

Sutter County Initial Study

- 1. Project title:** Project #U-19-010 (Singh)
- 2. Lead agency name and address:** Sutter County Development Services Department
Planning Division
1130 Civic Center Boulevard
Yuba City, CA 95993
- 3. Contact person and phone number:** Casey Murray, Associate Planner
530-822-7400 ext. 245
- 4. Project sponsor's name and address:** Applicant:
Avtar Sahota
499 Wilson Road
Yuba City, CA 95991

Owners:
Avtar Sahota and Balkar Sahota
499 Wilson Road
Yuba City, CA 95991

Representative:
Dennis C. Nelson Company
960 McCourtney Road, Suite C
Grass Valley, CA 95949
- 5. Project Location & APN:** 499 Wilson Road, Yuba City, CA 95991; located on the north side of Wilson Road, approximately 1,600 feet west of State Highway 99; APN: 25-170-010
- 6. General Plan Designation:** AG-80 (Agriculture, 80-acre minimum)
- 7. Zoning Classification:** AG (Agriculture) District
- 8. Description of project:** The proposed project is a use permit to legitimize a previously established large general truck yard for a maximum of 30 trucks/trailers that was established without land use approval. The subject property is under code enforcement due to the illegal operation of the commercial trucking business on the property without an approved use permit. If this application is approved, the proposed use permit will bring the illegal operation into compliance.

This project is a use permit for a large general trucking operation in conjunction with an existing farming operation at the site. The subject property is an 8.14-acre parcel. Approximately the southern 1.5-acres of the site is developed with structures. These structures include a 3,000 square foot shop, 2,500 square foot barn, 520 square foot office, and 375 square foot carport. A single-family residence was previously located at the site but was destroyed by fire and there is no plan to rebuild it. According to the applicant, the developed portion of the site was originally a prune dehydrator built around 1926. The existing 2,500 square foot barn is one of the original structures from that period. The other existing structures were originally built to support agricultural activities. The structures today are used to support the farm and trucking operation.

An approximate 1.8-acre portion of the site, located immediately north of the existing structures, has been surfaced with gravel and asphalt grindings to allow for semi-truck and trailer parking. A review of aerial photographs indicates that approximately 1.2-acres of this area has been utilized for parking vehicles and other various agricultural operations since at least 1999. This area was expanded to the north in 2018

adding approximately 0.6 acres to allow for additional truck parking.

The southern 1.5-acre area of the site developed with structures and the 1.8-acre truck parking area equal the approximate 3.3-acre developed portion of the site. The northern 4.8-acres of the site consists of and will remain as a prune orchard.

The existing structures and truck parking area are used as the headquarters for a family farming operation. The on-site orchard is farmed by the owner. In conjunction with the farm operation, the truck parking area located between the existing structures to the south and the orchard to the north is used for truck parking for the farm operation and commercial trucking operation. Trucks are currently owned and operated by the property owner for both the farming and commercial trucking operation.

The trucking operation currently consists of 10 truck/trailer units. This project proposes to have a maximum of 30 trucks/trailers on the site at any one time to allow for the occasional additional unit above the 10 on-site and for future growth of the trucking component. On average, there can be approximately 25 - 50 percent of the trucks on-site during the work week and 90 – 100 percent of the trucks on-site over the weekend. The applicant does not expect these averages to change as the fleet expands.

Besides fresh prunes, the trucking operation transports fresh vegetables, strawberries, and other crops to markets utilizing refrigerated trailers or transport refrigeration units (TRUs). Due to the wide variety of products hauled, there is a mix of trailer types on-site including TRUs, single/double flatbeds, bins, etc. needed for hauling. All trucks are currently owned and operated by the applicant and are California Air Resources Board (CARB) certified. This means that a certificate of reported compliance has been issued by CARB that certifies that the fleet of vehicles at the site has reported compliance with title 13, California Code of Regulations, section 2025 of the Truck and Bus Regulation. The purpose of this regulation is to reduce emissions of diesel particulate matter (PM), oxides of nitrogen (NOx) and other criteria pollutants from in-use diesel fueled vehicles. All TRUs are Thermo King-CARB Evergreen certified. This means that they require no Diesel Particulate Filter (DPF) or additional emissions system and they meet the Ultra-Low-Emission TRU (ULETRU) in-use performance standard. According to the applicant, approximately 2-3 TRUs may be running during weekdays and no TRUs run during the weekend as all trailers are unloaded when parked over the weekend.

No new building construction is proposed. Minor truck repairs (replace filters, wipers, tires, brakes, etc.) will take place on an existing outdoor concrete slab located on the west side of the existing barn. No major repairs of trucks is proposed to occur at this site. The existing shop building is used for the repair of the property owner's farm equipment, is used for the storage of tools used for both farm equipment and minor repairs of trucks and trailers, and is used for the storage of replaceable items such as filters, wipers, etc. for trucks and trailers. Currently refuse and trash is collected in toter containers supplied by Recology who is the waste management company for this area. Waste totes are kept in the shop and taken to the roadside for weekly pick up. The existing barn is primarily used to store items used in the farming operation and may occasionally be used to store weather sensitive trucking related items. The existing office building is used as the headquarters for the farming operation and dispatch for trucking operation. The existing carport is used for the parking of farm equipment and vehicle parking.

The property has an existing septic system/septic field located north of the existing office building that it serves. This area is surrounded by an existing fence. The office has a single use accessible restroom. The restroom is accessible to all on site employees and drivers during their respected hours of operation. No additional on-site sewage systems are proposed for this project. Water is provided by an on-site well located on the east side of the shop building. No additional wells are proposed with this project.

The commercial trucking operation operates during daylight hours between sunup (early morning) to sundown (before dark). The maximum hours of operation for the commercial trucking component are Monday – Saturday from 6:00 a.m. to 8:00 p.m. The hours of operation (trucks ingressing/egressing) are controlled by the owner of the family operated trucking business. A total of ten employees work at the site, which includes truck drivers. In the future, the applicant states there could be 10-15 additional employees. The general trucking component is family owned and operated and some family members are considered

employees.

The site has an existing 36-foot-wide gravel driveway on the east side and an existing 24-foot-wide gravel driveway on the west side. The applicant proposes using only the east driveway for ingress/egress. The west driveway will be removed as part of the site improvements proposed to be made. The east driveway will be widened to a minimum of 45 feet to meet an industrial driveway standard and will be paved. Trucks are proposed to leave the site in the east bound direction. A sign is proposed on the east side of the driveway visible to truck drivers leaving the site stating, "Trucks Leaving Yard Left Turn Only. No Right Turn."

The existing truck and trailer parking area is surfaced with gravel and asphalt grindings and is maintained to a depth to remain durable and dustless. Extra material is stock piled on-site and is added as needed. The project proposes 24 asphalt paved automobile parking spaces, which includes one ADA accessible space. The paved parking lot and spaces will be located on the west side of the project site adjacent to the existing structures. The area designed for paved automobile parking is currently covered with gravel and asphalt grindings. The applicant has requested a deferment of paving the vehicle parking and associated access for spaces 6-24 for three years from the approval date or when 20 trucks are parked on the site, whichever comes first. The east driveway, parking stalls 1-4, and associated access is proposed to be initially paved. This will prevent the tracking out of asphalt grindings and gravel onto Wilson Road.

The large general truck yard use type may only be established in the AG District with approval of a use permit and when located immediately adjacent to a State Highway or a designated T or S-route (STAA). Surface Transportation Assistance Act (STAA) trucks are typically truck-tractors with sleeper units and a trailer that combined exceed the 65-foot "California Legal" threshold. The applicant is requesting to obtain a STAA route designation on a portion of Wilson Road from State Highway 99 to the east driveway entrance of the site. The east driveway and on-site turn-around is proposed to be accessible and maintained for STAA rated truck traffic. There will not be a gate at the east driveway, allowing STAA trucks to utilize the on-site turn around.

The Development Services Engineering Division reviewed this project and has indicated for a STAA route the minimum pavement width that is required is 9-foot lanes for a total of 18 feet of paving, and the existing Wilson Road meets this width requirement. The STAA route will only be from State Highway 99 to the east driveway of the project. The applicant will be required to pay for the signage that the County will have to install. There will be an "End STAA Route" sign at the entrance to the facility.

The Engineering Division has stated the County has programmed to do a cape seal on Wilson Road from State Highway 99 to Gledhill Road. For reference, Gledhill Road is approximately 1,320 feet west of the project site. A cape seal consists of a chip seal layer followed by a micro-surfacing layer on top. The chip seal consists of screenings (medium – 3/8" rock) mixed with a latex modified asphalt emulsion. Micro-surfacing is a road treatment that mixes small rock with an asphalt emulsion that produces a chemical reaction that forces the moisture out of the mix allowing traffic to return quickly in some cases in less than an hour. As part of this work, the County will be widening Wilson Road to fix edges and fix the existing paving. Wilson Road will be widened by two feet on each side within the existing graveled area, which will make the road go from 18 feet wide to 22 feet wide. This work will be completed in Summer of 2022. The County is not requiring the applicant to widen Wilson Road since the County is going to be widening the road and doing repairs on it anyway all within the existing right-of-way. All improvements including widening the driveway into the project site must be in place before Wilson Road can be designated as a STAA route.

Site screening includes new six-foot-tall chain link fencing with dark green privacy slats having a 90 percent screening ability. This fence is proposed to be installed across the front of the property along Wilson Road and extend to the north along both side property lines for a distance of approximately 240 feet aligning with the north face of the existing shop building. No gate is proposed with the new driveway and fence improvements. The remaining site perimeter is screened by adjacent orchards. If the adjacent orchards are removed in the future, additional screening of the site may be required at the County's discretion.

A landscape and irrigation plan received for this project shows existing and proposed landscaping for the

site. Existing landscaping generally consists of trees east of the existing office building, trees at the southwest corner of the site, trees south of the existing shop and barn, and shrubs located at the southeast corner of the site. All existing landscaping is proposed to remain and be maintained. A 15-foot-wide landscape planter is proposed along the front of the property in front of the proposed fence. This planter will include incense cedar trees spaced at 15 feet on center along with manzanita and yarrow shrubs. Landscape planters are proposed adjacent to the paved automobile parking areas. Planters will include Holly Oak, Chinese pistache, and beefwood trees along with New Zealand flax, yarrow, and manzanita shrubs. All landscape planters will have bark mulch for ground cover, be drip irrigated, and will be surrounded by six-inch concrete curbing.

The applicant has submitted a lighting/photometric plan which shows proposed exterior lighting. Five 18-foot-tall LED pole lights are proposed adjacent to the paved automobile parking area with fixtures titled toward the interior of the site. Two wall mounted LED lights are proposed on the south side of the existing shop building mounted at eight feet above the ground. The submitted photometric plan demonstrates that light will not shine off of the property, consistent with County standards. Lighting is not proposed within the general truck parking area since this operation will only occur during daylight hours only.

9. Surrounding land uses and setting: The 8.14± acre project site is located in a rural area on the north side of Wilson Road, approximately 1,600 feet west of State Highway 99, approximately eight miles south of Yuba City. The terrain is relatively flat with gentle/shallow slopes. The surrounding area is largely rural in nature. The project site and parcels in all directions are zoned AG (Agriculture) and General Planned AG-80. Prune orchards are located north, east, and west of the project site and walnut and prune orchards are located south of the site. Rural residential use is located east and west of the site. There are no other truck yards located in the vicinity of the project site. An agricultural ditch located on the north side of Wilson Road conveys runoff from adjacent prune orchards and goes through a culvert located beneath the two driveways at the project site.

North: prune orchard; South: Wilson Road, walnut and prune orchards; East: prune orchard; West: prune orchard.

10. Other public agencies whose approval is required: None

11. Have California Native American tribes traditionally and culturally affiliated with the project area requested consultation pursuant to Public Resources Code section 21080.3.1? If so, is there a plan for consultation that includes, for example, the determination of significance of impacts to tribal cultural resources, procedures regarding confidentiality, etc.? The County initiated Assembly Bill 52 (AB 52) consultation through distribution of letters to the Native American tribes provided by the Native American Heritage Commission (NAHC). No request for consultation or any other comments were received from Native American tribes during the review period.

ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED:

The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a “Potentially Significant Impact” as indicated by the checklist on the following pages.

- | | | |
|--|---|---|
| <input type="checkbox"/> Aesthetics | <input type="checkbox"/> Agriculture and Forestry Resources | <input type="checkbox"/> Air Quality |
| <input type="checkbox"/> Biological Resources | <input type="checkbox"/> Cultural Resources | <input type="checkbox"/> Energy |
| <input type="checkbox"/> Geology and Soils | <input type="checkbox"/> Greenhouse Gas Emissions | <input type="checkbox"/> Hazards and Hazardous Materials |
| <input type="checkbox"/> Hydrology and Water Quality | <input type="checkbox"/> Land Use and Planning | <input type="checkbox"/> Mineral Resources |
| <input type="checkbox"/> Noise | <input type="checkbox"/> Population and Housing | <input type="checkbox"/> Public Services |
| <input type="checkbox"/> Recreation | <input type="checkbox"/> Transportation | <input type="checkbox"/> Tribal Cultural Resources |
| <input type="checkbox"/> Utilities and Service Systems | <input type="checkbox"/> Wildfire | <input type="checkbox"/> Mandatory Findings of Significance |

DETERMINATION

On the basis of this initial evaluation:

- ☐ I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.
- ☒ I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.
- ☐ I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.
- ☐ I find that the proposed project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.
- ☐ I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

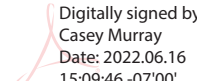
Applicant Mitigation Agreement:

CEQA allows a project proponent to make revisions to a project, and/or to agree and comply with, mitigation measures that reduce the project impacts such that the project will not have a significant effect on the environment. CEQA Guidelines Section 15064.

As the applicant/representative for this proposed project, I hereby agree to implement the proposed mitigation measures and mitigation monitoring program identified within this document.


Signature of Applicant/Representative

6/16/2022
Date

Casey
Murray

Casey Murray, Associate Planner

6-16-2022
Date


Neal Hay, Director of Development Services
Environmental Control Officer

6/16/2022
Date

I. AESTHETICS.

Except as provided in Public Resources Code Section 21099, would the project:

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Have a substantial adverse effect on a scenic vista?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) In nonurbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Responses:

a) **Less than significant impact.** This project will not have a substantial adverse effect on a scenic vista. The General Plan does not inventory any scenic vista on the subject property and there are no scenic vistas proximate to the project site. The General Plan Technical Background Report identifies geographic features such as the Sutter Buttes, Feather River, Sacramento River, and Bear River as scenic resources within the County, which contribute to the County's character. This project is not located within the Sutter Buttes Overlay Zone and is not located in the immediate vicinity of the Bear River, Feather River, or Sacramento River. The Feather River lies approximately 1.5 miles east of the project site. As a result, this project will not substantially alter any scenic vista and a less than significant impact is anticipated.

b) **No impact.** This project will not substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway because there are no state scenic highway designations in Sutter County. As there are no scenic highways located in Sutter County, no impact is anticipated.

c) **Less than significant impact.** The proposed project is located in a nonurbanized area and will not substantially degrade the existing visual character or quality of public views of the site and its surroundings.

The surrounding area is largely rural in nature. The project site and parcels in all directions are zoned AG (Agriculture) and General Planned AG-80. Prune orchards are located north, east, and west of the project site and walnut and prune orchards are located south of the site. Rural residential use is located east and west of the site.

The subject property is 8.14-acres. The southern 1.5-acre area of the site developed with structures and the 1.8-acre truck parking area equal the approximate 3.3-acre developed portion of the site. The northern 4.8-acres of the site consists of and will remain as a prune orchard. The truck parking area is currently screened by existing structures at the front of the property and adjacent orchards.

According to the applicant, the developed portion of the site was originally a prune dehydrator built around 1926. The existing 2,500 square foot barn is one of the original structures from that period. The other existing structures were originally built to support agricultural activities. The structures today are used to support the farm and trucking operation. No new building construction is proposed with this project.

An approximate 1.8-acre portion of the site located immediately north of the existing structures has been surfaced with gravel and asphalt grindings to allow for semi-truck and trailer parking. A review of aerial photographs indicates that approximately 1.2-acres of this area has been utilized for parking vehicles and other various agricultural operations since at least 1999. This area was expanded to the north in 2018 adding approximately 0.6 acres to allow for additional truck parking.

Proposed site screening will include new six-foot-tall chain link fencing with dark green privacy slats having a 90 percent screening ability. This fence is proposed to be installed across the front of the property along Wilson Road and extend to the north along both side property lines for a distance of approximately 240 feet aligning with the north face of the existing shop building. No gate is proposed with the new driveway and fence improvements. The remaining site perimeter is screened by existing adjacent orchards. If the adjacent orchards are removed in the future, additional screening of the site may be required at the County's discretion, which will be included as a project condition.

A landscape and irrigation plan received for this project shows existing and proposed landscaping for the site. Existing landscaping generally consists of trees east of the existing office building, trees at the southwest corner of the site, trees south of the existing shop and barn, and shrubs located at the southeast corner of the site. All existing landscaping is proposed to remain and be maintained. A 15-foot-wide landscape planter is proposed along the front of the property in front of the proposed fence. This planter will include incense cedar trees spaced at 15 feet on center along with manzanita and yarrow shrubs. Landscape planters are proposed adjacent to the paved automobile parking areas. Planters will include Holly Oak, Chinese pistache, and beefwood trees along with New Zealand flax, yarrow, and manzanita shrubs. All landscape planters will have bark mulch for ground cover, be drip irrigated, and will be surrounded by six-inch concrete curbing. The landscape plan demonstrates compliance with the State's current Model Water Efficient Landscaping Ordinance. All landscaping was selected from the County's Preferred Landscape Plant Materials List. All landscaping is required to be installed in accordance with the landscape plan at the time that the paved parking area is developed and shall be continuously maintained, which will be included as a proposed project condition. Due to the existing site and area conditions and proposed improvements, this project is not anticipated to substantially degrade the existing visual character or quality of the site or its surroundings and a less than significant impact is anticipated.

d) Less than significant impact. This project will not create a new source of substantial light or glare which will adversely affect day or nighttime views in the area. The area of the project has low to moderate levels of ambient lighting predominately from vehicle headlights on Wilson Road and State Highway 99 and agricultural and rural residential uses.

The applicant has submitted a lighting/photometric plan which shows proposed exterior lighting. Five 18-foot-tall LED pole lights are proposed adjacent to the paved parking area with fixtures tilted toward the interior of the site. Two wall mounted LED lights are proposed on the south side of the existing shop building mounted at eight feet above the ground. The submitted photometric plan demonstrates that light will not shine off of the property, consistent with County standards. Outdoor lighting will be required to be motion activated and installed in accordance with the lighting plan at the time that the paved parking area is developed, which will be included as a proposed project condition. Lighting is not proposed within the general truck parking area since this operation will only occur during daylight hours only. As a result, it is not anticipated that this project will create a new source of substantial light or glare in this area. A less than significant impact is anticipated.

(County of Sutter, General Plan Technical Background Report. 2008)
(County of Sutter, Zoning Code. 2019)

II. AGRICULTURE AND FORESTRY RESOURCES.

In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment Project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. Would the project:

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code Section 12220(g)), timberland (as defined by Public Resources Code Section 4526), or timberland zoned Timberland Production (as defined by Government Code Section 51104(g))?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Result in the loss of forest land or conversion of forest land to non-forest use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Responses:

a) **Less than significant impact.** This project will not convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program (FMMP) of the California Resources Agency, to a non-agricultural use. As shown on the 2018 Sutter County Important Farmland map, the entire project site is designated as "Farmland of Statewide Importance." "Farmland of Statewide Importance" is farmland similar to "Prime Farmland" but with minor shortcomings, such as greater slopes or less ability to store soil moisture.

The subject property is 8.14-acres. The southern 1.5-acre area of the site developed with structures and the 1.8-acre truck parking area equal the approximate 3.3-acre developed portion of the site. The northern 4.8-acres of the site consists of and will remain as a prune orchard.

According to the applicant, the developed portion of the site was originally a prune dehydrator built around 1926. The existing 2,500 square foot barn is one of the original structures from that period. The other existing structures were originally built to support agricultural activities. The structures today are used to support the farm and trucking operation. No new building construction is proposed with this project.

An approximate 1.8-acre portion of the site located immediately north of the existing structures has been surfaced with gravel and asphalt grindings to allow for semi-truck and trailer parking. A review of aerial photographs indicates that approximately 1.2-acres of this area has been utilized for parking vehicles and other various agricultural operations since at least 1999. This area was expanded to the north in 2018 adding approximately 0.6 acres to allow for additional truck parking. As a result, the proposed project will not convert farmland to a non-agricultural use. A less than significant impact is anticipated.

b) **Less than significant impact.** This project will not conflict with existing zoning for agricultural uses or a Williamson Act contract. The project site and all adjacent properties are located within the AG (Agriculture) District and are not encumbered by a Williamson Act contract. Large general truck yard use types may only be established in the AG District with approval of a use permit and when located immediately adjacent to a State Highway or a designated STAA route. This application includes the request for a STAA route from the project site to State Highway 99. This project does not propose sensitive uses such as a new residence, school, daycare center, playground, or medical facility that may be sensitive to adjacent agricultural land. Conflicts between the proposed project and adjacent agricultural land is not anticipated. A less than significant impact is anticipated.

c) **No impact.** This project does not conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code Section 12220(g)), timberland (as defined by Public

Resources Code Section 4526), or timberland zoned Timberland Production (as defined by Government Code Section 51104(g)), because the project site and surrounding area does not contain forest land. The project site is not zoned for forest land or timberland nor is it adjacent to land that is zoned for forest land or timberland. This project is located in the Sacramento Valley, a non-forested region. No impact is anticipated.

d) **No Impact.** This project will not result in the loss of forest land or conversion of forest land to a non-forest use because of its location within Sutter County. Sutter County is located on the valley floor of California's Central Valley, and, as such, does not contain forest land. No impact is anticipated.

e) **Less than significant impact.** This project will not involve other changes to the existing environment which could result in the conversion of farmland to a non-agricultural use or conversion of forest land to a non-forest use. This project does not include land being converted from forest land to non-forest use and no forest land is located in the vicinity. Agricultural uses in the vicinity will continue as they historically have with few incompatibilities anticipated because the proposed general truck yard does not present incompatibilities as residential uses can. Staff does not anticipate that this project will result in the conversion of other agricultural lands to non-agricultural use. Therefore, a less than significant impact is anticipated.

(California Dept. of Conservation, Farmland Mapping and Monitoring Program. 2018)

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
III. AIR QUALITY.				
Where available, the significance criteria established by the applicable air quality management district or air pollution control district may be relied upon to make the following determinations. Would the project:				
a) Conflict with or obstruct implementation of the applicable air quality plan?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Expose sensitive receptors to substantial pollutant concentrations?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Responses:

a-d) **Less than significant with mitigation incorporated.** This project will not conflict with any air quality plan or result in a net increase of any criteria pollutant, nor expose sensitive receptors to substantial pollutant concentrations or objectionable odors.

The proposed project is located within the Northern Sacramento Valley Air Basin (NSVAB) and the jurisdiction of the Feather River Air Quality Management District (FRAQMD). Air quality standards are set at both the federal and state levels. FRAQMD is responsible for the planning and maintenance/attainment of these standards at the local level. FRAQMD sets operational rules and limitations for businesses that emit significant amounts of criteria pollutants.

According to the FRAQMD 2010 Indirect Source Review Guidelines, Significant Impact Thresholds are triggered by the construction of 130 new single-family residences, 225,000 square feet of new light industrial space, 350,000 square feet of new warehouse space, or 130,000 gross square feet of new office space. This project will not trigger this threshold of significance and as such, will have a less than significant impact upon air quality.

General Plan Policy ER 9.8 requires new facilities or operations that may produce toxic or hazardous air pollutants to be located an adequate distance from sensitive air quality receptors consistent with California Air Resources Board recommendations. This policy is implemented by Implementation Program ER 9-A, which states to utilize the recommendations in the California Air Resources Board Air Quality and Land Use Handbook: A Community Health Perspective. This handbook, which was developed by CARB in 2005, is advisory and not regulatory.

The CARB handbook recommends avoiding siting new sensitive land uses within 1,000 feet of a distribution center (that accommodates more than 100 trucks per day, more than 40 trucks with operating transport refrigeration units (TRUs) per day, or where TRU unit operations exceed 300 hours per week).

The CARB handbook states that distribution centers or warehouses are facilities that serve as a distribution point for the transfer of goods. Such facilities include cold storage warehouses, goods transfer facilities, and inter-modal facilities such as ports. These operations involve trucks, trailers, shipping containers, and other equipment with diesel engines. A distribution center can be comprised of multiple centers or warehouses within an area. The size can range from several to hundreds of acres, involving a number of different transfer operations and long waiting periods. A distribution center can accommodate hundreds of diesel trucks a day that deliver, load, and/or unload goods up to seven days a week. To the extent that these trucks are transporting perishable goods, they are equipped with diesel-powered TRUs or TRU generator sets. Although this project proposes truck parking, this project does not propose a distribution center.

Sensitive land uses are defined in the CARB handbook as land uses where sensitive individuals are most likely to spend time, including schools and schoolyards, parks and playgrounds, day care centers, nursing homes, hospitals, and residential communities.

Three residences reside within 1,000 feet of the project site boundary. One residence is approximately 530 feet west, one residence is approximately 780 feet west, and one residence is approximately 800 feet east of the project site boundary. Existing prune orchards are located between the existing residences and the project site. These three residences are located on agriculturally zoned parcels. No residential communities are located in the vicinity of the project site as it is located in a rural area.

Prune orchards are located between the existing residences and the project site. There is approximately 475 feet of orchard between the project site and the closest residence. Ornamental trees are also located next to these residences. The project site has existing landscaping and will have proposed landscaping within the southern 1.5-acres of the site

adjacent to existing structures and paved parking spaces. Due to the presence of these trees and vegetation, diesel exhaust generated at the project site does not have a direct, unimpeded pathway to offsite residences. The presence of trees and vegetation has been shown to improve air quality by assisting in the dispersion of pollution. In addition, the three closest residences to the project site are not located directly north or directly south in the direction of prevailing winds.

According to the applicant, approximately 2-3 TRUs may be running during weekdays and no TRUs run during the weekend as all trailers are unloaded when parked over the weekend. The proposed project will not accommodate more than 100 trucks or more than 40 trucks with operating TRUs; therefore, is consistent with the County's General Plan policy. In addition, there are no other truck yards located in the vicinity of the project site.

All trucks are currently owned and operated by the applicant and are California Air Resources Board (CARB) certified. This means that a certificate of reported compliance has been issued by CARB that certifies that the fleet of vehicles at the site has reported compliance with title 13, California Code of Regulations, section 2025 of the Truck and Bus Regulation. The purpose of this regulation is to reduce emissions of diesel particulate matter (PM), oxides of nitrogen (NOx) and other criteria pollutants from in-use diesel fueled vehicles. All trucks at the site are model year 2011. All TRUs are Thermo King-CARB Evergreen certified. This means that they require no Diesel Particulate Filter (DPF) or additional emissions system and they meet the Ultra-Low-Emission TRU (ULETRU) in-use performance standard.

CARB is working to reduce diesel PM emissions through regulations, financial incentives, and enforcement programs. In 2004, CARB adopted two airborne toxic control measures to reduce diesel PM emissions associated with distribution centers. The first limits nonessential (or unnecessary) idling of diesel-fueled commercial vehicles, including those entering from other states or countries. This statewide measure that became effective in 2005, prohibits idling of a vehicle more than five minutes at any one location. The elimination of unnecessary idling reduces the localized impacts caused by diesel PM and other air toxics in diesel vehicle exhaust. This has effectively reduced diesel PM emissions at distribution centers as well as other locations. TRUs operating in California are required to become cleaner over time. The measure establishes in-use performance standards for existing TRU engines that operate in California, including out-of-state TRUs.

On December 12, 2008, CARB approved the Truck and Bus Regulation to significantly reduce particulate matter (PM) and oxides of nitrogen (NOX) emissions from existing diesel vehicles operating in California. The regulation requires diesel trucks and buses that operate in California to be upgraded to reduce emissions. By January 1, 2023, nearly all trucks and buses need to have 2010 model year engines or equivalent. Starting in 2020, only vehicles compliant with this regulation will be registered by the California DMV. All trucks at the project site are model year 2011 and are CARB compliant.

The purpose of the CARB Air Toxic Control Measure (ATCM) to Limit Diesel-Fueled Commercial Motor Vehicle Idling is to reduce public exposure to diesel particulate matter and criteria pollutants by limiting the idling of diesel-fueled commercial vehicles. The driver of any vehicle subject to this ATCM is prohibited from idling the vehicle's primary diesel engine for greater than five minutes at any location and is prohibited from idling a diesel-fueled auxiliary power system (APS) for more than five minutes to power a heater, air conditioner, or any ancillary equipment on the vehicle if it has a sleeper berth and the truck is located within 100 feet of a restricted area (homes and schools). All trucks at the project site are equipped with an engine shutdown system that automatically shuts down the engine after five minutes of

continuous idling operation once the vehicle is stopped, the transmission is set to "neutral" or "park" and the parking brake is engaged.

FRAQMD has reported no dust issues or other air quality complaints regarding the existing facility. While the project will not trigger any air quality significant impact thresholds as stated above, there may be fugitive dust created by the applicant as site improvements are made. This project was circulated to FRAQMD for review and they have required the applicant to complete and submit a Fugitive Dust Control Plan and stated this project is subject to FRAQMD rules and regulations for new development. To ensure these requirements are met, the following mitigation measure is proposed:

Mitigation Measure No. 1 (Air Quality): Prior to any on-site grading, paving, landscaping, or construction activities, the applicant shall submit a fugitive dust control plan to the Feather River Air Quality Management District (FRAQMD) for review and approval. The applicant shall comply with all FRAQMD standards and construction phase measures. A copy of the approved plan shall be submitted to the Development Services Department. To mitigate long term dust issues in the outdoor storage areas, the applicant shall apply a suppressant compound or reapply gravel on a regular basis as needed to maintain a minimum of four inches of gravel.

The approved Fugitive Dust Control Plan serves as an acknowledgement by the project proponent of their duty to address state and local laws governing fugitive dust emissions and the potential for first offense issuance of a Notice of Violation by FRAQMD where violations are substantiated by district staff. The approved Fugitive Dust Control Plan along with the standard construction phase measures are required to be made available to the contractors and construction superintendent on the project site. The approved Fugitive Dust Control Plan requires the project proponent to acknowledge that they have read the FRAQMD Rules and Regulations Statement for new development, which includes state and local fugitive dust emission laws. It further requires the project proponent to acknowledge that it is their responsibility to ensure that appropriate materials and instructions are available to site employees to implement fugitive dust mitigation measures appropriate for each development phase of this project in order to ensure compliance. It further requires the project proponent to acknowledge that it is their responsibility to ensure that site employees are made formally aware of fugitive dust control laws, requirements, and available mitigation techniques, and that appropriate measures are to be implemented at the site as necessary to prevent fugitive dust violations.

As required by the Fugitive Dust Control Plan, the developer or contractor is required to control dust emissions from earth moving activities, storage, and any other construction activity to prevent airborne dust from leaving the project site. Required measures to control dust emissions include, but are not limited to, suspending all grading operations on a project when winds exceed 20 miles per hour or when winds carry dust beyond the property line, utilizing a water truck to water all work areas as needed, and covering all on-site dirt piles or other stockpiled material.

All projects are subject to FRAQMD rules in effect at the time of construction. All new residential, commercial, and industrial land uses in Yuba and Sutter counties are subject to the Indirect Source Fee collected by FRAQMD. These fees are collected by FRAQMD to offset FRAQMD's costs reviewing projects under CEQA and to mitigate air quality impacts of new development. Projects are subject to the Indirect Source Fee at the time of building permit

issuance. FRAQMD has stated this project will not be required to pay the Indirect Source Fee as this project does not propose any new buildings.

Construction activity will be phased and will temporarily increase emissions in the project vicinity during the construction period. Construction activities, including site clearing, excavation, grading, and paving, would be considered an intermittent air quality impact throughout the construction period of the project. Emission levels would fluctuate depending upon construction activity, equipment type, and duration of use. All equipment must comply with California emissions standards. Because this project will not be subject to the Indirect Source Fee, and will implement the relevant mitigation listed above, a less than significant impact is anticipated.

(Feather River Air Quality Management District, Indirect Source Review Guidelines. 2010)

(County of Sutter, General Plan 2030. 2011)

(CARB, Air Quality and Land Use Handbook: A Community Health Perspective. 2005)

IV. BIOLOGICAL RESOURCES.

Would the project:

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Responses:

A biological resources report was prepared by Area West Environmental, Inc. dated November 2016 for a previously proposed agricultural truck yard at the project site, which was withdrawn. While the proposed project is not identical to the previously proposed project described in the biological resources report, some of the findings in the report are still applicable to today's proposed project. The project site and surrounding area have not substantially changed since the report was prepared. A copy of this report is included as an attachment to this initial study.

The primary objectives of the biological study as stated in the report were to: 1) assess the biological condition and resource value of the project site and the areas along Wilson Road that could be affected by the proposed project (Study area); 2) determine the potential for occurrence of sensitive biological resources (i.e., special-status species and sensitive plant communities) occurring at the Study area; and 3) recommend mitigation measures to minimize potential project impacts.

The report describes the project location and biological setting, details the methodology utilized, which included a pre-survey investigation and field surveys, details the associated regulatory setting, details biological and aquatic resources, and discusses minimizing potential biological effects.

a) **Less than significant with mitigation incorporated.** This project will not have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife (CDFW) or U.S. Fish and Wildlife Service (USFWS).

As discussed in the biological resources report, an agricultural ditch is present along the northern edge of Wilson Road that conveys excess irrigation from the surrounding orchards. This ditch flows south into the Study area, then west, where it flows through a large 24-inch culvert underneath the project site. Based on the presence of vegetation, the agricultural ditch has the potential to be considered waters of the U.S. Furthermore, because of the long inundation/saturation duration, the agricultural ditch has potential to support special-status plant and animal species.

As stated in the biological resources report, no special-status plants have the potential to occur in the area of the project.

As stated previously in the project description, the County has programmed to do a cape seal on Wilson Road from State Highway 99 to Gledhill Road. For reference, Gledhill Road is approximately 1,320 feet west of the project site. As part of this work, the County will be widening Wilson Road to fix edges and fix the existing paving. Wilson Road will be widened by two feet on each side within the existing graveled area, which will make the road go from 18 feet wide to 22 feet wide. This work will be completed in Summer of 2022. The County is not requiring the applicant to widen Wilson Road since the County is going to be widening the road and doing repairs on it anyway.

The edge of the agricultural ditch is located six feet or more from the north edge of the pavement of Wilson Road. From the north edge of the pavement of Wilson Road, there is approximately four feet of gravel followed by two or more feet of dirt before reaching the edge of the ditch. Wilson Road is proposed to be widened by two feet within this gravel area. The

widening of Wilson Road by two feet to the north will not fill or otherwise disturb the agricultural ditch. As stated in the biological resources report, since this project will not require substantial improvements to Wilson Road, potential impacts to special status species including the giant garter snake and western pond turtle will be avoided. In addition, the widening of Wilson Road by two feet on each side will be completed in Summer of 2022, which is outside the western pond turtle's hibernating period (November through early March).

As stated in the biological resources report, trees and shrubs in the study area provide potential nesting habitat for migratory birds and raptors. As such, the proposed project has the potential to adversely affect nesting birds protected by the Migratory Bird Treaty Act. The biological resources report has provided the following mitigation measure to mitigate potentially significant impacts on nesting birds.

Mitigation Measure No. 2 (Biological Resources): Prior to any on-site grading, paving, landscaping, or construction activities, a qualified biologist shall conduct a preconstruction survey for nesting migratory birds and raptors if any ground disturbing activities (including grading or vegetation removal) will occur during the breeding season (February 15 through August 31). A copy of the survey report shall be provided to the Development Services Department.

If migratory birds or raptors are found to be nesting at the project site or adjacent to the project site during the preconstruction surveys, a no-disturbance buffer shall be established around the active nest to avoid disturbance of the nest site. The buffer shall remain in place until the end of the breeding season or until a qualified wildlife biologist determines that the young have fledged and are capable of independent survival. The extent of these buffers shall be determined by the wildlife biologist (coordinating with resource agencies) and will depend on the level of noise or construction disturbance, line-of-sight between the nest and the disturbance, ambient levels of noise and other disturbances, and other topographical or artificial barriers.

With the above mitigation measure required, this project will not have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the CDFW or USFWS.

b) Less than significant impact. This project will not have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the CDFW or USFWS. There are no streams or rivers in the immediate vicinity. No riparian habitat or other sensitive natural community is known to exist on-site or near the property. This project is not expected to have a substantial adverse effect on any riparian habitat or other sensitive natural community. This project will not fill or otherwise disturb the agricultural ditch on the north side of Wilson Road. Therefore, a less than significant impact is anticipated.

c) Less than significant impact. This project will not have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means. As discussed in the biological resources report, an agricultural ditch is present along the northern edge of Wilson Road that conveys excess irrigation water from surrounding orchards. This ditch flows south into the Study area, then west, where it flows through a large 24-inch culvert underneath the project site. Based on the presence of vegetation, the agricultural ditch has the potential to be

considered waters of the U.S. Furthermore, because of the long inundation/saturation duration, the agricultural ditch has potential to support special-status plant and animal species.

As stated previously in the project description, the County has programmed to do a cape seal on Wilson Road from State Highway 99 to Gledhill Road. For reference, Gledhill Road is approximately 1,320 feet west of the project site. As part of this work, the County will be widening Wilson Road to fix edges and fix the existing paving, all within the existing County right-of-way. Wilson Road will be widened by two feet on each side within the existing graveled area, which will make the road go from 18 feet wide to 22 feet wide. This work will be completed in Summer of 2022. The County is not requiring the applicant to widen Wilson Road since this work is already scheduled to occur.

The edge of the agricultural ditch is located six feet or more from the north edge of the pavement of Wilson Road. From the north edge of the pavement of Wilson Road, there is approximately four feet of gravel followed by two or more feet of dirt before reaching the edge of the ditch. Wilson Road is proposed to be widened by two feet within this gravel area. The widening of Wilson Road by two feet to the north will not fill or otherwise disturb the agricultural ditch. No wetlands have been identified at the project site. As a result, a less than significant impact is anticipated.

d) **Less than significant impact.** This project will not interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors or impede the use of a native wildlife nursery site. Given the expansive surrounding agricultural land adjacent to the project site and minor changes to the project site, this project is not expected to cause significant impediments to wildlife movement. The introduction of paved or otherwise hardscaped surfaces and fencing will represent impediments to wildlife movement through the site; however, the project site does not represent a unique habitat type. In addition, this project is not anticipated to significantly interfere with wildlife movement due to the fact that the site is bound by Wilson Road to the south and has been developed for many years. The property is not located near any rivers or streams. A less than significant impact is anticipated.

e) **No impact.** This project will not conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance. Sutter County has not adopted a tree preservation ordinance; however, General Plan Policy ER 3.7 is in place to preserve native oak trees when possible through the review of discretionary development projects and activities. All existing landscaping, including all trees are proposed to remain on the site and be maintained. There are no oak trees located on the property so no impact is anticipated.

f) **No impact.** The proposed project will not conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan because a plan has not been adopted that affects this project site. As a result, not impacts are anticipated.

(County of Sutter, General Plan Technical Background Report. 2008)
(California Department of Fish and Wildlife, California Natural Diversity Database)
(U.S. Fish and Wildlife Service, National Wetlands Inventory, 2022)
(Area West Environmental, Inc., Biological Resources Report, 2016)

V. CULTURAL RESOURCES.

Would the project:

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Cause a substantial adverse change in the significance of a historical resource pursuant to §15064.5?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Disturb any human remains, including those interred outside of dedicated cemeteries?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Responses:

a-b) **Less than significant impact.** The proposed project will not cause a substantial adverse change in the significance of a historical resource or archaeological resource pursuant to §15064.5. In Section 4.6 of the General Plan Technical Background Report, Figure 4.6-1 does not list the property as being a historic site. There are no unique features or historical resources located on the project site and the property is not located near a cemetery. The project site is not located within the vicinity of the Bear River, Sacramento River, or Feather River. There is no evidence on the project site indicating that historical or archaeological resources exist. Furthermore, the property has been extensively disturbed to varying depths due to agricultural operations, current activities, and existing development. Therefore, no significant impacts to historical or archaeological resources are anticipated with this project.

c) **Less than significant with mitigation incorporated.** This project is not expected to disturb any human remains, including those interred outside of dedicated cemeteries. There are no unique features or historical resources located on the project site and the property is not located near a cemetery. California Health and Safety Code §7050.5 states that when human remains are discovered, no further site disturbance can occur until the County Coroner has made the necessary findings as to the origin of the remains and their disposition pursuant to Public Resources Code Section 5097.98. If the remains are recognized to be those of a Native American, the coroner shall contact the Native American Heritage Commission (NAHC) within 24 hours.

Public Resources Code §5097.98 states that whenever the NAHC receives notification of a discovery of Native American human remains from a county coroner, it shall immediately notify the most likely descendent from the deceased Native American. The descendants may inspect the site and recommend to the property owner a means for treating or disposing the human remains. If the Commission cannot identify a descendent, or the descendent identified fails to make a recommendation, or the landowner rejects the recommendation of the descendent, the landowner shall rebury the human remains on the property in a location not subject to further disturbance.

While human remains are not expected to be disturbed during construction of this project, the following mitigation measure is proposed to protect possible disturbance of human remains should they be encountered.

Mitigation Measure No. 3 (Cultural Resources): California Health and Safety Code §7050.5 states that when human remains are discovered, no further site disturbance can occur until the County Coroner has made the necessary findings as to the origin of the remains and their disposition pursuant to Public Resources Code §5097.98. If the remains are recognized to be those of a Native American, the coroner shall contact the Native American Heritage Commission (NAHC) within 24 hours.

(County of Sutter, General Plan Technical Background Report. 2008)

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
VI. ENERGY.				
Would the project:				
a) Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Responses:

a-b) **Less than significant impact.** The proposed project will not result in a potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources during project construction or operation or conflict with or obstruct a state or local plan for renewable energy or energy efficiency. This project proposes the parking of trucks and trailers in conjunction with an existing farming operation at the site. This project will provide truck and trailer and automobile parking. No new buildings are proposed.

Overall, the construction and operation of this project will not require the creation of a new source of energy generation. Construction will consume minor amounts of fuel compared to the total consumption within Sutter County. As such, the proposed project construction will have a nominal effect on local and regional energy supplies. Additionally, construction equipment fleet turnover and increasingly stringent state and federal regulations on engine efficiency combined with state regulations limiting engine idling times and required recycling of construction debris, will further reduce the amount of transportation fuel demand during project construction. For these reasons, it is expected that construction fuel consumption associated with project construction will not be any more inefficient, wasteful, or unnecessary than other similar development projects of this nature within Sutter County. There are no unusual project characteristics or construction processes that will require the use of equipment that will be more energy intensive than is used for comparable activities or use of equipment that will not conform to current emissions standards and related fuel efficiencies.

Future outdoor lighting construction at the site is required to comply with the energy requirements of the State Building Codes, including the California Energy Code (Part 6 of Title 24) related to lighting design and installation, luminaries, and lighting controls, and will not result in a wasteful, inefficient, or unnecessary consumption of energy resources because the energy efficiency standards of the State of California are some of the most stringent codes in the nation. The California Energy Code does not apply to paving, landscaping, fencing installation, or other components of this project. This project does not require and will not utilize a substantial amount of energy due to proposed activities (i.e., it will establish a parking area for trucks and trailers and automobile parking with no other uses proposed). As a result, a less than significant impact is anticipated.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
VII. GEOLOGY AND SOILS.				
Would the project:				
a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
ii) Strong seismic ground shaking?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
iii) Seismic-related ground failure, including liquefaction?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
iv) Landslides?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Result in substantial soil erosion or the loss of topsoil?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Be located on a geological unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Responses:

a) **Less than significant impact.** This project will not directly or indirectly cause potential substantial adverse effects from rupture of a known earthquake fault, strong seismic ground shaking, seismic-related ground failure, including liquefaction, or landslides because the subject property is not located in an Alquist-Priolo Earthquake Fault Zone and will involve minor grading activities that will not exacerbate existing seismic hazards in the region. Figure 5.1-1 in the General Plan Technical Background Report does not identify any active earthquake faults in Sutter County as defined by the California Mining and Geology Board. The faults identified in Sutter County include the Quaternary Faults, located in the northern section of the County within the Sutter Buttes, and the Pre-Quaternary Fault, located in the southeastern corner of the County, just east of where Highway 70 enters the County (Figure 5.1-1 of the General Plan Technical Background Report). Both faults are listed as non-active faults but have the potential for seismic activity. The project site is relatively level with no significant slope. Therefore, the potential for earthquakes, liquefaction, or landslides is unlikely and a less than significant impact is anticipated.

b) **Less than significant impact with mitigation incorporated.** This project will not result in substantial soil erosion or the loss of topsoil. According to the USDA Soil Conservation Service Soil Survey of the County, on-site soils consist of Yuvas loam, 0 to 2 percent slopes and Marcum-Gridley clay loams, 0 to 1 percent slopes. These soils are unlikely to cause erosion because runoff is very slow with only a slight hazard of water erosion. The General Plan Technical Background Report indicates that soils with a 0 to 9 percent slope have slight erodibility.

Subsequent site grading has the potential to result in soil erosion. Since the project size is more than one acre, the applicant is required to prepare a Storm Water Pollution Prevention Plan (SWPPP) and obtain a National Pollution Discharge Elimination System (NPDES) General Construction Permit through the Regional Water Quality Control Board (RWQCB) to ensure that soil is not released in storm water from the project site. To ensure that a less than significant impact occurs, the following mitigation measure is included.

Mitigation Measure No. 4 (Geology and Soils): SWPPP & NPDES GENERAL CONSTRUCTION PERMIT. Prior to any on-site grading, paving, or construction activities, the applicant shall prepare a Storm Water Pollution Prevention Plan (SWPPP) and file a Notice of Intent (NOI) with the State Water Resources Control Board to obtain coverage under the California State Water Resources – General Construction Activity Storm Water Permit. The applicant shall provide the Waste Discharger Identification (WDID) number for the project to the County.

c) **Less than significant impact.** This project is not located on a geological unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse. As stated above in b), soils at the site have a 0 to 2 percent slope with only a slight hazard of water erosion. The General Plan Technical Background Report indicates that soils with a 0 to 9 percent slope have slight erodibility. In addition, the project is not located in the Sutter Buttes, the only area identified by the General Plan Technical Background Report as having landslide potential. A less than significant impact is anticipated.

d) **Less than significant impact.** This project is not located on expansive soil creating substantial direct or indirect risks to life or property. The soil types on the project site, as stated

above in b), have a low to high shrink-swell potential. All future construction is required to comply with the adopted California Building Code, specifically Chapter 18 for soils conditions and foundation systems, to address potential expansive soils that may require special foundation design, a geotechnical survey, and engineering for foundation design. The Building Inspection Division will implement these standards as part of any future building permit process. A less than significant impact is anticipated.

e) **Less than significant impact.** This project does not have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater. Properties in the area of the project rely on the use of on-site septic tanks and leach field systems for the disposal of wastewater, as there is no sewer system available in the area.

The property has an existing septic system/septic field located north of the existing office building that it serves. This area is surrounded by an existing fence. The office has a single use accessible restroom. The restroom is accessible to all on site employees and drivers during their respected hours of operation. No additional on-site sewage systems are proposed for this project. The Development Services Environmental Health Division reviewed this project and determined the soils are capable of supporting a septic system. They have provided comments regarding the existing septic system, which will be included as project conditions. Any new or expanded septic systems will require evaluation and approval by the Environmental Health Division to ensure compliance with wastewater standards. With compliance with all Environmental Health Division regulations, a less than significant impact is anticipated.

f) **Less than significant impact.** The proposed project will not directly or indirectly destroy a unique paleontological resource or site or unique geologic feature. There are no known unique paleontological resources or unique geologic features located at the project site. The property has been extensively disturbed to varying depths due to agricultural uses and existing development. A less than significant impact is anticipated.

(County of Sutter, General Plan Technical Background Report. 2008)
(USDA Soil Conservation Service, Sutter County Soil Survey. 1988)

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
VIII. GREENHOUSE GAS EMISSIONS.				
Would the project:				
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Responses:

a) **Less than significant impact.** This project will not generate additional greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment.

The Sutter County Climate Action Plan (CAP) was prepared and adopted in 2010 as part of the General Plan to ensure compliance with AB 32, also known as the Global Warming Solutions Act. Sutter County's CAP includes a GHG inventory, an emission reduction target, and reduction measures to reach the target. The CAP also includes screening tables used to assign points for GHG mitigation measures. Projects that achieve 100 points or more do not need to quantify GHG emissions and are assumed to have a less than significant impact.

Sutter County's screening tables apply to all project sizes. Small projects with little or no proposed development and minor levels of GHG emissions typically cannot achieve the 100-point threshold and therefore must quantify GHG emission impacts using other methods, an approach that consumes time and resources with no substantive contribution to achieving the CAP reduction target.

Since the adoption of the CAP, further analysis to determine if a project can be too small to provide the level of GHG emissions reductions expected from the screening tables or alternative emissions analysis methods has been performed. In that study, emissions were estimated for each project within the Governor's Office of Planning and Research (OPR) database. The analysis found that 90 percent of carbon dioxide equivalent (CO₂e) emissions are from CEQA projects that exceed 3,000 metric tons CO₂e per year. Both cumulatively and individually, projects that generate less than 3,000 metric tons CO₂e per year have a negligible contribution to overall emissions.

Sutter County has concluded that projects generating less than 3,000 metric tons of CO₂e per year are not required to be evaluated using Sutter County's screening tables (Greenhouse Gas Pre-Screening Measures for Sutter County, 2016). Such projects require no further GHG emissions analysis and are assumed to have a less than significant impact.

In June 2016, Sutter County adopted new GHG Pre-Screening Measures to be applied to new projects. Based on these Pre-Screening Measures, the general truck yard use type must be analyzed using the County's adopted Climate Action Plan. As a result, the applicant provided a GHG Emissions Analysis to determine whether or not the project complies with the Sutter County CAP and the 3,000-metric-ton Tier 1 screening threshold for CO₂e.

To address GHG impacts from the proposed project, the applicant hired ECORP Consulting, Inc. to prepare a GHG analysis. A copy of this analysis is included as an attachment to this initial study. The GHG analysis describes the environmental setting, details the associated regulatory framework, and assesses the potential GHG emissions and climate change impacts from the proposed project.

The GHG analysis calculated construction and operational emissions on site using California Emissions Estimator Model (CalEEMod) Version 2016.3.2, which is a computer program that can be used to estimate anticipated emissions associated with land development projects in California, with separate databases for specific counties and air districts. The Sutter County database was used for this project.

Construction

During construction, the proposed project will generate GHG emissions from the use of worker commute trips, haul trucks carrying supplies and materials to and from the project site, and off-road construction equipment (e.g., dozers, loaders, excavators). Table 2-3 as presented in the

GHG analysis and as shown below illustrates the specific construction generated GHG emissions that will result from construction of the project.

Table 2-3. Construction-Related Greenhouse Gas Emissions

Emissions Source	CO ₂ e (Metric Tons/ Year)
Construction	35
Sutter County CAP Threshold	3,000
Exceeds Threshold?	No

As shown in Table 2-3, project construction (including site preparation, grading, and paving) will result in the generation of approximately 35 metric tons of CO₂e over the course of construction. Once construction is complete, the generation of these GHG emissions will cease. Annual construction emissions generated by this project will not exceed the County significance threshold of 3,000 metric tons of CO₂e in a single year during construction.

Operations

Operation of this project will result in GHG emissions predominately associated with motor vehicle use. Table 2-4 as presented in the GHG analysis and as shown below summarizes the direct and indirect annual GHG emissions level associated with this project.

Table 2-4. Operational-Related Greenhouse Gas Emissions

Emissions Source	CO ₂ e (Metric tons/Year)
Proposed Project	
Area Source (landscaping, on-site natural gas)	0
Energy	76
Mobile	92
Waste	1
Water	0
Total	169
Sutter County CAP Threshold	3,000
Exceeds Threshold?	No

As shown in Table 2-4, operation of this project will result in the generation of approximately 169 metric tons of CO₂e annually. Annual operational emissions will not exceed the County significance threshold of 3,000 metric tons of CO₂e, as specified in the 2016 Greenhouse Gas Pre-Screening Measures supplement to the County CAP.

As discussed, this project will generate emissions that will not exceed the County GHG threshold of 3,000 metric tons of CO₂e per year discussed in the County's 2016 Greenhouse Gas Pre-Screening Measures supplement to the CAP. Therefore, the proposed project will be consistent with the County CAP. This project will therefore result in a negligible contribution to overall GHG emissions in the County and a less than significant impact is anticipated based on the results of the GHG analysis.

b) **Less than significant impact.** This project will not conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases. The project is within the boundaries of FRAQMD, which has not individually adopted any plans or regulations for reducing greenhouse gas emissions. However, FRAQMD adopted a document on August 7, 2015, through the Northern Sacramento Valley Planning Area and in collaboration with Butte County AQMD, Colusa County Air Pollution Control District (APCD), Glenn County APCD, Shasta County AQMD, and Tehama County APCD, titled the 2015 Triennial Air Quality Attainment Plan. This document provides thresholds given by some of the AQMDs and APCDs, and the thresholds given by FRAQMD from 2010, which are described and analyzed in the Air Quality impact section, still apply to Sutter County. This project will generate emissions that will not exceed the County GHG threshold of 3,000 metric tons of CO₂e per year discussed in the County's 2016 Greenhouse Gas Pre-Screening Measures supplement to the CAP. Therefore, this project will be consistent with the County CAP as discussed in Section a) above so a less than significant impact is anticipated.

(County of Sutter, General Plan Technical Background Report. 2008)

(County of Sutter, General Plan 2030 Climate Action Plan. 2011)

(County of Sutter, Greenhouse Gas Pre-Screening Measures for Sutter County. June 28, 2016.)

(Sacramento Valley Air Quality Engineering and Enforcement Professionals (SVAQEPP), Northern Sacramento Valley Planning Area 2015 Triennial Air Quality Attainment Plan. 2015)

(ECORP, Consulting, Inc., Greenhouse Gas Assessment. September 2019)

IX. HAZARDS AND HAZARDOUS MATERIALS.

Would the project:

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code § 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Responses:

a-b) **Less than significant impact.** This project will not create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials, or the creation of a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment. The Development Services Environmental Health Division is the Certified Unified Program Agency (CUPA) for Sutter County with responsibility for the administration of the "Unified Hazardous Waste and Hazardous Materials Management Regulatory Program" (Unified Program). Elements of this program include hazardous waste generators and hazardous waste on-site treatment, underground storage tanks, above-ground storage tanks, hazardous material release response plans and inventories, risk management and prevention program, and Uniform Fire Code hazardous materials management plans and inventories. All uses involving the storage and handling of hazardous materials are monitored by CUPA.

Any business that uses, generates, processes, produces, treats, stores, emits, or discharges a hazardous material in quantities at or exceeding 55 gallons, 500 pounds, or 200 cubic feet (compressed gas) at any one time in the course of a year are required to submit a Hazardous Materials Business Plan (HMBP). The primary purpose of the HMBP is to provide readily available information regarding the location, type, and health risks of hazardous materials to emergency response personnel, authorized government officials, and the public. The site has an existing HMBP on file and is entered into the California Environmental Reporting System (CERS). Among other information, an emergency response/contingency plan, employee training plan, hazardous material inventory, site map, and facility information are included in CERS. The site has an existing HMBP on file since the site has an existing 100-gallon diesel fuel tank located on the west side of the site, west of the existing shop building. CUPA has stated the existing facility is in compliance with the CUPA program at this time. According to CERS, there is no recent enforcement activity or violations for this property; therefore, the applicant is in good standing with CUPA. The applicant will be required to contact CUPA to see if their existing CUPA permit needs to be updated, which will be included as a proposed project condition.

The State of California has adopted U.S. Department of Transportation regulations for the movement of hazardous materials originating within the state and passing through the state; State regulations are contained in Title 26 of the California Code of Regulations (CCR). State agencies with primary responsibility for enforcing State regulations and responding to hazardous materials transportation emergencies are the California Highway Patrol and the California Department of Transportation (Caltrans). Together, these agencies determine container types used and license hazardous waste haulers to transport hazardous waste on public roads.

All activities and uses must comply with State and County laws and regulations pertaining to the handling and disposal of all hazardous or acutely hazardous materials. The discharge of fuels, oils, other petroleum products, detergents, cleaners, chemicals, or compost materials to the surface of the ground or to drainage ways on or adjacent to the site is prohibited. As part of compliance with the CUPA program, the facility will undergo periodic inspections during which it will be verified that materials are being handled and stored properly.

This project is to provide for truck and trailer and automobile parking and does not propose the use or storage of any new hazardous materials. No new building construction is proposed. Minor truck repairs (replace filters, wipers, tires, brakes, etc.) will take place on an existing outdoor concrete slab located on the west side of the existing barn. No major repairs of trucks will be done at the site. A less than significant impact is anticipated.

c) **No impact.** This project will not emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school. There are no existing or proposed schools within the vicinity of the project site. The closest existing school is Central Gaither Elementary School located at the northwest corner of State Highway 113 and Bailey Road, over three miles from the project site; therefore, no impact is anticipated.

d) **No impact.** This project is not located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code §65962.5. As a result, the project will not create a hazard to the public or the environment; therefore, no impact is anticipated.

e) **Less than significant impact.** This project is not located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport; therefore, this project will not result in a safety hazard or excessive noise for people residing or working in the project area. The nearest public airport is the Yuba County Airport, which is located over eight miles northeast of the project site. Due to the project's distance from these facilities, a less than significant impact is anticipated.

f) **Less than significant impact.** This project will not impact the implementation of, or physically interfere with, an adopted emergency response plan or emergency evacuation plan because the project site has adequate frontage on Wilson Road, which is of sufficient size to not impede necessary emergency responses. This proposed project does not pose a unique or unusual use or activity that would impair the effective and efficient implementation of an adopted emergency response or evacuation plan. The proposed driveway will be established under an encroachment permit to assure access standards are complied with and that it is of sufficient size to not impede necessary emergency responses. A less than significant impact is anticipated.

g) **Less than significant impact.** This project will not expose people or structures, either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires. The General Plan indicates the Sutter Buttes and the "river bottoms," or those areas along the Sacramento, Feather, and Bear Rivers within the levee system, are susceptible to wildfires since much of the areas inside the levees are left in a natural state, thereby allowing combustible fuels to accumulate over long periods of time. The area has existing fire protection services. Since this property is not located in the Sutter Buttes or "river bottom" areas, a significant risk of loss, injury, or death associated with wildland fires as a result of the proposed project is not anticipated and is considered less than significant.

(County of Sutter, General Plan Technical Background Report. 2008)
 (California Department of Toxic Substances Control, Hazardous Waste and Substances Site
 List - Site Cleanup (Cortese List). 2022)

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
X. HYDROLOGY AND WATER QUALITY.				
Would the project:				
a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:				
i) Result in substantial erosion or siltation on- or off-site;	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
ii) Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site;	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
iii) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
iv) Impede or redirect flood flows?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Responses:

a) **Less than significant impact.** This project will not violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality. The property has an existing septic system located north of the existing office building that it serves. No additional on-site sewage systems are proposed for this project. Any new septic system will need to be designed by an authorized professional and installed under permit from the Environmental Health Division to ensure compliance with applicable water quality standards at the time of installation. The Environmental Health Division reviewed this project

and stated that all wastewater shall be disposed into an approved on-site sewage system. Additionally, the water well location has also been identified to ensure the required setback from the septic system is maintained. This project is required to comply with all Environmental Health Division regulations and meet local and State requirements for wastewater disposal. According to the site plan, there is one existing well located on the south side of the shop building. Water supply for this facility is required to be provided only from an approved well and comply with all Environmental Health Division requirements.

The Environmental Health Division has stated that a non-operable agricultural well located on the property must be destroyed in accordance with Sutter County Environmental Health regulations. A permit is required to be obtained from the Environmental Health Division prior to commencement of this work, which will be included as a proposed project condition. The non-operable agricultural well is located on the west side of the project site, west of the existing shop building.

Since the total land area of the project will exceed one acre, the applicant is required to obtain coverage under the State Construction General Permit, under the National Pollutant Discharge Elimination System (NPDES) program (Mitigation Measure 4). This program requires implementation of erosion control measures designed to avoid significant erosion. The NPDES construction permit requires implementation of a Storm Water Pollution Prevention Program (SWPPP) that includes storm water best management practices to control runoff, erosion, and sedimentation from the site.

This project is not expected to violate water quality standards or waste discharge requirements. Compliance with applicable requirements and water quality standards will minimize the project's impact to water quality. No aspect of the proposed facility involving water quality or discharge standards will be allowed to operate until they have complied with all state and local standards. No additional mitigation is necessary, and a less than significant impact is anticipated.

b) Less than significant impact. This project will not substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin. The General Plan Technical Background Report indicates the property is provided with groundwater by the Sutter Subbasin. Water levels in the Sutter Subbasin have remained approximately 10 feet below ground surface and California's Groundwater Bulletin 118 prepared by the California Department of Water Resources indicates municipal and irrigation wells withdraw groundwater at a rate of 500-2000 gallons per minute.

The project site is not located in an area that is served by a public water provider. Water is provided by an on-site water well located on the east side of the existing shop building. The Development Services Environmental Health Division reviewed this project and stated the existing well will not serve more than 25 persons a day at least 60 days per year; therefore, water will be supplied by the private well and not be considered a Public Water System. No additional wells are proposed as part of this project; however, any future wells established on the property will be required to obtain permits from the Environmental Health Division. Water necessary for project construction will be delivered to the project site via water truck.

This project is not anticipated to substantially increase the amount of water used on-site beyond what is currently used. Water is currently utilized for the prune orchard, existing landscaping, and existing office building. The proposed landscape plan for this project has demonstrated compliance with the State's current Model Water Efficient Landscaping Ordinance prepared by

the California Department of Water Resources. Water use for the proposed project is minimal and will not adversely affect groundwater recharge or groundwater supplies. Design of the project site has provided for minimal impervious area which allows stormwater runoff to infiltrate within the project site. As a result, a less than significant impact is anticipated.

c) **Less than significant with mitigation incorporated.** This project will not substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would result in substantial erosion or siltation on or off site or substantially increase the rate or amount of surface runoff in a manner resulting in flooding on or off-site. This project will also not contribute runoff water which will exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff or impede or redirect flood flows.

There are no streams or rivers on or in the immediate vicinity of the project site that could be altered by this project. The property is not located in an area served by a public stormwater drainage system. According to the applicant, the site has been graded over a long period of time to drain to the north from the developed portion of the site to the undeveloped portion (orchard). The existing semi-impervious area currently sheet flows into the orchard portion to the north.

The Development Services Engineering Division has reviewed this proposed project and has provided comments regarding the drainage of this project. Based on these comments, the following mitigation measures are recommended:

Mitigation Measure No. 5 (Hydrology and Water Quality): DRAINAGE STUDY. Prior to issuance of a grading or encroachment permit, the applicant shall obtain approval from the Director of a drainage study that reflects final design conditions for the proposed project per County standards. The drainage study shall be completed and stamped by a professional engineer and determined by the County to be comprehensive, accurate, and adequate. (SCIS Section 9)

Mitigation Measure No. 6 (Hydrology and Water Quality): PRIVATE DRAINAGE IMPROVEMENTS. The applicant shall construct private on-site drainage ditches/basins that provide adequate storage for storm drain runoff as determined by the drainage study. The drainage ditches/basins shall not be connected to the roadside swales. The applicant must obtain a grading permit from the County prior to any grading for storm water retention ditches/basins.

PRIVATE DRAINAGE FACILITIES MAINTENANCE AGREEMENT. The property owner shall enter into a Private Drainage Facilities Maintenance Agreement with Sutter County committing the property owners and all successors in interest to maintain the private drainage facilities to ensure peak 10 and 100 year storm capacity per the approved drainage study for the project.

Mitigation Measure No. 7 (Hydrology and Water Quality): DRAINAGE, GRADING, AND CONSTRUCTION. All impacts to the site must be mitigated in the project area or lands acquired for mitigation by the project. Any Grading or Site Improvements shall be done per an approved plan and in accordance with Sutter County Development Standards. Plans shall be reviewed and approved for construction by the Director of Development Services prior to the start of construction.

The private drainage improvements are not a project feature of the proposed project, but it is a required mitigation measure. The applicant will be required to prepare a Stormwater Pollution Prevention Plan (SWPPP) as a component of the General Construction Permit for storm water discharges (Mitigation Measure 4). This plan will be implemented during the construction phase of the project and will reduce erosion and stormwater pollution.

The project site is located within Flood Zone “A” according to Flood Insurance Rate Map (FIRM) No. 0603940705E, dated December 1, 2008, issued by the Federal Emergency Management Agency (FEMA). Flood Zone “A” is one of the Special Flood Hazard Areas (SFHAs) and consists of areas subject to inundation by the 1-percent-annual-chance flood event. The site is also located within a Local Flood Hazard Area (LFHA). Sutter County adopted a new LFHA map for the Yuba City Basin Area effective as of October 4, 2021. The Base Flood Elevation (BFE) was set at 47.7 feet (NAVD) for this area. If a new building was proposed with this project, it would be required to be elevated approximately nine feet in order to be one foot above the BFE; however, no building construction is proposed. The applicant shall comply with all provisions of the Sutter County – Floodplain Management Ordinance and FEMA regulations, which will be included as a proposed project condition. FEMA does not restrict parking of trucks or vehicles in special flood hazard areas. Should the project area experience flooding, it is anticipated that the applicant will have all of their vehicles moved out of the area prior to the flood event. A less than significant impact is anticipated with the proposed mitigation measures incorporated into the project.

d) **Less than significant impact.** This project will not risk release of pollutants due to project inundation in flood hazard, tsunami, or seiche zones. The proposed parking area for trucks and trailers and automobiles is not anticipated to risk the release of pollutants due to project inundation in a flood hazard area. Should the project area experience flooding, it is anticipated that the applicant will have all of their vehicles moved out of the area prior to the flood event. No new building construction is proposed. Minor truck repairs (replace filters, wipers, tires, brakes, etc.) will take place on an existing outdoor concrete slab located on the west side of the existing barn. No major repairs of trucks will be done at the site. There is no anticipated impact to this project site resulting from tsunamis and seiches because the land is not located adjacent to or near any water bodies of sufficient size to create such situations. A less than significant impact is anticipated.

e) **No Impact.** This project will not conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan. There are no currently adopted water quality control plans or sustainable groundwater management plans for the subject area. No impact is anticipated.

(California Department of Water Resources (DWR), California’s Groundwater – Bulletin 118 (Update 2003). 2003)
(County of Sutter, General Plan Technical Background Report. 2008)
(Federal Emergency Management Agency, Flood Insurance Rate Map. 2008)

XI. LAND USE AND PLANNING.

Would the project:

a) Physically divide an established community?

Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
b) Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Responses:

a) **No impact.** This project will not physically divide an established community because the project is located outside the Live Oak and Yuba City spheres of influence and the County's recognized rural communities. This project is located south of Yuba City in a predominantly agricultural area. This project will not result in a physical barrier that will divide a community so no impact is anticipated.

b) **Less than significant impact.** This project will not conflict with an applicable land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect because this project involves the necessary entitlements to allow for this project. As per Zoning Code Section 1500-01-030 G, applications deemed complete before the effective date of the Zoning Code, or any amendment hereto, shall comply with the provisions of the Zoning Code in effect on the date that the application was deemed complete. When this application was deemed complete on July 9, 2019, the Zoning Code permitted general truck yards of any size in the AG (Agriculture) District subject to use permit approval. The requirements to establish such a facility are being followed. The County has not adopted any land use plan, policy, or regulation for the purpose of avoiding or mitigating a specific environmental effect that affects this project. Where necessary, mitigation has been incorporated into the project and no additional mitigation measures are necessary. A less than significant impact is anticipated.

(County of Sutter, General Plan 2030. 2011)

(County of Sutter, General Plan Technical Background Report. 2008)

(County of Sutter, Zoning Code. 2019)

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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XII. MINERAL RESOURCES.

Would the project:

a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Responses:

a-b) **No impact.** This project will not result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state or the loss of availability of a

locally-important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan. The General Plan and State of California Division of Mines and Geology Special Publication 132 do not list the site as having any substantial mineral deposits of a significant or substantial nature, nor is the site located in the vicinity of any existing surface mines. No impact is anticipated.

(California Department of Conservation, Division of Mines and Geology, Special Report 132: Mineral Land Classification: Portland Cement Concrete-Grade Aggregate in the Yuba City-Marysville Production-Consumption Region. 1988)
(County of Sutter, General Plan Technical Background Report. 2008)

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XIII. NOISE. Would the project result in:				
a) Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Generation of excessive groundborne vibration or groundborne noise levels?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Responses:

a-b) **Less than significant with mitigation incorporated.** This project will not result in a substantial temporary or permanent increase in ambient noise levels in the project vicinity in excess of standards established in the local general plan or noise ordinances, or applicable standards of other agencies. This project will also not result in excessive groundborne vibration or groundborne noise levels. The Sutter County General Plan Noise Element provides a basis for local policies to control and abate environmental noise and to protect the citizens of Sutter County from excessive noise exposure. The Sutter County Noise Ordinance (Article 21.5 of the Zoning Code) establishes standards and procedures to protect the health and safety of County residents from the harmful effects of exposure to excessive, unnecessary, or offensive noise. The proposed project is required to operate business in a manner that complies with the noise ordinance.

The 8.14± acre project site is located in a rural area on the north side of Wilson Road, approximately 1,600 feet west of State Highway 99. The terrain is relatively flat with gentle/shallow slopes. The surrounding area is largely rural in nature. The project site and parcels in all directions are zoned AG (Agriculture) and General Planned AG-80. The project site is surrounded on all sides by orchards. Prune orchards are located north, east, and west of

the project site and walnut and prune orchards are located south of the site. Rural residential use is located east and west of the site. Three residences reside within 1,000 feet of the project site boundary. One residence is approximately 530 feet west, one residence is approximately 780 feet west, and one residence is approximately 800 feet east of the project site boundary. The area surrounding the project site has moderate levels of ambient noise predominately from agricultural uses (predominately orchards), vehicles on Wilson Road and State Highway 99, and from rural residential uses.

The area of the project is impacted by existing traffic noise from State Highway 99. According to Figure 11-1 (2009 Noise Levels) and Figure 11-2 (2030 Noise Levels) of the Sutter County General Plan, noise levels along this segment of State Highway 99 are above and will continue to be above 70 dB. The area of the project is also a heavily farmed area with farm equipment allowed to operate at all hours of the day and night.

The commercial trucking component will occur during daylight hours only with the maximum hours of operation being Monday – Saturday from 6:00 a.m. to 8:00 p.m. Therefore, operational noise will occur during daylight hours.

No new building construction is proposed. Minor truck repairs (replace filters, wipers, tires, brakes, etc.) will take place on an existing outdoor concrete slab located on the west side of the existing barn. No major repairs of trucks will be done at the site.

Sound levels can be attenuated by manmade or natural barriers. All trucks and trailers will be parked north of the existing structures on the south side of the project site. The existing structures attenuate noise to the south from trucks operating in the proposed parking area.

Prune orchards are located between the existing residences and the project site. There is approximately 475 feet of orchard between the project site and the closest residence. Ornamental trees are also located next to these residences. The project site has existing landscaping and will have proposed landscaping within the southern 1.5-acres of the site adjacent to existing structures and paved parking spaces. Due to the presence of these trees and vegetation, noise from the project site does not have a direct, unimpeded pathway to offsite residences. The presence of trees and vegetation has been shown to attenuate noise.

All diesel trucks are prohibited by existing State law from idling longer than five minutes. All trucks at the project site are equipped with an engine shutdown system that automatically shuts down the engine after five minutes of continuous idling operation once the vehicle is stopped, the transmission is set to "neutral" or "park" and the parking brake is engaged.

Stationary "point" sources of noise such as operating TRUs, attenuate (lessen) at a rate between 6 dB for hard sites and 7.5 dB for soft sites for each doubling of distance from the reference measurement. Hard sites are those with a reflective surface between the source and the receiver, such as asphalt or concrete surfaces or smooth bodies of water. Soft sites have an absorptive ground surface such as soft dirt, grass, or scattered bushes and trees. The area surrounding the project site is considered a soft site. Therefore, sound from the project site is anticipated to attenuate at a rate of 7.5 dB for each doubling of distance.

A noise study was prepared by Environmental Science Associates (ESA) in 2020 for a separate truck yard project (Project #U-19-014). This study determined that at 50 feet, TRUs running with the truck engine idling would generate a noise level of 65.5 dBA and TRUs running with the truck engine off would generate a noise level of 61.7 dBA. The distance from the proposed truck

parking area to the property line of the property with the closet residence is approximately 600 feet. Based on the above assumptions, the noise level at the property line of the property with the closest residence from TRUs running with the truck engine idling is estimated to be 40 dBA and from TRUs running with the truck engine off is estimated to be 35 dBA.

Per Policy N 1.4 of the County's General Plan, noise levels from new on-site noise sources cannot exceed 55 dB between the hours of 7:00 a.m. to 10:00 p.m. and cannot exceed 45 dB between the hours of 10:00 p.m. to 7:00 a.m. The noise level at the nearest noise sensitive receptor located west of the project site is projected to be below the daytime and nighttime noise standards, therefore, this project is consistent with the County's General Plan policy. In addition, the applicant anticipates that only 2-3 TRUs may be running during weekdays and no TRUs will be running during the weekend as all trailers are unloaded when parked over the weekend.

A site visit was completed on April 20, 2022 at approximately 10am. The conditions were clear and winds were light. With two TRUs running and one truck engine idling within the proposed truck and trailer parking area, no noise from these units could be detected from Wilson Road in front of the closet residence.

Construction activity will be phased and will temporarily increase noise levels in the project vicinity during the construction period. Construction activities, including site clearing, excavation, grading, and paving, would be considered an intermittent noise impact throughout the construction period of the project. Noise levels will fluctuate depending upon construction activity, equipment type, and duration of use, and the distance between noise source and receiver.

General Plan Policy N 1.6 requires discretionary projects to limit noise-generating construction activities within 1,000 feet of noise-sensitive uses, such as residences, to specific daytime hours during weekdays and on Saturdays, and prohibits construction on Sundays and holidays unless permission for the latter has been applied for and granted by the County. The proposed project will result in temporary site construction noise associated with proposed and required improvements. Three residences reside within 1,000 feet of the project site. To ensure compliance with General Plan Policy N 1.6, the following mitigation measure is proposed:

Mitigation Measure No. 8 (Noise): During construction, the applicant shall ensure that all project related noise-generating construction activities are limited to daytime hours between 7:00 a.m. and 6:00 p.m. on weekdays, 8:00 a.m. and 5:00 p.m. on Saturdays, and are prohibited on Sundays and holidays unless permission for the latter has been applied for and granted by the County.

The proposed project is not anticipated to result in a significant new source of substantial noise beyond the existing uses of the site. Noise impacts at the site are minimized due to its location in a rural area surrounded by orchards, existing buildings at the site, existing and proposed landscaping, and uses operating during daylight hours. This project is not anticipated to significantly increase noise beyond the conditions which already exist in this area; therefore, a less than significant impact is anticipated with the above mitigation measure in place.

c) **Less than significant impact.** This project is not located within the vicinity of a private airstrip, public airport, or public use airport; therefore, it will not result in excessive noise levels for people residing or working in the project area. The nearest public airport is the Yuba County Airport, which is located over eight miles northeast of the project site. The closest private airstrip

is located approximately two miles west of the project site. Due to the project's distance from these facilities, a less than significant impact is anticipated.

(County of Sutter, General Plan 2030. 2011)

(County of Sutter, General Plan Technical Background Report. 2008)

(ESA, Sangha Trucking Facility Expansion, Sutter County, California. September 2020)

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XIV. POPULATION AND HOUSING.				
Would the project:				
a) Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Responses:

a) **Less than significant impact.** This project will not induce substantial unplanned population growth in an area, directly or indirectly. According to the applicant, a total of ten employees work at the site, which includes truck drivers. In the future, the applicant states there could be 10-15 additional employees. The general trucking component is family owned and operated and some family members are considered employees. It is anticipated that these employees will come from the local area; therefore, they will not create a direct increase in population. No new residential use is proposed with this project. As a result, the amount of population growth in the area will be negligible and a less than significant impact is anticipated.

b) **No impact.** This project will not displace substantial numbers of people or existing housing, necessitating the construction of replacement housing elsewhere. The proposed project will not expand beyond the property boundaries and will not displace any housing or people. There are no residences existing on the subject parcel and no residences are proposed. No impact is anticipated.

(County of Sutter, General Plan Technical Background Report. 2008)

Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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XV. PUBLIC SERVICES.

Would the project:

a) Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:

i) Fire protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
ii) Police protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
iii) Schools?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
iv) Parks?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
v) Other public facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Responses:

i) **Less than significant impact.** This project location is provided fire protection by Sutter County and is located in County Service Area (CSA) F. The nearest fire station is Oswald-Tudor (Station 8), located at 1280 Barry Road, which is at the southeast corner of State Highway 99 and Barry Road and approximately seven miles north of the project site. Response time will not be affected by the proposed project. Existing County roads will provide adequate transportation routes to reach the project site in the event of a fire. No new buildings are proposed with this project and the construction of new fire facilities will not be required as a result of this project. No comments were provided by Fire Services indicating this project will result in a significant impact. As a result, a less than significant impact is anticipated.

ii) **Less than significant impact.** This project will not have a significant impact on police protection. Law enforcement for unincorporated portions of Sutter County is provided by the Sutter County Sheriff's Department and traffic investigation services by the California Highway Patrol. Response time will not be affected by the proposed project. Existing State Highways or County roads will provide adequate transportation routes to reach the project site in the event of an emergency. The Sheriff's Department has reviewed this project and had concerns regarding additional traffic on State Highway 99. Traffic impacts have been analyzed and are discussed in the transportation section of this initial study. No new buildings are proposed with this project and the construction of new sheriff facilities will not be required as a result of this project. A less than significant impact is anticipated.

iii) **Less than significant impact.** This project will not have a significant impact on schools because this project will not generate additional demand for school services. No new buildings or residences are proposed with this project. No comments were provided by the Yuba City

Unified School District indicating this project will result in a significant impact. A less than significant impact is anticipated.

iv) **Less than significant impact.** This project will not have a significant impact upon parks because it will not generate a need for additional park land or create an additional impact upon existing parks in the region. This project will not have a significant impact on parks countywide. This project will not result in any new residences which require park services; therefore, a less than significant impact is anticipated.

v) **Less than significant impact.** This project is not anticipated to impact other public facilities because the project will not result in the need for additional or new public facilities. No new buildings are proposed with this project. A less than significant impact is anticipated.

(County of Sutter, Zoning Code. 2019)

(County of Sutter, General Plan Technical Background Report. 2008)

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XVI. RECREATION.				
a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Responses:

a-b) **No impact.** This project will not increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility will occur or be accelerated nor will the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment. This project will not result in new residential development. There are no existing neighborhood or regional parks in the project vicinity and this project does not propose recreational facilities or require the expansion of existing recreational facilities; therefore, no impacts are anticipated.

(County of Sutter, General Plan Technical Background Report. 2008)

XVII. TRANSPORTATION.

Would the project:

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Conflict or be inconsistent with CEQA Guidelines § 15064.3, subdivision (b)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Result in inadequate emergency access?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Responses:

a) c), d) **Less than significant impact.** This project will not conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities. This property is located in a rural area. The project area is not served by mass transit or bicycle paths. Given the rural location, personal vehicles will be the most likely form of transportation. This project will not substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment) nor will it result in inadequate emergency access.

The project site has adequate frontage on Wilson Road, which is a County maintained road. Wilson Road is a rural two-lane road that extends west from an intersection on Garden Highway across State Highway 99 and along the front of the project site to its western terminus on Sawtelle Avenue approximately 1.5 miles from State Highway 99. The project site is located approximately 1,600 feet west of State Highway 99. Wilson Road is approximately 18 feet wide in the area of the project and widens in the 600 feet west of State Highway 99 to provide separate turn lanes at the State Highway 99/Wilson Road intersection.

State Highway 99 is a four-lane conventional highway with a continuous center striped median. The Wilson Road intersection on State Highway 99 is controlled by a traffic signal. Separate left turn lanes are provided on State Highway 99 in both directions and a northbound right turn lane is available. The eastbound Wilson Road approach is configured with a separate left turn lane and combined thru traffic/right turn lane.

To determine traffic impacts from the proposed project, a traffic study was completed by KD Anderson & Associates, Inc. and is included as an attachment to this initial study. As indicated by the traffic study, in 2018 State Highway 99 carried an average of 19,500 average annual daily traffic (AADT) in the area of the project south of the State Highway 113 junction, with trucks comprising about 10 percent of the total. Traffic volumes at the State Highway 99/Wilson Road intersection were observed by Caltrans on Thursday, March 5, 2020 for a 15-hour period from 6:00 a.m. to 9:00 p.m. Traffic counts indicated that Wilson Road in the immediate area of the project carried a total of 318 vehicles over the 15-hour period, with 16 vehicles in the a.m.

peak hour and 24 vehicles during the p.m. peak hour. Trucks comprised 8 percent of the total volume on Wilson Road, or 25 trucks over the 15-hour period.

The traffic study states a total of about 80 vehicle trips is stated to occur over the day (i.e., half inbound and half outbound) as a result of the increased truck parking from this project. The total site trip generation for both existing and proposed uses is 132 daily trips.

The site has an existing 36-foot-wide driveway on the east side and an existing 24-foot-wide driveway on the west side. The applicant proposes using only the east driveway for ingress/egress. The west driveway will be removed as part of the site improvements. The east driveway will be paved and widened to a minimum of 45 feet to meet an industrial driveway standard. The applicant will be required to obtain an encroachment permit to improve the driveway to a County standard, which will be included as a proposed project condition. Trucks are proposed to leave the site in the east bound direction. A sign is proposed on the east side of the driveway visible to truck drivers leaving the site stating, "Trucks Leaving Yard Left Turn Only. No Right Turn."

The large general truck yard use type may only be established in the AG District with approval of a use permit and when located immediately adjacent to a State Highway or a designated T or S-route (STAA). Surface Transportation Assistance Act (STAA) trucks are typically truck-tractors with sleeper units and a trailer that combined exceed the 65-foot "California Legal" threshold. The applicant is requesting to obtain a STAA route designation on a portion of Wilson Road from State Highway 99 to the east driveway entrance of the site. The east driveway and on-site turn-around is proposed to be accessible and maintained for STAA rated truck traffic. There will not be a gate at the east driveway, allowing STAA trucks to utilize the on-site turn around.

The Development Services Engineering Division reviewed this project, including the traffic study. The Engineering Division has indicated for a STAA route the minimum pavement width that is required is 9-foot lanes for a total of 18 feet of paving, which is what is out there today. The STAA route will only be from State Highway 99 to the east driveway of the project. The applicant will be required to pay for the signage that the County will have to install. There will be an "End STAA Route" sign at the entrance to the facility.

The Engineering Division has stated the County has programmed to do a cape seal on Wilson Road from State Highway 99 to Gledhill Road. For reference, Gledhill Road is approximately 1,320 feet west of the project site. A cape seal consists of a chip seal layer followed by a micro-surfacing layer on top. The chip seal consists of screenings (medium – 3/8" rock) mixed with a latex modified asphalt emulsion. Micro-surfacing is a road treatment that mixes small rock with an asphalt emulsion that produces a chemical reaction that forces the moisture out of the mix allowing traffic to return quickly in some cases in less than an hour. As part of this work, the County will be widening Wilson Road to fix edges and fix the existing paving. Wilson Road will be widened by two feet on each side within the existing graveled area, which will make the road go from 18 feet wide to 22 feet wide. This work will be completed in Summer of 2022. The County is not requiring the applicant to widen Wilson Road since the County is going to be widening the road and doing repairs on it anyway. All improvements including widening the driveway into the project site must be in place before Wilson Road can be designated as a STAA route.

The Engineering Division determined the applicant is required to dedicate sufficient rights of way and/or public service easements (P.S.E.) as necessary to Sutter County. Wilson Road, a

half-width right-of-way of 25 feet, requires dedication of a uniform 10-foot P.S.E. to the County. This requirement will be implemented through a project condition.

As stated in the traffic study, traffic conditions on Wilson Road were evaluated within the context of General Plan Policy M 2.5, which requires County roadway segments and intersections to maintain a Level of Service (LOS) D or better during peak hours and LOS C or better at all other times. As shown in the traffic study, the intersection at State Highway 99/Wilson Road will continue to operate at LOS B during peak hours. The traffic study states that because the background traffic volume on Wilson Road is very low, project truck traffic will not have an appreciable effect on the operation of the roadway in terms of its capacity and LOS. Adding 80 trips to the current volume of 400 vehicles per day will not result in a total volume that exceeds the County's LOS threshold, and the project is consistent with Policy M 2.5.

The path of STAA trucks into and out of the site was reviewed as part of the traffic study. The traffic study states the proposed layout provides the room needed to accommodate the paths of concurrent entry and exit by STAA trucks. The traffic study also states the layout of the State Highway 99/Wilson Road intersection also will accommodate the turning requirements of STAA trucks using the area west of the intersection.

No impacts have been identified by the traffic study, Development Services Engineering Division, or Fire Services indicating an increased hazard will result. This project will be required to comply with all County roadway safety, emergency access, and design standards, and any associated General Plan policies. Based on the findings of the traffic study and information provided above, a less than significant impact is anticipated.

b) **Less than significant impact.** This project will not conflict or be inconsistent with CEQA Guidelines §15064.3, subdivision (b). This section of CEQA states that vehicle miles traveled (VMT) is the most appropriate measure of transportation impacts. VMT refers to the amount and distance of automobile travel attributable to a project. This section also states VMT exceeding an applicable threshold of significance may indicate a significant impact.

The County has not adopted a threshold of significance for VMT. The traffic study prepared by KD Anderson & Associates, Inc. includes a VMT impact assessment and uses the guidance in the Governor's Office of Planning and Research's (OPR's) Technical Advisory for the assessment.

CEQA Guidelines Section 15064.3 defines VMT as the "amount and distance of automobile travel attributable to a project." The Technical Advisory further clarifies that "the term 'automobile' refers to on-road passenger vehicles, specifically cars and light trucks." "Heavy duty truck VMT could be included for modeling convenience and ease of calculation," though the guidelines do not currently require it. The Technical Advisory specifically requires passenger vehicle VMT and not heavy-duty truck VMT.

Senate Bill (SB) 743 governs the application of new CEQA guidelines for addressing transportation impacts based on VMT. Because Sutter County has not yet adopted guidelines or policies for dealing with VMT, guidance from OPR's Technical Advisory was employed to evaluate VMT impacts. Screening criteria can be used to quickly identify whether sufficient evidence exists to presume a project will have a less than significant VMT impact without conducting a detailed study. Projects meeting at least one of the criteria below can be presumed to have a less than significant VMT impact, absent substantial evidence that the project will lead

to a significant impact. Of these screening criteria, "small projects" applies to the proposed project.

- Small projects (i.e., < 110 daily trips)
- Projects near transit stations
- Affordable residential development
- Local-serving retail
- Projects in low VMT areas

Projects that generate or attract fewer than 110 trips per day generally may be assumed to cause a less-than-significant transportation impact. The total daily automobile traffic associated with this project under the requested use permit totals 72 daily trips. As the forecast is less than the 110 daily trip threshold, the project's VMT impacts can be presumed to be less than significant.

(County of Sutter, General Plan Technical Background Report. 2008)

(County of Sutter, General Plan 2030. 2011)

(KD Anderson & Associates, Inc., Revised Traffic Assessment for Project #U-19-010, Use Permit for 499 Wilson Road, Sutter County, CA. 2021)

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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XVIII. TRIBAL CULTURAL RESOURCES.

a) Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code § 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:

i) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or

☐ ☐ ☒ ☐

ii) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code § 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code § 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.

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Responses:

i-ii) **Less than significant impact.** In September of 2014, the California Legislature passed Assembly Bill (AB) 52, which added provisions to the Public Resources Code regarding the evaluation of impacts on tribal cultural resources under CEQA, and consultation requirements

with California Native American tribes. The County initiated AB 52 consultation through distribution of letters to the Native American tribes provided by the Native American Heritage Commission (NAHC). No requests for consultation or comments were received from any of the Native American tribes during the review period.

The subject property is 8.14-acres. Approximately the southern 3.3-acres of the site has been previously developed and will be utilized by the proposed project. The northern 4.8-acres of the site will remain as a prune orchard. A review of aerial photographs indicates the 3.3-acre developed portion of the property has been developed since at least 1999. The site has been extensively disturbed due to past agricultural operations and development. The project site is not located within the vicinity of the Bear River, Sacramento River, or Feather River. There is no evidence on the project site indicating that tribal cultural resources exist. Mitigation Measure No. 3 is proposed in the cultural resources section to protect possible disturbance of human remains should they be encountered. With this mitigation measure in place, no additional mitigation is necessary. A less than significant impact to tribal cultural resources as a result of this project is anticipated.

XIX. UTILITIES AND SERVICE SYSTEMS.

Would the project:

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Result in a determination by the wastewater treatment provider, which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Generate solid waste in excess of state or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Responses:

a) **Less than significant impact.** This project will not require or result in the relocation or construction of new or expanded water, wastewater treatment, or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which

could cause significant environmental effects. This project will require no new water service. Water will be provided by an existing on-site well located east of the existing shop building. Wastewater treatment will be provided by an existing septic system located north of the office building. Any new septic system will need to be designed by an authorized professional and installed under permit from the Environmental Health Division. Storm water drainage will be handled by private on-site drainage ditches/basins that provide adequate storage for storm drain runoff as determined by an approved drainage study as discussed previously in the Hydrology and Water Quality section. The applicant is required to obtain coverage under the State Construction General Permit, under the National Pollutant Discharge Elimination System (NPDES) program (Mitigation Measure 4). This program requires implementation of erosion control measures designed to avoid significant erosion. The NPDES construction permit requires implementation of a Storm Water Pollution Prevention Program (SWPPP) that includes storm water best management practices to control runoff, erosion, and sedimentation from the site. This project was reviewed by the Pacific Gas and Electric Company (PG&E) and they did not provide any comments. Any additional utility needs would tie into existing utilities being provided to the area. A less than significant impact is anticipated.

b) **Less than significant impact.** This project will have sufficient water supplies available to serve the project and reasonably foreseeable future development. The proposed project is not located in an area that is served by a public water provider. Water is provided by an on-site well that is assumed to be sufficient to serve this project. The Development Services Environmental Health Division reviewed this project and stated the existing well will not serve more than 25 persons a day at least 60 days per year; therefore, water will be supplied by the private well and not be considered a Public Drinking Water System. A less than significant impact is anticipated.

c) **No impact.** This project will not result in a determination by a wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments. This project is not located in an area that is served by a wastewater treatment provider. Individual on-site sewage disposal systems are currently the only method of providing sewage disposal for the project area. Therefore, a demand will not be placed on a local sanitary sewer system and no impact is anticipated.

d-e) **Less than significant impact.** This project will have a less than significant impact on solid waste. Solid waste from this project will be disposed of through the local waste disposal company in a sanitary landfill in Yuba County which has sufficient capacity to serve this project. Project disposal of solid waste into that facility will comply with all federal, state, and local statutes and regulations related to solid waste. As a result, a less than significant impact is anticipated.

(County of Sutter, General Plan Technical Background Report. 2008)

XX. WILDFIRE.

If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Substantially impair an adopted emergency response plan or emergency evacuation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Responses:

a-d) **No impact.** The subject property is not located in or near state responsibility areas or lands classified as very high fire hazard severity zones; therefore, no impacts are anticipated.

XXI. MANDATORY FINDINGS OF SIGNIFICANCE.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Mitigation Measure	Timing	Monitoring Agency
site or adjacent to the project site during the preconstruction surveys, a no-disturbance buffer shall be established around the active nest to avoid disturbance of the nest site. The buffer shall remain in place until the end of the breeding season or until a qualified wildlife biologist determines that the young have fledged and are capable of independent survival. The extent of these buffers shall be determined by the wildlife biologist (coordinating with resource agencies) and will depend on the level of noise or construction disturbance, line-of-sight between the nest and the disturbance, ambient levels of noise and other disturbances, and other topographical or artificial barriers.	February 15 and August 31	
Mitigation Measure No. 3 (Cultural Resources): California Health and Safety Code §7050.5 states that when human remains are discovered, no further site disturbance can occur until the County Coroner has made the necessary findings as to the origin of the remains and their disposition pursuant to Public Resources Code §5097.98. If the remains are recognized to be those of a Native American, the coroner shall contact the Native American Heritage Commission (NAHC) within 24 hours.	During construction activities	Development Services
Mitigation Measure No. 4 (Geology and Soils): SWPPP & NPDES GENERAL CONSTRUCTION PERMIT. Prior to any on-site grading, paving, or construction activities, the applicant shall prepare a Storm Water Pollution Prevention Plan (SWPPP) and file a Notice of Intent (NOI) with the State Water Resources Control Board to obtain coverage under the California State Water Resources – General Construction Activity Storm Water Permit. The applicant shall provide the Waste Discharger Identification (WDID) number for the project to the County.	During and prior to completion of the project	Development Services Engineering Division
Mitigation Measure No. 5 (Hydrology and Water Quality): DRAINAGE STUDY. Prior to issuance of a grading or encroachment permit, the applicant shall obtain approval from the Director of a drainage study that reflects final design conditions for the proposed project per County standards. The drainage study shall be completed and stamped by a professional engineer and determined by the County to be comprehensive, accurate, and adequate. (SCIS Section 9)	Prior to issuance of a grading or encroachment permit	Development Services Engineering Division
Mitigation Measure No. 6 (Hydrology and Water Quality): PRIVATE DRAINAGE IMPROVEMENTS. The applicant shall construct private on-site drainage ditches/basins that provide adequate storage for storm drain runoff as determined by the drainage study. The drainage ditches/basins shall not be connected to the roadside swales. The applicant must obtain a grading permit from the County prior to any grading for storm water retention ditches/basins. PRIVATE DRAINAGE FACILITIES MAINTENANCE AGREEMENT. The property owner shall enter into a Private	After approval of a drainage study and prior to completion of the project	Development Services Engineering Division

Mitigation Measure	Timing	Monitoring Agency
Drainage Facilities Maintenance Agreement with Sutter County committing the property owners and all successors in interest to maintain the private drainage facilities to ensure peak 10 and 100 year storm capacity per the approved drainage study for the project.		
Mitigation Measure No. 7 (Hydrology and Water Quality): DRAINAGE, GRADING, AND CONSTRUCTION. All impacts to the site must be mitigated in the project area or lands acquired for mitigation by the project. Any Grading or Site Improvements shall be done per an approved plan and in accordance with Sutter County Development Standards. Plans shall be reviewed and approved for construction by the Director of Development Services prior to the start of construction.	During and prior to completion of the project	Development Services Engineering Division
Mitigation Measure No. 8 (Noise): During construction, the applicant shall ensure that all project related noise-generating construction activities are limited to daytime hours between 7:00 a.m. and 6:00 p.m. on weekdays, 8:00 a.m. and 5:00 p.m. on Saturdays, and are prohibited on Sundays and holidays unless permission for the latter has been applied for and granted by the County.	During construction activities	Development Services

Bibliography

Area West Environmental, Inc. 2016. *Biological Resources Report*

California Department of Conservation. 2018. *Farmland Mapping and Monitoring Program*

California Department of Conservation, Division of Mines and Geology. 1988. *Special Report 132: Mineral Land Classification: Portland Cement Concrete-Grade Aggregate in the Yuba City-Marysville Production-Consumption Region*

California Department of Fish and Wildlife. *California Natural Diversity Database*

California Department of Toxic Substances Control, 2022. *Hazardous Waste and Substances Site List - Site Cleanup (Cortese List)*

California Department of Water Resources. 2003. *California's Groundwater – Bulletin 118 (Update 2003)*

County of Sutter. 2008. *General Plan Technical Background Report*

County of Sutter. 2011. *General Plan 2030*

County of Sutter. 2011. *General Plan 2030 Climate Action Plan*

County of Sutter. 2016. *Greenhouse Gas Pre-Screening Measures for Sutter County*

County of Sutter. 2019. *Zoning Code*

ECORP Consulting, Inc. 2019. *Greenhouse Gas Assessment*

ESA. 2020. *Sangha Trucking Facility Expansion, Sutter County, California*

Feather River Air Quality Management District (FRAQMD), 2010. *Indirect Source Review Guidelines*

Federal Emergency Management Agency. 2008. *Flood Insurance Rate Map*

KD Anderson & Associates, Inc. 2021. *Revised Traffic Assessment for Project #U-19-010, Use Permit for 499 Wilson Road, Sutter County, CA*

Sacramento Valley Air Quality Engineering and Enforcement Professionals (SVAQEEP). 2015. *Northern Sacramento Valley Planning Area 2015 Triennial Air Quality Attainment Plan*.
U.S. Department of Agriculture, Soil Conservation Service. 1988. *Sutter County Soil Survey*
U.S. Fish and Wildlife Service. 2022. *National Wetlands Inventory*

Attachments:

1. Site Plan, Landscape Plan, Photometric Plan
2. Area West Environmental, Inc., Biological Resources Report
3. ECORP Consulting, Inc., Greenhouse Gas Assessment
4. KD Anderson & Associates, Inc., Traffic Assessment

ATTACHMENT 1

**Site Plan
Landscape Plan
Photometric Plan**

GENERAL NOTES

1. THE EXISTING STRUCTURES WERE DEVELOPED AS PART OF A PRUNE DEHYDRATOR, CIRCA 1926.
2. THE EXISTING STRUCTURES AND OPEN SPACE ARE USED AS THE HEADQUARTERS FOR A FAMILY FARMING OPERATION. THE REMAINING ON-SITE ORCHARD IS FARMED BY THE OWNER.
3. IN CONJUNCTION WITH THE FARM OPERATION, THE OPEN SPACE IS USED FOR TRUCK PARKING FOR THE FARM OPERATION AND COMMERCIAL AGRICULTURE TRUCKING OPERATION
4. THE COMMERCIAL AGRICULTURE TRUCK OPERATION IS SUBJECT TO APPROVAL OF A USE PERMIT FROM SUTTER COUNTY.
5. THE SEMI-previous SURFACE AREA (GRINDINGS/GRAVEL AREA) HAS BEEN HISTORICALLY GRADED TO SHEET FLOW NORTHERLY INTO THE EXISTING ORCHARD. DUE TO GRADE RESTRICTIONS AT THE PROPERTY LINES RUN-OFF DOES NOT LEAVE THE PROPERTY
6. THE ADJOINING PROPERTY TO THE WEST IS ELEVATED APPROXIMATELY 1'-2' ABOVE THE SUBJECT PROPERTY
7. TRUCKS CURRENTLY OWNED AND OPERATED BY THE PROPERTY OWNER FOR BOTH THE FARMING AND COMMERCIAL AGRICULTURE TRUCKING OPERATIONS
8. REPRESENTS "FUTURE" TRUCKS FOR BOTH THE FARMING AND COMMERCIAL AGRICULTURE TRUCKING OPERATIONS.
9. TRUCKING PARKING SHOWN IS REPRESENTATIVE ONLY. ACTUAL PARKING WILL VARY, BUT WILL BE LOCATED WITHIN THE BOUNDARY OF THE GRAVEL AREA
10. AC GRINDINGS/GRAVEL IS MAINTAINED TO A DEPTH MEETING THE "DURABLE AND DUSTLESS" DEFINITION OF ZONING CODE SECTION 1500-20-080(3)(5)(a) & 1500-05-030(E). EXTRA MATERIAL IS STOCK PILED ON-SITE AND IS ADDED TO THE EXISTING AS NEEDED
11. TRUCK TRAFFIC (INGRESS/EGRESS) SHALL EXCLUSIVELY USE THE "EAST" DRIVEWAY. TRUCKS SHALL LEAVE THE SITE IN THE EAST BOUND DIRECTION (EXCEPTION, AG TRUCK/TRAILER COMBINATIONS SUCH AS TRAILERS HAULING FRUIT BINS, GRAIN BINS, ETC.TO/FROM LOCAL FIELDS AND ORCHARDS) PROVIDE SIGN VISIBLE TO TRUCK DRIVER LEAVING SITE STATING "TRUCKS LEAVING YARD LEFT TURN ONLY. NO RIGHT TURN". LETTERING SHALL BE 1" MINIMUM ON CONTRASTING BACKGROUND
12. EAST DRIVEWAY AND ON-SITE TURN-AROUND SHALL BE ACCESSIBLE (MAINTAINED) FOR STAA RATED TRUCK TRAFFIC
13. PERIMETER FENCING IS PROPOSED AS SHOWN TO PROVIDE SCREENING FROM THE PUBLIC ROADWAY PER ZONING CODE 1500-05-030(E)(2). THE REMAINING SITE PERIMETER IS SCREENED BY ADJACENT ORCHARDS. IF THE ORCHARDS ARE REMOVED; AT THE DISCRETION OF THE DEVELOPMENT SERVICES DIRECTOR, THE OWNER WILL SCREEN ALL OR A PORTION OF THE REMAINING PERIMETER AS DIRECTED
14. THE COMMERCIAL TRUCKING OPERATION GENERALLY OPERATES BETWEEN SUNUP (EARLY MORNING) TO SUNDOWN (BEFORE DARK). THE HOURS OF OPERATION (TRUCKS INGRESSING/EGRESSING) ARE CONTROLLED BY THE OWNER OF THE FAMILY OPERATED TRUCKING BUSINESS. BASED ON THIS INFORMATION LIGHTING IN THE GENERAL TRUCK PARKING AREA IS NOT PROPOSED.
15. AGRICULTURAL BUFFERS AS DEFINED IN ZONING CODE SECTION 1500-19-020(A) AS THE PROPERTY IS ZONED AGRICULTURE

KEY NOTES

1. EXISTING 36'± DRIVEWAY. RECONSTRUCT TO MEET COUNTY STANDARDS (SEE K.N. #6)
2. EXISTING 24'± DRIVEWAY TO BE REMOVED
3. EXISTING LANDSCAPING TO REMAIN AND BE MAINTAINED
4. EXISTING "YARD" AREA TO REMAIN AND BE MAINTAINED
5. EXISTING GRAVEL/AC GRINDINGS TO REMAIN (SEE G.N. #10)
6. RECONSTRUCT AND WIDEN EXISTING DRIVEWAY TO MINIMUM 45' INDUSTRIAL DRIVEWAY STANDARDS. NO GATE IS PROPOSED WITH THE NEW DRIVEWAY AND FENCE IMPROVEMENTS
7. NOT USED
8. TRUCK DIRECTIONAL SIGN (SEE G.N. #11)
9. ACCESS STALL (9'X18') AND ACCESS ISLE (8'X18') AND ACCESSIBLE PATH TO MAIN BUILDING ENTRANCE PER CBC 11B-501 (CONSTRUCTION: 4" CONCRETE SLAB)
10. 9'X18' STALL WITH 27' MINIMUM BACK UP SPACE TYPICAL
11. 6" CONCRETE CURB TYPICAL
12. NEW 6' CHAIN LINK FENCE W/ DARK GREEN VINYL PRIVACY SLATS HAVING A 90% OR GREATER SCREENING ABILITY (SEE G.N. #13)
13. PROPOSED LANDSCAPING TYPICAL, SEE LANDSCAPE & IRRIGATION PLAN
14. ON-SITE TRUCK CIRCULATION TYPICAL (TRUCK TURN AROUND)
15. LED WALL PACK (2-TOTAL), SEE PHOTOMETRIC PLAN
16. LED LIGHT STANDARD (POLE LIGHT) (5-TOTAL), SEE PHOTOMETRIC PLAN

PARKING SHADING ANALYSIS:

TOTAL AREA (STALLS, ISLES & MANEUVERING AREAS):
50% SHADING REQUIRED PER SCZC TABLE 1500-07-3(2)(g)
10,457X0.50 = 5,229 SQ. FT. OF COVERAGE REQUIRED

30' DIAMETER TREE = 707 SQ. FT.
35' DIAMETER TREE = 962 SQ. FT.
1.75X707 + 4.25X962 = 5,326 SQ. FT. OR 51% SHADING COVERAGE PROPOSED (DOES NOT INCLUDE SHADING BY EXISTING CARPORT OF 2 SPACES)

1. LANDSCAPE AND IRRIGATION PLAN PER SCZC TABLE 1500-07-3(2) LANDSCAPING
2. PARKING LOT LIGHTING AND TREE PLACEMENT SHALL BE COORDINATED SO AS TO HAVE THE REQUIRED MINIMUM LIGHTING INTENSITIES MAINTAINED

EXISTING ELEMENTS AND USE

1. SHOP 3,000± S.F.
REPAIR OF FARM EQUIPMENT
STORAGE OF TOOLS USED FOR FARM EQUIPMENT & TRUCK/TRAILER (MINOR REPAIR)
STORAGE OF REPLACEABLE ITEMS (FILTERS, WIPERS, ETC.) FOR TRUCK/TRAILERS
2. BARN 2,500± S.F. (PART OF THE ORIGINAL DEHYDRATOR STRUCTURES, CIRCA 1926)
PRIMARY USE IS FOR ITEMS USED IN FARMING OPERATION
SECONDARY - MINOR USE TO STORE INDOORS WEATHER SENSITIVE TRUCKING RELATED ITEMS
3. OFFICE 520± S.F. (CONTAINS SINGLE-USE ACCESSIBLE RESTROOM)
OPERATIONS HEADQUARTERS FOR FARMING OPERATION
DISPATCH FOR TRUCKING OPERATION
4. DWELLING DESTROYED BY FIRE. THERE IS NO PLAN TO REBUILD THE STRUCTURE
5. CARPORT 375± S.F.
USED FOR PARKING OF FARM EQUIPMENT AND RELATED FARM VEHICLES
6. SEPTIC FIELD
7. FENCED YARD (USED BY SINGLE FAMILY DWELLING)
8. DOMESTIC WELL
9. NON OPERABLE AG WELL
10. CONCRETE SLAB - USED FOR TRUCKING OPERATION
MINOR REPAIR (REPLACE FILTERS, TIRES, BRAKES, ETC.)
USED FOR CERTIFICATION REQUIREMENTS

PARKING ANALYSIS

VEHICLES (FOR ON-SITE TRUCKS):
10 TRUCK-TRACTORS (INITIAL TRUCKS ON-SITE)
20 TRUCK-TRACTORS (FUTURE TRUCKS ON-SITE)

1:1.5 TRUCK TRACTORS
7 SPACES REQUIRED
10 SPACES REQUIRED

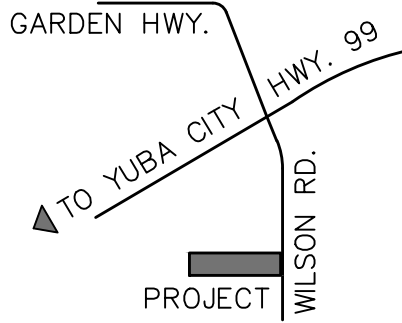
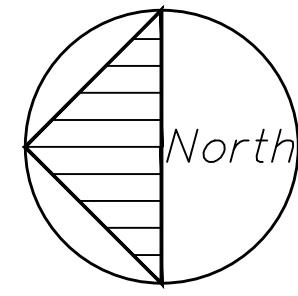
ACCESSORY STRUCTURE USE
OFFICE AND SHOP (3520 S.F.)
(INCLUDES AG USE - SAME EMPLOYEES)

7 (3520/1000X2)

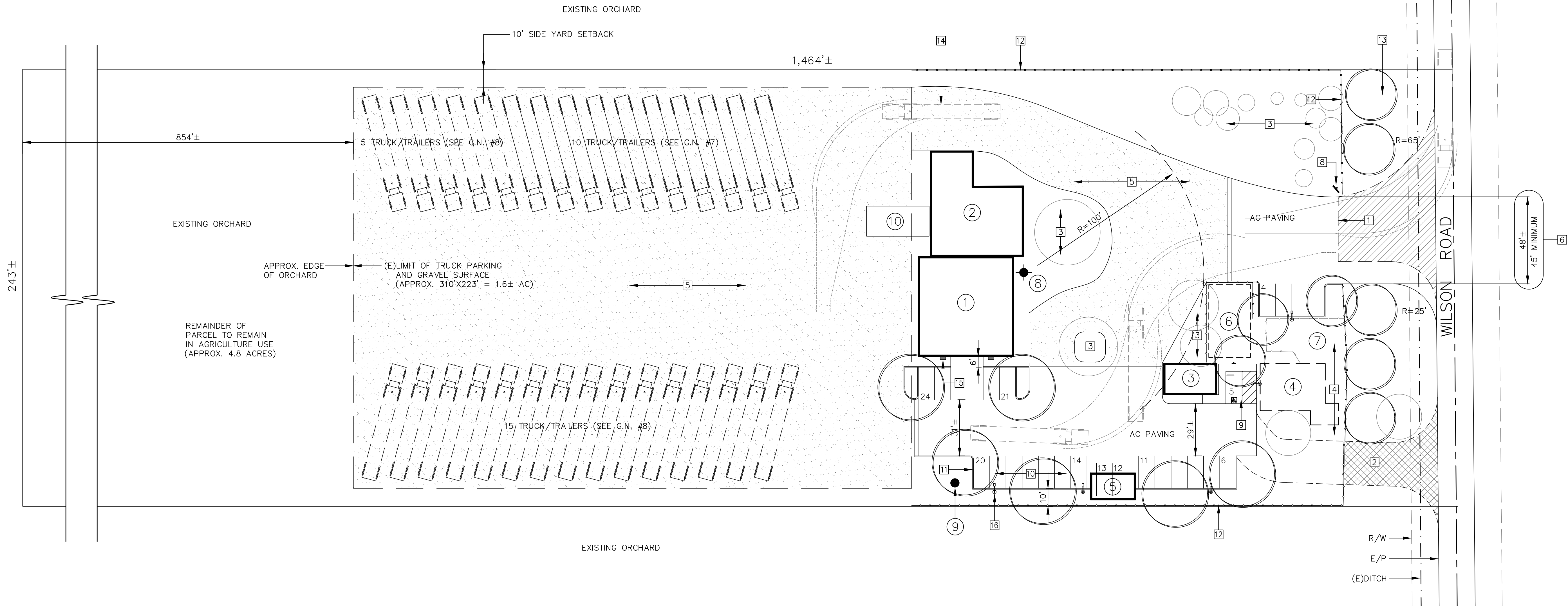
TOTAL REQUIRED: 24 SPACES
TOTAL PROPOSED PARKING: 24 SPACES

SITE CRITERIA

ZONING: AG
GENERAL PLAN: AG-80
ACREAGE: 8.14± AC.
DEVELOPED AREA: 3.3± AC.
UNDEVELOPED AREA: 4.8± AC. (ORCHARD)



VICINITY MAP
NO SCALE



SITE PLAN

THIS PLAN IS NOT A SURVEY. INFORMATION SHOWN TAKEN FROM PUBLIC RECORDS AND GOOGLE EARTH

Revisions

7/09/19	DN
10/23/20	DN

SITE PLAN FOR:
FARM HEADQUARTERS & COMMERCIAL TRUCK YARD

MR. AVTAR SINGH, ALIEN TRANSPORT, LLC
499 WILSON ROAD, SUTTER COUNTY
APN: 25-170-010



960 McCOURTNEY ROAD, SUITE C
GRASS VALLEY, CA 95949
Bus: (530) 674-7501 Fax: (530) 674-7503

Date	6/29/19
Scale	1"=30'
Drawn	DCN
Job	17-6101
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STATE OF CALIFORNIA ESTIMATED WATER USE							
HYDROSTONE #/PLANTING DESCRIPTION	PLANT FACTOR (PF)	IRRIGATION METHOD	IRRIGATION EFFICIENCY (IE)	ETAF (PF/IE)	LANDSCAPE AREA (sq.ft.)	ETAF X AREA #/PLANTING	ESTIMATED TOTAL WATER USE (ETWU)
HZ #1 STREET LS	0.30	DRIP	0.81	0.37	3,020	1,117	32,342
HZ #2 INTERIOR LS	0.30	DRIP	0.81	0.37	3,928	1,453	42,081
TOTALS					6,948	2,570	74,423
MAWA							151,375

PARKING SHADING ANALYSIS:

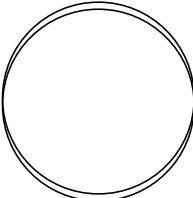
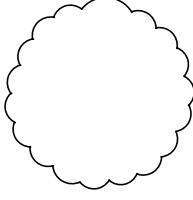
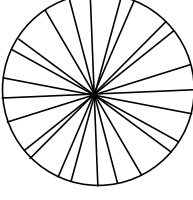
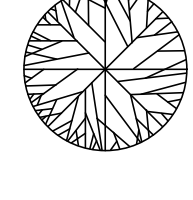
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1.75X707 + 4.25X962 = 5,326 SQ. FT. OR 51% SHADING COVERAGE PROPOSED
(DOES NOT INCLUDE SHADING BY EXISTING CARPORT OF 2 SPACES)
- LANDSCAPE AND IRRIGATION PLAN PER SCZC TABLE 1500-07-3(2) LANDSCAPING
 - PARKING LOT LIGHTING AND TREE PLACEMENT SHALL BE COORDINATED SO AS TO HAVE THE REQUIRED MINIMUM LIGHTING INTENSITIES MAINTAINED

IRRIGATION NOTES

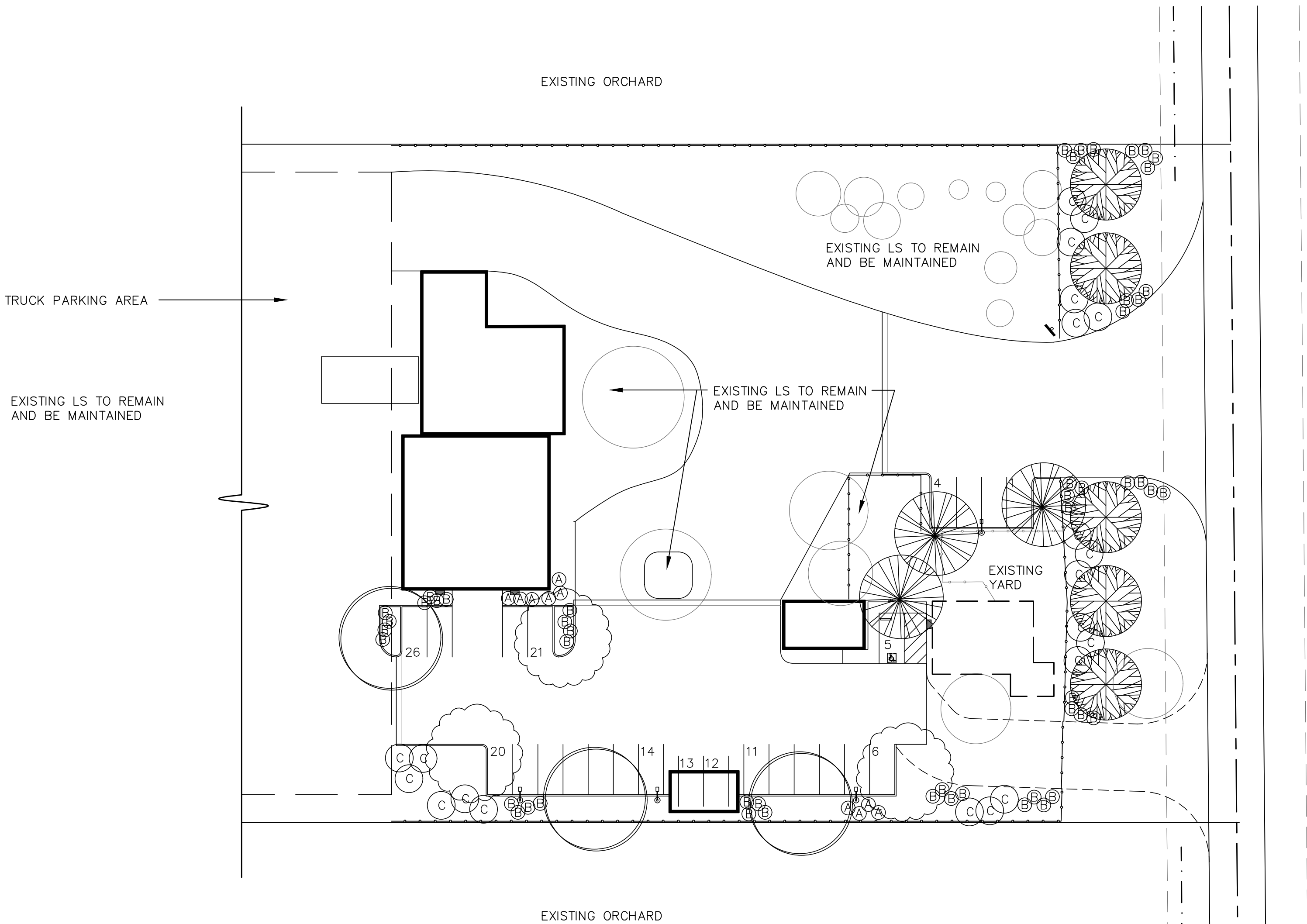
- THE IRRIGATION SYSTEM SHALL BE IN ACCORDANCE WITH ALL APPLICABLE CODES AND ORDINANCES. THE LANDSCAPE CONTRACTOR SHALL OBTAIN ALL PERMITS FOR THE REQUIRED BY THE JURISDICTION
- THIS DESIGN IS DIAGRAMMATIC. ALL PIPING, VALVES AND OTHER ELEMENTS SHOWN OR NOTED IS FOR DESIGN CLARITY AND SHALL BE INSTALLED IN THE PLANTER OR LAWN AREAS WHENEVER POSSIBLE. INSTALLATION TO CONFIRM WITH CONSTRUCTION DETAILS AND MANUFACTURER'S RECOMMENDATION
- VERIFY EXISTING WATER PRESSURE AND FIELD DIMENSIONS. DISCREPANCIES SHALL BE REPORTED TO THE OWNER OR APPROPRIATE REPRESENTATIVE IN WRITING PRIOR TO COMMENCEMENT OF WORK
- USE COMMON TRENCHES WHENEVER POSSIBLE. INSTALL PRESSURIZED MAINLINES WITH A MINIMUM OF 18" COVER. INSTALL LATERAL PIPING WITH A MINIMUM 12" COVER. ALL PIPING UNDER PAVING SHALL HAVE MINIMUM 30" COVER
- THE CONTRACTOR SHALL WARRANT THE IRRIGATION SYSTEM FREE FROM DEFECTS IN WORKMANSHIP FOR A PERIOD OF ONE YEAR COMMENCING UPON FINAL ACCEPTANCE OF THE WORK. CONTRACTOR TO PROVIDE OWNER A WRITTEN GUARANTEE ON THEIR COMPANY LETTERHEAD AND SIGNED
- IRRIGATION CONTROLLER(S) SHALL BE 24/7 FULLY PROGRAMMABLE WITH MULTIPLE ON/OFF PERIODS PER STATION, INCLUDE AUTOMATIC RAIN SENSOR & SHUT-OFF BATTERY BACKUP AND SOLAR POWERED COMPATIBLE. CONTROL BOX SHALL BE TAMPER RESISTANT

PLANTING NOTES

- THE LANDSCAPE CONTRACTOR SHALL VISIT THE SITE PRIOR TO BIDDING IN ORDER TO DETERMINE EXISTING SITE CONDITIONS
- PRIOR TO TREE AND SHRUB PLANTING REMOVE ALL DEAD WEEDS FROM PROJECT AREA. PERFORM SOIL ANALYSIS PRIOR TO AMENDING SOIL - SOIL ANALYSIS AMENDMENT RECOMMENDATIONS SUPERCEDE RATES OF APPLICATION GIVEN HERE. FOR BIDDING PURPOSES; ASSUME ALL TURF AND PLANTING AREAS TO BE AMENDED AS FOLLOWS PER 1000 SQUARE FEET: (3) CY NITROGEN STABILIZED ORGANIC AMENDMENT OR COMPOST AND 25 POUNDS BEST 6-24-24 COMMERCIAL FERTILIZER. ROTOTILL EVENLY TO A DEPTH OF 6" AND RAKE ALL AREAS TO A SMOOTH EVEN SURFACE.
- ALL PLANTS TO BE IN A HEALTHY, DISEASE FREE CONDITION. PLANTS THAT HAVE BROKEN BRANCHES, INJURED TRUNKS OR THAT HAVE SUFFERED WILTING WILL NOT BE ACCEPTED FOR INSTALLATION
- PLANT TREES, SHRUBS AND GROUNDCOVER PER LEGEND AND DETAILS. WATER IMMEDIATELY AFTER PLANTING/INSTALLING
- PRIOR TO MULCHING, APPLY PRE-EMERGENT HERBICIDE FOR WEED CONTROL
- TREES PLANTED WITHIN 5' OF WALKS, DRIVEWAYS, PAVEMENT OR OTHER HARD SURFACE AREAS TO HAVE ROOT BARRIER INSTALLED PER MANUFACTURER'S RECOMMENDATION
- ALL TREES AND SHRUBS SHALL BE GUARANTEED FOR A PERIOD (180) DAYS AND GROUND COVER AND PERENNIALS TO BE GUARANTEED FOR A PERIOD OF (30) DAYS. ALL PLANTS THAT ARE NOT IN HEALTHY, ACTIVELY GROWING CONDITION AT THE END OF THE GUARANTEE PERIOD SHALL BE REPLACED AT NO ADDITIONAL COST TO OWNER
- PROVIDE 2" MINIMUM LAYER OF WALK-ON BARK MULCH AT PROPOSED TREE, SHRUB AND GROUNDCOVER PLANTING AREA

PLANTING LEGEND						
SYM.	SIZE	BOTANICAL NAME	COMMON NAME	*DIA.	QTY.	
	15 GAL	PISTACIA CHINENSIS	**CHINESE PISTACHE	35'	3	
	15 GAL	CASUARINA STRICTA	**BEEFWOOD	35'	3	
	15 GAL	QUERCUS ILEX	**HOLLY OAK	30'	3	
	15 GAL	CALOCEDRUS DECURRENS	INCENSE CEDAR	25'	5	
(A)	5 GAL	PHORMIUM TENAX	**NEW ZEALAND FLAX	5'	10	
(B)	(1)1 GAL	ACHILLEA MILLEFOLIUM	**YARROW	4'	52 (4 PER GROUP)	
(C)	(1X2)1 GAL	ARCTOSTAPHYLOS DENSIFLORA	**MANZANITA	10'	21 (3 PER GROUP)	

CLIMATE ZONE: 8
* TREE CANOPY DIAMETER AT 15 YEARS
** LOW WATER USAGE PER SUTTER COUNTY PREFERRED LS LIST
(1) TYPICALLY NOT AVAILABLE IN 5 GALLON CONTAINERS
(2) 5 GALLON CONTAINERS TO BE USED IF AVAILABLE



LANDSCAPE PLAN


Revisions

	7/09/19	DN
	10/23/20	DN

SITE PLAN FOR:

FARM HEADQUARTERS & COMMERCIAL TRUCK YARD

MR. AVTAR SINGH, ALIEN TRANSPORT, LLC
499 WILSON ROAD, SUTTER COUNTY
APN: 25-170-010



960 McCOURTNEY ROAD, SUITE C
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Bus: (530) 674-7501 Fax: (530) 674-7503

Date

6/29/19

Scale

1"=30'

Drawn

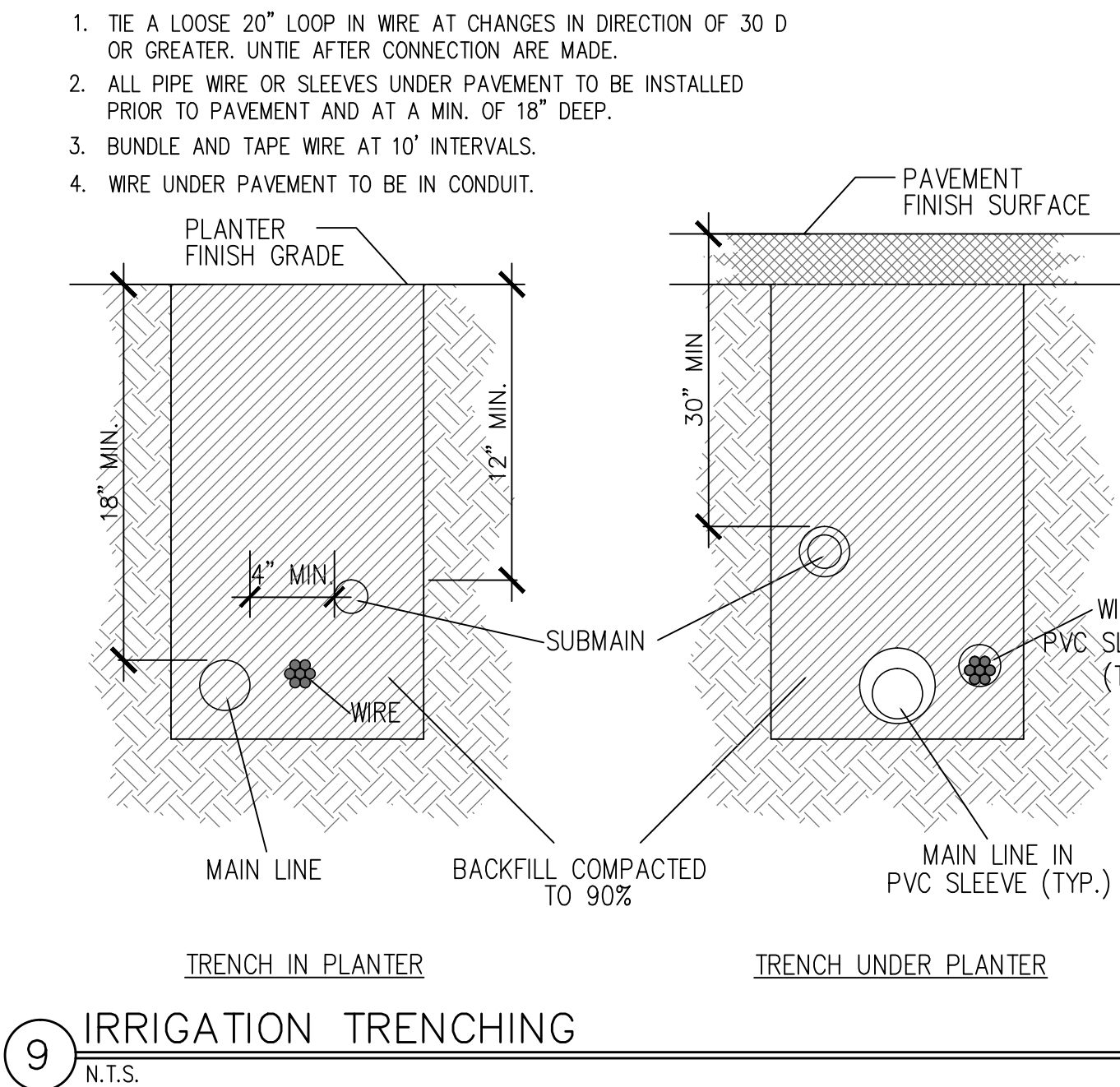
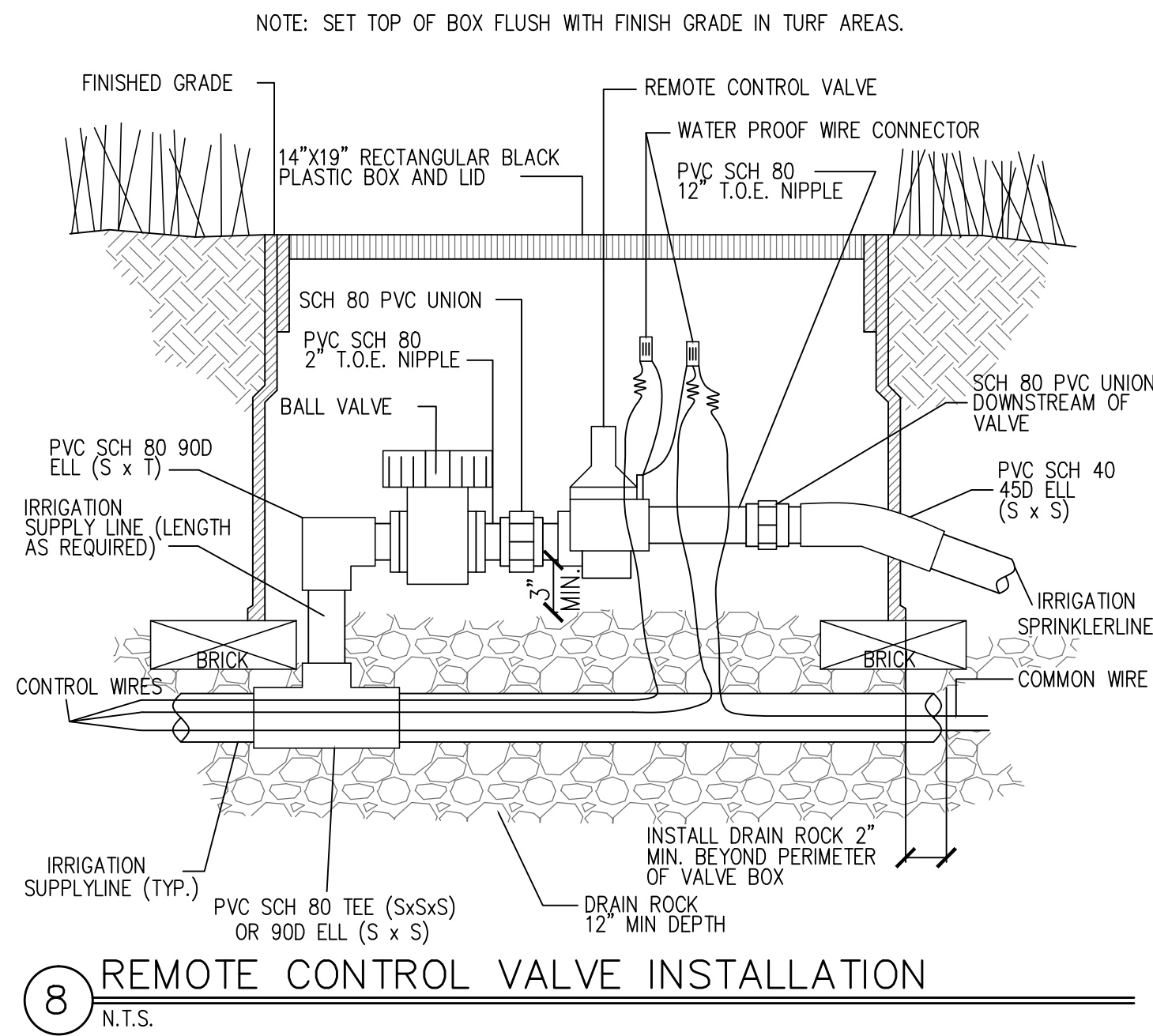
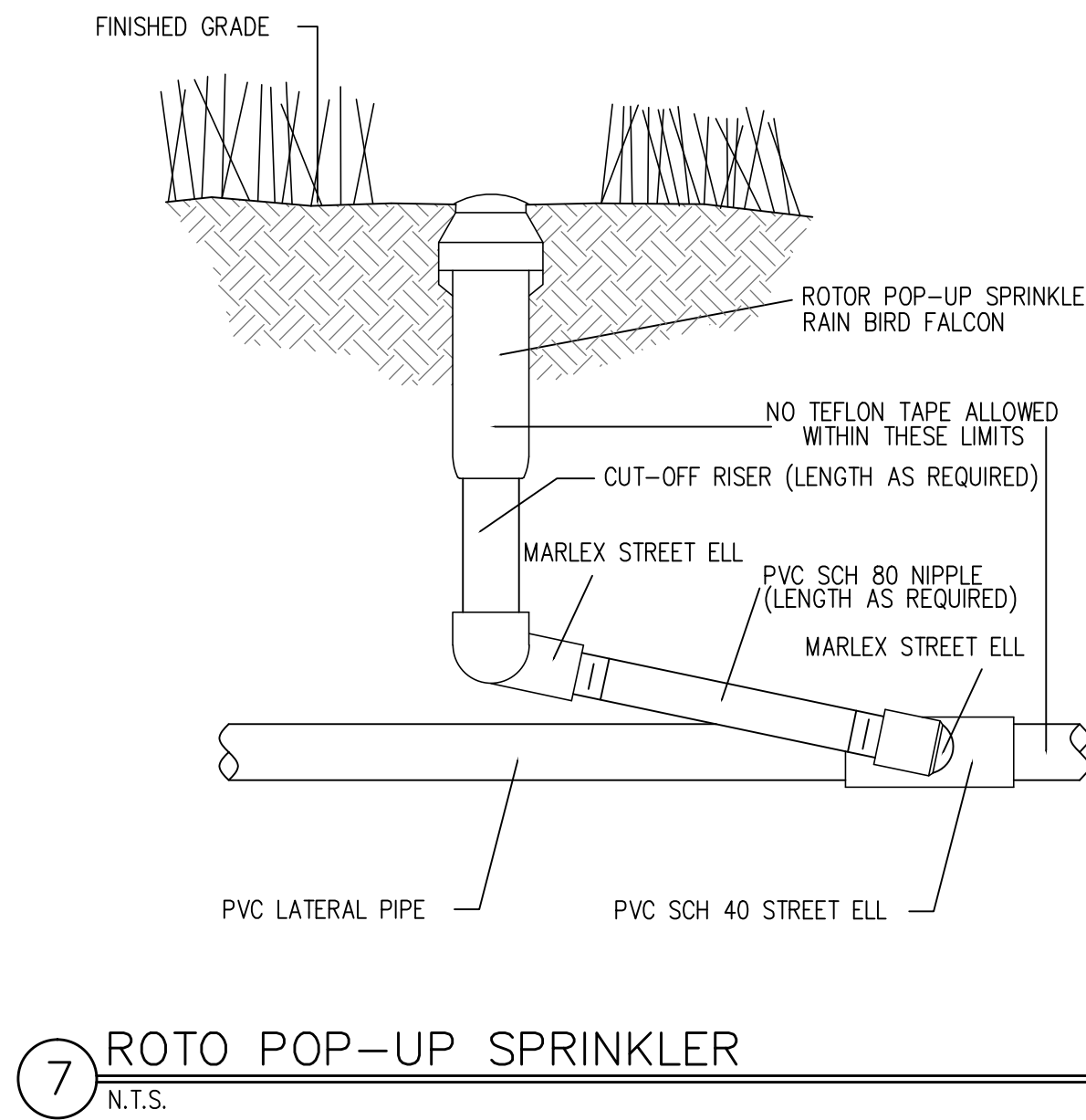
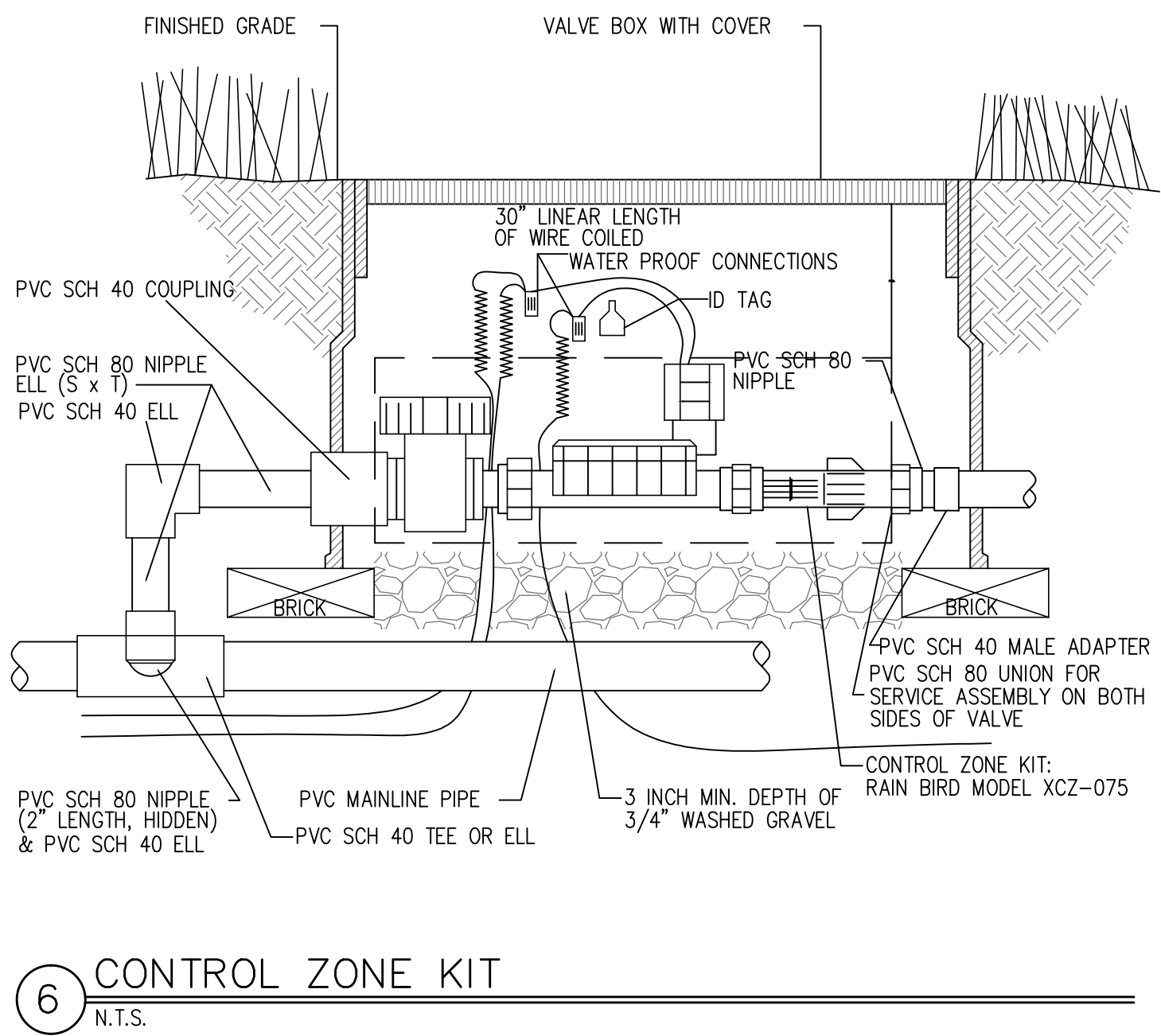
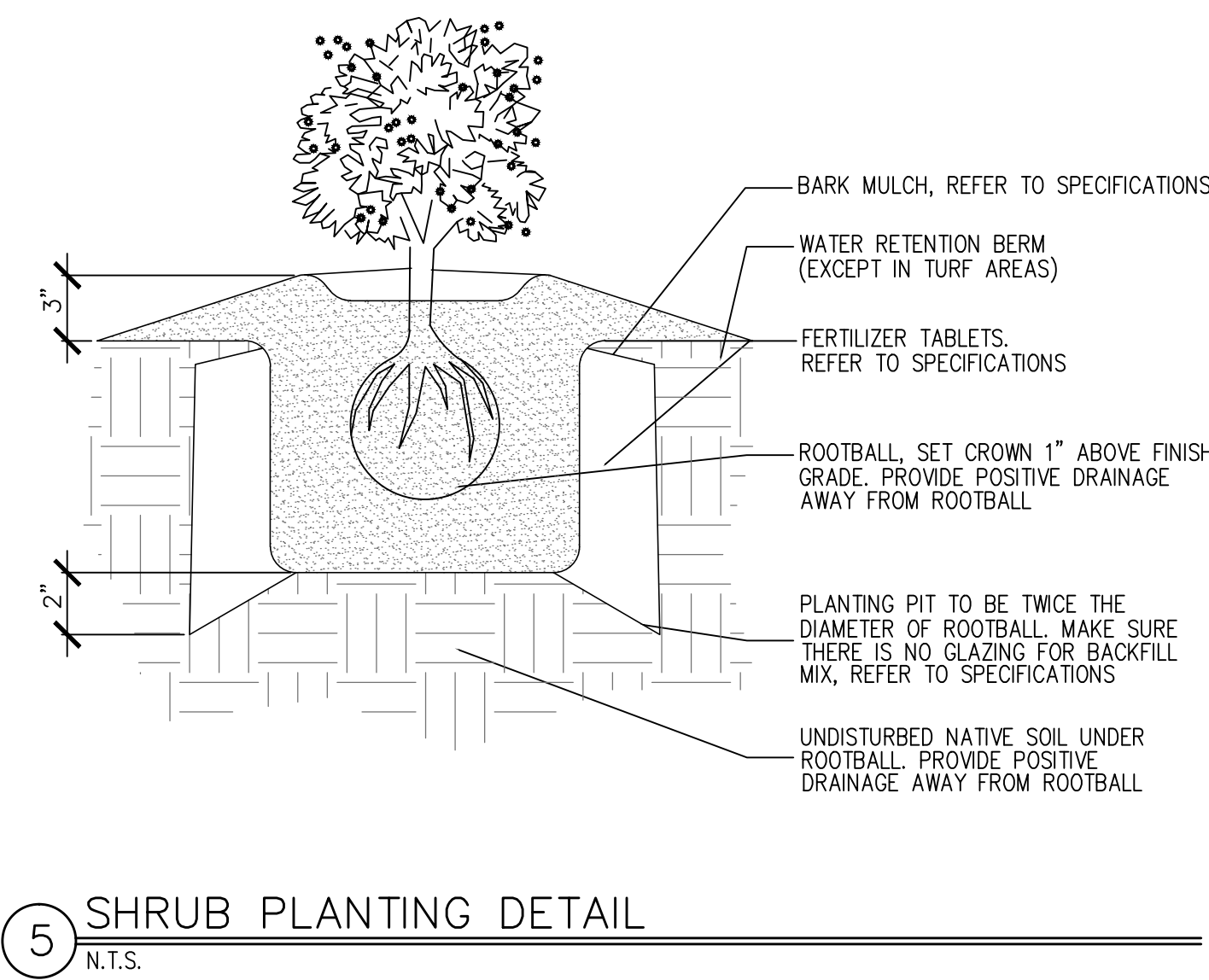
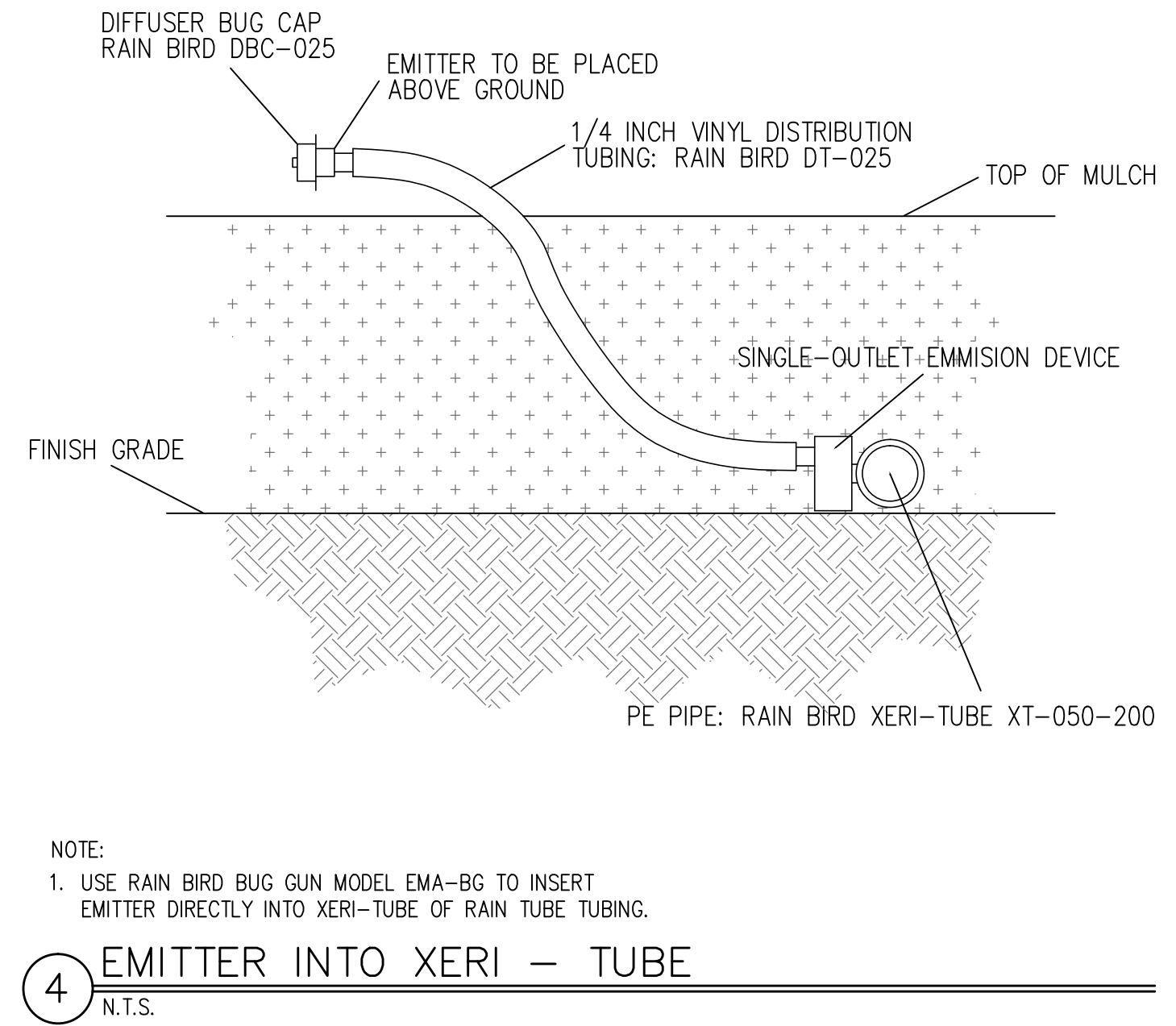
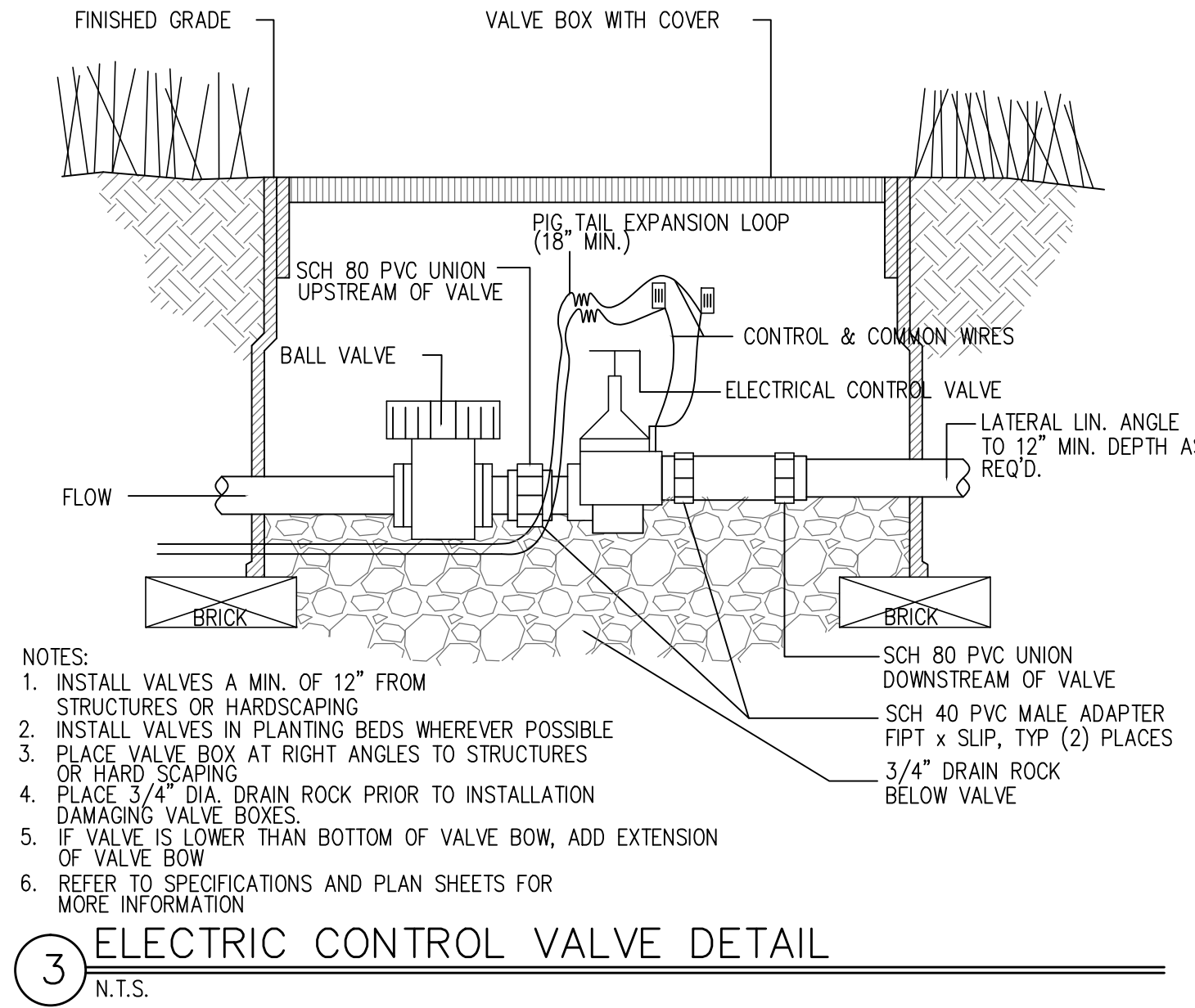
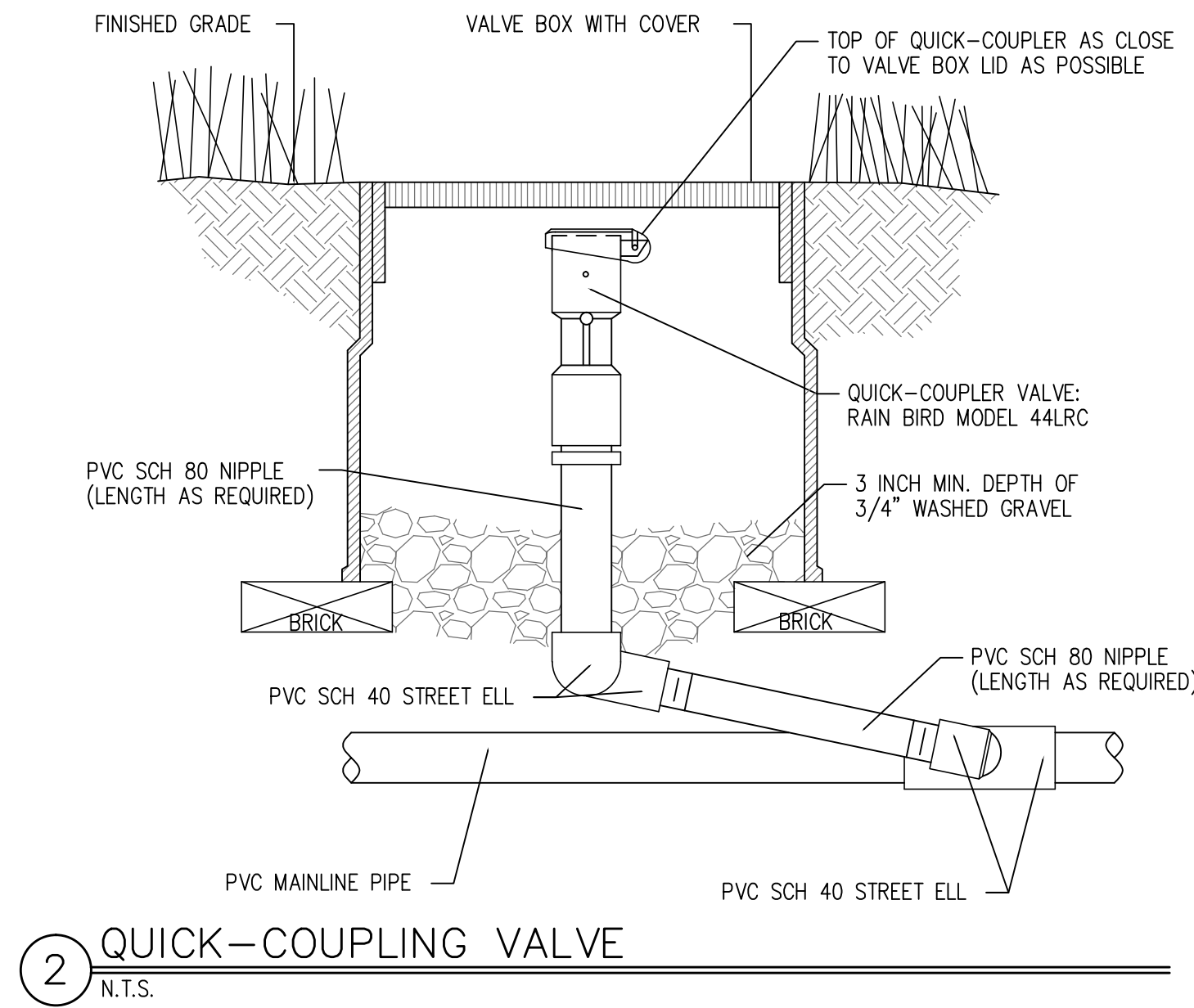
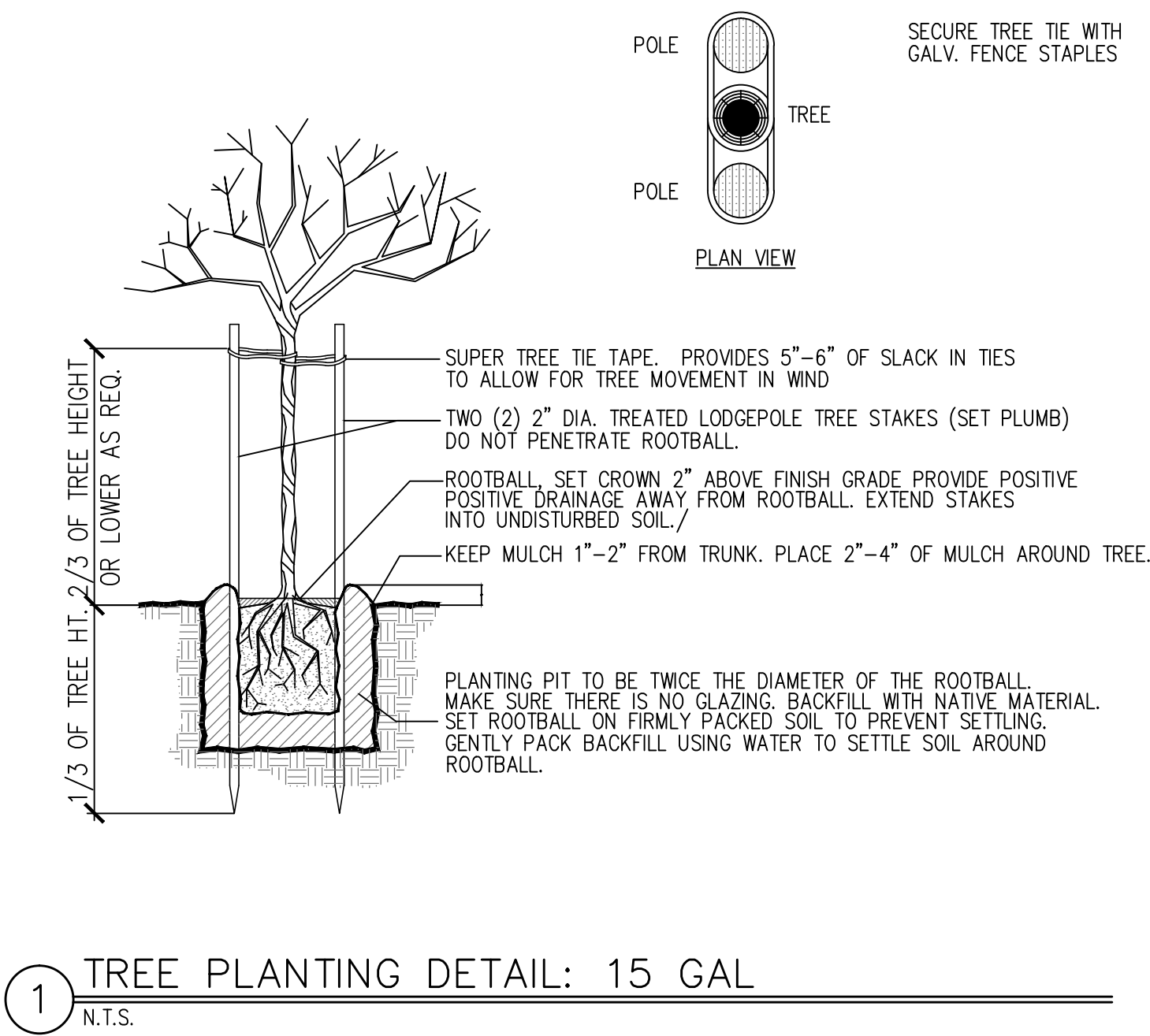
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TYPICAL LANDSCAPE DETAILS
USE WHERE APPLICABLE

Revisions

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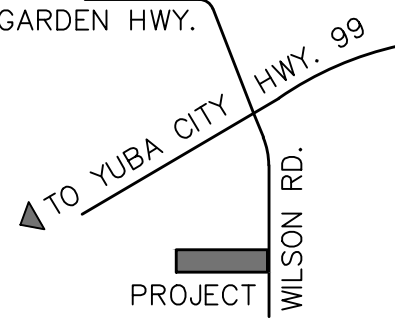
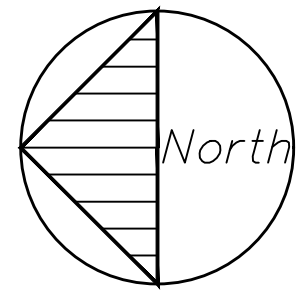
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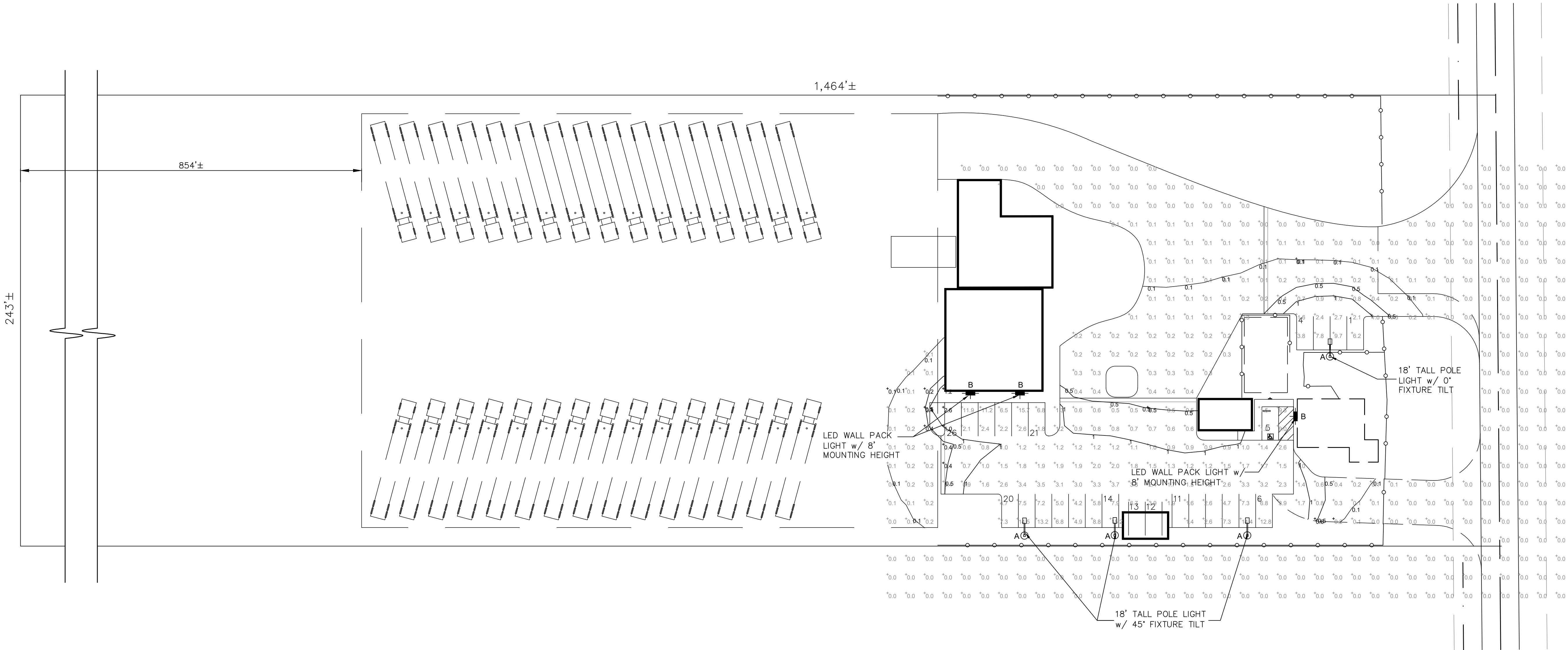
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Schedule											
Symbol	Label	Quantity	Manufacturer	Catalog Number	Description	Lamp	Number Lamps	Filename	Lumens Per Lamp	Light Loss Factor	Wattage
	A	4	QSSI	KH45QF1X16 7U3KC	KH45 WITH ONE 167W QSSI LED ARRAY, TYPE V OPTICS, CLEAR GLASS LENS		1	KH45QF1X16 7U3KC.ies	18732	1	178.8
	B	3	QSSI	KH25QC1X8 1U3K with KH25GS	KH25QC WITH ONE 81W QSSI LED ARRAY, HOUSE SIDE SHIELD	SAMSUNG 351B-N LEDs	1	KH25QC1X8 1U3K with KH25GS.ies	5719	1	88.2

Luminaire Locations										
		Location						Aim		
No.	Label	X	Y	Z	MH	Orientation	Tilt	X	Y	Z
1	A	3960.21	132.86	18.00	18.00	359.36	45.00	3960.01	150.86	0.00
2	A	3840.29	132.76	18.00	18.00	359.36	45.00	3840.09	150.76	0.00
3	A	3888.90	132.98	18.00	18.00	359.36	45.00	3888.70	150.98	0.00
4	A	4004.58	227.92	18.00	18.00	0.00	0.00	4004.58	227.92	0.00
5	B	3837.73	208.39	8.00	8.00	180.91	0.00	3837.73	208.39	0.00
6	B	3811.12	208.39	8.00	8.00	180.91	0.00	3811.12	208.39	0.00
7	B	3986.79	195.21	8.00	8.00	270.00	0.00	3986.79	195.21	0.00



VICINITY MAP
NO SCALE



PHOTOMETRIC PLAN

Revisions		

PHOTOMETRIC PLAN FOR:
FARM HEADQUARTERS & COMMERCIAL TRUCK YARD
MR. AVTAR SINGH, ALLEN TRANSPORT, LLC
499 WILSON ROAD, SUTTER COUNTY
APN: 25-170-010

DCN
960 MCCOURTNEY ROAD, SUITE C
GRASS VALLEY, CA 95949
Bus: (530) 674-7501 Fax: (530) 674-7503

Date	6/29/19
Scale	1"=30'
Drawn	DCN
Job	17-6101
Sheet	

ATTACHMENT 2

Area West Environmental, Inc. Biological Resources Report

**Biological Resources Report
for the
Singh Project
Yuba County, California**



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November 2016



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1.0 INTRODUCTION

The Singh Project (Project) is located at 449 Wilson Road (Assessor's Parcel Number [APN] 25-170-010) in an unincorporated area of Sutter County, California (Figure 1). The Project proposes to convert 2.81 acres of an 8.14-acre parcel into a parking lot for an agricultural trucking business (Project site). In order to meet design standards for a rural collector, the County of Sutter is also proposing to widen the portion of Wilson Road between the Project site and Highway 99. No other improvements to the Project site are proposed.

1.1 Study Objective

The primary objectives of this study are to: 1) assess the biological condition and resource value of the Project site and the areas along Wilson Road that could be affected by the proposed Project (Study area); 2) determine the potential for occurrence of sensitive biological resources (i.e., special-status species and sensitive plant communities) occurring at the Study area; and 3) recommend mitigation measures to minimize potential Project impacts.

1.2 Definitions

Community: A community is an assemblage of populations of plants, animals, bacteria, and fungi that live in an environment and interact with one another, forming a distinctive living system with its own composition, structure, environmental relationships, development, and functions (Whittaker 1975).

Sensitive Community: A sensitive community has particularly high ecological value or functions. Sensitive communities are considered important because their degradation or destruction could threaten populations of dependent plant and wildlife species and significantly reduce the regional distribution and viability of the community. As the number and extent of sensitive communities continue to diminish, the endangerment status of dependent special-status (i.e., rare, threatened, or endangered) species could become more precarious and populations of currently stable species (i.e., non-special-status species) could become rare. Loss of sensitive communities can also eliminate or reduce important ecosystem functions, such as water filtration by wetlands and bank stabilization by riparian forests.

Habitat: A habitat is the place or type of site where a plant or animal naturally or normally lives and grows.

Special-status Species: Special-status species are generally defined as plants and animals that are:

1. legally protected under the California and federal Endangered Species Acts (CESA and ESA, respectively) or under other regulations;

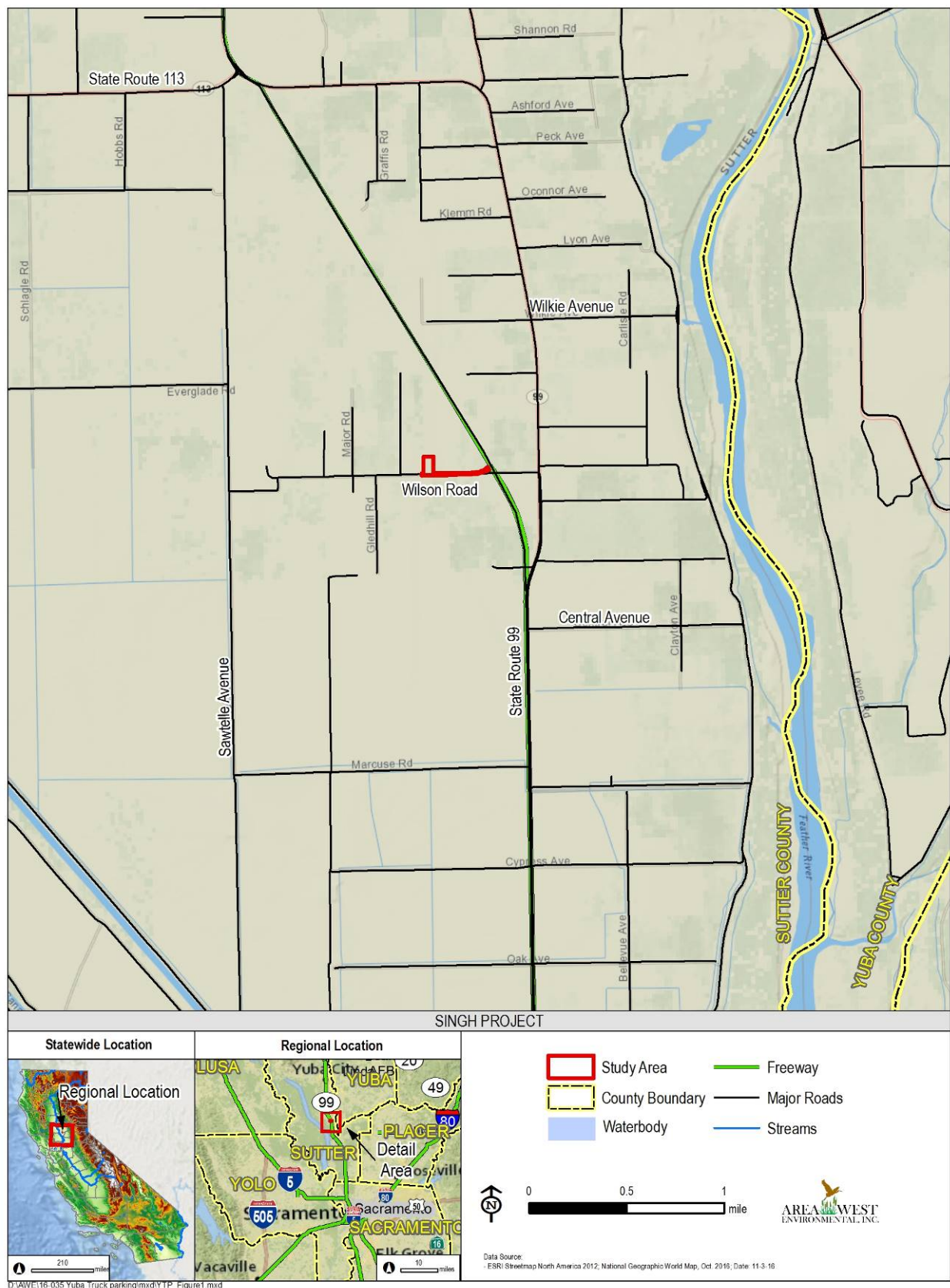


Figure 1. Project Location

2. considered sufficiently rare by the scientific community to qualify for such listing; or
3. considered sensitive because they are unique, declining regionally or locally, or are at the extent of their natural range.

For purposes of environmental review, special-status plant species are specifically defined as:

- plants listed or proposed for listing as threatened or endangered under the ESA;
- plants that meet the definitions of rare or endangered species under the California Environmental Quality Act (CEQA) (CEQA Guidelines, Section 15380);
- plants considered by the California Native Plant Society (CNPS) to be “rare, threatened, or endangered” in California (Lists 1A, 1B and 2 [CNPS 2016]);
- plants listed or proposed for listing by the State of California as threatened or endangered under CESA (California Natural Diversity Database [CNDDB] 2016a);
- plants listed under the California Native Plant Protection Act (California Fish and Game Code 1900 et seq.); and
- plants considered sensitive or unique by the scientific community or occurring at the limits of its natural range (CEQA Guidelines).

For purposes of environmental review, special-status wildlife species are specifically defined as:

- species that are listed, proposed, or candidates for listing under the ESA (50 CFR 17.11 – listed; 80 FR 80583, December 24, 2015 - candidates);
- species that are listed or proposed for listing under the CESA (CNDDB 2016b);
- species that are designated as Species of Special Concern by CDFW;
- species that are designated as Fully Protected by CDFW (California Fish and Game Code [CFGF], Section 3511, 4700, 5050, and 5515); and
- species that meet the definition of rare or endangered under CEQA (14 CCR Section 15380).

Waters of the U.S., including Wetlands: “Waters of the U.S.” is an encompassing term for areas that qualify for federal regulation under Section 404 of the Clean Water Act. Waters of the U.S. include “wetlands’ and “other waters of the U.S.”. For regulatory purposes, wetlands are defined as:

“areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas” (CFR 328.3, CFR 230.3).

Other waters of the U.S. refer to unvegetated waterways and other water bodies with a defined bed and bank, such as drainages, creeks, rivers, and lakes.

In general, wetlands and other bodies of water must have a link to Foreign or Interstate Commerce to be considered under the jurisdiction of the U.S. Army Corps of Engineers (Corps). Waters of the U.S., including wetlands are typically considered sensitive habitats.

1.3 Regulatory Protection of Species and Habitats

1.3.1 Clean Water Act Sections 401, 402, and 404

Section 404 of the Clean Water Act protects waters of the U.S., including wetlands and drainages, by requiring projects that would discharge dredge or fill material into them to obtain a permit or authorization from the Corps. The permitting program is designed to minimize the fill of waters of the U.S. and when impacts cannot be avoided, require compensatory mitigation.

Section 401 of the Clean Water Act requires any applicant for a federal license or permit that could result in any discharge into a navigable water (i.e., Corps permit to fill wetlands), to obtain water quality certification from the Regional Water Quality Control Board (RWQCB).

Section 402 of the Clean Water Act requires projects that disturb 1 acre or more or are part of a larger project to notify the State Water Resources Control Board (SWRCB) and to prepare a Stormwater Pollution Protection Plan (SWPPP) that will minimize construction and stormwater related impacts to waterways.

1.3.2 Migratory Bird Treaty Act and California Fish and Game Code Sections 3503.5, 3511, and 3513

The Migratory Bird Treaty Act of 1918 (MBTA) prohibits the take of any migratory bird or any part, nest, or eggs of any such bird. Under the act, *take* is defined as the action of or attempt to “pursue, hunt, shoot, capture, collect, or kill.” This act applies to all persons and agencies in the U.S., including federal agencies.

The CFGC provides protection from take for common and special-status avian species. The CFGC defines *take* as “hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill.” Eggs and nests of all birds are protected under Section 3503 of the CFGC. Nesting birds (including raptors) are protected under Sections 3503.5 and 3513, and fully protected birds under Section 3511. Migratory nongame birds are protected under Section 3800.

Special permits are generally required for the take of any species protected under these regulations.

1.3.3 Federal and State Endangered Species Acts

The U.S. Fish and Wildlife Service (USFWS) and California Department of Fish and Wildlife (CDFW) are the federal and state agencies responsible for the protection of endangered and threatened plants, fish, and wildlife and for the regulation of activities that could affect those species. The regulatory vehicles that protect sensitive species are administered by these two agencies and include the ESA and the CESA.

Section 7 of the ESA provides a means for authorizing incidental take of federally endangered or threatened species that result from federally conducted, permitted, or funded projects. Similarly, Section 10 authorizes incidental take of federally endangered or threatened species by non-federal agencies.

Section 2081 of CESA authorizes the incidental take of state-listed species.

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2.0 METHODS

2.1 Pre-survey Investigation

Prior to conducting field surveys, available information regarding biological resources on or near the Study area was gathered and reviewed, including information on special-status plant and wildlife species with potential to occur near or at the Study area. Several data sources were reviewed, including:

- a records search of CDFW's CNDDDB for the Nicolaus 7.5' U.S. Geological Survey (USGS) topographic quadrangle map and surrounding quadrangles (CNDDDB 2016c, Appendix A),
- federally threatened or endangered species list from the USFWS (USFWS 2016, Appendix A), and
- a records search of the CNPS Rare Plant Inventory for the Nicolaus 7.5-minute USGS topographic quadrangle map and surrounding quadrangles (Appendix A)(CNPS 2016).

Tables 1 and 2, found at the end of this section, list the special-status plant and wildlife species with potential to occur in the Project vicinity based on the data sources listed above. These lists were used to focus the site investigation on the special-status species and associated habitats with potential to be present at the Study area.

2.2 Field Surveys

Biologist Mark Noyes conducted biological field surveys on September 30, 2016 and October 18, 2016. All vegetation communities within the Study area were noted, mapped, and evaluated for their potential to support special-status species.

During the field survey, representative photographs of the Study area were taken (Appendix B), and locations of potential sensitive habitats (e.g., waters of the U.S.) were recorded using a global positioning systems (GPS) unit. Surveys focused on:

- describing and mapping common and sensitive communities/habitats present,
- identifying special-status and common plant and wildlife species' occurrences, and
- conducting an assessment of habitat types present for suitability to support special-status species.

Areas potentially qualifying as waters of the U.S. were also mapped. However, a formal wetland delineation was not conducted.

2.2.1 Community Mapping

All vegetation communities within the Study area were mapped, including potential waters of the U.S. Community types were based on observed dominant vegetation composition and density. In contrast, aquatic community types/potential waters of the U.S. were based on the presence of an apparent ordinary high water mark (OHWM), and/or depressional areas dominated by hydrophytic (“water loving”) vegetation.

2.2.2 Special-status Species Habitat Assessment

Tables 1 and 2 list special-status plant and special-status wildlife species with potential to occur in the vicinity of the Project. All plant communities were surveyed to determine their potential to support the special-status species listed in Tables 1 and 2. For each special-status species with potential to occur in the Study area, vegetation community attributes were assessed and compared to the specific habitat requirements of each special-status species. Additionally, the location of the Study area was also compared to each special-status species’ range, distance to nearest CNDDB occurrence, and potential barriers to special-status species dispersal to the Study area (e.g., major roads, areas of unsuitable habitat, etc.)

Table 1. Special Status Plant Species with the Potential to Occur in the Project Vicinity

Common and Scientific Name	Legal Status ¹	Distribution	Habitat Association	Identification Period	Habitat Present/Absent	Species Present/Absent	Survey Results/Rationale ²
	Federal/State/CNPS						
Ferris' milk-vetch <i>Astragalus tener</i> var. <i>ferrisiae</i>	--/--/1B.1	Sacramento Valley.	Vernally mesic meadows and seeps as well as valley and foothill grasslands (subalkaline flat). 5 – 250 feet.	April - May	Absent	Absent	Suitable habitat for the species is not present in the Study area. This species was not observed during the site assessment.
Recurved larkspur <i>Delphinium recurvatum</i>	--/--/1B.2	Alameda, Contra Costa, Fresno, Glenn, Kings, Kern, Madera, Merced, Monterey, San Joaquin, San Luis Obispo, Solano, Sutter, and Tulare counties.	Alkaline soils in chenopod scrub, cismontane woodland, and valley and foothill grassland. 10 – 260 feet.	March - June	Absent	Absent	Suitable habitat for the species is not present in the Study area. This species was not observed during the site assessment.
Dwarf downingia <i>Downingia pusilla</i>	--/--/2B.2	Southern Sacramento Valley, northern San Joaquin Valley, and southern North Coast Ranges.	Vernal pools in valley and foothill grasslands. 3 – 1,460 feet.	March - May	Absent	Absent	Suitable habitat for the species is not present in the Study area. This species was not observed during the site assessment.
Bogg's Lake hedge hyssop <i>Gratiola heterosepala</i>	--/SE/1B.2	Fresno, Lake, Lassen, Madera, Merced, Modoc, Placer, Sacramento, Shasta, Siskiyou, San Joaquin, Solano, Sonoma, and Tehama counties.	Clay soil in marshes and swamps (lake margins) and vernal pools. 0 – 7,800 feet.	April - August	Absent	Absent	Suitable habitat for the species is not present in the Study area. This species was not observed during the site assessment.
Woolly rose-mallow <i>Hibiscus lasiocarpus</i> var. <i>occidentalis</i>	--/--/1B.2	Butte, Contra Costa, Colusa, Glenn, Sacramento, San Joaquin, Solano, Sutter, and Yolo counties.	Often in riprap on sides of levees in marshes and swamps (freshwater). 0 – 390 feet.	June - September	Absent	Absent	Suitable habitat for the species is not present in the Study area. This species was not observed during the site assessment conducted during the species' appropriate bloom period.
Veiny monardella <i>Monardella venosa</i>	--/--/1B.1	Butte, Sutter, Tuolumne, and Yuba counties.	Heavy clay soil in cismontane woodland and valley and foothill grassland. 200 – 1,350 feet.	May - July	Absent	Absent	Suitable habitat for the species is not present in the Study area. This species was not observed during the site assessment.
Hartweg's golden sunburst <i>Pseudobahia bahiifolia</i>	FE/SE/1B.1	Restricted to the northeastern San Joaquin valley.	Often acidic clay soil in cismontane woodland and valley and foothill grassland. 50 – 500 feet.	March - April	Absent	Absent	Suitable habitat for the species is not present in the Study area. This species was not observed during the site assessment.

Common and Scientific Name	Legal Status ¹	Distribution	Habitat Association	Identification Period	Habitat Present/Absent	Species Present/Absent	Survey Results/Rationale ²
	Federal/State/CNPS						
Sanford's arrowhead <i>Sagittaria sanfordii</i>	--/--/1B.2	Scattered localities throughout the Central Valley and adjacent foothills.	Marshes and swamps (assorted shallow freshwater). 0 – 2,100 feet.	May - November	Present	Absent	Low quality suitable habitat (agricultural ditch) is present in the Study area. This species was not observed during the site assessment conducted during the species' appropriate bloom period.
Wright's trichocoronis <i>Trichocoronis wrightii</i> var. <i>wrightii</i>	--/--/2B.1	Colusa, Merced, Riverside, San Joaquin, and Sutter counties.	Meadows, seeps, marshes, swamps, riparian forest, and vernal pools (alkaline soils). 16 – 1,430 feet.	May - September	Absent	Absent	Suitable habitat for the species is not present in the Study area. This species was not observed during the site assessment conducted during the species' appropriate bloom period.

Federal Status

FT = Federal Threatened

State Status

SE = State Endangered

CNPS Status

1B = Plants Rare, Threatened, or Endangered in California and Elsewhere

2B = Plants Rare, Threatened, or Endangered in California, But More Common Elsewhere

.1 = Seriously threatened in California

.2 = Moderately threatened in California

Table 2. Special Status Wildlife Species with the Potential to Occur in the Project Vicinity

Common and Scientific Name	Legal Status ¹	Distribution	Habitat Association	Identification Period	Habitat Present/ Absent	Species Present/ Absent	Survey Results/Rationale ²
	Federal/State						
Invertebrates							
Conservancy fairy shrimp <i>Branchinecta conservatio</i>	FE/--	Conservancy fairy shrimp are known from six disjunct populations in California: Vina Plains, Tehama County; south of Chico, Butte County; Jepson Prairie, Solano County; Sacramento National Wildlife Refuge, Glenn County; northeast of Merced, Merced County; and the Lockwood Valley, northern Ventura County.	Vernal pools, swales, playa pools, and seasonal wetlands.	January-April for active shrimp, April- January for cysts.	Absent	Absent	Suitable habitat for the species is not present in the Study area. Individuals were not observed during the habitat assessment. The Study area is outside the range for this species.
Vernal pool fairy shrimp <i>Branchinecta lynchi</i>	FT/--	Central Valley, Central and South Coast Ranges from Tehama County to Santa Barbara County; isolated populations also in Riverside County and southern Oregon.	Vernal pools and seasonal wetlands; also found in sandstone rock outcrop pools.	November-April for active shrimp, April-November for cysts.	Absent	Absent	Suitable habitat for the species is not present in the Study area. Individuals were not observed during the habitat assessment.
Valley elderberry longhorn beetle <i>Desmocerus californicus dimorphus</i>	FT/--	Central Valley and surrounding foothills below 500-foot elevations.	Dependent on elderberry (<i>Sambucus nigra</i>) shrubs as a host plant; potential habitat is shrubs with stems 1 inch in diameter within Central Valley.	Year-round for host plant and exit holes.	Absent	Absent	Suitable habitat for the species is not present in the Study area. Individuals were not observed during the habitat assessment.
Vernal pool tadpole shrimp <i>Lepidurus packardii</i>	FE/--	Central Valley from Shasta County south to Merced County.	Vernal pools, vernal lakes, and other seasonal wetlands.	November-April for active shrimp, April-November for cysts.	Absent	Absent	Suitable habitat for the species is not present in the Study area. Individuals were not observed during the habitat assessment.

Common and Scientific Name	Legal Status ¹	Distribution	Habitat Association	Identification Period	Habitat Present/ Absent	Species Present/ Absent	Survey Results/Rationale ²
	Federal/State						
Amphibians							
California red-legged frog <i>Rana draytonii</i>	FT/ST	Along the coast and coastal mountain ranges of California from Marin County to San Diego County and in the Sierra Nevada from Tehama County to Fresno County.	Permanent and semi-permanent aquatic habitats, such as creeks and ponds with emergent and submergent vegetation; may aestivate in upland burrows during dry periods.	Year-round	Absent	Absent	Suitable habitat for the species is not present in the Study area. Individuals were not observed during the habitat assessment. The Study area is outside the range for this species.
Western spadefoot <i>Spea hammondi</i>	--/SSC	Sierra Nevada foothills, Central Valley, Coast Ranges, coastal counties in southern California.	Shallow streams with riffles and seasonal wetlands, such as vernal pools in annual grasslands and oak woodlands.	January-July (aquatic)	Absent	Absent	Suitable habitat for the species is not present in the Study area. Individuals were not observed during the habitat assessment.
Reptiles							
Giant garter snake <i>Thamnophis gigas</i>	FT/ST	Central Valley from Fresno County north to the Gridley/Sutter Buttes area; has been extirpated from areas south of Fresno.	Sloughs, canals, and other small waterways where there is a prey base of small fish and amphibians; requires grassy banks and emergent vegetation for basking and areas of high ground protected from flooding during winter. Utilizes upland habitats within 200 feet from aquatic habitats.	April-October	Present	Assumed Present	Suitable habitat (agricultural ditch) is present in the Study area along the northern edge of Wilson Road. Although suitable habitat is present, the agricultural ditch appears to drain to the west, then north out of the Project site, where it flows into a roadside ditch along Highway 99. As a result, the ditch appears to be hydrologically isolated from known CNDDDB occurrences of the species (the nearest occurrences are 1.5 miles to the southwest), reducing the likelihood that individuals are present in the Study area.

Common and Scientific Name	Legal Status ¹	Distribution	Habitat Association	Identification Period	Habitat Present/Absent	Species Present/Absent	Survey Results/Rationale ²
	Federal/State						
Western pond turtle <i>Emys marmorata</i>	--/SSC	Populations extend throughout the coast and Central Valley of California.	Ponds, marshes, rivers, streams and irrigation ditches with aquatic vegetation below 6,000 feet in elevation.	Year-round	Present	Assumed Present	Suitable habitat (agricultural ditch) is present in the Study area along the northern edge of Wilson Road. Although suitable habitat is present, the agricultural ditch appears to drain to the west, then north out of the Project site, where it flows into a roadside ditch along Highway 99. As a result, the ditch appears to be hydrologically isolated from known CNDDDB occurrences of the species (the nearest is approximately 10 miles to the northwest), reducing the likelihood that individuals are present in the Study area.
Birds							
Tricolored blackbird <i>Agelaius tricolor</i>	--/SSC	Largely endemic to California; permanent residents in the Central Valley from Butte County to Kern County; at scattered coastal locations from Marin County south to San Diego County; breeds at scattered locations in Lake, Sonoma, and Solano counties; rare nester in Siskiyou, Modoc, and Lassen counties. Sacramento-San Joaquin Valleys and low foothills of coast ranges and Sierra Nevada.	Nests in dense colonies in emergent marsh vegetation, such as tules and cattails, or upland sites with blackberries, nettles, thistles, and grain fields; nesting habitat must be large enough to support 50 pairs; probably requires water at or near the nesting colony; requires large foraging areas, including marshes, pastures, agricultural wetlands, dairies, and feedlots, where insect prey is abundant.	March-August	Absent	Absent	Suitable habitat for the species is not present in the Study area. Although the Study area contained some emergent marsh vegetation, the extent and density of the vegetation was not sufficient to provide nesting habitat for this species. Individuals were not observed during the habitat assessment.

Common and Scientific Name	Legal Status ¹	Distribution	Habitat Association	Identification Period	Habitat Present/Absent	Species Present/Absent	Survey Results/Rationale ²
	Federal/State						
Burrowing owl <i>Athene cunicularia</i>	--/SSC	Lowlands throughout California, including the Central Valley, northeastern plateau, southeastern deserts, and coastal areas; rare along south coast. Central and southern coastal habitats, and Central Valley.	Open annual grasslands or perennial grasslands, deserts, and scrublands characterized by low-growing vegetation. Dependent upon burrowing mammals (especially California ground squirrel [<i>Otospermophilus beecheyi</i>]) for burrows.	Year-round	Absent	Absent	Suitable habitat for the species is not present in the Study area. No burrows of sufficient size to provide nesting sites were observed within the Study area. Individuals were not observed during the habitat assessment.
Swainson's hawk <i>Buteo swainsoni</i>	--/ST	Lower Sacramento and San Joaquin Valleys, the Klamath Basin, and Butte Valley; the state's highest nesting densities occur near Davis and Woodland, Yolo County.	Nests in oaks or cottonwoods in or near riparian habitats; forages in grasslands, irrigated pastures, and grain fields.	March - September	Absent	Absent	Suitable habitat for the species is not present in the Study area. Individuals were not observed during the habitat assessment.
Mountain plover <i>Charadrius montanus</i>	--/SSC	Sacramento Valley and low-elevation portions of San Francisco Bay Area, and southern Coast Ranges.	Forages in short-grass prairie habitats, or their equivalents, that are flat and nearly devoid of vegetation.	September - March	Absent	Absent	Suitable habitat for the species is not present in the Study area. Individuals were not observed during the habitat assessment.
Northern harrier <i>Circus cyaneus</i>	--/SSC	Throughout California, concentrated in the Central Valley and coastal valleys.	Breeds in annual grasslands. Prefers marshes and grasslands for foraging and nesting. Uncommon breeder in northwest coastal areas.	Year-round	Absent	Absent	Suitable habitat for the species is not present in the Study area. Individuals were not observed during the habitat assessment.
Western yellow-billed cuckoo <i>Coccyzus americanus occidentalis</i>	FT/SE	More common locations include Sacramento River from Red Bluff to Colusa and the South Fork Kern River from Isabella Reservoir to Canebrake Ecological Reserve.	This species is a riparian obligate, nesting in low to moderate elevation riparian woodlands with native broadleaf trees and shrubs that are 20 hectares (50 acres) or more in extent.	May - September	Absent	Absent	Suitable habitat for the species is not present in the Study area. Individuals were not observed during the habitat assessment.

Common and Scientific Name	Legal Status ¹	Distribution	Habitat Association	Identification Period	Habitat Present/Absent	Species Present/Absent	Survey Results/Rationale ²
	Federal/State						
White-tailed kite <i>Elanus leucurus</i>	--/FP	Lowland areas west of Sierra Nevada from head of Sacramento Valley south, including coastal valleys and foothills to western San Diego County at the Mexico border. Central Valley and low foothills of Sierra Nevadas.	Agricultural lands and open stages of most herbaceous habitats. Nests in dense oak, willow, or other tree stands.	Year-round	Absent	Absent	Suitable habitat for the species is not present in the Study area. Although trees were present in the Study area, no dense tree stands were present, and nearby oak trees were too small to provide nesting sites for this species. Individuals were not observed during the habitat assessment.
California black rail <i>Laterallus jamaicensis coturniculus</i>	--/ST,FP	Known to occur in Alameda, Butte, Contra Costa, Imperial, Marin, Napa, Nevada, Placer, Riverside, Sacramento, San Bernardino, San Joaquin, San Luis Obispo, San Mateo, Santa Clara, Santa Cruz, Solano, Sonoma, Sutter, and Yuba counties.	Saltwater, brackish, and freshwater marshes.	Year-round	Absent	Absent	Suitable habitat for the species is not present in the Study area. Although the Study area contained some emergent marsh vegetation, the extent and density of the vegetation was not sufficient to provide nesting habitat for this species. Individuals were not observed during the habitat assessment.
Bank swallow <i>Riparia riparia</i>	--/ST	The state's largest remaining breeding populations are along the Sacramento River from Tehama County to Sacramento County and along the Feather and lower American Rivers, in the Owens Valley; nesting areas also include the plains east of the Cascade Range south through Lassen County, northern Siskiyou County, and small populations near the coast from San Francisco County to Monterey County.	Nests in bluffs or banks, usually adjacent to water, where the soil consists of sand or sandy loam to allow digging.	Year-round	Absent	Absent	Suitable habitat for the species is not present in the Study area. The sides of the agricultural ditch were not steep enough and were too accessible to potential predators to provide nesting habitat for this species. Individuals were not observed during the habitat assessment.
Mammals							
Pallid bat <i>Antrozous pallidus</i>	--/SSC	Low elevations throughout California.	Rocky outcrops, cliffs, and crevices for roosting; access to open habitats required for foraging.	Year-round	Absent	Absent	Suitable habitat for the species is not present in the Study area. Individuals were not observed during the habitat assessment.

Common and Scientific Name	Legal Status ¹	Distribution	Habitat Association	Identification Period	Habitat Present/Absent	Species Present/Absent	Survey Results/Rationale ²
	Federal/State						
Western red bat <i>Lasiurus blossevillei</i>	--/SSC	Breeding range extends from Shasta County to the Mexican border, west of the Sierra Nevada/Cascade crest and deserts. Winter range includes western lowlands and coastal regions south of San Francisco Bay.	Roosts in forests and woodlands, from sea level up through mixed conifer forests. Roosts primarily in trees, but occasionally in shrubs and often in habitats adjacent to streams or meadows.	Year-round	Absent	Absent	Suitable habitat for the species is not present in the Study area. Individuals were not observed during the habitat assessment.
Fish							
Steelhead – Central California DPS <i>Oncorhynchus mykiss irideus</i>	FT/--	Sacramento and San Joaquin Rivers and tributaries, Sacramento-San Joaquin Delta, San Francisco Bay.	Cool water with moderate size gravel for spawning and cover for rearing.	Year-round	Absent	Absent	Suitable habitat for the species is not present in the Study area. Individuals were not observed during the habitat assessment.
Central Valley Spring-run Chinook Salmon <i>Oncorhynchus tshawytscha</i>	FT/ST	Sacramento and San Joaquin Rivers and tributaries, Sacramento-San Joaquin Delta, San Francisco Bay.	Cool water with moderate size gravel for spawning and cover for rearing.	Year-round	Absent	Absent	Suitable habitat for the species is not present in the Study area. Individuals were not observed during the habitat assessment.
Delta Smelt <i>Hypomesus transpacificus</i>	FT/SE	Sacramento-San Joaquin Delta and the lower reaches of the two rivers.	Estuarine or brackish waters to 14 parts per thousand (ppt); spawn in shallow brackish water upstream of the mixing zone (zone of saltwater-freshwater interface) where salinity is around 2 ppt.	Year-round	Absent	Absent	Suitable habitat for the species is not present in the Study area. Individuals were not observed during the habitat assessment.
Sacramento splittail <i>Pogonichthys macrolepidotus</i>	--/SSC	Formerly throughout Sacramento-San Joaquin River drainage, CA; now restricted to San Francisco Bay Delta and lower Sacramento River.	Backwaters and pools of rivers; lakes. Tolerant of brackish water.	Year-round	Absent	Absent	Suitable habitat for the species is not present in the Study area. Individuals were not observed during the habitat assessment.

Common and Scientific Name	Legal Status ¹	Distribution	Habitat Association	Identification Period	Habitat Present/Absent	Species Present/Absent	Survey Results/Rationale ²
	Federal/State						
Longfin Smelt <i>Spirinchus thaleichthys</i>	FC/ST,SSC	Scattered populations of longfin smelt occur along the Pacific coast from Alaska to the San Francisco Estuary. Sacramento-San Joaquin Delta and the lower reaches of the two rivers.	Longfin smelt larvae and small juveniles are rarely found in water warmer than 71.6 °F (22 °C). Competent-swimming young juveniles disperse toward more-saline and deeper-water habitats. Mature longfin smelt require cool-to-cold [less than 60.8 °F (16 °C)] freshwater habitats for spawning.	Year-round	Absent	Absent	Suitable habitat for the species is not present in the Study area. Individuals were not observed during the habitat assessment.
Eulachon <i>Thaleichthys pacificus</i>	FT/SSC	Found in Klamath River, Mad River, Redwood Creek and in small numbers in Smith River and Humboldt Bay tributaries. Collected as far south as Bodega Head (Sonoma County), San Francisco Bay, and Point Buchon (San Luis Obispo County) (Moyle 2002).	Spawn in lower reaches of coastal rivers with moderate water velocities and bottom of pea-sized gravel, sand and woody debris.	Year-round	Absent	Absent	Suitable habitat for the species is not present in the Study area. Individuals were not observed during the habitat assessment.

Status explanations:

-- = no listing.

Federal

FC = federal candidate for listing under the federal Endangered Species Act.

FE = listed as endangered under the federal Endangered Species Act.

FT = listed as threatened under the federal Endangered Species Act.

State

SE = listed as endangered under the California Endangered Species Act.

SSC = state species of special concern

ST = listed as threatened under the California Endangered Species Act.

FP = listed as fully protected under the California Fish and Game Code.

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3.0 RESULTS

3.1 Vegetation Communities

The Study area is relatively flat and located at approximately at 55 feet above sea level. The Project site consists of a large graveled parking lot with several buildings, including a large workshop and a house used as an office building. Wilson Road consists of two paved lanes with narrow graveled shoulders. Adjacent to the road, a large agricultural ditch conveys runoff from adjacent plum orchards and through a culvert located underneath a driveway within the Project site. The majority of the parking lot is covered in several inches of gravel, with mowed and herbicide-sprayed ruderal vegetation along its margins that borders adjacent plum orchards.

Biological resources and community types occurring in the Study area are described below and are shown on a habitat communities map of the project site (Figure 2). Representative photographs are provided in Appendix B.

3.1.1 Developed/Ornamental

The majority of the Study area is comprised of the developed/ornamental vegetation community, and consists of the paved roadway, graveled shoulders, buildings, a parking lot, and planted non-native vegetation. Totalling 4.379 acres, the majority of this community lacks vegetation, with the exception of the front yard of the on-site office building (Figure 2). Within this area, plant species include Bermuda grass (*Cynodon dactylon*), yucca plants (*Yucca* sp.), and weeping willow (*Salix x babylonica*). Several walnut (*Juglans* sp.) trees were also present in the Project site.

Due to continual disturbance (mowing and herbicide spraying), this vegetation community does not provide suitable habitat to special-status plant or wildlife species.

3.1.2 Ruderal

The ruderal vegetation community consists of non-native annual grasses and forbs that are either mowed or sprayed with herbicide along the fringes of the graveled parking lot and southern edge of Wilson Road. In the ruderal areas around the parking lot, annual grasses including Italian ryegrass (*Festuca perennis*), six-weeks rattail fescue (*Festuca myuros*), and soft chess brome (*Bromus hordeaceus*) were present. Annual forbs included Canada horseweed (*Conyza canadensis*), Jersey cudweed (*Pseudognaphalium luteoalbum*), cheeseweed (*Malva parviflora*), and prickly lettuce (*Lactuca serriola*). Plants along the edges of Wilson Road received supplemental irrigation from the adjacent orchards and included Bermuda grass, dallisgrass (*Paspalum dilatatum*), Johnsongrass (*Sorghum halepense*), and slender willowherb (*Epilobium brachycarpum*).



D:\AWE\119-035 Yuba Truck parking\msd\YTP_Figure3.mxd

Figure 2. Vegetation Communities within the Study Area

Based on the amount of observed disturbance (mowing and spraying), the ruderal vegetation community does not provide suitable habitat to special-status plant or wildlife species.

3.1.3 Agricultural Ditch

An agricultural ditch is present along the northern edge of Wilson Road that conveys excess irrigation from the surrounding orchards. The agricultural ditch conveys flows south, into the Study area, then west, where it flows through a large 24-inch culvert underneath the Project site. Remaining either inundated (ponded) or saturated for long durations during the year, this vegetation community supports perennial hydrophytic (“water-loving”) emergent vegetation; including cattails (*Typha* spp.), tules (*Schoenoplectus acutus* var. *occidentalis*), and willow (*Salix* sp.) saplings in the bottom of the ditch. Along the banks, additional hydrophytes including tall flatsedge (*Cyperus eragrostis*), dallisgrass, and Johnsongrass were also present.

The bottom of the western portion of the agricultural ditch did not contain emergent vegetation, although mosquito fern (*Azolla filiculoides*), a floating aquatic plant, was present. Near the base of the banks, small burrows, possibly belonging to crayfish (*Procambarus* sp.) were present, and small, dead crayfish and small fish were observed in the western portion of the ditch; most likely due to recent dry-down. Tree frogs (*Hyla regillia*) were also observed.

Further up on the banks, which were relatively steep (greater than 45 degrees), occasional Botta’s pocket gopher (*Thomomys bottae*) burrows were observed. Vegetation in the higher portions of the banks included slender willowherb, wild oat (*Avena* spp.), ripgut brome (*Bromus diandrus*), and soft chess brome.

Based on the presence of hydrophytic vegetation and an OHWM, this vegetation community has potential to be considered a waters of the U.S. Furthermore, because of the long inundation/saturation duration, this vegetation community has potential to support special-status plant and animal species (see Section 3.3).

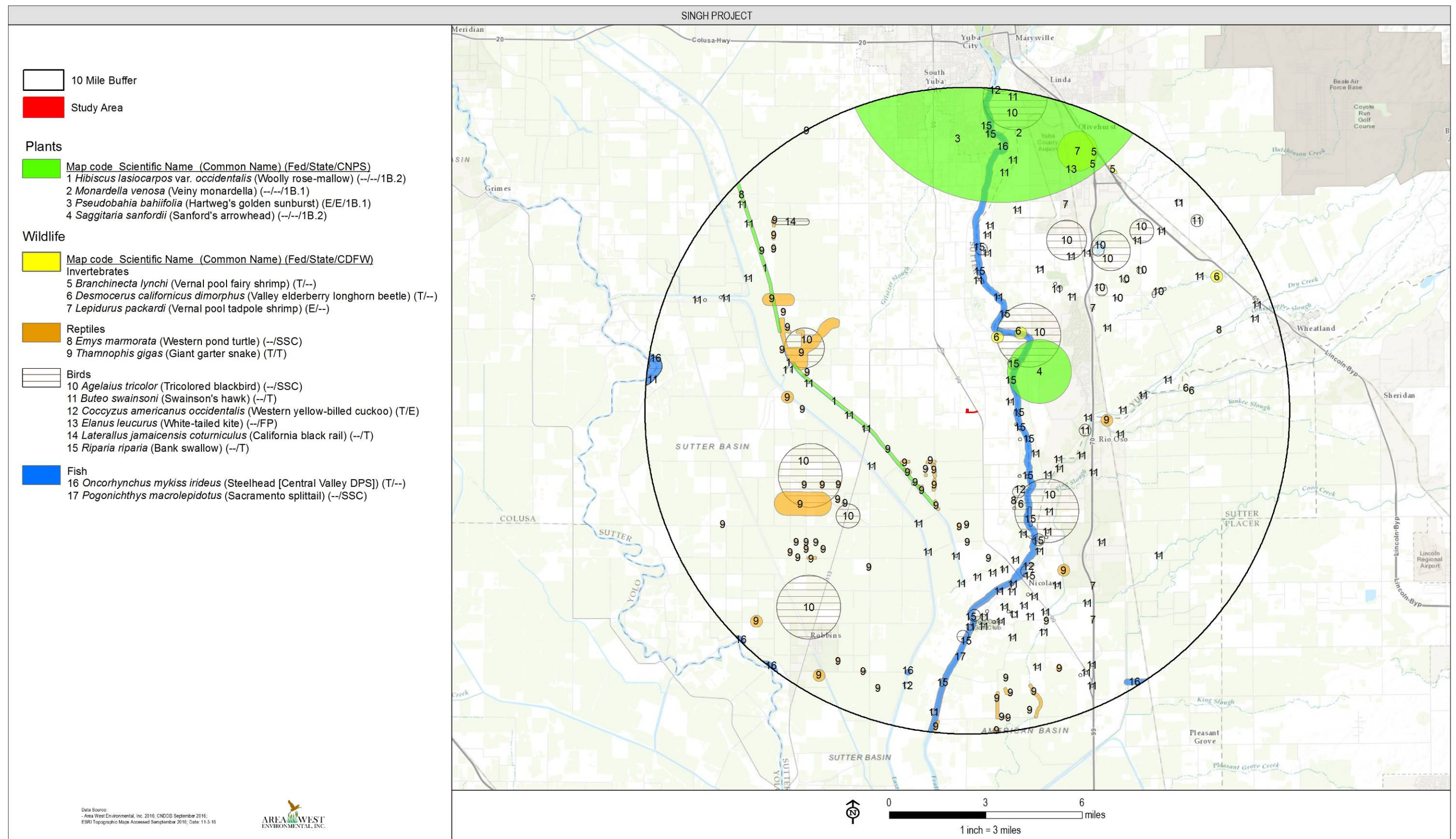
3.2 Common Wildlife Occurrences and Habitat Associations

Due to frequent disturbance from vegetation clearing activities, only the agricultural ditch provides habitat value to wildlife species. In addition, trees within the developed/ornamental community can provide potential nesting and roosting sites for bird species. Wildlife species observed included wild turkey (*Meleagris gallopavo*), tree frog, and crayfish.

3.3 Special-status Species

A CNDDDB search of the Nicolaus and surrounding 7.5-minute USGS quadrangles revealed no known occurrences of special-status plant or wildlife species in the Study area (Appendix A). Special-status species occurrences within 10 miles of the Study area (CNDDDB 2016c) are shown on Figure 3.

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3.3.1 Special-status Plants

According to record searches (Section 2.1), nine special-status plant species have potential to occur in the vicinity of the Study area (Table 1). Of the vegetation communities observed during field surveys, the agricultural ditch community could provide habitat to only one plant species, Sanford's arrowhead (*Sagittaria sanfordii*). However, this species was not observed during the field survey, which was conducted during the species' bloom period. Therefore, no special-status plants have potential to occur in the Study area.

3.3.2 Special-status Wildlife

Based on records searches (Section 2.1), 25 special-status wildlife species were determined to have potential to occur in the vicinity of the Study area (Table 2). Based on the field survey, two wildlife species, giant garter snake (*Thamnophis gigas*) and western pond turtle (*Emys marmorata*), were determined to have potential to occur within the Study area, because of the vegetation communities present and location of the Study area to known occurrences of each species.

3.3.2.1 Giant Garter Snake

Giant garter snake is listed as threatened under the ESA and CESA. This species is semi-aquatic, and requires aquatic habitats that support an aquatic prey base (fish and amphibians, including bullfrogs [*Lithobates catesbeianus*]) with nearby upland habitat or structures for basking and hibernation. Suitable habitat for this species includes emergent freshwater marshes, seasonal creeks and streams, rice fields, ponds, and agricultural canals that remain ponded during their active season (early spring through late fall) (USFWS 2012). Suitable upland hibernation habitat for the species include areas within 200 feet of aquatic habitat, with small burrows or other suitable structures that can be used as underground refugia (USFWS 1997). If aquatic habitats supporting giant garter snakes dry-out, individuals can disperse up to 5 miles to find new aquatic habitat (Wylie et. al. 1997).

Within the Study area, the agricultural ditch has potential to provide low-quality marginal habitat to the species. As a result of the small fish and tree frogs observed within the agricultural ditch, there is potential that giant garter snake individuals could utilize the vegetation community for foraging habitat when the ditch is ponded. However, the ditch likely conveys water/remains ponded only when the surrounding orchards are irrigated (late spring and summer) and during/immediately after storm events (winter and early spring). As a result, the ditch would not provide foraging habitat during the late summer and fall when it dries.

Despite the low quality of the agricultural ditch for foraging habitat, there are numerous giant garter snake CNDDDB occurrences within 5 miles of the Study area (Figure 3). Although there are no direct hydrologic connections from the Study area to areas within known giant garter snake occurrences (after flowing west outside of the Study area, the ditch flows to the north into

a large swale along Highway 99), the Study area is within known the dispersal range of the species.

3.3.2.2 Western Pond Turtle

Western pond turtle is listed as a California species of special concern. This species prefers still or slow-moving water features with open banks or partially submerged rocks, logs or other structures for basking. Individuals may be found in ponds, creeks, marshes, agricultural ditches/canals, reservoirs, and water treatment ponds (Jennings and Hayes 1994). Typically active from March through October, the species is inactive (hibernates) in the winter, when it either buries into the bottom of drying aquatic habitats, or moves into the surrounding uplands to find underground refugia (large burrows or other structures [pipes, culverts, etc.]) (Holland 1994). Although the species rarely moves between drainages/watersheds with suitable aquatic habitat, individuals can disperse up to 8 miles through upland areas to find water (Holland 1994).

Similar to giant garter snake, the agricultural ditch has potential to provide low-quality marginal habitat to western pond turtle. As a result of the largely artificial hydroperiod of the ditch, the period when the ditch could contain water (late spring through late summer) is shorter in duration than the species requires (early spring through fall). There are three CNDDDB occurrences of western pond turtle within 10 miles of the Study area (Figure 3), and the nearest CNDDDB sighting occurred 3 miles to the southwest of the Study area near the Feather River (Figure 3) (CNDDDB 2016c). As a result, there is low potential for western pond turtle to be present in the agricultural ditch vegetation community within the Study area.

3.3.2.3 Other Migratory Birds and Raptors

Migratory birds and raptors could nest in and adjacent to the Study area based on the presence of suitable trees within the developed/ornamental vegetation community. The occupied nests and eggs of these migratory birds and raptors are protected by federal and state laws, including the MBTA and California Fish and Game Code Sections 3503 and 3503.5. CDFW is responsible for overseeing compliance with the codes and makes recommendations on nesting bird and raptor protection.

Although no nests were observed within the Study area, the site visits were not conducted during the breeding season for migratory birds and raptors (mid-February through August).

4.0 POTENTIAL IMPACTS AND RECOMMENDED MITIGATION MEASURES

The following sections discuss potential impacts to and mitigation measures for waters of the U.S. and special-status species with potential to occur in the Study area.

4.1 Waters of the U.S. and State

Depending on Project design regarding the potential widening of Wilson Road, the Project could result in partial or complete filling of the agricultural ditch along the north side of Wilson Road. If the Project would result in complete or partial disturbance (“fill”) of the agricultural ditch, a formal wetland delineation would be required for the Project. Pending verification by the Corps, activities that result in the filling of waters of the U.S. may be subject to regulation under Sections 401, 402, and 404 of the Clean Water Act. Placement of “dredge” or “fill” material into the waters of the U.S. requires a permit from the Corps and the RWQCB. Furthermore, if the proposed Project will result in more than one acre of ground disturbance, the Project will require notification to the SWRCB and preparation of a SWPPP. Mitigation strategies are discussed below.

Loss of Waters of the U.S. Habitat. The Study area contains an aquatic vegetation community (agricultural ditch) that may be regulated by the Corps. If the Project would result in partial or complete fill of the agricultural ditch, a wetland delineation should be conducted to determine if the habitat is Corps jurisdictional. The wetland delineation would be conducted using the routine on-site determination methods outlined in the *Corps of Engineers’ Wetlands Delineation Manual* (Environmental Laboratory 1987) and the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region (Version 2.0)* (Corps 2008). Results of the wetland delineation would then need to be submitted to the Corps for verification.

Should the Corps determine that the agricultural ditch is subject to their jurisdiction; then RWQCB and Corps permits must be obtained prior to any Project activity that would result in fill of waters of the U.S. To offset the potential loss of waters of the U.S., which could total up to 0.412 acre (the total area of this vegetation community within the Study area), wetland mitigation credits should be purchased from a Corps-approved mitigation bank or in-lieu fees should be paid to a Corps-approved fund at a 1:1 replacement ratio.

Water Quality Impacts. If the agricultural ditch were avoided, no compensation for loss of waters of the U.S. would be required. However, measures to avoid potential water quality impacts will need to be implemented. These measures may be incorporated as part of a SWPPP (if required), and/or otherwise set forth in the CEQA document prepared for the Project.

The Project proponent/lead agency shall require that the construction contractor implement the following best management practices (BMPs) to protect water quality of waters of the U.S. and State within and adjacent to the Project area.

- Install sediment fencing, fiber rolls, or other equivalent erosion and sediment control measures between the designated work area and Watts Creek, as necessary, to ensure that construction debris and sediment does not inadvertently enter the waterway. Tightly woven fiber netting (no monofilament netting) or similar material shall be used for erosion control or other purposes within the Project work limits to ensure that wildlife are not trapped. This limitation will be communicated to the contractor through the special provisions included in the bid solicitation package. Coconut coir matting and burlap-contained fiber rolls are an example of acceptable erosion control materials. The County will also cover or otherwise stabilize all exposed soil 48 hours prior to potential precipitation events of greater than 0.5 inch.
- Immediately after bridge construction is complete, all exposed soil shall be stabilized. Soil stabilization may include, but is not limited to, seeding with a native grass seed mix, planting native plants, and placement of rock.
- No refueling, storage, servicing, or maintenance of equipment shall take place within 100 feet of aquatic habitat.
- All machinery used during construction of the proposed Project shall be properly maintained and cleaned to prevent spills and leaks that could contaminate soil or water.
- Any spills or leaks from construction equipment (i.e., fuel, oil, hydraulic fluid, and grease) shall be cleaned up in accordance with applicable local, state, and/or federal regulations.

4.2 Special-status Wildlife Species

Depending on Project design related to the potential widening of Wilson Road, the Project could result in partial or complete filling of the agricultural ditch and/or grading and paving of unpaved portions of the Study area that have potential to be utilized by special-status wildlife species. In the event that the Project would result in impacts to these areas, additional permits from regulatory agencies (i.e., USFWS and CDFW) may be required. Mitigation strategies specific to special-status wildlife species with potential to occur in the Study area are discussed below.

4.2.1 Giant Garter Snake

Depending on the types of activities required, development of the Project may result in impacts to aquatic foraging or upland aestivation habitat for giant garter snake by way of disturbance/fill of the agricultural drainage ditch located north of Wilson Road and/or ground disturbing construction activities within the unpaved areas on either side of the road. If the Project were to affect the drainage ditch and/or the surrounding upland areas, the following actions would be required.

Disturbance/fill of Agricultural Drainage Ditch. As described previously in this report, due to the presence of nearby, known occurrence of the species, the agricultural drainage ditch represents potential aquatic foraging habitat for giant garter snake. If the Project results in disturbance or fill of a portion of the drainage ditch located north of Wilson Road, which is also potentially a waters of the U.S. and State, then Section 7 consultation with USFWS through the federal ESA may be required. In this scenario, a biological assessment would need to be prepared and submitted to USFWS that evaluates potential effects to giant garter snake, and identify mitigation measures to avoid those adverse effects. USFWS would then review and issue a biological opinion for the Project. Furthermore, a CESA 2081 Incidental Take Permit (ITP) would need to be acquired from CDFW. The ITP would similarly identify measures to avoid take of giant garter snake. Measures to avoid impacts/effects to giant garter snake may include, but would not be limited to the following:

- A qualified biologist familiar with giant garter snake identification and habitat requirements will conduct a pre-construction survey no more than 48 hours prior to ground disturbing activities.
- In the event an individual is detected, then the CDFW and USFWS will be notified, and a no-disturbance buffer established. The extent of these buffers should be determined by the wildlife biologist (coordinating with resource agencies) and will depend on the location of ground disturbance and other topographical or artificial barriers.
- Seasonal work windows to avoid ground-disturbing activities during the snake's inactive period (November 1 through March 15) will be followed.
- Purchase of mitigation credits at an agency-approved mitigation bank to compensate for the loss of giant garter snake habitat at a minimum of a 1:1 ratio will be completed.

Ground Disturbance of Upland Habitat. Unpaved portions of the Project site, within 200 feet of the agricultural drainage ditch, represent potential aestivation habitat for giant garter snake. If implementation of the proposed Project avoided impacts to the drainage ditch, but would otherwise result in ground disturbance within this 200 foot buffer in order to accommodate widening of Wilson Road, then implementation of the Project under this scenario would also result in potential impacts to giant garter snake that may be hibernating in rodent burrows or under other refugia. Under this scenario, because there is no involvement by another federal agency and, therefore, no federal nexus with USFWS, consultation with USFWS would have to occur via Section 10 of the ESA. In this case, a Low Effect Habitat Conservation Plan (HCP) would have to be prepared and submitted to USFWS for review and approval. An ITP would also have to be acquired from CDFW. Measures to avoid potential impacts to giant garter snake in the Low Effect HCP and ITP would be similar to those identified above.

No ground Disturbance or Fill of Waters of the U.S. or State. If the proposed Project were allowed to proceed without requiring substantial improvements to Wilson Road, then potential impacts to giant garter snake would be avoided. Specifically, if only minor improvements to the roadway (e.g., re-paving, re-striping) were implemented, impacts to aquatic and upland habitat for giant garter snake would be avoided due to a lack of ground disturbance or fill of the agricultural drainage ditch. Under this scenario no consultation with USFWS or measures would be necessary.

4.2.2 Western Pond Turtle

Western pond turtles within the agricultural ditch, or hibernating in underground refugia within the Study area could be killed (crushed or buried) during road widening activities if they occur during the turtle's inactive period (November through early March).

To reduce the likelihood of impacts to this species, the following measures are recommended:

- A qualified biologist should conduct a preconstruction clearance survey within 48-hours prior to the start of ground disturbing activities. If an individual were detected, the individual would be allowed to move out of the area on its own. If it does not move out of the area, then CDFW will be notified and the individual will be relocated to the nearest accessible area containing suitable aquatic habitat. If no areas are available, then CDFW will be consulted on where to relocate the individual.
- To avoid entrapment of wildlife, all excavated steep-walled holes or trenches more than 6 inches deep will be provided with one or more escape ramps constructed of earth fill or wooden planks at the end of each workday. If escape ramps cannot be provided, then holes or trenches will be covered with plywood or similar materials. Providing escape ramps or covering open trenches will prevent injury or mortality of wildlife resulting from falling into trenches and becoming trapped. The trenches will be thoroughly inspected for the presence of wildlife at the beginning of each workday. Any species observed shall be allowed to voluntarily move outside of the work area on its own.
- Implement water quality BMPs as specified under Section 4.1.

4.3 Migratory Birds and Raptors

Trees and shrubs in the Study area provide potential nesting habitat for migratory birds and raptors. To avoid violation of the MBTA and the CFGC, the following measures should be implemented:

- Prior to the start of construction a qualified biologist will conduct a preconstruction survey for nesting migratory birds and raptors if any ground disturbing activities (including grading or vegetation removal) will occur during the breeding season (February 15 through August 31).

If migratory birds or raptors are found to be nesting at the Project site or adjacent to the Project site during the preconstruction surveys, a no-disturbance buffer would be established around the active nest to avoid disturbance of the nest site. The buffer would remain in place until the end of the breeding season or until a qualified wildlife biologist determines that the young have fledged and are capable of independent survival. The extent of these buffers would be determined by the wildlife biologist (coordinating with resource agencies) and will depend on the level of noise or construction disturbance, line-of-sight between the nest and the disturbance, ambient levels of noise and other disturbances, and other topographical or artificial barriers.

5.0 LITERATURE CITED

California Natural Diversity Data Base. 2016a. State and Federally Listed Endangered, Threatened, and Rare Plants of California (Updated October 2016). <https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=109390&inline>.

_____. 2016b. State and Federally Listed Endangered and Threatened Animals of California (Updated October 2016). <https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=109405&inline>

_____. 2016c. Records search of the Nicolaus and eight surrounding U.S. Geological Survey 7.5' topographic quadrangles. <https://www.wildlife.ca.gov/Data/CNDDDB/Maps-and-Data>. Website accessed September 26, 2016.

CNDDDB. See California Natural Diversity Data Base.

California Native Plant Society. 2016. Inventory of rare and endangered vascular plants of California. www.cnps.org. Website accessed September 26, 2016.

CNPS. See California Native Plant Society.

Corps. See U.S. Army Corps of Engineers.

Environmental Laboratory, Department of the Army. 1987. Corps of Engineers' Wetland Delineation Manual (Technical Report Y-87-1). U.S. Army Corps of Engineers. Waterways Experimental Station. Vicksburg, Mississippi.

Holland, R.F. 1994. The Western Pond Turtle: Habitat and History. DOE/BP-62137-1. Portland: US Department of Energy, Bonneville Power Administration.

Jennings, M.R., and M.P. Hayes. 1994. Amphibian and Reptile Species of Special Concern in California. Rancho Cordova: California Department of Fish and Game, Inland Fisheries Division.

U.S. Army Corps of Engineers, Engineer Research and Development Center. 2008. Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region (Version 2.0). Vicksburg, Michigan.

U.S. Fish and Wildlife Service. 1997. Programmatic Formal Consultation for U.S. Army Corps of Engineers 404 Permitted Projects with Relatively Small Effects on the Giant Garter Snake within Butte, Colusa, Glenn, Fresno, Merced, Sacramento, San Joaquin, Solano, Stanislaus, Sutter and Yolo Counties, California. Sacramento, CA. November 13, 1997.

_____. 2012. Giant Garter Snake (*Thamnophis gigas*) 5-Year Review: Summary and Evaluation. U.S. Fish and Wildlife Service, Sacramento Fish and Wildlife Office, Sacramento, California. June 2012.

_____. 2016. IPaC Trust Resource Report. <http://ecos.fws.gov/ipac/project/SWSN6-564F5-AV3I0-DCJAE-WPZS3A>. Web site accessed September 26, 2016.

USFWS. See U.S. Fish and Wildlife Service

Whittaker, R.H. 1975. Communities and ecosystems, 2nd ed. MacMillan Publishing Co. New York.

Wylie, Glenn D., M.L. Casazza, and J.K. Daugherty. 1997. "1996 Progress Report for the Giant Garter Snake Study." (unpublished report, USGS, Biological Resources Division, Dixon Research Station, Dixon, California).

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Appendix A. Special-status Species Lists (CNDDB, CNPS, USFWS)



Selected Elements by Scientific Name

California Department of Fish and Wildlife

California Natural Diversity Database



Query Criteria: Quad> IS < (Gilsizer Slough (3912116)> OR <Knights Landing (3812176)> OR <Nicolaus (3812185)> OR <Olivehurst (3912115)> OR <Pleasant Grove (3812174)> OR <Sheridan (3812184)> OR <Sutter Causeway (3812186)> OR <Verona (3812175)> OR <Wheatland (3912114))

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
<i>Agelaius tricolor</i> tricolored blackbird	ABPBXB0020	None	None	G2G3	S1S2	SSC
<i>Anthicus antiochensis</i> Antioch Dunes anthicid beetle	IICOL49020	None	None	G1	S1	
<i>Anthicus sacramento</i> Sacramento anthicid beetle	IICOL49010	None	None	G1	S1	
<i>Antrozous pallidus</i> pallid bat	AMACC10010	None	None	G5	S3	SSC
<i>Astragalus tener var. ferrisiae</i> Ferris' milk-vetch	PDFAB0F8R3	None	None	G2T1	S1	1B.1
<i>Athene cunicularia</i> burrowing owl	ABNSB10010	None	None	G4	S3	SSC
<i>Branchinecta conservatio</i> Conservancy fairy shrimp	ICBRA03010	Endangered	None	G2	S2	
<i>Branchinecta lynchi</i> vernal pool fairy shrimp	ICBRA03030	Threatened	None	G3	S3	
<i>Branta hutchinsii leucopareia</i> cackling (=Aleutian Canada) goose	ABNJB05035	Delisted	None	G5T3	S3	
<i>Buteo swainsoni</i> Swainson's hawk	ABNKC19070	None	Threatened	G5	S3	
<i>Charadrius montanus</i> mountain plover	ABNNB03100	None	None	G3	S2S3	SSC
<i>Cicindela hirticollis abrupta</i> Sacramento Valley tiger beetle	IICOL02106	None	None	G5TH	SH	
<i>Circus cyaneus</i> northern harrier	ABNKC11010	None	None	G5	S3	SSC
<i>Coastal and Valley Freshwater Marsh</i> Coastal and Valley Freshwater Marsh	CTT52410CA	None	None	G3	S2.1	
<i>Coccyzus americanus occidentalis</i> western yellow-billed cuckoo	ABNRB02022	Threatened	Endangered	G5T2T3	S1	
<i>Delphinium recurvatum</i> recurved larkspur	PDRAN0B1J0	None	None	G2?	S2?	1B.2
<i>Desmocerus californicus dimorphus</i> valley elderberry longhorn beetle	IICOL48011	Threatened	None	G3T2	S2	
<i>Downingia pusilla</i> dwarf downingia	PDCAM060C0	None	None	GU	S2	2B.2



Selected Elements by Scientific Name
California Department of Fish and Wildlife
California Natural Diversity Database



Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
<i>Elanus leucurus</i> white-tailed kite	ABNKC06010	None	None	G5	S3S4	FP
<i>Emys marmorata</i> western pond turtle	ARAAD02030	None	None	G3G4	S3	SSC
<i>Gratiola heterosepala</i> Boggs Lake hedge-hyssop	PDSCR0R060	None	Endangered	G2	S2	1B.2
Great Valley Cottonwood Riparian Forest Great Valley Cottonwood Riparian Forest	CTT61410CA	None	None	G2	S2.1	
Great Valley Mixed Riparian Forest Great Valley Mixed Riparian Forest	CTT61420CA	None	None	G2	S2.2	
<i>Hibiscus lasiocarpus</i> var. <i>occidentalis</i> woolly rose-mallow	PDMAL0H0R3	None	None	G5T2	S2	1B.2
<i>Lasiurus blossevillei</i> western red bat	AMACC05060	None	None	G5	S3	SSC
<i>Lasiurus cinereus</i> hoary bat	AMACC05030	None	None	G5	S4	
<i>Laterallus jamaicensis coturniculus</i> California black rail	ABNME03041	None	Threatened	G3G4T1	S1	FP
<i>Lepidurus packardii</i> vernal pool tadpole shrimp	ICBRA10010	Endangered	None	G4	S3S4	
<i>Linderiella occidentalis</i> California linderiella	ICBRA06010	None	None	G2G3	S2S3	
<i>Monardella venosa</i> veiny monardella	PDLAM18082	None	None	G1	S1	1B.1
Northern Hardpan Vernal Pool Northern Hardpan Vernal Pool	CTT44110CA	None	None	G3	S3.1	
<i>Nycticorax nycticorax</i> black-crowned night heron	ABNGA11010	None	None	G5	S4	
<i>Oncorhynchus mykiss irideus</i> steelhead - Central Valley DPS	AFCHA0209K	Threatened	None	G5T2Q	S2	
<i>Oncorhynchus tshawytscha</i> chinook salmon - Central Valley spring-run ESU	AFCHA0205A	Threatened	Threatened	G5	S1	
<i>Pogonichthys macrolepidotus</i> Sacramento splittail	AFCJB34020	None	None	GNR	S3	SSC
<i>Pseudobahia bahiifolia</i> Hartweg's golden sunburst	PDAST7P010	Endangered	Endangered	G2	S2	1B.1
<i>Riparia riparia</i> bank swallow	ABPAU08010	None	Threatened	G5	S2	
<i>Sagittaria sanfordii</i> Sanford's arrowhead	PMALI040Q0	None	None	G3	S3	1B.2
<i>Spea hammondi</i> western spadefoot	AAABF02020	None	None	G3	S3	SSC



Selected Elements by Scientific Name
California Department of Fish and Wildlife
California Natural Diversity Database



Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
<i>Spirinchus thaleichthys</i> longfin smelt	AFCHB03010	Candidate	Threatened	G5	S1	SSC
<i>Thaleichthys pacificus</i> eulachon	AFCHB04010	Threatened	None	G5	S3	
<i>Thamnophis gigas</i> giant gartersnake	ARADB36150	Threatened	Threatened	G2	S2	

Record Count: 42

IPaC Trust Resources Report

Generated September 26, 2016 04:17 PM MDT, IPaC v3.0.9

This report is for informational purposes only and should not be used for planning or analyzing project level impacts. For project reviews that require U.S. Fish & Wildlife Service review or concurrence, please return to the IPaC website and request an official species list from the Regulatory Documents page.



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U.S. Fish & Wildlife Service

IPaC Trust Resources Report



LOCATION

Sutter County, California

IPAC LINK

<https://ecos.fws.gov/ipac/project/SWSN6-564F5-AV3IO-DCJAE-WPZS3A>



U.S. Fish & Wildlife Service Contact Information

Trust resources in this location are managed by:

Sacramento Fish And Wildlife Office

Federal Building

2800 Cottage Way, Room W-2605

Sacramento, CA 95825-1846

(916) 414-6600

Endangered Species

Proposed, candidate, threatened, and endangered species are managed by the [Endangered Species Program](#) of the U.S. Fish & Wildlife Service.

This USFWS trust resource report is for informational purposes only and should not be used for planning or analyzing project level impacts.

For project evaluations that require USFWS concurrence/review, please return to the IPaC website and request an official species list from the Regulatory Documents section.

[Section 7](#) of the Endangered Species Act **requires** Federal agencies to "request of the Secretary information whether any species which is listed or proposed to be listed may be present in the area of such proposed action" for any project that is conducted, permitted, funded, or licensed by any Federal agency.

A letter from the local office and a species list which fulfills this requirement can only be obtained by requesting an official species list either from the Regulatory Documents section in IPaC or from the local field office directly.

The list of species below are those that may occur or could potentially be affected by activities in this location:

Amphibians

California Red-legged Frog *Rana draytonii* Threatened

CRITICAL HABITAT

There is **final** critical habitat designated for this species.

http://ecos.fws.gov/tess_public/profile/speciesProfile.action?sPCODE=D02D

Birds

Yellow-billed Cuckoo *Coccyzus americanus* Threatened

CRITICAL HABITAT

There is **proposed** critical habitat designated for this species.

http://ecos.fws.gov/tess_public/profile/speciesProfile.action?sPCODE=B06R

Crustaceans

Vernal Pool Fairy Shrimp *Branchinecta lynchi* Threatened

CRITICAL HABITAT

There is **final** critical habitat designated for this species.

http://ecos.fws.gov/tess_public/profile/speciesProfile.action?spcode=K03G

Vernal Pool Tadpole Shrimp *Lepidurus packardii* Endangered

CRITICAL HABITAT

There is **final** critical habitat designated for this species.

http://ecos.fws.gov/tess_public/profile/speciesProfile.action?spcode=K048

Fishes

Delta Smelt *Hypomesus transpacificus* Threatened

CRITICAL HABITAT

There is **final** critical habitat designated for this species.

http://ecos.fws.gov/tess_public/profile/speciesProfile.action?spcode=E070

Steelhead *Oncorhynchus (=Salmo) mykiss* Threatened

CRITICAL HABITAT

No critical habitat has been designated for this species.

http://ecos.fws.gov/tess_public/profile/speciesProfile.action?spcode=E08D

Insects

Valley Elderberry Longhorn Beetle *Desmocerus californicus dimorphus* Threatened

CRITICAL HABITAT

There is **final** critical habitat designated for this species.

http://ecos.fws.gov/tess_public/profile/speciesProfile.action?spcode=I01L

Reptiles

Giant Garter Snake *Thamnophis gigas* Threatened

CRITICAL HABITAT

No critical habitat has been designated for this species.

http://ecos.fws.gov/tess_public/profile/speciesProfile.action?spcode=C057

Critical Habitats

There are no critical habitats in this location

Migratory Birds

Birds are protected by the [Migratory Bird Treaty Act](#) and the [Bald and Golden Eagle Protection Act](#).

Any activity that results in the take of migratory birds or eagles is prohibited unless authorized by the U.S. Fish & Wildlife Service.^[1] There are no provisions for allowing the take of migratory birds that are unintentionally killed or injured.

Any person or organization who plans or conducts activities that may result in the take of migratory birds is responsible for complying with the appropriate regulations and implementing appropriate conservation measures.

1. 50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)

Additional information can be found using the following links:

- Birds of Conservation Concern
<http://www.fws.gov/birds/management/managed-species/birds-of-conservation-concern.php>
- Conservation measures for birds
<http://www.fws.gov/birds/management/project-assessment-tools-and-guidance/conservation-measures.php>
- Year-round bird occurrence data
<http://www.birdscanada.org/birdmon/default/datasummaries.jsp>

The following species of migratory birds could potentially be affected by activities in this location:

Bald Eagle *Haliaeetus leucocephalus*

Bird of conservation concern

Season: Year-round

http://ecos.fws.gov/tess_public/profile/speciesProfile.action?spcode=B008

Black Rail *Laterallus jamaicensis*

Bird of conservation concern

Season: Breeding

http://ecos.fws.gov/tess_public/profile/speciesProfile.action?spcode=B09A

Burrowing Owl *Athene cunicularia*

Bird of conservation concern

Season: Year-round

http://ecos.fws.gov/tess_public/profile/speciesProfile.action?spcode=B0NC

Fox Sparrow *Passerella iliaca*

Bird of conservation concern

Season: Wintering

Least Bittern *Ixobrychus exilis*

Season: Breeding

http://ecos.fws.gov/tess_public/profile/speciesProfile.action?scode=B092

Lewis's Woodpecker *Melanerpes lewis*

Season: Wintering

http://ecos.fws.gov/tess_public/profile/speciesProfile.action?scode=B0HQ

Bird of conservation concern

Loggerhead Shrike *Lanius ludovicianus*

Season: Year-round

http://ecos.fws.gov/tess_public/profile/speciesProfile.action?scode=B0FY

Bird of conservation concern

Long-billed Curlew *Numenius americanus*

Season: Wintering

http://ecos.fws.gov/tess_public/profile/speciesProfile.action?scode=B06S

Bird of conservation concern

Mountain Plover *Charadrius montanus*

Season: Wintering

http://ecos.fws.gov/tess_public/profile/speciesProfile.action?scode=B078

Bird of conservation concern

Nuttall's Woodpecker *Picoides nuttallii*

Season: Year-round

http://ecos.fws.gov/tess_public/profile/speciesProfile.action?scode=B0HT

Bird of conservation concern

Oak Titmouse *Baeolophus inornatus*

Season: Year-round

http://ecos.fws.gov/tess_public/profile/speciesProfile.action?scode=B0MJ

Bird of conservation concern

Peregrine Falcon *Falco peregrinus*

Season: Wintering

http://ecos.fws.gov/tess_public/profile/speciesProfile.action?scode=B0FU

Bird of conservation concern

Short-eared Owl *Asio flammeus*

Season: Wintering

http://ecos.fws.gov/tess_public/profile/speciesProfile.action?scode=B0HD

Bird of conservation concern

Swainson's Hawk *Buteo swainsoni*

Season: Breeding

http://ecos.fws.gov/tess_public/profile/speciesProfile.action?scode=B070

Bird of conservation concern

Tricolored Blackbird *Agelaius tricolor*

Season: Year-round

http://ecos.fws.gov/tess_public/profile/speciesProfile.action?scode=B06P

Bird of conservation concern

Western Grebe *aechmophorus occidentalis*

Season: Wintering

http://ecos.fws.gov/tess_public/profile/speciesProfile.action?scode=B0EA

Bird of conservation concern

Williamson's Sapsucker *Sphyrapicus thyroideus*

Season: Year-round

http://ecos.fws.gov/tess_public/profile/speciesProfile.action?scode=B0FX

Bird of conservation concern

Yellow-billed Magpie *Pica nuttalli*

Bird of conservation concern

Season: Year-round

http://ecos.fws.gov/tess_public/profile/speciesProfile.action?sPCODE=B0N8

Wildlife refuges and fish hatcheries

There are no refuges or fish hatcheries in this location

Wetlands in the National Wetlands Inventory

Impacts to [NWI wetlands](#) and other aquatic habitats may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal statutes.

For more information please contact the Regulatory Program of the local [U.S. Army Corps of Engineers District](#).

DATA LIMITATIONS

The Service's objective of mapping wetlands and deepwater habitats is to produce reconnaissance level information on the location, type and size of these resources. The maps are prepared from the analysis of high altitude imagery. Wetlands are identified based on vegetation, visible hydrology and geography. A margin of error is inherent in the use of imagery; thus, detailed on-the-ground inspection of any particular site may result in revision of the wetland boundaries or classification established through image analysis.

The accuracy of image interpretation depends on the quality of the imagery, the experience of the image analysts, the amount and quality of the collateral data and the amount of ground truth verification work conducted. Metadata should be consulted to determine the date of the source imagery used and any mapping problems.

Wetlands or other mapped features may have changed since the date of the imagery or field work. There may be occasional differences in polygon boundaries or classifications between the information depicted on the map and the actual conditions on site.

DATA EXCLUSIONS

Certain wetland habitats are excluded from the National mapping program because of the limitations of aerial imagery as the primary data source used to detect wetlands. These habitats include seagrasses or submerged aquatic vegetation that are found in the intertidal and subtidal zones of estuaries and nearshore coastal waters. Some deepwater reef communities (coral or tubercid worm reefs) have also been excluded from the inventory. These habitats, because of their depth, go undetected by aerial imagery.

DATA PRECAUTIONS

Federal, state, and local regulatory agencies with jurisdiction over wetlands may define and describe wetlands in a different manner than that used in this inventory. There is no attempt, in either the design or products of this inventory, to define the limits of proprietary jurisdiction of any Federal, state, or local government or to establish the geographical scope of the regulatory programs of government agencies. Persons intending to engage in activities involving modifications within or adjacent to wetland areas should seek the advice of appropriate federal, state, or local agencies concerning specified agency regulatory programs and proprietary jurisdictions that may affect such activities.

This location overlaps all or part of the following wetlands:

Riverine

[R4SBCx](#)

A full description for each wetland code can be found at the National Wetlands Inventory website: <http://107.20.228.18/decoders/wetlands.aspx>

CNPS Inventory of Rare and Endangered Plants

Status: Plant Press Manager window with 6 items - Mon, Sep. 26, 2016 17:54 ET c

Reformat list as: Standard List - with Plant Press controls ▾

ECOLOGICAL REPORT

scientific	family	life form	blooming	communities	elevation	CNPS
<u>Downingia pusilla</u>	Campanulaceae	annual herb	Mar-May	•Valley and foothill grassland (VFGrs)(mesic) •Vernal pools (VnPls)	1 - 445 meters	List 2B.2
<u>Gratiola heterosepala</u>	Plantaginaceae	annual herb	Apr-Aug	•Marshes and swamps (MshSw) (lake margins) •Vernal pools (VnPls)/clay	10 - 2375 meters	List 1B.2
<u>Hibiscus lasiocarpus</u> var. <u>occidentalis</u>	Malvaceae	perennial rhizomatous herb emergent	Jun-Sep	•Marshes and swamps (MshSw) (freshwater)/Often in riprap on sides of levees.	0 - 120 meters	List 1B.2
<u>Monardella venosa</u>	Lamiaceae	annual herb	May-Jul	•Cismontane woodland (CmWld) •Valley and foothill grassland (VFGrs)/heavy clay	60 - 410 meters	List 1B.1
<u>Sagittaria sanfordii</u>	Alismataceae	perennial rhizomatous herb emergent	May-Oct (Nov), Months in parentheses are uncommon.	•Marshes and swamps (MshSw) (assorted shallow freshwater)	0 - 650 meters	List 1B.2
<u>Trichocoronis wrightii</u> var. <u>wrightii</u>	Asteraceae	annual herb	May-Sep	•Meadows and seeps (Medws) •Marshes and swamps (MshSw) •Riparian forest (RpFrs) •Vernal pools (VnPls)/alkaline	5 - 435 meters	List 2B.1

Appendix B. Representative Project Photographs



Photograph 1. Southern edge of Project site along a gravel driveway and an office in background (facing west).
Taken on September 30, 2016.



Photograph 2. Developed/ornamental and ruderal vegetation communities along Wilson Road (facing west).
Taken on September 30, 2016.



Photograph 3. Culvert emptying into the agricultural ditch from across Wilson Road (facing north).
Taken on September 30, 2016.



Photograph 4. Willow sapling and Himalayan blackberry (*Rubus armeniacus*) growing within the agricultural ditch (facing west).
Taken on September 30, 2016.



Photograph 5. In the western half of the agricultural ditch, the bottom of the channel was unvegetated (facing east).
Taken on September 30, 2016.



Photograph 6. Small gopher burrow in the bank of the agricultural ditch (facing south).
Taken on September 30, 2016.



Photograph 7. Tall flatsedge and Johnsongrass along the edges of the bottom of the agricultural ditch (facing west). Taken on September 30, 2016.



Photograph 8. Large workshop and graveled parking lot within the developed/ornamental portion of the Project site (facing west). Taken on October 18, 2016.



Photograph 9. Graveled parking lot within the Project site (facing south). Taken on October 18, 2016.



Photograph 10. Large trees within the parking lot could provide nesting habitat for migratory birds (facing north). Taken on October 18, 2016.

ATTACHMENT 3

ECORP Consulting, Inc. Greenhouse Gas Assessment

Greenhouse Gas Assessment

Farm Headquarters and Commercial Truck Yard

Sutter County, California

Prepared For:
Alien Transport LLC

September 2019



ECORP Consulting, Inc.
ENVIRONMENTAL CONSULTANTS

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LIST OF ATTACHMENTS

Attachment A – CalEEMod Output Files

LIST OF ACRONYMS AND ABBREVIATIONS

AB	Assembly Bill
AG	Agriculture zoning
CARB	California Air Resources Board
CalEEMod	California Emissions Estimator Model
CAP	Sutter County Climate Action Plan
CEQA	California Environmental Quality Act
CH ₄	Methane
CO ₂	Carbon dioxide
CO ₂ e	Carbon dioxide equivalents
County	Sutter County
EO	Executive Order
GHG	Greenhouse gas
IPCC	Intergovernmental Panel on Climate Change
LED	Light-emitting diode
MTP/SCS	Metropolitan Transportation Plan/Sustainable Communities Strategy
N ₂ O	Nitrous oxide
OPR	Office of Planning and Research
Project	Farm Headquarters and Commercial Truck Yard Project
SACOG	Sacramento Area Council of Governments
SB	Senate Bill
SR	State Route
USEPA	U.S. Environmental Protection Agency
VMT	Vehicle miles traveled

1.0 INTRODUCTION

This report documents the results of a greenhouse gas (GHG) emissions assessment completed for the Farm Headquarters and Commercial Truck Yard Project (Project) in Sutter County, California. The purpose of this assessment is to estimate Project-generated GHG emissions attributable to the Project and to determine the level of impact the Project would have on the environment. GHG emissions were modeled using the (CalEEMod), version 2016.3.2. Emissions modeling results are included as Attachment A.

1.1 Project Location

The proposed Project site is located on ± 8.14 acres near the northwest corner of the intersection of State Route (SR) 99 and Wilson Road in unincorporated Sutter County (the County), approximately 10 miles south of Yuba City. The site is generally bounded by farmland to the north, farmland and residences to the east and west, and Wilson Road and farmland to the south. SR 99 is located northeast of the Project site, approximately 0.17 mile.

The Project site is currently used primarily for agriculture and a ± 1.5 -acre portion is developed with related structures. These structures include a $\pm 3,000$ square foot repair shop, a $\pm 2,500$ square foot barn, a ± 520 square foot office, and a ± 375 square foot carport. The existing structures on site were constructed as part of a prune dehydration operation which started in 1926, and the existing orchard is family owned and operated. The Project site currently accommodates a limited amount of truck parking for both the farming operation and commercial agricultural trucks.

1.1 Project Description

The Proposed Project is the development of a truck yard on ± 1.8 acres of a ± 8.14 -acre property. Approximately 4.8 acres would continue to be agriculture and the ± 1.5 acres currently developed with buildings would remain. The Project would require a total of 24 parking spaces; 17 of the spaces would accommodate trucks and tractors and seven spaces would accommodate personal vehicles for employees. One of the existing driveways, located on the eastern boundary, allows access to the site and would need to be reconstructed to meet County standards for a 45-foot and 24-foot commercial driveway. The driveway located on the western boundary will be removed. Truck access stalls and aisles would need to be constructed.

The Project site is located in unincorporated Sutter County on land that is zoned Agriculture (AG) with a County General Plan Designation of AG-80. The Applicant is requesting a use permit for the Proposed Project to allow for a commercial truck yard on the site. The Project site would continue to be zoned AG. The applicant proposes perimeter fencing around the trucking operation to provide screening from the public roadway. The Project is not expected to generate over seven personal automobile trips and 30 heavy-duty truck trips per day. This is a conservative estimate based on the proposed number of heavy-duty truck/tractor and personal vehicle parking spaces.

2.0 GREENHOUSE GASES

2.1 Greenhouse Gas Setting

Certain gases in the earth's atmosphere, classified as GHGs, play a critical role in determining the earth's surface temperature. Solar radiation enters the earth's atmosphere from space. A portion of the radiation is absorbed by the earth's surface and a smaller portion of this radiation is reflected back toward space. This absorbed radiation is then emitted from the earth as low-frequency infrared radiation. The frequencies at which bodies emit radiation are proportional to temperature. Because the earth has a much lower temperature than the sun, it emits lower-frequency radiation. Most solar radiation passes through GHGs; however, infrared radiation is absorbed by these gases. As a result, radiation that otherwise would have escaped back into space is instead "trapped," resulting in a warming of the atmosphere. This phenomenon, known as the greenhouse effect, is responsible for maintaining a habitable climate on earth. Without the greenhouse effect, the earth would not be able to support life as we know it.

Prominent GHGs contributing to the greenhouse effect are carbon dioxide (CO₂), methane (CH₄), and nitrous oxide (N₂O). Fluorinated gases also make up a small fraction of the GHGs that contribute to climate change. Fluorinated gases include chlorofluorocarbons, hydrofluorocarbons, perfluorocarbons, sulfur hexafluoride, and nitrogen trifluoride; however, it is noted that these gases are not associated with typical land use development. Human-caused emissions of these GHGs in excess of natural ambient concentrations are believed to be responsible for intensifying the greenhouse effect and leading to a trend of unnatural warming of the earth's climate, known as global climate change or global warming. It is "extremely likely" that more than half of the observed increase in global average surface temperature from 1951 to 2010 was caused by the anthropogenic increase in GHG concentrations and other anthropogenic factors together (Intergovernmental Panel on Climate Change [IPCC] 2014).

Table 2-1 describes the primary GHGs attributed to global climate change, including their physical properties, primary sources, and contributions to the greenhouse effect.

Each GHG differs in its ability to absorb heat in the atmosphere based on the lifetime, or persistence, of the gas molecule in the atmosphere. CH₄ traps over 25 times more heat per molecule than CO₂, and N₂O absorbs 298 times more heat per molecule than CO₂ (IPCC 2014). Often, estimates of GHG emissions are presented in carbon dioxide equivalents (CO₂e), which weight each gas by its global warming potential. Expressing GHG emissions in CO₂e takes the contribution of all GHG emissions to the greenhouse effect and converts them to a single unit equivalent to the effect that would occur if only CO₂ were being emitted.

Climate change is a global problem. GHGs are global pollutants, unlike criteria air pollutants and toxic air contaminants, which are pollutants of regional and local concern. Whereas pollutants with localized air quality effects have relatively short atmospheric lifetimes (about one day), GHGs have long atmospheric lifetimes (one to several thousand years). GHGs persist in the atmosphere long enough to be dispersed around the globe. Although the exact lifetime of any particular GHG molecule is dependent on multiple variables and cannot be pinpointed, it is understood that more CO₂ is emitted into the atmosphere than is sequestered by ocean uptake, vegetation, or other forms. Of the total annual human-caused CO₂ emissions, approximately 55 percent is sequestered through ocean and land uptakes every year, averaged

over the last 50 years, whereas the remaining 45 percent of human-caused CO₂ emissions remains stored in the atmosphere (IPCC 2013).

Table 2-1. Greenhouse Gases	
Greenhouse Gas	Description
CO ₂	CO ₂ is a colorless, odorless gas that is emitted in a number of ways, both naturally and through human activities. The largest source of CO ₂ emissions globally is the combustion of fossil fuels such as coal, oil, and gas in power plants, automobiles, industrial facilities, and other sources. A number of specialized industrial production processes and product uses such as mineral production, metal production, and the use of petroleum-based products can also lead to CO ₂ emissions. The atmospheric lifetime of CO ₂ is variable because it is so readily exchanged in the atmosphere. ¹
CH ₄	CH ₄ is a colorless, odorless gas and is the major component of natural gas, about 87 percent by volume. It is also formed and released to the atmosphere by biological processes occurring in anaerobic environments. CH ₄ is emitted from a variety of both human-related and natural sources. Human-related sources include fossil fuel production, animal husbandry (intestinal fermentation in livestock and manure management), rice cultivation, biomass burning, and waste management. These activities release significant quantities of CH ₄ to the atmosphere. Natural sources of CH ₄ include wetlands, gas hydrates, permafrost, termites, oceans, freshwater bodies, non-wetland soils, and other sources such as wildfires. The atmospheric lifetime of CH ₄ is about 12 years. ²
N ₂ O	N ₂ O is a clear, colorless gas with a slightly sweet odor. N ₂ O is produced by both natural and human-related sources. Primary human-related sources of N ₂ O are agricultural soil management, animal manure management, sewage treatment, mobile and stationary combustion of fossil fuels, adipic acid production, and nitric acid production. N ₂ O is also produced naturally from a wide variety of biological sources in soil and water, particularly microbial action in wet tropical forests. The atmospheric lifetime of N ₂ O is approximately 120 years. ³

Sources: ¹ U.S. Environmental Protection Agency (USEPA) 2016a, ² USEPA 2016b, ³ USEPA 2016c.

The quantity of GHGs that it takes to ultimately result in climate change is not precisely known. Suffice to say, the quantity is enormous and no single project alone would measurably contribute to a noticeable incremental change in the global average temperature or to global, local, or microclimates. From the standpoint of the California Environmental Quality Act (CEQA), GHG impacts to global climate change are inherently cumulative.

2.1.1 Sources of Greenhouse Gas Emissions

In July 2018, the California Air Resources Board (CARB) released the 2018 edition of the California GHG inventory covering calendar year 2016 emissions. In 2016, California emitted 429.4 million gross metric tons of CO₂e including from imported electricity. Combustion of fossil fuel in the transportation sector was the single largest source of California's GHG emissions in 2016, accounting for approximately 41 percent of total GHG emissions in the state. This sector was followed by the industrial sector (23 percent) and the electric power sector including both in-state and out-of-state sources (16 percent) (CARB 2018).

Emissions of CO₂ are by-products of fossil fuel combustion. CH₄, a highly potent GHG, primarily results from off-gassing (the release of chemicals from nonmetallic substances under ambient or greater pressure conditions) and is largely associated with agricultural practices and landfills. N₂O is also largely

attributable to agricultural practices and soil management. CO₂ sinks, or reservoirs, include vegetation and the ocean, which absorb CO₂ through sequestration and dissolution (CO₂ dissolving into the water), respectively, two of the most common processes for removing CO₂ from the atmosphere.

2.2 Regulatory Framework

2.2.1 State

Executive Order (EO) S-3-05

EO S-3-05, signed by Governor Arnold Schwarzenegger in 2005, proclaims that California is vulnerable to the impacts of climate change. It declares that increased temperatures could reduce the Sierra Nevada snowpack, further exacerbate California's air quality problems, and potentially cause a rise in sea levels. To combat those concerns, the executive order established total GHG emission targets for the state. Specifically, emissions are to be reduced to the 2000 level by 2010, the 1990 level by 2020, and to 80 percent below the 1990 level by 2050.

While dated, this executive order remains relevant because a more recent California Appellate Court decision, *Cleveland National Forest Foundation v. San Diego Association of Governments* (November 24, 2014) 231 Cal.App.4th 1056, examined whether it should be viewed as having the equivalent force of a legislative mandate for specific emissions reductions. While the California Supreme Court ruled that the San Diego Association of Governments did not abuse its discretion by declining "to adopt the 2050 goal as a measure of significance in light of the fact that the Executive Order does not specify any plan or implementation measures to achieve its goal," the decision also recognized that the goal of a 40-percent reduction in 1990 GHG levels by 2030 is "widely acknowledged" as a "necessary interim target to ensure that California meets its longer-range goal of reducing greenhouse gas emissions 80 percent below 1990 levels by the year 2050."

Assembly Bill (AB) 32, the California Global Warming Solutions Act of 2006

In September 2006, Governor Schwarzenegger signed the California Global Warming Solutions Act of 2006, AB 32. AB 32 establishes regulatory, reporting, and market mechanisms to achieve quantifiable reductions in GHG emissions and a cap on statewide GHG emissions. AB 32 requires that statewide GHG emissions be reduced to 1990 levels by 2020. AB 32 also requires that these reductions "...shall remain in effect unless otherwise amended or repealed. (b) It is the intent of the Legislature that the statewide greenhouse gas emissions limit continue in existence and be used to maintain and continue reductions in emissions of greenhouse gases beyond 2020. (c) The [Air Resources Board] shall make recommendations to the Governor and the Legislature on how to continue reductions of greenhouse gas emissions beyond 2020." (California Health and Safety Code, Division 25.5, Part 3, Section 38551).

AB 32 Climate Change Scoping Plan and Updates

In December 2008, CARB adopted its Climate Change Scoping Plan, which contains the main strategies California will implement to achieve reduction of approximately 118 million metric tons of CO₂e emissions, or approximately 21.7 percent from the State's projected 2020 emission level of 545 million metric tons of CO₂e under a business-as-usual scenario (this is a reduction of 47 million metric tons of CO₂e, or almost

10 percent, from 2008 emissions). In May 2014, CARB released and subsequently adopted the First Update to the Climate Change Scoping Plan to identify the next steps in reaching AB 32 goals and evaluate progress that has been made between 2000 and 2012. According to the update, California is on track to meet the near-term 2020 GHG limit and is well positioned to maintain and continue reductions beyond 2020. The update also reports the trends in GHG emissions from various emissions sectors (e.g., transportation, building energy, agriculture).

On January 20, 2017, CARB released its proposed 2017 Climate Change Scoping Plan Update (2017 Scoping Plan Update), which lays out the framework for achieving the 2030 reductions as established in more recent legislation (discussed below). The proposed 2017 Scoping Plan Update identifies the GHG reductions needed by each emissions sector to achieve a statewide emissions level that is 40 percent below 1990 levels before 2030.

The proposed update also identifies how GHGs associated with proposed projects could be evaluated under CEQA. Specifically, it states that achieving “no net increase” in GHG emissions is the correct overall objective of projects evaluated under CEQA if conformity with an applicable local GHG reduction plan cannot be demonstrated. CARB recognizes that it may not be appropriate or feasible for every development project to mitigate its GHG emissions to no net increase and that this may not necessarily imply a substantial contribution to the cumulatively significant environmental impact of climate change.

EO B-30-15

On April 20, 2015 Governor Brown signed EO B-30-15 to establish a California GHG reduction target of 40 percent below 1990 levels by 2030. The Governor’s executive order aligns California’s GHG reduction targets with those of leading international governments such as the 28-nation European Union, which adopted the same target in October 2014. California is on track to meet or exceed the target of reducing GHG emissions to 1990 levels by 2020, as established in the California Global Warming Solutions Act of 2006 (AB 32, discussed above). California’s new emission reduction target of 40 percent below 1990 levels by 2030 will make it possible to reach the ultimate goal of reducing emissions 80 percent below 1990 levels by 2050. This is in line with the scientifically established levels needed in the U.S. to limit global warming below 2 degrees Celsius, the warming threshold at which major climate disruptions are projected, such as super droughts and rising sea levels.

Senate Bill (SB) 32 and AB 197 of 2016

In August 2016, Governor Brown signed SB 32 and AB 197, which serve to extend California’s GHG reduction programs beyond 2020. SB 32 amended the Health and Safety Code to include Section 38566, which contains language to authorize CARB to achieve a statewide GHG emission reduction of at least 40 percent below 1990 levels by no later than December 31, 2030. SB 32 codified the targets established by EO B-30-15 for 2030, which set the next interim step in the State’s continuing efforts to pursue the long-term target expressed in EOs S-3-05 and B-30-15 of 80 percent below 1990 emissions levels by 2050.

2.2.2 Regional

Sacramento Area Council of Governments (SACOG)

SACOG's Metropolitan Transportation Plan/Sustainable Communities Strategy (MTP/SCS) 2016 is the latest update of a long-range policy and planning program that establishes GHG emissions goals for automobiles and light-duty trucks for 2020 and 2035, and thus establishes an overall GHG target for the region beyond 2020 applicable to these subsectors of the transportation sector. SACOG was tasked by CARB to achieve a nine-percent per capita reduction compared to 2012 vehicle emissions by 2020, and a 16-percent per capita reduction by 2035, which CARB confirmed the region would achieve by implementing its MTP/SCS (CARB 2013).

Sutter County Climate Action Plan (CAP)

The Sutter County CAP was designed under the premise that the County is uniquely capable of addressing emissions associated with sources under the County's jurisdiction. The County's emissions reduction efforts coordinate with State strategies in order to accomplish emissions reductions in an efficient and cost-effective manner.

In July 2010, the County adopted the CAP based on the premise that the County and the community it represents are uniquely capable of addressing emissions associated with sources under the County's jurisdiction and that the County's emission reduction efforts should coordinate with the State strategies of reducing emissions in order to reduce emissions in an efficient and cost-effective manner. This CAP presents a comprehensive set of actions to reduce the County's internal and external GHG emissions to 15 percent below current levels by 2020, consistent with the AB 32 Scoping Plan. The CAP identifies GHG emissions reduction measures categorized in six sectors: Building Energy (addressing energy efficiency and alternative energy in buildings and renewable energy generation facilities), Solid Waste/Landfills, Landscapes, Agriculture, Transportation, and Industrial/Stationary Sources. For each sector, reduction strategies have been developed to achieve the County's 2020 emissions reduction target.

Sutter County Greenhouse Gas Pre-Screening Measures

As part of the 2016 update to the CAP, the County developed Pre-Screening Tables for land use projects. The purpose of the CAP Screening Tables is to provide guidance on how to determine the significance of a project's GHG contribution. The County has developed a two-tiered screening procedure that uses a threshold of 3,000 metric tons of CO₂e per year. Under Tier 1, projects are pre-screened out based on project type and under Tier 2, projects are pre-screened out based on size.

2.3 Greenhouse Gas Emissions Impact Assessment

2.3.1 Thresholds of Significance

The impact analysis provided below is based on the following CEQA Guidelines Appendix G thresholds of significance. The Project would result in a significant impact to greenhouse gas emissions if it would:

- 1) Generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment.

- 2) Conflict with any applicable plan, policy, or regulation of an agency adopted for the purpose of reducing the emissions of greenhouse gases.

Project GHG Thresholds

As noted earlier, AB 32 is a legal mandate requiring that statewide GHG emissions be reduced to 1990 levels by 2020. In adopting AB 32, the legislature determined the necessary GHG reductions for the state to make in order to sufficiently offset its contribution to the cumulative climate change problem. AB 32 is a legally mandated requirement for the reduction of GHGs. As such, compliance with AB 32 is the current adopted basis upon which an agency can base its significance threshold for evaluating a project's GHG impacts. However, it is acknowledged that the recently signed legislation of SB 32 has established GHG emission reduction targets for years beyond 2020.

While statewide goals for GHG reductions in the years beyond 2020 have been recently codified into State law with the passage of SB 32, at the time of writing this document, no specific policies or emissions reduction mechanisms have been established. Therefore, while Project design can contribute to reducing potential GHG emissions from the proposed Project, achievement of future GHG efficiency standards is also dependent on regulatory controls applied to all sectors of the California economy. Thus, the ability of this Project—and all land use development—to achieve GHG reduction goals beyond 2020 is partially out of the control of the Project and its proponents.

The assessment of GHG emissions below is based on guidance from the County. For the purposes of this evaluation, the Project is evaluated for consistency with the County CAP described previously. The CAP is consistent with AB 32 and sets the County on a path to achieve a more substantial long-term reduction in the post-2020 period. Achieving this level of emissions would ensure that the contribution to GHG emissions from activities covered by the CAP would not be cumulatively considerable.

Additionally, the Project is compared to SACOG's MTP/SCS for the Sacramento regional area, which establishes an overall GHG target for the Project region consistent with both the target date of AB 32 (2020) and the post-2020 GHG reduction goals of SB 32.

2.3.2 Methodology

GHG emissions are calculated in accordance with methodologies recommended by CARB. GHG emissions were modeled using the California Emissions Estimator Model (CalEEMod) version 2016.3.2. CalEEMod is a statewide land use emissions computer model designed to quantify potential GHG emissions associated with both construction and operations from a variety of land use projects. Project construction-generated air pollutant emissions were primarily calculated using CalEEMod defaults. Operational air pollutant emissions were based on the Project site plans and the estimated traffic trip generation rates based on similar land uses in the Project area.

2.3.3 Impacts Analysis

Impact- *Conflict with any applicable plan, policy, or regulation of an agency adopted for the purpose of reducing the emissions of greenhouse gases*

Sutter County CAP

The CAP was adopted in 2010 and establishes a GHG emissions reduction target for the year 2020 that is 15 percent below current emission levels, consistent with the AB 32 Scoping Plan. The CAP sets the County on a path to achieve a more substantial long-term reduction in the post-2020 period. Achieving this level of emissions would ensure that the contribution to GHG emissions from activities covered by the CAP would not be cumulatively considerable.

As part of the CAP, the County developed CEQA Threshold and Screening Tables for land use projects. The purpose of the CAP CEQA Threshold and Screening Tables are to provide guidance on how to determine the significance of a project's GHG contribution. They are based on the CAP, the GHG inventories within the CAP, and the GHG reduction measures that reduce emissions consistent with the reduction goals of AB 32. The CAP CEQA Threshold and Screening Tables are used by County staff for review of development projects in order to ensure that the specific reduction strategies in the CAP are implemented as part of the CEQA process from development projects.

The County CAP CEQA Thresholds and Screening Table method, shown below in Table 2-2, is used to pre-determine whether the Project is automatically consistent with the CAP. The CAP uses a point system geared towards encouraging efficiency in building developments. Note that the Proposed Project is a truck yard and does not propose the construction of new buildings. Thus, the CAP point system would be mostly applicable to proposed lighting and potential improvements to existing structures on site. In order to avoid having to quantify GHG emissions, projects must achieve 100 points from the CEQA Thresholds and Screening Tables. This is accomplished by demonstrating increases beyond specific requirements contained in the 2010 Title 24 Building Efficiency Standards. (The baseline year of the Sutter County CAP is 2010.)

Table 2-2. Screening Table for Implementation of GHG Reduction Measures for Commercial or Industrial Development		
Feature	Description	Assigned Point Values
Building Envelope		
Insulation	Title 24 standard (required)	0 points
	Modestly Enhanced Insulation (5% > Title 24)	4 points
	Enhanced Insulation (15% > Title 24)	8 points
	Greatly Enhanced Insulation (20% > Title 24)	12 points
Windows	Title 24 standard (required)	0 points
	Modestly Enhanced Window Insulation (5% > Title 24)	4 points
	Enhanced Window Insulation (15% > Title 24)	8 points
	Greatly Enhanced Window Insulation (20% > Title 24)	12 points
Doors	Title 24 standard (required)	0 points
	Modestly Enhanced Insulation (5% > Title 24)	4 points
	Enhanced Insulation (15% > Title 24)	8 points
	Greatly Enhanced Insulation (20% > Title 24)	12 points

Table 2-2. Screening Table for Implementation of GHG Reduction Measures for Commercial or Industrial Development

Feature	Description	Assigned Point Values
Air Infiltration	Minimizing leaks in the building envelope is as important as the insulation properties of the building. Insulation does not work effectively if there is excess air leakage. Title 24 standard (required) Modest Building Envelope Leakage (5% > Title 24) Reduced Building Envelope Leakage (15% > Title 24) Minimum Building Envelope Leakage (20% > Title 24)	0 points 4 points 8 points 12 points
Thermal Storage of Building	Thermal storage is a design characteristic that helps keep a constant temperature in the building. Common thermal storage devices include strategically placed water filled columns, water storage tanks, and thick masonry walls. Thermal storage designed to reduce heating/cooling by 5°F within the building. Thermal storage to reduce heating/cooling by 10°F within the building Note: Engineering details must be provided to substantiate the efficiency of the thermal storage device.	6 points 12 points
Indoor Space Efficiencies		
Heating/Cooling Distribution System	Title 24 standard (required) Modest Distribution Losses (5% > Title 24) Reduced Distribution Losses (15% > Title 24) Greatly Reduced Distribution Losses (15% > Title 24)	0 points 4 points 8 points 12 points
Space Heating/ Cooling Equipment	Title 24 standard (required) Efficiency HVAC (5% > Title 24) High Efficiency HVAC (15% > Title 24) Very High Efficiency HVAC (20% > Title 24)	0 points 4 points 8 points 12 points
Water Heaters	Title 24 standard (required) Efficiency Water Heater (Energy Star conventional that is 5% > Title 24) High Efficiency Water Heater (conventional water heater that is 15% > Title 24) High Efficiency Water Heater (conventional water heater that is 20% > Title 24) Solar Water Heating System	0 points 4 points 8 points 12 points 14 points
Daylighting	Daylighting is the ability of each room within the building to provide outside light during the day reducing the need for artificial lighting during daylight hours. All peripheral rooms within the living space have at least one window (required). All rooms within the living space have daylight (through use of windows, solar tubes, skylights, etc.) such that each room has at least 800 lumens of light during a sunny day All rooms daylighted to at least 1,000 lumens	1 points 5 points 7 points
Artificial Lighting	Title 24 standard (required) Efficient Lights (5% > Title 24) High Efficiency Lights (LED, etc. 15% > Title 24) Very High Efficiency Lights (LED, etc. 20% > Title 24)	0 points 4 points 6 points 8 points
Appliances	Title 24 standard (required) Efficient Appliances (5% > Title 24) High Efficiency Energy Star Appliances (15% > Title 24) Very High Efficiency Appliances (20% > Title 24)	0 points 4 points 8 points 12 points

Table 2-2. Screening Table for Implementation of GHG Reduction Measures for Commercial or Industrial Development

Feature	Description	Assigned Point Values
Miscellaneous Commercial Building Efficiencies		
Existing Commercial Building Retrofits	<p>The applicant may wish to provide energy efficiency retrofit projects to existing commercial buildings to further the point value of their project. Retrofitting existing commercial buildings within the unincorporated County is a key reduction measure that is needed to reach the reduction goal. The potential for an applicant to take advantage of this program will be decided on a case by case basis and must have the approval of the Sutter County Community Services Department. The decision to allow applicants the ability to participate in this program will be evaluated based upon, but not limited to the following:</p> <p>Will the energy efficiency retrofit project benefit low income or disadvantaged communities?</p> <p>Does the energy efficiency retrofit project fit within the overall assumption in Reduction measure R2E4?</p> <p>Does the energy efficiency retrofit project provide co-benefits important to the County?</p>	Point value will be determined based upon engineering and design criteria of the energy efficiency retrofit project.
Photovoltaic	<p>Solar photovoltaic panels installed on commercial buildings or in collective arrangements within a commercial development such that the total power provided augments:</p> <p>Solar Ready Homes (sturdy roof and electric hookups)</p> <p>10 percent of the power needs of the project</p> <p>20 percent of the power needs of the project</p> <p>30 percent of the power needs of the project</p> <p>40 percent of the power needs of the project</p> <p>50 percent of the power needs of the project</p> <p>60 percent of the power needs of the project</p> <p>70 percent of the power needs of the project</p> <p>80 percent of the power needs of the project</p> <p>90 percent of the power needs of the project</p> <p>100 percent of the power needs of the project</p> <p>110 percent of the power needs of the project</p> <p>120 percent of the power needs of the project</p> <p>130 percent of the power needs of the project</p> <p>140 percent of the power needs of the project</p> <p>150 percent of the power needs of the project</p> <p>160 percent of the power needs of the project</p> <p>170 percent of the power needs of the project</p> <p>180 percent of the power needs of the project</p> <p>190 percent of the power needs of the project</p> <p>200 percent of the power needs of the project</p>	<p>1 point</p> <p>3 points</p> <p>5 points</p> <p>8 points</p> <p>10 points</p> <p>12 points</p> <p>15 points</p> <p>18 points</p> <p>20 points</p> <p>23 points</p> <p>25 points</p> <p>27 points</p> <p>30 points</p> <p>33 points</p> <p>36 points</p> <p>39 points</p> <p>42 points</p> <p>45 points</p> <p>48 points</p> <p>49 points</p> <p>52 points</p>
Off-Site Renewable Energy Project	The applicant may submit a proposal to supply an off-site renewable energy project such as renewable energy retrofits of existing commercial/industrial that will help implement R2E9. The off-site renewable energy retrofit project proposals will be determined on a case by case basis accompanied by a detailed plan documenting the quantity of renewable energy the proposal will generate.	Point values are based upon the energy generated by the proposal
Other Renewable Energy Generation	The applicant may have innovative designs or unique site circumstances (such as geothermal) that allow the project to generate electricity from renewable energy not provided in the table. The ability to supply other renewable energy and the point values allowed will be decided based upon engineering data documenting the ability to generate electricity.	TBD
Irrigation and Landscaping		
Water Efficient Landscaping	<p>Eliminate conventional turf from landscaping</p> <p>Eliminate turf and only provide drought tolerant plants</p> <p>Xeroscaping that requires no irrigation (after plants are established)</p>	<p>3 points</p> <p>4 points</p> <p>6 points</p>

Greenhouse Gas Emissions Assessment
Farm Headquarters and Commercial Truck Yard

Table 2-2. Screening Table for Implementation of GHG Reduction Measures for Commercial or Industrial Development

Feature	Description	Assigned Point Values
Water Efficient Irrigation Systems	Drip irrigation Smart irrigation control systems combined with drip irrigation (demonstrate 20 reduced water use)	1 point 5 points
Recycled Water	Graywater (purple pipe) irrigation system on site	5 points
Stormwater Reuse Systems	Innovative on-site stormwater collection, filtration and reuse systems are being developed that provide supplemental irrigation water and provide vector control. These systems can greatly reduce the irrigation needs of a project. Point values for these types of systems will be determined based upon design and engineering data documenting the water savings.	TBD
Potable Water		
Showers	Title 24 standard (required) EPA High Efficiency Showerheads (15% > Title 24)	0 points 3 points
Toilets	Title 24 standard (required) EPA High Efficiency Toilets (15% > Title 24)	0 points 3 points
Faucets	Title 24 standard (required) EPA High Efficiency faucets (15% > Title 24)	0 points 3 points
Construction		
Recycling	County initiated recycling program diverting 75% of waste requires coordination in neighborhoods to realize this goal. The following recycling features will help the County fulfill this goal: Adopt a voluntary procurement standard and prioritize those products that have less packaging, are reusable, recyclable, or compostable Provide green-waste composting bins in each building Provide dedicated recycling bins separated by types of recyclables with instructions/ education program explaining the importance and use of bins.	5 points 3 points 5 points
Material Sources	Use a minimum of 15% locally sourced construction materials Use 15% recycled building materials and cement substitutes	3 points 5 points
Construction Waste Recycling	Recycle 50% of debris (required) Recycle 55% of debris Recycle 60% of debris Recycle 65% of debris Recycle 70% of debris Applicant needs to provide recycling monitoring program to County	0 points 4 points 8 points 12 points 14 points
Transportation		
Compressed Work Week	Reduce the number of days per week that employees are on site to reduce vehicle trips associated with commercial/industrial development. Compressed work week such that full time employees are on site: 5 days per week 4 days per week on site 3 days per week on site	0 points 4 points 8 points
Cars/Vanpools	Car/vanpool program Car/vanpool program with preferred parking Car/Vanpool with guaranteed ride home program Subsidized employee incentive car/vanpool program	1 point 2 points 3 points 5 points
Employee Bicycle/Pedestrian Programs	Complete sidewalk to residential within ½ mile Complete bike path to residential within 3 miles Bike lockers and secure racks Showers and changing facilities Subsidized employee walk/bike program	1 point 1 point 1 point 2 points 3 points

Table 2-2. Screening Table for Implementation of GHG Reduction Measures for Commercial or Industrial Development

Feature	Description	Assigned Point Values
Shuttle/Transit Programs	Local transit within ¼ mile Light rail transit within ½ mile Shuttle service to light rail transit station Guaranteed ride home program Subsidized transit passes	1 point 3 points 5 points 1 point 2 points
Signal Improvements along arterials used by Project	Signal synchronization – 1 point per signal Traffic signals connected to Intelligent Traffic Systems (ITS)	1 point/signal 3 point/signal
Sidewalks	Provide sidewalks on both sides of the street Provide pedestrian linkage between residential and commercial uses located within 1 mile of each other	1 point 3 points
Bicycle Paths	Provide bicycle paths within project boundaries Provide bicycle path linkages between commercial or industrial and other land uses Provide bicycle path linkages between commercial or industrial and transit	TBD 2 points 5 points
Electric Vehicle Recharging	Provide circuit and capacity in garage/parking areas for installation of electric vehicle charging stations Install electric vehicle charging stations in garages/parking areas	2 points/area 8 points/station

Source: Sutter County 2010.

Projects must achieve 100 points from the CEQA Thresholds and Screening Tables by demonstrating increases beyond specific requirements contained in the 2010 Title 24 Building Efficiency Standards, as the baseline year of the County CAP is 2010.

It is noted that under the current regulatory framework, all new development projects in California are required to meet the updated 2016 Title 24 Building Energy Efficiency Standards, which went into effect on January 1, 2017. The 2016 update to the Building Energy Efficiency Standards focuses on several key areas to improve the energy efficiency of newly constructed buildings and additions and alterations to existing buildings. The most significant efficiency improvements to the nonresidential Standards include improvements for walls, water heating, and lighting. The 2016 Standards also include changes made throughout all of its sections to improve the clarity, consistency, and readability of the regulatory language. The 2016 Building Energy Efficiency Standards are 28 percent more efficient than the previous 2013 Standards for residential construction, and five percent better for nonresidential construction. The 2013 Standards were 25 percent more efficient than the 2010 Standards for nonresidential construction. Energy-efficient buildings require less electricity, and increased energy efficiency reduces fossil fuel consumption and decreases GHG emissions. Furthermore, as of January 2017, owners/builders of construction projects have been required to divert (recycle) 65 percent of construction waste materials generated during the project. This requirement greatly reduces the generation of GHG emissions by reducing decomposition at landfills, which is a source of CH₄, and reducing demand for natural resources.

Therefore, all new development, including that proposed by the Project, will exceed 2010 Building Energy Efficiency Standards beyond 20 percent simply by complying with the 2016 Title 24 standards.

It is noted that the Proposed Project is a truck yard; with new development consisting almost exclusively of paving, driveway widening, an access stall and isle, light-emitting diode (LED) lighting, a fence, and

signage. There are no new buildings proposed by the Project. Thus, the Project proposal does not align well with the CAP Thresholds and Screening Table protocol. For projects such as this, the County developed Pre-Screening Tables for land use projects as part of the 2016 update to the CAP. The purpose of the 2016 Pre-Screening Tables is to provide a screening method to “[M]inimize time spent on small projects, allowing staff to focus their efforts on larger projects where meaningful reductions in GHG emissions can be achieved” (Sutter County 2016), and allowing a project to potentially be pre-screened out from unnecessary analysis.

A review of Table 2 of the 2016 Pre-Screening Measures for the County identifies the “General Truck Yard” as the most applicable land use corresponding to that proposed by the Project. However, the General Truck Yard category is not pre-screened under the County protocol for analyzing Project GHG emissions. The 2016 Pre-Screening Tables provide further guidance on how to determine the significance of a project’s GHG contribution; the use of a numeric threshold of 3,000 metric tons of CO₂e per year, which is based on a study conducted for San Bernardino County that used a statewide list of projects compiled by the Governor’s Office of Planning and Research (OPR). In that study, emissions were estimated for each project within OPR’s database (Sutter County 2016). The analysis found that 90 percent of CO₂e emissions are from CEQA projects that exceed 3,000 metric tons CO₂e per year (Sutter County 2016). Both cumulatively and individually, projects that generate less than 3,000 metric tons CO₂e per year have a negligible contribution to overall emissions (Sutter County 2016). Since the analysis for San Bernardino County was based on a statewide database, the resulting value of 3,000 metric tons CO₂e is also applicable to the County (Sutter County 2016). The County has concluded that projects generating less than 3,000 metric tons of CO₂e would be less than significant and would not have to be further evaluated.

In summation, the County CAP CEQA Thresholds and Screening Table method, shown in Table 2-2, is used to pre-determine whether a project is automatically consistent with the CAP; however, the Proposed Project is a truck yard; with new development consisting almost exclusively of paving, driveway widening, an access stall and isle, LED lighting, a fence, and signage. There are no new buildings proposed by the Project and thus, the Project proposal does not align well with the CAP Thresholds and Screening Table protocol. For projects such as this, the County has developed Pre-Screening Tables for land use projects as part of the 2016 update to the CAP, which allow a project to be potentially pre-screened out from further analysis. A review of the 2016 Pre-Screening Measures for the County identifies the General Truck Yard as the most applicable land use corresponding to that proposed by the Project; however, the General Truck Yard category is not pre-screened under the Sutter County protocol for analyzing Project GHG emissions. Therefore, since the County considers projects that generate less than 3,000 metric tons CO₂e per year to have a negligible contribution to overall emissions (Sutter County 2016), Project GHG emissions have been quantified using the CalEEMod version 2016.3.2 and compared to the threshold of 3,000 metric tons of CO₂e annually.

Construction

Construction-related activities that would generate GHGs include worker commute trips, haul trucks carrying supplies and materials to and from the Project site, and off-road construction equipment (e.g., dozers, loaders, excavators). Table 2-3 illustrates the specific construction-generated GHG emissions that would result from construction of the Project.

Table 2-3. Construction-Related Greenhouse Gas Emissions	
Emissions Source	CO ₂ e (Metric Tons/ Year)
Construction	35
Sutter County CAP Threshold	3,000
Exceeds Threshold?	No

Source: CalEEMod version 2016.3.2. Refer to Attachment A for Model Data Outputs.

Notes: Building construction, paving, and architectural coating assumed to occur simultaneously.

As shown in Table 2-3, Project construction (including site preparation, grading, and paving) would result in the generation of approximately 35 metric tons of CO₂e over the course of construction. Once construction is complete, the generation of these GHG emissions would cease. Annual construction emissions generated by the development would not exceed the County significance threshold of 3,000 metric tons of CO₂e in a single year during construction.

In addition, the California Energy Commission recently adopted changes to the 2016 Building Energy Efficiency Standards contained in the California Code of Regulations, Title 24, Part 6 (also known as the California Energy Code). The 2016 update to the Building Energy Efficiency Standards focuses on several key areas to improve the energy efficiency of newly constructed buildings and additions and alterations to existing buildings. For instance, effective January 1, 2017, owners/builders of construction projects have been required to divert (recycle) 65 percent of construction waste materials generated during the project. This requirement greatly reduces the generation of GHG emissions by reducing decomposition at landfills, which is a source of CH₄, and reducing demand for natural resources.

Operations

Operation of the Project would result in GHG emissions predominantly associated with motor vehicle use. Table 2-4 summarizes the direct and indirect annual GHG emissions level associated with the Project.

Table 2-4. Operational-Related Greenhouse Gas Emissions	
Emissions Source	CO ₂ e (Metric tons/Year)
Proposed Project	
Area Source (landscaping, on-site natural gas)	0
Energy	76
Mobile	92
Waste	1
Water	0
Total	169
Sutter County CAP Threshold	3,000
Exceeds Threshold?	No

Source: CalEEMod version 2016.3.2. Refer to **Attachment A** for Model Data Outputs.

As shown in Table 2-4, operation of the Project would result in the generation of approximately 169 metric tons of CO₂e annually. Annual operational emissions would not exceed the County significance threshold of 3,000 metric tons of CO₂e. The County thresholds were developed based on substantial

evidence that such thresholds represent a substantial source of GHG emissions. Ninety percent of CO₂e emissions are from CEQA projects that exceed 3,000 metric tons CO₂e per year (Sutter County 2016). Compliance means that the environmental impact of the GHG emissions will not be cumulatively considerable under CEQA. Compliance with such thresholds will be part of the solution to the cumulative GHG emissions problem, rather than hinder the State's ability to meet its goals of reduced statewide GHG emissions.

MTP/SCS 2035

SACOG's MTP/SCS establishes GHG emissions goals for automobiles and light-duty trucks. As shown in Table 2-4 above, GHG emissions resulting from development-related transportation sources is the most potent source of emissions, and therefore comparison to the MTP/SCS is an appropriate indicator of whether the Project is consistent with the MTP/SCS.

The Project is located in an area classified as "lands not identified for development in the MTP/SCS or Blueprint." Because the area is not heavily developed and supports ample agricultural production, truck and tractor parking is in demand in the area. The establishment of the Project would reduce the miles that trucks and tractors would need to travel between a farming operation and available services. Thus, the Project would potentially reduce vehicle miles traveled (VMT) and subsequently reduce GHG emissions.

Furthermore, the Project is considered a redevelopment project as it is proposed on a site that has already been developed for agricultural operation use. According to the USEPA, redevelopments produce 32 to 57 percent less emissions per capita relative to conventional developments. This is because the number of daily vehicle trips and daily VMT associated with redevelopments tend to be lower compared with development on vacant land (USEPA 2011). In this instance, many of the employees and heavy-duty truck drivers already work at or near the Project site.

While the Proposed Project would generate GHG emissions, the development will not obstruct the achievement of the MTP/SCS emission reduction targets. Since the development is consistent with SACOG's 2016 MTP/SCS, the Project would not result in an increase in the severity of operational GHG emission-related impacts.

2.3.4 Conclusions

As demonstrated with this assessment, the development complies with the requirements of the County CAP through the GHG emission analysis. Although the Project did not meet the 100-point threshold due to its nature as a small truck yard with no new proposed buildings, the Project is projected to generate 169 metric tons of CO₂e annually, which is less than the significance threshold of 3,000 metric tons annually promulgated by the County CAP. This threshold was developed based on substantial evidence that such thresholds represent quantitative levels of GHG emissions, compliance with which means that the environmental impact of the GHG emissions will normally not be cumulatively considerable under CEQA. Compliance with this threshold will be part of the solution to the cumulative GHG emissions problem, rather than hinder the State's ability to meet its goals of reduced statewide GHG emissions.

Further, it should be noted that all new development projects in California are required to meet 2016 Title 24 Building Energy Efficiency Standards, which went into effect on January 1, 2017. The 2016 Building

Energy Efficiency Standards are 28 percent more efficient than previous, 2013 Standards for residential construction and five percent better for nonresidential construction. The 2013 Standards were 25 percent more efficient than the 2010 Standards for nonresidential construction. Therefore, all new development, including that proposed by the Project, will exceed 2010 Building Energy Efficiency Standards beyond 20 percent simply by complying with the 2016 Title 24 standards.

Finally, SACOG's MTP/SCS establishes GHG emissions goals for automobiles and light-duty trucks. The Project is consistent with the MTP/SCS.

In sum, the Project will have a less than significant impact on GHG emissions.

3.0 REFERENCES

- CARB. 2005. *California Almanac of Emissions and Air Quality*.
- . 2013. *Facts about California's Sustainable Communities Plans*. 2013.
https://www.arb.ca.gov/cc/sb375/sacog_fact_sheet.pdf
- . 2014. *Technical Valuation of the Greenhouse Gas Emission Reduction Quantification for Association of Monterey Bay Area Governments' SB 375 Sustainable Communities Strategy*.
<http://www.arb.ca.gov/cc/sb375/sb375.htm>.
- . 2017. *2017 Climate Change Scoping Plan Update*. January 2017.
- . 2018. *California Greenhouse Gas Emission Inventory 2018 Edition*.
<https://www3.arb.ca.gov/cc/inventory/data/data.htm>
- USEPA. 2011. *Air and Water Quality Impacts of Brownfield Redevelopment*.
- . 2016a. *Climate Change – Greenhouse Gas Emissions: Carbon Dioxide*.
<http://www.epa.gov/climatechange/emissions/co2.html>.
- . 2016b. *Methane*. <https://www3.epa.gov/climatechange/ghgemissions/gases/ch4.html>.
- . 2016c. *Nitrous Oxide*. <https://www3.epa.gov/climatechange/ghgemissions/gases/n2o.html>.
- IPCC. 2013. *Carbon and Other Biogeochemical Cycles*. In: *Climate Change 2013: The Physical Science Basis. Contribution of Working Group I to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change*. http://www.climatechange2013.org/images/report/WG1AR5_ALL_FINAL.pdf.
- . 2014. *Climate Change 2014 Synthesis Report: Approved Summary for Policymakers*.
<http://www.ipcc.ch/>.
- Sutter County. 2010. *Sutter County Climate Action Plan*. July 2010.
https://www.suttercounty.org/assets/pdf/cs/ps/Climate_Action_plan_.pdf.
- . 2011. *Sutter County Climate Action Plan Greenhouse Gas Emissions Screening Tables*. April 2011.
https://www.suttercounty.org/assets/pdf/cs/ps/GHG_Pre-Screening_Report_Adopted_06-28-2016.pdf.
- . 2016. *Greenhouse Gas Pre-Screening Measures for Sutter County*. June 2016.
https://www.suttercounty.org/assets/pdf/cs/ps/Greenhouse_Gas_Screening_Tables.pdf.

CalEEMod Output File for Greenhouse Gas Emissions

Farm Headquarters & Commercial Truck Yard - Sutter County, Annual

Farm Headquarters & Commercial Truck Yard

Sutter County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Unrefrigerated Warehouse-No Rail	3.00	1000sqft	0.07	3,000.00	0
Other Non-Asphalt Surfaces	0.80	Acre	0.80	34,848.00	0
Parking Lot	1.00	Acre	1.00	43,560.00	0

1.2 Other Project Characteristics

Urbanization	Rural	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	61
Climate Zone	3			Operational Year	2021
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	641.35	CH4 Intensity (lb/MWhr)	0.029	N2O Intensity (lb/MWhr)	0.006

1.3 User Entered Comments & Non-Default Data

Farm Headquarters & Commercial Truck Yard - Sutter County, Annual

Project Characteristics -

Land Use -

Construction Phase - Construction time based on typical parking lot preparation time.

Grading - 1.8 acres will be used for the new parking lot and driveways

Vehicle Trips - The site plan states that 30 truck/trailer sites will be constructed and 9 personal vehicle spaces for employees and residents. The parking lot trips is calculated by 30 trips/1 acre and 100% of the truck trips are primary trips. Use is expected to be greatly reduced on Sundays. This is a conservative estimate.

Fleet Mix - 100% of the personal vehicles driven by employees commuting would be light or medium duty. The trucks and tractors using the truck yard would be heavy duty.

Road Dust - Some of the vehicle driveway and parking areas may be gravelled.

Energy Use - The parking lot includes planned lighting. The warehouse is included to account for new employee vehicle trips only. The building is pre-existing so electricity is not considered.

Water And Wastewater - The warehouse is included to account for new employee vehicle trips only. The electricity use of the building is not part of the proposed project.

Solid Waste - The warehouse is included to account only for employee trips and additional garbage produced by employees. The new trucks attracted to the site will produce additional waste.

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	4.00	14.00
tblConstructionPhase	NumDays	10.00	26.00
tblConstructionPhase	NumDays	2.00	10.00
tblConstructionPhase	PhaseEndDate	4/6/2020	4/2/2020
tblConstructionPhase	PhaseEndDate	1/25/2021	5/8/2020
tblConstructionPhase	PhaseEndDate	3/31/2020	3/13/2020
tblConstructionPhase	PhaseStartDate	4/1/2020	3/16/2020
tblConstructionPhase	PhaseStartDate	1/12/2021	4/3/2020
tblConstructionPhase	PhaseStartDate	3/28/2020	3/2/2020
tblEnergyUse	LightingElect	0.35	3.00
tblEnergyUse	LightingElect	3.22	0.00
tblEnergyUse	NT24E	5.13	0.00
tblEnergyUse	NT24NG	1.05	0.00

Farm Headquarters & Commercial Truck Yard - Sutter County, Annual

tblEnergyUse	T24E	0.00	3.00
tblEnergyUse	T24E	1.04	0.00
tblEnergyUse	T24NG	17.03	0.00
tblFleetMix	HHD	0.11	0.25
tblFleetMix	HHD	0.11	0.25
tblFleetMix	HHD	0.11	0.00
tblFleetMix	LDA	0.50	0.00
tblFleetMix	LDA	0.50	0.00
tblFleetMix	LDA	0.50	0.80
tblFleetMix	LDT1	0.03	0.00
tblFleetMix	LDT1	0.03	0.00
tblFleetMix	LDT1	0.03	0.00
tblFleetMix	LDT2	0.17	0.00
tblFleetMix	LDT2	0.17	0.00
tblFleetMix	LDT2	0.17	0.00
tblFleetMix	LHD1	0.03	0.25
tblFleetMix	LHD1	0.03	0.25
tblFleetMix	LHD1	0.03	0.00
tblFleetMix	LHD2	6.5010e-003	0.25
tblFleetMix	LHD2	6.5010e-003	0.25
tblFleetMix	LHD2	6.5010e-003	0.00
tblFleetMix	MCY	3.5580e-003	0.00
tblFleetMix	MCY	3.5580e-003	0.00
tblFleetMix	MCY	3.5580e-003	0.00
tblFleetMix	MDV	0.12	0.00
tblFleetMix	MDV	0.12	0.00
tblFleetMix	MDV	0.12	0.20

Farm Headquarters & Commercial Truck Yard - Sutter County, Annual

tblFleetMix	MH	8.5300e-004	0.00
tblFleetMix	MH	8.5300e-004	0.00
tblFleetMix	MH	8.5300e-004	0.00
tblFleetMix	MHD	0.03	0.25
tblFleetMix	MHD	0.03	0.25
tblFleetMix	MHD	0.03	0.00
tblFleetMix	OBUS	8.2900e-004	0.00
tblFleetMix	OBUS	8.2900e-004	0.00
tblFleetMix	OBUS	8.2900e-004	0.00
tblFleetMix	SBUS	1.0380e-003	0.00
tblFleetMix	SBUS	1.0380e-003	0.00
tblFleetMix	SBUS	1.0380e-003	0.00
tblFleetMix	UBUS	4.1900e-004	0.00
tblFleetMix	UBUS	4.1900e-004	0.00
tblFleetMix	UBUS	4.1900e-004	0.00
tblGrading	AcresOfGrading	5.25	1.80
tblGrading	AcresOfGrading	5.00	1.80
tblProjectCharacteristics	UrbanizationLevel	Urban	Rural
tblRoadDust	RoadPercentPave	100	0.8
tblSolidWaste	SolidWasteGenerationRate	0.00	1.50
tblSolidWaste	SolidWasteGenerationRate	2.82	0.00
tblVehicleTrips	CC_TTP	0.00	100.00
tblVehicleTrips	PR_TP	0.00	100.00
tblVehicleTrips	ST_TR	0.00	30.00
tblVehicleTrips	ST_TR	1.68	3.00
tblVehicleTrips	SU_TR	0.00	2.00
tblVehicleTrips	SU_TR	1.68	1.00

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tblVehicleTrips	WD_TR	0.00	30.00
tblVehicleTrips	WD_TR	1.68	3.00
tblWater	ElectricityIntensityFactorForWastewaterTreatment	1,911.00	0.00
tblWater	ElectricityIntensityFactorToDistribute	1,272.00	0.00
tblWater	ElectricityIntensityFactorToSupply	2,117.00	0.00
tblWater	ElectricityIntensityFactorToTreat	111.00	0.00
tblWater	IndoorWaterUseRate	693,750.00	0.00

2.0 Emissions Summary

Farm Headquarters & Commercial Truck Yard - Sutter County, Annual

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2020	0.0312	0.3083	0.2098	3.9000e-004							0.0000	34.1934	34.1934	0.0102	0.0000	34.4478
Maximum	0.0312	0.3083	0.2098	3.9000e-004							0.0000	34.1934	34.1934	0.0102	0.0000	34.4478

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2020	0.0312	0.3083	0.2098	3.9000e-004							0.0000	34.1934	34.1934	0.0102	0.0000	34.4478
Maximum	0.0312	0.3083	0.2098	3.9000e-004							0.0000	34.1934	34.1934	0.0102	0.0000	34.4478

[illegible]

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Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	3-2-2020	6-1-2020	0.3145	0.3145
		Highest	0.3145	0.3145

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.0230	0.0000	4.0000e-005	0.0000							0.0000	9.0000e-005	9.0000e-005	0.0000	0.0000	9.0000e-005
Energy	0.0000	0.0000	0.0000	0.0000							0.0000	76.0326	76.0326	3.4400e-003	7.1000e-004	76.3305
Mobile	0.0169	0.3529	0.1265	9.7000e-004							0.0000	91.6862	91.6862	6.3500e-003	0.0000	91.8449
Waste											0.3045	0.0000	0.3045	0.0180	0.0000	0.7544
Water											0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0399	0.3529	0.1265	9.7000e-004							0.3045	167.7189	168.0234	0.0278	7.1000e-004	168.9299

Farm Headquarters & Commercial Truck Yard - Sutter County, Annual

2.2 Overall Operational**Mitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.0230	0.0000	4.0000e-005	0.0000							0.0000	9.0000e-005	9.0000e-005	0.0000	0.0000	9.0000e-005
Energy	0.0000	0.0000	0.0000	0.0000							0.0000	76.0326	76.0326	3.4400e-003	7.1000e-004	76.3305
Mobile	0.0169	0.3529	0.1265	9.7000e-004							0.0000	91.6862	91.6862	6.3500e-003	0.0000	91.8449
Waste											0.3045	0.0000	0.3045	0.0180	0.0000	0.7544
Water											0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0399	0.3529	0.1265	9.7000e-004							0.3045	167.7189	168.0234	0.0278	7.1000e-004	168.9299

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail**Construction Phase**

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	3/2/2020	3/13/2020	5	10	
2	Grading	Grading	3/16/2020	4/2/2020	5	14	
3	Paving	Paving	4/3/2020	5/8/2020	5	26	

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Acres of Grading (Site Preparation Phase): 1.8**Acres of Grading (Grading Phase): 1.8****Acres of Paving: 1.8****Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)****OffRoad Equipment**

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Paving	Cement and Mortar Mixers	1	6.00	9	0.56
Site Preparation	Graders	1	8.00	187	0.41
Paving	Pavers	1	6.00	130	0.42
Paving	Rollers	1	7.00	80	0.38
Grading	Rubber Tired Dozers	1	6.00	247	0.40
Grading	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Grading	Graders	1	6.00	187	0.41
Paving	Paving Equipment	1	8.00	132	0.36
Site Preparation	Rubber Tired Dozers	1	7.00	247	0.40

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	3	8.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Grading	3	8.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Paving	5	13.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT

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3.1 Mitigation Measures Construction**3.2 Site Preparation - 2020****Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust											0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	8.1500e-003	0.0917	0.0386	9.0000e-005							0.0000	7.5633	7.5633	2.4500e-003	0.0000	7.6244
Total	8.1500e-003	0.0917	0.0386	9.0000e-005							0.0000	7.5633	7.5633	2.4500e-003	0.0000	7.6244

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000							0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000							0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.0000e-004	1.7000e-004	1.6100e-003	0.0000							0.0000	0.4018	0.4018	1.0000e-005	0.0000	0.4021
Total	2.0000e-004	1.7000e-004	1.6100e-003	0.0000							0.0000	0.4018	0.4018	1.0000e-005	0.0000	0.4021

Farm Headquarters & Commercial Truck Yard - Sutter County, Annual

3.2 Site Preparation - 2020**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust											0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	8.1500e-003	0.0917	0.0386	9.0000e-005							0.0000	7.5632	7.5632	2.4500e-003	0.0000	7.6244
Total	8.1500e-003	0.0917	0.0386	9.0000e-005							0.0000	7.5632	7.5632	2.4500e-003	0.0000	7.6244

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000							0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000							0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.0000e-004	1.7000e-004	1.6100e-003	0.0000							0.0000	0.4018	0.4018	1.0000e-005	0.0000	0.4021
Total	2.0000e-004	1.7000e-004	1.6100e-003	0.0000							0.0000	0.4018	0.4018	1.0000e-005	0.0000	0.4021

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3.3 Grading - 2020**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust											0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	9.4500e-003	0.1056	0.0452	1.0000e-004							0.0000	8.6727	8.6727	2.8000e-003	0.0000	8.7428
Total	9.4500e-003	0.1056	0.0452	1.0000e-004							0.0000	8.6727	8.6727	2.8000e-003	0.0000	8.7428

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000							0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000							0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.9000e-004	2.4000e-004	2.2500e-003	1.0000e-005							0.0000	0.5625	0.5625	2.0000e-005	0.0000	0.5630
Total	2.9000e-004	2.4000e-004	2.2500e-003	1.0000e-005							0.0000	0.5625	0.5625	2.0000e-005	0.0000	0.5630

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3.3 Grading - 2020**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust											0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	9.4500e-003	0.1056	0.0452	1.0000e-004							0.0000	8.6727	8.6727	2.8000e-003	0.0000	8.7428
Total	9.4500e-003	0.1056	0.0452	1.0000e-004							0.0000	8.6727	8.6727	2.8000e-003	0.0000	8.7428

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000							0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000							0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.9000e-004	2.4000e-004	2.2500e-003	1.0000e-005							0.0000	0.5625	0.5625	2.0000e-005	0.0000	0.5630
Total	2.9000e-004	2.4000e-004	2.2500e-003	1.0000e-005							0.0000	0.5625	0.5625	2.0000e-005	0.0000	0.5630

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3.4 Paving - 2020**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0109	0.1099	0.1154	1.8000e-004							0.0000	15.2954	15.2954	4.8500e-003	0.0000	15.4166
Paving	1.3100e-003										0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0122	0.1099	0.1154	1.8000e-004							0.0000	15.2954	15.2954	4.8500e-003	0.0000	15.4166

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000							0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000							0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	8.6000e-004	7.3000e-004	6.7800e-003	2.0000e-005							0.0000	1.6977	1.6977	5.0000e-005	0.0000	1.6989
Total	8.6000e-004	7.3000e-004	6.7800e-003	2.0000e-005							0.0000	1.6977	1.6977	5.0000e-005	0.0000	1.6989

Farm Headquarters & Commercial Truck Yard - Sutter County, Annual

3.4 Paving - 2020**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0109	0.1099	0.1154	1.8000e-004							0.0000	15.2954	15.2954	4.8500e-003	0.0000	15.4166
Paving	1.3100e-003										0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0122	0.1099	0.1154	1.8000e-004							0.0000	15.2954	15.2954	4.8500e-003	0.0000	15.4166

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000							0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000							0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	8.6000e-004	7.3000e-004	6.7800e-003	2.0000e-005							0.0000	1.6977	1.6977	5.0000e-005	0.0000	1.6989
Total	8.6000e-004	7.3000e-004	6.7800e-003	2.0000e-005							0.0000	1.6977	1.6977	5.0000e-005	0.0000	1.6989

4.0 Operational Detail - Mobile

Farm Headquarters & Commercial Truck Yard - Sutter County, Annual

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0169	0.3529	0.1265	9.7000e-004							0.0000	91.6862	91.6862	6.3500e-003	0.0000	91.8449
Unmitigated	0.0169	0.3529	0.1265	9.7000e-004							0.0000	91.6862	91.6862	6.3500e-003	0.0000	91.8449

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Other Non-Asphalt Surfaces	0.00	0.00	0.00		
Parking Lot	30.00	30.00	2.00	62,462	62,462
Unrefrigerated Warehouse-No Rail	9.00	9.00	3.00	31,460	31,460
Total	39.00	39.00	5.00	93,922	93,922

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Other Non-Asphalt Surfaces	14.70	6.60	6.60	0.00	0.00	0.00	0	0	0
Parking Lot	14.70	6.60	6.60	0.00	100.00	0.00	100	0	0
Unrefrigerated Warehouse-No	14.70	6.60	6.60	59.00	0.00	41.00	92	5	3

Farm Headquarters & Commercial Truck Yard - Sutter County, Annual

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Other Non-Asphalt Surfaces	0.000000	0.000000	0.000000	0.000000	0.250000	0.250000	0.250000	0.250000	0.000000	0.000000	0.000000	0.000000	0.000000
Parking Lot	0.000000	0.000000	0.000000	0.000000	0.250000	0.250000	0.250000	0.250000	0.000000	0.000000	0.000000	0.000000	0.000000
Unrefrigerated Warehouse-No Rail	0.800000	0.000000	0.000000	0.200000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated											0.0000	76.0326	76.0326	3.4400e-003	7.1000e-004	76.3305
Electricity Unmitigated											0.0000	76.0326	76.0326	3.4400e-003	7.1000e-004	76.3305
NaturalGas Mitigated	0.0000	0.0000	0.0000	0.0000							0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000							0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Farm Headquarters & Commercial Truck Yard - Sutter County, Annual

5.2 Energy by Land Use - NaturalGas**Unmitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000							0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000							0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	0	0.0000	0.0000	0.0000	0.0000							0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000							0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000							0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000							0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	0	0.0000	0.0000	0.0000	0.0000							0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000							0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Farm Headquarters & Commercial Truck Yard - Sutter County, Annual

5.3 Energy by Land Use - Electricity**Unmitigated**

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	261360	76.0326	3.4400e-003	7.1000e-004	76.3305
Unrefrigerated Warehouse-No Rail	0	0.0000	0.0000	0.0000	0.0000
Total		76.0326	3.4400e-003	7.1000e-004	76.3305

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	261360	76.0326	3.4400e-003	7.1000e-004	76.3305
Unrefrigerated Warehouse-No Rail	0	0.0000	0.0000	0.0000	0.0000
Total		76.0326	3.4400e-003	7.1000e-004	76.3305

Farm Headquarters & Commercial Truck Yard - Sutter County, Annual

6.0 Area Detail**6.1 Mitigation Measures Area**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0230	0.0000	4.0000e-005	0.0000							0.0000	9.0000e-005	9.0000e-005	0.0000	0.0000	9.0000e-005
Unmitigated	0.0230	0.0000	4.0000e-005	0.0000							0.0000	9.0000e-005	9.0000e-005	0.0000	0.0000	9.0000e-005

Farm Headquarters & Commercial Truck Yard - Sutter County, Annual

6.2 Area by SubCategory**Unmitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	6.2000e-003										0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0168										0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0000	0.0000	4.0000e-005	0.0000							0.0000	9.0000e-005	9.0000e-005	0.0000	0.0000	9.0000e-005
Total	0.0230	0.0000	4.0000e-005	0.0000							0.0000	9.0000e-005	9.0000e-005	0.0000	0.0000	9.0000e-005

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	6.2000e-003										0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0168										0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0000	0.0000	4.0000e-005	0.0000							0.0000	9.0000e-005	9.0000e-005	0.0000	0.0000	9.0000e-005
Total	0.0230	0.0000	4.0000e-005	0.0000							0.0000	9.0000e-005	9.0000e-005	0.0000	0.0000	9.0000e-005

7.0 Water Detail

Farm Headquarters & Commercial Truck Yard - Sutter County, Annual

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000

7.2 Water by Land Use**Unmitigated**

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Other Non-Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

Farm Headquarters & Commercial Truck Yard - Sutter County, Annual

7.2 Water by Land Use**Mitigated**

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Other Non-Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

8.0 Waste Detail**8.1 Mitigation Measures Waste**

Farm Headquarters & Commercial Truck Yard - Sutter County, Annual

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	0.3045	0.0180	0.0000	0.7544
Unmitigated	0.3045	0.0180	0.0000	0.7544

8.2 Waste by Land Use**Unmitigated**

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	1.5	0.3045	0.0180	0.0000	0.7544
Unrefrigerated Warehouse-No Rail	0	0.0000	0.0000	0.0000	0.0000
Total		0.3045	0.0180	0.0000	0.7544

Farm Headquarters & Commercial Truck Yard - Sutter County, Annual

8.2 Waste by Land Use**Mitigated**

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	1.5	0.3045	0.0180	0.0000	0.7544
Unrefrigerated Warehouse-No Rail	0	0.0000	0.0000	0.0000	0.0000
Total		0.3045	0.0180	0.0000	0.7544

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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10.0 Stationary Equipment**Fire Pumps and Emergency Generators**

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
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Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
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User Defined Equipment

Equipment Type	Number
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Farm Headquarters & Commercial Truck Yard - Sutter County, Annual

11.0 Vegetation

ATTACHMENT 4

KD Anderson & Associates, Inc. Traffic Assessment

June 1, 2021

Mr. Satwant Singh Sahota
Alien Transport, LLC
499 Wilson Road
Yuba City, CA 95991

RE: REVISED TRAFFIC ASSESSMENT FOR PROJECT #U-19-010, USE PERMIT FOR 499 WILSON ROAD, SUTTER COUNTY, CA

Dear Mr. Singh:

Thank you for contacting our firm regarding the use permit for a general truck yard at 499 Wilson Road. As we understand the proposed project involves enhancements to an existing family run agricultural trucking operation located about ¼ mile west of the signalized SR 99 / Wilson Road intersection (refer to Figure 1 vicinity map). The proposed site plan is Figure 2.

Sutter County has reviewed the project, and while a full traffic impact analysis is not required, there are a few questions that would be addressed by a focused traffic assessment of operational effects. Consistency with General Plan policies and CEQA impacts based on Vehicle Miles Traveled (VMT) are also a consideration. This letter addresses those questions.

Background Information

Wilson Road. Wilson Road is a rural two-lane road that extends west from an intersection on Garden Highway across State Route 99 and along the project site to its western terminus on Sawtelle Avenue about 1½ miles from the state highway. In the immediate area of the project the Wilson Road pavement section is about 16-17 feet wide and in poor condition. Wilson Road widens in the 600 feet west of SR 99 to provide separate turn lanes at the SR 99 / Wilson Road intersection.

State Route 99 (SR 99). SR 99 is a four-lane conventional highway with a continuous center striped median. The posted speed limit is 65 mph.

SR 99 / Wilson Road Intersection. The Wilson Road intersection on SR 99 is controlled by a traffic signal. Separate left turn lanes are provided on SR 99 in both directions and a northbound right turn lane is available. The eastbound Wilson Road approach is configured with a separate left turn lane and combined thru+right turn lane.

Traffic Volumes. Caltrans data indicates that in 2018 SR 99 carried an average of 19,500 AADT in the area of the proposed project south of the SR 113 junction. Trucks comprise about 10% of the total, and of the trucks about half (an average of roughly 860 per day) were 4 axles or larger.

Traffic volumes at the SR 99 / Wilson Road intersection were observed by Caltrans on Thursday March 5, 2020 for a 15-hour period from 6:00 a.m. to 9:00 p.m. (attached). The number of trucks and automobiles on Wilson Road are noted in the attachments, along with automobile traffic on SR 99. Those counts

indicated that Wilson Road in the immediate area of the proposed project carried a total of 318 vehicles over the 15-hour period, with 16 vehicles in the a.m. peak hour and 24 vehicles during the p.m. peak hour. Trucks comprised 8% of the total volume on Wilson Road, or 25 trucks over the 15-hr period. You reported that 5-8 trucks are currently being dispatched from the site.

Level of Service - Intersections. The current peak hour operating Level of Service at the intersection was calculated using Highway Capacity Manual (HCM) methods and Synchro 10.0 software. Current traffic counts (Figure 3) and truck percentage were input to the calculations. The morning peak hour occurred from 6:05 to 7:05 a.m., and the intersection operated at LOS B at that time. The p.m. peak hour occurred from 3:50 to 4:50 p.m. with LOS B.

TABLE 1 INTERSECTION LEVELS OF SERVICE						
Intersection	Control	Condition	AM Peak Hour		PM Peak Hour	
			Average Delay (sec/veh)	LOS	Average Delay (sec/veh)	LOS
SR 99 / Wilson Road	Signal	Existing	16.8	B	14.1	B
		Plus Project	19.0	B	15.6	B

Level of Service – Roadway Segments. Traffic conditions on Wilson Road were evaluated within the context of General Plan Policy M 2.5 which prescribes:

Level of Service on County Roads. Develop and manage the County roadway segments and intersections to maintain LOS D or better during peak hour, and LOS C or better at all other times. Adjust for seasonality. These standards shall apply to all County roadway segments and intersections, unless otherwise addressed in an adopted specific plan or community plan.

General Plan EIR Table 6.14-6 notes the planning level LOS thresholds for various roadway classifications based on daily traffic volumes. The table notes that two-lane rural roads can carry up to 10,200 vehicles per day at LOS C. While 24-hr traffic count data was not collected for Wilson Road west of SR 99, by expanding the 15-hour data set for the remaining nine off-peak hours it is estimated that the roadway carries approximately 400 vehicles per day. This volume would fall with the General Plan EIR's LOS C threshold.

Project Operational Effects / Impacts

Project Travel Characteristics. We have identified the project's operational characteristics in terms of the amount of truck activity and the time periods of that travel. Today ten trucks are stored at the site, and on average 50% to 75% of these trucks are dispatched on a weekday. The use permit will allow 30 trucks to be stored at the project site. These trucks would not be "long haul" but rather would be local distribution or agricultural harvesting / processing support. The site would operate 14 hours a day (i.e., Monday-Saturday 6:00 a.m. to 8:00 p.m.), and most trucks would typically be dispatched in the early morning and

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return in the evening. During the week some trucks may come and go for inspection or maintenance or if the drivers have to come home during the week.

From the standpoint of trip generation, the project will employ 6 persons in addition to truck drivers in administrative and truck mechanic roles. Trips will also be generated by drivers traveling to and from the site to their homes at the beginning and end of a shift. Table 2 summarizes trip generation under existing conditions assuming all trucks are dispatched, shows the additional trips caused by the expansion in truck parking and presents the total daily trip generation under the proposed use permit. A total of about 80 vehicle trips could occur over the day (i.e., ½ inbound and ½ outbound) as a result of increased truck parking beyond the traffic observed in March. The total site trip generation for both existing and proposed uses is 132 daily trips.

You have indicated that for practical purposes all project traffic will use the SR 99 intersection for regional access.

TABLE 2 TRIP GENERATION ESTIMATE							
Conditions	Trucks Stored	Driver Trips	Truck Trips	Employees	Employee Trips	Total Automobile Trips	Total All Trips
Existing	10	20	20	6	12	32	52
Expansion	20	40	40	-	-	40	80
Total	30	60	60	6	12	72	132

Today the majority of the trucks that visit the site are classified California Legal or smaller, and trucks permitted under the Surface Transportation Authorization Act (STAA) are also planned. To allow STAA trucks the portion of Wilson Road from SR 99 to the site will need to be designated an STAA Terminal Route. Gaining that designation requires documentation of the ability of the SR 99 intersection and project access on Wilson Road to accommodate the turning requirements of STAA trucks.

Truck Access. The project includes phased improvements to its access on Wilson Road to accommodate trucks. Initial improvements will accommodate most trucks, but subsequent improvements will address STAA requirements, as noted in the attached truck turning diagrams.

Wilson Road Impacts - LOS. Because the background traffic volume on Wilson Road is very low, project truck traffic does not have an appreciable effect on the operation of the roadway in terms of its capacity and Level of Service. Adding 80 trips to the current volume of 400 vehicles per day does not result in a total volume that exceeds the County's LOC threshold, and the requirements of policy M 2.5 will be satisfied.

Wilson Road Pavement. The current paved width on Wilson Road is narrow and as a result trucks either travel down the center of the road or begin to encroach onto the edge of roadway. The latter action could contribute to deterioration of the edge of the road in an area where the overall pavement condition is already poor.

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Recommendations for the minimum paved width for low volume road (i.e., < 400 ADT) are presented in the American Association of State Highway and Transportation Officials (AASHTO) publication *Guidelines for Geometric Design of Low-Volumes Roads, 2019*. Recommended values (AASHTO Table 4-1) are dependent on design speed and the traffic composition, but for Industrial / Commercial Access roads a width of 24.5 feet is identified for 55 mph design.

Alternatively, the Sutter County Rural Collector road standard proposes a 32 foot pavement section. This is the section on the higher volume segment on Wilson Road between SR 99 and Garden Highway.

SR 99 Effects. The effects of the project at the SR 99 / Wilson Road intersection were evaluated by superimposing the traffic caused by the expansion onto the current traffic volumes which already include existing site uses. Trucks can access the site throughout the day, but a “worst case” approach was taken for Level of Service analysis that assumes:

- Twenty outbound trucks caused by the expansion will leave the site in the a.m. peak hour and 20 trucks will return in the p.m. peak hour. All will use the SR 99 / Wilson Road intersection where their trips will be split 45% northbound, 10% eastbound and 45% southbound.
- Twenty truck drivers will travel to the site in the a.m. peak hour and 20 drivers will drive their cars home in the p.m. peak hour. All will use the SR 99 / Wilson Road intersection where their trips will be split 45% northbound, 10% eastbound and 45% southbound.

These trips were superimposed onto current background traffic volumes (Figure 3) to identify the project’s effect. As noted in Table 1, the addition of “worst case” project traffic may incrementally increase the length of delays at the SR 99 / Wilson Road traffic signal slightly, but the overall Level of Service is unchanged and will continue to satisfy minimum County and Caltrans standards.

The project will add truck traffic to mainline SR 99. If all 30 trucks under the permit were dispatched under the assignment assumptions made herein, then the truck count north and south of Wilson Road could increase by 27 trips (two-way total). This would represent an increase in the total truck volume of less than 2%. No improvements are needed to address this incremental change.

Access / Review. The site plan indicates that improvements will be made to the existing access to accommodate trucks. This work involves installation of new pavement and a layout that will accommodate the turning requirements of trucks. The project anticipates eventually working with Sutter County to designate the portion of Wilson Road between the access and SR 99 for STAA trucks, but until that time Cal Legal trucks will be handled.

The path of STAA trucks into and out of the site was reviewed. The proposed layout provides the room needed to accommodate the paths of concurrent entry and exit by STAA trucks. The layout of the SR 99 / Wilson Road intersection also appears to accommodate the turning requirements of STAA trucks using the area west of the intersection. However, the section of Wilson Road between the site and SR 99 will need to be widened to meet Sutter County requirements for two-way truck travel.

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SB 743 – CEQA Guidelines for Vehicle Miles Traveled (VMT)

Background. The CEQA Guidelines and the California Governor's Office of Planning and Research (OPR) document *Technical Advisory on Evaluating Transportation Impacts in CEQA* (California Governor's Office of Planning and Research, 2018) encourage all public agencies to develop and publish thresholds of significance to assist with determining when a project would have significant transportation impacts based on the new metric of Vehicle Miles Traveled (VMT), rather than operating Level of Service (LOS). The CEQA Guidelines generally state that projects that decrease VMT can be assumed to have a less than significant transportation impact. The CEQA Guidelines do not provide any specific criteria on how to determine what level of project VMT would be considered a significant impact.

Sutter County has not yet developed or adopted methods for estimating regional VMT or significance criteria for evaluating impacts based on VMT. As a result, that analysis makes use of methods for initial project screening based on OPR guidance used to identify those projects that are exempt from VMT analysis.

While Level of Service may no longer be the focus of CEQA impact analysis, it remains within the purview of Sutter County to consider Level of Service with regards to consistency with its General Plan goals and policies. Caltrans also considers Level of Service as a measure of the effects of a project on safety on the state highway system.

The extent to which VMT analysis is applicable to this project has been considered from several perspectives is discussed in the materials which follow.

Vehicle Types. OPR guidance notes that CEQA VMT analysis is intended to focus on passenger vehicles.

Proposed Section 15064.3, subdivision (a), states, "For the purposes of this section, 'vehicle miles traveled' refers to the amount and distance of automobile travel attributable to a project." Here, the term "automobile" refers to on-road passenger vehicles, specifically cars and light trucks.

OPR guidance allows Heavy-duty truck VMT to be included for modeling convenience and ease of calculation (for example, where models or data provide combined auto and heavy truck VMT).

Based on this direction, the project's impacts on VMT are related to its automobile travel

Screening Criteria. Under OPR direction, the following categories of land development projects can be presumed to have a less than significant impact on regional VMT without further quantitative analysis.

- Location Based Screening
 - Near Transit
 - In VMT efficiency areas where evidence exists that development yields VMT metrics that satisfy the OPR recommended significance criteria of a 15% reduction (i.e., 85% of average).
- Other Factors
 - Small projects (i.e., < 110 daily trips)
 - Local-serving retail
 - Local serving public uses
 - Affordable housing.

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Of these screening criteria, the project may be considered as a “small project”, as follows:

Screening Threshold for Small Projects. Many local agencies have developed screening thresholds to indicate when detailed analysis is needed. Absent substantial evidence indicating that a project would generate a potentially significant level of VMT, or inconsistency with a Sustainable Communities Strategy (SCS) or general plan, projects that generate or attract fewer than 110 trips per day generally may be assumed to cause a less-than-significant transportation impact. The total daily automobile traffic associated with the project under the requested use permit totals 72 daily trips. As the forecast is less than the 110 daily trip threshold, the project’s VMT impacts can be presumed to be less than significant.

Thank you again for contacting our firm. Please feel free to call me if you have any questions.

Sincerely Yours,

KD Anderson & Associates, Inc.

A handwritten signature in black ink, appearing to read 'K. Anderson', with a long horizontal flourish extending to the right.

Kenneth D. Anderson, P.E.
President

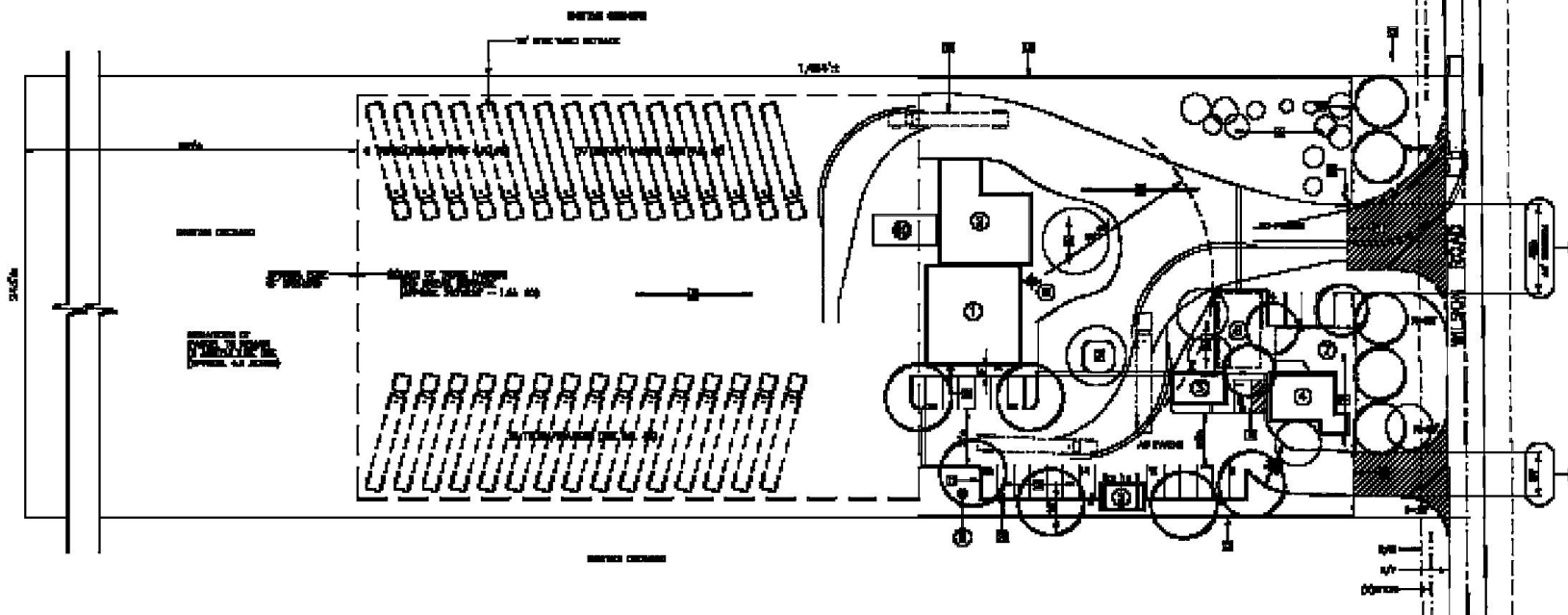
Attachments: Figures 1-3, traffic counts, LOS worksheets, truck turning diagrams



[illegible][illegible][illegible][illegible]

1. NAME OF THE VESSEL	1. DATE OF DEPARTURE
2. NAME OF THE MASTER	2. DATE OF ARRIVAL
3. NAME OF THE COMPANY	3. (Crew/Passenger)
4. NAME OF THE VESSEL	4. (Cargo)
5. NAME OF THE VESSEL	5. (Cargo)
6. NAME OF THE VESSEL	6. (Cargo)
7. NAME OF THE VESSEL	7. (Cargo)
8. NAME OF THE VESSEL	8. (Cargo)
9. NAME OF THE VESSEL	9. (Cargo)
10. NAME OF THE VESSEL	10. (Cargo)

PLANT	PLANT	AGE
PLANT	PLANT	AGE
PLANT	PLANT	AGE
PLANT	PLANT	AGE
PLANT	PLANT	AGE



THREE PLANT CLIMES & PLANT'S RESPONSES
THREE PLANT CLIMES & PLANT'S RESPONSES
THREE PLANT CLIMES & PLANT'S RESPONSES

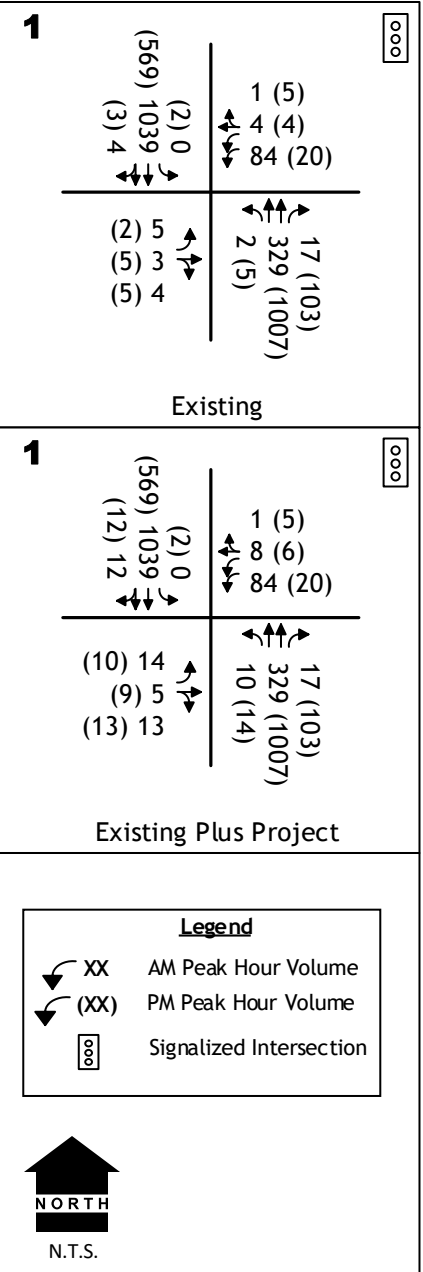
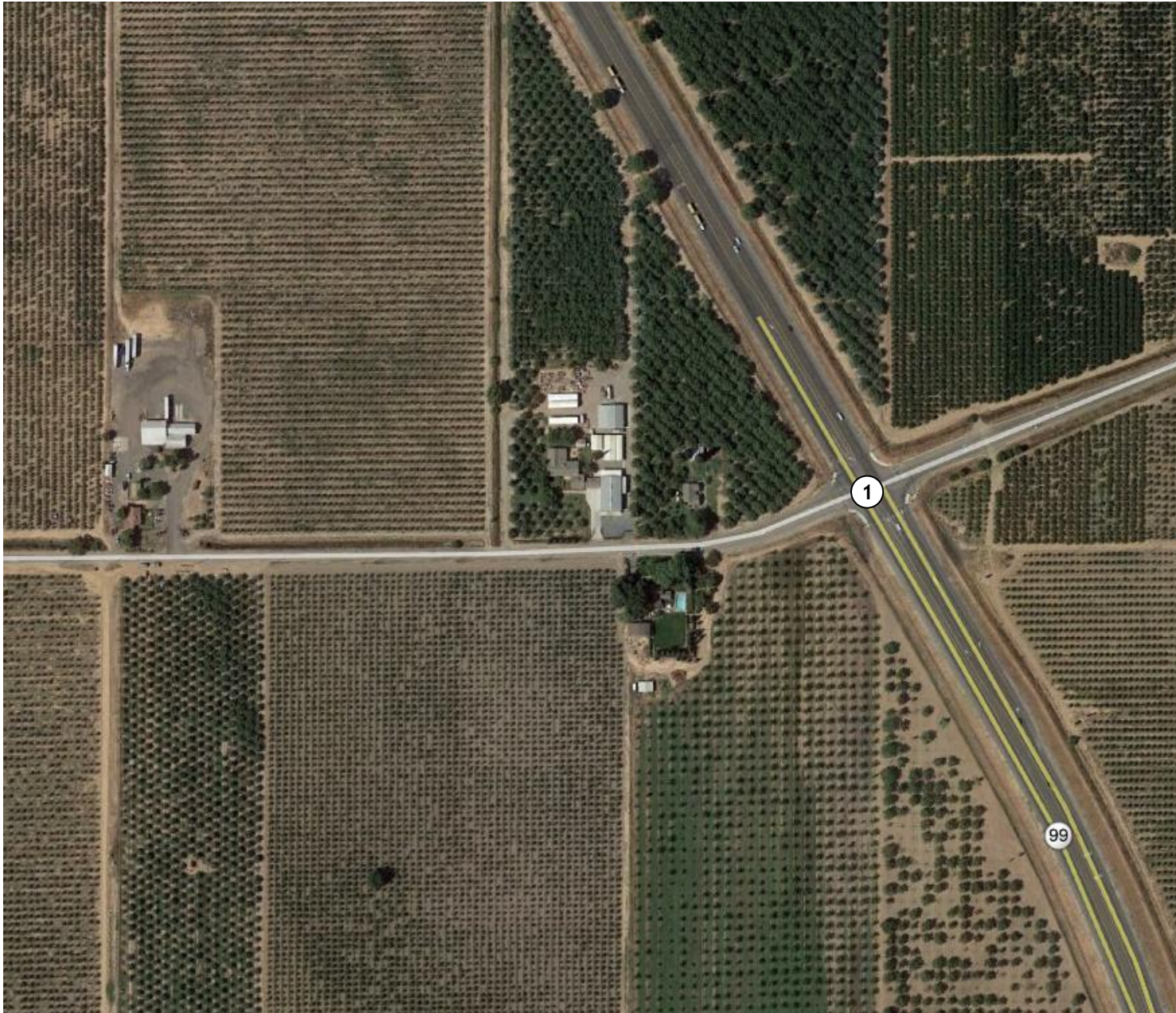


**STATE PLAN FOR
FARM HEADQUARTERS & COMMERCIAL TRUCK YARD**
MR. AYOUB SENEH, ALLEN TRANSPORT, LLC
488 WILSON ROAD, BUTTER COUNTY

2011

NAME	Mr. J. H. Smith
ADDRESS	123 Main St.
CITY	New York
STATE	New York

A1.0



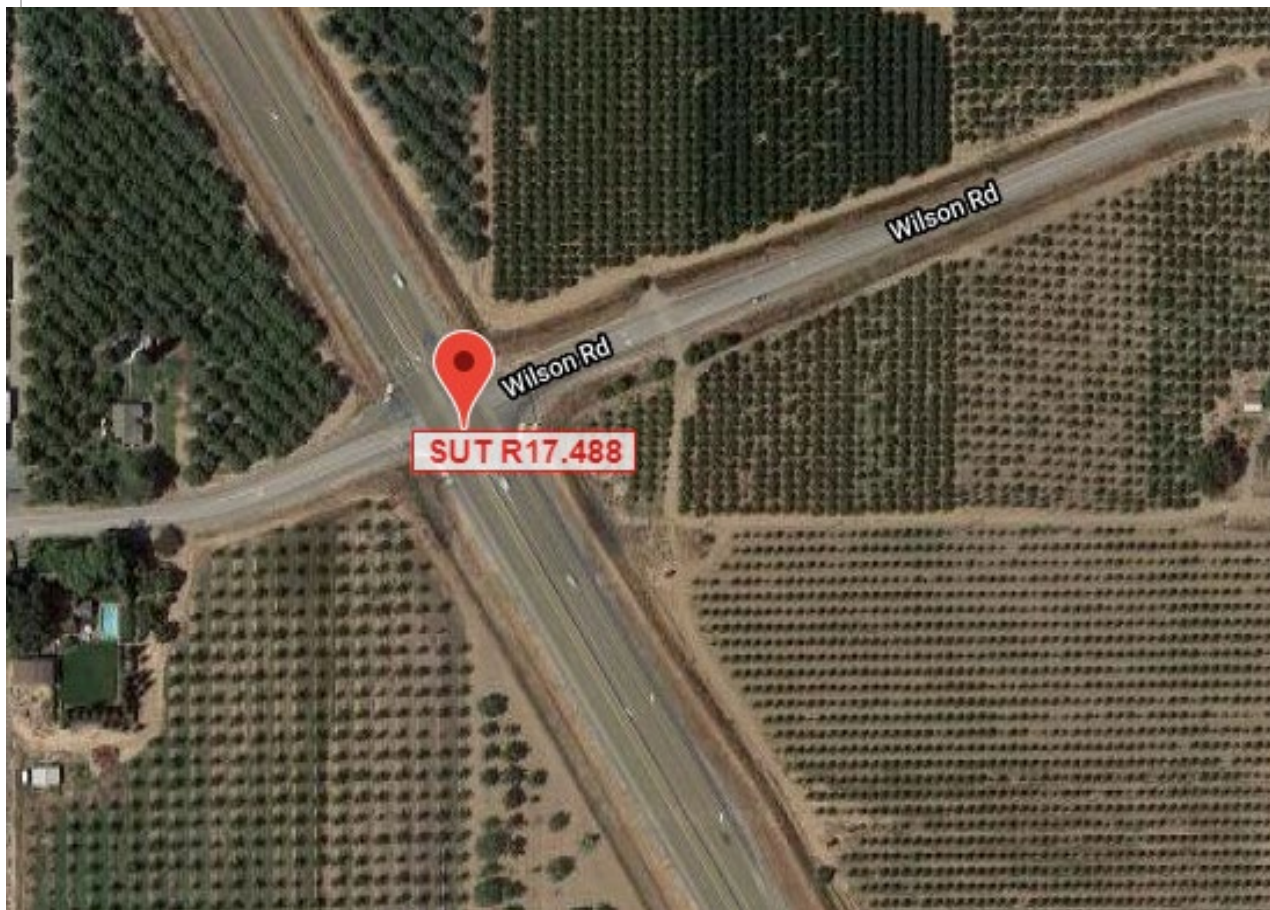
WILSON RD AND CA-99 TRAFFIC VOLUMES AND LANE CONFIGURATIONS

figure 3



03-SUT-099 PM R17.489 / Wilson Rd
Yuba City, CA

Count and warrant worksheet V2.4 (24 hour summary)



Notes

Classification

0.3% Motorcycles
67.1% Cars
22.2% Light Goods Vehicles
0.2% Buses
2.6% Single Unit Trucks
7.6% Tractor Trailers

ADTs and Truck %

North Leg: 16663 10%
South Leg: 17544 10.5%
East Leg: 1089 3%
West Leg: 318 7.9%

Above values are for 15 hour period

Morning Interval	Miovision Cameras										sunny					Thursday, 05 March 2020					
Begin End	SBR	SBT	SBL	Ped	Total	WBR	WBT	WBL	Ped	Total	NBR	NBT	NBL	Ped	Total	EBR	EBT	EBL	Ped	Total	All Total
6:00 - 6:15	2	254	0	0	256	0	0	11	0	11	3	62	3	0	68						335
6:15 - 6:30	0	311	0	0	311	0	2	23	0	25	2	71	0	0	73	1	0	2	0	3	412
6:30 - 6:45	1	260	0	0	261	1	1	26	0	28	8	89	0	0	97	1	0	0	0	1	387
6:45 - 7:00	0	227	0	0	227	0	0	20	0	20	3	94	1	0	98	1	2	2	0	5	350
Total	3	1052			1055	1	3	80		84	16	316	4		336	3	2	4		9	1484
7:00 - 7:15	2	202	0	0	204	0	2	15	0	17	3	107	0	0	110	1	1	6	0	8	339
7:15 - 7:30	0	220	0	0	220	0	0	13	0	13	9	112	0	0	121	3	0	2	0	5	359
7:30 - 7:45	3	168	0	0	171	0	1	18	0	19	9	136	3	0	148						338
7:45 - 8:00	2	166	0	0	168	1	0	14	0	15	6	114	1	0	121	2	0	2	0	4	308
Total	7	756			763	1	3	60		64	27	469	4		500	6	1	10		17	1344
8:00 - 8:15	2	163	0	0	165	0	1	18	0	19	8	119	0	0	127	1	1	1	0	3	314
8:15 - 8:30	0	169	0	0	169	0	1	12	0	13	7	118	0	0	125	0	0	1	0	1	308
8:30 - 8:45	1	168	0	0	169	0	1	11	0	12	4	131	3	0	138	2	1	0	0	3	322
8:45 - 9:00	1	161	1	0	163	0	0	3	0	3	2	107	0	0	109	0	2	0	0	2	277
Total	4	661	1		666		3	44		47	21	475	3		499	3	4	2		9	1221
9:00 - 9:15	1	149	1	0	151	0	0	7	0	7	2	89	0	0	91	1	0	1	0	2	251
9:15 - 9:30	0	151	0	0	151	1	0	8	0	9	5	105	1	0	111	1	0	1	0	2	273
9:30 - 9:45	0	126	0	0	126	0	2	4	0	6	3	108	1	0	112						244
9:45 - 10:00	1	121	1	0	123	1	0	8	0	9	2	119	0	0	121	1	0	1	0	2	255
Total	2	547	2		551	2	2	27		31	12	421	2		435	3		3		6	1023
Peak 15 Min.																					
6:15 - 6:30	0	311	0	0	311	0	2	23	0	25	2	71	0	0	73	1	0	2	0	3	412
Peak Hour																					
6:05 - 7:05	4	1039	0	0	1043	1	4	84	0	89	17	329	2	0	348	4	3	5	0	12	1492
PHF	0.50	0.83	#####		0.83	0.25	0.50	0.81		0.79	0.53	0.83	0.50		0.83	0.50	0.38	0.42		0.50	0.91
Truck %	0.0%	6.0%	#####		5.9%	0.0%	0.0%	2.4%		2.2%	5.9%	24.0%	50.0%		23.3%	25.0%	0.0%	0.0%		8.3%	9.8%

Midday Interval		Miovision Cameras										sunny					Thursday, 05 March 2020						
Begin	End	SBR	SBT	SBL	Ped	Total	WBR	WBT	WBL	Ped	Total	NBR	NBT	NBL	Ped	Total	EBR	EBT	EBL	Ped	Total	All Total	
10:00 - 10:15		4	111	0	0	115	0	1	6	0	7	3	86	1	0	90	1	1	1	0	3	215	
10:15 - 10:30		1	152	0	0	153	0	2	6	0	8	5	81	0	0	86	0	1	1	0	2	249	
10:30 - 10:45		2	115	1	2	118	1	1	3	2	5	4	102	3	2	109	1	1	0	2	2	234	
10:45 - 11:00		0	104	0	0	104	0	0	12	0	12	1	109	0	0	110	0	1	3	0	4	230	
Total		7	482	1	2	490	1	4	27	2	32	13	378	4	2	395	2	4	5	2	11	928	
11:00 - 11:15		2	125	0	0	127	0	0	9	0	9	2	108	1	0	111	0	1	2	0	3	250	
11:15 - 11:30		1	112	1	0	114	0	1	2	0	3	2	87	2	0	91	1	0	0	0	1	209	
11:30 - 11:45		3	119	0	0	122	1	1	3	0	5	3	124	1	0	128						255	
11:45 - 12:00		0	127	1	0	128	0	2	8	0	10	1	119	1	1	121	2	3	1	0	6	265	
Total		6	483	2		491	1	4	22		27	8	438	5	1	451	3	4	3		10	979	
12:00 - 12:15		0	116	1	0	117	1	1	2	0	4	5	105	0	0	110	0	2	3	0	5	236	
12:15 - 12:30		2	135	0	0	137	0	0	3	0	3	5	99	0	0	104	1	1	4	0	6	250	
12:30 - 12:45		0	125	0	0	125	0	0	5	0	5	9	127	2	0	138	0	2	2	0	4	272	
12:45 - 13:00		2	122	0	0	124	2	1	4	0	7	8	117	0	0	125	2	0	1	0	3	259	
Total		4	498	1		503	3	2	14		19	27	448	2		477	3	5	10		18	1017	
13:00 - 13:15		2	118	0	0	120	0	2	6	0	8	6	117	2	0	125	3	0	1	0	4	257	
13:15 - 13:30		0	121	0	0	121	1	2	5	0	8	9	118	1	0	128	1	0	1	0	2	259	
13:30 - 13:45		1	132	1	0	134	0	0	7	0	7	2	122	1	0	125	3	2	2	0	7	273	
13:45 - 14:00		2	113	0	0	115	1	1	4	0	6	7	105	1	0	113	0	1	3	0	4	238	
Total		5	484	1		490	2	5	22		29	24	462	5		491	7	3	7		17	1027	
Peak 15 Min.																							
13:25 - 13:40		1	149	0	0	150	0	2	8	0	10	2	126	2	0	130	2	1	2	0	5	295	
Peak Hour																							
12:40 - 13:40		5	508	0	0	513	3	5	21	0	29	30	473	4	0	507	8	1	5	0	14	1063	
PHF		0.63	0.85	#####		0.86	0.38	0.63	0.66		0.73	0.68	0.89	0.50		0.91	0.67	0.25	0.63		0.70	0.90	
Truck %		20.0%	17.9%	#####		17.9%	0.0%	0.0%	4.8%		3.4%	6.7%	14.8%	25.0%		14.4%	0.0%	0.0%	0.0%		0.0%	15.6%	

Evening Interval		Miovision Cameras										sunny					Thursday, 05 March 2020						
Begin	End	SBR	SBT	SBL	Ped	Total	WBR	WBT	WBL	Ped	Total	NBR	NBT	NBL	Ped	Total	EBR	EBT	EBL	Ped	Total	All Total	
14:00 - 14:15		2	137	0	0	139	1	1	10	0	12	5	139	0	0	144						295	
14:15 - 14:30		0	134	4	0	138	1	0	4	0	5	8	143	1	0	152	1	1	4	0	6	301	
14:30 - 14:45		2	130	1	0	133	0	0	9	0	9	13	175	0	0	188	1	0	2	0	3	333	
14:45 - 15:00		2	151	1	0	154	0	0	3	0	3	14	166	1	0	181						338	
Total		6	552	6		564	2	1	26		29	40	623	2		665	2	1	6		9	1267	
15:00 - 15:15		1	130	0	0	131	0	0	4	0	4	23	204	1	0	228	1	1	2	0	4	367	
15:15 - 15:30		2	138	1	0	141	1	2	7	0	10	16	180	0	0	196	1	0	4	0	5	352	
15:30 - 15:45		2	127	1	0	130	2	0	7	0	9	22	217	0	0	239	1	0	2	0	3	381	
15:45 - 16:00		0	147	0	0	147	2	1	6	0	9	23	261	0	0	284	2	0	1	0	3	443	
Total		5	542	2		549	5	3	24		32	84	862	1		947	5	1	9		15	1543	
16:00 - 16:15		1	145	1	0	147	2	1	4	0	7	24	250	3	0	277	1	3	1	0	5	436	
16:15 - 16:30		0	144	0	0	144	0	0	5	0	5	20	232	1	0	253	0	1	0	0	1	403	
16:30 - 16:45		2	129	1	0	132	1	1	7	0	9	27	260	1	0	288	2	0	0	0	2	431	
16:45 - 17:00		2	145	0	0	147	0	1	4	0	5	32	266	1	0	299	3	1	1	0	5	456	
Total		5	563	2		570	3	3	20		26	103	1008	6		1117	6	5	2		13	1726	
17:00 - 17:15		3	132	0	0	135	0	0	2	0	2	24	224	1	0	249	0	3	1	0	4	390	
17:15 - 17:30		2	148	0	0	150	0	0	15	0	15	17	225	0	0	242	2	0	1	0	3	410	
17:30 - 17:45		2	152	2	0	156	0	0	6	0	6	16	230	2	0	248	1	0	0	0	1	411	
17:45 - 18:00		1	161	0	0	162	0	0	2	0	2	24	241	0	0	265	2	0	1	0	3	432	
Total		8	593	2		603			25		25	81	920	3		1004	5	3	3		11	1643	
Peak 15 Min.																							
16:35 - 16:50		1	141	0	0	142	1	1	4	0	6	40	270	1	0	311	1	1	0	0	2	461	
Peak Hour																							
15:50 - 16:50		3	569	2	0	574	5	4	20	0	29	103	1007	5	0	1115	5	5	2	0	12	1730	
PHF		0.38	0.89	0.50		0.90	0.63	1.00	0.50		0.60	0.64	0.93	0.42		0.90	0.63	0.42	0.50		0.60	0.94	
Truck %		0.0%	9.7%	0.0%		9.6%	0.0%	0.0%	10.0%		6.9%	2.9%	4.8%	20.0%		4.7%	20.0%	0.0%	0.0%		8.3%	6.4%	

12 hour truck % and Total Pedestrian	6.5%	12.1%	5.0%	2	12.0%	4.8%	6.1%	2.8%	2	3.1%	3.7%	11.5%	9.8%	3	11.0%	12.5%	3.0%	4.7%	2	6.9%	11.2%
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03-SUT-099 PM R17.489 / Wilson Rd
Yuba City, CA

AM Overnight		Miovision Cameras										dark					Thursday, 05 March 2020						
Begin	End	SBR	SBT	SBL	Ped	Total	WBR	WBT	WBL	Ped	Total	NBR	NBT	NBL	Ped	Total	EBR	EBT	EBL	Ped	Total	All Total	
18:00 - 18:15		3	127	0	0	130	2	0	5	0	7	21	238	1	0	260	1	1	0	0	2	399	
18:15 - 18:30		1	116	0	0	117	0	0	4	0	4	12	188	2	0	202						323	
18:30 - 18:45		2	87	1	0	90	0	1	4	0	5	9	167	0	0	176	0	1	1	0	2	273	
18:45 - 19:00		1	93	0	0	94	0	1	3	0	4	17	159	2	0	178	0	0	2	0	2	278	
Total		7	423	1		431	2	2	16		20	59	752	5		816	1	2	3		6	1273	
19:00 - 19:15		0	75	0	0	75	0	1	2	0	3	4	116	1	0	121	0	0	2	0	2	201	
19:15 - 19:30		1	64	0	0	65	0	0	2	0	2	6	115	0	0	121						188	
19:30 - 19:45		1	62	0	0	63	0	0	3	0	3	8	114	0	0	122	0	0	1	0	1	189	
19:45 - 20:00		0	68	0	0	68	0	0	3	0	3	3	94	0	0	97						168	
Total		2	269			271		1	10		11	21	439	1		461			3		3	746	
20:00 - 20:15		0	64	0	0	64						5	83	1	0	89						153	
20:15 - 20:30		2	55	0	0	57	0	0	3	0	3	2	108	1	0	111						171	
20:30 - 20:45		2	58	0	0	60	0	0	1	0	1	3	72	1	0	76	0	1	1	0	2	139	
20:45 - 21:00		0	42	0	0	42	0	1	1	0	2	4	75	0	0	79						123	
Total		4	219			223		1	5		6	14	338	3		355		1	1		2	586	
21:00 - 21:15																							
21:15 - 21:30																							
21:30 - 21:45																							
21:45 - 22:00																							
Total																							
22:00 - 22:15																							
22:15 - 22:30																							
22:30 - 22:45																							
22:45 - 23:00																							
Total																							
23:00 - 23:15																							
23:15 - 23:30																							
23:30 - 23:45																							
23:45 - 6:00																							
Total																							
Peak 15 Min.																							
18:00 - 18:15		3	127	0	0	130	2	0	5	0	7	21	238	1	0	260	1	1	0	0	2	399	
Peak Hour																							
18:00 - 19:00		7	423	1	0	431	2	2	16	0	20	59	752	5	0	816	1	2	3	0	6	1273	
PHF		0.58	0.82	0.25		0.83	0.25	0.25	0.80		0.71	0.70	0.79	0.63		0.78	0.25	0.50	0.25		0.50	0.80	
Truck %		14.3%	8.3%	0.0%		8.4%	0.0%	0.0%	0.0%			0.0%	0.0%	5.2%		20.0%		4.9%	0.0%		0.0%	33.3%	









PM Overnight	Miovision Cameras										dark					Tuesday, 24 September 2019					
Begin End	SBR	SBT	SBL	Ped	Total	WBR	WBT	WBL	Ped	Total	NBR	NBT	NBL	Ped	Total	EBR	EBT	EBL	Ped	Total	All Total
18:00 - 18:15																					
18:15 - 18:30																					
18:30 - 18:45																					
18:45 - 19:00																					
Total																					
19:00 - 19:15																					
19:15 - 19:30																					
19:30 - 19:45																					
19:45 - 20:00																					
Total																					
20:00 - 20:15																					
20:15 - 20:30																					
20:30 - 20:45																					
20:45 - 21:00																					
Total																					
21:00 - 21:15																					
21:15 - 21:30																					
21:30 - 21:45																					
21:45 - 22:00																					
Total																					
22:00 - 22:15																					
22:15 - 22:30																					
22:30 - 22:45																					
22:45 - 23:00																					
Total																					
23:00 - 23:15																					
23:15 - 23:30																					
23:30 - 23:45																					
23:45 - 0:00																					
Total																					
Peak 15 Min.																					
0:00 - 0:15	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
Peak Hour																					
0:00 - 1:00	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
PHF	0.00	0.00	0.00		0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00		0.00	0.00
Truck %	0.0%	0.0%	0.0%		0.0%	0.0%	0.0%	0.0%		0.0%	0.0%	0.0%	0.0%		0.0%	0.0%	0.0%	0.0%		0.0%	0.0%

12 hour truck % and
Total Pedestrian

15.4%	8.2%	0.0%	0	8.3%	0.0%	0.0%	0.0%	0	0.0%	0.0%	4.6%	11.1%	0	4.4%	0.0%	0.0%	28.6%	0	18.2%	5.8%
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Queues
1: WILSON RD & CA-99

AM EXISTING
05/18/2020























								
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBT
Lane Group Flow (vph)	5	7	92	5	2	362	19	1146
v/c Ratio	0.01	0.02	0.10	0.01	0.01	0.22	0.02	0.63
Control Delay	25.6	22.2	22.3	25.8	26.0	7.9	0.1	14.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	25.6	22.2	22.3	25.8	26.0	7.9	0.1	14.7
Queue Length 50th (ft)	1	1	7	1	0	25	0	107
Queue Length 95th (ft)	14	15	50	14	8	70	0	388
Internal Link Dist (ft)		375		1333		1836		3159
Turn Bay Length (ft)			260		400		600	
Base Capacity (vph)	966	911	1874	1090	459	2710	1426	3168
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.01	0.01	0.05	0.00	0.00	0.13	0.01	0.36
Intersection Summary								

HCM 6th Signalized Intersection Summary

1: WILSON RD & CA-99

AM EXISTING

05/18/2020

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	5	3	4	84	4	1	2	329	17	0	1039	4
Future Volume (veh/h)	5	3	4	84	4	1	2	329	17	0	1039	4
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1159	1544	1811	1870	1811	1811
Adj Flow Rate, veh/h	5	3	4	92	4	1	2	362	19	0	1142	4
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	2	2	2	2	2	2	50	24	6	2	6	6
Cap, veh/h	24	24	32	470	225	56	6	1389	727	3	1269	4
Arrive On Green	0.01	0.03	0.03	0.14	0.16	0.16	0.01	0.47	0.47	0.00	0.36	0.36
Sat Flow, veh/h	1781	727	969	3456	1444	361	1104	2934	1535	1781	3517	12
Grp Volume(v), veh/h	5	0	7	92	0	5	2	362	19	0	559	587
Grp Sat Flow(s),veh/h/ln	1781	0	1696	1728	0	1805	1104	1467	1535	1781	1721	1809
Q Serve(g_s), s	0.2	0.0	0.2	1.3	0.0	0.1	0.1	4.1	0.4	0.0	17.2	17.2
Cycle Q Clear(g_c), s	0.2	0.0	0.2	1.3	0.0	0.1	0.1	4.1	0.4	0.0	17.2	17.2
Prop In Lane	1.00		0.57	1.00		0.20	1.00		1.00	1.00		0.01
Lane Grp Cap(c), veh/h	24	0	56	470	0	281	6	1389	727	3	621	653
V/C Ratio(X)	0.21	0.00	0.12	0.20	0.00	0.02	0.33	0.26	0.03	0.00	0.90	0.90
Avail Cap(c_a), veh/h	637	0	697	1235	0	742	276	3251	1700	446	1906	2004
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	27.3	0.0	26.3	21.5	0.0	20.0	27.7	8.8	7.9	0.0	16.9	16.9
Incr Delay (d2), s/veh	1.6	0.0	0.4	0.1	0.0	0.0	11.4	0.0	0.0	0.0	2.0	1.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	0.0	0.1	0.5	0.0	0.0	0.0	0.9	0.1	0.0	5.2	5.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	28.9	0.0	26.6	21.5	0.0	20.0	39.1	8.9	7.9	0.0	18.9	18.8
LnGrp LOS	C	A	C	C	A	C	D	A	A	A	B	B
Approach Vol, veh/h	12			97			383			1146		
Approach Delay, s/veh	27.6			21.5			9.0			18.9		
Approach LOS	C			C			A			B		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	0.0	34.5	12.6	8.9	6.3	28.2	5.7	15.7				
Change Period (Y+Rc), s	* 6	8.0	* 5	7.0	* 6	8.0	* 5	7.0				
Max Green Setting (Gmax), s	* 14	62.0	* 20	23.0	* 14	62.0	* 20	23.0				
Max Q Clear Time (g_c+I1), s	0.0	6.1	3.3	2.2	2.1	19.2	2.2	2.1				
Green Ext Time (p_c), s	0.0	0.4	0.0	0.0	0.0	1.0	0.0	0.0				

Intersection Summary

HCM 6th Ctrl Delay 16.8

HCM 6th LOS B

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Queues
1: WILSON RD & CA-99

PM EXISTING
05/18/2020

























Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	2	10	21	9	5	1071	110	2	608
v/c Ratio	0.00	0.01	0.01	0.01	0.01	0.35	0.08	0.00	0.21
Control Delay	21.5	18.4	19.2	18.0	20.8	7.1	2.8	21.5	6.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	21.5	18.4	19.2	18.0	20.8	7.1	2.8	21.5	6.0
Queue Length 50th (ft)	0	0	1	0	0	0	0	0	0
Queue Length 95th (ft)	8	19	17	17	13	353	30	8	178
Internal Link Dist (ft)		375		1333		1836			3159
Turn Bay Length (ft)			260		400		600	400	
Base Capacity (vph)	1397	1336	2512	1441	960	3221	1476	1130	3073
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.00	0.01	0.01	0.01	0.01	0.33	0.07	0.00	0.20
Intersection Summary									

HCM 6th Signalized Intersection Summary

1: WILSON RD & CA-99

PM EXISTING

05/18/2020

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	2	5	5	20	4	5	5	1007	103	2	569	3
Future Volume (veh/h)	2	5	5	20	4	5	5	1007	103	2	569	3
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1752	1870	1870	1604	1826	1856	1870	1752	1752
Adj Flow Rate, veh/h	2	5	5	21	4	5	5	1071	110	2	605	3
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	10	2	2	20	5	3	2	10	10
Cap, veh/h	10	35	35	165	65	81	21	1241	563	10	1188	6
Arrive On Green	0.01	0.04	0.04	0.05	0.09	0.09	0.01	0.36	0.36	0.01	0.35	0.35
Sat Flow, veh/h	1781	858	858	3237	756	945	1527	3469	1572	1781	3396	17
Grp Volume(v), veh/h	2	0	10	21	0	9	5	1071	110	2	296	312
Grp Sat Flow(s),veh/h/ln	1781	0	1716	1618	0	1700	1527	1735	1572	1781	1664	1749
Q Serve(g_s), s	0.1	0.0	0.3	0.3	0.0	0.2	0.2	13.7	2.3	0.1	6.7	6.7
Cycle Q Clear(g_c), s	0.1	0.0	0.3	0.3	0.0	0.2	0.2	13.7	2.3	0.1	6.7	6.7
Prop In Lane	1.00		0.50	1.00		0.56	1.00		1.00	1.00		0.01
Lane Grp Cap(c), veh/h	10	0	70	165	0	147	21	1241	563	10	582	612
V/C Ratio(X)	0.20	0.00	0.14	0.13	0.00	0.06	0.24	0.86	0.20	0.20	0.51	0.51
Avail Cap(c_a), veh/h	747	0	827	1357	0	820	448	4509	2044	523	2163	2273
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	23.6	0.0	22.1	21.6	0.0	20.0	23.3	14.2	10.6	23.6	12.3	12.3
Incr Delay (d2), s/veh	3.8	0.0	0.3	0.1	0.0	0.1	2.2	0.7	0.1	3.8	0.3	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	0.1	0.1	0.0	0.1	0.1	3.6	0.6	0.0	1.7	1.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	27.4	0.0	22.4	21.8	0.0	20.1	25.5	15.0	10.6	27.4	12.5	12.5
LnGrp LOS	C	A	C	C	A	C	C	B	B	C	B	B
Approach Vol, veh/h	12				30				1186			
Approach Delay, s/veh	23.2				21.3				14.6			
Approach LOS	C				C				B			
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	6.3	25.1	7.4	8.9	6.6	24.7	5.3	11.1				
Change Period (Y+Rc), s	* 6	8.0	* 5	7.0	* 6	8.0	* 5	7.0				
Max Green Setting (Gmax), s	* 14	62.0	* 20	23.0	* 14	62.0	* 20	23.0				
Max Q Clear Time (g_c+I1), s	2.1	15.7	2.3	2.3	2.2	8.7	2.1	2.2				
Green Ext Time (p_c), s	0.0	1.4	0.0	0.0	0.0	0.5	0.0	0.0				

Intersection Summary

HCM 6th Ctrl Delay 14.1

HCM 6th LOS B

Notes

User approved pedestrian interval to be less than phase max green.

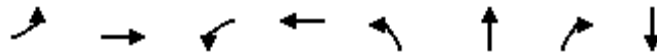
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Queues

AM EX PLUS PROJ

05/19/2020

1: WILSON RD & CA-99

























Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBT
Lane Group Flow (vph)	15	19	92	10	11	362	19	1155
v/c Ratio	0.05	0.09	0.11	0.02	0.03	0.22	0.02	0.63
Control Delay	31.6	22.4	27.7	27.9	31.1	8.8	0.1	15.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	31.6	22.4	27.7	27.9	31.1	8.8	0.1	15.8
Queue Length 50th (ft)	2	1	7	2	2	25	0	108
Queue Length 95th (ft)	28	25	50	21	23	70	0	392
Internal Link Dist (ft)		375		1333		1836		3159
Turn Bay Length (ft)			260		400		600	
Base Capacity (vph)	548	562	1711	1011	572	2617	1381	3057
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.03	0.03	0.05	0.01	0.02	0.14	0.01	0.38
Intersection Summary								

HCM 6th Signalized Intersection Summary

1: WILSON RD & CA-99

AM EX PLUS PROJ

05/19/2020

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	14	5	13	84	8	1	10	329	17	0	1039	12
Future Volume (veh/h)	14	5	13	84	8	1	10	329	17	0	1039	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	952	1307	1307	1870	1870	1870	1752	1544	1811	1870	1811	1811
Adj Flow Rate, veh/h	15	5	14	92	9	1	11	362	19	0	1142	13
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	64	40	40	2	2	2	10	24	6	2	6	6
Cap, veh/h	33	21	58	441	263	29	46	1420	743	3	1255	14
Arrive On Green	0.04	0.07	0.07	0.13	0.16	0.16	0.03	0.48	0.48	0.00	0.36	0.36
Sat Flow, veh/h	906	304	850	3456	1654	184	1668	2934	1535	1781	3485	40
Grp Volume(v), veh/h	15	0	19	92	0	10	11	362	19	0	564	591
Grp Sat Flow(s),veh/h/ln	906	0	1154	1728	0	1837	1668	1467	1535	1781	1721	1804
Q Serve(g_s), s	1.0	0.0	1.0	1.5	0.0	0.3	0.4	4.5	0.4	0.0	19.5	19.5
Cycle Q Clear(g_c), s	1.0	0.0	1.0	1.5	0.0	0.3	0.4	4.5	0.4	0.0	19.5	19.5
Prop In Lane	1.00		0.74	1.00		0.10	1.00		1.00	1.00		0.02
Lane Grp Cap(c), veh/h	33	0	79	441	0	293	46	1420	743	3	620	650
V/C Ratio(X)	0.45	0.00	0.24	0.21	0.00	0.03	0.24	0.25	0.03	0.00	0.91	0.91
Avail Cap(c_a), veh/h	290	0	425	1106	0	676	374	2911	1523	399	1707	1790
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	29.5	0.0	27.6	24.4	0.0	22.2	29.7	9.5	8.4	0.0	19.0	19.0
Incr Delay (d2), s/veh	3.5	0.0	0.6	0.1	0.0	0.0	1.0	0.0	0.0	0.0	2.2	2.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	0.0	0.3	0.6	0.0	0.1	0.2	1.0	0.1	0.0	6.3	6.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	33.0	0.0	28.1	24.5	0.0	22.2	30.7	9.5	8.4	0.0	21.3	21.2
LnGrp LOS	C	A	C	C	A	C	C	A	A	A	C	C
Approach Vol, veh/h	34			102			392			1155		
Approach Delay, s/veh	30.3			24.3			10.1			21.2		
Approach LOS	C			C			B			C		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	0.0	38.2	13.0	11.3	7.7	30.5	7.3	17.0				
Change Period (Y+Rc), s	* 6	8.0	* 5	7.0	* 6	8.0	* 5	7.0				
Max Green Setting (Gmax), s	* 14	62.0	* 20	23.0	* 14	62.0	* 20	23.0				
Max Q Clear Time (g_c+I1), s	0.0	6.5	3.5	3.0	2.4	21.5	3.0	2.3				
Green Ext Time (p_c), s	0.0	0.4	0.0	0.0	0.0	1.0	0.0	0.0				

Intersection Summary

HCM 6th Ctrl Delay 19.0

HCM 6th LOS B

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Queues

1: WILSON RD & CA-99

PM EX PLUS PROJ

05/19/2020

























Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	11	24	21	11	15	1071	110	2	618
v/c Ratio	0.01	0.04	0.01	0.02	0.04	0.40	0.09	0.00	0.24
Control Delay	24.5	19.0	23.6	22.1	24.6	9.3	3.3	25.5	7.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	24.5	19.0	23.6	22.1	24.6	9.3	3.3	25.5	7.9
Queue Length 50th (ft)	1	1	1	1	1	0	0	0	0
Queue Length 95th (ft)	22	30	17	20	27	353	30	8	182
Internal Link Dist (ft)		375		1333		1836			3159
Turn Bay Length (ft)			260		400		600	400	
Base Capacity (vph)	1180	1164	2122	1054	583	3221	1476	978	3028
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.01	0.02	0.01	0.01	0.03	0.33	0.07	0.00	0.20
Intersection Summary									

HCM 6th Signalized Intersection Summary

1: WILSON RD & CA-99

PM EX PLUS PROJ

05/19/2020

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	10	9	13	20	6	5	14	1007	103	2	569	12
Future Volume (veh/h)	10	9	13	20	6	5	14	1007	103	2	569	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1752	1411	1411	848	1826	1856	1870	1752	1752
Adj Flow Rate, veh/h	11	10	14	21	6	5	15	1071	110	2	605	13
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	10	33	33	71	5	3	2	10	10
Cap, veh/h	50	53	74	163	69	58	30	1231	558	10	1076	23
Arrive On Green	0.03	0.08	0.08	0.05	0.10	0.10	0.04	0.35	0.35	0.01	0.32	0.32
Sat Flow, veh/h	1781	705	987	3237	711	593	807	3469	1572	1781	3332	72
Grp Volume(v), veh/h	11	0	24	21	0	11	15	1071	110	2	302	316
Grp Sat Flow(s),veh/h/ln	1781	0	1693	1618	0	1304	807	1735	1572	1781	1664	1739
Q Serve(g_s), s	0.3	0.0	0.7	0.3	0.0	0.4	0.9	14.6	2.5	0.1	7.6	7.6
Cycle Q Clear(g_c), s	0.3	0.0	0.7	0.3	0.0	0.4	0.9	14.6	2.5	0.1	7.6	7.6
Prop In Lane	1.00		0.58	1.00		0.45	1.00		1.00	1.00		0.04
Lane Grp Cap(c), veh/h	50	0	127	163	0	127	30	1231	558	10	537	561
V/C Ratio(X)	0.22	0.00	0.19	0.13	0.00	0.09	0.49	0.87	0.20	0.20	0.56	0.56
Avail Cap(c_a), veh/h	704	0	769	1279	0	593	223	4250	1926	493	2039	2130
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	24.0	0.0	21.9	23.0	0.0	20.8	23.9	15.2	11.3	25.1	14.2	14.2
Incr Delay (d2), s/veh	0.8	0.0	0.3	0.1	0.0	0.1	4.6	0.8	0.1	3.8	0.3	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	0.0	0.2	0.1	0.0	0.1	0.2	4.0	0.7	0.0	2.1	2.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	24.8	0.0	22.2	23.1	0.0	20.9	28.4	16.0	11.4	28.8	14.5	14.5
LnGrp LOS	C	A	C	C	A	C	C	B	B	C	B	B
Approach Vol, veh/h	35				32				1196			
Approach Delay, s/veh	23.0				22.3				15.7			
Approach LOS	C				C				B			
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	6.3	26.0	7.6	10.8	7.9	24.3	6.4	11.9				
Change Period (Y+Rc), s	* 6	8.0	* 5	7.0	* 6	8.0	* 5	7.0				
Max Green Setting (Gmax), s	* 14	62.0	* 20	23.0	* 14	62.0	* 20	23.0				
Max Q Clear Time (g_c+I1), s	2.1	16.6	2.3	2.7	2.9	9.6	2.3	2.4				
Green Ext Time (p_c), s	0.0	1.4	0.0	0.0	0.0	0.5	0.0	0.0				

Intersection Summary

HCM 6th Ctrl Delay 15.6

HCM 6th LOS B

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

