

SHASTA COLLEGE

FACILITIES MASTER PLAN AMENDMENT ONE PROJECT

INITIAL STUDY & MITIGATED NEGATIVE DECLARATION

State Clearinghouse No.

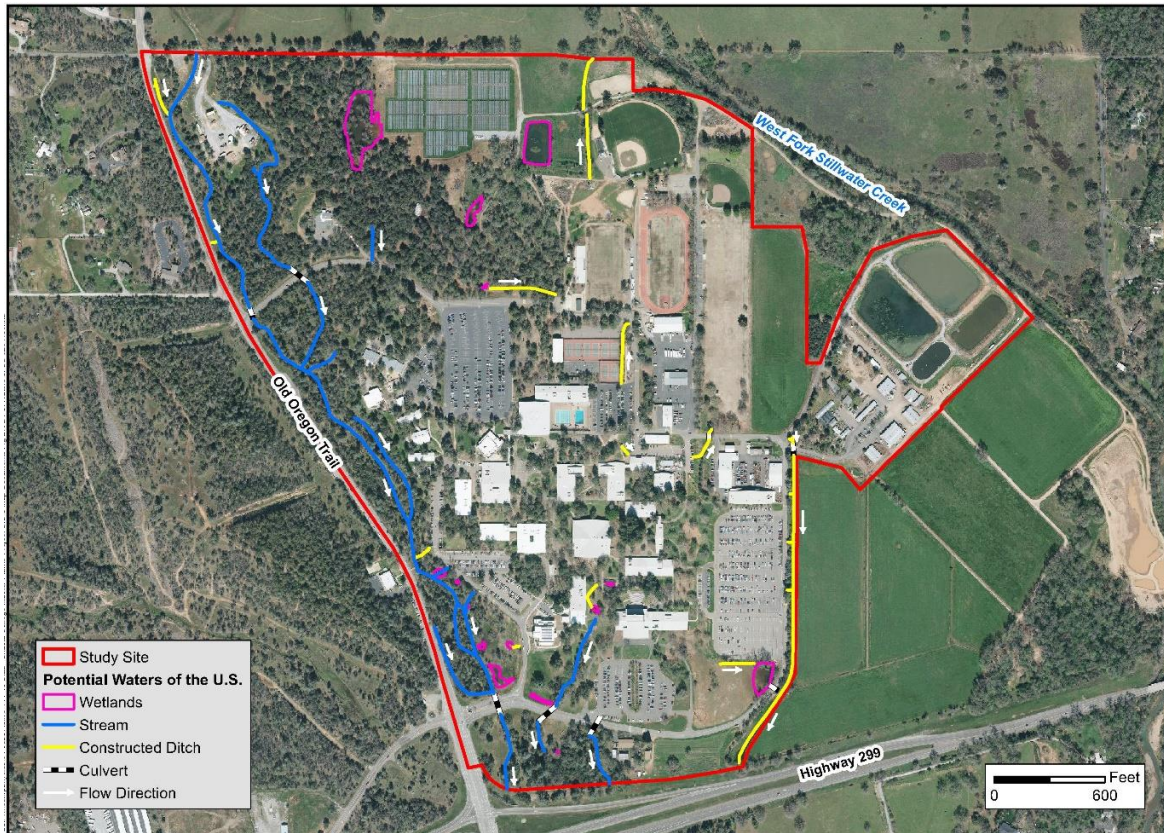


Figure Prepared By ENPLAN

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PROJECT OVERVIEW

1. **PROJECT TITLE:** Shasta College Facilities Master Plan Amendment One (Project)
2. **LEAD AGENCY, PROJECT PROPONENT/APPLICANT & CONTACT PERSON:** Shasta-Tehama-Trinity Joint Community College District (District). Morris Rodrigue – Assistant Superintendent/Vice President of Administrative Services, P.O. Box 496006, Redding, CA 96049-6006, (530) 242-7525, Fax (530) 225-4994, E-Mail – mrodrigue@shastacollege.edu
3. **INTRODUCTION:** This environmental document is an Initial Study/Mitigated Negative Declaration (IS/MND) State Clearinghouse No. _____, proposed for adoption on March 13, 2019 by the Shasta-Tehama-Trinity Joint Community College District Board of Trustees.
4. **PROJECT LOCATION:** The Project site is the approximate 337-acre Shasta College Campus bounded by Old Oregon Trail to the west, McConnell Foundation owned land to the north, West Stillwater Creek to the east and State Route 299 (SR-299) to the south. (Project City, 7.5-minute quadrangle map, Sections 15, 16, 17 and Enterprise, 7.5-minute quadrangle map, Sections 15, 16, 21. Township 32 North, Range 4 West, Mount Diablo Meridian. Located within Assessor's Parcel Number – APN 076-030-008). (*Figure 1 – Project Location & USGS Map, Figure 2 – Project Surroundings and Figure 3 – Shasta College Campus*).
5. **GENERAL PLAN DESIGNATION & ZONING:** The land use classification for the Project site is *Public Facilities*. The zoning district designation is *PF – Public Facilities*.
6. **ENVIRONMENTAL SETTING & SURROUNDING LAND USES:** Project site elevations trend in a southeasterly direction in the northern portion of the site and then about mid-point of the site, trend in an easterly direction towards West Stillwater Creek. Topographic elevations range from approximately 630 to 580 feet.

Figure 1 – Project Location & USGS Map identifies a Study area of approximately 250-acres within which the majority of the proposed Project improvements will occur on the approximate 337-acre campus. Visual and aesthetically pleasing features associated with the campus include mature trees and associated vegetation where interior live oak is the dominant tree species in the oak woodland community and forms a nearly continuous canopy cover over a portion of the western and northern Study area. Blue oaks and gray pines are also present. Non-native maintained and unmaintained trees and shrubs are present throughout the Study area. Approximately 127-acres of the eastern half of the campus, portions that are also located in the Study area, are utilized for agricultural uses plus an additional approximate 12.1-acres of wastewater treatment ponds.

Field observations showed that the principal natural communities present in the 250-acre Study area are undeveloped oak woodland of approximately 70-acres and an urban landscape of approximately 180-acres that does not support an intact oak woodland community. This area generally comprises the campus core. Within these communities are inclusions of seasonal wetlands and small streams/drainages.

There is an approximate 1.02-acre seasonal wetland located in the northwestern portion of the Study area that is a shallow feature, around and under an oak canopy. Another seasonal wetland of approximately 0.5 acres is located immediately southeast of the East parking area abutting Shasta College Drive to the east. An intermittent stream is present near the western boundary of the Project study area generally paralleling Old Oregon Trail originating on McConnell lands to the north, then running from the northern boundary of the campus to the southern boundary where it crosses under SR-299.

Land uses adjacent to the College campus are the following: to the west are residences with the closest being approximately 1,100 feet to the west across Old Oregon Trail. To the north are an approximate 29.4-acre parcel and a portion of an approximate 124.16-acre parcel, both of which are undeveloped and owned by the McConnell Foundation. To the east is West Stillwater Creek and rural residential parcels beyond. SR-299 abuts the southern boundary of the College. **Figure 2 – Project Surroundings**).

7. PROJECT PURPOSE, NEED & DESCRIPTION:

Much of the ensuing discussion regarding Project Purpose, Need, and to a degree – Description, is derived from the *Facilities Master Plan 2014-2030* and the May 2018 *Facilities Master Plan – Amendment One*.

PROJECT PURPOSE

Founded in 1948, the District’s 337-acre main campus in Redding was constructed primarily between 1966 and 1972 and includes the majority of the facilities still in use today. The District’s facilities house a wide range of instructional programs and support services including but not limited to: operational agricultural lands; fire training, law enforcement and medical emergency training facilities including props; open access computer laboratories; counseling, tutoring, veteran’s and financial aid services; performing arts and athletic events; student activities; lecture series and workshops; and art exhibits.

The *Facilities Master Plan 2014-2030 (FMP)*, completed in 2014, lists the identified needs at the time of the *FMP*’s writing. The 2014 *FMP* concludes with a recommendation that a list of projects be maintained so when funding becomes available the projects can be prioritized and where appropriate, implemented. With the passage of Measure H the District now has funds available to complete some of the projects. The District amended the *FMP* and adopted the May 2018 *Facilities Master Plan – Amendment One (FMPI)* that outlines the projects being considered using Measure H funding and provides guidance on the implementation of those projects, ensuring alignment with the District’s overall educational and facility goals. The amendment focuses on the District’s main Shasta College Campus needs. Future amendments will focus on the District’s other campuses which are not addressed by this CEQA document. This IS/MND addresses demolition, renovation (remodeling), new construction and future building site projects proposed in the *FMPI*.¹

Implementation of the *FMPI* is predicated on funding availability which affects the phasing of the various construction activities and resultant improvements identified in the *FMPI*. Activities include: the demolition of existing buildings, courtyards and parking lots; buildings proposed for renovation; buildings proposed for new construction; and, future building sites. Whereas, demolition and future building site project activities are proposed to be undertaken over four phases with varying years for each phase, the building renovation and new construction project activities are proposed over three phases with varying years for each phase as shown in **Table 1 – Proposed Phasing**. All phasing and corresponding activities are subject to modification.

PROJECT NEED

The District has long been dedicated to providing access to students with disabilities – both in programs and facilities. The District’s sites and facilities have been surveyed by the Office of Civil Rights (OCR) to determine where the District’s facilities may have barriers to students with

¹ Both Facilities Master Plans are incorporated herein by reference. The Facilities Master Plans are available for review at the Shasta College Administrative Services Office, Building 100 or are available in electronic format upon request.

disabilities. A link to the OCR report is included in the supporting reports section of this document. The findings of the OCR report serve as a guide for the District in creation of an accessibility upgrade plan and is continually referenced as the District implements projects to address barriers to access on its campuses.

TABLE 1 PROPOSED PHASING	
Demolition Activities	
I	2019 - 2020
II	2021 - 2030
III	Post 2030
Renovation & Construction Activities	
I	2019-2020
II	2021-2025
III	2026 - 2030
IV	Post 2030

Proposed amongst the various renovation, construction and new building site projects to occur as a result of implementing the *FMP1* is compliance with the American with Disabilities Act (ADA) requirements. Nearly all the existing campus pedestrian pathways are not ADA compliant due to cross slope issues. It is the intent of the *FMP1* to replace them while improving the overall circulation network. Whereas, overall coverage will be very similar to what currently exists, the pathways will be either new construction or reconstruction that assures ADA compliance. The demolition and replacement of existing non-compliant pathways is identified as an important need.

The District is committed to sustainability both in its operations and the educational opportunities presented to students. In keeping with the District's sustainability intent, efforts are being made to reduce the District's carbon footprint.

An initial sustainability project was the installation of a 1 Megawatt (MW) solar photovoltaic array field in 2010 on approximately 6.5-acres in the northwestern portion of the campus. Subsequent to this project was the beginning of construction in October 2018 of a 1.62 MW solar photovoltaic fixed tilt carport system located on approximately 5.1-acres in the *East Parking Lot*. In addition, five dual-port vehicle charging stations will be located in the northern portion of the parking lot. The combined 2.62 MW system should meet approximately 80 percent of the annual energy needs of the College.

The District replaced the central plants for heating, ventilation and air conditioning (HVAC) on the main campus in 2008 leading to a reduction in energy use by 16% and receipt of an honorable mention award at the 2009 UC-CSU-CCC Sustainability Conference. The District installed LED site and parking area lighting in summer 2014 to reduce electrical loads and provide for improved security and safety at Shasta College. Renovations intended as part of the proposed project will continue sustainability efforts through HVAC improvements, window and door replacement, insulation upgrades, and utility and infrastructure improvements.

The Shasta College 337-acre campus is comprised of 83 buildings, totaling approximately 495,000 square feet of educational building space as well as multiple sports fields and agricultural lands. The majority of the main campus buildings were designed for a 100-year life and are currently 52-years into that lifespan. Thus, the core structural elements are not an issue. However, the core structural elements do not include internal components such as the heating/cooling and electrical distribution systems that were designed for a 35-year lifespan. Additionally, these buildings have not been able to keep up with the rapidly changing needs of the campus instructional programs.

The majority of the buildings are in need of remodeling and/or reconfiguration in order to best serve the requirements of current educational programs.

In determining what projects should be pursued the District will consider both building and cost efficiency. The California Community Colleges Chancellor's Office (CCCCO) publishes recommended building efficiencies. On average, the District's buildings are approximately 65% efficient. Renovation/remodel work should strive to increase this to 75% to be more in line with CCCCCO recommendations. Cost efficiency is also considered. When evaluating a project, it should be determined if a remodel is more cost effective than a building replacement and vice versa. Furthermore, long term benefits of upgrades are to be considered.

The *FMP1* identified the following needs for the Shasta College Campus:

- Enhance the efficiency of the buildings to better align with CCCCCO recommendations
- Complete the north water loop to ensure better water supply for domestic, farm, and fire use (completed)
- Continue installation of security cameras throughout campus
- Air handler and ductwork upgrade campus-wide
- Construct additional classroom for farm curriculum
- Install emergency notification system
- Install emergency lockdown system
- Reconfiguration/renovation of buildings to better align with current curriculum and student support needs
- Restroom and locker room accessibility and function upgrades
- Irrigation system upgrade for improved water conservation (first portion completed)
- Pool upgrade
- Campus-wide flooring upgrade
- Parking lot upgrades
- Completion of the bike paths throughout campus

PROJECT DESCRIPTION

BUILDING FABRIC

The buildings, circulation pathways, and landscaping of the campus make up its fabric. The existing campus, **Figure 4 – Building Fabric – Existing**, is organized primarily by building numbers and cardinal direction. For example, the parking lots are north, east and south and the *Math/Engineering Building* is 1100. There appears to be a lack of connection between the students/faculty and the purpose of the facilities. The FMP process brought about several ideas for addressing the identified needs and **Figure 5 – Building Fabric – Proposed** identifies the existing and proposed buildings to be demolished, renovated and constructed.

“There are types of exemptions under CEQA: statutory and categorical. Statutory exemptions are projects specifically excluded from CEQA consideration as defined by the State Legislature. These exemptions are delineated in PRC §21080 et seq. A statutory exemption applies to any given project that falls under its definition, regardless of the project's potential impacts to the environment. However, it is important to note that any CEQA exemption applies only to CEQA and not, of course, to any other state, local or federal laws that may be applicable to a proposed project.

Categorical exemptions operate very differently from statutory exemptions. Categorical exemptions are made up of classes of projects that generally are considered not to have potential impacts on the environment. Categorical exemptions are identified by the State Resources Agency and are defined in the CEQA Guidelines (14 CCR Section 15300-15331). Unlike statutory exemptions, categorical exemptions are not allowed to be used for projects that may cause a substantial adverse change in the significance of an historical resource (14 CCR Section 15300.2(f)). Therefore, lead agencies must first determine if the project has the potential to impact historical resources and if those impacts could be adverse prior to determining if a categorical exemption may be utilized for any given project.”²

The Statutory and Categorical Exemption process was utilized for several building and infrastructure projects identified in **Figure 5 – Building Fabric – Proposed**, which were:

- The *Carport with Solar Power Generation Project* located in the *East Parking Lot* (Site Element Key ‘T’) is currently under construction. The CEQA Statutory Exemption, under Public Resources Code Section 21080.35 that exempts solar projects proposed on existing buildings/parking lots, was filed with the State Clearinghouse on July 13, 2018.
- The *Campus Safety Project – 6500* (Building Element Key ‘42’). The CEQA Categorical Exemption, Section 15301 Class 1 – Existing Facilities, Section 15303 Class 3 – New Construction or conversion of Small Structures, and Section 15311 Class 11 – Accessory Structures, was filed on October 20, 2018.
- The *Veterans Support & Success Center Project* (Building Element Key ‘54’). The CEQA Categorical Exemption, Section 15314 Class 14 – Minor Additions to Schools, was filed on December 12, 2018.

On June 14, 2017 the District’s Board of Trustees adopted the Initial Study/Mitigated Negative Declaration (IS/MND), State Clearinghouse No. 2017022006 for the *Regional Public Safety Training Facility* (Site Element Key ‘56’) and associated demolition of *Classroom Building - 6400* (Building Key Element ‘53’) and construction of *Apparatus Bay* (Building Key Element ‘59’), *Training Towers* (Building Key Element ‘62’), and *Roof Prop* (Building Key Element ‘63’).

Since adoption of the *Regional Public Safety Training Facility (RPSTF) IS/MND*, changes to that particular project site area, preparation of additional technical studies, actions by the U.S. Army Corps of Engineers with respect to Waters of the U.S. (jurisdictional waters), and receipt of additional timing and location of construction activities for the previously approved *RPSTF* project were proposed, thus requiring further environmental analysis that served primarily to provide clarification for the aforementioned activities. The proposed changes were addressed in the January 31, 2019 *Shasta College Regional Public Safety Training Facility Initial Study Addendum*.³

The following is a list of the remaining proposed projects advanced in the *FMPI*:

- Construct or install improvements required to comply with access requirements of the Americans with Disabilities Act (ADA), and existing state and local building codes, including upgrade, modify, or construct restroom facilities, ramps, doors, parking, etc.
- Upgrade/remodel or construct student and staff restrooms, including fixtures, lighting, and partitions

² California Office of Historic Preservation. *What are Exemptions Under CEQA and How Are They Used?* Web page http://ohp.parks.ca.gov/?page_id=21728

³ The Categorical Exemptions and the Initial Study Addendum identified are available for review at the Shasta College Administrative Services Office, Building 100 or are available in electronic format upon request.

- Construct classrooms and training facilities for Career Technical Education
- Renovate, repair or replace outdated laboratories, classrooms, and support facilities
- Provide new science, math and computer labs supporting instruction in Science, Technology, Engineering, and Math (STEM)
- Improve student safety, disabled access, emergency preparedness, and security systems, including security cameras, emergency mass announcement systems, lighting, fencing, smoke detectors, fire alarms, and sprinklers
- Upgrade climate control systems consisting of heating, ventilation, cooling/air conditioning, including alternative and passive technologies to conserve energy, such as energy-efficient windows, window coverings and shade control, shade canopies, etc.
- Upgrade electrical systems as well as main power service and distribution, which may include active and passive solar power and heating system acquisition, installation and construction
- Construct, repair, replace, or modify roofs or portions of roofs
- Replace, repair, or upgrade plumbing, piping and drainage systems, including water supply, backup generator, meters, water heating, and wastewater systems, plumbing fixtures and sinks, etc., within buildings and sites
- Upgrade/install voice and data communications systems, including network and electrical infrastructure to accommodate technology upgrades
- Repair, modify, upgrade or reconstruct structural elements of existing campus structures
- Refinish the exterior finishes of school buildings, including paint, stucco, wood and metal trims, framing and siding, etc.
- Replace doors, door frames and door hardware, including installing safety/security doors and locks
- Upgrade and expand parking and vehicle access to school sites, including off-street parking areas, pickup/drop-off, ingress/ egress, signage, etc.
- Upgrade, repair, replace, modify or construct site improvements, paths, sidewalks and walkways, canopies, exterior shade structures, outside gathering and eating areas, benches, landscape improvements, irrigation and drainage, etc.
- Renovate, improve, repair or install hard courts, athletic play fields, tracks and turf, including new synthetic fields, including irrigation and drainage, bleachers, lighting, fencing, etc., and field equipment and facilities, including nets, basketball standards, goals and goalposts, backstops
- Upgrade classroom and other facility interiors, including painting, floor and ceiling finishes and tiles, carpeting, windows, cabinets and casework, replace, install or construct interior walls, and equipment attached to wall surfaces, including white boards, marker boards, tack boards, television mounts, smart projectors, scoreboards, fire extinguishers, kitchen cabinets/ equipment, etc.
- Construct new permanent classrooms and classroom buildings
- Expand/remodel the library
- Rehabilitate, repair or replace relocatable buildings
- Construct, reconstruct/remodel and expand multi-purpose buildings for instructional and physical education and recreational uses (may be joint-use projects)
- Remodel District maintenance facility
- Construct or acquire and install storage facilities

- Construct or remodel existing rooms into teacher workrooms, computer labs and resource rooms
- Construct or remodel existing student services support areas to facilitate student academic and social development
- Provide collaborative student support areas throughout campus to promote the integration of students into campus life

It is anticipated that as the list of proposed projects is prioritized, some of them will be moved to a future project list. Additionally, as the campus continues to grow there will be additional projects required which will be added to the future project list. The following is a brief list of potential projects aimed at allowing the District to accommodate anticipated growth over the next two decades:

- Realignment of Shasta College Drive at northeast corner of campus to facilitate additional parking for Career Technical Education (CTE) and athletics neighborhoods
- Reconfiguration and expansion of south Visual and Performing Arts (VAPA) parking lot to accommodate construction of theater and music facility and creation of south quad
- Expansion of solar power array

CAMPUS FABRIC NEIGHBORHOODS

It is proposed that the campus be organized into nine neighborhoods located within the 13 land uses discussed under *Campus Fabric – Land Uses*. Implementing neighborhoods within the overall campus structure will allow students, faculty and staff to take ownership of and develop a sense of belonging to their respective area of campus. These neighborhoods and associated approximate acreages are listed below and shown in **Figure 6 – Campus Fabric – Proposed Neighborhoods**.

- Academic
- Agricultural
- Athletics
- Career Technical Education (CTE)
- Early Childhood Education
- Faculty Support
- Regional Public Safety Training Facility (RPSTF)
- Student Services
- Visual and Performing Arts

Each neighborhood is intended to provide areas for students, faculty and staff to interact with each other and their peers. This will be accomplished through inclusion of exterior and interior spaces that encourage gathering within each neighborhood. Interior spaces may include areas for dining, studying, and student government and/or clubs. Exterior spaces will include landscaping, walkways, and quads.

While it is important to allow each neighborhood to develop its own identity, significant effort will be undertaken to develop visual and physical connections between the neighborhoods. Some opportunities for this are discussed in the *FMP1* with respect to wayfinding signage, landmarks, and circulation for pedestrians, alternative transportation and vehicles including parking.

CAMPUS FABRIC CIRCULATION

Pedestrian Circulation: Current pedestrian circulation is a variety of linear and curvilinear pathways constructed of exposed aggregate concrete and/or asphalt. The current circulation

pathways vary in width but have no other delineation as to their intended use. The current pathways often lead to dead ends or are parallel to buildings that have no entrance points.

The replacement of campus walkways offers the opportunity to improve and realign the pedestrian circulation network and coordinate the network with uses by alternative modes of transportation. The proposed pedestrian circulation network focuses not on connecting building entry points but rather on organizing the pathways into a hierarchy that aids in the wayfinding of the user. The new network consists of arterial, collector, and neighborhood pathways as illustrated in **Figure 7 – Pedestrian Circulation – Proposed**.

Arterial Pathways serve as an internal campus loop that serves as the primary throughway covering the campus similar to the loop road that provides vehicular access around the perimeter of the campus. Arterial pathways are intended to facilitate joint use by pedestrians, bicyclists, and skateboarders. To permit these disparate uses, arterial pathways are 20-feet wide and have striping and textural differences to delineate the intended areas for each type of use. These pathways are identifiable by their 20-foot width, linear form, material variation, and the landscaping and lighting that frame them.

To minimize conflicts between bicyclists and pedestrians, a separate bicycle boulevard is proposed as the primary bicycle pathway surrounding the outer perimeter of the campus core. This will serve as the high speed route for bikes, while the Arterial pathway serves as a low speed route for bikes and other modes of transportation. Bicycle and skateboard storage racks should be provided at logical locations along these routes. Bicycle parking lots should be provided at the primary “Bicycle Only” points from the campus North and South entrances. Arterial pathways should also be constructed to support the weight of service vehicles including large fire trucks. All large service vehicles should be restricted to these pathways.

Collector Pathways serve as pedestrians’ connection between Arterial pathways and building entrances. They are identifiable by the low level landscaping that line them and their narrower width of approximately 12-feet. The form of Collector pathways is primarily linear but may undulate to follow the natural terrain.

Neighborhood Pathways serve pedestrians’ connection between collectors and between buildings within the neighborhood. They are also used to connect the campus core to the outlying Agriculture, Athletics, and Public Safety neighborhoods. They allow for smaller groups of students, faculty and staff to transverse within the neighborhoods.

Neighborhood pathways are identifiable by the intimate scale of their six foot width, undulating curvilinear form, and limited adjacent landscaping. Bicycle, skateboard, and service vehicle traffic should be prohibited on the inner campus neighborhood pathways. Joint use may be allowed on pathways to the outlying areas of the campus.

Vehicular Circulation: As a primarily commuter campus, the first impression of the campus user is the entrance points off of Old Oregon Trail. Recent upgrades to the signage at the main entrance have been completed. However, it is proposed that the landscaping and aesthetic look of this entrance as well as the north entrance should be improved as it is anticipated to see more users entering at this location as the campus grows and the *RPSTF* is developed.

The campus’ roadway network primarily encircles the core campus facilities. The location of the existing roadways is generally logical providing efficient access to parking and service areas, if one is familiar with the campus roadway system. Otherwise, the system, particularly

in the northeast portion of the campus in the area of athletic facilities could be considered circuitous. Although they are in reasonable condition for their age, to extend their life, it is proposed that they be overlaid with new asphalt and restriped, unless the roadways are to be relocated.

Though the locations of the existing roadways are generally logical, adjusting their path of travel is being considered to improve the parking lot/roadway interface as well as to allow for future expansion of both roadway and parking lots. In particular there is a lack of parking in close proximity to the Athletics Neighborhood's fields. To accommodate future campus enrollment growth, a roadway realignment is proposed in the northeast area of the campus. This realignment aims to improve vehicular flow and allows space to add roadway and parking capacity near the underserved athletic fields. **Figure 8 – Vehicular Circulation – Proposed** identifies the revised vehicular and parking lot configurations.

Parking: As with many college campuses, parking occupies a large portion of the campus. The vast majority of the parking lots are large expanses of asphalt with no landscaping. As previously noted, the existing parking lots are generally organized by their cardinal direction.

More often than not, the entrance of a building or signage is given credit for being the 'first impression', and the parking lots create the 'second impression.' It is proposed that the parking lots be given a face-lift by adding strategically placed trees and shrubs to break up the large expanses of asphalt.

The current parking lot organization offers no wayfinding information as to the proximity of the parking lot to the users' end destination. It is proposed that the lot designations be changed so they are related to the neighborhood that it most closely serves to aid in user wayfinding.

CAMPUS FABRIC LANDSCAPING

The existing campus landscaping has been severely reduced to comply with current water use regulations due to recent drought conditions. Additionally, trees and shrubs have been trimmed and thinned to address safety concerns. Much of the campus core has been transitioned to a native state. While this is effective for reducing water usage and promoting a more secure campus, it is a missed opportunity for the creation of more aesthetically pleasing outdoor meeting and learning environments.

The proposed landscaping uses, **Figure 9 – Landscaping – Proposed** strategically places landscaping in three primary components to welcome and direct users as they transverse the campus.

1. Embellish entry points to welcome and direct.
2. Reinforce the edges by providing landscaping within 10 feet of arterial routes and roadways as well as within 5 feet within other routes.
3. Create outdoor "rooms" through creative placement of landscaping and by reclaiming drainage swales as landscaped areas provided applicable U.S. Army Corps of Engineers, California Fish and Wildlife, or California Regional Water Quality Control Board permits are obtained.

This approach aids to focus the landscaping in areas with the most impact and to provide effective clues to users about their surroundings. Furthermore, landscape elements can serve as landmarks aiding in wayfinding. Plant species with physical structures and non-plant elements can be combined to form outdoor rooms. The landscaping approach beautifies the campus, aides in wayfinding, and can be sensitive to water usage.

CAMPUS FABRIC UTILITIES

Figure 10 – Utilities Plan – Existing identifies the approximate utility routes throughout the campus. Replacement lines, where necessary, will either parallel existing lines or will be bored underground to avoid existing trees and/or other infrastructure. The option to place the utility lines in sleeves can also be used.

Domestic Water: The domestic water system, original to the campus construction, is currently functional and serves both potable and fire suppression water needs. The recent north water loop project completed a campus water loop that increased the water pressure campus-wide. However, due to the age of the remaining existing system, replacement should be evaluated and the applicable portions replaced as needed as building construction/renovation occurs.

Irrigation Water: A 2017 project separated the main irrigation lines from the domestic water. The laterals and irrigation heads are still in need of upgrade/replacement to be in compliance with current statewide water regulations. These should be upgraded/replaced as the campus-wide pedestrian pathways are replaced and/or each building, or building areas constructed/renovated.

Sanitary Sewer: The sanitary sewer piping is in need of replacement. The current system, composed of a variety of piping materials including vitreous clay, is failing at various locations on a regular basis. It is recommended that a main trunk line project be implemented separately. The lines from each building can then be replaced or repaired as part of that building's area construction or renovation.

Storm Drain: The existing storm drain system appears to be functioning adequately in the areas where it exists. However large portions of the campus are not connected to the storm drain system. It is proposed that those areas be analyzed and, if needed, the storm drain system be expanded to include these areas as part of project work in those particular areas.

It is worth noting that much of the campus that currently drains freely to surrounding creeks and swales should be evaluated for compliance with current state water quality regulations. The utilization of recycled rain water and campus-wide rain water harvesting for landscape irrigation is also being considered.

Natural Gas: The natural gas system was upgraded in 2011 and is not in need of immediate upgrades or replacement. However, not all buildings are served by natural gas. As each project is developed it may be necessary to extend the gas infrastructure to the buildings and/or areas where this service is lacking.

Electrical Pathways: The primary 12 Kv electrical feeds were upgraded in approximately 2002. However, the switch gear and transformers are in need of replacement. As the campus grows over future decades and the ever changing technology needs evolve, the now 16-year old systems will be in need of upgrade and/or replacement. As projects develop, the ability of the existing electrical infrastructure to sustain the current and future demands of the campus will be assessed.

Technology Pathways: Although the current infrastructure appears sufficient and able to sustain current needs, the inevitable evolution of technology will trigger upgrades, revisions and expansion of the technology pathways throughout campus. As projects are developed, additional technology pathways will be evaluated to support the current and future technology needs of the campus.

CAMPUS FABRIC LAND USES

The variety of land uses proposed throughout the campus are shown in **Figure 11 – Land Uses – Proposed**. The various Land Uses are classified under broader general land use classifications which are *Academic Education*, *Natural Resources Academic Education & Open Space* and *Utilities & Support Services*, that reflect their general nature. As an example, the *Farming and Grazing Land Uses* are classified under *Natural Resources Academic Education & Open Space*. For each land use, where applicable, the appropriate *Campus Fabric Neighborhood* category is identified. While most of the land uses are symbiotic there are a few that would be incompatible with the adjacent land uses that limit their underlying use. As an example, the placement of *Housing* immediately adjacent to the *Sewage Treatment Facilities* located in the northeastern area of the campus, would be incompatible due to potential odor impacts should there be an upset in the treatment process. The current proximity of the treatment facilities to the agriculture program facilities is currently functioning well. However, if the agriculture program grows or additional housing is provided for the agriculture program's students, consideration would be given to the impacts of the *Sewage Treatment Facilities*. Similarly, the *RPSTF*, located in the northwesterly portion of the campus is currently sufficiently isolated so that associated smoke and sirens emanating from the facility do not adversely impact the campus core to the south. However, if this program continues to grow, compatibility considerations should be given to the proximity of this program's facilities to adjacent land uses. Currently the *Solar Array* facilities to the northeast are compatible with the *RPSTF*. The following identifies the proposed *FMPI* Land Uses, associated acreages and *Campus Fabric Neighborhoods*.

Academic Education – 93.4 acres

- Academics – 42 acres
 - Academic
 - Career Technical Education (CTE)
 - Regional Public Safety Training Facility (RPSTF)
 - Visual & Performing Arts
- Athletics – 32.0 acres
 - Athletics
- Childcare – 2.2 acres
 - Early Childhood Development
- Faculty Support Services – 3.6 acres
 - Faculty Support
- Housing – 3.0 acres
- Student Life – 10.6 acres
 - Student Services

Natural Resources Academic Education & Open Space – 189 acres

- Farming/Grazing – 127 acres
 - Agricultural
- Buffer & Potential Tree Mitigation Sites – 62.0 acres

Utilities & Support Services – 54.6 acres

- Pedestrian & Vehicular Circulation & Parking – 36.0 acres
- Sewage Treatment Facilities – 12.1 acres
- Solar – 6.5 acres

DESIGN GUIDELINES

The *FMPI* advances *Design Guidelines* addressing the existing and proposed architectural character of campus exterior and interior finishes. Associated interior spaces, including capacities and sizes, are also discussed with regard to classrooms, student gathering areas, offices, staff work areas, and lecture halls. However, these special prototypes are not subject to CEQA evaluation.

Existing Character: Existing campus architecture cannot be coupled to a specific style. Nonetheless, with a few exceptions, the campus does have a cohesive feel due to a combination of strong key architectural elements that tie the fabric of the campus together which are:

- * Deep overhangs
- * Tapered columns
- * V-shaped eaves
- * Broad low-sloping roofs
- * Exposed aggregate & cement plaster wall finishes
- * Wood soffits
- * Rain water scuppers

The original campus was constructed using buildings designed for a 100-year lifespan. These buildings are approximately 52 years into that lifespan and are structurally in above average condition. However, although structurally sound, some of the exterior and interior finishes are in need of repair or replacement and the mechanical systems are failing, requiring regular repair. Most significantly, the physical layout of the building interiors may no longer be compatible with or efficiently used by the current educational programs.

Proposed Character: The campus architecture is proposed to be a transition of the existing architectural elements into a fresh, updated interpretation of the existing architectural elements. As most of the changes will occur on existing buildings, materials, forms, and techniques used on the existing buildings will lay the groundwork for the proposed new buildings. The approach for the existing buildings will be to take advantage of the need to solve maintenance issues found in the existing buildings as opportunities to introduce additional forms and materials that provide the updated aesthetics.

New buildings will use the material elements found in the updated existing buildings but will be free to explore more unique forms that may be more appropriate for their location and/or intended use. In both the renovation of the existing buildings and in the new buildings, material selection should be based on easy repair by District staff rather than strictly on durability as per the following examples.

The failing plaster and plywood V-shaped fascia offers an opportunity to introduce metal into the building's material vocabulary. Use of metal will provide resistance to the intrusion of birds and bats while refreshing a prominent architectural element in look and color.

The failing exposed aggregate may be covered with stone veneer or smooth plaster. This will enable the strong form of these areas of the building to remain while addressing the maintenance issues associated with the aggregates becoming loose and falling out.

Board on board wood siding has been used in limited areas throughout the campus. Further study on its longevity is warranted. Since its use is limited to a few buildings, if it is proving to be a durable and easy to maintain choice, its use could be expanded to other existing and new buildings.

Cement plaster has been used throughout the campus. It is likely still the best choice for durability and ease of maintenance and its use is anticipated to continue. As existing buildings are renovated, the cement plaster system can receive a new top coat to add protection and longevity to the surface.

The *FMPI* has an appendix which discusses building related components dealing with HVAC (heating, ventilation and air conditioning), plumbing, electrical, lighting, fire alarm, door hardware, technology, paint and landscaping. These building related components are not direct environmental issues except for HVAC systems, due to potential aesthetic or noise related impacts, and landscaping. The landscaping appendix identifies the type (tree, shrub, vine) and if the landscape is native. Paint is subject to state regulations that address potential associated environmental issues such as using paint with zero or very low volatile organic compounds (VOC).

DEVELOPMENT – PHASING, DEMOLITION & CONSTRUCTION

Existing and future development of the Shasta College campus includes, but is not limited to: buildings, structures and infrastructure (streets, driveways, pedestrian and bicycle paths, and utilities); and, where necessary, the demolition of existing improvements, renovation and construction of new improvements. **Figure 12 – Proposed Renovations, Building & Circulation Improvements** illustrates existing and proposed improvements assuming the *FMPI* is implemented. **Table 2 – Proposed Renovations, Buildings & Circulation Improvements** identifies the improvements shown in **Figure 12**. Note that neither **Figure 12** or **Table 2** identify existing or proposed utilities.

TABLE 2 PROPOSED RENOVATIONS, BUILDING & CIRCULATION IMPROVEMENTS	
Existing Buildings	20 Ft. Proposed Arterial Pathway
Proposed Building Construction	12 Ft. Proposed Collector Pathway
Proposed Future Buildings	6 Ft. Proposed Neighborhood Pathway
Proposed Future Building Site	Proposed Service Vehicle Path
Proposed Renovations	Dedicated Bicycle Pathway
Carport with Solar Power Generation	Separated Pedestrian & Bicycle Pathway
Existing Roadways	Joint Use Pedestrian & Bicycle Pathway
Future Roadways	Future Bicycle Pathway
Existing Parking Lots	Bike Parking
Future Parking Lots	Reclaimed Area
Landscaping	Public Transportation Stop
Framing Landscaping (Within 10-feet of edge)	

Figure 13 – Proposed Renovations, Buildings & Existing Utility Improvements identifies existing utility infrastructure improvements in addition to existing and proposed buildings, proposed renovations, landscaping and the carport with solar power generation assuming the *FMPI* is implemented.

Table 3 – Existing Utilities, Proposed Renovations, Building & Future Improvements identify the improvements shown in **Figure 13**. Neither **Figure 13** or **Table 3** identify proposed future utilities other than electrical vaults and conduits. As previously discussed under *Campus Fabric – Utilities*, **Figure 10 – Utilities Plan - Existing** and **Figure 13** identify the approximate existing utility routes throughout the campus. Replacement lines, where necessary, will be placed in sleeves, parallel existing lines, or will be bored underground to avoid removal or impacts on mature and healthy existing trees and/or other infrastructure.

Figure 10 – Utilities Plan – Existing and **Figure 11 – Land Uses – Proposed** are superimposed on each other to create **Figure 14** and **Table 4 – Proposed Land Uses and Existing Utilities**.

Implementation of the *FMPI* is predicated on funding availability which affects the phasing of the various construction activities and resultant improvements identified in the *FMPI*. All phasing and corresponding activities are subject to modification.

TABLE 3 EXISTING UTILITIES, PROPOSED RENOVATIONS, BUILDINGS & FUTURE IMPROVEMENTS	
Existing Buildings	Storm
Proposed Building Construction	Sewer
Proposed Future Building Site	Gas
Proposed Renovations	Irrigation
Carport with Solar Power Generation	Electrical Substations
Landscaping	Existing Vault
Framing Landscaping (Within 10-feet of edge)	Existing Conduit
Power	Existing SBS Vault
Water	Existing SBS Fiber
Technology	New Vault
Recycle/Trash	New Conduit

TABLE 4 PROPOSED LAND USES & EXISTING UTILITIES	
Academics	Water
Athletics	Technology
Buffer	Recycle/Trash
Childcare	Storm
Faculty Support Services	Sewer
Farming/Grazing	Gas
Housing	Irrigation
Parking & Vehicular Circulation	Electrical Substations
Potential Tree Mitigation Site	Existing Vault
Sewage Treatment Facilities	Existing Conduit
Solar	Existing SBS Vault
Student Life	Existing SBS Fiber
Power (Electric)	New Vault
	New Conduit

Table 5 – Buildings, Courtyards & Parking Lots Proposed for Demolition identifies the Key ID and/or Building ID, demolition phase, the proposed associated demolition and outside gross square footages. The *Northwest Parking Lot* demolition will not occur until there is a need for the student housing identified in **Table 8 – Proposed Future Building Sites**. This IS/MND will address the demolition of the various existing improvements identified in **Table 5**. However, the demolition of existing curbs, gutters or sidewalks and associated landscaping will not be addressed since their removal or modification is necessary to serve buildings and areas, to not only implement Pedestrian Circulation Campus Fabric improvements, but to also meet ADA standards. These features will be replaced or relocated to other areas to provide an accessible path of travel providing access for individuals with disabilities, including those using wheelchairs or mobility devices, to all accessible elements, such as buildings, athletic fields and other facilities, within the campus.

TABLE 5 BUILDINGS, COURTYARDS & PARKING LOTS PROPOSED FOR DEMOLITION				
Key ID	Building ID.	Demolition Phase	Building/Court/ Parking Lot	Outside Gross Sq. Ft.
PHASE I (2019-2020)				
52	4800	I	Farm Foreman Housing	1,890
PHASE II (2020-2030)				
50	2200	II	Business Education	13,183
PHASE I (POST 2030)				
51	5000	III	Security/Parking/M&O	4,388
17	2100	III	Extended Ed/General	14,985
23	5200	III	Equipment & Supply Storage	6,240
E	None	III	Tennis Courts	50,000
None	None	III	Basketball Court	21,000
Q	None	III	Northeast Parking Lot	58,500
Total				170,386

Table 6 – Buildings Proposed for Renovation, provides the phase, location, number of stories, outside gross square footage, disturbance area and an overview of the current and future uses for the buildings. This IS/MND does not address the proposed renovations of the various buildings since renovations are ministerial. The renovations are necessary to not only meet ADA accessibility requirements, but also to address health and safety deficiencies; improve sustainability features including but not limited to replacement of internal building components to reduce energy consumption; and to extend the life of the buildings. As previously discussed, campus buildings were designed for a 100-year life and are currently 52 years into that lifespan. The core structural elements are not an issue; however, internal components such as the heating/cooling and electrical distribution systems that were designed for a 35-year lifespan need replacement. Additionally, these buildings have not been able to keep up with the rapidly changing needs of the campus instructional programs. Most of the buildings are in need of remodeling and/or reconfiguration in order to best serve the requirements of the current programs. There are several buildings shown in **Table 6 – Buildings Proposed for Renovation** whose Key ID is followed by an asterisk. This is to indicate that the buildings are not identified for *Proposed Building Construction* in **Figure 5 – Building Fabric – Proposed** since the buildings will be remodeled, albeit very lightly.

Table 7 – Buildings Proposed for New Construction identifies the significant new construction projects associated with the *FMP1*. Construction of the *Athletic Field House with Restrooms* (Key ID. 57) did not undergo CEQA environmental clearance since it was constructed within a significantly graded disturbed area and was statutorily exempt as a ministerial project necessitating only review by the State of California Division of the State Architect (DSA). The *Athletic Field House* is included in **Table 7** to note that the building was identified in **Figure 5 – Building Fabric – Proposed**. **Table 7** also identifies the construction of the previously referenced *Campus Safety Storage Building* (Key ID. 61). This building is to be located approximately 75-feet south of the *Campus Safety Building* and the *Storage Building* is a component of the overall *Campus Safety* facility.

Environmental issues for buildings proposed for new construction in **Table 7**, except for the *Athletic Field House with Restrooms* (Key ID. 57) and the *Veterans Support & Success Center* (Key ID. 54, Building 100A), are addressed in this IS/MND to receive environmental clearance for their construction and improvement of associated surrounds such as pedestrian pathways, landscaping, and vehicular access and parking, where applicable. Where specific information is not currently known, or available, environmental issues associated with potential significant impacts and mitigation measures, if applicable, will be addressed programmatically for CEQA purposes.

TABLE 6 BUILDINGS PROPOSED FOR RENOVATION							
Key ID.	Building ID.	Building	Current Use	Future Use	Outside Gross Sq. Ft.	Stories	Disturbance Area Sq. Ft.
PHASE I (2019 – 2020)							
4	1300	Electronics/CADD	GIS/Engineering/Geography	GIS/Engineering/Geography/ Business	8,518	1	8,518
42	6500	Museum ⁴	Museum	Campus Safety	3,178	1	47,916
Subtotal					11,696		56,429
PHASE II (2021 – 2025)							
3	1400	Physical Science	Physical Science	Physical Science	16,052	1	16,052
2	1600	Life Science	Life Science	Life Science	15,817	1	15,817
1	200	Library	Library	Library/Learning Commons	40,914	2	20,457
14	700	Learning Center	Learning Center/Technology	Administration/ Technology	20,357	2	10,179
16	100	Administration/Student Services	Administration/Student Services	Student Services	18,500	1	18,500
19*	2300	Bookstore	Bookstore	Student Services Support	9,480	1	9,480
9	800	Social Science	Social Science	Social Science	20,135	1	20,135
8*	900	Office Building	Office Building	Office Building	3,520	1	3,520
7	1100	Math/Engineering	Math	Math	9,357	1	9,357
Subtotal					154,132		123,497
PHASE III (2026 – 2030)							
5	1200	Agriculture	Agriculture	Agriculture	8,814	1	8,814
15	300	Arts	Arts	Arts	16,740	1	16,740
12*	400	Humanities	Humanities	Humanities	2,873	1	2,873
11*	500	Theater	Theater	Theater	23,136	1	23,136
10*	600	Music	Music	Music	12,640	1	12,640
21	1800	Physical Education	Physical Education	Physical Education	23,970	1	23,970
20	1900	Gymnasium	Gymnasium	Gymnasium	24,691	1	24,691
18	2000	Campus Center	Student Center	Student Center	32,968	2	16,484
Subtotal					145,832		129,348
Total					311,660		309,274

* To be slightly renovated.

⁴ The District determined the need to proceed with the Museum conversion to the Campus Safety Building before this IS/MND was adopted. Therefore, a Categorical Exemption was obtained for the necessary CEQA environmental clearance for not only the *Museum* conversion, but for the removal of two pole “barns” of 555 and 1,458-square feet and a 286-square foot storage building. The *Museum* site is approximately 47,916-square feet (1.1-acre). In addition, the Categorical Exemption addressed the development of a new parking lot and the future construction of an approximate 8,250-square foot *Campus Safety Storage Building* identified in **Table 7 – Building Proposed for New Construction** (Key ID 61, Building 6500A).

TABLE 7 BUILDINGS PROPOSED FOR NEW CONSTRUCTION						
Key ID.	Building ID.	Phase	Building	Outside Gross Sq. Ft.	Stories	Disturbance Area Sq. Ft.
57	5100	I	Athletic Field House with Restrooms	1,920	1	1,920
54	100A	I	Veterans Support & Success Center*	3,000	1	3,000
29	2700	I	Career Technical Education (CTE)	7,500	1	7,500
60	2700A	I	CTE Storage	4,500	1	4,500
61	6500A	I	Campus Safety Storage Building*	8,250	1	N/A ⁵
27	1350	II	Computer Information Systems (CIS)	12,000	1	12,000
6	1000	III	Classrooms	18,000	1	18,000
Total				55,170		46,920

* CEQA environmental clearance already obtained

Per *CEQA Guidelines Section 15168*, as applicable, “a program EIR (ND) is a ND which may be prepared on a series of actions that can be characterized as one large project and are related either:

- Geographically,
- A logical parts in the chain of contemplated actions,
- In connection with issuance of rules, regulations, plans, or other general criteria to govern the conduct of a continuing program, or
- As individual activities carried out under the same authorizing statutory or regulatory authority and having generally similar environmental effects which can be mitigated in similar ways.

Use of a program ND can provide the following advantages. The program ND can:

- Provide an occasion for a more exhaustive consideration of effects and alternatives than would be practical in a ND on an individual action,
- Avoid duplicative reconsideration of basic policy considerations,
- Allow the Lead Agency to consider broad policy alternatives and program wide mitigation measures at an early time when the agency has greater flexibility to deal with basic problems or cumulative impacts, and
- Allow reduction in paperwork.

Subsequent activities in the program must be examined in the light of the program EIR (ND) to determine whether an additional environmental document must be prepared. If a later activity would have effects that were not examined in the program ND, a new Initial Study would need to be prepared leading to either an EIR or a ND. If the agency finds that no new effects could occur, or no new mitigation measures would be required, the agency can approve the activity as being within the scope of the project covered by the program ND, and no new environmental document would be required. An agency should incorporate feasible mitigation measures and alternatives developed in the program ND into subsequent actions in the program.”⁶

Table 8 – Proposed Future Building Sites identifies the future sites shown in **Figure 5 – Building Fabric – Proposed**. Three of the four buildings are proposed as Phase IV projects to be constructed Post 2030. Due to the lack of specific design, other than a general site location, environmental issues associated with the proposed future building sites are addressed programmatically.

⁵ The Disturbance Area square footage is included as part of the Museum renovation to a *Campus Safety Building* (Key ID 42, Building 6500) in **Table 6 – Buildings Proposed for Renovation**.

⁶ Title 14, California Code of Regulations, Chapter 3, Guidelines for Implementation of the California Environmental Quality Act, Article 11, Types of EIRs (NDs), Section 15168.

TABLE 8 PROPOSED FUTURE BUILDING SITES			
Key ID	Phase	Building	Outside Gross Sq. Ft.
52	II	Farm Classroom	2,500
13	IV	Music/Theater/Lecture	46,400
22	IV	Gymnasium #2	40,320
55	IV	Two Dormitory Buildings	54,000
Total			143,220

The following actions are proposed for Phase I *FMPI* implementation (2019-2020):

- Demolition of one building totaling 1,890 square feet
- Renovation of two buildings totaling 11,696 square feet
- Renovation land disturbance of two building areas totaling 56,429 square feet
- New construction of five buildings totaling 25,170 square feet
- New construction land disturbance of four building sites totaling 16,920 square feet

The following actions are proposed for Phase II *FMPI* implementation:

- Demolition of one building totaling 13,183 square feet (2021-2030)
- Renovation of nine buildings totaling 154,132 square feet (2021-2025)
- Renovation land disturbance of nine building areas totaling 123,497 square feet (2021-2025)
- New construction of one building totaling 12,000 square feet (2021-2030)
- New construction land disturbance of two building sites totaling 14,250 square feet (2021-2025) ⁷

The following actions are proposed for Phase III *FMPI* implementation:

- Demolition of three buildings totaling 25,613 square feet (Post 2030)
- Demolition of two athletic courts totaling 71,000 square feet (Post 2030)
- Demolition of a portion of a parking lot totaling 58,500 square feet (Post 2030)
- Renovation of eight buildings totaling 145,832 square feet (2026-2030)
- Renovation land disturbance of eight building areas totaling 129,348 square feet (2026-2030)
- New construction of one building totaling 18,000 square feet (Post 2030)
- New construction land disturbance of one building site totaling 18,000 square feet (Post 2030) ⁸

The following actions are proposed for Phase IV *FMPI* implementation:

- Proposed future building sites totaling 132,969 square feet (Post 2030)

Overall actions are the following:

- Demolition of five buildings totaling 40,686 square feet
- Demolition of two athletic courts totaling 71,000 square feet
- Demolition of a portion of a parking lot totaling 58,500 square feet
- Renovation of 19 buildings totaling 311,660 square feet
- Renovation land disturbance of 19 building areas totaling 309,274 square feet
- New construction of seven buildings totaling 55,170 square feet
- New construction land disturbance totaling 46,920 square feet
- Four proposed future building sites totaling 132,969 square feet

⁷ Land disturbance already occurred as part of the renovation of the Campus Safety Building site.

⁸ Land disturbance will already have occurred as part of the renovation of the Campus Safety Building site.

The after demolition effect of implementing the *FMPI* will be to:

- Reduce the existing 83 buildings on campus by five resulting in 78 buildings
- Reduce the existing building square footage of 495,000 square feet to approximately 454,314 square feet
- Renovate approximately 311,660 square feet (68.6 percent) of the remaining 454,314 building square footage after demolition of five buildings

The new construction effect of implementing *FMPI* will be:

- New construction will increase the number of buildings to 85, or two more than existed before demolition.
- New construction will increase the 454,314 square feet of buildings after demolition by 55,170 to 509,484 square feet, an actual increase of 14,484 square feet over the existing 495,000 square feet before demolition
- If the future Phase IV building sites were to ever be constructed, the 509,484 square feet will be increased by 132,969 to 642,453 square feet, a 26.1 percent increase. However, it would be speculative to ascertain when the buildings would be constructed.

8. OTHER AGENCIES WHOSE APPROVAL IS, OR MAY BE REQUIRED: (e.g. Permits, financing approval or participation agreement.)

- Shasta County Air Pollution Control District (Adherence to District Rules including an Authority to Construct and Permit to Operate)
- California Department of Fish & Wildlife (1602 Streambed Alteration Agreement or Water of the State)
- Central Valley Regional Water Quality Control Board (Clean Water Act Section 401 Water Quality Certification)
- State of California Division of the State Architect (Review of all student occupiable buildings)
- U.S. Army Corps of Engineers (Waters of the U.S. permits)

9. ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED: Aesthetics, biological resources including wetlands and other waters of the State or United States, cultural resources, hydrology and water quality, and tribal cultural resources could be potentially affected by the Project; however, mitigation measures in the Initial Study have been incorporated into the proposed Project so that there are *No Potentially Significant Impacts* as indicated by the ensuing Initial Study checklist.

10. ENVIRONMENTAL DETERMINATION: On the basis of this Initial Study, I find that the proposed Project will not have a significant effect on the environment; therefore, a **MITIGATED NEGATIVE DECLARATION** is proposed to be prepared.

Signature: _____ **Date:** _____
Morris Rodrigue
Assistant Superintendent/V.P. of Administrative Services

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EVALUATION OF ENVIRONMENTAL IMPACTS

This section discusses potential environmental impacts associated with approval of the proposed CEQA Initial Study/Mitigated Negative Declaration for the *Shasta College Facilities Master Plan Amendment One (FMPI) Project*.

The following guidance, adapted from *Appendix G* of the State *CEQA Guidelines*, as amended in 2017 was used to answer the checklist questions:

1. A brief explanation is provided for all answers except “No Impact” answers that are adequately supported by the information sources the District as lead agency cites following each question. A “No Impact” answer is adequately supported if the referenced information sources show that the impact simply does not apply to projects like the one involved (e.g., the project falls outside a fault rupture zone). A “No Impact” answer is explained where it is based on project-specific factors as well as general standards (e.g., the project will not expose sensitive receptors to pollutants, based on a project-specific screening analysis).
2. All answers take into account the whole action involved, including off-site as well as on-site, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts.
3. Once the District has determined that a particular physical impact may occur, then the checklist answers indicate whether the impact is potentially significant, less than significant with mitigation, or less than significant. "Potentially Significant Impact" is appropriate if there is substantial evidence that an effect may be significant. If there are one or more "Potentially Significant Impact" entries when the determination is made, an EIR is required. However, for this Project, the District does not identify any “Potentially Significant Impacts.”
4. "Negative Declaration: Less Than Significant with Mitigation Incorporated" applies where the incorporation of mitigation measures has reduced an effect from "Potentially Significant Impact" to a "Less Than Significant impact." The District describes the mitigation measures, and briefly explains how they reduce the effect to a less than significant level (mitigation measures from "Earlier Analyses" may be cross-referenced).
5. “Earlier Analyses” is used where, pursuant to the tiering, program EIR, or other CEQA process, an effect has been adequately analyzed in an earlier EIR or negative declaration. (Section 15063(c)(3)(D)). In this case, a brief discussion should identify the following:
 - a) “Earlier Analysis Used.” Identifies and states where they are available for review.
 - b) “Impacts Adequately Addressed.” Identifies which effects from the above checklist were within the scope of and adequately analyzed in an earlier document pursuant to applicable legal standards, and states whether such effects were addressed by mitigation measures based on the earlier analysis.
 - c) “Mitigation Measures.” For effects that are "Less than Significant with Mitigation Measures Incorporated," the mitigation measures which were incorporated or refined from earlier documents and the extent to which they address site-specific conditions for the Project are described.
6. The District, as lead agency, incorporates into the checklist references to information sources for potential impacts (e.g., general plans, zoning ordinances). Reference to a previously prepared or

outside document, where appropriate, includes a reference to the page or pages where the statement is substantiated.

7. **Supporting Information Sources:** A source list is provided, and other sources used, or individuals contacted, are cited in the discussion.
8. The explanation of each environmental issue identifies:
 - a) the significance criteria or threshold, if any, used to evaluate each question; and
 - b) the mitigation measure identified, if any, to reduce the impact to less than significant.

Issues	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
I. AESTHETICS <i>Would the project:</i>				
a. Have a substantial adverse effect on a scenic vista?				X
b. Substantially damage scenic resources, including but not limited to trees, rock outcroppings, and historic buildings within a state scenic highway?				X
c. Substantially degrade the existing visual character or quality of the site and its surroundings?		X		
d. Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?			X	

Existing Environmental Setting: The most visible and unifying element of the 337-acre campus aesthetic, or visual character, is its distinctive mature oak woodlands tree canopy and associated habitat providing buffers along Old Oregon Trail to the west (30-acres), north of Shasta College Drive (North) (15-acres), and the 18.3-acre *RPSTF* study area, and to a limited degree along the southwestern and southeastern (8- and 10-acres, respectively) boundaries along SR-299 (to the west along Old Oregon Trail and the east along West Stillwater Creek).

The campus core is essentially bounded by Shasta College Drive beginning at northern terminus at Old Oregon Trail, proceeding east south of *RPSTF* and north of the *North Parking Lot* and *Tennis Courts*, then south between the tennis courts and Plant Maintenance facilities, then further south between the East Parking Lot and agricultural fields, then west to Old Oregon Trail. The eastern portion of the campus, an area of approximately 125-acres, is devoted principally to agricultural educational uses with open fields, except for an approximate 10-acre oak woodland canopy and habitat in the southeastern portion previously noted.

As previously noted, the existing campus architecture cannot be coupled to a specific architecture style. Nonetheless, with a few exceptions, the campus does have a cohesive feel due to a combination of strong architectural elements that tie the fabric of the campus together. Reinforcing the architectural elements that tie the fabric of the campus together is the existing circulation system. Shasta College students and employees use roads, service roads, walkways, and bicycles along the existing roadway and pathway system. Five large parking lots are generally located around the periphery of the campus core facilitating access to the various educational and administrative buildings, athletic, security and service facilities.

The mature trees and agricultural fields provide visual and aesthetically pleasing features many of which will be retained by the *FMPI*. Interior Live oak and Blue oak is the dominant tree species in the Oak woodland community that forms a nearly continuous canopy cover over much of the Oak woodland habitat areas. Valley oaks, Gray pines, Ponderosa pines and Non-native ornamental trees are interspersed throughout. These stands of trees will be retained to the maximum extent feasible by the District as visual screens for receptors on all sides of the campus facilities. The underlying lawn groundcover located throughout the campus is no longer watered for water conservation purposes. While this may not be considered aesthetically pleasing by many, the recent drought and the State of California Division of the State Architect (DSA) required a reduction in outdoor water use for landscape irrigation by community colleges. To reduce landscaping water usage, the College is in the process of eliminating non-native (ornamental) trees, grass turf areas, and shrub beds that use over two acre-feet of water per year. These uses are either being converted to hardscape landscape features or reverting to native vegetation.

Shasta College is committed to improving campus aesthetics with regards not only to building design, but also to maintaining and replacing mature trees, either individually throughout the campus, or by planting in groves. When necessary, healthy and mature trees will be replaced. In addition to being aesthetically pleasing, “the roots of trees, shrubs, grasses, and groundcovers trap and filter dust and other pollutants found in rainwater. This is not only important to the plants for the nutrients they absorb, but also to prevent these pollutants from becoming a source of water pollution. According to one study, one tree can remove up to 26 pounds of carbon dioxide from the atmosphere annually. This amounts to 11,000 miles of car emissions! The same roots that filter pollutants are also responsible for stabilizing soil and being a great source of erosion control. Large shade trees help to control temperature extremes and keep property cooler in the summer and warmer in the winter, decreasing energy usage. Vegetation provides a natural refuge for wildlife. Deer, birds, insects, squirrels, rabbits, and other wildlife use trees and shrubs as protection from predators and a source of shelter and food year round.”⁹

Discussion of Checklist Answers:

- a. *Have a substantial adverse effect on a scenic vista?*
- b. *Substantially damage scenic resources, including but not limited to trees, rock outcroppings, and historic buildings within a state scenic highway?*

The Project site location is the main Shasta College Campus. Due to the location of the campus, there exist no scenic vistas or resources, particularly along SR-299 which is not a state scenic highway, that would be significantly impacted by the proposed Project. There is ***no impact*** on scenic vistas or resources.

- c. *Substantially degrade the existing visual character or quality of the site and its surroundings?.*

The issue of aesthetics can be extremely subjective; however, there are accepted standards that most of the public can agree on, particularly when related to building design and construction. Standards address view obstructions, needless removal of trees, “scarring” from grading, landscaping, sign clutter and street lighting. Another important criterion for visual impacts is visual consistency. Project design should be consistent with natural surroundings and adjacent land uses. For example, a residential development might contrast visually with an industrial facility. Such incompatibilities can be partially mitigated through implementing measures such as fences and landscaping; to soften the harshness of the contrasts.

The demolition of the various existing buildings, athletic facilities and parking lot identified in ***Table 5 – Buildings, Courtyards & Parking Lots Proposed for Demolition*** will result in the uses identified in ***Table A-1 – Existing & Future Uses Due to Demolition***.

TABLE A-1 EXISTING & FUTURE USES DUE TO DEMOLITION		
Building/Court/ Parking Lot	Outside Gross Sq. Ft.	Future Uses
Farm Foreman Housing	1,890	Open Space & Outside Storage
Business Education	13,183	Pathways & Landscaping
Security/Parking/M&O	4,388	Pathways & Landscaping
Extended Ed/General	14,985	Pathways & Landscaping
Equipment & Supply Storage	6,240	Gymnasium #2
Tennis Courts (8)	50,000	Northeast Parking Lot & Shasta College Drive Realignment
Basketball Courts (3)	21,000	Northeast Parking Lot & Shasta College Drive Realignment
Northeast Parking Lot	58,500	Tennis Courts (8) & Shasta College Drive Realignment

⁹ Element Outdoor Living. Web link <http://www.element-outdoorliving.com/environmental-benefits-landscaping>

The basic aesthetic and visual character of the buildings, facilities and infrastructure to be demolished will result in an improved vehicular and pedestrian circulation and parking system with associated landscaping that meets ADA requirements, or results in the “relocation” of those uses to be demolished. An example is the existing *Northeast Parking Lot* which is to be replaced with new *Tennis Courts* and the realignment of Shasta College Drive, both of which are in close proximity to the existing use. Potential aesthetic impacts resulting from demolition activities are considered *less than significant* since replacement uses will be aesthetic and functional improvements.

The construction of the various existing buildings identified in *Table 7 – Buildings Proposed for New Construction* will result in the uses identified in *Table A-2 – Existing & Future Uses Due to New Construction*.

TABLE A-2 EXISTING & FUTURE USES DUE TO NEW CONSTRUCTION		
Building	Outside Gross Sq. Ft.	Existing Use
Career Technical Education (CTE)	7,500	Building & Outside Storage, Landscaping
CTE Storage	4,500	Parking, Electrical Equipment & Outside Storage
Computer Information Systems (CIS)	12,000	Landscaping
Classrooms	18,000	Landscaping

The *CIS* and *Classrooms Buildings* will be constructed in areas which contain mature trees with underlying lawn groundcover that is no longer watered for water conservation purposes. It is the intent of the District Board to have these areas remain as such into the future. Both buildings are located within the developed core area of the campus. Overall, views of and from the proposed buildings will be obstructed, but not adversely since existing buildings and the *Carport with Solar Power Generation* already obstruct existing views. However, views from the north of the *CIS Building* will not be limited. Future tree plantings between Shasta College Drive and the building will soften views to and from the building.

The *CIS Building* will be one-story and constructed between two existing parking areas to the east and west and Shasta College Drive, approximately 75-feet to the north. The *East Parking Lot* where the *Carport with Solar Power Generation* is being constructed is located approximately 110-feet to the southeast.

The one-story *Classrooms Building* will be located between the aforementioned *East Parking Lot* approximately 100-feet to the east, and the existing *Office Building* (Key ID. 8, Building 900) approximately 50-feet to the west. However, the existing open space landscaped area between the proposed *Classrooms Building* and the *East Parking Lot* will remain as an approximate 100-foot wide buffer area.

The greatest aesthetic and visual impact that these buildings will have is due to the removal of existing mature oaks and ornamental trees. The *CIS Building* and associated pathways will require the removal of approximately 16-Non-Native ornamental trees and 7 Valley oaks. The *Classrooms Building* and associated pathways will result in the removal of approximately 5-Non-Native ornamental trees, 1-Blue oak, 1-Valley oak and 1-Native tree.

However, implementation of a portion of *Biological Resources Mitigation Measure BR-2* which reads as follows, will reduce aesthetic and visual impacts resulting from tree removal to a *less than significant* level.

- *Shasta College shall offset the unavoidable loss of oak woodland habitat and the unavoidable loss of native trees within the urban landscape through replacement tree planting. Oak woodland habitat shall be replaced at a minimum 1:1 ratio on an acreage basis. Alternatively, if mitigation is proposed on an individual tree basis (whether within the oak woodland or urban landscape), mitigation shall occur at a minimum 3:1 ratio. A vegetation planting and management plan shall be prepared by a certified arborist or the College Horticulturist prior to tree removal. The plan shall identify the number of native trees (by species, size, and health) or the acreage of oak woodland to be removed, and identify the mitigation planting area size and location, mitigation site protections (e.g., conservation easement or deed restrictions), planting objectives in terms of acreage or number of plants by species, planting and maintenance methods, success criteria, duration of monitoring, corrective actions to be taken if success criteria are not met, and reporting requirements. The planting plan shall provide for in-kind mitigation; i.e., the trees to be planted shall be of the same species as those removed. Planting shall occur at one of the designated tree mitigation sites previously identified by the College (**Figure 14 – Proposed Land Uses & Existing Utilities**) or as close to the project site as possible. If replacement planting occurs on an individual tree basis within the urban landscape, the replacement trees shall be at least of the 15-gallon size.*

Construction on the sites identified in **Table 8 –Proposed Future Building Sites** will result in the new uses on existing sites identified in **Table A-3 – Future Building Sites Proposed On Existing Uses**. Since only the square footage of the future buildings is known at this stage and no design details have been provided, evaluation to determine impacts are programmatic.

For all the building sites and potential future buildings, the design of the buildings, associated materials and finishes, and landscaping will adhere to the *FMPI Design Guidelines*. Building height is not a concern due to the location of the building sites within the campus core. Furthermore, there are no scenic vistas that would be impacted. There are also no existing residences whose views would be impacted by the building(s) mass, heights, or forms due to the significant distance of the sites from the nearest residences and the mature tree buffers along Old Oregon Train and West Stillwater Creek.

TABLE A-3 FUTURE BUILDING SITES PROPOSED ON EXISTING USES		
Building Site	Outside Gross Sq. Ft.	Existing Use
Farm Classroom	2,500	Outside Storage, Landscaping
Music/Theater/Lecture (Replacement)	46,400	Music/Theater/Lecture
Gymnasium #2	40,320	Equipment & Supply Storage, Landscaping
Two Dormitory Buildings	54,000	North Parking Lot

The *Farm Classroom Building Site* is proposed to be located in an area where the existing *Farm Foreman Housing* is proposed for demolition. Building height is not a concern due to the location of the site near educational agricultural operations and the *Wastewater Treatment Facilities*. No scenic vistas would be impacted. The design of the building, associated materials and finishes, and landscaping will adhere to the *FMPI Design Guidelines*.

The building site is located in an area that currently contains outside storage of agricultural and wastewater treatment equipment and is not considered aesthetically pleasing except for its relative open space value. Mature trees are comprised of 3-Interior Live oaks, 1-Black oak, 4-Valley oaks and 13-Native trees located to the northwest of the building site which can be avoided with careful site planning. However, if trees are removed, their replacement will be in accordance with **Biological Resources Mitigation Measure BR-2**. Given the nature of the existing site and

implementation of mitigation measures should trees be removed, potential impacts associated with the future *Farm Classroom Building* are considered ***less than significant***.

The future site for the future replacement of the existing *Music/Theater/Lecture Building Site* is approximately 100-feet south of the existing *Music/Theater/Lecture Building*. The design of the building, associated materials and finishes, and landscaping will adhere to the *FMP1 Design Guidelines*. The building site is located in the northern end of the existing *South Parking Lot* where approximately 50-parking spaces will be removed in addition to approximately 15-relatively young Non-native trees. The building site identifies the potential removal of another 8-Non-native trees and possibly 1-Blue oak. Their replacement will be in accordance with ***Biological Resources Mitigation Measure BR-2***.

Views to and from the building site are similar to what currently exists, except that the building site is approximately 200-feet closer to Shasta College Drive (South), where currently the distance is approximately 450-feet from Shasta College Drive (South). Given the nature of the existing site and implementation of mitigation measures for trees to be removed, potential impacts associated with the future *Music/Theater/Lecture Building Site* are considered ***less than significant***.

The *Gymnasium #2 Building Site* is proposed to be partially located where the existing *Equipment & Supply Storage Building* (Key ID. 23, Building 5200) and a western portion of the *Tennis Courts* are currently located. Both facilities are proposed for demolition. There is an existing grove of mature trees that are generally located between Shasta College Drive to the north, the existing *Equipment & Supply Storage Building* to the east, the existing *Physical Education Building* (Key ID. 21, Building 1800) to the south and the *North Parking Lot* (Key ID N) to the west. The grove is predominantly comprised of approximately 33-Blue oaks, 53-Interior Live oaks, and 5-Grey Pine trees. Construction of *Gymnasium #2* appears to impact approximately 7-Blue oak and 10-Live oak trees. Tree replacement will be in accordance with ***Biological Resources Mitigation Measure BR-2***.

Two Dormitory Building Sites are proposed to be located approximately 200-feet west of the existing *Equipment & Supply Storage Building* (Key ID. 23, Building 5200) and approximately 100-feet west of the *Gymnasium #2 Building Site*. The building sites will encroach into the eastern portion of the *North Parking Lot* and result in the removal of approximately 52 parking spaces. However, these parking spaces will be replaced with the construction of the proposed *Northeast Parking Lot* with approximately 349 spaces that will replace not only the current 137 parking spaces in the *Northeast Parking Lot* that are proposed to be demolished in the Post 2030 Phase, but also these 52 parking spaces also to be demolished. Therefore, the 189 parking spaces removed will be replaced by the 349 spaces proposed in the future *Northeast Parking Lot*.

Overall, the actions proposed for implementation of the *FMP1* will reinforce the visual character and quality of the campus with renovated and new educational and support facilities. Whereas, the greatest impact on aesthetics is the removal of mature trees, in particular Oak woodlands, which could degrade the existing visual character or quality of the site and its surroundings, implementation of mitigation measures to replace trees removed will reduce impacts to a ***less than significant*** level.

- d. *Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area.*

Impacts of light and glare are considered potentially significant if the following criteria are met:

- The light and/or glare is continuous, rather than temporary in nature (example: a continuous stream of cars or regular pattern of lighting vs. occasional passing headlights).

- The level of light and/or glare is noticeably higher than the surrounding ambient level of light.
- The light and/or glare have the potential to shine directly into the interior and/or outdoor activity areas of existing or future residences.
- The size of the affected parcels (larger parcels offer greater siting flexibility).

Construction of the proposed buildings and associated facilities would result in the introduction of new sources of nighttime light. However, the closest proposed construction would be the *Two Dormitory Building Sites* which are located approximately 2,300 feet to the nearest residence west of Old Oregon Trail. In addition, topography and tree cover between the building site and the residence serves to buffer any visual impacts.

Since the new light sources for the majority of the proposed buildings and improvements are essentially replacement lighting, the greater overall level of light at night will not result in a reduction in night sky visibility. Stationary light sources have the potential to adversely affect adjacent properties through a “spillover” effect; however, as previously noted, residences in the vicinity of the Project site that may be impacted are at a significant distance from the proposed buildings and associated activities. There is *less than significant impact* associated with lighting and glare due to the existing lighting conditions in the area before and after Project development.

Temporary lighting may be used during the construction phase if necessary, but the level of lighting will be insignificant compared to the existing area lighting levels at night and due to the short-term construction period of the Project’s components. This potential impact is *less than significant*.

Conclusion: The nature and location of the proposed buildings and improvements within the existing campus and the preservation of existing tree stands and their replacement through mitigation will be incorporated into the final building and facilities design serving to reduce potential aesthetic and visual resource impacts to a *less than significant* level.

Issues	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
II. AGRICULTURAL AND FORESTRY RESOURCES <i>In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. Would the project:</i>				
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?				X
b. Conflict with existing zoning for agricultural use, or a Williamson Act contract?				X
c. Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)) or timberland (as defined in Public Resources Code section 4526)?				X
d. Result in the loss of forest land or conversion of forest land to non-forest use?				X
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?				X

Existing Environmental Setting: As previously discussed, *Farming and Grazing Land Use* and the associated *Agricultural Neighborhood* are an integral component of the Shasta College Campus Fabric and will remain as such through implementation of the *FMP1*.

The U.S. Natural Resources Conservation Service has a soil classification system referenced as a Land Capability Class System of I through VII. Soil classes I and II are considered to be of prime agricultural significance and are referenced as prime agricultural soils. Many communities throughout the state strive to preserve these soils, to the maximum degree feasible, since they are a natural resource that support crop

production and other agricultural related operations, such as the educational benefits derived from the College's agriculture curriculum. Other indirect benefits from maintaining the agricultural landscape include sustaining the protection of watersheds and natural drainage courses. It is also important to recognize the aesthetic values of agricultural and grazing lands that provide productive, maintained open space which contributes to an open and natural landscape as evidenced in parts of the campus.

The State of California, in an effort to preserve prime agricultural land offers a property tax incentive pursuant to the California Land Conservation Act of 1965 (Williamson Act) whereby the landowner of prime agricultural land may receive a property tax advantage in exchange for entering into a contract to maintain the land in agricultural use for at least ten years.

Farming and Grazing Land Use encompasses approximately 127-acres that includes approximately 10-acres of agricultural operation facilities generally located in the eastern and northern portions of the campus. The eastern area is primarily comprised of Class I and II soils. The entire Shasta College Campus is classified in the Shasta County General Plan as *Public Facilities* and zoned likewise. Furthermore, the land is not under Williamson Act contract.

- a. *Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on Farmland Mapping and Monitoring Program Maps to non-agricultural use?*
- b. *Conflict with existing zoning for agricultural use, or a Williamson Act contract?*

The *Farmland Mapping and Monitoring Program* is a farmland classification system for *Important Farmland* that is administered by the California Department of Conservation. The system classifies agricultural land according to its soil quality and irrigation status. The best quality agricultural land is *Prime Farmland* which is land that has the best combination of physical and chemical characteristics for the production of crops. It has the soil quality, growing season, and moisture supply needed to produce sustained high yields of crops when treated and managed according to current farming methods. The land must have been used for production of irrigated crops at least sometime during the two crop cycles prior to the mapping date.

Based on a review of the *Important Farmland Overlay* for Shasta County, which covers the Project area, no prime or unique farmlands were identified within or directly adjacent to the College. The land and surrounding area are mapped as *Other Land*. *Other Land* "is land not included in any other mapping category. Common examples include low density rural developments, brush, timber, wetland, and riparian areas not suitable for livestock grazing, confined livestock, poultry, or aquaculture facilities, strip mines, borrow pits, and water bodies smaller than 40 acres. Vacant and nonagricultural land surrounded on all sides by urban development and greater than 40 acres is mapped as *Other Land*."¹⁰ There is **no impact** on Farmland and no conflict with existing zoning for agricultural use, or a Williamson Act contract.

- c & d. *Conflict with existing zoning for, or cause rezoning of, forest land or timberland or result in the loss of forest land or conversion of forest land to non-forest use.*

The Project site area is not forest or timberland and therefore, there is **no impact**.

- e. *Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland and forest land, to non-agricultural or non-forest use.?*

The Project site area is not Farmland or forest land and therefore, there is **no impact**.

¹⁰ California Department of Conservation, Division of Land Resource Protection Farmland Mapping and Protection Program. *Shasta County Important Farmland 2016*

Conclusion: There are *no impacts* on agricultural and forest resources and/or operations resulting from implementation of the Project.

Issues	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
III. AIR QUALITY. <i>Would the project:</i>				
a. Conflict with or obstruct implementation of the applicable air quality plan?			X	
b. Violate any air quality standard or contribute to an existing or projected air quality violation?			X	
c. Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?			X	
d. Expose sensitive receptors to substantial pollutant concentrations?			X	
e. Create objectionable odors affecting a substantial number of people?			X	

Existing Environmental Setting: The Project area is located in the Northern Sacramento Valley Air Basin (NSVAB) which is one of the air “sub-basins” within the Sacramento Valley Air Basin. The other sub-basin is the Greater Sacramento Air region. The NSVAB encompasses Shasta, Tehama, Glenn, Butte, Colusa, Sutter, and Yuba counties. The basin’s principal geographic features include a large valley bounded on the north and west by the Coastal Mountain Range and on the east by the southern portion of the Cascade Mountain Range and the northern portion of the Sierra Nevada. The basin is about 200 miles long in a north-south direction, and has a maximum width of about 150 miles, although the valley floor averages only about 50 miles in width. The mountain ranges reach heights in excess of 6,000 feet with peaks rising much higher. The general elevation of the Project site is about 650 feet above mean sea level.

The area climate is characterized by hot, dry summers and cool, wet winters. During the summer months from mid-April to mid-October, significant precipitation is unlikely, and temperatures range from daily maximums exceeding 100° Fahrenheit (°F) to evening lows in the high 50s and low 60s. During the winter, highs are typically in the 60s with lows in the 30s. Wind direction is primarily along the valley due to the channeling effect of the mountains to either side of the valley. During the summer months, surface air movement is from the south, particularly during the afternoon hours. During the winter months, wind direction is more variable.

The quantity of air pollutant emissions generated within the NSVAB is small compared to the more densely populated areas such as the Sacramento and the San Francisco Bay areas. Nevertheless, the following characteristics of the NSVAB make it susceptible for the build-up of air pollution.

- Pollution generated in the broader Sacramento area and San Francisco Bay area can be transported northward into the *NSVAB*.
- The mountain ranges to the west, north, and east of the *NSVAB* act as horizontal barriers which restrict the flow of pollution out of the basin.

- The valley portion of the *NSVAB* (those areas below 1,000 feet elevation) is often subjected to temperature inversions that typically occur during cool, calm nights that restrict vertical mixing and dilution of pollutants.
- The typical clear skies and warm temperatures in the summer months promote the formation of the photochemical pollutant ozone.

The U.S. Environmental Protection Agency (USEPA), under the federal Clean Air Act (CAA), establishes maximum ambient concentrations for seven criteria air pollutants (CAPs). These maximum concentrations are known as the National Ambient Air Quality Standards (NAAQSs). The seven CAPs are ozone (O₃), carbon monoxide (CO), nitrogen dioxide (NO₂), sulfur dioxide (SO₂), respirable particulate matter (PM₁₀), fine particulate matter (PM_{2.5}), and lead (Pb).

The California Air Resources Board (CARB), under the California CAA, establishes maximum concentrations for the seven federal CAPs, as well as four additional air pollutants: visibility-reducing particles, sulfates, hydrogen sulfide (H₂S), and vinyl chloride (chloroethene). These maximum concentrations are known as the California Ambient Air Quality Standards (CAAQSs).

In addition to the CAAQSs, Toxic Air Contaminants (TACs) are also regulated under the California CAA. There are presently over 200 chemicals listed by the State as TACs with varying degrees of toxicity. TACs can cause long-term health effects (e.g., cancer, birth defects, neurological damage, etc.) or short-term acute effects (e.g., eye irritation, respiratory irritation, throat pain, headaches, etc.). Sources of TACs include industrial processes, commercial operations (e.g., gasoline stations and dry cleaners), grading and demolition of structures (asbestos), and diesel-motor vehicle exhaust. There are no ambient air quality standards for TACs; however, under the Air Toxics "Hot Spots" Information and Assessment Act of 1987, facilities that release high volumes of toxic air pollution are required to conduct a detailed health risk assessment and install Maximum Achievable Control Technology on emission sources.

For areas within the State that have not attained air quality standards, the CARB works with local air districts to develop and implement attainment plans to obtain compliance with both federal and State air quality standards. ***Table AQ-1, US EPA Criteria Pollutants***, identifies the major criteria pollutants, characteristics, health effects and typical sources. The federal and State ambient air quality standards are summarized in ***Table AQ-2, Federal and State Air Quality Standards***.

Discussion of Checklist Answers:

- Conflict with or obstruct implementation of the applicable air quality plan?*
- Violate any air quality standard or contribute to an existing or projected air quality violation?*
- Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?*

Shasta County is located in a non-attainment area for the state ambient air quality standard for ozone. In the past, Shasta County has been designated non-attainment for State PM₁₀ standards; however, in February 2018, CARB adopted modifications to attainment/non-attainment designations for several areas in the State. The modifications included changing Shasta County's designation for PM₁₀ from non-attainment to attainment. The State Office of Administrative Law granted final approval of the revised designations, and the revised designations went into effect on September 24, 2018.

As discussed, air districts within the State that have not attained air quality standards are required to develop and implement attainment plans. To this end, the air districts of the *NSVAB* have jointly

prepared and adopted the *Northern Sacramento Valley Planning Area 2015 Triennial Air Quality Attainment Plan*. The purpose of the plan is to obtain compliance with State air quality standards. Like the preceding plans, the 2015 plan focuses on the adoption and implementation of control measures for stationary sources, area-wide sources, indirect sources, and public information and education programs. The 2015 plan also addresses the effect that pollutant transport has on the *NSVAB's* ability to meet and attain the state standards.

TABLE AQ-1 US EPA CRITERIA POLLUTANTS			
Pollutant	Characteristics	Health Effects	Major Sources
Ozone	A colorless or bluish gas known as smog formed by a chemical reaction between volatile organic compounds (VOC) and NOx in the presence of sunlight. VOCs are also commonly referred to as reactive organic gases (ROGs). Common sources of these precursor pollutants include motor vehicle exhaust, industrial emissions, gasoline storage and transport, solvents, paints, and landfills.	Irritates and causes inflammation of the mucous membranes and lung airways; causes wheezing, coughing, and pain when inhaling deeply; decreases lung capacity; aggravates lung and heart problems. Damages plants; reduces crop yield. Damages rubber, some textiles, and dyes.	Combustion sources such as factories and automobiles, and evaporation of solvents and fuels.
Carbon Monoxide	An odorless, colorless gas formed when carbon in fuel is not burned completely; a component of motor vehicle exhaust.	Reduces the ability of blood to deliver oxygen to vital tissues, affecting the cardiovascular and nervous system. Impairs vision, causes dizziness, and can lead to unconsciousness or death.	Automobile exhaust, combustion of fuels, combustion of wood in woodstoves and fireplaces.
Nitrogen Dioxide	A reddish-brown gas formed during fuel combustion for motor vehicles and industrial sources. Sources include motor vehicles, electric utilities, and other sources that burn fuel.	Respiratory irritant; aggravates lung and heart problems. Precursor to ozone and acid rain. Contributes to global warming and nutrient overloading which deteriorates water quality. Causes brown discoloration of the atmosphere.	Automobile and diesel truck exhaust, industrial processes, and fossil-fueled power plants.
Sulfur Dioxide	A colorless, nonflammable gas formed when fuel containing sulfur is burned; when gasoline is extracted from oil; or when metal is extracted from ore. Examples are petroleum refineries, cement manufacturing, metal processing facilities, locomotives, and large ships, and fuel combustion in diesel engines.	Respiratory irritant. Aggravates lung and heart problems. In the presence of moisture and oxygen, sulfur dioxide converts to sulfuric acid which can damage marble, iron and steel. Damages crops and natural vegetation. Impairs visibility. Precursor to acid rain.	Automobile and diesel truck exhaust, industrial processes, and fossil-fueled power plants.
Suspended Particulate Matter (PM ₁₀)	Solid and liquid particles of dust, soot, aerosols, and other matter that are small enough to remain suspended in the air for a long period of time.	Aggravation of chronic disease and heart/lung disease symptoms	Combustion, automobiles, field burning, factories, and unpaved roads. Also a result of photochemical processes.
Lead	A metal that occurs both naturally in the environment and in manufactured products.	Organ damage Reproductive Disorders Osteoporosis Brain and nerve impairment Heart and blood disease/impairment	Sources include industrial sources and crustal weathering of soils followed by fugitive dust emissions

Source: California Air Pollution Control Officers Association. Health Effects. 2013 and October 19, 2018. California Air Resources Board; US Environmental Protection Agency

The Shasta County Air Quality Management District (SCAQMD) is designated by law to adopt and enforce regulations to achieve and maintain ambient air quality standards. In addition, the SCAQMD adopts and enforces controls on stationary sources of air pollutants through its permit and inspection programs, and it regulates agricultural burning. Other responsibilities include

monitoring air quality, preparing clean air plans, and responding to citizen complaints concerning air quality. All projects in Shasta County are subject to applicable SCAQMD rules and regulations in effect at the time of construction.

TABLE AQ-2 FEDERAL AND STATE AIR QUALITY STANDARDS			
Pollutant	Average Time	California Standards ^a Concentration ^c	Federal Standards ^b Primary ^{c, d}
Ozone (O ₃)	1 hour	0.09 ppm (180 µg/m ³)	—
	8 hours	0.07 ppm (137 mg/m ³)	0.070 ppm (137 µg/m ³)
Particulate Matter (PM ₁₀)	24 hours	50 µg/m ³	150 µg/m ³
	Annual arithmetic mean	20 µg/m ³	N/A
Fine Particulate Matter (PM _{2.5})	24 hours	N/A	35 µg/m ³
	Annual arithmetic mean	12 µg/m ³	12 µg/m ³
Carbon Monoxide (CO)	8 hours	9 ppm (10 µg/m ³)	9 ppm (10 mg/m ³)
	1 hour	20 ppm (23 mg/m ³)	35 ppm (40 mg/m ³)
Nitrogen Dioxide (NO ₂)	Annual arithmetic mean	0.030 ppm (57 µg/m ³)	0.053 ppm (100 µg/m ³)
	1 hour	0.18 ppm (339 µg/m ³)	100 ppb (188 µg/m ³)
Sulfur Dioxide (SO ₂)	Annual arithmetic mean	N/A	0.030 ppm (80 µg/m ³)
	24 hours	0.04 ppm (105 µg/m ³)	N/A
	1 hour	0.25 ppm (655 µg/m ³)	75 ppb (196 µg/m ³)
Lead (Pb) ^e	30 Day Average	1.5 µg/m ³	N/A
	Calendar quarter	N/A	1.5 µg/m ³
Visibility Reducing Particles	8 hours (10:00 to 18: PST)	—	N/A
Sulfates	24 hours	25 µg/m ³	N/A
Hydrogen Sulfide	1 hour	0.03 ppm (42 µg/m ³)	N/A
Vinyl Chloride ^e	24 hours	0.01 ppm (26 µg/m ³)	N/A
Notes: ppm = Parts Per Million; µg/m ³ = micrograms per cubic meter; mg/m ³ = milligrams per cubic meter			
^a California standards for ozone, carbon monoxide (except Lake Tahoe), sulfur dioxide (1 and 24 hour), nitrogen dioxide, suspended particulate matter – PM ₁₀ , PM _{2.5} , and visibility-reducing particles are values that are not to be exceeded. All others are not to be equaled or exceeded. California ambient air quality standards are listed in the Table of Standards in Section 70200 of Title 17 of the California Code of Regulations.			
^b National standards (other than ozone, particulate matter, and those based on annual averages or annual arithmetic mean) are not to be exceeded more than once a year. The ozone standard is attained when the fourth highest either hour concentration or a year, averaged over three years, is equal to or less than the standard. For PM ₁₀ , the 24-hour standard is attained when the expected number of days per calendar year with a 24-hour average concentration of 150 µg/m ³ is equal to or less than one. For PM _{2.5} , the 24-hour standard is attained when 98% of the daily concentrations, averaged over three years, are equal to or less than the standard. Contact US EPA for further clarification and current federal policies.			
^c Concentrations expressed first in units in which it was promulgated. Equivalent units given in parentheses are based on a reference temperature of 25°C and a reference pressure of 760 torr. Most measurements of air quality are to be corrected to a reference temperature of 25°C and a reference of 760 torr; ppm in this table refers to ppm by volume, or micromoles of pollutant per mole of gas.			
^d National Primary Standards: The levels of air quality necessary, with an adequate margin of safety to protect the public health.			
^e The ARB has identified lead and vinyl chloride as 'toxic air contaminants' with no threshold level of exposure for adverse health effects determined. These actions allow for the implementation of control measures at levels below the ambient concentrations specified for these pollutants.			

Source: California Air Resources Board, Ambient Air Quality Standards. 2016.

Shasta County adopted air quality emission thresholds shown in **Table AQ-3, Thresholds of Significance for Criteria Pollutants of Concern** for Reactive Organic Gases (ROG), Oxides of Nitrogen (NO_x), and Particulate Matter, 10 microns in size (PM₁₀), to determine the level of significance for projects subject to CEQA review. These thresholds are consistent with New Source Review Rule 2-1 adopted by the SCAQMD Board in 1993.

If a project has unmitigated emissions less than the Level "A" threshold, then it is viewed as a minor project (from an air quality perspective) and only application of Standard Mitigation Measures (SMM) is required to try to achieve at least a 20 percent reduction in emissions, or the best reduction feasible otherwise.

TABLE AQ-3 THRESHOLDS OF SIGNIFICANCE FOR CRITERIA POLLUTANTS OF CONCERN			
Level	ROG	NO_x	PM₁₀
Level A: Indirect Source	25 lbs/day	25 lbs/day	80 lbs/day
Level B: Indirect Source	137 lbs/day	137 lbs/day	137 lbs/day
Direct Stationary Sources	25 tons/year	25 tons/year	25 tons/year

Source: 2004 Shasta County General Plan, Chapter 6.5 (Air Quality).

Land uses that generate unmitigated emissions above Level "A" require application of appropriate Best Available Mitigation Measures (BAMM) in addition to the SMMs in order to achieve a net emission reduction of 20 percent or more. If after applying SMMs and BAMMs a use still exceeds the Level "B" threshold, then a minimum of 25 percent of the unmitigated emissions exceeding 137 pounds per day must be offset by reducing emissions from existing sources of pollution; otherwise, an Environmental Impact Report is required.

Project emissions were estimated using Version 2016.3.2 of the California Emissions Estimator Model (CalEEMod). CalEEMod provides default values when site-specific inputs are not available. CalEEMod does not directly calculate ozone emissions. Instead, the emissions associated with ozone precursors (ROG and NO_x) are calculated. For the proposed Project, site-specific inputs and assumptions include, but are not limited to, the following:¹¹

- Although the Project is proposed to be constructed in four phases over a period of ten years or more (see Project Description above), in order to represent a worst-case scenario, reported emissions from the CalEEMod analysis are based on all four phases of the Project being constructed concurrently.
- Emissions from construction are based on all construction-related activities, including but not limited to site preparation, grading, demolition, use of construction equipment, material hauling, trenching, and architectural coatings.
- Emissions from operation of the proposed Project are based on all newly proposed operational activities, including vehicle traffic, electricity usage in the buildings and for lighting in parking lots, water use, wastewater treatment, solid waste disposal, use of architectural coatings, etc. Because some existing buildings will be demolished, only the net increase in building square footage is evaluated for operational emissions.
- The project includes installation of on-site pedestrian pathways, dedicated bicycle lanes, and joint use pedestrian/bicycle pathways. In addition, off-site pedestrian and bicycle facilities, as recommended in the *GoShasta Regional Active Transportation Plan* (February 2018), would be constructed to improve pedestrian and bicycle connections to the College. These features will reduce emissions associated with automobiles.
- With the recently installed solar panels, the photovoltaic capacity of the campus solar arrays is approximately 2.6 MW. On-site solar energy production is incorporated into the CalEEMod analysis.
- The Project would implement SCAQMD standard mitigation measures and would comply with applicable SCAQMD rules.

Construction Emissions

The proposed Project would result in the temporary generation of ROG, NO_x, PM₁₀, and other regulated pollutants during construction. ROG and NO_x emissions are associated with employee

¹¹ California Emissions Estimator Model (CalEEMod) output files, including all site-specific inputs and assumptions, are available for review at the Shasta College Administrative Services Office, Building 100 or are available in electronic format upon request.

vehicle trips, delivery of materials, and construction equipment exhaust. PM₁₀ is generated during site preparation, excavation, road paving, and from exhaust associated with construction equipment. **Table AQ-4, Projected Maximum Construction Emissions** shows the highest daily levels regardless of construction phase.

As indicated, if all phases of the Project were constructed concurrently, construction emissions would exceed Level A but not Level B thresholds for ROG and NO_x, primarily due to the application of architectural coatings (e.g., primers, sealers, lacquers, stains, varnishes, paint for structures and parking areas, etc.). However, due to phasing of the proposed improvements, construction emissions would be substantially less for each construction phase. Therefore, with implementation of SMMs in accordance with existing SCAQMD requirements, impacts during construction would be *less than significant*.

TABLE AQ-4 PROJECTED MAXIMUM CONSTRUCTION EMISSIONS						
All Phases	ROG	NO _x	PM ₁₀	PM _{2.5}	CO	SO ₂
Pounds per Day	55.65	26.87	10.23	6.02	21.36	0.05
Level A Threshold	25	25	80	-	-	-
Level B Threshold	137	137	137	-	-	-

Operational Emissions

The Project would result in the generation of ROG, NO_x, PM₁₀, and other regulated pollutants during operations. The majority of operational emissions are attributed to mobile sources (e.g., vehicle trips for employees, students, vendors, deliveries, etc.) and area sources (e.g., consumer products such as cleaning supplies and aerosols, and reapplication of architectural coatings).

Table AQ-5, Projected Operational Emissions shows projected operational emissions associated with the newly proposed operational activities. As indicated, the net increase in operational emissions would not exceed SCAQMD's Level A thresholds. In addition, the College intends to complete energy conservation improvements that would reduce existing operational emissions (e.g., expansion of the existing solar field; upgrading climate control systems consisting of heating, ventilation, and cooling/air conditioning; and implementation of alternative and passive technologies to conserve energy, such as energy-efficient windows, window coverings and shade control, shade canopies, etc.). Therefore, operational impacts would be *less than significant*.

TABLE AQ-5 PROJECTED OPERATIONAL EMISSIONS						
All Phases	ROG	NO _x	PM ₁₀	PM _{2.5}	CO	SO ₂
Pounds per Day	4.51	13.56	5.63	1.57	11.74	0.08
Level A Threshold	25	25	80	-	-	-
Level B Threshold	137	137	137	-	-	-

For both construction and operational emissions, the proposed Project would not result in significant impacts associated with ozone (O₃), lead (Pb), hydrogen sulfide (H₂S), vinyl chloride, or visibility reducing particles as discussed below.

Ozone. CalEEMod does not directly calculate ozone emissions. Instead, the emissions associated with ozone precursors (ROG and NO_x) are calculated. Because SMMs and BAMMs would be implemented to achieve compliance with established thresholds for ozone precursors, the potential for ozone production/emissions is less than significant.

Lead. Elevated levels of airborne lead at the local level are usually found near industrial operations that process materials containing lead, such as smelters and battery

manufacturing/recycling facilities. As these conditions are not applicable to the proposed Project, the potential for lead emissions is less than significant.

Hydrogen sulfide. Hydrogen sulfide is formed during the decomposition of organic material in anaerobic environments, including sewage treatment processes. However, the proposed Project would not result in a significant increase in the amount of wastewater treated; therefore, the potential for an increase in hydrogen sulfide emissions is less than significant.

Vinyl chloride. Vinyl chloride is used to manufacture PVC plastic and other vinyl products. Approximately 98 percent of vinyl chloride produced in the United States is used during the manufacture of PVC. Additionally, vinyl chloride is produced during the microbial breakdown of chlorinated solvents (e.g., engine cleaner, degreasing agent, adhesive solvents, paint removers, etc.). The potential for vinyl chloride exposure is primarily limited to areas in close proximity to PVC production facilities. Because PVC manufacturing facilities are absent from the Project area, and Project implementation would not result in an increase of chlorinated solvents, potential vinyl chloride emissions associated with the proposed Project would be less than significant.

Visibility-reducing pollutants. Visibility-reducing pollutants generally consist of sulfates, nitrates, organics, soot, fine soil dust, and coarse particulates. These pollutants contribute to the regional haze that impairs visibility, in addition to affecting public health. According to the California Regional Haze Management Plan, natural wildfires and biogenic emissions are the primary contributors to visibility-reducing pollutants. For the proposed Project, visibility-reducing pollutants (e.g., PM_{2.5} and PM₁₀), would be generated only during construction activities. Because only relatively low amounts of particulates would be generated, potential impacts with respect to visibility-reducing pollutants are less than significant.

Cumulative

Implementation of the proposed Project combined with future development within the Project area could lead to cumulative impacts to air quality. As noted above, the County is located in a non-attainment area for state ambient air quality standards for ozone. Due to the County's non-attainment status for ozone, the SCAQMD has adopted significance thresholds for ROG and NO_x (ozone precursors). Thresholds for PM₁₀ were also adopted based on the County's previous non-attainment status for PM₁₀. All discretionary projects are required to implement SMMs in order to reduce cumulative impacts, even if project emissions do not exceed the adopted thresholds.

As discussed above, the proposed Project would implement SMMs to ensure that cumulative impacts are *less than significant*.

d. *Expose sensitive receptors to substantial pollutant concentrations?*

Sensitive receptors are typically defined as locations where people reside or where members of the population who are particularly sensitive to the effects of air pollutants are located. Children, the elderly, and the chronically or acutely ill are the most sensitive receptors. These sensitive receptors are commonly associated with residential uses, schools, parks and playgrounds, hospitals, retirement homes, convalescent homes, and childcare centers.

Sensitive receptors in proximity to the Shasta College Campus include single-family residences on Old Oregon Trail west of the Campus, on College View Drive south of the Campus, and on Ceramic Way northeast of the Campus. Construction activities identified in the Facilities Master Plan would occur approximately 1,100 feet east of the closest sensitive receptor on Old Oregon Trail, 725 feet north of the closest sensitive receptor on College View Drive, and 1,900 feet southwest of the closest sensitive receptor on Ceramic Way. Due to the distance to sensitive receptors, as well as

regulatory oversight by the SCAQMD, exposure to pollutant concentrations will be *less than significant*.

- e. *Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?*

During construction, odors would be emitted from sources such as diesel equipment, paints, solvents, asphalt, and adhesives. Construction odors from construction would be intermittent and temporary, and generally would not extend beyond the construction area. Due to the temporary and intermittent nature of construction odors, impacts during construction would be *less than significant*.

Odors associated with operation of the proposed Project include emissions from vehicles, maintenance activities (painting, pavement maintenance, re-roofing, etc.), use of gas-powered landscape equipment, and a slight increase in the amount of sewage treated at the on-site wastewater treatment plant. Operational emissions would be intermittent and are not expected to be significantly greater than existing conditions. Therefore, potential odor-related operational impacts are considered *less than significant*.

Conclusion: Due to the nature of the proposed Project, SCAQMD permit requirements, and adherence to applicable rules, air quality and odor-related impacts will be *less than significant*.

Issues	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
IV. BIOLOGICAL RESOURCES <i>Would the project:</i>				
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?		X		
b. Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?		X		
c. Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?		X		
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?		X		

Issues	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
IV. BIOLOGICAL RESOURCES <i>Would the project:</i>				
e. Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?				X
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?				X

Background: ENPLAN conducted a biological and wetland screening for those portions of the campus that could potentially be affected by development activities addressed in the *FMPI*. The referenced Study Area includes approximately 250 acres of the campus. Excluded areas consist of lands planned for long-term agricultural use that would not be directly or indirectly affected by *FMPI* implementation. A January 14, 2019 *Shasta College Facilities Master Plan Biological and Wetland Screening Report* was prepared and is incorporated herein by reference.¹² The ensuing discussion is derived primarily from that Report.

It should be noted that services provided by ENPLAN included a review of available biological resource records and pertinent studies, a biological field reconnaissance, field reconnaissance to identify potential wetlands and other waters of the State and United States, and development of mitigation measures to minimize the potential effects of development in accordance with the *FMPI*. Studies were necessarily generalized given the general conceptual nature of the *FMPI*, lack of detailed development plans, the high potential for changes in the location and timing of the anticipated work, and the high potential for changes in the regulatory environment (e.g., special-status species listings, definitions of regulated waters, minimum development standards, etc.).

Records reviewed for the evaluation consisted of California Natural Diversity Data Base (CNDDB) records, the U.S. Fish and Wildlife Service's official species list for the project area, National Marine Fisheries Service records, soils records maintained by the U.S. Department of Agriculture's Natural Resources Conservation Service, and National Wetlands Inventory (NWI) maps. The CNDDB records search covered a ten-mile radius around the project site (*Appendix BR-A, Table 1 Special-Status Species NMFS, USFWS, CNDDB*). Because work affecting waters of the U.S. would trigger federal oversight, an official species list was obtained from the U.S. Fish and Wildlife Service (*Appendix BR-B, Threatened & Endangered Species FWS*), and National Marine Fisheries Service data regarding listed anadromous fish was checked. Soil records maintained by the Natural Resources Conservation Service (NRCS) were reviewed to determine the soil types on the site and their potential to support wetlands. NWI maps were reviewed to determine if wetland features have been previously mapped on the site.

Field evaluations were conducted on multiple dates in June 2018, as well as in October 2018, December 2018, and January 2019. Most of the special-status species potentially occurring in the area would not have been evident at the time the fieldwork was conducted. The potential presence of species not readily identifiable during the field studies was determined on the basis of observed habitat characteristics. The screening for waters of the State and United States equally addressed all portions of the study area, while the biological evaluations provided greater emphasis on the undeveloped portions of the study area.

¹² A copy of the report is available for review at the Shasta College Administrative Services Office Building 100. An electronic copy is available upon request.

Existing Environmental Setting: The CNDDDB records identified three unique natural communities within ten miles of the project area: Great Valley Oak Riparian Forest, approximately five miles south of the project area; Great Valley Cottonwood Riparian Forest, approximately 3.5 miles southwest of the project area; and Great Valley Willow Scrub, approximately eight miles south-southwest of the project area. None of these communities is present in the Study Area.

Field observations showed that the principal natural communities present in the Study Area are oak woodland and an urban landscape. Within these communities are inclusions of seasonal wetlands and small streams/drainages. These four habitat types are discussed in more detail below.

Oak Woodland

As shown on **Figure BR-1, Community Types**, the oak woodland community is best developed along the western edge of the campus and north of the northern segment of Shasta College Drive, where it forms a nearly continuous canopy cover on ± 70 acres of undeveloped lands. Interior live oaks (*Quercus wislizeni*) and blue oaks (*Quercus douglasii*) are the dominant tree species in the oak woodland community. Other trees present are valley oaks (*Quercus lobata*), black oaks (*Quercus kelloggii*), gray pines (*Pinus sabiniana*) and ponderosa pines (*Pinus ponderosa*). Common understory shrubs include poison oak (*Toxicodendron diversilobum*), toyon (*Heteromeles arbutifolia*), Himalayan blackberry (*Rubus armeniacus*), and coffeeberry (*Frangula californica*). Herbaceous cover is limited under the oak canopy, but various grasses and forbs are present in openings, including hedgehog dogtail (*Cynosurus echinatus*), slender wild oats (*Avena barbata*), field hedge parsley (*Torilis arvensis*), and shortpod mustard (*Hirschfeldia incana*).

The oak woodland community provides habitat for a variety of migratory and resident birds, with characteristic species including acorn woodpeckers, oak titmice, scrub jays, wild turkeys, California quail, and band-tailed pigeons. Several species of bats roost in oak woodlands. Terrestrial salamanders and toads are occasionally found on moist soil beneath logs or fallen limbs. Lizards are particularly abundant, feeding on a variety of terrestrial insects, many of which inhabit decaying woody debris. Snakes are common in oak woodlands, feeding predominantly on mice and squirrels. Other mammals in oak woodlands include jackrabbits, raccoons, deer, coyotes, and mountain lions.

Urban Landscape

Those portions of the study area that do not support an intact oak woodland community can best be characterized as supporting an urban landscape (**Figure BR-1, Community Types**). The ± 180 -acre on-site urban landscape is characterized by hardscapes such as buildings and parking lots intermixed with heavily disturbed plant associations now supporting lawns and sports fields as well as semi-natural stands of native oaks and mature horticultural trees. *A Guide to Wildlife Habitats of California*¹³ distinguishes three urban categories relevant to wildlife: downtown, urban residential, and suburbia. The Shasta College campus best fits the suburbia category in that it contains landscaped gardens and lawns as well as relatively large tracts dominated by native oaks. Suburban areas with mature vegetation can approximate the habitat values of the natural environment. Wildlife species that may be present include gophers, moles, fence lizards, tree frogs, gray squirrels, raccoons, opossums, striped skunks, jackrabbits, deer, and a wide variety of birds. Urban landscape is not included in the California Natural Community List maintained by the California Department of Fish and Wildlife¹⁴.

Seasonal Wetland

On-site seasonal wetlands include both natural and constructed features (**Figure BR-2, Potential Waters of State and U.S.**). Plant species present in the natural seasonal wetlands include annual

¹³ California Department of Fish and Game. 1988 (with online updates). <https://www.wildlife.ca.gov/Data/CWHR/Wildlife-Habitats>

¹⁴ <https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=153398&inline>

ryegrass (*Festuca perennis*), needleleaf navarretia (*Navarretia intertexta*), rabbit's-foot grass (*Polypogon monspeliensis*), Mediterranean barley (*Hordeum marinum* ssp. *gussoneanum*), and curly dock (*Rumex crispus*). The constructed wetlands include depressions and backwater ponding in drainage channels. Common species in the constructed wetlands include cattail (*Typha* sp.) and willows (*Salix* spp.) in areas with long-duration ponding, with nutsedge (*Cyperus eragrostis*), annual ryegrass, and Mediterranean barley being common in areas with less inundation. These seasonal wetlands can provide shelter and water for many wildlife species and provide breeding habitat for species such as tree frogs. Seasonal wetlands are considered as sensitive natural communities and are addressed in more detail in the discussion of "Waters of the State and/or United States".

Streams/Drainages

The Study Area supports several ephemeral and intermittent streams as well as a number of constructed drainage channels (**Figure BR-2, Potential Waters of State and U.S.**). The principal stream is an intermittent feature that parallels Old Oregon Trail near the western boundary of the Study Area. This stream originates about two miles north-northwest of the campus and is tributary to the West Fork of Stillwater Creek about 1.5 miles south of the campus. The largest constructed drainage is a ditch east of the eastern segment of Shasta College Drive and the *East Parking Lot*. This ditch receives surface runoff and discharges from the College's underground storm drain system and flows south under SR-299.

The intermittent stream has a low potential to support fish. A chain-link fence through the stream near the southern boundary of the campus has created a debris dam and blocks adult fish passage, while a ±500-foot culvert under SR-299 minimizes accessibility of the on-site stream reach to both juveniles and adults. However, the stream and its surrounding habitat may serve as a migration corridor for wildlife, and provide foraging habitat, breeding habitat, and shelter for other species. The drainage channels have a much lower value for wildlife as they are generally in areas subject to more human activity and have minimal surrounding vegetation. The on-site streams and some of the drainage's channels may be considered as "Waters of the State and/or United States" and are discussed in more detail under **Biological Resource** environmental issue 'c.' that discusses effects on federally protected wetlands.

Special-Status Plant Species

Review of CNDDB records showed that no special-status plant species have been previously reported on the site. Sixteen special-status plant species are known to occur within a ten-mile radius of the site: Ahart's paronychia, dubious pea, Henderson's bent grass, legenere, maverick clover, northern clarkia, oval-leaved viburnum, Red Bluff dwarf rush, Sanford's arrowhead, Shasta huckleberry, Shasta limestone monkeyflower, Shasta snow-wreath, silky cryptantha, slender Orcutt grass, Sulphur Creek brodiaea, and woolly meadowfoam. As documented in **Appendix BR-A, Table 1 Special-Status Species NMFS, USFWS, CNDDB**, five of these species have some potential to occur on the site: dubious pea, Henderson's bent grass, oval-leaved viburnum, silky cryptantha, and Sulphur Creek brodiaea.

Dubious pea is a perennial herb that occurs in cismontane woodland and montane coniferous forest habitats. Dubious pea has a low potential to occur on the site but could potentially be present in or adjacent to the oak woodland. Although dubious pea is listed in the CNDDB, it is assigned a status of California Rare Plant Rank (CRPR) 3: Plants About Which More Information Is Needed. Given this status, mitigation would not be warranted even if the plant were present. However, as additional taxonomic data becomes available, the status of this plant is likely to change.

Henderson's bent grass, which is also assigned a status of CRPR 3, is an annual herb that occurs along the edges of vernal pools and swales, or on other thin, vernal moist soils overlying a hard pan. It is generally in areas exposed to partial or full sunlight, as opposed to areas in dense shade.

The on-site drainages and seasonal wetlands provide marginally suitable habitat for Henderson's bent grass. CDFW is currently re-evaluating the status of this species and may move it to CRPR 1B (Plants Rare, Threatened or Endangered in California and Elsewhere).

Oval-leaved viburnum currently has a status of CRPR 2.3 (Rare or Endangered in California, But More Common Elsewhere; Not Very Threatened in California). This perennial deciduous shrub occurs in chaparral, cismontane woodland, and lower montane coniferous forests. It often occurs on north-facing slopes covered by dense brush, between 700 and 4,600 feet in elevation. The nearest known occurrences are near Shasta Lake, in the vicinity of Jones Valley. There is a very low potential for this species to occur in or near the on-site oak woodland.

Silky cryptantha currently has a status of CRPR 1B.2 (Plants Rare, Threatened or Endangered in California and Elsewhere; Fairly Threatened in California). This annual herb occurs along low-gradient seasonal streams with broad floodplains, usually on the valley floor, where it occurs on gravelly or cobbly substrates. Silky cryptantha also occurs in vernal moist uplands and, less frequently, along perennial streams, including the Sacramento River. The species is found between 200 and 4,000 feet in elevation and has been observed in Stillwater Creek both upstream and downstream of Shasta College, and in adjoining watersheds. The species has a low to moderate potential to occur on-site in the unnamed tributary to West Fork Stillwater Creek.

Sulphur Creek brodiaea currently has a status of CRPR 1B.1 (Plants Rare, Threatened or Endangered in California and Elsewhere; Seriously Threatened in California). This perennial bulbiferous herb is reported only from two locations along Sulphur Creek, and appears to be affiliated with the floodplain of intermittent streams, in areas exposed to partial or full sunlight. There is a low potential for Sulphur Creek brodiaea to be present on-site in sparsely vegetated areas along the banks of the unnamed intermittent stream.

Special-Status Animal Species

Review of CNDDDB records showed that 24 special-status animal species are known to occur within a ten-mile radius of the site: Conservancy fairy shrimp, Shasta crayfish, vernal pool fairy shrimp, vernal pool tadpole shrimp, valley elderberry longhorn beetle, American peregrine falcon, bald eagle, bank swallow, northern spotted owl, purple martin, tricolored blackbird, California red-legged frog, foothill yellow-legged frog, Shasta salamander, western spadefoot, western pond turtle, Chinook salmon – Central Valley spring-run ESU, Chinook salmon – Sacramento River winter-run ESU, delta smelt, steelhead-Central Valley DPS, fisher – West Coast DPS, pallid bat, spotted bat, and Townsend's big-eared bat. As documented in **Appendix BR-A, Table 1 Special-Status Species NMFS, USFWS, CNDDDB**, six of these species have some potential to occur on the site: valley elderberry longhorn beetle, purple martin, tricolored blackbird, foothill yellow-legged frog, western spadefoot, and pallid bat.

The valley elderberry longhorn beetle, which is federally listed as Threatened, is found only in association with elderberry shrubs (*Sambucus* spp.). Most beetles are found below 500 feet in elevation in the Central Valley and surrounding foothills. Several elderberry shrubs were observed in the south-central portion of the campus during the field evaluations (Figure 2) and other shrubs may be present elsewhere on the campus. The valley elderberry longhorn beetle has a low to moderate potential to be present in the Study area.

The purple martin, a State Species of Special Concern, inhabits woodlands and low elevation coniferous forests of Douglas-fir, ponderosa pine, and Monterey pine. Purple martins nest in old woodpecker cavities or in man-made structures such as culverts, bridges, or nest boxes. The nearest known nesting sites are along the Pit River Arm of Shasta Lake, nearly ten miles north of Shasta

College. The project site is slightly outside purple martin nesting habitat, as mapped by CDFW (2008)¹⁵. Nonetheless, there is a low potential for purple martins to nest on the project site.

Tricolored blackbird, a State Species of Special Concern and Candidate for State listing as Endangered, is a colonial nester and generally nests near open water. Nesting areas must be large enough to support a minimum colony of about 50 pairs. Tricolored blackbirds generally construct nests in dense cattails or tules, although they can also nest in thickets of willow, blackberry, wild rose and tall herbs. The nearest known nesting sites are in the south Redding, Anderson, and Millville areas. Marginally suitable nesting habitat for tricolored blackbirds is present along the unnamed intermittent stream where dense shrubby vegetation is present. Tricolored blackbirds have a low potential to nest on the Project site.

Foothill yellow-legged frog, a State Species of Special Concern and Candidate for State listing as Threatened, is typically found in shallow, partly-shaded, perennial streams in areas with riffles and rocky substrates. This frog needs at least some cobble-sized substrate for egg-laying. Foothill yellow-legged frogs generally prefer low- to moderate-gradient streams, especially for breeding and egg-laying, although juvenile and adult frogs may utilize moderate- to steep-gradient streams during summer and early fall. CNDDDB records show that foothill yellow-legged frog was collected in the project vicinity in May 1953. Adjoining reaches of West Fork Stillwater Creek may provide suitable perennial aquatic habitat for the species. The potential for foothill yellow-legged frogs to utilize the project site is quite low; however, the on-site intermittent stream could potentially be used as a refugium during high flow periods.

Western spadefoot, a State Species of Special Concern, breeds from January through May in shallow, temporary pools that persist for at least three weeks. Breeding pools are generally absent of bullfrogs, fish, and crayfish. After breeding, adults seek shelter underground either by excavating a subterranean burrow or retreating into a small mammal burrow nearby. Tadpoles transform within three weeks. Following transformation, juveniles leave breeding pools and seek shelter underground. Western spadefoots remain underground until breeding pools form the following spring. The nearest known population is approximately 8 miles south-southeast of the project site. However, potentially suitable breeding habitat for the western spadefoot is provided by the on-site seasonal wetlands. The western spadefoot has a very low potential to be present in the Project site.

The pallid bat is a State Species of Special Concern that inhabits grasslands, shrublands, woodlands, and forests, but is most common in open, dry habitats. Day roosts include caves, rock crevices, mines, and occasionally trees and buildings. Buildings are often used for night roosting. In northern California, the species is often associated with low-elevation oak woodlands. The species is locally known from the Whiskeytown, Cloverdale and Millville areas. However, only limited surveys have been conducted and the species is likely to be more widespread than reported.

- 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?*

On-site habitats that could potentially support special-status species consist of the oak woodlands (which could support a number of the species previously discussed), individual trees located elsewhere on the campus (which could support nesting birds and day-roosting bats), streams, and seasonal wetlands (which could provide habitat for several of the species previously noted) as well as buildings and other structures (which could support nesting birds and day-roosting bats). However, over the course of *FMPI* implementation it is likely that the suite of species requiring

¹⁵ <https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=10417>

consideration under CEQA will change. Additional species may be identified as special-status, special-status species not known to occur in the project region may be found in the area and thus warrant consideration, and species currently considered as special-status may no longer warrant this distinction as more data becomes available. Likewise, agency requirements for special-status species surveys as well as for avoidance and mitigation requirements are likely to change over time.

Loss of special-status species would be considered as a significant impact under CEQA. Therefore, as described in **Mitigation Measure BR-1**, it is recommended that subsequent studies be conducted for proposed *FMP1* actions to be located in undeveloped natural habitat areas on the campus that have the potential to adversely affect special-status species. Particular focus should be given to actions that may affect the oak woodlands, individual trees located elsewhere on the campus, streams, and seasonal wetlands, as well as buildings and other structures. Work should consist of a current records search, followed by a field study by a qualified biologist. The field studies should be conducted at a time of year in which special-status species would be present and identifiable, or, if deemed appropriate by the biologist, determinations of presence/absence could be based on observed habitat characteristics.

As described in **Mitigation Measure BR-1**, if special-status species are found to be present, the proposed development could be modified to avoid/minimize adverse effects, the timing of work could be managed to avoid impacts (e.g., bird nesting habitat could be removed outside the nesting season), or the species could be excluded from the work area (e.g., exclusionary devices could be mounted on entrances to bat roosting habitats). If the species could not be fully avoided, mitigation would be warranted. This could consist of purchase of credits to offset the loss of the species (currently an option for only a select few species, including valley elderberry longhorn beetles), or creation, restoration, or preservation of suitable habitat elsewhere on the campus or at an off-site location.

Mitigation Measure BR-1

Prior to implementation of individual projects addressed in the FMP1, to be located in undeveloped natural habitat areas on the campus, subsequent biological review shall be undertaken. Work shall consist of review of current special-status species listings, a field evaluation to determine if potentially suitable habitat for the special-status species is present in or adjacent to the project site, focused species-specific surveys if warranted based on the results of the records review and habitat evaluation, and written documentation of the results of the biological review.

If special-status species would be affected by implementation of the proposed project, actions shall be taken to ensure that the impacts are less than significant. Such actions may include modifying the project to avoid/minimize adverse effects, changing the timing of work to avoid impacts, or the excluding the species from the work area. If the special-status species cannot be fully avoided, mitigation shall be implemented at a minimum 1:1 ratio. This may consist of purchase of credits to offset the loss of the species, or creation, restoration, or preservation of suitable habitat elsewhere on the campus or at an off-site location. Design and implementation of the avoidance, minimization, and mitigation measures shall be completed in consultation with the appropriate regulatory agencies.

- b.** *Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?*

The principal communities present in the study area are oak woodland and urban landscaping. Based on the California Natural Community List maintained by the California Department of Fish

and Wildlife¹⁶ the on-site oak community is best represented by: 71.080.01 *Quercus wislizeni* – *Quercus douglasii* – *Pinus sabiniana* / (grass), which is a vegetative association within the interior live oak woodland alliance. Although CDFW does not identify this community as a sensitive natural community, oak woodlands are an essential source of food and shelter for a variety of wildlife, and loss of oak woodlands is considered a significant adverse environmental impact. Streams and wetlands are present as inclusions in the oak woodland community; effects on these sensitive habitats are addressed under **Biological Resource** environmental issue ‘c.’ that discusses effects on federally protected wetlands.

Shasta College is committed to minimizing the loss of on-site native trees and to the replacement of healthy, mature trees that would be removed as a result of Facilities Master Plan implementation. In accordance with CEQA, native oaks warranting consideration are those that have a trunk diameter of five inches or greater as measured at breast height (4.5 feet above ground level; DBH).

Most of the current and planned oak woodland loss due to *FMP1* implementation is attributable to the *RPSTF* project, which has been addressed in a separate Initial Study/Mitigated Negative Declaration and an Addendum previously referenced. Phases 1 and 2 of the *RPSTF* project would result in a loss of approximately eight acres of oak woodland; potential future phases of the project could result in additional losses, which would be quantified upon preparation of future development plans. Implementation of the remaining components of *FMP1* would result in minimal loss of oak woodland. The only other currently identified *FMP1* development activities in the oak woodland would consist of installing a pedestrian path and possibly a sewer line, both of which would extend from Shasta College Drive (North) toward the *SCOE Child Care* (Building 3400) and Dorm Parking Lot. Conservatively assuming that these two corridors would not be concurrent and that each would necessitate clearing a width of about 20 feet, the two activities could result in the loss of up to an additional half-acre of oak woodland. However, it is likely that impacts will be less because the pedestrian path may be at least partially concurrent with the sewer line corridor or may be designed to avoid the need for tree removal. **Mitigation Measure BR-2** calls for pre-construction planning to minimize construction disturbance within oak woodlands, protection of oaks planned for retention, and replanting to offset the unavoidable loss of oak woodland habitat. To help meet the College’s tree protection objectives, the *FMP1* proposes a Land Use Plan that identifies several potential tree mitigation sites on the campus.

FMP1 implementation would also result in the loss of native trees in the urban landscape. Loss of these individual trees in the urban landscape would reduce foraging, shelter, and nesting opportunities for wildlife species. In addition to addressing oak woodlands, **Mitigation Measure BR-2** also provides for minimizing the loss of individual native trees in the urban landscape. Implementation of **Mitigation Measure BR-2** would reduce habitat impacts in both the oak woodland and urban landscape to a *less than significant* level.

Mitigation Measure BR-2

To minimize impacts to native trees and oak woodlands and offset the unavoidable loss of native trees and oak woodland habitat, the following measures shall be implemented.

The loss of native trees greater than 5 inches DBH and oak woodlands shall be avoided/minimized and offset through implementation of the following:

- *Minimize loss of native trees and oak woodlands through careful pre-construction planning and design.*

¹⁶ California Natural Community List, 2018. <https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=153398&inline>

- *Erect construction fencing along the outer edges of the construction zone where needed to prevent accidental entry into oak woodland habitat and under individual oaks planned for retention. Fencing shall be provided at least six feet outside of the dripline of all trees to be preserved (including individual native trees within the urban landscape). The fencing is to remain in place throughout construction. To the extent feasible, no construction activities (including grading, cutting or trenching), materials stockpiling, or equipment parking or storage, or vehicle parking shall occur within the fenced tree protection zone. If work must occur within the fenced tree protection zone, it shall be completed under the supervision of a certified arborist or the College Horticulturist. Furthermore, site-specific measures recommended by the arborist or Horticulturist to ensure tree protection shall be implemented.*
- *Shasta College shall offset the unavoidable loss of oak woodland habitat and the unavoidable loss of native trees within the urban landscape through replacement tree planting. Oak woodland habitat shall be replaced at a minimum 1:1 ratio on an acreage basis. Alternatively, if mitigation is proposed on an individual tree basis (whether within the oak woodland or urban landscape), mitigation shall occur at a minimum 3:1 ratio. A vegetation planting and management plan shall be prepared by a certified arborist or the College Horticulturist prior to tree removal. The plan shall identify the number of native trees (by species, size, and health) or the acreage of oak woodland to be removed, and identify the mitigation planting area size and location, mitigation site protections (e.g., conservation easement or deed restrictions), planting objectives in terms of acreage or number of plants by species, planting and maintenance methods, success criteria, duration of monitoring, corrective actions to be taken if success criteria are not met, and reporting requirements. The planting plan shall provide for in-kind mitigation; i.e., the trees to be planted shall be of the same species as those removed. Planting shall occur at one of the designated tree mitigation sites previously identified by the College (**Figure 12 –Proposed Land Uses & Existing Utilities**) or as close to the Project site as possible. If replacement planting occurs on an individual tree basis within the urban landscape, the replacement trees shall be at least of the 15-gallon size.*

Potential Effects of Noxious Weeds

The introduction and spread of noxious weeds during construction activities has the potential to impact natural habitats. Noxious weeds observed in the project area are of widespread distribution in Shasta County, and further spread of these weeds is not anticipated. However, other noxious weeds could be introduced into the project area if unwashed construction vehicles are used during construction activities. As called for in **Mitigation Measure BR-3**, the potential for the introduction and spread of noxious weeds will be avoided/minimized by using only certified weed-free erosion control materials, mulch, and seed; limiting any import or export of fill material to material that is known to be weed free; and requiring the construction contractor to thoroughly wash all equipment at a commercial wash facility before and after working on the Shasta College campus. Implementation of **Mitigation Measures BR-3** would reduce potential impacts of noxious weeds to a *less than significant* level.

Mitigation Measure BR-3

The potential for the introduction and spreading of noxious weeds shall be avoided/minimized by:

- *Using only certified weed-free erosion control materials, mulch, and seed.*

- *Limiting any import or export of fill material to material that is known to be weed free.*
 - *Requiring the construction contractor to thoroughly wash all equipment at a commercial wash facility prior to entering the project site and immediately upon termination of its use at the project site.*
- c. *Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?*

A field screening of the Study Area was conducted to identify wetlands, streams, drainages, and other waters that may potentially be considered as “Waters of the State” or “Waters of the United States.” Such waters would be subject to regulation by the state and/or federal governments. Results of the screening are shown on **Figure BR-2, Potential Waters of the State and U.S.** It should be noted that the objective of the screening was to broadly identify potential waters. Definitions of waters subject to regulation are always subject to change and ongoing regulatory changes are expected throughout the Facilities Master Plan implementation period.

Although it is anticipated that many of the features shown on **Figure BR-2, Potential Waters of the State and U.S.** may not be regulated at the state or federal level (e.g., certain drainage ditches), further review should be conducted when *FMP1* activities would occur in or near the mapped features or similar features, as noted in **Mitigation Measure BR-4**. If regulated waters are present, avoidance, minimization of impacts, or mitigation for the unavoidable loss of waters would be required at the state and/or federal level. Implementation of **Mitigation Measure BR-4** would ensure that direct impacts on wetlands and other regulated waters are not significant. **Mitigation Measure BR-5** would preclude the potential for significant indirect impacts to regulated waters as a result of erosion and sedimentation. Implementation of **Mitigation Measures BR-4 and BR-5** reduce direct and indirect State and Federal water related impacts to a *less than significant* level.

Mitigation Measure BR-4

*Prior to implementation of individual projects addressed in the FMP1 that would occur in within 50 feet of the intermittent streams paralleling Old Oregon Trail or within 25 feet of other water features shown in **Figure BR-2, Potential Waters of the State and U.S.**, or similar features, subsequent review shall be undertaken by a qualified wetland specialist or biologist to determine if the proposed project would affect regulated waters. If the project may affect regulated waters, Shasta College shall obtain all necessary permits and comply with the permit conditions and shall offset the unavoidable loss of waters at a minimum 1:1 ratio, or as otherwise required in the permits.*

Mitigation Measure BR-5

To avoid and minimize indirect impacts to waters, Best Management Practices (BMPs) or soil stabilization, sediment control, and spill prevention shall be implemented to ensure that sediment/pollutant transport into Waters of the State and United States is minimized. Other water quality control measures that may be required by resource agencies with permit authority over the project shall also be implemented.

- 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?*

Due to the relatively urbanized nature of the College campus, the Study area has a relatively low potential to serve as a wildlife migration corridor. Lands best suited for wildlife migration and

breeding are the intermittent stream on the west side of the study area and its adjoining habitat. The intermittent stream has a low potential to support fish. A chain-link fence through the stream near the southern boundary of the campus has created a debris dam and blocks adult fish passage, while an approximate 500-foot culvert under SR-299 minimizes accessibility of the on-site stream reach to both juveniles and adults. However, the stream and its surrounding habitat may serve as a migration corridor for wildlife, and provide foraging habitat, breeding habitat, and shelter for other species. The on-site drainage channels have a much lower value for wildlife as they are generally in areas subject to more human activity and have minimal surrounding vegetation. The intermittent streams and at least some of the drainage channels may be considered as “Waters of the State and/or United States” and are discussed in more detail below.

With respect to wildlife nursery sites, a number of existing trees and shrubs provide suitable nesting habitat for birds. Under the Migratory Bird Treaty Act (MBTA) of 1918, migratory bird species, their nests, and their eggs are protected from injury or death, and any project-related disturbances during the nesting period. In addition, California Fish and Game Code §3503 and §3503.5 provide regulatory protection to resident and migratory birds and all birds of prey within the State.

Migratory and resident birds are known to nest on the campus. Nests were observed under the eaves of some buildings and in trees in the oak woodland. Nesting birds could be present in a variety of locations throughout the Study area, with nesting locations changing on an annual basis. If nesting birds are present in or adjacent to construction sites, they could be directly or indirectly affected by construction activities. Direct effects could include mortality resulting from construction equipment operating in an area containing an active nest with eggs or chicks. Indirect effects could include nest abandonment by adults in response to loud noise levels or human encroachment, or a reduction in the amount of food available to young birds due to changes in feeding behavior by adults.

In the local area, most birds nest between February 1 and August 31; the potential for adversely affecting nesting birds can be avoided by conducting demolition and construction activities either before February 1 or after August 31. If this is not possible, a nesting survey should be conducted within one week prior to commencement of demolition or construction (including site preparation/vegetation removal activities). If active nests are found, avoidance measures would be implemented. As addressed in **Mitigation Measure BR-6**, such measures may include work-exclusion buffers, sound-attenuation measures, seasonal work closures based on the known biology and life history of the species identified in the survey, as well as ongoing monitoring by biologists.

Mitigation Measure BR-6

In order to avoid impacts to nesting birds protected under the federal Migratory Bird Treaty Act of 1918 or California Fish and Game Code §3503, including their nests and eggs, the following measures shall be implemented:

- a. Vegetation removal and other ground-disturbance activities associated with construction shall occur between September 1 and January 31 when birds are not nesting; or*
- b. If vegetation removal or ground disturbance activities occur during the nesting season, a pre-construction nesting survey shall be conducted by a qualified biologist to identify active nests in and adjacent to the work area.*

Surveys shall begin prior to sunrise and continue until vegetation and nests have been sufficiently observed. The survey shall take into account acoustic impacts and line-of-sight disturbances occurring as a result of the project in order to determine a sufficient survey radius to avoid nesting birds. At a minimum, the

survey report shall include a description of the area surveyed, date and time of the survey, ambient conditions, bird species observed in the area, a description of any active nests observed, any evidence of breeding behaviors (e.g., courtship, carrying nest materials or food, etc.), and a description of any conditions that may have affected the survey results (e.g., weather conditions, excess noise, the presence of predators, etc.).

The results of the survey shall be submitted to the California Department of Fish and Wildlife upon completion. The survey shall be conducted no more than one week prior to the initiation of construction. If construction activities are delayed or suspended for more than one week after the pre-construction survey, the site shall be resurveyed.

If active nests are found, Shasta College shall consult with the California Department of Fish and Wildlife and the U.S. Fish and Wildlife Service regarding appropriate action to comply with the Migratory Bird Treaty Act and California Fish and Game Code §3503. Compliance measures may include, but are not limited to, work-exclusion buffers, sound-attenuation measures, seasonal work closures based on the known biology and life history of the species identified in the survey, as well as on-going monitoring by biologists.

- e. *Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?*

The Project does not conflict with any local protection policies or ordinances. *There is **no impact**.*

- 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?*

No Habitat Conservation Plan, Natural Community, Conservation Plan, or other approved habitat conservation plan has been adopted for the Project site or local area. *There is **no impact**.*

Conclusion: Due to the mitigation measures proposed, potential impacts on biological resources will be reduced to *less than significant* levels.

Issues	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
V. CULTURAL RESOURCES <i>Would the project:</i>				
a. Cause a substantial adverse change in the significance of a historical resource as defined in Section 15064.5?		X		
b. Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?		X		
c. Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?				X
d. Disturb any human remains, including those interred outside of formal cemeteries?		X		

Background: The Cultural Resources discussion is principally based on information provided in two documents prepared by ENPLAN: the January 2019 *Cultural Resources Inventory Report, Shasta College Regional Public Safety Training Facility Project, Shasta County, California*, and the January 2019 *Cultural Resources Screening Report —Shasta College Master Plan, Shasta County, California*.¹⁷ These documents are not for public distribution since the reports identify the locations of cultural resource sites. Disclosure of this information to the public may be in violation of both federal and State laws. Applicable United States laws include, but may not be limited to, Section 304 of the National Historic Preservation Act (16 U.S.C. 470w-3). In California, such laws include, but may not be limited to, Government Code Section 6254.10. Site location information should be kept confidential and is not for public disclosure.

Additionally, records maintained or in the possession of the Native American Heritage Commission or state and local agencies that are exempt from public disclosure include those that contain information on Native American graves, cemeteries, and sacred places, and include records obtained during consultation with Native Americans (California Government Code §6254(r) and §6254.10).

Implementation of the *FMPI* has the potential to adversely affect cultural resources that may be located within the Study Area (also referenced as the Area of Potential Effects (APE)). A good faith effort was therefore made to identify any cultural resources within and immediately adjacent to the APE.

Background Research: Background research included completion of a Sacred Lands Search by the Native American Heritage Commission (NAHC), consultation with seven local Native American groups identified by the NAHC, outreach to local professional archaeologists familiar with the campus and its cultural resources, a records and literature search at the Northeast Information Center of the California Historical Resources Information System in Chico, and review of other available information.

The NAHC reported that review of their files did not indicate the presence of sacred lands in the APE. The records search at the Northeast Information Center revealed that 21 cultural resources surveys have been conducted within a half-mile radius of the APE. Five of the cultural resource's surveys were conducted within the APE. The Northeast Information Center records search also revealed that eight previously recorded archaeological sites are located within the APE or within a half-mile radius of the APE. One of these sites, the historical Smith Ranch, encompasses the entirety of the APE. Another site is located on a portion of the campus not planned for future development. Both of these sites are potentially eligible for listing on the National Register of Historical Places. Information available from local archaeologists showed that additional historical and prehistoric resources not reported to the Northeast Information Center are also present in the APE. As a result of the Native American consultation, Kelli Hayward of the Wintu Tribe of Northern California noted that the campus is a sensitive area for prehistoric cultural resources and requested that Native American monitors be present during ground-disturbing construction activities.

Field Surveys and Findings: Cultural resources field surveys were conducted on August 7 and October 15, 2018, and January 7 and 8, 2019, in which the entire APE was surveyed in transects spaced approximately 20 meters apart. As a result of the survey, the prehistoric site was re-located, and an updated site record was prepared. A section of an older alignment of Old Oregon Trail Road was identified in the western portion of the APE, in an area not planned for development. No surface features associated with the historical Smith Ranch were observed; however, excavations by Shasta College archaeology students have confirmed the present of rich subsurface deposits associated with the ranch.

Historical buildings and other structures are considered part of the environment and are subject to review under CEQA (OHP 2018). Buildings that are 50 years in age or older may potentially be considered as historical resources. Although evaluation of historical-era buildings was outside the scope of the current study, data provided by Shasta College staff shows that 17 buildings specifically identified for renovation

¹⁷ Copies of the reports are available for review at the Northeast Information Center of the California Historical Resources Information System in Chico.

or demolition in this IS/MND were originally constructed in 1967. The District, as Lead Agency, does not find that these buildings meet the criteria of historical resources as outlined in the California Code of Regulations §15064.5, nor has any potential historical significance been maintained as a result of the many alterations each building has undergone over the years. The proposed renovations constitute minor alterations of the identified buildings, and the original use of these buildings as educational spaces will remain, involving negligible or no expansion of their existing use at the time of this IS/MND.

Discussion of Checklist Answers:

- a. *Cause a substantial adverse change in the significance of a historical resource as defined in Section 15064.5?*
- b. *Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?*
- d. *Disturb any human remains, including those interred outside of formal cemeteries?*

The cultural resources studies documented that the Project site contains historical and archaeological resources that are potentially eligible for listing on the National Register of Historic Places and/or the California Register of Historical Resources. *FMP1* improvements would directly affect at least some of these resources. Specifically, pedestrian/bicycle paths and a parking lot would be constructed within the central Smith Ranch building sites and within prehistoric deposits. Building construction and associated improvements (landscaping and underground utilities) could also adversely affect these known sites. Further, although much of the college campus has been substantially disturbed, there is a high potential to encounter previously unreported subsurface historical and archaeological resources (possibly including human remains) elsewhere during construction of the proposed facilities. **Mitigation Measure CR-1** will reduce to a **less than significant** level potential impacts on archaeological and historical resources, and human remains.

Mitigation Measure CR-1

To reduce potential impacts to cultural resources to a less than significant level, the following measures shall be implemented.

1. *Monitoring by a qualified archaeologist is recommended for all initial ground-breaking activities associated with project implementation in natural undisturbed areas due to the possibility that previously unidentified historical or archaeological features or artifacts may be present.*
2. *Shasta College shall notify the appropriate tribal resources should they wish to provide for the presence of a Native American Monitor at all initial ground-breaking activities associated with project implementation in natural undisturbed areas due to the possibility that previously unidentified archaeological features or artifacts may be present.*
3. *If any previously unevaluated cultural resources (i.e., burnt animal bone, midden soils, projectile points or other humanly-modified lithics, historical artifacts, etc.) are encountered, all earth-disturbing work shall stop within 50 feet of the find until a qualified archaeologist can make an assessment of the discovery and recommend/implement mitigation measures as necessary. Depending on the type and significance of the find, subsequent monitoring by an archaeologist or Native American may be warranted. This stipulation does not apply to those cultural resources that have been evaluated by a qualified archaeologist and determined not to qualify as Historical Resources/Historic Properties.*

4. *If any human remains are encountered during any phase of construction, all earth-disturbing work shall stop within 50 feet of the find. The county coroner shall be contacted to determine whether investigation of the cause of death is required as well as to determine whether the remains may be Native American in origin. Should Native American remains be discovered, the county coroner must contact the Native American Heritage Commission (NAHC). The NAHC will then determine those persons it believes to be most likely descended from the deceased Native American(s). Together with representatives of the people of most likely descent, a qualified archaeologist shall make an assessment of the discovery and recommend/implement mitigation measures as necessary.*

c. *Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?*

The proposed Project will not directly or indirectly destroy a unique paleontological resource or site or unique geologic feature. There is ***no impact***.

Conclusion: The probability of historical or archaeological resources being encountered during construction in natural undisturbed areas is very high. However, adherence to state law and incorporation of the mitigation measure limits potential cultural resource impacts to a ***less than significant*** level.

Issues	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
VI. GEOLOGY AND SOILS <i>Would the project:</i>				
a. Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i. Rupture of a known earthquake fault as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.			X	
ii. Strong seismic ground shaking?			X	
iii. Seismic-related ground failure, including liquefaction?				X
iv. Landslides?				X
b. Result in substantial soil erosion or the loss of topsoil?			X	
c. Be located on a geologic unit or soil that is unstable, or that would become unstable as result of the project, and potentially result in on or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?			X	
d. Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?			X	
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?			X	

Existing Environmental Setting: The site is located within the Great Valley Geomorphic province, which includes the Great Central Valley of California. The region is underlain by the Red Bluff Formation. The major rock formations in the area include recent alluvial fan deposits from the West Fork of Stillwater Creek.

The predominant soil series mapped for the campus is Perkins loam, 0 to 3 percent (PIA). The soil is well drained with slow permeability. Runoff is very slow, the hazard of erosion is none to slight, and there is high shrink-swell (collapsible-expansion) potential. Even though this soil is used for irrigated hay and as irrigated and dryland pasture, it can be used for home sites and other related nonfarm uses, such as evidenced by the development of Shasta College on this particular soil. Other soil series located in the eastern portions of the campus are Churn loam, 0 to 3 percent slopes (CcA) Class I-1 and Churn loam -, slightly wet, 0 to 3 percent slopes (CdA), Class IIw-2. These soils are well drained with moderately slow permeability. Run-off is slow and the hazard of erosion is none to slight. This soil is used for irrigated hay and as irrigated and dryland pasture. The soils within the major drainage parallel to Old Oregon Trail are Churn gravelly loam, deep, 0 to 3 percent (CfA), Perkins gravelly loam, 8 to 15 percent (PmC) and Perkins gravelly loam, 15 to 30 percent (PmD); however, the *FMP1* does not currently propose any projects in these areas.

Shasta County is located within an area of low seismic activity relative to other areas of California. According to the Alquist-Priolo Earthquake Maps defining faults in California, few faults are located within Shasta County. The potentially active Battle Creek fault is mapped approximately 17 miles south of the Project site. The closest known active fault, as zoned by the State, is the Hat Creek fault, located approximately 48 miles northeast of the site.

In terms of seismic shaking, the different geologic materials that underlie the region have different shaking characteristics. The areas which are comprised of alluvium from the West Fork of Stillwater Creek have more potential for ground shaking than those comprised of consolidated bedrock. Due to the minimal possibility of a strong intensity earthquake event, and the depth of the groundwater in the area, it is not likely that liquefaction will occur. The potential for landslides is non-existent.

A tsunami is highly unlikely to occur since the Project area is not located in any proximity to an ocean. Likewise, the risk of seiche is remote as the nearest water body, Shasta Lake, is too far away to affect the site. Mount Lassen, the nearest center of potential volcanic activity, is located approximately 45 miles northeast, minimizing the potential for volcanic hazards to impact the Project site.

Discussion of Checklist Answers:

- a. *Expose people or structures to 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? ii. Strong seismic ground shaking? iii. Seismic-related ground failure, including liquefaction? iv. Landslides?*
- c. *Be located on a geologic unit or soil that is unstable, or that would become unstable as result of the project, and potentially result in on or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?*

The Project site is located in an area that is considered to be relatively free of seismic hazards in the immediate vicinity. The most significant seismic activity that can be anticipated is ground shaking generated by seismic events on distant faults. Future structures are required by State law to be constructed in accordance with the California Building Code (CBC) and to adhere to all modern earthquake construction standards, including those relating to soil characteristics. Impacts are considered *less than significant*.

As previously noted, the Project area is not affected by Alquist-Priolo Earthquake Fault Zones as determined by the California Geologic Survey. The Project site is located in a low severity earthquake area, as designated by the California Geologic Survey, and is considered to be at low risk for impacts associated with earthquakes. The general Project area is also located in an area designated in the City of Redding Health and Safety Element of the General Plan as having low ground-shaking potential. Consequently, the Study area is also at low risk for geologic events commonly associated with earthquakes, including liquefaction, subsidence, lurch cracking, and ground shaking. Furthermore, the Project will be designed and constructed in accordance with the requirements of the most recent Uniform Building Code (UBC) and California Building Code (CBC) including the latest supplements for Seismic Zone 3 and all other applicable State and Federal laws, regulations and guidelines, or other ground shaking standards as determined by the Project structural engineer and geotechnical professional. Incorporating such design standards will prevent catastrophic failure of the Project facilities in the event of an earthquake or other disaster, based on a reasonable standard of professional design care. There is a *less than significant impact* with respect to potential seismic related impacts.

There are *less than significant impacts* associated with seismic related ground failure including liquefaction and potential landslides, lateral spreading, subsidence, or collapse.

b. *Result in substantial soil erosion or the loss of topsoil?*

Excessive erosion requires time and expense to make repairs and could cause violations of discharge requirements. Prevention of erosion usually is less costly than repairs. Erosion control methods are those methods that prevent soil from moving. Soil particles are set in motion either by raindrop impact or flowing water. The faster and deeper the water flows, the more erosion will occur. To reduce erosion, soil is compacted to bond soil particles together and/or covered to reduce raindrop impact and slow runoff. Steeper slopes are more susceptible to erosion because the runoff flows faster. Concentrated flow also increases erosion because greater flow can carry greater sediment, especially on steeper slopes. Erosion control practices include straw mulching for temporary (one season) control and seeding and mulching and hydroseeding for long-term control. For very steep slopes there are more intensive and costly methods including straw mats and adhesive-type hydroseeding.

The areas within the campus where the proposed demolition, renovations, new building construction and future building sites are located is relatively level and the extent of site grading will include the removal of the existing building foundations, trees and landscaping, tennis and basketball courts, parking lot and roadway pavement, pathways and the installation of utilities. The grading and construction activities will disturb soils and potentially expose these soils to wind and water erosion. However, because more than one acre of ground will be disturbed, the College is required to prepare a stormwater pollution prevention plan (SWPPP) to comply with the Regional Water Quality Control Board's General Construction Storm Water Permit requirements. The SWPPP will identify best management practices (BMPs) to be implemented to minimize soil erosion and protect the existing drainage systems and ultimate receiving waterways, which in this case is the West Fork of Stillwater Creek and eventually, the Sacramento River. For informational purposes the following are examples of BMPs.

- *Ground disturbing work for site development shall be limited to the dry season to the greatest feasible extent, and all erodible surfaces shall be protected by paving, mulching or landscaping, as provided in the erosion control plan (required) prior to the advent of the rainy season (September to March). Berms shall be provided around construction sites to contain sediment. If construction operations occur during rainy periods, use of erosion control measures, such as straw-bale dikes, gravel filters, stabilized construction entrances and sediment traps shall be required. No areas shall be left exposed during winter.*

- *Surface soils may be subject to erosion when excavated and exposed to weathering. Erosion and sediment control measures shall be implemented during and after construction to conform to acceptable erosion control and County grading standards. The erosion control plan shall include revegetation of denuded areas.*
- *Drainage facilities shall be lined as necessary to prevent erosion. A detailed geotechnical investigation shall be prepared to determine specific site characteristics prior to construction of the FMP1 Projects. A civil engineer shall be involved during the construction phase(s) to assure that recommendations are implemented or modified as necessary.*
- *To minimize dust/grading impacts during construction; no grading activity shall be conducted when sustained wind speeds exceed 25 miles per hour. Construction activities may occur during sustained wind speeds between 10 and 25 miles per hour provided dust control measures are increased and dust and erosion impacts are controlled to the satisfaction of College inspection staff.*

Compliance with the State's General Construction Storm Water Permit will minimize soil erosion from grading and construction which reduces this potential impact to a ***less than significant*** level.

- d. *Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?*

Most of Shasta County is characterized by moderately expansive soils. These expansive soils generally contain clays that expand when moisture is absorbed into the crystal structure. This results in a rise in the ground surface. Though expansive soils are not considered to pose a significant hazard within Shasta County, the effects of potentially expansive soils on structures can be reduced through proper engineering design and standard corrective measures. Construction in conformance with California Building Standards Code and Uniform Building Code Standards will ensure that potential impacts related to soil expansivity are reduced to a ***less than significant*** level.

- 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?*

This issue is not applicable since all the proposed Projects will be served by College's wastewater treatment facilities except for the *RPSTF* which will be served by an existing septic tank and leach field system. However, the College does plan to eventually extend a sewer collection pipeline to the *RPSTF* and connect the line to the wastewater treatment plant. There is ***no impact*** associated with septic systems or alternative wastewater disposal systems.

Conclusion: Potential geologic and soils related impacts are ***less than significant*** due to specific design, construction, and operational measures to be incorporated into the Project. Furthermore, regulations and oversight provided by State and Federal regulators and adherence to their requirements will provide additional safeguards with respect to seismic, structural, and soil related issues.

Issues	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
VII. GREENHOUSE GAS EMISSIONS <i>Would the project:</i>				
a. Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?			X	
b. Conflict with any applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emissions of greenhouse gases?				X

Existing Environmental Setting: California is a substantial contributor of global greenhouse gases (GHGs), emitting over 400 million tons of CO₂ each year. GHGs are global in their effect, which is to increase the earth's ability to absorb heat in the atmosphere. Because primary GHGs have a long lifetime in the atmosphere, accumulate over time, and are generally well mixed, their impact on the atmosphere is mostly independent of the point of emission. *Table GHG-1, Greenhouse Gases* provides descriptions of the GHGs that the California Air Resources Board (CARB) is responsible for monitoring and regulating.

California Executive Order (EO) S-03-05 was signed by the Governor on June 1, 2005 and established the goal of reducing statewide GHG emissions to 2000 levels by 2010, to 1990 levels by 2020, and to 80 percent below 1990 levels by 2050. The California Global Warming Solutions Act of 2006 (AB 32) established a statewide GHG emissions cap for 2020 based on 1990 emissions levels as set forth in EO S-03-05. As required by AB 32, CARB adopted the initial Climate Change Scoping Plan in 2008 that identified the State's strategy to achieve the 2020 GHG emissions limit via regulations, market-based mechanisms, and other actions. CARB's first update to the Climate Change Scoping Plan (2014) addressed post-2020 goals and identified the need for a 2030 mid-term target, rather than focusing only on targets for 2020 or 2050. In December 2017, CARB's second update to the Scoping Plan included strategies to achieve the 2030 mid-term target.

The generation of electricity through combustion of fossil fuels (e.g., coal, natural gas, and petroleum) produces GHG emissions. To address this issue, SB 1078 was passed in 2002 to establish the State's Renewables Portfolio Standard (RPS) Program, with the goal of increasing the amount of electricity generated and sold to retail customers from eligible renewable energy resources. The initial goal was to increase the percentage of renewable energy in the State's electricity mix to 20 percent of retail sales by 2017. The Renewables Portfolio Standard was most recently amended in September 2018 by SB 100, which codified a target of 60 percent renewable energy in the State's electricity mix by 2030. SB 100 also sets a goal of completely phasing out electricity produced from fossil fuels by 2045. As the use of renewable energy sources for electricity generation increases, GHG emissions will continue to decrease.

The Sustainable Communities and Climate Protection Act of 2008 (SB 375) aims to reduce GHG emissions from passenger vehicles and light duty trucks through the coordination of land use, housing, and transportation strategies. Under SB 375, the CARB sets regional targets for the reduction of GHGs for each Metropolitan Planning Organization (MPO) in the State, or Regional Transportation Planning Agency (RTPA) for regions without a MPO. The MPO/RTPA must include a Sustainable Communities Strategy (SCS) in the applicable Regional Transportation Plan that demonstrates how the region will meet the GHG emissions reduction targets. The Shasta Regional Transportation Agency (SRTA) serves as Shasta County's RTPA. The SCS included in the 2015 *Shasta County Regional Transportation Plan* identifies potential strategies for reducing GHG emissions, including installation of plug-in electric vehicle charging stations, expansion of interregional public transportation options, and expanded bicycle and pedestrian infrastructure.

TABLE GHG-1 GREENHOUSE GASES	
Greenhouse Gas	Description
Carbon Dioxide (CO ₂)	Carbon dioxide (CO ₂) is the primary greenhouse gas emitted through human activities. In 2014, CO ₂ accounted for about 80.9 percent of all U.S. greenhouse gas emissions from human activities. The main human activity that emits CO ₂ is the combustion of fossil fuels (coal, natural gas, and oil) for energy and transportation, although certain industrial processes and land uses also emit CO ₂ .
Methane (CH ₄)	Methane (CH ₄) is the second most prevalent greenhouse gas emitted in the United States from human activities. Methane is emitted by natural sources such as wetlands, as well as human activities such as the raising of livestock; the production, refinement, transportation, and storage of natural gas; the decomposition of waste in landfills; and in the treatment of wastewater.
Nitrous Oxide (N ₂ O)	In 2014, nitrous oxide (N ₂ O) accounted for about 6 percent of all U.S. greenhouse gas emissions from human activities. Nitrous oxide is naturally present in the atmosphere as part of the Earth's nitrogen cycle. Human activities such as agricultural soil management (adding nitrogen to soil through use of synthetic fertilizers), fossil fuel combustion, wastewater management, and industrial processes are increasing the amount of N ₂ O in the atmosphere.
Hydrofluorocarbons (HFCs)	Hydrofluorocarbons (HFCs) are man-made chemicals, many of which have been developed as alternatives to ozone-depleting substances for industrial, commercial, and consumer products such as refrigerants, aerosol propellants, solvents, and fire retardants. They are released into the atmosphere through leaks, servicing, and disposal of equipment in which they are used.
Perfluorocarbons (PFCs)	Perfluorocarbons (PFCs) are colorless, highly dense, chemically inert, and nontoxic. There are seven PFC gases: perfluoromethane (CF ₄), perfluoroethane (C ₂ F ₆), perfluoropropane (C ₃ F ₈), perfluorobutane (C ₄ F ₁₀), perfluorocyclobutane (C ₄ F ₈), perfluoropentane (C ₅ F ₁₂), and perfluorohexane (C ₆ F ₁₄). Perfluorocarbons are produced as a byproduct of various industrial processes associated with aluminum production and the manufacturing of semiconductors.
Sulfur Hexafluoride (SF ₆)	Sulfur hexafluoride (SF ₆) is an inorganic compound that is colorless, odorless, nontoxic, and generally nonflammable. SF ₆ is primarily used in magnesium processing and as an electrical insulator in high voltage equipment. The electric power industry uses roughly 80 percent of all SF ₆ produced worldwide.
Nitrogen Trifluoride (NF ₃)	Nitrogen trifluoride is a colorless, odorless, nonflammable gas that is highly toxic by inhalation. It is one of several gases used in the manufacture of liquid crystal flat-panel displays, thin-film photovoltaic cells and microcircuits.

Source: California Air Resources Board, 2018; California Health and Safety Code §38505(g).

There are currently no State or local thresholds for GHG emissions; however, §15064.4 of the CEQA Guidelines states that a lead agency has the discretion to quantify GHG emissions, or to rely on a qualitative or performance-based standard. A lead agency may use a model or methodology to estimate greenhouse gas emissions resulting from a project. The lead agency has discretion to select the model or methodology it considers most appropriate to enable decision makers to intelligently take into account the project's incremental contribution to climate change.

The GHG analysis should consider 1) the extent to which the project may increase or reduce GHG emissions as compared to the existing environmental setting; 2) whether the project emissions exceed a threshold of significance that the lead agency determines applies to the project; and 3) the extent to which the project complies with any regulations or requirements adopted to implement a statewide, regional, or local plan for the reduction or mitigation of GHG emissions. If there is substantial evidence that the potential effects of a particular project are still cumulatively considerable even with compliance with adopted regulations or requirements, an Environmental Impact Report must be prepared for the project.

Discussion of Checklist Answers:

- a. *Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?*

Project GHG emissions were estimated using Version 2016.3.2 of the California Emissions Estimator Model (CalEEMod). CalEEMod provides default values when site-specific inputs are not available. For the proposed Project, site-specific inputs and assumptions include, but are not limited to, the following:¹⁸

- Although the Project is proposed to be constructed in four phases over a period of ten years or more (see Project Description above), in order to represent a worst-case scenario, reported emissions from the CalEEMod analysis are based on all four phases of the Project being constructed concurrently.
- Emissions from construction are based on all construction-related activities, including but not limited to site preparation, grading, demolition, use of construction equipment, material hauling, trenching, and architectural coatings.
- Emissions from operation of the proposed Project are based on all newly proposed operational activities, including vehicle traffic, electricity usage in the buildings and for lighting in parking lots, water use, wastewater treatment, solid waste disposal, use of architectural coatings, etc. Because some existing buildings will be demolished, only the net increase in building square footage is evaluated for operational emissions.
- The project includes installation of on-site pedestrian pathways, dedicated bicycle lanes, and joint use pedestrian/bicycle pathways. In addition, off-site pedestrian and bicycle facilities, as recommended in the *GoShasta Regional Active Transportation Plan* (February 2018), would be constructed to improve pedestrian and bicycle connections to the College. These features will reduce GHG emissions associated with automobiles.
- With the recently installed solar panels, the photovoltaic capacity of the campus solar arrays is approximately 2.6 MW. On-site solar energy production is incorporated into the CalEEMod analysis.

Because there are no State or local quantitative GHG thresholds, predicted Project-related GHG emissions were compared to thresholds established by the Bay Area Air Quality Management District and Sacramento Metropolitan Air Quality Management District, which are widely adopted GHG emissions thresholds, as shown in ***Table GHG-2, Greenhouse Gas Emissions Thresholds***. These thresholds are tied directly to AB 32 and state-wide GHG emissions reduction goals.

Shasta College has determined the commonly adopted numeric thresholds for land development projects of 1,100 metric tons of CO₂e per year for construction emissions, and 1,100 metric tons of CO₂e per year for operational emissions are appropriate for the proposed Project. If construction or operational emissions exceed 1,100 metric tons of CO₂e, then the impact is considered significant.

¹⁸ California Emissions Estimator Model (CalEEMod) output files, including all site-specific inputs and assumptions, are available for review at the Shasta College Administrative Services Office, Building 100 or are available in electronic format upon request.

TABLE GHG-2 GREENHOUSE GAS EMISSIONS THRESHOLDS		
Category	Bay Area AQMD	Sacramento Metropolitan AQMD
Construction	None Recommended	1,100 tons/year CO ₂ e ¹⁹
Stationary Sources ²⁰	10,000 metric tons/year CO ₂ e	10,000 metric tons/year CO ₂ e
Land Development Projects (Operational)	1,100 metric tons/year CO ₂ e or 4.6 tons CO ₂ e/service population/year	1,100 metric tons/year CO ₂ e

GHG emissions for the proposed Project were estimated using the CalEEMod.2016.3.1 software. CalEEMod is a statewide model designed to quantify GHG emissions from land use projects. The model quantifies direct GHG emissions from construction and operation (including vehicle use), as well as indirect GHG emissions, such as GHG emissions from energy use, solid waste disposal, vegetation planting and/or removal, and water use. CalEEMod also includes the intensity factors for CO₂, CH₄, and N₂O for the utility company that will serve the proposed Project. Therefore, CalEEMod uses PG&E's mix of renewable and non-renewable energy sources to estimate indirect GHG emissions associated with the Project's electricity use.

Project GHG Emissions

Construction

Construction of the proposed Project would emit GHG emissions as shown in **Table GHG-3, Construction-Related Greenhouse Gas Emissions**, primarily from the combustion of diesel fuel in heavy equipment. Because CO₂e associated with construction of the proposed Project would not exceed the numerical threshold of 1,100 metric tons/year of CO₂e, impacts during construction would be *less than significant*.

Table GHG-3 CONSTRUCTION-RELATED GREENHOUSE GAS EMISSIONS (METRIC TONS)				
All Phases	Carbon Dioxide (CO ₂)	Methane (CH ₄)	Nitrous Oxide (N ₂ O)	Carbon Dioxide Equivalent (CO ₂ e)
	347.19	0.06	0	348.61

Operational

The proposed Project would result in the generation of operational GHG emissions as shown in Table GHG-4. The majority of operational emissions are attributed to mobile sources (e.g., vehicle trips for employees, students, vendors, deliveries, etc.), and energy use due to the generation of electricity for the proposed Project through the combustion of fossil fuels.

As indicated in **Table GHG-4, Operational Greenhouse Gas Emissions**, CalEEMod estimates that the proposed Project would only slightly exceed the referenced operational threshold of 1,100 metric tons/year of CO₂e. Although operational emissions are projected to slightly exceed the threshold, CalEEMod does not take into consideration existing State plans, including the 2017 Climate Change Scoping Plan, that call for the development of additional State regulations to reduce GHG emissions from the transportation, energy, water, waste management, agriculture, and land use sectors to achieve the 2030 target of 40 percent emissions reductions below 1990 levels.

¹⁹ Because different GHGs have different effects on the atmosphere, each GHG is assigned a global warming potential (GWP) which is a measure of the heat-trapping potential of each gas over a specified period of time. The GWP metric is used to convert all GHGs into CO₂ equivalent (CO₂e) units, allowing policy makers to compare impacts of GHG emissions on an equal basis.

²⁰ Stationary sources are typically associated with industrial processes (e.g., boilers, heaters, flares, cement plants, and other types of combustion equipment).

Table GHG-4 OPERATIONAL GREENHOUSE GAS EMISSIONS (METRIC TONS)				
Phase	Carbon Dioxide (CO ₂)	Methane (CH ₄)	Nitrous Oxide (N ₂ O)	Carbon Dioxide Equivalent (CO ₂ e)
	1,098.48	1.71	Trace	1,142.77

According to the 2017 Climate Change Scoping Plan, CARB's analyses show that fossil fuel demand in the transportation sector will decrease by more than 45 percent by 2030 through implementation of the State's GHG reduction strategies, which will reduce mobile source GHG emissions. The reduction strategies include transitioning to zero-emission and low-emission vehicles, implementing clean transit options, and reducing vehicle miles traveled (VMT) through implementation of Sustainable Communities Strategies.

Because build-out of the Facilities Master Plan would not occur until post 2030, additional Statewide regulations aimed at reducing GHG emissions by 40 percent below 1990 levels will be in place prior to full build-out.

In addition, the College intends to complete energy conservation improvements that would reduce existing operational emissions (e.g., expansion of the existing solar field; upgrading climate control systems consisting of heating, ventilation, and cooling/air conditioning; and implementation of alternative and passive technologies to conserve energy, such as energy-efficient windows, window coverings and shade control, shade canopies, etc.).

Therefore, because alternative transportation improvements would be installed to reduce VMTs, energy conservation improvements would be completed to reduce operational emissions, and implementation of State regulations would further reduce GHG emissions, operational impacts would be *less than significant*.

Cumulative

GHG emissions and global climate change are, by nature, cumulative impacts. Unlike criteria pollutants, which are pollutants of regional and local concern, GHGs are global pollutants and are not limited to the area in which they are generated. As documented above, construction-related GHG emissions would not exceed the numerical threshold of 1,100 metric tons/year CO₂e. Although operational CO₂e emissions are projected to slightly exceed the threshold, existing and proposed State regulations to reduce GHG emissions would be in place prior to build-out of the Facilities Master Plan. Because the State regulations apply to all development projects, cumulative impacts are *less than significant*.

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

As discussed under Environmental Setting above, the State legislature has adopted numerous programs and regulations to reduce statewide GHG emissions. As documented above, the proposed Project does not conflict with any applicable plan, policy, or regulation adopted for the purpose of reducing GHGs and therefore, there is *no impact*.

Conclusion: Project construction would not exceed the referenced GHG thresholds. With implementation of alternative transportation improvements, energy conservation measures, and State regulations for the reduction of GHG emissions, operational GHG emissions can be reduced below the numerical threshold. Therefore, the Project's impact to global warming and climate change is considered *less than significant*.

Issues	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
VIII. HAZARDS AND HAZARDOUS MATERIALS <i>Would the project:</i>				
a. Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?			X	
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?			X	
c. Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?				X
d. Be located on a site which is included on a list of hazardous materials compiled pursuant to Government Code Section 65962.5 and, as a result, would create a significant hazard to the public or the environment.				X
e. For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?				X
f. For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?				X
g. Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?			X	
h. Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?			X	

Existing Environmental Setting: To date no Phase I studies have been prepared addressing the areas or buildings where the proposed demolitions, renovations, new building construction, or future building sites are located. None of the areas and existing buildings slated for demolition or the areas proposed for new construction or designated as future building sites have been known to contain hazardous materials. However, due to their age some of buildings may contain hazardous materials such as asbestos containing materials or lead based paint. However, the amount of hazardous material contained in the various materials, such as paint, determines if hazard thresholds are exceeded.

As a frame of reference, a Phase I Environmental Site Assessment (ESA) was prepared for an approximate 35-acre area within which the existing and future *RPSTF* is located. The ESA addressed the area between Old Oregon Trail and the tributary to West Stillwater Creek where the existing and future *RPSTF* is to be located. The ESA found evidence of current operations using, storing, or disposing of hazardous substances on the site. In particular a 55-gallon drum stored outside the former *Crime Lab* (Key ID. 53, Building 6400)

was unlabeled, open and full of liquid that exhibited a ‘foul odor,’ and represented a condition that posed a material threat of a future release. The report also noted that “no visual inspections were performed to determine the condition and quantity of suspected asbestos-containing materials or lead based paint, because it is not mandated by ASTM E1527-13 which defines the Phase I Environmental Site Assessment process and what is to be prepared.”²¹

The report also noted that five underground storage tanks and two above ground storage tanks are located at the College. These tanks are all located southeast of the area that was the subject of this particular Phase I ESA with the closest tank located approximately 2,000 feet southeast of the *Crime Lab Building*.

Subsequent to the Phase I ESA for the *RPSTF*, an inspection for asbestos-containing materials in the former *Crime Lab Building* was performed and remediations were identified to be performed prior to demolition. In addition, there was no evidence of leakage from the 55-gallon drum which was moved to the campus’s Environmental Compliance Services Center. As per State and Federal regulations, a waste determination will be made for the contents of the drums; it will be correctly characterized, labelled, manifested and shipped to an appropriate facility for disposal by a licensed hazardous waste hauler.

According to Section 25117 of the *California Health and Safety Code*, a hazardous material is any material that, because of its quantity, concentration, or physical or chemical characteristics, poses a significant present or potential hazard to human health or the environment if released into the workplace or the environment. Hazardous substances can take the form of a solid, dust, liquid, or fume and exhibit any of the criteria set forth in 22 CCR, Chapter 30, Article 11. A list of wastes that are presumed hazardous is presented in Chapter 30, Article 9 of Title 22. Hazardous waste criteria include toxicity, ignitability, reactivity, and corrosivity.

The Phase I ESA for the *Crime Lab Building* discussed a condition discovered “that poses a material threat of a future release to the environment in the former crime lab building and as such is considered a REC (Recognized Environmental Condition). A controlled REC is defined as a REC resulting from a past release of hazardous substances or petroleum products that has been addressed to the satisfaction of the applicable regulatory authority (as evidenced by issuing a no further action letter), with hazardous substances or petroleum products allowed to remain in place subject to the implementation of required controls. A controlled REC shall be listed as a REC; however, there is no controlled REC on the subject property. There are no offsite controlled REC associated with this property, based upon our review of the available information for the adjacent sites.”²²

Recognized Environmental Conditions (RECs), as defined by the American Society for Testing and Materials (ASTM) E1527-05 standard practice (Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process), “means the presence or likely presence of any hazardous substance or petroleum products on a property under conditions that indicate an existing release, a past release, or a material threat of a release of any hazardous substances or petroleum products into structures on the property or into the ground, groundwater, or surface water of the property. The term includes hazardous substances or petroleum products even under conditions in compliance with laws.”

Discussion of Checklist Answers:

- a. *Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?*

²¹ SHN Engineers & Geologists. *Phase I Environmental Site Assessment*. September 2016 available for review at the Shasta College Administrative Services Office, Building 100.

²² REC is defined by the American Society for Testing and Materials (ASTM) E1527-05 standard practice (Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process)

- 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?*

It is the College's operational policy that after consultation with a Registered Environmental Property Assessor, a determination is made whether to proceed with a Phase I ESA to address potential hazards and hazardous materials. A Phase I ESA includes database research and a pedestrian survey of the site to determine the likely presence of hazardous materials. Even though the database records may not have records of hazardous materials specifically located on a Project building or site, the Phase I ESA may identify areas and associated activities some of which generate wastes that need to be properly disposed. Once the Phase I ESA is prepared, if there are any recommendations regarding hazardous materials, asbestos-containing materials or lead based paint, a determination is made whether to proceed with a Phase II ESA, if a site is considered contaminated, and/or to just address specific issues such as asbestos-containing materials or lead based paint. A Phase II ESA may be conducted based on ASTM E1903, a more detailed investigation involving sampling of soils, air, groundwater, and/or building materials involving chemical analysis to determine hazardous substances and/or petroleum hydrocarbons.

Although highly unlikely, a potential release of hazardous materials could occur during construction work on any given project. Any such releases would most likely be minor spillages of motor vehicle fuels and oils. Given the requirement for a General Construction Stormwater permit from the State Regional Water Quality Control Board (RWQCB), the Project will be required to prepare a Stormwater Pollution Prevention Plan (SWPPP), which would stipulate how and where vehicles can be refueled and will include Best Management Practices (BMPs) implemented during construction to avoid spills, immediately respond to any spills, and minimize the effects of such spills. The use and handling of chemicals during construction activities will occur in accordance with applicable Federal, State, and Local laws including California Occupational Health and Safety Administration (Cal OSHA) Requirements.

Due to the operational, permitting, and reporting requirements imposed by the College, State and Federal governments, it is highly unlikely that the release of hazardous materials at a level that would present a hazard to the environment or to human or animal life would occur. Potential impacts are considered *less than significant*.

- c. *Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?*
- d. *Be located on a site which is included on a list of hazardous materials compiled pursuant to Government Code Section 65962.5 and, as a result, would create a significant hazard to the public or the environment.*

The Project site is not located on a known hazardous materials site; therefore, there is *no impact*.

- e. *For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?*
- f. *For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?*

The proposed Project is located approximately seven miles north of the Redding Municipal Airport and clearly outside the adopted safety zone. The Airport is strictly regulated through the *Redding Municipal Airport Master Plan*.²³ No private airstrip exists in the area. There are *no impacts*.

²³ Coffman Associates, Inc. *Final Airport Master Plan for Redding Municipal Airport*. November 2015.

- g. *Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?*

The proposed Project will not impair or interfere with any future emergency response or excavation plans. Potential impacts are considered ***less than significant***.

- h. *Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?*

Wildland fire hazards exist due to the location of the campus adjacent to semi-rural residential parcels to the west and east of the campus and large undeveloped parcels to the north. The Shasta College EOP Action Plans address potential wildland fires given that portions of the College are surrounded by wooded areas, which pose a serious wildland fire threat to campus facilities. Implementation of the applicable EOP Action Plans result in potentially ***less than significant*** impacts.

Conclusion: Adherence to regulatory codes, standards and Shasta College Emergency Operations Plan will reduce the potential impacts from hazardous materials to a ***less than significant*** level.

Issues	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
IX. HYDROLOGY AND WATER QUALITY <i>Would the project:</i>				
a. Violate any water quality standards or waste discharge standards?			X	
b. Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g. the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?			X	
c. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on-or off-site?			X	
d. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on-or off-site?		X		
e. 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?		X		

Issues	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
IX. HYDROLOGY AND WATER QUALITY <i>Would the project:</i>				
f. Otherwise substantially degrade water quality?			X	
g. Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?				X
h. Place within a 100-year flood hazard area structures which would impede or redirect flood flows?				X
i. Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?			X	
j. Inundation by seiche, tsunami, or mudflow?				X

Existing Environmental Setting: The majority of the Shasta College Campus site has already been altered as a result of the development of the College which was constructed between 1966 and 1972 and includes the majority of the facilities still in use today. Approximately 43.9 percent (148.0-acres) of the 337-acre campus can be considered developed with buildings and associated support facilities, athletic fields, and infrastructure which includes roads, parking lots, driveways, pathways, landscaped and hardscaped gathering areas and quads, utilities and services such as the Wastewater Treatment Ponds and facilities. Approximately 189.0-acres of the campus could be classified as being in its natural state which would include the approximately 127-acres of *Farming & Grazing* lands which would be classified as Open Space, albeit that 10-acres are utilized for agricultural operation facilities. The developed portion of the campus would be subject to rain runoff that would not be directly absorbed into the ground. Most campus runoff flows to the various streams, drainage ditches and onto agricultural lands before being absorbed into the ground or flowing into West Stillwater Creek.

In terms of flood hazards, Shasta County is subject to flooding from three basic sources: natural seasonal flooding, dam inundation, and mud and debris flows. Natural flooding is a result of seasonal storms that create runoff that can cause streams to overflow their natural banks or man-made levees. Dam inundation could occur from a structural failure of the Shasta Dam, releasing significant floodwaters to the Sacramento River, which is located approximately 3.5 miles “as the crow flies” southwest of the campus.

Discussion of Checklist Answers:

a. *Violate any water quality standards or waste discharge standards?*

f. *Otherwise substantially degrade water quality?*

Under section 402 of the Clean Water Act, the Regional Water Quality Control Board (RWQCB) issues National Pollutant Discharge Elimination System (NPDES) permits to regulate waste discharges to Waters of the US. Waters of the US include rivers, lakes, tributary streams, and wetlands. Waste discharges include discharges of stormwater and construction project discharges. A construction project resulting in the disturbance of one or more acres requires a NPDES permit. As previously discussed, a Storm Water Pollution Prevention Plan (SWPPP) will be required to be prepared prior to construction since the area of disturbance is greater than one acre.

Adherence to the Best Management Practices (BMPs) advanced as required in the SWPPP and the permitting, operational, and reporting requirements imposed by the State and County ensure that the Project will not violate water quality or discharge standards, or otherwise substantially degrade water quality. Any potential impacts associated with water quality will be reduced to a ***less than significant*** level.

- b. *Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g. the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?*

This Project will receive water service from the Bella Water District and does not propose any direct withdrawal of groundwater. The Bella Vista Water District has adequate capacity to supply the long-term needs of Shasta College, including development of the proposed Project. Therefore, this impact is considered to be ***less than significant***.

- c. *Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?*

Overall, the proposed Project will not substantially alter any existing drainage pattern of the Project site or the area since the construction of improvements on relatively level land minimizes the amount of grading, therefore, the potential erosion impacts are ***less than significant***.

- d. *Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on-or off-site?*
- e. *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?*

Drainage patterns and surface runoff amounts are the result of a number of factors including slope, soil permeability, vegetation, and surface type. Approximately 148-acres of the Study area has been altered due to previous development and is considered relatively level from a topographical perspective.

For any form of development project, even on a site that has been significantly altered, standard practice calls for the preparation of a hydrology/drainage analysis by a registered civil engineer or certified hydrologist. The analysis will determine upstream and project cumulative impacts and increased runoffs resulting from the Project. In coordination with the Project's civil engineer, the College shall review any recommended improvements to the storm drainage facilities, such as underground detention, detention/retention ponds, in-stream detention/retention, and storm-pipe upsizing, in accordance with applicable civil engineering standards. To avoid substantially increasing the amount of stormwater runoff that could result in on-or off-site flooding, ***Mitigation Measure H-1*** is to be implemented, thereby, reducing potential stormwater related drainage impacts to a ***less than significant level***.

Mitigation Measure H-1

The potential for on-site and/or off-site flooding resulting from future improvements including but not limited to buildings, athletic facilities, roadways, driveways, pedestrian and bicycle pathways parking lots, or any other improvement resulting in the creation of impervious surfaces, shall be reduced by constructing either ponds, underground detention facilities, or other type of structure recommended by a licensed civil engineer or

hydrogeologist. These facilities shall be located in the general location of existing disturbed areas throughout the campus. Should the facilities be proposed where lands are in a natural state then a separate CEQA environmental clearance will need to be prepared, more than likely a Categorical Exemption depending on the location and size of the structure.

A qualified wetland specialist shall review the proposed alternate site to ensure that potential wetlands are avoided. To minimize impacts to native trees and oak woodlands and offset the unavoidable loss of native trees and oak woodland habitat **Biological Resources Mitigation Measure BR-2** is to be implemented.

In-stream detention facilities can be constructed provided the necessary U.S. Army Corps Nation-wide or Individual Permit is obtained when impacting jurisdictional Waters of the U.S. If there is no Corps jurisdiction then the in-stream detention facility cannot be constructed until the State Regional Water Quality Control Board approves a Notice of Applicability to permit the fill to create the detention facility. In addition, a State Fish & Wildlife 1602 Streambed Alteration Agreement would need to be obtained.

In order to accommodate buildings and their associated improvements or any other infrastructure improvements, depending on the Phase, detention facilities can either be expanded or relocated to another site to serve the proposed improvements.

- g.** Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?

This threshold is not applicable. There is **no impact**.

- h.** Place within a 100-year flood hazard area structures which would impede or redirect flood flows?

The Project does not propose the construction of any structures within 100-year flood hazard areas; therefore, there is **no impact**.

- i.** Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?

Review of the March 17, 2011 Flood Insurance Rate Maps (FIRM) for Shasta County, California and Incorporated Areas encompassing the College shows that Panel 1552 of 2325 Map Number 06089C1552G is located outside a 100-year flood hazard area. However, Panel 1560 of 2325, Map Number 06089C1560G; Panel 1245 of 2325, Map Number 06089C1245G; and Panel 1239 of 2325, Map Number 06089C1239G which abut the West Fork of Stillwater Creek, have the edges which are riparian vegetative zones encroaching, albeit slightly, into the 100-year flood hazard area. The proposed Project activities are not impacted by this 100-year flood hazard encroachment; therefore, the potential impact is **less than significant**.

- j.** Inundation by seiche, tsunami, or mudflow?

Tsunamis are defined as sea waves created by undersea fault movement. A seiche is an oscillation of the surface of a lake or landlocked sea. Mudflows typically occur in mountainous or hilly terrain. The site is in little danger from tsunami, being some distance from the Pacific Ocean. Shasta Lake is too far away to impact the site by seiche. The lack of steep slopes makes the possibility of mudflow unlikely. There are **no impacts** due to these hazardous conditions.

Conclusion: Due to the existing site conditions, the nature and scope of the Project, adherence to federal and state regulations and civil engineering standards, potential impacts to water quality are *less than significant*. There are *less than significant impacts* associated with drainage pattern alterations and increases in the rate of run-off. There are *no impacts* associated with issues associated with groundwater, placement of structures within flood hazard areas, floodplain, seiche, tsunami or mudflows.

Issues	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
X. LAND USE AND PLANNING <i>Would the project:</i>				
a. Physically divide an established community?				X
b. Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?				X
c. Conflict with any applicable habitat conservation plan or natural community conservation plan?				X

Existing Environmental Setting: The *Community Development Element* of the *Shasta County General Plan* sets forth the County's policies for guiding local development. These policies, together with existing zoning, establish the amount and distribution of permitted land uses within each zone, and sets forth development standards with which the permitted land uses must comply.

The Shasta County General Plan Land Use Classification for Shasta College is *Public Facilities* and the Zoning District Designation is *Public Facilities (PF)*. The proposed Project and related activities, all contained within the Shasta College campus are consistent with the general plan and zoning.

Lands to the north, to the west, and west of Old Oregon Trail, are designated as *Suburban Residential (SR)*, *Urban Residential 25 Dwelling Units per Acre (UR-25)* and *Commercial (C)*. Zoning consists of *Multi-Family Residential 25 Dwelling Units per Acre (R-3-25)*, *Community Commercial (C-2)*, *Commercial Design Review (C-2-DR)*, *Interim Rural Residential Mobile Home Permitted (IR-T)* and *Interim Rural Residential (IR)*. Land east of the West Fork of Stillwater Creek which defines the eastern campus boundary is designated *Rural Residential A (RA)* and zoned as *Rural Residential Mobile Home Permitted on Minimum 5-Acres (R-R-T-BA-5)* and *Rural Residential (R-R)*. Abutting the southern boundary of the campus is SR-299. Lands to the south of SR-299 are designated *Commercial Agricultural Small Scale Cropland/Grazing (A-cg)* and zoned *Community Commercial (C-2)* and *Limited Agricultural (A-1)*. Significant natural open space buffers provide for land use compatibility along the western, northern and eastern boundaries of the campus with adjacent land uses, whereas, natural open space and then SR-299 provides a buffer with land uses to the south.

Discussion of Checklist Answers:

a. Physically divide an established community?

The proposed Project, due to its location within the Shasta College Campus, will not divide an established community. Therefore, *no impacts* will result.

- b. *Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?*

The Project does not conflict with any applicable land use plans, policies, or regulations identified in the Shasta County General Plan, nor does it conflict with the Zoning Ordinance. There are **no impacts** associated with the proposed Project.

- c. *Conflict with any applicable habitat conservation plan or natural community conservation plan?*

Currently, there are no adopted Habitat Conservation or Natural Community Conservation Plans applicable to Shasta County, resulting in **no impact** as a result of the proposed Project.

Conclusion: There are **no impacts** from the proposed Project associated with land use and planning.

Issues	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XI. MINERAL RESOURCES. <i>Would the project:</i>				
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?				X
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?				X

Existing Environmental Setting: Review of California Geological Survey Surface Mining and Reclamation Act (SMARA) mineral classification maps does not identify mineral resource deposits that could be impacted either onsite or within the area. There are no valuable minerals or extraction sites known to occur within the Shasta College Campus, even though USGS maps indicate gravel extraction activities having occurred within and adjacent to the West Fork of Stillwater Creek, north of the campus.

Discussion of Checklist Answers:

- 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?*
- 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?*

Currently, there are no extraction activities taking place within the Project site or Shasta College. There are **no impacts** to mineral resources.

Conclusion: The proposed Project will result in **no impacts** on mineral resources.

Issues	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XII. NOISE <i>Would the project result in:</i>				
a. Exposure of people to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?			X	
b. Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?			X	
c. A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?			X	
d. A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?			X	
e. For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?				X
f. For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?				X

Existing Environmental Setting: As previously discussed, the *Regional Public Safety Training Facility (RPSTF)* underwent CEQA review whereby on June 14, 2017 the District adopted the IS/MND. Subsequently, further environmental analysis was undertaken to provide clarification whereby proposed changes were addressed in the January 2, 2019 *Shasta College Regional Public Safety Training Facility Initial Study Addendum*. A component of the adopted IS/MND was the October 6, 2016 *Noise Assessment for the Proposed Relocation of the Shasta College Public Safety Training Facility and Initial Study Noise Assessment* for the proposed Project prepared by ENPLAN.²⁴

One of the objectives of the relocation of the existing *RPSTF* was is to reduce the generated noise levels experienced by residents living on the west side of Old Oregon Trail by moving the *RPSTF* to the east. The relocation and redesign placed the outdoor training structures approximately 1,100 feet east of the nearest residence.

Noise-level measurements were obtained by ENPLAN staff on September 12, 2016, between the hours of approximately 10 A.M. and 12:30 P.M. The temperature during the monitoring period was approximately 67 degrees Fahrenheit (67° F) at the outset, rising to 81° F. Winds were calm during most of the monitoring period, rising to about five miles per hour by noon, with some gusts to ten miles per hour. Humidity was approximately 57 percent at 10 AM, dropping to 29 percent at the end of the monitoring period.

To determine noise levels at the nearest residence, sound-level measurements were obtained from the outer edge of the covered deck at the residence. The deck is on the east side of the residence, faces Old Oregon Trail and is elevated roughly six feet above ground level. Three sets of sound level measurements were taken with the microphone in this location. One set of measurements was taken with the noise sources positioned at the current public safety training facility location. Another set of measurements was taken

²⁴ A copy of the *Noise Assessment* is on file and for review at the Shasta College Administrative Services Office, Building 100.

with the same noise sources repositioned at the western edge of the previously approved facility location. The third set of measurements was taken with the noise sources positioned near the eastern edge of the planned facility location. For the latter two sets of measurements, the noise source location was influenced by limitations on accessibility of the fire engine, as the selected location for the noise source was at least 100 feet closer to the residence than the planned activity center of the previously approved facility location.

At a minimum, each set of noise measurements consisted of a two-minute measurement of a fire engine siren with a continuous pitch, a two-minute measurement of the siren with a fluctuating pitch, and a 30-second measurement of a circular saw cutting a metal panel. In addition, a duplicate measurement of continuous siren noise was obtained at the 1,265-foot distance from the residence, and a second measurement of the metal saw was obtained, with the metal panel being sawn atop a training structure at the previous public safety training facility site. Further, three five-minute measurements of ambient noise levels (i.e., with no public safety training equipment in use) were obtained at the residence.

The fire engine siren was incorporated into the roof-mounted light bar on top of the engine and is positioned approximately nine feet above ground level (Figure 5 in the *Noise Assessment*). The supplemental sound level measurement of the metal saw was obtained with the metal panel positioned on a sloping roof facing the nearest residence; the panel was at a height of approximately 12 to 14 feet above ground level (Figure 6 in the *Noise Assessment*).

In addition to the noise measurements at the nearest residence, ENPLAN personnel also measured equipment noise at specified distances in close proximity to the three noise sources. These measurements were obtained to help determine the noise attenuation rate (drop-off rate) over distance. This aspect of the field study consisted of measuring metal saw noise levels at distances of 50, 100, and 200 feet, and the fluctuating and continuous sirens at distances of 50, 100, 200, 400, and 600 feet.

Sound level measurements obtained during the field study determined that noise attenuation rates for the fire engine siren and metal saw showed that the rate is not constant but increases with increasing distance from the source. Spot measurements of daytime noise levels at the residence nearest the previous RPSTF site showed that the baseline noise level was moderate (46.6-50.2 dBA). As measured at the residence, siren noise was quite high (76.6-77.7 dBA) and was much more pronounced than that of the metal saw.

Noise from the metal saw was moderate when cutting at ground level (57.5 dBA) but increased substantially when the saw was used on the elevated training prop (62.9 dBA). If more than one piece of noise-generating equipment were used at one time, which is likely the case, noise levels experienced at the nearest residence would increase. However, at a distance of 1,265 feet, which represents the possible location of the principal noise sources based on the revised site plan to provide the maximum setback from the nearest residence, noise from both the siren and metal saw decreased substantially. At this distance, siren noise was measured at 55.3 to 58.9 dBA and the metal saw was recorded at 41.9 dBA.²⁵

The noise assessment determined that noise from both the siren and metal saw decreased substantially and that the relocated and redesigned RPSTF exterior noise activities would meet County noise standards. Therefore, a correlation can be made between the noise study that addressed the *RPSTF* and the proposed Projects and associated construction and operational activities advanced by the *FMPI*.

- a. *Exposure of people to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?*

The development of the closest building site project, which would be the *Two Dormitory Building Sites*, are located approximately 2,300 feet from the nearest residence west of Old Oregon Trail.

²⁵ At 41.9 dBA, this measurement is less than the baseline noise level. The metal saw noise measurement was obtained when no automobiles were using Old Alturas Road in the site vicinity and the metal saw was the dominant noise source.

The distance between this residence and the *RPSTF* was approximately 1,265 feet. Since it was determined that potential noise impacts from the *RPSTF* on the nearest residence was less than significant due to distance, no noise analysis is necessary to make the same conclusion for the proposed future *Two Dormitory Building Sites*. Furthermore, topography and tree cover between the residence and building site provides additional noise attenuation. In that all the proposed renovations, new building construction and proposed building sites are located even further from the existing residence, it can be concluded that potential impacts associated with exposing people to or generation of noise levels in excess of noise threshold standards established in the Shasta County General Plan are considered ***less than significant*** and no mitigation is required.

- b. *Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?*

The location of the closest proposed Project building to be constructed as identified in the *FMPI* is the *Campus Safety Storage Building* which is to be located approximately 200 feet north of the SR-299 west bound off-ramp and approximately 275-feet from the closest SR-299 west bound traffic lane where truck traffic would be the most intense source for creating groundborne vibration and noise levels. However, the *Campus Safety Storage Building* will not be occupied. Regardless, potential impacts due to excessive groundborne vibrations or noise will be ***less than significant*** due to location and adherence to building code standards.

- c. *A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?*
- d. *A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?*

Regarding a potential increase in ambient noise levels, normal College daily traffic will no longer be using that portion of Old Oregon Trail that fronts existing residences since the *RPSTF* is being relocated so that access is from Shasta College Drive (North). To access the proposed renovations, new construction, and proposed future building projects, the existing residences along Old Oregon Trail north of Shasta College Drive (North) will not be impacted. Due to distance, Project related associated construction, traffic or operational related (such as from HVAC systems) noise increases will not impact ambient noise levels affecting these existing residences. It should also be taken into account that the eventual new construction and associated operations will only be increased by approximately 14,312 net square feet, a 2.89 percent increase over the existing overall campus square footage. When the proposed future building sites of 143,220 square feet are developed, ambient noise levels will be impacted. However, future development in the general area, such as the Bethel School of Ministry which is to begin construction in 2019-2020, traffic increases along SR-299 and general development in the area will contribute cumulatively to ambient noise level increases with or without the proposed *FMPI* Projects. Therefore, potential impacts on existing and future ambient noise levels are considered ***less than significant***.

Although short-term in nature, during the site preparation and construction phases of the proposed Project, noise would be generated by heavy earthmoving equipment and typical building fabrication noise sources. To date, heavy earthmoving activities have and continue to occur throughout the campus, and no complaints have been received by College personnel. Regardless, construction activities will be limited to daylight hours. Heavy equipment (trucks, graders, loaders, backhoes) produce sounds ranging from 80 to 90 dB at 50 ft. A standard pick-up truck produces noise amplitudes of about 60 dB at 50 ft. However, as previously noted the nearest potential sensitive receptors are the residences to the west, whereby the closest residence is located approximately 2,300-feet from the closest proposed Project building site, the *Two Dormitory Building Sites*. Trees retained between the areas where future construction and renovation will occur, and the sensitive

receptors, will also serve to attenuate construction-related noise to some degree. Noise will also dissipate with distance; a 100-dB sound will dissipate to approximately 70 dB at 1,400 ft. Impacts on ambient noise levels due to construction-related noise impacts are therefore expected to be ***less than significant***.

- e. *For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?*

The Redding Municipal Airport is located approximately seven miles south of the Project site. Therefore, there are ***no potential impacts*** due to distance and also because the airport is strictly regulated by the *Redding Municipal Airport Master Plan*.

- f. *For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?*

These thresholds are not applicable. There is ***no impact***.

Conclusion: Due to location of the proposed *FMP1* demolitions, renovations, new construction and future proposed building sites and the distance to sensitive noise receptors in the immediate area of the Project, overall potential noise related impacts are considered ***less than significant***.

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

Existing Environmental Setting: Shasta County is the land use authority with primary responsibilities for implementing growth strategies. The Shasta-Tehama-Trinity Joint Community College District is responsible for implementing renovation and growth strategies through the adopted 2014 *Facilities Master Plan 2014-2030* and the May 2018 *Facilities Master Plan Amendment One*.

Full Time Equivalent Students (FTES) at the College have generally declined since 2009-2010 from 8,234 to 6,636 FTES in 2017-2018. The initial decline was a result of funding reductions and reduced course offerings due to the economic recession. The continued decline is associated with a gradual decline of high school students in the region combined with increased job opportunities during the current economic recovery. However, there have been increases in enrollments for the Fire Technology (FIRE), Emergency Medical Training (EMT) and Administration of Justice (AOJ) Programs over the last several years.

Enrollments increased from 1,391 students in academic year 2012-2013 to 1,687 students in academic years 2017-2018 with a high of 1,801 students in 2014-2015. The overall growth rate was 21 percent.²⁶

It is projected that with the proposed renovations and/or reconfigurations and new construction activities that these activities will attract future students. Therefore, student, associated faculty and College employee growth is anticipated to occur.

Discussion of Checklist Answers:

- a. *Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension or roads or other infrastructure)?*

The proposed Project will not induce population growth in the area due to the nature of the proposed Project which involves demolition, renovation, construction of new buildings and future building sites that address existing and future needs of the College's curriculum. Regardless, *FMPI* identifies *Two Student Dormitory Building Sites* as previously discussed, should the need for housing arise. There is **no impact**.

- b. *Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?*

- c. *Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?*

The proposed Project will not displace any housing or persons since the proposed *FMPI* renovations, new building construction and proposed future building sites are located within the Shasta College Campus, an educational public facility. There is **no impact**.

Conclusion: There are **no impacts** associated with population and housing issues.

Issues	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XIV. PUBLIC SERVICES				
a. 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:				
Fire protection?			X	
Law enforcement protection?			X	
Schools?				X
Parks?				X
Other public facilities?				X

²⁶ Diaz Associates. Page 6. *Regional Public Safety Training Facility Project CEQA IS/MND Addendum*. January 31, 2019.

Existing Environmental Setting: Cal Fire station 73 located on campus in Building 2800 will provide services to the proposed Project improvements. The one-story, 6,119-square-foot building, with a sleeping loft, contains storage areas, offices, and the campus fire department. The jurisdictional range extends into the far regions of Jones Valley, Bella Vista, and the outskirts of the Shasta College campus. The Fire Department has one full-time firefighter and 40 volunteers.

Shasta College has a Campus Safety Department “that is committed to a safe and secure working and learning environment. In all aspects of plant operations and maintenance, the safety of students, staff and visitors” is their “primary consideration.” All individuals who work for the department are Campus Security Authorities (CSA). The function of a Campus Security Authority is to report to Campus Safety any allegations of Clery Act crimes that are reported to them in their capacity as a CSA. CSAs are not responsible for investigating incidents, only reporting.²⁷

The Campus Safety Department coordinates law enforcement efforts with the Shasta County Sheriff’s Department and the City of Redding Police Department. Campus Safety Department officers patrol the campus seven days per week with 24-hour patrols per day Monday through Friday, Saturdays from midnight to 5:50 P.M., and on Sundays from 7:00 A.M. to 3:00 P.M. Currently on Monday through Thursday, two Redding Police Officers are on campus each day working a shift from 8:00 A.M. to 10:00 P.M.

The College offers a wide array of recreation programs including the arts, theatre, sports, and club organizations. The *Tennis Courts* proposed for demolition will be constructed at a new location. Schools, parks and other public facilities issues are not affected by the proposed Project due to its nature.

Discussion of Checklist Answers:

- a. *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: fire protections, police protection, schools, parks, other public facilities?*

Fire Protection: The proposed *FMP1 Projects* do not appear to provide for the storage of flammable materials and would not be constructed of particularly flammable materials. The proposed projects and associated equipment are required to meet or exceed the minimum standards for the applicable building codes. The design, construction and operation of the proposed Project facilities have a very low fire hazard associated with their construction and operation due to oversight being provided by Cal Fire Station 73. The potential impact on fire protection services is therefore considered ***less than significant***.

Law Enforcement Protection: As previously noted, the Campus Safety Department will provide law enforcement protection. Coordination will occur with the Shasta County Sheriff’s Department with assistance provided by the City of Redding Police Department and California Highway Patrol, as necessary. The potential impact on the provision of law enforcement services is considered ***less than significant***.

²⁷ The Clery Act requires all colleges and universities that participate in federal financial aid programs to keep and disclose information about crime on and near their respective campuses. Compliance is monitored by the United States Department of Education, which can impose civil penalties per violation, against institutions for each infraction and can suspend institutions from participating in federal student financial aid programs. Institutions are required to report on crimes such as: murder (including nonnegligent and negligent manslaughter), sex offenses (forcible/nonforcible, domestic violence, dating violence, and stalking), robbery, aggravated assault, burglary, motor vehicle theft, arson, and arrest. Institutions are required to report on persons referred for campus disciplinary action for: liquor law violations, drug-related violations, and weapons possession. Institutions are required to report on crimes or bodily harm related to/caused by hate crimes.

Schools and Parks: Due to the nature of the proposed Project there are ***no impacts*** on schools and parks.

Other Public Facilities: There are no other known public facilities owned, leased or operated by the College that could be impacted by the proposed Project. There is ***no impact***.

Conclusion: There are ***less than significant*** impacts on fire and police protection services and ***no impacts*** on schools, parks, and other public services due to the nature of the proposed Project.

Issues	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XV. RECREATION				
a. Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?				X
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?				X

Existing Environmental Setting: There are no existing neighborhoods, regional parks, or other recreational activities within the vicinity of the proposed Project. However, as previously noted, the College offers a wide array of recreation programs including the arts, theatre, sports, and club organizations.

Discussion of Checklist Answers:

- 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?*
- 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?*

There is ***no impact*** on existing parks and recreational facilities due to the nature of the Project.

Conclusion: There are ***no impacts*** on recreation facilities due to the nature of the proposed Project.

Issues	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XVI. TRANSPORTATION/TRAFFIC <i>Would the project:</i>				
a. Exceed the capacity of the existing circulation system, based on an applicable measure of effectiveness (as designated in a general plan policy, ordinance, etc.), taking into account all relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?			X	
b. Conflict with an applicable congestion management program, including but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?				X
c. Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?				X
d. Substantially increase hazards due to a design feature (e.g. sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?			X	
e. Result in inadequate emergency access?			X	
f. Conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks)?			X	

Existing Environmental Setting: There are two primary access points to the Shasta College Campus from Old Oregon Trail. The first is Shasta College Drive (South) located approximately 550-feet from the SR-299 west bound off-ramp and approximately 1,025 feet from the eastbound SR-299 off-ramp. The northern access point from Old Oregon Trail is also named Shasta College Drive (North) which is approximately 2,450-feet north of the intersection of Shasta College Drive (South) and Old Oregon Trail. Old Oregon Trail is a two to four-lane, north-south arterial that runs between State Route 44 (SR-44) to the south and Oasis Road to the north. Old Oregon Trail between Shasta College Drive (North) and Shasta College Drive (South) has a two-lane cross-section. SR-299 is an inter-regional highway that begins at US 101 in Humboldt County to the west and traverses easterly through Humboldt, Trinity, Shasta, and Modoc Counties. In relatively close proximity to the campus, SR-299 forms full-access interchanges with I-5, Churn Creek Road and Old Oregon Trail. SR-299 has a four-lane divided cross-section through these interchanges.

Within Shasta County, the goals for bicycle and trail facilities are contained in the *Shasta County 2010 Bicycle Transportation Plan*. The plan identifies that Old Oregon Trail from SR-44 to Oasis Road is a Class II Bike Lane. The California Department of Transportation (Caltrans) defines a Class II Bike Lane.

“Class II Bike Lanes are restricted rights-of-ways designated for the exclusive or semi-exclusive use of bicycles. Travel by motor vehicles or pedestrians are not allowed; except for vehicle parking and

cross flows. In most cases, Class II Bikeways require a lane of at least four feet of well-maintained pavement for the cyclist to ride on.”

According to the Shasta County Public Health Department, Shasta College students and faculty have identified the intersection of Old Oregon Trail and Collyer Drive, near the Shasta College Drive (South) entrance, as being difficult to traverse for pedestrians and bicyclists. The City of Redding applied for and received an Active Transportation Program (ATP) grant. Through that process, the City and Shasta County will update pedestrian and bicycle facilities along the Old Oregon Trail corridor.

Current pedestrian circulation throughout the campus is a variety of linear and curvilinear pathways constructed of both exposed aggregate concrete and asphalt. The current circulation pathways vary in width but have no other delineation as to their intended use. The current pathways often lead to dead ends or are parallel to buildings that have no entrance points.

The *FMPI* proposes the replacement of campus walkways thereby offering the opportunity to improve and realign the pedestrian circulation network to address ADA needs and coordinate the network with uses by alternative modes of transportation. The proposed pedestrian circulation network focuses not on connecting building entry points but rather on organizing the pathways into a hierarchy that aids in the wayfinding of the user. The new network consists of arterial, collector, and neighborhood pathways.

The primary roadway system through the campus is Shasta College Drive which loops the campus core, but often becomes a circuitous route, particularly in the northeast portion of the campus where the majority of athletic facilities are located, unless one is very familiar with the campus. There are other vehicular access routes throughout portions of the campus that would be difficult to utilize should some form of emergency arise. There is a lack of parking in close proximity to the athletics neighborhood’s fields. To accommodate future campus enrollment growth, a roadway realignment is proposed in the northeast area of the campus. This realignment aims to improve vehicular flow and provides space for additional roadway widening and additional parallel parking capacity, as necessary, near the underserved athletic fields.

The largest existing parking lots are: the *North Parking Lot* (Key ID N), whose northern boundary is Shasta College Drive (North) and contains approximately 579 spaces; the *Northeast Parking Lot* (Key ID. Q) with approximately 137 spaces located south of the *Tennis Courts* (Key ID E) and west of Shasta College Drive (East) which now traverses in a southerly direction; the *East Parking Lot* (Key ID. T) with approximately 850 parking spaces after installation of the solar carport system, located south of the *Diesel Welding Machine Shop* (Key ID. 31, Building 2500) and west of Shasta College Drive (East), as it proceeds south; the *South Parking Lot* (Key ID. V) with approximately 283 parking spaces abutting Shasta College Drive (South) and also located south of the *Theater* (Key ID. 11, Building 500), the *Humanities Lecture Hall* (Key ID. 12, Building 400), and the *Music Building* (Key ID. 10, Building 600); and lastly, the *Visitor/Staff Parking Lot* (Key ID. W) with approximately 177 spaces located west of Shasta College Drive (West). There are a series of other parking lots either located along various portions or easily accessible to the Shasta College Drive roadway system. The current parking lot organization offers no wayfinding information as to the proximity of the parking lot to the users’ end destination. The *FMPI* proposes that the lot designations be changed so they are related to the neighborhood that it most closely serves to aid in user wayfinding.

Discussion of Checklist Answers:

- a. *Exceed the capacity of the existing circulation system, based on an applicable measure of effectiveness (as designated in a general plan policy, ordinance, etc.), taking into account all relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?*

The issue that the *FMPI* addresses is not the overall capacity of the pedestrian and vehicular circulation system and parking, but the need for ADA compliance, establishing a hierarchy pedestrian pathway use that includes bicycle travel, and roadway realignments to improve vehicular flow and which allows space to add additional roadway widening, albeit not currently needed, and parking capacity near the athletic fields.

As enrollment grows, so will full-time and part-time faculty members and employees; however, there is a sufficient number of available parking spaces interspersed throughout the campus that facilitates access for students, faculty, employees and visitors to the various campus facilities. In addition, since the campus is an educational facility, the distribution of vehicles throughout the day during the week reduces potential capacity related impacts to *less than significant* levels.

- b. *Conflict with an applicable congestion management program, including but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?*

The Project does not conflict with the *Integrated Traffic Data Collection and Management Plan for the Shasta County South Central Urban Region (SCUR)*.²⁸ Therefore, there is **no impact** associated with meeting applicable congestion management measures or standards.

- c. *Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?*

The Project has no potential to cause a change in air traffic patterns to or from the City of Redding Municipal Airport, which is strictly regulated through the *Comprehensive Airport Land Use Plan*, either by an increase in traffic levels or by a change in location that result in substantial safety risks. There are **no impacts**.

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

Whereas, there are no existing hazardous design features of concern, the proposed roadway and driveway realignments will improve circulation flow, therefore, potential impacts are considered **less than significant**.

- e. *Result in inadequate emergency access?*

As previously discussed, there is current access to Old Oregon Trail from either Shasta College Drive (South or North). If the access to Old Oregon Trail from Shasta College Drive (North) were blocked, there is access via a gravel surfaced driveway to the north of Shasta College Drive, that parallels the existing solar array facility for about 450-feet before it intersects with an existing east-west gravel road with direct westerly access to Old Oregon Trail. The distance from the intersection of this road from the north-south driveway to the intersection with Old Oregon Trail is approximately 1,250 feet. Potential impacts on emergency access resulting from the implementation of the proposed *FMPI* Projects are considered **less than significant**.

- f. *Conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks)?*

²⁸ Kimley-Horn. *Integrated Traffic Data Collection and Management Plan for the Shasta County South Central Urban Region (SCUR)*. October 22, 2013.

Many users choose to use bicycles or skateboards to move around the campus. The *FMP1* proposes equal accommodation to these forms of transportation as they interface with pedestrian and vehicular circulation pathways. An existing public transportation covered shelter is located in the eastern portion of the *Visitor/Staff Parking Lot* (Key ID. W), providing the ability to use RABA transportation services. As the College continues to grow, consideration should be given to providing another public transportation covered shelter in the area of the *Two Dormitory Building Sites* considered for development Post 2030.

The proposed Project will have *less than significant impacts* on adopted policies, plans, or programs supporting alternative transportation.

Conclusion: The proposed Project does not impact the capacity of the existing area road system, traffic circulation or parking availability, thereby resulting in *less than significant* impacts on transportation and circulation.

Issues	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XVII. TRIBAL CULTURAL RESOURCES <i>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>				
a. 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		X		
b. 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 Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.		X		

Background: The following discussion is primarily derived from the January 2019 *Cultural Resources Inventory Report, Shasta College Regional Public Safety Training Facility Project, Shasta County, California* and the January 2019 *Cultural Resources Screening Report – Shasta College Master Plan, Shasta County, California* prepared by ENPLAN.²⁹ These documents are not for public distribution since they identify the locations of cultural resource sites. Disclosure of this information to the public may be in violation of both federal and State laws. Applicable United States laws include, but may not be limited to, Section 304 of the National Historic Preservation Act (16 U.S.C. 470w-3). In California, such laws include,

²⁹ A copy of the report is available for review at the Shasta College Administrative Services Office Building 100.

but may not be limited to, Government Code Section 6254.10. Site location information should be kept confidential and is not for public disclosure.

As a result of the Native American Consultation, Ms. Kelli Hayward responded on behalf of the Wintu Tribe of Northern California noting that the campus is a sensitive area for prehistoric cultural resources. Ms. Hayward stated she would like a Wintu monitor present during ground disturbing activities.

Existing Environmental Setting: The College lies within the ethnographic territory claimed by the Stillwater band of the Wintu (Kroeber 1976). Ethnographic accounts of the Wintu are derived from four primary sources: DuBois (1935), Kroeber (1976), Morrato (1984) and LaPena (1978).

Wintu political organization consisted of nine tribelets, each of which were an independent social group that maintained a well-defined territory (LaPena 1978). Each territory was further divided into villages and camps, with villages being the primary social, political, and economic unit of the tribelet (LaPena 1978). The villages would contain between five and fifty conical bark houses, which could each accommodate between three to seven family members. Some of the larger villages also had an earthen lodge, which would serve as a gathering place for men. Unlike many hunter-gatherer groups, the Wintu were socioeconomically stratified, with each tribelet having a chief or headman (LaPena 1978).

According to LaPena (1978), the Wintu practiced a semi-sedentary subsistence/settlement strategy. Year-round villages were common, as were seasonal camps. The Wintu utilized a wide variety of resources in the production of tools and other utilitarian items (LaPena 1978; Clewett and Sundahl 1983). Woodland, grassland, and riverine environments provided a variety of materials suitable to a wide range of economic activities. Extensive trade existed within and between various Wintu villages, and limited trade existed with adjacent groups such as the Shasta, Pomo, and Chimariko.

Wintu mortuary practices included upright flexed burials in round pits approximately four feet in depth (DuBois 1935; LaPena 1978). The personal effects of the individual would be broken and burned after a time. Graveyards were typically located approximately a hundred yards away from the dwellings and served either a family or a whole village (LaPena 1978). If remains of previous burials were encountered in the process, they were wrapped with the new burial and buried together.

The earliest encounter between the Wintu and Euro-Americans occurred sometime between 1826 and 1827, when fur-trapping expeditions led by Jedidiah Strong Smith and Peter Skene Ogden came to the area (LaPena 1978). Following this initial contact, the Wintu people and culture suffered a number of devastating events that signaled a decline of the Wintu numbers in the area. It is estimated that approximately 75 percent of the Wintu population living along the Sacramento River was lost to malaria and influenza epidemics brought about by the arrival of European-American trappers and settlers in the 1830s (LaPena 1978). In the 1840s and 1850s, Euro-Americans began to settle in the area, acquiring lands for ranching and mining purposes that were traditionally occupied by the Wintu. As a result, many of the Wintu were displaced from their land or killed outright (LaPena 1978). Throughout the 1860s, the remaining Wintu were forcibly removed from their lands and assigned to reservations. The final dispersal of the Wintu from their traditional lands occurred primarily as a result of flooding due to the Shasta Dam and Central Valley Water projects. In 1910, there were an estimated 395 Wintu remaining (LaPena 1978).

Discussion of Checklist Answers:

- a. *Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources?*
- b. *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?*

Although much of the college campus has been substantially disturbed, there is a high potential to encounter previously unreported subsurface historical and archaeological resources (possibly including human remains) elsewhere during construction of the proposed Project facilities. Implementation of **Mitigation Measure CR-1** under **Section V, Cultural Resources** reduces potential impacts on Tribal Cultural Resources to a *less than significant* level.

Conclusion: The probability of historical or archaeological resources, being encountered during construction is low in the previously disturbed portions of the Study area. There is a greater potential for historical or archaeological resources related to Native Americans, being encountered during construction in natural undisturbed areas. However, adherence to state law and incorporation of mitigation measures identified under **Section V, Cultural Resources** limits potential Native American cultural resource impacts to a *less than significant* level.

Issues	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XVIII. UTILITY AND SERVICE SYSTEMS <i>Would the project:</i>				
a. Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?			X	
b. Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?			X	
c. Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?			X	
d. Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?			X	
e. 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?			X	
f. Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?			X	
g. Comply with federal, state, and local statutes and regulations related to solid waste?			X	

Existing Environmental Setting: The Shasta College Campus is served by a full complement of utilities and services provided by Shasta College (water distribution lines, wastewater, and storm drainage), Bella Vista Water District (water supply), Waste Management, Inc. (solid waste collection and landfill operation), and the Shasta County/Redding Landfill Management Agency (landfill oversight).

Other utilities are provided by PG&E (electricity and natural gas); AT&T and Charter (telephone and

internet), AT&T, Dish, Charter and DirectTV (television). Refer to the discussion regarding *Campus Fabric Utilities* under the *Project Description* discussion for an overview of existing facilities.

Discussion of Checklist Answers:

- a. *Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?*

As part of the renovations or building construction, the Project will reconnect or replace sewer lines to dispose of wastes to be treated at the College's *Waste Water Treatment* facilities. The Project will not violate wastewater treatment requirements. Potential impacts are ***less than significant***.

- b. *Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?*

- e. *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?*

To serve the Project the Bella Vista Water District (BVWD) does not need to construct or expand water treatment facilities. The College does not need to expand their *Waste Water Treatment* facilities which are operating satisfactorily, however, the sewer lines are in need of an upgrade since they do not meet current codes. The sewer system's clay and asbestos piping requires constant maintenance and repair due to extensive root intrusion. A main sewer trunk line project is proposed for construction in the *FMPI*. The sewer lines from each building can be replaced as part of that particular building's construction or renovation. Replacement lines, where necessary, will be placed in sleeves, parallel existing lines or be bored underground to avoid existing trees and/or other infrastructure. As the sewer lines are replaced, potential impacts will be considered ***less than significant***.

- c. *Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?*

The existing storm drain system appears to be functioning adequately in the areas where it exists. However, large portions of the campus are not connected to the storm drain system. Proposed new construction project and/or renovations in areas not connected to the storm drain system should be analyzed and, if necessary, the storm drain system should be expanded to include these areas as part of *FMPI* proposed projects in those areas. Potential impacts are considered ***less than significant***.

- d. *Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?*

To supply water, the Bella Vista Water District (BVWD) uses their groundwater wells and has a long-term contract to purchase water from the U.S. Bureau of Reclamation (Bureau) whose water source is the Central Valley Project (CVP). This reliance on CVP water is subject to significant water supply uncertainty and shortages during drought conditions. Whereas, the goal of BVWD is to meet 100 percent of demand in normal years, it must rely on instituting water conservation measures during drought conditions.

Assuming average rainfall years through year 2035, BVWD anticipates an annual surplus of 1,152 acre-feet (AFY) of water. During a multiple-dry year period, CVP contract water can be reduced by 50 percent or more for municipal and industrial uses and agricultural water can be reduced to

zero percent. Assuming a multiple-dry year (drought) period (three years), BVWD available water supplies are projected to be insufficient to meet the water demands.³⁰

During the recent drought years, BVWD urban water use was reduced from approximately 74,600 hundred acre feet in 2012 to 44,200 hundred acre feet in 2016, a 40.7 percent reduction. It should also be recognized that DSA proposed regulations in the 2013 California Green Building Standards Code (also known as the CALGreen Code) to reduce outdoor water use for landscape irrigation by public schools and community colleges.

“All projects with new irrigated landscape areas over 500 square feet in the scope of work, and projects at existing sites with rehabilitated landscape work over 1,200 square feet, need to be submitted to DSA for verification of compliance through a self-certification process. The self-certification is a two-step process: 1) at the initial submittal to DSA, and 2) after completion of the installation of the irrigated landscape areas.

Additional requirements for existing campuses apply when a new building or an addition to an existing building is constructed. This requirement is related to the ‘footprint’ size of the building or addition and calls for the upgrade of existing irrigated landscape areas. The intent is to rehabilitate areas on campuses to optimize water efficiency.”³¹

In order to reduce landscaping water usage, the College is in the process of eliminating non-native (ornamental) trees, grass turf areas, and shrub beds that use over two acre-feet of water per year. These landscaped areas are either being converted to hardscape landscape features or reverting to native, water conserving plant species. Many of the replacement plants are being grown by students on the campus farm completing an educational circle whereby the students learn what plants are appropriate to the area, have the opportunity to grow them and plant them, and see the beneficial effect they have on the functioning campus environment. A total of three acres of turf and a myriad of turf and shrub systems have been eliminated that result in a savings of approximately 11.4 AFY.

The domestic water system, original to the campus construction, is currently functional and serves both potable and fire suppression water needs. The north water loop project recently completed increased the water pressure campus-wide and improved fire suppression capabilities.

Given that the proposed Project involves a relocation of existing facilities with relatively insignificant increase in the amount of water users over future years; that the College has significantly reduced the amount of overall campus water consumption; that the College is selectively removing non-native trees and is converting turf and shrub areas to hardscape and native vegetation; the Project’s potential impacts on water supplies are considered *less than significant*.

- f. *Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?*

The College disposes of solid waste at the Richard W. Curry West Central Landfill which has adequate capacity to serve the area through 2032. Potential solid waste impacts will be *less than significant*.

- g. *Comply with federal, state, and local statutes and regulations related to solid waste?*

Solid waste collection and disposal within California is subject to the provisions of the California Integrated Waste Management Act. In addition, the Project will comply with any regulations

³⁰ Carrollo. Bella Vista Water District. *2010 Urban Water Management Plan*. May 2015.

³¹ <https://www.dgs.ca.gov/dsa/Programs/progSustainability/water.aspx>

implemented to ensure that State mandates are met, in particular with applicable elements of the California Solid Waste Reuse and Recycling Access Act of 1991, as amended. Potential impacts will be *less than significant*.

Conclusion: The proposed Project has *less than significant* impacts on utilities and services.

Issues	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XVIV. MANDATORY FINDINGS OF SIGNIFICANCE				
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?		X		
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.)			X	
c. Does the project have environmental effects that will cause substantial adverse effects on human beings, either directly or indirectly?			X	

- a. The proposed *FMPI* Projects do have the potential to degrade the quality of the environment by impacting oak woodland habitat, reducing available habitat for nesting raptors, and impacting wetlands. In addition, the proposed *FMPI* Projects have the potential for impacting archaeological sites that have not yet been discovered. However, based on regulations, standards, and oversight provided by Shasta College, County, State and Federal agencies, measures that are an integral part of the proposed *FMPI* Projects and regulatory measures to be implemented, the construction and operations of the Project do not 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 prehistory due to the location of the proposed *FMPI* Projects within not only the Shasta College campus, but also Shasta County. Therefore, potential impacts are *less than significant* for biological resources, cultural resources, and tribal cultural resources.
- b. The proposed Project has the potential to contribute to significant cumulative GHG emissions and cumulative impacts on local air quality – particularly to an existing non-attainment condition within the Northern Sacramento Valley Air Basin for ozone. However, imposition of construction and operational related emission reduction measures, regulations and oversight provided by Shasta College, the SCAQMD, applicable State and Federal agencies, and measures that are an integral

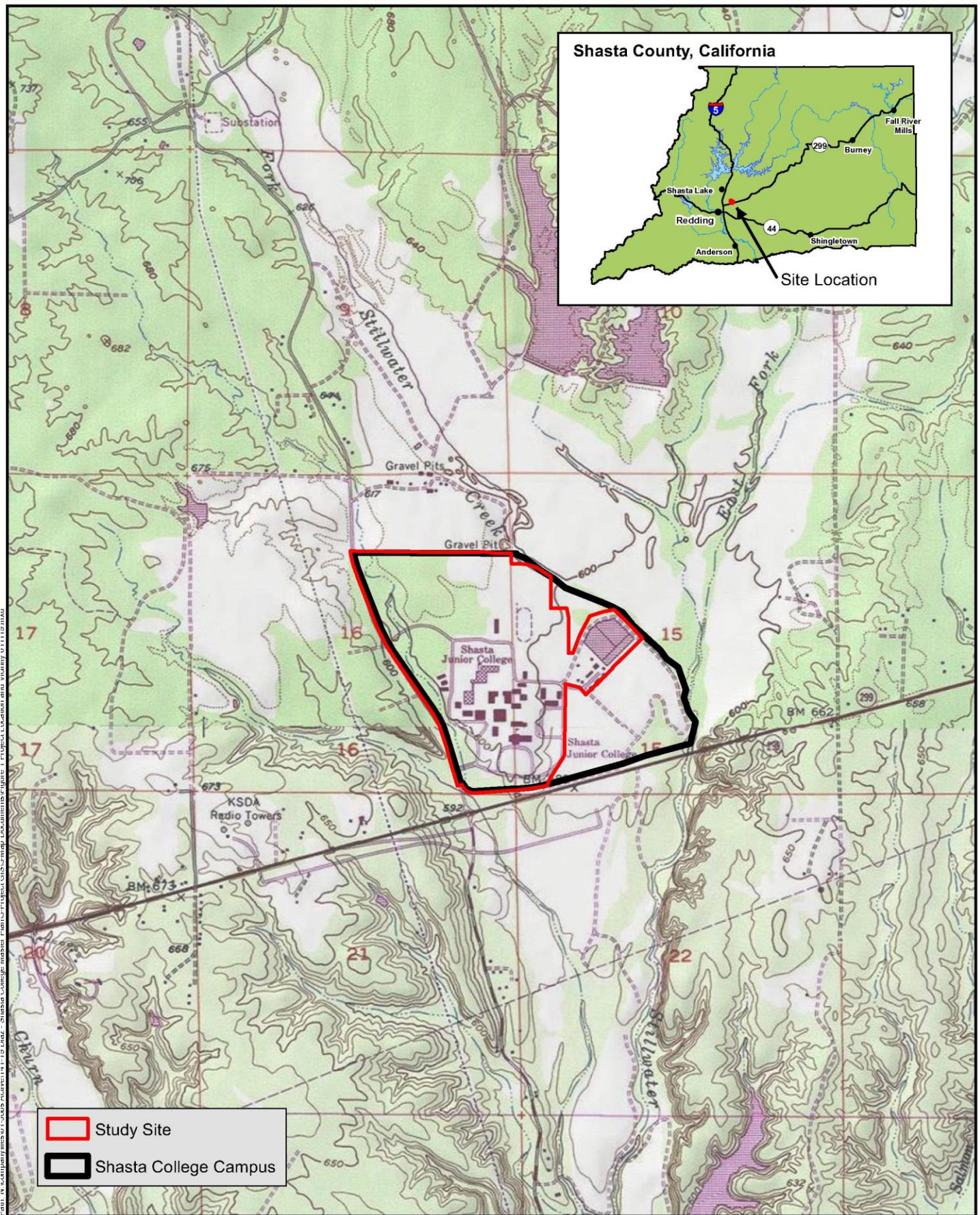
part of the *FMPI*; and measures prescribed in the air quality and GHG emissions sections will reduce the proposed Project's contribution to cumulative air quality and GHG impacts to a ***less than significant*** level.

- c. The proposed *FMPI* Projects do not have the potential to cause adverse effects on humans with respect to aesthetics, noise, hazardous materials, hydrology and water quality, directly and indirectly due to mitigation measures, regulations and oversight provided by Shasta College, County, State and Federal agencies and measures that are an integral part of the proposed *FMPI* Projects and therefore, reduce potential impacts to a ***less than significant*** level.

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Project Location & USGS Figure Prepared by ENPLAN



FIGURE 1 – PROJECT LOCATION & USGS MAP



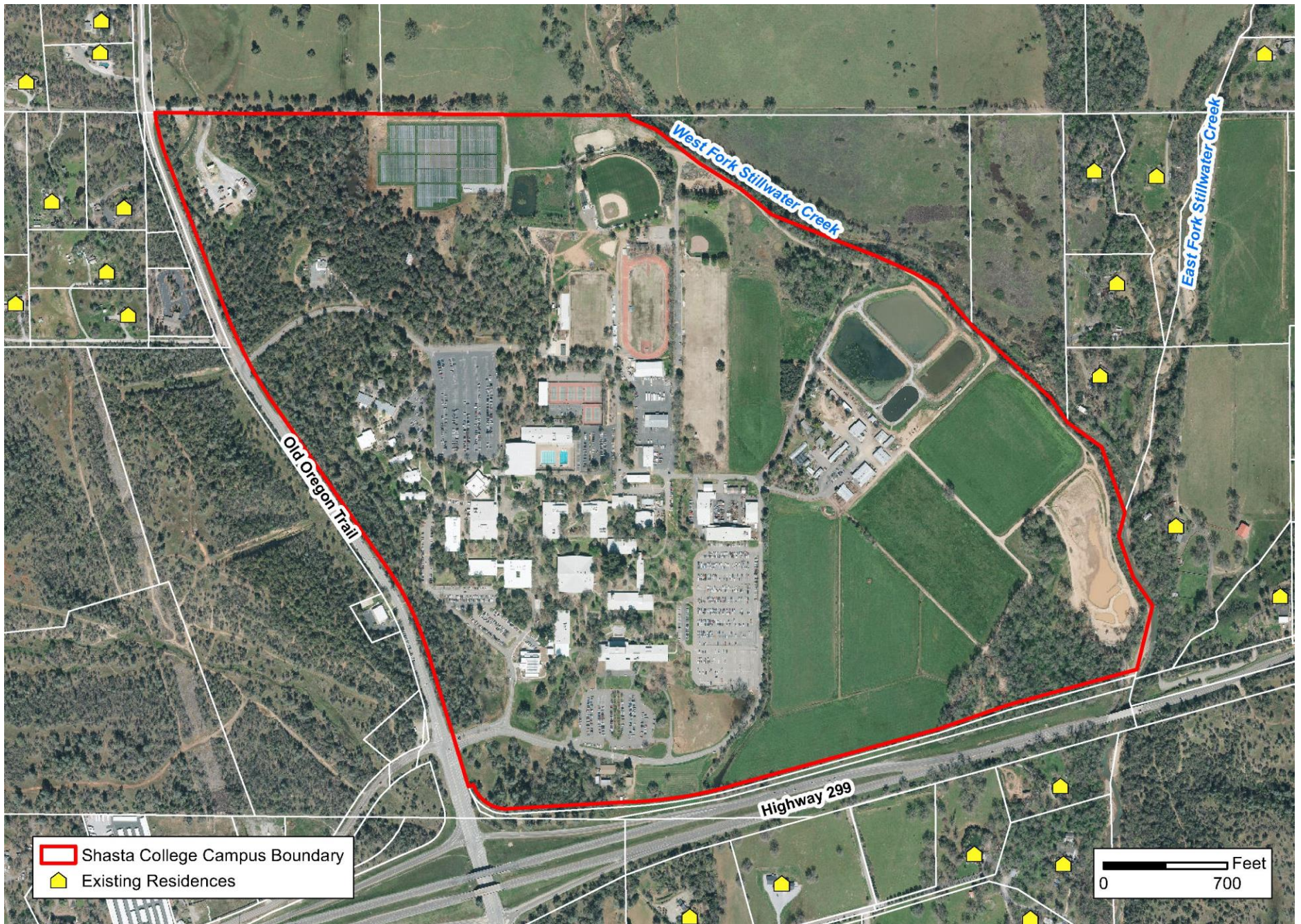


Figure 2 – Project Surroundings Prepared by ENPLAN

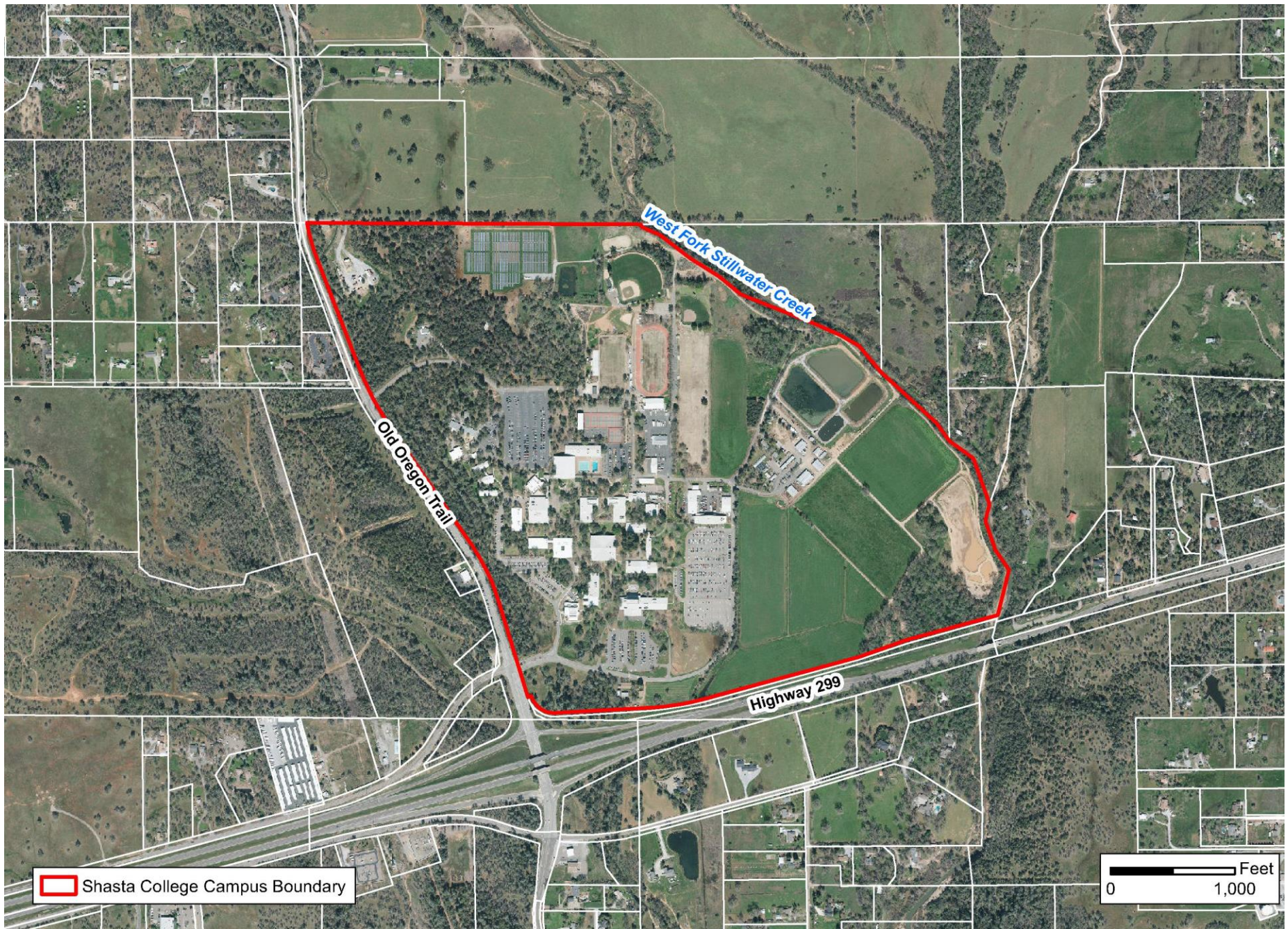


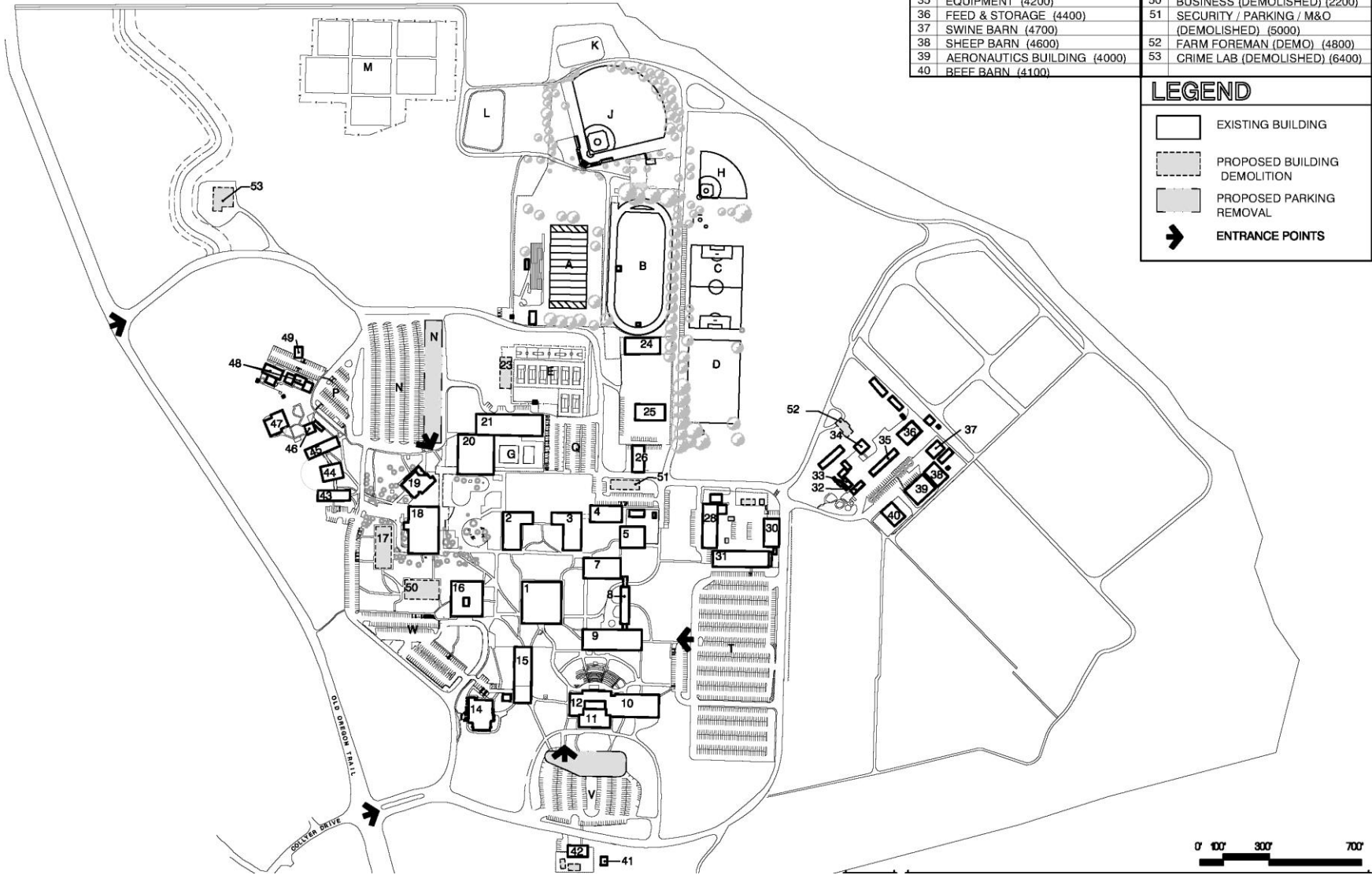
Figure 3 – Shasta College Campus Prepared by ENPLAN

BUILDING & SITE ELEMENT KEY

A	MEMORIAL STADIUM	L	POND	1	LIBRARY (200)	13	MUSIC / THEATRE / LECTURE HALL (PROPOSED)	24	WAREHOUSE (2700)	41	ARCHAEOLOGY (6600)
B	TRACK FIELD	M	SOLAR FIELD	2	LIFE SCIENCE (1600)	14	LIBRARY ANNEX (700)	25	MAINTENANCE (2900)	42	MUSEUM & RESEARCH CENTER (6500)
C	SOCCER FIELD	N	NORTH PARKING LOT	3	PHYSICAL SCIENCE (1400)	15	ART (300)	26	FIRE DEPARTMENT (2800)	43	WOMEN'S DORMITORY (3100)
D	MULTI-USE ATHLETIC FIELD	P	DORMITORY PARKING LOT	4	ELECTRONICS / CADD (1300)	16	STUDENT SERVICES\ ADMIN. (100)	27	ALT. CTE (PROPOSED)	44	COMMONS (3000)
E	TENNIS COURTS (DEMOLISHED)	Q	NORTHEAST PKG LOT (DEMOLISHED)	5	AGRICULTURE (1200)	17	2100 (DEMOLISHED)	28	AUTO SHOP (2400)	45	MEN'S DORMITORY (3300)
F	TENNIS COURTS (PROPOSED)	R	NORTHEAST PKG LOT (PROPOSED)	6	CLASSROOMS (PROPOSED) (1000)	18	CAMPUS CENTER (2000)	29	CTE (PROPOSED)	46	EARLY CHILDHOOD
G	POOL	S	SOUTHEAST PKG LOT (PROPOSED)	7	MATH / ENGINEERING (1100)	19	BOOKSTORE (2300)	30	WELDING & ELECTRONICS (2600)	47	EARLY CHILDHOOD
H	SOFTBALL FIELD	T	EAST PARKING LOT	8	OFFICE (900)	20	GYMNASIUM (1900)	31	DIESEL WELDING / MACHINE SHOP (2500)	48	EDUCATION A (3600)
J	BASEBALL FIELD	V	SOUTH PARKING LOT	9	SOCIAL SCIENCE (800)	21	PHYSICAL EDUCATION (1800)	32	HEAD HOUSE (4500)	49	EDUCATION B (3200)
K	ARENA	W	VISITOR/STAFF PARKING LOT	10	MUSIC (600)	22	GYMNASIUM (PROPOSED)	33	GREEN HOUSE (4300)	50	HEADSTART CENTER (3500)
				11	THEATRE (500)	23	HANDBALL COURT (DEMO) (5200)	34	FARM DORMITORY (4900)	51	SCOE CHILDCARE (3400)
				12	HUMANITIES LECTURE HALL (400)			35	EQUIPMENT (4200)	52	BUSINESS (DEMOLISHED) (2200)
								36	FEED & STORAGE (4400)	53	SECURITY / PARKING / M&O (DEMOLISHED) (5000)
								37	SWINE BARN (4700)		
								38	SHEEP BARN (4600)		
								39	AERONAUTICS BUILDING (4000)		
								40	BEEF BARN (4100)		

LEGEND

- EXISTING BUILDING
- PROPOSED BUILDING
- DEMOLITION
- PROPOSED PARKING
- REMOVAL
- ENTRANCE POINTS



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FIGURE 4 – BUILDING FABRIC – EXISTING

BUILDING & SITE ELEMENT KEY

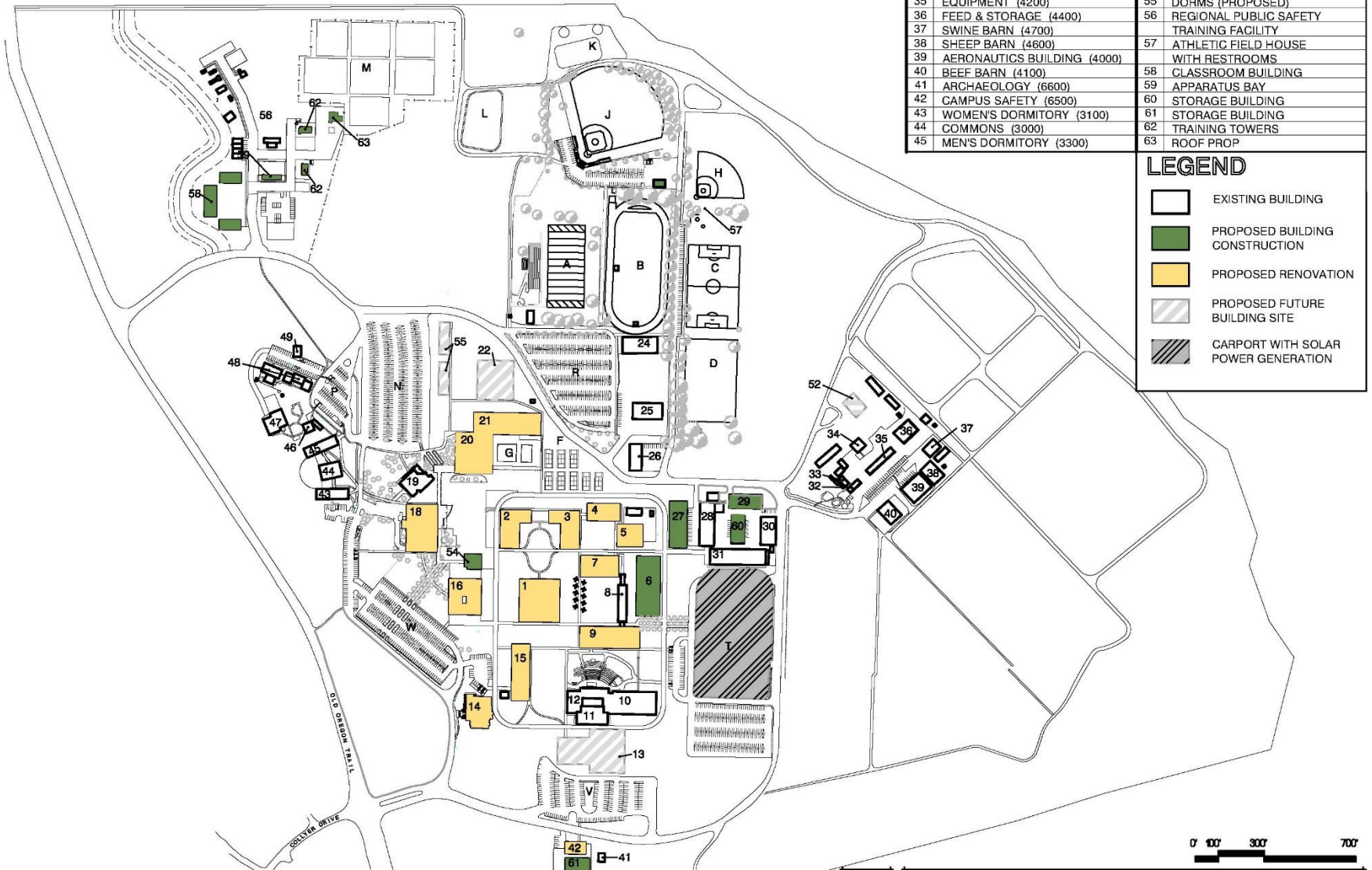
A	MEMORIAL STADIUM	L	POND
B	TRACK FIELD	M	SOLAR FIELD
C	SOCCER FIELD	N	NORTH PARKING LOT
D	MULTI-USE ATHLETIC FIELD	P	DORMITORY PARKING LOT
E	TENNIS COURTS (DEMOLISHED)	Q	NORTHEAST PKG LOT (DEMOLISHED)
F	TENNIS COURTS (PROPOSED)	R	NORTHEAST PKG LOT (PROPOSED)
G	POOL	S	SOUTH EAST PKG LOT (PROPOSED)
H	SOFTBALL FIELD	T	EAST PARKING LOT
J	BASEBALL FIELD	V	SOUTH PARKING LOT
K	ARENA	W	VISITOR/STAFF PARKING LOT

1	LIBRARY (200)	13	MUSIC / THEATRE / LECTURE HALL (PROPOSED)
2	LIFE SCIENCE (1600)	14	SUPPORT STAFF & SPACES (700)
3	PHYSICAL SCIENCE (1400)	15	ART (300)
4	ELECTRONICS / CADD (1300)	16	STUDENT SERVICES (100)
5	AGRICULTURE (1200)	17	2100 (DEMOLISHED)
6	CLASSROOMS (PROPOSED) (1000)	18	CAMPUS CENTER (2000)
7	MATH / ENGINEERING (1100)	19	BOOKSTORE (2300)
8	OFFICE (900)	20	GYMNASIUM (1900)
9	SOCIAL SCIENCE (800)	21	PHYSICAL EDUCATION (1800)
10	MUSIC (600)	22	GYMNASIUM (PROPOSED)
11	THEATRE (500)	23	HANDBALL COURT (DEMO) (5200)

24	WAREHOUSE (2700)	46	EARLY CHILDHOOD EDUCATION A (3600)
25	MAINTENANCE (2900)	47	EARLY CHILDHOOD EDUCATION B (3200)
26	FIRE DEPARTMENT (2800)	48	HEADSTART CENTER (3500)
27	C.I.S (PROPOSED)	49	SCOE CHILDCARE (3400)
28	AUTO SHOP (2400)	50	BUSINESS (DEMOLISHED) (2200)
29	CTE (PROPOSED)	51	SECURITY / PARKING / M&O (DEMOLISHED) (5000)
30	WELDING & ELECTRONICS (2600)	52	FARM CLASSROOM (PROPOSED)
31	DIESEL WELDING MACHINE SHOP (2500)	53	CRIME LAB (DEMO) (6400)
32	HEAD HOUSE (4500)	54	VETERAN'S CENTER (PROPOSED)
33	GREEN HOUSE (4300)	55	DORMS (PROPOSED)
34	FARM DORMITORY (4900)	56	REGIONAL PUBLIC SAFETY TRAINING FACILITY
35	EQUIPMENT (4200)	57	ATHLETIC FIELD HOUSE WITH RESTROOMS
36	FEED & STORAGE (4400)	58	CLASSROOM BUILDING
37	SWINE BARN (4700)	59	APPARATUS BAY
38	SHEEP BARN (4600)	60	STORAGE BUILDING
39	AERONAUTICS BUILDING (4000)	61	STORAGE BUILDING
40	BEEF BARN (4100)	62	TRAINING TOWERS
41	ARCHAEOLOGY (6600)	63	ROOF PROP
42	CAMPUS SAFETY (6500)		
43	WOMEN'S DORMITORY (3100)		
44	COMMONS (3000)		
45	MEN'S DORMITORY (3300)		

LEGEND

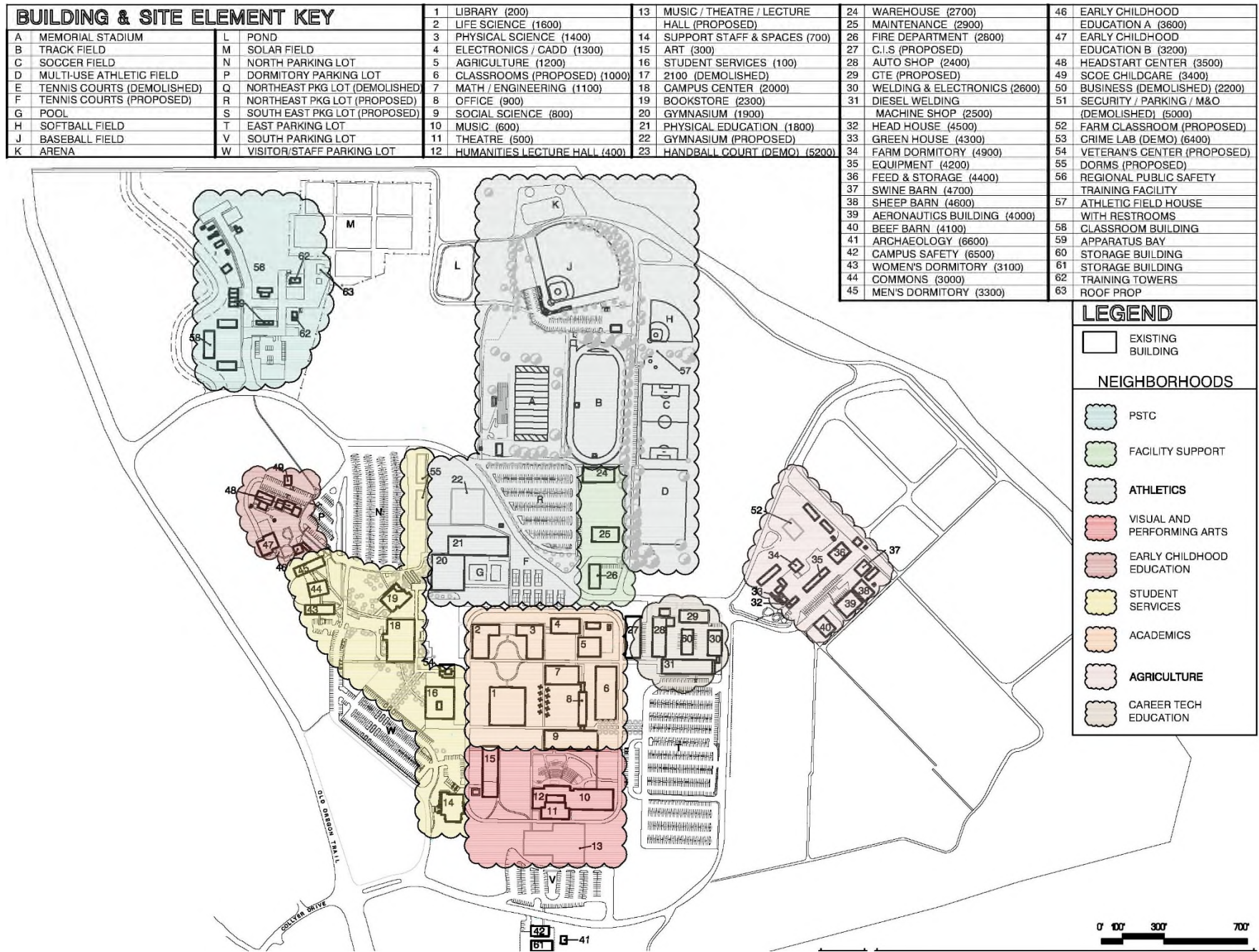
	EXISTING BUILDING
	PROPOSED BUILDING CONSTRUCTION
	PROPOSED RENOVATION
	PROPOSED FUTURE BUILDING SITE
	CARPOT WITH SOLAR POWER GENERATION



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FIGURE 5 – BUILDING FABRIC – PROPOSED



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FIGURE 6 – CAMPUS FABRIC – PROPOSED NEIGHBORHOODS

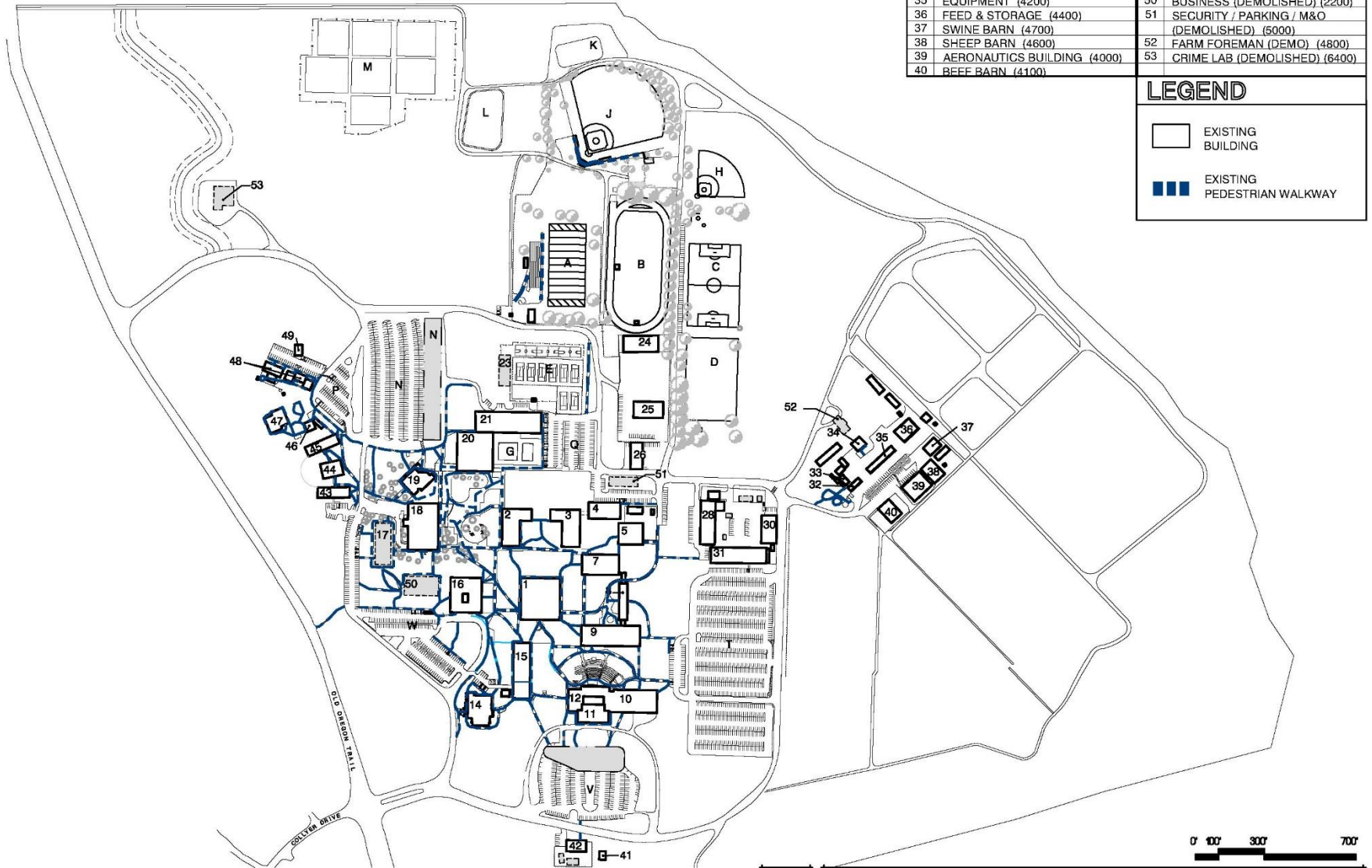


BUILDING & SITE ELEMENT KEY

A	MEMORIAL STADIUM	L	POND	1	LIBRARY (200)	13	MUSIC / THEATRE / LECTURE HALL (PROPOSED)	24	WAREHOUSE (2700)	41	ARCHAEOLOGY (6600)
B	TRACK FIELD	M	SOLAR FIELD	2	LIFE SCIENCE (1600)	14	LIBRARY ANNEX (700)	25	MAINTENANCE (2900)	42	MUSEUM & RESEARCH CENTER (6500)
C	SOCCER FIELD	N	NORTH PARKING LOT	3	PHYSICAL SCIENCE (1400)	15	ART (300)	26	FIRE DEPARTMENT (2800)	43	WOMEN'S DORMITORY (3100)
D	MULTI-USE ATHLETIC FIELD	P	DORMITORY PARKING LOT	4	ELECTRONICS / CADD (1300)	16	STUDENT SERVICES\ ADMIN. (100)	27	ALT. CTE (PROPOSED)	44	COMMONS (3000)
E	TENNIS COURTS (DEMOLISHED)	Q	NORTHEAST PKG LOT (DEMOLISHED)	5	AGRICULTURE (1200)	17	2100 (DEMOLISHED)	28	AUTO SHOP (2400)	45	MEN'S DORMITORY (3300)
F	TENNIS COURTS (PROPOSED)	R	NORTHEAST PKG LOT (PROPOSED)	6	CLASSROOMS (PROPOSED) (1000)	18	CAMPUS CENTER (2000)	29	CTE (PROPOSED)	46	EARLY CHILDHOOD EDUCATION A (3600)
G	POOL	S	SOUTHEAST PKG LOT (PROPOSED)	7	MATH / ENGINEERING (1100)	19	BOOKSTORE (2300)	30	WELDING & ELECTRONICS (2600)	47	EARLY CHILDHOOD EDUCATION B (3200)
H	SOFTBALL FIELD	T	EAST PARKING LOT	8	OFFICE (900)	20	GYMNASIUM (1900)	31	DIESEL WELDING / MACHINE SHOP (2500)	48	HEADSTART CENTER (3500)
J	BASEBALL FIELD	V	SOUTH PARKING LOT	9	SOCIAL SCIENCE (800)	21	PHYSICAL EDUCATION (1800)	32	HEAD HOUSE (4500)	49	SCOE CHILDCARE (3400)
K	ARENA	W	VISITOR/STAFF PARKING LOT	10	MUSIC (600)	22	GYMNASIUM (PROPOSED)	33	GREEN HOUSE (4300)	50	BUSINESS (DEMOLISHED) (2200)
				11	THEATRE (500)	23	HANDBALL COURT (DEMO) (5200)	34	FARM DORMITORY (4900)	51	SECURITY / PARKING / M&O (DEMOLISHED) (5000)
				12	HUMANITIES LECTURE HALL (400)			35	EQUIPMENT (4200)	52	FARM FOREMAN (DEMO) (4800)
								36	FEED & STORAGE (4400)	53	CRIME LAB (DEMOLISHED) (6400)
								37	SWINE BARN (4700)		
								38	SHEEP BARN (4600)		
								39	AERONAUTICS BUILDING (4000)		
								40	BEFF BARN (4100)		

LEGEND

- EXISTING BUILDING
- EXISTING PEDESTRIAN WALKWAY

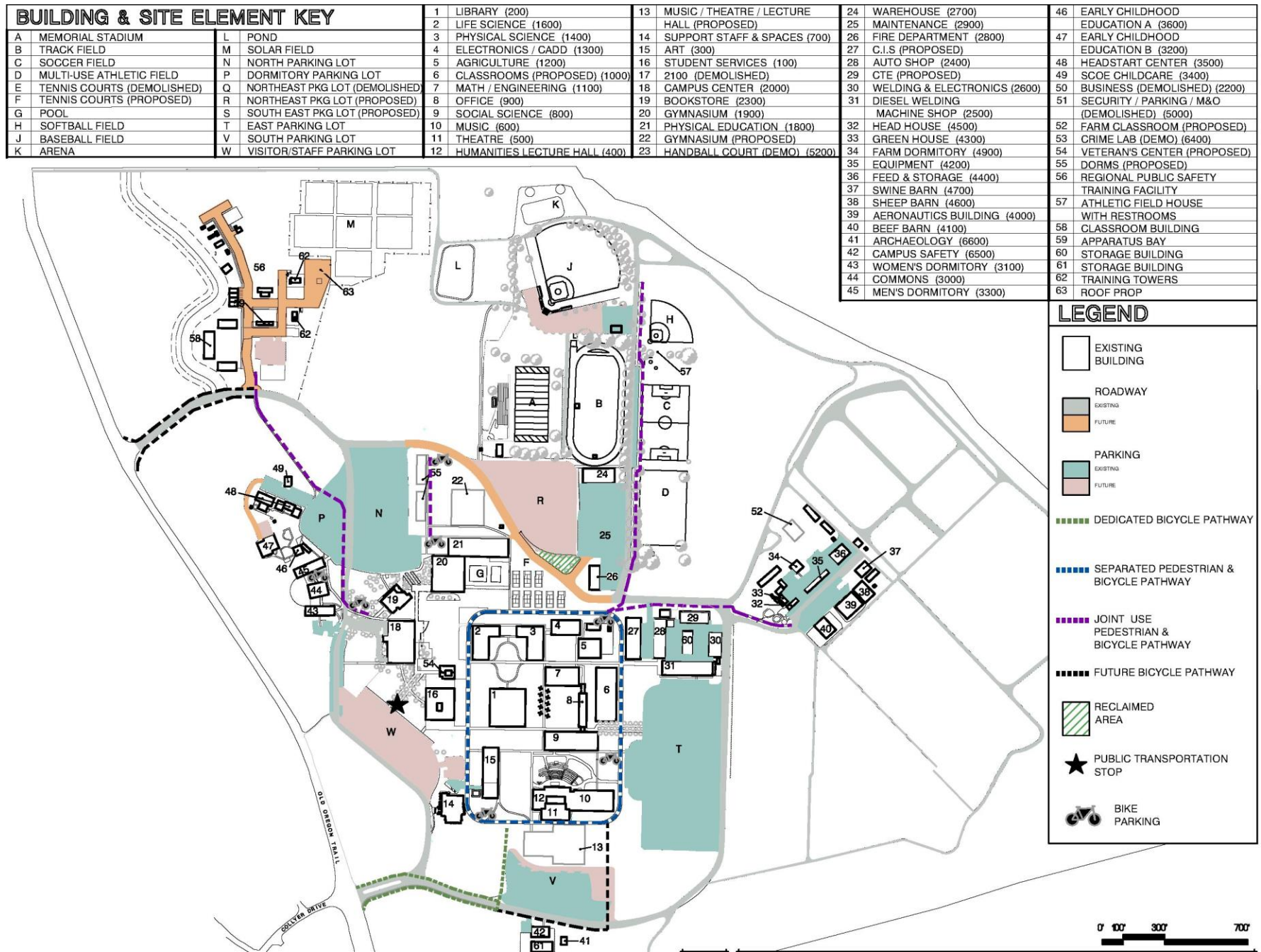


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FIGURE 7 – PEDESTRIAN CIRCULATION – PROPOSED



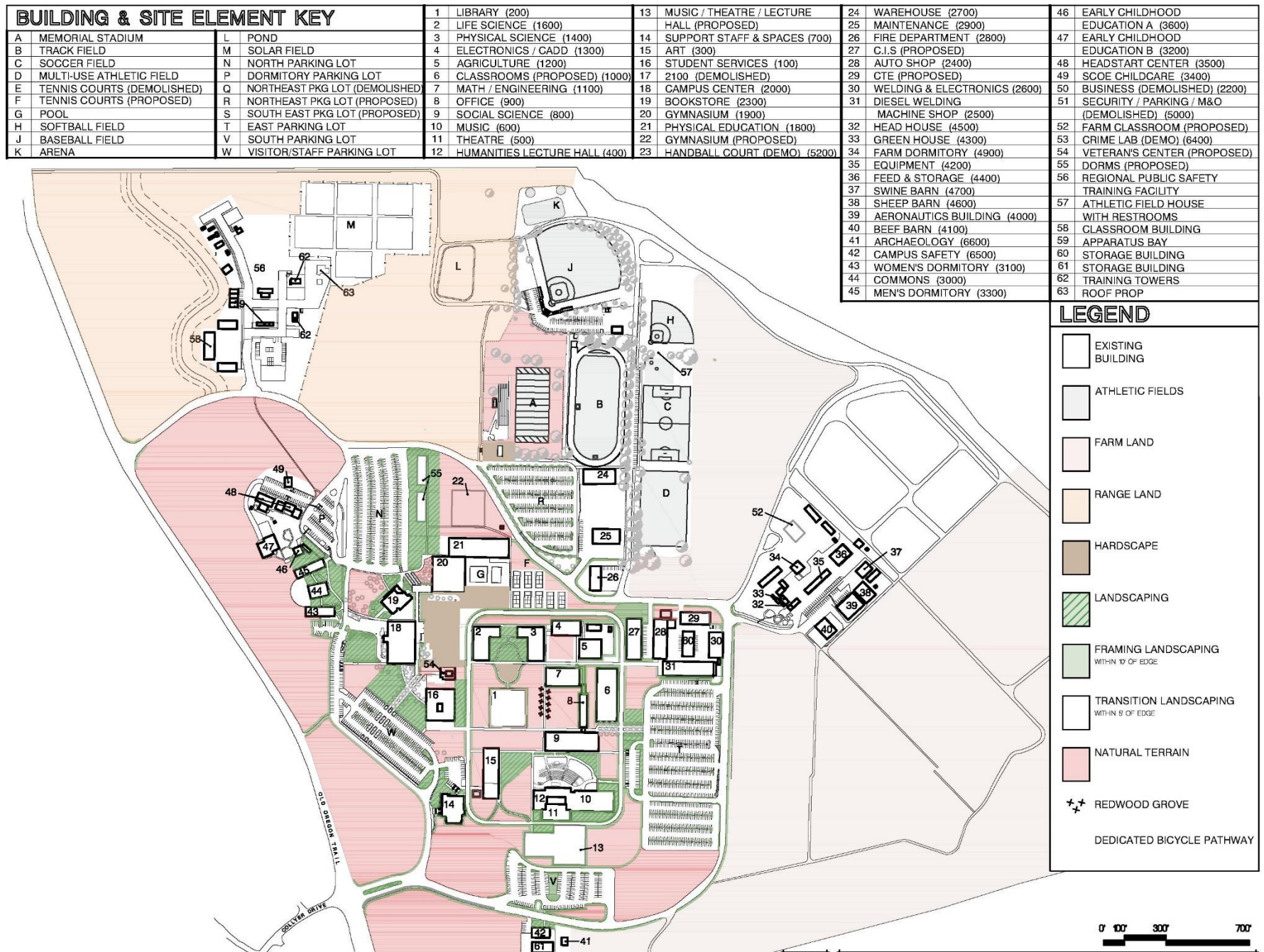


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FIGURE 8 – VEHICULAR CIRCULATION – PROPOSED



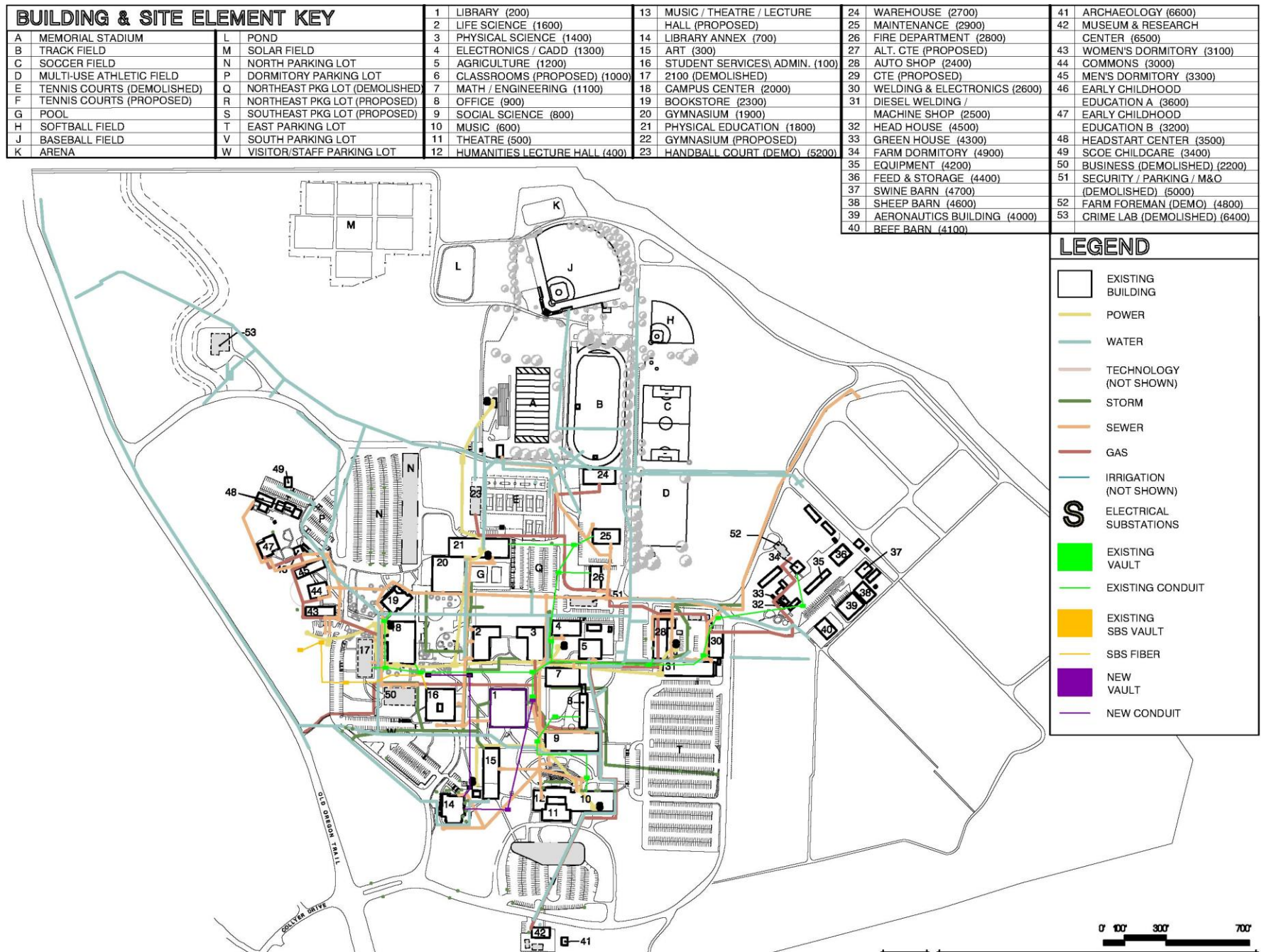


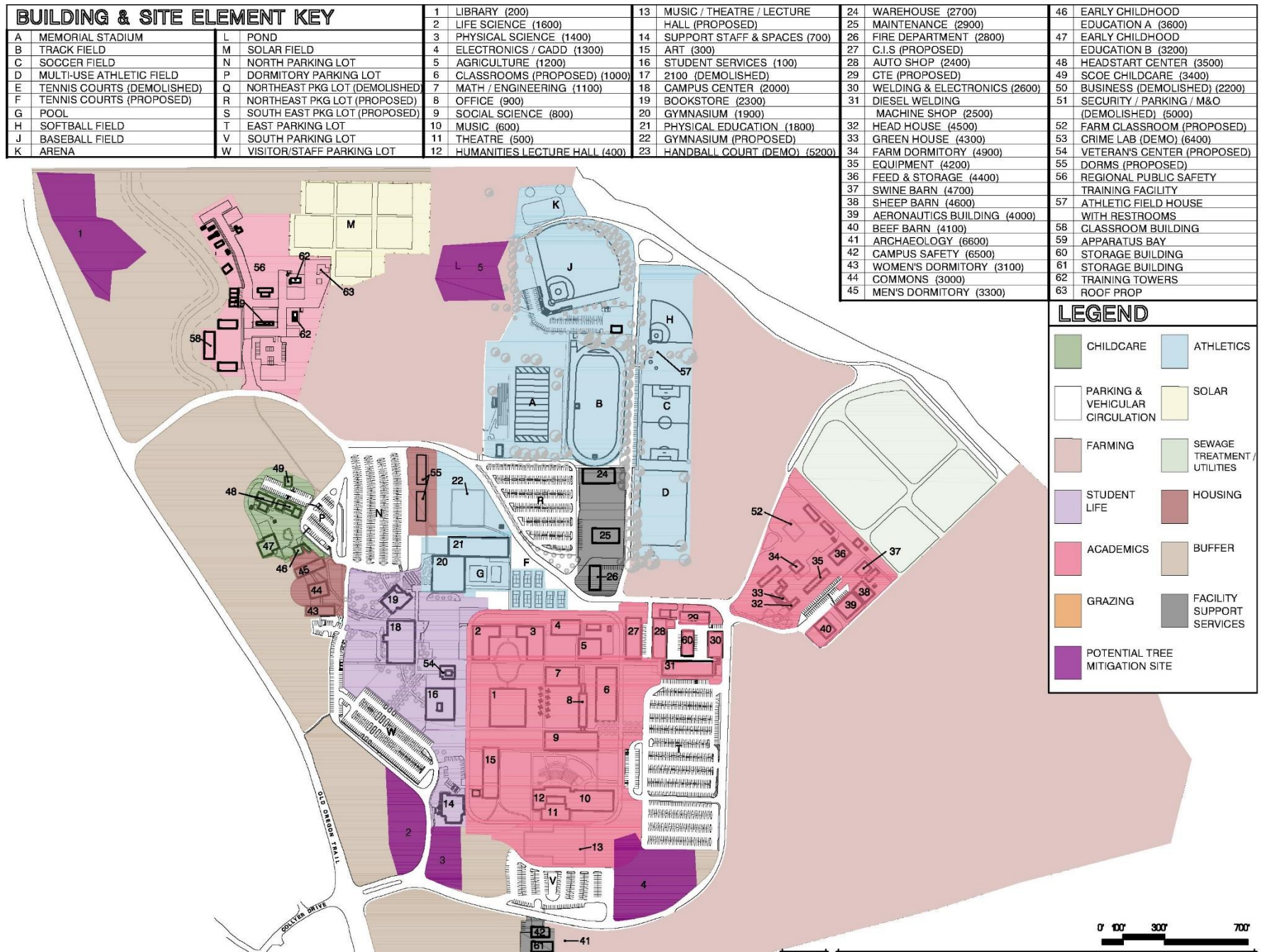
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FIGURE 9 – LANDSCAPING – PROPOSED

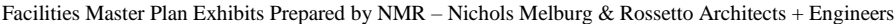


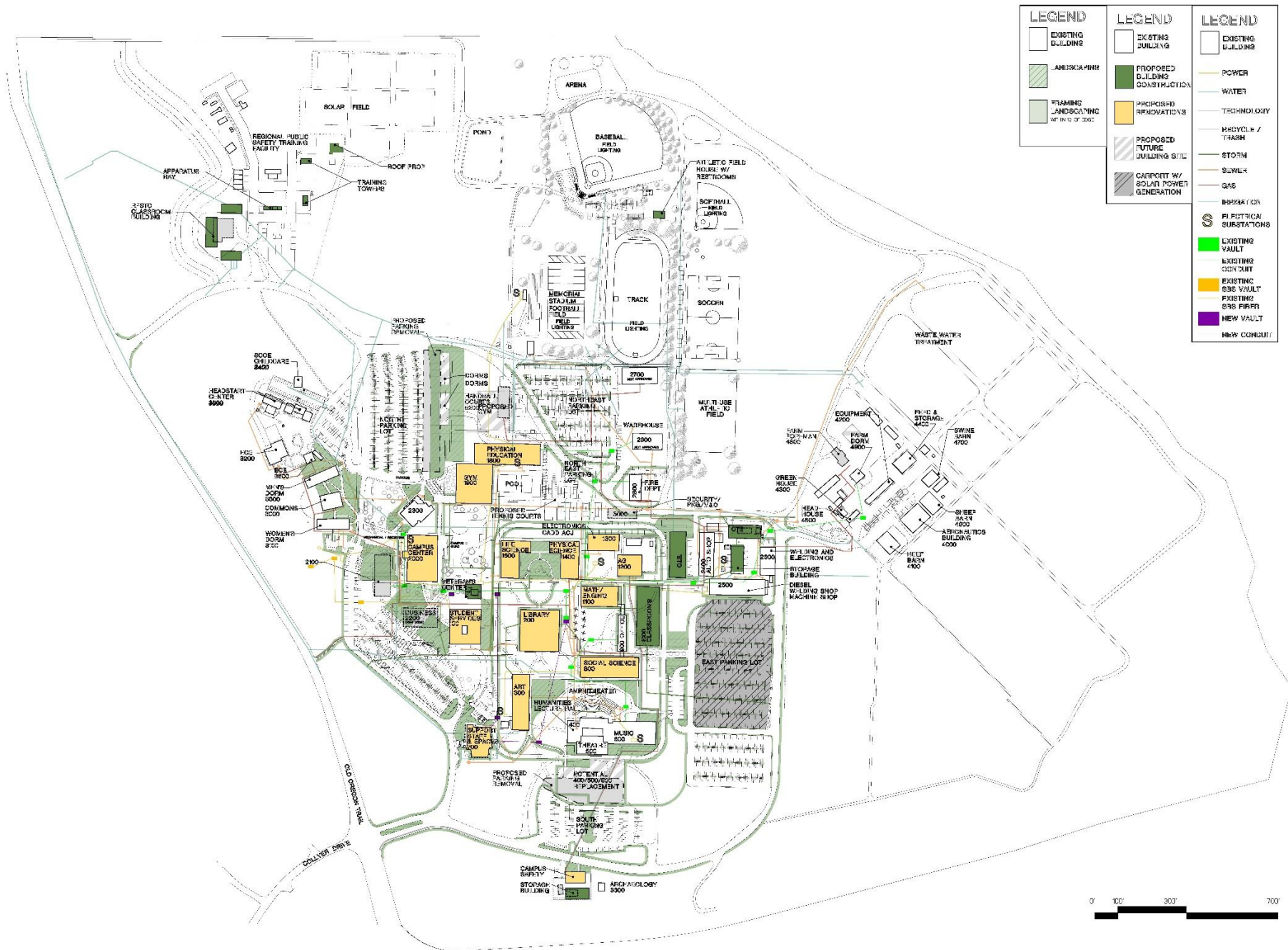




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FIGURE 13 – PROPOSED RENOVATIONS, BUILDINGS & EXISTING UTILITIES



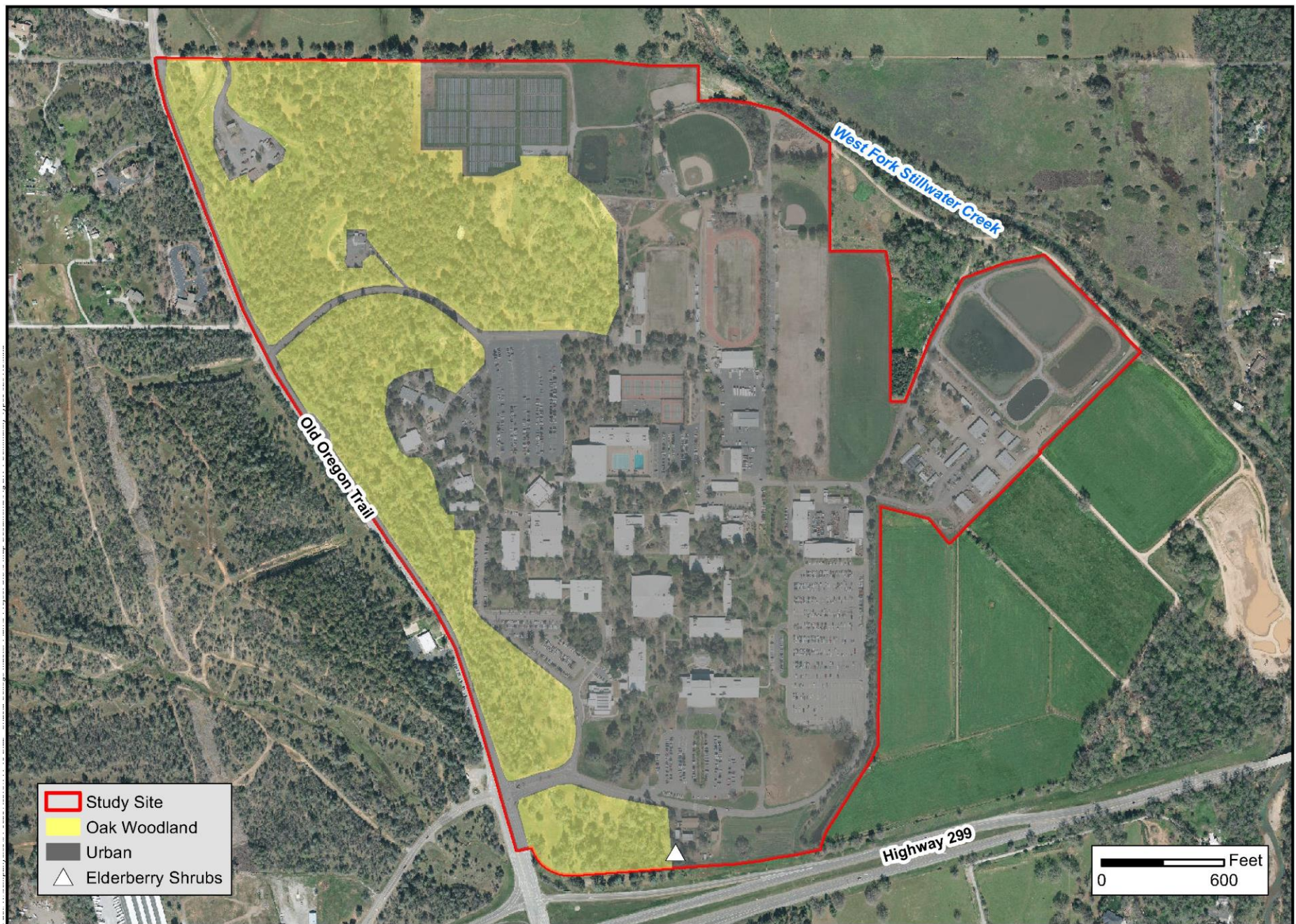


Figure BR-1 Community Types Figure Prepared By ENPLAN

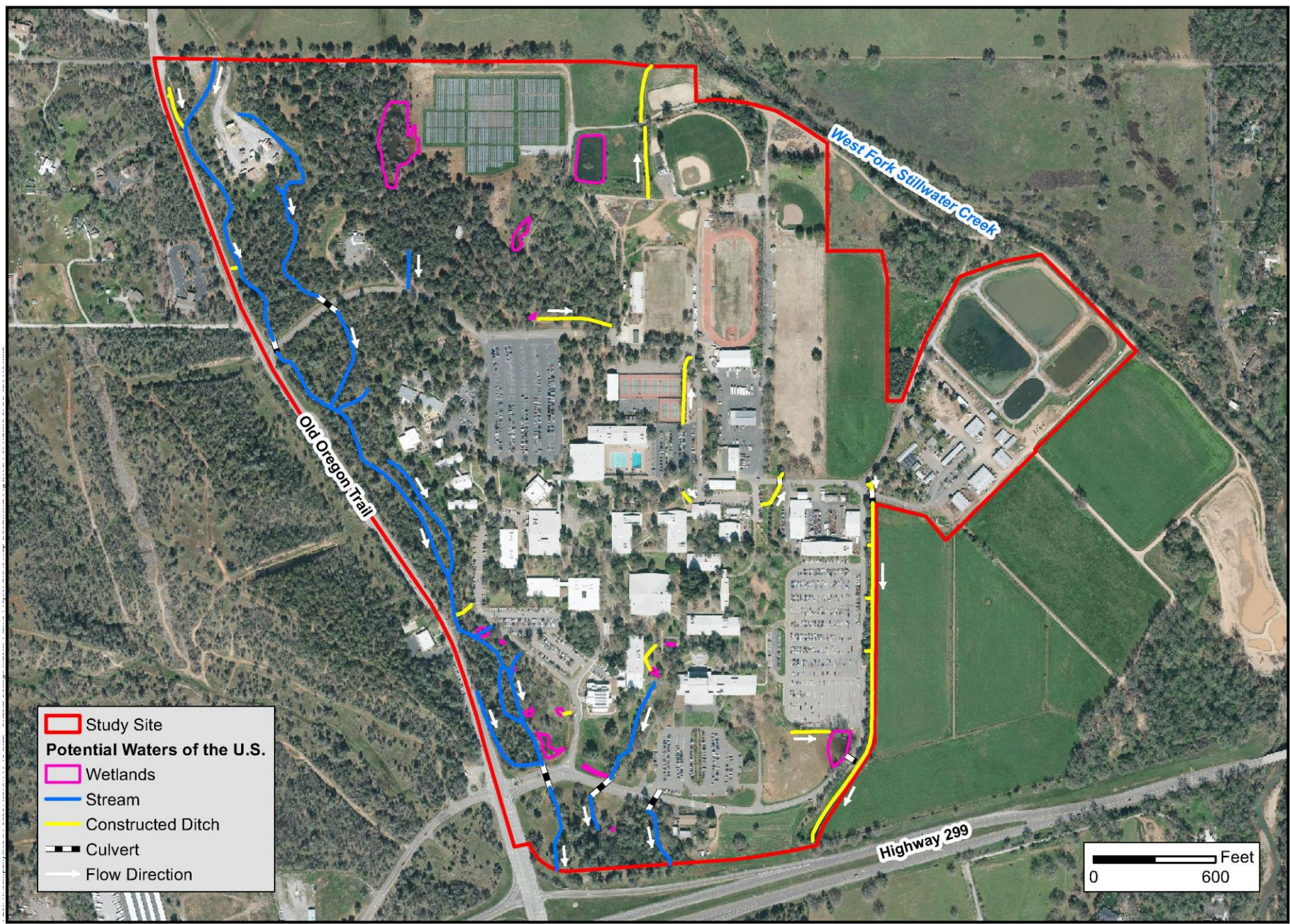


Figure BR-2 Potential Waters of the State & U.S. Figure Prepared By ENPLAN

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MITIGATION MONITORING & REPORTING PROGRAM

The *Mitigation Monitoring Program (MMRP)* for the *Shasta College Regional Public Safety Training Facility Project (RPSTF)* includes a brief discussion of the legal basis for and the purpose of the program, discussion, and direction regarding complaints about noncompliance, a key to understanding the monitoring table, and the monitoring table itself. The *MMRP* approved on June 14, 2017 by the District Board for the *RPSTF* Project IS/MND, State Clearinghouse No. 2017022006, is incorporated herein by reference.

Legal Basis of and Purpose for the Mitigation Monitoring Program

California Public Resources Code Section 21081.6 requires public agencies to adopt mitigation monitoring or reporting programs whenever certifying an environmental impact report (EIR) or a mitigated negative declaration (MND). This requirement facilitates implementation of all mitigation measures adopted through the CEQA process.

The *MMRP* contained herein is intended to satisfy the requirements of CEQA as they relate to the Initial Study Addendum for the *RPSTF Project*. It is intended to be used by College, participating agencies, project contractors, and mitigation monitoring personnel during implementation of the Project.

Mitigation is defined by CEQA Guidelines Section 15370 as a measure that does any of the following:

- Avoids impacts altogether by not taking a certain action or parts of an action.
- Minimizes impacts by limiting the degree or magnitude of the action and its implementation.
- Rectifies impacts by repairing, rehabilitating or restoring the impacted environment.
- Reduces or eliminates impacts over time by preservation and maintenance operations during the life of the project.
- Compensates for impacts by replacing or providing substitute resources or environments.

The intent of the *MMRP* is to ensure the effective implementation and enforcement of adopted mitigation measures and permit conditions. The *MMRP* will provide for monitoring of construction activities as necessary, on-site identification and resolution of environmental problems, and proper reporting to Agency staff.

Mitigation Monitoring Table MMRP-1 identifies the mitigation measures proposed for the *RPSTF Project*. The table has the following columns:

- **Mitigation Measure:** Lists the mitigation measure along with its number as identified in the Initial Study/MND for each specific impact.
- **Timing:** Identifies at what point in time, review process, or phase the mitigation measure will be completed.
- **Agency Monitoring/Consultation:** References Tehama County or any other public agency with which coordination is required to satisfy the identified mitigation measure.
- **Verification:** Spaces to be initialed and dated by the individual designated to verify adherence to a specific mitigation measure.

Noncompliance Complaints

Any person or agency may file a complaint asserting noncompliance with the mitigation measures associated with the project. The complaint shall be directed to the College in written form, providing specific information on the asserted violation. The College shall conduct an investigation and determine the validity of the complaint. If noncompliance with a mitigation measure has occurred, the College shall take appropriate action to remedy any violation. The complainant shall receive written confirmation indicating the results of the investigation or the final action corresponding to the particular noncompliance issue.

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TABLE MMRP			
MITIGATION MONITORING TABLE			
MITIGATION	TIMING/ IMPLEMENTATION	AGENCY MONITORING/ CONSULTATION	VERIFICATION (DATE & INITIALS)
I. AESTHETICS			
Refer to IV. Biological Resources Mitigation Measure BR-1 .	As a component of preliminary and improvement plan design and before and during construction.	District or Designee, Architect, Civil Engineer, Contractor	
IV. BIOLOGICAL RESOURCES			
<p>BR-1 – Prior to implementation of individual projects addressed in the FMPI, to be located in undeveloped natural habitat areas on the campus, subsequent biological review shall be undertaken. Work shall consist of review of current special-status species listings, a field evaluation to determine if potentially suitable habitat for the special-status species is present in or adjacent to the project site, focused species-specific surveys if warranted based on the results of the records review and habitat evaluation, and written documentation of the results of the biological review.</p> <p>If special-status species would be affected by implementation of the proposed project, actions shall be taken to ensure that the impacts are less than significant. Such actions may include modifying the project to avoid/minimize adverse effects, changing the timing of work to avoid impacts, or the excluding the species from the work area. If the special-status species cannot be fully avoided, mitigation shall be implemented at a minimum 1:1 ratio. This may consist of purchase of credits to offset the loss of the species, or creation, restoration, or preservation of suitable habitat elsewhere on the campus or at an off-site location. Design and implementation of the avoidance, minimization, and mitigation measures shall be completed in consultation with the appropriate regulatory agencies.</p>			
<p>BR-2 – To minimize impacts to native trees and oak woodlands and offset the unavoidable loss of native trees and oak woodland habitat, the following measures shall be implemented. The loss of native trees greater than 5 inches DBH and oak woodlands shall be avoided/minimized and offset through implementation of the following:</p> <ul style="list-style-type: none"> • Minimize loss of native trees and oak woodlands through careful pre-construction planning and design. • Erect construction fencing along the outer edges of the construction zone where needed to prevent accidental entry into oak woodland habitat and under individual oaks planned for retention. Fencing shall be provided at least six feet outside of the dripline of all trees to be preserved (including individual native trees within the urban landscape). The fencing is to remain in place throughout construction. To the extent feasible, no construction activities (including grading, cutting or trenching), materials stockpiling, or equipment parking or storage, or vehicle parking shall occur within the fenced tree protection zone. If work must occur within the fenced tree protection zone, it shall be completed under the supervision of a certified arborist or the College Horticulturist. Furthermore, site-specific measures recommended by the arborist or Horticulturist to ensure tree protection shall be implemented. 	Before and during construction.	District or Designee, Contractor	

TABLE MMRP			
MITIGATION MONITORING TABLE			
MITIGATION	TIMING/ IMPLEMENTATION	AGENCY MONITORING/ CONSULTATION	VERIFICATION (DATE & INITIALS)
<ul style="list-style-type: none"> Shasta College shall offset the unavoidable loss of oak woodland habitat and the unavoidable loss of native trees within the urban landscape through replacement tree planting. Oak woodland habitat shall be replaced at a minimum 1:1 ratio on an acreage basis. Alternatively, if mitigation is proposed on an individual tree basis (whether within the oak woodland or urban landscape), mitigation shall occur at a minimum 3:1 ratio. A vegetation planting and management plan shall be prepared by a certified arborist or the College Horticulturist prior to tree removal. The plan shall identify the number of native trees (by species, size, and health) or the acreage of oak woodland to be removed, and identify the mitigation planting area size and location, mitigation site protections (e.g., conservation easement or deed restrictions), planting objectives in terms of acreage or number of plants by species, planting and maintenance methods, success criteria, duration of monitoring, corrective actions to be taken if success criteria are not met, and reporting requirements. The planting plan shall provide for in-kind mitigation; i.e., the trees to be planted shall be of the same species as those removed. Planting shall occur at one of the designated tree mitigation sites previously identified by the College (Figure 12 –Proposed Land Uses & Existing Utilities) or as close to the Project site as possible. If replacement planting occurs on an individual tree basis within the urban landscape, the replacement trees shall be at least of the 15-gallon size. 			
<p>BR-3 – The potential for the introduction and spreading of noxious weeds shall be avoided/minimized by:</p> <ul style="list-style-type: none"> Using only certified weed-free erosion control materials, mulch, and seed. Limiting any import or export of fill material to material that is known to be weed free. Requiring the construction contractor to thoroughly wash all equipment at a commercial wash facility prior to entering the project site and immediately upon termination of its use at the project site. 	Prior to completion of Phase 1 construction.	District or Designee, RWQCB	
<p>BR-4 – Prior to implementation of individual projects addressed in the FMP1 that would occur in within 50 feet of the intermittent streams paralleling Old Oregon Trail or within 25 feet of other water features shown in Figure BR-2, Potential Waters of the State and U.S., or similar features, subsequent review shall be undertaken by a qualified wetland specialist or biologist to determine if the proposed project would affect regulated waters. If the project may affect regulated waters, Shasta College shall obtain all necessary permits and comply with the permit conditions and shall offset the unavoidable loss of waters at a minimum 1:1 ratio, or as otherwise required in the permits.</p>	Prior to completion of Phase 1 construction.	District or Designee, RWQCB	
<p>BR-5 – To avoid and minimize indirect impacts to waters, Best Management Practices (BMPs) or soil stabilization, sediment control, and spill prevention shall be implemented to ensure that sediment/pollutant transport into Waters of the State and United States is minimized. Other water quality control measures that may be required by resource agencies with permit authority over the project shall also be implemented.</p>		District or Designee, Contractor, RWQCB	

TABLE MMRP			
MITIGATION MONITORING TABLE			
MITIGATION	TIMING/ IMPLEMENTATION	AGENCY MONITORING/ CONSULTATION	VERIFICATION (DATE & INITIALS)
<p>BR-6 – In order to avoid impacts to nesting migratory birds and/or raptors protected under the federal Migratory Bird Treaty Act of 1918 and California Fish and Game Code §3503, including their nests and eggs, the following measures shall be implemented:</p> <ul style="list-style-type: none"> a. Vegetation removal and other ground-disturbance activities associated with construction shall occur between September 1 and January 31 when birds are not nesting; or b. If vegetation removal or ground disturbance activities occur during the nesting season, a pre-construction nesting survey shall be conducted by a qualified biologist to identify active nests in and adjacent to the work area. <p>Surveys shall begin prior to sunrise and continue until vegetation and nests have been sufficiently observed. The survey shall take into account acoustic impacts and line-of-sight disturbances occurring as a result of the project in order to determine a sufficient survey radius to avoid nesting birds. At a minimum, the survey report shall include a description of the area surveyed, date and time of the survey, ambient conditions, bird species observed in the area, a description of any active nests observed, any evidence of breeding behaviors (e.g., courtship, carrying nest materials or food, etc.), and a description of any conditions that may have affected the survey results (e.g., weather conditions, excess noise, the presence of predators, etc.).</p> <p>The results of the survey shall be submitted to the California Department of Fish and Wildlife upon completion. The survey shall be conducted no more than one week prior to the initiation of construction. If construction activities are delayed or suspended for more than one week after the pre-construction survey, the site shall be resurveyed.</p> <p>If active nests are found, Shasta College shall consult with the California Department of Fish and Wildlife and the U.S. Fish and Wildlife Service regarding appropriate action to comply with the Migratory Bird Treaty Act and California Fish and Game Code §3503. Compliance measures may include, but are not limited to, work-exclusion buffers, sound-attenuation measures, seasonal work closures based on the known biology and life history of the species identified in the survey, as well as on-going monitoring by biologists.</p>	Prior to completion of Phase 1 construction and beginning of Phase 2 construction.	District or Designee, Contractor, State Fish & Wildlife	
V. CULTURAL RESOURCES			
<p>CR-1 – The following measures shall be implemented and included in all project construction/design plans:</p> <ul style="list-style-type: none"> 1. Except as provided below, monitoring by a qualified archaeologist is recommended for all initial ground-breaking activities associated with project implementation due to the possibility that previously unidentified historical or archaeological features or artifacts may be present. 2. Shasta College shall notify the appropriate tribal resources should they wish to provide for the presence of a Native American Monitor at all initial ground-breaking activities 	During construction.	District or Designee, Contractor	

TABLE MMRP			
MITIGATION MONITORING TABLE			
MITIGATION	TIMING/ IMPLEMENTATION	AGENCY MONITORING/ CONSULTATION	VERIFICATION (DATE & INITIALS)
<p>associated with project implementation due to the possibility that previously unidentified archaeological features or artifacts may be present.</p> <p>3. If any previously unevaluated cultural resources (i.e., burnt animal bone, midden soils, projectile points or other humanly-modified lithics, historical artifacts, etc.) are encountered, all earth-disturbing work shall stop within 50 feet of the find until a qualified archaeologist can make an assessment of the discovery and recommend/implement mitigation measures as necessary. Depending on the type and significance of the find, subsequent monitoring by an archaeologist or Native American may be warranted. This stipulation does not apply to those cultural resources that have been evaluated by a qualified archaeologist and determined not to qualify as Historical Resources/Historic Properties.</p> <p>4. If any human remains are encountered during any phase of construction, all earth-disturbing work shall stop within 50 feet of the find. The county coroner shall be contacted to determine whether investigation of the cause of death is required as well as to determine whether the remains may be Native American in origin. Should Native American remains be discovered, the county coroner must contact the Native American Heritage Commission (NAHC). The NAHC will then determine those persons it believes to be most likely descended from the deceased Native American(s). Together with representatives of the people of most likely descent, a qualified archaeologist shall make an assessment of the discovery and recommend/implement mitigation measures as necessary.</p>			
IX. HYDROLOGY AND WATER QUALITY			
<p>H-1 – The potential for on-site and/or off-site flooding resulting from future improvements including but not limited to buildings, athletic facilities, roadways, driveways, pedestrian and bicycle pathways parking lots, or any other improvement resulting in the creation of impervious surfaces, shall be reduced by constructing either ponds, underground detention facilities, or other type of structure recommended by a licensed civil engineer or hydrogeologist. These facilities shall be located in the general location of existing disturbed areas throughout the campus. Should the facilities be proposed where lands are in a natural state then a separate CEQA environmental clearance will need to be prepared, more than likely a Categorical Exemption depending on the location and size of the structure.</p> <p>A qualified wetland specialist shall review the proposed alternate site to ensure that potential wetlands are avoided. To minimize impacts to native trees and oak woodlands and offset the unavoidable loss of native trees and oak woodland habitat Biological Resources Mitigation Measure BR-2 is to be implemented.</p> <p>In-stream detention facilities can be constructed provided the necessary U.S. Army Corps Nation-wide or Individual Permit is obtained when impacting jurisdictional Waters of the U.S. If there is no Corps jurisdiction then the in-stream detention facility cannot be constructed until the State Regional Water Quality Control Board approves a Notice of Applicability to permit the fill to create the detention facility. In addition, a State Fish & Wildlife 1602 Streambed Alteration Agreement would need to be obtained.</p>	Prior to completion of Phase 1 construction and beginning of Phase 2 construction.	District or Designee, Civil Engineer or Hydrogeologist, Wetland Specialist, Contractor	

TABLE MMRP			
MITIGATION MONITORING TABLE			
MITIGATION	TIMING/ IMPLEMENTATION	AGENCY MONITORING/ CONSULTATION	VERIFICATION (DATE & INITIALS)
<i>In order to accommodate buildings and their associated improvements or any other infrastructure improvements, depending on the Phase, detention facilities can either be expanded or relocated to another site to serve the proposed improvements.</i>			
XVII. TRIBAL CULTURAL RESOURCES			
<i>Refer to V. Cultural Resources Mitigation Measure CR-1</i>	During construction.	District or Designee, Contractor	

APPENDIX BR-A

TABLE 1, SPECIAL STATUS SPECIES NMFS, USFWS, CNDDDB
Prepared by ENPLAN

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TABLE 1
POTENTIAL FOR SPECIAL-STATUS SPECIES IDENTIFIED BY THE NATIONAL MARINE FISHERIES SERVICE, USFWS,
AND CNDDB TO OCCUR ON THE PROJECT SITE

COMMON NAME	SCIENTIFIC NAME	STATUS ¹	GENERAL HABITAT DESCRIPTION	HABITAT PRESENT (Y/N)	CRITICAL HABITAT PRESENT (Y/N)	SPECIES PRESENT (Y/N/POT.)	RATIONALE/COMMENTS
PLANTS							
Ahart's paronychia	<i>Paronychia ahartii</i>	1B.1	Ahart's paronychia is an annual herb that occurs in valley and foothill grassland, vernal pool, and cismontane woodland habitats. This plant is typically found in nearly barren clay in swales and on higher ground around vernal pools from 100 to 1,700 feet in elevation. It also occurs in rocky soils. The flowering period is March through June.	No	No	No	No potentially suitable habitats for Ahart's paronychia are present in the project site. Ahart's paronychia is not expected to be present.
Dubious pea	<i>Lathyrus sulphureus</i> var. <i>argillaceus</i>	3	The dubious pea is a perennial herb that occurs in cismontane woodland and montane coniferous forest. The species is reported between 500 and 1,000 feet in elevation. The flowering period is April and May.	Yes	No	Pot.	Potentially suitable habitat for dubious pea is present in the project site, particularly in the oak woodland habitat.
Henderson's bent grass	<i>Agrostis hendersonii</i>	3.2	Henderson's bent grass is an annual herb that occurs along the edges of vernal pools and swales, typically on thin soils overlying a hard pan. Henderson's bent grass is usually found in sparsely vegetated habitats between 200 and 1,000 feet in elevation. The flowering period is April through June.	Yes	No	Pot.	Marginally suitable habitat for Henderson's bent grass is present in the project site.
Legenere	<i>Legenere limosa</i>	1B.1	Legenere is an annual herb that occurs in moist or wet soil associated with vernal pools, vernal marshes, lakes, ponds and sloughs up to 3,000 feet in elevation. The flowering period is April through June.	No	No	No	No vernal pools or other potentially suitable habitats for legenere are present in the project site. Legenere is not expected to be present.
Maverick clover	<i>Trifolium piorkowskii</i>	1B.2	Maverick clover is an annual herb that occurs in chaparral, cismontane woodland, lower montane coniferous forests, valley and foothill grasslands, and vernal pools between 525 and 2,230 feet. This plant is typically found in volcanic clay, openings, and often streambanks. The flowering period is April and May.	No	No	No	No suitable habitat for maverick clover is present in the project site. Maverick clover is not expected to be present.
Northern clarkia	<i>Clarkia borealis</i> ssp. <i>borealis</i>	1B.3	Northern clarkia is an annual herb that inhabits chaparral, cismontane woodland, and coniferous forests between 1,200 and 2,400 feet in elevation. The species often occurs in dry, rocky substrates along roads. The flowering period is June through September.	No	No	No	No potentially suitable habitat for northern clarkia is present in the project site. The project site is below the known elevational range of northern clarkia.
Oval-leaved viburnum	<i>Viburnum ellipticum</i>	2B.3	Oval-leaved viburnum is a perennial deciduous shrub that occurs in chaparral, cismontane woodland, and lower montane coniferous forests. The species often occurs on north-facing slopes covered by dense brush, between 700 and 4,600 feet in elevation. The flowering period is May and June.	Yes	No	Pot.	Marginally suitable habitat for oval-leaved viburnum is present in the project site.
Red Bluff dwarf rush	<i>Juncus leiospermus</i> var. <i>leiospermus</i>	1B.1	Red Bluff dwarf rush is an annual herb that typically occurs along the edges of vernal pools and vernal drainages, or on clay-rich terrace soils. The species is found between 100 and 3,400 feet in elevation. The flowering period is March through May.	No	No	No	No vernal pools or other potentially suitable habitats for Red Bluff dwarf rush are present in the project site. Red Bluff dwarf rush is not expected to be present.

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Sanford's arrowhead	<i>Sagittaria sanfordii</i>	1B.2	Sanford's arrowhead occurs in freshwater ponds, marshes, and ditches with perennial water. The species is reported from sea level to 2,200 feet in elevation. The flowering period is May through October.	No	No	No	No perennial waters providing suitable habitat for Sanford's arrowhead are present in the project site.
Shasta huckleberry	<i>Vaccinium shastense</i> ssp. <i>shastense</i>	1B.3	Shasta huckleberry, a perennial deciduous shrub, occurs in a variety of acidic habitats and is often associated with acid mine drainage. Shasta huckleberry may be found along streambanks, around seeps, rocky outcrops, roadsides, and in disturbed areas within chaparral, cismontane woodland, coniferous forest, and riparian communities. The species is reported between 1,000 and 4,000 feet in elevation. The flowering period is December through September.	No	No	No	No potentially suitable habitat for Shasta huckleberry is present in the project site. The project site is below the known elevational range of Shasta huckleberry.
Shasta limestone monkeyflower	<i>Erythranthe taylori</i>	1B.1	Shasta limestone monkeyflower occurs on limestone rocks in the vicinity of Shasta Lake and McCloud. The species is reported between 1,100 and 3,300 feet in elevation. The flowering period is February through May.	No	No	No	No potentially suitable habitat for Shasta limestone monkeyflower is present in the project site.
Shasta snow-wreath	<i>Neviusia cliftonii</i>	1B.2	The Shasta snow-wreath is a perennial deciduous shrub that is generally limited to limestone-derived soils in shady stream canyons. The species is found between 900 and 1,700 feet in elevation. The flowering period is April through June.	No	No	No	No potentially suitable habitats for Shasta snow-wreath are present in the project site. The project site is below the known elevational range of Shasta snow-wreath.
Silky cryptantha	<i>Cryptantha crinita</i>	1B.2	Silky cryptantha is an annual herb that occurs along low-gradient seasonal streams with broad floodplains, usually on the valley floor, where it occurs on gravelly or cobbly substrates. The species also occurs in vernal moist uplands and, less frequently, along perennial streams, including the Sacramento River. The species is found between 200 and 4,000 feet in elevation. The flowering period is April and May.	Yes	No	Pot.	Marginally suitable habitat for silky cryptantha is present in the project site, in and adjacent to the unnamed intermittent stream located east of Old Oregon Trail.
Slender Orcutt grass	<i>Orcuttia tenuis</i>	FT, SE, 1B.1	Slender Orcutt grass is an annual herb that occurs in vernal pools and similar habitats, occasionally on reservoir edges or stream floodplains, and on clay soils with seasonal inundation. Surrounding habitat types may include valley grassland, oak woodland, coniferous forest, and sagebrush scrub. The species is found between 100 and 5,800 feet in elevation. The flowering period is May through September.	No	No	No	No vernal pools or other potentially suitable habitats for slender Orcutt grass are present in the project site. Slender Orcutt grass is not expected to be present.
Sulphur Creek brodiaea	<i>Brodiaea matsonii</i>	1B.1	Sulphur Creek brodiaea, a perennial bulbiferous herb, is reported only from two locations along Sulphur Creek. This plant occurs on metamorphic amphibolite schists in close proximity to streams, meadows, and/or seeps within cismontane woodland. The species occurs between 600 and 700 feet in elevation and flowers in May and June.	Yes	No	Pot.	Marginally suitable habitat for Sulphur Creek brodiaea is present in the project site, along the unnamed intermittent stream located east of Old Oregon Trail.

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Woolly meadowfoam	<i>Limnanthes floccosa</i> ssp. <i>floccosa</i>	4.2	Woolly meadowfoam is an annual herb that generally occurs in vernal pools, ditches, seasonal drainages, and ponds in valley foothill and grasslands, cismontane woodland, and chaparral. The species is reported between 200 and 3,600 feet in elevation. The flowering period is March through June.	No	No	No	No vernal pools or other potentially suitable habitats for woolly meadowfoam are present in the project site. Woolly meadowfoam is not expected to be present.
INVERTEBRATES							
Conservancy fairy shrimp	<i>Branchinecta conservatio</i>	FE	Conservancy fairy shrimp inhabit large, cool-water vernal pools with moderately turbid water.	No	No	No	No vernal pools or other potentially suitable habitats for conservancy fairy shrimp are present in the project site. Conservancy fairy shrimp would thus not be present.
Shasta crayfish	<i>Pacifastacus fortis</i>	FE	Shasta crayfish inhabit sections of the Pit River, Fall River, Hat Creek, and tributary streams and springs characterized by cool, clear water, low gradient, and substrate consisting of volcanic rubble on sand and/or gravel.	No	No	No	No suitable habitat occurs in the project site for Shasta crayfish. The Shasta crayfish would thus not be present.
Vernal pool fairy shrimp	<i>Branchinecta lynchi</i>	FT	Vernal pool fairy shrimp inhabit small, clear-water sandstone-depression pools and grassed swale, earth slump or basalt-flow depression pools.	No	No	No	No vernal pools or other potentially suitable habitats for vernal pool fairy shrimp are present in the project site. Vernal pool fairy shrimp would thus not be present.
Vernal pool tadpole shrimp	<i>Lepidurus packardii</i>	FE	Vernal pool tadpole shrimp occur in vernal pools in California's Central Valley and in the surrounding foothills.	No	No	No	No vernal pools or other potentially suitable habitats for vernal pool tadpole shrimp are present in the project site. Vernal pool tadpole shrimp would thus not be present.
Valley elderberry longhorn beetle	<i>Desmocerus californicus dimorphus</i>	FT	The valley elderberry longhorn beetle is found only in association with elderberry shrubs (<i>Sambucus</i> spp.). Most beetles are found below 500 feet in elevation in the Central Valley and surrounding foothills.	Yes	No	Pot.	Several elderberry shrubs were observed in the south-central portion of the campus during the field evaluations and other shrubs may be present elsewhere on the campus. The valley elderberry longhorn beetle has a low to moderate potential to be present in the study area.
BIRDS							
American peregrine falcon	<i>Falco peregrinus anatum</i>	FD, SD, SFP	American peregrine falcons frequent water bodies in open areas with cliffs and canyons nearby for nesting. This falcon feeds and breeds near water.	No	No	No	No bodies of water in open areas with cliffs or canyons for nesting, feeding, or breeding are present in the project site. Thus, the American peregrine falcon is not expected to nest in the project site.

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Bald eagle	<i>Haliaeetus leucocephalus</i>	FD, SE, SFP	Bald eagles nest in large, old-growth trees or snags in mixed stands near open bodies of water. Adults tend to use the same breeding areas year after year and often use the same nest, though a breeding area may include one or more alternate nests. Bald eagles usually do not begin nesting if human disturbance is evident. In California, the bald eagle nesting season is from February through July.	No	No	No	No old-growth forest or potentially suitable nesting trees/snags near open bodies of water are present in the project site. Thus, the bald eagle is not expected to nest in the project site.
Bank swallow	<i>Riparia riparia</i>	ST	Bank swallows require vertical banks and cliffs with fine-textured or sandy soils near streams, rivers, ponds, lakes, or the ocean for nesting.	No	No	No	No vertical banks or cliffs near bodies of water are present in the project site. Thus, the bank swallow is not expected to nest in the project site.
Northern spotted owl	<i>Strix occidentalis caurina</i>	FT, ST	Northern spotted owls inhabit dense, old-growth, multi-layered mixed conifer, redwood, and Douglas-fir forests from sea level to approximately 7,600 feet in elevation. Northern spotted owls typically nest in tree cavities, the broken tops of trees, or in snags.	No	No	No	No old-growth forests or potentially suitable nesting habitats are present in the project site. Thus, the spotted owl is not expected to nest in the project site.
Purple martin	<i>Progne subis</i>	SSSC	Purple martins inhabit woodlands and low elevation coniferous forests of Douglas-fir, ponderosa pine, and Monterey pine. Purple martins nest in old woodpecker cavities or in man-made structures such as culverts, bridges, or nest boxes.	Yes	No	Pot.	The project site is slightly outside purple martin nesting habitat, as mapped by CDFW (2008). Nonetheless, there is a low potential for purple martins to nest on the project site.
Tricolored blackbird	<i>Agelaius tricolor</i>	SCE, SSSC	Tricolored blackbirds are colonial nesters and generally nest near open water. Nesting areas must be large enough to support a minimum colony of about 50 pairs. Tricolored blackbirds generally construct nests in dense cattails or tules, although they can also nest in thickets of willow, blackberry, wild rose and tall herbs.	Yes	No	Pot.	Marginally suitable nesting habitat for tricolored blackbirds is present along the unnamed intermittent stream. Tricolored blackbirds have a low potential to nest on the project site.

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AMPHIBIANS							
California red-legged frog	<i>Rana draytonii</i>	FT	Suitable aquatic habitat for the California red-legged frog (CRLF) consists of permanent water bodies of virtually still or slow-moving fresh water, including natural and man-made ponds, backwaters within streams and creeks, marshes, lagoons, and dune ponds. The CRLF is not characteristically found in deep lacustrine habitats (e.g., deep lakes and reservoirs). Dense, shrubby riparian vegetation, e.g., willow (<i>Salix</i>) and bulrush (<i>Scirpus</i>) species, and bank overhangs are important features of CRLF breeding habitat. The CRLF tends to occur in greater numbers in deeper, cooler pools with dense emergent and shoreline vegetation.	No	No	No	The project site is well outside the current range of the California red-legged frog; the nearest known population is in Butte County. No suitable habitat for the California red-legged frog is present in the project site. The CRLF would thus not be present in the project site.
Foothill yellow-legged frog	<i>Rana boylei</i>	SCT, SSSC	Foothill yellow-legged frogs are typically found in shallow, partly-shaded, perennial streams in areas with riffles and rocky substrates. This frog needs at least some cobble-sized substrate for egg-laying. Foothill yellow-legged frogs generally prefer low- to moderate-gradient streams, especially for breeding and egg-laying, although juvenile and adult frogs may utilize moderate- to steep-gradient streams during summer and early fall.	Yes	No	Pot.	CNDDB records show that foothill yellow-legged frog was collected in the project vicinity in May 1953. Adjoining reaches of West Fork Stillwater Creek may provide suitable perennial aquatic habitat for the species, and the on-site intermittent stream could potentially be used as a refugium during high flow periods. The potential for foothill yellow-legged frogs to utilize the project site is quite low.
Shasta salamander	<i>Hydromantes shastae</i>	ST	The Shasta salamander is primarily restricted to limestone outcrops near Lake Shasta. Habitat consists of moist limestone fissures and caves, limestone talus, and under woody debris on the surface near limestone outcrops. Shasta salamanders may be found in all successional stages of valley foothill hardwood-conifer, ponderosa pine, and mixed conifer habitats.	No	No	No	No suitable habitat for the Shasta salamander is present in the project site. The Shasta salamander would thus not be present in the project site.
Western spadefoot	<i>Spea hammondi</i>	SSSC	Western spadefoots breed from January through May in shallow, temporary pools that persist for at least three weeks. Breeding pools are generally absent of bullfrogs, fish, and crayfish. After breeding, adults seek shelter underground either by excavating a subterranean burrow or retreating into a small mammal burrow nearby. Tadpoles transform within three weeks. Following transformation, juveniles leave breeding pools and seek shelter underground. Western spadefoots remain underground until breeding pools form the following spring.	Yes	No	Pot.	Potentially suitable habitat for the western spadefoot is provided by the on-site seasonal wetlands. The nearest known population is approximately 8 miles south-southeast of the project site. The western spadefoot has a very low potential to be present in the project site.

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REPTILES							
Western pond turtle	<i>Emys marmorata</i>	SSSC	The western pond turtle associates with permanent or nearly permanent water in a variety of habitats and is typically found in quiet water environments. Pond turtles require basking sites such as partially submerged logs, rocks, or open mud banks, and suitable (sandy banks or grassy open fields) upland habitat for egg-laying. Nests are generally constructed within 500 feet of a waterbody but have been found up to 1,200 feet away. Pond turtles leave aquatic sites in the fall and overwinter in uplands nearby. Pond turtles return to aquatic sites in spring.	No	No	No	No suitable habitat occurs in the project site for the western pond turtle. The western pond turtle would thus not be present.
FISH							
Chinook salmon – Central Valley spring-run ESU	<i>Oncorhynchus tshawytscha</i>	FT, ST	Central Valley spring-run Chinook salmon enter the Sacramento-San Joaquin Delta in early January, and enter natal streams between mid-March and mid-October. Upon entering fresh water, spring-run are sexually immature and must hold in cold water habitats through summer to mature. Typically, spring-run utilize mid- to high-elevation streams that provide sufficient flow, water temperature, cover, and pool depth to allow over-summering. Spawning occurs between August and mid-October.	No	No	No	Spring-run Chinook salmon use the lowermost reach of Stillwater Creek for juvenile rearing, but are not known to occur further upstream. Because the College is over 12 miles upstream of the Sacramento River, there is no expectation that Chinook salmon would be present in the unnamed on-site tributary to Stillwater Creek.
Chinook salmon – Sacramento River winter-run ESU	<i>Oncorhynchus tshawytscha</i>	FE, SE	Sacramento River winter-run Chinook salmon spawn almost exclusively in the Sacramento River, and not in tributary streams. Spawning generally occurs in swift, relatively shallow riffles or along the edges of fast runs where there is an abundance of loose gravel. Juveniles may rear in tributaries of the Sacramento River.	No	No	No	Winter-run Chinook salmon use the lowermost reach of Stillwater Creek for juvenile rearing, but are not known to occur further upstream. Because the College is over 12 miles upstream of the Sacramento River, there is no expectation that Chinook salmon would be present in the unnamed on-site tributary to Stillwater Creek.
Delta smelt	<i>Hypomesus transpacificus</i>	FT	Delta smelt primarily inhabit the brackish waters of Sacramento-San Joaquin River Delta. Most spawning occurs in backwater sloughs and channel edgewater.	No	No	No	No suitable habitat occurs in the project site for Delta smelt. The Delta smelt would thus not be present.

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Steelhead-Central Valley DPS	<i>Oncorhynchus mykiss</i>	FT	Central Valley steelhead inhabit cold-water tributaries of the Sacramento and San Joaquin rivers. Adults begin their upstream spawning migration between August and March. Spawning occurs between December and April. Spawning habitat is characterized by loose, clean gravel in cold, swiftly flowing, shallow water.	No	No	No	Steelhead are not reported in Stillwater Creek in either the Maslin et al. (1997, 1998, 1999) study or in CNDDDB records. Although steelhead may use the lower reach of Stillwater Creek, it is unlikely that they use the on-site reach of the unnamed tributary to the creek, which is over 12 miles from the Sacramento River.
MAMMALS							
Fisher – West Coast DPS	<i>Martes (Pekania) pennanti</i>	ST, SSSC	Fishers inhabit mixed conifer forests dominated by Douglas-fir, although they also are encountered frequently in higher elevation fir and pine forests, and mixed evergreen/broadleaf forests. Suitable habitat consists of large areas of mature, forest stands with snags and greater than 50 percent canopy closure. Fishers den in cavities in large trees, snags, logs, rocky areas, or shelters provided by slash or brush piles. Fishers are very sensitive to human activities. Den sites are most often found in areas with no human disturbance.	No	No	No	No suitable habitat occurs in the project site for fisher-west coast DPS. The fisher-west coast DPS would thus not be present.
Pallid bat	<i>Antrozous pallidus</i>	SSSC	Pallid bats inhabit grasslands, shrublands, woodlands, and forests, but are most common in open, dry habitats. Day roosts include caves, rock crevices, mines, and occasionally trees and buildings. Buildings are often used for night roosting. In northern California, the species is often associated with low-elevation oak woodlands.	Yes	No	Pot.	Suitable habitat occurs in the project site for pallid bat. The pallid bat has a moderate potential be present.
Spotted bat	<i>Euderma maculatum</i>	SSSC	Spotted bats inhabit grasslands, mixed coniferous forests, and deserts. Spotted bats typically roost in cliff crevices but may also roost in caves and mines. Roosts usually occur near suitable foraging areas (i.e., open water, meadows, riparian habitat, and forest openings). The distribution of spotted bats may be limited by the availability of suitable roosting habitat.	No	No	No	No cliffs, caves, mines or other suitable spotted bat roosting habitat occurs in the project site. The spotted bat would thus not be present.

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AND CNDDB TO OCCUR ON THE PROJECT SITE

COMMON NAME	SCIENTIFIC NAME	STATUS ¹	GENERAL HABITAT DESCRIPTION	HABITAT PRESENT (Y/N)	CRITICAL HABITAT PRESENT (Y/N)	SPECIES PRESENT (Y/N/POT.)	RATIONALE/COMMENTS
Townsend's big-eared bat	<i>Corynorhinus townsendii pallescens</i>	SSSC	Townsend's big-eared bat is found throughout California except in subalpine and alpine habitats and may be found at any season throughout its range. The species is most abundant in mesic habitats. The bat requires caves, mines, tunnels, buildings, or other "cave-like" structures for roosting. This bat is especially sensitive to disturbance of roosting sites, and a single disturbance event may result in abandonment of the roost site.	No	No	No	No suitable caves or "cave-like" roosting habitat occurs in the project site. Townsend's big-eared bat would thus not be present.

¹ Status Codes

Federal:

FE Federally Listed – Endangered
FT Federally Listed – Threatened
FC Federal Candidate Species
FP Federal Proposed Species
FD Federal Delisted

State:

SFP State Fully Protected
SR State Rare
SE State Listed - Endangered
ST State Listed - Threatened
SC State Candidate Species
SSSC State Species of Special Concern

Rare Plant Rank

1A Plants Presumed Extinct in California
1B Plants Rare, Threatened or Endangered in California and Elsewhere
2A Presumed extirpated in California, but more common elsewhere
2B Rare or Endangered in California, but more common elsewhere

Rare Plant Threat Rank

0.1 Seriously Threatened in California
0.2 Fairly Threatened in California
0.3 Not Very Threatened in California

APPENDIX BR-B

THREATENED & ENDANGERED SPECIES FWS Prepared by ENPLAN

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United States Department of the Interior

FISH AND WILDLIFE SERVICE

Sacramento Fish And Wildlife Office

Federal Building

2800 Cottage Way, Room W-2605

Sacramento, CA 95825-1846

Phone: (916) 414-6600 Fax: (916) 414-6713



In Reply Refer To:

December 07, 2018

Consultation Code: 08ESMF00-2019-SLI-0545

Event Code: 08ESMF00-2019-E-01620

Project Name: 141-19 Shasta College Master Plan

Subject: List of threatened and endangered species that may occur in your proposed project location, and/or may be affected by your proposed project

To Whom It May Concern:

The enclosed species list identifies threatened, endangered, proposed and candidate species, as well as proposed and final designated critical habitat, under the jurisdiction of the U.S. Fish and Wildlife Service (Service) that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the Service under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*).

Please follow the link below to see if your proposed project has the potential to affect other species or their habitats under the jurisdiction of the National Marine Fisheries Service:

http://www.nwr.noaa.gov/protected_species/species_list/species_lists.html

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the ECOS-IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the ECOS-IPaC system by completing the same process used to receive the enclosed list.

The purpose of the Act is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the Act and its implementing regulations (50 CFR 402 *et seq.*), Federal agencies are required to utilize their authorities to carry out programs for the conservation of threatened and endangered species and to determine whether projects may affect threatened and endangered species and/or designated critical habitat.

A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2) (c)). For projects other than major construction activities, the Service suggests that a biological evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.

If a Federal agency determines, based on the Biological Assessment or biological evaluation, that listed species and/or designated critical habitat may be affected by the proposed project, the agency is required to consult with the Service pursuant to 50 CFR 402. In addition, the Service recommends that candidate species, proposed species and proposed critical habitat be addressed within the consultation. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found in the "Endangered Species Consultation Handbook" at:

<http://www.fws.gov/endangered/esa-library/pdf/TOC-GLOS.PDF>

Please be aware that bald and golden eagles are protected under the Bald and Golden Eagle Protection Act (16 U.S.C. 668 *et seq.*), and projects affecting these species may require development of an eagle conservation plan (http://www.fws.gov/windenergy/eagle_guidance.html). Additionally, wind energy projects should follow the wind energy guidelines (<http://www.fws.gov/windenergy/>) for minimizing impacts to migratory birds and bats.

Guidance for minimizing impacts to migratory birds for projects including communications towers (e.g., cellular, digital television, radio, and emergency broadcast) can be found at: <http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/towers.htm>; <http://www.towerkill.com>; and <http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/comtow.html>.

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the Act. Please include the Consultation Tracking Number in the header of this letter with any request for consultation or correspondence about your project that you submit to our office.

Attachment(s):

- Official Species List

Official Species List

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

Sacramento Fish And Wildlife Office

Federal Building

2800 Cottage Way, Room W-2605

Sacramento, CA 95825-1846

(916) 414-6600

Project Summary

Consultation Code: 08ESMF00-2019-SLI-0545

Event Code: 08ESMF00-2019-E-01620

Project Name: 141-19 Shasta College Master Plan

Project Type: ** OTHER **

Project Description: Proposal to Conduct Technical Studies in Support of the Shasta College Master Plan Environmental Review: biological, wetland, air quality, noise, and cultural resources evaluations

Project Location:

Approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/place/40.626884201919815N122.31396978433244W>



Counties: Shasta, CA

Endangered Species Act Species

There is a total of 9 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries¹, as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

-
1. [NOAA Fisheries](#), also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

Birds

NAME	STATUS
Northern Spotted Owl <i>Strix occidentalis caurina</i> There is final critical habitat for this species. Your location is outside the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/1123	Threatened

Amphibians

NAME	STATUS
California Red-legged Frog <i>Rana draytonii</i> There is final critical habitat for this species. Your location is outside the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/2891	Threatened

Fishes

NAME	STATUS
Delta Smelt <i>Hypomesus transpacificus</i> There is final critical habitat for this species. Your location is outside the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/321	Threatened

Insects

NAME	STATUS
Valley Elderberry Longhorn Beetle <i>Desmocerus californicus dimorphus</i> There is final critical habitat for this species. Your location is outside the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/7850 Habitat assessment guidelines: https://ecos.fws.gov/ipac/guideline/assessment/population/436/office/11420.pdf	Threatened

Crustaceans

NAME	STATUS
Conservancy Fairy Shrimp <i>Branchinecta conservatio</i> There is final critical habitat for this species. Your location is outside the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/8246	Endangered
Shasta Crayfish <i>Pacifastacus fortis</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/8284	Endangered
Vernal Pool Fairy Shrimp <i>Branchinecta lynchi</i> There is final critical habitat for this species. Your location is outside the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/498	Threatened
Vernal Pool Tadpole Shrimp <i>Lepidurus packardii</i> There is final critical habitat for this species. Your location is outside the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/2246	Endangered

Flowering Plants

NAME	STATUS
Slender Orcutt Grass <i>Orcuttia tenuis</i> There is final critical habitat for this species. Your location is outside the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/1063	Threatened

Critical habitats

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.