



**TOWN OF WINDSOR  
JAGUAR WAY EXTENSION PROJECT**

ENVIRONMENTAL CHECKLIST AND INITIAL STUDY  
MITIGATED NEGATIVE DECLARATION

PREPARED BY:



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SANTA ROSA, CA 95404

**MAY 2020**

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**TOWN OF WINDSOR JAGUAR WAY EXTENSION PROJECT**  
**CEQA ENVIRONMENTAL CHECKLIST AND INITIAL STUDY**

|   |  |
|---|--|
| Project Title:  | Jaguar Way Extension Project   |
| Lead agency name and address:   | Town of Windsor<br>8400 Windsor Road Bldg. 100, Windsor, CA 95492  |
| Contact person and phone number:  | Alejandro Perez, Senior Civil Engineer<br>(707) 838-5318   |
| Project Location:   | Jaguar Way between Starr Road on the west and Windsor Road on the east, Town of Windsor Sonoma County, CA<br>(APNs: 066-180-060, 066-180-064, 164-030-052, 164-440-006, 164-440-005, and 066-180-GAP)  |
| Project sponsor's name and address:   | Town of Windsor<br>9291 Old Redwood Highway, Windsor, CA 95492   |
| Property Owners:  | Town of Windsor and Windsor Unified School District  |
| General Plan Designation and Zoning:  | N/A (Public Right of Way)  |
| Description of project:   | The Jaguar Way Extension Project (Project) consists of an approximately 0.5 mile-long roadway extending between Starr Road on the west and Windsor Road on the east, including an overcrossing of Starr Creek. Jaguar Way Extension would provide two vehicle travel lanes (one in each direction), multi-modal access for pedestrian and bicycles, and connectivity to existing and planned uses along Jaguar Way.  |
| Surrounding land uses and setting; briefly describe the project's surroundings:   | The project site is situated north of Windsor High School and south of Keiser Park. The western portion of the project site bisects Starr Creek. The existing Starr Creek Park is located south of the proposed roadway, east of Starr Creek. Existing single-family residential homes are located north and south of the proposed roadway, adjacent to Starr Road towards the western limit of the project area, and north of the proposed roadway, just west of Windsor Drive. Downtown Windsor is approximately 0.25 miles to the northeast and Highway 101 is approximately 0.5 miles to the west. |
| Other public agencies whose approval is required (e.g. permits, financial approval, or participation agreements):   | California Department of Fish and Wildlife (CDFW), Regional Water Quality Control Board (RWQCB), Sonoma Water (SW), Army Corps of Engineers (USACE), U.S. Fish and Wildlife Service (USFWS).   |
| 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, has consultation begun? | Cloverdale Rancheria of Pomo Indians, Middletown Rancheria, Federated Indians of Graton Rancheria (FIGR), Kashia Band of Pomo Indians of Stewarts Point, Dry Creek Rancheria Band of Pomo Indians, Mishewal-Wappo Tribe of Alexander Valley, and Lytton Rancheria of California were notified on February 8, 2018. Although other Tribes responded to the notice, only FIGR requested consultation, which was completed in 2018.   |

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**LIST OF ACCRONYMS**

|            |   |
|------------|---|
| ABAG       | ASSOCIATION OF BAY AREA GOVERNMENTS                       |
| ALUC       | AIRPORT LAND USE COMMISSION                               |
| APN        | ASSESSOR PARCEL NUMBER                                    |
| CEC        | CALIFORNIA ENERGY COMMISSION                              |
| CAL FIRE   | CALIFORNIA DEPARTMENT OF FORESTRY AND FIRE PROTECTION     |
| CALRECYCLE | CALIFORNIA DEPARTMENT OF RESOURCES RECYCLING AND RECOVERY |
| CALTRANS   | CALIFORNIA DEPARTMENT OF TRANSPORTATION                   |
| CALUP      | COMPREHENSIVE AIRPORT LAND USE PLAN                       |
| CARB       | CALIFORNIA AIR RESOURCES BOARD                            |
| CDFW       | CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE                |
| CEQA       | CALIFORNIA ENVIRONMENTAL QUALITY ACT                      |
| CESA       | CALIFORNIA ENDANGERED SPECIES ACT                         |
| CNDDDB     | CALIFORNIA NATURAL DIVERSITY DATA BASE                    |
| CUPA       | CERTIFIED UNIFIED PROGRAM AGENCY                          |
| DTSC       | (CALIFORNIA) DEPARTMENT OF TOXIC SUBSTANCES CONTROL       |
| EIR        | ENVIRONMENTAL IMPACT REPORT                               |
| FESA       | FEDERAL ENDANGERED SPECIES ACT                            |
| GHG        | GREENHOUSE GASES  |
| LUST       | LEAKING UNDERGROUND STORAGE TANK                          |
| MBTA       | MIGRATORY BIRD TREATY ACT                                 |
| MGD        | MILLION GALLONS PER DAY                                   |
| MND        | MITIGATED NEGATIVE DECLARATION                            |
| NPDES      | NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM           |
| PG&E       | PACIFIC GAS & ELECTRIC                                    |
| RWQCB      | REGIONAL WATER QUALITY CONTROL BOARD                      |
| SMART      | SONOMA-MARIN AREA RAIL TRANSIT                            |
| UGB        | URBAN GROWTH BOUNDARY U.S. UNITED STATES                  |
| USACE      | U.S. ARMY CORPS OF ENGINEERS                              |
| USFWS      | U.S. FISH AND WILDLIFE SERVICE                            |
| USGS       | U.S. GEOLOGICAL SURVEY                                    |
| SCFD       | SONOMA COUNTY FIRE DISTRICT                               |
| WUSD       | WINDSOR UNIFIED SCHOOL DISTRICT                           |

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## **1. INTRODUCTION, BACKGROUND, AND PROJECT DESCRIPTION**

This Initial Study/Mitigated Negative Declaration (IS/MND) has been prepared by the Town of Windsor for the proposed Jaguar Way Extension Project (Project) in full accordance with the procedural and substantive requirements of California Environmental Quality Act (CEQA) and the CEQA Guidelines.

### **Legal Authority**

CEQA Guidelines Section 15063(c) lists the following purposes of an Initial Study:

1. Provide the Lead Agency with information to use as the basis for deciding whether to prepare an Environmental Impact Report (EIR) or a Negative Declaration.
2. Enable an Applicant or Lead Agency to modify a project, mitigating adverse impacts before an EIR is prepared, thereby possibly enabling the project to qualify for a Negative Declaration.
3. Assist in the preparation of an EIR, if one is required.
4. Facilitate environmental assessment early in the design of a project.
5. Provide documentation of the factual basis for the finding in a Negative Declaration that a project will not have a significant effect on the environment.
6. Eliminate unnecessary EIRs.
7. Determine whether a previously prepared EIR could be used with the project.

Section 21080(a) of the California Public Resources Code states that analysis of a project's environmental impact is required for any "discretionary projects proposed to be carried out or approved by public agencies." The Town of Windsor, as the lead agency, has conducted an Initial Study to determine whether there is substantial evidence that implementing the Jaguar Way Extension Project (Project) would result in significant environmental impacts.

Section 15070 of CEQA provides that a lead agency may prepare a mitigated negative declaration as follows:

1. The Initial Study shows that there is no substantial evidence that the project may have a significant effect on the environment; or
2. The Initial Study identified potentially significant effects, however mitigation measures would reduce impacts to a less than significant level.

### **Summary of Findings**

As presented herein, mitigation measures are identified that avoid, reduce, or offset potentially significant adverse environmental impact of the project. As the lead agency, the Town of Windsor has determined that with implementation of mitigation measures, the Jaguar Way Extension Project would have less than significant environmental impacts. Therefore, an IS/MND has been prepared for the Project and no further environmental review is required by CEQA.

### **Purpose and Intent**

The main purpose of this IS/MND is to analyze and disclose the environmental impacts associated the proposed Jaguar Way Extension Project. The Project is considered relative to the policies and programs set forth in the Town of Windsor's General Plan and EIR, as well as regional, state and federal regulations.

This IS/MND is intended to inform decision-makers, responsible agencies, interested parties and the general public of the proposed Project and its potential environmental effects. This IS/MND provides the CEQA-

required environmental documentation for local, regional, state and federal approvals or permits that might be required to undertake development of the Jaguar Way Extension Project.

### **1.1. DOCUMENTS INCORPORATED BY REFERENCE**

Section 15150 of the CEQA Guidelines encourages incorporation by reference of previous environmental documents that are readily available to the public. Incorporation by reference is a necessary device for reducing the size of an IS/MND and to eliminate the need for the inclusion and repetition of copious technical and other background information into an IS/MND. Of particular relevance are the following documents, all of which are hereby incorporated by reference into this IS/MND as if they were published herein. The relevant information and/or analysis that has been incorporated by reference into this IS/MND has been summarized. The environmental documents are available for public review at the Town of Windsor, Town Clerk's Office, 9291 Old Redwood Highway, Windsor, CA 95492 and/or online at the following link: <https://www.townofwindsor.com/1229/Project-Updates> or as otherwise indicated.

### **Windsor 2040 General Plan and EIR**

The Windsor General Plan identifies the Town's vision for the future and provides a framework that will guide decisions on growth, development, and conservation of natural resources and agriculture in a manner consistent with the quality of life desired by the Town's residents and businesses. To ensure that this desired vision is realized, the General Plan has been designed to be internally consistent and cross-referenced with other documents, including the Town's Zoning Ordinance.

The Town of Windsor 2040 General Plan EIR reviewed potentially significant environmental effects resulting from plan implementation and developed measures and policies to mitigate impacts. Nonetheless, significant and unavoidable impacts were determined to occur under the General Plan. Therefore, the Town adopted a statement of overriding considerations, which balance the merits of approving the plan despite the significant environmental effects. The effects identified as significant and unavoidable in the General Plan EIR are:

- Conversion of active agricultural land to non-agricultural land uses.
- Increases in traffic at certain locations, which have the potential to cause queuing beyond acceptable levels at certain intersections, resulting in traffic related hazards.

### **Tiering – 2040 General Plan EIR**

Because CEQA discourages "repetitive discussions of the same issues" (CEQA Guidelines §15152(b)) and allows limiting discussion of a later project that is consistent with a prior plan to impacts which were not examined as significant effects in a prior EIR or to significant effects which could be reduced by revisions in the later project (CEQA Guidelines §15152(d)), no additional benefit to the environment or public purpose would be served by preparing an EIR merely to restate the analysis and the significant and unavoidable effects found to remain after adoption of all General Plan policies/mitigation measures. All General Plan policies adopted as mitigation apply to the project analyzed herein.

This environmental document tiers off the Windsor 2040 General Plan EIR (SCH No. 2016112065) to examine specific environmental impacts of the proposed project.

### **Windsor Station Area/Downtown Specific Plan and EIR**

The Station Area Plan envisions the Town of Windsor's downtown area around diverse mixed-use and transit-oriented development land uses that support and benefit from the future SMART train station. The Plan's primary objectives are to improve and expand transit ridership and connectivity, walkability and urban design standards, community vision and education regarding transit-oriented development, and to comprehensively facilitate subsequent environmental review for future action envisioned by the Plan. The Town certified the

EIR (SCH# 2011032010), adopted the Specific Plan in 2012 and approved an amendment to the Plan in 2013. The planning area identified by the Station Area Plan encompasses a 0.5-mile radius from the future SMART train station, located approximately 100 feet northwest of the intersection of Windsor River Road and Windsor Road. The proposed Jaguar Way Extension is located within the Planning Area of the Windsor Station Area/Downtown Specific Plan.

### **Town of Windsor Bike and Pedestrian Master Plan**

In 2014 the Town of Windsor adopted the Windsor Bicycle and Pedestrian Master Plan prepared by the Sonoma County Transportation Authority (SCTA). The Master Plan identifies a system of future trails and bikeways as a stand-alone component of the SCTA's 2008 Countywide Bicycle and Pedestrian Master Plan to guide local projects and programs in Windsor. The Countywide Bicycle and Pedestrian Master Plan's principal goal is to develop and maintain a countywide bicycle and pedestrian transportation system, including projects, programs, and policies that coordinate safe and efficient opportunities for the transportation system. Locally, the Town of Windsor Bike and Pedestrian Master Plan implements this goal by proposing:

- An improved bikeway network through the Town and to neighboring jurisdictions, with over 22 miles of Class I, Class II and Class III bikeways proposed in Windsor.
- Pedestrian improvements focused on crossing enhancements at arterial intersections, and crossings at trail intersections and adjacent to popular destinations, signalized intersections lacking adequate pedestrian facilities, and freeway undercrossings.
- Connecting sidewalk gaps in identified corridors and across identified creeks along Old Redwood Highway.
- A pedestrian district where areas that experience frequent pedestrian activity are improved with additional pedestrian facilities and amenities.

The proposed Jaguar Way Extension Project incorporates multi-modal access and is subject to the Town's Bike and Pedestrian Master Plan.

### **Parks and Recreation Master Plan/Keiser Park Master Plan and EIR**

Windsor Town Council approved a Parks and Recreation Master Plan in 1999, which identified Keiser Park as a priority for expansion and improvement. In 2000, Council adopted a master plan for Keiser Park. Following adoption of the Keiser Park Master Plan, the Town acquired two parcels for expansion of the park, identified the Park as a preferred location for a future pool facility, and updated the master plan to include these changes. In 2009 the Town certified the Environmental Impact Report (EIR) for the Keiser Park Master Plan (SCH #200032102).

Phase 1 of the Keiser Park Master Plan was completed in 2011 and included 14 acres of parkland improvements consisting of a new playground a picnic area, three ball fields, a restroom and concession building, a storage building, pathways and trails, parking bays, landscape planting, recycled water main, and the Keiser Park portion of the west truck sewer line. Future improvements analyzed by the Keiser Park Master Plan EIR included a Community Center and an Aquatic Center with two swimming pools, a recreation center, and additional parking spaces with access from the proposed Jaguar Way extension, and other improvements, such as lighting for the large ball field, creek bank stabilization, and landscaping.

In 2017, the Town of Windsor updated the Parks and Recreation Master Plan and adopted a Mitigated Negative Declaration (MND) (SCH #2017042037). The updated Plan intends to protect and expand the Town's network of parks, facilities, and recreational services through year 2030. It identifies Keiser Park as the hub of Windsor's park and recreation system. The Park and Recreation Master Plan MND analyzes future Keiser Park improvements at a programmatic level.

## **Sonoma County Comprehensive Airport Land Use Plan**

On March 14, 2016, the Sonoma County Airport Land Use Commission (ALUC) adopted amendments to the County's Comprehensive Airport Land Use Plan (CALUP) to reflect the 2030 Airport Master Plan for the Charles M. Shultz – Sonoma County Airport. The land use compatibility criteria applied around the airport were adjusted to reflect the guidelines set forth in the 2011 California Airport Land Use Planning Handbook. An EIR was certified by the County in 2012 for the Sonoma County Master Plan (2008062022). A portion of the project site overlaps with the Outer Safety Zone (OSZ-B) and the Traffic Pattern Zone (TPZ-B).

### **1.2. PROJECT BACKGROUND**

The Jaguar Way Extension Project ("project") is consistent with the Town of Windsor 2040 General Plan, which identifies Jaguar Way as a new two-lane Crosstown street between Starr Road and Windsor Road. Currently, Jaguar Way is a partially improved roadway providing access from Windsor Road to Windsor High School, related facilities, and single-family residences immediately north of Jaguar Way. The Jaguar Way Extension Project was previously identified in the Town's Traffic Impact Mitigation Fee Program and continues to be an identified Fee Program. Jaguar Way in addition to other planned future roadways identified in the Town's 2040 General Plan provides accommodation for projected year 2040 traffic volumes due to build out of the General Plan.

The Town of Windsor acquired right of way for Jaguar Way by various means over the past 20 years. The Town appears to have a 50 foot wide right of way west of the high school football field, a 25 foot right of way from the west side of the high school football field east to the approximate midpoint of the high school parking lot, and a 50 foot right of way from the approximate midpoint of the high school parking lot east to Windsor Rd. Additional right of way (approximately 25 feet from the west side of the high school football field east to the approximate midpoint of the high school parking lot) will need to be acquired from the high school to accommodate the Jaguar Way improvements. In 2012, the Town conducted a Pedestrian and Safety Assessment<sup>1</sup>, which included a focused evaluation of the Jaguar Way/Windsor Road intersection and identified recommendations for improvements. In 2016 the intersection of Windsor Road and Jaguar Way was improved and signalized. The Town of Windsor is pursuing the Jaguar Way Extension Project consistent with the 2040 General Plan and with the intention of providing safe pedestrian, bicycle, and vehicular access between Starr Road and Windsor Road, including a bridge over Starr Creek, and through access to Windsor High School and Keiser Park.

### **Community Outreach**

The Project underwent a comprehensive community outreach process in 2018 during the concept design phase to provide information and findings to key stakeholders, neighbors and the public. The outreach effort was comprised of the following components:

- Discussions with property owners in the immediate vicinity of the project;
- Meetings with Community Groups, Committees, and Commissions including
  - School District Superintendent
  - Windsor High School Boosters
  - Chamber of Commerce
  - Bicycle Pedestrian Advisory Committee

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<sup>1</sup> "Town of Windsor Pedestrian Safety Assessment: Issues, Opportunities, and Enhancement Strategies," prepared by ITS Berkeley, in cooperation with the Town of Windsor, August 2012.



- High School Site Council
- Planning Commission
- Pop-Up Workshops at the Farmers Market and Harvest Festival
- Community Workshop at the Windsor High School Library
- The community outreach process provided information, solicited feedback, identified community concerns, and built consensus among neighbors, the public, Windsor Unified School District (WUSD), and Windsor emergency services. Input received from the community outreach process has been integrated into the Jaguar Way Design Alternatives and considered in this environmental document.

### **Agency Referral**

The Town of Windsor Public Works Department referred the project to Town Departments, County Agencies, Local Districts and Utilities, Native American Tribes and organizations, State Agencies, and Federal Agencies. Responses and input received from the agency referral process has been incorporated into the Jaguar Way Design Alternatives and considered in this environmental document.

### **Notification and Consultation Under AB 52**

In accordance with AB 52 (PRC Section 21084.2), lead agencies are required to consider Tribal Cultural Resources (TCR) including a site feature, place, cultural landscape, sacred place or object, of cultural value to the tribe and is listed on the California Register of Historic Resources (CRHR) or a local register, or the Lead agency, at its discretion, chooses to treat resources as such. AB 52 mandates that a lead agency notify tribes with traditional and/or cultural affiliations in the geographic area where a project is located if tribes have requested notification under AB 52. When tribes respond requesting formal consultation, the lead agency must work with the tribe or representative thereof to determine the level of environmental review warranted, identify impacts, and identify avoidance or mitigation measures to reduce any potential impacts.

In accordance with AB 52, notification of the Jaguar Way Extension Project was mailed to the following local tribes:

- Cloverdale Rancheria of Pomo Indians
- Mishewal-Wappo Tribe of Alexander Valley
- Dry Creek Rancheria Band of Pomo Indians
- Lytton Rancheria of California
- Federated Indians of Graton Rancheria (FIGR)
- Kashia Band of Pomo Indians of Stewarts Point
- Middletown Rancheria

Responses requesting consultation under AB 52 were received from the Federated Indians of Graton Rancheria (February 15, 2018) and the Dry Creek Rancheria Band of Pomo Indians (February 27, 2018).

As part of the consultation process the Town provided Tribes requesting consultation with a copy of the Cultural Resource Evaluation (CRE) prepared for the Project. On March 27, 2018, the Town received a response from FIGR that the project has the potential to disturb Tribal Cultural Resources and recommended spot monitoring in consultation with the Tribe. On March 29, 2018, the Town received a response that the Dry Creek Rancheria was not aware of any “historic properties” and that if any new information or historic remains are found, that Dry Creek Rancheria be notified. In response to consultation with FIGR and the response received from the Dry Creek Rancheria, a notification provision and spot monitoring have been added as mitigation measures to the Tribal Cultural Resources discussion. As such, consultation under AB 52 has been satisfied. No other Tribes requested consultation under AB 52.

### 1.3. PROJECT DESCRIPTION

The Town of Windsor is proposing a new 0.5-mile roadway, Jaguar Way, to provide east/west connectivity between Starr Road on the west and Windsor Road on the east, consistent with the Town's 2040 General Plan. The proposed Jaguar Way Extension Project (project) is located in the western portion of the Town of Windsor, Sonoma County, California (**Figure 1: Regional Location**).

#### Project Area Existing Conditions

**Figure 2: Project Vicinity** provides an aerial of the project area and existing conditions. The existing segment of Jaguar Way, accessible from Windsor Road, is partially improved and provides for two lanes of vehicle travel (one in each direction) and lacks sidewalks and bicycle facilities. Currently, an approximately 960-foot segment of Jaguar Way extends to the west from Windsor Road and provides access to Windsor High School to the south of Jaguar Way and single-family residences to the north. The northern edge of the existing Jaguar Way roadway lacks curbs and gutters. The topography at the northern edge of the roadway gradually slopes upward and supports shrubs and mature oak trees. There is an existing private driveway from Jaguar Way that provides access to existing single-family residents to the north. A chain link fence is located at the property line to the north of Jaguar Way.

On the south side of this segment of Jaguar Way, the edge of roadway is improved with curb, gutters and stormdrains. There is an approximately 16-foot-wide planting strip between the southern edge of the Jaguar Way pavement and the existing parking lot of Windsor High School. The planting strip contains mature redwood trees and lighting. There are four existing driveways off Jaguar Way that provide access to Windsor High School's northern parking lot.

Approximately 960 feet west of Windsor Road (at the edge of the High School's ballfields), Jaguar Way narrows to a single lane, with hardpacked gravel surface. This unimproved segment of Jaguar Way extends for an additional 1,200 feet and terminates east of Starr Creek. The southside of Jaguar Way, along this single-lane segment, contains a curb and an approximately 6-foot-wide sidewalk. A variety of Windsor High School facilities are located immediately south of this segment including baseball fields, batting cages, bleachers, Kirkpatrick Stadium, utility boxes, a pump and related equipment. At the terminus of this segment of Jaguar Way is a three stall ADA accessible parking lot and new restroom facilities are currently under construction. An approximately eight-foot high chain link fence encompasses Windsor High School facilities. The northside of this segment is unimproved and abuts the Town's Kaiser Park property. A multi-use path provides access to Kaiser Park to the north at the terminus of the existing two-way segment of Jaguar Way.

On the east side of Starr Road, Jaguar Way is unimproved. A narrow, paved segment extends for approximately 200 feet east of Starr Road where it becomes an informal footpath.

Starr Creek is located approximately 350 feet east of Starr Road and is characterized by gradual banks, an approximately 150-foot-wide riparian corridor, comprised primarily of mature oak trees, and ephemeral stream conditions. North of the Jaguar Way right-of-way, Starr Creek abuts single-family homes and Kaiser Park. South of the Jaguar Way right of way, Starr Creek abuts single-family homes to the west and to the east is Starr Creek Park, an approximately 12-foot-wide paved walking path, a created wetland, and Windsor High School's Kirkpatrick Stadium.

The Project Area, between Windsor Road and Starr Creek, is comprised of a variety of land uses. North of the proposed Jaguar Way Extension land use designations include Parks and Recreation (Keiser Park), Very Low Density (Residential), and Low Density (Residential). South of the proposed Jaguar Way Extension land use designations include Open Space (Starr Creek Park), Estate Residential, and Public/Quasi-Public (Windsor High School). West of the project site is the Town/Sonoma County boundary, with County land uses comprised of rural residential (**Figure 3: General Plan Land Use**). The zoning designations for land in the Project Area

reflects the land use designations. North of the proposed Jaguar Way Extension zoning includes Recreation (Keiser Park), village residential, and surrounding residential. South of the proposed Jaguar Way Extension zoning includes Open Space and Recreation (Starr Creek Trail/Park), Public/Institutional (Windsor High School), and Planned Development (**Figure 4: Zoning**).

The Jaguar Way Extension Project is located within the Land Use Study Area of the County's Comprehensive Airport Land Use Plan. A portion of the project site overlaps with the Outer Safety Zone (OSZ-B) and the Traffic Pattern Zone (TPZ-B) of the Charles M. Schulz – Sonoma County Airport Land Use Plan (**Figure 5: Airport Land Use Safety Zones**).

### **Proposed Jaguar Way Extension**

The Town of Windsor is proposing to construct an approximately 0.5-mile-long roadway that would fully improve Jaguar Way to its ultimate design width. The proposed Jaguar Way Extension Project (Project) would introduce two lanes of travel for vehicles (one in each direction) and provide pedestrian and bicycle facilities, as well as street trees, landscaping, bioretention and low impact development (LID) facilities, and ancillary improvements. Jaguar Way would be extended from Starr Road on the west to Windsor Road on the east and would include a bridge overcrossing of Starr Creek. The Town's existing right-of-way for Jaguar Way would be utilized and may require temporary or permanent encroachment onto adjacent properties to accommodate construction.

A new three-way intersection would be created at Starr Road and would be stop sign controlled at Jaguar Way Extension. The existing signalized intersection at Windsor Road would be retained and improvements would be limited to the western leg of this intersection.

### **Roadway Design Options**

Several geometric cross sections were considered for the Jaguar Way Extension. After vetting alternatives with public works staff, three unique alternatives were selected for further consideration. Conceptual designs have been developed for the following three options.

#### *Design Option 1: Town Standard*

This design is based on the Town's General Plan vision for Jaguar Way and the Town's Street Design Standards, composed of 6 foot wide sidewalks on both sides of the roadway separated by a landscape strip, two 11 foot wide vehicle travel lanes (one in each direction), Class III bicycle routes (signed and marked with sharrow stenciling), and street trees planted within landscape strip which will be used for bioretention. Due to the narrow right-of-way available for Jaguar Way, some modifications to Town standards are required along certain segments of the roadway, including the need to eliminate parking on both sides of Jaguar Way and install a contiguous sidewalk east of Starr Creek and west of the high school parking lot. Design Option 1 would potentially require the removal of approximately 98 mature trees.

#### *Design Option 2: Class II (On-Street) Bicycle Lanes*

This design proposes a sidewalk only on the south side of Jaguar Way. The sidewalk on the north side of the roadway has been eliminated to allocate space for Class II bicycle lanes in both directions. Design Option 2 provides for one 6 foot wide contiguous sidewalk on the south side of the roadway west of the high school parking lot and a 10 foot wide contiguous sidewalk on the south side of the roadway along the high school parking lot, two 10 foot wide vehicle travel lanes (one in each direction), and two 5 foot wide bicycle lanes (one in each direction). This design provides for Class II bicycle routes (signed, striped, with dedicated bike lane within the right of way). Design Option 2 would require the removal of approximately 75 mature trees.

#### *Design Option 3: Separated Multi-Use Path*

This design introduces an off-street multi-use path to be shared by pedestrian and bicycles. The right-of-way would be comprised of two 11-foot wide vehicle travel lanes (one in each direction), and curb separated multi-use path containing an 8 foot wide two-way bicycle lane, a 6 foot wide sidewalk, a one foot separator between the bike and pedestrian travel lanes, and a 6 foot wide bioswale along the southside of Jaguar Way. Bioswale and LID facilities would also be located along the northern ROW. This design provides for a Class I bicycle facility (off-road path). Due to the narrow right-of-way available for Jaguar Way, some modifications to this standard is required along certain segments of the roadway. Design Option 3 would potentially require the removal of approximately 81 mature trees.

### **Design Options Summary**

The three design options generally utilize a 50-foot right-of-way to accommodate vehicle, pedestrian, and bicycle facilities, as well as associated improvements including drainage, landscaping, and lighting. All of the Design Options (Options 1, 2, and 3) would require reconfiguration of the accessible parking stalls, relocation of the High School batting cages, relocation of existing irrigation pump and equipment, and the potential removal of between 75 and 90 mature trees. Recognizing that the final design may reflect one of the three identified design options, a combination, or a variation thereof, for the purposes of this CEQA analysis, the proposed Jaguar Way Extension project is assumed to occupy the 50 foot Jaguar Way right-of-way, with limits of grading and construction activities extending approximately 20 feet north and south of the right-of-way.

In the future, at the time that design level drawings are prepared, and the Jaguar Way Extension Project is funded, it will be reviewed under CEQA, and if required the National Environmental Policy Act (NEPA), to assess the design level improvements relative to the presumed design/project limits considered under this analysis. Improvements beyond the scope of this analysis may be subject to subsequent environmental review.

### **Bridge Over Starr Creek**

The Project includes a bridge overcrossing of Starr Creek. Although the bridge has not been fully designed, for purposes of this analysis it is presumed that the bridge will span Starr Creek with bridge abutments located above the ordinary high water mark on each bank of Starr Creek. The clear span bridge would introduce approximately 2,000 square feet of impervious surface above Starr Creek and would be supported by wingwalls/bridge abutments approximately 60 feet in length located along each bank. The bridge width would occupy an approximately 40-foot wide cross section comprised of two vehicle travel lanes (one in each direction), pedestrian sidewalk(s), and bicycle facilities.

The Jaguar Way bridge crossing at Starr Creek will be designed to accommodate the flow of a 25-year storm event with a minimum of 1 foot of freeboard below the soffit of the bridge in accordance with the Sonoma County Flood Control Design Criteria. This design criteria are based on the approximate tributary supplying flow through the bridge. The existing channel has been designed to take the same storm event flow while maintaining a minimum of 18" of freeboard from the top of bank. The approximate water surface elevation of this 25-year storm event at the crossing is approximately 101.5 with a design flow of 678 cubic feet per second (cfs). Additionally, the bridge will be designed to accommodate the 100-year storm event without overtopping the bridge deck which is estimated to be approximately 748 cfs. Flow and hydraulic grade line (HGL) information was derived from data provided by the storm drain hydrologic study, "Final Storm Drainage Master Plan Phase 1" prepared by GHD dated September 2017.

### **Stormwater Drainage Improvements**

New storm drain infrastructure would be installed to accommodate the increase in impervious surfaces from development of Jaguar Way. Onsite improvements would capture storm water runoff for onsite, provide LID treatment, retention, and infiltration per the regional Low Impact Development (LID) technical design manual. Excess storm water shall be routed via new drainage infrastructure to regional storm drainage facilities.

The proposed project includes stormwater treatment consistent with LID standards. In order to provide pre-treatment of stormwater running off new impervious surfaces introduced by the project, a series of bio-retention facilities are proposed. These facilities will be located along the Jaguar Way alignment and immediately adjacent areas and will be sized to accommodate surface runoff generated by new impervious surfaces introduced by Jaguar Way improvements.

### **Landscaping and Lighting**

A landscaping plan along Jaguar Way has not been developed at this time, but is assumed to consist of trees, shrubs and groundcover along portions of Jaguar Way. For purposes of this analysis it is assumed that the landscape design will be developed for the Jaguar Way Extension Project prior to final design consistent with the Town's Complete Street Design Guidelines. The landscaping plan would include Street Trees, generally spaced 30 feet on center. Root barrier and structural soil will also be considered to ensure compatibility with Jaguar Way improvements and long-term tree health. Landscaping may be incorporated within the existing right-of-way through planting strips and/or along the right-of-way associated with bioretention and low impact development facilities. Landscaping would be designed to comply with the Town of Windsor's Water Efficient Landscape Ordinance.

The final design may also include design and materials for retaining walls, which may be needed to accommodate slope differentials primary along the northern portion of Jaguar Way, proximate to Starr Creek, and towards the northeastern portion of the Windsor High School parking lot.

A lighting plan would be developed as part of the final design and would reflect street lighting standards consistent with Windsor's character. Street lights would be spaced according to Town Standard and based on appropriate lighting levels as recommended by the California Manual on Uniform Traffic Control Devices. Further, lighting will conform with the Town of Windsor's Engineering Design and Construction Standards. A mix of acorn-style and decorative pendant style street lighting is presumed to be introduced along Jaguar Way to provide effective lighting for vehicles, pedestrians, and bicyclists.

Signage would be installed as appropriate along Jaguar Way to inform travelers of the speed limit, access restrictions, and pedestrian crossings.

### **Fences and Noise Barriers**

Existing fencing along the Jaguar Way right of way at abutting properties consists of wood and chain link fence that may be temporarily removed during construction activities. All existing fencing will be retained or replaced in kind.

The project will introduce a noise barrier fence along the Jaguar Way frontage of the two existing residential properties adjacent to Starr Road. The exact location, size and type of noise barrier fence will be developed at final design. For purposes of this analysis, the noise barrier fence is assumed to be at least 6 feet in height, located at the property lines both north and south of Jaguar Way and comprised of two-sided plywood with a minimum single-sided thickness of ½ an inch for sound attenuation. The noise barrier fence will be constructed with solid material with no gaps in the face of the wall or at the base. Suitable materials for the noise barrier fence would have a minimum surface weight of 3 pounds per square foot.

### **Project Construction**

Construction of the proposed Jaguar Way Extension Project is expected to occur over an approximately 18-24-month construction period. Although Jaguar Way might not be built for several year, for purposes of this analysis, it is presumed that construction would not begin earlier than 2020 and would be completed in 2022, with year 2023 being the earliest full year that Jaguar Way Extension could be operational. Construction is anticipated to occur between the hours of 7:00 a.m. and 7:00 p.m. Monday through Friday and between the

hours of 8:00 a.m. and 7:00 p.m. on Saturday, consistent with the Town Municipal Code Section 7-1-190. No construction would occur on Sundays or national holidays.

Construction would begin with site preparation and demolition to remove existing built and natural features within the roadway alignment. Existing vegetation, mature trees and shrubs will be grubbed and removed to accommodate construction. Grading activities will redistribute soils along the Jaguar Way alignment to achieve desired elevations. Although the amount of cut materials is unknown at this time, excavated soils will be reused onsite as feasible and excess cut will be off hauled and deposited at a suitable receiving site.

During construction, vehicle access to the High School and associated facilities may be temporarily restricted. At a minimum at least one point of access to the High School parking lot will be retained. The construction schedule will take into consideration Windsor High School operations and events, with the intention of minimizing potential conflicts with access. Construction haul routes will use arterial and collector roads. Construction routes will include Windsor Road and Starr Road. Temporary lane closures may be warranted and will be scheduled to minimize conflict with peak hour traffic. Construction signage and a flagger would be present at locations where temporary lane closure are necessary. Construction will not result in long-term or extended lane closure or detours beyond the duration of the construction period. A construction schedule and traffic management plan will be developed to minimize conflicts and ensure that adequate access including access for emergency vehicle is maintained during all phases of construction.

Construction staging and equipment will occur along the Jaguar Way right of way within limits of work, as appropriate and within a previously disturbed area of Keiser Park adjacent to the project site. Construction equipment and vehicles would include excavators, motor graders, bulldozers, backhoes, loaders, tractors, cranes, lifts, concrete trucks, pavers, compactors/rollers, water trucks, haul trucks, and material delivery trucks. Power tools and equipment expected to be utilized over the construction period include jackhammers, air compressors, generators, concrete saws, power drills, welding equipment, sandblasting equipment, painting equipment, power and impact wrenches, and similar tools.

### **Ongoing Maintenance**

As a public roadway, the Town would be responsible for ongoing maintenance of Jaguar Way. General ongoing maintenance activities include:

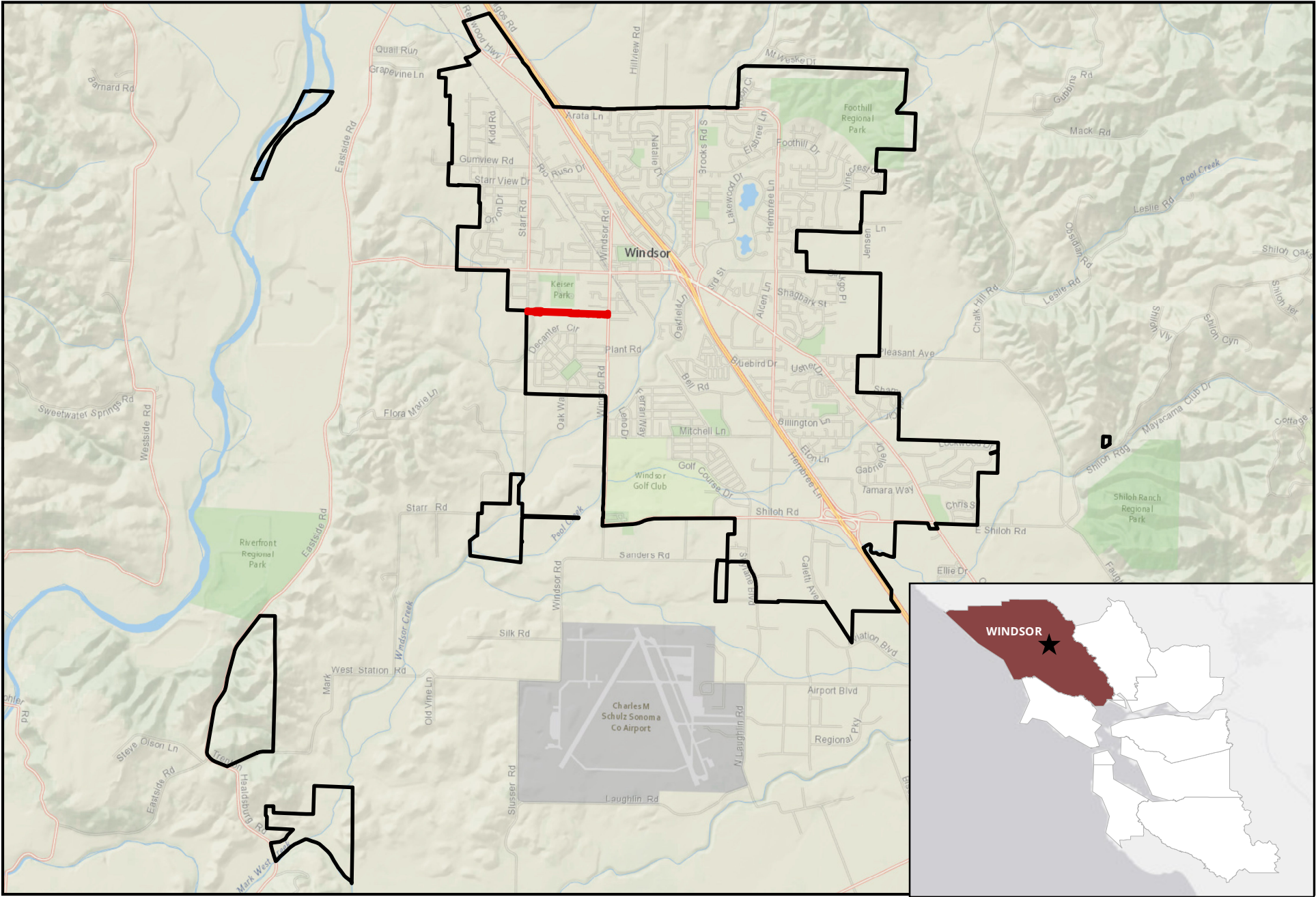
- Tree, shrub and landscaping
- Removal of fallen trees and branches
- Weed control and fire abatement
- Drainage system cleaning
- Pavement sealing, repaving, striping and repair
- Sign, striping, fence and lighting repair, update and replacement; and
- Starr Creek Bridge maintenance and repair
- Sidewalk and bicycle lane repair and replacement

### **Entitlements, Permits and Outside Agency Approvals**

Approval, permits and other entitlements are expected to include the following:

- 1602 Streambed Alteration Agreement from the California Department of Fish and Wildlife
- 401 Permit from the Regional Water Quality Control Board
- 404 Permit from the Army Corp of Engineers
- Review and Approval of Design by Sonoma Water
- Review by the Sonoma County Airport Land Use Commission for improvements within Safety Zones
- Selection of Preferred Design Option and subsequent review by the Town of Windsor

FIGURE 1



JAGUAR WAY EXTENSION: REGIONAL LOCATION

0 0.4 0.8 1.6 Miles

Data source: Sonoma County GIS

- TOWN OF WINDSOR
- SONOMA COUNTY
- PROJECT LOCATION



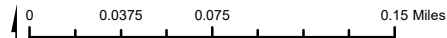
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FIGURE 2



JAGUAR WAY EXTENSION: PROJECT VICINITY



Data source: Sonoma County GIS, Sonoma County Vegetation Mapping & LiDAR Program

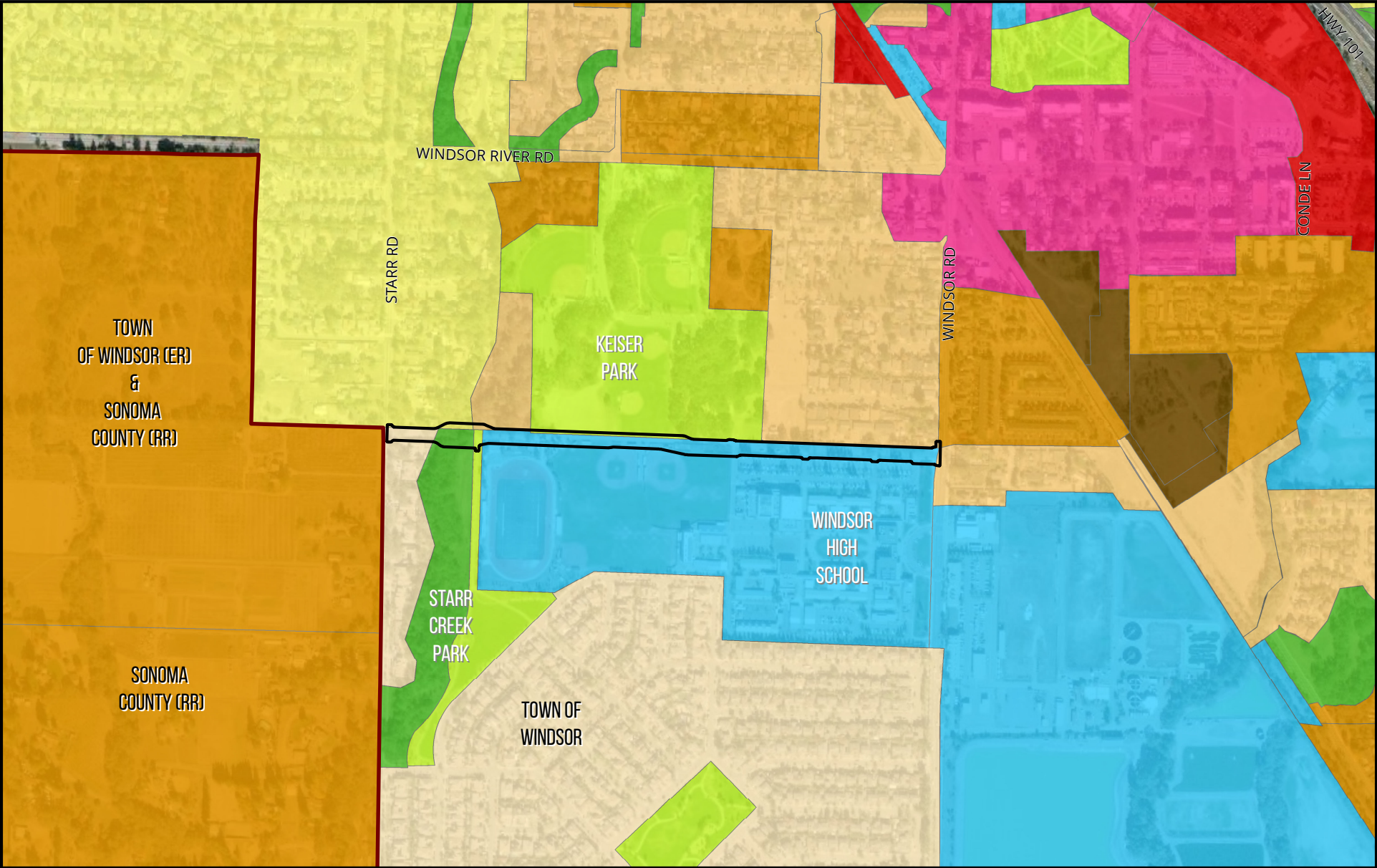
- PROJECT LIMITS
- STREAMS
- TOWN OF WINDSOR
















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FIGURE 3



JAGUAR WAY EXTENSION: GENERAL PLAN LAND USE

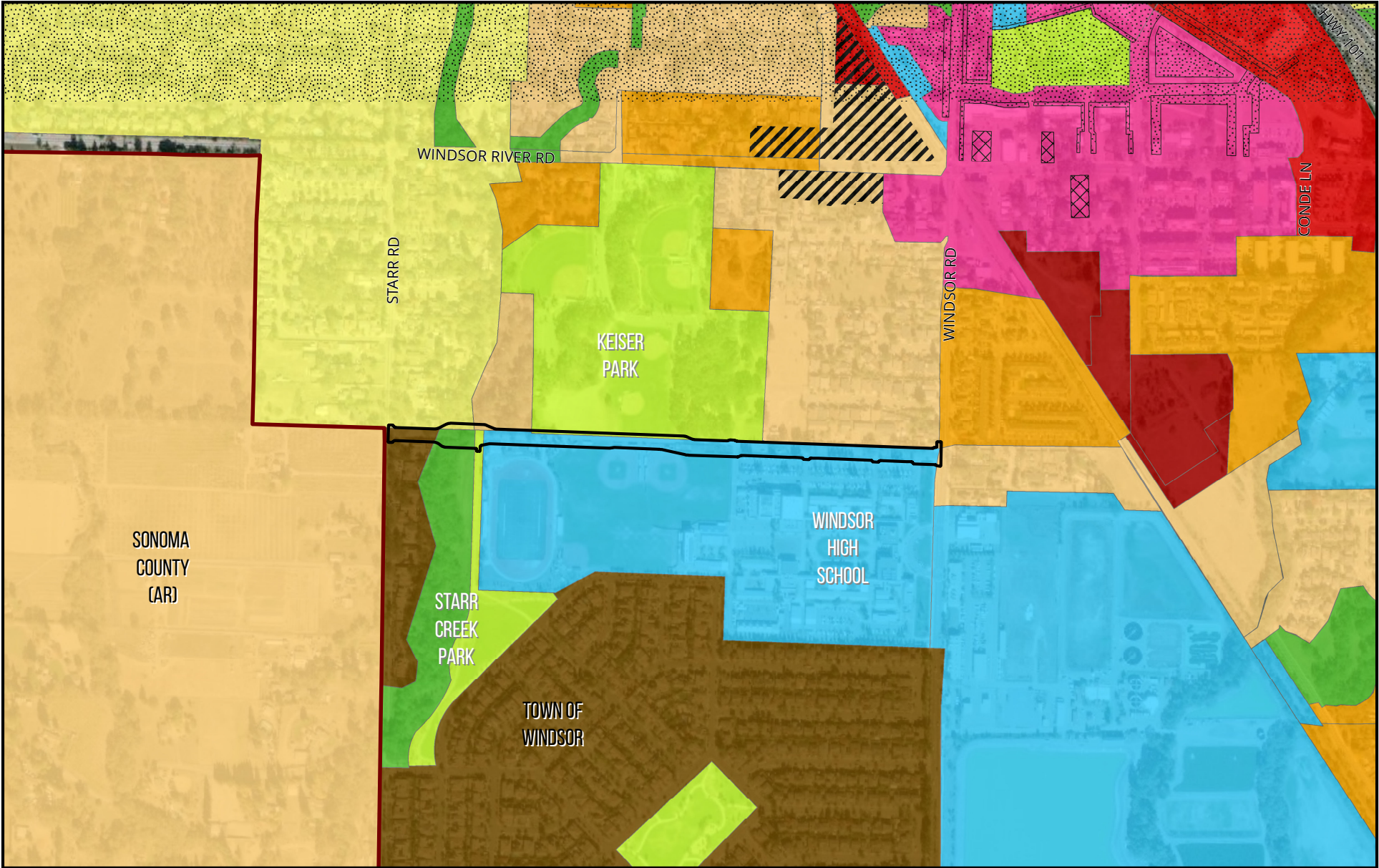
- |  |   |   |
|--|---|---|
|  PROJECT LIMITS                   |  LOW DENSITY RESIDENTIAL (LDR)       |  OPEN SPACE (OS)                       |
|  TOWN OF WINDSOR                  |  VERY LOW DENSITY RESIDENTIAL (VLDR) |  ESTATE RESIDENTIAL (ER)               |
|  HIGH DENSITY RESIDENTIAL (HDR)   |  TOWN CENTER MIXED USE (TC)          |  PUBLIC/QUASI PUBLIC (PQ)              |
|  MEDIUM DENSITY RESIDENTIAL (MDR) |  RETAIL COMMERCIAL (RC)              |  PARKS AND RECREATION (PR)             |
|  |   |  SONOMA COUNTY: RURAL RESIDENTIAL (RR) |



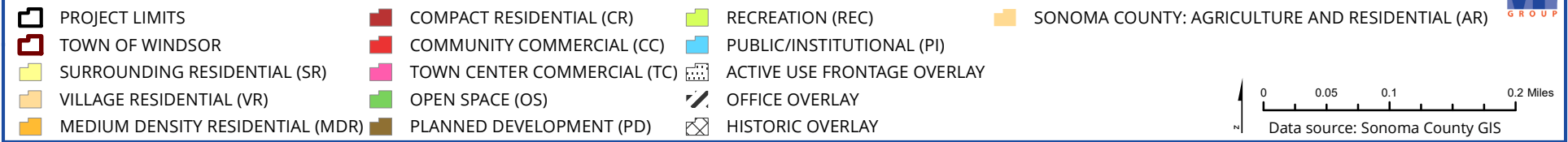
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FIGURE 4



### JAGUAR WAY EXTENSION: ZONING









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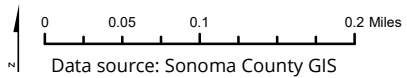


FIGURE 5



JAGUAR WAY EXTENSION: AIRPORT SAFETY ZONES

- |   |   |   |
|---|---|---|
|  OSZ-A |  TPZ-A |  PROJECT LIMITS  |
|  OSZ-B |  TPZ-B |  TOWN OF WINDSOR |



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## 2. 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 Unless Mitigation is Incorporated" as indicated by the checklist on the following pages.

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

The CEQA Initial Study (IS) Checklist and written explanations are provided in Section 4 below. The IS Checklist and narrative indicate the level of significance of the potential environmental effects of the proposed Project upon each of the noted environmental resources.

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### 3. DETERMINATION

(TO BE COMPLETED BY THE LEAD AGENCY)

On the basis of this initial evaluation:

|  |          |
|--|----------|
| I find that the proposed project <b>COULD NOT</b> have a significant effect on the environment. A <b>NEGATIVE DECLARATION</b> 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 <b>MITIGATED NEGATIVE DECLARATION</b> will be prepared.  | <b>X</b> |
| I find that the proposed project <b>MAY</b> have a significant effect on the environment, and an <b>ENVIRONMENTAL IMPACT REPORT</b> is required.   |          |
| I find that the proposed project <b>MAY</b> 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 <b>ENVIRONMENTAL IMPACT REPORT</b> 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 <b>EIR</b> or <b>NEGATIVE DECLARATION</b> pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier <b>EIR</b> or <b>NEGATIVE DECLARATION</b> , including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.                    |          |

Signature

Date

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#### 4. EVALUATION OF ENVIRONMENTAL IMPACTS

The following discussion addresses the potential level of impact relating to each aspect of the environment.

##### 4.1. AESTHETICS

| Would the project:  | Potentially Significant Impact | Less Than Significant with Mitigation | Less Than Significant Impact | No Impact                           |
|---|--------------------------------|---------------------------------------|------------------------------|-------------------------------------|
| a) Have a substantial adverse effect on a scenic vista?   | <input type="checkbox"/>       | <input checked="" type="checkbox"/>   | <input 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 non-urbanized 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 checked="" type="checkbox"/>   | <input 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 checked="" type="checkbox"/>   | <input type="checkbox"/>     | <input type="checkbox"/>            |

Sources: Town of Windsor 2040 General Plan and EIR; Sonoma County General Plan 2020 and EIR; California Scenic Highway Mapping System, <https://dot.ca.gov/programs/design/lap-landscape-architecture-and-community-livability/lap-liv-i-scenic-highways>, Accessed October 2019.

##### Existing Aesthetics Setting:

The Town of Windsor is located in the Santa Rosa Plain, between the Mayacamas mountain range to the east and the Coastal Range ridgeline to the north. Windsor sits on the plain floor, approximately 50 feet above the Russian River floodplain to the west. Views of the surrounding foothills and open space areas such as agricultural lands, community separators, creeks, and woodlands contribute to Windsor's scenic value. This natural setting, combined with Windsor's relatively compact development pattern, imparts a small-town, rural atmosphere that is experienced from a number of public vantage points throughout the town.

The Town of Windsor 2040 General Plan has designated 16 roadways located within the Town's Urban Growth Boundary (UGB) and Planning Area for scenic protection. As shown in Figure ER-1 of the General Plan, the scenic corridors in the vicinity of the project site include: U.S. 101; Starr Road; Reiman Lane; and Windsor River Road from the Town Limits to Eastside Road. Additional scenic corridors may be recognized if the corridor

leads to a recreational area, or exhibits unusual natural or man-made features of interest, such as close-up to mid-range views of rock outcroppings, waterways, or oak woodlands.

The Windsor General Plan also considers Rural Lanes within the Town to be scenic public roadways. The Town requires that development along scenic public roadways, such as Rural Lanes, to preserve significant public views of the surrounding foothills as well as mature vegetation that contributes to the rural atmosphere.

The Windsor General Plan encourages the preservation of natural landmark landforms from development. The Town identifies the visually prominent hillsides and ridgelines within unincorporated Sonoma County as natural landmark landforms. The General Plan considers the hills and ridges to the east, west, and north of the Town to be considered natural landmark landforms.

The Sonoma County General Plan 2020 references the hills east of Windsor as major scenic landscape units. These hills provide a scenic backdrop to the Santa Rosa Plain and partially serve as the Windsor-Healdsburg Community Separator in the northern area of these hills. Eastside Road, an area of rolling hills located approximately 0.5 miles west of Town limits and the project site, is an important transition between the Town of Windsor and the rich agricultural and mineral resource areas of the Russian River Valley.

Chapter 27.36 of the Town of Windsor's Zoning Ordinance, the Tree Preservation and Protection Ordinance (the Ordinance), regulates protection, preservation, maintenance, and removal of protected trees. The intent of the Ordinance is to avoid a reduction in tree canopy cover by requiring replacement trees for all protected trees that are approved for removal. Protected trees under the Ordinance include: trees with a diameter at breast height (dbh) of six inches or more of the species black oak (*Quercus kelloggii*), blue oak (*Quercus douglasii*), coast live oak, interior live oak (*Quercus wislizenii*), oracle oak (*Quercus morehus*), Oregon oak (*Quercus garryana*), valley oak (*Quercus lobata*), chase oak (*Quercus chaseii*); and trees with a dbh of 12 inches or more of the species California buckeye (*Aesculus californica*) and California bay (*Umbellularia californica*); heritage or landmark trees as identified by Council resolution; significant groves or stands of trees; mature trees located on a parcel of one acre or more; and any tree required, to be planted or preserved, as environmental mitigation for a discretionary permit.

A tree survey was conducted by Merlin Arborist Group in November 2017 (Appendix A). A total of 128 trees were evaluated for characteristics including the tree species, diameter of trunk at breast height, tree age, structure, and other observations. The tree inventory included a variety of oaks, willows, redwood, cottonwoods, Oregon Ash, and London planetrees. A majority of the trees inventoried were identified as "mature" and exhibited "good" structure. Two growing seasons have passed since the fall 2017 tree inventory was conducted and tree characteristics may have changed including health, structure and trunk diameter. As such, and as described further below, a subsequent tree inventory shall be prepared prior to initiating project activities including tree removal and shall inform the tree preservation and tree replacement requirements consistent with the Town's Tree Technical Manual.

The project site is situated in a transitional area of the Town of Windsor that moves from the more urban and developed core to the east to the rural lands in Sonoma County to the west. The project site contains a mix of uses including residential, school, parkland, and recreation. The visual character of the project site and vicinity includes developed, hardscape and gravel surfaces as well as more natural terrain including Starr Creek corridor, riparian vegetation and a variety of mature trees and oak groves.

### **Aesthetics Impact Discussion:**

**4.1(a,c) (Effect a Scenic Resource or Vista, Degrade Visual Character) Less than Significant Impact with Mitigation:** Major scenic landscape units identified by the Sonoma County General Plan 2020 in the vicinity of the project site are located approximately one mile to the west, east of Eastside Road in the County of

Sonoma. As such, the proposed project is not located within a scenic landscape unit identified within the Town of Windsor, and no impacts to scenic resources identified by the County of Sonoma would occur.

The Town of Windsor 2040 General Plan identifies scenic corridors, rural lanes and landforms as local scenic resources. The nearest scenic corridor is located along Starr Road, at the western end of the proposed new roadway. Open space areas, parklands and oak trees also constitute scenic resources within the Town of Windsor. The proposed project will not impact the scenic quality of Starr Road as improvements are limited to a new t-intersection with stop-control at Jaguar Way, and no widening, lane reconfiguration or other modifications are proposed along Starr Road.

The proposed project has the potential to impact scenic resources along the Jaguar Way alignment as numerous mature trees including oaks will be required to be removed to accommodate the roadway. Further, several of these trees are located within Keiser Park, which contributes to the scenic quality of Windsor through open space areas and oak tree groves. Additionally, the project will require the removal of riparian trees including oaks and willows within the Starr Creek corridor. The proposed project would result in the removal of between approximately 75 and 98 mature trees, which contribute to the scenic quality of Windsor. Removal of mature oaks and groves of trees including riparian trees constitutes a potentially significant impact because removal would degrade visual character. In order to offset impacts to scenic resources and the degradation to the visual character associated with tree removal. As such, the project shall implement a tree preservation and protection program as set forth below in **Mitigation Measure AES-1**. This measure implements the Town's Tree Preservation and Protection regulations (Chapter 27.36 of the Zoning Ordinance) and ensures that trees to be preserved are protected and that trees to be removed are replaced at an appropriate ratio and with appropriate species (also see discussion 4.4e below). Additionally, **Mitigation Measure AES-2** shall be implemented, which requires the development and implementation of a landscaping plan along Jaguar Way including street tree plantings, replacement trees, and appropriate ornamental and native plantings with the selection and placement of native species near Starr Creek. Furthermore, to ensure that temporary visual impacts to Keiser Park due to the temporary construction staging area of Jaguar Way, located in the southwest portion of Keiser Park, **Mitigation Measure AES-3** shall be implemented (see also discussion below in Land Use Section 4.11(b)). AES-3 require that the construction staging area of Jaguar Way be maintained to remain clear of all trash, weeds and debris during construction and screened as warranted to limit the visual impacts to Keiser Park. With implementation of AES-1, AES-2, and AES-3 as set forth below, potential scenic and visual impacts related to the removal of mature trees, changes to the visual character, and temporary construction staging area, will be reduced to less than significant levels.

**4.1(b) (Scenic Resources) No Impact:** The nearest designated state scenic highway identified by the California Scenic Highway Mapping System, is State Route (SR) 116.<sup>2</sup> The project site is located approximately six miles northeast of SR 116. The nearby U.S. 101 is not a designated scenic highway within the Town of Windsor, nor is it considered eligible to be officially designated. As such, development of the proposed new roadway will not damage scenic resources as viewable from a designated (or eligible) State scenic highway. Therefore, the Jaguar Way Project will have no impacts to scenic resources visible from a State Scenic highway.

**5.1(d) (Light and Glare) Less than Significant Impact with Mitigation:** The project site is adjacent to existing development including residential land uses, Keiser Park, baseball fields, a football stadium, and Windsor High School, all of which are current sources of light and contribute to the ambient light conditions. Existing uses in the project area introduce light and glare from the operation of vehicles, as well as lighting from existing buildings, landscaping, and parking areas.

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<sup>2</sup> California Scenic Highway Mapping System, Accessed October 2019.

The proposed project would introduce new sources of light and glare from the new streetlamps/pole mounted lights that would be installed along the new roadway. As a roadway, automobile headlights will also be introduced to the project site and could intrude onto adjacent parcels if not properly screened. Based on the design of the roadway, however, and the relatively low number of vehicles that would use this roadway at night, the light from automobile headlights is not expected to significantly affect nearby residents.

While the installation of the new streetlamps/poles would alter the light level and glare onsite relative to the existing condition, new lighting is not expected to substantially alter the ambient lighting levels. Although riparian habitat areas near the project site along Starr Creek may be impacted by added light sources, these areas would not experience a substantial increase in light exposure relative to existing conditions. Additionally, with the implementation of **Mitigation Measure AES-4**, all new lighting would comply with Windsor's light and glare standards (Windsor Zoning Ordinance Section 27.20.030), which are applicable to all development and uses Town wide. Section 27.20.030.D of the Town Zoning Ordinance provides light and glare standards to ensure adequate illumination and provide a safe, secure environment for all persons, property, and vehicles.

Compliance with Windsor's light and glare standards would ensure that the additional lighting introduced from the proposed project would not adversely affect day or nighttime views. Therefore, impacts from light and glare will be reduced to less than significant levels.

#### **Mitigation Measures:**

**AES-1:** Prior to Final Design the Town shall update the tree inventory and prepare and implement a Tree Preservation and Protection Plan addressing tree protection for trees to remain and identifying replacement for trees to be removed to accommodate Jaguar Way. The Town of Windsor shall ensure that trees to remain are adequately protected during construction activities and that trees to be removed are replaced in accordance with Town's Tree Preservation and Protection Ordinance (Chapter 27.36.040 of the Town's Code).

To protect trees that will be preserved from injuries that may result from construction activities such as root, trunk or branch damage or harm during site preparation, grading and trenching, the Town shall prepare and implement a Tree Preservation Plan addressing preservation such as the following:

- Establish a tree protection zone (TPZ) to be inspected and verified by a qualified arborist
- Install tree protection fencing and signage around the TPZ prior to construction
- Restrict demolition, soil grading, trenching, and parking of vehicles within the TPZ
- Cover exposed soil under canopies and throughout the TPZ with mulch (excluding trees within the riparian corridor of Starr Creek)
- Preclude ornamental landscape, filling, cutting or compaction of soils within the tree drip line
- Preserve oak leaf litter below the drip line of protected trees
- Monitoring soil moisture to ensure that soil remains moist to a depth of 18 inches
- Conduct pruning by qualified personnel in accordance with current industry standards, and
- Monitor all trenching and excavation activities inside the TPZ by a qualified arborist and as feasible preclude the use of heavy-equipment

In order to mitigate the removal of protected trees onsite, the Town shall prepare and implement a Tree Preservation and Protection Plan identifying protected trees and appropriate replacement planting pursuant to the Town of Windsor Tree Technical Manual. Tree Replacement requirements shall be reflective of the Town's replacement ratios for In-Kind Replacement. In the event that replacement plantings necessary to achieve the Town's standard is not able to be accommodated on



the project site, then offsite replacement locations shall be identified through the Project's Tree Preservation and Protection Plan.

**AES-2:** Prior to Final design of Jaguar Way the Town shall prepare and implement a landscaping plan to introduce street trees and vegetation along the new roadway and within and adjacent to retention areas and bioswales. The plant pallet selection shall utilize low water-use plants as identified by the Town of Windsor and shall preclude invasive species. Further, the plant pallet selection and location shall identify native and riparian species proximate to Starr Creek and limit the use of ornamental species to previously disturbed and developed areas along Jaguar Way.

**AES-3** The temporary staging area located in Keiser Park shall be situated in a manner so as to minimize temporary visual impacts to Keiser Park. The staging area shall be maintained to keep equipment, materials and stockpiles away from highly visible areas and screened as appropriate with temporary construction fencing. The construction staging area shall be kept clear of debris, weeds and trash during all stages of construction and shall be fully removed and restored to pre-staging conditions following completion of Jaguar Way improvements.

**AES-4** Prior to final design, a street lighting plan shall be prepared and reviewed by the Town Engineer. To maintain an appropriate lighting environment, the project shall construct lighting fixtures in accordance with the Town's light and glare standards as codified in the Town of Windsor Zoning Ordinance Section 27.20.030.D. Standards specified by this section include, but are not limited to, lamp characteristics; glare control; the maximum wattage allowed; fixture height; and minimum and average illumination. New lighting introduced within and adjacent to the Starr Creek corridor shall be downcast, screened and precluded from spilling over beyond the roadway right of way.

#### 4.2. AGRICULTURAL AND FORESTRY RESOURCES

| Would the project:   | Potentially Significant Impact | Less Than Significant with Mitigation | 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 type="checkbox"/>     | <input checked="" type="checkbox"/> |
| b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?   | <input type="checkbox"/>       | <input type="checkbox"/>              | <input type="checkbox"/>     | <input checked="" 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"/> |

- 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?

☐☐☐☒

Sources: Town of Windsor 2040 General Plan and EIR; and California Department of Conservation Farmland Mapping and Monitoring Program.

### Agricultural and Forestry Resources Setting:

Agricultural land, which includes important farmland and grazing land, represents approximately half of the land uses within Sonoma County. According to California Department of Conservation's Farmland Mapping and Monitoring Program (FMMP), Sonoma County supports 29,899 acres of "Prime Farmland," 17,203 acres of "Farmland of Statewide Importance," 33,398 acres of "Unique Farmland," 80,940 acres of "Farmland of Local Importance," and 416,291 acres of "Grazing Land<sup>3</sup>."

As described in the Windsor 2040 General Plan, the majority of the area within the General Plan Area (4,341.7 acres) in 2014 was comprised of Urban and Built-Up Land. About one percent (46.3 acres) is designated as Prime Farmland; 2.3 percent (99.9 acres) as Farmland of Statewide Importance; and 13.3 percent (580.0 acres) as Farmland of Local Importance. In addition, there are 177.1 acres (4.1 percent) of Grazing Land.

According to the California Department of Conservation's Farmland Mapping and Monitoring Program (FMMP), the project site is designated as "Urban and Built-up Land." Lands adjacent to and surrounding the project site are designated as "Urban and Built-up Land". No portion of the project site is under a Williamson Act contract.

In accordance with the definition provided in California Public Resources Code Section 12220(g), "forest land" is land that can support, under natural conditions, 10 percent native tree cover of any species, including hardwoods, and that allows for the preservation or management of forest-related resources such as timber, aesthetic value, fish and wildlife, biodiversity, water quality, recreational facilities, and other public benefits. The project site is currently developed with a partially paved and partially graveled non-public roadway. Clusters of trees are located adjacent to project site, primarily within Starr Creek and Keiser Park. However, none of the trees in the vicinity of the project site meet the definition of forest land pursuant to Section 12220(g) of the Public Resources Code. None of the land within the project site is zoned as forest land, timberland zone, or timberland zoned Timberland Production.

### Agricultural and Forestry Resources Impact Discussion:

**4.2 (a-e) (Farmland Conversion, Williamson Act, Forestland, Timberland) No Impact:** There are no forestlands, important farmlands, agricultural resources or agricultural preserves located within or immediately contiguous to the project site. West of Starr Road in the County of Sonoma, lands are identified as Farmland of Statewide Importance (**Appendix C:** Figure C-1). The project site is not classified as Prime Farmland, Unique Farmland, or Farmland of Statewide Importance. The 2014 Sonoma County Important Farmland map shows the project site as "Urban and Built-up Land." Lands adjacent to the project site are designated as "Urban and Built-Up Land." The project site is not under a Williamson Act contract. There are no forestlands, timberlands or such zoning on the subject site or vicinity. The proposed project would have no impacts to agricultural resources or forest uses and would not result in the conversion of such lands since

<sup>3</sup> California Department of Conservation, Division of Land Resource Protection, Sonoma County 2012-2014 Land Use Conversion Table.

none exist on-site or in the immediate project vicinity. Therefore, the project would have no impact to agricultural and forestry resources.

**Mitigation Measures:** None Required.

#### 4.3. AIR QUALITY

| Would the project:  | Potentially Significant Impact | Less Than Significant with Mitigation | Less Than Significant Impact        | No Impact                |
|---|--------------------------------|---------------------------------------|-------------------------------------|--------------------------|
| a) Conflict with or obstruct implementation of the applicable air quality plan?   | <input type="checkbox"/>       | <input type="checkbox"/>              | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| b) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is in 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) Exposure of 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 type="checkbox"/>              | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

Sources: Town of Windsor 2040 General Plan and EIR; BAAQMD 2017 Bay Area Clean Air Plan; and BAAQMD CEQA Guidelines May 2017; and Jaguar Way Extension Construction Community Risk Assessment, prepared by Illingworth & Rodkin, November 18, 2019.

#### Air Quality Setting:

The majority of the Town of Windsor is located within the San Francisco Bay Area Air Basin, which is under the jurisdiction of the Bay Area Air Quality Management District (BAAQMD). The northwest tip of the Town is located within the North Coast Air Basin, which is under jurisdiction of the Northern Sonoma County Air Pollution Control District. The project site is entirely within the Bay Area Air Basin.

Air quality within the Bay Area Air Basin is influenced by natural geographical and meteorological conditions as well as human activities such as construction and development, operation of vehicles, industry and manufacturing, and other anthropogenic emission sources. The Federal Clean Air Act and the California Clean Air Act establish national and state ambient air quality standards respectively.

The BAAQMD is responsible for planning, implementing, and enforcing air quality standards within the Bay Area Air Basin, including the Town of Windsor. The BAAQMD operates monitoring stations throughout the District and records pollutant concentration levels for carbon monoxide (CO), Nitrogen Dioxide (NO<sub>2</sub>), Ozone (O<sub>3</sub>), and Particulate Matter (PM<sub>2.5</sub>). The closest monitoring stations to Windsor are the Healdsburg-Municipal Airport Monitoring Station (10 miles north), the Healdsburg-133 Matheson Street Monitoring Station (5 miles north), and the Sebastopol-103 Morris Street Monitoring Station (8 miles south). The BAAQMD Compliance and Enforcement Division routinely conducts inspections and audits of potential polluting sites to ensure compliance with applicable federal, state, and BAAQMD regulations.

The Bay Area Air Basin is designated as non-attainment for both the one-hour and eight-hour state ozone standards; 0.09 parts per million (ppm) and 0.070 ppm, respectively. The Bay Area Air Basin is also in non-

attainment for the PM<sub>10</sub> and PM<sub>2.5</sub> state standards, which require an annual arithmetic mean (AAM) of less than 20 µg/m<sup>3</sup> for PM<sub>10</sub> and less than 12 µg/m<sup>3</sup> for PM<sub>2.5</sub>. In addition, the Basin is designated as non-attainment for the national 24-hour fine particulate matter (PM<sub>2.5</sub>) standard and will be required to prepare a State Implementation Plan (SIP) for PM<sub>2.5</sub>. All other national ambient air quality standards within the Bay Area Air Basin are in attainment.

Air quality emissions of carbon monoxide (CO), ozone precursors (ROG and NO<sub>x</sub>) and particulate matter (PM<sub>10</sub> and PM<sub>2.5</sub>) from construction and operation are evaluated pursuant to the BAAQMD CEQA Air Quality Guidelines established in May 2010<sup>4</sup> and updated in May 2017. With release of the 2017 Bay Area Clean Air Plan (CAP) and the associated EIR, it is expected that updated thresholds and guidelines may be developed in the near term. In the absence of updated guidelines and thresholds, based upon its own judgment and analysis, the Town of Windsor recognizes that these thresholds represent the best available scientific data and has elected to rely on BAAQMD Guidelines dated May 2017 in determining screening levels and significance.<sup>5</sup> BAAQMD air quality thresholds are presented in **Table 1** below.

**TABLE 1: AIR QUALITY SIGNIFICANCE THRESHOLDS**

| Pollutant   | Construction<br>Thresholds                                     | Operational Thresholds                                |  |
|---|--|---|--|
|   | Average Daily<br>Emissions<br>(lbs./day)                       | Average Daily<br>Emissions<br>(lbs./day)              | Annual Average<br>Emissions<br>(tons/year) |
| Criteria Air Pollutants   |  |   |  |
| ROG   | 54   | 54  | 10   |
| NO <sub>x</sub>   | 54   | 54  | 10   |
| PM <sub>10</sub>  | 82   | 82  | 15   |
| PM <sub>2.5</sub>   | 54   | 54  | 10   |
| CO  | Not Applicable   | 9.0 ppm (8-hour average) or 20.0 ppm (1-hour average) |  |
| Fugitive Dust   | Construction Dust Ordinance or other Best Management Practices | Not Applicable  |  |
| Single-Source Health Risks and Hazards for New Sources or New Receptors |  |   |  |
| Excess Cancer Risk  | > 10.0 per one million   |   |  |
| Chronic or Acute Hazard Index   | > 1.0  |   |  |
| Incremental annual average PM <sub>2.5</sub>                            | > 0.3 µg/m <sup>3</sup>  |   |  |

<sup>4</sup> Adopted by Board of Directors of the BAAQMD in June 2010 (Resolution No. 2010-6).

<sup>5</sup> In March 2012, the Alameda County Superior Court ordered BAAQMD to set aside use of the significance thresholds within the BAAQMD 2010 CEQA Guidelines and cease dissemination until they complete an assessment of the environmental effects of the thresholds in accordance with CEQA. The Court found that the thresholds, themselves, constitute a "project" for which environmental review is required. In August 2013, the First District Court of Appeal reversed the Alameda County Superior Court's decision. The Court held that adoption of the thresholds was not a "project" subject to CEQA because environmental changes that might result from their adoption were too speculative to be considered "reasonably foreseeable" under CEQA. In December 2015, the California Supreme Court reversed the Court of Appeal's decision and remanded the matter back to the appellate court to reconsider the case in light of the Supreme Court's opinion. The BAAQMD published a new version of the Guidelines dated May 2017, which includes revisions made to address the Supreme Court's opinion. The May 2017 Guidelines update does not address outdated references, links, analytical methodologies or other technical information that may be in the Guidelines or Thresholds Justification Report. The BAAQMD is currently working to update any outdated information in the Guidelines.

| Pollutant   | Construction<br>Thresholds  | Operational Thresholds                   |  |
|---|---|--|--|
|   | Average Daily<br>Emissions<br>(lbs./day)  | Average Daily<br>Emissions<br>(lbs./day) | Annual Average<br>Emissions<br>(tons/year) |
| Cumulative Health Risks and Hazards for Sensitive Receptors |   |  |  |
| Excess Cancer Risk  | > 100.0 per one million   |  |  |
| Chronic Hazard Index  | > 10.0  |  |  |
| Annual Average PM <sub>2.5</sub>                            | > 0.8 µg/m <sup>3</sup>   |  |  |
| Greenhouse Gas Emissions                                    |   |  |  |
| GHG Annual Emissions  | Compliance with a Qualified GHG Reduction Strategy<br>OR<br>1,100 metric tons or 4.6 metric tons per capita |  |  |

Source: BAAQMD's 2011 CEQA Air Quality Guidelines

Note: ROG = reactive organic gases, NOx = nitrogen oxides, PM<sub>10</sub> = coarse particulate matter or particulates with an aerodynamic diameter of 10 micrometers (µm) or less, PM<sub>2.5</sub> = fine particulate matter or particulates with an aerodynamic diameter of 2.5µm or less; and GHG = greenhouse gas.

Illingworth & Rodkin prepared a Construction Community Risk Assessment for the proposed project (**Appendix B**). Results of the evaluation have been incorporated into the impact discussion below.

#### **Air Quality Impact Discussion:**

**4.3(a) (Conflict With Applicable Air Quality Plan) Less Than Significant Impact:** The BAAQMD adopted the 2017 Bay Area Clean Air Plan (CAP) on April 19, 2017 to comply with state air quality planning requirements set forth in the California Health & Safety Code. The 2017 CAP includes a wide range of control measures designed to decrease emissions of the air pollutants that are most harmful to Bay Area residents, such as particulate matter (PM), ozone (O<sub>3</sub>), and toxic air contaminants (TACs); to reduce emissions of methane and other “super-greenhouse gases (GHGs)” that are potent climate pollutants in the near-term; and to decrease emissions of carbon dioxide by reducing fossil fuel combustion.

The proposed control strategy for the 2017 CAP consists of 85 distinct measures targeting a variety of local, regional and global pollutants. The control measures have been developed for stationary sources, transportation, energy, buildings, agriculture, natural and working lands, waste management, water, and super-GHG pollutants. Implementation of some of the control measures could involve retrofitting, replacing, or installing new air pollution control equipment, changes in product formulations, or construction of infrastructure that have the potential to create air quality impacts.

The BAAQMD CEQA Guidelines set forth criteria for determining consistency with the CAP. In general, a project is considered consistent if a) the project supports the primary goals of the CAP, b) includes control measures and c) does not interfere with implementation of the CAP measures.

The proposed project would have a less than significant impact due to a conflict with the Clean Air planning efforts since, a) the project supports the goals of the CAP in that it provides pedestrian and bicycle facilities; b) incorporates control measures during construction; and c) would generate air quality emissions below the BAAQMD criteria pollutant thresholds (see Section 4.3(b) below). Therefore, the project will have less than significant impacts due to a conflict with the regional air quality plan.

**4.3(b) (Violate Ambient Air Quality Standards) Less Than Significant Impact with Mitigation:** Air quality emissions associated with the proposed project would result from short-term construction activities and ongoing operation and are described below.

### *Construction Emissions*

Construction includes grubbing and the removal of vegetation, grasses, and trees, as well as grading and paving. During construction activities, the project would generate temporary air pollutant emissions associated with site preparation, ground disturbance, the operation of heavy-duty construction equipment, workers traveling to and from the site, and the delivery of materials. These activities would create temporary emissions of fugitive dust from site grading, and the release of toxic air contaminants, particulate matter, and ozone precursors (ROG and NOx) from combustion of fuel and the operation of heavy-duty construction equipment.

The BAAQMD CEQA Air Quality Guidelines consider contributions of fugitive dust to be less-than-significant if best management practices (BMPs) are implemented. As such, **Mitigation Measure AQ-1**, which provides for a variety of dust control measures during construction activities including watering the project site, covering haul loads, limiting idling time, and temporarily halting construction when winds are greater than 15 miles per hour, is set forth below. With the implementation of Mitigation Measure AQ-1 (BAAQMD-recommended best management practices), construction activities will have less than significant impacts to air quality.

### *Operational Emissions*

At operation, as a roadway, no stationary sources are associated with the proposed project. Operation of the proposed project will result in air quality emissions associated with the vehicle trips generated by use of the new roadway. Under the existing conditions, the project site currently provides vehicular access from Windsor Road to residential land uses, Windsor High School, and the high school's associated athletic fields. While the project site currently provides some vehicular access, implementation of the proposed project would allow vehicles to travel between Starr Road and Windsor Road, thereby increasing the number of vehicles currently using the roadway. As such, air quality emissions in the vicinity of the project site would increase relative to the existing condition.

Jaguar Way was envisioned as a 2-lane crosstown (new street) in the 2040 General Plan (see Figure M-1) to accommodate projected year 2040 traffic volumes. Trip generation from build-out of the General Plan as well as associated air quality impacts were analyzed in the Windsor 2040 General Plan EIR; operational air quality impacts were determined to be less than significant. The proposed roadway would not generate additional vehicle trips beyond those anticipated by and analyzed in the Windsor 2040 General Plan EIR. Therefore, at operation, the subject project would not violate air quality standards or cumulatively contribute to an existing violation. As such, operational impacts to air quality from the proposed project would be less than significant.

**4.3(c) (Expose Sensitive Receptors to Substantial Pollutant Concentrations) Less Than Significant Impact with Mitigation:** The BAAQMD defines sensitive receptors as “facilities or land uses that include members of the population that are particularly sensitive to the effects of air pollutants, such as children, the elderly and people with illnesses.” Examples of sensitive receptors include places where people live, play or convalesce and include schools, day care centers, hospitals, residential areas and recreation facilities. In the Town of Windsor, sensitive receptors include residential land uses, schools, parks, hospitals, care facilities and convalescent homes.

The project site is located in close proximity to existing sensitive receptors, including adjacent residential land uses, Keiser Park and Starr Creek park, and Windsor High School and associated recreation facilities. Residential areas and schools are considered sensitive receptors because people are often at home/school for extended periods of time.

### *Construction Activities*

During construction, onsite activities will result in the emission of exhaust from vehicles and heavy-duty equipment as well as the generation of fugitive dust from grading and ground disturbing activities. An

assessment of construction risk impact to existing offsite sensitive receptors was conducted and results are presented in Table 2 below. Offsite sensitive receptors include residents at nearby single-family homes and students at the Windsor High School. Construction emissions would result in the exceedance of thresholds for cancer risk and annual PM<sub>2.5</sub> concentrations. However, with mitigation measures health risks can be reduced to levels below significance.

**TABLE 2: CONSTRUCTION RISK IMPACTS AT THE OFFSITE MEI**

|                                | <b>Cancer Risk<br/>(per million)</b> |             | <b>Annual PM<sub>2.5</sub><br/>(µg/m<sup>3</sup>)</b> |          | <b>Hazard Index</b> |          |
|--------------------------------|--------------------------------------|-------------|---|----------|---------------------|----------|
|                                | Residential                          | Students    | Residential   | Students | Residential         | Students |
| Project Construction           |                                      |             |   |          |                     |          |
| Unmitigated                    | <b>34.3 (infant)</b>                 | 6.3 (child) | <b>0.86</b>   | 0.18     | 0.02                | 0.01     |
| Mitigated                      | 5.1 (infant)                         | -           | 0.26  | -        | <0.01               | -        |
| BAAQMD Single-Source Threshold | >10.0                                |             | >0.3  |          | >1.0                |          |
| Exceed Threshold?              |                                      |             |   |          |                     |          |
| Unmitigated                    | <b>Yes</b>                           | No          | <b>Yes</b>  | No       | No                  | No       |
| Mitigated                      | No                                   | No          | No  | No       | No                  | No       |

Source: Construction Community Risk Assessment prepared by Illingworth & Rodkin, November 18, 2019.

In order to ensure that fugitive dust emissions are reduced to levels below significance, **Mitigation Measure AQ-1** shall be implemented. AQ-1 is set forth pursuant to BAAQMD Basic Control Strategies and requires covering haul trucks, watering during active ground disturbance, limiting idling time, proper maintenance of equipment, and other standard measures.

Residential receptors in close proximity to the project site have the potential to be exposed to elevated cancer risk and PM<sub>2.5</sub> concentrations on a short-term basis during construction activities. Students at the nearby Windsor Highschool are located a sufficient distance from the project site that health risk impacts would remain below thresholds levels and potential impact would be less than significant. In order to reduce health risk to nearby residents from short term construction activities, **Mitigation Measure AQ-2**, in addition to AQ-1 shall be implemented. AQ-2 requires that the project develop and carry out a plan to reduce exhaust emissions from heavy-duty equipment by at least 75-percent. With implementation of AQ-1 and AQ-2, potential health risk impacts to nearby sensitive receptors during construction will be reduced to levels below significance.

#### *Operation*

The health risk exposure to nearby sensitive receptors during operation will result from vehicular traffic using the new roadway. The operation of vehicles results in exhaust which contains PM<sub>2.5</sub> and TAC emissions. Although vehicular traffic on Jaguar Way will increase upon operation, the roadways is not projected to support a sufficient volume of vehicles that would result in health risk exposure to existing sensitive receptors. Therefore, potential impacts associated with exposure of sensitive receptor to elevated pollutant concentration will be less than significant at operation of Jaguar Way.

**4.3(d) (Other Emissions such as Objectionable Odors) Less Than Significant Impact:** There may occasionally be localized odors during site development associated with construction equipment and paving.

Any odors generated during construction would be temporary and not likely to be noticeable beyond the immediate construction zone. Therefore, development of the proposed project will have less than significant impacts to air quality due to objectionable odors associated with temporary construction activities.

As stated in the 2040 General Plan, land uses typically producing objectionable odors include agricultural uses, wastewater treatment plants, food processing plants, chemical plants, composting, refineries, landfills, dairies, and fiberglass molding. The General Plan EIR concluded that impacts related to odors would be less than significant.

As a roadway, odor emissions from the proposed project would be limited to odors associated with vehicle and engine exhaust and idling. However, the new roadway would be two lanes and would not be expected to introduce a significant number of vehicles with the capacity to generate excessive odors that would affect a substantial number of people. Therefore, the project will have less than significant impacts to air quality due to objectionable odors.

### **Mitigation Measures:**

**AQ-1:** Latest BAAQMD recommended Best Management Practices (BMPs) to control for fugitive dust and exhaust during all construction activities shall be incorporated into all demolition and construction plans to require implementation of the following:

1. All exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) shall be watered two times per day.
2. All haul trucks transporting soil, sand, or other loose material shall be covered.
3. All visible mud or dirt track-out onto adjacent public roads shall be removed using wet power vacuum street sweepers at least once per day. The use of dry power sweeping is prohibited.
4. All vehicle speeds on unpaved roads shall be limited to 15 mph.
5. All roadways, driveways, and sidewalks to be paved shall be completed as soon as possible. Building pads shall be laid as soon as possible after grading unless seeding or soil binders are used.
6. Idling times shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to 5 minutes (as required by the California airborne toxics control measure Title 13, Section 2485 of California Code of Regulations [CCR]). Clear signage shall be provided for construction workers at all access points.
7. All construction equipment shall be maintained and properly tuned in accordance with manufacturer's specifications. All equipment shall be checked by a certified mechanic and determined to be running in proper working condition prior to operation.
8. Post a publicly visible sign with the telephone number and person to contact at the Lead Agency regarding dust complaints. This person shall respond and take corrective action within 48 hours. The Air District's phone number shall also be visible to ensure compliance with applicable regulations.
9. All exposed surfaces shall be watered at a frequency adequate to maintain minimum soil moisture of 12 percent. Moisture content can be verified by lab sample or moisture probe.

**AQ-2:** Implement a plan demonstrating that the off-road equipment used onsite to construct the project would achieve a fleet-wide average 75-percent reduction in diesel particulate matter exhaust emissions or greater. One feasible plan to achieve this reduction would include the following:



1. All diesel-powered off-road equipment, larger than 25 horsepower, operating on the site for more than two days continuously shall meet U.S. EPA Tier 4 particulate matter emissions standards. Alternatively, the following types of equipment would also meet this requirement: Tier 3 engines that include CARB-certified Level 3 Diesel Particulate Filters (or equivalent), or the use of equipment that is electrically powered or uses non-diesel fuels.
2. Temporary line power shall be available to minimize use of portable diesel-powered equipment.
3. The simultaneous occurrence of excavation, grading, and ground-disturbing construction activities on the same area at any one time shall be limited. Activities shall be phased to reduce the amount of disturbed surfaces at any one time.
4. Minimize the idling time of diesel-powered construction equipment to two minutes.

#### 4.4. BIOLOGICAL RESOURCES

| Would the project:   | Potentially Significant Impact | Less Than Significant with Mitigation | 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 Game 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 Game or US Fish and Wildlife Service?   | <input type="checkbox"/>       | <input checked="" type="checkbox"/>   | <input 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 checked="" type="checkbox"/>   | <input 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 checked="" type="checkbox"/>   | <input type="checkbox"/>            | <input 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 checked="" type="checkbox"/> | <input type="checkbox"/> |

Sources: Town of Windsor General Plan 2040 and EIR; County of Sonoma General Plan 2020; Town of Windsor's Tree Preservation and Protection Ordinance (Chapter 27.36); Final Santa Rosa Plain Conservation Strategy, prepared by USFWS, 2005; Recovery Plan for Santa Rosa Plain, prepared by USFWS, 2016; Tree Survey for the Jaguar Way Extension Project, prepared by Merlin Arborist Group, November 9, 2017; and Biological Resources Analysis Jaguar Way Extension, prepared by Monk & Associates, March 11, 2020.

#### Biological Resources Setting:

Biological resources are protected by federal and state statutes including the Federal Endangered Species Act (FESA), the California Endangered Species Act (CESA), the Clean Water Act (CWA), and the Migratory Bird Treaty Act (MBTA). These regulations provide the legal protection for plant and animal species of concern and their habitat at the federal and state level.

Regionally, the Santa Rosa Plain Conservation Strategy, finalized by the U.S. Fish and Wildlife Service (USFWS) in 2005, establishes a long-term program to conserve and recover listed species and their habitat by mitigating potential adverse effects on these species from future development on the Santa Rosa Plain. The Strategy also provides a mechanism for the issuance of an authorization for incidental take of Sonoma County California Tiger Salamander (CTS) and listed plants that may occur in the course of carrying out a range of activities within the Santa Rosa Plain. The goal of the Strategy is to preserve suitable habitat to ensure the conservation of CTS and listed plants and contribute to their recovery. In 2016, the USFWS issued a formal Recovery Plan for the Santa Rosa Plain, which identifies efforts necessary to recover the federally listed CTS and three vernal pool plants (Sonoma Sunshine, Burk's goldfields, and Sebastopol meadowfoam).

Locally, the Town of Windsor 2040 General Plan, sets forth goals, policies and programs intended to protect sensitive biological communities. Relevant policies include ER-6.1: Protection of Biological and Ecological Resources, ER-6.4: Compliance with State and Federal wetland regulation, ER-6.5: Mitigation Obligation to ensure the protection or restoration of sensitive biological resources, ER-6.7 Preservation of Oak Woodlands, and ER-6.8: Tree Protection During Construction. These policies protect significant biological and ecological resources in Windsor, including heritage trees, riparian habitat and oak woodlands, and special status species. In accordance with these policies and due to the presence of a riparian corridor on the project site along Starr Creek, an investigation of biological resources was conducted.

A site-specific Biological Resources Analysis (BRA) of the project area was prepared by Monk & Associates (**Appendix D**). General field surveys were conducted on October 31, 2017 and September 13, 2019 in order to provide a description of existing biological resources on the project site and in the vicinity. The BRA describes the project area as a combination of ruderal herbaceous habitat, anthropogenic community (landscaped), seasonal wetlands, and riparian woodland. Results of the BRA are further described below.

The project site contains a mix of sensitive biological resources (wetlands and riparian woodlands) and non-sensitive communities (urban development, ornamental landscaping, and ruderal habitat). Sensitive resources are primarily associated with the riparian corridor of Starr Creek, a tributary of Windsor Creek, which bisects the western portion of the project site. The creek dries in the summer and does not support perennial pools. The Starr Creek corridor supports riparian woodland habitat within an approximately 170-foot-wide area at the project site. At the Project site, Starr Creek is approximately 12 feet wide between Ordinary High Water Marks on either bank of the creek and approximately 60 feet wide from top of bank to top of bank. Seasonal wetlands, from topographic depressions, are present along the northern edge of the project site. The balance of the project site contains ruderal habitat, ornamental landscaping, and disturbed lands associated with surrounding urban development including residential uses, Windsor High School facilities, and Keiser Park.

### **Biological Resources Impact Discussion:**

**4.4(a-b) (Adverse Effects to Sensitive Species and Habitats) Less Than Significant with Mitigation:** The proposed Jaguar Way Extension Project has the potential to directly and indirectly impact sensitive habitat and special status species. However, as described herein, with avoidance, minimization, and mitigation, potential impacts to sensitive species and habitats can be reduced to less than significant levels.

#### *Migratory Birds*

The project site and adjacent areas contain riparian woodlands, mature trees and structures, all of which may potentially provide suitable nesting habitat for common songbirds and raptors. Migratory song birds and raptors (hawks and owls) are protected under the Migratory Bird Treaty Act (50 CFR 10.13) and their eggs and young are protected under California Fish and Game Code Sections 3503, 3503.5. Potential impacts to migratory birds and raptors from construction of the Jaguar Way Extension Project include disturbance to nesting birds, and possibly death of adults and/or young. In order to avoid impacts to nesting birds,

**Mitigation Measure BIO-1** shall be implemented and requires that all construction activities occur outside of the bird nesting season between September 1<sup>st</sup> and January 31<sup>st</sup>. Otherwise, a nesting bird survey shall be conducted by a qualified biologist and if nesting birds are identified then appropriate buffers shall be established and maintained by a qualified biologist throughout construction activities. With implementation of Measure BIO-1 potential impacts to nesting birds and raptors protected under the MBTA, including songbirds, White tailed kites, red-tailed hawks, sharp-shinned hawks, great horned owls and red-shouldered hawks (if present), will be reduced to less than significant levels.

#### *Special-Status Species*

The project site is located near the edge of the urban limits and in between established urban uses including Keiser Park and residential development to the north and Windsor High School facilities to the south. Other than the Starr Creek corridor, which bisects the western portion of the project site, and mature trees, which are located within and contiguous to the Jaguar Way Extension plan line there is limited habitat to support special status species. An assessment of the project's impact on special status plant and wildlife species known to occur in the region is presented below.

#### *Special Status Plant Species*

Within a five-mile radius of the project site, nineteen special-status plant species are known to occur or have the potential to occur. Most of these species require specialized habitats that are absent from the project site and can be dismissed from further consideration. Existing conditions onsite include anthropogenic community and ruderal herbaceous habitat consisting of common grasses and weed species that do not support special status plants species. The US Fish and Wildlife Service (USFWS) designates the project site to be located within a region of the Santa Rosa Plain as "Already Developed (No Potential for Impact)" within the Town of Windsor. Therefore, the project would not result in impacts to federally protected special-status or listed plant species.

#### *White-Tailed Kite*

The white-tailed kite is typically found foraging in grassland, marsh, or cultivated fields where there are dense-topped trees or shrubs for nesting and perching. Although surrounding terrain may be semiarid, kites often reside near water sources, where prey is more abundant. The closest record for the white-tailed kite according to the California Natural Diversity Database (CNDDDB) is located 3.7 miles west of the project site. However, mature trees in the project area provide suitable nesting habitat for this species. To avoid potentially significant impacts to the white-tailed kite, **Mitigation Measure BIO-1** shall be implemented, which would reduce impacts to less than significant levels.

#### *Pallid Bat*

The pallid bat (*Antrozous pallidus*) is a locally common species of bat found in in low elevations and a wide variety of habitats in California. It is commonly found in open, dry habitats with rocky areas for roosting. Roosts must protect the bats from high temperatures and can occur in caves, crevices, mines, and occasionally hollow trees and buildings/structures. Existing mature valley oak and blue oak trees present onsite and in the vicinity could provide roosting habitat for the pallid bat.

The pallid bat species is designated by the State as "species of special concern." In accordance with the CEQA Guidelines (Section 15380), which protects "rare" and "endangered" species as defined by CEQA (species of special concern meet this CEQA definition), impacts to the pallid bat resulting from construction of the project would be regarded as potentially significant. In order to avoid potential impact to pallid bats and other special status bat species, should they be present onsite or in the project vicinity, Mitigation Measure BIO-2, shall be implemented. Measure BIO-2 provides avoidance and minimization measures for protecting pallid bats, if present, including consideration of seasonal periods of bat activity, preconstruction surveys, and monitoring

by a qualified bat biologist. Implementation of **Mitigation Measure BIO-2** would reduce impacts of the project to the pallid bat and other special status bat species to less than significant levels.

#### California Tiger Salamander (CTS)

The project site is not located within the area designated as CTS critical habitat by the USFWS and is thus unlikely to support CTS. Additionally, there is no suitable breeding habitat within the project site that could support CTS. CTS typically require pools or ponds that remain inundated into April or May. Seasonal wetlands on the project site are too shallow to hold water at sufficient depth long enough to sustain a CTS reproductive cycle. As such, the project will not result in impacts to CTS.

#### *Sensitive Habitat*

The project site contains sensitive habitats including riparian woodlands, Starr Creek, and seasonal wetlands. Riparian woodland habitat adjacent to Starr Creek, which bisects the western portions of the project site would be impacted by the project from construction activity, tree removal, and at operation from the introduction of a span bridge across Starr Creek. Seasonal wetlands onsite and in the immediate vicinity could be directly or indirectly impacted from the project due to roadway improvements including travel lanes, sidewalks, curbs and gutters, and bio-retention/LID features. As presented in discussion 4.4(c) below, **Mitigation Measure BIO-3** and **BIO-4** would be implemented and would effectively reduce potentially significant impacts of the project on sensitive habitats to less than significant levels.

#### *Summary of Impacts*

Onsite mature trees have the potential to support protected bird and bat species, including the White-Tailed Kite and other raptors, songbirds, and Pallid Bat (*Antrozous Pallidus*). Sensitive habitat including riparian woodlands, seasonal wetlands, and Starr Creek would be impacted by the proposed project. However, implementation of **Mitigation Measures BIO-1** through **BIO-4** would mitigate potentially significant impacts to less than significant levels.

**4.4(c) (Adverse Effects to Jurisdictional Waters) Less Than Significant Impact with Mitigation:** The BRA performed for the Jaguar Way Extension Project identifies potential jurisdictional features onsite including Starr Creek and seasonal wetland through a wetland delineation conducted on October 31, 2017 and September 13, 2019. A preliminary jurisdictional delineation has been prepared for the subject Project in accordance with the Army Corps of Engineers protocol (1987 Corps' Wetland Delineation Manual (Corps 1987) and Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region (Corps 2008)) and identifies 0.095 acres of jurisdictional wetlands within the survey area.

Development of the project has the potential to result in impacts to jurisdictional features including Sections 404 and 401 of the Clean Water Act (regulated by the US Army Corps of Engineers (USACE) and the Regional Water Quality Control Board, respectively). Based on the roadway alignment it is expected that a minimum of 0.0456 and up to 0.075 acres of fill to jurisdiction feature my result from the subject project. Impacts to onsite or offsite seasonal wetlands require permits from the USACE and RWQCB. In order to ensure that potential impacts to jurisdictional water are reduced to levels below significance **Mitigation Measure BIO-3** as set forth below shall be implemented. BIO-3 requires that potential impacts to jurisdictional waters be avoided, minimized to the greatest extent practicable and offset through on or offsite restoration (in-kind replacement) or compensatory means (through purchasing credits at an approved wetland mitigation bank).

The Jaguar Way Extension Project includes activities within and adjacent to the Starr Creek riparian corridor and is therefore subject to compliance with Section 1602 of the California Fish and Game Code through a Streambed Alteration Agreement. As proposed, the project will install a clear span bridge across Starr Creek, with abutments positioned above the ordinary high water mark (OHWM). Nonetheless, construction activities will occur within the Starr Creek tops of bank and within the riparian corridor, which could potentially impact

sensitive habitat and special status species. To minimize impact to the riparian corridor of Starr Creek, **Mitigation Measure BIO-4** shall be implemented. BIO-4 requires best management practices to preclude soils, fuels and other pollutants from entering Starr Creek, installation of wildlife friendly hay wattles and/or silt fencing, staging and operation of heavy-duty equipment fully outside the Starr Creek top of bank, and minimizing removal of riparian trees. Additionally, Measure BIO-4 requires that the Town of Windsor secure a Streambed Alteration Agreement (SBAA) and implement all provisions therein. Compliance with Measure BIO-4 and with all requirements stipulated in the CDFW SSBA, ensures that potential impacts to riparian woodland habitat is reduced to less than significant levels.

Therefore, with implementation of BIO-3 and BIO-4, potential impacts to jurisdictional features will be reduced to less than significant levels.

**4.4(d) (Adverse Effect to Wildlife Movement) Less Than Significant Impact:** Development of the subject Jaguar Way extension project would have less than significant impacts to wildlife movement. The project site is bordered by Keiser Park and residential land uses to the north, rural residential and agricultural land uses to the west, Windsor High School and Starr Creek Park to the south, and multi-family residences and public facilities to the east. There are no wildlife movement corridors onsite or in the immediate vicinity of the project site that would be affected by development of the proposed roadway. Existing fencing on the north side of the project site prevents wildlife movement to and from the north. The only wildlife movement corridor on the project site is Starr Creek and its riparian vegetation. During construction, as required by measure BIO-4 wildlife exclusion fencing will be installed around active work areas to prevent species from entering work areas and will be removed. Wildlife exclusion fencing will be installed temporarily and will be limited to active work areas only and will not substantially obstruct through movement within the Starr Creek Corridor. As the project proposes a span bridge, this corridor would remain accessible for wildlife movement at operation. Therefore, impacts from the Jaguar Way Extension Project due to a conflict with a wildlife movement corridor would be less than significant.

**4.4(e) (Conflict with Local Ordinances) Less Than Significant with Mitigation:** The Town of Windsor's Tree Preservation and Protection Ordinance is set forth in Chapter 27.36 of the Municipal Code and provides regulations for the protection, preservation and maintenance of native oak trees and trees of significance, groves and stands of mature trees, and mature trees in general. The Ordinance also provides replacement requirements when tree removal occurs as a result of development activities.

A total of 128 trees along the Jaguar Way Extension right-of-way were inventoried as part of the Tree Survey for the Jaguar Way Extension Project, which was conducted in 2017. As of the writing of this analysis, (October 2019) two growing seasons have passed and inventoried trees will have experienced continued growth. Thus, an updated tree inventory shall be prepared to inform the project specific Tree Preservation and Replacement Plan, which will be prepared and implemented by the Town prior to construction as described below.

The proposed Project (under all conceivable design options) would result in potentially significant impacts to protected trees as a substantial number of trees are required to be removed in order to accommodate the Jaguar Way Extension. While avoidance of individual trees may be feasible, due to the Jaguar Way right-of-way and presence of tree's along its plan line, it is expected that regardless of the design option selected the proposed project will result in removal of between approximately 75 and 98 trees, many which qualify as "protected" trees under the Town's Tree Preservation and Protection Ordinance.

To protect trees to remain and to adequately replace trees to be removed, **Mitigation Measure BIO-5** shall be implemented. Mitigation Measure BIO-5 refers to measure AES-1 introduced above, which provides that in accordance with the Tree Preservation and Protection Ordinance a Tree Preservation and Protection Plan for the Jaguar Way Extension Project be prepared and implemented for the final roadway design. BIO-5 provides that trees to remain are adequately protected through the establishment of tree protection zone(s)

and other best management practices applied throughout construction activities. With BIO-5/AES-1 the proposed Project will be in compliance with the Town's Tree Preservation and Protection Ordinance and with the Town's Tree Technical Manual. Therefore, with mitigation potential impacts due to a conflict with the Town's Tree Preservation and Protection Ordinance would be reduced to levels below significance.

**4.4(f) (Habitat Conservation Plan) Less Than Significant Impact:** As described above in 4.4 (a-b), the project is located within the Santa Rosa Plain Conservation Strategy but would not result in any impacts to species protected therein. Furthermore, the Santa Rosa Plain Conservation Strategy identifies the project site as "Urban and Built Up." There are no aspects of the project that would conflict or interfere with a conservation plan. Therefore, development and operation of the proposed project would result in less than significant impacts due to a conflict with an adopted Habitat Conservation Plan.

#### **Mitigation Measures:**

**BIO-1:** To avoid impacts to nesting birds protected under the Migratory Bird Treaty Act, construction activities including, site preparation, demolition, and/or removal of trees should occur outside of the bird-nesting season between September 1<sup>st</sup> and January 31<sup>st</sup>. If construction activities must occur between February 1<sup>st</sup> and August 31<sup>st</sup> (during the bird nesting season), then a pre-construction bird nesting survey shall be conducted within seven (7) and up to 15 days prior to start of work. The bird nesting survey will include an examination of buildings/structures and trees onsite and within 200 feet of the project site (i.e. within a zone of influence of nesting birds), not just trees slated for removal. The zone of influence includes area outside the project limits where birds could be distributed by construction activity and related noise and vibration.

If nesting birds are identified, then the qualified biologist with extensive experience working with nesting birds near construction sites shall establish a temporary protective nest buffer around the nest(s). The nest buffer will be staked or fenced to establish a construction exclusion perimeter. The buffer shall be of sufficient size to protect the nesting site from construction-related disturbance. Typically, adequate nesting buffers are 50 feet from the nest site or nest tree dripline for small birds and up to 300 feet for sensitive raptors. Upon completion of nesting surveys, if nesting birds are identified a qualified ornithologist/biologist shall prescribe adequate nesting buffers to protect the nesting birds from harm while the project is being constructed.

No construction or earth-moving activity shall occur within any established nest protection buffer prior to September 1<sup>st</sup> unless it is determined by a qualified ornithologist/biologist who is monitoring nesting behavior that the young have left the nest and have attained sufficient flight skills to avoid construction zones, or that the nesting cycle is otherwise completed. At the end of the nesting cycle, and fledging from the nest by its occupants, as determined by a qualified biologist, temporary nesting buffers may be removed, and construction may commence in established nesting buffers without further regard for the nest site.

The biologist/ornithologist conducting the surveys shall provide the Town of Windsor with a report detailing the results of the survey and any recommendations required for establishment of protective buffers, if tree removal or demolition activities occur between February 1<sup>st</sup> and August 31<sup>st</sup>.

**BIO-2:** In order to avoid impacts to the Pallid bat, and other species-status bat species, a qualified biologist shall conduct pre-construction surveys of trees and buildings/structures onsite and within a 200-foot radius (or as otherwise determined by the biologist) 15 days prior to commencing construction work including tree removal, demolition, and/or grading activities. The survey for bats shall occur regardless of the time of year (since there is no defined bat roosting season as there is with nesting birds). All bat surveys shall be conducted by a biologist with experience surveying for bats. If no

special-status bats are found during the surveys, then there would be no further regard for special-status bat species.

If special-status bat species are found roosting on the project site or in the vicinity, the biologist shall determine if there are young bats present (i.e., the biologist shall determine if there are maternal roosts). If young are found roosting in any tree or building/structure that will be removed or demolished, construction shall be postponed until the young have reached independence. A non-disturbance buffer with orange construction fencing shall be established around the maternity site. The size of the buffer zone shall be determined by a qualified bat biologist at the time of the surveys.

If adults are found roosting in a tree or building/structure on the project site or in the vicinity, but no maternal roosts are found, then the following measures shall be undertaken:

- Tree trimming and/or removal shall only be conducted during seasonal periods of bat activity: between August 31 and October 15, when bats would be able to fly and feed independently, and between March 1 and April 15 to avoid hibernating bats, and prior to the formation of maternity colonies.
- Any trees that will be removed and have been identified by a qualified bat biologist as having potentially suitable bat roost habitat, should be removed using a two-day phased removal method as follows:
  - On day one, in the afternoon, limbs and branches shall be removed using chainsaws only. Limbs with cavities, crevices, and deep bark fissures should be avoided.
  - On day two, the rest of the tree shall be removed under the direct supervision of a qualified bat biologist.
- If tree removal must occur outside of the seasonal periods of bat activity (see above), then a qualified bat biologist (with at least two years of direct bat surveying experience) shall conduct a pre-construction survey within 14 days of starting construction work. If the qualified biologist finds evidence of bat presence during the surveys, then a Bat Removal and Exclusion Plan shall be developed in conjunction with the CDFW.

The biologist conducting the surveys for the Project shall provide the Town of Windsor with a report detailing the results of the survey and any recommendations, as warranted, required for establishment of protective buffers for bat roosts.

**BIO-3:** To the greatest extent feasible jurisdictional features shall be avoided through design modifications that preclude fill or other modifications to seasonal wetlands. Given the narrow roadway alignment, a minimum of approximately 0.0456 acres and up to 0.075 acres of seasonal wetlands may be directly filled in order to accommodate the multi-modal roadway and associated improvements. Impacts to jurisdictional wetlands that cannot be avoided shall be offset as follows:

- Creation of new wetlands at a suitable location that remain inundated or saturated for sufficient duration to support hydrophytic vegetation and exhibit plant and invertebrate species richness comparable to existing wetlands.
- Replacement a minimum ration of 1:1, one acre of created wetland for each acre or fraction thereof removed.
- Creation of in perpetuity preservation for newly created wetlands through a deed restriction of conservation easement.



- Establishment of a five-year monitoring program to monitor the progress of the created wetland toward meeting established goals. At the end of each monitoring year, an annual report shall be submitted to the USACE, RWQCB, and other resource agencies that permitted the project. The report shall document hydrological and vegetative conditions of the created wetland and recommend remedial measure to correct any performance deficiencies.
- In lieu of creating compensation wetlands, as approved by the USACE and RWQCB, the Town may purchase mitigation credits from an approved wetland mitigation bank at a 1:1 ratio or as otherwise required by the regulatory agencies at the time permits are issued.

Proof of a 404 permit from the USACE and a 401 permit from the RWQCB shall be secured by the Town of Windsor prior to initiating construction activities.

Wetlands onsite and in the project vicinity to be preserved shall be protected during construction through Best Management Practices including but not limited to the following:

- Installing orange construction fencing, silt fencing, hay or gravel wattles prior to initiating work, maintaining fencing/wattles throughout the construction duration, and removing fencing/wattles upon completion.
- Presence of a biological monitor onsite to monitor the integrity of preserved wetland and other waters and to provide recommendations to ensure that construction activities do not intrude into protected areas.

**BIO-4:** The Town of Windsor shall secure a Streambed Alteration Agreement (SBAA) from the CDFW and implement all measures identified therein including but not limited to the following:

- To avoid fuels, lubricants, soils and other pollutants from entering Starr Creek, wildlife friendly hay wattles and/or silt fencing shall be installed. The use of mulch or any other substitute that may enter into the creek shall be prohibited.
- Staging, operation and maintenance of heavy-duty construction equipment shall be located away from Starr Creek and well outside of the riparian corridor.
- Temporary wildlife exclusion fencing shall be installed around active work areas within the Starr Creek corridor to prevent wildlife from entering work areas. As soon as construction activities within the Starr Creek corridor are completed all wildlife exclusion fencing shall be removed.
- To avoid impacts to the riparian corridor of Starr Creek, disturbed areas shall be revegetated with native riparian plant species. Replacement of riparian trees to be removed (oaks) shall be planted near the creek as feasible and/or adjacent to the existing limits of the riparian corridor to contribute to the existing riparian canopy. Riparian plantings shall be maintained for a minimum of 5-years to ensure that the canopy is enhanced and the understory restored.
- Non-native and invasive ornamental landscaping shall be precluded proximate to Starr Creek.
- To avoid debris from entering Starr Creek, the final roadway design shall provide for enclosed and accessible trash receptacles (located outside of the riparian corridor).
- New lighting introduced shall be downcast and precluded from overspill to the riparian corridor.

Any further requirements set forth in the Streambed Alteration Agreement (SBAA) from the CDFW, such as specific erosion control measures near the creek, shall also be implemented.

**BIO-5:** Implement AES-1 above.

#### 4.5. CULTURAL RESOURCES

| Would the project:   | Potentially Significant Impact | Less Than Significant with Mitigation | 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 type="checkbox"/>     | <input checked="" type="checkbox"/> |
| b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to § 15064.5? | <input type="checkbox"/>       | <input checked="" type="checkbox"/>   | <input type="checkbox"/>     | <input type="checkbox"/>            |
| c) Disturb any human remains, including those interred outside of formal cemeteries?                           | <input type="checkbox"/>       | <input checked="" type="checkbox"/>   | <input type="checkbox"/>     | <input type="checkbox"/>            |

Sources: Town of Windsor 2040 General Plan and EIR; County of Sonoma General Plan 2020; Evans & De Shazo, Cultural Resource Study for the Proposed Jaguar Way Extension, March 1, 2018; and Evans & De Shazo, Historic Property Survey for the Proposed Jaguar Way Extension, March 15, 2018.

#### Cultural Resources Setting:

The Town of Windsor contains both historic and prehistoric cultural resources within Town limits. At the writing of this document there is one property listed on the National Register, the Cunningham- Hembree Estate at 9225 Foxwood Drive. Presently, there are no other resources listed on the National Register of Historic Places (NRHP), California Register of Historical Resources, the California Historical Landmarks, or the California Points of Historical Interest within the Town of Windsor. However, the Town of Windsor Historical Register has identified several cultural resources as being significant local resources. These resources include the homes of important early settlers (Gutchell House/Residence, Bell Ranch House, and David H. Duvander House), Shiloh Cemetery, the Masonic Hall, Hembree House Museum, Cunningham House, Heritage Bay Tree, and the Odd Fellows Hall.

Evans & De Shazo prepared a Cultural Resource Study (**Appendix E1**) and a Historic Resource Evaluation (**Appendix E2**) for the proposed project. The Cultural Resource Study included a literature review, a record search at the Northwest Information Center (NWIC), a Sacred Sites inventory conducted by the Native American Heritage Commission (NAHC), and a field survey of the Area of Potential Effect (APE) conducted by a Secretary of Interior-qualified archaeologist. The direct APE includes the proposed roadway alignment and staging area. The indirect APE includes three adjacent properties that were identified as containing buildings that are at least 50 years of age and include areas within which the proposed project may cause indirect effects. The Historic Resource Evaluation documented and evaluated the existing buildings within the indirect APE to determine if they met the criteria to be considered Historical Resources for the purposes of CEQA.

For a discussion of Tribal Cultural Resources, see **Section 4.18 Tribal Cultural Resources**.

#### *Cultural Resource Study*

A Record Search was conducted at the NWIC on November 1, 2017 (NWIC File #17-1293). According to information on file at the NWIC, there have been four previous cultural resources studies that included portions of the direct APE. In addition, 23 other cultural resource studies were previously conducted within a

quarter-mile of the direct APE. Based on NWIC records there are six cultural resources recorded on Department of Parks and Recreation (DPR) 523 forms within one quarter-mile of the APE:

- P-49-003811: building pad, sawed-off utility pole and water pipe, located 1,100 feet north of the direct APE, and not found to be historically significant.
- P-49-002834 (CA-SON-2322H): Railroad segments, grades, trestles, culverts, and crossings that are associated with the Northwestern Pacific Railroad located 950 feet east of the direct APE.
- P-49-002835: ca. 1924 house located at 8606 Windsor Road that was recorded in 2001 and later demolished.
- P-49-002836: ca. 1930 or earlier house located at 8290 Windsor Road that was recorded in 2001 and later demolished.
- P-49-002837: ca. 1940 house located at 8234 Windsor Road that was recorded in 2001 and later demolished.
- P-49-002838: two single-family houses (one ca. 1946, and the other ca. 1950) located at 8580 and 8570 Windsor Road that were recorded in 2001 and later demolished.

The records search also reviewed the State Office of Historic Preservation's Directory of Properties for Windsor, Sonoma County, California (dated April 5, 2012), which does not list any resources within or adjacent to the direct APE that are listed in the National Register of Historic Properties (NRHP) or California Registry of Historical Resources (CRHR), or that are listed as a California Historical Landmark, or California Point of Historical Interest. Furthermore, there no California Inventory of Historic Resources (California Department of Parks and Recreation 1976), California Historical Landmarks (1990), California Points of Historical Interest (1992), or California Register of Historical Resources (1998) within or adjacent to the direct APE. Based on a review of the local Town of Windsor Historic Register that was adopted by the Town Council in 2003 as part of Resolution 1343-032, no locally-listed resources are in the immediate vicinity of the project site.

The review of historic maps indicates that the Project has a moderate potential to contain historic-era archaeological resources since buildings were located adjacent to the northeast side of the project site as early as 1877.

A review of geologic and soils data indicate that the project site has a low potential to contain buried prehistoric resources due to the presence of early Pleistocene to the late Pleistocene alluvial deposits that pre-date human occupation of the area. However, the project site has certain environmental conditions, such as being located near a waterway (Starr Creek) which increases the potential for prehistoric archaeological resources to be present.

A field survey of the project site was conducted by EDS Principal Archaeologist, Sally Evans, M.A., RPA on November 7, 2017. No potentially significant cultural resources were identified during the field survey.

#### *Historic Resource Evaluation*

Evans & De Shazo (EDS) utilized research obtained at the NWIC, Sonoma County Assessor/Recorder office, Polk's city directories, Sanborn Fire Insurance maps, Sonoma County Library, Healdsburg Museum and Historical Society, and the Town of Windsor Historic Register, as well as various online sources to obtain details regarding property ownership and to develop a historic context in which to evaluate the historic significance of the buildings and structures within and adjacent to the project site. A field survey was conducted on January 22, 2018 by EDS Principal Architectural Historian, Stacey De Shazo, M.A., who exceeds the Secretary of Interior's professional qualification standards in historic architecture and history.

The built environment resources within the project vicinity that were evaluated included a ca. 1950 house at 8705 Windsor Road within APN 066-510-052, a 1934 house at 9050 Starr Road within APN 066-180-060, and a ca. 1945 house at 9049 Starr Road within APN 066-180-030. As concluded in the Historic Resource Evaluation, all three houses are not considered eligible for listing on the NRHP; therefore, they do not constitute historic properties under Section 106 of the NHPA. There are no other buildings or structures within or adjacent to the project site that would qualify as eligible historic resources.

#### **Cultural Resources Impact Discussion:**

**4.5(a) (Historic Resources) No Impact:** The project site is not located within a designated historic district and does not contain any historically significant above ground resources, nor does it constitute a historic site. In addition, the built environment resources within the project vicinity (APE) were not found to be significant resources or were found to lack historic integrity such that they do not exhibit eligibility under Section 106 of the NHPA. As such, they are not considered to be historic properties. The direct APE is defined as the area that will be directly affected by the project, and the indirect APE is defined as the area within which the project may cause indirect affects to potential historic properties.

Accordingly, in the absence of any historic resources within the project site boundaries or immediate vicinity, the proposed project would not directly or indirectly affect the significance of a historical resource. Therefore, the project would have no impacts due to a change in the significance of a historical resource.

**4.5(b) (Archaeological Resources) Less Than Significant Impact with Mitigation:** As described above, no potentially significant prehistoric or historic-era cultural resources were observed within the APE. However, there are six cultural resources recorded on Department of Parks and Recreation (DPR) 523 forms within one quarter-mile. Additionally, because the project site is located near Starr Creek there's an elevated potential that resources may be present. As such, the project site has the potential to contain undiscovered prehistoric or historic-era cultural resources.

Site disturbance during construction could unearth archaeological deposits. In order to mitigate potential impacts to cultural resources, **Mitigation Measure CUL-1** shall be implemented and requires that in the event of discovery, construction activities be halted, and a qualified archaeologist assess the value of the resource. Mitigation Measure CUL-1 provides that in the event of accidental discovery, buried cultural resources are protected, evaluated, and treated based on their identified value. Therefore, the project's impact to buried cultural resources if encountered during construction would be reduced to less than significant levels.

**4.5(c) (Discovery of Human Remains) Less Than Significant Impact with Mitigation:** No evidence suggests that human remains have been interred within the boundaries of the project site. However, in the event that during ground disturbing activities human remains are discovered to be present, all requirements of state law pursuant to the California Health and Safety Code Section (CA HSC) Section 7050.5 shall be duly complied with, as set forth in **Mitigation Measure CUL-2** below. This measure includes the immediate cessation of ground disturbing activities near or in any area potentially overlying adjacent human remains and contacting the Sonoma County Coroner. Implementation of CUL-2 ensures that in the event of the accidental discovery of buried human remains, potential adverse impacts to such remains will be reduced to levels below significance.

#### **Mitigation Measures:**

**CUL-1:** To ensure appropriate treatment of archeological resources in the event of inadvertent discovery the following procedures shall be complied with:

- A professional archaeologist shall conduct a preconstruction meeting with the site superintendent and contractor(s), equipment operator(s) and others prior to commencement of ground-disturbing

activities to familiarize the team with the types of archaeological material that could be encountered and procedures to follow in the event that archaeological deposits are uncovered.

- If archeological deposits are encountered during ground-disturbing activities, all work within 25 feet of the discovery shall be halted until a qualified archaeologist, who meets the Secretary of the Interior's Standards, is retained to inspect the material and provide further recommendations for appropriate treatment of the resource including, but not limited to, data recovery excavation, artifact curation, report preparation, and information dissemination to the public. Where such resources are Native American, Tribal representatives shall be notified and appropriate treatment shall be determined in consultation with Native American tribe(s).
- Upon completion of an assessment and/or evaluation of a potential artifact, the archaeologist shall prepare a report documenting the methods and results of the archaeological assessment/evaluation and provide recommendations for the treatment of the find. The report shall be submitted to the Town of Windsor, the Northwest Information Center, and Native American Tribe(s), as appropriate.

**CUL-2:** Consistent with California Health and Safety Code Section 7050.5 and California Public Resources Code Section 5097.98, if human remains are encountered, no further disturbance shall occur until the County Coroner has made the necessary findings as to origin. The remains shall be left in place and free from disturbance until a final decision as to the treatment and disposition has been made. If the Coroner determines the remains to be Native American, the Native American Heritage Commission shall be contacted within 24 hours. The Native American Heritage Commission must then immediately identify the "most likely descendant(s)" of receiving notification of the discovery. The most likely descendant(s) shall then make recommendations within 48 hours and engage in consultations concerning the treatment of the remains.

#### 4.6. ENERGY

| Would the project:   | Potentially Significant Impact | Less Than Significant with Mitigation | Less Than Significant Impact        | No Impact                |
|--|--------------------------------|---------------------------------------|-------------------------------------|--------------------------|
| a) Result in a potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy, or wasteful use 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"/> |

Sources: Town of Windsor 2040 General Plan and EIR; and BAAQMD 2017 Bay Area Clean Air Plan.

#### Energy Setting:

As described in the General Plan EIR, California is one of the lowest per capita energy users in the United States, ranked 49th in the nation, due to its energy efficiency programs and mild climate. California used 295,405 gigawatt-hours (GWh) of electricity in 2015 and 2,309,759 million cubic feet of natural gas in 2014, of which 401,172 million cubic feet were consumed by residential users. In addition, Californians presently consume nearly 18 billion gallons of motor vehicle fuels per year. The single largest end-use sector for energy

consumption in California is transportation (38.7 percent), followed by industry (24.4 percent), commercial (18.6 percent), and residential (18.3 percent).

Electricity and natural gas service in the Town of Windsor is provided by Pacific Gas & Electric (PG&E). PG&E provides natural gas and electric service to approximately 16 million people throughout a 70,000-square mile service area in northern and central California. In 2015, PG&E provided 29,796 million GWh of electricity to its residential users and 56,193 GWh of electricity to all other user types. In 2015, PG&E provided 1,690 million therms of natural gas to its residential users and 2,718 million therms of natural gas to all other user types.

Sonoma Clean Power is a program that allows businesses and residents in Mendocino and Sonoma Counties to purchase energy created from renewable resources, including geothermal, solar, wind, water, and biomass. This service provides energy through alternative generation processes while using existing infrastructure through PG&E for delivery. By using existing delivery infrastructure, Sonoma Clean Power is billed to customers through PG&E for providing electric generation service. In 2014, 89% of eligible customers were receiving electricity from Sonoma Clean Power resulting in a 48% reduction in greenhouse gas emissions relative to PG&E's 2013 reported data.

### **Energy Impact Discussion:**

**4.6(a) (Wasteful, Inefficient, Unnecessary Consumption of Energy) Less Than Significant Impact:** Development of the proposed new roadway would involve the use of energy during construction and at operation. Site preparation, grading, and paving would consume energy in the form of gasoline and diesel fuel through the operation of heavy off-road equipment, trucks, and worker traffic. However, consumption of such resources would be temporary and would cease upon the completion of construction. Implementation of **Mitigation Measure AQ-1** (see Section 4.3 Air Quality) would minimize the inefficient, wasteful, and unnecessary consumption of energy during construction by limiting idling times and requiring that all construction equipment be maintained and properly tuned in accordance with manufacturer's specifications. Implementation of AQ-1 would reduce energy consumption during construction. As such, construction-related energy impacts would be less than significant.

At operation, the proposed project would use electricity to power the new street lamps/poles. All new lighting would comply with Windsor's light and glare standards (Windsor Zoning Ordinance Section 27.20.030), which are applicable to all development and uses Town wide. Specifically, applicable to the energy analysis, Section 27.20.030.D provides standards that specify requirements for the maximum wattage allowed. Compliance with Windsor's light and glare standards would ensure that the additional lighting introduced from the proposed project would not result in the wasteful, inefficient, and unnecessary consumption of energy resources. Therefore, energy impacts at operation would be less than significant.

**4.6(b) (Conflict with State or Local Plan) Less Than Significant Impact:** As previously described, the BAAQMD adopted the 2017 CAP on April 19, 2017 to comply with state air quality planning requirements set forth in the California Health & Safety Code. The proposed control strategy for the 2017 CAP consists of 85 distinct measures targeting a variety of local, regional, and global pollutants. The CAP specifically includes control measures related to the energy sector. The energy control measures in the CAP aim to decarbonize electricity production and decrease electricity demand. The BAAQMD CEQA Guidelines set forth criteria for determining consistency with the CAP. In general, a project is consistent if a) the project supports the primary goals of the CAP, b) includes control measures; and c) does not interfere with implementation of the CAP measures.

The proposed project would have a less than significant impact due to a conflict with the 2017 CAP related to energy since, a) the project supports the goals of the CAP in that it will provide pedestrian and bicycle facilities; b) includes control measures to protect air quality during construction by implementing best control measures set forth by BAAQMD; and c) as a new 2-lane roadway, the proposed project would not interfere

with implementation of the energy control measures identified in the 2017 CAP. Therefore, the project will have less than significant impacts due to a conflict with the BAAQMD 2017 CAP.

The Town of Windsor 2040 General Plan EIR adopted February 2018 outlines numerous policies that would reduce future energy use in the Town. Among these that are relevant to the project include Policy ER-5.4: *Encourage Development Patterns that Reduce Greenhouse Gas Emissions*, and Policy ER-5.9: *Energy Conservation through Land Use*. The project would increase connectivity within the Town by providing a multi-modal corridor for automobiles, bicycles, and pedestrians, thus satisfying Policy ER-5.4. The project would also create a new public transit corridor along a public park and a public school, thus satisfying Policy ER-5.9.

In December 2007, the California Energy Commission (CEC) prepared the State Alternative Fuels Plan in partnership with the California Air Resources Board (CARB) and in consultation with the other state, federal, and local agencies. The plan presents strategies and actions California must take to increase the use of alternative non-petroleum fuels in a manner that minimizes costs to California and maximizes the economic benefits of in-state production. The plan assessed various alternative fuels and developed fuel portfolios to meet California's goals to reduce petroleum consumption, increase alternative fuels use, reduce greenhouse gas emissions, and increase in-state production of biofuels without causing a significant degradation of public health and environmental quality. As a new roadway, the proposed project would not conflict with or obstruct implementation of the State Alternative Fuels Plan and impacts would be considered less than significant.

The California 2008 Energy Action Plan Update establishes energy efficiency and demand response (i.e., reduction of customer energy usage during peak periods) as the first-priority actions to address California's increasing energy demands. Additional priorities include the use of renewable sources of power and distributed generation (i.e., the use of relatively small power plants near or at centers of high demand). To the extent that these actions are unable to satisfy the increasing energy demand and transmission capacity needs, clean and efficient fossil-fired generation is supported. The California 2008 Energy Action Plan Update examines policy changes in the areas of energy efficiency, demand response, renewable energy, electricity reliability and infrastructure, electricity market structure, natural gas supply and infrastructure, research and development, and climate change.<sup>6</sup> As a new roadway, the proposed project would not conflict with or obstruct implementation of the California 2008 Energy Action Plan Update and impacts would be considered less than significant.

The California 2011 Energy Efficiency Strategic Plan sets forth a roadmap for energy efficiency in California through the year 2020 and beyond. It articulates a long-term vision and goals for each economic sector and identifies specific near-term, mid-term and long-term strategies to assist in achieving those goals. The plan was developed through a collaborative process involving the CPUC regulated utilities (PG&E, Southern California Edison Company, San Diego Gas & Electric Company, and Southern California Gas Company) and over 500 individuals and organizations.<sup>7</sup> As a new roadway, the proposed project would not conflict with or obstruct implementation of the California 2011 Energy Efficiency Strategic Plan and impacts would be considered less than significant.

**Mitigation Measures:** None Required.

<sup>6</sup> California Energy Commission, 2008 Energy Action Plan Update, <http://www.energy.ca.gov/2008publications/CEC-100-2008-001/CEC-100-2008-001.PDF>, Accessed April 3, 2018.

<sup>7</sup> California Energy Commission, 2011 Energy Efficiency Strategic Plan, [http://www.energy.ca.gov/ab758/documents/CAEnergyEfficiencyStrategicPlan\\_Jan2011.pdf](http://www.energy.ca.gov/ab758/documents/CAEnergyEfficiencyStrategicPlan_Jan2011.pdf), accessed April 3, 2018.

#### 4.7. GEOLOGY AND SOILS

| Would the project:   | Potentially Significant Impact | Less Than Significant with Mitigation | Less Than Significant Impact        | No Impact                           |
|--|--------------------------------|---------------------------------------|-------------------------------------|-------------------------------------|
| 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 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 type="checkbox"/>            | <input checked="" type="checkbox"/> |
| b) Result in substantial soil erosion or the loss of topsoil?  | <input type="checkbox"/>       | <input type="checkbox"/>              | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| c) Be located on a geologic 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 checked="" type="checkbox"/>   | <input 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 checked="" type="checkbox"/>   | <input 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 type="checkbox"/>            | <input checked="" type="checkbox"/> |
| f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?  | <input type="checkbox"/>       | <input checked="" type="checkbox"/>   | <input type="checkbox"/>            | <input type="checkbox"/>            |

Sources: Town of Windsor 2040 General Plan and EIR.

#### Geology and Soils Setting:



The Town of Windsor is located in the Russian River Valley approximately seven miles northwest of the City of Santa Rosa and five miles southeast of the City of Healdsburg. The Town lies within the Coast Range Geomorphic Province. This province is characterized by parallel northwest trending mountain ranges formed over the past 10 million years or less by active uplift related to complex tectonics of the San Andreas fault/plate boundary system. The province is bordered on the west by the Pacific Ocean, and the coastline is uplifted, terraced, and wave-cut. The Coast Ranges are composed of thick Mesozoic and Cenozoic sedimentary strata, and north of the San Francisco Bay are dominated by irregular, knobby, landslide-topography of the Franciscan Complex. The Russian River Valley is bordered by the Mayacama Mountains and Napa Valley to the east and coastal foothills to the west. Alexander Valley is located north of Windsor and Petaluma Valley and the Sonoma Mountains are located to the southeast.

During the historic period, four major earthquakes have occurred within or near the Sonoma County region that have affected Windsor residents. The 1906 San Francisco earthquake was a magnitude 8.3 earthquake on the northern segment of the San Andreas Fault that damaged several buildings in Windsor. The 1969 Santa Rosa earthquake was a twin seismic event with magnitudes of 5.6 and 5.7 centered approximately two miles north of Santa Rosa. This earthquake resulted in only minor damage to structures in Windsor. The 1989 Loma Prieta earthquake occurred along the San Andreas Fault, centered approximately 10 miles northeast of the City of Santa Cruz. That 6.9 magnitude earthquake resulted in no loss of life or damage in Windsor. The Napa Valley earthquake occurred in 2014 near American Canyon, approximately 40 miles southeast of Windsor. This 6.0-magnitude earthquake caused light to moderate ground shaking in Windsor but no loss of life or major property damage.

The most significant active regional faults in Windsor include the Maacama, San Andreas, and Rodgers Creek Faults. The Maacama Fault is located approximately six miles northeast of the project site. The San Andreas Fault is located approximately 18 miles southwest of the project site. The Rodgers Creek Fault runs beneath the northeastern corner of Windsor and is located approximately 2.5 miles northeast of the project site. This fault trace and adjacent lands are mapped as an Alquist-Priolo Earthquake Fault Zone. The Healdsburg Fault also runs through the northeastern corner of the Town, parallel to and west of the Rodgers Creek Fault, and is located approximately 2 miles northeast of the project site. However, the Healdsburg Fault is not considered an active fault and is not associated with an Alquist-Priolo Earthquake Fault Zone.

Most of the Town would be subject to violent ground shaking during a strong earthquake along either the Rodgers Creek or Maacama Fault. The western portion of the town would be subject to very strong ground shaking during a strong earthquake along any of the major active faults in the region. In some cases, fault movement propagates upward through subsurface materials and causes displacement at the ground surface as a result of differential movement. Surface rupture is limited to areas very near the fault. Surface rupture usually occurs along traces of known or potentially active faults, although many historic events have occurred on faults not previously known to be active. The potential for surface rupture within the Town most likely is limited to the Rodgers Creek Alquist-Priolo Earthquake Fault Zone that runs through the Foothill Regional Park. Potential hazards resulting from the secondary effects of ground-shaking include: liquefaction, subsidence, and earthquake-induced landslides. Soil-disturbing activities such as grading, soil compaction, and cut and fill activities can create or exacerbate conditions that increase the chance of such effects during or independent of seismic activity.

The elevation in the Town of Windsor ranges from approximately 120 feet in the plain to approximately 430 feet in the foothills on the eastern edge of the Town. The Russian River and Dry Creek valleys merge north of Windsor and combine to form a large alluvial plain known as the Santa Rosa Plain. Windsor is located on the northern boundary of the Santa Rosa Plain, which is generally flat with a gentle slope to the southwest. This plain is composed of Mesozoic basement rocks of the Franciscan Complex, Coast Range ophiolite, and Great Valley Sequence that are overlain by volcanics and Miocene fluvial and estuarine sedimentary rocks; Pliocene fluvial, estuarine, and marine littoral and shelf sediments; and Quaternary and Late Pliocene alluvial fan and

basin deposits. The majority of surficial sediments in the Town of Windsor consist of Pleistocene to recent alluvium and alluvial fan deposits.

Evans & De Shazo reviewed soil maps in the preparation of their Cultural Resource Study.<sup>8</sup> The Soils maps of the direct APE, and associated soil descriptions and profiles, show that the direct APE is situated on a Pleistocene age alluvial terrace that contains Huichica loam, which is alluvium derived from igneous, metamorphic and sedimentary rock. In a typical profile, Huichica loam is characterized by loam to a depth of 14 inches, sandy clay loam from 14 inches to 23 inches, clay from 23 inches to 30 inches, and cemented clay pan soil from 30 inches to 57 inches.

### *Paleontological Resources*

A paleontological resources search performed using the University of California Museum of Paleontology's (UCMP) Miocene Mammal Mapping Project (MioMap) indicated no previous finds of paleontological resources on or in the immediate vicinity of the project area.<sup>9</sup> According to the MioMap database, the closest paleontological find is located approximately 17 miles east of the project site near Saint Helena.

Paleontological remains are fairly common in Sonoma County. They include plants, invertebrates, and vertebrates ranging in age from approximately 140 million years to less than 8,000 years before the present. Within the county, paleontological remains have been primarily recovered from the following geologic formations:<sup>10</sup>

- Franciscan complex (Jurassic) – This formation largely covers the northern part of the county, with the exception of the Alexander Valley and northern Santa Rosa plain;
- Wilson Grove Formation (Miocene-Pliocene) – This is a common location for Paleontological remains and is largely located in the western part of the county, along with the Ohlson Ranch Formation (Miocene-Pliocene), and the Petaluma Formation. The boundaries of this area are Occidental, Sebastopol, Petaluma, and the Coast. These formations are also present around the base of the Sonoma Mountains; and
- Sonoma Volcanics (Miocene-Pliocene) – This is the formation of the Sonoma Mountains and the Sonoma/ Napa Mountains which form the western border of the county.

Paleontological sensitivity was evaluated in the Windsor General Plan EIR. As described in the EIR, the Town of Windsor is underlain by Miocene to Holocene, mostly terrestrial sediments, representing approximately the last 5 million years of geologic time (General Plan EIR Figure 9). As described in the General Plan EIR, the Town also contains artificial fill, which is entirely human-introduced and has no paleontological potential. Late Holocene deposits are too young to contain fossils and have no paleontological potential. However, these sediments likely overlie older, paleontologically sensitive sediments, but at unknown depths. The undifferentiated Holocene and Pleistocene to historical landslide deposits have some potential to contain fossils, but are generally considered to have low potential, because of their highly disturbed context.

The Town contains large areas of Pleistocene, or older, alluvium. Pleistocene alluvium represents terrestrial stream-laid deposits of undivided gravel, sand, and silt deposited before the end of the last Ice Age (ca. 11,700 years ago) and has a record of abundant and diverse vertebrate fauna throughout California, including northern California and is generally considered to have high paleontological sensitivity wherever it occurs

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<sup>8</sup> Evans & De Shazo, Cultural Resource Study for the Proposed Jaguar Way Extension, March 1, 2018.

<sup>9</sup> University of California Museum of Paleontology, Miocene Mammal Mapping Project (MioMap), <http://www.ucmp.berkeley.edu/miomap/>, Accessed March 17, 2017.

<sup>10</sup> Sonoma County General Plan 2020 Draft EIR, January 2006.

(General Plan EIR Figure 10). As shown on Figure 10 of the General Plan EIR, the majority of the project site is identified as having a high potential (sensitivity) for paleontological resources.

### **Geology and Soils Impact Discussion:**

**4.7(a.i) (Faults) Less Than Significant Impact:** The project site is not located within an Alquist-Priolo Earthquake fault zone and no identified active faults traverse the site. The nearest active Alquist-Priolo Earthquake Fault Zone is the Rodgers Creek fault, located approximately two miles northeast of the project site. Because of the distance of the fault zone from the project site, it is not anticipated that a fault-related ground rupture during an earthquake would occur within the limits of the project site. Therefore, impacts associated with an Alquist-Priolo Earthquake fault zone surface fracture onsite would be less than significant.

**4.7(a. ii) (Ground-Shaking) Less Than Significant Impact:** As discussed above, the project site is located near the Rodgers Creek, Healdsburg, Maacama, and San Andreas Faults. As stated in the Windsor 2040 General Plan, the project site would be subject to very strong ground shaking during a large earthquake along any of the major active faults in the region. Thus, development of the proposed roadway has the potential to expose people that use the roadway to potentially substantial adverse effects resulting from strong seismic ground shaking. However, the proposed roadway would be designed and constructed consistent with the Town of Windsor's seismic design standards to increase the roadway's capability to withstand strong seismic groundshaking. In addition, because of the project site's distance from the Rodgers Creek fault, it is not anticipated that a fault-related ground rupture during an earthquake would occur within the limits of the project site. Therefore, impacts related to potential impacts from seismic shaking would be considered less than significant.

**4.7(a. iii) (Seismic-related ground failure/liquefaction) Less Than Significant Impact:** Liquefaction is a phenomena associated with fine-grained, loosely-packed sands and gravels subjected to ground shaking as a result of seismic activity. Liquefaction can lead to total and/or differential settlement and is largely dependent upon the intensity of ground shaking and response of soils underlying the site. The project site has a very low susceptibility to liquefaction. The roadway would be constructed to meet the Town's and Caltrans' standards for seismic safety. Therefore, the potential impacts including the risk of loss, injury, or death involving seismic-related ground failure and liquefaction are considered less than significant.

**4.7(a. iv) (Landslide) No Impact:** The susceptibility of landslides is dependent on the slope and geology as well as the amount of rainfall, excavation, or seismic activities. A landslide is a mass of rock, soil, or debris displaced down-slope by sliding, flowing, or falling. Areas most susceptible to landslides are characterized by steep slopes and down-slope creep of surface materials. Landslides are known to occur around slopes steeper than 15% and that have demonstrated stability problems in the past. The site is relatively flat and is classified as having a moderate potential for landslides. Therefore, impacts due to loss of structures or life from landslides is considered less than significant.

**4.7(b) (Erosion) Less Than Significant Impact:** Development of the proposed roadway will require grubbing, excavation, and grading, which may result in soil erosion. Water and wind serve as the primary catalyst of soil erosion, with steeper slopes intensifying the effects. Vegetation removal as part of the site preparation process as well as grading and ground disturbing activities associated with development can heighten the potential for and accelerate soil erosion.

All earthwork, grading, backfilling and compaction activities associated with the project will be subject to the Town of Windsor's Storm Water Quality Provisions (Ordinance No. 2016-303), which are codified in Code Section 9-4-115, Title IX, Chapter 4, Article 1. Similarly, these activities are also covered by the mandatory requirements of the National Pollution Discharge Elimination System (NPDES) General Permit which is implemented through a Storm Water Pollution Prevention Plan (SWPPP). Additionally, **Mitigation Measure HYDRO-1** (Section 4.10 Hydrology and Water Quality) would be implemented, which requires implementation

of erosion control measures. Compliance with these mandatory requirements, as well as implementation of Mitigation Measure HYDRO-1, would prevent substantial soil erosion from development of the proposed project. Therefore, the project will result in less than significant impacts due to soil erosion.

**4.7(c,d) (Unstable Geologic Unit, Expansive Soils) Less than Significant Impact With Mitigation:** Lateral spreading, lurching and associated ground failure can occur during strong ground shaking on certain soil substrate typically on slopes. Lurching generally occurs along the tops of slopes where stiff soils are underlain by soft deposits or along steep channel banks whereas lateral spreading generally occurs where liquefiable deposits flow towards a “free face,” such as channel banks, during an earthquake.

Based on the site’s relatively flat topography, the project site has a very low potential for lateral spreading. However, due to the presence of Starr Creek on the project site, lateral spreading may occur along the sloped banks of the creek. As such, **Mitigation Measure GEO-1** shall be implemented, ensuring that a geotechnical investigation would identify potentially hazardous geologic conditions and mitigate them to applicable standards.

Expansive soils are naturally occurring materials often found in low-lying regions and valley flood plains. Expansive soils, such as clay, tend to swell with increases in soil moisture and shrink as the soil moisture decreases. Changes in soil moisture content can compromise the integrity of foundations, retaining walls and other improvements due to differential movements (settlement or heave).

As stated in the Windsor 2040 General Plan, soils with high clay content have the highest potential for shrink-swell. Common soils with moderate to high clay content (over 30 percent) in Windsor include Clear Lake clay, Cole, and Huichica loam. As previously stated, the soils underlying the project site contain Huichica loam. In a typical profile, Huichica loam is characterized by loam to a depth of 14 inches, sandy clay loam from 14 inches to 23 inches, clay from 23 inches to 30 inches, and cemented clay pan soil from 30 inches to 57 inches. As such, some expansive materials could occur in the substrate of the sandy clay loam and clay of the project site. As previously stated, the proposed roadway would be designed and constructed consistent with the Town of Windsor’s and Caltrans’ seismic design standards. Additionally, Mitigation Measure GEO-1 would inform project design including the bridge abutments, landings, and roadway substrate such that imported fill, soil compaction, and/or other construction techniques would reduce impacts from expansive soils to less than significant levels. Therefore, the project would result in a less than significant impact due to unstable or expansive soils.

**4.7(e) (Septic Tanks) No Impact:** There are no onsite septic tanks or alternative wastewater treatment facilities proposed as part of the Project. Therefore, there would be no impacts due to the disposal of wastewater where sewers are not available.

**4.5(f) (Paleontological Resources) Less Than Significant Impact with Mitigation:** The project site is currently developed with a partially paved and partially graveled roadway; an existing paved pedestrian path; a partially graveled, undeveloped right-of-way; and a graveled lot (staging area). Although the project site is partially developed and has been previously disturbed, with no known past discovery of paleontological resources onsite, the majority of the project site is identified as having a high potential (sensitivity) for paleontological resources (General Plan EIR). Because paleontological remains are fairly common in Sonoma County, and the site is identified as having a high potential for paleontological resources, there is a potential that excavation associated with the proposed project could encounter paleontological resources. Because the potential for inadvertent discovery of paleontological or unique geological resources exists, **Mitigation Measure GEO-2**, as set forth below, shall be implemented. Mitigation Measure GEO-2 ensures that proper procedures are followed in the event of discovery, thereby reducing potential impacts to paleontological resources to levels below significance.

#### **Mitigation Measures:**

**GEO-1:** A project-specific design level geotechnical investigation for the Jaguar Way project shall be prepared and recommendations therein implemented. The investigation shall include an analysis of expected ground motions at the site from known faults, liquefaction areas, and expansive soils and identify potentially hazardous geological conditions. The expected ground motions shall be used to develop soil preparation (i.e. need for imported fill, compaction requirements, etc.) and improvements including utility connections, bridge design, and paved surfaces (roadways, sidewalks, driveways, etc.), and shall meet or exceed geotechnical standard practices and the California Building Code. The investigation shall be reviewed and accepted by the Town engineer and all recommendations shall be included in the final project design at the discretion of the Town engineer. Recommendations that are applicable to earthwork and site preparation shall be consistent with the most recent version of the California building Code.

**GEO-2:** If paleontological resources are identified during ground-disturbing construction activities, all work within 50 feet of the discovery shall be halted and a qualified paleontologist contacted to evaluate the finds and make recommendations. If the qualified paleontologist determines that the materials are not significant, no further protection is necessary. If such paleontological resources are found to be significant, they should be avoided by project activities. If avoidance is not feasible, adverse effects to such paleontological resources should be mitigated consistent with a mitigation monitoring program prepared by a qualified paleontologist

Typically, fossils can be safely salvaged quickly by a single paleontologist and not disrupt construction activity. In some cases, larger fossils (such as complete skeletons or large mammal fossils) require more extensive excavation and longer salvage periods. In this case the paleontologist should have the authority to temporarily direct, divert or halt construction activity to ensure that the fossil(s) can be removed in a safe and timely manner. Work may continue outside of a buffer zone around the fossil, usually 50-100 feet (specific distance may be determined by the project paleontologist).

Once salvaged, significant fossils should be identified to the lowest possible taxonomic level, prepared to a curation ready condition and curated in a scientific institution with a permanent paleontological collection (such as the University of California Museum of Paleontology), along with all pertinent field notes, photos, data, and maps. Fossils of undetermined significance at the time of collection may also warrant curation at the discretion of the project paleontologist.

Upon completion of ground disturbing activity (and curation of fossils if necessary) the qualified paleontologist shall prepare a final mitigation and monitoring report outlining the results of the mitigation and monitoring program. The report shall include discussion of the location, duration and methods of the monitoring, stratigraphic sections, any recovered fossils, and the scientific significance of those fossils, and where fossils were curated.

#### 4.8. GREENHOUSE GAS EMISSIONS

| Would the project:  | Potentially Significant Impact | Less Than Significant with Mitigation | Less Than Significant Impact        | No Impact                |
|---|--------------------------------|---------------------------------------|-------------------------------------|--------------------------|
| 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?

☐☐☒☐

Sources: Town of Windsor 2040 General Plan and EIR; County of Sonoma General Plan 2020; BAAQMD 2017 Clean Air Plan; BAAQMD CEQA Guidelines May 2017; Town of Windsor Greenhouse Gas Emissions Reduction Action Plan Update, Final Report, prepared July 24, 2012; and Air Quality and GHG Emissions Assessment, prepared by Illingworth and Rodkin, November 18, 2019.

### Greenhouse Gas Setting:

Greenhouse gases (GHGs) are generated from natural geological and biological processes and through human activities including the combustion of fossil fuels and industrial and agricultural processes. GHGs include carbon dioxide (CO<sub>2</sub>), nitrous oxide (N<sub>2</sub>O), methane (CH<sub>3</sub>), chlorofluorocarbons, hydrofluorocarbons and perfluorocarbons.

While GHGs are emitted locally they have global implications. GHGs trap heat in the atmosphere, which heats up the surface of the Earth. This concept is known as global warming and is contributing to climate change. Changing climatic conditions pose several potential adverse impacts including sea level rise, increased risk of wildfires, degraded ecological systems, deteriorated public health, and decreased water supplies.

To address GHG's at the State level, the California legislature passed the California Global Warming Solutions Act in 2006 (Assembly Bill 32), which requires that statewide GHG emissions be reduced to 1990 levels by 2020. Executive Order S-3-05 provides the California Environmental Protection Agency with the regulatory authority to coordinate the State's effort to achieve GHG reduction targets. S-3-05 goes beyond AB 32 and calls for an 80 percent reduction below 1990 levels by 2050. Senate Bill 375 has also been adopted, which seeks to curb GHGs by reducing urban sprawl and vehicle miles traveled.

A Climate Action Plan was prepared in July 2016 by the Sonoma County Regional Climate Protection Authority (RCPA) on behalf of Sonoma County and all nine local jurisdictions. The Climate Action Plan implements the Town of Windsor's General Plan Goal ER-5, which includes numerous policies to reduce greenhouse gas emissions in the community. Several General Plan policies serve to reduce GHG emissions associated with project siting, operation, and design. The CAP's target for GHG emission reduction levels extends beyond those set forth by AB 32 goal to reach 1990 levels by 2020. Sonoma County jurisdictions have set a countywide target lower than AB 32 standards of 25% below 1990 levels by 2020. Jurisdictions are able to meet these reduction goals by their selection of policies as outlined by the CAP. The Town of Windsor implements the goals of the CAP through a variety of measures, including the Windsor Efficiency PAYS program, which provides residential properties with water and energy saving appliances and landscaping with no upfront cost or debt.

The BAAQMD CEQA Air Quality Guidelines, which include thresholds of significance for greenhouse gas emissions, were established in May 2010<sup>11</sup> and updated in May 2017. With release of the 2017 Bay Area Clean Air Plan (CAP) and the associated EIR, it is expected that updated thresholds and guidelines may be developed in the near term. As described above, in the Air Quality discussion, the Town of Windsor recognizes that thresholds set forth in BAAQMD Guidelines dated May 2017 represent the best available scientific data and has elected to rely on the Air District's Guidelines in determining screening levels and significance.

<sup>11</sup> Adopted by Board of Directors of the BAAQMD in June 2010 (Resolution No. 2010-6).

Based on current BAAQMD Guidelines, a project is considered to have a less-than-significant impact due to GHG emissions if it:

1. Complies with an adopted Qualified GHG Reduction Strategy;
2. Emits less than 1,100 metric tons (MT) CO<sub>2</sub>e per year; or
3. Emits less than 4.6 MT CO<sub>2</sub>e per service population per year (residents and employees).

The Town of Windsor adopted a Greenhouse Gas Emissions Reduction Action Plan in 2008 and updated it in 2012. As it currently stands, the Reduction Action Plan describes 11 implementation measures that would be implemented in the Town in 2012-2015 to reduce the GHG emissions from Town-controlled sources in order to reach statewide goals to keep the Town on the trajectory to reach a goal of 26.2 percent GHG reduction below the baseline year of 2000. The Reduction Action Plan focuses on Town-controlled sources of emissions and does not include analysis of Town-wide emissions. Therefore, the Reduction Action Plan is not a qualified GHG Reduction Strategy pursuant to the BAAQMD Guidelines.

#### **Greenhouse Gas Emissions Impact Discussion:**

**4.8(a) (Significant GHG Emissions) Less Than Significant Impact:** GHG emissions associated with development of the proposed project would occur over the short-term from construction activities, consisting primarily of emissions from equipment exhaust and worker and vendor trips. The BAAQMD does not have an adopted Threshold of Significance for construction-related GHG emissions. Rather, BAAQMD encourages the incorporation of best management practices to reduce GHG emissions during construction. Best management practices are specified under **Mitigation Measure AQ-1** (see Section 4.3 Air Quality). Therefore, potential impacts associated with construction of the proposed roadway will be less than significant.

The proposed project would include the development of a new roadway that would allow vehicles to travel between Starr Road and Windsor Road. Jaguar Way was envisioned as a 2-lane crosstown (new street) in the 2040 General Plan (Figure M-1) to accommodate projected year 2040 traffic volumes. Trip generation from build-out of the General Plan as well as associated GHG impacts (including mobile sources at operation) were analyzed in the Windsor 2040 General Plan EIR; operational GHG impacts were determined to be less than significant. The proposed roadway would not generate additional vehicle trips beyond those anticipated by and analyzed in the Windsor 2040 General Plan EIR. Therefore, the proposed project would not contribute to a long-term increase in GHG emissions and operational impacts would be considered less than significant.

**4.8(b) (Conflict with GHG Plan) Less Than Significant Impact:** As a 2-lane roadway, providing vehicular, pedestrian, and bicycle access between two existing roadways, the proposed project is consistent with all applicable local plans, policies, and regulations related to GHG emissions and does not conflict with the stipulations of AB 32, the applicable air quality plan, or any other State or regional plan, policy, or regulation of an agency for the purpose of reducing greenhouse gas emissions. Therefore, impacts due to a conflict with local, regional and statewide GHG control plans would be considered less than significant.

**Mitigation Measures:** None Required.

#### **4.9. HAZARDS/HAZARDOUS MATERIALS**

| <b>Would the project:</b> | <b>Potentially Significant Impact</b> | <b>Less Than Significant with Mitigation</b> | <b>Less Than Significant Impact</b> | <b>No Impact</b> |
|---------------------------|---------------------------------------|--|-------------------------------------|------------------|
|                           |                                       |  |                                     |                  |

|   |                          |                          |                                     |                                     |
|---|--------------------------|--------------------------|-------------------------------------|-------------------------------------|
| 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 checked="" type="checkbox"/> | <input type="checkbox"/>            |
| d) Be located on a site that is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would 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 of 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"/>            |
| 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"/>            |

Sources: Town of Windsor 2040 General Plan and EIR; EnviroStor and GeoTracker Databases (accessed September 17, 2019); Sonoma County Comprehensive Airport Land Use Plan, revised March 14, 2016; 2030 Airport Master Plan for the Charles M. Shultz – Sonoma County Airport, amended March 14, 2016, and Local Hazard Mitigation Plan, February 2017.

### Hazardous Material Setting:

The California Department of Toxic Substances Control (DTSC) defines a hazardous material as: “a substance or combination of substances that, because of its quantity, concentration or physical, chemical, or infectious characteristics, may either: 1) cause, or significantly contribute to an increase in mortality or an increase in serious, irreversible, or incapacitating illness; or 2) pose a substantial present or potential hazard to human health or the environment when improperly treated, stored, transported, disposed of, or otherwise managed.” Regulations governing the use, management, handling, transportation and disposal of hazardous waste and materials are administered by Federal, State and local governmental agencies. Pursuant to the



Planning and Zoning Law, DTSC maintains a hazardous waste and substances site list, also known as the “Cortese List.”

Windsor Municipal Code Title 13, Chapter 1, provides the Town’s Hazardous Materials Management Ordinance (HMMO).<sup>12</sup> Implementation of this ordinance and management, oversight, and permitting of hazardous materials in Windsor is provided by Sonoma County Department of Emergency Services, Hazardous Materials Division, acting as the administering agency of the HMMO. The HMMO provides standards and permit requirements for the use and storage of hazardous materials.

As detailed in the Windsor 2040 General Plan, several existing contaminants, including asbestos, lead (in sources such as lead-based paint in buildings or in soil), and contaminated soil and groundwater, may be present in Windsor. According to the regulatory database search conducted for the General Plan EIR, 11 open or active hazardous waste sites are located in Windsor. These include five Leaking Underground Storage Tank (LUST) sites and six other hazardous waste sites. Of the hazardous materials sites identified in the General Plan EIR, one is located in the vicinity of the project site, and was confirmed based on a review of available databases (EnviroStor and GeoTracker):

- Windsor Mill, 8777, 8711m 8703 Bell Road, Cleanup Program Site, Completed – Case Closed (3/3/2014)

The project site is located within Sonoma County’s Comprehensive Airport Land Use Plan (CALUP) for the Charles M. Shultz – Sonoma County Airport. The CALUP was adopted in 2001 and establishes policies and standards regarding noise, safety, airspace protection and land use compatibility around airports in the County. State law requires that each airport land Use Plan be based upon the adopted Master Plan for each airport. On January 24, 2012, the Sonoma County Board of Supervisors approved an updated 2030 Airport Master Plan for the Charles M. Shultz – Sonoma County Airport; a key component of the Plan involved extending the runways on the north side of the airport to accommodate regional jets to serve the area. More information regarding the 2030 Master Plan and the associated Environmental Impact Report may be viewed at: [www.sonomacountyairport.org/master-plan-update](http://www.sonomacountyairport.org/master-plan-update).

On March 14, 2016, the Sonoma County Airport Land Use Commission (ALUC) adopted amendments to the County’s CALUP to reflect the 2030 Airport Master Plan for the Charles M. Shultz – Sonoma County Airport. In addition, the land use compatibility criteria applied around the airport were adjusted to reflect the guidelines set forth in the 2011 California Airport Land Use Planning Handbook.

As shown in **Figure 5: Airport Safety Zones**, a portion of the project site is located within the Outer Safety Zone (OSZ-B) and the Traffic Pattern Zone (TPZ-B) of the Charles M. Schulz – Sonoma County Airport. **Table 3: Airport Safety Zone Land Use Compatibility Standards** presents considerations for land use compatibility within identified airport safety zones. The proposed project introduced a new roadway consistent with the Town of Windsor’s General Plan and does not change or modify any land uses. In addition to the land uses prohibited listed in the Table below, the following uses are prohibited in all airport safety zones:

- Any use which would direct a steady light or flashing light toward aircraft.
- Any use which would cause sunlight to be reflected toward an aircraft.
- Any use which would generate smoke or water vapor or would attract large concentrations of birds, or which may affect safe air navigation within the area.

<sup>12</sup> Town of Windsor, Windsor Municipal Code, Title 13 (Hazardous Materials), Chapter 1 (Management). [https://www.municode.com/library/ca/windsor/codes/code\\_of\\_ordinances?nodeId=TITXIIIHAMA](https://www.municode.com/library/ca/windsor/codes/code_of_ordinances?nodeId=TITXIIIHAMA), Accessed September 17, 2019.

- Any use which would generate electrical interference detrimental to aircraft operation.

**TABLE 3: AIRPORT SAFETY ZONE LAND USE COMPATIBILITY STANDARDS**

| <b>Safety Zone<sup>a</sup></b> | <b>Max Population Density</b>   | <b>Maximum Residential Density (units /acre)<sup>b</sup></b> | <b>Minimum Amount of Usable Open Space<sup>c</sup></b> | <b>Land Use</b>   |
|--------------------------------|---|--|--|---|
| Outer Safety Zone B (OSZ-B)    | <p><b>Uses in structures:</b> 100 persons per acre</p> <p><b>Uses not in structures:</b> 150 persons per acre</p> <p><b>Maximum persons in a single acre:</b> 450</p> | 1 dwelling unit per 2.5 acres                                | 20% of gross area                                      | <p>Most low to moderate intensity uses are acceptable. Restrict assemblages of people.</p> <p>Consider potential airspace protection hazards of energy/industrial projects</p> <p><b>Normally Allow:</b> Uses allowed in ITZ, Restaurants, retail, industrial</p> <p><b>Limit:</b> Residential uses to low density</p> <p><b>Avoid:</b> High-intensity retail or office buildings</p> <p><b>Prohibit:</b> Children's schools, day care centers, hospitals, nursing homes, stadiums, group recreational uses, uses involving, as the primary activity, manufacture, storage, or distribution of explosives or flammable materials.</p> |
| Traffic Pattern Zone B (TPZ-B) | <p><b>Uses in structures or outdoors:</b> 300 persons per acre</p> <p><b>Maximum persons in a single acre:</b> 1,200</p>  | No limit   | 15% of gross area                                      | <p><b>Normally Allow:</b> Residential uses where noise and overflight patterns are low.</p> <p><b>Limit:</b> Large day care centers, hospitals and nursing homes.</p> <p><b>Avoid:</b> Discourage schools, auditoriums, amphitheater stadiums, and similar uses with very high intensity.</p> <p>Discourage uses, involving as the primary activity, manufacture, storage, or distribution of explosives or flammable materials and bulk quantities of highly hazardous materials.</p> <p><b>Prohibit:</b> No prohibitions.</p>   |

Source: Table 8C of the Sonoma County Comprehensive Airport Land Use Plan, revised March 14, 2016.

The California Department of Forestry and Fire Protection (CAL FIRE) is required to map areas of significant fire hazards based on fuels, terrain, weather, and other relevant factors. CAL FIRE's Statewide and County

maps (adopted November 2007) depict Fire Hazard Severity Zones (FHSZs)<sup>13</sup> that are within the State Responsibility Area (SRA). The SRA is the area of the state where the State of California is financially responsible for the prevention and suppression of wildfires. The SRA does not include lands within city boundaries or in federal ownership. The FHSZs in the SRA are further classified as being Moderate, High, or Very High.

In addition, CAL FIRE has prepared recommendations for Very High FHSZs in those areas where local governments have financial responsibility for wildland fire protection, known as Local Responsibility Areas (LRA). Only lands zoned as Very High FHSZ are identified within the LRA. In 2008, CAL FIRE transmitted those recommendations to all local agencies with identified Very High FHSZs.

The entire Town of Windsor, including the project site, is categorized as Non-VHFHZ.<sup>14</sup> An area west of the project site, in the County of Sonoma is categorized as a "Moderate Fire Hazard Severity Zone" in an SRA by CAL FIRE.

### **Hazards/Hazardous Materials Impact Discussion:**

**4.9(a,b) (Routine Transport, Upset and Accident Involving Release) Less than Significant Impact:** Site preparation and construction activities within the project site will result in the temporary presence of potentially hazardous materials including, but not limited to fuels and lubricants, paints, solvents, electrical wiring and other construction related materials onsite. Although these potentially hazardous materials may be present onsite during construction, the construction contractor is required to comply with all existing federal, state and local safety regulations governing the transportation, use, handling, storage and disposal of potentially hazardous materials. Once construction is complete there will not be ongoing use or generation of hazardous materials onsite.

Prior to the commencement of site preparation, a Stormwater Pollution Prevention Plan (SWPPP) that includes Best Management Practices (BMPs) will be prepared and implemented during all construction activities. BMPs include good housekeeping of construction equipment, stockpiles and active construction areas, ensures that spill and leak prevention procedures are established, and that a cleanup kit and materials are readily available for use. Compliance with all existing federal, state, and local safety regulations governing the transportation, use, handling, storage, and disposal of potentially hazardous materials. Thus, impacts from hazardous waste and materials due to temporary construction activities will be less than significant.

**4.9(c) (Emit or Handle Hazardous Materials Within ¼ Mile of School) Less than Significant Impact:** The project site is located adjacent to Windsor High School. Windsor Co-op Nursery School and Windsor Oaks Academy are located approximately 750 feet from the project site. As a roadway, the project will not emit hazardous emissions or handle hazardous or acutely hazardous materials, substances or waste, during operations. Therefore, the project will have less than significant impacts due to the release or handling of hazardous materials proximate to schools.

**4.9(d) (Existing Hazardous Material Sites) No Impact:** The California Environmental Protection Agency (CAL-EPA) annually updates the California Hazardous Waste and Substances Site List (also known as the "Cortese List"). The Department of Toxic Substances Control (DTSC) compiles a record of sites to be included on the list, which is then submitted to the CAL-EPA. A search of EnviroStor, performed on September 17, 2019,

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<sup>13</sup> The FHSZs identify fire hazard, not fire risk. "Hazard" is based on the physical conditions that give a likelihood that an area will burn over a 30 to 50-year period without considering modifications such as fuel reduction efforts. "Risk" is the potential damage a fire can do to the area under existing conditions, including any modifications such as defensible space, irrigation and sprinklers, and ignition resistant building construction which can reduce fire risk.

<sup>14</sup> CAL FIRE Very High Fire Hazard Severity Zones Map in LRA for Sonoma County, Adopted November 10, 2008, [https://osfm.fire.ca.gov/media/6820/fhszl\\_map49.pdf](https://osfm.fire.ca.gov/media/6820/fhszl_map49.pdf), accessed September 17, 2019.

showed no active cleanup sites within the project vicinity. A search of GeoTracker, performed on September 17, 2019, showed no open “LUST Cleanup Sites” and no open “Cleanup Program Sites” in the vicinity of the proposed project.; the nearest open LUST Cleanup Sites (Banks Property and Circle K Store) are located approximately 2,000 feet from the project site. As such, the project will not create a significant hazard to the public or the environment by virtue of it being located on an identified Cortese site. Therefore, the project will have no impacts due to an existing hazardous materials site.

**4.9(e) (Public Airport Land Use Plans) Less Than Significant Impact with Mitigation:** The Charles M. Shultz – Sonoma County Airport is located approximately two miles south of the project site. As shown in Figure 5: Airport Safety Zones, a portion of the project site is located within the Outer Safety Zone and the Traffic Pattern Zone of the Charles M. Schulz – Sonoma County Airport.

A portion of the project site is located within the OSZ-B airport safety zone of the Charles M. Schulz – Sonoma County Airport, which prohibits the following uses: children’s schools, day care centers, hospitals, nursing homes, stadiums, group recreational uses, uses involving, as the primary activity, manufacture, storage, or distribution of explosives or flammable materials; the portion of the project site within the TPZ-B airport safety zone does not disclose any land use prohibitions (see Table above). As a new roadway, the proposed project would not introduce additional residential density or new land uses and would not increase population density or decrease usable open space in conflict with the thresholds set forth in the County’s CALUP. Therefore, the proposed project would not result in a safety hazard for people residing or working in the area, and impacts would be less than significant.

**4.9(f) (Private Airport Land Use Plans) No Impact:** The project site is not located in the vicinity of any private airstrips. As such, no impacts associated with private airport-related hazards would occur.

**4.9(g) (Impair Emergency Response Plan) Less Than Significant Impact:** Development of the proposed roadway is not expected to impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan. The Town of Windsor is a participant in the Association of Bay Area Governments (ABAG) Multi-Jurisdictional Local Hazard Mitigation Plan. As stated in the plan, the major potential disaster impacts to the Town are flood and earthquake effects.<sup>15</sup> The Town, through its cooperative disaster planning agencies including the Sonoma County Fire District and the Sonoma County Office of Emergency Services, has done extensive planning to mitigate disasters. The Town continues to work with ABAG to develop specific information about the kind and level of damage to buildings, infrastructure, and critical facilities which might result from any of the hazards previously noted. As a new roadway, the proposed project is not expected to interfere with any County-based emergency response or evacuation plans. There are no aspects of the proposed project that interferes with an adopted emergency or evacuation plan. Therefore, impacts will be less than significant.

**4.9(h) (Wildland Fire Hazards) Less Than Significant Impact:** Wildland fires are of concern particularly in expansive areas of native vegetation of brush, woodland, grassland. The project site is located within the Town limits and surrounded by residential land uses, Keiser Park, Starr Creek, baseball fields, a football field, and Windsor High. The entire Town of Windsor, including the project site, is categorized as Non-VHFBZ. The area east of the project site in the County of Sonoma is categorized as a “Moderate Fire Hazard Severity Zone” in an SRA by CAL FIRE. As a new roadway, the proposed project is not expected to expose people or structures to a significant risk of loss, injury or death involving wildland fires.

The Sonoma County Fire District (SCFD) is responsible for protecting life, property, and the environment from fire within the Town of Windsor. The Fire Protection District responds to calls including structure, wildland,

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<sup>15</sup> Annex to 2010 Association of Bay Area Governments Local Hazard Mitigation Plan, Town of Windsor, January 18, 2011.

and other fires. Station 1 is located at 8200 Old Redwood Highway and Station 2 is located at 8600 Windsor Road, approximately 325 feet from the project site. The project would not introduce additional residences or increase risk of exposure due to wildland fire hazards. Therefore, impacts related to the exposure of people or structures to a significant risk of loss, injury or death involving wildland fires will be less than significant.

**Mitigation Measures:** None required.

**4.10. HYDROLOGY AND WATER QUALITY**

| Would the project:   | Potentially Significant Impact | Less Than Significant with Mitigation | Less Than Significant Impact        | No Impact                           |
|--|--------------------------------|---------------------------------------|-------------------------------------|-------------------------------------|
| a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?   | <input type="checkbox"/>       | <input checked="" type="checkbox"/>   | <input 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 type="checkbox"/>            | <input checked="" type="checkbox"/> |
| c) Substantially alter the existing drainage pattern on 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 offsite;   | <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 checked="" type="checkbox"/> | <input type="checkbox"/>            |

Sources: Town of Windsor 2040 General Plan and EIR; 2017 Storm Water Low Impact Development Technical Design Manual; Final Storm Drainage Master Plan Phase I, prepared by GHD, September 2017; and Biological Resources Analysis Jaguar Way Extension, prepared by Monk & Associates, March 11, 2020.

**Hydrology and Water Quality Setting:**

The Town of Windsor lies within the North Coast Hydrologic Region, a large coastal watershed in northern California. Within the North Coast Hydrologic Region, Windsor is located within the Russian River Hydrologic

Unit. The North Coast Regional Water Quality Control Board (RWQCB) governs basin planning and water quality within the Russian River Hydrologic Unit. Within the Russian River Hydrologic Unit, the Town is located almost entirely within the Middle Russian River Hydrologic Area. Within the Middle Russian River Hydrologic Area, the Town occupies the Mark West Hydrologic Subarea (HSA). A small area in the northwestern corner of the Town is located in the Lower Russian River Hydrologic Area. Within the Lower Russian River Hydrologic Area, the Town occupies the Guerneville HSA.

Windsor includes both undeveloped open space with natural drainage features and urban development with altered drainage systems, such as underground piped storm water systems. The primary natural surface drainages include Pool Creek and Windsor Creek. Other notable locally-named streams that flow through the Town include East Windsor Creek, Pruitt Creek, and Starr Creek. All of these creeks are tributaries to Windsor Creek and flow in a southwesterly and westerly direction, beginning in the foothills of the Mayacamas Mountains to the east and crossing the Santa Rosa Plain towards the Russian River.

The proposed Jaguar Way Extension Project would traverse Starr Creek and a span bridge would be installed with abutments above the ordinary high water mark. Starr Creek is one of seven creeks in the General Plan area that are used to convey surface flows and drain runoff to the Russian River. To maintain runoff volumes and avoid water quality impacts to waterways, the General Plan identifies policies encouraging Low Impact Development (LID) and Best Management Practices. Additionally, compliance with the Town's National Pollutant Discharge Elimination System (NPDES) permit is required.

Surface water quality is regulated by the North Coast Regional Water Quality Control Board (RWQCB) via the Water Quality Control Plan for the North Coast Region (Basin Plan). The RWQCB is responsible for implementing Section 401 of the Clean Water Act through the issuance of a Clean Water Certification when development includes potential impacts to jurisdictional areas such as creeks, wetlands or other Waters of the State. As described in Section 4.4(c) of this document, a 404 Permit is presumed to be required and it is expected that a 401 certificate from the RWQCB will also be required for the proposed project.

Dischargers whose projects disturb one or more acres of soil, or whose projects disturb less than one acre, but are part of a larger common plan of development that in total disturbs one or more acres, are required to obtain coverage under the General Permit for Discharges of Storm Water Associated with Construction Activity Construction General Permit Order 2009-0009-DWQ from the State Water Resources Control Board.<sup>16</sup> Construction activity subject to this permit includes clearing, grading and disturbances to the ground such as stockpiling, or excavation. The Construction General Permit requires the development of a Storm Water Pollution Prevention Plan (SWPPP) by a certified Qualified SWPPP Developer.

The Town Council approved Resolution No. 3142-14 on October 15, 2014 which adopted the City of Santa Rosa/County of Sonoma Low Impact Development (LID) Design Manual and updates. Development projects that create or replace 10,000 square feet or more of impervious surfaces are subject to the requirements of the LID Manual in order to comply with the California Regional Water Quality Control Boards' Municipal Regional Permit. LID strategies include draining impervious surfaces to landscaped areas, the use of bioretention,<sup>17</sup> and other retention features to capture runoff and encourage infiltration onsite, thereby decentralizing storm water treatment and integrating it into the overall site design.

The Town of Windsor is a co-permittee under the North Coast Regional Water Quality Control Board NPDES Municipal Separate Storm Sewer System (MS4) Permit. As a participating agency, the Town of Windsor must

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<sup>16</sup> State Water Resources Control Board, Construction General Permit Order 2009-0009-DWQ, [http://www.waterboards.ca.gov/water\\_issues/programs/stormwater/construction.shtml](http://www.waterboards.ca.gov/water_issues/programs/stormwater/construction.shtml), Accessed September 19, 2019.

<sup>17</sup> Bio-retention areas function as a soil and plant based filtration and infiltration feature that removes pollutants through natural physical, biological, and chemical treatment processes.

comply with the provisions of the County's permit. Development within the project site will be required to mimic pre-developed conditions, protect water quality, and retain runoff from impervious surfaces onsite in accordance with LID objectives set forth in the 2017 Storm Water Low Impact Development Technical Design Manual.

The Federal Emergency Management Agency's (FEMA's) flood hazard mapping program provides important guidance for the Town in planning for flooding events and regulating development within identified flood hazard areas. FEMA's National Flood Insurance Program is intended to encourage State and local governments to adopt responsible floodplain management programs and flood control measures. As part of the program, FEMA defines floodplain and floodway boundaries that are shown on the Flood Insurance Rate Maps (FIRMs). The majority of the subject project site is located in FEMA Zone X, 0.2% Annual Chance Flood Hazard, as delineated on map numbered 06097C0562E. These areas are considered to be moderate flood hazard areas with a risk of flooding associated with the 500-year storm event. Starr Creek is located in FEMA Zone AE, Floodway, subject to 100-year flooding; this area is considered to be a high flood hazard area. The project proposes a span bridge at this location, which will be installed to achieve at least the minimum required clearance above the OHWM of Starr Creek.

### **Hydrology and Water Quality Impact Discussion:**

**4.10(a,e) (Violate Water Quality Standards, Otherwise Degrade Water Quality) Less Than Significant Impact with Mitigation:** Construction activities from the proposed Project have the potential to result in runoff that contains sediment and other pollutants that could degrade water quality if not properly controlled. Sources of potential pollution associated with construction include fuel, grease, oil and other fluids, concrete material, sediment, and litter. These pollutants have the potential to result in impacts due to chemical contamination from the release of construction equipment and materials that could pose a hazard to the environment or degrade water quality if not properly managed.

In order to ensure that proper controls and treatment are in place to prevent the runoff of contaminated storm water, the project shall adhere to NPDES requirements including the preparation and implementation of a SWPPP and the RWQCB's Waste Discharge Requirements (Order No. R1-2015-0030). Erosion control requirements are stipulated in the NPDES Permit issued by the RWQCB (No. CA0025054). The purpose of the SWPPP is to identify potential sediment sources and other pollutants and prescribe BMPs to ensure that potential erosion, siltation, and contamination impacts would not occur during construction activities.

**Mitigation Measure HYDRO-1** requires that the project implement a SWPPP with BMPs that include but are not limited to fiber roll protection at all drains, the use of gravel at access driveways and staging areas during construction, designated washout areas, and the development and implementation of a hazardous materials spill prevention plan. These and other BMPs are designed to protect water quality from potential contaminants in stormwater runoff emanating from construction sites. With implementation of HYDRO-1, the project's potential to result in a violation of water quality standards during construction would be reduced to levels below significance.

Proposed activities on the project site at operation could potentially degrade water quality via non-point contaminants such as oils, grease, and exhaust that settles on the new roadway and may potentially enter Starr Creek or the Town's stormdrain system during a rain event. **Mitigation Measure HYDRO-2** requires that at final design a Storm Water Management Plan for the Jaguar Way Extension Project be developed and implemented pursuant to the 2017 Storm Water Low Impact Development Technical Design Manual. The Storm Water Management Plan will include bio-retention basins, swales, planters, interceptor trees, and other LID facilities designed to accommodate runoff from new impervious surfaces introduced by the project. LID facilities will provide pre-treatment for stormwater runoff and all new drainage inlets installed as part of the project would be labeled "No Dumping, Drains to Creek". The new roadway and LID features would be



inspected and maintained on an ongoing basis by the Town's Street Maintenance Division to ensure that the bio-retention features and drainage inlets are installed pursuant to Town standards and continue to operate as designed.

Preparation and implementation of a SWPPP and a Storm Water Management Plan, as well as adherence to best management practices for erosion control during construction activities will ensure that water quality standards and waste discharge requirements are met. Therefore, with mitigation measures HYDRO-1 and HYDRO 2, impacts due to violations water quality standards or waste discharge will be reduced to levels below significance.

**4.10(b) (Groundwater Supply and Recharge) Less Than Significant Impact:** The project would not involve the use or extraction of groundwater, and no aspect of the project will substantially affect groundwater recharge. Water demand generated by the project will be negligible. During construction water will be required for dust control activities including washing down equipment, watering stockpiles, and potable water for construction workers. Water required during construction activities would be transported to the project site by water trucks and stored in trucks or tanks at the construction staging area. At operation, the proposed project would not rely upon groundwater as roadways do not generate ongoing water demands. Irrigation of landscaping introduced by the project would be provided via extension of existing water service laterals. Water demand for landscaping will be minimal as all new landscaping will be required to comply with the Town's Water Efficient Landscape Ordinance. Therefore, the project will have less than significant impacts to the groundwater supply and will not conflict with groundwater recharge.

**4.10(ci-civ) (Drainage Pattern, Runoff and Storm Drain Capacity) Less Than Significant Impact with Mitigation:** While a portion of the project site is developed with paved and graveled areas, the proposed roadway would introduce additional impervious surfaces, as compared to existing conditions, that could increase run-off and contribute flows to the Town's storm drain system. If not properly designed, the proposed project could potentially result in direct and indirect impacts to Starr Creek and storm drain infrastructure. However, as described above, the project shall implement mitigation measures HYDRO-1 and HYDRO-2, which provide construction and post-construction best management practices to preclude contaminants from entering flood waters and mimic pre-construction runoff volumes and drainage patterns.

The general direction and pattern of drainage following construction will match pre-development conditions. While the proposed project would introduce new impervious surfaces onsite, the installation of bio-retention basins, swales, planters, interceptor trees, and other landscaping will provide pre-treatment for stormwater runoff from new impervious surfaces introduced by the project. Vegetated bioswales are proposed along Jaguar Way and sized appropriately to accommodate runoff from new hardscape introduced by the Project. As such, the proposed project would not substantially increase the rate or amount of surface runoff in a manner that would result in flooding on- or off-site.

The project would not directly affect the floodway of Starr Creek as the proposed bridge would span Starr Creek and adequate freeboard would ensure that storm events continue to be accommodated within the design capacity of the channel. With inclusion of LID features and implementation of a SWPPP, the project will not result in a change to drainage patterns that causes substantial erosion or siltation on- or off-site nor will it result in flooding on- or off-site. Therefore, impacts to the drainage pattern, storm drain system and runoff as a result of the proposed project would be reduced to less than significant levels.

**4.10(d) (Flood Hazards) Less Than Significant Impact:** Based on the FEMA's FIRM Panel 06097C0562E, the majority of the project site is located in Zone X, Other Areas. According to this designation, the project site is determined to be outside of the 0.2% annual chance floodplain and in an area with minimal flooding hazard. Starr Creek is located in FEMA Zone AE, otherwise known as the floodway; this area is considered to be a high-risk flood hazard area represented by a 1% annual chance of flooding. However, the proposed project is a

new roadway with a span bridge over Starr Creek and no improvements would occur within the Zone AE or below the OHWM of Starr Creek. As such, the proposed project will not place housing or other structures in a location with a significant risk due to flooding, nor would the project include structures that could impede or redirect flood flows. Therefore, there would be less than significant impacts due to flooding.

As stated in the 2040 General Plan, Windsor is not located within a tsunami inundation area and therefore development carried out under the 2040 General Plan would not be subject to inundation by tsunami. As such, potential impacts related to inundation by tsunami at the project site would be considered less than significant.

As described in the 2040 General Plan, there are several small ponds and reservoirs within the Town of Windsor, including small reservoirs in Foothill Regional Park and water treatment ponds in the southwest portion of the Town. However, none of these reservoirs or ponds is of sufficient size to result in substantial damage by seiche during a seismic event. As such, potential impacts related to inundation by seiche at the project site would be considered less than significant.

**4.10(e) (Conflict with a Sustainable Groundwater Management Plan) Less Than Significant Impact:** The Santa Rosa Plain Groundwater Sustainability Agency (GSA) is in the process of developing a 20-year Groundwater Sustainability Plan (GSP) to ensure sustainable use of groundwater within the groundwater basin. The GSA is required to complete the plan by 2022 by state law under the sustainable groundwater Management Act (SGMA). As of 2020, the GSA will begin defining sustainability for the basin for the plan to be achieved by 2024.<sup>18</sup> In the absence of an adopted sustainable groundwater management plan, there is no potential for the project to introduce a conflict. As such, impacts to water quality, waste discharge, groundwater quality, and conflicts regarding water quality control plans and sustainable groundwater management plans would be less than significant.

#### **Mitigation Measures:**

**HYDRO-1:** In accordance with the National Pollution Discharge Elimination System regulation, the Town shall prepare and implement a Storm Water Pollution Prevention Plan (SWPPP) prior to construction. The SWPPP shall address erosion and sediment controls, proper storage of fuels, temporary erosion control including fiber rolls, staked straw bales, geofabric, and sandbag, and identification for use and cleanup of hazardous materials. Sediment shall be retained onsite by a system of sediment basins, traps, or other appropriate measures. A Notice of Intent, fees, and other required documentation shall be filed with the Regional Water Quality Control Board. During construction a monitoring report shall be conducted weekly during dry conditions and three times a day during storms that produce more than 1/2" of precipitation.

**HYDRO-2** Prior to approval of public improvement plans, the Town Engineer shall review and authorize the Jaguar Way Extension Project Storm Water Management Plan including adequacy all LID features and onsite bio-retention features to ensure that their location, sizing and function adequately accommodates stormwater runoff, and provides pre-treatment and discharge in a manner consistent with local, regional and state requirements.

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<sup>18</sup> Santa Rosa Plain Groundwater Sustainability Agency, Groundwater Sustainability Plan, <http://santarosaplaingroundwater.org/gsp/> Accessed September 19, 2019

**4.11. LAND USE AND PLANNING**

| Would the project:   | Potentially Significant Impact | Less Than Significant with Mitigation | Less Than Significant Impact        | No Impact                           |
|--|--------------------------------|---------------------------------------|-------------------------------------|-------------------------------------|
| a) Physically divide an established community?   | <input type="checkbox"/>       | <input type="checkbox"/>              | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| 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"/>            |

Sources: Town of Windsor 2040 General Plan and EIR; Sonoma County Comprehensive Airport Land Use Plan, revised March 14, 2016; and 2030 Airport Master Plan for the Charles M. Shultz – Sonoma County Airport, amended March 14, 2016; Keiser Park Master Plan and EIR; Town of Windsor's Park and Recreation Master Plan and MND; and Windsor Bicycle and Pedestrian Master Plan, prepared by the Sonoma County Transportation Authority and the Town of Windsor, October 2014.

**Land Use and Planning Setting:**

The project site is located within the Town limits and subject to the Town of Windsor land use policies. As described in the 2040 General Plan, the most common existing land use category within the Urban Growth Boundary and Town Limits is single family residential. Single family residential uses make up 29 percent of the existing Urban Growth Boundary (1,405 acres) and 31 percent of the Town Limits (1,399 acres). Commercial and office uses make up roughly 4 percent of the Urban Growth Boundary (183 acres) and 4 percent of the Town Limits (179 acres). Industrial uses make up six percent of the Urban Growth Boundary (307 acres) and seven percent of the Town Limits (307 acres). Vacant or underutilized land makes up nine percent of the Urban Growth Boundary and eight percent of the Town Limits. Agricultural uses make up 6.2 percent of the Urban Growth Boundary and 1.6 percent of the Town Limits.

The General Plan and General Plan EIR identify the Jaguar Way Extension Project as an improvement necessary to accommodate projected year 2040 traffic volumes. The roadway improvements in the General Plan and General Plan EIR, including the proposed project, have been previously identified and are currently included in the Town's Traffic Impact Mitigation Fee program. Existing conditions and future conditions under the General Plan identify a level of service A for Jaguar Way. Congestion and emergency access would be improved by increasing circulation between Starr Road and Windsor Road, as the project proposes.

The Town of Windsor's Park and Recreation Master Plan was updated in 2017 and identifies future development within the existing 27-acre Keiser Park, which is partially built out. In 2008 the Town of Windsor prepared the Keiser Park Master Plan and certified the Keiser Park EIR on July 16, 2009 (SCH #2000032102), which allowed for the subsequent development of Keiser Park. The 2017 update to the Parks and Recreation Master Plan identifies several specific action items relating to Keiser Paring including the following:

- R2.1-4 Acquire additional land adjacent to Keiser Park
- R2.2-2 Replace Keiser park ballfields at Esposti Park
- R4.2-2 Update the Keiser Park Master Plan
- R5.1-1 Develop a Keiser Park Aquatics Center

The Parks and Recreation Master Plan Update and its mitigated negative declaration (SCH #2017042037), identified likely refinements to the planned Keiser Park Aquatics Center, which would replace the two existing ballfields in the southeastern portion of Keiser Park, adjacent to Jaguar Way. Planned improvements to Keiser Park include a future southern access driveway and parking lot that would be accessible from Jaguar Way. Presently, pedestrian access to Keiser Park is provided via a gated pathway from Jaguar Way.

Updates to the Keiser Park Master Plan and the specific design of the Keiser Park Aquatics Center and other improvements proposed along the Keiser Park property adjacent to Jaguar Way may be modified relative to what was analyzed in the 2008 Keiser Park Master Plan EIR. As future improvements to Keiser Park are programmed, including a southern access point off Jaguar Way, project level analysis should be conducted to disclose impacts and develop mitigation measures (as warranted).

In addition to the Town of Windsor land use policies, the nearby Sonoma County Airport, also has specific land use regulation that apply to the project site. As stated in **Section 4.9 Hazards and Hazardous Materials**, a portion of the project site is located within Sonoma County Comprehensive Airport Land Use Plan (CALUP) for the Charles M. Shultz – Sonoma County Airport. As shown in **Figure 5: Airport Land Use Safety Zones**, the Outer Safety Zone (OSZ) and the Traffic Pattern Zone (TPZ) overlap with the project site. These zones establish specific parameters for the allowance of development and use in order to ensure compatibility with the nearby airport.

#### **Land Use and Planning Impact Discussion:**

**4.11(a) (Divide An Established Community) No Impact:** Division of an established community typically occurs when a new physical feature, in the form of an interstate or railroad, physically transects an area, thereby removing mobility and access within an established community. The division of an established community can also occur through the removal of an existing road or pathway, which would reduce or remove access between a community and outlying areas.

The proposed project would include the development of a new roadway that would allow vehicles, pedestrians, and bicycles to travel between Starr Road and Windsor Road. Adjacent land uses include residential, parks, and Windsor High School. Under existing conditions, Jaguar Way currently provides vehicular access from Windsor Road to residential land uses to the north (west of Windsor Road), Windsor High School, and the high school's associated athletic fields. Under current conditions, the remaining portions of the project site provide pedestrian and bicycle access to Keiser Park, Starr Creek Park and existing land uses north and south of Jaguar Way.

Jaguar Way was envisioned as a 2-lane crosstown (new street) in the 2040 General Plan (see Figure M-1) to accommodate projected year 2040 traffic volumes. Construction of the proposed roadway would create a connection between Starr Road and Windsor Road accommodating multi-modal travel. As such, the proposed project would not introduce a new physical feature that would remove mobility and access within an established community. Likewise, the project does not propose the removal of an existing road or pathway that could reduce or remove access between a community and outlying areas. Therefore, the project would have no impact due to the physical division of an established community.

**4.11(b) (Land Use Plan, Policy, Regulation Conflict) Less Than Significant Impact:** The proposed project is required to comply with various policy documents, including the Windsor 2040 General Plan, Town of Windsor's Zoning Ordinance, Windsor Bicycle and Pedestrian Master Plan, and the Sonoma County CALUP for the Charles M. Shultz – Sonoma County Airport. The proposed project has been reviewed for consistency with these established land use regulations, as described below.

The proposed project does not involve any changes to land uses or zoning within the project site. The construction of the proposed roadway, which will provide vehicular, pedestrian, and bicycle access, is

compatible with the current land use and zoning designations that are adjacent to the project site, which consist of residential land uses, parks, and Windsor High School. Jaguar Way was envisioned as a 2-lane crosstown (new street) in the 2040 General Plan. The purpose of a crosstown street is to link neighborhoods and provide movement across the Town. The proposed project would provide for an additional east/west connector thereby enhancing connectivity with the Town and linking neighborhoods to major destinations, such as Windsor High School and Keiser Park.

The project is consistent with the following General Plan policies and programs:

**Policy M-1.1 Multimodal Transportation System.** The Town shall continue to implement a multimodal transportation system that connects residents to activity centers throughout and near town, such as commercial centers and corridors, employment centers, the SMART train stop, the airport, schools, parks, recreation areas, and other attractions.

**Policy M-1.3 Development of Pedestrian, Bicycle, and Transit Facilities.** The Town shall encourage the development of facilities and services (e.g., secure long-term bicycle parking, streetlights, street furniture and trees, transit, stop benches and shelters, and street sweeping of bike lanes) that enable bicycling, walking, and transit to become more widely used modes of transportation and recreation.

**Policy M-3.1 Connected Network.** The Town shall strive to create a more connected transportation network by eliminating “gaps” in roadways, bikeways, and pedestrian networks; increasing transit access; and removing natural and manmade barriers to accessibility and connectivity.

The proposed project is also consistent with the Windsor Bicycle and Pedestrian Master Plan, which identified a proposed Class I bike route along Starr Creek and a Class III bike lane along Jaguar Way. Pedestrian crossing enhancements are proposed at the intersection of Windsor Road and Jaguar Way. Construction of the proposed roadway would accommodate bicycle travel via a Class III on-street bike lane or an off-street grade separated facility. Depending on the design option selected, the bicycle facility would either meet or exceed the Class III standard and therefore would not introduce a conflict with the established Plan. In addition, the Project would introduce pedestrian crosswalk striping along the southern edge of the roadway at all driveways to Windsor High School. A striped pedestrian crosswalk across Jaguar Way would be installed to provide safe pedestrian access from the Windsor High School to the existing pedestrian path at Keiser Park. The new roadway would not impede the establishment of the proposed bike route along Starr Creek or the proposed pedestrian crossing enhancements. Rather, by constructing the new roadway, which will include bicycle and pedestrian facilities, it would provide a connection between existing and proposed pedestrian and bicycle facilities. Therefore, the project would result in less than significant impacts due to a land use conflict with the adopted Windsor Bicycle and Pedestrian Master Plan.

As described above, the Parks and Recreation Master Plan update and the Keiser Park Master Plan identify planned improvements at Keiser Park and rely upon additional access via a new driveway off Jaguar Way to accommodate site access. In the future when the Keiser Park Master Plan is updated and a design for the future Keiser Aquatic Center is developed, southern access into Keiser Park including a driveway off Jaguar Way and a southern parking lot will be installed. The proposed Jaguar Way project does not preclude development of a future southern driveway nor otherwise conflict with planned improvements to Keiser Park (See also Section 4.17(c) Transportation for further discussion on design conflicts).

The Keiser Park Master Plan EIR also identifies Mitigation Measure A-1 to minimize aesthetic impacts to Keiser Park during temporary construction activities. Measure A-1 provides that the Keiser Park Project shall maintain staging and storage areas during construction in the interior portion of the project site, away from adjacent residents and roadway, including Jaguar Way, to minimize visual impacts. As proposed, Jaguar Way would utilize the southwestern portion of Keiser Park as a temporary staging area. This portion of the Park is situated away from residents and adjacent to Jaguar Way, which provides for ease of access to carry out

construction activities of the Jaguar Way Extension Project. The temporary staging area on the Keiser Park property would not result in an impact to the visual character as viewed from Jaguar Way because Jaguar Way will not be operational while the construction staging area is present. However, the construction staging area would be visible from Keiser Park and could potentially result in a conflict with the Keiser Park Master Plan due to visual impacts if not properly maintained. As described above, under Aesthetics 4.1(a,c) Mitigation Measure AES-3 shall be implemented, which provides that the construction staging area of Jaguar Way be maintained to remain clear of all trash, weeds and debris. Therefore, the project would not result in a conflict with regulations set forth in the Keiser Park Master Plan and impacts would be less than significant.

The project site is located within the OSZ-B and TPZ-B airport safety zones of the Charles M. Schulz – Sonoma County Airport, which prohibits the following uses: children’s schools, day care centers, hospitals, nursing homes, stadiums, group recreational uses, uses involving, as the primary activity, manufacture, storage, or distribution of explosives or flammable materials (Also see discussion above in Section 4.9 Hazards/Hazardous Materials). As a new roadway, the proposed project would not conflict with the County’s CALUP.

The proposed project, including all design Options 1-3 are consistent with the general objectives and guiding policies of the Town of Windsor and implements the Town’s 2040 General Plan. Therefore, the potential impacts due to a conflict with Town or County regulations is considered to be less than significant.

**Mitigation Measures:** None Required.

**4.12. MINERAL RESOURCES**

| Would the project:  | Potentially Significant Impact | Less Than Significant with Mitigation | Less Than Significant Impact | No Impact                           |
|---|--------------------------------|---------------------------------------|------------------------------|-------------------------------------|
| 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"/> |

Sources: Town of Windsor 2040 General Plan and EIR.

**Mineral Resources Setting:**

In an effort to maintain availability of sand, gravel, and crushed rock for long-term construction needs, the California Division of Mines and Geology (under the authority of the Surface Mining and Reclamation Act of 1975) has classified aggregate mineral zones throughout the state. According the Town of Windsor General Plan, the only designated mineral resource "sector" of regional significance close to Windsor is the middle reach area of the Russian River (Hanson Pits) because of the continued extraction of construction grade aggregate and alluvial deposits. Kaiser Sand and Gravel, located at 7821 Eastside Road, is approximately 3 miles southwest of the project site.

**Mineral Resources Impact Discussion:**

**4.12(a-b) (Mineral Resources or Resource Plans) No Impact:** There are no known mineral resources within the project site. The Town of Windsor 2040 General Plan does not identify any minerals of local importance proximate to the site. The project site has not been delineated as a locally important resource recovery site. As such, development within the project site will not result in the loss of availability of a known mineral resource. Therefore, the proposed project will have no impacts due to the loss of or availability of mineral resources.

**Mitigation Measures:** None Required.

#### 4.13. NOISE

| Would the project:  | Potentially Significant Impact | Less Than Significant with Mitigation | Less Than Significant Impact        | No Impact                |
|---|--------------------------------|---------------------------------------|-------------------------------------|--------------------------|
| 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 type="checkbox"/>              | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| c) For a project located within the vicinity of an airport 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"/> |

Sources: Town of Windsor General Plan 2040 and EIR; County of Sonoma General Plan 2020; CALUP Exhibit E, 2030 Noise Exposure; and Noise and Vibration Assessment prepared by Illingworth & Rodkin, October 10, 2019, finalized March 12, 2020.

#### Noise Setting:

Noise is generally characterized as “unwanted sound.” Noise sources in proximity to the project site include vehicular traffic along Starr Road and Windsor Road, park activities at Keiser Park and Starr Creek Park, and athletic facilities at Windsor High School. The Charles M. Shultz Airport is located approximately 2 miles south of the project site and well outside the Airport’s 65 dBA noise contour.

The Noise Element of the Town’s General Plan includes several goals and policies intended to regulate the noise environment and ensure compatibility when new development is introduced. The noise and land use compatibility guidelines contained in Figure PHS-7<sup>19</sup> of the Public Health and Safety Element identify “normally acceptable” noise levels for new land uses.

<sup>19</sup> Town of Windsor General Plan 2040, Part 2, Public Health and Safety, Noise, page 2-135, Adopted: April 4, 2018.

The following General Plan policies are applicable to the project:

PHS-8.1 Ambient Sound Levels for New Development. The Town shall encourage new development to maintain the current ambient sound environment as much as possible. All noise sources that cause the ambient sound levels to rise by more than 5 dBA should be required to incorporate conditions or design modifications to reduce the potential increase in the noise environment.

PHS-8.5 Noise Attenuation Techniques. The Town shall encourage new development to identify alternatives to the use of sound walls to attenuate noise impacts. Other techniques that would be viewed more favorably by the Town include:

- a. Modifications to site planning such as incorporating setbacks; and
- b. Revisions to the architectural layout such as changing building orientation, providing noise attenuation for portions of outdoor yards, and construction modification (e.g., noise attenuating windows).

In the event that sound walls are the only practicable alternative, such walls shall be subject to development review to ensure that they are designed to be as aesthetically pleasing as possible, incorporating landscaping, variations in color and patterns, and/or changes in texture or building materials.

PHS-8.10 Construction Site Noise Restrictions. The Town shall restrict construction working hours as designated in the Municipal Code, Title VII Building and Housing Section, to allow efficient construction mobilization and activities, while also protecting the noise environment of noise sensitive land uses.

PHS-8.17 Project and Environmental Review for Noise. The Town shall consider as part of its discretionary review of proposed new development the potential for a proposed project to either generate significant new noise sources or be significantly impacted by existing noise sources as shown in Figure PHS-7. If the Town determines there may be a potential for significant noise effects related to a proposed new development, the Town shall require an acoustical study be conducted by a qualified acoustician and include appropriate mitigation measures for the proposed development based on that study.

The Town of Windsor's Zoning Ordinance establishes noise regulations including for construction activities. Construction activities are also regulated by the Town's Municipal Code Title VII Building and Housing Section 7-1-190, which specifies that construction may occur during the hours of 7:00 a.m. to 7:00 p.m. on weekdays (Monday through Friday) and 8:00 a.m. to 7:00 p.m. on Saturdays. Construction activities are prohibited on Sundays unless otherwise authorized by the Town's Building Official, in which case activities must not occur before 9:00 a.m. or after 5:00 p.m.

Table 3-1 of the Town's Noise Ordinance sets forth maximum noise levels by the receiving land use to ensure compatibility.

#### *Town of Windsor General Plan Consistency*

The Town of Windsor 2040 General Plan establishes 55 Ldn/CNEL dB as the normally acceptable noise level limit for low density single family, duplex, and mobile home residential land uses. These land uses are the most sensitive existing noise receptors located adjacent to the project site. Other existing adjacent land uses, including schools and neighborhood parks, are considered to have normally acceptable noise limits of 60 Ldn/CNEL dB and 70 Ldn/CNEL dB, respectively, per the 2040 General Plan.

#### *Jaguar Way Noise and Vibration Assessment*

Consistent with General Plan policy PHS-8.7, the Jaguar Way Extension Project was subject to a Noise and Vibration Assessment to evaluate potential impacts caused by the project during construction and at



operation (**Appendix F**). The following discussion incorporated information presented in the Jaguar Way Extension Noise and Vibration Assessment.

### **Noise Impact Discussion:**

**4.13(a) (Noise Standards) Less Than Significant Impact with Mitigation:** The project site is bordered by existing noise-sensitive land uses including single-family residences and Keiser Park located to the north and Windsor High School, Starr Creek Park, and a single-family residence to the south. Ambient noise in the project vicinity is currently influenced by surrounding uses and existing roadways. The proposed project has the potential to result in temporary and permanent changes to the noise environment during construction and at operation as discussed below.

#### *Construction Noise*

Construction activities including demolition and grading, trenching, paving, and roadway/bridge construction would generate a short term and periodic increase in ambient noise levels. Construction equipment expected to be utilized during grading includes tractors, backhoes, haul trucks, graders, pavers, and water trucks. All construction equipment would be staged on-site or at the proposed staging area in Keiser Park, adjacent to Jaguar Way. Construction of the Jaguar Way Extension Project could temporarily generate noise that is intrusive to existing nearby receptors. Construction activities for the project will be subject to the Town's Municipal Code and Zoning Ordinance provisions, which establish limits for the hours of construction.

When construction is occurring closest to nearby sensitive receptors (Windsor High School, Keiser Park and Starr Creek Park, and single-family residences) noise levels generated by heavy equipment at 50 feet from construction activities would range from 78 to 88 dBA Leq and maximum instantaneous noise levels would range from 73 to 90 dBA Lmax. Construction of the proposed bridge may require pile driving, which would generate temporary noise levels as high as 105 dBA Lmax at 50 and 99 dBA Lmax at 100 feet.

For the adjacent high school, noise from construction could interfere with the learning environment depending on the location of the classrooms, type of building construction, and whether or not windows remain closed during construction. At nearby residences noise levels would also be elevated during construction activities including pile driving. Similarly, outdoor areas within Kaiser Park, Starr Creek Park and Windsor High School facilities would be exposed to elevated noise levels on a temporary basis during construction of the Jaguar Way Extension Project. To minimize temporary noise impacts from construction activities, the project shall implement **Mitigation Measure NOI-1**.

NOI-1 requires preparation and implementation of a detailed construction plan identifying major noise-generating activities and coordinate with adjacent residents, Windsor High School and Keiser Park to minimize temporary noise disturbance and that all best management practices be incorporated to minimize noise generated by construction activities. NOI-1 directs that construction activities be limited to hours specified in the Municipal Code, all heavy-duty construction equipment be well maintained and outfitted with intake and exhaust mufflers, idling times be limited, staging areas be located away from sensitive receptors, and that a noise disturbance coordinator be identified. Implementation of Mitigation Measure NOI-1 ensures that potential impacts from temporary construction noise are reduced to less than significant levels.

#### *Operational Noise*

Once operational, the project will contribute to the ambient noise environment through operation of vehicles on the newly constructed roadway. A significant noise impact would occur if traffic generated by the project would permanently increase noise levels at sensitive receptors in the project vicinity by 5 dBA or greater.

As presented in the Noise and Vibration Assessment, noise levels from new trips (vehicle, pedestrian and bicycle) traveling along the new Jaguar Way roadway will not substantially alter the ambient noise

environment. The existing ambient noise levels range from 54 dBA CNEL near Starr Road to 59 dBA CNEL near Windsor Road. The proposed project will increase the dBA CNEL by 0.4, which is well below the 5-dBA threshold. As such, traffic contribution from the project would not substantially elevate traffic volumes along roadways serving the site to levels that would affect traffic-generated noise. Therefore, impacts due to a permanent increase in the ambient noise environment at operation will be less than significant.

**4.13(b) (Groundborne Vibration and Noise) Less Than Significant Impact with Mitigation:** Maximum groundborne vibration levels, should not exceed 0.5 to 2.0 inches per second peak particle velocity (PPV) in order to prevent structural damage to modern buildings. More sensitive structures can be affected when vibration levels are at 0.3 inches/second PPV. Levels that exceed 0.3 inches/second PPV could result in significant impacts to sensitive structures due to groundborne vibration and noise.

Temporary construction activities such as grading, paving, piling driving, and compaction have the potential to generate ground vibration approaching or exceeding 0.3 inches per second. Equipment such as vibratory rollers, large bulldozers and jackhammers generate groundborne vibration and noise that can exceed established thresholds when operated in close proximity to sensitive structures. Effects of groundborne vibration include perceptible noise/vibration and rattling of windows and doors.

Pile drivers, if used for construction, will be limited to use in constructing the span bridge over Starr Creek. The nearest residential structures are located over 100 feet from where pile driving may occur. At a distance of 100 feet or greater Pile Driving generates a ground vibration of 0.160 inches per second, which is well below the 0.3 in/sec PPV threshold. Therefore, impacts to existing residential structures from pile driving will be less than significant.

Based on the Noise and Vibration Assessment, the nearest existing sensitive receptors to the project site are single-family residences located north and south of Jaguar Way near Starr Road. Construction activities may occur within 10 feet of existing residential structures, which has the potential to exceed vibration thresholds. Construction activities expected to occur nearest to existing residential structures include grading, grubbing and paving, which may involve heavy equipment such as vibratory rollers for compacting roadway base materials. The use of a vibratory roller within 10 feet of residences would generate a ground vibration of 0.575 inches per second PPV, which exceeds the 0.3 in/sec PPV threshold, and could result in a potentially significant impact.

Based on a comparison of induced vibration, as presented in the Noise and Vibration Assessment, minor damage (e.g., hairline cracking in masonry or the loosening of plaster) or major structural damage (e.g., wide cracking or shifting of foundation or bearing walls) to existing residential structures would not be anticipated to occur assuming a maximum vibration level of 0.58 in/sec PPV. Nonetheless, because the project has the potential to expose existing structures to groundborne vibration levels above 0.3 inches/second PPV, **Mitigation Measure NOI-2** shall be implemented. Measure NOI-2 requires that construction equipment be located as far as possible from sensitive receptors, use of smaller equipment to minimize vibration, and procedures to further regulate construction activities occurring within 20 feet of existing structures. With implementation of NOI-2 impacts to existing structures from noise and vibration will be reduced to less than significant levels.

At operation of the proposed Jaguar Way Extension Project, groundborne vibration from vehicles traveling on the new roadway would be below 0.01 inches per second PPV. Therefore, at operation groundborne vibration would be below thresholds of significance and impact would be less than significant.

At operation noise levels from vehicles, pedestrians and bicycles using Jaguar Way will not substantially alter the ambient noise environment. The nearest noise sensitive receptors are existing residents located north and south of Jaguar Way, east of Starr Road. To protect existing residents from elevated noise level on Jaguar Way, the project includes installation of a six-foot-high noise barrier along Jaguar Way for the two Starr Road

residences. Without the noise barrier, under future conditions of the 2040 General Plan, noise levels near these residents would be in the range of 43 to 46 dBA CNEL, which does not exceed the Town's noise standards. Nonetheless, with inclusion of a six-foot-tall noise barrier, a 2-4 dBA noise reduction would be achieved. As such, both with and without a noise barrier along Jaguar Way roadway noise generated by the proposed project would not exceed the Town's noise standard for single family residences and impacts would be less than significant at operation.

**4.13(e-f) (Airport Noise) Less Than Significant Impact:** As previously discussed in Section 4.9: Hazards/Hazardous Materials, and above, the Jaguar Way extension project is located in the vicinity of the Charles M. Shultz Airport. However, the entire project is located outside of the 55-dBA noise contour line. As such, the project site is not exposed to elevated noise levels due to the nearby airport operation. There are no private airport strips in the vicinity of the project. Therefore, the project will not be adversely affected by airport noise and impacts will be less than significant.

#### **Mitigation Measures:**

**NOI-1.** The Town of Windsor shall implement the following best management practices during all stages of construction for the Jaguar Way Extension Project as feasible:

1. Construction activities for all phases of construction, including servicing of construction equipment shall only be permitted during the hours of 7:00 a.m. and 7:00 p.m. Monday through Friday and between 8:00 a.m. and 7:00 p.m. on Saturdays. No construction shall be permitted on Sundays unless otherwise authorized by the Town Building Official.
2. Limit noise-producing signals, including horns, whistles, alarms, and bells to safety warning purposes only.
3. Equip all internal combustion engine-driven equipment with intake and exhaust mufflers that are in good condition and appropriate for the equipment (e.g., improved mufflers, equipment redesign, use of intake silencers, ducts, engine enclosures and acoustically-attenuating shields or shrouds, wherever feasible).
4. Unnecessary idling of internal combustion engines shall be strictly prohibited.
5. Locate stationary noise-generating equipment such as air compressors or portable power generators as far as possible from sensitive receptors as feasible. If stationary equipment must be located near receptors, adequate muffling (with enclosures where feasible and appropriate) shall be used to reduce noise levels at the adjacent sensitive receptors. Any enclosure, openings, or venting shall face away from sensitive receptors.
6. Utilize "quiet" air compressors and other stationary noise sources where technology exists.
7. Construction staging areas shall be established at location that will create the greatest distance between the construction-related noise sources and noise-sensitive receptors nearest the project site during all project construction.
8. Control noise from construction workers' radios to a point where they are not audible at existing residences bordering the project site.
9. Pre-drill foundation pile holes to minimize the number of impacts required to seat the pile.
10. Consider the use of "acoustical blankets" during pile driving activities.
11. The contractor shall prepare a detailed construction plan identifying the schedule for major noise-generating construction activities. The construction plan shall identify a procedure for coordination

with adjacent land uses including residents abutting the project site, Windsor High School and Keiser Park, so that construction activities can be scheduled to minimize noise disturbance.

12. Designate a "disturbance coordinator" who would be responsible for responding to any complaints about construction noise. The disturbance coordinator will determine the cause of the noise complaint (e.g., bad muffler, etc.) and will require that reasonable measures be implemented to correct the problem. Conspicuously post a telephone number for the disturbance coordinator at the construction site and include in it the notice sent to neighbors regarding the construction schedule.

**NOI-2.** The Town of Windsor shall implement the following to protect existing structures and occupants from exposure to excessive groundborne vibration within 20 feet of roadway construction.

1. Place operating equipment on the construction site as far as possible from vibration sensitive receptors.
2. Use smaller equipment to reduce vibration levels below the limits (0.3 inches/second PPV).
3. Avoid using vibratory rollers and tampers within 10 feet of sensitive structures.
4. Select demolition methods not involving impact tools.
5. Modify/design or identify alternative construction methods to reduce vibration levels below the limits.
6. Avoid dropping heavy objects or materials.
7. A list of all heavy construction equipment to be used for this project known to produce high vibration levels (tracked vehicles, vibratory compaction, jackhammers, hoe rams, etc.) shall be submitted to the Town by the contractor. This list shall be used to identify equipment and activities that would potentially generate substantial vibration and to define the level of effort required for continuous vibration monitoring.
8. A construction vibration-monitoring plan shall be implemented to document structural conditions at all structures located within 20 feet of non-pile driving activities and any structures located within 100 feet of pile driving prior to, during, and after vibration generating construction activities. All plan tasks shall be undertaken under the direction of a licensed Professional Structural Engineer in the State of California and be in accordance with industry accepted standard methods. The construction vibration monitoring plan should be implemented to include the following tasks:
  - a) Performance of a photo survey, elevation survey, and crack monitoring survey for all structures located within 20 feet of non-pile driving activities and any structures located within 100 feet of pile driving. These surveys shall be performed prior to, in regular intervals during, and after completion of vibration generating construction activities and shall include internal and external crack monitoring in the structure, settlement, and distress and shall document the condition of the foundation, walls and other structural elements in the interior and exterior of said structure.
  - b) Conduct a post-survey on the structure where either monitoring has indicated high levels or complaints of damage. Make appropriate repairs in accordance with the Secretary of the Interior's Standards where damage has occurred as a result of construction activities.
  - c) The results of the surveys shall be summarized and submitted in a report shortly after substantial completion of each phase identified in the project schedule to have potential vibration impacts. The report will include a description of measurement methods, equipment

used, calibration certificates, and graphics as required to clearly identify any vibration-monitoring locations.

- d) Designate a person responsible for registering and investigating claims of excessive vibration. The contact information of such person shall be clearly posted on the construction site.

**4.14. POPULATION AND HOUSING**

| Would the project:   | Potentially Significant Impact | Less Than Significant with Mitigation | Less Than Significant Impact        | No Impact                |
|--|--------------------------------|---------------------------------------|-------------------------------------|--------------------------|
| a) Induce substantial unplanned 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 checked="" type="checkbox"/> | <input type="checkbox"/> |

Sources: Town of Windsor 2040 General Plan and EIR.

**Population and Housing Setting:**

As described in the 2040 General Plan, the Town of Windsor's estimated 2017 population is 27,371 people. Since its incorporation in 1992, the Town of Windsor has expanded at a more rapid growth rate than Sonoma County. The Town's population increased by 20.3 percent between 2000 and 2017 compared to a 10.1 percent population increase in the County over the same period of time. The Town's 2017 population of 27,371 people represents approximately 5.4 percent of Sonoma County's total population of 505,120 people. Windsor is the fourth most populated town of the nine cities in Sonoma County. The Association of Bay Area Governments (ABAG) project that the Town's population will grow by approximately 4,378 new residents, 1,140 new housing units, and 2,464 new jobs by 2040 compared to current 2017 levels.

The Town Council enacted a Growth Control Ordinance in 1997 (last amended in 2017) due to concerns about rapid growth in the area. Under the Growth Control Ordinance, the Town Council annually establishes the number of annual growth control allocations available for new residential units based on maintaining an average annual population growth control rate of approximately 1.5 percent. The ordinance requires preparation of an Annual Report to assess compliance with the targeted 1.5 percent average annual population growth rate as well as the status of pending and entitled residential units. Every five years, the Annual Report will be supplemented with an infrastructure report that includes an assessment of infrastructure conditions and capacities. If necessary, the Town Council has the discretion to adjust the annual number of growth control allocations as needed to maintain the targeted annual average population growth rate based on development conditions and/or the ability to provide services to new residential development.

The proposed project would install a new roadway and introduce a new access route for the Town of Windsor consistent with the 2040 General Plan. Housing in the project vicinity includes Village Residential zoned residences to the north and east of the project site; Medium Density Residential zoned residences to the east of the project site; Surrounding Residential zoned residences to the northwest of the project site; and Planned Development (Vintana Subdivision) zoned residential to the southwest adjoining Starr Creek Park.

**Population and Housing Impact Discussion:**

**4.14(a) (Substantial Growth) Less Than Significant Impact:** The proposed roadway would provide a vehicular, pedestrian, and bicycle connection between Starr Road and Windsor Road. Jaguar Way is envisioned

as a 2-lane crosstown (new street) in the 2040 General Plan. Under the existing conditions, Jaguar Way currently provides limited vehicular access from Windsor Road to residential uses, Windsor High School, and the high school's associated athletic fields. The proposed project would not result in changes to land uses within the project site or in the vicinity of the project area. Implementation of the project would not change development density or intensity, nor would it result in new housing units that would induce population growth.

As stated in Section 4.17, the project is not expected to generate a substantial number of new trips, as there are no changes in land uses, but would provide a new route of travel by linking Starr Road and Windsor Road. Lands adjacent to and currently served by Jaguar Way are largely developed and would not experience substantial growth as a result of the project. Lands to the south of Jaguar Way include Windsor High and associated facilities. Lands to the north include single family homes and Keiser Park. Pedestrian, bicycle, and vehicular traffic access would be increased for planned and existing uses as a result of the project. Furthermore, the project was envisioned by the Town of Windsor General Plan 2040 and General Plan EIR as a necessary improvement to accommodate projected 2040 traffic volumes. Therefore, impacts from the proposed new roadway, either directly or indirectly, on population growth in the area, would be considered less than significant.

**4.14(b) (Housing or Person Displacement) Less than Significant Impact:** The project involves the construction of a new roadway. The entirety of the project will be located in the public right-of-way and immediately adjacent lands and will not displace or demolish housing. Private property will not be impacted significantly by the project such that housing, or persons would be displaced or removed. As such, the proposed project would not displace people or existing housing that would require the construction of replacement housing elsewhere. Therefore, impacts due to the displacement of housing or people will be less than significant.

**Mitigation Measures:** None Required.

**4.15. PUBLIC SERVICES**

| Would the project:   | Potentially Significant Impact | Less Than Significant with Mitigation | Less Than Significant Impact | No Impact                           |
|--|--------------------------------|---------------------------------------|------------------------------|-------------------------------------|
| Would the project 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: |                                |                                       |                              |                                     |
| a) Fire protection?  | <input type="checkbox"/>       | <input type="checkbox"/>              | <input type="checkbox"/>     | <input checked="" type="checkbox"/> |
| b) Police protection?  | <input type="checkbox"/>       | <input type="checkbox"/>              | <input type="checkbox"/>     | <input checked="" type="checkbox"/> |
| c) Schools?  | <input type="checkbox"/>       | <input type="checkbox"/>              | <input type="checkbox"/>     | <input checked="" type="checkbox"/> |
| d) Parks?  | <input type="checkbox"/>       | <input type="checkbox"/>              | <input type="checkbox"/>     | <input checked="" type="checkbox"/> |
| e) Other public facilities?  | <input type="checkbox"/>       | <input type="checkbox"/>              | <input type="checkbox"/>     | <input checked="" type="checkbox"/> |

Sources: Town of Windsor 2040 General Plan and EIR.

**Public Services Setting:**

The Town of Windsor public services are provided through a combination of local departments and regional districts and agencies. Fire protection and emergency medical services are provided by Sonoma County Fire District (SCFD) overseeing numerous fire districts, including two fire stations in the Town of Windsor.<sup>20</sup> In spring of 2019, Windsor, Rincon Valley, Bennet Valley, and the Mountain Volunteer Company merged into one agency to consolidate services in response to wildfire disasters in the fall of 2017 and 2018. County Station 1 is located at 8200 Old Redwood Highway, approximately 2.2 miles driving distance from the project site. County Station 3 is located at 8600 Windsor Road, approximately 325 feet from the project site.

The Windsor Police Department provides police protection services to the Town of Windsor. The Department is staffed by Sonoma County Sheriff Department employees through a negotiated contract between the County and the Town of Windsor.<sup>21</sup> The Police Department employs 24 full time employees, including the Chief, three sergeants, 14 officers, one K9 officer, one traffic officer, one school resource officer, one community services officer, and two civilian administrative staff.

<sup>20</sup> Sonoma County Fire District, <https://www.sonomacountyfd.org/our-partnership>, Accessed September 20, 2019.

<sup>21</sup> Windsor Police Department, <https://www.townofwindsor.com/174/Police-Department?NID=174>, Accessed September 20, 2019.



The town is served by the Windsor Unified School District (WUSD) that oversees eight schools including two charter schools. There is also a private school located in the Town, Windsor Christian Academy. Windsor High School is located to the south of the project site with existing access provided from Jaguar Way. The schools within the General Plan Area with their respective grades and enrollment for 2018-2019 include:

- Windsor High School, 1,742 students, grades 9-12
- Windsor Oaks Academy, 14 students, grades 10-12
- Windsor Middle School, 841 students, grades 6-8
- Cali Calmécac Language Academy, 1,138 students, grades K-8
- Mattie Washburn Elementary, 395 students, grades K-1
- Brooks Elementary, 407 students, grades 4-5
- Windsor Creek Elementary, 373 students, grades 2-3<sup>22</sup>
- Windsor Christian Academy (Private), 112 preschool and 165 students grades K-8<sup>23</sup>

The Town of Windsor Parks and Recreation Department operates, manages, and maintains a total of 18 community and neighborhood parks within the Town limits.<sup>24</sup> The Sonoma County Regional Parks maintains three regional parks in the vicinity of the Town: Foothill Regional Park, Shiloh Regional Park, and Riverfront Regional Park. Keiser Park is located to the north of the project site and Starr Creek Park is located to the south of the project site, access to these existing parks is maintained with the proposed Jaguar Way Extension Project.

#### **Public Services Impact Discussion:**

**4.15(a-e) (Fire & Police Protection, Schools, Parks, Other Public Facilities) No Impact:** The project includes the construction of a new roadway that would provide access between Starr Road and Windsor Road. As stated in **Section 4.14 Population and Housing**, the project will not induce growth in the area, either directly or indirectly. As such, the proposed project will not result in any substantial adverse physical impacts to existing fire and police protection, schools, parks, or other public facilities. Although Windsor High School and Keiser Park are located adjacent to and would be accessed by the proposed Jaguar Way Extension, the project would not increase service ratios served by, or result in adverse physical impacts to these facilities. Additionally, the project will not generate an increase in demands that would warrant the expansion or construction of new facilities. Therefore, no impacts related to fire and police protection, schools, parks, or other public facilities would occur.

**Mitigation Measures:** None Required

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<sup>22</sup> Windsor Creek Elementary closed in the 2019/2020 school year. Students were dispersed to Mattie Elementary and Brooks Elementary.

<sup>23</sup> Windsor Christian Academy enrollment for 2020/2021 school year, personal communication March 11, 2020.

<sup>24</sup> Town of Windsor Parks and Recreation Department, Windsor Parks and Facilities Map, <https://www.townofwindsor.com/DocumentCenter/Home/View/1423>, Accessed September 12, 2019.

**4.16. RECREATION**

| Would the project:   | Potentially Significant Impact | Less Than Significant with Mitigation | Less Than Significant Impact        | No Impact                |
|--|--------------------------------|---------------------------------------|-------------------------------------|--------------------------|
| 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 checked="" type="checkbox"/> | <input 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 checked="" type="checkbox"/> | <input type="checkbox"/> |

Sources: Town of Windsor 2040 General Plan and EIR; Keiser Park Master Plan and EIR, 2009; and Parks and Recreation Master Plan Update 2030, June 7, 2017.

**Recreation Setting:**

The Town of Windsor Parks and Recreation Department operates, manages, and maintains a total of 19 community and neighborhood parks within the Town limits. The Sonoma County Regional Parks maintains three regional parks in the vicinity of the Town: Foothill Regional Park, Shiloh Regional Park, and Riverfront Regional Park. Other recreational facilities within the Town of Windsor include the Windsor Town Green, Town Green Community Garden, Hembree House Museum, Huerta Gymnasium, Windsor Community Center, and Windsor Senior Center.<sup>25</sup> General Plan policy PFS-9.5 is to provide five acres of parkland per 1,000 population, in which 2.5 acres should be dedicated to neighborhood parks and 2.5 acres dedicated to community parks.

The Town Council adopted the Parks and Recreation Master Plan which “identifies a planning blueprint to improve, protect, and expand the Town’s network for parks, facilities and recreational services for the future, including sustainable goals for appropriate maintenance and funding for existing and future development” in June 2017.<sup>26</sup> The Master plan works to ensure that adequate parks, facilities, and recreation programs meet the needs of the Town’s future residents, employees, and visitors. The Windsor Parks and Recreation Master Plan Update 2030 states that the Town currently maintains 145.8 acres of parkland for its 27,335 residents, which is 5.3 acres of parkland per 1,000 residents. The Draft Master Plan sets forth a program to maintain the goal of providing 5 acres of parkland per 1,000 residents through 2030 and identifies a need to expand parkland resources by 20 acres by 2030 in order to accommodate the anticipated population increase to 31,000 residents.

The project is abutted by and would continue to provide access to two parks that are maintained by The Town of Windsor Parks and Recreation Department: Keiser Park to the north of the project site and Starr Creek Park

<sup>25</sup> Town of Windsor Parks and Recreation Department, Windsor Parks and Facilities Map, <https://www.townofwindsor.com/DocumentCenter/Home/View/1423>, Accessed September 20, 2019.

<sup>26</sup> Parks and Recreation Master Plan Update 2030, <https://www.townofwindsor.com/DocumentCenter/View/20228>, Accessed September 20, 2019.

to the south of the project site. Both parks are currently accessible via pedestrian paths from Jaguar Way and would continue to be accessible under the proposed project.

#### Recreation Impact Discussion:

**4.16(a) (Deterioration of Parks) Less Than Significant Impact:** Keiser Park and Starr Creek Park are located in the vicinity of the project site. The project includes the construction of a new roadway which will accommodate vehicles, pedestrians, and bicycles. The proposed new roadway would increase accessibility for Keiser Park and Starr Creek Park by creating a new multi-modal corridor and direct points of access for these sites. However, as stated in **Section 4.14 Population and Housing**, the project will not induce growth in the area, either directly or indirectly. As such, the proposed project will not result in a substantial increase in park or recreational facility usage that would deteriorate parks.

Additionally, the Keiser Park Master Plan Final EIR certified in 2009 proposed development of three parcels of land acquired by the Town, expansion of existing facilities, additional parking, a recreation center, swimming pools, and ballfields, among other improvements. The Windsor Park and Recreation Master Plan was updated in 2017 and identified action items to improve park amenities town-wide including specific action items for Keiser Park. The proposed project would not result in any conflicts with the Master Plan and would facilitate a southern vehicle connection to Keiser Park by installing a public roadway thereby providing an opportunity to buildout the southern driveway to Keiser Park.

As a roadway, the Jaguar Way Extension Project would not induce demand for parkland or park amenities and would not conflict with planned improvements set forth in the Town of Windsor's Park and Recreation Master Plan or the Keiser Park Master Plan. Therefore, impacts to parks and recreational facilities as a result of project implementation will be less than significant.

**4.16(b) (Additional Recreational Facilities) Less Than Significant Impact:** The project includes the construction of a new roadway that would accommodate pedestrians and bicycles. Unlike other land uses and development project, roadways do not induce demand for recreational facilities. Implementation of the proposed project will not result in any adverse impacts related to the construction or expansion of recreational facilities. The Jaguar Way project does not conflict with any existing or planned recreational facilities. Therefore, impacts due to the need for additional recreational facilities will be less than significant.

**Mitigation Measures:** None Required.

#### 4.17. TRANSPORTATION

| Would the project:   | Potentially Significant Impact | Less Than Significant with Mitigation | 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) Would the project conflict or be inconsistent with CEQA Guidelines section 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   | <input type="checkbox"/>       | <input checked="" type="checkbox"/>   | <input type="checkbox"/>            | <input type="checkbox"/> |

dangerous intersections) or incompatible uses  
(e.g., farm equipment)?

d) Result in inadequate emergency access

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Sources: Town of Windsor General Plan and EIR; Caltrans Highway Capacity Manual 2010; Caltrans Traffic Volumes; Windsor Bicycle and Pedestrian Master Plan, prepared by the Sonoma County Transportation Authority and the Town of Windsor, October 2014; Windsor Station Area/Downtown Specific Plan, Town of Windsor, January 16, 2013.

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### Transportation Setting:

The existing circulation network within the Town of Windsor and Sonoma County is comprised of Highway 101 (US 101), arterials, collector streets, and local streets. The Town of Windsor is bisected by US 101, which provides regional access throughout Sonoma County. US 101 at the Central Windsor Exit carries approximately 63,000 vehicles per day.<sup>27</sup>

#### *Sonoma County Transportation Authority*

The Sonoma County Transportation Authority (SCTA) acts as the countywide planning and programming agency for transportation related issues in Sonoma County. SCTA plays a leading role in transportation by securing funds, providing project oversight, and initiating long term planning activities. In 1997 SCTA relinquished its position as the County's Congestion Management Agency (CMA).

#### *Town of Windsor General Plan*

The Windsor General Plan provides the following goals, policies and programs for transportation that are applicable to the Jaguar Way Extension project:

M-2.1 Complete Streets Design Guidelines. The Town shall ensure that the concepts and design standards/guidelines in the adopted Complete Street Design Guidelines are considered during review of new development proposals, when constructing new streets, and when modifying existing corridors in order to ensure accessibility for all.

M-2.4 Managing Transportation in the Right-of-Way. The Town shall balance the needs of all travel modes when planning transportation improvements, including pedestrian and bicycle trails and pathways.

M-3.1 Connected Network. The Town shall strive to create a more connected transportation network by eliminating "gaps" in roadways, bikeways, and pedestrian networks; increasing transit access; and removing natural and manmade barriers to accessibility and connectivity.

M-3.4 Street Design. The Town shall encourage streets to be designed or upgraded in ways that support walkable and bikeable environments and to be consistent with the Town's Complete Street Design Guidelines.

M-3.5 Design Standards. The Town shall implement the design standards for both public and private travel corridors from the Complete Street Design Guidelines and Windsor Station Area/Downtown Specific Plan that address landscaping and tree management, building setbacks, and existing character.

M-3.12 Traffic Management. The Town shall strive to address traffic operations, including congestion, intersection delays, and travel speeds, while balancing neighborhood livability and safety concerns.

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<sup>27</sup> Caltrans 2017 Traffic Volumes, accessed October 2019. <https://dot.ca.gov/programs/traffic-operations/census/traffic-volumes/2017/route-101>

M-3.16 Level of Service Application. The Town shall maintain level of service standards that define the minimum acceptable operating characteristics for intersections and streets. A level of service D (LOS D) is defined as the minimum acceptable level of congestion during the weekday morning and evening peak periods for high-volume facilities such as freeways, crosstown streets, and signalized or all-way stop-controlled intersections.

Policy M-3.17 – Queuing. Intersection queuing shall be evaluated in tandem with LOS. Projected 95th percentile queues in left-turn pockets do not exceed the available stacking length. A queuing impact shall be considered significant if:

- a. The 95th percentile queue length can be contained within the available stacking length without the project, and the project causes the queue to exceed the stacking length; or
- b. The queue length exceeds the available stacking length without the project and the project increases the 95th percentile queue by more than 10 feet, or approximately one-half a car-length. Exceptions to this policy may be granted by the Town Engineer, where there is sufficient block length to accommodate projected queuing or physical constraints that make it infeasible to construct the improvement that would be necessary to achieve adequate stacking length, such as geometrics, a lack of right-of-way, adjacent slopes or hills, and soil conditions.

M-4.4 Pedestrian and Bicycling Gaps. The Town shall encourage closing the gaps in the sidewalk and bicycling network to ensure continuous pedestrian and cycling access within town, particularly the gaps in connection due to the bisecting of U.S. Highway 101.

M-4.5 Bicycle Infrastructure Planning. The Town shall consider the needs of bicyclists of all types (commuters, recreational riders, children, and families) in planning, developing, and maintaining a bikeway network that is safe and convenient.

M-4.6 Bicycle Safety Improvements. The Town shall improve bicycle safety by expanding the use of separated bicycle lanes, green bicycle lanes, and adequate lighting, particularly around schools and in other areas where bicycle safety is a concern.

M-4.12 Safe Routes to School. The Town shall continue to coordinate with the School District on implementation of the Safe Routes to School program to ensure a safe pedestrian and bicycling network to and from local educational facilities for all.

PFS-9.20 Keiser Park master Plan. The town shall implement the Keiser Park Master Plan, based on community input, to accommodate an Aquatics Center, multi-generational Community Center, and expansion of parkland.

#### *Windsor Station Area/Downtown Specific Plan*

The Windsor Station Area/Downtown Specific Plan provides an impact fee project and the following goal for transportation that is applicable to the Jaguar Way Extension project:

Goal CA-17: Complete the following extensions shown in Figure 4-3 (not provided), including:

- Extend Wall Street and Duncan Drive west and connect them together with a new street that runs along Keiser Park. This extended Street network will improve access to Keiser Park from the east and complete the street grid in the area between Windsor River Road, Windsor Road, Jaguar Way, and Keiser Park.

#### *Study Area*

Jaguar Way is located along the northern border of Windsor High School connecting the North Parking lot, baseball fields, the Football Field and four single family homes to Windsor Road. Jaguar Way currently extends from a signalized intersection at Windsor Road to the Football Stadium where pavement ends, approximately 500 feet west of Starr Road. Jaguar Way does not have a posted speed limit; however, speeds are regulated by speed bumps. Jaguar Way supports an estimated 1,940 average daily trips (ADT). The project would connect from the existing terminus to Starr Road, finishing the road as a two-lane crosstown street and connecting to Keiser Park per the General Plan classification.

Starr Road is classified as a two-lane crosstown street. It currently has one travel lane in each direction together with bike lanes north of Windsor River Road, and the posted speed limit is 35 miles per hour (mph). South of Windsor River Road Starr Road has limited sidewalks. Starr Road has an ADT of approximately 8,000 vehicles per day.

Windsor River Road is classified as a two-lane crosstown street; it runs east/west from Eastside Road to it terminus at Old Redwood Highway, which connects to US 101. Windsor River Road has an ADT of 14,000 vehicles per day and a speed limit of 35 mph east of Starr Road.

Windsor Road is classified as a two- to three-lane crosstown street with a posted speed limit of 35 mph and an ADT of 6,000 vehicles. It runs north/south from Old Redwood Highway to Mark West Station Road. In the vicinity of the project Windsor Road has one lane in either direction with bike lanes and continuous sidewalks.

The study area selected for the analysis includes the following intersections:

1. Windsor River Road/Starr Road
2. Windsor River Road/Windsor Road
3. Jaguar Way/Starr Road
4. Jaguar Way/Windsor Road

#### *Collision Rates*

The collision history for the study area was reviewed to determine any trends or patterns that may indicate a safety issue. Collision rates for the three study intersections that currently exist were calculated based on records available from the California Highway Patrol as published in their Statewide Integrated Traffic Records System (SWITRS) reports. The most current five-year period available is October 1, 2013 through September 30, 2018.

As presented in

Table 4 the calculated collision rates for the study intersections were compared to average collision rates for similar facilities statewide, as indicated in *2014 Collision Data on California State Highways*, California Department of Transportation (Caltrans). Windsor River Road/Starr Road and Windsor River Road/Windsor Road had calculated collision rates that are slightly higher than the statewide average. Upon further investigation into the collisions at these intersections, no specific patterns were identified though nearly half the crashes at Windsor River Road/Windsor Road were rear-end collisions, which is typical of signalized intersections that experience some congestion. Further, the injury rates at both intersections were half the Statewide averages for similar facilities, indicating that despite the above-average collision rate, there is not a demonstrated safety concern at any of the study intersections. Since Starr Road/Jaguar Way is not an existing intersection, collisions on Starr Road near the future Jaguar Way connection were reviewed. There were no collisions on Starr Road near the location of the future Jaguar Way intersection. The collision rate calculations are provided in **Appendix G**.

**TABLE 4: SUMMARY OF COLLISION RATES AT THE STUDY INTERSECTIONS**

| <b>Study Intersection</b>   | <b>Number of Collision (2013-2018)</b> | <b>Calculated Collision Rate (c/mve)</b> | <b>Statewide Average Collision Rate (c/mve)</b> |
|-----------------------------|--|--|---|
| Windsor River Rd/Starr Rd   | 5                                      | <b>0.37</b>                              | 0.32  |
| Windsor River Rd/Windsor Rd | 16                                     | <b>0.58</b>                              | 0.43  |
| Jaguar Wy/Windsor Rd        | 2                                      | 0.17                                     | 0.27  |

Notes: c/mve = collisions per million vehicles entering; **bold** text indicates a rate higher than the Statewide average for similar facilities

Source: W-Trans

### *Pedestrian Facilities*

Pedestrian facilities include sidewalks, crosswalks, pedestrian signal phases, curb ramps, curb extensions, and various streetscape amenities such as lighting, benches, etc. In general, a network of sidewalks, crosswalks, pedestrian signals, and curb ramps provide access for pedestrians in the vicinity of the proposed project site; however, there are gaps in the sidewalk system. Existing gaps and obstacles along the connecting roadways impact convenient and continuous access for pedestrians and present safety concerns in those locations where appropriate pedestrian infrastructure would address potential conflict points. Starr Road has many gaps in the sidewalk network along with some significant gaps on the west side of Windsor Road; however, the other study roadways have complete sidewalk facilities. The Town's *Complete Street Design Guidelines* and the *Windsor Bicycle and Pedestrian Master Plan* provide guidance regarding the width of sidewalk required depending on a street's functional classification.

### *Bicycle Facilities*

The *Highway Design Manual*, Caltrans, 2017, classifies bikeways into four categories:

- Class I Multi-Use Path – a completely separated right-of-way for the exclusive use of bicycles and pedestrians with cross flows of motorized traffic minimized.
- Class II Bike Lane – a striped and signed lane for one-way bike travel on a street or highway.
- Class III Bike Route – signing only for shared use with motor vehicles within the same travel lane on a street or highway.
- Class IV Bikeway – also known as a separated bikeway, a Class IV Bikeway is for the exclusive use of bicycles and includes a separation between the bikeway and the motor vehicle traffic lane. The separation may include, but is not limited to, grade separation, flexible posts, inflexible physical barriers, or on-street parking.

In the project area, Class II bike lanes exist on Windsor Road between Windsor River Road and Shiloh Road and on Windsor River Road from Eastside Road to Windsor Road. Bicyclists ride in the roadway and/or on sidewalks along all other streets within the project study area.

Table 5 summarizes the existing and planned bicycle facilities in the project vicinity, as contained in the Town of Windsor's Bicycle Transportation Plan, General Plan, and Downtown Specific Plan. The Town's *Complete Street Design Guidelines* and the *Windsor Bicycle and Pedestrian Master Plan* also provide guidance regarding planned future bicycle facilities.

**TABLE 5: SUMMARY OF EXISTING AND PLANNED BICYCLE FACILITIES**

| Facility         | Class | Length (Miles) | Begin Point      | End Point                   |
|------------------|-------|----------------|------------------|-----------------------------|
| <b>Existing</b>  |       |                |                  |                             |
| Windsor Rd       | II    | 1.57           | Windsor River Rd | Shiloh Rd                   |
| Windsor River Rd | II    | 1.55           | Eastside Rd      | Windsor Rd                  |
| Starr Rd         | III   | 0.75           | Windsor River Rd | Town Limits South           |
| <b>Planned</b>   |       |                |                  |                             |
| Star Creek Trail | I     | 1.15           | Starr View       | Starr Rd n/o Woody Creek Ln |
| Jaguar Way       | III   | 0.61           | Windsor Rd       | Town Limits West            |

Source: *Windsor Bicycle and Pedestrian Master Plan*, SCTA and the Town of Windsor, October 2014

### Public Transit

Sonoma County Transit (SCT) provides fixed route bus service in Windsor. SCT Rout 55 is the Airport Business Park Shuttle. It generally provides service between the Sonoma County Airport and the nearby business park area the town of Windsor with stops along Windsor Road. Rout 55 operates Monday through Friday with approximately one-hour heads ways during the am commute and one-hour headways during the pm commute.

SCT Local Route 66 provides loop service to destinations throughout the Town and stops on Windsor Road between Windsor High School and Windsor River Road. Route 66 operates Monday through Friday with approximately one-hour headways between 7:00 a.m. and 5:00 p.m. Saturday service operates with approximately one-hour headways between 9:30 a.m. and 3:30 p.m.

Routes 60 provide regional service between Windsor and surrounding communities. Route 60 stops on Windsor River Road east of Windsor Road and operates Monday through Friday with approximately one-hour headways between 7:30 a.m. and 9:30 p.m.

Two bicycles can be carried on most SCT buses. Bike rack space is on a first come, first served basis. Additional bicycles are allowed on SCT buses at the discretion of the driver.

Dial-a-ride, also known as paratransit, or door-to-door service, is available for those who are unable to independently use the transit system due to a physical or mental disability. SCT Paratransit is designed to serve the needs of individuals with disabilities within Windsor and the greater Windsor area.

### Intersection Level of Service Methodology

Level of Service (LOS) is used to rank traffic operation on various types of facilities based on traffic volumes and roadway capacity using a series of letter designations ranging from A to F. Generally, Level of Service A represents free flow conditions and Level of Service F represents forced flow or breakdown conditions. A unit of measure that indicates a level of delay generally accompanies the LOS designation.



The Levels of Service for the intersections with side street stop controls, or those which are unsignalized and have one or two approaches stop controlled, were analyzed using the “Two-Way Stop-Controlled” intersection capacity method from the HCM. This methodology determines a level of service for each minor turning movement by estimating the level of average delay in seconds per vehicle. Results are presented for individual movements together with the weighted overall average delay for the intersection.

The study intersections with stop signs on all approaches were analyzed using the “All-Way Stop-Controlled” Intersection methodology from the HCM. This methodology evaluates delay for each approach based on turning movements, opposing and conflicting traffic volumes, and the number of lanes. Average vehicle delay is computed for the intersection as a whole which is then related to a Level of Service.

To maintain consistency with other analyses prepared for the Town, and in particular, the EIR supporting the new General Plan adopted in 2018, the study intersections were analyzed using the signalized methodology published in the *Highway Capacity Manual* (HCM), Transportation Research Board, 2010 rather than the methodology issued in 2016. The HCM contains methodologies for various types of intersection control, all of which are related to a measurement of delay in average number of seconds per vehicle. The signalized methodology is based on factors including traffic volumes, green time for each movement, phasing, whether or not the signals are coordinated, truck traffic, and pedestrian activity. Average stopped delay per vehicle in seconds is used as the basis for evaluation in this LOS methodology. For purposes of this study, delays were calculated using optimized signal timing.

Descriptions of the various service levels are provided in Table 6.

**TABLE 6: INTERSECTION LEVEL OF SERVICE CRITERIA**

| LOS | Two-Way Stop-Controlled   | All-Way Stop-Controlled   | Signalized  |
|-----|---|---|---|
| A   | Delay of 0 to 10 seconds. Gaps in traffic are readily available for drivers exiting the minor street.   | Delay of 0 to 10 seconds. Upon stopping, drivers are immediately able to proceed.   | Delay of 0 to 10 seconds. Most vehicles arrive during the green phase, so do not stop at all.                                 |
| B   | Delay of 10 to 15 seconds. Gaps in traffic are somewhat less readily available than with LOS A, but no queuing occurs on the minor street.                          | Delay of 10 to 15 seconds. Drivers may wait for one or two vehicles to clear the intersection before proceeding from a stop.  | Delay of 10 to 20 seconds. More vehicles stop than with LOS A, but many drivers still do not have to stop.                    |
| C   | Delay of 15 to 25 seconds. Acceptable gaps in traffic are less frequent, and drivers may approach while another vehicle is already waiting to exit the side street. | Delay of 15 to 25 seconds. Drivers will enter a queue of one or two vehicles on the same approach and wait for vehicle to clear from one or more approaches prior to entering the intersection. | Delay of 20 to 35 seconds. The number of vehicles stopping is significant, although many still pass through without stopping. |
| D   | Delay of 25 to 35 seconds. There are fewer acceptable gaps in traffic, and drivers may enter a queue of one or two vehicles on the side street.                     | Delay of 25 to 35 seconds. Queues of more than two vehicles are encountered on one or more approaches.  | Delay of 35 to 55 seconds. The influence of congestion is noticeable, and most vehicles have to stop.                         |
| E   | Delay of 35 to 50 seconds. Few acceptable gaps in traffic are available, and longer   | Delay of 35 to 50 seconds. Longer queues are encountered on more than   | Delay of 55 to 80 seconds. Most, if not all, vehicles must  |

|   |   |   |   |
|---|---|---|---|
|   | queues may form on the side street.   | one approach to the intersection.   | stop, and drivers consider the delay excessive.   |
| F | Delay of more than 50 seconds. Drivers may wait for long periods before there is an acceptable gap in traffic for exiting the side streets, creating long queues. | Delay of more than 50 seconds. Drivers enter long queues on all approaches. | Delay of more than 80 seconds. Vehicles may wait through more than one cycle to clear the intersection. |

Reference: *Highway Capacity Manual*, Transportation Research Board, 2010

### Standard of Significance

The Town of Windsor's adopted standard of significance as cited in the *Town of Windsor General Plan* recognizes level of service D as the minimum standard for signalized intersections, though it is recognized that reducing congestion must be balanced against improvement costs and community character concerns. It is noted that LOS standards such as the Town's must be replaced by a standard based on Vehicle Miles Traveled (VMT) by July 1, 2020. In the absence of such a standard, the currently applicable operational standard was applied, though this analysis is provided for informational purposes only.

### Existing Conditions

Under existing volumes, the three existing study intersections are all operating at LOS C or better during both peak periods. These results are summarized in Table 7; the existing volumes and lane configurations are indicated on the calculations, copies of which are provided in **Appendix G**.

**TABLE 7: SUMMARY OF EXISTING PEAK HOUR INTERSECTION LEVELS OF SERVICE**

| Study Intersection          | Control    | AM Peak Hour |       | PM Peak Hour |       |
|-----------------------------|------------|--------------|-------|--------------|-------|
|                             |            | LOS          | Delay | LOS          | Delay |
| Windsor River Rd/Starr Rd   | Signalized | 14.0         | B     | 10.5         | B     |
| Windsor River Rd/Windsor Rd | Signalized | 29.8         | C     | 29.0         | C     |
| Jaguar Way/Starr Rd*        | TWSC       | n/a          | n/a   | n/a          | n/a   |
| Jaguar Way/Windsor Rd       | Signalized | 12.8         | B     | 13.0         | B     |

Notes: Delay is measured in average seconds per vehicle; LOS = Level of Service; TWSC = two-way stop-controlled; \* = Jaguar Way/Starr Rd is not an existing intersection; n/a = not applicable.

Source: W-Trans.

### Transportation and Circulation Impact Discussion:

**4.17(a) (Conflict with Plans, Policies, and Ordinances) Less Than Significant Impact:** All three design alternatives for the Jaguar Way Extension comply with the following Town of Windsor General Plan policies including, but not limited to: M-2.1, M-3.1, M-3.5, M-4.4, M-4.5, M-4.12.

### Pedestrians

The proposed project would result in a new connection between Starr Road and Windsor Road, allowing pedestrians to travel more easily from Starr Road to the high school and associated facilities. As proposed, the project includes converting a gravel walking path between Windsor High School Parking lot and Starr Road into a roadway with sidewalks. This new connection would provide better all-weather access for pedestrians

relative to existing unimproved conditions, along with a new connection for pedestrians to Keiser Park resulting in a shorter travel distance when arriving from the southeast.

All three design alternatives were evaluated for consistency with the Town’s Complete Street Design Guidelines (CSDG), and none would be fully compliant. Design Option 1 would be nearly compliant, though the landscape strip would be eliminated through a portion of the design, resulting in contiguous sidewalk rather than separated sidewalk. Design Option 2 would provide the 6-foot width required in the CSDG, but only sidewalk would be provided, and it would be contiguous. Similarly, Design Option 3 provides a single 6-foot sidewalk though it would be separated from the street by a Class I bikeway.

While none of the design options are entirely consistent with the Complete Street Design Guidelines, because each design provides for improved pedestrian connectivity and access, thereby meeting the goals and policies set forth in the General Plan, the impact is considered less-than-significant.

*Bicycles*

Windsor Road has bike lanes while Starr Road has sharrows to help make drivers more aware of cyclists using the roadway. By extending Jaguar Way to Starr Road, a new connection to bike lanes would be provided, improving access for cyclists. As proposed Jaguar Way would include bicycle facilities; however, it has not yet been established if it will be a Class I, Class II or Class III bicycle facility, any of which would improve access for bicyclists.

The Windsor Bicycle and Pedestrian Master Plan calls for a Class III, or on-street, bike route on Jaguar Way. Design Option 1 is consistent with this policy, while Design Options 2 and 3 provide a higher level of access by including Class II (bike lanes) and Class I (bike trail) facilities, respectively. However, the proposed 5-foot width of the bike lane included in Design Option 2 does not meet the minimum design criterion for a crosstown street of 6 feet in width. All three of the Design Options meet or exceed the type of facilities as planned, resulting in a less-than-significant impact related to plans and policies for bicycle facilities.

*Roadway Geometrics*

Per the Town’s CSDG a two-lane crosstown street should have lanes with a minimum width of 11 feet. Design Options 1 and 3 include 11-foot vehicle travel lanes and Design Option 2 includes 10-foot travel lanes. While this is not consistent with the Town’s policy, given the length of the roadway, its straight alignment and given that truck traffic would not be anticipated on this specific roadway, the 10-foot width can reasonably be expected to function adequately. The design options continue to provide access to existing driveways and accommodate safe pedestrian access to the existing pedestrian path at Keiser Park by installing a stiped crosswalk across Jaguar Way. The project would therefore be expected to have a less-than-significant impact on plans and policies related to roadway geometrics.

*Traffic Operation*

Existing Plus Project Conditions

Upon completion of the new street, drivers coming from the north or west from Starr Road would be expected to divert to the new street in lieu of continuing east to Windsor Road to get to the high school. With construction of the new intersection of Jaguar Way/Starr Road and associated rerouting of trips in the area, the study intersections are expected to continue operating at LOS C or above, as shown in Table 8.

**TABLE 8: EXISTING AND EXISTING PLUS PROJECT PEAK HOUR INTERSECTION LEVELS OF SERVICE**

| Study Intersection<br><i>Stop-Controlled Approach</i> | Existing Conditions |       |              |       | Existing plus Project |       |              |       |
|---|---------------------|-------|--------------|-------|-----------------------|-------|--------------|-------|
|   | AM Peak Hour        |       | PM Peak Hour |       | AM Peak Hour          |       | PM Peak Hour |       |
|   | LOS                 | Delay | LOS          | Delay | LOS                   | Delay | LOS          | Delay |

|                               |      |      |      |      |      |   |      |   |
|-------------------------------|------|------|------|------|------|---|------|---|
| Windsor River Rd/Starr Rd     | 14.0 | B    | 10.5 | B    | 13.9 | B | 10.4 | B |
| Windsor River Rd/Windsor Rd   | 30.0 | C    | 29.2 | C    | 29.1 | C | 29.4 | C |
| Jaguar Way/Starr Rd           | n/a* | n/a* | n/a* | n/a* | 0.4  | A | 0.7  | A |
| <i>Westbound (Jaguar Way)</i> | n/a* | n/a* | n/a* | n/a* | 9.5  | A | 9.0  | A |
| Jaguar Way/Windsor Rd         | 12.8 | B    | 13.0 | B    | 12.7 | B | 12.5 | B |

Notes: Delay is measured in average seconds per vehicle; LOS = Level of Service; \* = Jaguar Way/Starr Rd is not an existing intersection; delay on stop-controlled side street shown in *italics*. New intersection will be stop-controlled (at the Jaguar Way approach only)

Source: W-Trans

It should be noted that with the addition of the project, average delay at the study intersections decrease during both peak periods. This condition occurs because the project moves trips to movements that are currently underutilized or have delays that are below the intersection average at Windsor River Road/Starr Road, resulting in a better balance between approaches and lower overall average delay and because it redistributes trips away from the other study intersections, reducing volumes and thereby average delay. While the reduction in delay is nominal, it is important to note that these results reflect operation over the course of an entire hour, while the reduction in peak demand immediately before the start of the day at Windsor High School would result in a greater improvement in operation during that short period of time.

Consideration was given to the potential need for all-way stop controls at the new intersection of Jaguar Way/Starr Road that would be created by the project. Because operation is expected to be at LOS A under existing plus project conditions, which is well above the Town's minimum operational threshold of LOS D with only a stop sign on the Jaguar Way approach, all-way stop controls were determined to be unwarranted.

#### Future Plus Project Conditions

Future 2040 volumes for all the existing study intersections were taken from *Windsor 2040 General Plan Update Final Environmental Impact Report*, Town of Windsor, October 2017. Under future 2040 conditions, Jaguar Way is projected to support approximately 2,300 ADT. For the intersection of Jaguar Way/Starr Road intersection volumes were created using turning movement volumes for Windsor River Road/Starr Road as contained in the General Plan EIR. Under Future conditions all study intersections are expected to operate acceptably with or without the project. These results are summarized in Table 9.

**TABLE 9: SUMMARY OF FUTURE PLUS PROJECT PEAK HOUR INTERSECTION LOS**

| Study Intersection            | Future Conditions |       |              |       | Future plus Project |       |              |       |
|-------------------------------|-------------------|-------|--------------|-------|---------------------|-------|--------------|-------|
|                               | AM Peak Hour      |       | PM Peak Hour |       | AM Peak Hour        |       | PM Peak Hour |       |
|                               | LOS               | Delay | LOS          | Delay | LOS                 | Delay | LOS          | Delay |
| Windsor River Rd/Starr Rd     | 21.6              | C     | 22.1         | C     | 21.4                | C     | 21.4         | C     |
| Windsor River Rd/Windsor Rd   | 37.5              | D     | 37.8         | D     | 36.62               | D     | 37.7         | D     |
| Jaguar Wy/Starr Rd            | n/a*              | n/a*  | n/a*         | n/a*  | 0.4                 | A     | 0.5          | A     |
| <i>Westbound (Jaguar Way)</i> | n/a*              | n/a*  | n/a*         | n/a*  | 9.7                 | A     | 11.0         | B     |
| Jaguar Wy/Windsor Rd          | 15.2              | B     | 14.2         | B     | 15.2                | B     | 13.8         | B     |

Notes: Delay is measured in average seconds per vehicle; LOS = Level of Service; \* = Jaguar Way/Starr Rd is not an existing intersection; delay on stop-controlled side street shown in *italics*.

Source: W-Trans.

It is noted some intersections operate better under “plus Project” conditions; this is due to the rerouting of trips from Jaguar Way/Windsor Road to Jaguar Way/Starr Road and the effect those trips have on the intersections as described above.

As with the existing condition scenario described above, consideration was given to the potential need for all-way stop controls at the new intersection of Jaguar Way/Starr Road that would be created by the project under future plus project conditions. Because operation is expected to be at LOS B under future plus project conditions, which is well above the Town’s minimum operational threshold of LOS D with only a stop sign on the Jaguar Way approach, all-way stop controls were determined to be unwarranted. Therefore, potential impact due to a conflict with level of service standard will be less than significant.

**4.17(b) (Conflict with 15064.3(b)) Less Than Significant Impact:** Because the proposed project is a new street connection, it would not, in and of itself, generate any new trips. It would, however, provide a slightly shorter travel path for residents living north and west of the intersection at Windsor River Road/Starr Road to reach the high school and associated facilities. Diversion of some trips to this alternative route would have a nominal positive impact on VMT. Therefore, impacts due to a conflict with 15064.3(b) would be less than significant.

**4.17(c) (Introduce hazards as a result of geometric design features) Less than Significant Impact with Mitigation:** The new Jaguar Way Extension will provide access to Keiser Park, Starr Creek Park, and Starr Road, along with continued access to four homes connected to Jaguar Way on the north side via an existing driveway. Existing driveways from Jaguar Way will be retained or improved to match the proposed grading and elevation alignments. In the future, at such time as the planned Keiser Park southern access driveway is installed it shall be reviewed for potential sight line conflicts and designed to preclude obstruction. To ensure that existing and new driveways along Jaguar Way do not present a potential design hazard **Mitigation Measure TRANSP-1** shall be implemented which provides that sight lines distances be retained, and that new landscaping, signage and vegetation be installed and maintained in such a manner as to not obstruct sight lines. With implementation of TRANSP-1 the proposed Jaguar Way Extension would result in less than significant impacts due to geometric design features.

Due to the comfort level of some bicycle riders who would be expected to use the new Jaguar Way Extension, the Town Standard design option is least preferable as riders would have to have a higher level of comfort to ride in the roadway with vehicles. None of the design alternatives for the proposed project are expected to cause any hazard as they will be designed to meet applicable codes and laws. Impacts due to a design hazard for bicycles are considered to be less than significant.

During construction activities along Jaguar Way there is a potential for conflicts to arise between construction equipment, construction vehicles and deliveries, and traffic associated with Windsor High School and related activities at adjacent Windsor High School facilities. The entrance to Windsor High School, may be partially obstructed on a temporary basis during construction associated with roadway improvement including demolition and reconstruction. In order to avoid potential conflicts with construction equipment and students traveling to/from Windsor High School **Mitigation Measure TRANSP-2** shall be implemented. TRANSP-2 requires that the contractor prepare and implement a detailed construction schedule and coordinate with the Windsor High School to avoid conflict during school start and release times and during school events. One means to avoid conflict with school start and release time would be to conduct improvements during summer months when school is not in session and school activities are limited. With implementation of TRANSP-1 and TRANSP-2 potential impacts due to temporary conflicts and geometric hazards will be reduced to less than significant levels.

**4.17(d) (Result in inadequate emergency access) Less than Significant Impact:** The proposed project would provide a new connection between Starr Road and Windsor Road, improving emergency access by

creating a route that avoids the congested intersection at Windsor Road/Windsor River Road for some trips. The new route is not expected to be used for emergency access during construction, therefore during the interim there would be no change to current access. Its impact is therefore less than significant.

#### Mitigation Measures:

- TRANSP-1** The final design of Jaguar Way Extension shall ensure that sight lines are preserved by locating new trees, lighting, landscaping and signage in a manner that does not block sight lines and includes an ongoing maintenance plan for street trees and vegetation so that new growth does not obstruct visibility or conflict with pedestrian, bicycle and vehicles travel.
- TRANSP-2** The contractor shall prepare and implement a construction work schedule including material delivery, construction start and end times, road closure and lane closure information and shall be coordinated with Windsor High School to avoid conflicts with school start and release times and school related events. The construction schedule shall also include coordination with other nearby construction activities to minimize conflicts on roadways.

#### 4.18. TRIBAL CULTURAL RESOURCES

| Would the project:   | Potentially Significant Impact | Less Than Significant with Mitigation | Less Than Significant Impact | No Impact                           |
|--|--------------------------------|---------------------------------------|------------------------------|-------------------------------------|
| a) Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 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   | <input type="checkbox"/>       | <input type="checkbox"/>              | <input type="checkbox"/>     | <input checked="" type="checkbox"/> |

- 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 Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.




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Sources: Town of Windsor 2040 General Plan and EIR; County of Sonoma General Plan 2020; and Evans & De Shazo, Cultural Resource Study for the Proposed Jaguar Way Extension, March 1, 2018.

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### **Tribal Cultural Resources Setting:**

Tribal Cultural Resources are defined as follows:

1. Sites, features, places, cultural landscapes, sacred places, or objects with cultural value to a California Native American tribe that are either (A) included or determined to be eligible for inclusion in the CRHR, or (B) included in a local register of historical resources as defined in subdivision (k) of §5020.1.; or,
2. A resource that the lead agency chooses, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of §5024.1 - taking into account the significance of the resource to a California Native American tribe.

As discussed above under the Cultural Resources section, Evans & De Shazo prepared a Cultural Resource Study (**Appendix E1**) for the proposed project. As part of this, A Sacred Sites inventory request was made to the Native American Heritage Commission (NAHC) on October 30, 2017 to determine if there are any Sacred Sites located within or near to the direct APE and to obtain a list of Native American tribes who may have additional information about Sacred Sites within or near to the direct APE. The NAHC provided a list of seven Native Americans tribes with traditional lands or cultural places located within the boundaries of Sonoma County: Cloverdale Rancheria of Pomo Indians of California; Dry Creek Rancheria Band of Pomo Indians; Federated Indians of Graton Rancheria (FIGR); Kashia Band of Pomo Indians of the Stewarts Point; Lytton Rancheria of California; Middletown Rancheria; and the Mishewal-Wappo Tribe of Alexander Valley. A search of the Sacred Sites file conducted by the NAHC on November 14, 2017 did not indicate the presence of a Native American Sacred Site within or in the immediate vicinity of the direct APE. Representatives from each of the tribes were also contacted via USPS and email on November 15, 2017 informing them that a cultural resource study was being undertaken for the subject site.

In addition to the Sacred lands search and outreach, pursuant to Public Resources Code §21074, the Town initiated the AB 52 notification process and sent letters to appropriate Tribes on February 8, 2018, notifying them of the Project and requesting a response if interested in consulting.

In response to the AB 52 notification, four of the seven tribes responded. The Federated Indians of Graton Rancheria (FIGR) sent a response letter to the Town of Windsor on February 15, 2018 requesting formal tribal consultation. Through consultation, FIGR requested that spot monitoring be performed by a FIGR tribal representative during project-related earth-disturbing activities. In addition, Dry Creek Rancheria Band of

Pomo Indians requested formal consultation via a letter sent on February 27, 2018. Through consultation, Dry Creek Rancheria Band of Pomo Indians requested notification in the event that resources are encountered during construction-related activities. To address the concerns voiced by FIGR and Dry Creek Rancheria of Pomo Indians, Mitigation Measures TCR-1 and TCR-2 (below) have been incorporated into this document.

The City also received a response from Middletown Rancheria on March 6, 2018. The letter did not include specific comments but requested that all work cease should any resources be encountered, and that the tribe be notified of the find. This request is addressed through mitigation measure TCR-2, below. The Kashia Band of Pomo Indians of the Stewarts Point sent a response letter to the Town of Windsor on March 5, 2018, stating that the project location is out of their Aboriginal Territory. No other Tribes requested consultation.

### **Tribal Cultural Resources Impact Discussion:**

**4.18(a.i) (Listed or Eligible for Listing) No Impact:** As stated above, a search of the Sacred Land file did not indicate the presence of a Native American Sacred Site within or in the immediate vicinity of the project site. Therefore, the project would have no impact on a tribal cultural resource that is 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).

**4.18(a.ii) (Significant Resource) Less Than Significant Impact with Mitigation:** The Town of Windsor has engaged in formal tribal consultation with the Federated Indians of Graton Rancheria and Dry Creek Rancheria Band of Pomo Indians. Middletown Rancheria had no specific comments in their letter but requested that all work cease should any resources be encountered, and that the tribe be notified of the find. The Kashia Band of Pomo Indians of the Stewarts Point has determined that the project site is out of the tribe's Aboriginal Territory.

Through formal tribal consultation, as well as other letter responses received, the Federated Indians of Graton Rancheria, Dry Creek Rancheria Band of Pomo Indians, and Middletown Rancheria have determined that there may be tribal cultural resources within the project site or in the immediate vicinity. Although no tribal cultural resources were encountered during the cultural resources field survey conducted onsite, there remains to be a potential that tribal cultural resources may be identified during site development. As such, development within the project site has the potential to result in impacts to tribal cultural resources.

In order to mitigate potential impacts to tribal cultural resources, **Mitigation Measure TCR-1** requires that a Tribal Representative from the Federated Indians of Graton Rancheria carry out spot monitoring during project-related earth-disturbing activities. TCR-1 also requires that all work within 25 feet (or other appropriate buffer) of the find be halted until the materials are assessed and recommendations for treatment are issued. **Mitigation Measure TCR-2** requires that, in the event that historic or prehistoric tribal cultural resources are encountered, the Tribal Representatives of all tribes that have requested notification, will be notified of the find. Therefore, with implementation of TCR-1 and TCR-2, potential impacts to tribal cultural resources would be reduced to less than significant levels.

### **Mitigation Measures:**

**TCR-1** Prior to the start of construction activities, the Town of Windsor shall coordinate with the Federated Indians of Graton Rancheria (FIGR) to establish a schedule and process to carry out spot monitoring to be performed by a FIGR Tribal Representative during project-related earth-disturbing activities. A schedule for onsite spot monitoring shall be established in close coordination with FIGR, the construction contractor, and the Town of Windsor. The Tribal Representative carrying out spot monitoring shall be permitted to access the construction site, observe activities, and shall be granted authority to issue a stop work order in the event that a tribal cultural resource or potential tribal cultural resource is identified. If tribal cultural materials are encountered during project activities, all



work within 25 feet of the discovery, or other appropriate buffer, shall be halted and construction work redirected until materials are assessed and recommendations for treatment are issued. If the tribal cultural materials are archaeological in nature, then a qualified professional archaeologist shall be retained to inspect the discovery and provide recommendations as needed.

**TCR-2** In the event that prehistoric, historic, or any other cultural or archaeological materials are encountered, the Tribal Heritage Preservation Officer (THPO) of the Federated Indians of Graton Rancheria, Dry Creek Rancheria Band of Pomo Indians, Middletown Rancheria, or any other tribe that has requested notification, shall be notified of the find.

#### 4.19. UTILITIES AND SERVICE SYSTEMS

| Would the project:   | Potentially Significant Impact | Less Than Significant with Mitigation | 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"/>            |

Sources: Town of Windsor 2040 General Plan and EIR; Water Reclamation Facility Modernization Study, February 11, 2019.

#### Utilities and Service Systems Setting:

The Town of Windsor and the Windsor Water District provide municipal water, wastewater, and stormwater services. Internet, cable and telephone services are offered by several providers and a readily available town wide. Pacific Gas & Electric provides electricity and natural gas services to users within the Town of Windsor. Sonoma Clean Power is a not-for-profit public agency that provides electricity services using PG&E's delivery system. Solid waste hauling collection and disposal services in the Town of Windsor is provided by Sonoma County Resources Recovery (SCRR).

### *Water Supply*

The Windsor Water District (WWD) owns and operates the Town's potable water system, which includes pumping and treatment of over 1.3 billion gallons annually. Windsor has over 140 miles of distribution mains and over 5 million gallons of water storage in 16 storage tanks. The Town's potable water supply is provided primarily from its wells in the Russian River Well Field, through a Sonoma Water Russian River water right allocation, and a connection to the aqueduct from which the Town purchases wholesale water. The WWD owns five off-river groundwater wells, that provide a raw water supply source.

### *Wastewater Collection and Treatment*

The Town of Windsor owns, operates, and maintains a wastewater collection system that includes approximately 92 miles of public branch and trunk sewers, 1,728 manholes, 679 cleanouts, and approximately 7,600 private service laterals throughout the town. Existing pipelines range in diameter from 4-inches to 42-inches and includes two siphons located at Los Amigos and Rio Russo. In addition, the Town owns and operates two lift stations located at Vintage Greens and Shiloh Greens.

The Town's maximum wet weather capacity at the wastewater reclamation facility located between Windsor Road and the Northwestern Pacific Railroad, north of Reiman Lane is approximately 7.2 million gallons per day (mgd). The current Average Dry Weather Flow (ADWF) at the water reclamation facility is approximately 1.9 mgd with a design capacity of 2.25 mgd. The Water Reclamation Division is responsible for the treatment, storage and disposal of the Town's wastewater. Approximately 350 million gallons of treated effluent is disposed through land discharge (irrigation of farm lands) and 300 million gallons through creek discharge, annually.

### *Storm Water*

Runoff from impervious surfaces is channeled directly into local creeks that ultimately drain into the Russian River. The major creeks in the General Plan Area include Windsor Creek, East Windsor Creek, Pool Creek, Pruitt Creek, Airport Creek, Gumview Creek, and Starr Creek. In an effort to reduce runoff and water quality impacts to the waterways, the Town requires compliance with General Plan policies, Low Impact Development (LID) and Best Management Practices (BMPs), and the National Pollutant Discharge Elimination System (NPDES) permit, SWRCB Order No. 99-08-DWQ.

The Town of Windsor has adopted the following Ordinances and Resolutions pertaining to Stormwater:<sup>28</sup>

- Storm water Quality Ordinance 2008-249
- Storm water Quality Ordinance 2016-303
- Erosion Control Ordinance 2008-245
- Reducing Pollutants in Storm Water Ordinance 2010-261
- Resolution 3142-14 Adopting C.O.S.R. LID (Low Impact Development) Manual

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<sup>28</sup> Town of Windsor Storm Water Quality Program, <http://www.townofwindsor.com/232/Storm-Water-Quality-and-Management>, Accessed September 19, 2019.

- City of Santa Rosa LID (Low Impact Development) Technical Design Manual and related documents

### *Solid Waste*

The Town, through its franchise hauler (Sonoma County Resource Recovery), provides solid waste, recycling, and composting services for residential, commercial, and industrial areas, with weekly curbside pickup. Hazardous waste collection and disposal is provided by the Sonoma County Waste Management Agency. Currently, all waste is disposed at the Healdsburg Transfer Station before processing. Estimated total solid waste from the Town of Windsor in 2013 was 10,575.71 tons, total recycling was 4,787.30 tons, and total green waste was 5,291.99 tons. Solid waste is ultimately delivered to the Central Disposal Site (49-AA-0001) on Meacham Road in Petaluma. The landfill is permitted to receive 2,500 tons per day and at last estimate had 9,076,760 cubic yards of capacity remaining, which was estimated on May 15, 2012.<sup>29</sup>

### **Utilities and Service Systems Impact Discussion:**

**4.19(a) (New or Expanded Utilities) Less Than Significant Impact:** As a roadway, the project will not require new or expanded utilities. At operation, the roadway will not result in wastewater generation or discharge, nor will the roadway generate solid waste. The existing residential uses, High School and public park surrounding the project site are well-served by existing utilities. The project will not increase demand for utilities including natural gas and telecommunications facilities. The project will require a negligible amount of water for irrigation of landscaping and electricity for street lighting. Therefore, there would be no impacts due to the construction of new or expanded wastewater, electric power, natural gas, or telecommunications facilities required to serve the project.

While the project site is primarily developed with paved and graveled areas, the proposed roadway improvements would introduce new impervious surfaces, which will generate runoff and contribute stormwater to the Town's storm drain facilities. As proposed the project incorporates LID features, bioswales and interceptor trees along the length of Jaguar Way. New storm drain facilities installed as part of the project will capture runoff and provide pre-treatment to stormwater runoff. Therefore, the project is expected to result in less than significant impacts due to the expansion of existing storm water drainage facilities or construction of new facilities.

**4.19(b) (Sufficient Water Supplies) Less Than Significant Impact:** During construction, water would be required primarily for dust control purposes and would also be used for soil compaction. During project operation, water would be required during establishment of new native landscaping proximate to Starr Creek and on an ongoing basis for ornamental planting and periodic street sweeping. Construction and operational water demand generated by the proposed Jaguar Way Extension Project would be minimal and would not require new or expanded water supplies or entitlements. Therefore, impacts to water supplies as a result of the project will be less than significant.

**4.19(c) (Increased Capacity for Wastewater Treatment Providers) No Impact:** The project would not exceed wastewater treatment requirements or otherwise contribute to the wastewater discharges generated by the Town. Wastewater generated during construction (such as portable toilet waste) would be disposed of through existing wastewater facilities. No wastewater facilities are proposed as part of the project. As such, there be no impacts associated with wastewater generation or treatment from the Jaguar Way Project.

**4.19(d,e) (Solid Waste Generation, Capacity, and Regulation Compliance) Less Than Significant Impact:** During construction, development of the proposed roadway would generate solid waste from concrete and

<sup>29</sup> CalRecycle Central Disposal Site, <https://www2.calrecycle.ca.gov/swfacilities/Directory/49-AA-0001>, Accessed September 19, 2019

asphalt from the removal of existing impervious surfaces and wood waste from tree removal. The Town will be required to comply with the latest building code standards relating to construction solid waste and disposal. For example, the 2016 CalGreen Tier 1 Mandatory Measures be required that at least 65 percent of nonhazardous construction and demolition waste be recycled or salvaged and that Construction Waste Management Plan that documents the diversion of materials be prepared and implemented. As a roadway, at operation, the proposed project would not generate solid waste associated with onsite activities.

Although the waste stream generated by the project is expected to increase during construction, it is not expected to exceed landfill capacity and is not expected to result in violations of federal, state, or local statutes and regulations related to solid waste. Therefore, implementation of the project will result in less than significant impacts to local solid waste infrastructure and solid waste reduction goals, as well as federal, state, and local statutes and regulations.

**Mitigation Measures:** None Required.

**4.20. WILDFIRE**

| Would the project:   | Potentially Significant Impact | Less Than Significant with Mitigation | Less Than Significant Impact        | No Impact                           |
|--|--------------------------------|---------------------------------------|-------------------------------------|-------------------------------------|
| If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:   |                                |                                       |                                     |                                     |
| 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 checked="" type="checkbox"/> | <input 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 checked="" type="checkbox"/> | <input 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 checked="" type="checkbox"/> | <input type="checkbox"/>            |

Sources: Town of Windsor 2040 General Plan and EIR.

**Wildfire Setting:**

The Town of Windsor is susceptible to direct and indirect effects of wildland fires due to the climate and location. Areas most susceptible to the wildfire hazards in Windsor are located near the northeastern and southwestern edges of the Town where the Fire Hazard Safety Zone in the State Responsibility Area is identified as moderate (Figure C-8).

The project site is located within the Town limits and surrounded by roadways and developed land uses. The project site is categorized as a Non-VHFHZ by CAL FIRE and is surrounded by land designated as Non-VHFHZ on all sides. The project site is located approximately 0.2 miles from land designated as "Moderate Fire Hazard Severity Zone" by CAL FIRE. The project site is located approximately 2.5 miles from areas designated as having a "High Fire Hazard Severity Zone."

In October 2017, the Tubbs Fire (Central LNU Complex) burned approximately 36,800 acres within two miles of Windsor. In October 2019 the entire Town of Windsor and nearby communities were evacuated due to the Kincaid Fire which burned approximately 77,800 acres in Sonoma County. Wildfires pose risks due to loss of life, property and injury, and expose people to hazardous air quality from smoke. Smoke generated by

wildfires contains pollutants (soot, tar, water vapor, and minerals) and gases (carbon monoxide, carbon dioxide, nitrogen oxides) and can cause public health impacts from exposure.

### Wildfire Impact Discussion:

**7.20(a) (Impair Emergency Plan) No Impact:** The project site is categorized as a Non-VHFHZ by CAL FIRE, located approximately 0.2 miles from land designated as “Moderate Fire Hazard Severity Zone,” and located approximately 2.5 miles from areas designated as having a “High Fire Hazard Severity Zone.” The Sonoma County Fire District maintains two fire stations, Station 1 at 8200 Old Redwood Highway and Station 2 at 8600 Old Redwood highway, approximately 825 feet from the project site. The project will increase emergency access and evacuation options by introducing a new route of travel between Starr Road and Windsor Road. The project will not impair or otherwise affect an adopted emergency response plan or emergency evacuation plan. Therefore, the Jaguar Way Project would have no impacts under this criterion.

**7.20(b-d) (Wildfire Risk Exacerbation, Infrastructure Contributing to Wildfire Risk, Exposure to Wildfire-Related Risks) Less Than Significant Impact:** The project site is relatively flat and is surrounded on all sides by existing development including roads, residential uses, Windsor High School and Facilities, and Keiser Park. There are no factors, such as steep slopes, prevailing winds, or the installation/maintenance of new infrastructure that would exacerbate fire risk or expose people to the uncontrolled spread of a wildfire, pollutant concentrations from a wildfire, post-fire slope instability, or post-fire flooding. Therefore, impacts would be less than significant.

**Mitigation Measures:** None Required.

#### 4.21. MANDATORY FINDINGS OF SIGNIFICANCE (CAL. PUB. RES. CODE §15065)

|  | Potentially<br>Significant<br>Impact | Less Than<br>Significant<br>with<br>Mitigation | Less Than<br>Significant<br>Impact  | No<br>Impact             |
|--|--------------------------------------|--|-------------------------------------|--------------------------|
| a) Does the project have the potential to 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, 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"/> |

- c) Does the project have environmental effects, which will cause substantial adverse effects on human beings, either directly or indirectly?

☐☐☒☐

### Mandatory Findings Discussion:

**4.20(a) (Degrade the Environment): Less Than Significant Impact:** The project site has been previously disturbed and consists of a partially paved and partially graveled roadway. Lands surrounding the project site are developed with existing residential, school, parkland and recreational uses.

As described herein, development of the proposed roadway has the potential to result in impacts to biological resources, primarily associated with the Starr Creek corridor and fill to jurisdictional wetland. Additionally, the project will result in the removal of numerous mature trees located along the Jaguar Way alignment. In order to ensure that the project does not degrade the environment and that impacts to biological resources are avoided, minimized and offset, mitigation measures BIO-1 through BIO-5, identified in the Biological Resources Section 4.4, shall be implemented. With mitigation the proposed project would not adversely affect biological resources and potential impacts would be reduced to less than significant levels.

As described in Sections 4.5 Cultural Resources and 4.18 Tribal Cultural Resources, no potentially significant prehistoric or historic-era cultural resources were observed within the project site. However, there are six recorded cultural resources within one quarter-mile of the site and a review of historic maps indicate a moderate potential for the site to contain historic-era archaeological resources. Additionally, the project site has certain environmental conditions, including being located near a waterway that increase the potential for prehistoric archaeological resources to be present. As such, site disturbance during construction could unearth prehistoric or historic-era cultural resources. Mitigation measures set forth herein provide for the protection of cultural resources in the event that they are encountered during construction. Implementation of mitigation measures CUL-1, CUL-2, TCR-1, and TCR-2 would reduce potential impacts to cultural resources to less than significant levels.

With implementation of mitigation measures set forth above, potential impacts to biological, cultural, and tribal cultural resources from the proposed project would be reduced to levels below significance. As a result, development of the proposed roadway will not degrade the quality of the environment, reduce habitat, or affect cultural and tribal cultural. Therefore, the project will have less than significant impacts due to degradation of the environment.

**4.20(b) (Cumulatively Affect the Environment) Less Than Significant Impact:** The CEQA Guidelines defines cumulative impacts as “two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts. The individual effects may be changes resulting from a single project or increase in environmental impacts. The cumulative impact from several projects is the change in the environment which results from the incremental impact of a given project when added to other closely related past, present, and reasonably foreseeable probable future projects. Cumulative impacts can result from individually minor but collectively significant projects taking place over a period of time” (Guidelines, Section 15355(a)(b)).

The analysis of cumulative impacts can employ one of two methods to establish the effects of other past, current, and probable future projects. A lead agency may select a list of projects, including those outside the control of the agency, or, alternatively, a summary of projections. These projections may be from an adopted general plan or related planning document, or from a prior environmental document that has been adopted or certified, and these documents may describe or evaluate the regional or area-wide conditions contributing to the cumulative impact.

This Initial Study evaluates cumulative impacts using the General Plan by tiering from the Town of Windsor's General Plan 2040 EIR, which identifies Jaguar Way as an improvement necessary to accommodate existing and planned growth. There are no aspects of the project that would result in cumulatively considerable impacts to the environment. As presented herein, the project will result in potential impacts to the environment due to construction of the new roadway. Concurrent construction of development projects within the vicinity of the project could result in cumulative short-term impacts associated with construction activities. However, mitigation measure TRANSP-2 provides for the development of a coordinated construction schedule including consideration of other simultaneous construction sites in the vicinity, which will minimize potential conflicts. Thus, short term cumulative impacts from construction will be less than significant. At operation, the proposed Jaguar Way Extension project will not result in cumulatively consideration impacts.

**4.20(c) (Substantial Adverse Effect on Humans) Less Than Significant Impact:** The proposed project has the potential to result in adverse impacts to air quality, geology and soils, hazardous materials, hydrology and water quality, noise, and transportation and circulation, which could directly or indirect affect human during construction and at operation. However, as dissed above in each impact category, mitigation measures have been identified and will be imposed on the project in order to ensure that potential impacts are reduced to levels below significance. Additionally, the proposed Jaguar Way Project is consistent with the Town of Windsor's General Plan and was identified a planned improvement to accommodate existing and planned growth. With mitigation measures set forth above the proposed project will have less than significant effects on humans.



## 5. REFERENCE DOCUMENTS

### Technical Appendices

The following technical appendices are incorporated herein by reference and are available for review during normal business hours at the Town of Windsor's Planning Division.

- A. Jaguar Way Extension Tree Survey, prepared by Merlin Arborist Group, November 7, 2017.
- B. Jaguar Way Extension Construction Community Risk Assessment, prepared by Illingworth & Rodkin, November 18, 2019.
- C. Jaguar Way Extension Supporting Figures C-1 through C-9, prepared by M-Group, December 2019.
- D. Biological Resources Analysis Jaguar Way Extension, prepared by Monk & Associates, March 11, 2020.
- E1. Cultural Resources Survey for the Proposed Jaguar Way Extension, prepared by Evans & De Shazo, March 1, 2018.
- E2. Historic Property Survey for the Proposed Jaguar Way Extension, prepared by Evans & De Shazo, March 15, 2018.
- F. Jaguar Way Extension Project Noise and Vibration Assessment, Prepared by Illingworth & Rodkin, October 10, 2019, Finalized March 12, 2020.
- G. Collision Rates and Intersection Level of Service Report, Prepared by W-Trans, August 21, 2019.

### Other Documents Referenced

- 1. California Green Building Standards Code, Effective January 1, 2020.
- 2. 2030 Airport Master Plan for the Charles M. Shultz – Sonoma County Airport, amended March 14, 2016.
- 3. Annex to 2010 Association of Bay Area Governments Local Hazard Mitigation Plan, Town of Windsor, January 18, 2011.
- 4. *Bay Area 2010 Clean Air Plan*, prepared by the Bay Area Air Quality Management District, Associate of Bay Area Governments, Bay Conservation and Development Commission, and the Metropolitan Transportation Commission, September 2010.
- 5. California Department of Conservation Farmland Mapping and Monitoring Program.
- 6. *California Environmental Quality Act Air Quality Guidelines*, prepared by the Bay Area Air Quality Management District, May 2010.
- 7. *California Environmental Quality Act Air Quality Guidelines*, prepared by the Bay Area Air Quality Management District, May 2017.
- 8. California Regional Water Quality Control Board, NPDES Permit No. CA CA0023345 for Town of Windsor Wastewater Treatment, Reclamation, and Disposal System.
- 9. California Scenic Highway Mapping System,  
[http://www.dot.ca.gov/hq/LandArch/16\\_livability/scenic\\_highways/index.htm](http://www.dot.ca.gov/hq/LandArch/16_livability/scenic_highways/index.htm), Accessed November 2019.
- 10. CalRecycle Central Disposal Site, <http://www.calrecycle.ca.gov/SWFacilities/Directory/49-AA-0001/Detail/>, Accessed November 2019.

11. Local Definitions Farmland of Local Importance, California Department of Conservation.
12. Local Hazard Mitigation Plan, Public Review Draft, prepared for the Town of Windsor, February 2017.
13. National Flood Insurance Program (NFIP) Flood Insurance Rate Map 06097C0562E, <https://hazards-fema.maps.arcgis.com/>, accessed November 2019.
14. Parks and Recreation Master Plan Update, <http://www.windsorpark2030.com/process-schedule>, Accessed March 9, 2017.
15. Sonoma County Fire District, <https://www.sonomacountyfd.org/>, Accessed November 2019.
16. RMC Water and Environment, Town of Windsor Water Master Plan Update, September 2011.
17. Sonoma County Aggregate Resources Management Plan, as amended through December 7, 2010.
18. Sonoma County Comprehensive Airport Land Use Plan, revised March 14, 2016.
19. Sonoma County General Plan 2020 adopted by Resolution No. 08-0808, September 23, 2008 and amended August 2, 2016.
20. Sonoma County Water Agency, Water Supply Strategies Action Plan, prepared by Sonoma Water, 2018.
21. Town of Windsor 2040 General Plan, adopted April 4, 2018.
22. Town of Windsor 2040 General Plan Environmental Impact Report (SCH #2016112065) prepared by the Town of Windsor, February 2018.
23. Town of Windsor Parks and Recreation Department, Windsor Parks and Facilities Map, <https://www.townofwindsor.com/DocumentCenter/Home/View/1423>, Accessed November 2019.
24. Town of Windsor Draft Parks and Recreation Master Plan Update 2030, prepared by Gates + Associates, April 6, 2017.
25. Town of Windsor Storm Water Quality Program, <http://www.townofwindsor.com/232/Storm-Water-Quality-and-Management>, Accessed November 2019.
26. Town of Windsor Wastewater Treatment and Storage Facilities, <https://www.townofwindsor.com/226/Wastewater-Treatment-Storage-Facilities>, Accessed November 2019.
27. U.S. Census Bureau, Town of Windsor, <https://www.census.gov/quickfacts/table/PST045215/0685922>, Accessed March 9, 2017.
28. University of California Museum of Paleontology, Miocene Mammal Mapping Project (MioMap), <http://www.ucmp.berkeley.edu/miomap/>, Accessed March 17, 2017.
29. Water Supply Reliability Analysis and Self-Certified Conservation Standard, <https://www.townofwindsor.com/DocumentCenter/View/17591>, Accessed March 10, 2017; California Regional Water Quality Control Board, NPDES Permit No. CA CA0023345 for Town of Windsor Wastewater Treatment, Reclamation, and Disposal System.
30. Windsor Bicycle and Pedestrian Master Plan, prepared by the Sonoma County Transportation Authority and the Town of Windsor, October 2014.
31. Windsor Police Department, <https://www.townofwindsor.com/174/Police-Department?NID=174>, Accessed March 9, 2017.

## **6. MITIGATION MONITORING AND REPORTING PROGRAM**

**Draft Mitigation Monitoring and Reporting Program  
Jaguar Way Extension Project**

| Mitigation Measure  | Implementing Procedure  | Monitoring Responsibility  | Monitoring / Schedule   | Compliance Verification |          |
|---|---|--|---|-------------------------|----------|
|   |   |  |   | Initial/Date            | Comments |
| AESTHETICS  |   |  |   |                         |          |
| <p><b>AES-1:</b></p> <p>Prior to Final Design the Town shall update the tree inventory and prepare and implement a Tree Preservation and Protection Plan addressing tree protection for trees to remain and identifying replacement for trees to be removed to accommodate Jaguar Way Extension. The Town of Windsor shall ensure that trees to remain are adequately protected during construction activities and that trees to be removed are replaced in accordance with Town's Tree Preservation and Protection Ordinance (Chapter 27.36.040 of the Town's Code).</p> <p>To protect trees that will be preserved from injuries that may result from construction activities such as root, trunk or branch damage or harm during site preparation, grading and trenching, the Town shall prepare and implement a Tree Preservation Plan addressing preservation such as the following:</p> <ul style="list-style-type: none"><li>• Establish a tree protection zone (TPZ) to be inspected and verified by a qualified arborist</li><li>• Install tree protection fencing and signage around the TPZ prior to construction</li><li>• Restrict demolition, soil grading, trenching, and parking of vehicles within the TPZ</li></ul> | <p>Prepare and implement a Tree Protection and Preservation Plan</p> <p>On-site observation</p> <p>Incorporate into project design and print on construction documents.</p> | <p>The Town of Windsor</p> <p>Project Contractor</p> <p>Qualified Arborist</p> | <p>Prior to project construction</p> <p>Monitor during regularly scheduled inspections to verify that measures are in place</p> |                         |          |

**Draft Mitigation Monitoring and Reporting Program  
Jaguar Way Extension Project**

| Mitigation Measure  | Implementing Procedure | Monitoring Responsibility | Monitoring / Schedule | Compliance Verification |          |
|---|------------------------|---------------------------|-----------------------|-------------------------|----------|
|   |                        |                           |                       | Initial/Date            | Comments |
| <ul style="list-style-type: none"> <li>• Cover exposed soil under canopies and throughout the TPZ with mulch (excluding trees within the riparian corridor of Starr Creek)</li> <li>• Preclude ornamental landscape, filling, cutting or compaction of soils within the tree drip line</li> <li>• Preserve oak leaf litter below the drip line of protected trees</li> <li>• Monitoring soil moisture to ensure that soil remains moist to a depth of 18 inches</li> <li>• Conduct pruning by qualified personnel in accordance with current industry standards, and</li> <li>• Monitor all trenching and excavation activities inside the TPZ by a qualified arborist and as feasible preclude the use of heavy-equipment.</li> </ul> <p>In order to mitigate the removal of protected trees onsite, the Town shall prepare and implement a Tree Preservation and Protection Plan identifying protected trees and appropriate replacement planting pursuant to the Town of Windsor Tree Technical Manual. Tree Replacement requirements shall be reflective of the Town's replacement ratios for In-Kind Replacement. In the event that replacement plantings necessary to achieve the Town's standard is not able to be accommodated on the project site, then offsite replacement locations shall be identified through the Project's Tree Preservation and Protection Plan.</p> |                        |                           |                       |                         |          |

**Draft Mitigation Monitoring and Reporting Program  
Jaguar Way Extension Project**

| Mitigation Measure  | Implementing Procedure  | Monitoring Responsibility   | Monitoring / Schedule  | Compliance Verification |          |
|---|---|---|--|-------------------------|----------|
|   |   |   |  | Initial/Date            | Comments |
| <p><b>AES-2:</b></p> <p>Prior to Final design of Jaguar Way Extension the Town shall prepare and implement a landscaping plan to introduce street trees and vegetation along the new roadway and within and adjacent to retention areas and bioswales. The plant pallet selection shall utilize low water-use plants as identified by the Town of Windsor and shall preclude invasive species. Further, the plant pallet selection and location shall identify native and riparian species proximate to Starr Creek and limit the use of ornamental species to previously disturbed and developed areas along Jaguar Way Extension.</p> | Prepare and implement a landscaping plan  | <p>Town of Windsor</p> <p>Qualified Landscape Specialist</p> <p>Qualified Biologist</p> | Monitor periodically following project construction              |                         |          |
| <p><b>AES-3</b></p> <p>The temporary staging area located in Keiser Park shall be situated in a manner so as to minimize temporary visual impacts to Keiser Park. The staging area shall be maintained to keep equipment, materials and stockpiles away from highly visible areas and screened as appropriate with temporary construction fencing. The construction staging area shall be kept clear of debris, weeds and trash during all stages of construction and shall be fully removed and restored to pre-staging conditions following completion of Jaguar Way Extension improvements.</p>                                      | Incorporate into project design and print on construction documents (demolition, grading and building plans). | <p>Town of Windsor</p> <p>Project Contractor</p>  | Monitor during construction to verify that measures are in place |                         |          |

**Draft Mitigation Monitoring and Reporting Program  
Jaguar Way Extension Project**

| Mitigation Measure   | Implementing Procedure  | Monitoring Responsibility                                      | Monitoring / Schedule   | Compliance Verification |          |
|--|---|--|---|-------------------------|----------|
|  |   |  |   | Initial/Date            | Comments |
| <b>AES-4</b><br><p>Prior to final design, a street lighting plan shall be prepared and reviewed by the Town Engineer. To maintain an appropriate lighting environment, the project shall construct lighting fixtures in accordance with the Town's light and glare standards as codified in the Town of Windsor Zoning Ordinance Section 27.20.030.D. Standards specified by this section include, but are not limited to, lamp characteristics; glare control; the maximum wattage allowed; fixture height; and minimum and average illumination. New lighting introduced within and adjacent to the Starr Creek corridor shall be downcast, screened and precluded from spilling over beyond the roadway right of way.</p> | Incorporate into project design and print on construction documents                                   | Town of Windsor  | <p>Prior to project construction</p> <p>Monitor during regularly scheduled inspections to verify that measures are in place</p> |                         |          |
| <b>AIR QUALITY</b>   |   |  |   |                         |          |
| <b>AQ-1:</b><br><p>Latest BAAQMD Best Management Practices (BMPs) to control for fugitive dust and exhaust during all construction activities shall be incorporated into all demolition and construction plans to require implementation of the following:</p> <p>1. All exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and</p>   | <p>Incorporate into project design and print on construction documents</p> <p>On-site observation</p> | Town of Windsor<br>Project Contractor/<br>Construction Manager | <p>Once during plan review</p> <p>Monitor during regularly scheduled inspections to verify that measures are in place</p>       |                         |          |

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| <p>unpaved access roads) shall be watered two times per day.</p> <p>2. All haul trucks transporting soil, sand, or other loose material shall be covered.</p> <p>3. All visible mud or dirt track-out onto adjacent public roads shall be removed using wet power vacuum street sweepers at least once per day. The use of dry power sweeping is prohibited.</p> <p>4. All vehicle speeds on unpaved roads shall be limited to 15 mph.</p> <p>5. All roadways, driveways, and sidewalks to be paved shall be completed as soon as possible. Building pads shall be laid as soon as possible after grading unless seeding or soil binders are used.</p> <p>6. Idling times shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to 5 minutes (as required by the California airborne toxics control measure Title 13, Section 2485 of California Code of Regulations [CCR]). Clear signage shall be provided for construction workers at all access points.</p> <p>7. All construction equipment shall be maintained and properly tuned in accordance with manufacturer's specifications. All equipment shall be checked by a certified</p> |                        |                           |                       |                         |          |



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| <p>mechanic and determined to be running in proper working condition prior to operation.</p> <p>8. Post a publicly visible sign with the telephone number and person to contact at the Lead Agency regarding dust complaints. This person shall respond and take corrective action within 48 hours. The Air District's phone number shall also be visible to ensure compliance with applicable regulations.</p> <p>9. All exposed surfaces shall be watered at a frequency adequate to maintain minimum soil moisture of 12 percent. Moisture content can be verified by lab sample or moisture probe.</p> <p><b>AQ-2:</b></p> <p>Implement a plan demonstrating that the off-road equipment used onsite to construct the project would achieve a fleet-wide average 75-percent reduction in diesel particulate matter exhaust emissions or greater. One feasible plan to achieve this reduction would include the following:</p> <p>1. All diesel-powered off-road equipment, larger than 25 horsepower, operating on the site for more than two days continuously shall meet U.S. EPA Tier 4 particulate matter emissions standards. Alternatively, the following types of equipment would also meet this requirement:</p> | <p>Incorporate into project design and print on construction documents</p> <p>On-site observation</p> | <p>Town of Windsor</p> <p>Project Contractor</p> <p>Construction Manager</p> | <p>Once during plan review</p> <p>Monitor during regularly scheduled inspections to verify that measures are in place</p> |                         |          |

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| <p>Tier 3 engines that include CARB-certified Level 3 Diesel Particulate Filters (or equivalent), or the use of equipment that is electrically powered or uses non-diesel fuels.</p> <p>2. Temporary line power shall be available to minimize use of portable diesel-powered equipment.</p> <p>3. The simultaneous occurrence of excavation, grading, and ground-disturbing construction activities on the same area at any one time shall be limited. Activities shall be phased to reduce the amount of disturbed surfaces at any one time.</p> <p>4. Minimize the idling time of diesel powered construction equipment to two minutes.</p> |   |  |  |                         |          |
| <b>BIOLOGICAL RESOURCES</b>  |   |  |  |                         |          |
| <p><b>BIO-1:</b></p> <p>To avoid impacts to nesting birds protected under the Migratory Bird Treaty Act, construction activities including, site preparation, demolition, and/or removal of trees should occur outside of the bird-nesting season between September 1<sup>st</sup> and January 31<sup>st</sup>. If construction activities must occur between February 1<sup>st</sup> and August 31<sup>st</sup> (during the bird nesting season), then a pre-construction bird nesting survey shall be conducted within seven</p>   | <p>Conduct a pre-construction nesting bird survey by a qualified biologist if construction would occur during the bird nesting season</p> | <p>Town of Windsor<br/>Project Contractor<br/>Construction Manager<br/>Qualified biologist</p> | <p>Prior to construction<br/>Periodically monitor during construction if nests are found</p> |                         |          |

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| <p>(7) and up to 15 days prior to start of work. The bird nesting survey will include an examination of buildings/structures and trees onsite and within 200 feet of the project site (i.e. within a zone of influence of nesting birds), not just trees slated for removal. The zone of influence includes area outside the project limits where birds could be distributed by construction activity and related noise and vibration.</p> <p>If nesting birds are identified, then the qualified biologist with extensive experience working with nesting birds near construction sites shall establish a temporary protective nest buffer around the nest(s). The nest buffer will be staked or fenced to establish a construction exclusion perimeter. The buffer shall be of sufficient size to protect the nesting site from construction-related disturbance. Typically, adequate nesting buffers are 50 feet from the nest site or nest tree dripline for small birds and up to 300 feet for sensitive raptors. Upon completion of nesting surveys, if nesting birds are identified a qualified ornithologist/biologist shall prescribe adequate nesting buffers to protect the nesting birds from harm while the project is being constructed.</p> <p>No construction or earth-moving activity shall occur within any established nest protection buffer prior to September 1<sup>st</sup> unless it is determined by a qualified ornithologist/</p> | <p>The Town of Windsor shall be provided with the resume of the qualified biologist demonstrating nesting bird survey and detection experience</p> <p>If necessary, establish a protection buffer zone</p> |                           |                       |                         |          |

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| <p>biologist who is monitoring nesting behavior that the young have left the nest and have attained sufficient flight skills to avoid construction zones, or that the nesting cycle is otherwise completed. At the end of the nesting cycle, and fledging from the nest by its occupants, as determined by a qualified biologist, temporary nesting buffers may be removed, and construction may commence in established nesting buffers without further regard for the nest site.</p> <p>The biologist/ornithologist conducting the surveys shall provide the Town of Windsor with a report detailing the results of the survey and any recommendations required for establishment of protective buffers, if tree removal or demolition activities occur between February 1<sup>st</sup> and August 31<sup>st</sup>.</p> <p><b>BIO-2:</b></p> <p>In order to avoid impacts to the Pallid bat, and other species-status bat species, a qualified biologist shall conduct pre-construction surveys of trees and buildings/structures onsite and within a 200-foot radius (or as otherwise determined by the biologist) 15 days prior to commencing construction work including tree removal, demolition, and/or grading activities. The survey for bats shall occur regardless of the time of year (since there is no defined bat</p> | <p>Conduct a pre-construction survey by a qualified biologist</p> <p>Provide the Town of Windsor with the resume of the qualified biologist</p> | <p>Town of Windsor Project Contractor/ Construction Manager</p> <p>Qualified Biologist</p> | <p>Prior to construction</p> <p>Provide the pre-construction survey to the Town</p> <p>Periodically monitor during construction if special status</p> |                         |          |

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| <p>roosting season as there is with nesting birds). All bat surveys shall be conducted by a biologist with experience surveying for bats. If no special-status bats are found during the surveys, then there would be no further regard for special-status bat species.</p> <p>If special-status bat species are found roosting on the project site or in the vicinity, the biologist shall determine if there are young bats present (i.e., the biologist shall determine if there are maternal roosts). If young are found roosting in any tree or building/structure that will be removed or demolished, construction shall be postponed until the young have reached independence. A non-disturbance buffer with orange construction fencing shall be established around the maternity site. The size of the buffer zone shall be determined by a qualified bat biologist at the time of the surveys.</p> <p>If adults are found roosting in a tree or building/structure on the project site or in the vicinity, but no maternal roosts are found, then the following measures shall be undertaken:</p> <ul style="list-style-type: none"> <li>Tree trimming and/or removal shall only be conducted during seasonal periods of bat activity: between August 31 and October 15, when bats would be able to fly and feed independently, and between March 1 and</li> </ul> | <p>demonstrating roosting bat survey and detection experience</p> <p>On-site observation</p> <p>If necessary, establish a protection buffer zone</p> |                           | bat species are found |                         |          |

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| <p>April 15 to avoid hibernating bats, and prior to the formation of maternity colonies.</p> <ul style="list-style-type: none"> <li>Any trees that will be removed and have been identified by a qualified bat biologist as having potentially suitable bat roost habitat, should be removed using a two-day phased removal method as follows: <ul style="list-style-type: none"> <li>On day one, in the afternoon, limbs and branches shall be removed using chainsaws only. Limbs with cavities, crevices, and deep bark fissures should be avoided.</li> <li>On day two, the rest of the tree shall be removed under the direct supervision of a qualified bat biologist.</li> </ul> </li> <li>If tree removal must occur outside of the seasonal periods of bat activity (see above), then a qualified bat biologist (with at least two years of direct bat surveying experience) shall conduct a pre-construction survey within 14 days of starting construction work. If the qualified biologist finds evidence of bat presence during the surveys, then a Bat Removal and Exclusion Plan shall be developed in conjunction with the CDFW.</li> </ul> <p>The biologist conducting the surveys for the Project shall provide the Town of Windsor with</p> |                        |                           |                       |                         |          |

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| <p>a report detailing the results of the survey and any recommendations, as warranted, required for establishment of protective buffers for bat roosts.</p> <p><b>BIO-3:</b></p> <p>To the greatest extent feasible jurisdictional features shall be avoided through design modifications that preclude fill or other modifications to seasonal wetlands. Given the narrow roadway alignment, a minimum of approximately 0.0456 acres and up to 0.075 acres of seasonal wetlands may be directly filled in order to accommodate the multi-modal roadway and associated improvements. Impacts to jurisdictional wetlands that cannot be avoided shall be offset as follows:</p> <ul style="list-style-type: none"> <li>• Creation of new wetlands at a suitable location that remain inundated or saturated for sufficient duration to support hydrophytic vegetation and exhibit plant and invertebrate species richness comparable to existing wetlands.</li> <li>• Replacement a minimum ration of 1:1, one acre of created wetland for each acre or fraction thereof removed.</li> </ul> | <p>Purchase wetland mitigation credits</p> <p>Secure 401 and 404 permits</p> | <p>Town of Windsor</p> <p>Qualified Biologist</p> <p>Outside Agencies (U.S. Army Corps of Engineers; and Regional Water Quality Control Board)</p> | <p>Prior to construction</p> <p>Ongoing monitoring during construction</p> <p>Following project construction ongoing monitoring of any created wetlands for at least five years</p> |                         |          |

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| <ul style="list-style-type: none"> <li>• Creation of in perpetuity preservation for newly created wetlands through a deed restriction of conservation easement.</li> <li>• Establishment of a five-year monitoring program to monitor the progress of the created wetland toward meeting established goals. At the end of each monitoring year, an annual report shall be submitted to the USACE, RWQCB, and other resource agencies that permitted the project. The report shall document hydrological and vegetative conditions of the created wetland and recommend remedial measure to correct any performance deficiencies.</li> <li>• In lieu of creating compensation wetlands, as approved by the USACE and RWQCB, the Town may purchase mitigation credits from an approved wetland mitigation bank at a 1:1 ratio or as otherwise required by the regulatory agencies at the time permits are issued.</li> </ul> <p>Proof of a 404 permit from the USACE and a 401 permit from the RWQCB shall be secured by the Town of Windsor prior to initiating construction activities.</p> <p>Wetlands onsite and in the project vicinity to be preserved shall be protected during</p> |                        |                           |                       |                         |          |



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| <p>construction through Best Management Practices including but not limited to the following:</p> <ul style="list-style-type: none"> <li>Installing orange construction fencing, silt fencing, hay or gravel wattles prior to initiating work, maintaining fencing/wattles throughout the construction duration, and removing fencing/wattles upon completion.</li> <li>Presence of a biological monitor onsite to monitor the integrity of preserved wetland and other waters and to provide recommendations to ensure that construction activities do not intrude into protected areas.</li> </ul> <p><b>BIO-4:</b></p> <p>The Town of Windsor shall secure a Streambed Alteration Agreement (SBAA) from the CDFW and implement all measures identified therein including but not limited to the following:</p> <ul style="list-style-type: none"> <li>To avoid fuels, lubricants, soils and other pollutants from entering Starr Creek, wildlife friendly hay wattles and/or silt fencing shall be installed. The use of mulch or any other substitute that may enter into the creek shall be prohibited.</li> <li>Staging, operation and maintenance of heavy-duty construction equipment shall be</li> </ul> | <p>Install protective measures</p> <p>Onsite observation</p> <p>Secure and implement a SBAA from the CDFW</p> | <p>Town of Windsor</p> <p>Project Contractor/ Construction Manager</p> <p>Qualified Biologist</p> <p>Outside Agency (CDFW)</p> | <p>Prior to construction</p> <p>Monitor during regularly scheduled inspections to verify that measures are in place</p> <p>Following project construction</p> |                         |          |

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| <p>located away from Starr Creek and well outside of the riparian corridor.</p> <ul style="list-style-type: none"> <li>• Temporary wildlife exclusion fencing shall be installed around active work areas within the Starr Creek corridor to prevent wildlife from entering work areas. As soon as construction activities within the Starr Creek corridor are completed all wildlife exclusion fencing shall be removed.</li> <li>• To avoid impacts to the riparian corridor of Starr Creek, disturbed areas shall be revegetated with native riparian plant species. Replacement of riparian trees to be removed (oaks) shall be planted near the creek as feasible and/or adjacent to the existing limits of the riparian corridor to contribute to the existing riparian canopy. Riparian plantings shall be maintained for a minimum of 5-years to ensure that the canopy is enhanced and the understory restored.</li> <li>• Non-native and invasive ornamental landscaping shall be precluded from use proximate to Starr Creek.</li> <li>• To avoid debris from entering Starr Creek, the final roadway design shall provide for</li> </ul> |                        |                           |                       |                         |          |

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| <p>enclosed and accessible trash receptacles (located outside of the riparian corridor).</p> <ul style="list-style-type: none"> <li>New lighting introduced by the project shall be downcast and precluded from spilling over to the riparian corridor.</li> </ul> <p>Any further requirements set forth in the Streambed Alteration Agreement (SBAA) from the CDFW, such as specific erosion control measures near the creek, shall also be implemented.</p> <p><b>BIO-5:</b> Implement AES-1 above.</p>  |  |   |  |                         |          |
| <b>CULTURAL RESOURCES</b>  |  |   |  |                         |          |
| <p><b>CUL-1:</b> To ensure appropriate treatment of archeological resources in the event of inadvertent discovery the following procedures shall be complied with:</p> <ul style="list-style-type: none"> <li>A professional archaeologist shall conduct a preconstruction meeting with the site superintendent and contractor(s), equipment operator(s) and others prior to commencement of ground-disturbing activities to familiarize the team with the types of archaeological material that could be encountered and procedures to follow in the event that archaeological deposits are uncovered.</li> </ul> | <p>Incorporate into project design and print on construction documents</p> <p>Conduct a preconstruction meeting with key construction personnel</p> <p>On-site observation</p> | <p>Town of Windsor<br/>Project Contractor/<br/>Construction Manager<br/>Qualified Archaeologist</p> | <p>Prior to ground disturbing activities</p> <p>During ground disturbance activities</p> |                         |          |

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| <ul style="list-style-type: none"> <li>If archeological deposits are encountered during ground-disturbing activities, all work within 25 feet of the discovery shall be halted until a qualified archaeologist, who meets the Secretary of the Interior's Standards, is retained to inspect the material and provide further recommendations for appropriate treatment of the resource including, but not limited to, data recovery excavation, artifact curation, report preparation, and information dissemination to the public. Where such resources are Native American, Tribal representatives shall be notified and appropriate treatment shall be determined in consultation with Native American tribe(s).</li> <li>Upon completion of an assessment and/or evaluation of a potential artifact, the archaeologist shall prepare a report documenting the methods and results of the archaeological assessment/evaluation and provide recommendations for the treatment of the find. The report shall be submitted to the Town of Windsor, the Northwest Information Center, and Native American Tribe(s), as appropriate.</li> </ul> <p><b>CUL-2:</b></p> |                        |                           |                       |                         |          |

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| Consistent with California Health and Safety Code Section 7050.5 and California Public Resources Code Section 5097.98, if human remains are encountered, no further disturbance shall occur until the County Coroner has made the necessary findings as to origin. The remains shall be left in place and free from disturbance until a final decision as to the treatment and disposition has been made. If the Coroner determines the remains to be Native American, the Native American Heritage Commission shall be contacted within 24 hours. The Native American Heritage Commission must then immediately identify the "most likely descendant(s)" of receiving notification of the discovery. The most likely descendant(s) shall then make recommendations within 48 hours and engage in consultations concerning the treatment of the remains. | Incorporate into project design and print on construction documents (grading plans).<br><br>On-site observation | Town of Windsor<br>Project Contractor<br>Construction Manager<br>Qualified Archeologist<br>Native American Heritage Commission<br>Most Likely Descendant(s)<br>County Coroner | Prior to ground disturbing activities<br><br>During ground disturbance activities |                         |          |
| <b>GEOLOGY AND SOILS</b>   |   |   |   |                         |          |
| <b>GEO-1:</b><br><br>A project-specific design level geotechnical investigation for the Jaguar Way Extension project shall be prepared and recommendations therein implemented. The investigation shall include an analysis of expected ground motions at the site from  | Incorporate into project design and print on construction documents   | Town of Windsor<br>Town Engineer<br>Project Contractor<br>Construction Manager  | Verification of incorporation into project design and construction                |                         |          |

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| known faults, liquefaction areas, and expansive soils and identify potentially hazardous geological conditions. The expected ground motions shall be used to develop soil preparation (i.e. need for imported fill, compaction requirements, etc.) and improvements including utility connections, bridge design, and paved surfaces (roadways, sidewalks, driveways, etc.), and shall meet or exceed geotechnical standard practices and the California Building Code. The investigation shall be reviewed and accepted by the Town engineer and all recommendations shall be included in the final project design at the discretion of the Town engineer. Recommendations that are applicable to earthwork and site preparation shall be consistent with the most recent version of the California building Code. |   | Geotechnical Consultant   | documents prior to grading<br>Monitor during construction to verify that measures are in place |                         |          |
| <p><b>GEO-2:</b></p> <p>If paleontological resources are identified during ground-disturbing construction activities, all work within 50 feet of the discovery shall be halted and a qualified paleontologist contacted to evaluate the finds and make recommendations. If the qualified paleontologist determines that the materials are not significant, no further protection is necessary. If such paleontological resources are found to be significant, they should be avoided by project activities. If avoidance is not feasible,</p>   | <p>Incorporate into project design and print on construction documents (grading plans)</p> <p>On-site observation</p> | <p>Town of Windsor Project Contractor/ Construction Manager</p> <p>Qualified Paleontologist</p> | Periodically during ground disturbance activities  |                         |          |

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| <p>adverse effects to such paleontological resources should be mitigated consistent with a mitigation monitoring program prepared by a qualified paleontologist</p> <p>Typically, fossils can be safely salvaged quickly by a single paleontologist and not disrupt construction activity. In some cases, larger fossils (such as complete skeletons or large mammal fossils) require more extensive excavation and longer salvage periods. In this case the paleontologist should have the authority to temporarily direct, divert or halt construction activity to ensure that the fossil(s) can be removed in a safe and timely manner. Work may continue outside of a buffer zone around the fossil, usually 50-100 feet (specific distance may be determined by the project paleontologist).</p> <p>Once salvaged, significant fossils should be identified to the lowest possible taxonomic level, prepared to a curation ready condition and curated in a scientific institution with a permanent paleontological collection (such as the University of California Museum of Paleontology), along with all pertinent field notes, photos, data, and maps. Fossils of undetermined significance at the time of collection may also warrant curation at the discretion of the project paleontologist.</p> |                        |                           |                       |                         |          |

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| Upon completion of ground disturbing activity (and curation of fossils if necessary) the qualified paleontologist shall prepare a final mitigation and monitoring report outlining the results of the mitigation and monitoring program. The report shall include discussion of the location, duration and methods of the monitoring, stratigraphic sections, any recovered fossils, and the scientific significance of those fossils, and where fossils were curated.   |  |   |   |                         |          |
| <b>HYDROLOGY AND WATER QUALITY</b>   |  |   |   |                         |          |
| <b>HYDRO-1:</b><br>In accordance with the National Pollution Discharge Elimination System regulation, the Town shall prepare and implement a Storm Water Pollution Prevention Plan (SWPPP) prior to construction. The SWPPP shall address erosion and sediment controls, proper storage of fuels, temporary erosion control including fiber rolls, staked straw bales, geofabric, and sandbag, and identification for use and cleanup of hazardous materials. Sediment shall be retained onsite by a system of sediment basins, traps, or other appropriate measures. A Notice of Intent, fees, and other required documentation shall be filed with the Regional Water Quality Control Board. During construction a monitoring report shall be conducted weekly during dry conditions and | Incorporate into project design and print on construction documents<br><br>On-site observation<br><br>Prepare Construction Monitoring Report that documents periodic site inspections during grading to ensure | Town of Windsor<br><br>Town Engineer<br><br>Project Contractor/<br><br>Construction Manager | Prior to construction<br><br>Periodically during project construction |                         |          |



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| <p>three times a day during storms that produce more than 1/2" of precipitation.</p> <p><b>HYDRO-2</b></p> <p>Prior to approval of public improvement plans, the Town Engineer shall review and authorize the Jaguar Way Extension Project Storm Water Management Plan including adequacy all LID features and onsite bio-retention features to ensure that their location, sizing and function adequately accommodates stormwater runoff, and provides pre-treatment and discharge in a manner consistent with local, regional and state requirements.</p> | <p>measures are in place</p> <p>Incorporate into project design and print on construction documents</p> <p>On-Site Observation</p>                                     | <p>Town of Windsor</p> <p>Town Engineer</p> <p>Project Contractor/</p> <p>Construction Manager</p>                 | <p>Periodic site inspections during grading to ensure measures are in place</p>      |                         |          |
| <b>NOISE</b>  |  |  |  |                         |          |
| <p><b>NOI-1.</b></p> <p>The Town of Windsor shall implement the following best management practices during all stages of construction for the Jaguar Way Extension Project as feasible:</p> <ul style="list-style-type: none"> <li>• Construction activities for all phases of construction, including servicing of construction equipment shall only be permitted during the hours of 7:00 a.m. and 7:00 p.m. Monday through Friday and between 8:00 a.m. and 7:00 p.m. on Saturdays. No construction shall be permitted on</li> </ul>                     | <p>Incorporate measures into project design and print on construction documents</p> <p>Assign a disturbance coordinator to respond to complaints and address noise</p> | <p>Town of Windsor</p> <p>Project Contractor/</p> <p>Construction Manager</p> <p>Noise Disturbance Coordinator</p> | <p>Periodically monitor during construction to verify that measures are in place</p> |                         |          |

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| <p>Sundays unless otherwise authorized by the Town Building Official.</p> <ul style="list-style-type: none"> <li>• Limit noise-producing signals, including horns, whistles, alarms, and bells to safety warning purposes only.</li> <li>• Equip all internal combustion engine-driven equipment with intake and exhaust mufflers that are in good condition and appropriate for the equipment (e.g., improved mufflers, equipment redesign, use of intake silencers, ducts, engine enclosures and acoustically-attenuating shields or shrouds, wherever feasible).</li> <li>• Unnecessary idling of internal combustion engines shall be strictly prohibited.</li> <li>• Locate stationary noise-generating equipment such as air compressors or portable power generators as far as possible from sensitive receptors as feasible. If stationary equipment must be located near receptors, adequate muffling (with enclosures where feasible and appropriate) shall be used to reduce noise levels at the adjacent sensitive receptors. Any enclosure, openings, or venting shall face away from sensitive receptors.</li> </ul> | <p>concerns as they arise</p> <p>On-site observation</p> |                           |                       |                         |          |

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| Mitigation Measure  | Implementing Procedure | Monitoring Responsibility | Monitoring / Schedule | Compliance Verification |          |
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| <ul style="list-style-type: none"> <li>• Utilize "quiet" air compressors and other stationary noise sources where technology exists.</li> <li>• Construction staging areas shall be established at location that will create the greatest distance between the construction-related noise sources and noise-sensitive receptors nearest the project site during all project construction.</li> <li>• Control noise from construction workers' radios to a point where they are not audible at existing residences bordering the project site.</li> <li>• Pre-drill foundation pile holes to minimize the number of impacts required to seat the pile.</li> <li>• Consider the use of "acoustical blankets" during pile driving activities.</li> <li>• The contractor shall prepare a detailed construction plan identifying the schedule for major noise-generating construction activities. The construction plan shall identify a procedure for coordination with adjacent land uses including residents abutting the project site, Windsor High School and Keiser Park, so that construction activities can be scheduled to minimize noise disturbance.</li> <li>• Designate a "disturbance coordinator" who would be responsible for responding to any</li> </ul> |                        |                           |                       |                         |          |

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| <p>complaints about construction noise. The disturbance coordinator will determine the cause of the noise complaint (e.g., bad muffler, etc.) and will require that reasonable measures be implemented to correct the problem. Conspicuously post a telephone number for the disturbance coordinator at the construction site and include in it the notice sent to neighbors regarding the construction schedule.</p> <p><b>NOI-2.</b></p> <p>The Town of Windsor shall implement the following to protect existing structures and occupants from exposure to excessive groundborne vibration within 20 feet of roadway construction.</p> <ol style="list-style-type: none"> <li>1. Place operating equipment on the construction site as far as possible from vibration sensitive receptors.</li> <li>2. Use smaller equipment to reduce vibration levels below the limits (0.3 inches/second PPV).</li> <li>3. Avoid using vibratory rollers and tampers within 10 feet of sensitive structures.</li> <li>4. Select demolition methods not involving impact tools.</li> </ol> | <p>Incorporate into project design and print on construction documents</p> <p>Implement Construction Vibration-Monitoring Plan developed by a licensed Professional Structural Engineer</p> <p>Assign an excessive</p> | <p>Town of Windsor Project Contractor/ Construction Manager Professional Structural Engineer</p> | <p>Prior to construction</p> <p>Periodically during project construction</p> <p>Upon Project completion</p> |                         |          |

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| <p>5. Modify/design or identify alternative construction methods to reduce vibration levels below the limits.</p> <p>6. Avoid dropping heavy objects or materials.</p> <p>7. A list of all heavy construction equipment to be used for this project known to produce high vibration levels (tracked vehicles, vibratory compaction, jackhammers, hoe rams, etc.) shall be submitted to the Town by the contractor. This list shall be used to identify equipment and activities that would potentially generate substantial vibration and to define the level of effort required for continuous vibration monitoring.</p> <p>8. A construction vibration-monitoring plan shall be implemented to document structural conditions at all structures located within 20 feet of non-pile driving activities and any structures located within 100 feet of pile driving prior to, during, and after vibration generating construction activities. All plan tasks shall be undertaken under the direction of a licensed Professional Structural Engineer in the State of California and be in accordance with industry accepted standard methods. The construction vibration monitoring plan</p> | vibration contact      |                           |                       |                         |          |

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| <p>should be implemented to include the following tasks:</p> <p>a) Performance of a photo survey, elevation survey, and crack monitoring survey for all structures located within 20 feet of non-pile driving activities and any structures located within 100 feet of pile driving. These surveys shall be performed prior to, in regular intervals during, and after completion of vibration generating construction activities and shall include internal and external crack monitoring in the structure, settlement, and distress and shall document the condition of the foundation, walls and other structural elements in the interior and exterior of said structure.</p> <p>b) Conduct a post-survey on the structure where either monitoring has indicated high levels or complaints of damage. Make appropriate repairs in accordance with the Secretary of the Interior's Standards where damage has occurred as a result of construction activities.</p> <p>c) The results of the surveys shall be summarized and submitted in a report shortly after substantial completion of each phase identified in the project schedule to have potential vibration impacts. The report</p> |                        |                           |                       |                         |          |

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| <p>will include a description of measurement methods, equipment used, calibration certificates, and graphics as required to clearly identify any vibration-monitoring locations.</p> <p>d) Designate a person responsible for registering and investigating claims of excessive vibration. The contact information of such person shall be clearly posted on the construction site.</p>  |   |   |   |                         |          |
| <b>TRANSPORTATION</b>  |   |   |   |                         |          |
| <p><b>TRANSP-1</b></p> <p>The final design of Jaguar Way Extension shall ensure that sight lines are preserved by locating new trees, lighting, landscaping and signage in a manner that does not block sight lines and includes an ongoing maintenance plan for street trees and vegetation so that new growth does not obstruct visibility or conflict with pedestrian, bicycle and vehicles travel.</p> <p><b>TRANSP-2</b></p> <p>The contractor shall prepare and implement a construction work schedule including material delivery, construction start and end times, road</p> | <p>Incorporate into project design and print on construction documents</p> <p>Incorporate into project design</p> | <p>Town of Windsor<br/>Project Contractor/<br/>Construction Manager<br/>Qualified Landscape Specialist</p> <p>Town of Windsor</p> | <p>Verification of prior to start of work<br/>Verification upon project completion<br/>Ongoing maintenance for the life of the project</p> <p>Verification of incorporation</p> |                         |          |

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| closure and lane closure information and shall be coordinated with Windsor High School to avoid conflicts with school start and release times and school related events. The construction schedule shall also include coordination with other nearby construction activities to minimize conflicts on roadways.   | and print on construction documents   | Project Contractor/<br>Construction Manager<br>Windsor High School  | into design prior to start date of construction<br><br>Ongoing throughout construction            |                         |          |
| <b>TRIBAL CULTURAL RESOURCES</b>  |   |   |   |                         |          |
| <b>TCR-1</b><br><br>Prior to the start of construction activities, the Town of Windsor shall coordinate with the Federated Indians of Graton Rancheria (FIGR) to establish a schedule and process to carry out spot monitoring to be performed by a FIGR Tribal Representative during project-related earth-disturbing activities. A schedule for onsite spot monitoring shall be established in close coordination with FIGR, the construction contractor, and the Town of Windsor. The Tribal Representative carrying out spot monitoring shall be permitted to access the construction site, observe activities, and shall be granted authority to issue a stop work order in the event that a tribal cultural resource or potential tribal cultural resource is identified. If tribal cultural materials are encountered during project activities, all work within 25 feet of the discovery, or other appropriate buffer, shall be halted and construction work redirected until | Incorporate into project design and print on construction documents<br><br>On-site observation<br><br>Implement a 25-foot buffer, as applicable | Town of Windsor<br>Project Applicant/ Contractor<br><br>Qualified Professional Archeologist<br><br>FIGR<br><br>FIGR Tribal Representative | Prior to commencement of ground disturbing activities<br><br>During ground disturbance activities |                         |          |



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| <p>materials are assessed and recommendations for treatment are issued. If the tribal cultural materials are archaeological in nature, then a qualified professional archaeologist shall be retained to inspect the discovery and provide recommendations as needed.</p> <p><b>TCR-2</b></p> <p>In the event that prehistoric, historic, or any other cultural or archaeological materials are encountered, the Tribal Heritage Preservation Officer (THPO) of the Federated Indians of Graton Rancheria, Dry Creek Rancheria Band of Pomo Indians, Middletown Rancheria, or any other tribe that has requested notification, shall be notified of the find.</p> | <p>Incorporate into project design and print on construction documents</p> <p>On-site observation</p> | <p>Town of Windsor<br/>Project Contractor/<br/>Construction Manager</p> | <p>Prior to commencement of ground disturbing activities</p> <p>During ground disturbance activities</p> |                         |          |