

**Rockcross at Folsom Ranch (Mangini Ranch Phase 2, Lot 10) Small Lot Vesting Tentative Subdivision Map:  
Applicant's FPASP Policy Consistency Analysis**

FPASP Policy No.	FPASP Policy Description	Map Consistent	Remarks
4.15	Thirty percent (30%) of the Plan Area shall be preserved and maintained as natural open space, consistent with Article 7.08.C of the Folsom City Charter.	Yes	The project will not reduce the amount of preserved natural open space.
4.16	The open space land use designation shall provide for the permanent protection of preserved wetlands.	n/a	The project does not include open space land uses. Therefore the policy does not apply to the project.

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FPASP Policy No.	FPASP Policy Description	Map Consistent	Remarks
<b><i>Parks Policies</i></b>			
<b>4.17</b>	Land shall be reserved for parks as shown in Figure 4.3 – Specific Plan Land Use Designations and Table 4.2 – Land Use Summary. On future tentative subdivision maps or planned development applications, park sites shall be within 1/8 of a mile of the locations shown in Figure 4.3 – Specific Plan Land Use Designations. Park sites adjacent to school sites should remain adjacent to schools to provide for joint use opportunities with the Folsom-Cordova Unified School District. Park sites adjacent to open space shall remain adjacent to open space to provide staging areas and access points to the open space for the public.	n/a	No park sites are proposed, and no proposed park sites will be altered by the project. Therefore the policy does not apply to the project.
<b>4.18</b>	Sufficient land shall be dedicated for parks to meet the City of Folsom requirement (General Plan Policy 35.8) of 5-acres of parks for every 1,000 residents.	Yes	The project does not reduce the land to be dedicated for parks.
<b>4.19</b>	Parks shall be located throughout the Plan Area and linked to residential neighborhoods via sidewalks, bike paths and trails, where appropriate. During the review of tentative maps or planned development applications, the city shall verify that parks are provided in the appropriate locations and that they are accessible to resident via sidewalks, bike paths and trails.	Yes	Adjacent parks will be accessible by all residents in the project via sidewalks.
<b>4.20</b>	Elementary school sites shall be co-located with parks to encourage joint-use of parks where feasible.	n/a	The project does not propose school or park uses. Therefore the policy does not apply to the project.

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<i>Public/Quasi-Public Policies</i>			
<b>4.21</b>	Land shall be reserved for public services and facilities, as required by the City of Folsom. Public services and facilities sites shall be in the general locations as shown in Figure 4.3 – Specific Plan Land Use Designations.	Yes	The infrastructure needed to serve the Project area is consistent with the adopted Specific Plan and the updated Infrastructure plans.
<b>4.22</b>	Land shall be reserved for schools as required by the City of Folsom and the Folsom Cordova Unified School District in accordance with state law. School sites shall be in the general locations shown in Figure 4.3 – Specific Plan Land Use Designations and have comparable acreages as established in Table 4.2 – Land Use Summary.	Yes	The project would not alter the location of proposed school sites.
<b>4.23</b>	Elementary school sites shall be co-located with parks to encourage joint-use of parks.	n/a	The project does not propose school or park uses. Therefore the policy does not apply to the project.
<b>4.24</b>	All Public/Quasi-Public sites shown in Figure 4.3 – Specific Plan Land Use Designations may be relocated or abandoned as a minor administrative modification of the FPASP. The land use designation of the vacated site or sites will revert to the lowest density adjacent residential land use. In no event shall the maximum number of Plan Area dwelling units exceed 11,461 and the total commercial building area exceed 2,788,884 square feet. For purposes of CEQA compliance for discretionary projects, the combination of the total maximum number of residential units and commercial square footage analyzed in the Folsom Plan Area Specific Plan Environmental Impact Report/Environmental Impact Statement (SCH#200809205) shall not be exceeded without requiring further CEQA compliance.	Yes	The project would not alter the location of proposed public/quasi-public sites.

**Rockcress at Folsom Ranch (Mangini Ranch Phase 2, Lot 10) Small Lot Vesting Tentative Subdivision Map:  
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FPASP Policy No.	FPASP Policy Description	Map Consistent	Remarks
<b>Section 5 - Housing Strategies</b>			
<i>City of Folsom General Plan Housing Element Policies Incorporated in the FPASP</i>			
H-1.1	The city shall ensure that sufficient land is designated and zoned in a range of residential densities to accommodate the city's regional share of housing.	n/a	This policy directs the City in its decision-making and planning processes. The project proposes residential land uses that comply with the existing zoning and land use designation at the project site.
H-1.2	The city shall endeavor to designate future sites for higher density housing near transit stops, commercial services, and schools where appropriate and feasible.	n/a	This policy directs the City in its decision-making and planning processes. The project proposes residential land uses that comply with the existing zoning and land use designation at the project site.
H-1.3	The city shall encourage home builders to develop their projects on multi-family designated land at the high end of the applicable density range.	n/a	This policy directs the City in its decision-making and planning processes. The project proposes a density of 9.18 units per acre, which is within the applicable range of 7-12 units per acre.
H-1.4	The City shall support and facilitate the development of second units on single-family designated and zoned parcels.	n/a	This policy directs the City in its decision-making and planning processes. The project site is zoned MLD.
H-1.6	The city shall ensure that new development pays its fair share in financing public facilities and services and pursues financial assistance techniques to reduce the cost impact on the production of affordable housing.	n/a	This policy directs the City in its decision-making and planning processes. The project will comply with all mitigation measures in the FPASP EIR and Addendums. See MMRP.

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H-1.8	The city shall strive to create additional opportunities for mixed-use and transit oriented development.	n/a	This policy directs the City in its decision-making and planning processes.
H-3.1	The city shall encourage residential projects affordable to a mix of household incomes and disperse affordable housing projects throughout the city to achieve a balance of housing in all neighborhoods and communities.	n/a	This policy directs the City in its decision-making and planning processes. The Project proposes residential development within the overall mix of household incomes.
H-3.2	The city shall continue to use federal and state subsidies, as well as Inclusionary housing in-lieu fees, affordable housing impact fees on non-residential development, and other fees collected into the Housing Trust Fund in a cost-efficient manner to meet the needs of lower-income households, including extremely low-income households.	n/a	This policy directs the City in its decision-making and planning processes. The Project proposes residential development.
H-3.3	The city shall continue to make density bonuses available to affordable and senior housing projects, consistent with State law and Chapter 17.102 of the Folsom Municipal Code.	n/a	This policy directs the City in its decision-making and planning processes. The Project does not seek a density bonus.
H-3.4	Where appropriate, the city shall use development agreements to assist housing developers in complying with city affordable housing goals.	n/a	This policy directs the City in its decision-making and planning processes. The Project is subject to the Amended and Revised Development Agreement.
H-3.5	The city shall make incentives available to property owners with existing development agreements to encourage the development of affordable housing.	n/a	This policy directs the City in its decision-making and planning processes. The Project is subject to the Amended and Restated Development Agreement.
H-5.2	The city shall encourage housing for seniors and persons with disabilities to be located near public transportation, shopping, medical, and other essential services and facilities.	n/a	This policy directs the City in its decision-making and planning processes. The project does not propose housing for seniors or persons with disabilities.

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H-5.4	The city shall encourage private efforts to remove physical barriers and improve accessibility for housing units and residential neighborhoods to meet the needs of person with disabilities.	n/a	This policy directs the City in its decision-making and planning processes. The Project complies with the Folsom Ranch, Central District Design Guidelines and City standards for residential neighborhoods.
H-5.7	The city shall continue to provide zoning to accommodate future need for facilities to serve city residents in need of emergency shelter.	n/a	This policy directs the City in its decision-making and planning processes.
H-5.10	The city shall encourage developers to include spaces in proposed buildings or sites on which child care facilities could be developed or leased by a child care operator.	n/a	This policy directs the City in its decision-making and planning processes. The Project does not propose non-residential uses.
H-6.2	The city shall assist in the enforcement of fair housing laws by providing information and referrals to organizations that can receive and investigate fair housing allegations, monitor compliance with fair housing laws, and refer possible violations to enforcing agencies.	n/a	This policy directs the City in its decision-making and planning processes.
H-7.1	The city shall continue to implement state energy-efficient standards to new residential development.	n/a	This policy directs the City in its decision-making and planning processes.
H-7.2	The city shall include energy conservation guidelines as part of the development standards for the specific plan area.	n/a	This policy directs the City in its decision-making and planning processes.
H-7.3	The city shall reduce residential cooling needs associated with the urban heat island effect.	n/a	This policy directs the City in its decision-making and planning processes.
H-7.4	The city shall promote an increase in the energy efficiency of new and existing housing beyond minimum state requirements.	n/a	This policy directs the City in its decision-making and planning processes.

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H-7.5	The city shall encourage the increased use of renewable energy.	n/a	This policy directs the City in its decision-making and planning processes.
H-7.6	The city shall encourage "smart growth" that accommodates higher density residential uses near transit, bicycle and pedestrian friendly areas of the city that encourage and facilitate the conservation of resources by reducing the need for automobile use.	n/a	This policy directs the City in its decision-making and planning processes. East Bidwell Street is part of the FPASP transit corridor.
<b>Section 7 - Circulation</b>			
<i>Circulation Policies</i>			
7.1	The roadway network in the Plan Area shall be organized in a grid-like pattern of streets and blocks, except where topography and natural features make it infeasible, for the majority of the Plan Area in order to create neighborhoods that encourage walking, biking, public transit and other alternative modes of transportation.	Yes	Grid layout is provided connecting the future residents of the project to adjacent school, park, open space, and commercial uses. East Bidwell Street is part of the FPASP transit corridor.
7.2	Circulation within the Plan Area shall be ADA accessible and minimize barriers to access by pedestrians, the disabled, seniors and bicyclists. Physical barriers such as walls, berms, and landscaping that separate residential and nonresidential uses and impede bicycle or pedestrian access or circulation shall be minimized.	Yes	The Project complies with the Folsom Ranch, Central District Design Guidelines and City standards for residential neighborhoods.
7.3	The Plan Area shall apply for permanent membership in the 50 Corridor TMA. Funding to be provided by a Community Facilities District or other non-revocable funding mechanism.	n/a	The Project does not effect the Plan Area's permanent membership in the 50 Corridor TMA.
7.4	Submit a General Plan Amendment to the city to modify General Plan Policy 17.17 regarding Traffic Level of Service 'C'. This level of service may not be achieved throughout the entire Plan Area at buildout.	n/a	The applicable Level of Service under the General Plan is 'D.' The streets are designed to meet traffic requirements and are consistent with the Specific Plan.
<i>Roadway Classification Policies</i>			

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<b>7.5</b>	A framework of arterial and collector roadways shall be developed that accommodate Plan Area traffic while accommodating through-traffic demands to adjoining city areas.	n/a	Project street layout is consistent with the Specific Plan. East Bidwell Street is part of the FPASP transit corridor.
<b>7.6</b>	Major and minor arterials, collectors, and minor collectors shall be provided with sidewalks that safely separate pedestrians from vehicular traffic and class II bicycle lanes that encourage transportation choices within the Plan Area.	Yes	East Bidwell Street, Old Ranch Way and Savannah Parkway have separated sidewalks from the street to enhance pedestrian design.
<b>7.7</b>	Traffic calming measures shall be utilized, where appropriate, to minimize neighborhood cut-through traffic and excessive speeds in residential neighborhoods. Roundabouts and traffic circles shall be considered on low volume neighborhood streets as an alternative to four-way stops or where traffic signals will be required at project build-out. Traffic calming features included in the City of Folsom's Neighborhood Traffic Management Program Guidelines (NTMP) may also be utilized in the Plan Area.	Yes	The street system has been designed to discourage traffic through the neighborhood.
<b>7.8</b>	Roadway improvements shall be constructed to coincide with the demands of new development, as required to satisfy city minimum level of service standards.	Yes	The streets are designed to meet traffic requirements and are consistent with the Specific Plan.
<b>Public Transit Policies</b>			
<b>7.8A</b>	<p>Concurrent with development of the SP-RC and SP-GC parcels located at the intersection of East Bidwell Street and Alder Creek Parkway, the following roadway improvements will be constructed:</p> <ul style="list-style-type: none"> <li>• Alder Creek Parkway from Prairie City Road to East Bidwell Street.</li> <li>• East Bidwell Street from White Rock Road to U.S. Highway 50.</li> <li>• Rowberry Road (including the over-crossing of U.S. Highway 50).</li> </ul> <p>The timing, extent of improvements and interim improvements shall be predicated on the extent and type of development proposed for the above referenced parcels</p>	n/a	The project is not located at the intersection of East Bidwell Street and Alder Creek Parkway. Therefore the policy does not apply to the project.



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7.9	Public transportation opportunities to, from, and within the Plan Area shall be coordinated with the City Public Works Transit Division and the Sacramento Regional Transit District (RT). Regional and local fixed and circulator bus routes through the Plan Area shall be an integral part of the overall circulation network to guarantee public transportation service to major destinations for employment, shopping, public institutions, multi-family housing and other land uses likely to attract public transit use.	Yes	The project is consistent with the adopted Specific Plan, which addresses public transportation opportunities.
7.10	Consistent with the most recent update of the RT master plan and the Plan Area Master Transit Plan, a transit corridor shall be provided through the Plan Area for future regional 'HI-Bus' service (refer to Figure 7.29 and the FPASP Transit Master Plan). Sufficient right-of-way shall be dedicated for the transit corridor as described in Section 7.3 and Figures 7.2, 7.3, 7.14 & 7.15.	Yes	The project is consistent with the adopted Specific Plan, which addresses public transportation opportunities.
7.11	Future transit bus stops and associated amenities shall be placed at key locations in the Plan Area according to the recommendation of the FPASP Transit Master Plan.	Yes	The project is consistent with the adopted Specific Plan, which addresses public transportation opportunities.
7.12	Provide interim park-and-ride facilities for public transit use as shown in the FPASP Transit Master Plan.	Yes	The project is consistent with the adopted Specific Plan, which addresses public transportation opportunities.
7.13	The City of Folsom shall participate with the El Dorado County Transportation Commission in an update of the "Folsom El Dorado Corridor Transit Strategy Final Report dated December 2005. The update shall include the Plan Area and Sacramento County.	n/a	This policy directs the City in its decision-making and planning processes. Therefore the policy does not apply to the project.
7.14	The City of Folsom shall participate with the Sacramento Area Council of Government in a revision of the City of Folsom Short-Range Transit Plan Update Final Report, dated September 2005. The update shall include the Plan Area.	n/a	This policy directs the City in its decision-making and planning processes. Therefore the policy does not apply to the project.
7.15	The Sacramento Regional Transit District (RT) "A Guide to Transit Oriented Development (TOD)" shall be used as a design guideline for subsequent project level approvals for all projects along the Plan Area transit corridor.	Yes	The guideline was used in the preparation of the Specific Plan. The project is consistent with the Specific Plan.

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<i>Sidewalks, Trails and Bikeway Policies</i>			
<b>7.16</b>	A system of sidewalks, trails, and bikeways shall internally link all land uses and connect to all existing or planned external street and trail facilities contiguous with the Plan Area to provide safe routes of travel for pedestrians and bicyclists as depicted in Figure 7.32 and as indicated on the applicable roadway sections. Pedestrian and bicycle facilities shall be designed in accordance with City design standards, including the latest version of the Bikeway Master Plan, the FPASP and the FPASP Community Design Guidelines.	Yes	The project includes sidewalks that are consistent with the adopted Specific Plan and City standards.
<b>7.17</b>	Public accessibility to open space and scenic areas within the Plan Area shall be provided via roadway, sidewalks, trail and bikeway connections, where appropriate.	Yes	Access to nearby open space areas is provided via roadway and sidewalks.
<b>7.18</b>	Traffic calming measures and signage shall be used to enhance the safety of sidewalk, trail and bikeway crossings of arterial and collector streets.	Yes	East Bidwell Street, Old Ranch Way, and Savannah Parkway have separated sidewalks from the street to enhance pedestrian design.
<b>7.19</b>	Class I bike path and trail crossings of Alder Creek and intermittent drainages channels shall be minimized and located and designed to cause the least amount of disturbance to the creek environment.	n/a	Alder Creek is not located in this phase. Therefore the policy does not apply to the project.
<b>7.20</b>	Per state and federal programs, safe routes to schools shall be identified and signed.	Yes	The proposed project connects to the separated sidewalk along Old Ranch Way and Savannah Parkway, which serves as Safe Routes to School. Signage shall be identified in the improvements plans.

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7.21	All Plan Area land uses shall be located within approximately 1/2 mile of a Class I bike path or a Class II bike lane.	Yes	The project is adjacent to East Bidwell Street, Old Ranch Way, and Savannah Parkway, which will be developed with class II bike lanes as part of the planned Bicycle network.
7.22	Site design and building placement shall minimize barriers to pedestrian access and interconnectivity. Physical barriers such as walls, berms, landscaping and slopes between residential and non-residential land uses that unnecessarily impede bicycle or pedestrian circulation shall be minimized. Clearly marked shaded paths shall be provided through commercial and mixed use parking lots.	n/a	The Project complies with the Folsom Ranch, Central District Design Guidelines and City standards for residential neighborhoods. Design Review approval is not being sought at this time.
7.23	Adequate short and long term bicycle parking shall be provided for all Plan Area land uses (except for single-family and single-family high density residential uses) as specified in Table A.14.	n/a	The project proposes detached single-family residential uses. The units include driveways and two-car garages, which provide adequate bicycle parking for the use type.
<b>Section 8 - Open Space</b>			
8.1	Open Space areas shall be created throughout the entirety of the Plan Area.	n/a	The project does not include open space uses. Therefore the policy does not apply to the project.
8.2	Create a preserve open space zone that will include all of the preserved wetlands and required buffers that are under the jurisdiction of the U.S. Army Corp of Engineers (USACE).	n/a	The project does not include open space uses. Therefore the policy does not apply to the project.
8.3	Create a passive open space zone that may contain limited recreation uses and facilities, storm water quality detention basins, water quality structures, wetland and tree mitigation areas and limited public utilities.	n/a	The project does not include open space uses. Therefore the policy does not apply to the project.

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8.4	Where feasible, locate schools and parks adjacent or near to open space.	n/a	The project does not include school or park uses. Therefore the policy does not apply to the project.
8.5	Open space areas shall incorporate sensitive Plan Area natural resources, including oak woodlands, Alder Creek and its tributaries, hillside areas, cultural resources, and tributaries of Carson, Buffalo and Coyote Creeks within the boundaries of the Plan Area.	n/a	The project does not include open space uses. Therefore the policy does not apply to the project.

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8.6	Open space improvements shall comply with City of Folsom General Plan Policy 27.1 and the Americans with Disabilities Act (ADA) standards.	n/a	The project does not include open space uses. Therefore the policy does not apply to the project.
8.7	Natural parkways, thirty-feet (30') in width or larger, shall be considered part of the required thirty percent (30%) Plan Area natural open space provided the following minimum criteria is met: 8.7a: They include a paved path or trail. 8.7.b: They have the ability to be utilized for tree mitigation plantings or other appropriate mitigation measures and; 8.7.c: They are planted primarily with California central valley and foothills native plants as described in the most current edition of River-Friendly Landscape Guidelines.	n/a	No natural parkways are proposed in the project area. Therefore the policy does not apply to the project.
8.8	Locate Class I bicycle paths and paved and unpaved trails throughout the open space.	n/a	The project does not include open space uses. Therefore the policy does not apply to the project.
8.9	Carefully site infrastructure, including roads, wastewater and water facilities, trailheads, equestrian trails and the like to minimize impact to the oak woodlands, Alder Creek and its tributaries, hillside areas, cultural resources and intermittent tributaries of Carson, Buffalo and Coyote Creeks within the boundaries of the Plan Area.	Yes	No cultural resources identified to be preserved, oak woodlands/trees, or hillsides are present in the project. The project has been designed to avoid the wetland areas to the extent feasible.
8.10	Provide the opportunity for educational programs that highlight the value of the various natural features of the Plan Area.	n/a	The project does not include open space uses. Therefore the policy does not apply to the project.
8.11	All open space improvements, including erosion control planting and landscaping, within the 200-year flood plain shall be designed to withstand inundation during a 200-year flood event.	n/a	The project does not include open space uses. Therefore the policy does not apply to the project.
8.12	All open space improvements, including erosion control planting and landscaping adjacent to Alder Creek and its tributaries shall be consistent with Section 10.2.6 - Alder Creek & Floodplain Protection.	n/a	Alder Creek is not located in this phase. Therefore the policy does not apply to the project.

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<b>8.13</b>	The FPASP Open Space Management Plan shall describe the ownership, funding, and maintenance of open space areas.	n/a	The project does not propose open space uses. Therefore the policy does not apply to the project.
<b>8.14</b>	The FPASP Community Design Guidelines shall include recommendations for the design of natural parkways and other passive open space recreation facilities, storm water quality detention basins, water quality structures, wetland and tree mitigation areas, and public utilities.	n/a	The document submitted to the City contains this information. Therefore the policy does not apply to the project.
<b>8.15</b>	All entitlements within the FPASP shall be reviewed to ensure that thirty percent (30%) of the Plan Area is maintained as natural open space to preserve oak woodlands and sensitive habitat areas.	Yes	The project does not reduce the amount of open space in the Plan Area.
<b>Section 9 - Parks</b>			
<b>9.1</b>	To promote walking and cycling, community and neighborhood parks shall be connected to the pedestrian and bicycle network.	Yes	The project's sidewalks are consistent with the connected pedestrian network in the Specific Plan.
<b>9.2</b>	Park designs shall accommodate a variety of active and passive recreational facilities and activities that meet the needs of Plan Area residents of all ages, abilities and special interest groups, including the disabled.	n/a	The project does not propose park uses. Therefore the policy does not apply to the project.
<b>9.3</b>	Neighborhood parks shall feature active recreational uses as a priority and provide field lighting for nighttime sports uses and other activities as deemed appropriate by the City of Folsom Parks and Recreation Department.	n/a	The project does not propose park uses. Therefore the policy does not apply to the project.
<b>9.4</b>	The sports facilities listed in Table 9.1 are suggested facilities for inclusion in community, neighborhood and local parks. The City may amend Table 9.1 as City needs change without amending the FPASP.	n/a	The project does not propose park uses. Therefore the policy does not apply to the project.
<b>9.5</b>	All park master plans shall include a lighting plan and all park lighting fixtures shall be shielded and energy efficient.	n/a	The project does not propose park uses. Therefore the policy does not apply to the project.

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9.6	Parks shall be designed and landscaped to provide shade, easy maintenance, water efficiency, and to accommodate a variety of recreational uses. Park improvements will comply with Folsom Municipal Code Chapter 13.26 Water Conservation and all applicable mitigations measures set forth in the FPASP EIR/EIS.	n/a	The project does not propose park uses. Therefore the policy does not apply to the project.
9.7	Park furniture and structures shall be selected based on durability, vandal resistance and long term maintenance, as approved by the City.	n/a	The project does not propose park uses. Therefore the policy does not apply to the project.
9.8	Public art is encouraged in parks where appropriate and feasible in compliance with the City's Arts and Culture Master Plan.	n/a	The project does not propose park uses. Therefore the policy does not apply to the project.
9.9	Easements and designated open space shall not be credited as parkland acreage. These areas may be used for park activities, but not to satisfy Quimby park land dedication requirements.	n/a	The proje Therefore the policy does not apply to the project.ct does not propose park uses.
9.10	Placement of stand alone cell towers or antennae in parks in strongly discouraged. Cell towers or antennae are permitted to be located on sports field lighting poles with a use permit.	n/a	Cell towers are not proposed with this application. Therefore the policy does not apply to the project.
9.11	All parks shall be sited and designed with special attention to safety and visiblilty. Park designs shall follow the use restrictions as outlined in the Folsom Municipal Code Chapter 9.68: Use of Park Facilities. The Parks and Recreation Commission shall review all park master development plans and make recommendations to the City Council for approval.	n/a	The project does not propose park uses. Therefore the policy does not apply to the project.
9.12	A Parks Master Plan shall be prepared for the Plan Area.	n/a	This policy affects the City and does not apply to individual developers.
9.13	If the existing slope of a park site shown on Figure 9.1 exceeds five percent, the site shall be rough graded by owner/developer/bullder dedicating the park land in accordance with grading plans approved by the City of Folsom Parks and Recreation Department. The cost to grade sites may be credited against park impact fees subject to city approval.	n/a	The project does not propose park uses. Therefore the policy does not apply to the project.

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9.14	Park land dedications are net areas in acres and exclude easements, wetlands, public rights-of-way and steep slopes or structures.	n/a	The project does not propose park uses. Therefore the policy does not apply to the project.
<b><i>Section 10 - Resource Management &amp; Sustainable Design</i></b>			
<b><i>Wetland Policies</i></b>			
10.1	Delineated wetlands shall be preserved to the greatest extent possible within open space areas and corridors, or otherwise provided for in protected areas.	Yes	Wetland permit has been issued for the project.
10.2	Where preservation is not feasible, mitigation measures shall be carried out as specified in the FPASP EIR/EIS.	Yes	Wetland permit has been issued for the project.



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<b>10.3</b>	Water quality certification based on Section 401 of the Clean Water Act shall be obtained before issuance of the Section 404 permit.	Yes	A water quality certification was issued.
<b>10.4</b>	Construction, maintenance, and monitoring of compensation wetlands shall be in accordance with requirements of the USACE, pursuant to the issuance of a Section 404 permit. Compensation wetlands may consist of one of the following:  10.4a: Constructed wetlands within designated open space areas or corridors in the Plan Area; 10.4b: Wetland credits purchased from a mitigation bank; and /or; 10.4c: The purchase of land at an off-site location to preserve or construct mitigation wetlands.  To ensure successful compensation wetlands, wetland feasibility studies shall be carried out in conjunction with request for permits from regulatory agencies prior to any construction.	Yes	Wetland permit has been issued for the project.
<b>10.5</b>	As part of the Section 404 permitting process, the project applicants shall prepare a wetland mitigation and monitoring plan (MMP). The plan shall include detailed information on the habitats present within the preservation and mitigation areas, the long-term management and monitoring of these habitats, legal protection for the preservation and mitigation areas (e.g., conservation easement, declaration of restrictions), and funding mechanism information (e.g., endowment). The plan shall identify participation within mitigation banks.	Yes	Wetland permit has been issued for the project.
<b>10.6</b>	Maintenance and monitoring of all compensation wetlands, whether constructed or purchased, shall be carried out by an approved monitoring agency or organization, and shall be in accordance with all federal, state, and local regulations. Monitoring shall continue for a minimum of 5 years from completion of mitigation or until performance standards have been met, whichever is longer	Yes	Wetland permit has been issued for the project.

**Rockcross at Folsom Ranch (Mangini Ranch Phase 2, Lot 10) Small Lot Vesting Tentative Subdivision Map:  
Applicant's FPASP Policy Consistency Analysis**

FPASP Policy No.	FPASP Policy Description	Map Consistent	Remarks
<b>10.7</b>	Special status vernal pool Invertebrates shall be protected as required by State and federal regulatory agencies. Where protection is not feasible, vernal pool Invertebrates shall be mitigated per the wetland mitigation and monitoring plan.	Yes	No special status species were identified in the project area and any impacts to offsite areas are covered by the Biological Opinion.
<i>Wildlife Policies</i>			
<b>10.8</b>	Tricolored blackbird nesting colony habitat, if any, shall be protected as required by State and federal regulatory agencies.	Yes	The Project will comply with mitigation measures in the FPASP EIR and Westland/Eagle SPA Addendum, including conducting preconstruction surveys. See MMRP.
<b>10.9</b>	A Swainson's Hawk mitigation plan shall be prepared to avoid loss of nesting areas if applicable.	Yes	It is the applicant's understanding that the City will soon approve a Swainson's Hawk Mitigation Plan. The project will comply with all relevant mitigation measures in this plan.
<b>10.10</b>	An incidental take permit shall be obtained to avoid impacts on the Valley Elderberry Longhorn Beetle (VELB), unless delisting has occurred.	Yes	The Project will comply with mitigation measures in the FPASP EIR and Westland/Eagle SPA Addendum. See MMRP. No Valley Elderberry Longhorn Beetle (VELB) were identified on the proposed project site.
<b>10.11</b>	Special-status bat roosts shall be protected as required by State and federal regulatory agencies.	Yes	The Project will comply with mitigation measures in the FPASP EIR and Westland/Eagle SPA Addendum, including conducting preconstruction surveys. See MMRP.

**Rockcross at Folsom Ranch (Mangini Ranch Phase 2, Lot 10) Small Lot Vesting Tentative Subdivision Map:  
Applicant's FPASP Policy Consistency Analysis**

FPASP Policy No.	FPASP Policy Description	Map Consistent	Remarks
<b>10.12</b>	The Sacramento-Yolo Mosquito and Vector Control District will provide year-round mosquito and vector control in accordance with state regulations and its Mosquito Management Plan.	n/a	This policy applies to the Sacramento-Yolo Mosquito and Vector Control District. Therefore the policy does not apply to the project.
<i>Oak Woodlands &amp; Isolated Oak Tree Policies</i>			
<b>10.13</b>	Preserve and protect in perpetuity approximately 399-acres of existing oak woodlands.	n/a	The proposed project does not have any oak woodlands or oak tree canopy to be preserved. Therefore the policy does not apply to the project.
<b>10.14</b>	The details of ownership, long term maintenance and monitoring of the preserved and mitigated oak woodlands and isolated oak tree canopy shall be specified in the FPASP Open Space Management Plan approved concurrently with the FPASP.	n/a	The proposed project does not have any oak woodlands or oak tree canopy to be preserved. Therefore the policy does not apply to the project.

**Rockcross at Folsom Ranch (Mangini Ranch Phase 2, Lot 10) Small Lot Vesting Tentative Subdivision Map:  
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FPASP Policy No.	FPASP Policy Description	Map Consistent	Remarks																								
10.15	<p>Oak trees included in residential and non-residential development parcel impacted oak woodlands are encouraged to be preserved wherever practical, provided preservation does not:</p> <p>a) Cause a reduction in the number of lots or a significant reduction in the size of residential lots.</p> <p>b) Require mass grading that eliminates level pads or requires specialized foundations.</p> <p>c) Require the use of retaining wall or extended earthen slopes greater than 4 feet in height, as measured from the bottom of the footing to the top of the retaining wall.</p> <p>d) Require the preservation of any trees certified by an arborist to be dead or in poor or hazardous or non-correctable condition or trees the pose a safety risk to the public.</p> <p>e) Cost more to preserve the tree than to mitigate for its loss, based on the Isolated Oak Tree Mitigation requirements listed below.</p>	n/a	The proposed project does not have any oak woodlands or oak tree canopy to be preserved. Therefore the policy does not apply to the project.																								
10.16	<p>Isolated oak trees in residential and non-residential development parcels shall be rated according to the following national rating system developed by the American Society of Consulting Arborists (ASCA):</p> <table border="1" data-bbox="326 1213 966 1444"> <thead> <tr> <th colspan="3">TABLE 10.1 ASCA TREE RATING SYSTEM</th> </tr> <tr> <th>RATING</th> <th>RATING NO.</th> <th>RATING DESCRIPTION</th> </tr> </thead> <tbody> <tr> <td>Excellent</td> <td>5</td> <td>No problem(s)</td> </tr> <tr> <td>Good</td> <td>4</td> <td>No apparent problem(s)</td> </tr> <tr> <td>Fair</td> <td>3</td> <td>Minor problem(s)</td> </tr> <tr> <td>Poor</td> <td>2</td> <td>Major problem(s)</td> </tr> <tr> <td>Hazardous or non-correctable</td> <td>1</td> <td>Extreme problem(s)</td> </tr> <tr> <td>Dead</td> <td>0</td> <td>Dead</td> </tr> </tbody> </table>	TABLE 10.1 ASCA TREE RATING SYSTEM			RATING	RATING NO.	RATING DESCRIPTION	Excellent	5	No problem(s)	Good	4	No apparent problem(s)	Fair	3	Minor problem(s)	Poor	2	Major problem(s)	Hazardous or non-correctable	1	Extreme problem(s)	Dead	0	Dead	n/a	The proposed project does not have any oak woodlands or oak tree canopy to be preserved. Therefore the policy does not apply to the project.
TABLE 10.1 ASCA TREE RATING SYSTEM																											
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FPASP Policy No.	FPASP Policy Description	Map Consistent	Remarks
10.17	As part of any small lot tentative subdivision map application submittal, prepare and submit a site map, a tree preservation program and arborist's report and both a canopy survey of oak trees in the development parcel as well as a survey of individual free standing oak trees. The surveys will show trees to be preserved and trees to be removed consistent with the requirements of FMC Chapter 12.16.	n/a	The proposed project does not have any oak woodlands or oak tree canopy to be preserved. Therefore the policy does not apply to the project.
10.18	For small lot tentative subdivision parcels that contain oak trees, a pre-application and conceptual project review is required to ensure that every reasonable and practical effort has been made by the applicant to preserve oak trees. At a minimum, the submittal shall consist of a completed application form, the site map, the tree preservation program, the arborist's report, an aerial photograph of the project site, the oak tree surveys, and a conceptual site plan and grading plan showing road and lot layouts and oak trees to be preserved or removed.	n/a	The proposed small lot tentative subdivision does not contain oak trees. Therefore the policy does not apply to the project.
10.19	Minor administrative modifications to the FPASP development standards, including but not limited to reduced parking requirements, reduced landscape requirement, reduced front and rear yard building setbacks, modified drainage requirements, increased building heights; and variations in lot area, width, depth and site coverage are permitted as part of the Design Review approval process in order to preserve additional oak trees within development parcels.	n/a	The proposed project does not have any oak woodlands or oak tree canopy to be preserved. Therefore the policy does not apply to the project.
10.20	When oak trees are proposed for preservation in a development parcel, ensure their protection during and after construction as outlined in FMC Chapter 12.16 – Tree Preservation. Once an individual residence or commercial building has received an occupancy permit, preserved trees on the property are subject to the requirements of FMC Chapter 12.16 – Tree Preservation.	n/a	The proposed project does not have any oak woodlands or oak tree canopy to be preserved. Therefore the policy does not apply to the project.

**Rockcross at Folsom Ranch (Mangini Ranch Phase 2, Lot 10) Small Lot Vesting Tentative Subdivision Map:  
Applicant's FPASP Policy Consistency Analysis**

FPASP Policy No.	FPASP Policy Description	Map Consistent	Remarks
<b><i>Cultural Resources Policies</i></b>			
<b>10.21</b>	The following shall be prepared prior to extensive grading or excavation: 10.21a: Existing archeological reports relevant to the Plan Area shall be reviewed by a qualified archaeologist. 10.21b: Areas found to contain or likely to contain archaeological resources shall be 10.21c: An Archaeological Resources Report shall be prepared, as appropriate. 10.21d: Copies of all records shall be submitted to the appropriate information center in the California Historical Resource Information System (CHRIS).	Yes	The proposed project has completed the archaeological surveys and reports described here and they have been submitted to the California Historical Resource Information System (CHRIS).
<b>10.22</b>	Publicly accessible trails and facilities in open space areas shall be located so as to ensure the integrity and preservation of historical and cultural resources as specified in the FPASP Community Design Guidelines and the Open Space Management Plan.	n/a	The project does not propose open space uses. Therefore the policy does not apply to the project.
<b>10.23</b>	Views toward cultural resources from publicly accessible trails and facilities shall be protected, where appropriate.	n/a	The project does not propose publicly accessible trails or facilities. Therefore the policy does not apply to the project.
<b>10.24</b>	Interpretive displays near cultural resources shall be unobtrusive and compatible with the visual form of the resources.	n/a	There are no cultural resources that require displays on the project site. Therefore the policy does not apply to the project.
<b><i>Water Quality Policies</i></b>			
<b>10.25</b>	Natural drainage courses within the Plan Area along Alder, Carson, Coyote, and Buffalo Creeks and their tributaries shall be preserved as required by state and federal regulatory agencies and incorporated into the overall storm water drainage system.	Yes	The proposed project is consistent with the drainage master plan, including the preservation measures for the referenced drainage features and waterways.
<b>10.26</b>	Trails located within open space corridors and areas shall be designed to include soil erosion control measures to minimize sedimentation of nearby creeks and maintain the natural state of drainage courses.	n/a	The project does not propose trails. Therefore the policy does not apply to the project.

**Rockcross at Folsom Ranch (Mangini Ranch Phase 2, Lot 10) Small Lot Vesting Tentative Subdivision Map:  
Applicant's FPASP Policy Consistency Analysis**

FPASP Policy No.	FPASP Policy Description	Map Consistent	Remarks
<b>10.27</b>	Public recreational facilities (e.g., picnic areas and trails) located within open space corridors or areas shall be subject to urban storm water best management practices, as defined in Section 10.3 – Sustainable Design.	n/a	The project does not propose open space uses. Therefore the policy does not apply to the project.
<b>10.28</b>	Best management practices shall be incorporated into construction practices to minimize the transfer of water borne particulates and pollutants into the storm water drainage system in conformance with FMC Chapters 8.70 – Stormwater Management & Discharge Control and 14.29 – Grading as well as current NPDES permit requirements and State Water Resources Control Board's Construction General Permit requirements.	Yes	The described BMPs will be incorporated in the notes section for the final improvement plans for the proposed project.
<b>10.29</b>	All mitigation specified in the FPASP EIR/EIS shall be implemented.	Yes	Mitigation Measures will be implemented.
<b>10.30</b>	Preference shall be given to biotechnical or non-structural alternatives, over alternatives involving revetments, bank regrading or installation of stream training structures.	Yes	Project will include measures in improvement plans.
<b><i>Alder Creek &amp; Floodplain Protection Policies</i></b>			
<b>10.31</b>	Alder Creek shall be preserved in its natural state, to the extent feasible, to maintain the riparian and wetland habitat adjacent to the creek.	n/a	The proposed project does not impact Alder Creek. Therefore the policy does not apply to the project.
<b>10.32</b>	All improvements and maintenance activity, including creek bank stabilization, adjacent to Alder Creek shall comply with the Clean Water Act Section 404 permits and the Central Valley Flood Protection Act of 2008 (SB 5).	n/a	The proposed project does not impact Alder Creek. Therefore the policy does not apply to the project.
<b>10.33</b>	Bank stabilization and other erosion control measure shall have a natural appearance, wherever feasible. The use of biotechnical stabilization methods is required within Alder Creek where it is technically suitable can be used instead of mechanical stabilization.	n/a	The proposed project does not impact Alder Creek. Therefore the policy does not apply to the project.

**Rockcross at Folsom Ranch (Mangini Ranch Phase 2, Lot 10) Small Lot Vesting Tentative Subdivision Map:  
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FPASP Policy No.	FPASP Policy Description	Map Consistent	Remarks
10.34	New drainage outfalls within or near Alder Creek, or improvements to existing outfalls, shall be designed and constructed utilizing low impact development (LID) practices in conformance with the most current National Pollutant Discharge Elimination (NPDE) regulations. Consistent with these practices, storm water collection shall be decentralized, its quality improved and its peak flow contained in detention facilities that will slowly release it back into the creek drainage outfalls and improvements shall be unobtrusive and natural in appearance (refer to Section 12.6 - Stormwater).	n/a	The proposed project does not impact Alder Creek. Therefore the policy does not apply to the project.
10.35	All Plan Area development projects shall avoid encroaching on the Alder Creek 200-year flood plain to ensure that no adverse alterations to the creek or the floodplain occur where practical. However, in the event encroachment is unavoidable, construction shall comply with the FPASP EIR/EIS mitigation measures, and all relevant provisions of the Central Valley Flood Protection Plan and FMC Chapter 14.23 – Flood Damage Prevention.	n/a	The proposed project does not impact Alder Creek. Therefore the policy does not apply to the project.
10.36	Plan Area streets that cross Alder Creek may be grade-separated from the creek to allow uninterrupted passage of wildlife and trail users. Adequate vertical clearance shall be provided under all such street crossings to allow safe, visible bicycle, pedestrian and equestrian travel. Any streets that cross Alder Creek and are grade-separated shall follow the standards established in FMC Chapter 10.28 – Bridges.	n/a	The proposed project does not impact Alder Creek. Therefore the policy does not apply to the project.
10.37	Emergency vehicle access along Alder Creek may be provided on Class I bike paths and/or separately designated emergency access roads (refer to Figure 7.29).	n/a	The proposed project does not impact Alder Creek. Therefore the policy does not apply to the project.
10.38	All lighting adjacent to Alder Creek shall be limited to bridges, underpasses, trailheads, public facilities and for other public safety purposes. Lighting fixtures shall be fully shielded and energy efficient.	n/a	The proposed project does not impact Alder Creek. Therefore the policy does not apply to the project.



**Rockcross at Folsom Ranch (Mangini Ranch Phase 2, Lot 10) Small Lot Vesting Tentative Subdivision Map:  
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FPASP Policy No.	FPASP Policy Description	Map Consistent	Remarks
<b>10.39</b>	Class I bike paths and other paved and unpaved trails may be constructed near Alder Creek in the SP-OS2 passive open space zone consistent with the FPASP Community Design Guidelines.	n/a	The proposed project does not impact Alder Creek. Therefore the policy does not apply to the project.
<b>10.40</b>	Public access points shall be located in areas where they have the least impact to the Alder Creek environment and designed to avoid sensitive plant wildlife habitat areas.	n/a	The proposed project does not impact Alder Creek. Therefore the policy does not apply to the project.
<b>10.41</b>	Re-vegetation and new planting along Alder Creek shall use California central valley and foothills native plants as described in the most current edition of River-Friendly Landscape Guidelines.	n/a	The proposed project does not impact Alder Creek. Therefore the policy does not apply to the project.
<b>10.42</b>	Adhere to the recommendations and policies of the Alder Creek Watershed Management Action Plan where feasible.	n/a	The proposed project does not impact Alder Creek. Therefore the policy does not apply to the project.
<b><i>Air Quality Policies</i></b>			
<b>10.43</b>	An Operational Air Quality Mitigation Plan has been prepared and approved by the Sacramento Metropolitan Air Quality Management District based on the District's CEQA guidelines dated July 2004. As required by LAFCO Resolution 1195 (dated 6 June 2001) the plan achieves a 35% reduction in potential emissions than could occur without a mitigation program.	Yes	The proposed project will comply with all applicable air quality mitigation measures.
<b>10.44</b>	The approved Operational Air Quality Mitigation measures shall be included as policies in the relevant sections of the FPASP.	Yes	The proposed project will comply with all applicable air quality mitigation measures.
<b>10.45</b>	Based on advisory recommendations included in Table 1-1 of the California Air Resources Board document entitled Air Quality and Land Use Handbook, avoid locating residential land uses within 500-feet of U.S. Highway 50.	Yes	Proposed residential land uses are more than 500-feet from U.S. Highway 50.

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FPASP Policy No.	FPASP Policy Description	Map Consistent	Remarks
10.46	Prohibit wood burning fireplaces in all residential construction.	Yes	Consistent with the Specific Plan and the Air Quality Management Plan, Wood burning fireplaces are not included in the project.
10.47	Provide complimentary electric lawnmowers to each residential buyer in the SF, SFHD and the MLD land uses.	Yes	Consistent with Specific Plan and Air Quality Management Plan, an electric lawnmower will be provided with each home.

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Applicant's FPASP Policy Consistency Analysis**

FPASP Policy No.	FPASP Policy Description	Map Consistent	Remarks
<b>Noise Policies</b>			
<b>10.48</b>	Residential developments must be designed and/or located to reduce outdoor noise levels generated by traffic to less than 60 dB.	Yes	The Project will comply with mitigation measures in the FPASP EIR and Westland/Eagle SPA Addendum, including noise reduction measures. See MMRP.
<b>10.49</b>	Noise from Aerojet propulsion system and routine component testing facilities affecting sensitive receptor areas shall be mitigated based on recommendations in the acoustical study.	n/a	The project will not be impacted by the Aerojet facilities. Therefore the policy does not apply to the project.
<b>10.50</b>	The Conditions, Covenants and Restrictions In the Department of Real Estate Public Report shall disclose that the Plan Area is within the Mather Airport flight path and that over flight noise may be present at various times.	Yes	Avigation easements have been recorded on the property and disclosures will be provided in CC&R's.
<b>10.51</b>	Landowner shall, prior to Tier 2 Development Agreement, record an easement over the property relating to noise caused by aircraft arriving or departing from Mather Airport.	Yes	Avigation easements have been recorded on the property.

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FPASP Policy No.	FPASP Policy Description	Map Consistent	Remarks
<i>Low Impact Development Policies</i>			
10.52	<p>Site specific development projects shall incorporate LID design strategies that include:</p> <p>10.52a: Minimizing and reducing the impervious surface of site development by reducing the paved area of roadways, sidewalks, driveways, parking areas, and roof tops;</p> <p>10.2b: Breaking up large areas of impervious surface area and directing stormwater flows away from these areas to stabilized vegetated areas;</p> <p>10.52c: Minimizing the impact of development on sensitive site features such as streams, floodplains, wetlands, woodlands, and significant on-site vegetation;</p> <p>10.52d: Maintaining natural drainage courses; and</p> <p>10.52e: Provide runoff storage dispersed uniformly throughout the site, using a variety of LID detention, retention, and runoff techniques that may include:</p> <ul style="list-style-type: none"> <li>• Bioretention facilities and swales (shallow vegetated depressions engineered to collect, store, and infiltrate runoff); and</li> </ul>	Yes	<p>The project is consistent with the City's Backbone Infrastructure Master Plan, which includes stormwater requirements. The portion of the proposed project that includes site-specific development has incorporated LID design strategies as described in section 10.52 of the EIR for the FPASP.</p>

**Rockcross at Folsom Ranch (Mangini Ranch Phase 2, Lot 10) Small Lot Vesting Tentative Subdivision Map:  
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FPASP Policy No.	FPASP Policy Description	Map Consistent	Remarks
	Landscape buffers, parkways, parking medians, filter strips, vegetated curb extensions, and planter boxes (containing grass or other close-growing vegetation planted between polluting sources (such as a roadway or site development) and downstream receiving water bodies).		
<i>Landscaping Policies</i>			
<b>10.53</b>	The Plan Area landscape palette shall consist of California Central Valley and foothills native plant species as described in the most current edition of River-Friendly Landscape Guidelines and drought tolerant adaptive plant species except at neighborhood entry gateways and similar high visibility locations where ornamental plant species may be preferred.	Yes	The project is designed to be consistent with the applicable design guidelines.
<b>10.54</b>	The use of turf is not allowed on slopes greater than 25% where the toe of the slope is adjacent to an impermeable hardscape. Consistent with CALGreen Tier 2 voluntary recommendations, all development projects within the Plan Area shall be encouraged to limit the use of turf to 25% of the total landscaped area.	n/a	The project does not include any slopes greater than 25%. Therefore the policy does not apply to the project.
<b>10.55</b>	Open space areas adjacent to buildings and development parcels shall maintain a fuel modification and vegetation management area in order to provide the minimum fuel modification fire break as required by State and local laws and ordinances. Additionally, development parcels adjacent to open space areas may be required to provide emergency access through the property to the open space by means of gates, access roads or other means approved by the City of Folsom Fire Department. Ownership and maintenance of open space areas, including fuel modification requirements and fire hazard reduction measures are outlined in the FPASP Open Space Management Plan.	Yes	The FPASP Open Space Management Plan provides for fuel modification measures.
<b>10.56</b>	Trees shall be interspersed throughout parking lots so that in fifteen (15) years, forty (40) percent of the parking lot will be in shade at high noon. At planting, trees shall be equivalent to a #15 container or larger.	n/a	The project does not include any parking lots. Therefore the policy does not apply to the project.
<i>Energy Efficiency Policies</i>			

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FPASP Policy No.	FPASP Policy Description	Map Consistent	Remarks
10.57	Conservation of energy resources will be encouraged through site and building development standards.	Yes	The proposed project will employ energy conservation standards for site and building development. Each home will include solar, tankless water heaters, 2x6 exterior walls providing high-efficient insulation, radiant barrier and independent third-party testing.
10.58	Buildings shall incorporate site design measures that reduce heating and cooling needs by orienting buildings on the site to reduce heat loss and gain depending on the time of day and season of the year.	n/a	Design Review approval is not being sought at this time. Each home will include solar, tankless water heaters, 2x6 exterior walls providing high-efficient insulation, radiant barrier and independent third-party testing.
10.59	Solar access to homes shall be considered in the design of residential neighborhoods to optimize the opportunity for passive and active solar energy strategies.	n/a	Design Review approval is not being sought at this time. Each home will include solar, tankless water heaters, 2x6 exterior walls providing high-efficient insulation, radiant barrier and independent third-party testing.
10.60	Multi-family and attached residential units shall be oriented toward southern exposures, where site conditions permit.	n/a	The project proposes detached single-family residential units. Where site conditions permit, however, units will be oriented toward sothern exposure.

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FPASP Policy No.	FPASP Policy Description	Map Consistent	Remarks
10.61	Buildings shall be designed to incorporate the use of high quality, energy efficient glazing to reduce heat loss and gain.	n/a	The project is designed to comply with the applicable Design Guidelines and standards. Though Design review approval is not being sought at this time, the required features will be verified during the building plan check process.
10.62	Energy efficient appliances, windows, insulation, and other available technologies to reduce energy demands will be encouraged.	n/a	The project is designed to comply with the applicable Design Guidelines and standards. Though Design review approval is not being sought at this time, the required features will be verified during the building plan check process.
10.63	Office park uses shall install automatic lighting and thermostat features.	n/a	The project does not include office uses. Therefore the policy does not apply to the project.
10.64	Commercial and public buildings shall use energy efficient lighting with automatic controls to minimize energy use.	n/a	The project does not include commercial or public buildings. Therefore the policy does not apply to the project.
10.65	Energy Star certified equipment and appliances shall be installed, to include: 10.65a - Residential appliances; heating and cooling systems; and roofing; and 10.65b - Nonresidential appliances and office equipment; heating, cooling, and lighting control systems; and roofing	n/a	The project is designed to comply with the applicable Design Guidelines and standards. Though Design review approval is not being sought at this time, the required features will be verified during the building plan check process.

**Rockcross at Folsom Ranch (Mangini Ranch Phase 2, Lot 10) Small Lot Vesting Tentative Subdivision Map:  
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FPASP Policy No.	FPASP Policy Description	Map Consistent	Remarks
10.66	<p>Commercial, residential, and public projects shall be designed to allow for the possible installation of alternative energy technologies including active solar, wind, or other emerging technologies, and shall comply with the following standards: 10.66a - Installation of solar technology on buildings such as rooftop photovoltaic cell arrays shall be installed in accordance with the State Fire Marshal safety regulations and guidelines.</p> <p>10.66b - Standard rooftop mechanical equipment shall be located in such a manner so as not to preclude the installation of solar panels.</p> <p>10.66c - Alternative energy mechanical equipment and accessories installed on the roof of a building, they shall be integrated with roofing materials and/or blend with the structure's architectural form.</p>	n/a	Design Review approval is not being sought at this time. Each home will include solar, tankless water heaters, 2x6 exterior walls providing high-efficient insulation, radiant barrier and independent third-party testing.
10.67	Radiant solar heating or similar types of energy efficient technologies, shall be installed in all swimming pools.	n/a	The project is designed to comply with the applicable Design Guidelines and standards. Though Design review approval is not being sought at this time, any required features will be verified during the building plan check process.



**Rockcross at Folsom Ranch (Mangini Ranch Phase 2, Lot 10) Small Lot Vesting Tentative Subdivision Map:  
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FPASP Policy No.	FPASP Policy Description	Map Consistent	Remarks
10.68	Electrical outlets shall be provided along the front and rear exterior walls of all single family homes to allow for the use of electric landscape maintenance tools.	n/a	The project is designed to comply with the applicable Design Guidelines and standards. Though Design review approval is not being sought at this time, the required features will be verified during the building plan check process.
10.69	The city will strive to ensure that all new publicly owned buildings within the Plan Area will be designed, constructed and certified at LEED-NC certification levels.	n/a	The project does not propose any publicly owned buildings. Therefore the policy does not apply to the project.
10.70	The City of Folsom shall undertake all cost-effective operational and efficiency measures and consider the installation of onsite renewable energy technologies within appropriate portions of the Plan Area, including parks, landscape corridors and open space areas.	n/a	This is a City requirement, not a project-specific requirement. The City of Folsom has plans in place to undertake the described cost-effective operational and efficiency measures and consider the installation of onsite renewable energy technologies within appropriate portions of the Plan Area, including parks, landscape corridors and open space areas.
<i>Water Efficiency Policies</i>			

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FPASP Policy No.	FPASP Policy Description	Map Consistent	Remarks
10.71	All office, commercial, and residential land uses shall be required to install water conservation devices that are generally accepted and used in the building industry at the time of development, including low-flow plumbing fixtures and low-water-use appliances.	n/a	The project is designed to comply with the applicable Design Guidelines and standards. Though Design review approval is not being sought at this time, the required features will be verified during the building plan check process.
10.72	A backbone "purple pipe" non-potable water system shall be designed and installed where feasible and practical to supply non-potable water to park sites, landscape corridors, natural parkways and other public landscaped spaces within the Plan Area.	n/a	Purple pipe has been incorporated into the Specific Plan for major collector roadway landscaping and funding is provided in the PFFP. Purple pipe infrastructure is not the applicant's responsibility.
10.73	Water efficient irrigation systems, consistent with the requirements of the latest edition of the California Model Water Efficient Landscape Ordinance, or similar ordinance adopted by the City of Folsom, shall be mandatory for all public agency projects and all private development projects with a landscape area equal to or greater than 2,500 square feet requiring a building or landscape permit, plan check or design review.	Yes	The project is designed to comply with the applicable Design Guidelines. Water efficient irrigation systems will be employed for use in project-area landscaping.

**Rockcross at Folsom Ranch (Mangini Ranch Phase 2, Lot 10) Small Lot Vesting Tentative Subdivision Map:  
Applicant's FPASP Policy Consistency Analysis**

FPASP Policy No.	FPASP Policy Description	Map Consistent	Remarks
<b><i>Material Conservation &amp; Resource Efficiency Policies</i></b>			
<b>10.74</b>	Use "Green" certified construction products whenever feasible.	Yes	Builders in the proposed project will be required to use "Green" certified construction products whenever feasible. The project will comply with all relevant requirements in the City Code and State Building Code.
<b>10.75</b>	Prepare a construction waste management plan for individual construction projects.	Yes	Prior to construction, a construction waste management plan will be prepared for individual construction projects within the proposed project.
<b>10.76</b>	A minimum of 50% of the non-hazardous construction waste generated at a construction site shall be recycled or salvaged for reuse.	Yes	The plan described in Section 10.75 will provide for a minimum of 50% of the non-hazardous construction waste generated at a construction site to be recycled or salvaged for reuse.
<b>10.77</b>	Topsoil displaced during grading and construction shall be stockpiled for reuse in the Plan Area.	Yes	Topsoil displaced during grading and construction of the proposed project shall be stockpiled for reuse in the Plan Area.
<b><i>Environmental Quality Policies</i></b>			
<b>10.78</b>	All HVAC and refrigeration equipment shall not contain chlorofluorocarbons (CFCs).	Yes	California outlawed the use of HFCs in 2018. The project is designed to comply with California law.

**Rockcross at Folsom Ranch (Mangini Ranch Phase 2, Lot 10) Small Lot Vesting Tentative Subdivision Map:  
Applicant's FPASP Policy Consistency Analysis**

FPASP Policy No.	FPASP Policy Description	Map Consistent	Remarks
10.79	All fire suppression systems and equipment shall not contain halons.	Yes	The project is designed to comply with the applicable Design Guidelines and standards. Though Design review approval is not being sought at this time, the required features will be verified during the building plan check process.
10.80	Provide accessible screened areas that are identified for the depositing, storage and collection of non-hazardous materials for recycling for commercial, industrial/office park, mixed-use, public-use and multi-family residential projects.	Yes	Same remark as in Section 10.79.
10.81	Particleboard, medium density fiberboard (MDF) and hardwood plywood shall comply with low formaldehyde emission standards.	Yes	Same remark as in Section 10.79.
10.82	Limit the use of volatile organic compounds (VOC) in all construction materials.	Yes	same remark as in Section 10.79.
<b>Section 11 - Public Services and Facilities</b>			
11.1	Public schools will be constructed in the Plan Area in accordance with the City Charter and state law.	n/a	There are no public schools or public service facilities in the proposed project. Therefore the policy does not apply to the project.
11.2	All public service facilities shall participate in the City's recycling program.	n/a	No public facilities are being proposed with this project. Therefore the policy does not apply to the project.
11.3	Energy efficient technologies shall be incorporated in all Public Service buildings	n/a	No public facilities are being proposed with this project. Therefore the policy does not apply to the project.

**Rockcross at Folsom Ranch (Mangini Ranch Phase 2, Lot 10) Small Lot Vesting Tentative Subdivision Map:  
Applicant's FPASP Policy Consistency Analysis**

FPASP Policy No.	FPASP Policy Description	Map Consistent	Remarks
11.4	Passive solar design and/or use of other types of solar technology shall be incorporated in all public service buildings.	n/a	No public facilities are being proposed with this project. Therefore the policy does not apply to the project.
11.5	The city shall strive to ensure that all public service buildings shall be built to silver LEED NC standards.	n/a	No public facilities are being proposed with this project.
11.6	Utilize Crime Prevention Through Environmental Design (CPTED) principles in the design of all public service buildings.	n/a	No public facilities are being proposed with this project. Therefore the policy does not apply to the project.
11.7	If the existing slope of a public facilities site shown on Figure 11.1 exceeds five percent, the site shall be rough graded by the owner/developer/builder dedicating the public facilities site in accordance with grading plans approved by the City of Folsom, subject to a credit and/or reimbursement agreement.	n/a	There are no public schools or public service facilities in the proposed project. Therefore the policy does not apply to the project.
11.8	Plan Area landowners shall, prior to approval of the annexation by LAFCo and prior to any Tier 2 Development Agreement, whichever comes first, comply with the schools provision in Measure W (Folsom Charter Provision Section 7.08D) and incorporate feasible school impact mitigation requirements as provided in LAFCo Resolution No. 1196, Section 13.	Yes	Project will comply with school district and charter requirements with respect to Measure W.
<b>Section 12 - Utilities</b>			
12.1	Consistent with the provisions of City Charter Article 7.08 (A), the FPASP shall "identify and secure the source of water supply(is) to serve the Plan Area. This new water supply shall not cause a reduction in the water supplies designated to serve existing water users north of Highway 50 and the new water supply shall not be paid for by Folsom residents north of Highway 50.	Yes	This is a City requirement, not a project-specific requirement. The project is consistent with the FPASP and complies with the City's water supply agreement.

**Rockcross at Folsom Ranch (Mangini Ranch Phase 2, Lot 10) Small Lot Vesting Tentative Subdivision Map:  
Applicant's FPASP Policy Consistency Analysis**

FPASP Policy No.	FPASP Policy Description	Map Consistent	Remarks
12.2	Design and construct the necessary potable water, non-potable water for irrigation, wastewater and stormwater infrastructure require to serve the Plan Area. All infrastructure improvements shall follow the requirements established in the Water Master Plan, Wastewater Master Plan and the Storm Drainage Master Plan. Improvements will be based on phasing of development.	n/a	The policy affects the City and does not apply to individual developers. Therefore the policy does not apply to the project.
12.3	Land shall be reserved for the construction of public utility facilities that are not planned within road rights-of-way, as required by the City of Folsom.	Yes	Land is being reserved for public utilities as described where needed.
12.4	Utilize Best Management Practices (BMPs) where feasible and appropriate.	Yes	BMPs will be utilized where feasible and appropriate.
12.5	Urban runoff will be treated prior to discharging to a water of the state (i.e. creek, wetland) in accordance with the City's most current Municipal Stormwater Permit requirements for new development.	Yes	Project complies with permit requirements.
12.6	Employ Low Impact Development (LID) practices, as required by the City of Folsom, in conformance with the City's stormwater quality development standards.	Yes	The project is consistent with the Specific Plan requirements and the City requirements as they are updated from time to time.
<b>Section 13 - Implementation</b>			
<i>Financing Policies</i>			
13.1	The Plan Area shall fund its proportional share of regional backbone infrastructure costs and the full costs for primary and secondary backbone infrastructure.	Yes	Project is consistent with Public Facilities Financing Plan.
13.2	The Plan Area shall fund the its proportional share of the costs for Plan Area public facilities including the municipal center, police and fire department stations, the city corp yard and community, neighborhood and local parks.	Yes	Project is consistent with Public Facilities Financing Plan.
13.3	The City of Folsom shall apply for Sacramento Countywide Transportation Mitigation fee funding to help fund all eligible regional road backbone infrastructure.	n/a	This is a City requirement. Therefore the policy does not apply to the project.

**Rockcross at Folsom Ranch (Mangini Ranch Phase 2, Lot 10) Small Lot Vesting Tentative Subdivision Map:  
Applicant's FPASP Policy Consistency Analysis**

FPASP Policy No.	FPASP Policy Description	Map Consistent	Remarks
13.4	A Plan Area fee will be created to fund backbone infrastructure and a proportional cost allocation system will be established for each of the Plan Area property owners.	n/a	The policy affects the City and does not apply to individual developers. Therefore the policy does not apply to the project.
13.5	City of Folsom Impact and capital improvement fees shall be used to fund Plan Area backbone infrastructure and public facilities where allowed by law.	n/a	The policy affects the City and does not apply to individual developers. Therefore the policy does not apply to the project.
13.6	One or more Community Facilities Districts shall be created in the Plan Area to help finance backbone infrastructure and public facilities costs and other eligible improvements and/or fees.	n/a	The policy affects the City and does not apply to individual developers. Therefore the policy does not apply to the project.

**Rockcross at Folsom Ranch (Mangini Ranch Phase 2, Lot 10) Small Lot Vesting Tentative Subdivision Map:  
Applicant's FPASP Policy Consistency Analysis**

FPASP Policy No.	FPASP Policy Description	Map Consistent	Remarks
<i>Phasing Policies</i>			
13.7	Submit a conceptual backbone infrastructure phasing plan for the appropriate development area with the first tentative map or building permit submittal. Updating of the conceptual backbone infrastructure phasing plan shall be a requirement of subsequent tentative map or building permit applications for each development area.	n/a	The policy affects the City and does not apply to individual developers. Therefore the policy does not apply to the project.
<i>Maintenance Policies</i>			
13.8	Create one or more Landscaping and Lighting Districts in the Plan Area for the maintenance and operation of public improvements and facilities and open space.	Yes	A Community Facilities District will be formed to implement policy.



**Planning Commission  
Rockcross Subdivision (PN 19-388)  
July 15, 2020**

**Exhibit 4  
Noise Assessment by Bollard Acoustical  
(See Attachment 14)**

Planning Commission  
Rockcross Subdivision (PN 19-388)  
July 15, 2020

**Exhibit 5**  
**Traffic Impact Analysis by Kimley-Horn**  
**Dated December 1, 2017**

P16030

**Final Mangini Ranch Phase 2 Transportation Impact Study**  
**Folsom, California**

Prepared for:  
City of Folsom  
Carpenter East, LLC  
Folsom Real Estate South, LLC

Prepared By



**T.KEAR**

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September 5, 2017  
Revised December 1, 2017

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## EXECUTIVE SUMMARY

This transportation impact study identifies impacts of the proposed Mangini Ranch Phase 2 (the project) on the motorized and unmotorized transportation systems in Folsom, California. This study has been prepared for the City of Folsom; Carpenter East, LLC; and Folsom Real Estate South, LLC. This introductory section provides a detailed project description followed by a discussion of the assumed absorption of other Folsom Plan Area Specific Plan (FPASP) land uses over the next five years, and anticipated changes in the road network.

### Project Description

The project includes 545 dwelling units (DUs), situated within the FPASP, and the Westland/Eagle Specific Plan Amendment (W/E SPA), for which tentative map approval is sought. There are an additional 356 multi-family DUs that are not part of the tentative map application, but are included in the site plan as part of a large lot tentative map. While not considered part of the project, construction of these units is foreseeable and they were included as part of the future land use assumptions without the project. Project access will be via Scott Road and portions of Alder Creek Parkway, Street "1", Savannah Parkway, and Westwood Drive. Note that Westwood Drive is not assumed to connect to, or through, Placerville Road; rather it terminates at the driveway access to "Village 6". The project, and affiliated large lot tentative map, affect 15 FPASP parcels located between Scott Road and existing Placerville Road, south of Alder Creek Road and north of the Alder Creek tributary. A preliminary site plan is provided as **Figure ES-1** below.

### Analysis Scope

The analysis considers the traffic operations at intersections in the FPASP and Folsom that could potentially be impacted by project traffic. Study intersections and segments are listed in **Table ES-1** through **Table ES-3**. This transportation impact study considers Existing Conditions with and without the Project, and Existing Plus Planned and Approved Projects (EPPAP) Conditions with and without the project. Cumulative traffic impacts were evaluated in the FPASP Environmental Impact Statement (EIR)<sup>1</sup> and W/E SPA amendment<sup>2</sup> per CEQA section 15182<sup>3</sup>

However, a cumulative analysis of the ultimate lane and geometry requirements at intersections internal and adjacent to the project was conducted to identify and document where additional right-of-way dedications may be necessary to accommodate right and left turn pockets and/or tapers in the future. This internal analysis is included as **Appendix D** of this report.

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<sup>1</sup> Public Draft EIR/EIS: Folsom South of U.S. 50 Specific Plan Project, June 2010, and CEQA Findings of Fact and Statement of Overriding Considerations, May 2011, SCH #2008092051.

<sup>2</sup> F Westland/Eagle Specific Plan Amendment: Addendum and Environmental Checklist, June 2015.

<sup>3</sup> 14 CCR 15182.

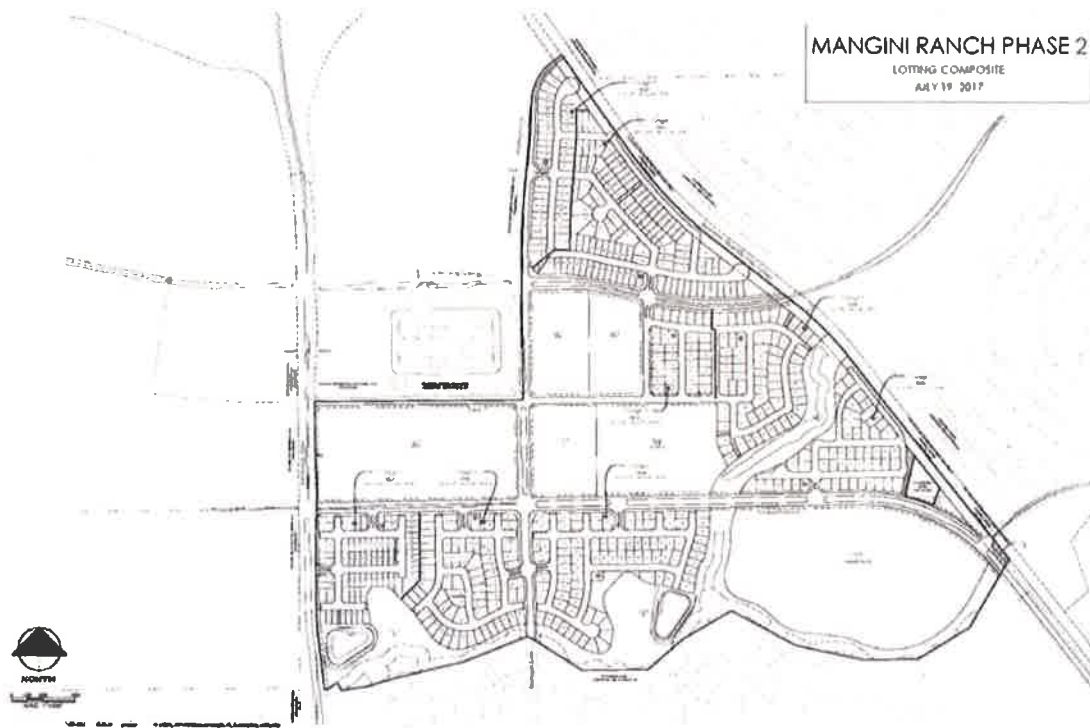


Figure ES-1. Preliminary Site Plan

**Table ES-1. Study Intersections**

<b>Study Intersection</b>	<b>Exdstng 2016 Conditions</b>	<b>Exdstng 2016 with Project Conditions</b>	<b>EPPAP Conditions</b>	<b>EPPAP with Project Conditions</b>
1. Broadstone Pkwy./East Bidwell St.	Signal	Signal	Signal	Signal
2. Oak Ave./Iron Point Rd.	Signal	Signal	Signal	Signal
3. Rowberry Dr./Iron Point Rd.	Signal	Signal	Signal	Signal
4. Broadstone Pkwy./Iron Point Rd.	Signal	Signal	Signal	Signal
5. East Bidwell St./Iron Point Rd. (Folsom)	Signal	Signal	Signal	Signal
6. Cavitt Dr./Iron Point Rd. (Folsom)	Signal	Signal	Signal	Signal
7. Serpa Way/Iron Point Rd. (Folsom)	Signal	Signal	Signal	Signal
8. East Bidwell St./Placerville Rd. (Folsom)	Signal	Signal	Signal	Signal
9. East Bidwell St./WB U.S. 50 ramps (Caltrans)	Signal	Signal	Signal	Signal
10. East Bidwell St./EB U.S. 50 ramps (Caltrans)	Signal	Signal	Signal	Signal
11. East Bidwell St./White Rock Rd. (Folsom)	AWSC	AWSC	AWSC	AWSC
12. White Rock Rd./Placerville Rd.	TWSC	TWSC	TWSC	TWSC
13. East Bidwell St./Alder Creek Pkwy.	-	AWSC	AWSC	AWSC
14. Westwood Dr./Alder Creek Pkwy.	-	AWSC	AWSC	AWSC
15. East Bidwell St./Street "1"	-	TWSC	TWSC	TWSC
16. Westwood Dr./Street "1"	-	TWSC	TWSC	TWSC
17. East Bidwell St./Savannah Pkwy	-	TWSC	TWSC	TWSC
18. Westwood Dr./Savannah Pkwy	-	AWSC	AWSC	AWSC
19. East Bidwell St./Mangini Pkwy	-	-	TWSC	TWSC
20. Westwood Dr./Mangini Pkwy	-	-	AWSC	AWSC
21. Placerville Rd./Mangini Pkwy	-	-	TWSC-	TWSC

**Table ES-2. Arterial Study Segments**

<b>Segment</b>	<b>Location</b>
1. East Bidwell St.	North of White Rock Rd.
2. White Rock Rd.	West of East Bidwell St.
3. White Rock Rd.	East of East Bidwell St.

**Table ES-3. US 50 Study Segments**

<b>Eastbound US 50 Existing and EPPAP Scenarios</b>	<b>Analysis Type</b>
1. EB East Bidwell St. slip off-ramp	Diverge
2. EB between East Bidwell St. ramps	Basic
3. EB East Bidwell St. loop on-ramp	Merge
4. EB East Bidwell St. slip on-ramp	Merge
<b>Westbound US 50 Existing and EPPAP Scenarios</b>	<b>Analysis Type</b>
5. WB East Bidwell slip off-ramp	Diverge
6. WB between E. Bidwell St. ramps	Basic
7. WB East Bidwell St. loop on-ramp	Merge
8. WB East Bidwell St. slip on-ramp II	Merge

### Findings

The 545 dwelling units in the Mangini Ranch Phase 2 project are anticipated to generate approximately 4,800 daily trips, 385 AM peak-hour trips, and 503 PM peak-hour trips. With the proposed recommendations, the project does not create any new significant impacts under Existing with Project Conditions.

All arterial and freeway study segments were found to operate at acceptable levels-of-service both with and without the project under all study scenarios.

Five deficient study intersections were identified under the Existing with Project Condition, and recommendations are provided to reduce those deficiencies to a **less-than-significant** level at four of those locations. The remaining location (Intersection 5 East Bidwell Street/Iron Point Road) is addressed through FPASP mitigation 3A.14-4d and W/E SPA mitigation 4.16.1, both of which require eight-lane roadways and were deemed infeasible with the adoption of a Statement of Overriding Considerations. **Table ES-4** summarizes improvements that should be incorporated into the conditions of approval.



**Table ES-4. Recommended Improvements**

Location	Description	Section 7.3 Recommendation
5. East Bidwell St./Iron Point Rd.	Pay Fees	4
11. East Bidwell St./White Rock Rd.	Signalize with free right turns	5
12. White Rock Rd./Placerville Rd.	Convert southbound approach into channelized right turn to westbound White Rock Road	6
13. East Bidwell St./Alder Creek Pkwy	Signalize and expand East Bidwell to a four-lane arterial north of Alder Creek Parkway.	7
17. East Bidwell St./Savannah Pkwy.	Signalize and add a westbound left turn pocket	8

Section 7 of this report detailed additional recommendations developed for the Existing Condition and EPPAP Condition without the project to address intersections that fail to maintain adequate level-of-service, prior to the addition of project traffic. Recommendations are also provided for intersections where deficiencies are worsened by the addition of project traffic and traffic from the other 2,031 homes that are assumed to be constructed in The Enclave, Mangini Ranch Phase 1, Russell Ranch, Broadstone Estates, Folsom Heights, White Rock Springs Ranch. The project should pay an appropriate share toward those improvements

Additionally, the project should be conditioned to abide by the transportation mitigations identified in the FPASP and W/E SPA. These include:

- Applicable FPASP mitigation: 3A.14.1, 3A.15-1a, 3A.15-1b, 3A.15-1c, 3A.15-1f, 3A.15-1i, 3A.15-1j, 3A.15-1l, 3A.15-1o, 3A.15-1p, 3A.15-1q, 3A.15-1r, 3A.15-1s, 3A.15-1u, 3A.15-1v, 3A.15-1w, 3A.15-1x, 3A.15-1y, 3A.15-1z, 3A.15-1aa, 3A.15-1dd, 3A.15-1ee, 3A.15-1ff, 3A.15-1gg, 3A.15-1hh, 3A.15-1ii, 3A.15-2a, 3A.15-2b, 3A.15-2c, 3A.15-3, 3A.15-4a, 3A.15-4b, 3A.15-4c, 3A.15-4d, 3A.15-4f, 3A.15-4g, 3A.15-4i, 3A.15-4j, 3A.15-4k, 3A.15-4l, 3A.15-4m, 3A.15-4n, 3A.15-4o, 3A.15-4p, 3A.15-4q, 3A.15-4r, 3A.15-4s, 3A.15-4t, 3A.15-4u, 3A.15-4v, 3A.15-4w, 3A.15-4x, and 3A.15-4y.
- Applicable W/E SPA mitigation: 4.16.1, and 4.16.2
- Additional FPASP mitigation listed in the W/E SPA that was not included in the FPASP CEQA Findings of Fact and Statement of Overriding Considerations: 3A.15-1e, 3A.15-1h, and 3A.15-4e.

These mitigations, discussed in Section 7 of this report, primarily require payment of applicable fees. With implementation of the Identified mitigation, project impacts are **less-than-significant**.

**Figure ES-2** below identifies where the potentially significant project deficiencies identified and the associated improvements and recommendations associated with each.



Figure ES-2. Study Locations, Deficiencies, And Recommendations

### Recommended Conditions of Approval

Findings for each of the four study intersections are reported below, organized by the number of dwelling units that trigger the improvements to be conditioned. **Figure ES-4** provides an overview of the East Bidwell Street corridor lane configuration between the US 50 eastbound ramps and the southern edge of the tentative map.

#### Zero Dwelling Units

##### **Condition 1: East Bidwell Street/Savannah Parkway (Figure ES-4)**

Prior to issuance of the first occupancy permit, the Owner/Applicant shall be responsible for configuring the East Bidwell Street/Savannah Parkway intersection as follows:

- Southbound approach: one thru lane, and one left-turn lane with a 100' long left-turn pocket for the left-turn lane.
- Northbound approach: one shared thru-right turn lane.
- Westbound approach: one shared left-right turn lane, and a striped out 60' left turn pocket
- Control: Two-way-stop-control (TWSC), with full access.

Between "Street 1" and the southern boundary of the Tentative Map, East Bidwell Street shall be constructed as a two-lane arterial on the eastern "half segment" of its ultimate configuration. This two-lane segment shall have a striped 2' wide striped median south of "Street 1", consistent with the California Manual on Uniform Traffic Control Devices<sup>4</sup> (MUTCD) Figure 3A-107 (CA), or similar standard. The southbound left turn pocket shall be developed in accordance with the Highway Design Manual<sup>5</sup> (HDM) figure 405.2A, or similar standard. Savannah Parkway shall have a 12' raised median. Final improvement plans shall be approved by the City Engineer.

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<sup>4</sup> Caltrans (2014) California Manual on Uniform Traffic Control Devices – 2014 Edition (Revision 2), California Department of Transportation, April 7, 2017.

<sup>5</sup> Caltrans (2012) Highway Design Manual – Chapter 400, California Department of Transportation, May 7, 2012.

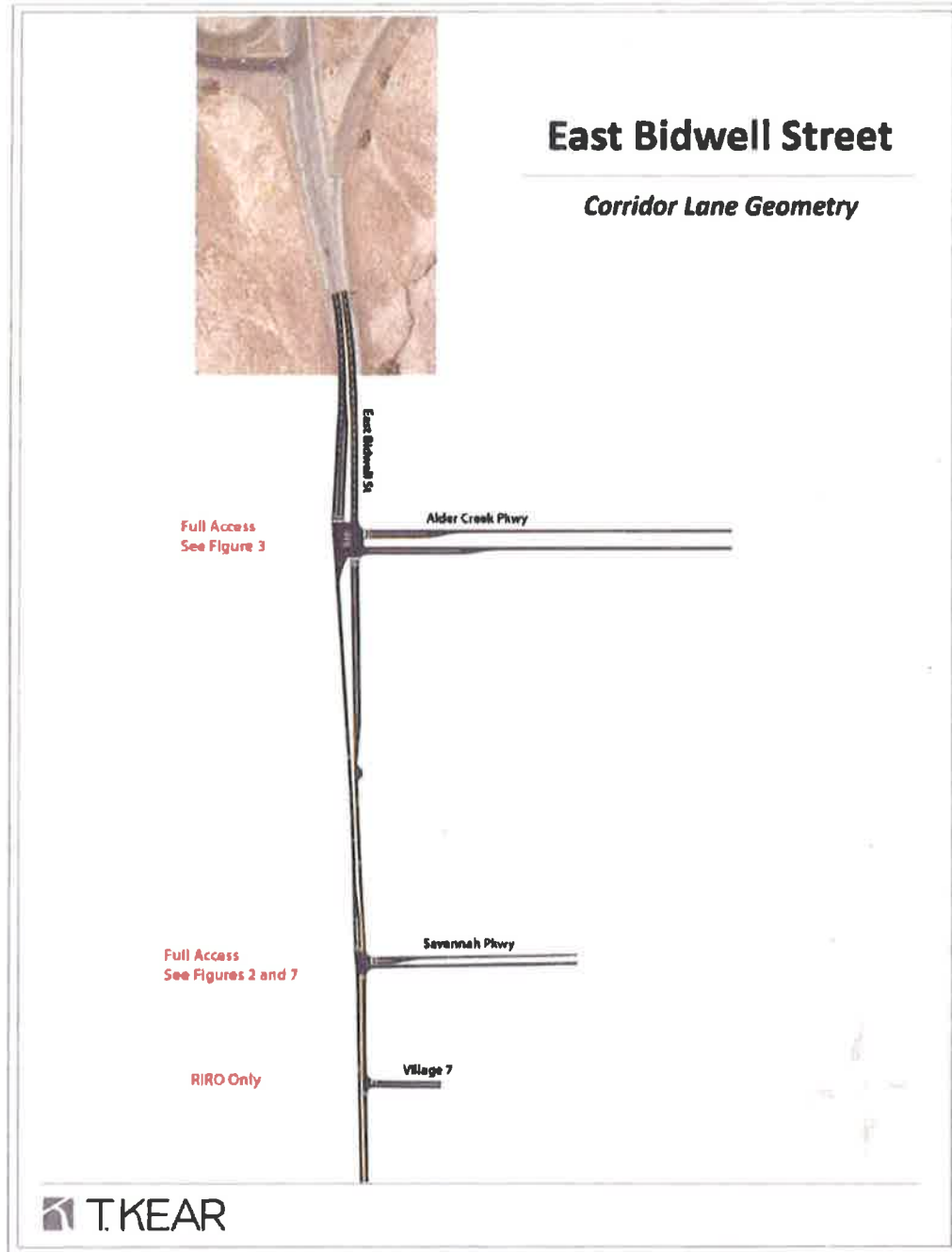


Figure ES-3. East Bidwell Street Corridor Lane Geometry

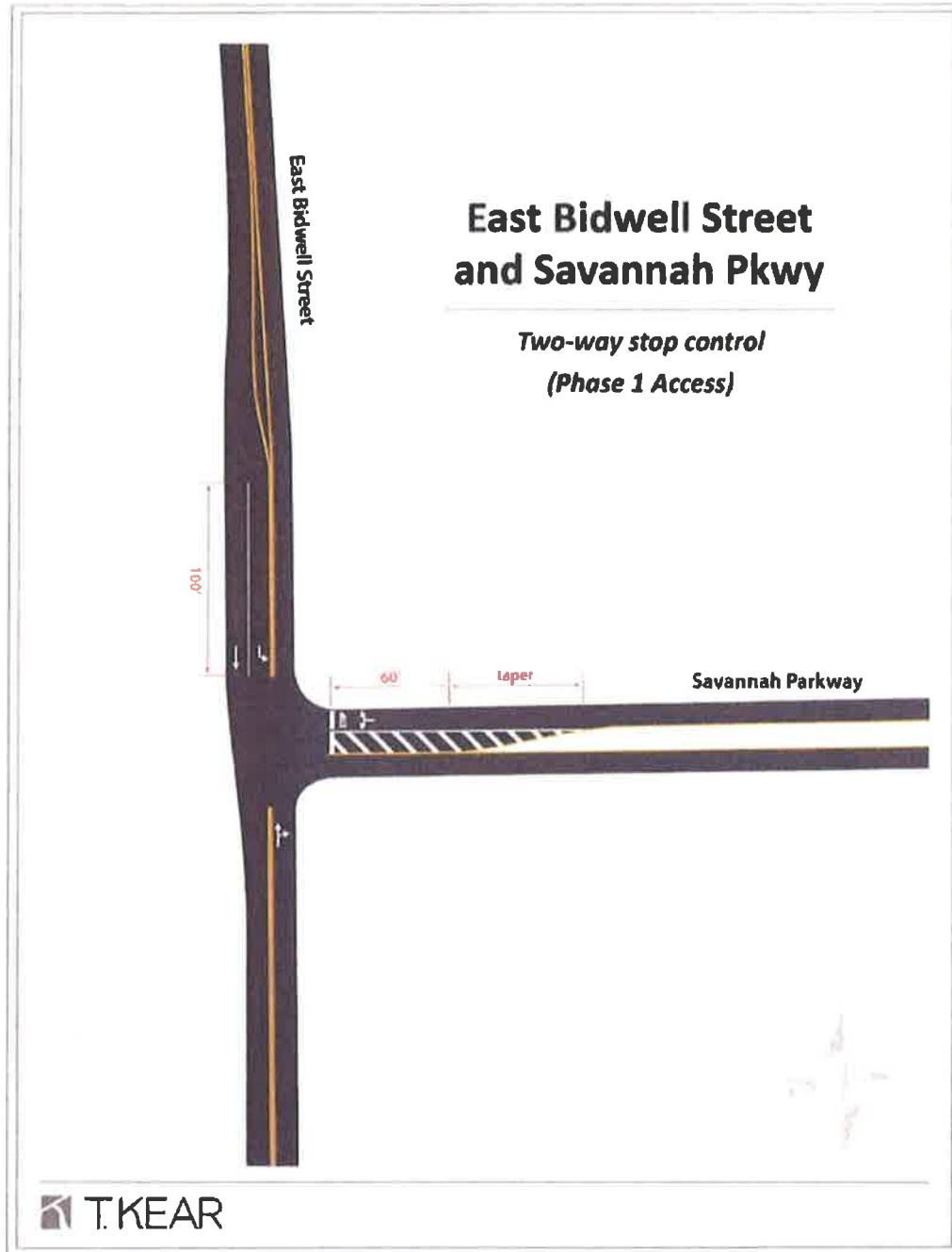


Figure ES-4. East Bidwell Street/Savannah Parkway TWSC

236 Dwelling Units

**Condition 2: East Bidwell Street/Alder Creek Parkway (Figure ES-5)**

Prior to the 236<sup>th</sup> occupancy permit, the owner Applicant shall be responsible for expanding and signalizing the East Bidwell Street/Alder Creek Parkway intersection:

- Southbound approach: one thru lane, and two left-turn lanes, with a 300' long single-lane left turn pocket for one of the left turning lanes.
- Northbound approach: one thru lane and one shared thru-right lane with a 500' long right turn pocket for the shared thru-right lane.
- Westbound approach: one right-turn lane and one left-turn lane, with a 200' left-turn pocket for the left-turn lane.
- Eastbound departure: two receiving lanes shall be provided. the second receiving lane can be dropped after 300'
- Control: Signalize with a protected southbound left-turn, westbound split phasing, and westbound right-turn overlap. Prohibit U-turns.

East Bidwell Street shall be constructed as a four-lane divided arterial between Alder Creek Parkway and the US 50 interchange, with a 38' raised median at Alder Creek Parkway that tapers back to match the existing four-lane arterial segment at the eastbound US 50 slip onramp. East Bidwell Street shall be constructed as a two-lane divided arterial between Alder Creek Parkway and Street "1", with a 38' raised median at Alder Creek Parkway that tapers back to match the two-lane half segment described in Condition 1 above. Alder Creek Parkway between East Bidwell Street and Westwood Drive shall be constructed as a two-lane divided roadway with a 38' raised median. Final improvement plans shall be approved by the City Engineer.

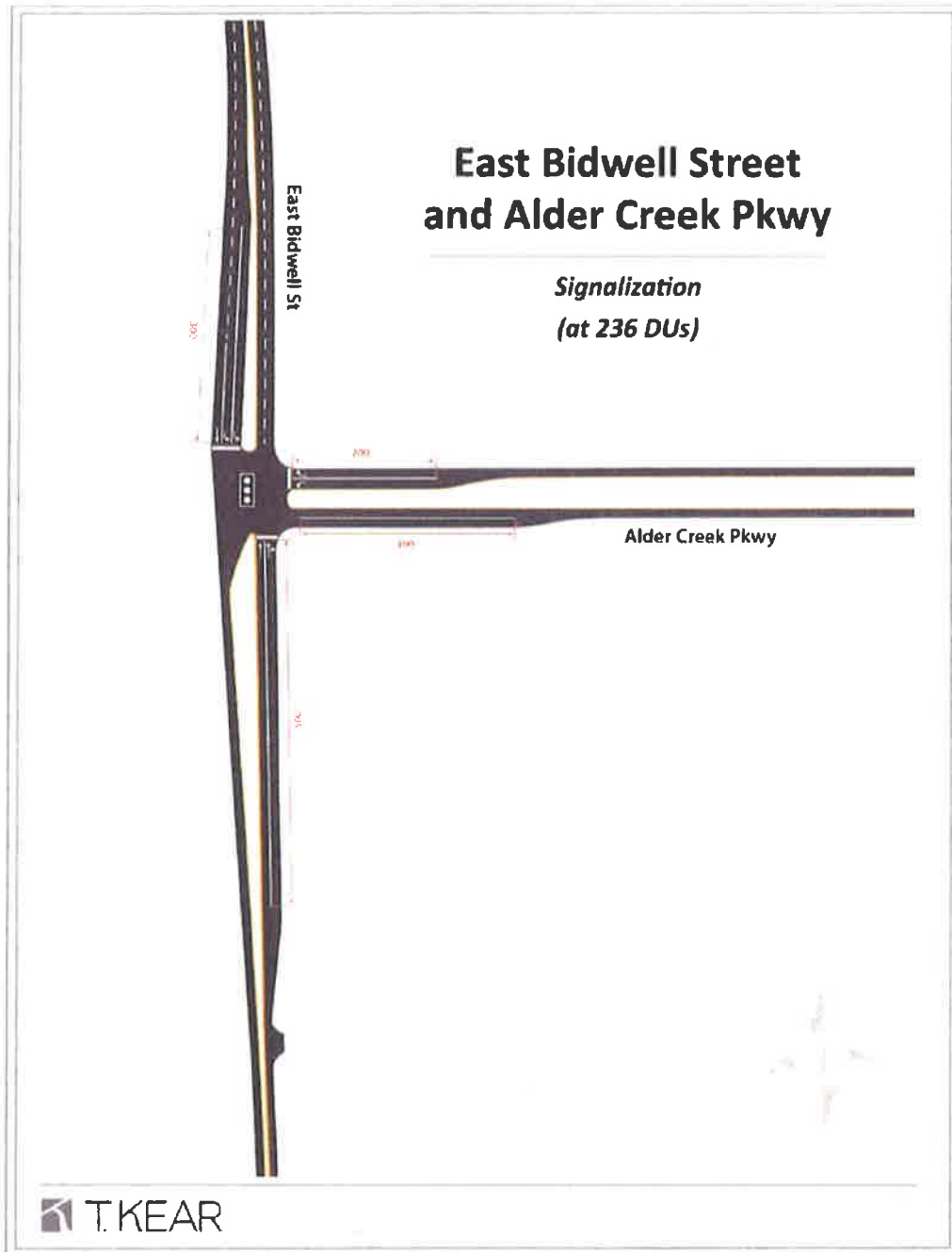


Figure ES-5. East Bidwell Street/Alder Creek Parkway

281 Dwelling Units

**Condition 3: East Bidwell St/White Rock Rd (Figure ES-6 and Figure ES-7)**

Prior to issuance of the 281<sup>st</sup> occupancy permit the Owner/Applicant shall be responsible for either (A) or (B) below:

- (A) If the proposed JPA project at this location is fully funded and construction is underway by the time the 281<sup>st</sup> occupancy permit is issued, the project shall pay its fair-share, consisting of the Sacramento County Transportation Development Fee, toward the JPA project.
- (B) Signalize the existing East Bidwell Street/White Rock Road Intersection with Mangini Ranch Phase 1 improvements: If the JPA project to relocate and signalize the East Bidwell Street/White Rock Road intersection is not fully funded and under construction prior to issuances of the 281<sup>st</sup> occupancy permit, the Owner/Applicant shall be responsible to signalize the existing intersection with improvements described in condition 127 of the Mangini Ranch Phase 1 conditions of approval<sup>6</sup>. Mangini Ranch Phase 1 improvements at this location consist of *"Southbound on Scott Road construct a free southbound right turn lane consisting of 315 feet of deceleration length plus 50 feet storage length, excluding appropriate tapers and a 300 foot receiving /acceleration lane, excluding tapers along westbound White Rock Road. Westbound on White Rock Road, construct a free right-turn lane consisting of 315 feet of deceleration length plus 50 feet of storage length, excluding appropriate tapers, and a 300 foot receiving lane excluding appropriate tapers along northbound Scott Road."* Final improvement plans shall be approved by the City Engineer.

The JPA currently has more than seven million dollars programmed toward relocation and signalization of the East Bidwell Street/White Rock Road intersection, is planning to begin acquiring right-of-way during the Winter of 2018, and will begin construction during the Summer of 2019.<sup>7</sup> The projected absorption Schedule for the Mangini Ranch Phase 2 project estimates that the 281 dwelling units will not be constructed until sometime in the second quarter of 2020<sup>8</sup>.

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<sup>6</sup> City of Folsom (2015) Resolution no 9588 – Exhibit A, City Council Meeting 06/23/2015, Agenda Item No 8a.

<sup>7</sup> Personal communication between Tom Kear and Miguel Ramirez, October 27, 2017.

<sup>8</sup> Personal communication between Tom Kear and Larry Ito, November 10, 2017.



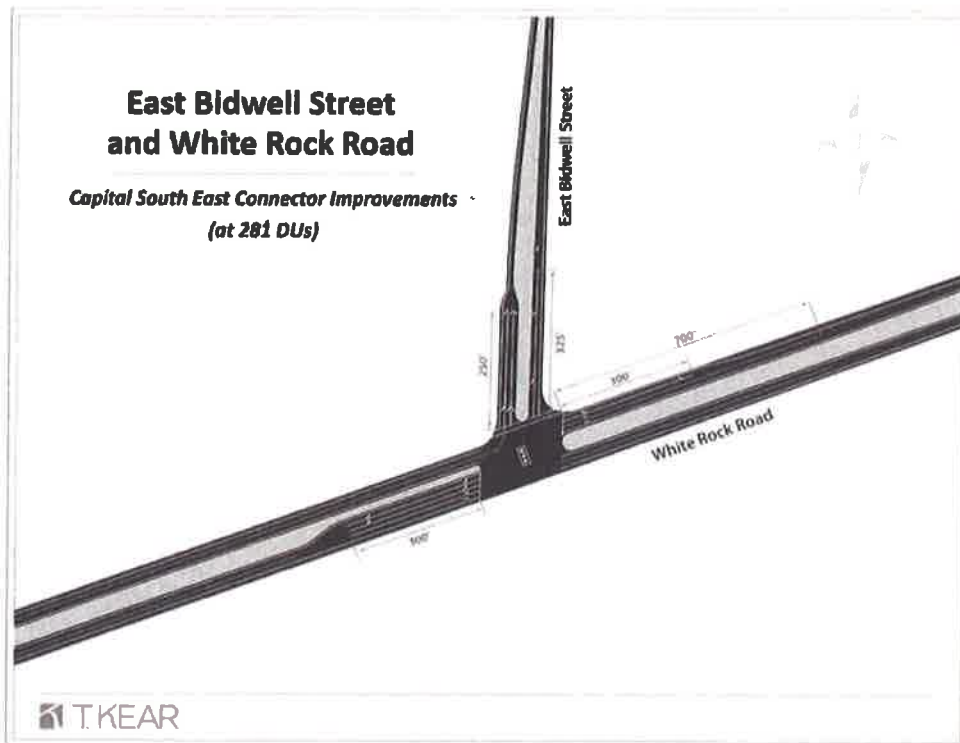


Figure ES-6. East Bidwell Street/Alder Creek Parkway (Item A: Planned Capital Southeast Connector Improvement)

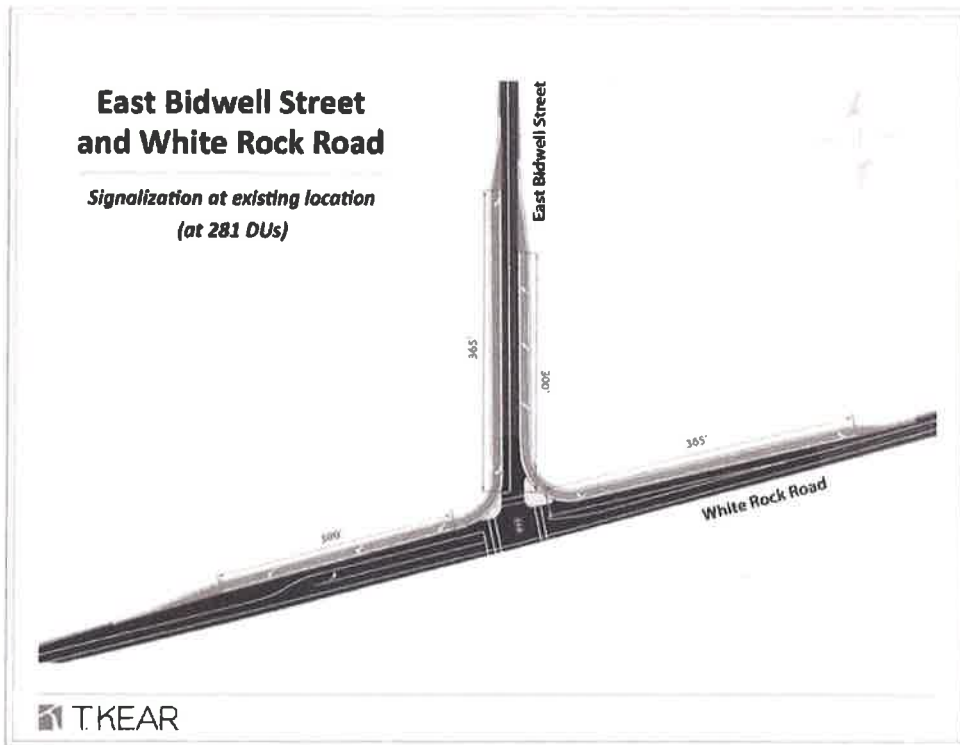


Figure ES-7. East Bidwell Street/Alder Creek Parkway (Item B: Signalize at Existing Location)

496 Dwelling Units

**Condition 4: White Rock Road/Old Placerville Road (Figure ES-8)**

Prior to the 496<sup>th</sup> occupancy permit the Owner/Applicant shall be responsible for prohibiting southbound left turns from Old Placerville Road to eastbound White Rock Road by construction of a raised median on Old Placerville Road to channelize all southbound traffic onto westbound White Rock Road. Final improvement plans shall be approved by the City Engineer.

**Condition 5: East Bidwell Street/Savannah Parkway (Figure ES-9)**

Prior to the 496<sup>th</sup> occupancy permit and concurrent with implementation of Condition 4 above, the Owner/Applicant shall signalize the East Bidwell Street/Savannah Parkway intersection as follows:

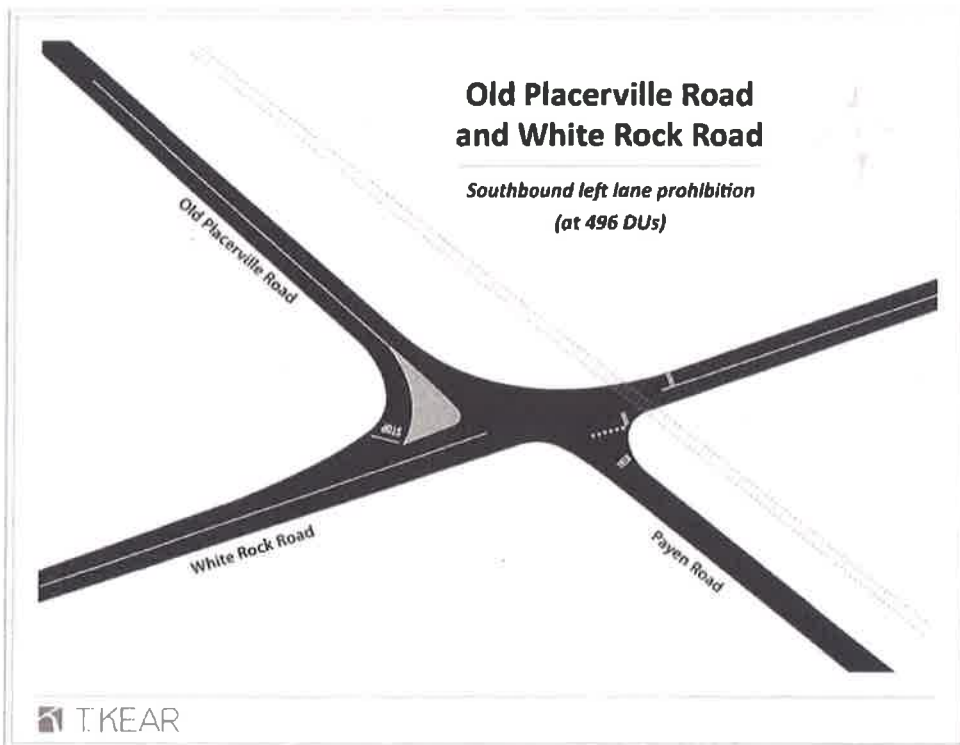
- Southbound approach: one thru lane, and one left-turn lane with a 100' long left-turn pocket for the left-turn lane.
- Northbound approach: one shared thru-right turn lane.
- Westbound approach: one right-turn lane, and one left-turn lane with a 60' left-turn pocket for the left-turn lane.
- Control: Signal control with split phasing.

Between "Street 1" and the southern boundary of the Tentative Map, East Bidwell Street shall be constructed as a two-lane arterial on the eastern "half segment" of its ultimate configuration. This two-lane segment shall have a striped 2' wide median south of "Street 1", consistent with the California Manual on Uniform Traffic Control Devices<sup>9</sup> (MUTCD) Figure 3A-107 (CA), or similar standard. The southbound left-turn pocket shall be developed in accordance with the Highway Design Manual<sup>10</sup> (HDM) figure 405.2A, or similar standard. Savannah Parkway shall have a 12' raised median. Final improvement plans shall be approved by the City Engineer.

---

<sup>9</sup> Caltrans (2014) California Manual on Uniform Traffic Control Devices – 2014 Edition (Revision 2), California Department of Transportation, April 7, 2017.

<sup>10</sup> Caltrans (2012) Highway Design Manual – Chapter 400, California Department of Transportation, May 7, 2012.



FigureES-8. White Rock Road/Old Placerville road

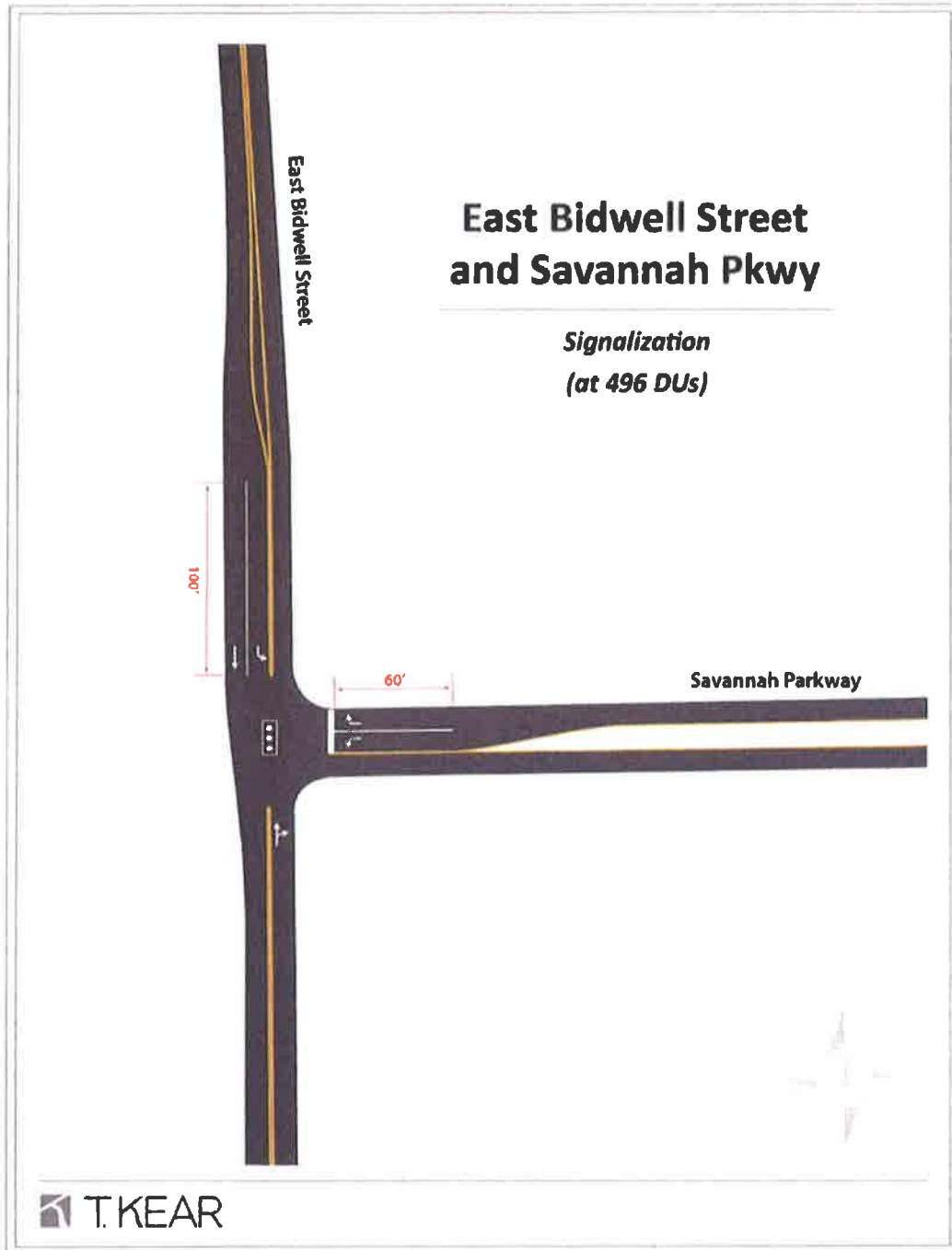


Figure ES-9. East Bidwell Street/Savannah Parkway (Signalized)

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## 1. INTRODUCTION

This transportation impact study identifies impacts of the proposed Mangini Ranch Phase 2 (the project), on the motorized and unmotorized transportation systems in Folsom, California. This study has been prepared for the City of Folsom; Carpenter East, LLC; and Folsom Real Estate South, LLC. This introductory section provides a detailed project description followed by a discussion of the assumed absorption of other Folsom Plan Area Specific Plan (FPASP) land uses over the next five years, and anticipated changes in the road network.

### 1.1 Project Description

**Figure 1** provides a project vicinity map. The project includes 545 dwelling units (DUs), situated within the FPASP, and the Westland/Eagle Specific Plan Amendment (W/E SPA), for which Tentative Map approval is sought. There are an additional 356 multi-family DUs that are not part of the tentative map application, but are included in the site plan as part of a large lot tentative map. While not considered part of the project, construction of these units is foreseeable and they were included as part of the future land use assumptions without the project. This report refers to those 356 multi-family DUs as Mangini Ranch Phase 3<sup>11</sup>, though that name is not official. Project access will be via Scott Road and portions of Alder Creek Parkway, Street "1", Savannah Parkway, and Westwood Drive.

The project, and affiliated large lot Tentative Map, affect 15 FPASP parcels located between Scott Road and existing Placerville Road, south of Alder Creek Road and north of the Alder Creek tributary. The project land use is summarized in **Table 1** and **Figure 2** below. The area is designated as single high density (4-7 du/ac), multi-family low density (7-12 du/ac), multi-family high density (20-30 du/ac), parks, open space, and public/quasi-public uses including an elementary school site, police department, and fire stations.

### 1.2 Absorption of Approved and Anticipated FPASP Projects

In this transportation impact study, absorption of approved and foreseeable projects within the Folsom Plan Area Specific Plan (FPASP) was estimated rather than assuming 100% of the planned and approved units would be built by the time that the project was constructed. Typically, when a Tentative Map is approved, there is a finite amount of time for the project to be built before the Tentative Map expires. It is reasonable to assume that the Tentative Map will be constructed within the five-year window considered for near-term land use changes by transportation impact studies. However, that assumption is not appropriate here, as there are more new homes approved than historic absorption rates suggest will be built and occupied over the next five years.

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<sup>11</sup> "Mangini Ranch Phase 3" consists of the multi-family zoned parcels included as a large lot tentative map within the Mangini Ranch Phase 2 site plan (FPASP parcel numbers 79B, 82B-2, and 151).



**Table 1. Tentative Map and Large Lot Tentative Map Land Use**

W/E SPA Parcel	FPASP Parcel	Mangini Ranch Phase 2 Village	FPASP and W/E SPA Land Use	Tentative Map DUs (this project)	Preliminary Estimate of Large Lot TM DUs
37	194B	Not Included	OS	-	0
38	154	2	SFHD	74	-
39	153	7	MLD	69	-
40	79B	"Lot A"	MLD	-	153
45	84	5	SFHD	108	-
45	84	6	SFHD	45	-
46	151	"Lot C"	MHD	-	145
47	82B (82B-1)	8	MLD	36	-
47	82B (82B-2)	"Lot B"	MLD	-	58
48	82A	4	SFHD	72	-
49	92	Not Included	OS	-	0
50	83	3	SFHD	53	-
51	81	Not Included	Elem. School	-	0
52	80	Not Included	Park	-	0
53	150	1	SFHD	88	-
54	196B	Not Included	OS	-	0
56	149	Not Included	Park	-	0
<b>Total DUs</b>				<b>545</b>	<b>356</b>

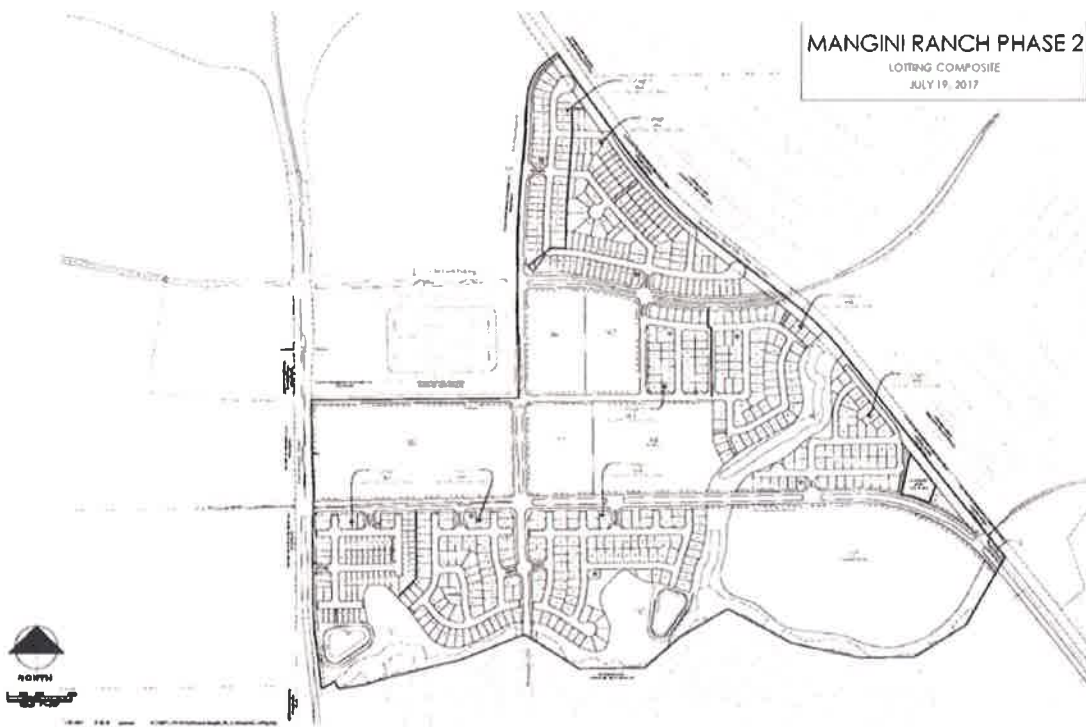


Figure 2. Preliminary Site Plan

Currently, there are 3,019 approved and anticipated dwelling units (DUs) within the FPASP:

- Russell Ranch, 875 approved DUs;
- Mangini Ranch Phase 1, 800 approved DUs;
- Folsom Heights, 401 approved DUs;
- White Rock Springs Ranch, approved 395 DUs;
- Mangini Ranch Phase 3, 356 anticipated DUs;
- Broadstone Estates, 81 approved DUs; and
- The Enclave, 111 approved DUs.

The city of Folsom's historic absorption rate for new housing is in the order of 500 DUs per year<sup>12</sup>, so absorption for each of these projects within five years was estimated such that the total number of dwelling units in 2023 within the FPASP would be slightly above 2,500. Note that additional Folsom dwelling units are anticipated to be constructed north of US 50. These absorption estimates strive to balance the need for conservatively high traffic forecasts that identify all potential project impacts, with the desire to not overbuild infrastructure and incur unnecessary maintenance costs. See Section 2.5 Study Scenarios: EPPAP Condition and EPPAP with Project Condition for specific assumptions.

### 1.3 Roadway Network Assumptions

New construction within the FPASP is anticipated to implement several of the planned roadways identified by the FPASP Specific Plan, and W/E SPA. Assumptions for each of the four study scenarios are listed below. The **Existing without Project Condition** analysis is based on the roadway system as it was in 2016 when the study was initiated and traffic counts were performed.

- 1) **Existing without Project Conditions** are based on the roadway network in 2016 at the time this study was initiated.
- 2) **Existing with Project Conditions** assume that several project area roadways are constructed, including: (1) Alder Creek Parkway from East Bidwell Street to the western edge of the Russell Ranch project, (2) Savannah Parkway from East Bidwell Street to Placerville Road, (3) Westwood Drive from Alder Creek Parkway to the Village 1 and Village 2 access, (4) a second portion of Westwood Drive between the access to Village 6 and Alder Creek Parkway, and (5) Street "1" east of East Bidwell Street. Note that Westwood Drive is not assumed to connect to, or through, Placerville Road; rather it terminates at the driveway access to "Village 6". Alder Creek Parkway from East Bidwell Street to existing Old Placerville Road is already under construction as a two-lane arterial. The portion of existing Old Placerville Road between Savannah Parkway and Alder Creek Parkway is assumed to be abandoned with the project.

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<sup>12</sup> Personal communication with Larry Ito (Ardor Consulting) and Mark Rackovan (City of Folsom).

- 3) Existing Plus Planned and Approved Projects (EPPAP) without Project Conditions** starts with the same roadway as Existing with Project Conditions, then adds a handful of offsite improvements that are conditions of approval of the assumed EPPAP projects. It is assumed that The Enclave and the multi-family “Mangini Ranch Phase 3” are to be constructed along with portions of the other five approved FPASP projects: (1) Mangini Ranch Phase 1, (2) Russell Ranch, (3) White Rock Springs Ranch, (4) Broadstone Estates, and (5) Folsom Heights.
- 4) EPPAP with Project Conditions** are analyzed assuming the same roadway network as EPPAP without Project Conditions.

#### 1.4 Report Organization

The following sections are discussed after Introduction and Setting and Study Area: key roadways and intersections, the regulatory setting, and analysis scenarios. This is followed by a Methodology section detailing the analysis procedures. Two sections, one for each analysis year, then describe the transportation system with and without the project. The final section identifies project impacts, mitigations, and suggested conditions of approval.



## 2. SETTING AND STUDY AREA

The transportation impact study area generally consists of the region within one to two miles on either side of US 50 within the City of Folsom, located in eastern Sacramento County, California. It includes portions of the FPASP and W/E SPA on the south side of US 50; portions of East Bidwell Street and Iron Point Road to the north of US 50, and several segments of US 50. Key roadways within the study area, study intersections, and study segments are shown in **Figure 3**.

### 2.1 Project Area Roadways

**US 50** is an east-west highway that passes through Folsom, California as it connects the Sacramento region to Lake Tahoe and points beyond. Within the study area, US 50 west of East Bidwell Street, is a six-lane freeway with two regular flow lanes and one high-occupancy vehicle (HOV) lane in each direction. East of East Bidwell Street, US 50 has three westbound lanes (two mainline lanes, one HOV lane) and four eastbound lanes (three mainline lanes, one HOV lane). The speed limit on US 50 through Folsom is 65 miles per hour (mph).

**East Bidwell Street** runs through the City of Folsom from US 50 to Riley Street. East Bidwell Street becomes Scott Road south of US 50. Near the project area, East Bidwell Street is a six lane arterial roadway with turn pockets provided at intersections. The speed limit on East Bidwell Street north of US 50 is 45 mph. South of the US 50 westbound ramps East Bidwell Street has four lanes, and south of the US 50 eastbound ramps East Bidwell Street transitions into Scott Road.

**Scott Road/East Bidwell Street** is a two-lane north-south roadway running through the project site, and extends from the US 50/East Bidwell Street/Scott Road interchange south to White Rock Road. Scott Road is being renamed to East Bidwell Street. The separate discontinuous segment of Scott Road, which is located approximately 1.5 miles to the west and extends southward from White Rock Road into unincorporated Sacramento County, is not within the study area.

**Placerville Road** is a two-lane north-south road (at the eastern edge of the study area) that begins at East Bidwell Street just north of US 50, and continues beneath US 50 via an undercrossing. The roadway extends south to White Rock Road, where it transitions into Payen Road.

**White Rock Road** is a two-lane east-west road with a posted speed limit of 55 mph. White Rock Road continues east into El Dorado County where it transitions into Silva Valley Parkway, and west into the City of Rancho Cordova.

**Iron Point Road** is an east-west arterial roadway with a raised median that runs from Folsom Boulevard to the eastern city limit along the north side of US 50. Within the vicinity of the project, Iron Point Road has six lanes and posted speed limit of 45 mph.

**Broadstone Parkway** is an arterial roadway that runs from Iron Point Road to Empire Ranch Road on the north side of US 50. The roadway features four-to-six travel lanes, a raised median, and a posted speed limit of 45 mph.

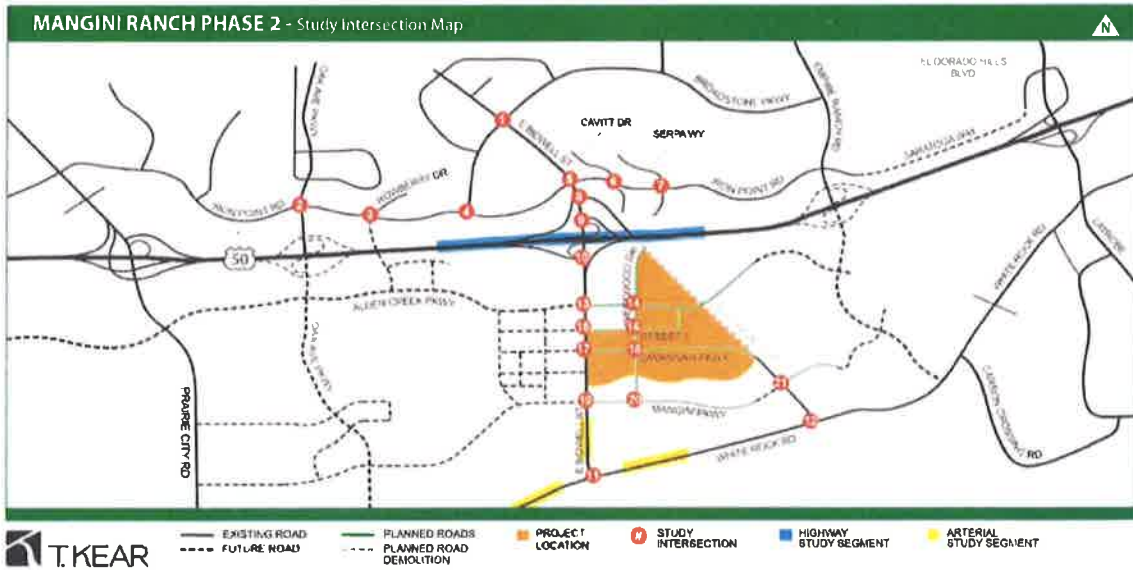


Figure 3. Project Area Roadways and Study Intersections

**Oak Avenue Parkway** is a north-south arterial that extends from Willow Creek Drive to Iron Point Road. It is a four-lane urban arterial road between Willow Creek Drive and Blue Ravine Road. It is a six-lane urban arterial road between Blue Ravine Road and Riley Street. It is a four-lane urban arterial road between Riley Street and Iron Point Road.

**Rowberry Drive** is a north-south two-lane local road that runs northward from the Kaiser Permanente Folsom Medical Offices into neighborhoods to the north of Iron Point Road.

**Cavitt Drive** is a north-south two-lane collector that runs northward from Costco to Folsom Lake College.

**Serpa Way** is a north-south two-lane local road that runs northward from Costco to Folsom Lake Broadstone Parkway.

## 2.2 Study Intersections and Segments

There are 21 study intersections, three arterial study segments, and eight study segments on US 50 (Table 2, Table 3, and Table 4, respectively).

**Table 2. Study Intersections and Control**

Study Intersection	Existing 2016 Conditions	Existing 2016 with Project Conditions	EPPAP Conditions	EPPAP with Project Conditions
1. Broadstone Pkwy./East Bidwell St.	Signal	Signal	Signal	Signal
2. Oak Ave./Iron Point Rd.	Signal	Signal	Signal	Signal
3. Rowberry Dr./Iron Point Rd.	Signal	Signal	Signal	Signal
4. Broadstone Pkwy./Iron Point Rd.	Signal	Signal	Signal	Signal
5. East Bidwell St./Iron Point Rd. (Folsom)	Signal	Signal	Signal	Signal
6. Cavitt Dr./Iron Point Rd. (Folsom)	Signal	Signal	Signal	Signal
7. Serpa Way/Iron Point Rd. (Folsom)	Signal	Signal	Signal	Signal
8. East Bidwell St./Placerville Rd. (Folsom)	Signal	Signal	Signal	Signal
9. East Bidwell St./WB U.S. 50 ramps (Caltrans)	Signal	Signal	Signal	Signal
10. East Bidwell St./EB U.S. 50 ramps (Caltrans)	Signal	Signal	Signal	Signal
11. East Bidwell St./White Rock Rd. (Folsom)	AWSC	AWSC	AWSC	AWSC
12. White Rock Rd./Placerville Rd.	TWSC	TWSC	TWSC	TWSC
13. East Bidwell St./Alder Creek Pkwy.	-	TWSC	TWSC	TWSC
14. Westwood Dr./Alder Creek Pkwy.	-	AWSC	AWSC	AWSC
15. East Bidwell St./Street "1"	-	TWSC	TWSC	TWSC
16. Westwood Dr./Street "1"	-	TWSC	TWSC	TWSC
17. East Bidwell St./Savannah Pkwy	-	TWSC	TWSC	TWSC
18. Westwood Dr./Savannah Pkwy	-	AWSC	AWSC	AWSC
19. East Bidwell St./Mangini Pkwy	-	-	Signal	Signal
20. Westwood Dr./Mangini Pkwy	-	-	AWSC	AWSC
21. Placerville Rd./Mangini Pkwy	-	-	TWSC-	TWSC

**Table 3. Arterial Study Segments**

Segment	Location
1. East Bidwell St.	North of White Rock Rd.
2. White Rock Rd.	West of East Bidwell St.
3. White Rock Rd.	East of East Bidwell St.

**Table 4. US 50 Study Segments**

Eastbound US 50 Existing and EPPAP Scenarios	Analysis Type
1. EB East Bidwell St. slip off-ramp	Diverge
2. EB between East Bidwell St. ramps	Basic
3. EB East Bidwell St. loop on-ramp	Merge
4. EB East Bidwell St. slip on-ramp	Merge
Westbound US 50 Existing and EPPAP Scenarios	Analysis Type
5. WB East Bidwell St. slip off-ramp	Diverge
6. WB between E. Bidwell St. ramps	Basic
7. WB East Bidwell St. loop on-ramp	Merge
8. WB East Bidwell St. slip on-ramp II	Merge

## 2.3 Transit

City of Folsom’s public transportation includes bus and dial-a-ride service provided by the City through “Folsom Stage Lines” and light rail service provided by Sacramento Regional Transit (RT). El Dorado County Transit (EDC Transit) also provides limited bus connections to El Dorado County.

### Folsom Stage Lines and Dial-A-Ride

The Folsom Stage Line buses run Monday through Friday. There is no weekend service available. There are currently ten buses running on three routes. They are routes 10, 20 and 30. Routes 10 and 20 intersect at Folsom Lake College. There is no charge to transfer from one Folsom Stage Line route to the other.

- Route 10 - Serves Historic Folsom, E. Bidwell St., the Broadstone Market Place, Broadstone Plaza, Folsom Aquatics Center, Folsom Lake College, Intel, Kaiser Permanente, Folsom Premium Outlets, Mercy Hospital, Palladio Mall and Century Theatres. It connects to light rail and with the RT bus service Line 24. Service with a one-hour headway starts at 5:25 AM with the last pickup at 7:25 PM.
- Route 20 - Services Empire Ranch Road, East Natoma Street, Vista del Lago High School, Folsom Lake College and transfers to Route 10. There is one morning bus and two afternoon buses on Route 20.
- Route 30 - Services Folsom State Prison, City Hall, and Woodmere Dr. with four AM peak-period buses and five PM peak-period buses.

Dial-A-Ride is a curb-to-curb transportation service that operates within the Folsom city limits. It provides transportation to residents who have a physical, developmental, or mental disability. Senior citizens who are 55 years of age or older also qualify for this program.

#### Sacramento RT

RT light rail provides service via the Gold Line connecting the Historic Folsom, Glenn, and Iron Point light rail stations to downtown Sacramento and points in between. Service is provided from 5 AM to 7 PM on a 30-minute headway. There is also a connection to RT bus route 24 from Folsom Stage Lines route 10 at the Madison/Main stop. RT route 24 provides service to Sunrise Mall on a (roughly) hourly headway from 6 AM to 7 PM.

#### El Dorado County Transit

The EDC Transit route 50X (the 50 Express) operates every hour from 6 AM until 7 PM Monday through Friday, with service from Missouri Flat Transfer Center in El Dorado County to the Folsom Iron Point light rail station, Folsom Lake College, and back.

## 2.4 Bicycle Facilities

The City of Folsom is one of the most bike friendly settings in California, with an existing comprehensive bikeway system that is extensive and connects to a vast number of historical and recreational attractions. Existing and planned bicycle facilities within the project area are described in the 2007 Folsom Bikeway Master Plan<sup>13</sup> and its 2011 appendix for the FPASP<sup>14</sup> which provide a framework for the design of a bikeway system that meets the California Street and Highway Code Section 890-894.2 - Bicycle Transportation Act and improves safety and convenience for all users.

Planning and design of the system takes into consideration a wide spectrum of needs, based on the various types of users and the critical destinations within Folsom and the FPASP. A convenient, safe, aesthetic, and highly interconnected bikeway system that seamlessly blends into Folsom's other transportation systems is emphasized.

Factors given major consideration during the planning and design of the FPASP bikeway system include:

- **Regional Connections:** The system links to both existing and proposed bikeways and trail systems for maximum external connectivity and the creation of long uninterrupted rides through Folsom and into the greater Sacramento region.
- **Destinations:** The system connects to valuable Plan Area destinations and provides bicycle parking consistent with the approved FPASP

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<sup>13</sup> Folsom (2007) Bikeway Master Plan,  
[www.folsom.ca.us/city\\_hall/depts/parks/parks\\_n\\_trails/trails/bikeway\\_master\\_plan.asp](http://www.folsom.ca.us/city_hall/depts/parks/parks_n_trails/trails/bikeway_master_plan.asp).

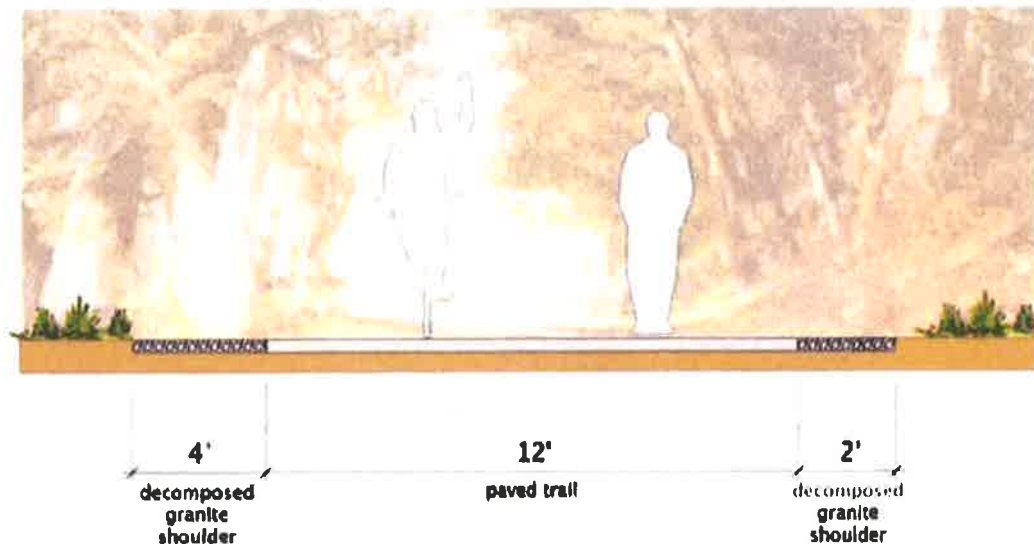
<sup>14</sup> Folsom (2011) Appendix to the City of Folsom Bikeway Master Plan to Incorporate the Folsom Plan Area Specific Plan

- **Bicyclists:** The system carefully considers the needs of all bicyclists, from beginner to advanced, and balances those needs in a comprehensive plan that provides something for everyone.
- **Aesthetics:** The system provides permeable linkages to expanses of rolling grasslands, oak groves, creeks and ponds, where a meandering trail system takes advantage of key viewsheds.
- **Topography:** The system works with the existing terrain, blending into the rolling landform to create a higher value experience not only for the rider, but also for those viewing the trail system from afar.
- **Site Resources:** The system avoids impacts to cultural and historic resources, considers oak grove locations and reduces creek crossings in order to lessen impacts to waterways.
- **Internal Access:** The system provides connections to residential, schools, parks, commercial, industrial/office, and open space, as well as several transit facilities.

Similar to the design of the vehicular circulation, the FPASP bikeway system follows an interconnected grid-like pattern. There are three types of bicycle facilities (Class 1, 2, 3) used in Folsom. It is emphasized that the designation of bikeways classes should not be construed as a hierarchy of bikeways; that one is better than the other. Each class of bikeway has its appropriate application.

The Class 1 system consists of a 12' wide paved surface with stabilized shoulders of decomposed granite on both sides (4' on one side and 2' on the other); see **Figure 4**.

**Figure 4. Class 1 Path**



The Class 1 system is separated from Plan Area streets and the majority can be found following creeks and weaving through oak groves within open space areas. These pathways are wide enough to comfortably accommodate both bicyclists and pedestrians. This system has three primary north/south routes; the powerline corridor, the Alder Creek corridor, and along the Sacramento Placerville Rail Road (SPRR). The Class 1 system includes east/west connections along Highway 50, between the residential neighborhoods west of the Town Center, and along the major tributaries to Alder Creek.

Class 2 lanes within the Plan Area consist of a minimum 5' wide striped lane. Moving across the site from east to west, the Class 2 system can be found in each of the major arterial streets; Empire Ranch Road, East Bidwell Street, Oak Avenue, and Prairie City Road. North/south Class 2 connections also occur in the realigned Placerville Road section (Savannah Parkway), Rowberry Drive, as well as the streets east and west of the Town Center. The Class 2 system provides east/west connections within Savannah Parkway, Easton Valley Parkway, Mangini Parkway, and the minor collectors between the two.

Class 3 routes will appear on many of the internal streets and are intended to provide additional linkages to the larger system. These will be designated on high demand roadways with important connections to the Class 1 and Class 2 systems. Class 3 routes will play an important role in the Town Center, which is anticipated to become an important destination for bicyclists. Class 3 routes in other portions of the FPASP will essentially fill any major gaps in the grid.

This bicycle system is summarized in **Figure 5** below.

## 2.5 Study Scenarios

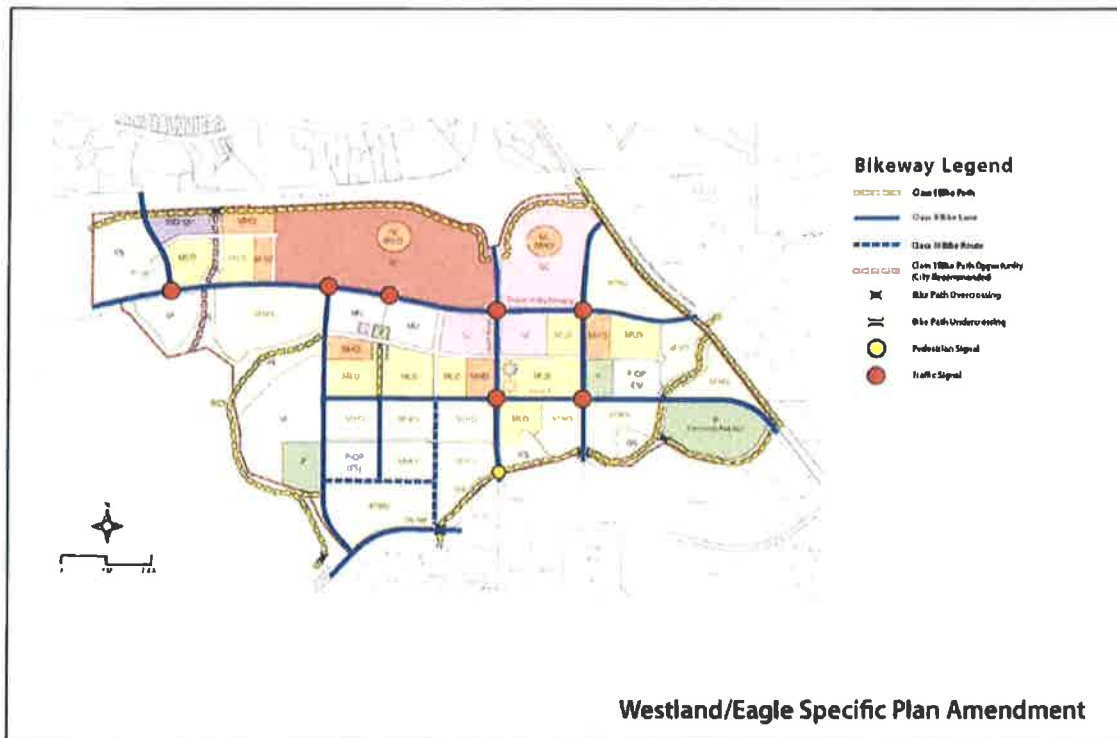
Four scenarios were identified for inclusion in this Transportation Impact Study through consultation with City of Folsom staff. The study determines the weekday AM peak-hour and PM peak-hour level-of-service at study intersections and on study segments under the following scenarios:

- Existing Condition;
- Existing with Project Condition;
- Existing plus Planned and Approved Projects (EPPAP) without Project Condition; and
- EPPAP with Project Condition.

### Existing Condition and Existing with Project Condition

The California Environmental Quality Act (CEQA) requires an analysis of the existing condition, which reflects the traffic volumes and roadway geometry at the time the study began. This scenario will be analyzed both with and without project traffic to identify any project related traffic impacts. Not that implementation of the project includes abandonment of a portion of Placerville Road and construction of portions of Savannah Parkway and Westwood Drive, existing traffic will re-route across these project area roadways.

Figure 5. W/E SPA Planned Bicycle network





EPPAP Condition and EPPAP with Project Condition

EPPAP scenarios, with and without the project, analyze conditions with the addition of traffic from approved projects and reasonably foreseeable planned projects that affect study intersections and segments. These scenarios are intended to reflect anticipated traffic approximately five years into the future, when the project could reasonably be anticipated to be constructed. This “phasing analysis” is intended to assist the City of Folsom in phasing of improvements at study intersections which by be necessary to accommodate traffic from all approved and anticipated tentative maps over the next five years in the FPASP.

Projects considered include those within the FPASP discussed previously in *Section 1.2 Absorption of Approved and Anticipated FPASP Projects*, as well as projects north of US 50. Table 5 details projects identified as contributing traffic to the study area. Note that these assumptions include 2,031 FPASP dwelling units without the project (or 2,576 FPASP dwelling units with the project). In total, there are 3,687 dwelling units considered without the project, and 4,232 dwelling units considered with the project. Relative to Folsom’s historic absorption rates, land use assumptions for the EPPAP Condition and EPPAP with Project Condition are conservatively high.

**Table 5. Projects Assumed to Contribute EPPAP Traffic to Study Intersections and Segments**

Project	Approved Land Use	Assumed Absorption	Assumed Land Use for EPPAP	Location
Russell Ranch	875 DU	55%	481 DU	FPASP
Mangini Ranch Phase 1	800 DU	75%	600 DU	FPASP
Folsom Heights	401 DU	55%	221 DU	FPASP
White Rock Springs Ranch	395 DU	55%	217 DU	FPASP
Mangini Ranch Phase 3	376 DU	100%	356 DU	FPASP
Broadstone Estates	81 DU	55%	45 DU	FPASP
The Enclave	111 DU	100%	111 DU	FPASP
CountryHouse at Broadstone	45 DU	100%	45	West of Iron Point Road, east of Oak Ave. Parkway
Cresleigh Ravine, and Campus at Iron Point	276 DU	100%	276	Willard Drive at Iron Point Road
Pique at Iron Point Apartments	327 DU	100%	327	West of Iron Point Road, east of Serpa Way

Cumulative Analysis

For California Environmental Quality Act (CEQA) purposes, cumulative traffic impacts were evaluated in the FPASP Environmental Impact Statement (EIR)<sup>15</sup> and W/E SPA amendment<sup>16</sup>. Where a public agency has prepared an Environmental Impact Report (EIR) on a specific plan after

<sup>15</sup> Public Draft EIR/EIS: Folsom South of U.S. 50 Specific Plan Project, June 2010, and CEQA Findings of Fact and Statement of Overriding Considerations, May 2011, SCH #2008092051.

<sup>16</sup> F Westland/Eagle Specific Plan Amendment: Addendum and Environmental Checklist, June 2015.

January 1, 1980, there is a CEQA exemption under Section 15182<sup>17</sup>, and no EIR or negative declaration need be prepared for a residential project undertaken pursuant to and in conformity to that specific.

A cumulative analysis of the ultimate lane and geometry requirements at intersections internal and adjacent to the project was conducted to document where additional right-of-way dedications may be necessary to accommodate left and right turn pockets and/or tapers in the future. Roadway cross-sections in the W/E SPA do not include right-of-way for right turn pockets or tapers. Where such pockets or tapers are required, the right-of-way will need to be taken from the adjacent parcels. This internal analysis is included as **Appendix D** of this report.

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<sup>17</sup> 14 CCR 15182

### 3. METHODOLOGY

This section provides a process overview, describes traffic forecasting, and discusses the methods/criteria used to evaluate level-of-service. A discussion of the significance criteria is also included.

#### 3.1 Process Overview

The overall analysis process was structured to identify potential adverse transportation effects related to the proposed project.

- Traffic volumes and turning movements for the Existing 2016 Condition were determined from observed traffic counts. Existing US 50 peak-hour traffic volumes were determined from Caltrans' PeMS<sup>18</sup> data at count stations east of the Prairie City Interchange.
- EPPAP volumes were based on absorption of approved and planned projects. The assumed growth in land use is in excess of Folsom's historic absorption rate for new homes.
- Study intersection and segment traffic operations were analyzed both with and without the proposed project to identify potential significant project impacts.
- Significance criteria were based on the City of Folsom General Plan and FPASP policies.

#### 3.2 Level-of-Service Methodology

Level-of-service (LOS) is a qualitative indication of the level of delay and congestion experienced by motorists using an intersection. Levels-of-service are designated by the letters A through F, with A being the best conditions and F being the worst (high delay and congestion). Calculation methodologies, measures of performance, and thresholds for each letter grade differ for road segments, signalized intersections, and unsignalized intersections.

Based on guidance from City of Folsom staff, the following procedures described below for intersection and segment traffic operations analysis were selected for this study.

##### Intersection Traffic Operations Analysis

###### Signalized Intersections

The methodology from HCM 2010<sup>19</sup> Chapter 18, and HCM 2000 Chapter 17<sup>20</sup>, are used to analyze signalized intersections. Level-of-service can be characterized for the entire intersection, each approach, or by lane group. Control delay alone (the weighted average delay for all vehicles entering the intersection) is used to characterize level-of-service for the entire intersection or an approach. Control delay and volume to capacity ratio are used to characterize level-of-service for lane groups. The average delay criteria used to determine the level-of-service at signalized

<sup>18</sup> Caltrans Freeway Performance Measurement (PeMS) System, <http://pems.dot.ca.gov/>.

<sup>19</sup> Transportation Research Board (2010) Highway Capacity Manual, Washington, D.C.

<sup>20</sup> Transportation Research Board (2000) Highway Capacity Manual, Washington, D.C.

intersections is presented in Table 6. The HCM 2010 methodology is used as the primary method. HCM 2000 methods are only utilized where the signal phasing is incompatible with HCM 2010 methods.

**Table 6. Level-of-Service Criteria for Signalized Intersections**

Level -of- Service	Description	Average Delay <sup>1</sup> (Sec. /Vehicle.)
A	Very Low Delay: This level-of-service occurs when progression is extremely favorable and most vehicles arrive during a green phase. Most vehicles do not stop at all.	≤ 10.0
B	Minimal Delays: This level-of-service generally occurs with good progression, short cycle lengths, or both. More vehicles stop than at LOS A, causing higher levels of average delay.	10.1-20.0
C	Acceptable Delay: Delay increases due to only fair progression, longer cycle lengths, or both. Individual cycle failures ( <i>to service all waiting vehicles</i> ) may begin to appear at this level of service. The number of vehicles stopping is significant, though many still pass through the intersection without stopping.	20.1-35.0
D	Approaching Unstable/Tolerable Delays: The influence of congestion becomes more noticeable. Longer delays may result from some combination of unfavorable progression, long cycle lengths, or high v/c ratios. Many vehicles stop, and the proportion of vehicles not stopping declines. Individual cycle failures are noticeable.	35.1-55.0
E	Unstable Operation/Significant Delays: This is considered by many agencies the upper limit of acceptable delays. These high delay values generally indicate poor progression, long cycle lengths, and high v/c ratios. Individual cycle failures are frequent occurrences.	55.1-80.0
F	Excessive Delays: This level, considered to be unacceptable to most drivers, often occurs with oversaturation (i.e., when arrival flow rates exceed the capacity of the intersection). It may also occur at high v/c ratios below 1.00 with many individual cycle failures. Poor progression and long cycle lengths may also contribute to such delay levels.	> 80.0 or v/c >1.0

**Note 1:** Weighted average of delay on all approaches. This is the measure used by the Highway Capacity Manual to determine level-of-service. Any movement with a volume-to-capacity ratio (v/c) greater than 1.0 is considered to be level-of-service F.

**Source:** Transportation Research Board (2010) Highway Capacity Manual, Washington D.C., Chapter 18; and Transportation Research Board (2000) Highway Capacity Manual, Washington D.C., Chapter 16

### Unsignalized Intersections

The methodology from HCM 2010 is used for the analysis of unsignalized intersections. At an unsignalized intersection, most of the main street traffic is un-delayed, and by definition have acceptable conditions. The main street left-turn movements and the minor street movements are all susceptible to delay of varying degrees. Generally, the higher the main street traffic volumes,

the higher the delay for the minor movements. Separate methods are utilized for Two-Way Stop-Controlled (TWSC) intersections and All-Way Stop-Controlled (AWSC) intersections.

- **TWSC:** The methodology for analysis of two-way stop-controlled intersections calculates an average total delay per vehicle for each minor street movement and for the major street left-turn movements, based on the availability of adequate gaps in the main street through traffic. A level-of-service designation is assigned to individual movements or to combinations of movements (in the case of shared lanes) based upon delay, it is not defined for the intersection as a whole. Unsignalized intersection level-of-service reported herein is for each movement (or group of movements) based upon the respective average delay per vehicle. Table 7 presents the average delay criteria used to determine the level-of-service at TWSC and at AWSC intersections.
- **AWSC:** At all-way stop-controlled intersections, the level-of-service is determined by the weighted average delay for all vehicles entering the intersection. The methodologies for these types of intersections calculate a single weighted average delay and level-of-service for the intersection as a whole. The average delay criteria used to determine the level-of-service at all-way stop intersections is the same as that presented in Table 7. Level-of-service for specific movements can also be determined based on the TWSC methodology.

It is not unusual for some of the minor street movements at unsignalized intersections to have level-of-service D, E, or F conditions while the major street movements have level-of-service A, B, or C conditions. In such a case, the minor street traffic experiences delays that can be substantial for individual minor street vehicles, but the majority of vehicles using the intersection have very little delay. Usually in such cases, the minor street traffic volumes are relatively low. If the minor street volume is large enough, improvements to reduce the minor street delay may be justified, such as channelization, widening, or signalization.

**Table 7. Level-of-Service Criteria for Unsignalized Intersections**

Level of Service (LOS)	Description	TWSC <sup>1</sup>	AWSC <sup>2</sup>
		Average Delay by Movement (seconds / vehicle)	Intersection Wide Average Delay (seconds / vehicle)
A	Little or no delay	< 10	< 10
B	Short traffic delay	> 10 and < 15	> 10 and < 15
C	Average traffic delays	> 15 and < 25	> 15 and < 25
D	Long traffic delays	> 25 and < 35	> 25 and < 35
E	Very long traffic delays	> 35 and < 50	> 35 and < 50
F	Extreme delays potentially affecting other traffic movements in the intersection	> 50 (or, v/c > 1.0)	> 50

**Note 1:** Two-Way Stop-Control (TWSC) level-of-service is calculated separately for each minor street movement (or shared movement) as well as major street left turns using these criteria. Any movement with a volume to capacity ratio (v/c) greater than 1.0 is considered to be level-of-service F.

**Note 2:** All-Way Stop-Control (AWSC) assessment of level-of-service at the approach and intersection levels is based solely on control delay.

**Source:** Transportation Research Board (2010) Highway Capacity Manual, Washington D.C., Chapter 19 (TWSC) and Chapter 20 (AWSC).

Arterial Segment Analysis

The Sacramento County Traffic Impact Analysis Guidelines methodology is used to evaluate segments of East Bidwell Street and White Rock Road that were under County jurisdiction prior to the City’s annexation of the Folsom Plan Area. Level-of-service for roadway segments is based on daily traffic volume. These thresholds make use of facility classifications that are based on the facility type, number of lanes, intersection spacing, and access control. The classifications system and volume thresholds are show in **Table 8**. This method is consistent with methods used in the FPASP and W/E SPA analyses.

**Table 8. Level-of-Service Criteria for Roadway Segments**

Facility Type	# of Lanes	Maximum Volume for Given Service Level				
		A	B	C	D	E
Rural, 2-lane highway	2	2,400	4,800	7,900	13,500	22,900
Arterial, low access control	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	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	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
Freeway	2	14,000	21,600	30,800	37,200	40,000
	4	28,000	43,200	61,600	74,400	80,000
	6	42,000	64,800	92,400	111,600	120,000
	8	56,000	86,400	123,200	148,800	160,000

Notes: Rural roadways, which are not highways, should be analyzed using methods presented in the *Highway Capacity Manual, Special Report 209*, Transportation Research Board, 1994.

<u>Facility Type</u>	<u>Stops/Mile</u>	<u>Driveways</u>	<u>Speed</u>
Arterial, low access control	4+	Frequent	25-35 MPH
Arterial, moderate access control	2-4	Limited	35-45 MPH
Arterial, high access control	1-2	None	45-55 MPH

Source: *Sacramento County General Plan Update, Technical Appendix*, DKS Associates, February 1992, and Sacramento County Traffic Impact Guidelines, June 2004.

### Freeway Segments Analysis

Freeway merge/diverge segments and basic segments were analyzed utilizing the methodologies outlined in Chapters 12 and 13 of the Highway Capacity Manual, 2010 (HCM 2010)<sup>21</sup>.

#### **Basic Segments**

Basic freeway segments operations and level-of-service is defined by density (passenger cars per mile per lane) which depends upon traffic volumes, and segment, characteristics. These characteristics include the geometry, grade, free flow speeds, and heavy vehicles. **Table 10** shows the relationship of level-of-service to freeway density for merge, diverge, and weaving segments.

**Table 9. Level-of-Service Criteria – Basic Freeway Segments**

Level of Service	Maximum Density (passenger vehicles per mile per lane)
A	<11
B	18
C	26
D	35
E	45
F	> 45, or Demand exceeds capacity

Source: Transportation Research Board (2010) Highway Capacity Manual, Chapter 11, Washington, D.C.

#### **Merge and Diverge Segments**

Freeway merge and diverge segments operations and level-of-service is defined by density (passenger cars per mile per lane) which depends upon traffic volumes and the ramp characteristics. These characteristics include the length and type of acceleration/deceleration lanes, free-flow speeds, number of lanes, grade, heavy vehicles, and types of facilities. **Table 10** shows the relationship of level-of-service to freeway density for merge, diverge, and weaving segments.

<sup>21</sup> Transportation Research Board (2010) Highway Capacity Manual, Washington, D.C.

**Table 10. Level-of-Service Criteria – Freeway Ramp Merge/Diverge Areas**

Level of Service	Maximum Density (passenger vehicles per mile per lane)
A	<10
B	20
C	28
D	35
E	> 35
F	Demand exceeds capacity

**Source:** Transportation Research Board (2010) Highway Capacity Manual, Chapter 13, Washington, D.C.

### 3.3 Standards of Significance

Level-of-service impacts of the proposed project were determined based on the methods described above and identified as either "significant" or "less-than-significant" in the following thresholds:

City of Folsom

Policy 17.17 of the City of Folsom General Plan specifies that the City will strive to achieve at least a level-of-service C throughout the City. This policy acknowledges that during build-out, temporarily worse level-of-service may occur where roadway improvements have not been adequately phased as City-wide development proceeds. The FPASP environmental documentation<sup>22</sup> creates a specific standard for FPASP roadways and intersections. For facilities located south of US 50, level-of-service D conditions can be considered acceptable if improvements required to meet level-of-service C exceed the city's "normally accepted maximum improvements". For the purposes of this analysis, an impact is considered significant if implementation of the project would result in any of the following:

- Cause an intersection in Folsom (outside of the FPASP) that currently operates (or is projected to operate) at level-of-service C or better to degrade to level-of-service D or worse;
- Cause an intersection within the FPASP that currently operates (or is projected to operate) at level-of-service D or better to degrade to level-of-service E or worse;
- Increase the average delay by five seconds or more at an intersection in Folsom (outside of the FPASP) that currently operates (or is projected to operate) at an unacceptable level-of-service D, E, or F;
- Increase the average delay by five seconds or more at an intersection in the FPASP area that currently operates (or is projected to operate) at an unacceptable level-of-service E or F.

This method is consistent with methods used in the FPASP and W/E SPA analyses.

<sup>22</sup> Page 3A.15-8, Folsom South of U.S. Highway 50 Specific Plan DEIR/DEIS, City of Folsom and USACE.



#### Freeway Facilities

An impact is considered significant on freeway facilities if the project causes the facility to change from an acceptable to unacceptable level-of-service. For facilities that are or will be operating at unacceptable level-of-service without the project, an impact is considered significant if:

- The existing level-of-service cannot be maintained with the addition of project traffic;
- The project traffic increases vehicle density on a freeway mainline segment or freeway ramp junction by 0.1 passenger cars per lane per mile;
- The project increases the number of peak-hour vehicles on a freeway mainline segment or freeway ramp junction by more than 1 percent.

Per the Caltrans' Guide for the Preparation of Traffic Impact Studies, Caltrans strives to maintain a target level of service at the transition between level-of-service C and level-of-service D on state highway facilities. For consistency with other traffic impact studies performed in the City of Folsom that considered US 50, level-of-service E was selected as the minimum standard for all study freeway facilities.

This method is consistent with methods used in the FPASP and W/E SPA analyses.

#### Bicycle/Pedestrian/Transit Facilities

An impact is considered significant if implementation of the Project would:

- Inhibit the use of bicycle, pedestrian, or transit facilities;
- Eliminate existing bicycle, pedestrian, or transit facilities;
- Prevent the implementation of planned bicycle, pedestrian, or transit facilities.

This method is consistent with methods used in the FPASP and W/E SPA analyses.

### 3.6 Analysis Tools

#### Macroscopic Intersection Analysis

Control delay and level-of-service for study intersections were calculated using Synchro/SimTraffic<sup>23</sup> analysis software (Version 10). Synchro/SimTraffic is a complete software package for modeling and optimizing traffic signal timings, and Version 10.0 implements the methodologies of the 2000 (4<sup>th</sup> Ed.), 2010 (5<sup>th</sup> Ed.), and 6<sup>th</sup> Ed. of the HCM for signalized and unsignalized intersections. Synchro requires data on road characteristics (geometric), traffic counts, and the signal timing data for each analysis intersection. In general, default parameters were used, except for locations where specific field data were available (e.g., peak-hour factors). Heavy vehicle percentages of 2% were assumed during the peak-hour.

Control delay and level-of-service for study intersections were calculated using SimTraffic (Version 10) micro-simulation, where Synchro indicated potential project impacts. SimTraffic allows better

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<sup>23</sup> Trafficware (2017) Synchro plus SimTraffic, Sugar Land TX.

testing of coordination between signals where some movements are at or near capacity. Because micro-simulation utilizes distributions of vehicle, driver, and activity data to represent the stochastic characteristics of traffic operations, a minimum of 10 model runs were averaged wherever SimTraffic results are reported. Stopped delay was used as a surrogate for control delay to determine level-of-service.

#### Macroscopic Freeway Analysis

Basic freeway segments, merge, and diverge segments were analyzed using HCS 2010<sup>24</sup> software to implement HCM 2010<sup>25</sup> methods for estimating vehicle density and level-of-service.

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<sup>24</sup> McTrans (2017) Highway Capacity Software (HCS), University of Florida, Gainesville FL.

<sup>25</sup> Transportation Research Board (2010) Highway Capacity Manual, Washington, D.C.

## 4. EXISTING 2016 CONDITION WITH AND WITHOUT PROJECT

This section presents the Existing Condition and Existing with Project Condition, and an evaluation of the project trip generation and distribution. For purposes of this study, Existing Conditions represent typical midweek, non-holiday, traffic volumes in 2016.

### 4.1 Existing Condition

#### Data Sources

The analysis tools require a variety of data to generate the evaluation criteria. The following sections describe data collection procedures for Existing Conditions. There were three primary data elements (roadway characteristics, intersection turning movement counts, and traffic control data); and two supplementary elements (other recent studies, and field data) that comprised the data collection program for this traffic analysis.

#### Roadway Geometry and Usage Characteristics

The geometry and usage data for the analysis were collected through aerial photographs, field visits, and prior studies. Current intersection geometry was field validated. Table 11 shows the key items included in the geometric data and the source for each item.

**Table 11. Key Items and Sources for Geometry and Usage Data**

Key Item	Source
Lane configurations and width	Aerial photographs and field visits
Lane utilization	Prior studies, aerial photographs, and field visits
Intersection spacing	Aerial photographs and field visits
Length of storage bays	Aerial photographs and field visits
Transit stops and routes	Transit schedules, aerial photographs, and field visits
Turn prohibitions or allowance	Aerial photographs and field visits

**Lane configurations and width** – These data specify the number of lanes and the width of the roadway in each direction, and the directional turns that are allowed from each lane.

**Lane utilization** – These data specify how lanes are used by drivers, such as traffic distribution between lanes on a multi-lane roadway.

**Intersection spacing** – These data refer to the distance (in feet) between intersections.

**Length of storage bays** – These data refer to the length (in feet) of available storage for left-turning or right-turning vehicles where exclusive turn lanes are available. It is collected for right-turn lanes when the parking lane is used as a right-turn lane.

**Transit stops and routes** – A transit stop is an area where passengers await, board, alight, and transfer between transit vehicles. A transit route is the roadway that transit vehicles operate on.

**Turn prohibitions or allowance** – These data specify if right turns on red (RTOR) are allowed on the roadway.

### Intersection Turning Movement Counts

Existing morning and evening peak-period vehicle and pedestrian turning movement counts were collected at study intersections in May 2016. Additional counts from neighboring studies in 2014 were utilized at intersections 1, 4, 11, and 12. New counts performed for this study were collected in 15-minute (or smaller) intervals on a Tuesday, Wednesday, or Thursday when schools were in session. The older counts were scaled and balanced based on the counts collected for this study. Traffic count data sheets are provided in **Appendix A** of this report.

Peak-hour traffic counts were used to conduct the intersection level-of-service analysis. Turning movement counts at consecutive intersections were balanced and adjusted where appropriate to better reflect existing traffic flows. Observed intersection peak-hour factors (PHF) were applied. **Figure 6** provides a summary of the intersection lane geometry and peak period turning movements under Existing Conditions.

### US 50 Peak-Hour Traffic Volume

Traffic volume for the US 50 mixed flow lanes is based on Caltrans PeMS<sup>26</sup> data. The analysis considered mean, non-holiday, midweek, volumes from May 1, 2016 through May 31<sup>st</sup>, 2016. Wednesday May 18<sup>th</sup> volumes were selected for use in the analysis as they displayed the highest peak-hour flows, and correspond to the May 18<sup>th</sup> turning movement counts taken at the East Bidwell St interchange. Copies of the PeMS count data are included in **Appendix A**. Merge and diverge volumes were estimated based on ramp flows observed at the East Bidwell St interchange.

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<sup>26</sup> Caltrans Freeway Performance Measurement (PeMS) System, <http://pems.dot.ca.gov/>.

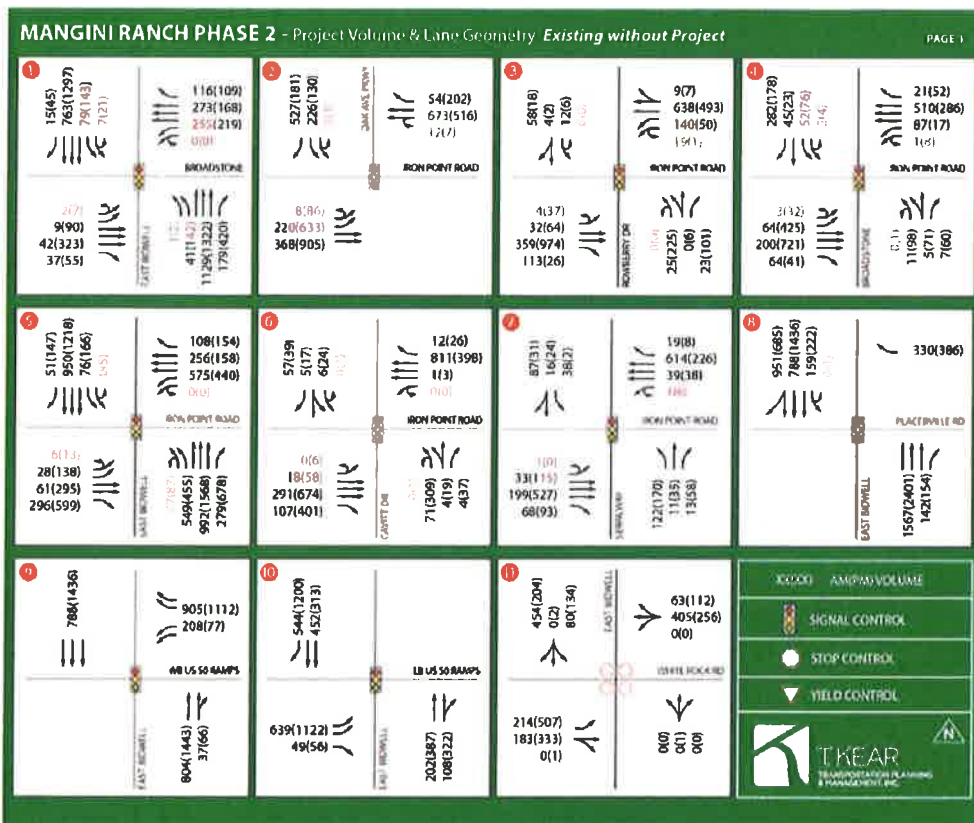


Figure 6. Mangini Ranch Phase 2 Existing Condition Turn Movements and Geometry

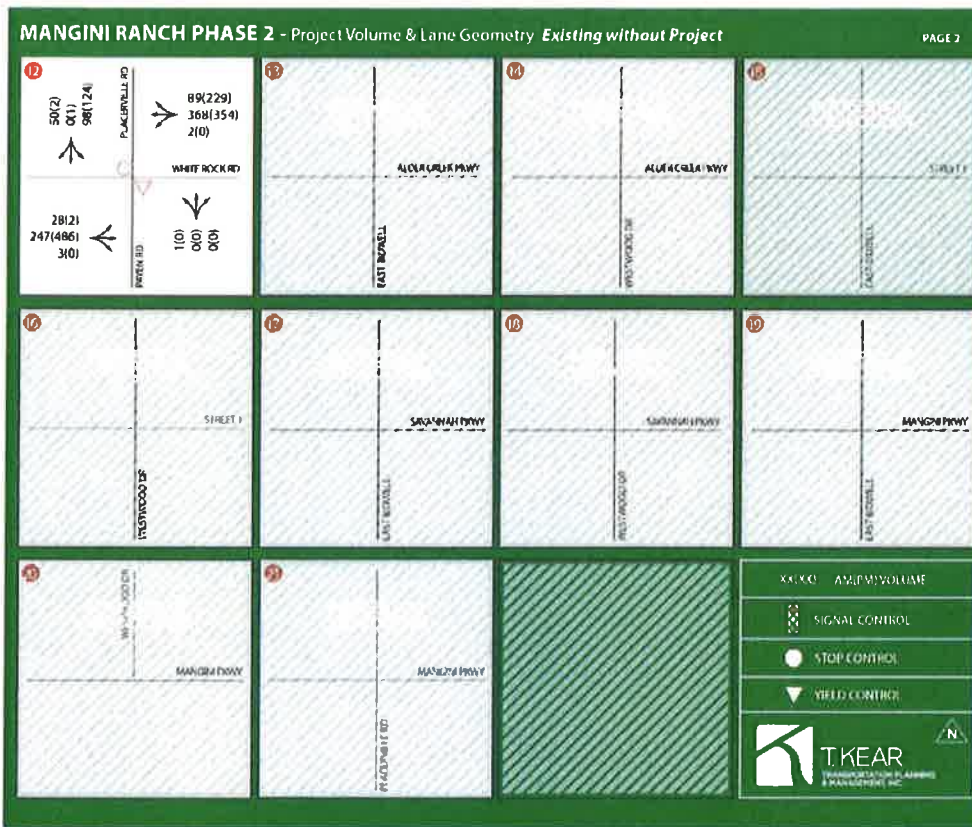


Figure 6. Mangini Ranch Phase 2 Existing Condition Turn Movements and Geometry (continued)

Existing Condition Intersection and Arterial Segment Level-of-Service

**Table 12** through **Table 14** present a summary of level-of-service results for the study intersections and segments under Existing Conditions. (Note that for TWSC intersections, these tables and others in this TIS report the worst movement delay and level-of-service.) The results indicate that six intersections exceed the relevant level-of-service standard prior to the addition of project traffic. These locations are shown in a bold font. All study segments operate acceptably. Calculation sheets for intersection delay and level-of-service as well as freeway density and level-of-service are provided in **Appendix B**.

**Table 12. Existing Intersection Delay and Level-of-Service**

Study Intersection	Existing 2016 without Project Condition Control	Level-Of-Service Standard	Existing 2016 without Project Condition AM Delay (LOS)	Existing 2016 without Project Condition PM Delay (LOS)
1. Broadstone Pkwy./East Bidwell St.	Signal	C	20.0 (B)	23.1 (C)
2. Oak Ave./Iron Point Rd.	Signal	C	16.6 B	11.2 (B)
3. Rowberry Dr./Iron Point Rd.	Signal	C	13.4 (B)	16.2 (B)
4. Broadstone Pkwy./Iron Point Rd.	Signal	C	11.0 (B)	14.8 (C)
5. East Bidwell St./Iron Point Rd.	Signal	C	<b>44.7 (D)</b>	<b>157.9 (F)</b>
6. Cavitt Dr./Iron Point Rd.	Signal	C	11.6 (B)	21.7 (C)
7. Serpa Way/Iron Point Rd.	Signal	C	19.4 (B)	17.1 (B)
8. East Bidwell St./Placerville Rd.	Signal	C	11.5 (B)	12.9 (B)
9. East Bidwell St./WB U.S. 50 ramps	Signal	C	<b>38.6 (D)</b>	<b>46.3 (D)</b>
10. East Bidwell St./EB U.S. 50 ramps	Signal	C	19.7 (B)	<b>49.1 (D)</b>
11. East Bidwell St./White Rock Rd.	AWSC	D	<b>46.4 (E)</b>	<b>45.4 (E)</b>
12. White Rock Rd./Placerville Rd.	TWSC	D	20.8 (C) SB	<b>50.4 (F) SB</b>
13. East Bidwell St./Alder Creek Pkwy.	-	D	n/a	n/a
14. Westwood Dr./Alder Creek Pkwy.	-	D	n/a	n/a
15. East Bidwell St./Street 1	-	D	n/a	n/a
16. Westwood Dr./Street 1	-	D	n/a	n/a
17. East Bidwell St./Savannah Pkwy	-	D	n/a	n/a
18. Westwood Dr./Savannah Pkwy	-	D	n/a	n/a
19. East Bidwell St./Mangini Pkwy	-	D	n/a	n/a
20. Westwood Dr./Mangini Pkwy	-	D	n/a	n/a
21. Placerville Rd./Mangini Pkwy	-	D	n/a	n/a

Notes:

For TWSC intersections the worst approach (or movement for multi-lane approaches) is reported.  
Bold values denote level-of-service deficiencies.

**Table 13. Existing Arterial Segment Volume Level-of-Service**

Segment (Location)	Analysis Type	Level-of-Service Standard	Existing 2016 without Project Condition Volume (LOS)
1. East Bidwell St. (North of White Rock Rd.)	Moderate Access Control	D	8,860 (A)
2. White Rock Rd. (West of East Bidwell St.)	High Access Control	D	10,930 (A)
3. White Rock Rd. (East of East Bidwell St.)	High Access Control	D	5,980 (A)

**Table 14. Existing US 50 Density and Level-of-Service**

Segment	Analysis Type	Level-of-Service Standard	Existing 2016 without Project Condition AM Density (LOS)	Existing 2016 without Project Condition PM Density (LOS)
<b>Eastbound</b>				
1. EB East Bidwell St. slip off-ramp	Diverge	E	12.2 (B)	22.2 (C)
2. EB between East Bidwell St. ramps	Basic	E	9.4 (A)	14.3 (B)
3. EB East Bidwell St. loop on-ramp	Merge	E	15.2 (B)	20.7 (C)
4. EB East Bidwell St. slip on-ramp	Merge	E	16.4 (B)	23.6 (C)
<b>Westbound</b>				
5. WB East Bidwell slip off-ramp	Diverge	E	20.9 (C)	14.5 (B)
6. WB between East Bidwell St. ramps	Basic	E	13.6 (B)	7.3 (A)
7. WB East Bidwell St. loop on-ramp	Merge	E	15.5 (B)	9.3 (A)
8. WB East Bidwell St. slip on-ramp II	Merge	E	23.0 (C)	14.8 (B)

Note: Results based on PeMS data for US 50 mixed flow lanes.

#### 4.2 Assessment of Proposed Project

##### Trip Generation

Traffic generated by the proposed project was based on Institute of Transportation Engineers (ITE) Trip Generation Manual, 9<sup>th</sup> Edition (2012), and is provided in Table 15 below. Trip generation is for both the project, consisting of the 545 single-family and multi-family dwelling units in the Tentative Map application, and for Mangini Ranch Phase 3, consisting of the 356 multi-family dwelling units in the accompanying Large Lot Map.



Table 15. Project Trip Generation

FPASP Parcel	Village	Land Use	Quantity	ITE LU		Daily	AM Trips	AM (Entering)	AM (Exiting)	PM Trips	PM (Entering)	PM (Exiting)
150	Village 1	SF	88 DU	210	Rate Trips	9.52 838	0.77 68	26% 18	74% 50	1.02 90	64% 57	36% 32
154	Village 2	SF	74 DU	210	Rate Trips	9.52 704	0.77 57	26% 15	74% 42	1.02 75	64% 48	36% 27
83	Village 3	SF	53 DU	210	Rate Trips	9.52 505	0.77 41	26% 11	74% 30	1.02 54	64% 35	36% 19
82A	Village 4	SF	72 DU	210	Rate Trips	9.52 685	0.77 55	26% 14	74% 41	1.02 73	64% 47	36% 26
84	Village 5 Village 6	SF	153 DU	210	Rate Trips	9.52 1,457	0.77 118	26% 31	74% 87	1.02 156	64% 100	36% 56
153	Village 7	MLD	69 DU	230	Rate Trips	5.81 401	0.44 30	19% 6	81% 25	0.52 36	64% 23	36% 13
82B-1	Village 8	MLD	36 DU	230	Rate Trips	5.81 209	0.44 16	19% 3	81% 13	0.52 19	64% 12	36% 7
<b>Mangini Ranch Phase 2 Tentative Map Project Trips</b>						<b>4,799</b>	<b>385</b>	<b>97</b>	<b>288</b>	<b>503</b>	<b>322</b>	<b>181</b>
151	Lot A	MHD	145 DU	221	Rate Trips	7.79 1,130	0.55 79	20% 16	80% 63	0.69 100	64% 64	36% 36
82B-2	Lot B	MLD	58 DU	230	Rate Trips	5.81 337	0.44 26	19% 5	81% 21	0.52 30	64% 19	36% 11
79B	Lot C	MLD	153 DU	230	Rate Trips	5.81 889	0.44 67	19% 13	81% 55	0.52 80	64% 51	36% 29
<b>Mangini Ranch Phase 3 Large Lot Trips</b>						<b>2,356</b>	<b>172</b>	<b>33</b>	<b>138</b>	<b>210</b>	<b>135</b>	<b>76</b>
<b>Project Plus Large Lot Map Trips</b>						<b>7,155</b>	<b>557</b>	<b>130</b>	<b>427</b>	<b>714</b>	<b>457</b>	<b>257</b>

#### Trip Distribution

Trip distribution was based on observed traffic counts and select zone analysis within the SACSIM travel demand model. New project trips were distributed as follows:

- 35% to/from the west via US 50;
- 15% to/from the east via US 50;
- 7% to/from the west via Iron Point Road;
- 7% to/from the east via Iron Point Road;
- 17% to/from the north via East Bidwell Street;
- 5% to/from the west via White Rock Road;
- 7% to/from the east via White Rock Road; and
- 7% to/from the commercial land uses at East Bidwell Street/Iron Point Road.

Trip distribution is seen visually in **Figure 7**.

#### Internal Driveway Loading

The proposed tentative map consists of 545 dwelling units in 8 villages that are anticipated to generate 385 AM peak period trips and 503 PM peak period trips. Trips were assigned to the driveways for each neighborhood based on the number of trips that each village is anticipated to generate, the internal configuration of each village, trip distribution, and engineering judgement. **Figure 8** below shows assignment of project trips at each study intersection.

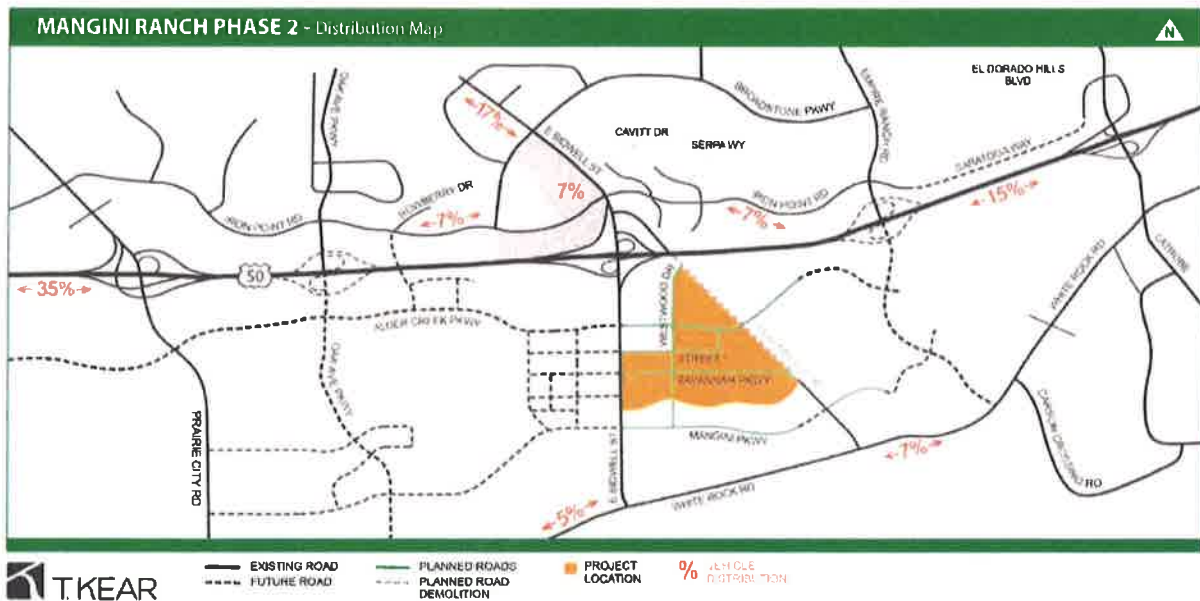


Figure 7. Project Trip Distribution

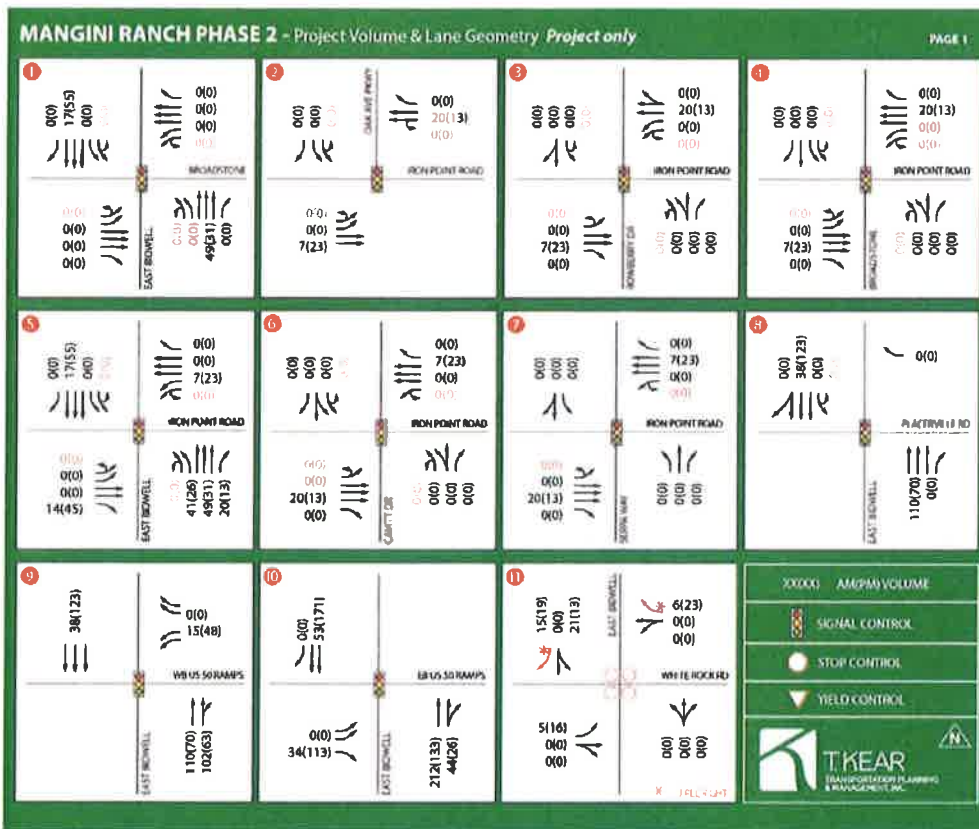


Figure 8. Mangini Ranch Phase 2 Project Trip Assignment