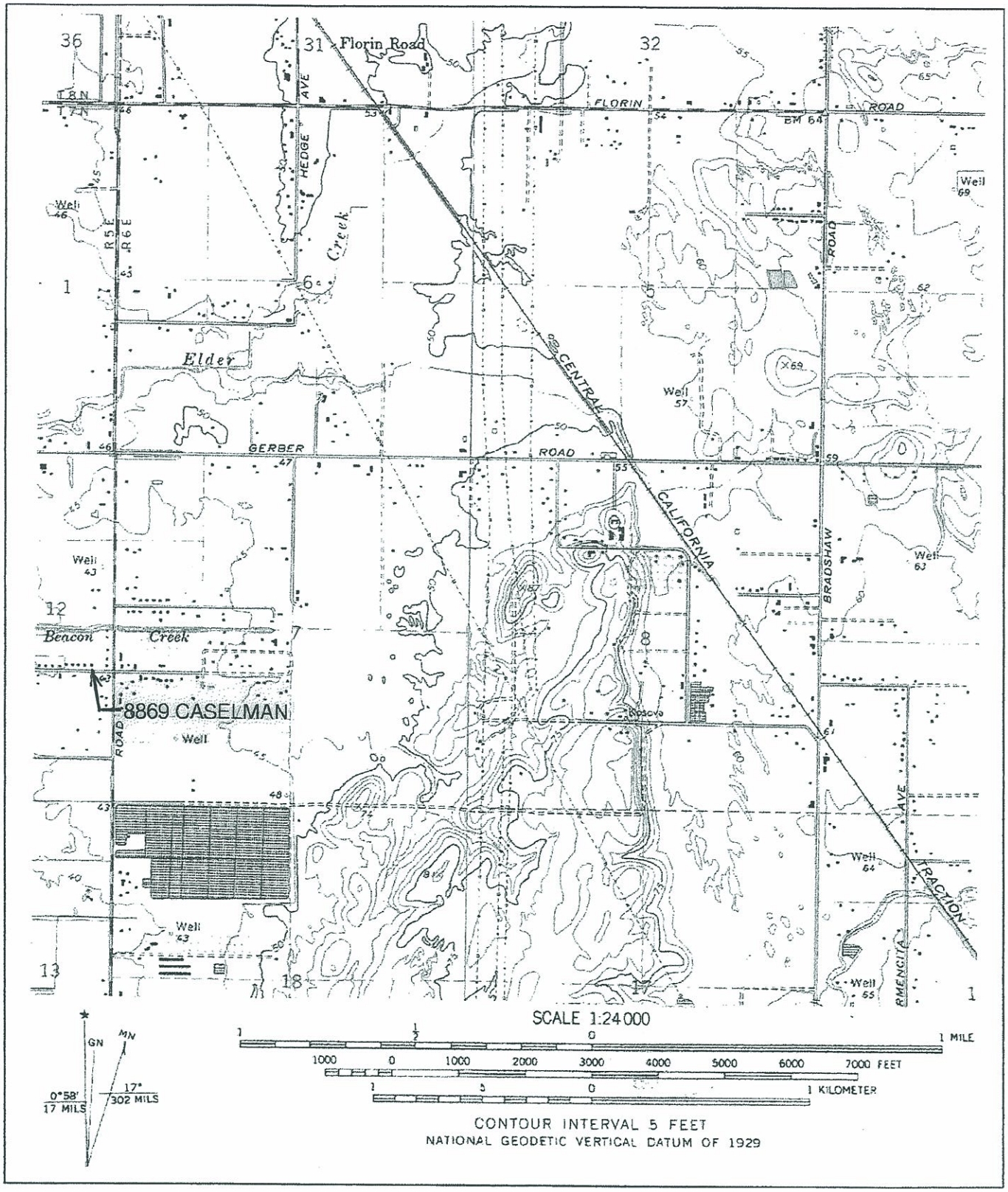
See attached location map

This space reserved for official comments.

State of California - The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
LOCATION MAP

Primary #:
HRI #:
Trinomial:

Page 3 of 3 **Resource Name or #:** (assigned by recorder) 8869 CASELMAN
Map Name: Elk Grove **Scale:** 1:24,000 **Date of Map:** 1968 (PR79)



State of California - The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
PRIMARY RECORD

Primary #
HRI#
Trinomial
NRHP Status Code 6Z

Other Listings:
Review Code: Reviewer: Date:

 Resource Name or #: (assigned by recorder) 7842 Elk Grove Florin

P1. Other Identifier:

P2. Location: ☐ **Not for Publication** ☒ **Unrestricted** (P2b and P2c or P2d. Attach a Location Map as necessary)

a. County: Sacramento
b. USGS 7.5' Quad: Elk Grove Date: 1968 (PR79) T. 7N ;R. 5E ; NE ¼ of SE ¼ of Sec. 12 ; MD B.M.
c. Address: 7842 Elk Grove Florin Road City: Sacramento Zip: 95828
d. UTM: (Give more than one for large and/or linear resources) Zone: 10 ; 06 42 090 mE/; 42 59 330 mN
e. Other Locational Data: (e.g. parcel #, directions to resource, elevation, etc., as appropriate)
APN 115 0091 006

P3a. Description: (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries)
The roof on this structure differs from all others in the area in being a hip-on-gable. This is basically a gable with the ends truncated at an angle, but the angled section starts well above eave-level instead of extending the full height of the roof as it does in a normal hipped roof. The building has an addition on the rear (west) side that is covered by a lower roof extension in a more normal gable pattern. On the front there is a half-width porch on the north covered by a short extension of the roof with offset, lower ridge, but still employing the hip-on-gable style. The depth of the porch is increased by recessing the front wall on the north half of the structure. Other than the very unusual roof, the structure is similar to the others in this area, a small, one story, stucco bungalow with detached garage.

P3b. Resource Attributes: (List attributes and codes) HP-2; Single family property

P4. Resources Present: ☒ Building ☐ Structure ☐ Object ☐ Site ☐ District ☐ Element of a District ☐ Other (Isolates etc.)

P5b. Description of Photo: (View, date, accession #) 1/15/06 Looking west at entry. Florin Vineyard roll 3, Frame 24.

P6. Date Construction/Age and Sources: Historic ☒ Prehistoric ☐ Both ☐
See discussion on BSO record

P7. Owner and Address:

P8. Recorded By: (Name, affiliation, and address)
Ann Peak/Robert Gerry
Peak & Associates, Inc.
3941 Park Drive, Suite 20, #329
El Dorado Hills, CA 95762

P9. Date Recorded:
1/15/06

P10. Survey Type: (Describe)
Complete, project related

P11. Report Citation: (Cite Survey report and other resources, or enter "none") Determination of Eligibility and Effect for Participating Properties Within the Florin Vineyard Gap Community Plan Project Area County of Sacramento, California. Peak & Associates 2007

ATTACHMENTS: ☐ NONE ☒ Location Map ☐ Sketch Map ☐ Continuation Sheet ☒ Building, Structure, and Object Record
☐ Archaeological Record ☐ District Record ☐ Linear Feature Record ☐ Milling Station Record ☐ Rock Art Record
☐ Artifact Record ☐ Photograph Record ☐ Other:

State of California - The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
BUILDING, STRUCTURE, AND OBJECT RECORD

Primary #: _____
HRI #: _____

Page 2 of 3 ***NRHP Status Code:** 6Z Resource Name or #: (assigned by recorder) 7842 Elk Grove Florin

B1. Historic Name:
B2. Common Name:
B3. Original Use: Residence B4. Present Use: Residence
B5. Architectural Style: Minimal Traditional
B6. Construction History: (Construction date, alterations, and date of alterations.)
This is one of a series of residences on Caselman Avenue that have a general similarity in that they are all small one-story stucco cottages. They appear to be coeval, built on lots of W & K Colony #6, according to the Assessor's residential building records. Alternatively, the property owner states that the houses were built in the 1940s or 1950s and moved to the site from east Sacramento as rental properties (cited in Erwin 2005). This explanation has the advantage of being more in line with the appearance of the houses, which are mostly in the Minimal Traditional style popular immediately after World War II, and their current condition. The 1918 and 1919 dates given by the Assessor's building records would then apply to earlier houses, now gone, that occupied larger lots when the area was an agricultural colony.

B7. Moved? ☐ No ☐ Yes ☒ Unknown Date: pos 1950s (see B6) Original Location: East Sacramento
B8. Related Features:

B9a. Architect: Unknown b. Builder: Unknown
B10. Significance: Theme Not significant **Area**
Period of Significance **Property Type** **Applicable Criteria**
(Discuss importance in terms of historical or architectural context as defined by theme, period, and geographic scope. Also address integrity.)

This residence is not associated with important events in local or State history [NRHP criterion a; CRHR criterion B (1)]. This is one of many areas in Sacramento County supported by small farms. There is no close by community or other social-defining mechanism for the region. The area has remained rural until recently, with a scattering of residences and farms.

Land ownership maps through 1923 for the County were reviewed, and names on building records checked. There are no associations with people important in State or local history [NRHP criterion b; CRHR criterion B (2)]. The residents were apparently small farmers, unassociated with anyone of social prominence or historical importance.

The residence is not a particularly good examples of its architectural style. It is small, very plain and probably was moved to the project area. It cannot be said that this building "embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values" [NRHP criterion c; CRHR criterion B (3)].

In consideration of the ability of this building or its immediate surroundings yield information important in history through archeological means, it should be noted that farm practices limit the possibilities of finding subsurface materials. The farms were more or less subsistence farms in the earlier period. They were at a great distance from any commercial establishment. Manufactured items would have been costly and time-consuming to acquire. As a result, most farms tended to reuse manufactured items such as glass containers, fabric, metal implements, and milled lumber. Other waste was burned on site, resulting in a lack of subsurface features that might be useful in defining early lifeways. Also, there is little to be learned from archeological excavations of essentially modern era properties, even in the unlikely event that such deposits exist. We do not believe that the residence is significant for its archeological values [NRHP criterion d; CRHR criterion B (4)].

B11. Additional Resource Attributes: (List attributes and codes)

B12. References: Erwin, Gail
2005 Revised Cultural Resource Project Discussion, Florin-Vineyard CPA, 04-0096 *et al.* On file: County of Sacramento, Department of Environmental Review and Assessment.

B13. Remarks:

B14. Evaluator: M. Peak, Peak & Associates, Inc.

Date of Evaluation: June 2006

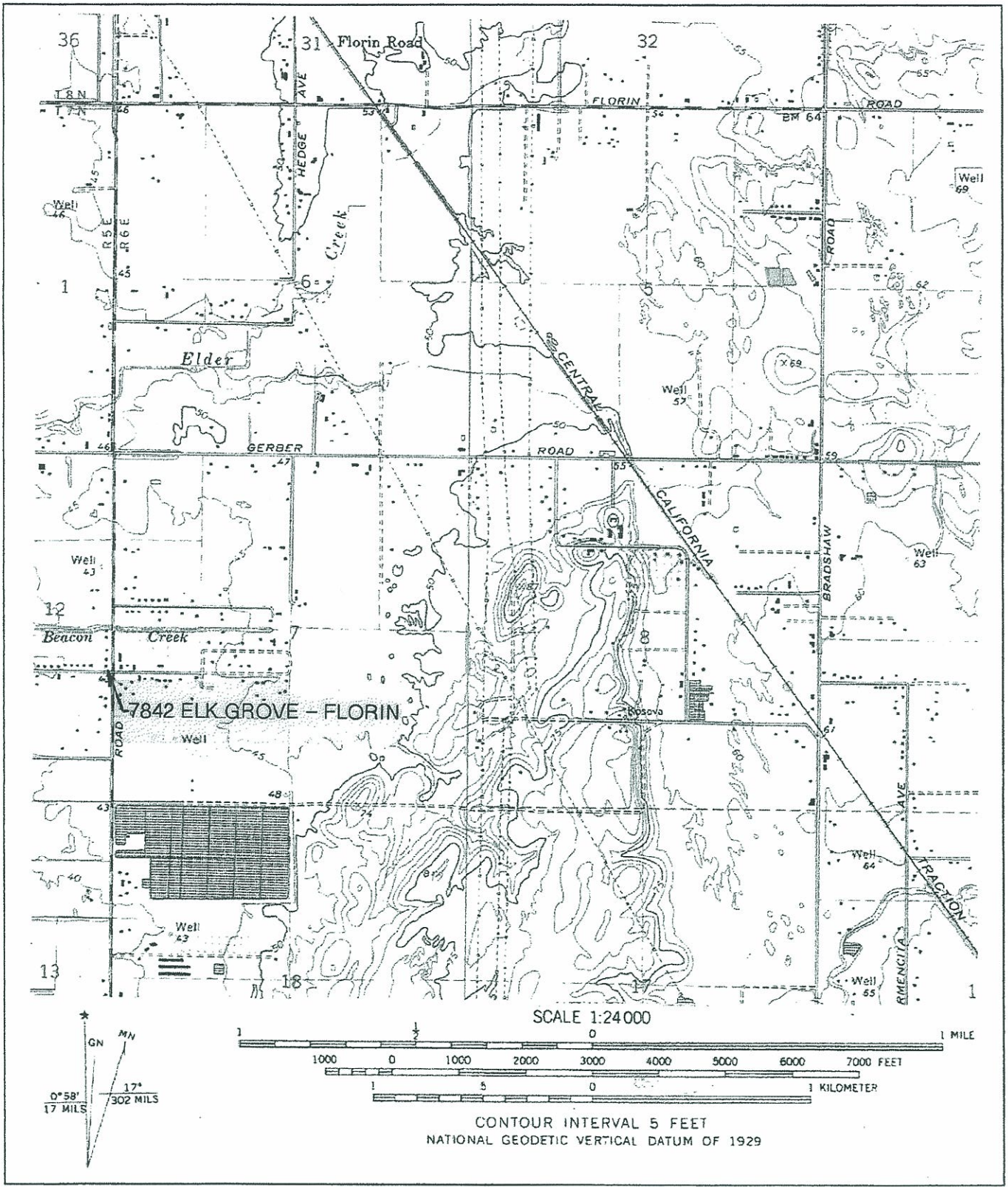
See attached location map

This space reserved for official comments.

State of California - The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
LOCATION MAP

Primary #:
HRI #:
Trinomial:

Page 3 of 3 **Resource Name or #:** (assigned by recorder) 7842 ELK GROVE FLORIN
Map Name: Elk Grove **Scale:** 1:24,000 **Date of Map:** 1968 (PR79)



State of California - The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
PRIMARY RECORD

Primary #
HRI#
Trinomial
NRHP Status Code 6Z

Other Listings:
Review Code: Reviewer: Date:

 Resource Name or #: (assigned by recorder) 7832 Elk Grove Florin

P1. Other Identifier:

P2. Location: ☐ **Not for Publication** ☒ **Unrestricted** (P2b and P2c or P2d. Attach a Location Map as necessary)

a. County: Sacramento
b. USGS 7.5' Quad: Elk Grove Date: 1968 (PR79) T. 7N ; R. 5E ; NE ¼ of SE ¼ of Sec. 12 ; MD B.M.
c. Address: 7832 Elk Grove Florin Road City: Sacramento Zip: 95828
d. UTM: (Give more than one for large and/or linear resources) Zone: 10 ; 06 42 090 mE/; 42 59 360 mN
e. Other Locational Data: (e.g. parcel #, directions to resource, elevation, etc., as appropriate)
APN 115 0091 006

P3a. Description: (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries)
This house has been so extensively remodeled that it is hard to say what the original architecture may have been, beyond one story frame with side gable. The front (east) elevation now has a two-thirds width porch on the north covered by an extension of the roof at the same pitch and supported by square posts. The southern third is an extension of the house under a cross gable. This extension is now an entry with the front door facing north, onto the porch. All windows are now aluminum-framed sliders and the siding is vinyl. A small barn, now a garage/storage shed, is associated with the house but looks nothing like it and is in very poor repair. It is a frame, end gabled structure with a shed-roofed extension on the north.

P3b. Resource Attributes: (List attributes and codes) HP-2; Single family property

P4. Resources Present: ☒ Building ☐ Structure ☐ Object ☐ Site ☐ District ☐ Element of a District ☐ Other (Isolates etc.)

P5b. Description of Photo: (View, date, accession #) 1/15/06 Looking south at additions and remodeling. Florin Vineyard roll 4, Frame 9.

P6. Date Construction/Age and Sources: Historic ☒ Prehistoric ☐ Both ☐
See discussion on BSO record

P7. Owner and Address:

P8. Recorded By: (Name, affiliation, and address)
Ann Peak/Robert Gerry
Peak & Associates, Inc.
3941 Park Drive, Suite 20, #329
El Dorado Hills, CA 95762

P9. Date Recorded:
1/15/06

P10. Survey Type: (Describe)
Complete, project related

P11. Report Citation: (Cite Survey report and other resources, or enter "none") Determination of Eligibility and Effect for Participating Properties Within the Florin Vineyard Gap Community Plan Project Area County of Sacramento, California. Peak & Associates 2007

ATTACHMENTS: ☐ NONE ☒ Location Map ☐ Sketch Map ☐ Continuation Sheet ☒ Building, Structure, and Object Record
☐ Archaeological Record ☐ District Record ☐ Linear Feature Record ☐ Milling Station Record ☐ Rock Art Record
☐ Artifact Record ☐ Photograph Record ☐ Other:

State of California - The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
BUILDING, STRUCTURE, AND OBJECT RECORD

Primary #: _____
HRI #: _____

Page 2 of 3 ***NRHP Status Code:** 6Z Resource Name or #: (assigned by recorder) 7832 Elk Grove Florin

B1. Historic Name: _____
B2. Common Name: _____
B3. Original Use: Residence B4. Present Use: Residence
B5. Architectural Style: Minimal Traditional
B6. Construction History: (Construction date, alterations, and date of alterations.)
This is one of a series of residences on Caselman Avenue that have a general similarity in that they are all small one-story stucco cottages. They appear to be coeval, built on lots of W & K Colony #6, according to the Assessor's residential building records. Alternatively, the property owner states that the houses were built in the 1940s or 1950s and moved to the site from east Sacramento as rental properties (cited in Erwin 2005). This explanation has the advantage of being more in line with the appearance of the houses, which are mostly in the Minimal Traditional style popular immediately after World War II, and their current condition. The 1918 and 1919 dates given by the Assessor's building records would then apply to earlier houses, now gone, that occupied larger lots when the area was an agricultural colony.

B7. Moved? ☐ No ☐ Yes ☒ Unknown Date: pos 1950s (see B6) Original Location: East Sacramento
B8. Related Features:

B9a. Architect: Unknown b. Builder: Unknown
B10. Significance: Theme Not significant **Area** _____
Period of Significance _____ **Property Type** _____ **Applicable Criteria** _____
(Discuss importance in terms of historical or architectural context as defined by theme, period, and geographic scope. Also address integrity.)

This residence is not associated with important events in local or State history [NRHP criterion a; CRHR criterion B (1)]. This is one of many areas in Sacramento County supported by small farms. There is no close by community or other social-defining mechanism for the region. The area has remained rural until recently, with a scattering of residences and farms.

Land ownership maps through 1923 for the County were reviewed, and names on building records checked. There are no associations with people important in State or local history [NRHP criterion b; CRHR criterion B (2)]. The residents were apparently small farmers, unassociated with anyone of social prominence or historical importance.

The residence is not a particularly good examples of its architectural style. It is small, very plain and probably was moved to the project area. It cannot be said that this building "embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values" [NRHP criterion c; CRHR criterion B (3)].

In consideration of the ability of this building or its immediate surroundings yield information important in history through archeological means, it should be noted that farm practices limit the possibilities of finding subsurface materials. The farms were more or less subsistence farms in the earlier period. They were at a great distance from any commercial establishment. Manufactured items would have been costly and time-consuming to acquire. As a result, most farms tended to reuse manufactured items such as glass containers, fabric, metal implements, and milled lumber. Other waste was burned on site, resulting in a lack of subsurface features that might be useful in defining early lifeways. Also, there is little to be learned from archeological excavations of essentially modern era properties, even in the unlikely event that such deposits exist. We do not believe that the residence is significant for its archeological values [NRHP criterion d; CRHR criterion B (4)].

B11. Additional Resource Attributes: (List attributes and codes) _____

B12. References: Erwin, Gail
2005 Revised Cultural Resource Project Discussion, Florin-Vineyard CPA, 04-0096 *et al.* On file: County of Sacramento, Department of Environmental Review and Assessment.

B13. Remarks:

B14. Evaluator: M. Peak, Peak & Associates, Inc.

Date of Evaluation: June 2006

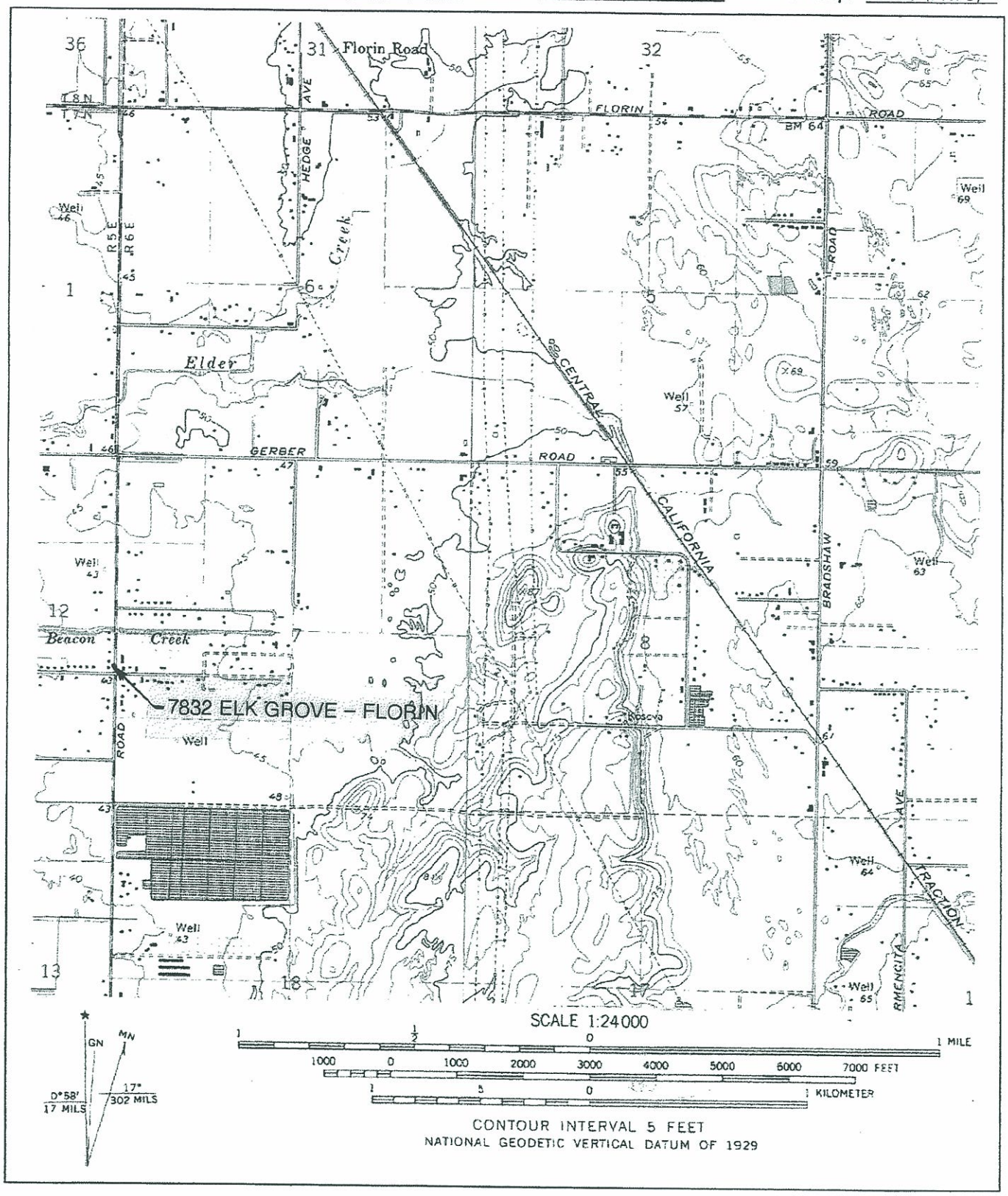
See attached location map

This space reserved for official comments.

State of California - The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
LOCATION MAP

Primary #:
HRI #:
Trinomial:

Page 3 of 3 **Resource Name or #:** (assigned by recorder) 7832 ELK GROVE FLORIN
Map Name: Elk Grove **Scale:** 1:24,000 **Date of Map:** 1968 (PR79)



State of California - The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
PRIMARY RECORD

Primary #
HRI#
Trinomial
NRHP Status Code 6Z

Other Listings:
Review Code: Reviewer: Date:

 Resource Name or #: (assigned by recorder) 7800 Elk Grove Florin

P1. Other Identifier:

P2. Location: ☐ **Not for Publication** ☒ **Unrestricted** (P2b and P2c or P2d. Attach a Location Map as necessary)

a. County: Sacramento
b. USGS 7.5' Quad: Elk Grove Date: 1968 (PR79) T. 7N ;R. 5E ; NE ¼ of SE ¼ of Sec. 12 ; MD B.M.
c. Address: 7800 Elk Grove Florin Road City: Sacramento Zip: 95828
d. UTM: (Give more than one for large and/or linear resources) Zone: 10 ; 06 42 088 mE/; 42 59 457 mN
e. Other Locational Data: (e.g. parcel #, directions to resource, elevation, etc., as appropriate)
APN 115 0091 007

P3a. Description: (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries)
This residence is a one story frame, end gabled, with stucco siding. A half width entry porch is on the south covered by a roof extension with offset ridge. There are angle brackets at the corners of the porch roof and a substantial oriel on the south elevation. A one car detached garage in similar style is also present.

P3b. Resource Attributes: (List attributes and codes) HP-2; Single family property

P4. Resources Present: ☒ Building ☐ Structure ☐ Object ☐ Site ☐ District ☐ Element of a District ☐ Other (Isolates etc.)

P5b. Description of Photo: (View, date, accession #) 1/15/06 Looking west at entry. Florin Vineyard roll 4, Frame 12.

P6. Date Construction/Age and Sources: Historic ☒ Prehistoric ☐ Both ☐
See discussion on BSO record

P7. Owner and Address:

P8. Recorded By: (Name, affiliation, and address)
Ann Peak/Robert Gerry
Peak & Associates, Inc.
3941 Park Drive, Suite 20, #329
El Dorado Hills, CA 95762

P9. Date Recorded:
1/15/06

P10. Survey Type: (Describe)
Complete, project related

P11. Report Citation: (Cite Survey report and other resources, or enter "none") Determination of Eligibility and Effect for Participating Properties Within the Florin Vineyard Gap Community Plan Project Area County of Sacramento, California. Peak & Associates 2007

ATTACHMENTS: ☐ NONE ☒ Location Map ☐ Sketch Map ☐ Continuation Sheet ☒ Building, Structure, and Object Record
☐ Archaeological Record ☐ District Record ☐ Linear Feature Record ☐ Milling Station Record ☐ Rock Art Record
☐ Artifact Record ☐ Photograph Record ☐ Other:

State of California - The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
BUILDING, STRUCTURE, AND OBJECT RECORD

Primary #: _____
HRI #: _____

Page 2 of 3 ***NRHP Status Code:** 6Z Resource Name or #: (assigned by recorder) 7800 Elk Grove Florin

B1. Historic Name:
B2. Common Name:
B3. Original Use: Residence B4. Present Use: Residence
B5. Architectural Style: Minimal Traditional
B6. Construction History: (Construction date, alterations, and date of alterations.)
This is one of a series of residences on Caselman Avenue that have a general similarity in that they are all small one-story stucco cottages. They appear to be coeval, built on lots of W & K Colony #6, according to the Assessor's residential building records. Alternatively, the property owner states that the houses were built in the 1940s or 1950s and moved to the site from east Sacramento as rental properties (cited in Erwin 2005). This explanation has the advantage of being more in line with the appearance of the houses, which are mostly in the Minimal Traditional style popular immediately after World War II, and their current condition. The 1918 and 1919 dates given by the Assessor's building records would then apply to earlier houses, now gone, that occupied larger lots when the area was an agricultural colony.

B7. Moved? ☐ No ☐ Yes ☒ Unknown Date: pos 1950s (see B6) Original Location: East Sacramento
B8. Related Features:

B9a. Architect: Unknown b. Builder: Unknown
B10. Significance: Theme Not significant **Area**
Period of Significance **Property Type** **Applicable Criteria**
(Discuss importance in terms of historical or architectural context as defined by theme, period, and geographic scope. Also address integrity.)

This residence is not associated with important events in local or State history [NRHP criterion a; CRHR criterion B (1)]. This is one of many areas in Sacramento County supported by small farms. There is no close by community or other social-defining mechanism for the region. The area has remained rural until recently, with a scattering of residences and farms.

Land ownership maps through 1923 for the County were reviewed, and names on building records checked. There are no associations with people important in State or local history [NRHP criterion b; CRHR criterion B (2)]. The residents were apparently small farmers, unassociated with anyone of social prominence or historical importance.

The residence is not a particularly good examples of its architectural style. It is small, very plain and probably was moved to the project area. It cannot be said that this building "embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values" [NRHP criterion c; CRHR criterion B (3)].

In consideration of the ability of this building or its immediate surroundings yield information important in history through archeological means, it should be noted that farm practices limit the possibilities of finding subsurface materials. The farms were more or less subsistence farms in the earlier period. They were at a great distance from any commercial establishment. Manufactured items would have been costly and time-consuming to acquire. As a result, most farms tended to reuse manufactured items such as glass containers, fabric, metal implements, and milled lumber. Other waste was burned on site, resulting in a lack of subsurface features that might be useful in defining early lifeways. Also, there is little to be learned from archeological excavations of essentially modern era properties, even in the unlikely event that such deposits exist. We do not believe that the residence is significant for its archeological values [NRHP criterion d; CRHR criterion B (4)].

B11. Additional Resource Attributes: (List attributes and codes)

B12. References: Erwin, Gail
2005 Revised Cultural Resource Project Discussion, Florin-Vineyard CPA, 04-0096 *et al.* On file: County of Sacramento, Department of Environmental Review and Assessment.

B13. Remarks:

B14. Evaluator: M. Peak, Peak & Associates, Inc.

Date of Evaluation: June 2006

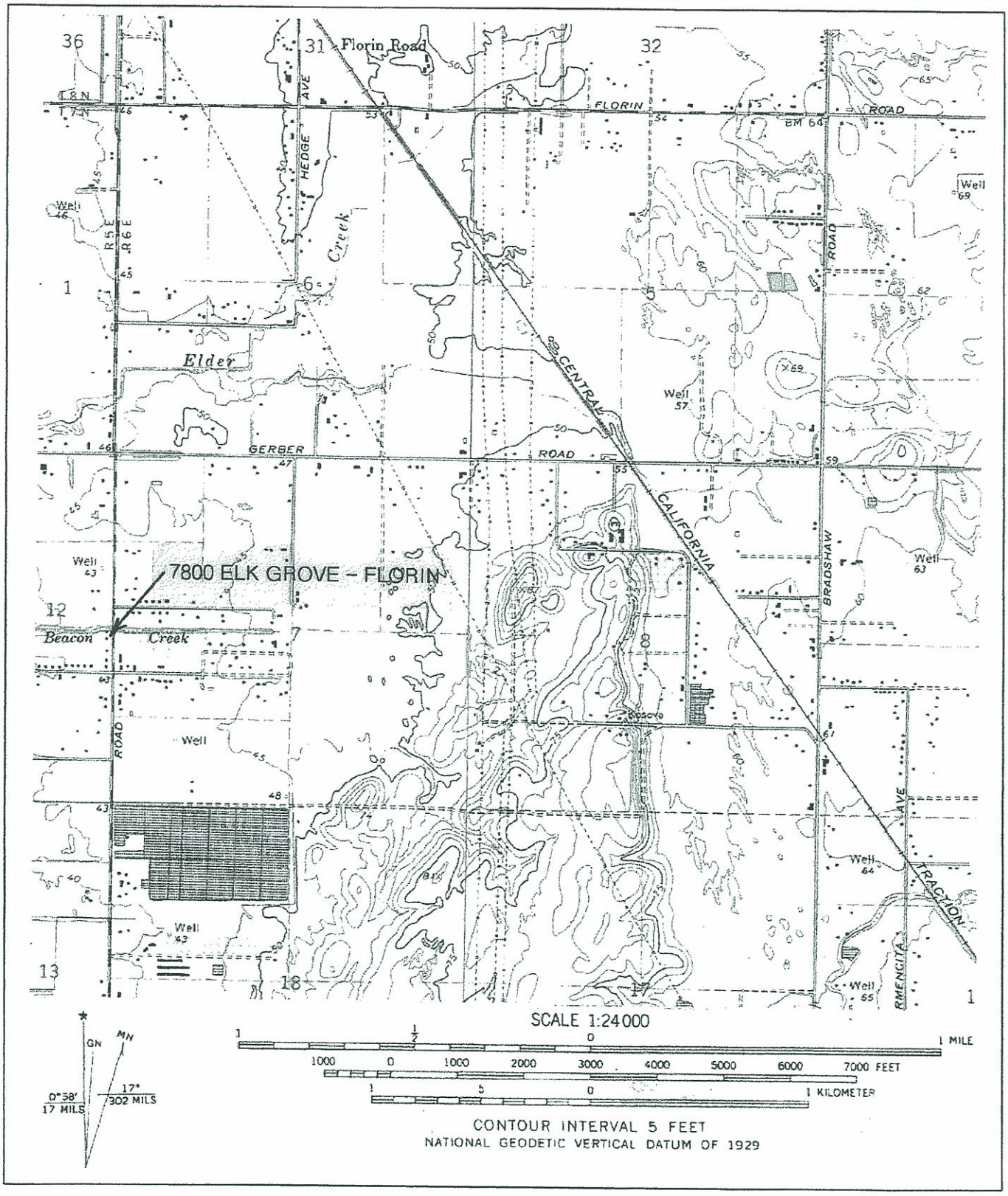
See attached location map

This space reserved for official comments.

State of California - The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
LOCATION MAP

Primary #:
HRI #:
Trinomial:

Page 3 of 3 **Resource Name or #:** (assigned by recorder) 7800 ELK GROVE FLORIN
Map Name: Elk Grove **Scale:** 1:24,000 **Date of Map:** 1968 (PR79)



State of California - The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
PRIMARY RECORD

Primary #
HRI#
Trinomial
NRHP Status Code 6Z

Other Listings:
Review Code: Reviewer: Date:

 Resource Name or #: (assigned by recorder) 8955 McCoy

P1. Other Identifier:

P2. Location: ☐ **Not for Publication** ☒ **Unrestricted** (P2b and P2c or P2d. Attach a Location Map as necessary)

a. County: Sacramento
b. USGS 7.5' Quad: Elk Grove Date: 1968 (PR79) T. 7N ; R. 6E ; NW ¼ of SW ¼ of Sec. 6 ; MD B.M.
c. Address: 8955 McCoy Avenue City: Sacramento Zip: 95829
d. UTM: (Give more than one for large and/or linear resources) Zone: 10 ; 06 42 320 mE/; 42 61 050 mN
e. Other Locational Data: (e.g. parcel #, directions to resource, elevation, etc., as appropriate)
APN 065-080-046

P3a. Description: (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries)
This location has a complex of buildings related to a farm/ranch headquarters, but only one of them appears on the 1968 edition of the Elk Grove USGS quadrangle. The older residence is a 1920, per County Assessor's Building Record, one story frame with several later modifications. Other structures in the area include two fairly old barns, a two story structure converted to garage on the ground floor with residence on the second floor, and sevral open sided sheds with aluminum roofing and, in some cases, siding. The older residence has a hipped roof and siding, roofing, windows and doors have all been re-done. There is a recent addition on the front (east) elevation that has aluminum sliders for both widows and door. The style of the base structure looks vaguely Craftsman, but the eaves are closed and there are no decorative structural features at all.

P3b. Resource Attributes: (List attributes and codes) HP-2, Single Family property

P4. Resources Present: ☒ Building ☐ Structure ☐ Object ☐ Site ☐ District ☐ Element of a District ☐ Other (Isolates etc.)

P5b. Description of Photo: (View, date, accession #)
10/15/07 looking west from the access road off of McCoy

P6. Date Construction/Age and Sources: Historic ☒ Prehistoric ☐ Both ☐

P7. Owner and Address:

P8. Recorded By: (Name, affiliation, and address)
Robert Gerry
Peak & Associates, Inc.
3941 Park Drive, Suite 20, #329
El Dorado Hills, CA 95762

P9. Date Recorded:
10/15/07

P10. Survey Type: (Describe)
Complete, Project Related

P11. Report Citation: (Cite Survey report and other resources, or enter "none") Determination of Eligibility and Effect for Participating Properties Within the Florin Vineyard Gap Community Plan Project Area County of Sacramento, California. Peak & Associates 2007.

ATTACHMENTS: ☐ NONE ☒ Location Map ☐ Sketch Map ☐ Continuation Sheet ☒ Building, Structure, and Object Record ☐ Archaeological Record ☐ District Record ☐ Linear Feature Record ☐ Milling Station Record ☐ Rock Art Record ☐ Artifact Record ☐ Photograph Record ☐ Other:

State of California - The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
BUILDING, STRUCTURE, AND OBJECT RECORD

Primary #: _____
HRI #: _____

Page 2 of 4 ***NRHP Status Code:** 6Z Resource Name or #: (assigned by recorder) 8955 McCoy

B1. Historic Name: _____
B2. Common Name: _____
B3. Original Use: Residence B4. Present Use: Residence
B5. Architectural Style: More-or-less Craftsman
B6. Construction History: (Construction date, alterations, and date of alterations.)
Constructed about 1920 according to the Assessor's building record, which may be true of the basic residence, but it is so heavily modified that this is not particularly apparent. The dates of the modifications and at least one major addition are unknown.
B7. Moved? ☒ No ☐ Yes ☐ Unknown Date: _____ Original Location: _____
B8. Related Features: A house, now the main residence, and several sheds along with two small barns. All of these except the house are less than fifty years old (USGS).

B9a. Architect: Unknown b. Builder: Unknown
B10. Significance: Theme _____ **Area** _____
Period of Significance _____ **Property Type** _____ **Applicable Criteria** _____
(Discuss importance in terms of historical or architectural context as defined by theme, period, and geographic scope. Also address integrity.)

This residence is not associated with important events in local or State history [NRHP criterion a; CRHR criterion B (1)]. This is one of many areas in Sacramento County supported by small farms. There is no close by community or other social-defining mechanism for the region. The area has remained rural until recently, with a scattering of residences and farms.

Land ownership maps through 1923 for the County were reviewed, and names on building records checked. There are no associations with people important in State or local history [NRHP criterion b; CRHR criterion B (2)]. The residents were apparently small farmers, unassociated with anyone of social prominence or historical importance.

The residence was once a small, plain building that has been modified many times. And has one major addition. It cannot be said that it "embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values" [NRHP criterion c; CRHR criterion B (3)].

In consideration of the ability of this building or its immediate surroundings yield information important in history through archeological means, it should be noted that farm practices limit the possibilities of finding subsurface materials. The farms were more or less subsistence farms in the earlier period. They were at a great distance from any commercial establishment. Manufactured items would have been costly and time-consuming to acquire. As a result, most farms tended to reuse manufactured items such as glass containers, fabric, metal implements, and milled lumber. Other waste was burned on site, resulting in a lack of subsurface features that might be useful in defining early lifeways. Also, there is little to be learned from archeological excavations of essentially modern era properties, even in the unlikely event that such deposits exist. We do not believe that the residence is significant for its archeological values [NRHP criterion d; CRHR criterion B (4)].

B11. Additional Resource Attributes: (List attributes and codes) _____

B12. References:

B13. Remarks:

B14. Evaluator: M. Peak, Peak & Associates, Inc.

Date of Evaluation: 10/07

See attached location map.

This space reserved for official comments.

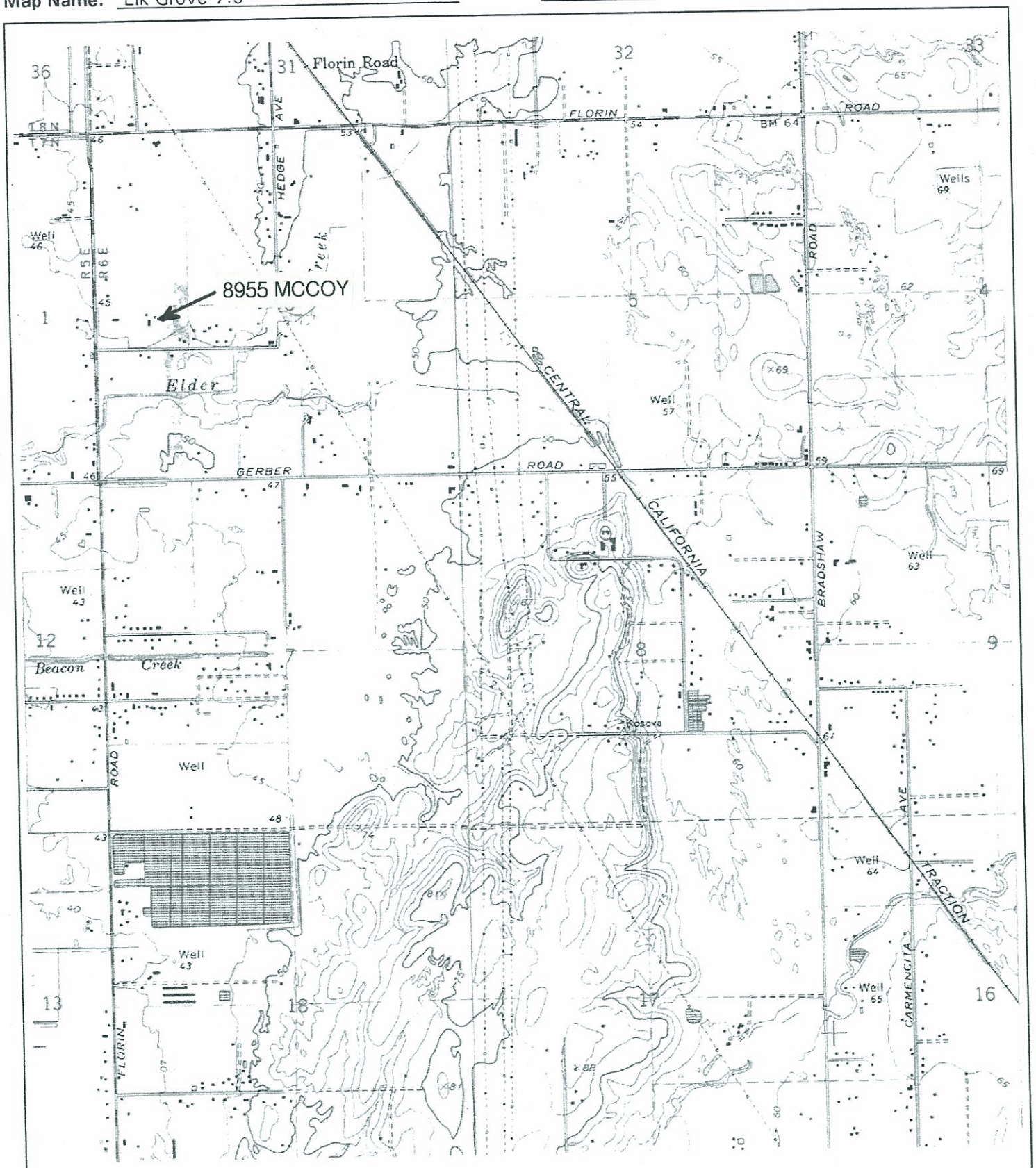
Heavily modified garage/residence looking northwest

Barns north of residence and west of garage/residence, looking northwest

State of California - The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
LOCATION MAP

Primary #: _____
HRI #: _____
Trinomial: _____

Page ___ of ___ **Resource Name or #:** (assigned by recorder) 8955 MCCOY
Map Name: Elk Grove 7.5' **Scale:** 1 : 24,000 **Date of Map:** 1968 (PR79)



State of California - The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
PRIMARY RECORD

Primary #
HRI#
Trinomial
NRHP Status Code 6Z

Other Listings:
Review Code: Reviewer: Date:

 Resource Name or #: (assigned by recorder) 7255 Gardner Avenue

P1. Other Identifier:

P2. Location: ☐ **Not for Publication** ☒ **Unrestricted** (P2b and P2c or P2d. Attach a Location Map as necessary)

a. County: Sacramento
b. USGS 7.5' Quad: Florin Date: 1968 (PR80) T. 7N ; R. 5E ; NW ¼ of NE ¼ of Sec. 1 ; MD B.M.
c. Address: 7255 Gardner Avenue City: Sacramento Zip: 95828
d. UTM: (Give more than one for large and/or linear resources) Zone: 10 ; 06 41 564 mE/; 42 618 650 mN
e. Other Locational Data: (e.g. parcel #, directions to resource, elevation, etc., as appropriate)
APN 065 0042 048

P3a. Description: (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries)
The residence has a cross gabled roof except for one section in the back (probably an addition) that has a pyramidal roof. The siding is horizontal lapped planks and the roofing is a composite rolled material. There is a latticework railing on the centered entry porch. It includes an attached garage and retains wooden window frames, a rarity in this area, where most have been replaced with aluminum. The house is set well back from the street in a stand of mature trees. The Assessor's building record gives a date of 1930, which fits with the appearance, which is essentially Craftsman.

P3b. Resource Attributes: (List attributes and codes) HP-2; Single family property

P4. Resources Present: ☒ Building ☐ Structure ☐ Object ☐ Site ☐ District ☐ Element of a District ☐ Other (Isolates etc.)

P5b. Description of Photo: (View, date, accession #) 1/21/06 Looking southwest at the carport/entry roof and porch. Florin Vineyard Roll 8, Frame 15.

P6. Date Construction/Age and Sources: Historic ☒ Prehistoric ☐ Both ☐
See P3a

P7. Owner and Address:

P8. Recorded By: (Name, affiliation, and address)
Ann Peak/Robert Gerry
Peak & Associates, Inc.
3941 Park Drive, Suite 20, #329
El Dorado Hills, CA 95762

P9. Date Recorded:
6/15/06

P10. Survey Type: (Describe)
Complete, project related

P11. Report Citation: (Cite Survey report and other resources, or enter "none") Determination of Eligibility and Effect for Participating Properties Within the Florin Vineyard Gap Community Plan Project Area County of Sacramento, California. Peak & Associates 2007

ATTACHMENTS: ☐ NONE ☒ Location Map ☐ Sketch Map ☐ Continuation Sheet ☒ Building, Structure, and Object Record
☐ Archaeological Record ☐ District Record ☐ Linear Feature Record ☐ Milling Station Record ☐ Rock Art Record
☐ Artifact Record ☐ Photograph Record ☐ Other:

State of California - The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
BUILDING, STRUCTURE, AND OBJECT RECORD

Primary #: _____
HRI #: _____

Page 2 of 3 ***NRHP Status Code:** 6Z Resource Name or #: (assigned by recorder) 7255 Gardner Avenue

B1. Historic Name: _____
B2. Common Name: _____
B3. Original Use: Residence B4. Present Use: Residence
B5. Architectural Style: Heavily modified Craftsman Bungalow
B6. Construction History: (Construction date, alterations, and date of alterations.)
The construction date is given as 1930 in the County Assessor's building record for the parcel. This fits fairly well with the appearance of the residence which is essentially Craftsman, though heavily modified. The large cross gable that forms a carport and entry is clearly an addition and the porch that it covers is not original. The section in back with pyramidal roof is also, probably, a later addition, although of unknown date.

B7. Moved? ☒ No ☐ Yes ☐ Unknown Date: _____ Original Location: _____
B8. Related Features:

B9a. Architect: Unknown b. Builder: Unknown
B10. Significance: Theme Not significant **Area** _____
Period of Significance _____ **Property Type** _____ **Applicable Criteria** _____
(Discuss importance in terms of historical or architectural context as defined by theme, period, and geographic scope. Also address integrity.)

This residence is not associated with important events in local or State history [NRHP criterion a; CRHR criterion B (1)]. This is one of many areas in Sacramento County supported by small farms. There is no close by community or other social-defining mechanism for the region. The area has remained rural until recently, with a scattering of residences and farms.

Land ownership maps through 1923 for the County were reviewed, and names on building records checked. There are no associations with people important in State or local history [NRHP criterion b; CRHR criterion B (2)]. The residents were apparently small farmers, unassociated with anyone of social prominence or historical importance.

The residence is not a particularly good examples of its architectural style. It is small, plain and has many alterations and additions. It cannot be said that this building "embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values" [NRHP criterion c; CRHR criterion B (3)].

In consideration of the ability of this building or its immediate surroundings yield information important in history through archeological means, it should be noted that farm practices limit the possibilities of finding subsurface materials. The farms were more or less subsistence farms in the earlier period. They were at a great distance from any commercial establishment. Manufactured items would have been costly and time-consuming to acquire. As a result, most farms tended to reuse manufactured items such as glass containers, fabric, metal implements, and milled lumber. Other waste was burned on site, resulting in a lack of subsurface features that might be useful in defining early lifeways. Also, there is little to be learned from archeological excavations of essentially modern era properties, even in the unlikely event that such deposits exist. We do not believe that the residence is significant for its archeological values [NRHP criterion d; CRHR criterion B (4)].

B11. Additional Resource Attributes: (List attributes and codes) _____
B12. References:

B13. Remarks:

B14. Evaluator: M. Peak, Peak & Associates, Inc.

Date of Evaluation: June 2006

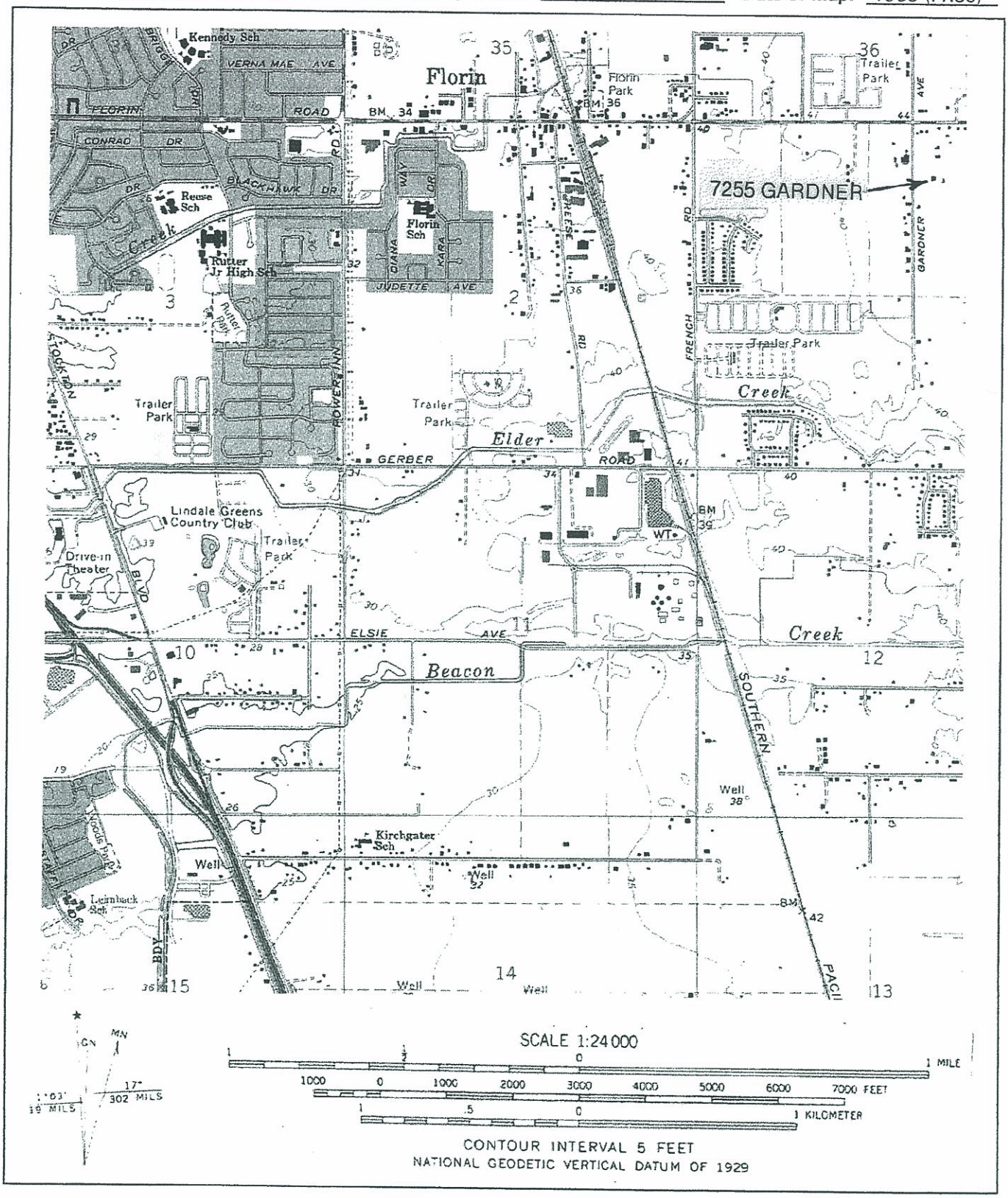
See attached location map

This space reserved for official comments.

State of California - The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
LOCATION MAP

Primary #:
HRI #:
Trinomial:

Page 3 of 3 **Resource Name or #:** (assigned by recorder) 7255 GARDNER
Map Name: Florin **Scale:** 1:24,000 **Date of Map:** 1968 (PR80)



State of California - The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
PRIMARY RECORD

Primary #
HRI#
Trinomial
NRHP Status Code 6Z

Other Listings:
Review Code: Reviewer: Date:

 Resource Name or #: (assigned by recorder) 8754 Carlisle Avenue

P1. Other Identifier:

P2. Location: ☐ **Not for Publication** ☒ **Unrestricted** (P2b and P2c or P2d. Attach a Location Map as necessary)

a. County: Sacramento
b. USGS 7.5' Quad: Florin Date: 1968 (PR80) T. 7N ;R. 5E ; SW ¼ of SE ¼ of Sec. 12 ; MD B.M.
c. Address: 8754 Carlisle Avenue City: Sacramento Zip: 95828
d. UTM: (Give more than one for large and/or linear resources) Zone: 10 ; 06 41 465 mE/; 42 58 855 mN
e. Other Locational Data: (e.g. parcel #, directions to resource, elevation, etc., as appropriate)
APN 115 0092 003

P3a. Description: (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries)
This is a small one-and-a-half story frame residence set well back from the street. It is also set sideways to Carlisle, that is, the entrance faces east but the street is north of the house. It is side gabled with a small centered entry porch covered by a cross gable. The moderately steep pitched roof is covered by shake shingles, siding is horizontal lapped planks (except where replaced) and there is a detached garage. There is new siding in the gable ends but not on the rest of the house except at the front (east elevation) where the wall north of the entry is covered in faux brick, but that portion south of the entry in plywood awaiting a finish layer. This dichotomy is repeated on the eaves. Closed eaves are present north of the entry and open eaves south. The Assessor's building record gives a construction date of 1916 for the house, but it has been very heavily modified.

P3b. Resource Attributes: (List attributes and codes) HP-2; Single family property

P4. Resources Present: ☒ Building ☐ Structure ☐ Object ☐ Site ☐ District ☐ Element of a District ☐ Other (Isolates etc.)

P5b. Description of Photo: (View, date, accession #) 6/15/06 Looking west at the entry and the many different materials present. Florin Vineyard Roll 5, Frame 18.

P6. Date Construction/Age and Sources: Historic ☒ Prehistoric ☐ Both ☐
See P3a

P7. Owner and Address:

P8. Recorded By: (Name, affiliation, and address)
Ann Peak/Robert Gerry
Peak & Associates, Inc.
3941 Park Drive, Suite 20, #329
El Dorado Hills, CA 95762

P9. Date Recorded:
6/15/06

P10. Survey Type: (Describe)
Complete, project related

P11. Report Citation: (Cite Survey report and other resources, or enter "none") Determination of Eligibility and Effect for Participating Properties Within the Florin Vineyard Gap Community Plan Project Area County of Sacramento, California. Peak & Associates 2007

ATTACHMENTS: ☐ NONE ☒ Location Map ☐ Sketch Map ☐ Continuation Sheet ☒ Building, Structure, and Object Record
☐ Archaeological Record ☐ District Record ☐ Linear Feature Record ☐ Milling Station Record ☐ Rock Art Record
☐ Artifact Record ☐ Photograph Record ☐ Other:

State of California - The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
BUILDING, STRUCTURE, AND OBJECT RECORD

Primary #: _____
HRI #: _____

 ***NRHP Status Code:** 6Z Resource Name or #: (assigned by recorder) 8754 Carlisle Avenue

B1. Historic Name: _____
B2. Common Name: _____
B3. Original Use: Residence B4. Present Use: Residence
B5. Architectural Style: Heavily modified Craftsman Bungalow
B6. Construction History: (Construction date, alterations, and date of alterations.)
The construction date is given as 1916 in the County Assessor's building record for the parcel. If this is correct, there are few elements of the structure that have nor been altered or remodeled, since the overall structure is in good condition. The garage, since it is depicted in purple on the Florin quadrangle, indicating it appeared between 1968 and 1980, is much newer.

B7. Moved? ☒ No ☐ Yes ☐ Unknown Date: _____ Original Location: _____
B8. Related Features:

B9a. Architect: Unknown b. Builder: Unknown
B10. Significance: Theme Not significant **Area** _____
Period of Significance _____ **Property Type** _____ **Applicable Criteria** _____
(Discuss importance in terms of historical or architectural context as defined by theme, period, and geographic scope. Also address integrity.)

This residence is not associated with important events in local or State history [NRHP criterion a; CRHR criterion B (1)]. This is one of many areas in Sacramento County supported by small farms. There is no close by community or other social-defining mechanism for the region. The area has remained rural until recently, with a scattering of residences and farms.

Land ownership maps through 1923 for the County were reviewed, and names on building records checked. There are no associations with people important in State or local history [NRHP criterion b; CRHR criterion B (2)]. The residents were apparently small farmers, unassociated with anyone of social prominence or historical importance.

The residence is not a particularly good examples of its architectural style due to the extensive modifications It is small and plain and the alterations, such as closed eaves, are not in the Craftsman style. It cannot be said that this building "embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values" [NRHP criterion c; CRHR criterion B (3)].

In consideration of the ability of this building or its immediate surroundings yield information important in history through archeological means, it should be noted that farm practices limit the possibilities of finding subsurface materials. The farms were more or less subsistence farms in the earlier period. They were at a great distance from any commercial establishment. Manufactured items would have been costly and time-consuming to acquire. As a result, most farms tended to reuse manufactured items such as glass containers, fabric, metal implements, and milled lumber. Other waste was burned on site, resulting in a lack of subsurface features that might be useful in defining early lifeways. Also, there is little to be learned from archeological excavations of essentially modern era properties, even in the unlikely event that such deposits exist. We do not believe that the residence is significant for its archeological values [NRHP criterion d; CRHR criterion B (4)].

B11. Additional Resource Attributes: (List attributes and codes) _____
B12. References:

B13. Remarks:

B14. Evaluator: M. Peak, Peak & Associates, Inc.

Date of Evaluation: June 2006

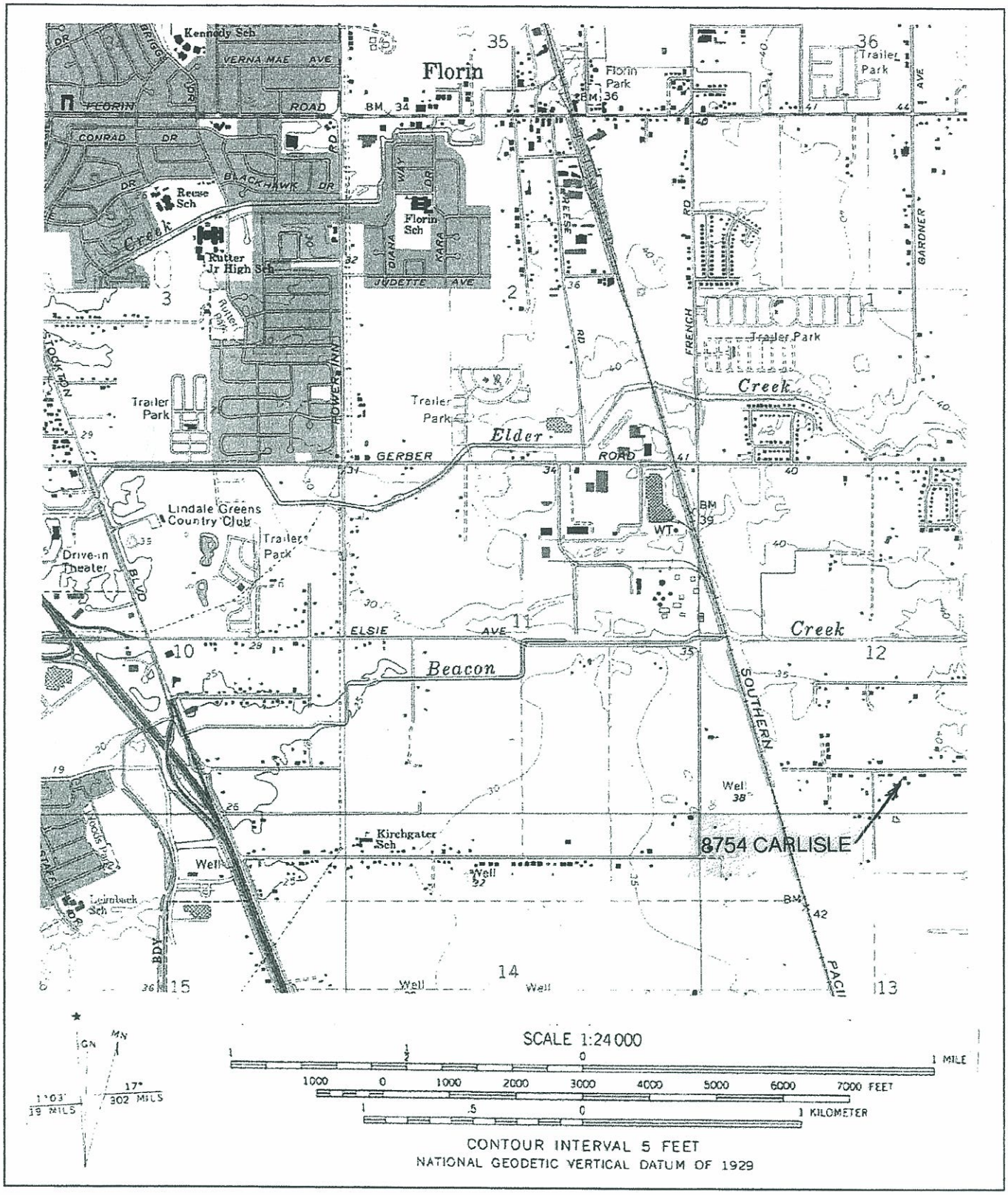
See attached location map

This space reserved for official comments.

State of California - The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
LOCATION MAP

Primary #:
HRI #:
Trinomial:

Page 3 of 3 **Resource Name or #:** (assigned by recorder) 8754 CARLISLE
Map Name: Florin **Scale:** 1:24,000 **Date of Map:** 1968 (PR80)



State of California - The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
PRIMARY RECORD

Primary #
HRI#
Trinomial
NRHP Status Code

Other Listings:
Review Code: Reviewer: Date:

 Resource Name or #: (assigned by recorder) 8678 Caselman

P1. Other Identifier:

P2. Location: ☐ **Not for Publication** ■ **Unrestricted** (P2b and P2c or P2d. Attach a Location Map as necessary)

a. County: Sacramento
b. USGS 7.5' Quad: Florin 7.5; Date: 1968 (PR80) T. 7N ;R. 5E ; NE ¼ of SW ¼ of Sec. 12 ; B.M.
c. Address: 8678 Caselman City: Sacramento Zip: 95829
d. UTM: (Give more than one for large and/or linear resources) Zone: 10 ; 06 41 280 mE/; 42 59 240 mN
e. Other Locational Data: (e.g. parcel #, directions to resource, elevation, etc., as appropriate)
APN 115-0091-016

P3a. Description: (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries)
Minimal Traditional residence dating to 1950. It is an entirely plain, end gabled one story frame residence with a moderately pitched roof clad in rolled composite material. The siding is horizontal planks and windows are largely sluminum sliders. There is nothing unusual about the structure in style or execution.

P3b. Resource Attributes: (List attributes and codes) HP-2, Single Family Property

P4. Resources Present: ■ Building ☐ Structure ☐ Object ☐ Site ☐ District ☐ Element of a District ☐ Other (Isolates etc.)

P5b. Description of Photo: (View, date, accession #)
1/14/06 Looking east

P6. Date Construction/Age and Sources: Historic ■ Prehistoric ☐ Both ☐

P7. Owner and Address:

P8. Recorded By: (Name, affiliation, and address)
Robert Gerry
Peak & Associates, Inc.
3941 Park Drive, Suite 20, #329
El Dorado Hills, CA 95762

P9. Date Recorded:
1/14/06

P10. Survey Type: (Describe)
Complete, Project Related

P11. Report Citation: (Cite Survey report and other resources, or enter "none") Determination of Eligibility and Effect For Participating Properties Within The Florin Vineyard Gap Community Plan Project Area, County of Sacramento, California. Peak & Associates, Inc. 2007

ATTACHMENTS: ☐ NONE ■ Location Map ☐ Sketch Map ☐ Continuation Sheet ■ Building, Structure, and Object Record
☐ Archaeological Record ☐ District Record ☐ Linear Feature Record ☐ Milling Station Record ☐ Rock Art Record
☐ Artifact Record ☐ Photograph Record ☐ Other:

State of California - The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
BUILDING, STRUCTURE, AND OBJECT RECORD

Primary #: _____
HRI #: _____

Page 2 of 3 ***NRHP Status Code:** 6Z Resource Name or #: (assigned by recorder) 8678 Caselamn

B1. Historic Name: _____
B2. Common Name: _____
B3. Original Use: Residence B4. Present Use: Residence
B5. Architectural Style: Minimal Traditional
B6. Construction History: (Construction date, alterations, and date of alterations.)
Constructed about 1950 per County Assessor's office

B7. Moved? ☒ No ☐ Yes ☐ Unknown Date: _____ Original Location: _____
B8. Related Features: None

B9a. Architect: _____ b. Builder: _____
B10. Significance: Theme _____ **Area** _____
Period of Significance _____ **Property Type** _____ **Applicable Criteria** _____
(Discuss importance in terms of historical or architectural context as defined by theme, period, and geographic scope. Also address integrity.)

This residence is not associated with important events in local or State history [NRHP criterion a; CRHR criterion B (1)]. This is one of many areas in Sacramento County supported by small farms. There is no close by community or other social-defining mechanism for the region. The area has remained rural until recently, with a scattering of residences and farms.

Land ownership maps through 1923 for the County were reviewed, and names on building records checked. There are no associations with people important in State or local history [NRHP criterion b; CRHR criterion B (2)]. The residents were apparently small farmers, unassociated with anyone of social prominence or historical importance.

This small, plain residence was not a particularly good example of the architectural style. It cannot be said that this building "embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values" [NRHP criterion c; CRHR criterion B (3)].

In consideration of the ability of this building or its immediate surroundings yield information important in history through archeological means, it should be noted that farm practices limit the possibilities of finding subsurface materials. The farms were more or less subsistence farms in the earlier period. They were at a great distance from any commercial establishment. Manufactured items would have been costly and time-consuming to acquire. As a result, most farms tended to reuse manufactured items such as glass containers, fabric, metal implements, and milled lumber. Other waste was burned on site, resulting in a lack of subsurface features that might be useful in defining early lifeways. Also, there is little to be learned from archeological excavations of essentially modern era properties, even in the unlikely event that such deposits exist. We do not believe that the residence is significant for its archeological values [NRHP criterion d; CRHR criterion B (4)].

B11. Additional Resource Attributes: (List attributes and codes) _____

B12. References:

B13. Remarks:

B14. Evaluator: R. Gerry, Peak & Associates, Inc.

Date of Evaluation: June 2007

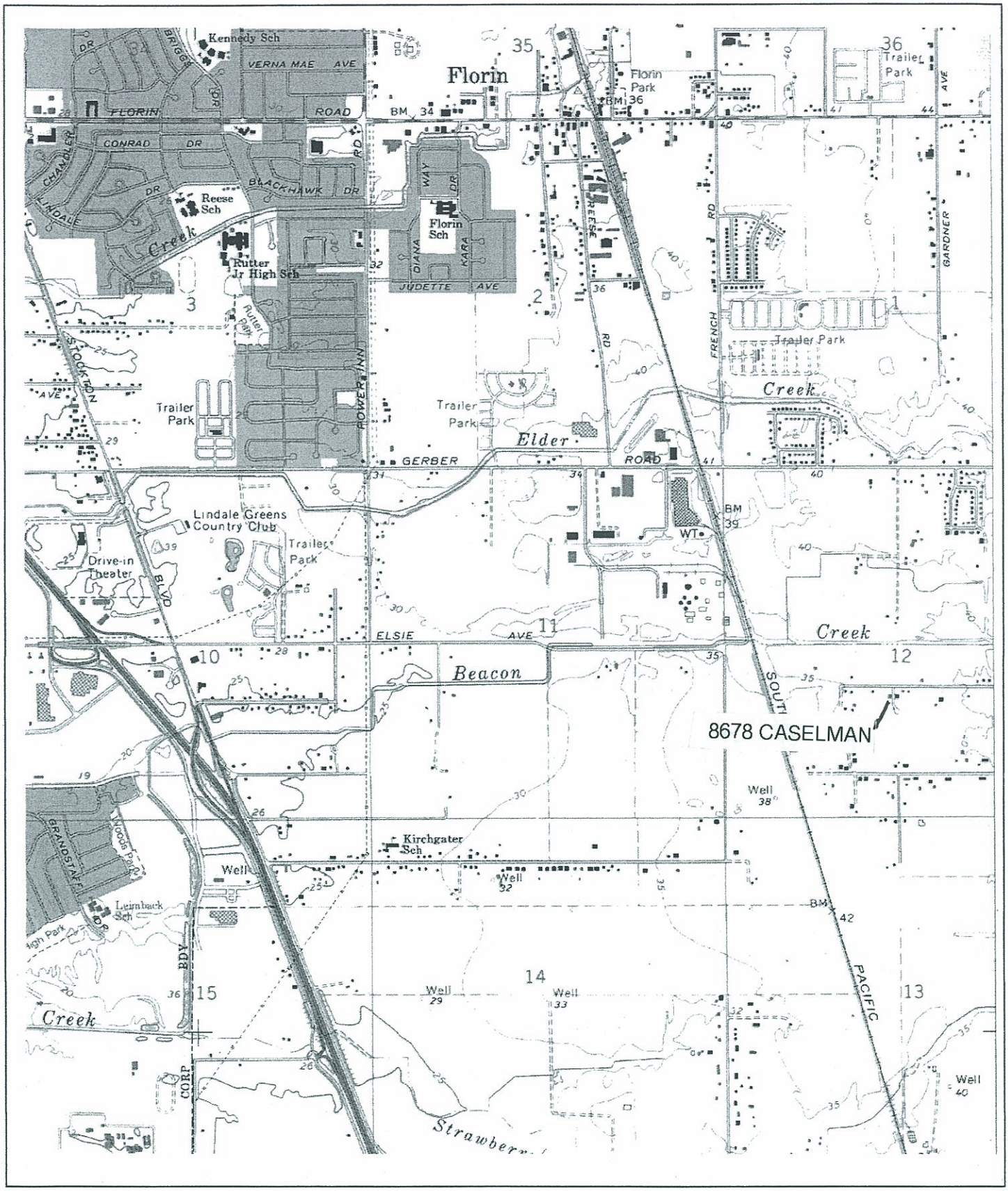
See Attached Sketch Map

This space reserved for official comments.

State of California - The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
LOCATION MAP

Primary #:
HRI #:
Trinomial:

Page 3 of 3 **Resource Name or #:** (assigned by recorder) 8678 CASELMAN
Map Name: Florin 7.5' **Scale:** 1 : 24,000 **Date of Map:** 1968 (PR80)



State of California - The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
PRIMARY RECORD

Primary #
HRI#
Trinomial
NRHP Status Code 6Z

Other Listings:
Review Code: Reviewer: Date:

 Resource Name or #: (assigned by recorder) 8645 Carlisle Avenue

P1. Other Identifier:

P2. Location: ☐ **Not for Publication** ☒ **Unrestricted** (P2b and P2c or P2d. Attach a Location Map as necessary)

a. County: Sacramento
b. USGS 7.5' Quad: Florin Date: 1968 (PR80) T. 7N ;R. 5E ; SE ¼ of SW ¼ of Sec. 12 ; MD B.M.
c. Address: 8645 Carlisle Avenue City: Sacramento Zip: 95828
d. UTM: (Give more than one for large and/or linear resources) Zone: 10 ; 06 41 095 mE/; 42 59 040 mN
e. Other Locational Data: (e.g. parcel #, directions to resource, elevation, etc., as appropriate)
APN 115 0091 033

P3a. Description: (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries)
There are two small one story frame residences on the property located at the end of an unnamed access road leading north from Carlisle. One, on the west, is a basic Minimal Traditional that is probably fairly old but is so heavily modified that it is difficult to tell. All exterior features (roof, siding, windows and doors) are replacements and there is an addition on the west that appears entirely recent. A large wheelchair ramp covers most of the front (south) elevation. The eastern structure is a side gabled residence that is in danger of collapse. It was also a heavily modified Minimal Traditional before it was abandoned. The Assessor's web page does not give a construction date for either structure, but they both appear on the 1968 edition of the USGS map.

P3b. Resource Attributes: (List attributes and codes) HP-2; Single family property

P4. Resources Present: ☒ Building ☐ Structure ☐ Object ☐ Site ☐ District ☐ Element of a District ☐ Other (Isolates etc.)

P5b. Description of Photo: (View, date, accession #) Western structure, 10/15/07 Looking north. Florin Vineyard Roll 14, Frame 15.

P6. Date Construction/Age and Sources: Historic ☒ Prehistoric ☐ Both ☐
See P3a

P7. Owner and Address:

P8. Recorded By: (Name, affiliation, and address)
Ann Peak/Robert Gerry
Peak & Associates, Inc.
3941 Park Drive, Suite 20, #329
El Dorado Hills, CA 95762

P9. Date Recorded:
106/15/07

P10. Survey Type: (Describe)
Complete, project related

P11. Report Citation: (Cite Survey report and other resources, or enter "none") Determination of Eligibility and Effect for Participating Properties Within the Florin Vineyard Gap Community Plan Project Area County of Sacramento, California. Peak & Associates 2007

ATTACHMENTS: ☐ NONE ☒ Location Map ☐ Sketch Map ☒ Continuation Sheet ☒ Building, Structure, and Object Record
☐ Archaeological Record ☐ District Record ☐ Linear Feature Record ☐ Milling Station Record ☐ Rock Art Record
☐ Artifact Record ☐ Photograph Record ☐ Other:

B1. Historic Name:
B2. Common Name:
B3. Original Use: Residence B4. Present Use: Residence
B5. Architectural Style: Heavily modified Minimal Traditional (both structures)
B6. Construction History: (Construction date, alterations, and date of alterations.)
These are probably 1940s structures (no date is given on the County Assessor's web page) based on style and condition. If this is correct, there are few elements of either structure that have not been altered or remodeled. Both structures appear on the 1968 edition of the Florin USGS map. The western one, still occupied, has the most extensive modifications, but there are marks on the south wall of the eastern structure indicating that an addition that one attached here is now gone.

B7. Moved? ☒ No ☐ Yes ☐ Unknown Date: Original Location:
B8. Related Features: None

B9a. Architect: Unknown b. Builder: Unknown
B10. Significance: Theme Not significant **Area**
Period of Significance **Property Type** **Applicable Criteria**
(Discuss importance in terms of historical or architectural context as defined by theme, period, and geographic scope. Also address integrity.)

This residences are not associated with important events in local or State history [NRHP criterion a; CRHR criterion B (1)]. This is one of many areas in Sacramento County supported by small farms. There is no close by community or other social-defining mechanism for the region. The area has remained rural until recently, with a scattering of residences and farms.

Land ownership maps through 1923 for the County were reviewed, and names on building records checked. There are no associations with people important in State or local history [NRHP criterion b; CRHR criterion B (2)]. The residents were apparently small farmers, unassociated with anyone of social prominence or historical importance.

The residences are not particularly good examples of the architectural style due to extensive modifications. They are small and plain and, in the case of the eastern structure, in poor repair. It cannot be said that either building "embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values" [NRHP criterion c; CRHR criterion B (3)].

In consideration of the ability of these buildings or their immediate surroundings yield information important in history through archeological means, it should be noted that farm practices limit the possibilities of finding subsurface materials. The farms were more or less subsistence farms in the earlier period. They were at a great distance from any commercial establishment. Manufactured items would have been costly and time-consuming to acquire. As a result, most farms tended to reuse manufactured items such as glass containers, fabric, metal implements, and milled lumber. Other waste was burned on site, resulting in a lack of subsurface features that might be useful in defining early lifeways. Also, there is little to be learned from archeological excavations of essentially modern era properties, even in the unlikely event that such deposits exist. We do not believe that the residence is significant for its archeological values [NRHP criterion d; CRHR criterion B (4)].

B11. Additional Resource Attributes: (List attributes and codes)

B12. References:

B13. Remarks:

B14. Evaluator: M. Peak, Peak & Associates, Inc.

Date of Evaluation: June 2006

See attached location map

This space reserved for official comments.

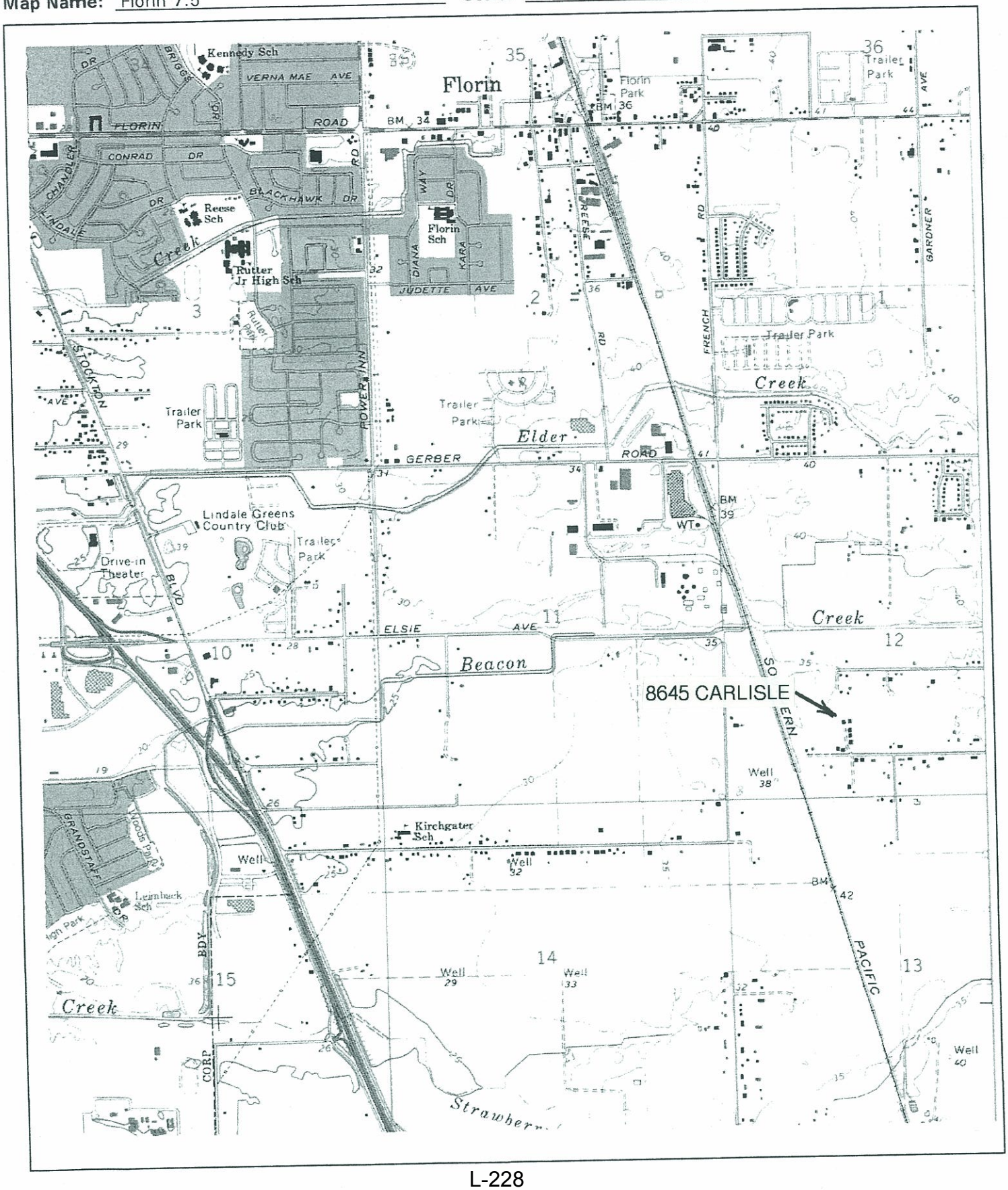
Eastern residence looking north-northeast

State of California - The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
LOCATION MAP

Primary #:
HRI #:
Trinomial:

Page ___ of ___ **Resource Name or #:** (assigned by recorder) 8645 CARLISLE

Map Name: Florin 7.5' **Scale:** 1 : 24,000 **Date of Map:** 1968 (PR80)



State of California - The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
PRIMARY RECORD

Primary #
HRI#
Trinomial
NRHP Status Code 6Z

Other Listings:
Review Code: Reviewer: Date:

 Resource Name or #: (assigned by recorder) 7305 Hedge Avenue

P1. Other Identifier:

P2. Location: ☐ **Not for Publication** ☒ **Unrestricted** (P2b and P2c or P2d. Attach a Location Map as necessary)

a. County: Sacramento
b. USGS 7.5' Quad: Elk Grove Date: 1968 (PR79) T. 7N ;R. 6E ; SE ¼ of NW ¼ of Sec. 6 ; MD B.M.
c. Address: 7305 Hedge Avenue City: Sacramento Zip: 95829
d. UTM: (Give more than one for large and/or linear resources) Zone: 10 ; 06 42 913 mE/; 42 61 476 mN
e. Other Locational Data: (e.g. parcel #, directions to resource, elevation, etc., as appropriate)
APN 065-0052-008

P3a. Description: (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries)
This unusual residence appears to be an extensively modified Dutch Colonial style barn. It is on the east side of Hedge with the entry facing north. The double-pitched roof is clad in shake shingles and there are a variety of window styles. On the second floor, multi-pane casements are the norm. Some in this style appear on the ground floor as well, but there are also fixed windows with wood shutters in various sizes. The entry door is surrounded by rather elaborate wood framing and topped by a broken pediment. In addition to the two story main section there is a one story extension to the east and an attached garage extending to the north under a cross gable. Siding is stucco. The assessor's building record gives 1945 as the construction date, which is probably correct for the underlying barn, but the only part of that structure now preserved is the overall shape.

P3b. Resource Attributes: (List attributes and codes) HP-2; Single family property

P4. Resources Present: ☒ Building ☐ Structure ☐ Object ☐ Site ☐ District ☐ Element of a District ☐ Other (Isolates etc.)

P5b. Description of Photo: (View, date, accession #) 1/21/06 Looking southeast at the entry. Florin Vineyard Roll G1, Frame 24.

P6. Date Construction/Age and Sources: Historic ☒ Prehistoric ☐ Both ☐
See P3a

P7. Owner and Address:

P8. Recorded By: (Name, affiliation, and address)
Ann Peak/Robert Gerry
Peak & Associates, Inc.
3941 Park Drive, Suite 20, #329
El Dorado Hills, CA 95762

P9. Date Recorded:
6/15/06

P10. Survey Type: (Describe)
Complete, project related

P11. Report Citation: (Cite Survey report and other resources, or enter "none") Determination of Eligibility and Effect for Participating Properties Within the Florin Vineyard Gap Community Plan Project Area County of Sacramento, California. Peak & Associates 2007

ATTACHMENTS: ☐ NONE ☒ Location Map ☐ Sketch Map ☐ Continuation Sheet ☒ Building, Structure, and Object Record
☐ Archaeological Record ☐ District Record ☐ Linear Feature Record ☐ Milling Station Record ☐ Rock Art Record
☐ Artifact Record ☐ Photograph Record ☐ Other:

State of California - The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
BUILDING, STRUCTURE, AND OBJECT RECORD

Primary #: _____
HRI #: _____

Page 2 of 3 ***NRHP Status Code:** 6Z Resource Name or #: (assigned by recorder) 7305 Hedge Avenue

B1. Historic Name:
B2. Common Name:
B3. Original Use: Barn B4. Present Use: Residence
B5. Architectural Style: Heavily modified barn
B6. Construction History: (Construction date, alterations, and date of alterations.)
The construction date is given as 1945 in the County Assessor's building record for the parcel. This may be the date for the underlying barn, but virtually evrything now visible is much more recent. Judging by appearance and condition, much of the remodeling took place in the past few years.

B7. Moved? ☒ No ☐ Yes ☐ Unknown Date: _____ Original Location: _____
B8. Related Features:

B9a. Architect: Unknown b. Builder: Unknown
B10. Significance: Theme Not significant **Area**
Period of Significance **Property Type** **Applicable Criteria**
(Discuss importance in terms of historical or architectural context as defined by theme, period, and geographic scope. Also address integrity.)

This residence is not associated with important events in local or State history [NRHP criterion a; CRHR criterion B (1)]. This is one of many areas in Sacramento County supported by small farms. There is no close by community or other social-defining mechanism for the region. The area has remained rural until recently, with a scattering of residences and farms.

Land ownership maps through 1923 for the County were reviewed, and names on building records checked. There are no associations with people important in State or local history [NRHP criterion b; CRHR criterion B (2)]. The residents were apparently small farmers, unassociated with anyone of social prominence or historical importance.

The residence did not start out as a residence and is, basically, one large alteration. It does not represent a residential style at all. It cannot be said that this building "embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values" [NRHP criterion c; CRHR criterion B (3)].

In consideration of the ability of this building or its immediate surroundings yield information important in history through archeological means, it should be noted that farm practices limit the possibilities of finding subsurface materials. The farms were more or less subsistence farms in the earlier period. They were at a great distance from any commercial establishment. Manufactured items would have been costly and time-consuming to acquire. As a result, most farms tended to reuse manufactured items such as glass containers, fabric, metal implements, and milled lumber. Other waste was burned on site, resulting in a lack of subsurface features that might be useful in defining early lifeways. Also, there is little to be learned from archeological excavations of essentially modern era properties, even in the unlikely event that such deposits exist. We do not believe that the residence is significant for its archeological values [NRHP criterion d; CRHR criterion B (4)].

B11. Additional Resource Attributes: (List attributes and codes)

B12. References:

B13. Remarks:

B14. Evaluator: M. Peak, Peak & Associates, Inc.

Date of Evaluation: June 2006

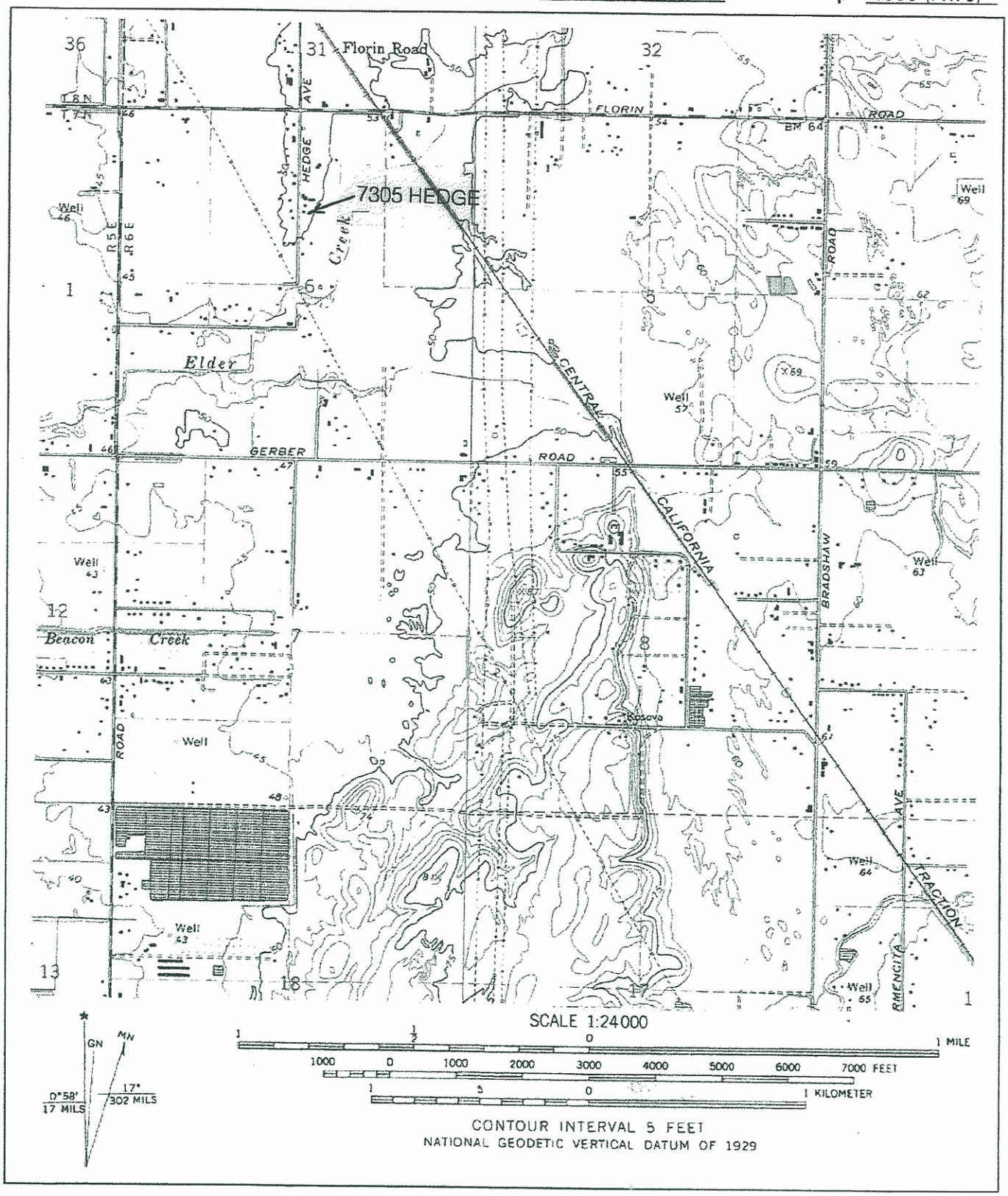
See attached location map

This space reserved for official comments.

State of California - The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
LOCATION MAP

Primary #:
HRI #:
Trinomial:

Page 3 of 3 **Resource Name or #:** (assigned by recorder) 7305 HEDGE
Map Name: Elk Grove **Scale:** 1:24,000 **Date of Map:** 1968 (PR79)



State of California - The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
PRIMARY RECORD

Primary #
HRI#
Trinomial
NRHP Status Code 6Z

Other Listings:
Review Code: Reviewer: Date:

 Resource Name or #: (assigned by recorder) 7351 Hedge Avenue

P1. Other Identifier:

P2. Location: ☐ **Not for Publication** ☒ **Unrestricted** (P2b and P2c or P2d. Attach a Location Map as necessary)

a. County: Sacramento
b. USGS 7.5' Quad: Elk Grove Date: 1968 (PR79) T. 7N ;R. 6E ; SE ¼ of NW ¼ of Sec. 6 ; MD B.M.
c. Address: 7351 Hedge Avenue City: Sacramento Zip: 95829
d. UTM: (Give more than one for large and/or linear resources) Zone: 10 ; 06 42 916 mE/; 42 61 350 mN
e. Other Locational Data: (e.g. parcel #, directions to resource, elevation, etc., as appropriate)
APN 065-0052-006

P3a. Description: (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries)
The residence, set in a stand of mature imported trees, is an end gabled frame structure of one story with closed eaves, beveled siding, and one-over-one double hung sashes. It is a very small, plain house. Entry is on the west side, offset to the north with a porch formed by recessing the exterior walls. The porch is fronted by a low wooden railing between wood columns. Siding is horizontal lapped narrow planks. Overall, the house is in poor repair, although there is maintenance work underway on the rear (east) and south sides of the house. Unfortunately, the alterations, featuring metal railings and steps at the rear porch, are not in keeping with the architectural style. The Assessor's building record gives a date of 1900, which is not out of line with the structure's overall appearance.

P3b. Resource Attributes: (List attributes and codes) HP-2; Single family property

P4. Resources Present: ☒ Building ☐ Structure ☐ Object ☐ Site ☐ District ☐ Element of a District ☐ Other (Isolates etc.)

P5b. Description of Photo: (View, date, accession #) Rear of house looking northwest. Vegetation is too dense to get a decent photograph elsewhere.

P6. Date Construction/Age and Sources: Historic ☒ Prehistoric ☐ Both ☐
See P3a

P7. Owner and Address:

P8. Recorded By: (Name, affiliation, and address)
Ann Peak/Robert Gerry
Peak & Associates, Inc.
3941 Park Drive, Suite 20, #329
El Dorado Hills, CA 95762

P9. Date Recorded:
6/15/06

P10. Survey Type: (Describe)
Complete, project related

P11. Report Citation: (Cite Survey report and other resources, or enter "none") Determination of Eligibility and Effect for Participating Properties Within the Florin Vineyard Gap Community Plan Project Area County of Sacramento, California. Peak & Associates 2007

ATTACHMENTS: ☐ NONE ☒ Location Map ☐ Sketch Map ☐ Continuation Sheet ☒ Building, Structure, and Object Record ☐ Archaeological Record ☐ District Record ☐ Linear Feature Record ☐ Milling Station Record ☐ Rock Art Record ☐ Artifact Record ☐ Photograph Record ☐ Other:

State of California - The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
BUILDING, STRUCTURE, AND OBJECT RECORD

Primary #: _____
HRI #: _____

Page 2 of 3 ***NRHP Status Code:** 6Z Resource Name or #: (assigned by recorder) 7351 Hedge Avenue

B1. Historic Name: _____
B2. Common Name: _____
B3. Original Use: Residence B4. Present Use: Residence
B5. Architectural Style: Very plain Craftsman Bungalow
B6. Construction History: (Construction date, alterations, and date of alterations.)
The residence is set in a stand of mature imported trees suggesting that the date of 1900 given by the Assessor's building record may be roughly accurate.

B7. Moved? ☒ No ☐ Yes ☐ Unknown Date: _____ Original Location: _____
B8. Related Features:

B9a. Architect: Unknown b. Builder: Unknown
B10. Significance: Theme Not significant **Area** _____
Period of Significance _____ **Property Type** _____ **Applicable Criteria** _____
(Discuss importance in terms of historical or architectural context as defined by theme, period, and geographic scope. Also address integrity.)

This residence is not associated with important events in local or State history [NRHP criterion a; CRHR criterion B (1)]. This is one of many areas in Sacramento County supported by small farms. There is no close by community or other social-defining mechanism for the region. The area has remained rural until recently, with a scattering of residences and farms.

Land ownership maps through 1923 for the County were reviewed, and names on building records checked. There are no associations with people important in State or local history [NRHP criterion b; CRHR criterion B (2)]. The residents were apparently small farmers, unassociated with anyone of social prominence or historical importance.

Although older than most of the structures in the immediate area, the residence is not a particularly good examples of its architectural style. It is small, very plain and probably was moved to the project area. It cannot be said that this building "embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values" [NRHP criterion c; CRHR criterion B (3)].

In consideration of the ability of this building or its immediate surroundings yield information important in history through archeological means, it should be noted that farm practices limit the possibilities of finding subsurface materials. The farms were more or less subsistence farms in the earlier period. They were at a great distance from any commercial establishment. Manufactured items would have been costly and time-consuming to acquire. As a result, most farms tended to reuse manufactured items such as glass containers, fabric, metal implements, and milled lumber. Other waste was burned on site, resulting in a lack of subsurface features that might be useful in defining early lifeways. Also, there is little to be learned from archeological excavations of essentially modern era properties, even in the unlikely event that such deposits exist. We do not believe that the residence is significant for its archeological values [NRHP criterion d; CRHR criterion B (4)].

B11. Additional Resource Attributes: (List attributes and codes) _____

B12. References:

B13. Remarks:

B14. Evaluator: M. Peak, Peak & Associates, Inc.

Date of Evaluation: June 2006

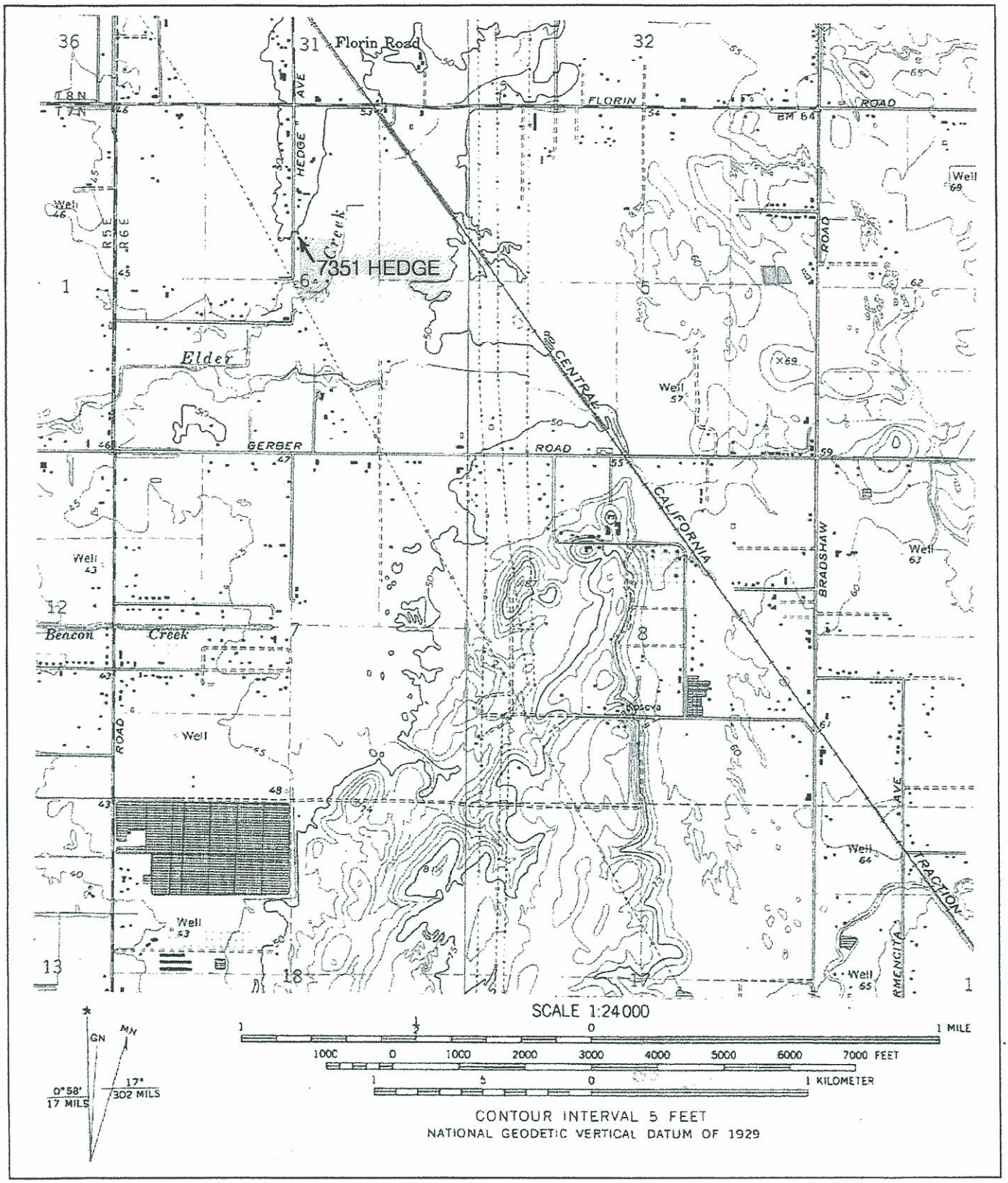
See attached location map

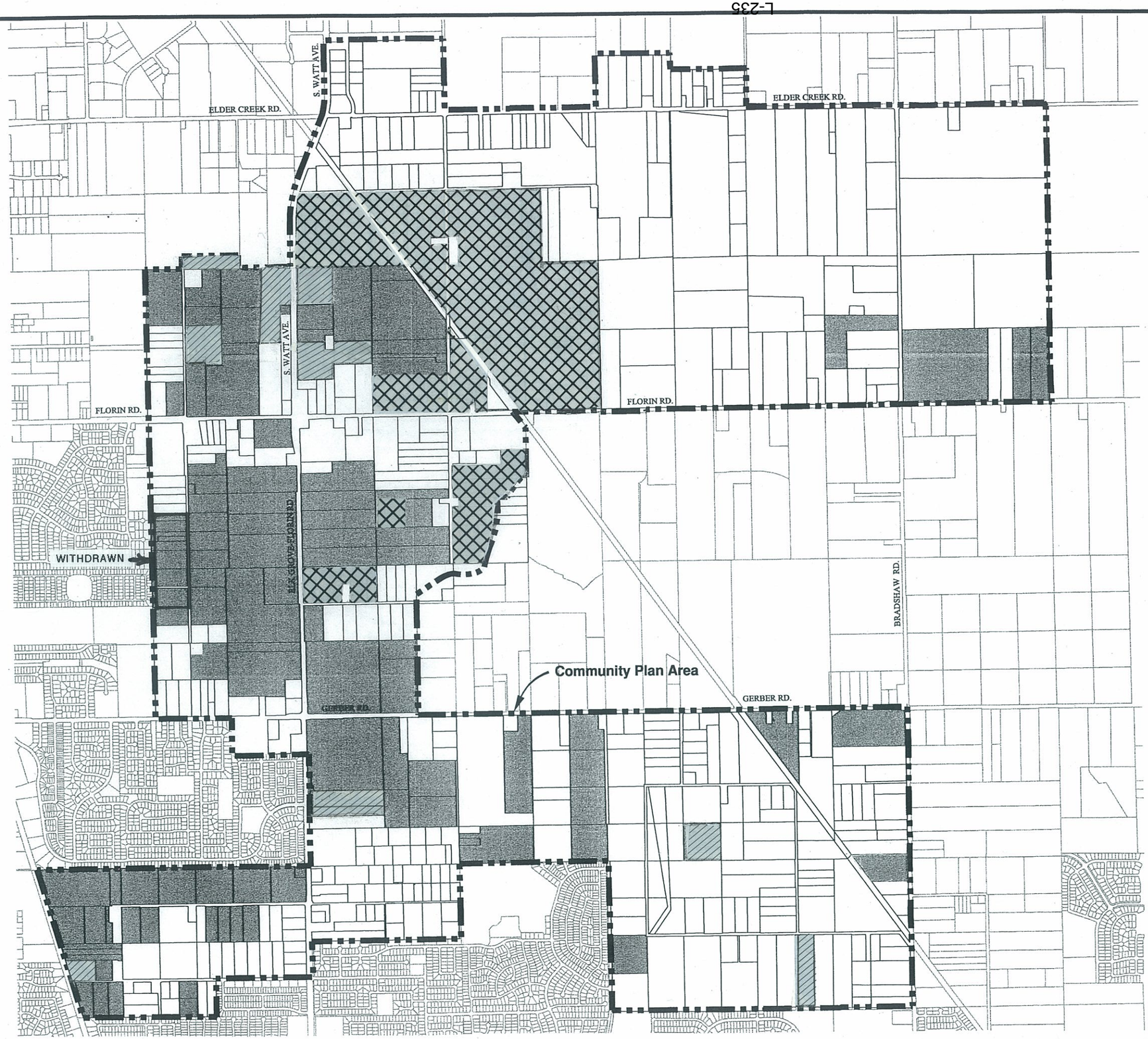
This space reserved for official comments.

State of California - The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
LOCATION MAP

Primary #:
HRI #:
Trinomial:

Page 3 of 3 **Resource Name or #:** (assigned by recorder) 7351 HEDGE
Map Name: Elk Grove **Scale:** 1:24,000 **Date of Map:** 1968 (PR79)





0 400 800 1600
SCALE: 1" = 800'

LEGEND

- PARTICIPATING PROPERTY PREVIOUS SURVEY
- PARTICIPATING PROPERTY ACCESS INITIALLY DENIED, SURVEYED LATER
- PARTICIPATING PROPERTY SURVEYED

FIGURE 3
FLORIN-VINEYARD COMMUNITY PLAN PARTICIPANTS

SACRAMENTO COUNTY, CALIFORNIA

MACKAY & SOMPS
CIVILENGINEERS, INC.
CIVIL ENGINEERING • LAND PLANNING • LAND SURVEYING
SACRAMENTO, CALIFORNIA (916)929-6092
JobNumber:7748-00 Date:06/05/06

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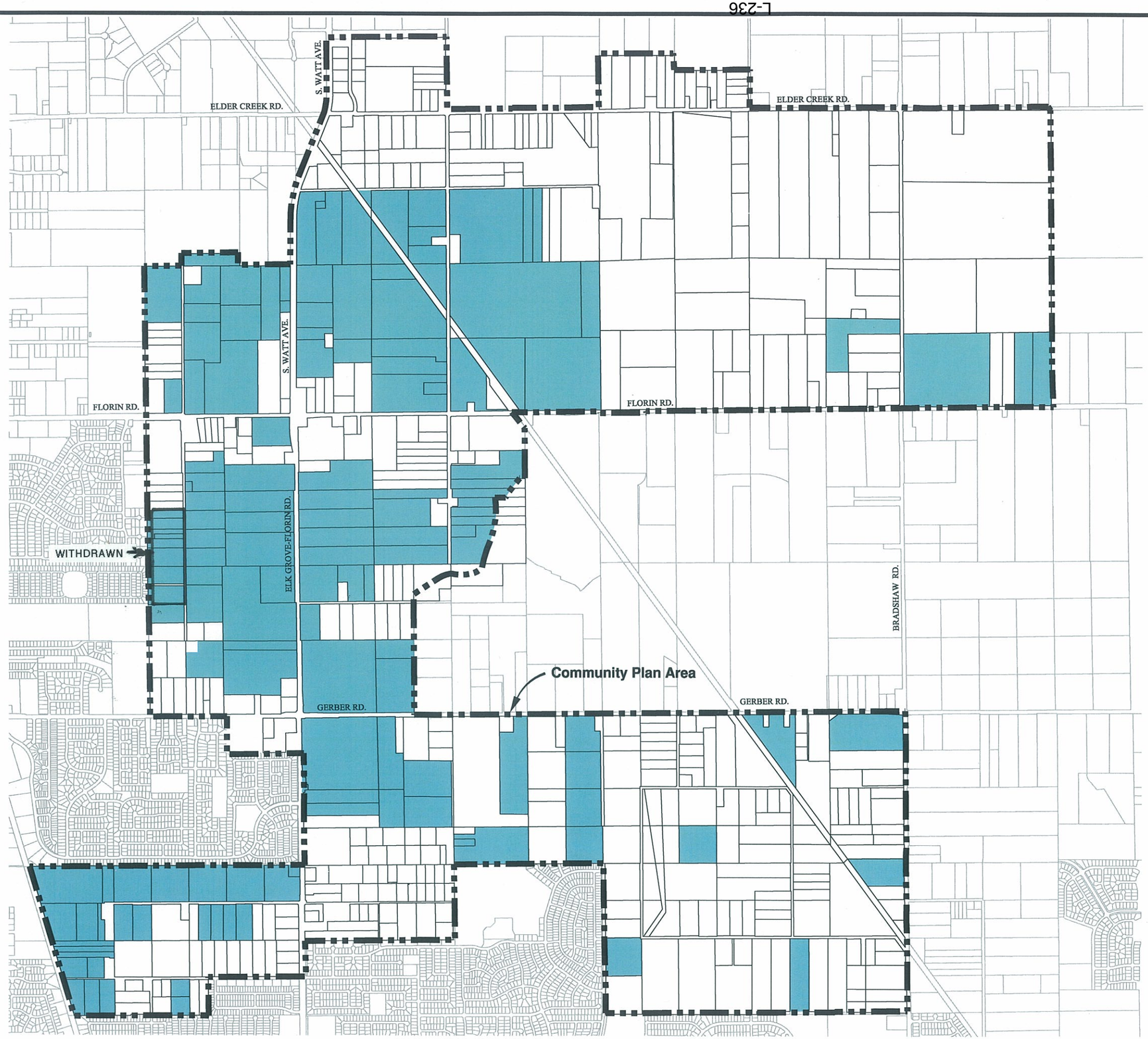
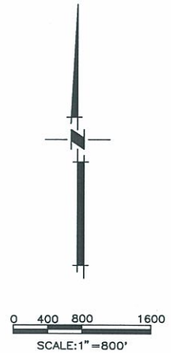
There are no references in this drawing.





LEGEND

PARTICIPATING PROPERTY

FIGURE 2
FLORIN-VINEYARD COMMUNITY PLAN PARTICIPANTS

SACRAMENTO COUNTY, CALIFORNIA

MACKAY & SOMPS
CIVILENGINEERS,INC.
CIVIL ENGINEERING • LAND PLANNING • LAND SURVEYING
SACRAMENTO,CALIFORNIA (916)929-6092
JobNumber:7748-00 Date:06/05/06

6-05-2006 08:32:37 I:\7000\7748- GIP Area Plan-General\Cad files\7748-00 Participantsmap 06-05-2006.dwg
There are no xreferences in this drawing.

APPENDIX M

CALIFONIA AMERICAN WATER SUPPLY ASSESSMENT

California American Water

PETERSON . BRUSTAD . PIVETTI . INC .

California American Water

Water Supply Assessment

PARKWAY WATER SYSTEM AND FLORIN-VINEYARD GAP COMMUNITY PLAN

6/30/2018

PETERSON . BRUSTAD . PIVETTI . INC .

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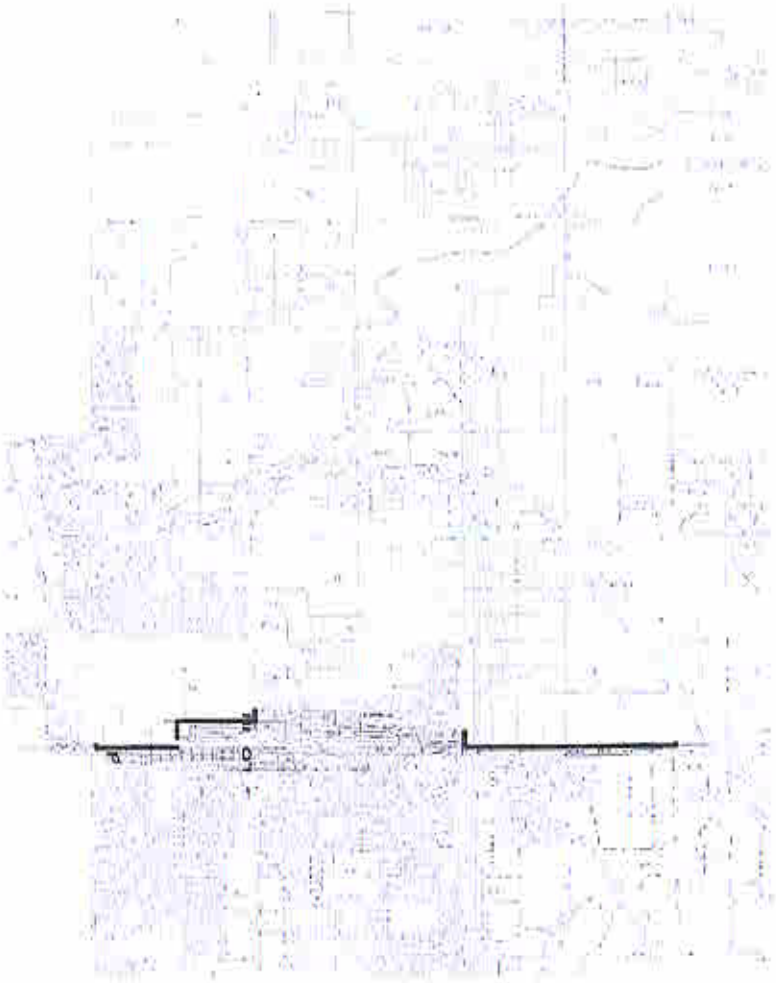

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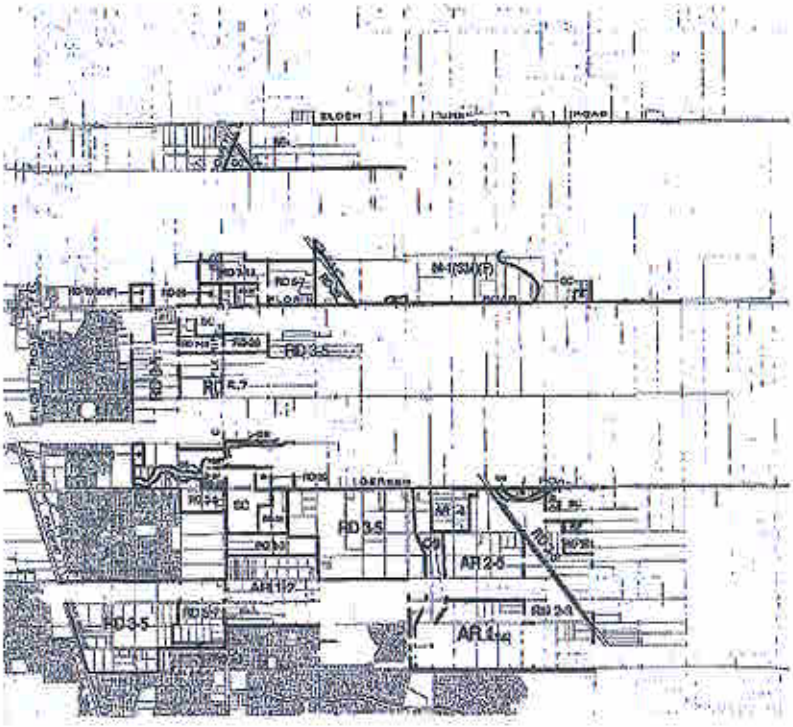

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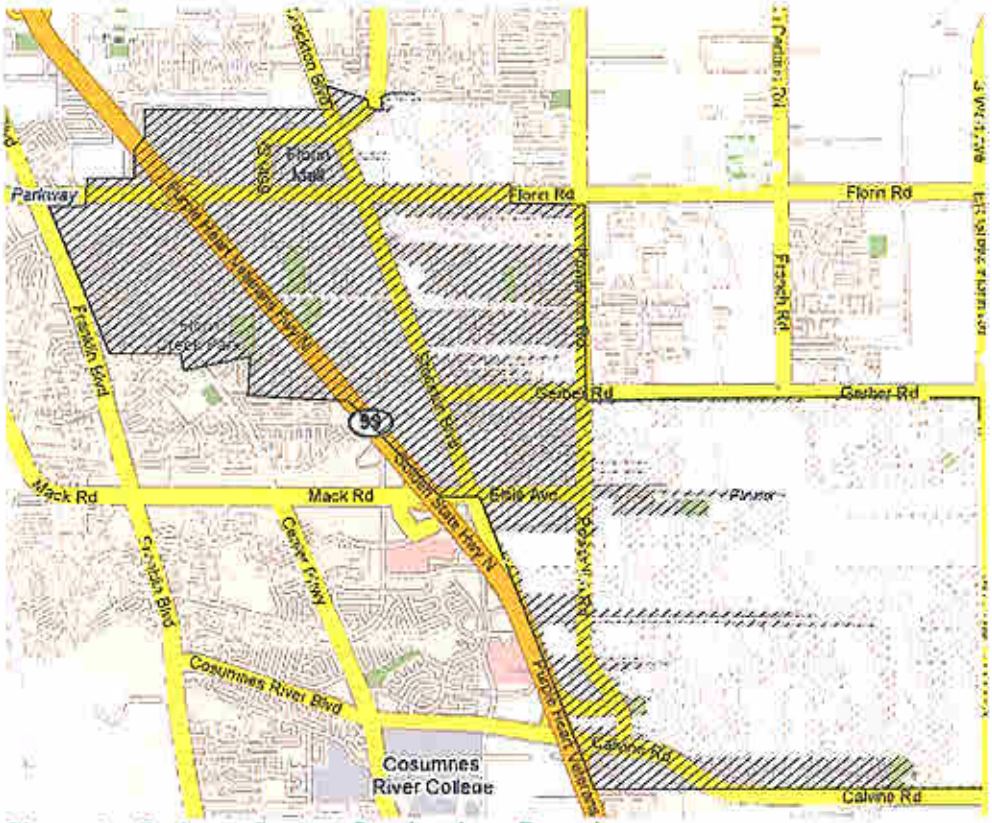

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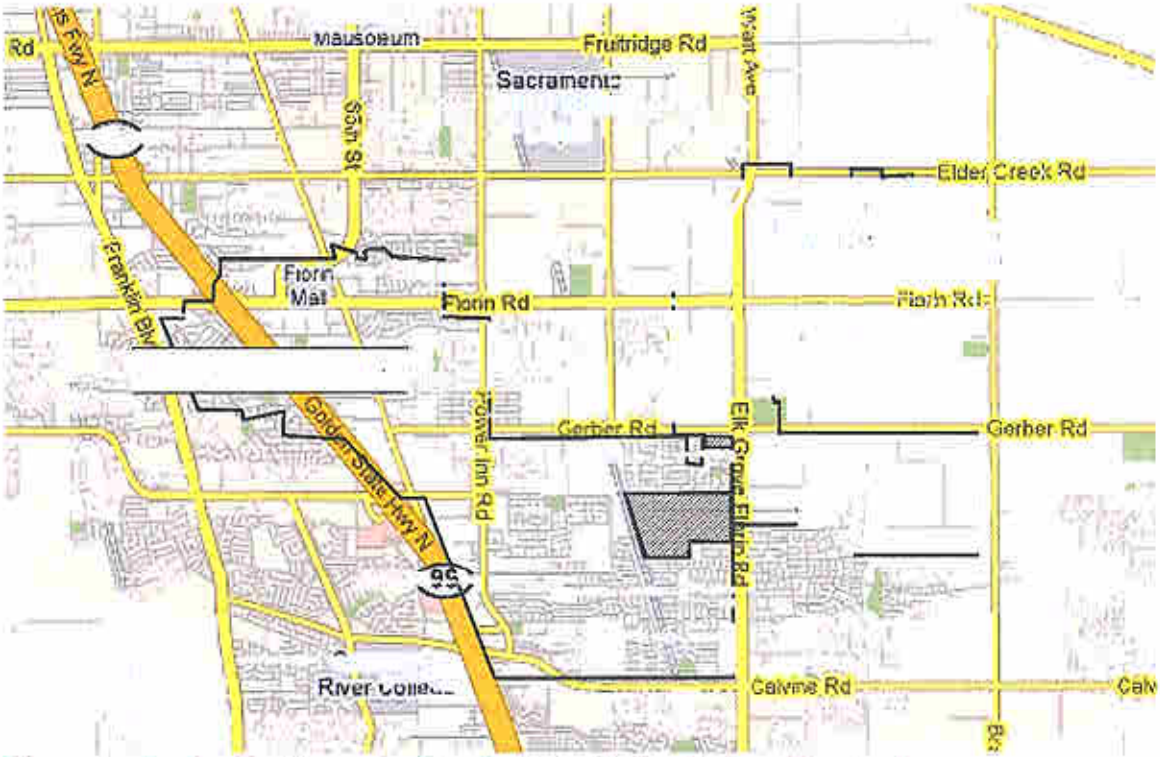

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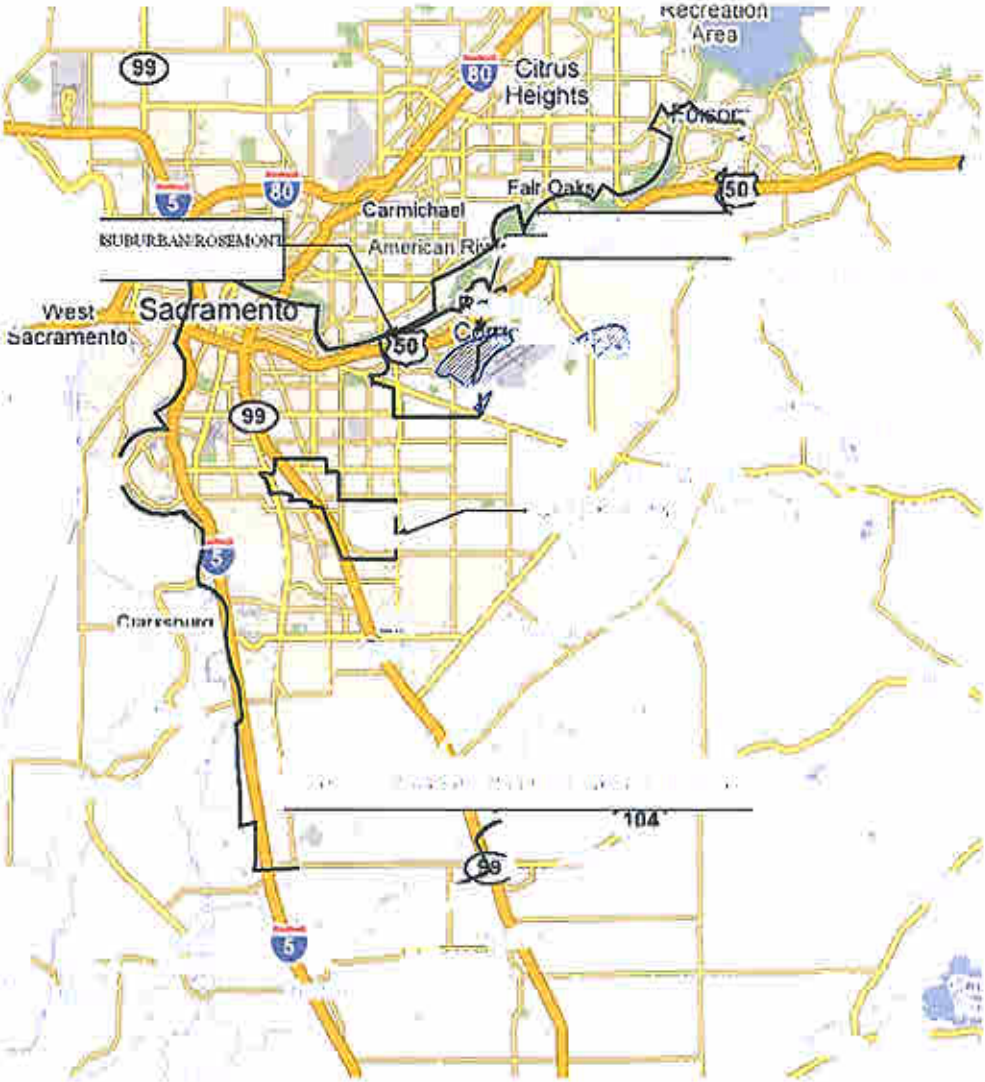

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% of Normal[1]					

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APPENDIX N

SACRAMENTO COUNTY WATER AGENCY WATER SUPPLY ASSESSMENT

BACKGROUND

The California Water Code requires coordination between land use lead agencies and public water purveyors. The purpose of this coordination is to ensure that prudent water supply planning has been conducted, and that planned water supplies are adequate to meet both existing demands and demands of planned development.

Water Code Sections 10910 – 10915 (inclusive) require land use lead agencies: 1) to identify the responsible public water purveyor for a proposed development project, and 2) to request a "Water Supply Assessment" (WSA) from the responsible purveyor. The purpose of a WSA is to demonstrate the sufficiency of a purveyor's water supplies to satisfy the water demands of a proposed development project while still meeting the current and projected water demands of existing customers. Water Code Sections 10910 – 10915 delineate the specific information that must be included in a WSA.

THE PROPOSED DEVELOPMENT PROJECT

The Sacramento County Department of Environmental Review and Assessment (DERA) is preparing the CEQA document for a proposed project known as the Florin-Vineyard Community Plan (**Figure 1**). The Florin-Vineyard Community Plan area is located south of Elder Creek Road and the Sacramento City Limits; west of Bradshaw Road, excluding the North Vineyard Station Specific plan area; north of Vintage Park Drive and the developed neighborhoods of Churchill Downs and Vintage Park; and east of the Union Pacific Railroad tracks, and those developed neighborhoods of Tiogawoods, Florin Town, and Sunrise Florin (**Figure 2**). DERA has identified the Sacramento County Water Agency (SCWA) as the responsible water purveyor for the Florin-Vineyard Community Plan area and has requested that SCWA prepare a WSA in accordance with Water Code Sections 10910 – 10915.

FLORIN-VINEYARD COMMUNITY PLAN WATER SUPPLY ASSESSMENT OBJECTIVE

The objective of the Florin-Vineyard Community Plan WSA is to verify that the planned water supplies of SCWA are sufficient to meet the demands of the Florin-Vineyard Community Plan in addition to the existing and projected water supply obligations of SCWA.

OVERVIEW OF THE FLORIN-VINEYARD COMMUNITY PLAN WSA

The majority of the Florin-Vineyard Community Plan area lies within the service boundary of SCWA's Zone 40. **Figure 1** shows the location of the Florin-Vineyard Community Plan area relative to Zone 40. The water demands for that portion of the Florin-Vineyard Community Plan that lie within Zone 40 have been included and addressed in the comprehensive water supply planning SCWA has completed to date. Specifically, the water demands associated with the Florin-Vineyard Community Plan were included and addressed in the development of the Zone 40 "conjunctive use"

program[1] as described in the *Zone 40 Water Supply Master Plan* (SCWA, February 2005)[2].

Accordingly, the WSA for the Florin-Vineyard Community Plan contains information derived from the various water supply planning documents prepared in support of the Zone 40 conjunctive use program including:

- The *Zone 40 Water Supply Master Plan* (SWCA, February 2005)[2]
- The *Draft Environmental Impact Report (EIR) for the Draft 2002 Zone 40 Water Supply Master Plan* (EDAW, November 2003)[2]
- The *Draft Environmental Impact Report (EIR) for the Water Forum Proposal* (Sacramento City-County Office of Metropolitan Water Planning, January 1999), the *Final Environmental Impact Report (EIR) for the Water Forum Proposal* (Sacramento City-County Office of Metropolitan Water Planning, October 1999)[2]
- *Water Forum Agreement* (Sacramento City-County Office of Metropolitan Water Planning, January 2000)[2],[3]

The WSA also contains information derived from other sources, including:

- The *Master Water Study for the Florin-Vineyard Community Plan (MWH, December 2006)*[2]
- The *Sacramento County Water Agency, 2005 Zone 41 Urban Water Management Plan* (Sacramento County Water Agency, December 2005)[2]
- The *Central Sacramento County Groundwater Management Plan* (February 2006)[2]

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[1] Conjunctive use entails the combined use of groundwater and surface water to meet demand, with the intent of providing 100 percent reliability. In "dry" years, the use of groundwater is maximized (although some surface water is delivered). In "wet" years, surface water diversions are maximized, while groundwater extractions are reduced. Such a program maximizes environmental benefits to surface water streams in "dry" years, while providing an opportunity for the groundwater basin to recover through natural recharge in "wet" years.

[2] This document, as well as all other document referenced in this WSA, are on file at the County of Sacramento, Municipal Services Agency, Department of Water Resources, 827 7th Street, Room 301, and are available for review upon request.

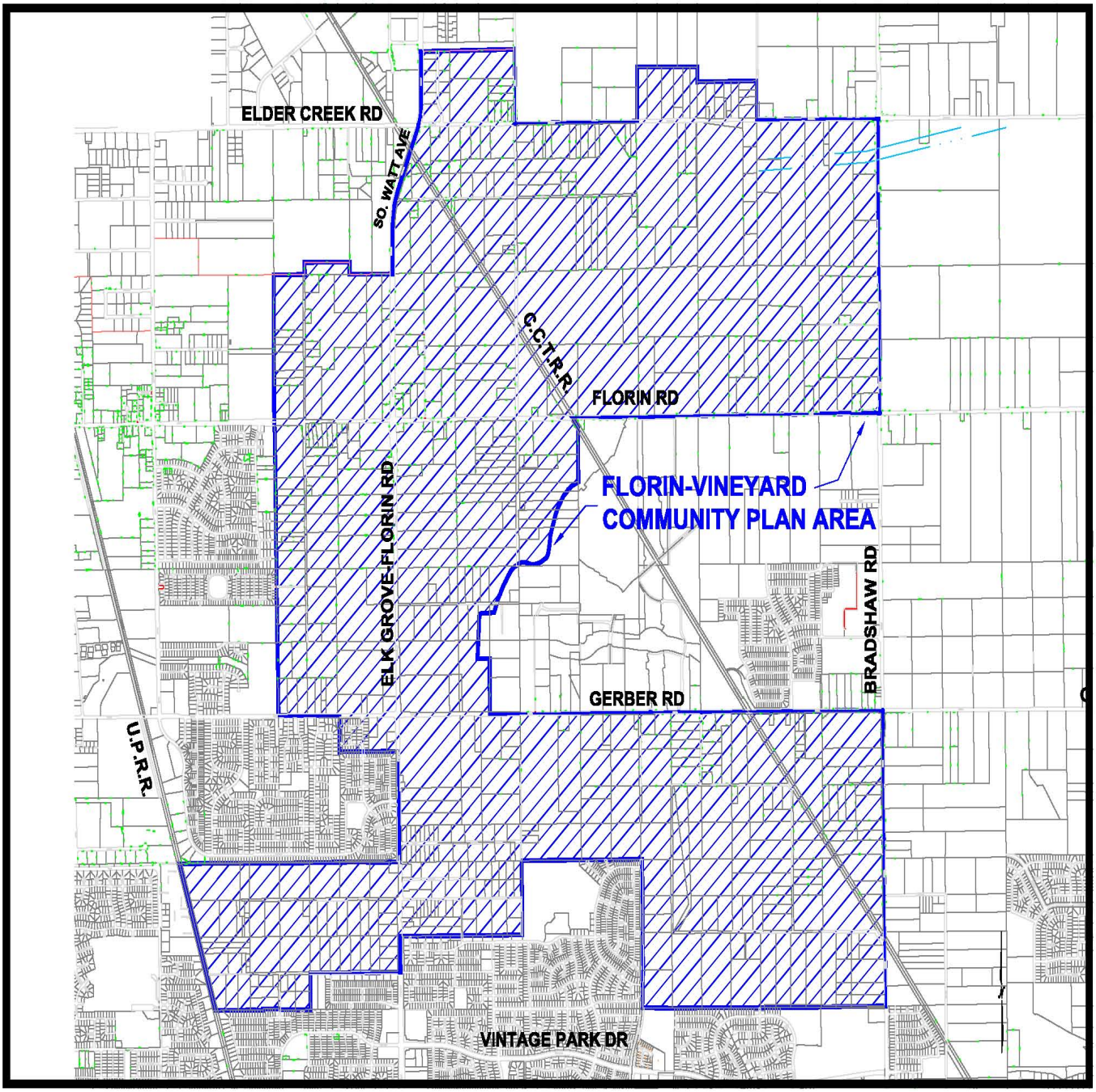
[3] Begun in 1993, the *Sacramento-Area Water Forum (Water Forum)* is comprised of representatives from the business, environmental, public interest, and water purveyor communities (including the Cooperating Agencies). The co-equal objectives of the group are:

- To provide a reliable and safe water supply for the region's economic health and planned development through year 2030
- To preserve the fishery, wildlife, recreational, and aesthetic values of the lower American River.

After a six-year, consensus-based, stakeholder process, the Water Forum Action Plan (referred to after its adoption as the Water Forum Agreement), which prescribes a regional conjunctive use program for the lower American River and the connected groundwater basin. In addition, the *Water Forum* completed an *Environmental Impact Report (EIR) for the Water Forum Proposal* (State of California Clearinghouse Number 95082041). The document was certified by the two lead agencies (the City of Sacramento and the County of Sacramento) in 1999.

Figure 1 — FLORIN-VINEYARD COMMUNTITY PLAN LOCATION MAP

Figure 2 — FLORIN-VINEYARD COMMUNTITY PLAN AREA BOUNDARY



WSA FOR THE FLORIN-VINEYARD COMMUNITY PLAN

Water Code Sections 10910 – 10915 delineate the specific requirements of a WSA. The WSA for the Florin-Vineyard Community Plan is structured according to those requirements.

DETERMINE IF PROJECT IS SUBJECT TO CEQA [Section 10910 (a)]

The County has made the determination that the Florin-Vineyard Community Plan is subject to CEQA.

IDENTIFY RESPONSIBLE PUBLIC WATER SYSTEM [Section 10910(b)]

The County has identified SCWA as the responsible public water system for the Florin-Vineyard Community Plan.

DETERMINE IF UWMP INCLUDES WATER DEMANDS [Section 10910(c)]

The total area for the Florin-Vineyard Community Plan located with Zone 40 is estimated to be 3517 acres. The projected annual water demand for the Zone 40 area is 8,243 acre-feet per year (AF/year), including system losses. The proposed land use and water demand summary is provided in **Table 1**.

Table 1 SUMMARY OF LAND USE AREAS AND WATER DEMANDS

Land Use	Area (acres)	Unit Water Demand Factor[1] (AF/acre/year)	Water Demand (AF/year)
Rural Estates	412.90	1.33	549.16
Single Family	1623.30	2.89	4691.34
Multi-Family - Low Density	-	3.70	-
Multi-Family - High Density	128.40	4.12	529.00
Commercial	140.50	2.75	386.38
Industrial	-	2.71	-
Industrial - Light	1115.70	1.36	1511.70
Public	-	1.04	-
Public Recreation	-	3.46	-
Mixed Land Use	-	2.51	-
Right-of-Way	-	0.21	-
Open Space	95.60	0.00	0.00
Urban Reserve[2]	-	2.75	-
Agriculture	-	0.00	-
Total	3516.70		7667.58
System Losses 7.5%			575.08
Total Demand			8242.66

Notes:
1) The unit water demands provided in this table are consistent with the February 2005 Zone 40 Water Supply Master Plan and the Water Forum Agreement.
2) Urban Reserve is a special planning designation for areas that do not have an assigned land use.

Although not specifically mentioned as such, the Florin-Vineyard Community Plan demands are addressed in the *Zone 41 UWMP*. "Table 1-2: Population – Current and Projected" (*Zone 41 UWMP*, pg. 1-11) identifies the year 2020 population of the Zone 41 Service Area as 288,652 people.[4]

Consequently, the water demands shown on "Table 2-8: Past, Current, and Projected Water Deliveries" (*Zone 41UWMP*, pg. 2-17) include the demands associated with the projected population associated with the Florin-Vineyard Community Plan. Since the projected water demands for the Florin-Vineyard Community Plan area are included in the *Zone 41 UWMP*, data from the *Zone 41UWMP* can be relied upon to answer questions related to the sufficiency of SCWA's existing and planned water supplies to meet current and projected demands (see Water Code Section 10910 (c)(2)).

IDENTIFY EXISTING WATER SUPPLIES FOR THE PROJECT [Section 1091(d)]

Section 10910(d)(1)

Section 10910(d)(1) requires identification of existing water supply entitlements, water rights, or water service contracts relevant to the Florin-Vineyard Community Plan and a description of the quantities of water obtained by SCWA pursuant to these water supply entitlements, water rights, or water service contracts in previous years.

Use of Groundwater

The Florin-Vineyard Community Plan water demands will ultimately be met by a combination of groundwater and surface water. Initial demands for development will be met by groundwater. Initial water supply may be supplied by extending an existing T-main located along Elk Grove-Florin Road, which is connected to existing SCWA facilities, into the plan area.

SCWA currently exercises, and will continue to exercise, its rights as a groundwater appropriator to extract groundwater from the groundwater basin underlying Zone 40 for delivery to its customers[5]. "Table 2.1 – Current and Planned Water Supplies" (*Zone 41 UWMP*, pg. 2-4) presents the quantities of surface water diverted (or projected to be diverted) pursuant to these water rights and contract entitlements in five year increments from the year 2005 through the year 2030.

Use of Surface Water

The Zone 40 conjunctive use program includes the delivery of surface water within the Zone 40 boundaries as part of a comprehensive program to maintain the long-term, regional balance of groundwater (see *Zone 40 Water Supply Master Plan* (SCWA, February 2005)). SCWA anticipates five sources of surface water supplies totaling a long-term average of 77,800 AF/year:

[4] The Zone 41 *UWMP* does not correlate population and water demand.

[5] The groundwater basin underlying Zone 40 has not been adjudicated.

- SCWA has entered into a contract with the U.S. Bureau of Reclamation (USBR) for 22,000 AF/year of Central Valley Project (CVP) supplies diverted from the American River pursuant to Public Law (PL) 101-514 (often referred to as "Fazio water"). Of this 22,000 AF/year, 7,000 AF/year has been subcontracted to the City of Folsom for diversion from Folsom Lake. The remaining 15,000 AF/year will be diverted by SCWA from the Sacramento River.
- SCWA has entered into a three-party agreement with the City of Sacramento and the Sacramento Municipal Utility District (SMUD) for the assignment to SCWA of 15,000 AF/year of SMUD's existing contract with the USBR. The intent is that this supply will be diverted by SCWA from the Sacramento River. This supply is often referred to as "SMUD I". This contract assignment is complete.
- SCWA has negotiated with SMUD for the assignment of an additional 15,000 AF/year pursuant to SMUD's existing contract with the USBR to be diverted by SCWA from the Sacramento River. This supply is often referred to as "SMUD II". This contract assignment is complete.
- SCWA has made an application to the State Water Resources Control Board (SWRCB) for excess flows on the American River and the Sacramento River to be diverted by SCWA from the Sacramento River. These flows, which would be available on an intermittent basis, could range up to 71,000 AF/year.
- The source of supply for that portion of Zone 40 that lies within the American River POU will be wholesale and wheeling capacity from the City of Sacramento through agreement with the Sacramento County Water Agency. Delivery of this water to customers within the POU has been included in the City of Sacramento's long-range plan for perfecting their American River water rights. Surface water entitlements belonging to both the City and the County will be utilized by surface water diversion at the City's diversion facilities. The timing and volume of delivery will be as described by the *Delivery Criteria for Wheeling Water Service* and the *Delivery Criteria for Wholesale Water Service* documents associated with the above mentioned wholesale and wheeling capacity agreement between the City and the County.

  Contract documents, agreements, and applications for these four surface water supplies are available for review[2]. "Table 2.1 – Current and Planned Water Supplies" (*Zone 41UWMP*, pg. 2-4) presents the quantities of surface water diverted (or projected to be diverted) pursuant to these water rights and contract entitlements in five year increments from the year 2005 through the year 2030.

  Additionally, SCWA is pursuing surface water transfer agreements. Such transfer supplies would be diverted by SCWA, from the Sacramento River, and would reduce reliance on intermittent surplus flows associated with the application referenced above.

Section 10910(d)(2)

Section 10910(d) (2) requires SCWA to demonstrate that water supplies required to serve the Florin-Vineyard Community Plan actually exist. Section 10910(d) (2) defines what constitutes as "proof".

Section 10910(d)(2)(A)

This subsection requires written contracts or other proof of entitlement to the water supplies identified for the Florin-Vineyard Community Plan.

- Water demands in the Florin-Vineyard Community Plan will initially be met entirely with groundwater. SCWA will exercise its right as a groundwater appropriator to extract groundwater from the basin for delivery to the Florin-Vineyard Community Plan. In the long-term, water demands for the Florin-Vineyard Community Plan will be met in accordance with the conjunctive use program described in the *Zone 40 Water Supply Master Plan* (SCWA, February 2005).

Section 10910(d)(2)(B)

This subsection requires a copy of the capital outlay program for financing the delivery of the identified water supply to the Florin-Vineyard Community Plan area.

- Section 7 of the *Zone 40 Water Supply Master Plan* (SCWA, February 2005), the *Feasibility Report for 2003 Sacramento County Water Financing Authority Revenue Bonds (Sacramento County Water Agency Zones 40 and 41 Water System Projects)* (MWH, May 2003), and *The Feasibility Report for Sacramento County Water Financing Authority 2007 Revenue Bonds* (Sacramento County Water Agency Freeport Project) (MWH, April 2007) evaluates the total cost and fee requirements of the Zone 40 conjunctive use program incorporating all future Zone 40 expenditures for major capital facilities including surface water treatment plants, groundwater treatment plants, and major transmission mains. The Zone 40 Development Fee and User Fee Program, implemented through the Sacramento County Water Agency Code, will continue to provide revenue to finance all aspects of the Zone 40 conjunctive use program. Both fee programs are evaluated annually and adjusted, if necessary, to accommodate changes in the service area, water demands, needed capital projects, and required debt financing.

Section 10910(d)(2)(C)

This subsection requires identification of any federal, state, and local permits required for construction of the facilities identified for delivering the water supply to the Florin-Vineyard Community Plan.

Most of the proposed transmission pipeline facilities will be located in County or City public rights-of-way. An encroachment permit from Sacramento County may need to be obtained for those portions of the transmission pipeline connecting to existing SCWA facilities.

Section 10910(d)(2)(D)

This subsection requires identification of any regulatory approvals required for delivery of the water supply to the Florin-Vineyard Community Plan.

The California Department of Health Services ("DHS") must approve the modification of SCWA's existing public water system permit for each new source of water brought online. Prior to connecting to the City of Sacramento's distribution system for surface water delivery, SCWA will request DHS to add this connection to their public water system permit.

IDENTIFY PARTIES DEPENDENT UPON PROPOSED SUPPLY [Section 10910(e)]

Section 10910(e) states:
"If no water has been received in prior years by the public water system…, under the existing water supply entitlements, water rights, or water service contracts [identified to serve the proposed project], the public water system,…shall also include in its water supply assessment pursuant to subdivision (c), an identification of the other public water systems or water service contract holders that receive a water supply or have existing water supply entitlements, water rights, or water service contracts to the same source of water as the public water system,…, has identified as a source of water supply within its water supply assessments."

The intent of this section is to identify any potential conflicts that may arise from the exercise of a water supply entitlement, water right, or water service contract to serve a proposed project if such water supply entitlement, water right, or water service contract has not been previously exercised.

Use of Groundwater

The water demands of the Florin-Vineyard Community Plan area will be met with groundwater and surface water. SCWA has previously exercised its rights as a groundwater appropriator to serve the water demands of its customers and will continue to exercise those rights to provide treated groundwater supplies to the Florin-Vineyard Community Plan area.

Use of Surface Water

The surface water supplies associated with SCWA's Zone 40 conjunctive use program fall into three categories:

1) Water supplies derived from the CVP.
2) Surplus supplies available on an intermittent basis
3) Water available through the City of Sacramento for use within the American River Place of Use (POU).

The source of supply for "Fazio water" contract entitlement and the "SMUD I" and "SMUD II" assignment agreements is the USBR CVP. Thus, the parties that could most

directly be affected by exercise of these rights by SCWA are other CVP contractors. In addition, until such time as the SWRCB Bay Delta Water Rights Hearings are concluded, other parties that could be affected include: CVP contractors, State Water Project (SWP) contractors, water rights holder subject to Term 91 conditions, and riparian diverters downstream of SCWA's point of diversion. The point of diversion will be located at a site near the community of Freeport on the Sacramento River.

The source of supply for that portion of Zone 40 that lies within the American River POU will be wholesale and wheeling capacity from the City of Sacramento through agreement with the Sacramento County Water Agency. Delivery of this water to customers within the POU has been included in the City of Sacramento's long-range plan for perfecting their American River water rights. Surface water entitlements belonging to both the City and the County will be utilized by surface water diversion at the City's diversion facilities. The timing and volume of delivery will be as described by the *Delivery Criteria for Wheeling Water Service* and the *Delivery Criteria for Wholesale Water Service* documents associated with the above mentioned wholesale and wheeling capacity agreement between the City and the County.

DOES SUPPLY FOR PROJECT INCLUDE GROUNDWATER [Section 10190(f)]

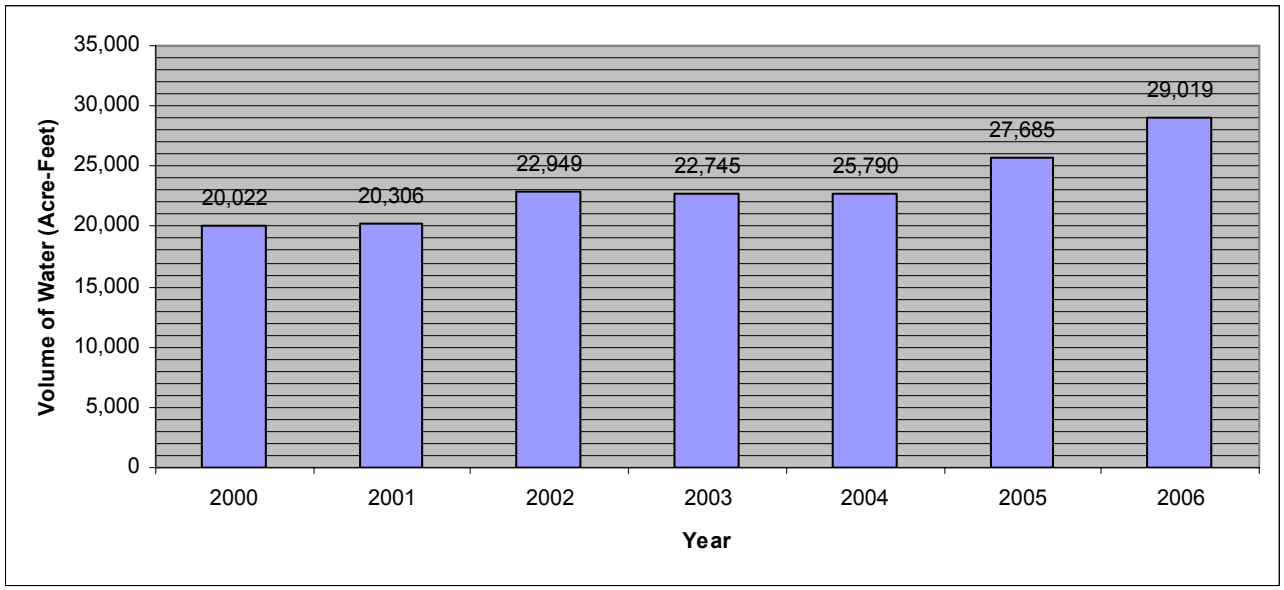
The water demands of the Florin-Vineyard Community Plan will partially be met with groundwater. Consequently, Section 10910(f) requires additional information.

Section 10910(f)(1)

Section 10910(f)(1) requires a review of groundwater data contained in the UWMP.

- Section 2.2.2, "Groundwater Production", of the, *Zone 41 Urban Water Management Plan*, identifies past volumes of groundwater extracted by SCWA. Figure 3 (below) illustrates the amount of groundwater used to meet Zone 40 water demands in each of the last seven (7) years.

Figure 3: Historical Use of Groundwater within Zone 40



Section 10910(f)(2)

Section 10910(f)(2) requires a description of the groundwater basin and the efforts being taken to prevent long-term overdraft.

- The *Zone 40 Water Supply Master Plan (February 2005)* and the *Zone 40 Groundwater Management Plan (October 2004)* each provide a detailed characterization of the groundwater aquifer underlying Zone 40.

- The *Zone 40 Water Supply Master Plan (February 2005)* provides a detailed description of the Zone 40 conjunctive use program.

- The *Draft Environmental Impact Report (EIR) for the Draft 2002 Zone 40 Water Supply Master Plan* (EDAW, November 2003) includes an extensive analysis of the affects of the Zone 40 conjunctive use program on the groundwater basin and on the Cosumnes River (a major recharge source to the basin).

- The *Zone 40 Water Supply Master Plan (February 2005),* the *Zone 40 Groundwater Management Plan (October 2004),* and the *Central Sacramento County Groundwater Management Plan (February 2006)* discuss SCWA's approach for preventing overdraft of the groundwater basin underlying Zone 40.

- The *Zone 40 Groundwater Management Plan* (MWH, October 2004) provides a plan to maintain a sustainable, high-quality groundwater resource for the users on the groundwater basin underlying Zone 40.

- The *Central Sacramento County Groundwater Management Plan (February 2006)* provides a plan to maintain a sustainable, high-quality groundwater resource for the users on the groundwater basin underlying the Central Basin.

Section 10910(f)(3)

Section 10910(f)(3) requires a description of the volume and geographic distribution of groundwater extractions from the basin for the last five years.

- Section 2.2.2 and Table 2-2 of the *2005 Zone 41 Urban Water Management Plan,* provide data reflecting the volume and geographic distribution of groundwater extractions from the basin for the years 2000-2004. Year 2005 and 2006 data is available from the SCWA Facilities Operation and Administration section.

Section 10910(f)(4)

Section 10910(f)(4) requires a description of the projected volume and geographic distribution of groundwater extractions from the basin.

- Section 2.2.2 and Table 2-3 of the *2005 Zone 41 Urban Water Management Plan* provide descriptions of the projected volume and geographic distribution of

groundwater extractions from the basin. SCWA's projections of future groundwater extractions from the basin underlying Zone 40 are also discussed in detail in Section 2, "Water Demands," of the *Zone 40 Water Supply Master Plan (February 2005)*.

Section 10910(f)(5)

Section 10910(f)(5) requires an analysis of the sufficiency of the groundwater basin to meet the demands associated with the Florin-Vineyard Community Plan.

- Section 2.3 and Section 5.0 of the *2005 Zone 41 Urban Water Management Plan*, provide detailed analysis of the sufficiency of the groundwater basin to meet the demands associated with the Florin-Vineyard Community Plan.

DETERMINATION OF SUFFICIENCY

SCWA determines that it has identified sufficient water supplies to meet the water demands of the Florin-Vineyard Community Plan.

SCWA makes this determination based on the information provided in this WSA and on the following specific facts:

- The Zone 40 conjunctive use program is a sustainable water supply program that provides100-percent reliable water supplies while protecting environmental values and stabilizing the groundwater basin underlying Zone 40.
- The Zone 40 conjunctive use program has been extensively analyzed. The results of those analyses are contained in, the *Zone 40 Water Supply Master Plan* (SCWA, February 2005), the *Central Sacramento County Groundwater Management Plan* (February 2006), and the *2005 Zone 41 Urban Water Management Plan.* These documents have been subjected to thorough technical peer review and public scrutiny.
- The Florin-Vineyard Community Plan area will be served by water supplies made available through the Zone 40 conjunctive use program.
- A financing plan for the Zone 40 conjunctive use program for constructing the facilities required for delivering groundwater and surface water to the Florin-Vineyard Community Plan area has been approved by the SCWA Board of Directors.

Appendix O

Traffic Phasing Plan

9.7 Phasing of Traffic Mitigation

Appendix D sets forth the detailed requirements for mitigating the traffic impacts associated with the development of planned land uses within the Florin Vineyard Community Plan. These impacts are presented in full detail in Appendix I of Volume 3 of the Florin-Vineyard GAP Community Plan Project Final Environmental Impact Report (Control No. 04-GPB-CPB-0096).

Phasing of Traffic Mitigation Roadway Improvements

The County Department of Transportation conditions, as described in Appendix D are based on traffic mitigation measures identified in the Final Environmental Impact Report (FEIR) for the FVCP and on additional traffic analysis to determine the appropriate phasing of roadway improvements associated with development of approved land uses in the FVCP. For a complete description of the mitigation measure improvements, refer to the FVCP FEIR. These conditions apply to all residential development within the FVCP area and are in addition to any other conditions applied to individual properties within the FVCP. Non-residential development projects associated with retail/commercial services, office, and industrial land uses within the FVCP are not subject to these phasing conditions, but shall contribute appropriately to meeting overall FVCP traffic mitigation obligations through construction of onsite and adjacent roadway improvements (including logical segments) as specified in project conditions of approval and by payment of Florin Vineyard Fee Program Roadway Fees and Sacramento County Transportation Development Fees.

The Land Division and Site Improvement Review (LDSIR) Section in the Department of County Engineering will maintain an inventory of the cumulative total number residential units that may be constructed on lots created by final subdivision maps within the FVCP. Such potential residential construction will include single family detached and attached residential units and multiple family residential units of all types. For multiple family parcels the unit count will be based on approved site plans where applicable as well as zoned density and dwelling unit limits. The tally of total cumulative residential units will be posted on the LDSIR internet website and updated regularly.

Required installation of the specific roadway improvements listed in each numbered condition in Appendix D applies when the specified residential unit threshold for that section is reached (e.g., Conditions 1 through 3 prior to 176 residential units, Conditions 4 and 5 prior to 501 residential units, Conditions 6 through 9 prior to 576 residential units, etc.). Property owners with approved tentative subdivision or parcel maps with entitlements for residential development should consult with the Department of Transportation staff to determine which traffic mitigation measures must be constructed before their final maps may be recorded. Collaboration among owners seeking to develop their properties is anticipated to achieve timely installation of these roadway improvements. Coordination of planned public construction and private construction of mitigation measures will be encouraged. The subsequent conditions explain the overall scope and design requirements of each specific roadway improvement, as well as referencing the FEIR Mitigation Measure that the improvement satisfies or partially satisfies.

Conditions that specify certain roadway improvements required to mitigate Cumulative + Project traffic impacts be constructed by developers on a “fair share basis” are associated with more

flexible rules regarding scope of roadway improvements, consideration of interim improvements, assembly of needed financing from multiple sources, and the specific phasing threshold. The language in each of these conditions includes the phrase "on a 'fair share' basis satisfactory to the Department of Transportation." The Director of Transportation shall determine at the time additional final map residential units are proposed if the then current and anticipated traffic levels of service associated with the mitigation improvement are critical, if the contributions toward funding needed for construction of fair share improvements are sufficient to enforce the indicated phasing threshold, if FVCP development should be required to construct the entire fair share improvement or some lesser portion of it, and if alternative improvements can be substituted to effect a comparable reduction in traffic congestion.

To the extent feasible during the process of implementation of the FVCP Public Facilities Financing Plan, the traffic mitigation phasing obligations associated with the North Vineyard Station Specific Plan (NVSSP) will be integrated with these FVCP roadway phasing requirements to achieve a "blended" Roadway CIP and fee program applicable to developments in both the FVCP and the NVSSP. Appendix D may be amended from time to time by the Board of Supervisors after appropriate CEQA review if deemed necessary to, inter alia, integrate traffic mitigation phasing obligations with the NVSSP, or based on the results of future traffic studies.

DRAFT APPENDIX D
October 5, 2010
PHASING OF TRAFFIC MITIGATION FOR FLORIN VINEYARD COMMUNITY PLAN

PHASE ONE

Prior to recordation of 451st residential building lot within the FVCP Area:

1. Reconstruct and widen South Watt Avenue from existing two-lane road section to four-lane thoroughfare center section from SR-16 to Fruitridge Road based on a 96-foot standard thoroughfare (the 6-foot separated sidewalk shall be installed in an adjacent pedestrian/landscape easement). (7.3) Mitigation Measures: TC-1(d); TC-1(n); TC-1(o); and TC-1(t).

2. Reconstruct and widen existing intersection of Fruitridge Road at South Watt Avenue to a 4X6 signalized intersection. (4) Mitigation Measures: TC-2(h) and TC-4(h)1-27.

3. Restripe and modify the signalization of the existing intersection of Elder Creek Road at South Watt Avenue to a 2X4 intersection. (6) Mitigation Measure: TC-2 (dd).

4. Reconstruct and widen Elk Grove-Florin Road from existing two-lane road section to four-lane thoroughfare center section from Florin Road to Gerber Road based on a 96-foot standard thoroughfare (the 6-foot separated sidewalk shall be installed in an adjacent pedestrian/landscape easement). (8.1) Mitigation Measures: TC-1(q) and TC-3(aa).

5. Replace existing bridge with a six-lane bridge on Elk Grove-Florin Road at Elder Creek Crossing based on a 96-foot standard thoroughfare. (8.1d) Mitigation Measure: TC-1(q).

Prior to recordation of 766th residential building lot within the FVCP Area:

6. Reconstruct and widen South Watt Avenue from existing two-lane road section to four-lane thoroughfare center section from Elder Creek Road to Florin Road based on a 96-foot standard thoroughfare (the 6-foot separated sidewalk shall be installed in an adjacent pedestrian/landscape easement). (7.5) Mitigation Measure: TC-1(p).

7. Reconstruct and widen the existing at-grade Railroad crossing to a four-lane at-grade crossing (including appurtenances) on South Watt Avenue at the CCTC RR crossing based on a 96-foot standard thoroughfare. (7.5r) Mitigation Measure: TC-1(p).

Prior to recordation of 826th residential building lot within the FVCP Area:

8. Widen existing intersection of SR-16 at Bradshaw Road to a modified 4X6 (adding northbound, eastbound, southbound, and westbound lanes and relocating signal). (2) Mitigation Measure: TC-2(f).

9. Widen existing intersection of Bradshaw Road at Kiefer Boulevard from a modified 4X4 to a modified 4X6 (adding northbound and southbound through and right-turn lanes and relocating signal). (19) Mitigation Measure: TC-2(c).

10. Reconstruct and widen Bradshaw Road from existing two-lane road section to four-lane thoroughfare center section from Florin Road to Calvine Road based on a 96-foot standard thoroughfare (the 6-foot separated sidewalk shall be installed in an adjacent pedestrian/landscape easement). (9.3) Mitigation Measures: TC-1(v), TC-1(y), and TC-1(z).

11. Widen existing intersection of Elder Creek Road at Bradshaw Road from a 2X4 to a modified 2X6 (adding northbound and southbound shared through/right-turn lanes). (7) Mitigation Measure: TC-2(cc).

Prior to recordation of 1036th residential building lot within the FVCP Area:

12. Reconstruct and widen South Watt Avenue from existing two-lane road section to four-lane thoroughfare center section from Fruitridge Road to Elder Creek Road based on a 96-foot standard thoroughfare (the 6-foot separated sidewalk shall be installed in an adjacent pedestrian/landscape easement). (7.4) Mitigation Measure: TC-1(o); TC-1(d); and TC-1(t).

13. Widen existing bridge on South Watt Avenue at Morrison Creek Crossing based on a 96-foot standard thoroughfare. (7.4d) Mitigation Measure: TC-1(o).

14. Widen existing intersection of Gerber Road at Elk Grove-Florin Road to a 4X6 and relocate signal. (9) Mitigation Measures: TC-2(gg) and TC-4(aa).

15. Reconstruct and widen Bradshaw Road from four to six lanes (add median and outside lanes) from Kiefer Boulevard to SR-16 based on a 96-foot standard thoroughfare (the 6-foot separated sidewalk shall be installed in an adjacent pedestrian/landscape easement). (9.5) Mitigation Measures: TC-1(u) and TC-3(ee).

Prior to recordation of 1326th residential building lot within the FVCP Area:

16. Widen existing intersection of Gerber Road at Bradshaw Road to a signalized 4X4 (future 6X4). (10) Mitigation Measure: TC-2(t).

17. Reconstruct and widen Bradshaw Road from four to six lanes from SR-16 to Elder Creek Road based on a 96-foot standard thoroughfare (the 6-foot separated sidewalk shall be installed in an adjacent pedestrian/landscape easement). (9.1) Mitigation Measures: TC-1(x) and TC-3(ff).

18. Widen existing bridge on Bradshaw Road at Morrison Creek Crossing based on a 96-foot thoroughfare (six-lane bridge). (9.1d) Mitigation Measure: TC-1(x).

Prior to recordation of 1446th residential building lot within the FVCP Area:

19. Reconstruct and widen Calvine Road from four lanes to six lanes (add westbound lane and frontage) from Power Inn Road to Elk Grove-Florin Road based on a 96-foot standard thoroughfare (the 6-foot separated sidewalk shall be installed in an adjacent pedestrian/landscape easement). (10.1.1) Mitigation Measures: TC-1(j) and TC-3(o).

20. Reconstruct and widen the existing at-grade Railroad crossing (eastbound including appurtenances) on Calvine Road at the UPRR crossing based on a 96-foot standard thoroughfare. (10.1r) Mitigation Measures: TC-1(j) and TC-3(o).

21. Widen existing intersection of South Watt Avenue at Folsom Boulevard to a 4X6 signalized intersection. (13) Mitigation Measures: TC-2(b) and TC-4(c).

Prior to recordation of 1646th residential building lot within the FVCP Area:

22. Modify the existing intersection of Florin Road and Power Inn Road to provide a shared through/right-turn lane on westbound approach and a shared through/right-turn lane on southbound approach. (12) Mitigation Measures: TC-2(l) and TC-4(r).

23. Modify the existing intersection of Gerber Road at Vineyard Road to a 3-way 2X2 signalized intersection. (11) Mitigation Measure: TC-2(u).

24. Reconstruct and widen South Watt Avenue to six lanes (three lanes each direction) from Kiefer Boulevard to SR-16 based on a 96-foot standard thoroughfare (the 6-foot separated sidewalk shall be installed in an adjacent pedestrian/landscape easement). (7.2) Mitigation Measures: TC-1(m) and TC-3(w).

Prior to recordation of 1841st residential building lot within the FVCP Area:

25. Reconstruct and widen existing intersection of Florin Road and Excelsior Road to a 4-way 2X2 signalized intersection (future 4X2 with dual left-turn lanes). (8) Mitigation Measure: TC-2(p).

26. Widen the existing intersection of South Watt Avenue at Kiefer Boulevard (add northbound and southbound through lanes and relocate signal). (21) Mitigation Measure: TC-2(bb).

27. Widen the existing intersection of SR-16 at South Watt Avenue to a modified 4X6 signalized intersection (future modified 6X6). (1) Mitigation Measure: TC-2(e).

PHASE TWO

Prior to recordation of 2021st residential building lot within the FVCP Area:

28. Reconstruct, widen existing two-lane road section, add southbound lane and frontage where necessary, and restripe existing French Road to a four-lane arterial from Florin Road to Gerber Road based on a 74-foot standard arterial (the 6-foot separated sidewalk shall be installed in an adjacent pedestrian/landscape easement). (12.1.1, 12.1.2, 12.1.3) Mitigation Measures: TC-1(l), TC-1(cc), TC-3(r) and TC-3(v).

29. Widen the existing bridge on French Road at the Elder Creek crossing based on a 74-foot standard arterial. (12.1d) Mitigation Measures: TC-1(l), TC-1(cc), TC-3(r) and TC-3(v).

Prior to recordation of 2126th residential building lot within the FVCP Area:

30. Widen the existing intersection of Florin Road at Florin-Perkins Road (French Road) by adding a westbound right-turn lane). (14) Mitigation Measures: TC-2(ee) and TC-4(s).

31. Widen existing intersection of Florin Road at South Watt Avenue from a partial 4X4 to a full 6X6 (relocate signal). (15) Mitigation Measure: TC-4(u).

32. Widen the existing intersection of Gerber Road at French Road to provide two left-turn lanes, one through lane, and one shared through/right turn lane on the eastbound approach. (18) Mitigation Measure: TC-2(ff).

33. Reconstruct and widen the existing intersection of Calvine Road at Waterman Road (widen eastbound and westbound approaches and relocate signal). (44) Mitigation Measure: TC-2(z).

34. Mitigate the traffic impacts on the Florin Road/Bradshaw Road intersection by implementing the system-wide study area roadway improvements identified in Mitigation Measure TC-1 subject to approval of the Director of Transportation. Mitigation Measure: TC-2(o).

35. Mitigate the traffic impacts on the Gerber Road/Power Inn Road intersection by implementing the system-wide study area roadway improvements identified in Mitigation Measure TC-1 subject to approval of the Director of Transportation Mitigation Measure: TC-2(q).

PHASE THREE

Prior to recordation of 2236th residential building lot within the FVCP Area:

36. Reconstruct and widen Elk Grove-Florin Road from a four-lane center section to six-lane thoroughfare (add northbound frontage) from Gerber Road to Union House Creek based on a 96-foot standard thoroughfare (the 6-foot separated

sidewalk shall be installed in an adjacent pedestrian/landscape easement). (8.2) Mitigation Measures: TC-1(r) and TC-3(bb).

37. Reconstruct and widen Elk Grove-Florin Road from a four-lane center section to six-lane thoroughfare from Union House Creek to Caselman Road based on a 96-foot standard thoroughfare (the 6-foot separated sidewalk shall be installed in an adjacent pedestrian/landscape easement). (8.3) Mitigation Measures: TC-1(r) and TC-3(bb).

38. Reconstruct and widen Elk Grove-Florin Road from four-lane center section to six-lane thoroughfare (add northbound frontage) from Caselman Road to Carlisle Avenue based on a 96-foot standard thoroughfare (the 6-foot separated sidewalk shall be installed in an adjacent pedestrian/landscape easement). (8.4) Mitigation Measures: TC-1(r) and TC-3(bb).

39. Reconstruct and widen existing intersection of Elk Grove-Florin Road at Caselman Road (add eastbound dual left-turn lanes) to a modified 2X6 signalized intersection. (30) Mitigation Measures: TC-2(x) and TC-4(ii).

40. Reconstruct and widen South Watt Avenue from a four-lane center section to six-lane thoroughfare from Fruitridge Road to Elder Creek Road based on a 96-foot standard thoroughfare (the 6-foot separated sidewalk shall be installed in an adjacent pedestrian/landscape easement). (7.4) Mitigation Measures: TC-1(t), and TC-3(y) and TC-3(dd).

41. Restripe existing 4X4 intersection of South Watt Avenue at Elder Creek Road to a 4X6 intersection (minor improvements on three frontages will be required). (6) Mitigation Measure: TC-4(n).

Prior to recordation of 2556th residential building lot within the FVCP Area:

42. Reconstruct and widen South Watt Avenue from a four-lane to six-lane thoroughfare center section from SR-16 to Fruitridge Road based on a 96-foot standard thoroughfare (the 6-foot separated sidewalk shall be installed in an adjacent pedestrian/landscape easement). (7.3) Mitigation Measures: TC-1(n), TC-3(s & x), and TC-3(dd).

Prior to recordation of 2761st residential building lot within the FVCP Area:

43. Reconstruct and widen South Watt Avenue from a four-lane center section to six-lane thoroughfare from Elder Creek Road to Florin Road based on a 96-foot standard thoroughfare (the 6-foot separated sidewalk shall be installed in an adjacent pedestrian/landscape easement). (7.5) Mitigation Measures: TC-3(u) and TC-3(z).

44. Reconstruct and widen from four to six lanes the at-grade railroad crossing on South Watt Avenue at the CCTC RR crossing based on a 96-foot standard thoroughfare. (7.5r) Mitigation Measure: TC-1(p).

45. Restripe existing 4X4 intersection of South Watt Avenue at Elder Creek Road to a 4X6 intersection (minor improvements on three frontages will be required). (6) Mitigation Measure: TC-4(n).

Prior to recordation of 2856th residential building lot within the FVCP Area:

46. Restripe existing intersection of Calvine Road at Elk Grove-Florin Road to a 4X6 intersection. (20) Mitigation Measure: TC-2(y).

47. Reconstruct and widen Elk Grove-Florin Road (adding southbound frontage lane) from a four-lane center section to six-lane thoroughfare from Vintage Park Drive to 380 feet south of Brittany Park Drive based on a 96-foot standard thoroughfare (the 6-foot separated sidewalk shall be installed in an adjacent pedestrian/landscape easement). (8.5) Mitigation Measures: TC-1(s) and TC-3(cc).

48. Reconstruct and widen Elk Grove-Florin Road from a four-lane center section to six-lane thoroughfare from 380 feet south of Brittany Park Drive to Calvine Road based on a 96-foot standard thoroughfare (the 6-foot separated sidewalk shall be installed in an adjacent pedestrian/landscape easement). (8.6) Mitigation Measures: TC-1(s) and TC-3(cc).

49. Relocate the signal and construct southern curb returns at the intersection of SR-16 at Hedge Avenue. (67)

Prior to recordation of 3416th residential building lot within the FVCP Area:

50. Reconstruct and widen existing partial arterial center section of SR-16 from two-lane to four-lane thoroughfare center section from South Watt Avenue to Bradshaw Road based on a 96-foot standard thoroughfare (the 6-foot separated sidewalk shall be installed in an adjacent pedestrian/landscape easement). (1.1) Mitigation Measure: TC-1(b).

PHASE FOUR

Prior to recordation of 3466th residential building lot within the FVCP Area:

51. Reconstruct and widen Elk Grove-Florin Road from a four-lane center section to six-lane thoroughfare from Florin Road to Gerber Road based on a 96-foot standard thoroughfare (the 6-foot separated sidewalk shall be installed in an adjacent pedestrian/landscape easement). (8.1) Mitigation Measures: TC-1(q) and TC-3(aa).

PHASE FIVE

Prior to recordation of 4306th residential building lot within the FVCP Area:

52. Reconstruct and widen Florin Road from existing two-lane road section to four-lane thoroughfare center section from South Watt Avenue to Hedge Avenue based on a 96-foot standard thoroughfare (the 6-foot separated sidewalk shall be installed in an adjacent pedestrian/landscape easement). (4.1) Mitigation Measures: TC-1(h) and TC-3(l).

53. Reconstruct and widen Florin Road from existing two-lane road section to four-lane thoroughfare center section from South Watt Avenue to Hedge Avenue (north side frontage on-site improvements) based on a 96-foot standard thoroughfare (the 6-foot separated sidewalk shall be installed in an adjacent pedestrian/landscape easement). (4.1f.n) Mitigation Measures: TC-1(h) and TC-3(l).

54. Reconstruct and widen Florin Road from existing two-lane road section to four-lane thoroughfare center section from South Watt Avenue to Hedge Avenue (south side frontage on-site improvements) based on a 96-foot standard thoroughfare (the 6-foot separated sidewalk shall be installed in an adjacent pedestrian/landscape easement). (4.1f.n) Mitigation Measures: TC-1(h) and TC-3(l).

55. Reconstruct and widen existing intersection of Florin Road at Gardner Avenue to a 4-way 2X6 signalized intersection. (27) Mitigation Measures: TC-2(m) and TC-4(t).

56. Reconstruct and widen existing intersection of Florin Road at Hedge Avenue to a 4-way 2X4 signalized intersection. (28) Mitigation Measures: TC-2(n) and TC-4(v).

57. Reconstruct and widen existing intersection of Fruitridge Road at Hedge Avenue to a 4-way 2X2 (future 4X2) signalized intersection. (25) Mitigation Measures: TC-2(i) and TC-4(l).

58. Reconstruct and widen Gerber Road from existing two-lane road section to four-lane arterial (eastbound frontage) from Elk Grove-Florin Road to Bradshaw Road based on a 74-foot standard arterial (the 6-foot separated sidewalk shall be installed in an adjacent pedestrian/landscape easement). (5.2) Mitigation Measure: TC-1(i).

59. Construct a signalized 2X4 (future 4X4) intersection (curb returns on south side only) of Gerber Road at Waterman Road. (29) Mitigation Measure: TC-2(r).

60. Construct the two-lane-with-median arterial center section of Waterman Road from Vintage Park Drive to Gerber Road based on a 74-foot standard arterial (the 6-foot separated sidewalk shall be installed in an adjacent pedestrian/landscape easement). (14.1.2) Mitigation Measures: TC-1(s) and TC-3(hh).

Prior to recordation of 5306th residential building lot within the FVCP Area:

61. Reconstruct and widen existing intersection of Elder Creek Road at Hedge Avenue to a 2X4 signalized intersection. (26) Mitigation Measures: TC-2(k) and TC-4(o)A.

62. Reconstruct and widen Elder Creek Road from existing two-lane road section to four-lane arterial from South Watt Avenue to Hedge Avenue based on a 74-foot standard arterial (the 6-foot separated sidewalk shall be installed in an adjacent pedestrian/landscape easement). (3.4) Mitigation Measures: TC-1(w) and TC-3 (ii).

63. Reconstruct and widen Elder Creek Road from existing two-lane road section to four-lane arterial from Hedge Avenue to Bradshaw Road based on a 74-foot standard arterial (the 6-foot separated sidewalk shall be installed in an adjacent pedestrian/landscape easement). (3.5) Mitigation Measures: TC-1(ee) and TC-3(g).

BUILD-OUT PHASE

Prior to recordation of 5701st residential building lot within the FVCP Area:

64. On a "fair share" basis satisfactory to the Department of Transportation, reconstruct and widen Florin Road from existing two-lane road section to four-lane thoroughfare center section from Bradshaw Road to Excelsior Road based on a 96-foot standard thoroughfare (the 6-foot separated sidewalk shall be installed in an adjacent pedestrian/landscape easement). Should all available funding sources as identified in Table A-1 (including the FVCP fair share) add to less than 100% required to construct said improvement, developer shall coordinate with the Sacramento County Department of Transportation to ensure completion of approved construction plans prior to recordation of 6501st building lot. The developer may be eligible for reimbursement of any advanced funding necessary for delivery of a completed design from other sources, if and when available. (4.2) Mitigation Measure: TC-3(jj).

65. Reconstruct and widen Florin Road (north side frontage onsite improvements) from Bradshaw Road to 2650 feet west of Vineyard Road based on a 96-foot standard thoroughfare (the 6-foot separated sidewalk shall be installed in an adjacent pedestrian/landscape easement). (4.2f.n) Mitigation Measure: TC-3(jj).

66. Replace existing bridge on Florin Road at Gerber Creek Crossing with a six-lane thoroughfare bridge, based on a 96-foot standard thoroughfare. (4.2d) Mitigation Measure: TC-3(jj).

67. On a "fair share" basis satisfactory to the Department of Transportation, reconstruct and widen existing modified 2X4 intersection of Florin Road at Bradshaw Road to a 4X6 signalized intersection (add one through lane each direction, westbound right-turn lane). Should all available funding sources as identified in Table A-1 (including the FVCP fair share) add to less than 100% required to construct said improvement, developer shall coordinate with the

Sacramento County Department of Transportation to ensure completion of approved construction plans prior to recordation of 6501st building lot. The developer may be eligible for reimbursement of any advanced funding necessary for delivery of a completed design from other sources, if and when available. (Citizens Advisory Committee (CAC) Plan mitigation only.) (48) Mitigation Measure: TC-2(o).

68. On a "fair share" basis satisfactory to the Department of Transportation, reconstruct and widen existing intersection of Florin Road at Excelsior Road to a 4X2 intersection. Should all available funding sources as identified in Table A-1 (including the FVCP fair share) add to less than 100% required to construct said improvement, developer shall coordinate with the Sacramento County Department of Transportation to ensure completion of approved construction plans prior to recordation of 6501st building lot. The developer may be eligible for reimbursement of any advanced funding necessary for delivery of a completed design from other sources, if and when available. (51) Mitigation Measure: TC-4(y).

69. On a "fair share" basis satisfactory to the Department of Transportation, construct a 4-way signalized 2X4 intersection of Florin Road at Vineyard Road. Should all available funding sources as identified in Table A-1 (including the FVCP fair share) add to less than 100% required to construct said improvement, developer shall coordinate with the Sacramento County Department of Transportation to ensure completion of approved construction plans prior to recordation of 6501st building lot. The developer may be eligible for reimbursement of any advanced funding necessary for delivery of a completed design from other sources, if and when available. (53) Mitigation Measure: TC-4(x).

70. On a "fair share" basis satisfactory to the Department of Transportation, construct a 4X4 (future 4X6) signalized intersection of Florin Road at Waterman Road. Should all available funding sources as identified in Florin Vineyard Financing Plan Table A-1 (including the FVCP fair share) add to less than 100% required to construct said improvement, developer shall coordinate with the Sacramento County Department of Transportation to ensure completion of approved construction plans prior to recordation of 6501st building lot. The developer may be eligible for reimbursement of any advanced funding necessary for delivery of a completed design from other sources, if and when available. (54) Mitigation Measure: TC-4(v)B.

71. On a "fair share" basis satisfactory to the Department of Transportation, construct the Florin Road Bypass (two-lane arterial center section) from Power Inn Road to Florin-Perkins Road based on a 74-foot standard arterial (the 6-foot separated sidewalk shall be installed in an adjacent pedestrian/landscape easement). Should all available funding sources as identified in the Florin Vineyard Financing Plan Table A-1 (including the FVCP fair share) add to less than 100% required to construct said improvement, developer shall coordinate with the Sacramento County Department of Transportation to ensure completion of approved construction plans prior to recordation of 6501st building lot. The developer may

be eligible for reimbursement of any advanced funding necessary for delivery of a completed design from other sources, if and when available. (4.4) Mitigation Measure: TC-3(i).

Prior to recordation of 6801st residential building lot within the FVCP Area:

72. On a "fair share" basis satisfactory to the Department of Transportation, reconstruct and widen Bradshaw Road from existing four-lane center section to six-lane thoroughfare from Elder Creek Road to Florin Road based on a 96-foot standard thoroughfare (the 6-foot separated sidewalk shall be installed in an adjacent pedestrian/landscape easement). Should all available funding sources as identified in Table A-1 (including the FVCP fair share) add to less than 100% required to construct said improvement, developer shall coordinate with the Sacramento County Department of Transportation to ensure completion of approved construction plans prior to recordation of 6951st building lot. The developer may be eligible for reimbursement of any advanced funding necessary for delivery of a completed design from other sources, if and when available. (9.2) Mitigation Measure: TC-3(gg).

73. On a "fair share" basis satisfactory to the Department of Transportation, widen Bradshaw Road from existing four-lane center section to six-lane thoroughfare from Florin Road to Gerber Road based on a 96-foot standard thoroughfare (the 6-foot separated sidewalk shall be installed in an adjacent pedestrian/landscape easement). Should all available funding sources as identified in Table A-1 (including the FVCP fair share) add to less than 100% required to construct said improvement, developer shall coordinate with the Sacramento County Department of Transportation to ensure completion of approved construction plans prior to recordation of 6951st building lot. The developer may be eligible for reimbursement of any advanced funding necessary for delivery of a completed design from other sources, if and when available. (9.6) Mitigation Measure: TC-3(kk).

74. On a "fair share" basis satisfactory to the Department of Transportation, reconstruct and widen existing intersection of Bradshaw Road at Kiefer Boulevard to a modified 4X6 (add second eastbound and westbound left-turn lanes and eastbound right-turn lane). Should all available funding sources as identified in Table A-1 (including the FVCP fair share) add to less than 100% required to construct said improvement, developer shall coordinate with the Sacramento County Department of Transportation to ensure completion of approved construction plans prior to recordation of 6951st building lot. The developer may be eligible for reimbursement of any advanced funding necessary for delivery of a completed design from other sources, if and when available. (65) Mitigation Measure: TC-4(e).

75. On a "fair share" basis satisfactory to the Department of Transportation, reconstruct and widen existing modified 2X6 intersection of Elder Creek Road at Bradshaw Road to a 4-way modified 4X6 intersection (add through lanes and right-turn lanes). Should all available funding sources as identified in Table A-1

(including the FVCP fair share) add to less than 100% required to construct said improvement, developer shall coordinate with the Sacramento County Department of Transportation to ensure completion of approved construction plans prior to recordation of 6951st building lot. The developer may be eligible for reimbursement of any advanced funding necessary for delivery of a completed design from other sources, if and when available. (33) Mitigation Measure: TC-4(p).

76. Reconstruct and widen Florin Road from existing four-lane center section to six-lane thoroughfare from Stockton Boulevard to Power Inn Road based on a 96-foot standard thoroughfare (the 6-foot separated sidewalk shall be installed in an adjacent pedestrian/landscape easement). (4.3) Mitigation Measures TC-1(g) and TC-3(h).

77. On a "fair share" basis satisfactory to the Department of Transportation, reconstruct and widen existing intersection (widen westbound approach and add right-turn lane) of Gerber Road at French Road. Should all available funding sources as identified in Table A-1 (including the FVCP fair share) add to less than 100% required to construct said improvement, developer shall coordinate with the Sacramento County Department of Transportation to ensure completion of approved construction plans prior to recordation of 6951st building lot. The developer may be eligible for reimbursement of any advanced funding necessary for delivery of a completed design from other sources, if and when available. (38) Mitigation Measure: TC-4(z).

78. On a "fair share" basis satisfactory to the Department of Transportation, reconstruct and widen existing 4X4 intersection of Gerber Road at Bradshaw Road to a 4X6 intersection. Should all available funding sources as identified in Table A-1 (including the FVCP fair share) add to less than 100% required to construct said improvement, developer shall coordinate with the Sacramento County Department of Transportation to ensure completion of approved construction plans prior to recordation of 6951st building lot. The developer may be eligible for reimbursement of any advanced funding necessary for delivery of a completed design from other sources, if and when available. (40) Mitigation Measure: TC-4(dd).

79. On a "fair share" basis satisfactory to the Department of Transportation, reconstruct and widen existing intersection of Gerber Road at Waterman Road to a 4X4 intersection. Should all available funding sources as identified in Table A-1 (including the FVCP fair share) add to less than 100% required to construct said improvement, developer shall coordinate with the Sacramento County Department of Transportation to ensure completion of approved construction plans prior to recordation of 6951st building lot. The developer may be eligible for reimbursement of any advanced funding necessary for delivery of a completed design from other sources, if and when available. (41) Mitigation Measure: TC-2(r).

80. Construct a signalized 4X2 intersection of Gerber Road at Bardu Lane. (42) Mitigation Measures: TC-2(s) and TC-4(cc).

81. On a "fair share" basis satisfactory to the Department of Transportation, reconstruct and widen (northbound) existing 3-way intersection of Gerber Road at Vineyard Road to a 4-way intersection. Should all available funding sources as identified in Table A-1 (including the FVCP fair share) add to less than 100% required to construct said improvement, developer shall coordinate with the Sacramento County Department of Transportation to ensure completion of approved construction plans prior to recordation of 6951st building lot. The developer may be eligible for reimbursement of any advanced funding necessary for delivery of a completed design from other sources, if and when available. (60) Mitigation Measures: TC-2(u) and TC-4(ee).

82. Reconstruct and widen existing rural intersection of Gerber Road at Excelsior Road to a 4-way modified 4X2 signalized intersection. (43) Mitigation Measures: TC-2(v) and TC-4(ff).

83. On a "fair share" basis satisfactory to the Department of Transportation, reconstruct and widen Waterman Road from existing section to four-lane arterial (add northbound frontage and median) from Vintage Park Drive to Gerber Road based on a 74-foot standard arterial (the 6-foot separated sidewalk shall be installed in an adjacent pedestrian/landscape easement). Should all available funding sources as identified in Table A-1 (including the FVCP fair share) add to less than 100% required to construct said improvement, developer shall coordinate with the Sacramento County Department of Transportation to ensure completion of approved construction plans prior to recordation of 6951st building lot. The developer may be eligible for reimbursement of any advanced funding necessary for delivery of a completed design from other sources, if and when available. (14.1.1) Mitigation Measure: TC-3(hh).

84. On a "fair share" basis satisfactory to the Department of Transportation, reconstruct and widen Waterman Road from existing two-lane arterial center section to a four-lane arterial from Vintage Park Drive to Gerber Road based on a 74-foot standard arterial (the 6-foot separated sidewalk shall be installed in an adjacent pedestrian/landscape easement). Should all available funding sources as identified in Table A-1 (including the FVCP fair share) add to less than 100% required to construct said improvement, developer shall coordinate with the Sacramento County Department of Transportation to ensure completion of approved construction plans prior to recordation of 6951st building lot. The developer may be eligible for reimbursement of any advanced funding necessary for delivery of a completed design from other sources, if and when available. (14.1.2) Mitigation Measure: TC-3(hh).

Prior to recordation of 8501st residential building lot within the FVCP Area:

85. On a "fair share" basis satisfactory to the Department of Transportation, replace existing rural intersection of Elder Creek Road at Excelsior Road (add northbound

left-turn lane and add eastbound right-turn lane) with a signalized intersection. Should all available funding sources as identified in Table A-1 (including the FVCP fair share) add to less than 100% required to construct said improvement, developer shall coordinate with the Sacramento County Department of Transportation to ensure completion of approved construction plans prior to recordation of 8551st building lot. The developer may be eligible for reimbursement of any advanced funding necessary for delivery of a completed design from other sources, if and when available. (34) Mitigation Measure: TC-4(q).

86. On a "fair share" basis satisfactory to the Department of Transportation, construct a 3-way 4X4 signalized intersection at Elder Creek Road at Waterman Road. Should all available funding sources as identified in Table A-1 (including the FVCP fair share) add to less than 100% required to construct said improvement, developer shall coordinate with the Sacramento County Department of Transportation to ensure completion of approved construction plans prior to recordation of 8551st building lot. The developer may be eligible for reimbursement of any advanced funding necessary for delivery of a completed design from other sources, if and when available. (64) Mitigation Measure: TC-4(v)B3 .

87. Reconstruct and widen Florin Road from existing four-lane center section to six-lane thoroughfare from Florin-Perkins Road to Gardner Avenue based on a 96-foot standard thoroughfare (the 6-foot separated sidewalk shall be installed in an adjacent pedestrian/landscape easement). (4.5) Mitigation Measures: TC-1(aa) and TC-3(j).

88. Reconstruct and widen Florin Road from existing four-lane center section to six-lane thoroughfare from Gardner Avenue to South Watt Avenue based on a 96-foot standard thoroughfare (the 6-foot separated sidewalk shall be installed in an adjacent pedestrian/landscape easement). (4.6) Mitigation Measures: TC-1(bb) and TC-3(k).

89. Reconstruct and widen Florin Road from Hedge Avenue to Bradshaw Road (north side frontage onsite improvements) based on a 96-foot standard thoroughfare (the 6-foot separated sidewalk shall be installed in an adjacent pedestrian/landscape easement). (4.0f.n)

90. Reconstruct and widen Florin Road from Hedge Avenue to the CCTC RR crossing (south side frontage onsite improvements) based on a 96-foot standard thoroughfare (the 6-foot separated sidewalk shall be installed in an adjacent pedestrian/landscape easement). (4.0f.s)

91. On a "fair share" basis satisfactory to the Department of Transportation, reconstruct and widen existing intersection of Fruitridge Road at Hedge Road (add eastbound right-turn lane). Should all available funding sources as identified in Table A-1 (including the FVCP fair share) add to less than 100% required to construct said improvement, developer shall coordinate with the Sacramento

County Department of Transportation to ensure completion of approved construction plans prior to recordation of 8551st building lot. The developer may be eligible for reimbursement of any advanced funding necessary for delivery of a completed design from other sources, if and when available. (62) Mitigation Measures: TC-2(i) and TC-4(l).

92. Reconstruct and widen existing intersection of Waterman Road at Florin Road from a 3-way 4X4 to a 4-way 4X4 (future 6X4) signalized intersection. (66) Mitigation Measure: TC-4(v)B3.

Prior to recordation of 9201st residential building lot within the FVCP Area:

93. On a "fair share" basis satisfactory to the Department of Transportation, construct Waterman Road from Florin Road to Elder Creek Road based on a 74-foot standard arterial. Should all available funding sources as identified in Table A-1 (including the FVCP fair share) add to less than 100% required to construct said improvement, developer shall coordinate with the Sacramento County Department of Transportation to ensure completion of approved construction plans prior to recordation of 9201st building lot. The developer may be eligible for reimbursement of any advanced funding necessary for delivery of a completed design from other sources, if and when available. (14.2) Mitigation Measure: TC-4(v)B3.

94. On a "fair share" basis satisfactory to the Department of Transportation, construct Elder Creek Crossing bridge on Waterman Road based on a 96-foot standard thoroughfare. Should all available funding sources as identified in Table A-1 (including the FVCP fair share) add to less than 100% required to construct said improvement, developer shall coordinate with the Sacramento County Department of Transportation to ensure completion of approved construction plans prior to recordation of 9201st building lot. The developer may be eligible for reimbursement of any advanced funding necessary for delivery of a completed design from other sources, if and when available. (14.2d) Mitigation Measure: TC-4(v)B3.

95. On a "fair share" basis satisfactory to the Department of Transportation, reconstruct and widen existing intersection of Calvine Road at Waterman Road to a 6X4 signalized intersection. Should all available funding sources as identified in Table A-1 (including the FVCP fair share) add to less than 100% required to construct said improvement, developer shall coordinate with the Sacramento County Department of Transportation to ensure completion of approved construction plans prior to recordation of 9201st building lot. The developer may be eligible for reimbursement of any advanced funding necessary for delivery of a completed design from other sources, if and when available. (44) Mitigation Measure: TC-4(jj).

96. On a "fair share" basis satisfactory to the Department of Transportation, reconstruct and widen (add left-turn lanes) existing intersection of Calvine Road at Excelsior Road to a 4-way signalized intersection. Should all available funding

sources as identified in Table A-1 (including the FVCP fair share) add to less than 100% required to construct said improvement, developer shall coordinate with the Sacramento County Department of Transportation to ensure completion of approved construction plans prior to recordation of 9201st building lot. The developer may be eligible for reimbursement of any advanced funding necessary for delivery of a completed design from other sources, if and when available. (Citizens Advisory Committee mitigation only.) (45) Mitigation Measure: TC-4(kk).

97. On a "fair share" basis satisfactory to the Department of Transportation, reconstruct and widen Calvine Road from existing four-lane center section to six-lane thoroughfare from Elk Grove-Florin Road to Grand Cru Drive based on a 96-foot standard thoroughfare (the 6-foot separated sidewalk shall be installed in an adjacent pedestrian/landscape easement). Should all available funding sources as identified in Table A-1 (including the FVCP fair share) add to less than 100% required to construct said improvement, developer shall coordinate with the Sacramento County Department of Transportation to ensure completion of approved construction plans prior to recordation of 9201st building lot. The developer may be eligible for reimbursement of any advanced funding necessary for delivery of a completed design from other sources, if and when available. (10.2.1) Mtigation Measure: TC-3(p).

98. On a "fair share" basis satisfactory to the Department of Transportation, reconstruct and widen Calvine Road from existing four-lane center section to six-lane thoroughfare (add westbound frontage) from Elk Grove-Florin Road to Grand Cru Drive based on a 96-foot standard thoroughfare (the 6-foot separated sidewalk shall be installed in an adjacent pedestrian/landscape easement). Should all available funding sources as identified in Table A-1 (including the FVCP fair share) add to less than 100% required to construct said improvement, developer shall coordinate with the Sacramento County Department of Transportation to ensure completion of approved construction plans prior to recordation of 9201st building lot. The developer may be eligible for reimbursement of any advanced funding necessary for delivery of a completed design from other sources, if and when available. (10.2.2) Mitigation Measure: TC-3(p).

99. Restripe existing intersection of Elk Grove-Florin Road and Calvine Road to a 6X6 intersection. (46) Mitigation Measure: TC-4(gg).

100. Modify the existing signal at the existing intersection of Elk Grove-Florin Road and Vintage Park Drive to add "No U Turn" sign for the southbound approach and to add right-turn overlap phasing on the westbound approach. (47) Mitigation Measure: TC-4(hh).

101. On a "fair share" basis satisfactory to the Department of Transportation, reconstruct and widen existing intersection of South Watt Avenue at Kiefer Boulevard to add northbound right-turn lane. Should all available funding sources as identified in Table A-1 (including the FVCP fair share) add to less than 100% required to construct said improvement, developer shall coordinate with the

Sacramento County Department of Transportation to ensure completion of approved construction plans prior to recordation of 9201st building lot. The developer may be eligible for reimbursement of any advanced funding necessary for delivery of a completed design from other sources, if and when available. (61) Mitigation Measure: TC-4(d).

102. On a "fair share" basis satisfactory to the Department of Transportation, reconstruct and widen SR-16 from existing four-lane center section to six-lane thoroughfare (add two frontages) from South Watt Avenue to Bradshaw Road based on a 96-foot standard thoroughfare (the 6-foot separated sidewalk shall be installed in an adjacent pedestrian/landscape easement). Should all available funding sources as identified in Table A-1 (including the FVCP fair share) add to less than 100% required to construct said improvement, developer shall coordinate with the Sacramento County Department of Transportation to ensure completion of approved construction plans prior to recordation of 9201st building lot. The developer may be eligible for reimbursement of any advanced funding necessary for delivery of a completed design from other sources, if and when available. (1.3) Mitigation Measure: TC-3(c).

103. On a "fair share" basis satisfactory to the Department of Transportation, reconstruct and widen SR-16 from existing two-lane road section to four-lane arterial (thoroughfare center section) from Bradshaw Road to Excelsior Road based on a 96-foot standard thoroughfare (the 6-foot separated sidewalk shall be installed in an adjacent pedestrian/landscape easement). Should all available funding sources as identified in Table A-1 (including the FVCP fair share) add to less than 100% required to construct said improvement, developer shall coordinate with the Sacramento County Department of Transportation to ensure completion of approved construction plans prior to recordation of 9201st building lot. The developer may be eligible for reimbursement of any advanced funding necessary for delivery of a completed design from other sources, if and when available. (1.4) Mitigation Measure: TC-3(d).

104. Replace existing bridge on SR-16 at Morrison Creek Crossing with a six-lane thoroughfare bridge, based on a 96-foot standard thoroughfare. (1.4d) Mitigation Measure: TC-3(d).

105. On a "fair share" basis satisfactory to the Department of Transportation, reconstruct and widen SR-16 from existing two-lane road section to four-lane arterial (thoroughfare center section) from Excelsior Road to Sunrise Boulevard based on a 96-foot standard thoroughfare (the 6-foot separated sidewalk shall be installed in an adjacent pedestrian/landscape easement). Should all available funding sources as identified in Table A-1 (including the FVCP fair share) add to less than 100% required to construct said improvement, developer shall coordinate with the Sacramento County Department of Transportation to ensure completion of approved construction plans prior to recordation of 9201st building lot. The developer may be eligible for reimbursement of any advanced funding necessary for delivery of a completed design from other sources, if and when available. (1.5) Mitigation Measure: TC-3(d).

106. On a "fair share" basis satisfactory to the Department of Transportation, reconstruct and widen existing intersection of SR-16 at Bradshaw Road from a 4X6 to 6X6. Should all available funding sources as identified in Table A-1 (including the FVCP fair share) add to less than 100% required to construct said improvement, developer shall coordinate with the Sacramento County Department of Transportation to ensure completion of approved construction plans prior to recordation of 9201st building lot. The developer may be eligible for reimbursement of any advanced funding necessary for delivery of a completed design from other sources, if and when available. (Citizens Advisory Committee mitigation only). (63) Mitigation Measure: TC-4(k).

107. On a "fair share" basis satisfactory to the Department of Transportation, reconstruct and widen existing intersection of SR-16 at Excelsior Road from a 2X2 to a modified 4X4 (relocate signal). Should all available funding sources as identified in Table A-1 (including the FVCP fair share) add to less than 100% required to construct said improvement, developer shall coordinate with the Sacramento County Department of Transportation to ensure completion of approved construction plans prior to recordation of 9201st building lot. The developer may be eligible for reimbursement of any advanced funding necessary for delivery of a completed design from other sources, if and when available. (35) Mitigation Measure: TC-4(i).

108. On a "fair share" basis satisfactory to the Department of Transportation, reconstruct and widen existing intersection of SR-16 at South Watt Avenue from a modified 4X6 to a modified 6X6. Should all available funding sources as identified in Table A-1 (including the FVCP fair share) add to less than 100% required to construct said improvement, developer shall coordinate with the Sacramento County Department of Transportation to ensure completion of approved construction plans prior to recordation of 9201st building lot. The developer may be eligible for reimbursement of any advanced funding necessary for delivery of a completed design from other sources, if and when available. (36) Mitigation Measure: TC-4(g).

109. On a "fair share" basis satisfactory to the Department of Transportation, pay a fair share contribution based on the approved Florin Vineyard Community Plan towards the State Route 99 and U.S. 50 Corridor improvements including: (1) Installation of ramp metering at interchange on-ramps on southbound State Route 99 , and (2)Construction of the extension of HOV lanes on U.S. 50 from Watt Avenue to Downtown Sacramento. Mitigation Measure: TC-5.

110. Widen the northbound approach to the Tiogawoods Drive/Elk Grove-Florin Road intersection to provide one left-turn lane, two through lanes, and a shared through/right turn lane. Mitigation Measure: TC-2(w).

111. Widen the westbound approach to the Folsom Boulevard/Florin-Perkins Road intersection to provide two left-turn lanes, one through lane, and one-shared through/right-turn lane. Mitigation Measure: TC-4(b).

Traffic Mitigation Roadway Improvements Located in the City of Sacramento

Mitigation measure roadway improvements located predominantly within the jurisdiction of the City Sacramento are not required to be constructed pursuant to development threshold restrictions, with the exception of South Watt Avenue. Phasing is as recommended in Table A-1 of the FVCP PFFP. Governing these improvements will be an adopted memorandum of understanding with the County for cooperation, as well as reciprocal funding agreements, and cooperative agreements for construction. The following specific roadway improvements have been identified:

PHASE ONE

A. Reconstruct and widen the existing two-lane road section of Elder Creek Road to a four-lane arterial from Power Inn Road to Florin-Perkins Road based on City of Sacramento standards and to the satisfaction of the Sacramento County Department of Transportation. (3.1.1) Mitigation Measure: TC-1(e) Widen the section of Elder Creek Road between Power Inn Road and Florin-Perkins Road from one to two lanes in each direction.

B. Reconstruct and widen existing three-lane-with-median road section of Elder Creek Road to a four-lane arterial (add westbound frontage) from Power Inn Road to Florin-Perkins Road based on City of Sacramento standards and to the satisfaction of the Sacramento County Department of Transportation. (3.1.2) Mitigation Measure: TC-1(e).

C. Reconstruct and widen the at-grade railroad crossing on Elder Creek Road at the UPRR crossing to a four-lane at-grade crossing (including appurtenances) based on City of Sacramento standards and to the satisfaction of the Sacramento County Department of Transportation. (3.1r) Mitigation Measure: TC-1(e).

D. On a “fair share” basis satisfactory to the Department of Transportation, widen existing intersection of Elder Creek Road at Florin-Perkins Road to a modified 4X4 signalized intersection (relocate signal and add eastbound and northbound left-turn lanes) based on City of Sacramento standards and to the satisfaction of the Sacramento County Department of Transportation. Should all available funding sources as identified in Table A-1 (including the FVCP fair share) add to less than 100% required to construct said improvement, developer shall coordinate with the Sacramento County Department of Transportation to ensure completion of approved construction plans prior to recordation of 1401st building lot. The developer may be eligible for reimbursement of any advanced funding necessary for delivery of a completed design from other sources, if and when available. (5) Mitigation Measure: TC-4 (m).

E. Reconstruct and widen Florin-Perkins Road from four to six lanes from SR-16 to Fruitridge Road based on City of Sacramento standards and to the satisfaction of the Sacramento County Department of Transportation. (6.2) Mitigation Measure: TC-1(k).

F. Reconstruct and widen the dual track at-grade railroad crossing on Florin-Perkins Road at the CCTCRR crossing based on City of Sacramento standards and to the satisfaction of the Sacramento County Department of Transportation. (6.2r) Mitigation Measure: TC-1(k).

G. Widen existing intersection of Fruitridge Road at Florin-Perkins Road to a 4X6 signalized intersection (relocate signal) based on City of Sacramento standards and to the satisfaction of the Sacramento County Department of Transportation. (3) Mitigation Measures: TC-2(g) and TC-4(j).

PHASE TWO

H. Reconstruct and widen existing two-lane road section of Fruitridge Road to a four-lane arterial from Florin-Perkins Road to South Watt Avenue based on City of Sacramento standards and to the satisfaction of the Sacramento County Department of Transportation. (2.1) Mitigation Measure: TC-1(c).

I. Reconstruct and widen the at-grade Railroad crossing on Fruitridge Road at the CCTC RR crossing (four-lane including appurtenances) based on City of Sacramento standards and to the satisfaction of the Sacramento County Department of Transportation. (2.1r) Mitigation Measure: TC-1(c).

PHASE THREE

(none)

PHASE FOUR

J. Reconstruct and widen the existing two-lane road section of Elder Creek Road to a four-lane arterial from Florin-Perkins Road to South Watt Avenue based on City of Sacramento standards and to the satisfaction of the Sacramento County Department of Transportation. (3.2.1) Mitigation Measure: TC-1(f).

K. Reconstruct and widen the existing three-lane-with-median section of Elder Creek Road to a four-lane arterial (add various frontage segments) from Florin-Perkins Road to South Watt Avenue based on City of Sacramento standards and to the satisfaction of the Sacramento County Department of Transportation. (3.2.2) Mitigation Measure: TC-1(f).

L. Reconstruct and widen the existing at-grade Railroad crossing on Elder Creek Road to a four-lane at-grade crossing (including appurtenances) at the CCTC RR crossing based on City of Sacramento standards and to the satisfaction of the Sacramento County Department of Transportation. (3.2r) Mitigation Measure: TC-1(f).

M. Reconstruct and widen SR-16 from existing two-lane road section to four-lane thoroughfare center section from Folsom Boulevard to South Watt Avenue based on City of Sacramento standards and to the satisfaction of the Sacramento County Department of Transportation. (1.2) Mitigation Measures: TC-1(a), TC-1(dd), and TC-3(b).

N. Modify the traffic signal timing at the intersection of SR-16 at Folsom Boulevard based on City of Sacramento standards and to the satisfaction of the Sacramento County Department of Transportation. (22) Mitigation Measure: TC-2(a).

O. Reconstruct and widen existing intersection of SR-16 at Florin-Perkins Road to a 4-way 4X6 intersection based on City of Sacramento standards and to the satisfaction of the Sacramento County Department of Transportation. (23) Mitigation Measures: TC-2(d) and TC-4(f).

Appendix P

Traffic Study Update - Hybrid Plans

FEHR & PEERS
TRANSPORTATION CONSULTANTS

TECHNICAL MEMORANDUM

Date: April 27, 2010

To: Roy Brewer – Brewer Lofgren, LLP

From: Dave B. Robinson – Fehr & Peers

Subject: ***Florin Vineyard Gap Community Plan CAC and PD Hybrid Plan Evaluation***

1042-1973

Fehr & Peers completed an analysis of the CAC and PD hybrid land use plans for the Florin Vineyard Gap Community Plan. The purpose of this analysis is to determine whether implementation of the hybrid land use plans would likely result in new impacts not identified in the Draft EIR (DEIR). The following outlines our analysis methodology and findings.

Methodology

For this analysis, we compared gross daily trip generation for the original CAC and PD Plans to the hybrid plans, using average daily trip generation rates from *Trip Generation*, 8th Edition (Institute of Transportation Engineers, 2008). We used the following trip generation categories to estimate the daily trip generation for the land plan employment and residential land uses:

Employment

- General Light Industrial – ITE Code 110 (M1 and IR)
- Shopping Center – ITE Code 820 (GC, SC and LC)
- General Office Building – ITE Code 710 (BP)

Residential

- Single-Family Detached Housing – ITE Code 210 (AR 2-5, AR 1-2, RD 2-3, RD 3-5, RD 5-7, RD 7-12, and RD 10)
- Low-Rise Apartment – ITE Code 221 (RD 20)

Table 1 summarizes the floor-to-area ratios and residential densities for the land use categories outlined above.

Findings

Table 1 also compares gross daily trip generation for the original and hybrid versions of the CAC and PD Plans. As shown, the hybrid CAC Plan will generate about 1 percent more trips than the original plan (0.9 percent or about 2,500 more trips per day) and the hybrid PD Plan will generate about 1 percent fewer trips than the original plan (-1.0 percent or about 2,900 less trips per day).

Because the hybrid CAC Plan would generate more trips, we analyzed daily roadway segment traffic operations under cumulative conditions to determine if the hybrid CAC Plan would result in new impacts not identified in the DEIR. We developed "With Hybrid" forecasts using the following approach:

- Identified the volume change between the cumulative forecasts without and with the original CAC Plan.
- Factored the volume change by 0.9 percent to develop the volume increase due to the hybrid CAC Plan and rounded the result to the nearest 100, consistent with the DEIR forecasts.
- Added the volume increase to the Cumulative Plus Original CAC Plan forecasts to develop the Cumulative Plus Hybrid CAC Plan forecasts.

Table 2 summarizes the results of this analysis.

Based on the trip generation comparison and the cumulative roadway segment analysis shown in Table 2, we anticipate that the impacts of the hybrid land use plan would be similar to the original plan.

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TABLE 1
DAILY TRIP GENERATION COMPARISON – ORIGINAL AND HYBRID CAC AND PD PLANS

Land Use	Daily Trip Rate[1]	Notes	CAC Plan						PD Plan					
			Original[2]			Hybrid[3]			Original[2]			Hybrid[3]		
			Land Use		Daily Trips	Land Use		Daily Trips	Land Use		Daily Trips	Land Use		Daily Trips
			Acres	KSF or DU[4]		Acres	KSF or DU[4]		Acres	KSF or DU[4]		Acres	KSF or DU[4]	
M1	6.97	ITE Code 110, assume 0.35 FAR[5]	1,102.0	16,801	117,104	1,092.1	16,650	116,052	879.0	13,401	93,407	885.3	13,497	94,076
IR	6.97	ITE Code 110, assume 0.35 FAR	-	-	-	-	-	-	240.0	3,659	25,504	237.6	3,622	25,248
GC	42.94	ITE Code 820, assume 0.25 FAR	10.0	109	4,676	10.2	111	4,770	10.0	109	4,676	10.2	111	4,770
SC	42.94	ITE Code 820, assume 0.25 FAR	137.5	1,497	64,297	140.6	1,531	65,747	113.5	1,236	53,074	112.0	1,220	52,373
LC	42.94	ITE Code 820, assume 0.25 FAR	21.0	229	9,820	20.9	228	9,773	18.3	199	8,557	18.5	201	8,651
BP	11.01	ITE Code 710, assume 0.25 FAR	5.0	54	599	13.3	145	1,595	5.0	54	599	13.3	145	1,595
Subtotal (Employment)			**1,275.5**	**18,691**	**196,497**	**1,277.1**	**18,665**	**197,936**	**1,265.8**	**18,659**	**185,818**	**1,276.9**	**18,797**	**186,713**
AR 2-5	9.57	ITE Code 210, 0.3 DU/AC[5]	207.0	68	654	180.0	59	568	129.0	43	407	132.8	44	419
AR 1-2	9.57	ITE Code 210, 0.7 DU/AC	549.5	363	3,471	511.2	337	3,229	271.0	179	1,712	280.0	185	1,769
RD 2-3	9.57	ITE Code 210, 2.5 DU/AC	151.5	379	3,625	158.8	397	3,799	140.5	351	3,361	134.0	335	3,206
RD 3-5	9.57	ITE Code 210, 4.5 DU/AC	1,172.3	5,275	50,485	1,191.6	5,362	51,316	1,084.5	4,880	46,704	1,086.1	4,887	46,773
RD 5-7	9.57	ITE Code 210, 6.0 DU/AC	213.0	1,278	12,230	235.9	1,415	13,545	572.5	3,435	32,873	557.2	3,343	31,994

FEHR & PEERS
TRANSPORTATION CONSULTANTS

TABLE 1
DAILY TRIP GENERATION COMPARISON – ORIGINAL AND HYBRID CAC AND PD PLANS

Land Use	Daily Trip Rate[1]	Notes	CAC Plan						PD Plan					
			Original[2]			Hybrid[3]			Original[2]			Hybrid[3]		
			Land Use		Daily Trips	Land Use		Daily Trips	Land Use		Daily Trips	Land Use		Daily Trips
			Acres	KSF or DU[4]		Acres	KSF or DU[4]		Acres	KSF or DU[4]		Acres	KSF or DU[4]	
RD 7-12	9.57	ITE Code 210, 10.0 DU/AC	30.5	305	2,919	31.9	319	3,053	69.0	690	6,603	65.2	652	6,240
RD-10 (MHP)	9.57	ITE Code 210, 10.0 DU/AC	13.7	137	1,311	13.7	137	1,311	13.7	137	1,311	13.7	137	1,311
RD 20	6.59	ITE Code 221, 18.0 DU/AC	63.5	1,143	7,532	54.5	981	6,465	130.5	2,349	15,480	108.8	1,958	12,906
Subtotal (Residential)			**2,401.0**	**8,948**	**82,227**	**2,377.6**	**9,008**	**83,287**	**2,410.7**	**12,064**	**108,452**	**2,377.8**	**11,542**	**104,618**
OS			**89.5**			**98.1**			**89.5**			**98.1**		
Grand Total			**3,766.0**		**278,723**	**3,752.8**		**281,223**	**3,766.0**		**294,269**	**3,752.8**		**291,331**
			% Difference from Original CAC Plan					**0.90%**	**% Difference from Original PD Plan**					**-1.00%**

Notes
[1] Trip generation rates from Trip Generation, 8th Edition (Institute of Transportation Engineers, 2008)
[2] Source of CAC Original and PD Original- County Planning exhibits and tables, December 4, 2003.
[3] Source of CAC Hybrid and PD Hybrid is land use applied to GIS property base, March 4, 2010.
[4] KSF = 1,000 Square Feet, DU = Dwelling Unit
[5] FAR = Floor-to-Area Ratio, DU/AC = Dwelling Unit per Acre
Land Use summaries from Bruce Walters at MacKay & Somps (7749-FVCP Land Use Comparison 4-12-10.xls)
Source: Fehr & Peers, 2010

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TABLE 2
ROADWAY LEVEL OF SERVICE – CUMULATIVE CONDITIONS: HYBRID CAC PLAN

Roadway Segment	Lanes	Type	Cumulative Conditions			Cumulative Plus Original CAC Plan			Volume Change	Cumulative Plus Hybrid CAC Plan					
			Volume	V/C	LOS	Volume	V/C	LOS		0.9% Increase	Volume	Significant Volume Change (Hybrid - Original)	V/C	LOS	New Impact?
1. Folsom Blvd. - State Route 16 to Watt Ave.	4	Arterial	29,000	0.81	D	29,400	0.82	D	400	4	29,400	0			
2. Kiefer Blvd. - Florin-Perkins Rd. to Watt Ave.	2	Arterial	9,200	0.51	A	9,600	0.53	A	400	4	9,600	0			
3. Kiefer Blvd. - Watt Ave. to Rosemont Dr.	4	Arterial	23,900	0.66	B	26,700	0.74	C	2,800	25	26,700	0			
4. Kiefer Blvd. - Rosemont Dr. to Bradshaw Rd.	4	Arterial	15,000	0.42	A	17,400	0.48	A	2,400	22	17,400	0			
5. SR 16 - Folsom Blvd. to Watt Ave.	2	Arterial	20,100	1.12	F	22,500	1.25	F	2,400	22	22,500	0			
6. SR 16 - Watt Ave. to Bradshaw Rd.	2	Arterial	23,600	1.31	F	26,500	1.47	F	2,900	26	26,500	0			
7. SR 16 - Bradshaw Rd. to Sunrise Blvd	2	Arterial	21,500	1.08	F	27,800	1.39	F	6,300	57	27,900	100	1.40	F	No
8. Fruitridge Rd. - Power Inn Rd. to Florin-Perkins Rd.	4	Arterial	31,100	0.86	D	33,300	0.93	E	2,200	20	33,300	0			
9. Fruitridge Rd. - Florin-Perkins Rd. to South Watt Ave.	6	Arterial	28,500	0.53	A	32,100	0.59	A	3,600	32	32,100	0			
10. Fruitridge Rd. - South Watt Ave. to Hedge Ave.	2	Rural	12,100	0.61	D	12,100	0.61	D	0	0	12,100	0			
11. Elder Creek Rd. - Power Inn Rd. to Florin-Perkins Rd.	4	Arterial	23,500	0.65	B	26,800	0.74	C	3,300	30	26,800	0			
12. Elder Creek Rd. - Florin-Perkins Rd. to South Watt Ave.	4	Arterial	16,500	0.46	A	19,200	0.53	A	2,700	24	19,200	0			
13. Elder Creek Rd. - South Watt Ave. to Hedge Ave.	2	Rural	16,200	0.81	E	19,600	0.98	E	3,400	31	19,600	0			
14. Elder Creek Rd. – Hedge Ave. to Bradshaw Rd.	2	Rural	17,700	0.89	E	20,500	1.03	F	2,800	25	20,500	0			
15. Elder Creek Rd. - Bradshaw Rd. to Excelsior Rd.	2	Rural	7,900	0.40	D	10,500	0.53	D	2,600	23	10,500	0			
16. Florin Rd. - Stockton Blvd to Power Inn Rd.	4	Arterial	37,900	1.05	F	42,000	1.17	F	4,100	37	42,000	0			
17. Florin Rd. - Power Inn Rd. to Florin-Perkins Rd.	4	Arterial	34,300	0.95	E	39,600	1.10	F	5,300	48	39,600	0			
18. Florin Rd. - Florin-Perkins Rd. to Gardner Ave.	4	Arterial	29,800	0.83	D	38,700	1.08	F	8,900	80	38,800	100	1.08	F	No
19. Florin Rd. - Gardner Ave. to South Watt Ave.	4	Arterial	32,800	0.91	E	42,500	1.18	F	9,700	87	42,600	100	1.18	F	No
20. Florin Rd. - South Watt Ave. to Hedge Ave.	2	Rural	23,800	1.19	F	28,100	1.41	F	4,300	39	28,100	0			
21. Florin Rd. - Hedge Ave. to Bradshaw Rd.	4	Arterial	30,700	0.85	D	33,700	0.94	E	3,000	27	33,700	0			
22. Florin Rd. - Bradshaw Rd. to Excelsior Rd.	2	Rural	16,800	0.84	E	17,900	0.90	E	1,100	10	17,900	0			
23. Florin Rd. - Excelsior Rd. to Sunrise Blvd	2	Rural	10,800	0.54	D	14,400	0.72	E	3,600	32	14,400	0			
24. Gerber Rd. - Stockton Blvd to Power Inn Rd.	4	Arterial	24,000	0.67	B	25,100	0.70	B	1,100	10	25,100	0			
25. Gerber Rd. - Power Inn Rd. to French Rd.	4	Arterial	34,200	0.95	E	37,200	1.03	F	3,000	27	37,200	0			
26. Gerber Rd. - French Rd. to Elk Grove-Florin Rd.	4	Arterial	32,800	0.91	E	39,900	1.11	F	7,100	64	40,000	100	1.11	F	No
27. Gerber Rd. - Elk Grove-Florin Rd. to Bradshaw Rd.	4	Arterial	22,700	0.63	B	30,000	0.83	D	7,300	66	30,100	100	0.84	D	No
28. Gerber Rd. - Bradshaw Rd. to Vineyard Rd.	4	Arterial	15,800	0.44	A	17,700	0.49	A	1,900	17	17,700	0			
29. Gerber Rd. - Vineyard Rd. to Excelsior Rd.	2	Rural	4,700	0.24	C	7,000	0.35	C	2,300	21	7,000	0			

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TABLE 2
ROADWAY LEVEL OF SERVICE – CUMULATIVE CONDITIONS: HYBRID CAC PLAN

Roadway Segment	Lanes	Type	Cumulative Conditions			Cumulative Plus Original CAC Plan			Volume Change	Cumulative Plus Hybrid CAC Plan					
			Volume	V/C	LOS	Volume	V/C	LOS		0.9% Increase	Volume	Significant Volume Change (Hybrid - Original)	V/C	LOS	New Impact?
30. Vintage Park Dr. - Elk Grove-Florin Rd. to Waterman Rd.	4	Arterial	18,000	0.50	A	19,800	0.55	A	1,800	16	19,800	0			
31. Vintage Park Dr. - Waterman Rd. to Bradshaw Rd.	4	Arterial	9,700	0.27	A	9,800	0.27	A	100	1	9,800	0			
32. Calvine Rd. - Power Inn Rd. to Elk Grove-Florin Rd.[1]	5	Arterial	64,700	1.44	F	66,800	1.48	F	2,100	19	66,800	0			
33. Calvine Rd. - Elk Grove-Florin Rd. to Grand Cru Dr.	4	Arterial	37,800	1.05	F	40,000	1.11	F	2,200	20	40,000	0			
34. Calvine Rd. - Grand Cru Dr. to Waterman Rd.	6	Arterial	38,700	0.72	C	41,100	0.76	C	2,400	22	41,100	0			
35. Calvine Rd. - Waterman Rd. to Bradshaw Rd.	4	Arterial	29,000	0.81	D	30,100	0.84	D	1,100	10	30,100	0			
36. Calvine Rd. - Bradshaw Rd. to Vineyard Rd.	4	Arterial	20,500	0.57	A	21,000	0.58	A	500	5	21,000	0			
37. Calvine Rd. - Vineyard Rd. to Excelsior Rd.	2	Arterial	12,700	0.71	C	13,200	0.73	C	500	5	13,200	0			
38. Calvine Rd. - Excelsior Rd. to Grant Line Rd.	2	Rural	7,300	0.37	D	7,900	0.40	D	600	5	7,900	0			
39. Power Inn Rd - Elder Creek Rd. to Florin Rd.	4	Arterial	30,400	0.84	D	31,300	0.87	D	900	8	31,300	0			
40. Power Inn Rd - Florin Rd. to Gerber Rd.	4	Arterial	35,300	0.98	E	36,700	1.02	F	1,400	13	36,700	0			
41. Power Inn Rd - Gerber Rd. to Calvine Rd.	4	Arterial	34,000	0.94	E	35,400	0.98	E	1,400	13	35,400	0			
42. Florin-Perkins Rd. - Folsom Blvd. to SR 16	6	Arterial	35,100	0.65	B	38,500	0.71	C	3,400	31	38,500	0			
43. Florin-Perkins Rd. - SR 16 to Fruitridge Rd.	6	Arterial	42,200	0.78	C	45,300	0.84	D	3,100	28	45,300	0			
44. Florin-Perkins Rd. - Fruitridge Rd. to Elder Creek Rd.	4	Arterial	41,600	1.16	F	43,700	1.21	F	2,100	19	43,700	0			
45. Florin-Perkins Rd. - Elder Creek Rd. to Florin Rd.	4	Arterial	37,400	1.04	F	39,700	1.10	F	2,300	21	39,700	0			
46. French Rd. - Florin Rd. to Gerber Rd.	2	Arterial	21,000	1.17	F	22,400	1.24	F	1,400	13	22,400	0			
47. Watt Ave. - Folsom Blvd. to Kiefer Blvd.	6	Arterial	81,700	1.36	F	84,200	1.40	F	2,500	23	84,200	0			
48. South Watt Ave. - Kiefer Blvd. to SR 16	5	Arterial	63,500	1.41	F	66,200	1.47	F	2,700	24	66,200	0			
49. South Watt Ave. - SR 16 to Fruitridge Rd.	4	Arterial	42,400	1.06	F	45,000	1.13	F	2,600	23	45,000	0			
50. South Watt Ave. - Fruitridge Rd. to Elder Creek Rd.	4	Arterial	38,500	1.07	F	44,700	1.24	F	6,200	56	44,800	100	1.24	F	No
51. South Watt Ave. - Elder Creek Rd. to Florin Rd.	4	Arterial	31,800	0.88	D	37,200	1.03	F	5,400	49	37,200	0			
52. Elk Grove-Florin Rd. - Florin Rd. to Gerber Rd.	4	Arterial	36,200	1.01	F	42,500	1.18	F	6,300	57	42,600	100	1.18	F	No
53. Elk Grove-Florin Rd. - Gerber Rd. to Carlisle Ave.	4	Arterial	39,700	1.10	F	45,500	1.26	F	5,800	52	45,600	100	1.27	F	No
54. Elk Grove-Florin Rd. - Carlisle Ave. to Vintage Park Dr.	6	Arterial	38,600	0.71	C	44,300	0.82	D	5,700	51	44,400	100	0.82	D	No
55. Elk Grove-Florin Rd. - Vintage Park Dr. to Calvine Rd.	4	Arterial	37,800	1.05	F	40,100	1.11	F	2,300	21	40,100	0			
56. Hedge Ave. - SR 16 to Fruitridge Rd.	2	Rural	5,100	0.26	C	5,200	0.26	C	100	1	5,200	0			
57. Hedge Ave. - Fruitridge Rd. to Elder Creek Rd.	2	Rural	16,700	0.84	E	18,600	0.93	E	1,900	17	18,600	0			
58. Hedge Ave. - Elder Creek Rd. to Florin Rd.	2	Rural	17,600	0.88	E	19,300	0.97	E	1,700	15	19,300	0			
59. Waterman Rd. - Vintage Park Dr. to Calvine Rd.	4	Arterial	23,000	0.64	B	24,600	0.68	B	1,600	14	24,600	0			

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TABLE 2
ROADWAY LEVEL OF SERVICE – CUMULATIVE CONDITIONS: HYBRID CAC PLAN

Roadway Segment	Lanes	Type	Cumulative Conditions			Cumulative Plus Original CAC Plan			Volume Change	Cumulative Plus Hybrid CAC Plan					
			Volume	V/C	LOS	Volume	V/C	LOS		0.9% Increase	Volume	Significant Volume Change (Hybrid - Original)	V/C	LOS	New Impact?
60. Bradshaw Rd. - Kiefer Blvd. to SR 16	4	Arterial	49,100	1.36	F	53,700	1.49	F	4,600	41	53,700	0			
61. Bradshaw Rd. - SR 16 to Elder Creek Rd.	4	Arterial	37,700	1.05	F	39,300	1.09	F	1,600	14	39,300	0			
62. Bradshaw Rd. - Elder Creek Rd. to Florin Rd.	4	Arterial	37,900	1.05	F	38,700	1.08	F	800	7	38,700	0			
63. Bradshaw Rd. - Florin Rd. to Gerber Rd.	4	Arterial	37,300	1.04	F	38,800	1.08	F	1,500	14	38,800	0			
64. Bradshaw Rd. - Gerber Rd. to Vintage Park Dr.	4	Arterial	29,400	0.82	D	31,800	0.88	D	2,400	22	31,800	0			
65. Bradshaw Rd. - Vintage Park Dr. to Calvine Rd.	4	Arterial	22,800	0.63	B	24,900	0.69	B	2,100	19	24,900	0			
66. Vineyard Rd. - Gerber Rd. to Calvine Rd.	2	Arterial	17,200	0.96	E	16,900	0.94	E	-	-	16,900	0			
67. Excelsior Rd. - SR 16 to Florin Rd.	2	Rural	12,500	0.63	E	14,000	0.70	E	1,500	14	14,000	0			
68. Excelsior Rd. - Florin Rd. to Gerber Rd.	2	Rural	13,100	0.66	E	15,100	0.76	E	2,000	18	15,100	0			
69. Excelsior Rd. - Gerber Rd. to Calvine Rd.	2	Rural	8,800	0.44	D	8,700	0.44	D	-	-	8,700	0			
70. Waterman Rd. – Vintage Park Dr. to Gerber Rd.	2	Arterial	26,600	1.48	F	29,900	1.66	F	3,300	30	29,900	0			
71. Waterman Rd. – Gerber Rd. to Florin Rd.	4	Arterial	24,700	0.69	B	26,600	0.74	C	1,900	17	26,600	0			
72. Vineyard Rd. – Gerber Rd. to Florin Rd.	2	Arterial	9,900	0.55	A	9,900	0.54	A	0	0	9,900	0			

Notes:
Shaded areas indicate unacceptable operations.
All arterial roadway segments assumed to have moderate access control except for Segments 7, 47, and 49, which were assumed to have high access control.
[1]This segment of Calvine Road is four to six lanes.
Source: Fehr & Peers, 2010

EIR ACKNOWLEDGMENTS

LEAD AGENCY STAFF – SACRAMENTO COUNTY DEPARTMENT OF ENVIRONMENTAL REVIEW AND ASSESSMENT

Joyce Horizumi	Environmental Coordinator
Antonia Barry	Assistant Environmental Coordinator
Catherine Hack	Senior Environmental Analyst
Tim Hawkins	Senior Environmental Analyst
Kate Brownfield	Associate Environmental Analyst
Lauren Hocker	Associate Environmental Analyst
Kevin Messerschmitt	Associate Environmental Analyst
Joelle Morales	Associate Environmental Analyst
Peter Morse	Associate Environmental Analyst
Michelle Overmeyer, AICP	Associate Environmental Analyst
Linda Wittkop Johnston	Administrative Services Officer III
Justin Maulit	Office Assistant II
Michelle Ponder	Office Assistant II

EIR CONSULTANT – RANEY PLANNING & MANAGEMENT, INC.

C. Timothy Raney, AICP	President
Cindy Gnos, AICP	Vice President
Nick Pappani	Division Manager
Antonio Garza	Associate
Ariel Calvert	Associate
Darlene Corbitt	Project Coordinator

TECHNICAL STUDY CONSULTANTS

Bollard Acoustical Consultants – Environmental Noise Assessment

Civil Engineering Solutions - Preliminary Drainage Study

Donald Ballanti, Certified Consulting Meteorologist – Air Quality Assessment

Economic & Planning Systems – Florin Vineyard Community Plan Public Facilities Financing Plan

Fehr and Peers – Traffic Impact Analysis

Gibson & Skordal, LLC - Biological Baseline Information Report

MacKay & Somps Civil Engineers, Inc. – Sanitary Sewer Master Plan

MWH, Inc. – Master Water Study for the Florin-Vineyard Community Plan

Peak & Associates, Inc. – Cultural Resources Study

Peterson, Brustad, Pivetti, Inc. – California American Water Supply Assessment