Draft Initial Study & Proposed Mitigated Negative Declaration

Sierra Hot Springs Masterplan Project

Zone Amendment, Conditional Use Permit & Development Agreement

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INTRODUCTION

California Environmental Quality Act Compliance

In accordance with the California Environmental Quality Act (CEQA) of 1970 (Public Resources Code [PRC] Section 21000, et seq.), and the CEQA Guidelines (California Code of Regulations, Title 14, Section 15000 et seq.)., Sierra County has prepared this Initial Study to assess the potential environmental impacts of the proposed Sierra Hot Springs Masterplan Project.

Public Review Process

The Initial Study and the proposed Mitigated Negative Declaration will be circulated for public review for a period of 30 days, pursuant to CEQA Guidelines Section 15073(a). Sierra County will provide public notice at the beginning of the public review period.

This draft Initial Study is being routed to State agencies through the Office of Planning and Research and the State Clearinghouse under a Notice of Completion; to other federal, State, and local agencies by the Sierra County Planning Department, under a Notice of Availability and Notice of Intent to adopt a Mitigated Negative Declaration; and to property owners in the vicinity and the general public by direct mailing and posting notices of the project in County government offices and post offices throughout the County, on the County website (http://www.sierracounty.ca.gov), and publication in The Mountain Messenger, a legal newspaper of general circulation.

After the document has been noticed and made publicly available for 30 days County staff will address all comments received, prepare a staff report and recommendation, and schedule the project and this Initial Study for consideration by the Sierra County Planning Commission. Notice of a the scheduled Planning Commission hearing will be posted and published at least ten (10) days prior to the public hearing. The Planning Commission will accept written and oral comments and make a recommendation to the Sierra County Board of Supervisors, who will hold one or more duly-noticed and separate public hearings, after which a final decision on the project will be made.

Please provide written comments or direct questions to Brandon Pangman, Sierra County Planning Department, P.O. Box 530, Downieville, CA 95936, 530.289.3251, bpangman@sierracounty.ca.gov.

Overview of Proposed Project

The Sierra Hot Springs Masterplan (proposed project, Masterplan) defines the intended buildout of the existing Sierra Hot Springs resort, which is located on an approximately 682-acre property on Campbell Hot Springs Road, less than 1.5 miles southeast of the community of Sierraville, in Sierra County, California. The proposed Masterplan consists of a master site plan, architectural

design, development standards, rezoning consistent with the General Plan, and a development agreement that would allow for buildout of the Masterplan over a 20-year period (see Appendix A – Masterplan). Entitlements required from Sierra County include a Conditional Use Permit, Zone Amendment, and a Development Agreement.

The proposed project is anticipated to result in a maximum area of disturbance of approximately 32.4 acres (5% of the site) in the southwestern portion of the property. The area identified as potential septic system repair amounts to an additional 31.1 acres and would only be disturbed if it is necessary to replace or expand the primary leachfield due to underperformance or failure. The proposed Masterplan includes 89,580 square feet of structures, including a 35,600 square-foot lodge with 60 guest rooms, a restaurant, a campground with 50 campsites and associated facilities, 2 homes for onsite managers, 11 guest cabins, 40 residential units to serve as staff housing, a multi-use building, pools complex and expanded changing rooms, two workshops, a market, a maintenance shop, and equipment shed. The proposed project would also develop infrastructure, parking, access roads, and trails throughout the site. It is estimated that a maximum population of 529 people would be onsite at any one time, including day-use, lodge guests, campers, staff and staff families. This would be a 34% increase over the estimated current maximum population of 394 people.

Project Planning Setting

The proposed project is located in Sierraville, an unincorporated community in rural Sierra County, California. Land uses within the area are governed by the Sierra County General Plan, which places the resort property within the Sierraville Community Core and applies a land use designation of VC-MUR-PD-PS (Visitor Commercial-Multiple Unit Residential-Planned Development; and Public Services for a park) to the area of the proposed Masterplan. Other portions of the resort property not proposed for development under the Masterplan carry AG (Agricultural) and OS (Open Space) land use designations. The Dearwater Airport, which is undeveloped except for a paved runway, parking area, and well, abuts the resort property and is accessed from Campbell Hot Springs Road. Undeveloped land on either side of the airstrip carries an Industrial land use designation. The resort property is bordered by the Tahoe National Forest to the south and east, the Dearwater Airport is northwest of the proposed Masterplan site, and undeveloped land and rural agricultural uses characterize other private land in the vicinity of the project site.

SUMMARY OF FINDINGS

Environmental Determination

This Initial Study analyzes the environmental impacts of the project consistent with the format and analysis prompts provided in Appendix G of the CEQA Guidelines. The analysis determined that the project would have potentially significant impacts to the following resource categories: Aesthetics, Air Quality, Biological Resources, Cultural Resources, Geology and Soils, Hazards and Hazardous Materials, Hydrology and Water Quality, Noise, Transportation/Traffic, Service Systems, and Tribal Cultural Resources. The analysis determined that all potentially significant impacts would be less than significant with implementation of mitigation measures to avoid or minimize the impacts identified. Detailed analyses of impacts are provided under each resource section evaluated by this Initial Study.

The lead agency finds that the Initial Study identifies potentially significant impacts, but that implementing the mitigation measures identified in Table 1 would avoid or minimize the impacts such that they would be less than significant. The proposed project would result in no impacts that would remain significant following implementation of mitigation measures. All mitigation measures are identified in Table 1, below.

Table 1
Mitigation Measures

Number	Mitigation Measure
	Aesthetics
1.1	The following measures shall be implemented to provide screening of the proposed campground and campground-serving structures proposed by the Masterplan to reduce the visibility of the proposed development as viewed from SR 49 and Lemmon Canyon Road and minimize the impact of the proposed development on the existing scenic quality and values of the Sierra Valley, as identified by the Sierra County General Plan. Implementation of measures shall be reviewed and approved by Sierra County Planning and Building Department prior to issuance of building permits to ensure proposed measures would be compatible with airport operations. a. Landscape plans for the proposed campground shall specify plantings that provide vegetative screening of the campground and associated facilities (including structures) from publicly accessible areas identified as primary viewsheds or key observation points, as determined by the Sierra County Planning and Building Department, such as SR 49 and Lemmon Canyon Road. Landscaping shall make use of native, drought resistant plants selected, planted and maintained in a manner that would not increase fire danger. Fast-growing plants shall be selected for screening and may include traditional fruit trees, which are consistent with Sierra Valley's agricultural heritage, in addition to native vegetation or other screening materials approved by the Sierra County Planning and Building Department. Landscape plans shall provide exhibits demonstrating the effectiveness of proposed screening treatments at time of planting and estimated screening provided at 5 years after planting. Appropriate screening shall be provided 5 years after planting to limit views into the campground from selected public viewshed and observation points, as determined by the Sierra County Planning and Building Department. Effectiveness of screening shall be maintained to the satisfaction of the Sierra County Planning and Building Department. b. Camping activities, including parking, kitchen, and tent areas, shall be within the screened portion of the campground. Campground rules shall clearly state where campsite activities are allowed. Rules shall be clearly posted and enforced by Sierra Hot Springs management. To avoid sprawl into unauthorized

Table 1
Mitigation Measures

Number	Mitigation Measure
	camping areas, each individual campsite shall have a maximum occupancy of 4 people and the maximum campground population shall be no more than 150 at any time (average of 3 people per site). c. Colors for proposed structures should be of low chromatic intensity and shall be selected to reduce contrast between the structures and natural surrounding area and background as viewed from public areas such as Lemmon Canyon Road and SR 49. d. Architectural design for all structures shall be as provided in the Masterplan and compatible with the ranch or mountain setting or history of Sierra Valley, and shall be subject to review and approval by the Sierra County Planning and Building Department.
1.2	Construction on the project site shall comply with the following provisions: a. Grading shall be limited to that necessary for construction of the new structures and for fire protection. b. Tree removal on the project site shall be limited to that necessary for fire protection, and to remove dead or dying trees or those that pose a safety hazard.
1.3	All lighting shall be of low intensity and shielded and directed downward to maintain dark sky conditions and to avoid transient lighting of off-site areas. Ground level lighting shall be used to the extent feasible for outdoor area lighting. At a minimum, lighting shall be in compliance with mandatory standards for non-residential uses as provided in the California Green Building Standards Code. Lighting plans shall be reviewed and approved by the Sierra County Planning and Building Department prior to issuance of building permits.
	Air Quality
3.1	*Construction Phase:* The project contractor shall implement the following measures to control dust during construction and shall at all times comply with NSAQMD's Rule 226 for the control of fugitive dust: a. Open burning shall be prohibited as a means of disposing of cleared vegetative material during project construction. Suitable alternatives include chipping, mulching, or biomass conversion. b. When feasible, grid power shall be used instead of diesel power generators for job site power during construction. c. Wood-burning appliances shall be limited to one per residence or lodging unit and all units shall be EPA Phase II certified appliances. All units shall be equipped with a non-wood-burning source of heat. d. Per Rule 226, a dust control plan shall be submitted to and approved by the Air Pollution Control Officer before topsoil is disturbed prior to any project phase that would disturb more than one (1) acre of natural surface or where the natural ground cover is removed. In the dust control plan, the Air Pollution Control Officer may require use of palliatives, reseeding, or other means to minimize windblown dust. e. All unpaved access roads and staging areas at construction sites shall have soil stabilizers applied, or have water applied to ensure compliance with Rule 226. f. Traffic speeds on unpaved roads shall be limited to 15 mph. g. Exposed stockpiles of soil and other backfill material shall be enclosed or covered, or shall be watered twice daily, or shall have soil binders added. h. All trucks hauling soil and other loose material on public streets shall be covered or have at least two feet of freeboard. i. If visible soil material is carried onto adjacent public roads, such streets shall be swept with water sweepers. j. Dust-producing activities shall be suspended when high winds create construction-induced visible dust plumes moving beyond the project site in spite of dust control measures. k. Prior to final sign off of building permits, the applicant shall re-establish ground cover on the site through seeding and watering. *Operational Phase:* l. The project operator shall comply with NSAQMD's Rule 226 for the control of fugitive dust. m. A dust control plan shall be submitted to and approved by the County Department of Planning and Building and the Air Pollution Control Officer. The dust control plan shall identify measures for controlling dust on areas that would remain unpaved including Campbell Hot Springs Road, Lemmon Canyon Road, and

Table 1
Mitigation Measures

Number	Mitigation Measure
	parking and camping areas where natural cover would be removed. Measures included in the plan could include use of soil stabilizers, watering, wind or snow fences, surface treatments, vehicle speed restrictions, or other means to minimize windblown dust and comply with Rule 226.
	Biological Resources
4.1	To avoid take of any nesting birds, including raptors, tree removal within the study area should be conducted between September 1 and May 1, which is outside of the typical raptor breeding season. For any construction activities, including tree removal, initiated during the typical breeding season (generally May 1 through August 31) a pre-construction nesting bird survey shall be conducted by a qualified biologist within 15 days prior to project-related activities. The nesting survey shall be repeated if construction during the breeding season is inactive for a period of 14 days or more. If any active raptor nests are found on or within 100 feet of the proposed area of disturbance, the Sierra County Planning Department shall be contacted and consultation shall be initiated with CDFW to determine appropriate avoidance measures and mitigation responsibilities. Avoidance measures typically include limited operating periods and/or a 100 to 500-foot buffer from the nest until it is determined to be inactive.
4.2	No earlier than 30 days prior to initiation of construction activities, a pre-construction survey shall be conducted by a qualified biologist (i.e., a biologist holding a CDFW collection permit and a Memorandum of Understanding with CDFW allowing the biologist to handle bats) to determine if active bat roosts or maternal colonies are present on or within 300 feet of the construction area. Surveys shall include the structures proposed for demolition. Should an active maternity roost be identified, the roost shall not be disturbed and construction within 300 feet of the maternity roost shall be postponed or halted until the juveniles have fledged and the roost is vacated, as determined by a qualified biologist. The discovery of any active maternity roost shall be reported to the Sierra County Planning Department and consultation shall be initiated with CDFW. If nonbreeding bat hibernacula are found on the project site, the individuals shall be safely evicted under the direction of a qualified bat biologist and in consultation with CDFW. These actions shall allow bats to leave during nighttime hours, thus increasing their chance of finding new roosts with a minimum of potential predation during daylight. Note: Due to regulations from the California Health Department, direct contact by construction workers with any bat is prohibited.
4.3	Rare plant surveys shall be conducted prior to ground disturbance to determine if special-status species of plants are present with the area of potential disturbance. Plant surveys shall be conducted by a qualified biologist and shall be floristic in nature and follow recommended methodology described in the CNPS *Botanical Survey Guidelines* (2001), the CDFW *Protocols for Surveying and Evaluating Impacts to Special-status Native Plant Populations and Natural Communities* (2009), and the USFWS *Guidelines for Conducting and Reporting Botanical Inventories for Federally Listed, Proposed and Candidate Plants* (2000). Should any individual special-status plant species be located, a qualified botanist shall develop and implement a management plan. Appropriate measures could include transplanting, soil/seed salvage and avoidance. The management plan shall be prepared in consultation with the appropriate resource agency having jurisdiction for the species discovered.
4.4	A wetland delineation for the proposed disturbance area verified by the Corps of Engineers shall be submitted to Sierra County prior to issuance of grading permits for any phase of the proposed Masterplan project. The applicant shall obtain appropriate permits from the U.S. Army Corps of Engineers, Regional Water Quality Control Board, and CDFW for any proposed disturbance to jurisdictional features. Copies of all agency permits shall be provided to Sierra County prior to issuance of grading permits. The applicant shall comply with the terms and conditions of the permits and Streambed Alteration Agreement, which include measures to ensure that impacts to the regulated habitats are avoided or minimized and that compensation is provided for impacts that are unavoidable. Typical terms and condition of permits include requirements to provide replacement habitat at a minimum ratio of 1:1 to ensure that “no net loss” of wetlands occurs, construction best management practices for resource avoidance, erosion and sediment control, revegetation, restoration, and post-construction monitoring. To achieve the minimum mitigation

Table 1
Mitigation Measures

Number	Mitigation Measure
	ratio for replacement habitat, the applicant may have the option to participate in an in-lieu fee program, which provides a mitigation option if appropriate mitigation is not available onsite. Mitigation could also include onsite or offsite mitigation by creation, restoration, and/or enhancement of wetland habitat and protection in perpetuity.
4.5	The boundary of all jurisdictional features within 100 feet of the proposed construction disturbance area shall be identified by a qualified biologist with flagging and orange exclusion fencing shall be installed to ensure that no inadvertent impacts to sensitive aquatic habitat occurs during construction activities.
4.6	To ensure that structures placed within the drainage corridor running between the proposed guest cabins and pool complex do not impede wildlife movement along the creek corridor, any structure proposed within 100 feet of the centerline of the waterway shall be reviewed by a qualified wildlife biologist approved by Sierra County. The biologist shall provide a memo verifying that the proposed design of walkways, bridges, culverts, or other features would not impair the ability of wildlife to move within the drainage corridor and shall provide design recommendations if it is determined that wildlife movement would be impaired by proposed features. Recommendations of the approved biologist shall be incorporated into project features to the satisfaction of the County Planning & Building Department.
Cultural Resources	
5.1a	To ensure preservation onsite of mapped archaeological resources, prior to the start of any construction or excavation activities within 50 feet of archaeological resources, the limits of such resources shall be flagged by a qualified professional archaeologist approved by the County. Orange exclusion fencing shall be installed at the flagged boundary to protect the resource from inadvertent disturbance during construction and excavation work onsite and no earth disturbance shall occur within the boundaries of the fenced exclusion zone.
5.1b	In the event that it is determined that onsite preservation as described by Mitigation Measure 5.1a is not feasible, an archaeological testing and data recovery plan shall be prepared and implemented by a qualified archaeologist approved by the County. The specific attributes and qualities which render the subject site significant should be determined and specified through formal archaeological data collection work. At a minimum, such data collection work (archaeological testing) should include recovery of a sample of cultural material sufficient to evaluate site and midden depth, age and make-up of the components of the sites, and characterization of artifacts and midden constituents in terms of major data categories present. The overall objectives of any such testing work should be to identify those research questions for which these sites contain relevant information, with the research questions representing those presently being expressed by the body of professional archaeologists in the region. Any testing program should culminate in a professional report that contains explicit recommendations for any mitigative-level data recovery work that might be justified or warranted on the basis of the specific findings of testing. The data recovery work shall be carried out in accordance with the recommendations in the report prior to any disturbance to the subject site.
5.2	Following completion of construction (or completion of any construction phase of the Masterplan), the following measures shall be implemented to protect resources from inadvertent disturbance during resort operations: a. Exclusion fencing (i.e. split-rail design or other decorative fencing type) shall be installed around the perimeter of sites located within 50 feet of developed facilities. Signs shall be posted to stating that entry to the area is restricted for resource protection. b. As determined necessary by the County, sites shall be placed into a permanent conservation easement that stipulates maintenance of measures to protect the resource and prohibits all development within the easement.
5.3	Prior to the start of construction in the vicinity of the mapped boundaries of CA-SIE-1007, the limits of the previously recorded boundary of the site, prior to the revised boundary established by the project cultural report (Jensen, 2016) shall be flagged or otherwise effectively delineated by a qualified archaeologist approved by the County. Any work within the delineated boundary shall be monitored by the qualified archaeologist. Mitigation Measure 5.4 shall be implemented for any subsurface archaeological materials unearthed during construction.
5.4	Construction on the project site shall implement the following measures to avoid impacts to archaeological resources or human remains:

Table 1

Mitigation Measures

Number	Mitigation Measure
	• If artifacts or unusual amounts of shell or bone or other items indicative of buried archaeological resources or human remains are encountered during earth-disturbance associated with the proposed project, the onsite contractor shall immediately notify the Sierra County Department of Planning and Building Inspection and all soil-disturbing work shall be halted until a qualified archaeologist completes a significance evaluation of the finds pursuant to Section 106 of the National Historic Preservation Act. Any human remains unearthed shall be treated in accordance with California Health and Safety Code Section 7050.5 and Public Resources Code Sections 5097.94, 5097.98 and 5097.99. The significance evaluation shall include specific measures for the appropriate management of the resources uncovered and shall be submitted to the Sierra County Department of Planning and Building Inspection. No further soil-disturbing work shall be conducted within 100 feet of any resource discovery until an appropriate management plan is developed by a qualified archaeologist for the protection of any significant resources identified. The significance evaluation shall be carried out in consultation with appropriate agencies, including the State Historic Preservation Office, as necessary.
Geology and Soils	
6.1	The following measures shall be implemented to ensure appropriate design and operation of proposed onsite wastewater treatment systems: a. Prior to issuance of any building permit, the applicant shall submit a detailed septic design for the phase of development showing wastewater generation calculations and all details of septic tank, leach field, and pumping systems (if needed). Such final designs shall be based on sufficient soils testing as determined by the Sierra County Sanitarian. Percolation and soils mantle testing shall be sufficient to provide reasonable assurance that the soils are consistent over the initial and repair areas of each system. b. Nothing shall preclude the use of specially designed systems that may include pre-treatment and filtration of effluent, pressure dosed effluent distribution, filtration media in leach lines, or other techniques that may be available now or in the future as the state of the art for rural wastewater treatment and disposal. Any alternative systems must be approved by the County of Sierra. c. Any portions of the wastewater system exceeding local jurisdiction thresholds shall be reviewed and approved by the State of California under then prevailing State and Federal laws. d. Septic tanks and leach lines shall be marked above ground so as to prevent damage from other excavating in the area and so such facilities can be clearly located for maintenance or expansion of the systems. e. Project septic systems and leach fields shall be inspected annually by the County Sanitarian, who will charge a fee as needed to pay for such review and a brief report to the file. Inspections shall include a review of leach field to assure that they remain undisturbed and that no effluent is surfacing as indicated by puddling and/or sewage odor. f. All septic systems shall be inspected during installation by the County Sanitarian on a fee basis, or the Sanitarian may opt to require installation certification by the design engineer or other qualified consultant. All inspections shall include a photographic record of the installation prior to backfill. g. An as-built drawing of all septic systems shall be filed with the County Sanitarian for future use and reference and for annual inspection purposes. h. Leach field surface areas shall be kept in their natural state without landscaping or irrigation. No activity may occur in leach field areas that could result in compaction or line breakage, such as allowing vehicle traffic (unless the leach lines are specially designed to be under pavement). i. Prior to the issuance of a building permit for any of the staff housing, a new well or wells shall be drilled and tested to augment and backup the current water supply as determined by Sierra County, or the State of California if they have jurisdiction. Any new wells shall be sited and served so as to avoid wetland areas with the well, pump house, access, and trenching.
6.2	In addition to the measures identified by Mitigation Measure 6.1, proposed gray water systems shall be discussed in advance with the Sierra County Environmental Health. Proposed designs for gray water disposal and seasonal application rates and location of application of wastewater shall be reviewed and approved by the County. The final

Table 1
Mitigation Measures

Number	Mitigation Measure
	design shall include such provisions as the County may require to assure proper disposal without contamination to groundwater or surface waters. Gray water systems shall be included in annual inspections of disposal systems carried out by the County.
Hazards	
8.1	The tank and plumbing shall be constructed in accordance with Cal Fire design and installation requirements; shall be placed underground or otherwise designed to avoid freezing conditions; and shall contain apparatus approved by serving fire entities that complies with current fire agency standards and specifications. The location of the tank shall be approved by the serving fire entities and the Planning Department. On-going maintenance of the tank and plumbing shall be the responsibility of the property owner.
8.2	The project shall implement the following requirements to minimize impacts related to fire hazards: a. Adequate onsite emergency vehicle turnouts and/or turnarounds shall be maintained onsite. b. Site improvements shall comply with Cal Fire defensible space standards and other specifications and standards for fire safety, including: width and grade, signage and address requirements, construction standards, and creation and maintenance of defensible space.
8.3	The project shall implement the following requirements to minimize impacts related to fire hazards: a. All new buildings shall have roofing constructed with Class A materials, and street and building address signs designed to Cal Fire standards. All new construction shall be required to comply with California Building Code Chapter 7A, ignition-resistant building code standards. b. Cal Fire shall be consulted during the processing of building permit applications and may require, at their discretion, additional fire suppression systems (sprinklers, etc.) and/or water storage requirements.
Hydrology and Water Quality	
9.1	Implement Mitigation Measures 6.1 and 6.2.
Noise	
12.1	The project shall implement the following requirements to minimize impacts related to noise: • The project applicant/contractor shall restrict hours of construction activity to daytime hours of operation between 7:00 a.m. and 7:00 p.m., Monday through Friday. Construction hours on Saturdays shall be from 9:00 a.m. to 6:00 p.m., and on Sundays and observed holidays, construction may occur only between the hours of 10:00 a.m. and 6:00 p.m.
Transportation and Circulation	
16.1	The following measures shall be implemented to ensure that the phased expansion of the resort under the proposed Masterplan does not degrade roadway operations below adopted County standards contained in the General Plan: a. The County and the applicant / resort operator shall enter into a maintenance and cost-sharing agreement for the gravel-surfaced segments of Lemmon Canyon Road and Campbell Hot Springs Road to ensure that the roadways are maintained adequately to provide appropriate service to the resort and ensure that incremental increases in traffic volume during construction and resort operation do not degrade the roadway surface by resulting in erosion or additional disturbance outside of the existing roadway footprint. The maintenance agreement shall specify maintenance intervals, watering requirements for dust suppression, performance standards for target roadway conditions, and shall identify cost/reimbursement arrangements. The maintenance agreement shall remain active until such time as the roadway is paved. b. An analysis of anticipated trip generation shall be conducted prior to approval of any proposed component of the Masterplan. The analysis shall be conducted by a qualified traffic consultant approved by the County and shall determine whether the daily trips added by the proposed Masterplan component would result in LOS below LOS B (or the adopted standard in place at the time of the submittal). Prior to completion / operation of any component of the Masterplan that would result in degradation of the LOS below adopted County standards, the gravel portion of Lemmon Canyon Road and Campbell Hot Springs Road serving the resort shall be paved. Paving shall be to County standards and shall consist of a

Table 1

Mitigation Measures

Number	Mitigation Measure
	minimum 20-foot section consisting of two 10-foot travel lanes. At the County's discretion, the analysis of roadway impacts may be conducted by the County Public Works Department. c. As the subject roadway segments provide critical access for a variety of uses that are a benefit to the County, the County and the applicant shall enter into a cost-share agreement in the form of either a direct contribution or a per-square-foot assessment of the 89,580 square feet of new improvements and fifty (50) unit campground to attain the appropriate contribution. The cost-share contribution has been calculated as 12.5% of the cost to reconstruct/improve 1.35 miles of roadway including Lemmon Canyon Road from State Route 49 to the intersection of Campbell Hot Springs Road and Campbell Hot Springs Road from its intersection of Lemmon Canyon Road to the existing Sierra Hot Springs Resort. This contribution is based on a cost share of 50% of the cost to reconstruct the segment of Campbell Hot Springs Road from the Airport Access Road to the Sierra Hot Springs Resort. Terms and conditions of the cost-share agreement shall be specified and made part of the development agreement between the County and the applicant/developer.
16.2	The project shall be required to implement Mitigation Measure 8.3 (Hazards) which requires compliance with Cal Fire specifications and standards for fire safety, which include requirements for appropriate emergency vehicle turnouts and/or turnarounds and consultation with Cal Fire during building permit application processing regarding other requirements to adequately serve the resort.
Tribal Cultural Resources	
17.1	Should a potential TCR be inadvertently encountered, construction activities in the area shall be temporarily halted and Sierra County shall be notified. Sierra County shall notify Native American tribes that have been identified by the NAHC to be traditionally and culturally affiliated with the geographic area of the project and tribes that have formally requested notification under AB 52. If the unanticipated resource is archaeological in nature, appropriate management requirements shall be implemented as outlined in Mitigation Measure 5.4. If the County determines that the potential resource appears to be a tribal cultural resource (as defined by PRC Section 21074), any affected tribe would be provided a reasonable period of time to conduct a site visit and make recommendations regarding future ground disturbance activities as well as the treatment and disposition of any tribal cultural resources discovered. Depending on the nature of the potential resource and Tribal recommendations, review by a qualified archaeologist may be required. Implementation of proposed recommendations shall be made based on the determination by the County that the approach is reasonable and feasible. All activities would be conducted in accordance with regulatory requirements.

PROJECT INFORMATION AND BACKGROUND

Project Title:

Sierra Hot Springs Masterplan

Lead Agency Name and Address:

Sierra County Department of Planning and Building Inspection
P.O. Box 530
Downieville, California 95936

Lead Agency Contact:

Brandon Pangman
bpangman@sierracounty.ca.gov
530.289.3251

Project Location and General Site Description:

The approximately 682-acre project site (Assessor's Parcel Numbers (APN) 018-030-026 and 018-030-027) is located at 521 Campbell Hot Springs Road, less than 1.5 miles southeast of the community of Sierraville, in Sierra County, California (Figures 1 and 2). The resort property is at the southeastern end of Sierra Valley, in sections 17, 18, 19, and 20; township 20 north, range 15 east of the MDBM as depicted on the USGS 7.5' Sierraville quadrangle.

Elevation on the site ranges from approximately 4,960 to 5,250 feet. The project site includes wetlands, forest, meadow, and scrub communities. A number of small drainages flow through the Masterplan area toward Sierra Valley in the northern portion of the resort property (Figures 2 and 3). The largest of these drainages enters the resort property from the south and carries seasonal runoff during winter and spring depending on rainfall and snowmelt. A cold water spring is located near the north end of this drainage as it enters the valley floor and contributes water year-round. Another substantial drainage channel is located on the property just east of the proposed development area and is a dry, rocky streambed that carries water seasonally following rain events or during snowmelt.

The proposed Masterplan site is currently developed with gravel roads and parking areas and 9,990 square feet of existing buildings. Existing development on the project site includes the following:

- The lodge, including 5 individual lodging rooms and dormitory room, restaurant, meeting room, lobby, and office;
- The dome hot springs bath consisting of hot pool and cold plunge pools under a geodesic dome, warm pool, sundeck, sauna, changing rooms, and bathrooms;
- The Meditation Pool, consisting of a hot springs pool and small gazebo;
- Phoenix baths, supporting private hot springs tubs and massage facilities;
- The round house, a small dome building used for various purposes;
- Various outbuildings and a utility building used by the resort;
- Various dispersed (no assigned sites) camping areas with no limits on the number of sites or campers;
- The fire circle, an open area used for meetings in a natural setting, sometimes within a tent or around a bonfire;
- On-site quarters for the co-managers; and
- The Meadow House.

The site also includes the following infrastructure and utilities:

- Various dirt and gravel access and service roads serving the project;
- Hot springs systems serving the facilities;
- Spring-fed cold water system including 6,500-gallon steel water tank, serving the consumptive water needs of the resort;
- Individual septic tank and leachfield systems, most of which have been upgraded within the last 10 years to support all current uses. The applicant is currently working with Sierra County Environmental Health on a gray water system that would direct laundry and other sanitary wastewater away from the septic tank/leachfield system;
- 2-phase electrical power provided by Plumas-Sierra Rural Electric Cooperative, and served by overhead lines which are undergrounded as they cross Dearwater Airport from the northwest;
- Telephone service is provided to the site by Birch Communications and AT&T and by various cellular providers;
- Internet service is provided by DigitalPath;
- Solid waste service is provided by InterMountain Disposal Inc.

It should be noted that while The Globe Hotel is under common ownership with Sierra Hot Springs it is located offsite in downtown Sierraville and no modifications or changes to the hotel are proposed, and it is not a part of the proposed Masterplan.

Project Sponsor's Name and Address:

Kaisa MacDonald, Co-manager
Sierra Hot Springs
521 Campbell Hot Springs Road
Sierraville, California 96126

Existing General Plan Designation and Zoning District:

The project site lies within the "Community Core" for the unincorporated community of Sierraville as designated by the Sierra County General Plan. The Sierra County General Plan applies a land use designation of VC-MUR-PD-PS (Visitor Commercial-Multiple Unit Residential-Planned Development-Public Services for parks) to the Sierra Hot Springs Masterplan project site. Other land use designations, including AG (Agricultural) and OS (Open Space), are applied to portions of the resort property not proposed for development under the Masterplan. Undeveloped land on either side of the Dearwater Airport runway carries an Industrial land use designation.

The proposed Masterplan project site is within a General Forest (GF) zone district. Land immediately north of the project site is zoned Agriculture (A1), the Dearwater Airport property is within an Aviation (AV) zone district, and an Industrial (IN) zone designation is applied to two approximately 10-acre parcels adjacent to the airport.

Proposed Zoning District:

Planned Development with Site Performance Combining District (PD-SP)

Surrounding Land Uses:

The project area is rural, and is located less than 1.5 miles from Sierraville. The site is bounded to the north by Lemmon Canyon Road and to the northwest by Sierraville Dearwater Airport. Highway 89, south of the project site, runs to the east and west. The Tahoe National Forest is south and east of the project site.

Background Documents and Plans:

The References section of this Initial Study identifies all reference documents consulted in preparing this Initial Study. These documents, if not included as appendices to this

Initial Study, are available for review upon request from the Sierra County Department of Planning and Building Inspection.

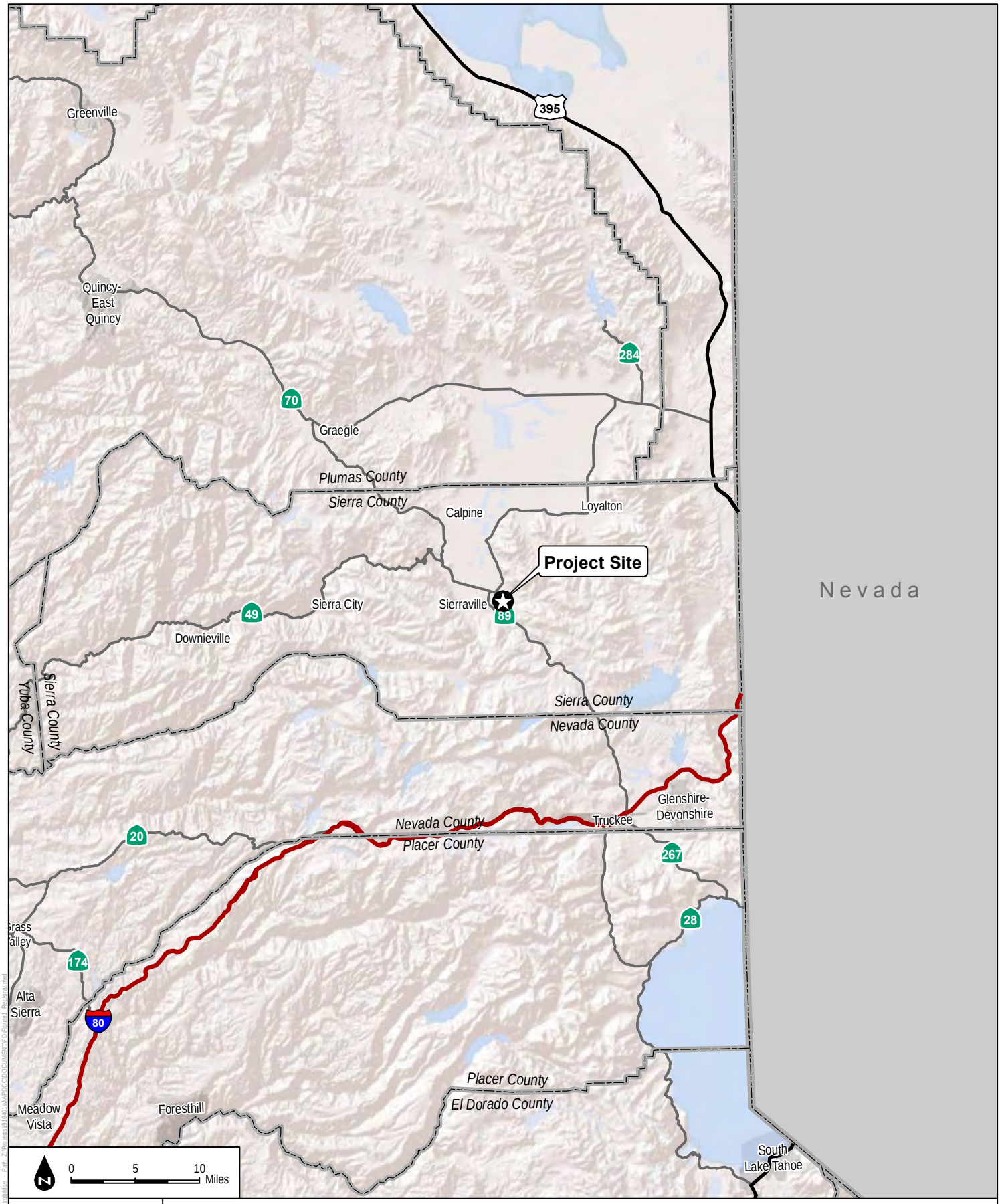
Document Figures and Plans:

The figures included in this document depicting site plans/project designs are for general reference purposes and may not include recent minor revisions. The latest set of project plans is available for review upon request from the Sierra County Department of Planning and Building Inspection.

PROJECT DESCRIPTION

The proposed Sierra Hot Springs Masterplan project would allow for buildout of the Sierra Hot Springs Resort facility over a period of 20 years. The proposed Masterplan project includes a master site plan, architectural design, and development standards that would guide development of the resort facility over the 20-year buildout period (see Appendix A – Masterplan). Implementation of the proposed Masterplan project would be facilitated by a Development Agreement that would be entered into between Sierra County and the project applicant and would provide for buildout of the project to occur over a 20-year period. The Development Agreement would include a provision to allow for buildout to occur beyond the 20-year period if an extension is approved by the Sierra County Board of Supervisors prior to the expiration of the initial approval.

Entitlements from the County requested to implement the proposed project include a zone amendment consistent with the General Plan, a Conditional Use Permit, and a Development Agreement. A zone amendment would be required to rezone the proposed development area from the existing General Forest (GF) and Agricultural (A-1) zoning to apply a Planned Development with Site Performance Combining District (PD-SP) zoning to the site. The PD-SP zoning would provide for allowable uses to be defined by the Development Agreement that would be approved as part of the proposed Masterplan. A Conditional Use Permit is required to allow for redevelopment and expansion of the existing Sierra Hot Springs Resort consistent with the Development Agreement and Masterplan. The Development Agreement would specify the terms of the approval and specify the standards and conditions that would govern development of the property and buildout of the proposed Masterplan.



SOURCE: ESRI Basemaps

FIGURE 1

Regional Map

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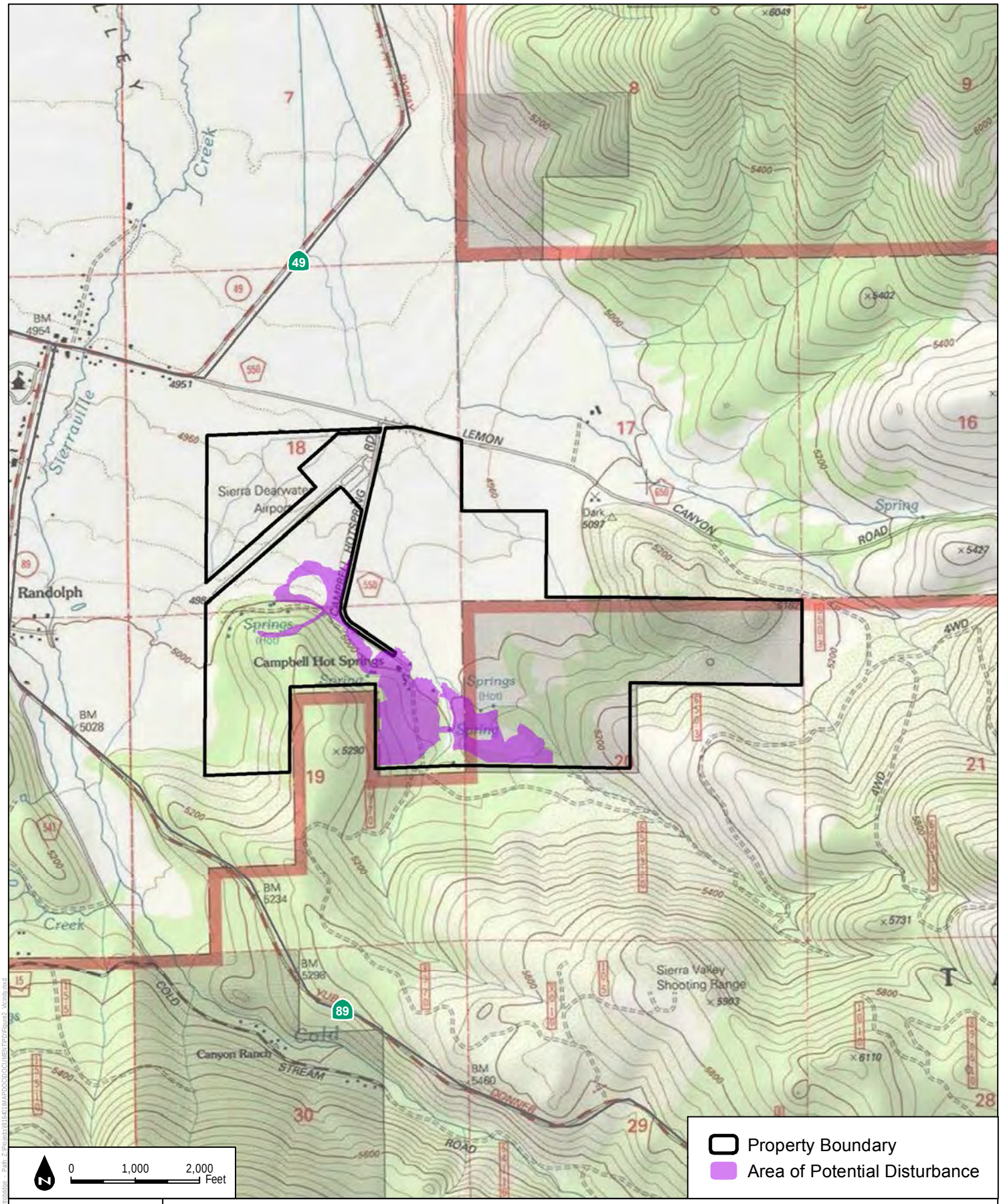
Sierra Hot Springs Project



SOURCE: USGS 7.5-Minute Series Sierraville Quadrangle; Nevada City Engineering (2016)

FIGURE 2

Site and Vicinity

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Sierra Hot Springs Project

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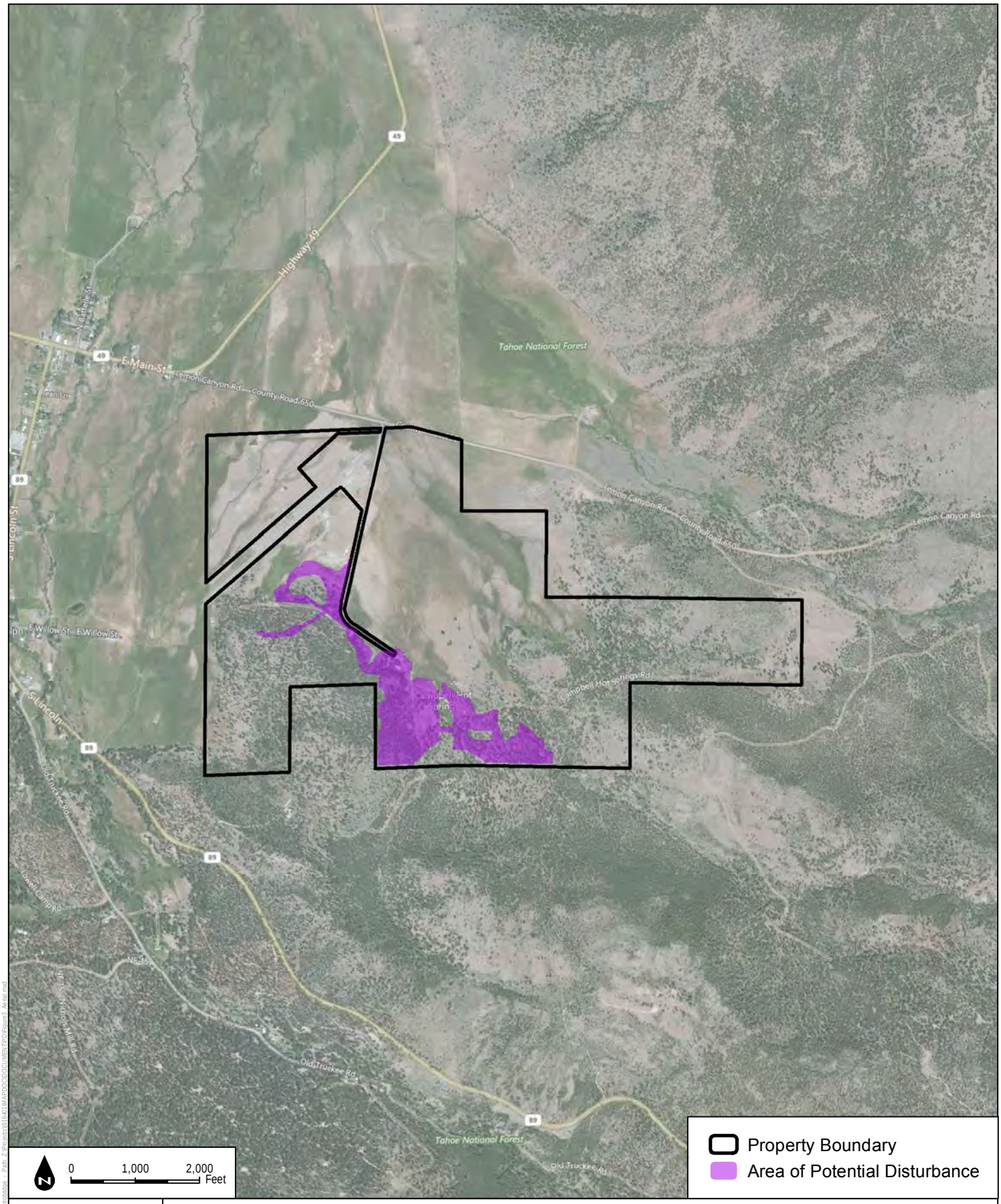

SOURCE: Bing Maps (2016); Nevada City Engineering (2016)

FIGURE 3

Aerial Map

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Sierra Hot Springs Project

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As shown in Figure 4 - Site Plan, the proposed project includes construction and modification of buildings, roads and parking areas, a campground, walking trails, and additional infrastructure. Additional infrastructure includes wells, water and sewer lines, septic tanks and leachfields, and electrical and media/communication utilities. The existing Meadow House on the north side of Campbell Hot Springs Road near the existing Main Lodge would be removed from the site. As shown in Table 2, below, the proposed project would add approximately 89,580 square feet of building space to the existing resort facilities. With existing structures, which provide 9,990 square feet of building space, the additional features listed in the table below would increase the overall resort building space to 99,570 square feet. Table 2 identifies the size of each new building proposed under the Masterplan; Figure 4 – Site Plan shows the location of each facility and layout of development proposed under the Masterplan. Figure 5 – Area of Potential Effects defines the anticipated limits of ground disturbance that would occur with implementation of the proposed Masterplan at full buildout.

Table 2
Proposed Development

Proposed Development	Square feet
50 camping spaces – shower complex, restrooms, picnic/cooking areas, reception, deli, and market	4,060
Changing rooms	400
Phoenix baths	1,600
2 Co-Manager's Houses	3,600
Restaurant	4,400
Maintenance shop, equipment shed, yard, and parking	4,000
Staff cabins – 40 units, including a laundry/storage facility	22,000
11 guest cabins	4,740
Lodge – multistory building with 60 rooms	35,600
Pools complex	1,200
Multiuse building	2,000
Remote workshop	3,800
Small workshop	1,000
Expansion of the existing studio and gallery, and construction of a new market (currently 1,290 square feet) and	2,180
Removal of existing Meadow House	(1,000)
Total	89,580

One or more shelter in place facility area would be located on the north side of Campbell Hot Springs Road just east of the proposed co-manager's residence (Figure 4). The shelter(s) in place area would function as a last resort safe location for emergency refuge in the event of a fast moving wildfire and would be kept in a mowed and irrigated condition. Final siting of shelter in place facilities would be made by Cal Fire and local fire officials. These sites would not require any tree removal. Such sites would likely be kept mowed and irrigated during each wildland fire

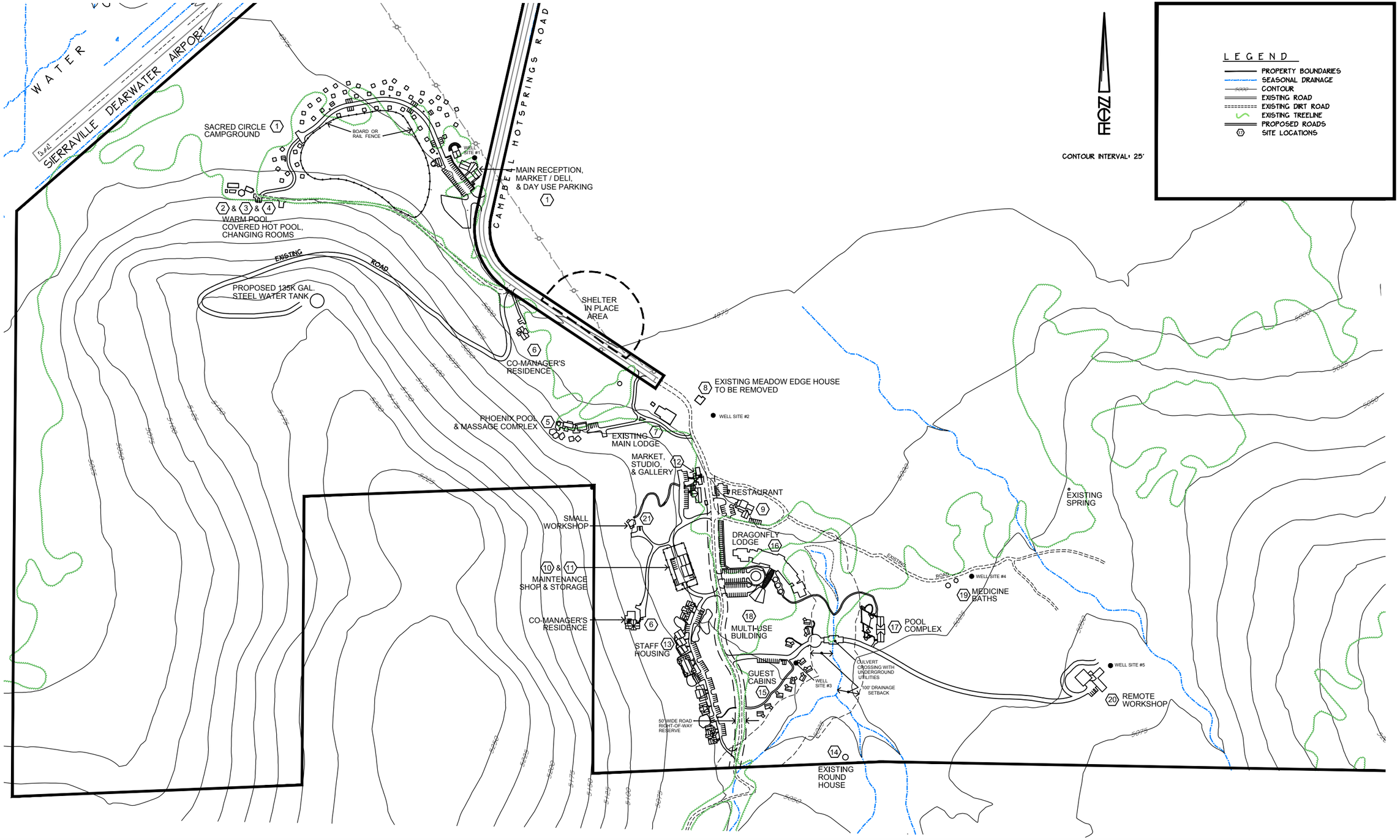
season. These facilities would not be used unless so directed by Cal Fire or local fire officials. Campbell Hot Springs Road would serve as the primary evacuation route during wildfire events.

The proposed campground would cover an area of approximately 5.5 acres west of Campbell Hot Springs Road at the north end of the development area. The campground would provide 50 sites with picnic tables and is anticipated to accommodate an average of 2-3 people per site during peak periods. The main reception area with an attached market and deli and day use parking would be adjacent to the campground entrance on an additional 2.0 acres (Figure 4). A trail would connect the campground to the dome pools and changing rooms south of the campground. This trail would also serve as an emergency vehicle egress, when needed, to avoid the need for emergency vehicles to turn around in tight quarters or to back long distances down the dome access road. This route as well as campground roads would be maintained as all-weather access, including snow removal, throughout the year.

Consistent with existing development onsite, all proposed lighting would be downshielded and subdued to maintain dark sky conditions. Lighting may be used on roadways, walkways and at intersections. All structures would maintain a minimum 100-foot setback from the centerline of the drainage that runs through the resort from the south. This setback would maintain a minimum 200-foot corridor for wildlife movement and to avoid encroaching on the drainage and riparian vegetation.

Infrastructure: The proposed project would require several updates to the utility infrastructure serving the resort. It is anticipated that the Masterplan would require an electrical service upgrade to three-phase power via an extension from State Route (SR) 49 over the existing power line route. This upgrade would include installing one additional wire to the existing overhead and underground power lines supplying the resort. The applicant would consult with Plumas-Sierra Rural Electric Cooperative as buildout occurs to ensure adequate electrical capacity to serve project needs. Depending on the results of consultation with Plumas-Sierra Rural Electric Cooperative the electrical upgrade could be required prior to any new construction under the Masterplan.

The proposed project also includes construction of a new 135,000-gallon water tank on a high point of the property south of the existing warm pool in the northwest portion of the proposed development area. The new tank would be accessed via an existing dirt road. The water would be distributed throughout the Masterplan area by gravity and booster pump via a water main, laterals, and service system that would be sized to accommodate the anticipated consumptive demand and meet fire flow requirements. The water tank and pumping system would be installed as part of the initial construction implemented under the proposed Masterplan. Water main, laterals, and service connections would be added to the water system as needed to serve components of the Masterplan as they are constructed. All water lines and associated water supply infrastructure would be within the anticipated disturbance area identified in Figure 5. It is estimated that 1,350 cubic yards of soil would be excavated to a minimum depth of 30 inches for water line installation.



SOURCE: Nevada City Engineering (2017)

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FIGURE 4a
Site Plan

Sierra Hot Springs Project

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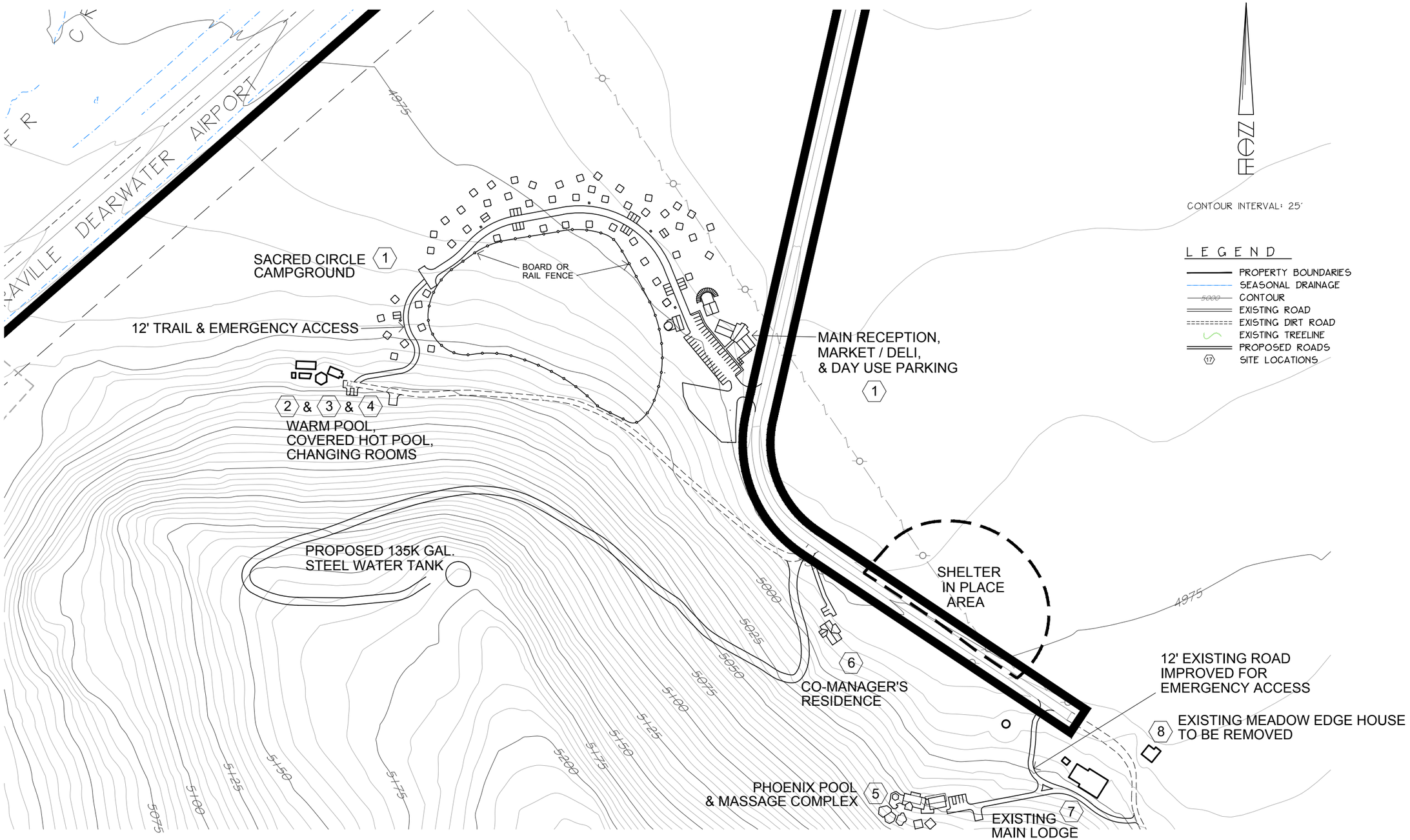

SOURCE: Nevada City Engineering (2017)

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FIGURE 4b
Site Plan

Sierra Hot Springs Project

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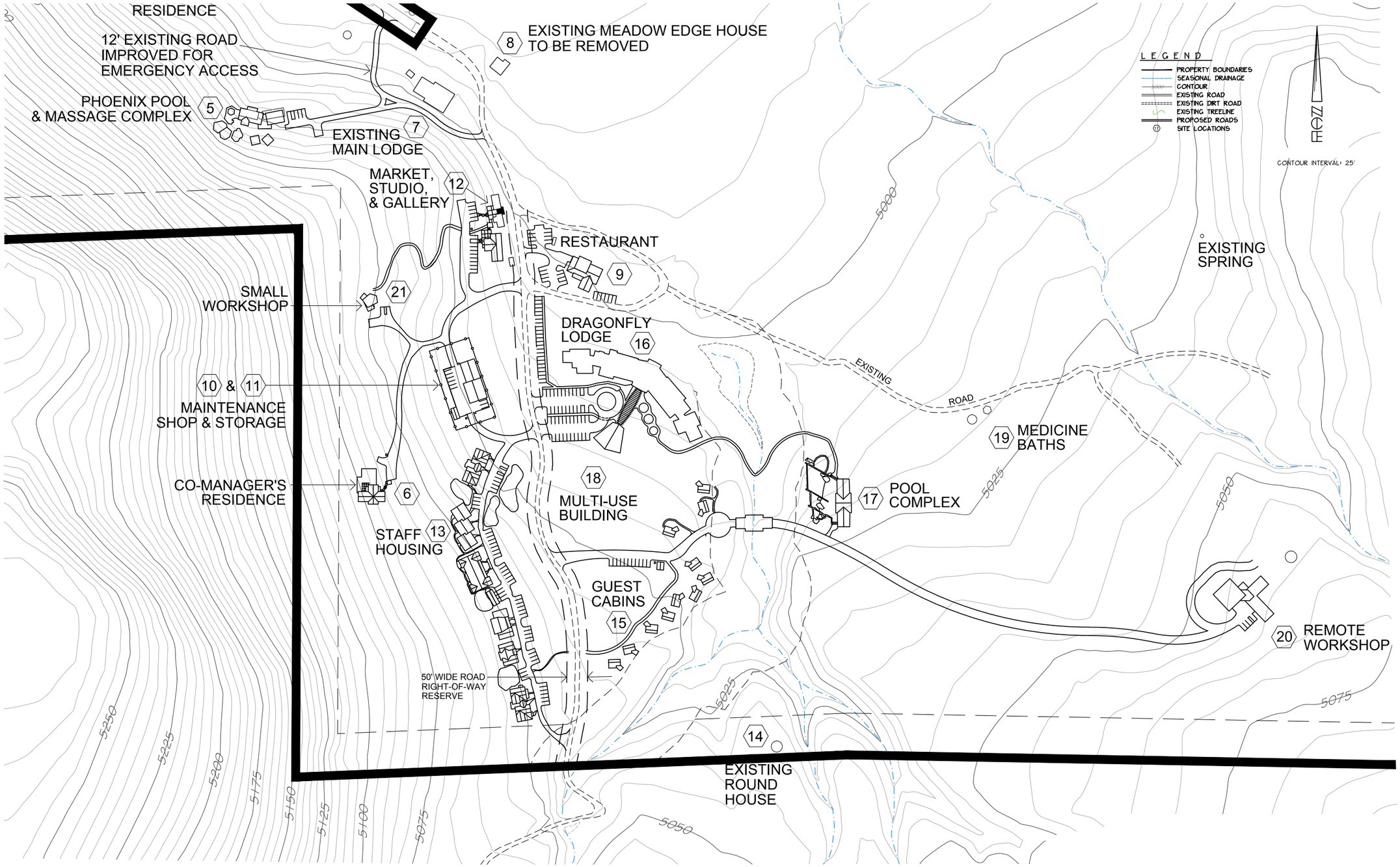

SOURCE: Nevada City Engineering (2017)

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FIGURE 4c
Site Plan

Sierra Hot Springs Project

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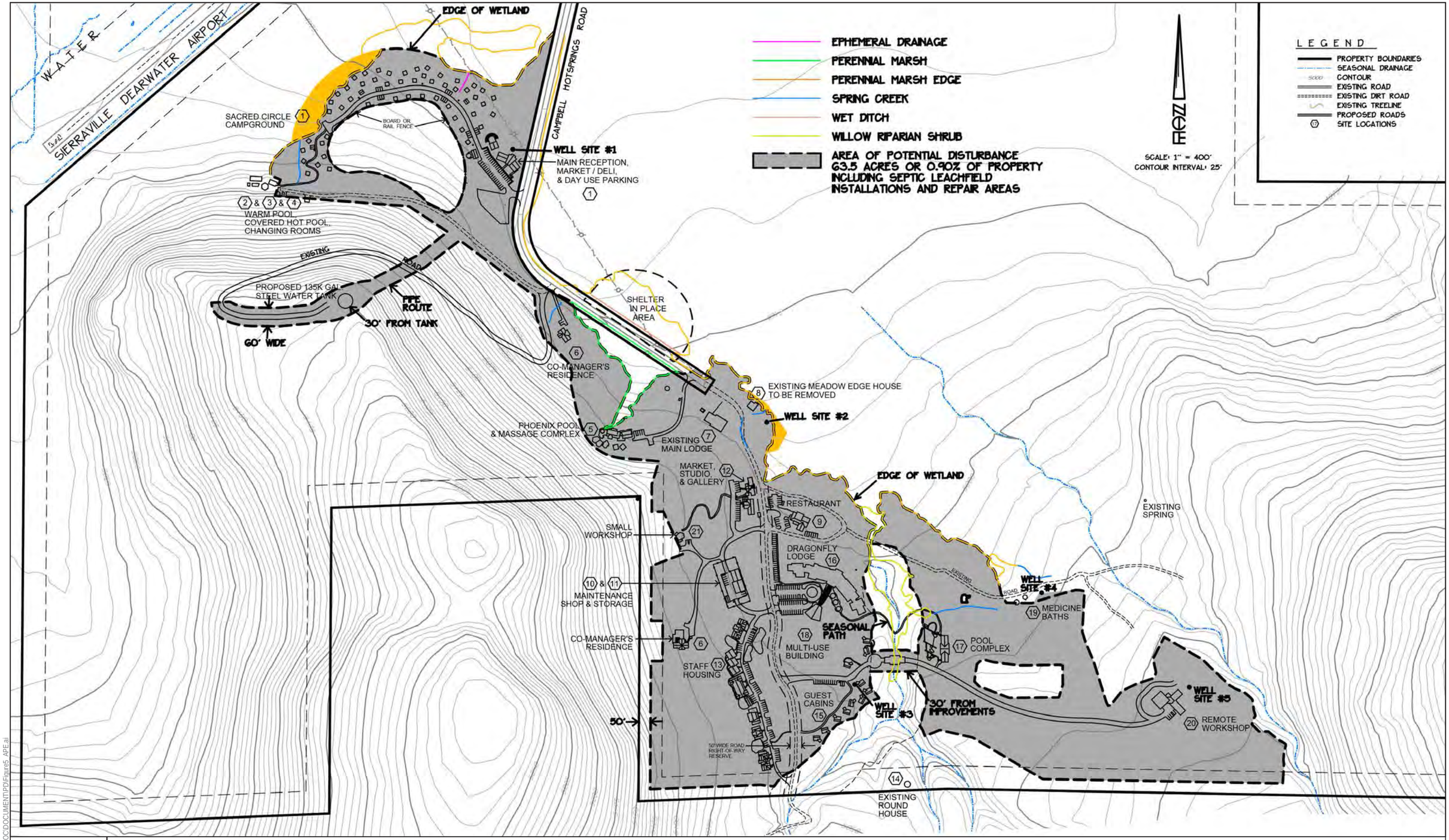

SOURCE: Nevada City Engineering (2016)

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FIGURE 5
Area of Potential Effects

Sierra Hot Springs Project

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Domestic water for the existing facility is supplied from two existing onsite spring sources. Existing sources would not have an adequate flow rate to serve the needs of the proposed development at buildout. Water would initially be provided from existing sources until such time as it is determined that buildout of a proposed component of the Masterplan will create demand for water supply that cannot be met by existing sources, or to meet regulatory requirements for water supply. A domestic well or multiple wells would be developed on the site to meet the water demand of the Masterplan, prior to the development of additional on-site staff housing. Five approximate potential well sites have been identified within the Masterplan area and are depicted in Figure 4. It is anticipated that adequate water supply to meet project demand at buildout would be available from one or more of these wells. Anticipated maximum pumping rate for the additional well/wells would be 40 gallons per minute. Building permits would not be issued for project buildings until a sufficient water supply is demonstrated to the County's satisfaction and to meet applicable state water supply requirements. One well is also proposed for developing an additional source of high temperature groundwater. This well would be located in the vicinity of the new baths and Meditation Pool. Anticipated maximum pumping rate for the warm water well would be 30 gallons per minute. Alternatively, hot water could be piped from the Phoenix Baths to the new site.

Onsite septic tank and leachfield systems would be installed as individual buildings are constructed and would be constructed and installed in accordance with Sierra County Environmental Health standards. Anticipated locations for septic tanks and leachfields have been identified by preliminary testing of onsite soils and would be further defined and evaluated prior to construction to ensure that they meet County Environmental Health standards. Preliminary testing indicates that full buildout of the Masterplan would require up to 8 septic tanks and approximately 7 acres of leachfield, which includes an allowance for a 100-percent leachfield "repair area' to be used in the event of the failure of the primary leachfield. Approximately 31.1 acres has been identified onsite as suitable for potential additional leachfield installation or repair area. All septic tanks and leachfields and associated wastewater infrastructure would be within the anticipated disturbance area identified in Figure 5. Vault toilets may be used in the campground area as an alternative to or to supplement a septic tank and leachfield system. Vault toilets would be pumped on a regular basis and wastewater would be disposed of at a permitted receiving facility. The resort may continue to consider gray water systems as appropriate and as approved by the County's Environmental Health Department. The applicant maintains that on-site leachfields and gray water systems would contribute to groundwater recharge.

Onsite tanks would be used to store propane for use by the proposed development and would be sized and installed to serve project needs as buildings are constructed. Propane tanks would be located consistent with applicable building codes and as approved by the Sierra County Building Official and in accordance with CalFire regulations and defensible space standards (PRC 4291 and 14-CCR-1276). All propane tanks would be within the anticipated disturbance area

identified in Figure 5 and would be placed in areas screened from view from common areas and the roadway.

Project Buildout: Masterplan components would be constructed within the 20-year buildout period according to market demand for new facilities and resort offerings; no formal project phasing is identified for buildout of the Masterplan. However, it is anticipated that meeting facilities and additional lodging would be the first project components constructed under the proposed Masterplan, as there is currently unmet demand for these facilities. While the Masterplan identifies no formal phasing of development, the applicant has identified Masterplan components that are priorities for buildout based on the current unmet demand at the hot springs resort. While these priorities could change based on market conditions and trends, and development would be allowed to occur in any order under the proposed Masterplan, these priority facilities would likely be developed earlier in the Masterplan buildout period to meet current demand observed by the project applicant. Project priorities, as currently identified by the project applicant, are shown in Table 3, below.

Table 3
Masterplan Development Priorities

Project Component	Priority Square Feet
50 camping spaces – shower complex, restrooms, picnic/cooking areas, reception, deli, and market	4,060
Changing rooms	400
Phoenix baths	1,600
2 Co-Manager's Houses	3,600
11 Guest cabins	4,740
Lodge – multistory building with 60 rooms	26,500
Pools complex	1,200
Small workshop	1,000
Expansion of the existing studio and gallery, and construction of a new market (currently 1,290 square feet) and	1,290
Total:	44,390

Onsite Circulation: New access roads, parking areas, and walking trails would be constructed as part of the proposed project. The Masterplan proposes a single road crossing over an existing seasonal drainage that flows northerly into the valley from the south line of the property and a pedestrian trail that would connect the Dragonfly Lodge to the baths/pools complex. The road crossing would act as both a pedestrian and service road connection from the guest cabins to the baths/pools complex and would cross the drainage over a culvert. The pedestrian and service crossing would be open only to pedestrian use by guests but would act as a service and maintenance road for staff and provide emergency vehicle access to improvements east of the drainage. The proposed project would continue to use Lemmon Canyon Road and Campbell Hot

Springs Road to access the resort. These are both gravel-surfaced roads that are owned and maintained by Sierra County. Campbell Hot Springs Road is maintained by the County to a point just west of the existing lodge and continues as a dirt road beyond that point and provides public access to the Tahoe National Forest. The proposed Masterplan would result in no change in public use of this road and all proposed buildings would be setback at least 50 feet from the centerline of the road to leave room for potential future improvements to the roadway.

Lemmon Canyon Road and Campbell Hot Springs Road may remain as gravel-surfaced roadways under the proposed Masterplan. However, the County and applicant are exploring funding sources to pave these roadways and paving is considered an option for the proposed project. The Masterplan includes parking for approximately 220 vehicles in an area of approximately 2.0 acres, which would be constructed to meet Sierra County site development standards. The Masterplan proposes gravel surfaces to be used for parking and roadways, though paving would be allowed under the Masterplan at the discretion of the landowner should it be desired to reduce maintenance requirements associated with gravel surfaces. It is estimated that up to 4.0 acres of the Masterplan area could be paved over the 20-year buildout period. This does not include paving of any offsite areas such as County-maintained portions of Campbell Hot Springs Road and Lemmon Canyon Road. These roadway surfaces are already largely impermeable based on the regular use of compacted asphalt concrete grindings.

The primary evacuation route that would serve the proposed project during a wildfire event would be Campbell Hot Springs Road and Lemmon Canyon Road to access SR 49. As noted, one or more shelter in place facilities would be provided onsite to provide a safe place for guests in the event that evacuation is not possible. This space and other resort facilities would also serve as a temporary staging area for firefighting.

Tree and Vegetation Removal: The Masterplan is designed to maintain the natural setting and minimize tree and vegetation removal. It is anticipated that about 60 percent of the project buildout would be in mixed conifer woodland requiring selective removal of trees of varying diameters. The greatest number of trees would be removed from the vicinity of the proposed development south of the existing lodge and west of Campbell Hot Springs Road, where existing tree density is highest. Ground cover and shrubs would also be removed in proposed development areas and as required to maintain fire clearance standards.

Grading and Drainage: Total grading quantity for all components of the proposed Masterplan project is estimated to be approximately 7,000 to 8,000 cubic yards. The total area of potential ground disturbance associated with buildout of the proposed project would be approximately 32.4 acres (Figure 5). This includes septic tank and leachfield primary and repair areas, infrastructure routing and trenching areas, and construction staging areas and equipment travel routes within the project site. It is noted that while 31.1 acres of additional potential septic leachfield repair areas are shown on Figure 5, it is unlikely these areas will be used, since 100 percent leachfield repair areas are provided within the 32.4 acres of site disturbance.

All drainage would be designed to maintain pre-project concentrations and flows and maintain natural drainage pathways through the property. Any component of the proposed project that would disturb 1 acre or more would require coverage under a National Pollution Discharge Elimination System (NPDES) permit for construction activities and would require preparation and implementation of a Stormwater Pollution Prevention Plan (SWPPP), which must be prepared by a certified designer and monitoring throughout construction by a certified practitioner. Additionally, any component disturbing 1 acre or more would be required to comply with Rule 226 of the Northern Sierra Air Quality Management District, which requires implementation of certain dust control measures during construction. If a development component of the proposed project would result in less than 1 acre of disturbance, the grading plan would include an erosion control plan detailing erosion control best management practices (BMPs) to implement during construction. The following BMPs are examples of measures that could be implemented during construction to ensure erosion control and maintain water quality:

- Perform grading during dry season and stabilize all exposed areas by applying mulch or other appropriate soil stabilizing treatments prior to storm events;
- Installing temporary sedimentation basins;
- Installing fiber wattles, silt fencing or other appropriate sediment catchment and filtration devices;
- Revegetating exposed areas following construction;
- Monitor effectiveness of erosion control measures during construction and for two winter seasons following construction.

Construction Schedule: It is anticipated that grading and earthwork, including paving, would primarily occur during the summer and fall months and that construction of structures could occur all year long and that construction would generally occur between the hours of 7:00 a.m. and 6:00 p.m. No construction phasing is identified for buildout of the proposed Masterplan, though it is assumed that priority components of the Masterplan, as identified by Table 3, would be constructed ahead of other Masterplan components. While the Masterplan could be constructed in a period of up to 20 years, it is possible that all components of the Masterplan would not be constructed within the 20-year period. Conversely, full buildout of the Masterplan could occur in as few as 5 years.

Use Assumptions:

With campers, lodgers, day use guests, staff, and staff dependents, the maximum population onsite during peak use periods is anticipated to grow from 394 to 529 people with implementation of the Masterplan. Existing peak onsite population and estimates of peak

population added by the proposed project and peak population at Masterplan buildout are provided in Table 4.

Table 4
Existing and Estimated Future Peak Day Project Population

Guest/ Staff Type	Existing Peak Population	Peak Population Added by Proposed Project	Peak Population at Masterplan Buildout
Campers	200	-50	150
Lodging	10	132	142
Day Use Only	160	0	160
Staff	24	41	65
Staff Dependents	0	12	12
Totals:	394	135	529

Project Assumptions:

The analysis of environmental effects in this Initial Study assumes that the project would comply with all applicable state, federal, and local codes and regulations including, but not limited to: the Sierra County General Plan; Sierra County Development Code; the California Building Code; the State Health and Safety Code; the Uniform Fire Code; and the State Public Resources Code.

Implementation of the proposed project would result in the long-term disturbance of up to 32.5 acres (Figure 5). Individual project components that would disturb greater than 1 acre would require coverage under the National Pollutant Discharge Elimination System (NPDES) Construction General Permit. The applicant would be required to prepare and implement a Storm Water Pollution and Prevention Plan (SWPPP) in compliance with the requirements of the State Construction General Permit that will specify the use of appropriate best management practices (BMPs) for erosion control and spill prevention during construction, as well as permanent post-construction stormwater management measures.

Additionally, the proposed Masterplan includes several objectives that apply to construction and operation of the resort. These include taking advantage of the existing natural scenery; using green building materials and constructing energy-efficient buildings; utilizing carts and shuttles to move guests onsite; maximizing walking trails; minimizing soil disturbance and grading; and protecting environmentally sensitive sites.

Public agencies whose approval is required (e.g., permits, entitlements, financing approval, or participation agreement):

Sierra County – zone change consistent with the General Plan, conditional use permit, development agreement, encroachment permits, grading permits, building permits, well construction permit, and sewage disposal permits;

State Water Resources Control Board – Statewide General Permit for Discharges of Storm Water Associated with Construction Activity for projects with soil disturbance in excess of 1 acre (Storm Water Pollution Prevention Plan or SWPPP);

State Water Resources Control Board, Division of Drinking Water – Title 22 compliance (water system permit from the Division of Drinking Water);

California Department of Fish and Wildlife – Streambed alteration agreement under Section 1600 of the Fish and Game Code for any work in riparian zones or drainages;

U.S. Army Corps of Engineers – Nationwide Permit under Section 404 of the Clean Water Act for impacts to waters of the U.S. associated with work that may be conducted in waters of the U.S.

Regional Water Quality Control Board – Clean Water Act 401 water quality certification to support any 404 Clean Water Act permit required from the Corps for impacts to Waters of the U.S.;

Northern Sierra Air Quality Management District – permits could be required for portable generators and other equipment used during construction;

Caltrans – encroachment permit for any work within the SR 49 right of way (paving and maintenance work).

ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED:

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

- ☐ Aesthetics
- ☐ Agriculture and Forestry Resources
- ☐ Air Quality
- ☐ Biological Resources
- ☐ Cultural Resources
- ☐ Geology/Soils
- ☐ Greenhouse Gas Emissions
- ☐ Hazards& Hazardous Materials
- ☐ Hydrology/Water Quality
- ☐ Land Use/Planning
- ☐ Mineral Resources
- ☐ Noise
- ☐ Population / Housing
- ☐ Public Services
- ☐ Recreation
- ☐ Transportation/Traffic
- ☐ Utilities / Service Systems
- ☐ Mandatory Findings of Significance
- ☒ None with Mitigation

DETERMINATION: (To be completed by the Lead Agency)
On the basis of this initial evaluation:

☐ I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.

☒ I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.

☐ I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.

☐ I find that the proposed project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed fn an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.

☐ I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

Signature: _____ Date: 11/21/2018

Printed Name: Brandon Pangman For: Sierra County

EVALUATION OF ENVIRONMENTAL IMPACTS:

1. AESTHETICS –	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
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?	☐	☐	☐	☒
c) Substantially degrade the existing visual character or quality of the site and its surroundings?	☐	☒	☐	☐
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	☐	☒	☐	☐

Setting

The 682-acre proposed project site is located at an elevation of approximately 5,000 feet in the Sierra Nevada Mountain Range along Campbell Hot Springs Road at the edge of Sierra County in the unincorporated community of Sierraville, (see Figures 1 and 2*)*. State Route (SR) 89 runs approximately 1 mile west of the project site. While certain segments of SR 89 are identified as eligible for state Scenic Highway designation the segment west of project site has not received this designation. However, Sierra County has designated SR-89 throughout the entire county as a scenic highway. State Route (SR) 49 runs north and northwest of the project site to its junction with SR 89 in Sierraville. SR 49 is designated as a State Scenic Highway from the Yuba County Line to the Yuba Pass Summit. The project site is approximately 7.9 linear miles west of this segment of SR 49 and is not visible from any segment of State Scenic Highway (Caltrans, 2017). The Sierra County General Plan designates SR-49 as a scenic highway from the Yuba Pass Summit to the Plumas County Line, which includes the portion of SR-49 that passes by the project site. The project site is visible looking south from SR 49 in the vicinity of the SR 49 / Lemmon Canyon Road intersection. The proposed project is located outside the rural, unincorporated community of Sierraville; as of 2010, the population of Sierraville was 200. The main economics of the region are agriculture, livestock, and tourism. The project site is also adjacent to Tahoe National Forest. The project site is located at high elevation at the eastern edge of Sierra Valley, which is characterized by a flat valley floor dominated by low growing vegetation and meadows that transition to mixed conifer woodland at the margins. The flat topography and low vegetation of the Sierra Valley afford long-range views. The aesthetic character of the valley is primarily influenced by natural vegetation and mountains interspersed with sparse agricultural and rural residential development.

Impacts

a. **Less than Significant with Mitigation**. A scenic vista is generally defined as an expansive view of a highly valued landscape observable from a publicly accessible vantage point. As discussed in the setting above, the project site is in the vicinity of the SR-49 and the greater project site is in the vicinity of SR-89. The project site is currently used as a resort hot springs destination and views of existing development on the site from SR-49 and Lemmon Canyon Road are limited due to trees and topography. Proposed lodging and residential units would be constructed in the vicinity of existing development on the project site and would remain largely screened from long-range views of this portion of the Sierra Valley. The proposed project would relocate the existing camping area to the edge of the valley floor in an area with relatively unobstructed visibility from SR-49. The proposed campground would be in an area with minimal vegetation adjacent to the Dearwater Airport. The existing scenic quality of the Sierra Valley in this locating is considered of high sensitivity to change, meaning that important components, such as the overall pastoral and open meadow setting are susceptible to small changes in the viewshed. Tents, vehicles and people in the campground would be visible from SR-49 and Lemmon Canyon Road, and would be visually inconsistent with the existing setting and scenic views of the Sierra Valley from SR 49. The Visual Element of the Sierra County General Plan identifies the Sierra Valley as a scenic feature deserving protection and Figure 16-1 of the General Plan includes the project site within a unique area of high scenic value. An unobstructed view of vehicles, camp tents, and other campground-related elements has potential to degrade the unique scenic quality of the Sierra Valley as viewed from various public areas, including SR 49 and Lemmon Canyon Road.

SR 49 just north of the proposed project is a County-designated scenic highway. The General Plan emphasizes protection of the scenic quality of the views available from County-designated scenic highways. Structures proposed in the southeastern portion of the project site, including the lodge, residential and guest units, workshops, and other buildings would be visible intermittently from SR 49 and would represent a change from the existing visual condition of this portion of the Sierra Valley. However, the proposed structures would be constructed in a “ranch” architectural style (see Masterplan) that would be visually consistent with other structures in Sierra Valley and topography and trees and other vegetation would largely obscure views of these buildings from SR 49 and thereby reduce the visual impact of these project components as viewed from SR 49 and other publicly accessible areas.

As noted above, the proposed campground would be located at the edge of the Sierra Valley where views to the campground from SR 49 would be unobstructed by vegetation or intervening topography. The campground and associated uses would be a

contrasting visual element uncharacteristic of the natural landscape and historic buildings that are identified by the General Plan as contributing to the scenic quality of the Sierra Valley. While views from SR 49 to the proposed campground area would be at a distance of over 0.5-mile, the Sierra Valley is characterized by long-range views and visual elements associated with the proposed campground would potentially degrade the scenic quality of the views available from SR 49 and would be a potentially significant project impact.

Since views of the project site are at a distance and other development occurs within the public viewshed in the vicinity of the proposed project, visual screening of the campground would reduce the impact associated with changes in the scenic qualities of the Sierra Valley by reducing the visual contrast of campground development and uses when viewed from public vantage points such as SR 49 and Lemmon Canyon Road. Mitigation Measure 1.1 calls for vegetative screening, campground policies, and structural design requirements to minimize visual contrast associated with the proposed campground and ensure that the proposed campground would not result in a substantial change in the scenic quality or character of the Sierra Valley as viewed from surrounding public areas. With implementation of Mitigation Measure 1.1, degradation of the scenic views of Sierra Valley as a result of the proposed campground and other project elements that would be constructed at the edge of the Sierra Valley and within view of SR 49, would be less than significant.

b. **No Impact.** Neither SR-89 nor SR-49 are designated as state scenic highways in the areas around the project site. Therefore, the proposed project would have no impact associated with changes in the view from a State-designated Scenic Highway.

c. **Less than Significant with Mitigation**. The project site is visually characterized by the existing Sierra Hot Springs Resort and campground, which are largely screened from view from the surrounding area by a mixed conifer forest and topography at the edge of the Sierra Valley, the open meadow of the valley floor, and surrounding dense forest. The proposed project would construct buildings within the mixed conifer forest in a shallow canyon at the edge of the Sierra Valley and a campground and associated reception and market building and other campground-serving structures within an open area at the toe of a slope in at the edge of the Sierra Valley. The proposed buildings would be largely screened from view from Lemmon Canyon Road and SR 49 by topography and trees and would be visually consistent with the existing sparse development within Sierra Valley. The proposed disturbance area is less than 10% of the total project property; the majority of the development would occur along/near the existing Campbell Hot Springs Road and would expand the existing facilities onsite. The proposed project would minimize the number of trees removed in order to minimize the resort project's impact on its rural and natural aesthetic. Implementation

of Mitigation Measure 1.2. would ensure that grading and tree removal on site is limited to what is necessary for construction and fire safety and would preserve the existing visual character associated with the natural setting of the site.

The proposed campground and associated campground-serving buildings would be visible from public areas adjacent to the site, including SR 49 and Lemmon Canyon Road and would represent a change in the existing visual character of the site and the scenic qualities of the surrounding area and could result in a potentially significant impact associated with degradation of the existing visual character or quality of the site and the surrounding scenery associated with Sierra Valley. Please refer to the discussion under item 'a' above. As discussed in 'a,' visual screening of the campground would reduce the impact associated with changes in the scenic qualities of the Sierra Valley by reducing the visual contrast of campground development and uses when viewed from public vantage points such as SR 49 and Lemmon Canyon Road. Mitigation Measure 1.1 calls for vegetative screening, campground policies, and structural design requirements to minimize visual contrast associated with the proposed campground and ensure that the proposed campground would not result in a substantial change in the scenic quality or character of the Sierra Valley as viewed from surrounding public areas. With implementation of Mitigation Measure 1.1, degradation of the scenic views of Sierra Valley as a result of the proposed campground and other project elements that would be constructed at the edge of the Sierra Valley and within view of SR 49, would be less than significant

d. **Less than Significant with Mitigation.** As noted in the Project Description above, the proposed project would include new lighting on outdoor paths and along building perimeters. While the addition of new buildings would increase nighttime lighting on the site, implementation of Mitigation Measure 1.3 would require that all new lighting associated with the project be shielded and directed toward the buildings and pathways within the resort and be directed downward to preserve the existing dark sky condition and rural character of the area.. The proposed new buildings would not use reflective surfaces other than windows and would not otherwise create new sources of glare. Implementation of Mitigation Measure 1.3 would ensure that the project would result in less-than-significant impacts associated with adverse effects to views in the area resulting from new lighting or glare.

Mitigation Measures

Mitigation Measure 1.1 (Aesthetics) - The following measures shall be implemented to provide screening of the proposed campground and campground-serving structures proposed by the Masterplan to reduce the visibility of the proposed development as viewed from SR 49 and Lemmon Canyon Road and minimize the impact of the proposed development on the existing

scenic quality and values of the Sierra Valley, as identified by the Sierra County General Plan. Implementation of measures shall be reviewed and approved by Sierra County Planning and Building Department prior to issuance of building permits to ensure proposed measures would be compatible with airport operations.

a. Landscape plans for the proposed campground shall specify plantings that provide vegetative screening of the campground and associated facilities (including structures) from publicly accessible areas identified as primary viewsheds or key observation points, as determined by the Sierra County Planning and Building Department, such as SR 49 and Lemmon Canyon Road. Landscaping shall make use of native, drought resistant plants selected, planted and maintained in a manner that would not increase fire danger. Fast-growing plants shall be selected for screening and may include traditional fruit trees, which are consistent with Sierra Valley's agricultural heritage, in addition to native vegetation or other screening materials approved by the Sierra County Planning and Building Department. Landscape plans shall provide exhibits demonstrating the effectiveness of proposed screening treatments at time of planting and estimated screening provided at 5 years after planting. Appropriate screening shall be provided 5 years after planting to limit views into the campground from selected public viewshed and observation points, as determined by the Sierra County Planning and Building Department. Effectiveness of screening shall be maintained to the satisfaction of the Sierra County Planning and Building Department.

b. Camping activities, including parking, kitchen, and tent areas, shall be within the screened portion of the campground. Campground rules shall clearly state where campsite activities are allowed. Rules shall be clearly posted and enforced by Sierra Hot Springs management. To avoid sprawl into unauthorized camping areas, each individual campsite shall have a maximum occupancy of 4 people and the maximum campground population shall be no more than 150 at any time (average of 3 people per site).

c. Colors for proposed structures should be of low chromatic intensity and shall be selected to reduce contrast between the structures and natural surrounding area and background as viewed from public areas such as Lemmon Canyon Road and SR 49.

d. Architectural design for all structures shall be as provided in the Masterplan and compatible with the ranch or mountain setting or history of Sierra Valley, and shall be subject to review and approval by the Sierra County Planning and Building Department.

Mitigation Measure 1.2 (Aesthetics) - Construction on the project site shall comply with the following provisions:

a. Grading shall be limited to that necessary for construction of the new structures and for fire protection.

b. Tree removal on the project site shall be limited to that necessary for fire protection, and to remove dead or dying trees or those that pose a safety hazard.

Mitigation Measure 1.3 (Aesthetics) - All lighting shall be of low intensity and shielded and directed downward to maintain dark sky conditions and to avoid transient lighting of off-site areas. Ground level lighting shall be used to the extent feasible for outdoor area lighting. At a minimum, lighting shall be in compliance with mandatory standards for non-residential uses as provided in the California Green Building Standards Code. Lighting plans shall be reviewed and approved by the Sierra County Planning and Building Department prior to issuance of building permits.

2. AGRICULTURE AND FOREST RESOURCES –	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:		☐		
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?	☐	☐	☐	☒
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	☐	☐	☐	☒
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?	☐	☐	☒	☐
d) Result in the loss of forest land or conversion of forest land to non-forest use?	☐	☐	☒	☐
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?	☐		☒	☐

Setting

As described in the project description above, the project site lies within the "Community Core" for the unincorporated community of Sierraville as designated by the Sierra County General Plan. The Sierra County General Plan applies a land use designation of VC-MUR-PD-PS to the Sierra Hot Springs Masterplan project site. This designation allows for visitor services and a greater intensity of resort/hotel/motel development in Community Areas as well as requires clustering away from the airport. Other land use designations, including AG and OS, are applied to portions of the resort property that would not be developed under the proposed Masterplan.

The proposed Masterplan project site is within a General Forest (GF) zone district. As described under 15.12.170 of the Sierra County Zoning Ordinance, the GF zone district was created to preserve the natural environmental and to ensure the long-term maintenence of natural resources. 15.12.170(c) provides a list of acceptable conditional uses which includes, but is not limited to: public parks and recreation uses, reservoir for water storage, camping and picnic areas, guest ranches, summer home tracts, mobilehome parks, travel trailer parks, recreational trailer parks, airports, and other uses similar to those enumerated and consistent with the purpose and intent of the open space and conservation element of the General Plan and compatible with the purpose and intent of the GF zone. Land immediately north of the project site is zoned Agriculture (A1), the Dearwater Airport property is within an Aviation (AV) zone district, and an Industrial (IN) zone designation is applied to two approximately 10-acre parcels adjacent to the airport. The Masterplan project includes a proposed rezoning to Planned Development with Site Performance Combining District (PD-SP).

The larger parcel does contain lands identified as both Prime Farmland and Farmland of Local Importance in the northwestern portion (CDC, 2014a). Additionally, the northwestern portion of the parcels also contain Williamson Act contracts for non-prime farmland; lands adjacent to the north and west also maintain Williamson Act contracts for non-prime farmland (CDC, 2016).

Impacts

a. **Less than Significant Impact**. As discussed above, the parcel does contain both Prime Farmland and Farmland of Local Importance. With the exclusion of the proposed campground relocation, the project site does not contain any of these designations. The proposed campground would be located on soil designated as Farmland of Local Importance (CDC, 2014a). However, the development of the farmland of local importance soil as a campground would not substantially limit the ability of the soil to be used as farmland in the future. Additionally, as discussed below in the cultural section, the area around the campground has site of cultural significance, therefore, development of the site as farmland would result in the degradation of historical resources. Thus, the impact to loss of farmland would be less than significant.

b. **Less than Significant Impact**. A portion of the parcel area is under a Williamson Act contract. The section of the greater project site under a Williamson Act contract is not within the area cited for disturbance under the proposed project. Additionally, existing zoning on the project site is General Forest, which allows for agricultural uses including forestry operations. As discussed above, 15.12.170(c) also provides a list of acceptable conditional uses as well as any similar uses that the Planning Commission deems appropriate. Of this list of acceptable conditional uses, the following would be seen on the proposed project site: public parks and recreation uses, reservoir for water storage, camping and picnic areas, recreational trailer parks, guest ranches (maybe?), and

airports. While the existing zoning of the site is inconsistent the General Plan land use designation for the project site is VC-MUR-PD-PS, and allows for the resort uses and development proposed under the Masterplan. The proposed project includes a rezone of the project site from General Forest and Agriculture to Planned Development with Site Performance Combining District, which would allow for the site to be developed as envisioned by the adopted General Plan. While the proposed project would be inconsistent with existing General Forest zoning, the proposed project would change the zoning to bring it into conformance with the General Plan land use designation applied to the project site. The proposed project would result in no changes to zoning not previously directed under the adopted General Plan. The proposed project would result in no impact resulting from conflict with existing zoning for agricultural use or Williamson Act contracts.

c., d. **Less than Significant Impact.** While the project site is currently zoned GF, which allows for forestry related uses and management of forest resources, this zoning is inconsistent with the General Plan land use designation applied to the project site, which is VC-MUR-PD-PS, and which allows for the resort uses and development proposed under the Masterplan. The project site currently supports recreational land uses and does not support timber production activities. The proposed project would change the zoning to bring it into conformance with the General Plan land use designation applied to the project site. The proposed project would result in no changes to zoning not previously directed under the adopted General Plan. The proposed project would therefore result in no impact resulting from conflict with existing zoning for timberland production or loss or conversion of forest land not already envisioned by the General Plan. Rezoning the project site from GF to PD-SP would be consistent with the Sierra County General Plan and impacts associated with the proposed change in zoning would be less than significant.

e. **Less Than Significant Impact**. No designated Farmland occurs on the project site. The proposed project would result in no impacts resulting from conversion of designated Farmland to non-agricultural uses. The project site is developed with existing recreational uses and has a limited ability to support forest production. The proposed project would rezone the site consistent with the General Plan land use designation to allow for expansion of the existing resort uses and would result in no conversion of forest land that would be inconsistent with the adopted Sierra County General Plan. The proposed rezone and expansion of the site's current resort uses would result in a less than significant impact associated with conversion of forest land to non-forest uses.

Mitigation Measures

No mitigation measures are necessary.

3. AIR QUALITY –	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations.				
Would the project:				
a) Conflict with or obstruct implementation of the applicable air quality plan?	☐	☐	☒	☐
b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	☐	☒	☐	☐
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)?	☐	☒	☐	☐
d) Expose sensitive receptors to substantial pollutant concentrations?	☐	☒	☐	☐
e) Create objectionable odors affecting a substantial number of people?	☐	☐	☐	☒

Setting

The project site is located within the Mountain Counties Air Basin (MCAB), within the jurisdiction of the Northern Sierra Air Quality Management District (NSAQMD). Sources of air pollution within the District are generally local motor vehicle emissions, and particulates from wood burning stoves, wildfire, and dust from ground disturbance. Air quality in the immediate project vicinity is influenced by emissions from motor vehicles traveling area roadways and emissions from timber harvesting/logging/agricultural activities within the Tahoe National Forest, use of construction and landscaping equipment, wood-burning appliances, and seasonal wildfires. As required by the federal Clean Air Act, the federal Environmental Protection Agency (EPA) established Ambient Air Quality Standards (AAQS) for six air pollutants: ozone, carbon monoxide, nitrogen dioxide, sulfur dioxide, suspended particulate matter, and lead. These standards represent the levels of air quality necessary to protect the public health and welfare with an adequate margin of safety. The Federal Clean Air Act requires states to classify air basins (or portions thereof) as either in “attainment” or “non-attainment” with respect to whether the AAQS for each pollutant has been achieved. For areas designated as “non-attainment,” the federal Clean Air Act requires states to prepare air quality plans containing emissions-reduction strategies. Sierra County is in attainment of state and national air quality standards for nitrogen dioxide and sulfur dioxide. The

County is in non-attainment for state standards for respirable particulate matter (PM10) standards and is unclassified for fine particulate matter (PM2.5), ozone and carbon monoxide.

NSAQMD provides an outline on how to evaluate Air Quality impacts. The District relies on a tiered system to simplify mitigation necessities: Level A requires the most basic mitigations; Level B requires more extensive mitigations; and Level C requires the most extensive mitigations. The tiered thresholds are given in Table 3-1 below for a project's estimated emissions of criteria pollutants in lbs/day. Levels of exceedance of NOx and ROG indicate the relative size and scope of a project and the associated need for mitigation measures that are directed toward ensuring that a project does not contribute to the County's non-attainment status for PM10 (dust). Emissions are considered significant by NSAQMD if they exceed Level C thresholds with mitigation.

Table 3-1
NSAQMD Air Pollutant Emissions Thresholds for Mitigation

Level A Thresholds		
NOx	ROG	PM10
<24	<24	<79
Level B Thresholds		
NOx	ROG	PM10
24-136	24-136	79-136
Level C Thresholds		
NOx	ROG	PM10
>136	>136	>136

NSAQMD has adopted rules that govern emissions of air pollutants in the MCAB. Those applicable to the proposed project and include the following:

Rule 205, Nuisance. This rule prohibits the discharge of air contaminants or other material from any source which cause injury, detriment, nuisance, or annoyance to any considerable number of persons, or to the public, or which endangers the comfort, repose, health, or safety of any such persons, or the public or which cause to have a natural tendency to cause injury or damage to business or property

Rule 226, Dust Control. This rule states, "A dust control plan must be submitted to and approved by the Air Pollution Control Officer before topsoil is disturbed on any project where more than one (1) acre of natural surface area is to be altered or where the natural ground cover is removed." The Dust Control Plan requirements are typically included by enforceable conditions included on the project grading plans (NSAQMD, 1994).

The proposed project site is adjacent to the Sierraville Dearwater Airport, which consists of a single gravel airstrip. The airport is used infrequently by small aircraft, mainly during the summer.

Impacts

a. **Less than Significant Impact**. The proposed project would expand the existing resort development. The proposed project includes a zoning amendment and conditional use permit. With the inclusion of these, the uses proposed are consistent with the *Sierra County General Plan* land use designation for the site, and therefore consistent with local and regional planning and population projections that are incorporated into air quality planning for the air basin. The project would not conflict with or obstruct implementation of air quality planning for the MCAB.

b., c. **Less than Significant with Mitigation**. Sierra County is currently in non-attainment for State PM10 Standards. The proposed project would result in dust emissions from grading and site disturbance during construction which would contribute to degradation of local air quality and PM10 levels in the project vicinity. Operational emissions of the proposed project would be generated by operation of landscape and maintenance equipment and motor vehicles traveling to and from the project site. Vehicles traveling on unpaved portions of Campbell Hot Springs Road and Lemmon Canyon Road have potential to generate dust emissions if roadways are not watered or otherwise stabilized. These emissions could adversely affect air quality in the short-term and cumulative conditions. NSAQMD's Rule 226 requires control of fugitive dust emissions and is incorporated into Mitigation Measure 3.1 which applies to both construction and operational emissions of the proposed project.

Construction Emissions

Emissions associated with construction of the proposed water tank were modeled separately from other components of the Masterplan, since the water tank would be constructed prior to other phases of development. Construction activities for all phases of development proposed under the Masterplan, including the proposed water tank, would generate air pollutant emissions in the form of dust from grading and off road vehicle operation, vehicle exhaust emissions, and emissions associated with off-gassing from pavement, architectural coatings, and other construction materials.

To evaluate the project's potential to contribute to violations of air quality standards, air pollutant emissions associated with construction of the proposed project were modeled using the CalEEMod program. Table 3-2, below, summarizes the anticipated air pollutant emissions that would result from each phase of construction required to construct the proposed water tank component of the Masterplan. Modeling assumed that construction associated with the water tank would be completed in a single year. Table 3-3 summarizes the results of emissions modeling for each phase of construction associated with buildout of the remainder of the Masterplan and identifies the

maximum daily emissions of each criteria pollutant that would result during each phase. Modeling inputs for construction assumed that construction phases would run sequentially with no overlap between phases. Since no phasing has been identified for the proposed project and to evaluate a "worst-case scenario" for construction-phase air pollutant emissions, modeling assumed that all Masterplan components identified by Table 2 as Masterplan Development Priorities would be constructed in a single year. It is likely that buildout of the Masterplan would occur over many more years and at a much slower pace than used for emissions modeling and that daily emissions would be substantially lower than values provided in modeling results.

Table 3-2
Estimated Construction Phase Air Pollutant Emissions - Water Tank

Construction Phase	Air Contaminant (maximum pounds per day)					
	ROG	*NO_x*	*CO*	*SO_2*	*PM_{10}*	*$PM_{2.5}$*
Demolition	3.46	34.17	16.71	0.03	1.96	1.69
Site Preparation	5.60	59.38	27.87	0.05	21.55	12.84
Grading	5.93	68.07	40.32	0.06	3.24	2.87
Building Construction	3.45	27.96	20.70	0.03	2.04	1.77
Paving	2.08	20.82	16.18	0.02	1.28	1.10

Bold represents values that exceed a level of less than significance

As shown above, construction of the water tank on the project site would exceed NSAQMD Level A thresholds for NOx maximum pounds per day during demolition, site preparation, grading, and building construction. Emissions of all other pollutants would remain below Level A thresholds. As shown in Table 3-3, construction of other components of the Masterplan would exceed NSAQMD Level A thresholds for NOx maximum pounds per day during site preparation, grading, and construction and for ROG maximum pounds per day during application of architectural coatings.

NOx emissions during construction of the proposed water tank and NOx and ROG emissions during construction of the remainder of proposed site development would fall under Level B of the NSAQMD emissions thresholds. These elevated NOx and ROG emissions would be temporary during construction. As NOx and ROG emissions would exceed Level A thresholds, the proposed project would be required to implement mitigation measures identified by NSAQMD for projects with Level B emissions. Mitigation Measure 3.1 implements Level B mitigation measures for construction period emissions, as recommended by NSAQMD. With implementation of Mitigation Measure 3.1 during construction, as recommended by NSAQMD, impacts associated with temporary emissions during construction of the proposed project would be less than significant with respect to violation of an air quality

standard or contribution to an air quality violation.

Table 3-3
Estimated Construction Phase Air Pollutant Emissions –
Other Phases of Masterplan

Construction Phase	Air Contaminant (maximum pounds per day)					
	ROG	*NO_x*	*CO*	*SO_2*	*PM_{10}*	*$PM_{2.5}$*
Site Preparation	5.13	52.40	24.84	0.04	21.09	12.62
Paving	2.08	20.82	16.18	0.02	1.28	1.10
Grading	5.47	63.16	35.99	0.06	9.85	6.05
Building Construction 2017	3.41	27.79	20.43	0.03	2.02	1.76
Architectural Coatings 2017	78.59	2.21	2.17	0.003	0.21	0.18

Bold represents values that exceed a level of less than significance

Operational Emissions – Water Tank

Air pollutant emissions associated with operation of the proposed project after construction is complete were also modeled using CalEEMod and water tank emissions were modeled separately from the remainder of the proposed development since the water tank would be completed ahead of other resort components. Table 3-4 summarizes the anticipated air pollutant emissions from area sources and vehicle emissions associated with operation of the water tank included in the proposed project.

Table 3-4
Estimated Operational Air Pollutant Emissions - Water Tank

Source	Air Contaminant (pounds per day)					
	ROG	*NO_X*	*CO*	*SO_2*	*PM_{10}*	*$PM_{2.5}$*
Area	1.39	0.00005	0.005	0.00	0.00002	0.00002
Energy	0.005	0.05	0.04	0.0003	0.004	0.004
Vehicle use	0.00	0.00	0.00	0.00	0.00	0.00
Combined	1.39	0.05	0.05	0.0003	0.004	0.004

As shown in Table 3-4, above, operational emissions of the proposed water tank would not exceed NSAQMD Level A thresholds for any criteria pollutants. Impacts from operational emissions associated with the water tank would be **less than significant**.

Operational Impacts – Other Masterplan Components

Air pollutant emissions during project operation (occupation of the resort day use and lodging facilities and the campground) would be generated by motor vehicle operation, gas and electric maintenance equipment, barbeques and outdoor fires, and consumer products (e.g., cleaning supplies and personal products such as hair spray). The CalEEMod program was used to model and estimate daily air pollutant emissions associated with operation of the proposed project. Table 3-5, below, summarizes modeling results of anticipated air pollutant emissions from area sources and vehicle emissions associated with operation of the proposed Masterplan. To reflect seasonal variations in electricity and propane use, separate estimates for summer and winter emissions are provided. Use of a front-end loader for snow removal assumed in area source emissions modeling.

Table 3-5
Estimated Operational Air Pollutant Emissions – Other Phases of Masterplan

Source	Air Contaminant (pounds per day)					
	ROG	*NO_X*	*CO*	*SO_2*	*PM_{10}*	*$PM_{2.5}$*
Summer						
Area	1.25	0.0004	0.005	0.00	0.00002	0.00002
Energy	0.005	0.04	0.04	0.0003	0.003	0.003
Vehicle use	3.01	6.38	27.97	0.05	3.50	0.98
Combined	4.26	6.42	28.02	0.05	3.50	0.98
Winter						
Area	1.25	0.00004	0.005	0.00	0.00002	0.00002
Energy	0.005	0.04	0.04	0.0003	0.003	0.003
Vehicle use	2.81	7.41	32.76	0.05	3.50	0.98
Combined	4.07	7.46	32.80	0.05	3.50	0.98

As shown in the Table 3-5 above, daily operational emissions of the proposed Masterplan would remain far below NSAQMD Level A emissions thresholds, as would combined operational emissions of the water tank and other Masterplan components. Impacts associated with operational emissions of the proposed Masterplan would be less than significant.

Emissions of carbon monoxide (CO) from idling vehicles can create pockets of high CO concentrations, called “hot spots.” These pockets can exceed the state standards for CO. High CO concentrations can cause headaches, dizziness, and nausea and can contribute to chronic health conditions.

Typically, high CO concentrations are associated with roadways or intersections operating at unacceptable levels of service and/or with extremely high traffic volumes.

More specifically, CO hot-spots occur where there are many thousands of cars idling. The Traffic Assessment prepared for the proposed project found that the project would have a less than significant impact related to increases in traffic and on area roadway levels of service. The proposed project would result in no substantial roadway or intersection congestion and would not result in significant CO concentrations.

With the incorporation of mitigation measure **Mitigation Measure 3.1,** described below, the construction and operation of the proposed project would not substantially contribute to an existing or projected air quality violation or result in a cumulatively considerable net increase of any criteria pollutant. With implementation of **Mitigation Measure 3.1** the project's impacts related to construction and operational phase emissions would be less than significant.

d. **Less than Significant with Mitigation**. The air pollutants of greatest concern to sensitive receptors would primarily be dust and particulate matter since the County is currently in non-attainment for PM10 levels. Dust and particulate matter would be generated during construction, as described in 'b' and 'c' above. Construction emissions would be temporary and no long-term exposure to sensitive receptors would occur as a result of the proposed project. With implementation of **Mitigation Measure 3.1**, which includes measures to control onsite dust during construction, impacts associated with exposure of sensitive receptors to elevated pollutant concentrations would be less than significant.

e. **No Impact**. The proposed project includes no components that would result in an objectionable odor affecting a substantial number of people. In the existing condition the resort includes naturally-occurring hot springs that produce a sulfur odor that is typical of natural hot springs. The proposed Masterplan includes no components that would produce objectionable odors.

Mitigation Measures

Mitigation Measure 3.1 (Air Quality)

Construction Phase:

The project contractor shall implement the following measures to control dust during construction and shall at all times comply with NSAQMD's Rule 226 for the control of fugitive dust:

a. Open burning shall be prohibited as a means of disposing of cleared vegetative material during project construction. Suitable alternatives include chipping, mulching, or biomass conversion.

b. When feasible, grid power shall be used instead of diesel power generators for job site power during construction.

c. Wood-burning appliances shall be limited to one per residence or lodging unit and all units shall be EPA Phase II certified appliances. All units shall be equipped with a non-wood-burning source of heat.

d. Per Rule 226, a dust control plan shall be submitted to and approved by the Air Pollution Control Officer before topsoil is disturbed prior to any project phase that would disturb more than one (1) acre of natural surface or where the natural ground cover is removed. In the dust control plan, the Air Pollution Control Officer may require use of palliatives, reseeding, or other means to minimize windblown dust.

e. All unpaved access roads and staging areas at construction sites shall have soil stabilizers applied, or have water applied to ensure compliance with Rule 226.

f. Traffic speeds on unpaved roads shall be limited to 15 mph.

g. Exposed stockpiles of soil and other backfill material shall be enclosed or covered, or shall be watered twice daily, or shall have soil binders added.

h. All trucks hauling soil and other loose material on public streets shall be covered or have at least two feet of freeboard.

i. If visible soil material is carried onto adjacent public roads, such streets shall be swept with water sweepers.

j. Dust-producing activities shall be suspended when high winds create construction-induced visible dust plumes moving beyond the project site in spite of dust control measures.

k. Prior to final sign off of building permits, the applicant shall re-establish ground cover on the site through seeding and watering.

Operational Phase:

l. The project operator shall comply with NSAQMD's Rule 226 for the control of fugitive dust.

m. A dust control plan shall be submitted to and approved by the County Department of Planning and Building and the Air Pollution Control Officer. The dust control plan shall identify measures for controlling dust on areas that would remain unpaved including Campbell Hot Springs Road, Lemmon Canyon Road, and parking and camping areas where natural cover would be removed. Measures included in the plan could include use of soil stabilizers, watering, wind or snow fences, surface treatments, vehicle speed restrictions, or other means to minimize windblown dust and comply with Rule 226.

4. BIOLOGICAL RESOURCES –	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
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?	☐	☒	☐	☐
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?	☐	☒	☐	☐
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?	☐	☒	☐	☐
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?	☐	☒	☐	☐
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☐	☐	☒
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?	☐	☐	☐	☒

Setting

The analysis and information in this section is based on a biological resources assessment study prepared for the site in 2015 (Ecosynthesis, 2015) and a 2016 addendum to that study (Dudek, 2016a). A jurisdictional wetland delineation was prepared for the project site in 2016 (Dudek, 2016b).

For the purposes of this analysis, special status species are defined as and include:

- Wildlife species that are listed as threatened or endangered or are candidates for listing under the state or federal Endangered Species Acts,
- Wildlife species identified by California Department of Fish and Wildlife (CDFW) as Species of Special Concern;
- Wildlife species identified by US Fish and Wildlife Service (USFWS) and National MarineFisheries Service as Species of Concern;
- Plants listed as Endangered or Rare under the California Native Plant Protection Act;

- Animals fully protected under the California Fish and Game Code;
- Plants that have a California Native Plant Society (CNPS) California Rare Plant Rank (CRPR) of 1A (plants presumed extirpated in California and either rare or extinct elsewhere), 1B (plants rare, threatened, or endangered in California and elsewhere), 2A (plants presumed extirpated in California, but more common elsewhere), or 2B (plants rare, threatened, or endangered in California, but more common elsewhere). The CNPS CRPRs are used by both CDFW and USFWS in their consideration of formal species protection under ESA or CESA.

The majority of the site study area is dominated by mixed conifer forest and sagebrush scrub habitat. Willow riparian scrub occurs along perennial and intermittent streams and creeks with relatively fine-grained sand and gravel bars and low, wet alluvial terraces. This habitat is generally dominated with by shrub-like willows (*Salix sp*.), ranging from open stands to dense thickets. The open stands tend to have an understory of herbaceous plants including *Juncus spp*., *Carex spp*. and wet grasses. No fen communities were mapped during biological resources surveys of the project site (Dudek, 2016a; Dudek, 2016b; EcoSynthesis, 2015) . Several areas of the project site within or adjacent to areas of prior disturbance are dominated by invasive weedy annual and perennial species such as brome (*Bromus sp.*) and yellow star thistle (*Centaurea solstitialis*). .

Species most likely to use habitat within the project site would primarily be those adapted to proximity to human disturbance, such as Virginia opossum (*Didelphis virginianus*), skunk (*Mephitis mephitis*), raccoon (*Procyon lotor*), coyote (*Canis latrans*), California mule deer (*Odocoileus hemionus*), bobcat (*Lynx rufus*), American black bear (*Ursus americanus*) and possibly mountain lion (*Puma concolor*). Wildlife species observed during the October 26, 2015 survey included red-tailed hawk (*Buteo jamaicensis*) and common raven (*Corvus corax*).

No special-status species of wildlife was observed during surveys carried out for the biological resources studies conducted for the project site. However, several habitat types within the project site provide suitable habitat for special-status birds and mammals. These include the conifer forest, perennial marsh, and willow riparian scrub habitat types.

Trees on the site provide suitable nesting habitat for several bird species protected by the Migratory Bird Treaty Act and California Fish and Game Code 3503.5. Bird species with potential to occur on the project site include five special-status raptor species: northern goshawk (*Accipiter gentilisI;* CA Species of Special Concern*),* short-eared owl (*Asio flammeus;* CA Species of Special Concern*),* Swainson's hawk (*Buteo swainsoniI;* CA Threatened*),* bald eagle (*Haliaeetus leucocephalusI;* CA Endangered, Fully Protected*),* and great gray owl (*Strix nebulosi;* CA Endangered*).* Other special-status bird species with potential to occur on the project site include olive-sided flycatcher (*Contopus cooperi;* CA Species of Special Concern*),* willow flycatcher (*Empidonax traillii;* CA Endangered*),* and greater sandhill crane (*Grus canadensis tabida,* CA Threatened*).*

The project site provides suitable roosting and foraging habitat for several bat species found in the Sierra Nevada Mountains, including pallid bat (*Antrozous pallidus*; CA species of special concern) and Townsend's big-eared bat (*Corynorhinus townsendii*; CA Species of Special Concern, CA Threatened-Candidate). Both of these species were determined to have a moderate potential to occur within the project site. Other species likely to forage and roost on the site include Mexican free-tailed bat (*Tadarida brasiliensis*), big brown bat (*Eptesicus fuscus*), California myotis (*Myotis californicus*), Yuma myotis (*Myotis yumanensis*), hoary bat (*Lasiurus cinereus*), silver- haired bat (*Lasionycteris noctivagans*), long-eared myotis (*Myotis evotis*) and fringed myotis (*Myotis thysanodes*).

Based on consultation with the CDFW, deer from the Loyalton-Truckee deer herd (LTDH) use the project site during migration and are resident in the project area at other times of the year. Deer migration routes are mapped north of Lemmon Canyon Road and through the center of the project site along Campbell Hot Springs Road. The project site provides suitable fawning and foraging habitat and the LTDH is known to utilize the project area on a regular basis (CDFW, 2016).

Studies of the site determined that rare plants could occur over a large portion of the Masterplan area in several different habitat types, including ephemeral drainages, conifer forest, willow riparian scrub, and perennial marsh areas. Rare plants determined to have high potential to occur within the project area include Sierra Valley ivesia (*Ivesia aperta* var. *aperta;* CNPS Rank 1B.2), Pluma ivesia (*Ivesia sericoleuca*; CNPS Rank 1B.2), and sticky pyrrocoma (*Pyrrocoma lucida*; CNPS Rank 1B.2). Several other special-status plant species have moderate potential to occur, as identified in the biological resources studies conducted for the project site.

Impacts

a. **Less than Significant with Mitigation.** All raptor species found in California are protected by California Fish and Game Code Section 3503.5. No raptors were observed on or flying over the site during the site survey; however, trees within the project site provide suitable nesting habitat for protected birds. Although raptor species have the potential to nest on the site and forage adjacent to the site, the site does not provide substantially important habitat, due to its small size. Removal of onsite trees that are suitable for nesting would not adversely affect the ability of raptor species to continue to exist or forage within the area. Further, the proposed project to improve and modernize the existing facilities would require minimal tree removal and would not substantially alter the site's habitat characteristics. However, disturbance to nesting raptors and migratory birds during construction would constitute a significant project impact. To ensure this impact is avoided, Mitigation Measure 4.1 requires that a pre-construction nesting survey be performed by a qualified biologist prior to any site disturbance during the breeding season to determine if active nests exist within or adjacent to the work area and requires the project applicant to take appropriate

protective measures to ensure impacts to nesting birds are avoided.

As outlined in the setting section above, nine species of bats have potential to occur and roost on the project site in areas such as building eaves and hollow trees. Disturbance to any roosting bats during demolition and construction would constitute a significant project impact. To ensure this impact is avoided, Mitigation Measure 4.2 requires that a habitat assessment and pre-construction survey be performed by a qualified biologist to assess whether roosting bats occur within areas that would be subject to construction disturbance. If roosting bats are detected, Mitigation Measure 4.2 requires the project applicant to consult with CDFW to identify appropriate measures to be taken to avoid and/or minimize impacts to the species, which can include approval to exclude any bats potentially found on the project site before demolition of buildings, exterior walls, and trees.

Special-status plant species could occur over a large portion of the Masterplan area in several different habitat types within the project site, including ephemeral drainages, conifer forest, willow riparian scrub, and perennial marsh areas. Mitigation Measure 4.3 requires that rare plant surveys be conducted within anticipated disturbance areas prior to construction. If rare plants are discovered, Mitigation Measure 4.3 requires that the plants be avoided or that appropriate mitigation be provided if impacts to rare plants are unavoidable. Appropriate mitigation could include soil / seed salvage, transplanting or other measures determined by a qualified biologist in consultation with appropriate resource agencies.

With implementation of Mitigation Measures 4.1, 4.2, and 4.3, impacts to special status species would be less-than-significant.

b., c. **Less than Significant with Mitigation.** The jurisdictional wetland delineation performed by Dudek mapped 1.43 acres of jurisdictional wetlands and waters within the s with potential to be disturbed by the proposed project (Dudek, 2016b). This includes four types of wetland: ephemeral drainage (0.003 acre), willow riparian scrub (0.19 acre), perennial marsh (1.18 acres), and spring creek (0.06 acre). A fifth type of wetland, wet ditch, was mapped just outside of anticipated disturbance areas (Dudek, 2016b).

The proposed project has been designed to avoid impacts to mapped jurisdictional features to the extent possible; however, impacts to jurisdictional features could occur in the vicinity of the proposed co-manager's residence, campground, septic tanks and leachfields, shelter-in-place area, along Campbell Hot Springs Road, in the vicinity of the Phoenix Baths, Meadow House, and Pools Complex, and at the creek crossings for the access road and path to the Pools complex. If impacts to jurisdictional wetlands and waters is proposed, the project proponent would be required to submit a formal wetland

delineation and obtain permits under Sections 401 and 404 of the federal Clean Water Act as well as a Streambed Alteration Agreement with CDFW. The terms and conditions of the Clean Water Act permits and Streambed Alteration Agreement would include measures to ensure that impacts to the jurisdictional habitats are minimized and compensation is provided for impacts that cannot be avoided. Measures would likely include a requirement to provide replacement habitat at a minimum ratio of 1:1 to ensure that "no net loss" of wetlands occurs, construction best management practices for erosion and sediment control, revegetation, restoration, and monitoring.

Mitigation Measure 4.4 requires that a wetland delineation for the proposed disturbance area verified by the Corps of Engineers be submitted to Sierra County prior to issuance of grading permits for any phase of the proposed Masterplan project. Mitigation Measure 4.4 requires the applicant to obtain appropriate permits from resource agencies including the U.S. Army Corps of Engineers, Regional Water Quality Control Board, and CDFW for any disturbance to jurisdictional features and that copies of all agency permits be provided to Sierra County before issuance of grading permits. Compliance with the terms and conditions of the applicable permits authorizing impacts to jurisdictional features, as referenced by Mitigation Measure 4.4, and appropriate protection of jurisdictional features that would not be impacted by project activities, as required by Mitigation Measure 4.5, would ensure that impacts to sensitive riparian and wetland habitats would remain less than significant.

d. **Less than Significant with Mitigation.** During consultation with the CDFW, staff raised concerns regarding the Loyalton-Truckee deer herd and potential migration corridors associated with the drainage in the southeastern portion of the project area. CDFW staff suggested a minimum 100-foot setback from the centerline of the drainage to structures to minimize impacts to this potential movement corridor for the deer herd (CDFW, 2016). The site plan was subsequently revised to relocate structures back from the drainage to achieve the 100-foot setback, though walkways, the maintenance access road and drainage crossing, and a seasonal walking path are proposed within or crossing this drainage. The development/disturbance of less than 10% of the total project site, which is surrounded by sparsely developed and undeveloped land would not result in a substantial restriction that would be expected to affect the ability of the Loyalton-Truckee deer herd to migrate through the project area. Mitigation Measure 4.6 is provided to further ensure that structures placed within 100 feet of the centerline of the onsite drainage between the proposed guest cabins and pool complex do not impede wildlife movement along the creek corridor. This mitigation measure requires that any structure proposed within 100 feet of the centerline of the waterway by reviewed by a qualified wildlife biologist approved by Sierra County to ensure that the proposed design of walkways, bridges, culverts, or other features is constructed in a manner to

not impair the ability of wildlife to move within the drainage corridor. Implementation of Mitigation Measure 4.6 would ensure that impacts to wildlife movement remain less than significant.

e. **No Impact.** The proposed Masterplan includes a lodge and other structures within a mixed conifer woodland, which would require selective removal of trees of varying diameters. The greatest number of trees would be removed from the vicinity of the proposed development south of the existing lodge and west of Campbell Hot Springs Road, where existing tree density is highest; in particular the area proposed for staff housing, guest cabins, and the new Dragonfly Lodge. Tree removal would not conflict with any County ordinance for the protection of trees, but could be considered as an impact to scenic resources (see Section I of this Initial Study). The project would result in no impacts associated with conflicts with local policies pertaining to the protection of biological resources.

f. **No Impact.** The project site is not subject to any adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan. No impacts would result from conflicts with any local, State, or federal conservation plans.

Mitigation Measures

Mitigation Measure 4.1 (Biological Resources) - To avoid take of any nesting birds, including raptors, tree removal within the study area should be conducted between September 1 and May 1, which is outside of the typical raptor breeding season.

For any construction activities, including tree removal, initiated during the typical breeding season (generally May 1 through August 31) a pre-construction nesting bird survey shall be conducted by a qualified biologist within 15 days prior to project-related activities. The nesting survey shall be repeated if construction during the breeding season is inactive for a period of 14 days or more. If any active raptor nests are found on or within 100 feet of the proposed area of disturbance, the Sierra County Planning Department shall be contacted and consultation shall be initiated with CDFW to determine appropriate avoidance measures and mitigation responsibilities. Avoidance measures typically include limited operating periods and/or a 100 to 500-foot buffer from the nest until it is determined to be inactive.

Mitigation Measure 4.2 (Biological Resources) - No earlier than 30 days prior to initiation of construction activities, a pre-construction survey shall be conducted by a qualified biologist (i.e., a biologist holding a CDFW collection permit and a Memorandum of Understanding with CDFW allowing the biologist to handle bats) to determine if active bat roosts or maternal

colonies are present on or within 300 feet of the construction area. Surveys shall include the structures proposed for demolition.

Should an active maternity roost be identified, the roost shall not be disturbed and construction within 300 feet of the maternity roost shall be postponed or halted until the juveniles have fledged and the roost is vacated, as determined by a qualified biologist. The discovery of any active maternity roost shall be reported to the Sierra County Planning Department and consultation shall be initiated with CDFW.

If nonbreeding bat hibernacula are found on the project site, the individuals shall be safely evicted under the direction of a qualified bat biologist and in consultation with CDFW. These actions shall allow bats to leave during nighttime hours, thus increasing their chance of finding new roosts with a minimum of potential predation during daylight.

Note: Due to regulations from the California Health Department, direct contact by construction workers with any bat is prohibited.

Mitigation Measure 4.3 (Biological Resources) - Rare plant surveys shall be conducted prior to ground disturbance to determine if special-status species of plants are present with the area of potential disturbance. Plant surveys shall be conducted by a qualified biologist and shall be floristic in nature and follow recommended methodology described in the CNPS *Botanical Survey Guidelines* (2001), the CDFW *Protocols for Surveying and Evaluating Impacts to Special-status Native Plant Populations and Natural Communities* (2009), and the USFWS *Guidelines for Conducting and Reporting Botanical Inventories for Federally Listed, Proposed and Candidate Plants* (2000). Should any individual special-status plant species be located, a qualified botanist shall develop and implement a management plan. Appropriate measures could include transplanting, soil/seed salvage and avoidance. The management plan shall be prepared in consultation with the appropriate resource agency having jurisdiction for the species discovered.

Mitigation Measure 4.4 (Biological Resources) - A wetland delineation for the proposed disturbance area verified by the Corps of Engineers shall be submitted to Sierra County prior to issuance of grading permits for any phase of the proposed Masterplan project. The applicant shall obtain appropriate permits from the U.S. Army Corps of Engineers, Regional Water Quality Control Board, and CDFW for any proposed disturbance to jurisdictional features. Copies of all agency permits shall be provided to Sierra County prior to issuance of grading permits. The applicant shall comply with the terms and conditions of the permits and Streambed Alteration Agreement, which include measures to ensure that impacts to the regulated habitats are avoided or minimized and that compensation is provided for impacts that are unavoidable. Typical terms and condition of permits include requirements to provide replacement habitat at a minimum ratio of 1:1 to ensure that “no net loss” of wetlands occurs, construction best management practices for resource avoidance, erosion and sediment control, revegetation, restoration, and post-

construction monitoring. To achieve the minimum mitigation ratio for replacement habitat, the applicant may have the option to participate in an in-lieu fee program, which provides a mitigation option if appropriate mitigation is not available onsite. Mitigation could also include onsite or offsite mitigation by creation, restoration, and/or enhancement of wetland habitat and protection in perpetuity.

Mitigation Measure 4.5 (Biological Resources) - The boundary of all jurisdictional features within 100 feet of the proposed construction disturbance area shall be identified by a qualified biologist with flagging and orange exclusion fencing shall be installed to ensure that no inadvertent impacts to sensitive aquatic habitat occurs during construction activities.

Mitigation Measure 4.6 (Biological Resources) - To ensure that structures placed within the drainage corridor running between the proposed guest cabins and pool complex do not impede wildlife movement along the creek corridor, any structure proposed within 100 feet of the centerline of the waterway shall be reviewed by a qualified wildlife biologist approved by Sierra County. The biologist shall provide a memo verifying that the proposed design of walkways, bridges, culverts, or other features would not impair the ability of wildlife to move within the drainage corridor and shall provide design recommendations if it is determined that wildlife movement would be impaired by proposed features. Recommendations of the approved biologist shall be incorporated into project features to the satisfaction of the County Planning & Building Department.

5. CULTURAL RESOURCES –	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?	☐	☐	☐	☒
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15O64.5?	☐	☒	☐	☐
c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☐	☐	☒
d) Disturb any human remains, including those interred outside of formal cemeteries?	☐	☒	☐	☐

Setting

The information in this section relies on the cultural report prepared by Sean Michael Jensen (M.A.) (Jensen, 2016). Cultural Inventory efforts have resulted in identifying twelve (12) sites within the project area. Ten sites represent prehistoric occupation and two are historic-era sites. The two historic sites were determined to not be significant due to a lack of integrity. One

prehistoric sites was identified during the records search but further intensive survey, including a site survey and subsurface testing, determined that the site was inaccurately mapped in previous site records and does not exist within the project site as mapped (Jensen, 2016). The cultural assessment determined that the mismapped site described in previous records is contained within a different site that was separately evaluated. The project site is located within an area claimed as the historic territory of both the Washoe and the Northeastern Maidu. The Washoe were members of the Hokan-linguistic group and maintained relationships with nearby Maidu, Miwok, and Paiute. Lifestyles included seasonal nomadism and a diet based on fishing, hunting, and local flora. The Maidu were hunter-gatherers and subsisted mainly on hunting, fishing, and plant-collection. No paleontological resources or site or designated or recognized unique geological features are known from the project site.

Impacts

a. **No Impact.** As defined by the CEQA Guidelines, a "historical resource" is considered to be a resource that is listed in or eligible for listing in the California Register of Historic Resources (CRHR), has been identified as significant in a historical resource survey, or is listed on a local register of historical resources.

The proposed project would demolish the Meadow House, which is part of the historic hot springs complex that comprises one of the two historic-era sites recorded on the resort property and dates to the 1850s. The cultural report found that while the historic hot springs complex appears to meet Criteria 3 for eligibility to the CRHR, as it represents a distinctive type of historic theme associated with rural recreational hot springs of which few examples exist in the region, the complex has undergone numerous episodes of construction, demolition, fire and reconstruction that have affected the integrity of the site as an historic resource. The 2016 Jensen report concluded that the only components of integrity that exist for the site are *location* and *setting.* The five other components (*association, design, materials, workmanship*, and *feeling*) have been severely compromised as a result of modifications to the complex over the past 150 years. According to PRC Section 5024.1(c)(1-4), a resource is considered historically significant if it retains substantial integrity and meets at least one of the significance criteria for eligibility for listing to the CRHR. Since the historic complex lacks integrity, the site is not considered significant per criterion 3, and is therefore not a significant historical resource under CEQA. As the Meadow House is not a significant historical resource, demolition of the structure as included in the proposed project would result in **no impact** to historical resources as defined by CEQA.

b. **Less than Significant with Mitigation.** The 2016 Jensen report identifies 12 cultural resource sites in the vicinity of the proposed project. Ten of these twelve

represent prehistoric occupation locales, while the two remaining sites represent a historic-era trash dump (CA-SIE-1014-H) and an historic-era building complex (SHS 1). CA-SIE-1014-H, a refuse scatter, is recommended not significant under CEQA (not eligible for CRHR listing), and requires no additional mitigation due to lack of data potential. SHS 1, two buildings comprising the historic-era resort complex, is recommended significant per Criterion 3, but requiring no additional mitigation due to compromised integrity (see discussion under 'a' above.

Nine of the archaeological sites (CA-SIE-1005 through CA-SIE-1013) represent prehistoric occupation locales containing habitation debris (midden deposits); all nine are recommended eligible for CRHR listing under Criterion 4 (for research and information values), and so considered significant under CEQA. One prehistoric site, CA-SIE-30, a prehistoric habitation site that was recorded previously by other investigators was not relocated by Jensen. Intensive survey methods, including subsurface testing, determined that previous site records provided an incorrect location for the site and it does not exist within the site as mapped by site records (Jensen, 2017). The 2017 Jensen report determined that the site described in previous records is contained within a different site that was separately evaluated. The proposed project would result in no disturbance to CA-SIE-30. The proposed Masterplan project has been designed to avoid impacts to all of the prehistoric cultural sites identified within the project site. However, potential impacts to cultural resources could occur as a result of inadvertent construction disturbance, discovery of further subsurface resources not identified by surveys to date, and as a result of disturbance from resort guests inadvertently entering into cultural sites. Disturbance of eligible prehistoric sites would be a significant impact. Mitigation Measures 5.1 and 5.2 would be implemented to preserve the integrity of prehistoric sites CA-SIE-1005 through CA-SIE-1013 by requiring implementation of measures to ensure that impacts to these sites are avoided. Mitigation Measure 5.1a requires that the limits of any site within 50 feet of construction disturbance be accurately flagged by a qualified archaeologist and temporary construction exclusion fencing be installed prior to the start of construction to ensure that sites are protected from inadvertent construction disturbance. If it is determined that preservation onsite, as stipulated by Mitigation Measure 5.1a, is not feasible and impacts to a site cannot be avoided, Mitigation Measure 5.1b provides for a testing and data recovery plan to be prepared and implemented to recover appropriate data prior to site disturbance.

Mitigation Measure 5.2 requires implementation of protective measures to ensure that cultural sites are protected from impacts that could occur during operation of the proposed resort expansion. Protective measures could include placing sites

within a conservation easement and / or aesthetically appropriate exclusion fencing (i.e. split-rail design or other decorative fencing type) around the perimeter of sites located within 50 feet of developed facilities.

The Jensen survey and report substantially modified the site boundary of CA-SIE-1007 from the existing site record as a result of subsurface testing results. The proposed project includes features that would disturb areas of the project site previously included within the mapped limits of CA-SIE-1007. The cultural report recommends that construction disturbance within the previously-mapped boundaries of the site be monitored by a qualified archaeologist since these areas are considered of higher sensitivity since they were included in site mapping by previous investigators. Mitigation Measure 5.3 requires an archaeological monitor be present for any construction site disturbance within the previous mapped limits of the CA-SIE-1007. Any discovery of archaeological material would be treated in accordance with Mitigation Measure 5.4.

With the implementation of Mitigation Measures 5.1, 5.2 and 5.3, the proposed project would have a less than significant impact associated with adverse changes or destruction of archaeological resources.

c. **No Impact.** No known paleontological resources or designated unique geologic features are known to occur on the project site. The hot springs carry no unique designation. No impact.

d. **Less than Significant with Mitigation.** The proposed project includes grading and earthmoving. While no human remains or burial areas are known to exist in the area, buried or concealed resources, including human remains, could potentially be present and could be unearthed during construction or ground disturbance activities. Should Native American human remains be discovered on the project site during project implementation, the project proponent will be required to comply with all applicable guidelines of California Health and Safety Code Section 7050.5 and Public Resources Code Sections 5097.94, 5097.98 and 5097.99, which require specific mitigation measures to be implemented in the event of discovery of human remains or evidence of burials. Implementation of Mitigation Measure 5.4 would ensure that any subsurface artifacts found during excavation are appropriately evaluated and protected from project impacts and that impacts associated with inadvertent discovery of Native American human remains would be less than significant.

Mitigation Measures

Mitigation Measure 5.1a (Cultural Resources) - To ensure preservation onsite of mapped archaeological resources, prior to the start of any construction or excavation activities within 50 feet of archaeological resources, the limits of such resources shall be flagged by a qualified professional archaeologist approved by the County. Orange exclusion fencing shall be installed at the flagged boundary to protect the resource from inadvertent disturbance during construction and excavation work onsite and no earth disturbance shall occur within the boundaries of the fenced exclusion zone.

Mitigation Measure 5.1b (Cultural Resources) - In the event that it is determined that onsite preservation as described by Mitigation Measure 5.1a is not feasible, an archaeological testing and data recovery plan shall be prepared and implemented by a qualified archaeologist approved by the County. The specific attributes and qualities which render the subject site significant should be determined and specified through formal archaeological data collection work. At a minimum, such data collection work (archaeological testing) should include recovery of a sample of cultural material sufficient to evaluate site and midden depth, age and make-up of the components of the sites, and characterization of artifacts and midden constituents in terms of major data categories present. The overall objectives of any such testing work should be to identify those research questions for which these sites contain relevant information, with the research questions representing those presently being expressed by the body of professional archaeologists in the region. Any testing program should culminate in a professional report that contains explicit recommendations for any mitigative-level data recovery work that might be justified or warranted on the basis of the specific findings of testing. The data recovery work shall be carried out in accordance with the recommendations in the report prior to any disturbance to the subject site.

Mitigation Measure 5.2 (Cultural Resources) - Following completion of construction (or completion of any construction phase of the Masterplan), the following measures shall be implemented to protect resources from inadvertent disturbance during resort operations:

a. Exclusion fencing (i.e. split-rail design or other decorative fencing type) shall be installed around the perimeter of sites located within 50 feet of developed facilities. Signs shall be posted to stating that entry to the area is restricted for resource protection.
b. As determined necessary by the County, sites shall be placed into a permanent conservation easement that stipulates maintenance of measures to protect the resource and prohibits all development within the easement.

Mitigation Measure 5.3 (Cultural Resources) - Prior to the start of construction in the vicinity of the mapped boundaries of CA-SIE-1007, the limits of the previously recorded boundary of the site, prior to the revised boundary established by the project cultural report (Jensen, 2016) shall

be flagged or otherwise effectively delineated by a qualified archaeologist approved by the County. Any work within the delineated boundary shall be monitored by the qualified archaeologist. Mitigation Measure 5.4 shall be implemented for any subsurface archaeological materials unearthed during construction.

Mitigation Measure 5.4 (Cultural Resources) - Construction on the project site shall implement the following measures to avoid impacts to archaeological resources or human remains:

- If artifacts or unusual amounts of shell or bone or other items indicative of buried archaeological resources or human remains are encountered during earth-disturbance associated with the proposed project, the onsite contractor shall immediately notify the Sierra County Department of Planning and Building Inspection and all soil-disturbing work shall be halted until a qualified archaeologist completes a significance evaluation of the finds pursuant to Section 106 of the National Historic Preservation Act. Any human remains unearthed shall be treated in accordance with California Health and Safety Code Section 7050.5 and Public Resources Code Sections 5097.94, 5097.98 and 5097.99. The significance evaluation shall include specific measures for the appropriate management of the resources uncovered and shall be submitted to the Sierra County Department of Planning and Building Inspection. No further soil-disturbing work shall be conducted within 100 feet of any resource discovery until an appropriate management plan is developed by a qualified archaeologist for the protection of any significant resources identified. The significance evaluation shall be carried out in consultation with appropriate agencies, including the State Historic Preservation Office, as necessary.

6. GEOLOGY AND SOILS –	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
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.	☐	☐	☒	☐
ii) Strong seismic ground shaking?	☐	☐	☒	☐
iii) Seismic-related ground failure, including liquefaction?	☐	☐	☒	☐
iv) Landslides?	☐	☐	☒	☐
b) Result in substantial soil erosion or the loss of topsoil?	☐	☐	☒	☐
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or	☐	☐	☒	☐

6. GEOLOGY AND SOILS –	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
collapse?				
d) Be located on expansive soil, as defined in Table18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?	☐	☐	☒	☐
e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?	☐	☒	☐	☐

Setting

Topography within the project site slopes slightly downhill to the west, with elevations onsite ranging between 4,960 to 5,250 feet. According to the California Geological Survey, there are no Alquist-Priolo mapped earthquake fault zones within the project area (CDC, 2016). The project site is within a potentially active seismic area. The geotechnical report prepared by Holdrege & Kull (H&K, 2015a) evaluated seismic risk at the project site. H&K's investigation determined that several active and potentially active faults near the project location, including the Dog Valley Fault (active, approximately 16 miles southeast); the Honey Lake Fault (active, approximately 34 miles northeast), the Warm Springs Fault (active, approximately 40 miles northeast), and the Mohawk Valley Fault (active, approximately 3.6 miles west). The geologic maps reviewed also depict a concealed fault trace crossing through the property location; the exact location of the fault is unknown, there is no evidence of recent or active faulting, and H&K's report concluded that the fault is likely inactive.

The NRCS Web Soil Survey maps seven soil types within the Study Area. These include the following:

> Aquolls and Borolls, 0 to 5 percent slopes (AQB) - Aquolls and Borolls are typical of marshes and swales and are very poorly drained. They are derived from igneous, metamorphic and sedimentary rock. This soil is classified as hydric.
>
> Badenaugh-Martineck-Dotta association, 2 to 30 percent slopes (BME) – Badenaugh-Martineck-Dotta soils are very deep, well-drained soils found in alluvium on lake and stream terraces and fans and are comprised of mixed igneous rocks. This soil is classified as hydric.
>
> Kyburz-Trojan complex, 9 to 30 percent slopes (FUE) – Kyburz-Trojan complex are well-drained soils found on mountain slopes and are derived from residuum weathered from volcanic breccia and conglomerate.

Meiss-Waca-Cryumbrepts, wet complex, 30 to 75 percent slopes (MLG) – Meiss-Waca-Cryumbrepts, wet complex are found on mountain slopes and are somewhat excessively drained soils derived from mudflow deposits from andesite and residuum weathered from acidic tuff.

Dotta Sandy Loam, 2 to 9 percent slopes (DfC) – The Dotta series consists of very deep, well drained soils that formed in alluvium weathered from metamorphic and igneous rock sources. They are on alluvial fans and terraces. Slopes are 0 to 30 percent. This soil is classified as hydric.

Portola Cobbly Coarse Sandy Loam, 9 to 30 percent (PrE) - The Portola series consists of moderately deep, well drained soils formed in material weathered from volcanic tuff. They are on convex side slopes of mountains and have slopes of 2 to 75 percent.

Trojan-Sattley-Kyburz complex, 30 to 50 percent slopes (TTF) – Trojan-Sattley-Kyburz complex are deep and very deep, well drained soils found on mountain slopes derived from conglomerate; residuum weathered from basic volcanic breccia.

In the vicinity of the proposed development area some soils unit boundaries shown on NRCS mapping are problematic in that they follow property boundaries and don't appear to reflect soils units mapped immediately adjacent to those boundaries. However, the geotechnical report prepared for the project by Holdrege & Kull provides supplemental soils information and identifies one additional soils type not included in NRCS maps (H&K, 2015a). This soils type is described below:

James Canyon Gravelly Loam, 2 to 5 percent (JbB) - The James Canyon series consists of very deep, poorly drained soils that formed in alluvium derived from mixed rocks. James Canyon soils are on floodplains and alluvial fans. This soil is classified as hydric.

H&K's geotechnical report found no soil or geologic conditions, such as liquefaction, landslide potential, or other geologic or soils instability, that would preclude construction of the proposed Masterplan. H&K's report determined that potentially expansive soil encountered during H&K's investigation of the project site could be adequately addressed with appropriate building methods recommended by the report (H&K, 2015a).

Impacts

a., c., d. **Less than Significant.** No Alquist-Priolo mapped earthquake fault zones occur within the project area and no known faults are identified by the General Plan within the project site. The proposed project is unlikely to result in substantial risk or adverse effects as a result of a seismic event. Project construction and grading and site preparation would be constructed in accordance with provisions of the California

Building Code, CalFire guidelines and Sierra County Code, which include standards to ensure that structures are constructed to withstand anticipated seismic events and that building construction specifications are appropriate to site soil and geologic conditions. Additionally, recommendations of the geotechnical report required to be prepared by the County's Grading Ordinance (Chapter 12.08 of the County Code) would be incorporated into plans and specifications for the proposed project. Risks associated with landslide and seismic-related activity such as rupture of a fault, strong ground shaking, and ground failure, including liquefaction, and risks associated with erosion would be less than significant as a result of compliance with applicable codes.

b. **Less than Significant**. The proposed project could result in a maximum area of disturbance of approximately 63.5 acres for the purposes of grading, surfacing, building construction, landscaping, and septic tank and leachfield installation. Disturbed areas would be subject to erosion and sediment transport unless they are stabilized with appropriate best management practices (BMPs) during and following construction.

Potential for erosion would be minimized by construction BMPs for erosion control that would be implemented during grading and construction activities onsite, as required by conditions of approval enforced by Sierra County and as specified in the SWPPP required as a condition of coverage under the National Pollutant Discharge Elimination System (NPDES). These include measures for slope stabilization, dust control, and temporary and permanent erosion control devices/BMPs. As required by Sierra County's standard Conditions of Approval, erosion control measures in accordance with the High Sierra Resource Conservation District's "Erosion and Sediment Control Guidelines for Developing Areas of the Sierra Foothills and Mountains" will be implemented during construction.

Chapter 12.08 (Grading Ordinance) of the Sierra County Code requires that grading plans for engineered grading include and implement a revegetation plan including temporary and permanent erosion and sediment control facilities, erosion control and slope plantings with appropriate irrigation to maintain such plantings and includes requirements to ensure performance of such measures. With implementation of required erosion control measures and BMPs, impacts from erosion and sedimentation would be less than significant.

e. **Less than Significant.** The following reports were prepared and reviews conducted to evaluate onsite wastewater treatment systems, including onsite disposal of wastewater using septic tanks and leachfields, proposed as part of the Masterplan project:

- Report on Preliminary Soils Testing & Septic Site Evaluation Report (Dodds,

2013)

- Review of Preliminary Soils Testing and Septic Site Evaluation Report (H&K, 2015)
- Response to Holdrege & Kull comments (Dodds, 2016)
- Sierra Hot Springs: Further Peer Review Responses for Sewage Disposal and Water Supply (Nevada City Engineering, 2016)
- Letters from Sierra County Environmental Health Regarding Water Supply and Septic Design (Sierra County, 2016; Sierra County, 2018)

The proposed Masterplan would generate up to 15,900 gallons of wastewater per day (NCE, 2017). The Report on Preliminary Soils Testing & Septic Site Evaluation Report (Dodds, 2013) was prepared to evaluate suitability of the project site for onsite wastewater treatment and disposal utilizing septic tanks and leachfields. As part of that investigation nine soils percolation tests were performed in three different areas of the property. Testing was overseen by the Sierra County Environmental Health Department. The review of the Dodds report prepared by Holdrege & Kull (H&K, 2015b) suggested that additional design information and soils testing could be required to confirm that the site could accommodate onsite wastewater disposal proposed as part of the project.

Dodds's response to the Holdrege & Kull peer review (Dodds, 2016) provided additional details on flow rates for different types of occupancies, anticipated flows for the proposed structures, and mapped out both primary and secondary disposal areas (including leach trench sizing and locations). While the 2016 Dodds report suggested that the campground be limited to no more than 24 campsites due to the wastewater disposal capacity available in the area (the Masterplan proposes 50 campsites), the applicant has proposed vault toilets as an alternative to, or to supplement, wastewater disposal capacity available near the proposed campground site. Other options could be used in the future, including a STEP (septic tank effluent pump) system, to provide for campground wastewater to be piped to appropriate onsite disposal areas to allow for all campground waste to be disposed onsite. All wastewater systems would undergo review by Sierra County Environmental Health for adequacy and adherence to applicable standards prior to issuance of building permits for any phase of the project.

Preliminary testing and design work performed for the 2016 Dodds memo indicates that full buildout of the Masterplan would require up to 8 septic tanks and approximately 7 acres of leachfield, which includes an allowance for a 100-percent leachfield repair area. An additional 31.1 acres has been mapped as potential septic system repair areas to be used in the event of any future leachfield failure. Soils were determined to be suitable for proposed wastewater flows based on the testing

conducted as part of the 2013 Dodds report. Onsite septic tank and leachfield systems are proposed to be installed as individual buildings are constructed and would be constructed and installed in accordance with Sierra County Environmental Health standards. Anticipated locations for septic tanks and leachfields were identified by preliminary testing of onsite soils and would be further defined and evaluated prior to construction to ensure that they meet County Environmental Health standards (Dodds, 2016).

The referenced reports and investigations were reviewed by the Sierra County Department of Environmental Health (Environmental Health) and Environmental Health staff observed soil excavations performed by Dodds to evaluate soil suitability for the onsite wastewater treatment systems proposed as part of the project. Environmental Health determined that soil conditions are appropriate for an onsite wastewater treatment system (Sierra County, 2016; Sierra County, 2018). Environmental Health further determined that soil conditions could support the use of a pumped standard septic system design if inspections of the systems are conducted on an annual basis to ensure proper operation and maintenance of the system.

Since testing of site soils and septic design has only been preliminarily defined, Mitigation Measure 17.1 is provided to ensure appropriate soils testing and review and approval of proposed wastewater system design prior to issuance of building permits for individual components of the proposed Masterplan. Implementation of Mitigation Measure 6.1 would ensure that adequate wastewater disposal capacity exists to ensure that applicable wastewater standards can be met prior to issuance of building permits for all phases of development and would require annual inspections and reporting to Sierra County Environmental Health to ensure that standards would continue to be met during operation of the facility and that appropriate measures are taken by the owner of the resort should deficiencies in the system be identified.

The proposed project includes a graywater system that would divert laundry water, treat it and use it for landscape irrigation on the site. Environmental Health determined that the design of this graywater system must take into account the seasonal suitability of this form of disposal. While peak wasteflow periods may be seasonal (when outside temperatures are above freezing and landscape irrigation is feasible), suitable area for subsurface disposal for peak flow periods during the winter would need to be identified when the laundry wasteflow would need to be diverted into leachlines. The specific details for the laundry wastewater diversion for irrigation is not identified in the proposed Masterplan. Mitigation Measure 6.2 would requires that details of the proposed laundry wastewater diversion be submitted to the County and reviewed and approved prior to permit issuance.

With implementation of Mitigation Measures 6.1 and 6.2 impacts associated with soils incapable of adequately supporting the use of onsite septic tanks and leachfields and proposed seasonal alternative gray water systems would be less than significant.

Mitigation Measures

Mitigation Measure 6.1 (Geology and Soils) - The following measures shall be implemented to ensure appropriate design and operation of proposed onsite wastewater treatment systems:

a. Prior to issuance of any building permit, the applicant shall submit a detailed septic design for the phase of development showing wastewater generation calculations and all details of septic tank, leach field, and pumping systems (if needed). Such final designs shall be based on sufficient soils testing as determined by the Sierra County Sanitarian. Percolation and soils mantle testing shall be sufficient to provide reasonable assurance that the soils are consistent over the initial and repair areas of each system.

b. Nothing shall preclude the use of specially designed systems that may include pre-treatment and filtration of effluent, pressure dosed effluent distribution, filtration media in leach lines, or other techniques that may be available now or in the future as the state of the art for rural wastewater treatment and disposal. Any alternative systems must be approved by the County of Sierra.

c. Any portions of the wastewater system exceeding local jurisdiction thresholds shall be reviewed and approved by the State of California under then prevailing State and Federal laws.

d. Septic tanks and leach lines shall be marked above ground so as to prevent damage from other excavating in the area and so such facilities can be clearly located for maintenance or expansion of the systems.

e. Project septic systems and leach fields shall be inspected annually by the County Sanitarian, who will charge a fee as needed to pay for such review and a brief report to the file. Inspections shall include a review of leach field to assure that they remain undisturbed and that no effluent is surfacing as indicated by puddling and/or sewage odor.

f. All septic systems shall be inspected during installation by the County Sanitarian on a fee basis, or the Sanitarian may opt to require installation certification by the design engineer or other qualified consultant. All inspections shall include a photographic record of the installation prior to backfill.

g. An as-built drawing of all septic systems shall be filed with the County Sanitarian for future use and reference and for annual inspection purposes.

h. Leach field surface areas shall be kept in their natural state without landscaping or irrigation. No activity may occur in leach field areas that could result in compaction or

line breakage, such as allowing vehicle traffic (unless the leach lines are specially designed to be under pavement).

i. Prior to the issuance of a building permit for any of the staff housing, a new well or wells shall be drilled and tested to augment and backup the current water supply as determined by Sierra County, or the State of California if they have jurisdiction. Any new wells shall be sited and served so as to avoid wetland areas with the well, pump house, access, and trenching.

Mitigation Measure 6.2 (Geology and Soils) - In addition to the measures identified by Mitigation Measure 6.1, proposed gray water systems shall be discussed in advance with the Sierra County Environmental Health. Proposed designs for gray water disposal and seasonal application rates and location of application of wastewater shall be reviewed and approved by the County. The final design shall include such provisions as the County may require to assure proper disposal without contamination to groundwater or surface waters. Gray water systems shall be included in annual inspections of disposal systems carried out by the County.

7. GREENHOUSE GAS EMISSIONS –	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	☐	☐	☒	☐
b) Conflict with any applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	☐	☐	☐	☒

Setting

Climate change, which involves significant changes in global climate patterns, has been associated with an increase in the average temperature of the atmosphere near the earth's surface, or global warming. This warming has been attributed to an accumulation of greenhouse gases (GHGs) in the atmosphere. These GHGs trap heat in the atmosphere, which in turn heats the surface of the earth. GHGs include carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), tetrafluoromethane, hexafluoroethane, sulfur hexafluoride, HFC-23 (fluoroform), HFC-134a (1, 1, 1, 2–tetrafluoroethane), and HFC-152a (difluoroethane). While CO_2 is the most prevalent GHG, other GHGs have a higher "global warming potential" than CO_2. To account for these differences, most GHG analyses convert all GHG emissions to CO_2 equivalents (CO_2e). The conversion reflects the relative global warming potential of each individual GHG.

While the greenhouse effect is a naturally occurring process that aids in maintaining the earth's climate, human activities, such as burning fossil fuels and clearing forests, generate additional

GHG emissions, which contribute to the greenhouse effect and result in increased average global temperatures. Further, GHGs may have long atmospheric lifetimes (for example, CO_2 may remain in the atmosphere for decades or even centuries) ensuring that atmospheric concentrations of GHGs will remain elevated for decades. Increasing GHG concentrations in the atmosphere are primarily a result of emissions from the burning of fossil fuels, gas flaring, cement production, and land use changes. In California, the transportation sector is the largest emitter of GHGs, followed by electricity generation (California Energy Commission, 2006). The California Air Resources Board's (CARB) Emissions Inventory Report found the total statewide GHG emissions in 2009 were equivalent to 457 million tons of CO2 (CARB, 2012). Compared with the emissions in 1990, this is a 5.5 percent increase.

Data indicate that global surface temperatures have increased 0.8°C (1.4°F) in the past century, and 0.6°C (1.1°F) in the past three decades. Temperatures are expected to continue to increase as a result of increasing concentrations of GHGs. The increased temperatures are anticipated to lead to modifications in the timing, amount, and form (rain vs. snow) of precipitation; changes in the timing and amount of runoff; deterioration of water quality; and elevated sea levels. In turn, these changes could be associated with increased flooding and other weather-related events, increased salinity levels in coastal groundwater basins, changes in water supply availability, changes in agricultural activities, changes in the range and diversity of wildlife and vegetation, and changes in conditions related to wildfires.

In 2006, the State of California enacted Assembly Bill (AB) 32, the Global Warming Solutions Act. AB 32 requires reducing statewide GHG emissions to 1990 levels by 2020. Meeting the AB 32 reduction targets will require an approximately 30 percent reduction compared with a "business as usual" scenario. The state's plan for meeting these reduction targets is outlined in the CARB Climate Change Scoping Plan (CARB, 2008).

CARB's Scoping Plan fact sheet states "This plan calls for an ambitious but achievable reduction in California's carbon footprint – toward a clean energy future. Reducing greenhouse gas emissions to 1990 levels means cutting approximately 30% from business-as-usual emissions levels projected for 2020, or about 15% from today's levels."

The strategies in the AB 32 Scoping Plan most applicable to the proposed project are goals to increase the energy efficiency of buildings and appliances and to reduce emissions associated with transportation – both by encouraging use of alternative forms of transportation and by increasing vehicle fuel efficiency.

Impacts

a., b. **Less than Significant**. Sierra County does not have established significance thresholds for GHG emissions and does not employ a specific strategy for mitigation of GHG

emissions. The project area is located within the jurisdiction of the NSAQMD. NSAQMD has not established significance thresholds for GHG emissions and has no published guidance for evaluating the significance of GHG emissions.

In the absence of local or regional GHG thresholds and GHG reduction plans, the California Air Pollution Control Officer's Association (CAPCOA) White Paper on CEQA and Climate Change provides analysis of potential GHG thresholds that can be applied to the proposed project to analyze the potential significance of project GHG emissions. The lowest potential threshold presented in the White Paper is 900 metric tons of CO_2e annually ($MTCO_2e$). Short-term emissions from construction equipment would not result in a cumulatively considerable contribution to global GHG emissions. GHG emissions during construction of the Masterplan project, would primarily be generated by worker vehicle trips to the site and by emissions from operation of gas and diesel-powered construction equipment. Table 7-1 identifies the estimated amount of construction GHG emissions associated with each construction phase, and the anticipated annual emissions for each year in which construction would occur. It is noted that, in the absence of formal project phasing, emissions modeling assumed an accelerated buildout scenario in which all priority components of the Masterplan would be constructed in a single year. It is likely that buildout would occur at a slower pace and that GHG emissions would therefore be lower in any given year. As shown in Table 7-1, modeling results indicate that the proposed project could generate a maximum of 103.27 MTCO2e annually under the assumed buildout scenario. This is substantially below the threshold recommended by the CAPCOA White Paper. Impacts associated with GHG emissions during construction would therefore be less than significant.

Table 7-1
Construction GHG Emissions

Year	Construction Phase	Number of Days in this Phase	GHG Emissions (MT CO2e)
2017	Site Preparation	12	22.32
	Paving	10	11.32
	Grading	10	26.78
	Building Construction	30	41.68
	Architectural Coatings	8	1.17
		Total	103.27

Operational GHG Emissions

The project would generate just over 716 $MTCO_2e$ annually during operation, according to emissions modeling results (Appendix B). Therefore, the GHG emissions associated with construction and operation of the Masterplan project would have a less than

significant impact on global climate change and attainment of the statewide GHG reduction goals and would result in no impact associated with a conflict with plans, policies, or regulations adopted to reduce GHG emissions.

Mitigation Measures

No mitigation measures are necessary.

8. HAZARDS AND HAZARDOUS MATERIALS –	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	☐	☐	☒	☐
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?	☐	☐	☒	☐
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 sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	☐	☐	☐	☒
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?	☐	☐	☐	☒
g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	☒	☐
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?	☐	☒	☐	☐

Setting

No schools exist within 0.25 mile of the project site. The project site is not included on any list of hazardous materials sites (DTSC, 2017). The Sierraville Dearwater Airport is a public airport owned and operated by Sierra County that is located on property adjacent to the project site. The airport has no lighting and does not have a control tower. It has a single asphalt runway that is 3,260 feet long and 50 feet wide and runs in a general northeast-southwest alignment. At its

nearest point, the runway is approximately 510 feet from the northernmost portion of the project site (proposed campground area). Section 15.08.040 of the Sierra County Ordinance Code defines an "Airport clear zone," as a rectangular horizontal area located at each end of the primary runway surface, longitudinally centered on the runway centerline and extending outward along the centerline of the runway for a distance of 1,000 feet. There are no private airstrips in the vicinity of the project site. An airport land use plan has not been prepared for the Sierraville Dearwater Airport.

The site falls within a State Responsibility Area (SRA) and Cal Fire places portions of the site into Moderate and Very High Fire Hazard Severity Zones (Cal Fire, 2007). Wildland fire protection within SRAs is provided through a mutual aid agreement between Cal Fire and the U.S. Forest Service (USFS). In addition, fire protection services are provided by the Sierra County Fire Protection District, which includes the Sierraville Volunteer Fire Department and the Calpine Volunteer Fire Department (located approximately 10 miles north of the project site). A volunteer fire and rescue station is also operated out of Loyalton (located approximately 14 miles from the project site).

No formal emergency response plan or emergency evacuation plan applies to the project area. Emergency access to the project site is provided by Campbell Hot Springs Road via Lemmon Canyon Road and SR 49.

Impacts

a., b. **Less than Significant.** The proposed project would expand existing facilities, including lodges, cabins, pools, restaurant, and camping facilities, and would not result in routine transport, use, or disposal of hazardous materials other than typical materials used for operations and maintenance of a resort facility, such as small quantities of cleaning agents, fuel, and paints. Construction activities would involve the use of common construction materials, such as paints and adhesives, small quantity petroleum products, and asphalt, which could contain hazardous substances. By complying with storage and use guidelines included on the packaging of such materials, the proposed project would not create significant hazards to the public. The project would not require storage or use of any large volumes of flammable and/or hazardous materials during construction. Storage and use of propane gas for use in resort operations would be in accordance with applicable standards and regulations. Impacts from transport, use, or disposal of hazardous materials would be less than significant.

c. **No Impact.** There is no school with a quarter-mile of the project site. Therefore, the proposed project would have no impact associated with hazardous substances in close proximity to a school.

d. **No Impact.** The proposed project is not within an area that is included on the list of hazardous materials sites compiled pursuant to Government Code 65962.5. Thus, the project would have no impact.

e **Less than Significant.** The project is located adjacent to the Sierraville Dearwater Airport. The airport consists of a asphalt airstrip and is used infrequently for occasional summertime flybys by small aircraft. In 2015, the airport reported 1,000 aircraft operations or an average of 83 operations per month (AirNav, 2017). No airport land use plan has been prepared for this airport. The proposed campground is located in close proximity to the airport, but is not within critical take-off or landing zones, and the single-story buildings proposed as part of the campground facility would have no effect on airport operations. The remainder of the buildings proposed as part of the project are located farther from the airport runway near the existing resort development and would have no effect on airport operations. Impacts from hazards associated with people working or residing in the vicinity of the Dearwater Airport as a result of the proposed project would be less than significant.

f. **No Impact.** The Sierraville Dearwater Airport is a public airport. No private airstrip is located in the vicinity of the proposed project. No impacts associated with proximity to a private airport would result from implementation of the proposed project.

g. **No Impact.** No formal emergency response plan or emergency evacuation plan applies to the project area. The proposed project would not impair implementation of, or physically interfere with, an adopted emergency response plan or emergency evacuation plan. No impact would result from impairment of an adopted emergency plan.

h. **Less than Significant with Mitigation.** The project site is located in a heavily wooded area adjacent to the Tahoe National Forest and is within a Very High Fire Hazard Severity Zone. Because the site is within an SRA, California Public Resources Code Section 4290 (PRC 4290) requires site access and future construction on the proposed site to comply with the SRA Fire Safe Regulations (Title 14). These regulations address requirements for site access (road width and grade, turnarounds), signage and building numbering, emergency water, and fuel modification (defensible space).

Due to the location of the proposed project within a wildland setting, the Applicant and County staff conducted early consultation with Cal Fire and the Sierra County Fire Protection District #1 (SCFPD #1) to evaluate the project design and identify appropriate measures to reduce fire risk and to ensure compliance with applicable fire safe regulations. It was determined that at two existing access roadways within the Masterplan area fail to meet the Title 14/PRC 4290 Dead End Road Standard, which specifies maximum dead-end road lengths. Consultation with County staff, SCFPD #1, and Cal Fire identified specific mitigation measures that would ensure that

the existing non-compliant dead-end road length would result in no substantial risk associated with wildfire or limitations on emergency access. It was determined that implementing these measures would result in the "same practical effect" or equivalent level of fire safety as compliance with the dead-end road standard, which is allowable under Title 14 (14-CCR-1273.07) if the adopted standards cannot feasibly be implemented. Measures identified to reduce wildfire risk associated with access limitation are provided in Mitigation Measure 8.1 and Mitigation Measure 8.2 and include oversized water lines supplying the fire hydrant system, a Vegetation Management Plan, shelter in place requirements, an Evacuation and Shelter in Place Plan, installation of fire boxes at each fire hydrant, a trained Emergency Response Team comprised of onsite staff, and roadway design and access requirements.

The proposed project would include a new 135,000 gallon water tank at the high point of the property. The stored water would be used for domestic uses and to fulfill fire flow requirements. Mitigation Measure 8.2 would ensure that the tank and associated fire infrastructure and water distribution system complies with Cal Fire design and installation requirements.

Mitigation Measure 8.3 and Mitigation Measure 8.4 would ensure compliance with fire safe requirements for project design and construction, onsite circulation, and defensible space and require consultation with Cal Fire prior to issuance of building permits to identify the need for additional fire suppression systems and / or water storage. With implementation of Mitigation Measures 8.1, 8.2, 8.3 and 8.4, impacts associated with fire risk would be less than significant.

Mitigation Measures:

Mitigation Measure 8.1 (Hazards) - The following measures shall be implemented to the satisfaction of Cal Fire, SCFPD #1 and the Sierra County Department of Planning and Building Inspection.

a. The section of water line supplying the hydrant system from the "Existing Main Lodge" to the bifurcation near the "Dragonfly Lodge" parking lot shall be increased to 8".
b. A Vegetation Management Plan shall be developed for the purpose of removing, thinning, and maintaining vegetation throughout the facility.
    i. The standard for the plan will mirror the Defensible Space standards of PRC 4291 and will provide;
        a. Twenty feet (20') of vegetation management on each side of all roadways measured from the shoulder.
        b. Five feet (5') of vegetation management on each side of all walking paths measured from the center of the path.

c. Two Hundred feet (200') of vegetation management around all structures or to the property line, whichever is closer.

d. One hundred feet (100') vegetation management around the 135,000 gallon water tank.

e. One hundred feet (100') vegetation management around all campsites.

f. This Vegetation Management Plan will live in perpetuity with this facility and any further development identified will, at a minimum be subject to the same conditions.

c. Two shelter in place sites have been identified.

i. Shelter in Place Site #1, shall be on the east side of Campbell Hot Springs Road directly across from the Main Reception/Day Use Parking area and shall be comparable in size to the shelter in place area shown on the Master Site Plan.

ii. Shelter in Place Site #2, shall be on the east side of Campbell Hot Springs Road directly south/southeast of the "Existing Meadow Edge House", extending to the access road north of the restaurant, and be comparable in size to the shelter in place area shown on the Master Site Plan.

iii. Final locations of the shelter in place sites shall be approved by Cal Fire.

d. An Evacuation Plan and a Shelter in Place Plan shall be developed for the entire site and shall;

i. Identify the duties/roles of staff during implementation of the plans;

ii. Identify the common communication that will be utilized during an event;

iii. Require regular practice drills to educate and ensure practices are followed;

iv. Integrate with emergency response needs of the SCFPD #1.

e. Fire Boxes shall be installed at hydrant locations. Each Fire Box shall contain a cache of hose, nozzle, hydrant wrench, and any additional appliances deemed necessary by the SCFPD#1.

f. A trained onsite Emergency Response Team shall be developed and maintained. The Emergency Response Team will be comprised of Sierra Hot Springs staff. The primary mission of the Emergency Response Team shall be:

i. Assist with implementing the Evacuation or Shelter in Place Plans from all or specific areas within the facility to ensure guests are guided to exits and/or designated shelter in place sites.

ii. Assist with guiding emergency first responders during a fire or medical emergency event.

iii. The Emergency Response Team will conduct annual training with the SCFPD#1 on building/facility evacuation and best practices to assist the SCFPD#1

Mitigation Measure 8.2 (Hazards) - The final design for the proposed Masterplan shall incorporate the following measures to ensure appropriate emergency access within the Masterplan area. Final site plans shall be reviewed and approved by Cal Fire, SCFPD #1 and the Sierra County Department of Planning and Building Inspection to ensure implementation of the measures below and compliance with current fire safe standards and regulations.

a. All roads shall be constructed to provide a minimum of two ten (10) foot traffic lanes.

b. All roads shall be designed and maintained to support the imposed load of fire apparatus weighing at least 75,000 pounds and provide an aggregate base.

c. No roadway shall have a horizontal inside radius of curvature of less than 50 feet and additional surface width of 4 feet shall be added to curves of 50-100 feet radius; 2 feet to those from 100-200 feet.

d. Turnarounds are required on driveways and dead-end roads. The minimum turning radius for a turnaround shall be forty (40) feet, not including parking, in accordance with the following figure. If a hammerhead/T is used instead, the top of the "T" shall be a minimum of sixty (60) feet in length.

e. Turnouts shall be provided and shall be a minimum of twelve (12) feet wide and thirty (30) feet long with a minimum twenty-five (25) foot taper on each end.

f. Gate entrances shall be at least two (2) feet wider than the width of the traffic lane(s) serving that gate and a minimum width of fourteen (14) feet unobstructed horizontal clearance and unobstructed vertical clearance of fifteen (15) feet.

g. The access road to the Warm Pool may remain a single lane roadway with the utilization of turnouts in approved locations and the addition of the gated access way for emergency vehicles only. This access way will connect the single lane roadway from the Warm Pool to the Sacred Circle Campground.

h. The access road to the Phoenix Pool may remain a single lane roadway with the utilization of turnouts in approved locations and the identification of the secondary access road west of the Main Lodge.

i. Site improvements shall comply with Cal Fire defensible space standards and other specifications and standards for fire safety, including: width and grade, signage and address requirements, construction standards, and creation and maintenance of defensible space.

Mitigation Measure 8.3 (Hazards) - The proposed water tank and plumbing shall be constructed in accordance with Cal Fire design and installation requirements; shall be placed underground or otherwise designed to avoid freezing conditions; and shall contain apparatus approved by serving fire entities that complies with current fire agency standards and specifications. The location of the tank shall be approved by the serving fire entities and the

Planning Department. On-going maintenance of the tank and plumbing shall be the responsibility of the property owner.

Mitigation Measure 8.4 (Hazards) - The project shall implement the following requirements to minimize impacts related to fire hazards:

a. All new buildings shall have roofing constructed with Class A materials, and street and building address signs designed to Cal Fire standards. All new construction shall be required to comply with California Building Code Chapter 7A, ignition-resistant building code standards.

b. Cal Fire shall be consulted during the processing of building permit applications and may require, at their discretion, additional fire suppression systems (sprinklers, etc.) and/or water storage requirements.

9. HYDROLOGY AND WATER QUALITY –	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) Violate any water quality standards or waste discharge requirements?	☐	☒	☐	☐
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)?	☐	☒	☐	☐
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?	☐	☐	☒	☐
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?	☐	☐	☒	☐
f) Otherwise substantially degrade water quality?	☐	☐	☒	☐
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?	☐	☐	☒	☐
h) Place within a 100-year flood hazard area structures which would impede or redirect flood flows?	☐	☐	☒	☐
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?	☐	☐	☒	☐

9. HYDROLOGY AND WATER QUALITY –	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
j) Inundation by seiche, tsunami, or mudflow?	☐	☐	☐	☒

Setting

The jurisdictional wetland delineation performed by Dudek mapped approximately 2.41 acres of jurisdictional wetlands and waters within the approximately 65-acre project site. This included an ephemeral drainage, willow riparian scrub community, perennial marsh, and a spring-fed creek. An expansive wetland complex abuts the proposed Masterplan area on the north. One intermittent drainage flows north to the wetland complex across portions of the proposed Masterplan area, east of the location for the proposed Firefly Lodge and Guest Cabins, and smaller spring-source creeks exist near the Phoenix complex, the Meditation Pool, the warm pool area, and just east of the existing Lodge. Two onsite springs supply domestic water to the existing resort complex; the North Spring and the South Spring. The South Spring is used as the primary water source for the existing hot springs resort. According to the Water Systems Planning Study prepared for the proposed project, "some effort seems to have been made to prevent contamination" from surface water at each of the existing spring sources (SEI, 2015). Combined flow rate of both springs as measured in September of 2013 was 30.5 gallons per minute (SEI, 2015). An intermittent drainage flows to the northwest along the eastern boundary of the potential disturbance area associated with the proposed Masterplan.

No formal groundwater evaluation was conducted to evaluate groundwater availability within the project area. However, there are no known issues regarding lack of water availability in the project area and the Sierra County Environmental Health Department has indicated that there are no specific concerns in regard to the availability of groundwater in the area.

The County requires all projects requiring engineered grading to prepare a drainage study to analyze proposed drainage improvements and pre- and post-project site stormwater runoff. Pursuant to County Code Section 12.08.560, proposed drainage facilities must ensure that offsite drainage to adjacent properties is no greater in quantity and concentration than that which existed prior to the project. Any project involving more than 1 acre of disturbance requires coverage under a National Pollution Discharge Elimination System (NPDES) permit for construction activities which requires preparation and implementation of a Stormwater Pollution Prevention Plan (SWPPP) prepared by a certified designer and monitoring of stormwater throughout construction by a certified practitioner. Additionally, any project disturbing 1 acre or more requires compliance with Rule 226 of the Northern Sierra Air Quality

Management District and implement dust control measures during construction. All projects are required to implement best management practices (BMPs) for erosion control and stormwater quality maintenance during project construction in accordance with the High Sierra Resource Conservation District's "*Erosion and Sediment Control Guidelines for Developing Areas of the Sierra Foothills and Mountains,*" as required by Sierra County grading permit conditions of approval. BMPs are required to be specified by an erosion control plan that is incorporated into the approved grading plan to ensure that they are implemented during construction.

Flood Insurance Rate Map 06091C0430C shows that the project site is not within a designated special flood hazard area (FEMA, 2012).

Impacts

a. **Less than Significant.** The proposed project would construct nearly 90,000 square feet of new buildings and associated hardscape and impervious surfaces to the project site. Increased hardscape and impervious surfaces would increase runoff from developed areas with potential to increase sediment and pollutant transport in stormwater runoff.

Construction of the proposed project would result in disturbance of up to 63.5 acres for site preparation, grading and building construction. Construction activities have potential to result in erosion in disturbed areas and sediment transport to local waterways from surface runoff. In addition, accidental release of pollutants used during construction, such as petroleum products, paints, solvents, adhesives, and other substances, has potential to degrade water quality if transported offsite.

As decribed in the setting section above, construction activities onsite would be required to implement BMPs for erosion control and stormwater quality maintenance during project construction in accordance with the High Sierra Resource Conservation District's *"Erosion and Sediment Control Guidelines for Developing Areas of the Sierra Foothills and Mountains,*" to comply with conditions of approval of the grading permit issued by the County. BMPs would include measures for slope stabilization, dust control, and temporary and permanent erosion control devices/BMPs, such as perimeter straw waddles at all disturbed grading areas, inlet protection at all new and existing inlets subject to potential sediment flow, rock construction entrances and designated protected concrete washout areas. Additionally, the project would be required to obtain permit coverage under the NPDES General Permit for Discharges of Storm Water Runoff Associated with Construction Activity and prepare and implement a SWPPP to protect stormwater runoff quality during and following construction. The provisions of the NPDES permit require implementation of Best Available Technologies/Best Control Technologies (BAT/BCT) and BMPs to control and abate the discharge of pollutants in storm water discharge. The

SWPPP would also specify spill prevention and containment measures that would be employed during construction to reduce the risk to water quality associated with inadvertent release of pollutants. .

The proposed project would rely upon onsite wastewater disposal using septic tanks and leachfields. Please refer to the discussion of capability of onsite soils to support the proposed onsite wastewater treatment and disposal systems in Section VI.e (Geology and Soils). Mitigation Measure 9.1 requires implementation of Mitigation Measures 6.1 and 6.2, which require review and approval of proposed wastewater disposal systems prior to issuance of building permits and annual monitoring to ensure systems are functioning properly. The proposed project would be required to comply with all Sierra County Health Department standards for septic and sewage systems design and operation. The existing septic and leach field system would be expanded and fortified to support the proposed project. The proposed project would not violate any water quality standards or waste discharge requirements associated with wastewater disposal.

With implementation of BMPs required by County code, as specified in the SWPPP to obtain NPDES coverage, and measures required by Mitigation Measure 9.1, the proposed project would comply with applicable water quality and waste discharge standards and would not otherwise substantially degrade water quality. Impacts associated with violation of water quality standards or waste discharge requirements would be less than significant.

b. **Less than Significant.** No formal groundwater evaluation was conducted to evaluate availability of groundwater to meet demand of the proposed Masterplan. However, based on review of existing wells in the area and knowledge of existing groundwater conditions, Sierra County Environmental Health has identified no concerns in regards to availability of groundwater to meet project needs. Please refer to Section XVII.d for an expanded discussion of project groundwater demand and availability. Implementation of Mitigation Measure 17.1 would ensure that groundwater supply is adequate to meet project demand and that groundwater levels and capacity are evaluated prior to issuance of building permits for any proposed component of the Masterplan. Impacts to groundwater would be less than significant.

c.-f. **Less than Significant.** As discussed above, the proposed project would result in the addition of approximately 89,580 square feet of new buildings and associated hardscape and impervious surfaces. The project would involve minor redirection of local sheet flow to direct upslope drainage around retaining walls and provide for drainage from the driveway surface, but would result in no alteration to major drainage features in the project area or overall hydrology of the project site. BMPs implemented as discussed in *a*, above, would ensure control of erosion and sedimentation onsite. At buildout the proposed Masterplan

would increase surface runoff from developed areas. The County will require the applicant to prepare a drainage study to analyze proposed drainage improvements and pre- and post-project site stormwater runoff. Pursuant to County Code Section 12.08.560, drainage facilities must ensure that offsite drainage to adjacent properties is no greater in quantity and concentration than that which existed prior to the project. The applicant would be required to construct drainage facilities in accordance with County specifications to meet this standard. Compliance with County Code would ensure that the project results in no on or offsite flooding and does not exceed the capacity of accepting drainage systems. Impacts associated with alteration of on or offsite drainage patterns, increased runoff, or general degradation of water quality would be less than significant.

g. - i. **No Impact.** The project site is not located within a 100-year flood hazard area as identified on the Flood Insurance Rate Map (#0602100608D) (FEMA, 1997). The project would not place any structures within a 100-year flood hazard area, nor would it expose people or structures to risks associated with flooding. Therefore, the project will have no impact.

j. **No Impact.** The project site is physically removed from any large body of water and is not subject to inundation by seiche, tsunami, or mudflow. The project would have no impact associated with these hazardous conditions.

Mitigation Measures

Mitigation Measure 9.1 (Hydrology and Water Quality) - Implement Mitigation Measures 6.1 and 6.2.

10. LAND USE AND PLANNING –-	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) Physically divide an established community?	☐	☐	☐	☒
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?	☐	☐	☐	☒
c) Conflict with any applicable habitat conservation plan or natural community conservation plan?	☐	☐	☐	☒

Setting

The project site is within the unincorporated rural community of Sierraville. Land use designations and regulations for permitted land use activities on the project site are set forth in the Sierra County General Plan and implemented by the County's Zoning Ordinance. The Sierra County General Plan places the resort property within the Sierraville Community Core and applies a land use designation of VC-MUR-PD-PS (Visitor Commercial-Multiple Unit Residential-Planned Development; and Public Services for a park) to the proposed Masterplan area. The proposed Masterplan project site is within a General Forest (GF) zone district. Zoning has not yet been updated to match the land use designation applied to the site to permit land uses envisioned by the adopted general plan. No conservation plans are applicable to the project site.

Impacts

a. **No Impact.** The project includes no components that would result in a physical division of an established community and would not generate an impact related to such division. The proposed project site is located 1.5 miles outside of the unincorporated community of Sierraville. It is located in a largely undeveloped area. The project would have no impact related to the physically dividing the community.

b. **No Impact.** The proposed project includes changing the zoning designation for the project site from Agricultural (A-1) and General Forest (GF) to Planned Development with Site Performance Combining District (PD-SP) to allow development on the site consistent with the land use designation identified by the General Plan (VC-MUR-PD-PS). The PD-SP zoning provides for specialized consideration of unique or sensitive areas and/or to allow the refinement and tailoring of specific use standards and regulations for property when the County determines that general provisions and regulations do not address all of the issues that may arise affecting the development and use of the property. This change in zoning would allow implementation of the proposed project Masterplan in accordance with the County's General Plan. Under the proposed PD-SP zoning, the proposed project would require a Conditional Use Permit and Development Agreement to provide for the uses proposed by the Masterplan. Other sections of this Initial Study address compliance with other applicable regulations adopted for environmental protection. Through the site plan review, building permit, and special use permit issuance processes, the County will ensure that construction and development activities at the site comply with all applicable County Code requirements and that no impacts would result from any conflict with applicable land use plans, policies, or regulations.

c. **No Impact.** The project site does not fall within the jurisdiction of any habitat conservation plan.

Mitigation Measures

No mitigation measures are necessary.

11. MINERAL RESOURCES –	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	☐	☐	☐	☒
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?	☐	☐	☐	☒

Setting

The project site does not provide access to any known mineral resources nor is it a part of a locally important mineral resource recovery site identified by any plan applicable to the project site (Sierra County, 1996). No active mining operations occur within the project site.

Impacts

a., b. **No Impact.** The project would result in the use of existing buildings and facilities and the addition of the new buildings within an area with no known mineral resources and no active mineral resource extraction operations. Implementation of the proposed project would have no impact on access to or availability of any mineral resources.

Mitigation Measures

No mitigation measures are necessary.

12. NOISE	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project result in:				
a) Exposure of persons 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?	☐	☒	☐	☐
b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?	☐	☒	☐	☐
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	☐	☒	☐	☐

12. NOISE	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project result in:				
the project vicinity above levels existing without the project?				
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?	☐	☐	☒	☐
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?	☐	☐	☐	☒

Setting

Sources of noise in the project vicinity include existing rural residential land uses as well as SR 49, Campbell Hot Springs Road and Sierraville Dearwater Airport, which are located along the eastern boundary of the project site. Noises typical of rural residential and agricultural land uses include those generated by motor vehicles, gas-powered maintenance equipment, and temporary construction noise. Typical sources of noise on the project site include vehicles, visitors engaging in recreational activities associated with the hot springs resort and camping area, and operation of maintenance equipment.

Sierra County has no adopted noise ordinance, but the Noise Element of the General Plan does provide a basis for comprehensive local noise policies and includes noise level standards for development projects. The Noise Element of the *Sierra County General Plan* indicates that the maximum allowable continuous noise exposure for residential and transient lodging (hotel) land uses within the County is 65 decibels and the maximum conditionally allowable noise exposure for residential land uses within the County is 70 decibels and 75 decibels for transient lodging. Noise level measurements taken throughout the County and provided by the General Plan indicate that average noise levels throughout the County are below maximum allowable levels. There are no sources of continuous elevated noise generation in the proximity of the project site and the County has determined that no formal noise study is necessary to evaluate existing noise levels at the project site.

Impacts

a., b. & d. **Less than Significant with Mitigation.** The proposed project would expand existing onsite uses.

Heavy equipment employed in construction of the proposed project would generate ground-borne vibration and noise that could temporarily exceed the General Plan noise

level thresholds onsite and would result in temporary increases in noise levels experienced in the project area. However, noise generation in excess of General Plan threshold levels resulting from construction activities associated with the proposed project would be temporary and sporadic in nature, and would be experienced only by residents and guests on the resort property, since no other noise sensitive land uses occur in close proximity to the project site. Mitigation Measure 12.1 requires that construction activities be conducted during daytime hours, when construction activities would result in the least disturbance to those in the area. With these time restrictions on hours of construction operations, impacts resulting from temporary construction noise and vibration would be less than significant.

The proposed project would not significantly increase noise levels in the area. Noise sources from the proposed project would include motor vehicle operation, patrons camping, recreating and using onsite amenities, which are anticipated to be similar to existing noise sources and noise level generation. Resort activities associated with the Masterplan are typically low-level noise generators and low noise levels are typically encouraged within the resort area. Thus, the project would have a less than significant impact.

c. **Less than Significant**. The proposed project would expand existing facilities over a 20-year period in accordance with its master plan. The final project would support an additional 135 patrons and staff (a 34% increase). At its completion, the project would be expected to comply with the Sierra County General Plan; accordingly, any increase in noise would not be expected to exceed noise standards identified in the General Plan and would be consistent with the existing noise environment in the project area. Impacts resulting from a permanent increase in ambient noise levels would be less than significant.

e., f. **Less than Significant**. The proposed project is adjacent to the public Sierraville Dearwater Airport; no private airport exists in close proximity to the project site. The airport consists of a gravel land strip. Due to the infrequent use of this small, rural airport by small aircrafts, impacts associated with noise exposure resulting from airport uses would be less than significant.

Mitigation Measures

Mitigation Measure 12.1 (Noise) - The project shall implement the following requirements to minimize impacts related to noise:

The project applicant/contractor shall restrict hours of construction activity to daytime hours of operation between 7:00 a.m. and 7:00 p.m., Monday through Friday. Construction hours on

Saturdays shall be from 9:00 a.m. to 6:00 p.m., and on Sundays and observed holidays, construction may occur only between the hours of 10:00 a.m. and 6:00 p.m.

13. POPULATION AND HOUSING –	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	☐	☐	☒	☐
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?	☐	☐	☐	☒

Setting

The proposed project site is 1.5 miles outside of Sierraville, an unincorporated community that sits at the SR 49 / SR 89 intersection. As of the 2010 census, the population of Sierraville was 200. The project site is accessed by Campbell Hot Springs road, from Lemmon Canyon Road, from SR 49. The existing resort has onsite wells for water supply and onsite septic systems are used for wastewater treatment and disposal, as is the case for all properties in the surrounding rural area. The project site does not maintain permanent populations outside of the existing resort staff who live in an onsite manager's unit and the existing lodge. The Meadow House is an aging structure in the vicinity of the main lodge and is sometimes used to house onsite resort staff.

Impacts

a. **Less than Significant**. The proposed project would expand recreational facilities at the Sierra Hot Springs. While this would increase capacity of the facilities by 135, only 53 would be permanent residents, either staff or staff dependents, and this population increase would occupy residential units within the proposed project. This increase in onsite population does not represent a significant increase in population in the project area that would be expected to result in substantial physical impacts. Additionally, the proposed project would not be expected to indirectly encourage further increases in population, since it would be served by existing roads and would not extend infrastructure that would be expected to result in additional development not envisioned by the General Plan. Accordingly, the project would have a less than significant impact related to inducing substantial population growth in the area.

b., c. **No Impact.** The proposed project would demolish the dilapidated Meadow House than

sits near the entrance to the existing resort and would replace it with additional onsite staff housing units. Therefore, the project would not displace housing or people that would necessitate the construction of replacement housing.

Mitigation Measures

No mitigation measures are necessary.

14. PUBLIC SERVICES –	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
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?	☐	☐	☐	☒
Police protection?	☐	☐	☐	☒
Schools	☐	☐	☐	☒
Parks	☐	☐	☐	☒
Other public facilities?	☐	☐	☐	☒

Setting

The project area is located within an unincorporated area of Sierra County and is served by the following providers:

Fire Protection. As discussed in **Section VIII Hazards and Hazardous Materials**, above, the project site is within a designated State Responsibility Area with a mutual aid agreement between Cal Fire and the USFS to provide wildland fire protection to the project site. In addition, fire protection services are provided by the Sierra County Fire Protection District, which includes the Sierraville Volunteer Fire Department and the Calpine Volunteer Fire Department (located approximately 10 miles north of the project site). A volunteer fire and rescue station is also operated out of Loyalton (located approximately 14 miles from the project site).

Police Protection. Law enforcement in the project area is provided by the Sierra County Sheriff's Office. The Sheriff's Office maintains a substation in Loyalton, approximately 14 miles from the project site.

Schools. The project area is within the Sierra Plumas Joint Unified School District. The nearest K-12 school within the District is located in Loyalton, approximately 14.3 miles away.

Parks. The proposed project includes recreational options including camping, hot springs, and formal trials. Additionally, the Tahoe National Forest and Plumas National Forest provide regional recreational and multi-use opportunities in the project area.

Other Public Facilities. Sierra County provides maintenance of public infrastructure including streets, traffic signs, snow removal, and stormwater drainage facilities.

Impacts

a. **Less than Significant**.

Fire Protection. The proposed project would remain in the jurisdiction of the existing fire protection agencies and its proposed growth would not require new or expanded fire protection facilities. Therefore, no impact would result from the need to construct new fire protection facilities to serve the proposed project.

Police Protection. The project site is currently serviced by the Sierra County Sheriff's Office, which maintains a substation in Loyalton, approximately 14 miles from the project site. While the Sheriff's office has provided no comments related to the project's potential impact on the provision of law enforcement services, it is anticipated that the small increase (29 individuals) in residential population associated with the project would not require the need for new or physically altered law enforcement facilities. The applicant has indicated that the proposed project would incorporate additional security measures, such as outdoor motion activated lighting and security cameras. Accordingly, the project would not create a need for new law enforcement facilities and no impact would result from construction of new or expanded facilities for law enforcement.

Schools. The project site is within the Sierra Plumas Joint Unified School District. The proposed project includes the addition of 12 staff dependents; it is assumed that some or all of these dependents would attend public schools. The students would likely attend schools in Loyalton, 14.3 miles northeast of the proposed project site. School facilities in Sierra County have low enrollment numbers and it is anticipated that no new school facilities would be required to accommodate the additional students resulting from the proposed Masterplan project. Therefore, the project would have no impact resulting from construction of new or expanded school facilities.

Parks. The proposed project expands onsite existing recreational facilities and recreational uses in the County are generally dispersed in National Forest areas. The proposed expansion of the resort is not expected to increase the demand for recreational facilities such that construction of new facilities would be required. No impact.

Other Public Facilities. The proposed project would not create a need for other new

public facilities, nor will it have an impact on existing facilities or services that would require constructing new facilities. No impact.

Mitigation Measures

No mitigation measures are necessary.

15. RECREATION –	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
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?	☐	☐	☒	☐

Setting

The project site is currently used as a hot springs recreational area and abuts National Forest lands. The surrounding Tahoe National Forest provides recreational and multi-use opportunities including hiking, camping, bicycling, and snow-skiing and is managed by the USFS.

Impacts

a., b. **Less than Significant**. The proposed project would expand onsite recreational / resort amenities and would provide overnight camping and resort services as well as day uses that would be available to nearby populations. As discussed in **Section XIII Population and Housing**, the project would generate a less than significant increase in permanent populations in terms of staff and staff dependents. Therefore, the increase in demand for parks and recreation from project residents would not result in a substantial increase in use of existing neighborhood and regional parks or the physical deterioration of existing recreational facilities, including recreation-supporting facilities on National Forest lands. The proposed project includes recreational/resort facilities, the impacts of which are analyzed within all sections of this Initial Study. It is anticipated that no new public recreational facilities would be required as a result of the proposed project.

Mitigation Measures

No mitigation measures are necessary.

16. TRANSPORTATION/TRAFFIC –	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?	☐	☒	☐	☐
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?	☐	☒	☐	☐
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?	☐	☐	☐	☒
d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☐	☐	☐	☒
e) Result in inadequate emergency access?	☐	☒	☐	☐
f) Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?	☐	☐	☐	☒

Setting

The information and analysis in this section relies upon the traffic impact analysis prepared by KD Anderson and Associates (KDA) for the proposed project (KDA, 2016).

Regional access to Sierra Hot Springs Resort will be via State Route 49 and State Route 89, while local access is provided via Lemmon Canyon Road and Campbell Hot Springs Road. Traffic volume counts conducted on Saturday, September 12, 2015, revealed that SR 49/ SR 89 carried 2,040 vehicles per day (vpd) west of the SR 89 junction, 1,460 vpd east of SR 89, 1,120 vpd west of the Lemmon Canyon Road intersection and 920 vpd north of Lemmon Canyon Road. SR 89 carried 2,400 vpd south of the SR 49 intersection and the SR 49/ SR 89 segment carried 2,040 vpd west of Sierraville. Lemmon Canyon Road carried 270 vpd between SR 49 and Campbell Hot Springs Road and 20 vpd east of that intersection. Campbell Hot Springs Road carried 257 vpd south of Lemmon Canyon Road. Lemmon Canyon Road and Campbell Hot Springs Road provide critical access for a variety of uses that are a benefit to the County, including recreational traffic, fire prevention and protection traffic by the U.S. Forest Service, public land access, private land access beyond the Sierra Valley Floor, ranch access on the southern fringe of the Sierra Valley Floor located in Lemmon Canyon, and finally, to lands up

Campbell Hot Springs Road that include the same uses and categories of use outlined from Lemmon Canyon Road but also include direct access to the County Airport (Sierraville-Dearwater Field) and to the Sierra Hot Springs Resort. Sierra County has long-identified this road network as a high priority for funding opportunities that may arise whether these opportunities occur as a result of specialized grants or through normal funding channels. The current direction issued by the County Transportation Commission and by the Board of Supervisors establishes a high priority to road improvements to Lemmon Canyon Road and Campbell Hot Springs Road through use of normal funding streams as well as possible Economic Development Administration or USDA grant programs.

Caltrans Regulatory Background

Caltrans has jurisdiction over SR 49, SR 89 and the balance of the state highway system. Caltrans aims to maintain a target Level of Service (LOS) at the transition between C and D on state highway facilities. However, Caltrans acknowledges that this may not always be feasible and recommends that the Lead Agency consult with Caltrans to determine the appropriate target LOS. If an existing state highway facility is operating below the appropriate target LOS, the existing LOS should bemaintained.

Caltrans' Transportation Concept Report for State Route 49 identifies long-range improvements and establishes the concept (desired) LOS for specific corridor segments. The report identifies long-range improvements needed to bring an existing facility up to expected standards needed to adequately serve 20-year traffic forecasts. Additionally, it identifies the ultimate design concept for conditions beyond the immediate 20-year design period. The SR 49 TCR establishes LOS D as the acceptable threshold for SR 49 in areas east of Sierraville to the Plumas County line.

Caltrans' Transportation Concept Report for State Route 89 identifies long-range improvements and establishes the concept (desired) LOS for specific corridor segments. The report identifies long-range improvements needed to bring an existing facility up to expected standards needed to adequately serve 20-year traffic forecasts. Additionally, it identifies the ultimate design concept for conditions beyond the immediate 20-year design period. The SR 89 TCR establishes LOS D as the threshold for acceptable conditions on SR 89 in the Sierraville area.

Sierra County Regulatory Background

The Circulation Element of the *2012 Sierra County General Plan* (Sierra County, 1996 with amendments) provides policy direction for the transportation systems that serve the unincorporated lands of Sierra County and describes how the County intends to serve transportation needs for the next 20 years. According to Policy C-1, Level of Service B, as defined in the 1985 Highway Capacity Manual (HCM) shall be the target on all roadways (State and County).

The County General Plan includes a policy that is applicable to Campbell Hot Springs Road, which provides dedicated access to the existing resort and the proposed Masterplan site:

> ***Campbell Hot Springs/Airport Industrial Area in Sierraville.*** *Expansion of the Campbell Hot Springs Resort can be served via an unpaved (gravel) road provided that traffic levels do not exceed 300 vehicles per day (LOS B for a two-lane unpaved road). If daily traffic volumes exceed 300 vehicles per day then a two-lane paved collector road should be constructed to the resort. (See Figure 4-5).*

Level of Service B is therefore applicable as a threshold at which point Policy C-1 would require paving of the gravel access roads serving the resort. In discussing this policy with County staff it was determined that the intent of this policy was to address maintenance needs of the gravel roadways that would occur with higher traffic volumes. LOS B therefore represents an operational threshold provided by the General Plan and the most conservative of the thresholds provided in planning documentation. It is noted that threshold is not consistent with the target Level of Service C as provided in the County's 2015 Regional Transportation Plan (see discussion below). It is considered likely that in the future the County will amend the General Plan to make it consistent with the target Level of Service C as provided in the 2015 Regional Transportation Plan.

Sierra County Transportation Commission

The Sierra County 2015 Regional Transportation Plan (RTP) provides a coordinated, 20-year vision of the regionally significant transportation improvements and policies needed to efficiently move goods and people in the region. As the Regional Transportation Planning Agency (RTPA), the Sierra County Transportation Commission (SCTC) is required by California law to adopt and submit an approved RTP to the California Transportation Commission (CTC) every five years. The California Department of Transportation (Caltrans) assists with plan preparation and reviews draft documents for compliance and consistency.

The 2015 RTP includes Policy 2.1.3 – LOS C as defined in the 2000 Highway Capacity Manual shall be the target on all roadways (State and County).

Impacts

a., b. **Less than Significant with Mitigation**.

The quality of current traffic operations and the impacts of the project were evaluated within the context of methodologies accepted by Sierra County and Caltrans. To quantitatively evaluate traffic conditions and to provide a basis for comparison of operating conditions with and without traffic generated by the proposed Masterplan project, Levels of Service (LOS) were determined for intersections and individual roadway segments in the

vicinity of the project site.

LOS is a quantitative measure of traffic operating conditions whereby a letter grade "A" through "F" is assigned to an intersection or roadway segment. LOS "A" through "F" represents progressively worsening traffic conditions. The characteristics associated with the operation of intersections under various LOS grades are presented in Table 16-1.

Table 16-1
Level of Service Definitions

Level of Service	Signalized Intersection	Unsignalized Intersection	Roadway (Daily)
"A"	Uncongested operations, all queues clear in a single-signal cycle. Average Delay < 10 sec/veh	Little or no delay. Average Delay < 10 sec/veh	Completely free flow.
"B"	Uncongested operations, all queues clear in a single cycle. 10 sec/veh and < 25 sec/veh	Short traffic delays. Delay > 10 sec/veh and < 15 sec/veh	Free flow, presence of other vehicles noticeable.
"C"	Light congestion, occasional backups on critical approaches. Delay > 25 sec/veh and < 35 sec/veh	Average traffic delays. Delay > 15 sec/veh and < 25 sec/veh	Ability to maneuver and select operating speed affected.
"D"	Significant congestions of critical approaches but intersection functional. Cars required to wait through more than one cycle during short peaks. No long queues formed. Delay > 35 sec/veh and < 55 sec/veh	Long traffic delays. Delay > 25 sec/veh and < 35 sec/veh	Unstable flow, speeds and ability to maneuver restricted.
"E"	Severe congestion with some long standing queues on critical approaches. Blockage of intersection may occur if traffic signal does not provide for protected turning movements. Traffic queue may block nearby intersection(s) upstream of critical approach(es). Delay > 55 sec/veh and < 80 sec/veh	Very long traffic delays, failure, extreme congestion. Delay > 35 sec/veh and < 50 sec/veh	At or near capacity, flow quite unstable.
"F"	Total breakdown, stop-and-go operation. Delay > 80 sec/veh	Intersection often blocked by external causes. Delay > 50 sec/veh	Forced flow, breakdown.
Sources: 2000 Highway Capacity Manual, and Transportation Research Board (TRB) Special Report 209.			

The quality of traffic flow can be described using LOS established based on peak hour or daily traffic volume. The Sierra County General Plan makes use of the 1985 HCM methodology that is initially based on peak hour traffic volume. Daily LOS thresholds are then created as a surrogate for peak hour analysis based on typical factors that relate daily and peak hour volumes.

Table 16-2 identifies general traffic volume thresholds presented in the General Plan. These values represent "general" roadway conditions that fall within a range of roadway characteristics (i.e., level, rolling and mountainous terrain, various truck percentage, etc.). For the traffic analysis a set of specific thresholds was also identified for paved roads under conditions that would be relative to Lemmon Canyon Road and Campbell Hot Springs Road (i.e., level two-lane paved road).

Table 16-2
Level of Service Thresholds

Facility	HCM	Criteria	Maximum Daily Volume				
			LOS A	*LOS B*	*LOS C*	*LOS D*	*LOS E*
SR 49 or SR 89	1985	Daily Volume	1,250	3,750	7,500	12,500	25,000
General Local Two Lane Gravel Road			50	300	600	1,000	2,000
General Local Two Lane Paved Road			300	900	1,800	3,000	6,000
Level Two Lane Paved Road			375	1,515	3,190	6,250	11,120

LOS was calculated for different intersection control types and roadway segments using the applicable methodology contained in the 1985 and 2000 Highway Capacity Manual (HCM). LOS thresholds provided by the HCM and given in Table 16-2 are specifically applicable to paved roads and are adapted to apply to unpaved or graveled roads where sufficient roadway maintenance resources are available.

Project Trip Generation

In order to estimate the number of trips generated by the proposed project, KDA calculated trips using trip generation rates published in the Institute of Transportation Engineers' (ITE) *Trip Generation, 9th Edition*. ITE trip generation rates were applied to existing conditions and compared against actual traffic counts taken by KDA during a busy season weekend and were found to substantially exceed trip numbers from traffic counts. Trips for the post-project condition obtained using ITE rates were then adjusted down in proportion to the overestimate observed for values arrived at by applying ITE trip rates to the existing condition. This adjustment was made to reflect the unique nature and rural location of the proposed resort, and to be consistent with actual data obtained through traffic counts. This method created the following estimate of project trip generation presented in Table 16-3:

Table 16-3
Trip Generation Forecasts Based on ITE Rates

Description	Unit	Existing		Build Out	
		Quantity	*Saturday Trips*	*Quantity*	*Saturday Trips*
Co-Manager Residences	dwelling	0	0	2	20
Guest Lodging	unit	10*	82	91	744
Campsites	site	25*	68	50	135
Employee Cabins	unit	0	0	40	123
Pools / Baths	ksf	4.6	151	6.6	213
Restaurants	ksf	1.00	90	5.4	486
Market Gallery	ksf	1.29	57	3.47	154
Total			448		1,875
Total with ½ ITE rate for Lodging			407		1,503
Total with ½ ITE rate for Lodging and 75% of restaurant trips "internal"			340		1,140
Net Increase					800
(*) existing quantity based on occupied sites or units					

The trip generation forecast for the Master Plan represents a high-average busy season estimate. Trip generation would be far lower in winter or cooler months and during weekdays. As a Saturday during the busy summer months experiences the most trips, Saturday was used when estimating impacts as to create the most conservative estimate or "worst-case scenario" As shown in Table 16-3, buildout of the Masterplan is expected to generate 1,140 vehicle trips, which is an increase of 800 trips over the existing condition.

Traffic Operational Analysis

The routes followed by the new trips generated by the proposed Masterplan were determined from review of the current traffic patterns at study intersections during the peak Saturday hour. Most of the traffic in the study area is directed south on SR 89 (i.e., 60%) with lesser share to SR 49 west of Sierraville (30%) and SR 49 north of Lemmon Canyon Road (10%). This observed traffic distribution was applied to calculate anticipated LOS levels that would be encountered at key intersections in the vicinity of the proposed Masterplan.

Table 16-4 compares LOS under the existing condition of the resort (Existing) with conditions that would occur with Build Out of the Masterplan (Ex Plus Project). As shown in Table 16-4, all key intersections would be expected to operate at a minimum of LOS B on a Saturday during the busy season.

Table 16-4
Existing Plus Project Saturday (Busy Season) Peak Hour Intersection Level of Service

Intersection	Control	Saturday Peak Hour Level of Service			
		Existing		*Ex Plus Project*	
		Average Delay (sec/veh)	*Level of Service*	*Average Delay (sec/veh)*	*Level of Service*
SR 89 / SR 49	NB/SB Stop				
Eastbound left turn		0.2	A	0.2	A
Westbound left turn		0,2	A	5.1	A
Northbound approach		10.7	B	11.8	B
Southbound approach		9.9	A	10.7	B
SR 49 / Lemmon Canyon Rd	WB Stop				
Southbound left turn		-	-	0.7	A
Westbound approach		9.1	A	9.7	A
Lemmon Canyon Rd / Campbell Hot Springs Rd	NB Yield				
NB approach		8.7	A	9.0	A

Project trips on project area roadway segments were added to the current daily traffic volumes to identify the "plus project" volumes presented in Table 16-5, and the resulting volumes were compared to applicable daily traffic volume LOS thresholds identified by the General Plan. As shown in Table 16-5, the two State highways would continue to operate at LOS B with buildout of the proposed project. However, the daily volume on the gravel roads serving the resort property, Lemmon Canyon Road and Campbell Hot Springs Road, are projected to result in LOS E on these roadway segments on Saturdays during the busy season at full buildout of the Masterplan, which exceeds the LOS B threshold (300 daily trips) established by the General Plan as well as the LOS C threshold established by the RTP. Exceedance of applicable General Plan and RTP thresholds on roadways serving the resort property would be a significant impact.

Table 16-5
Existing Plus Project Saturday Roadway Segment Level of Service

Road	Location	Surface	Saturday Level of service				
			Existing		Existing Plus Project		
					Daily Volume		
			Daily Volume	Level of Service	Project Only	Total	Level of Service
SR 89	South of SR 49 junction	Paved	2,400	B	480	2,880	B
SR 49	East of SR 89 junction	Paved	1,460	B	720	2,180	B
Lemmon Canyon Rd	SR 49 to Campbell Hot Springs Rd	Gravel	270	B	800	1,070	E
		Paved				1,070	B
Campbell Hot Springs Rd	South of Lemmon Canyon Rd	Gravel	257	B	800	1,057	E
		Paved				1,057	B
Bold values exceed significance thresholds identified by the General Plan and RTP.							

It should be noted that LOS thresholds are generally much lower for gravel roads due to maintenance challenges that occur with higher traffic volumes and that a well-maintained gravel road can carry high traffic volumes despite LOS thresholds identified by the General Plan, particularly over short distances. The total distance of gravel road, including Lemmon Canyon Road and Campbell Hot Springs Road, from SR 49 to the proposed Firefly Lodge is approximately 1.6 miles and terrain is generally level. In the existing condition, traffic counts taken on a busy Saturday in September tallied 270 daily trips on Lemmon Canyon Road and 257 trips on Campbell Hot Springs Road, which closely approaches the LOS B threshold of 300 trips per day (see Tables 16-2 and 16-5). Gravel roads serving the resort have historically received frequent maintenance through informal cooperation between the resort and Sierra County. As shown in Table 16-5, Lemmon Canyon Road and Campbell Hot Springs Road, if paved, would operate at LOS B with the daily traffic added by the proposed project, which is well below the LOS C threshold identified by the County's RTP. Mitigation Measure 16.1 requires that Lemmon Canyon Road and Campbell Hot Springs Road be paved to maintain LOS below significance thresholds as the proposed Masterplan is implemented.

While LOS E exceeds operational thresholds identified by the General Plan for two-lane gravel roadways, with appropriate roadway maintenance no adverse physical impact on the environment is likely to result from traffic operations slightly exceeding or temporarily exceeding LOS B on gravel roads as a result of the proposed project. Operationally, a well-maintained gravel road with higher traffic volumes would result in lower roadway speeds over the short distance of gravel roadway serving the resort. It is noted that while Lemmon Canyon Road and Campbell Hot Springs Road serve no other uses that generate high

volumes of average daily vehicle trips, these roadways serve critical uses that benefit the County, including recreational access, fire prevention and protection access, public land access, private land access beyond the Sierra Valley floor, ranch access in Lemmon Canyon on the southern fringe of the Sierra Valley floor, and access to the County Airport and the Sierra Hot Springs Resort. Therefore, it is appropriate for the applicant to contribute a proportional share of the costs to improve the portions of these roads that provide access to the proposed project to ensure LOS meets General Plan operational thresholds. Mitigation Measure 16.1 requires that the County and the resort operator enter into a maintenance agreement to protect against degradation of the roadway until such time that traffic volumes exceed LOS B and the roadway must be paved (as required by Mitigation Measure 16.1), and that the applicant enter into a cost-sharing agreement with the County to pay a proportional share of the cost to reconstruct / improve Campbell Hot Springs Road.

As no formal project phasing has been identified for the Masterplan, it is unknown what phase of Masterplan implementation would result in exceeding LOS B daily trip thresholds. It is likely that low intensity uses, such as staff housing, water tank and infrastructure construction, and designation of campsites, since camping is already existing onsite, would be accommodated by existing roadway facilities without exceeding thresholds. Therefore, Mitigation Measure 16.1 requires that the County and the applicant identify project components that would be expected to generate a substantial increase in traffic volumes and would require paving prior to completion. Under Mitigation Measure 16.1, a minimum section of two ten-foot paved travel lanes would be required to deliver LOS B conditions. Implementation of Mitigation Measure 16.1 would ensure that impacts associated with conflicts with applicable standards for the transportation system would be less than significant.

Cumulative Impacts

The extent to which the proposed project may contribute to cumulative traffic impacts was evaluated by the traffic analysis based on a review of information regarding other potential projects and County and Caltrans planning documentation. This review was conducted to identify information relative to expected long-term conditions on SR 49, SR 89, Lemmon Canyon Road and Campbell Hot Springs Road.

Caltrans has kept records on annual traffic volumes. As shown in Table 16-6, the daily volume of traffic on State highways in the project area has either remained relatively constant or has been decreasing over the last several years.

Table 16-6
Annual Average Daily Trips on State Highways in Project Area

Road	Location	Annual Average Daily Traffic (AADT)						
		2002	*2004*	*2006*	*2008*	*2010*	*2012*	*2014*
SR 49	North of Lemmon Canyon Road	*1,250*	*1,300*	*1,400*	*1,400*	*1,400*	*1,400*	*1,400*
	East of SR 89 junction	*900*	*920*	*950*	*950*	*950*	*950*	*950*
SR 89	West of SR 49 in Sierraville	1,800	1,500	1,350	1,200	1,200	1,200	990
	South of SR 49 in Sierraville	2,100	2,250	2,050	1,850	1,850	1,850	1,850

The 2015 Sierra County RTP provides future traffic volume forecasts for key locations on State highways and predicts an increase by 0.5% annually from 2025 to 2035. This would represent an overall increase of 5.1% by the year 2035 compared to existing volumes.

Table 16-7 compares daily traffic volumes in the Year 2035. As shown, the State highways will continue to operate at LOS B with the addition of project traffic. As discussed previously, the volume of traffic generated by the proposed Masterplan project on Lemmon Canyon Road and Campbell Hot Springs Road would exceed LOS thresholds in the Existing Plus Project and Cumulative conditions. As noted under the discussion of Existing Plus Project conditions, the implementation of Mitigation Measure 16.1 would ensure that LOS remains within County standards and impacts remain less than significant.

Table 16-7
Year 2035 Plus Project Saturday Roadway Segment Level of Service

Road	Location	Surface	Saturday Level of service				
			Year 2035		*2035 Plus Project*		
					Daily Volume		
			Daily Volume	*Level of Service*	*Project Only*	*Total*	Level of Service
SR 89	South of SR 49 junction	Paved	2,525	B	480	3,005	B
SR 49	East of SR 89 junction	Paved	1,535	B	720	2,255	B
Lemmon Canyon Rd	SR 49 to Campbell Hot Springs Rd	Gravel	270	B	800	1,070	E
		Paved				1,070	B
Campbell Hot Springs Rd	South of Lemmon Canyon Rd	Gravel	257	B	800	1,057	E
		Paved				1,057	B
Bold values are a significant impact							

As shown in Table 16-8 below, all study intersections will continue to operate at LOS B or better during peak hours in the Year 2035 (cumulative condition) with the project. Thus,

the project's cumulative impact on intersections in the vicinity of the resort property would be less than significant.

Table 16-8
Year 2035 Plus Project Saturday Peak Hour Intersection Level of Service

Intersection	Control	Saturday Peak Hour Level of Service			
		Existing		*Ex Plus Project*	
		Average Delay (sec/veh)	*Level of Service*	*Average Delay (sec/veh)*	*Level of Service*
SR 89 / SR 49	NB/SB Stop				
Eastbound left turn		0.2	A	0.2	A
Westbound left turn		4.8	A	5.2	A
Northbound approach		10.8	B	12.0	B
Southbound approach		10.0	A	10.8	B
SR 49 / Lemmon Canyon Rd	WB Stop				
Southbound left turn		-	-	0.7	A
Westbound approach		9.1	A	9.7	A
Lemmon Canyon Rd / Campbell Hot Springs Rd	NB Yield				
NB approach		8.7	A	9.2	A

c. **No Impact**. The proposed project would not interfere with the operation of Sierraville Dearwater Airport. Therefore, this project would have no impact on air traffic patterns.

d. **Less than Significant.** The proposed project would not increase hazards due to design features or incompatible uses. The proposed project does not propose any modifications to Campbell Hot Springs Road or Lemmon Canyon Road, and no design hazards were identified by the traffic analysis prepared for the Masterplan project that would require improvements to the road to reduce hazards. Mitigation Measure 16.1 would ensure that roadway LOS remains in compliance with County standards and policies on Lemmon Canyon Road and Campbell Hot Springs Road. No hazards would be created as a result of any proposed design feature. No impact.

e. **Less than Significant with Mitigation.** As discussed in **Section VIII Hazards and Hazardous Materials**, the proposed project site is within an area identified as a moderate and a "very high" fire hazard severity zone. Because the site is within a SRA, California Public Resources Code Section 4290 requires site access and future construction on the site comply with the SRA Fire Safe Regulations. These regulations address requirements for site access (road width and grade, turnarounds), signage and building numbering, emergency water, and fuel modification (defensible space).

The primary evacuation route that would serve the proposed project during a wildfire event would be Campbell Hot Springs Road and Lemmon Canyon Road to access SR 49. No improvements to Campbell Hot Springs Road are necessary to provide for adequate emergency access to the proposed project site. A shelter in place facility would be provided onsite to provide a safe place for guests in the event that evacuation is not possible. This space and other resort facilities would also serve as a temporar47y staging area for firefighting. Specific provisions necessary to comply with the fire safe requirements and ensure the proposed project does not adversely affect emergency access to and from the site are identified in mitigation measure Mitigation Measure 16.2 requiring implementation of Mitigation Measure 8.3. With implementation of this measure, impacts related to emergency access would be less than significant.

f. **No Impact**. The proposed project would not conflict with adopted policies, plans or programs supporting alternative transportation or otherwise decrease the performance of such facilities.

Mitigation Measures

Mitigation Measure 16.1 (Transportation and Circulation) - The following measures shall be implemented to ensure that the phased expansion of the resort under the proposed Masterplan does not degrade roadway operations below adopted County standards contained in the General Plan:

a. The County and the applicant / resort operator shall enter into a maintenance and cost-sharing agreement for the gravel-surfaced segments of Lemmon Canyon Road and Campbell Hot Springs Road to ensure that the roadways are maintained adequately to provide appropriate service to the resort and ensure that incremental increases in traffic volume during construction and resort operation do not degrade the roadway surface by resulting in erosion or additional disturbance outside of the existing roadway footprint. The maintenance agreement shall specify maintenance intervals, watering requirements for dust suppression, performance standards for target roadway conditions, and shall identify cost/reimbursement arrangements. The maintenance agreement shall remain active until such time as the roadway is paved.

b. An analysis of anticipated trip generation shall be conducted prior to approval of any proposed component of the Masterplan. The analysis shall be conducted by a qualified traffic consultant approved by the County and shall determine whether the daily trips added by the proposed Masterplan component would result in LOS below LOS B (or the adopted standard in place at the time of the submittal). Prior to completion / operation of any component of the Masterplan that would result in degradation of the LOS below adopted County standards, the gravel portion of Lemmon Canyon Road and Campbell Hot Springs Road serving the resort shall be paved. Paving shall be to County standards

and shall consist of a minimum 20-foot section consisting of two 10-foot travel lanes. At the County's discretion, the analysis of roadway impacts may be conducted by the County Public Works Department.

c. As the subject roadway segments provide critical access for a variety of uses that are a benefit to the County, the County and the applicant shall enter into a cost-share agreement in the form of either a direct contribution or a per-square-foot assessment of the 89,580 square feet of new improvements and fifty (50) unit campground to attain the appropriate contribution. The cost-share contribution has been calculated as 12.5% of the cost to reconstruct/improve 1.35 miles of roadway including Lemmon Canyon Road from State Route 49 to the intersection of Campbell Hot Springs Road and Campbell Hot Springs Road from its intersection of Lemmon Canyon Road to the existing Sierra Hot Springs Resort. This contribution is based on a cost share of 50% of the cost to reconstruct the segment of Campbell Hot Springs Road from the Airport Access Road to the Sierra Hot Springs Resort. Terms and conditions of the cost-share agreement shall be specified and made part of the development agreement between the County and the applicant/developer.

Mitigation Measure 16.2 (Transportation and Circulation) - Mitigation Measure 8.3 (Hazards) shall be implemented. Mitigation Measure 8.3 requires compliance with Cal Fire specifications and standards for fire safety, including requirements for appropriate emergency vehicle turnouts and/or turnarounds and consultation with Cal Fire during building permit application processing to ensure standards are met to ensure that the resort can be adequately served by Cal Fire.

17. TRIBAL CULTURAL RESOURCES –	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
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::				
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	☐	☒	☐	☐
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 Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe?	☐	☒	☐	☐

Setting

The presence of tribal cultural resources (TCRs) is generally identified by California Native American Tribes through the process of consultation. Under AB 52 a TCR must have tangible,

geographically defined properties that could be impacted by implementation of a project. The project application was received by Sierra County in February 2015 prior to the County's receipt of any request from a tribe for notification under AB 52. Sierra County routed project information to the Native American Heritage Commission for early consultation prior to receiving any requests for notification under AB 52. No consultation has been requested on the project to date and no known TCRs occur on the project site. To notify tribes that have subsequently requested project notifications under AB 52, Sierra County has sent the Notice of Intent and project information to each of the tribes that have formally requested notice under AB 52. As described in Section V of this document, cultural resources investigations have identified cultural resources of Native American origin within the project site and surrounding areas. Section V identifies mitigation measures to avoid or minimize potential impacts to cultural resources.

Impacts

a. **No Impact.** See b) below.

b. **Less than Significant.** An appropriate approach to potential impacts to tribal cultural resources (TCRs) is developed in response to the identified presence of a TCR by California Native American Tribes. A project with an effect that may cause a substantial adverse change in the significance of a TCR is a project that may have a significant effect on the environment (Pub. Resources Code, Section 21084.2.). Investigations by Sierra County resulted in the identification of no TCRs within or near the project site. No known geographically-defined TCRs were identified within, or in the immediate vicinity of, the project site. However, there is potential for inadvertent discovery of unknown resources to occur as a result of earth disturbance associated with the proposed Masterplan. It is possible that resources inadvertently discovered could be determined to be TCRs upon evaluation by Native American tribes. Mitigation Measure TCR-1 would ensure that Native American tribes are notified of any inadvertent discovery of cultural resources and that appropriate measures are taken to protect any TCRs discovered. With implementation of Mitigation Measure 17.1, impacts to TCRs would be less than significant.

Mitigation Measures

Mitigation Measure 17.1 (Tribal Cultural Resources) - Should a potential TCR be inadvertently encountered, construction activities in the area shall be temporarily halted and Sierra County shall be notified. Sierra County shall notify Native American tribes that have been identified by the NAHC to be traditionally and culturally affiliated with the geographic area of the project and tribes that have formally requested notification under AB 52. If the unanticipated resource is archaeological in nature, appropriate management requirements shall be implemented as outlined in Mitigation Measure 5.4. If the County determines that the potential resource appears to be a tribal cultural resource (as defined by PRC Section 21074), any affected tribe

would be provided a reasonable period of time to conduct a site visit and make recommendations regarding future ground disturbance activities as well as the treatment and disposition of any tribal cultural resources discovered. Depending on the nature of the potential resource and Tribal recommendations, review by a qualified archaeologist may be required. Implementation of proposed recommendations shall be made based on the determination by the County that the approach is reasonable and feasible. All activities would be conducted in accordance with regulatory requirements.

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

Setting

Wastewater. Wastewater generated by the existing Sierra Hot Springs Resort is treated and disposed of using traditional onsite septic tanks and leachfield wastewater treatment and disposal systems. No local or regional sewer system exists in the vicinity of the project site. Existing onsite wastewater disposal is under local jurisdiction and is not subject to waste discharge requirements administered by the Regional Water Quality Control Board.

Water supply. Currently, water supply for the existing facility for domestic and firefighting purposes is supplied from two existing onsite spring sources. Water for the Sierra Hot Springs

water system is currently produced by two fresh water springs. The two springs are identified as the North Spring and the South Spring due to their relative geographic locations on the site. The South Spring is the primary source for existing water needs. The flowrate from existing spring sources was tested in September 2013; the South Spring was measured at approximately 16 gallons per minute while the North Spring produced approximately 14.5 gallons per minute, resulting in a total combined production rate of 30.5 gallons per minute, which equates to production of 43, 920 gallons over a 24-hour period.

Solid waste. As a commercial account, the Sierra Hot Springs Resort is required to have mandatory commercial pick up of solid waste. Solid waste generated in Sierra County is collected by Sierra County and deposited at the Loyalton transfer station. In October 2017 the Loyalton Landfill was closed and the facility was converted to a transfer station. Waste deposited at the Loyalton Transfer Station is transported to a waste processing facility in Portola where it is sorted and either recycled or transported to the Lockwood Landfill in Nevada for final disposal. According to County staff, adequate capacity exists for solid waste generated in Sierra County for the foreseeable future (Sierra County, 2018a). State law requires participation of the Sierra Hot Springs Resort in mandatory commercial recycling and this is in place today and will continue to assure that a maximum amount of material is removed from the waste stream and recycled appropriately.

IMPACTS

a. **No Impact.** The onsite wastewater treatment systems would be under the jurisdiction of Sierra County Environmental Health, which would ensure that onsite treatment and disposal systems are designed and operated to meet all applicable treatment requirements. No impact would result from non-compliance with treatment standards.

b. **Less than Significant.** The proposed project includes constructing new onsite wells and water infrastructure as well as onsite septic tanks and leachfields to treat and dispose of wastewater generated by buildout of the proposed Masterplan. The impacts of the proposed project, including construction of additional onsite wastewater and water facilities, are evaluated throughout this Initial Study.

c. **Less than Significant.** Please refer to the discussion of stormwater drainage impacts given in Section IX. *Hydrology and Water Quality* of this Initial Study. Since the project would require engineered grading, the County will require the applicant to prepare a drainage study to analyze proposed drainage improvements and pre- and post-project site stormwater runoff for each phase of construction. Pursuant to County Code Section 12.08.560, drainage facilities must ensure that offsite drainage to adjacent properties is no greater in quantity and concentration than that which existed prior to the project. The applicant would be required to construct onsite drainage facilities in accordance with

Sierra County standards and specifications. Compliance with County Code would ensure that the project results in no increase in offsite stormwater drainage that would require construction of additional stormwater facilities that are not proposed as part of the project. The impacts of the proposed project, including construction of additional onsite stormwater facilities, are evaluated throughout this Initial Study.

d. **Less than Significant with Mitigation.** The proposed project includes construction of a new 135,000-gallon water tank on a high point of the property south of the existing warm pool in the northwest portion of the proposed development area. The new tank would be accessed from an existing dirt road. The water would be distributed throughout the Masterplan area by gravity and booster pump via a water main, laterals, and service system that would be sized to accommodate the anticipated consumptive demand and meet fire flow requirements. The water tank and pumping system would be installed as part of the initial construction implemented under the proposed Masterplan. Water main, laterals, and service connections would be added to the water system as needed to serve components of the Masterplan as they are constructed.

A report prepared by Sauers Engineering (Sauers, 2015) estimates that at buildout the proposed project would require approximately 43,780 gallons per day of water for domestic and landscaping uses. The Sauers report tested existing onsite spring water sources and determined that they could produce approximately 30.5 gallons per minute (43,920 gallons per day), which would provide adequate supply with a small margin of overcapacity. The State has determined that at full buildout the proposed development would be classified as a Community Water System and would therefore be required to meet the maximum daily demand with one of the two sources offline to ensure redundant water supply.

Existing onsite springs would not be capable of meeting this anticipated future demand and State requirements and additional supply would be required to meet project demand and regulatory requirements. Sauers Engineering estimates that one additional well producing 15 to 20 gallons per minute combined with existing supply sources would likely be enough to meet State standards for redundant supply for a Community Water System (Sauers, 2016). The proposed Masterplan has identified four potential well sites and it is anticipated that one or more of the sites could be developed to produce pumping rates to meet the additional demand and State water supply standards. No test wells have been developed and no groundwater evaluation has been completed to verify assumptions regarding anticipated production rates of the new wells proposed; however, wells in the vicinity are generally known to have high production rates. As buildout of the Masterplan would occur over a 20-year period, it is unknown when the water system would be reclassified by the State and when additional water sources would be required to meet State standards. The 2016 memo prepared by Sauers indicated that additional

demand would be created by the staff housing component of the proposed project and supplemental supply would be required prior to implementing that component of the Masterplan.

Mitigation Measure 18.1 would allow for water supply of the proposed Masterplan to be initially provided from existing sources until such time as it is determined that buildout of a proposed component of the Masterplan will create demand for water supply that cannot be met by existing sources, or that an additional source is required to meet State regulatory requirements. Mitigation Measure 18.1 would ensure that no building permits are issued until a sufficient water supply is demonstrated to the County's satisfaction and to meet applicable State water supply requirements. It is noted that the Masterplan would also develop an onsite well as an additional source of high temperature groundwater for the resort bathing pools. This well would be located in the vicinity of the new baths and Meditation Pool. While this additional warm water is desired by the project, it is unnecessary for domestic supply, operation of the proposed project, or to meet regulatory standards. Alternatively, hot water could be piped from the Phoenix Baths to the new site. All proposed wells would be permitted through Sierra County Environmental Health to ensure they meet regulatory standards.

With implementation of Mitigation Measure 18.1, impacts resulting from insufficient water supplies to meet project demand or regulatory requirements would be less than significant.

e. **No Impact**. No local or regional wastewater collection and treatment system or provider exists in the project area. Wastewater disposal would be by onsite wastewater treatment systems using septic tanks and leachfields, which are included in the proposed Masterplan project. No impact would result from any determination by a wastewater treatment provider.

f., g. **No Impact**. The Loyalton Transfer Station, Portola Waste Processing Facility, and Lockwood Landfill have appropriate capacity to accommodate solid waste generated by buildout and operation of the proposed Masterplan (Sierra County, 2018a). Construction contractor(s) would be required to comply with all federal, state and local regulations with regard to solid waste disposal. At full buildout, the proposed project would be served by Sierra County waste collection services, which complies with applicable standards and regulations for waste hauling, recycling, and disposal and contracts with licensed haulers and waste receiving facilities.

Mitigation Measures

Mitigation Measure 18.1 (Service Systems) – Prior to issuance of a building permit for any component of the proposed Masterplan, the applicant shall submit to the County projected water demand calculations for the proposed component and the cumulative demand of the resort. Demand calculations shall be prepared by a qualified third-party engineer approved by the County. Demand calculations shall be reviewed and approved by County Environmental Health and Environmental Health shall make a determination regarding whether adequate capacity exists to meet the demands of the project and regulatory requirements and a determination shall be made regarding the State classification of the water system as a Transient or Community Water System with the addition of each proposed Masterplan component. No building permit shall be issued for any proposed expansion of the resort under the Masterplan until appropriate well yield to meet supply requirements is demonstrated to the satisfaction of County Environmental Health.

19. MANDATORY FINDINGS OF SIGNIFICANCE –	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Does the project have the potential to 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?	☐	☒	☐	☐
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)?	☐	☒	☐	☐
c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☒	☐	☐

a. – c. **Less than Significant with Mitigation**. Sections 1 through 18 of this Initial Study provide an analysis of potential environmental impacts of the Masterplan, including adverse effects on human beings. Mitigation measures to avoid, minimize, or compensate for potential impacts identified are included in Sections 4-Biological Resources, 5-Cultural Resources, 6-Geology and Soils, 8-Hazards and Hazardous Materials, 9-Hydrology and Water Quality, 12-Noise, 16-Transportation/Traffic, 17-Tribal Cultural Resources, and 18-Service Systems. With implementation of the mitigation measures identified in this document, the Project would result in less than significant impacts associated with degrading the quality of the environment or

damaging or eliminating important examples of cultural history or prehistory. Mitigation measures identified throughout the Initial Study would limit the contribution of the project to cumulative effects of the project and other projects in the region.

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APPENDIX A

Masterplan

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Sierra Hot Springs Resort & Retreat Center

Masterplan

Public Draft

November 2018

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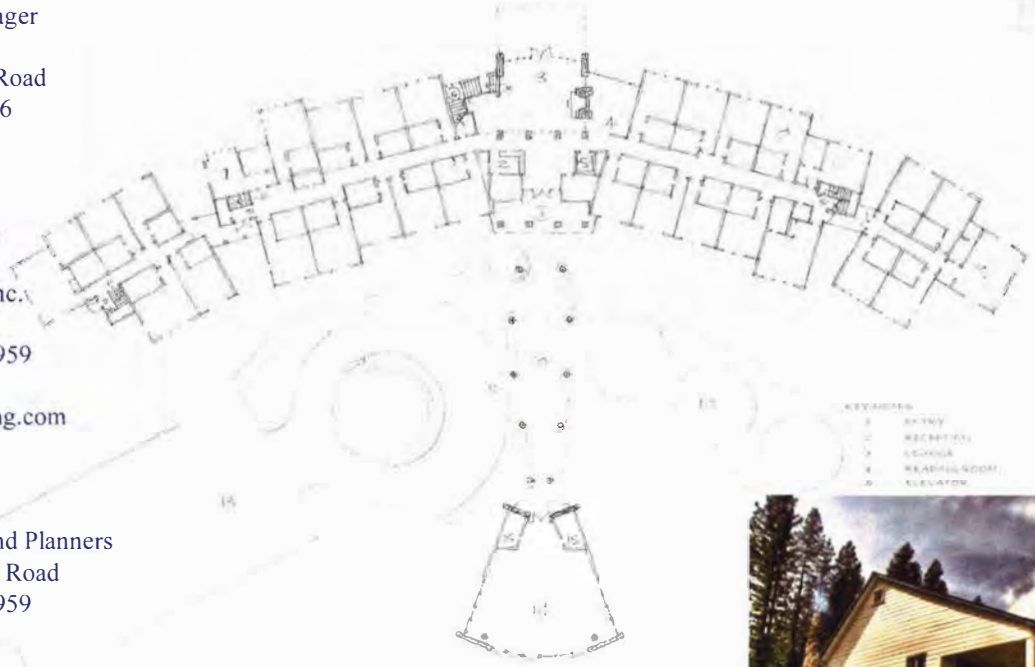


Dragonfly Lodge Floor Plan
Bruce E. Boyd Architecture

Forward:

Sierra Hot Spring, formerly Campbell Hot Springs, has a history as a resort going back to the 19th century. In 2012, Sierra Hot Springs assembled a planning and design team to prepare this masterplan and to present it to the County of Sierra for environmental review, public input, and approval.

The team, led by Sierra Hot Springs co-manager, Kaisa MacDonald, included Bruce Boyd, as site planner and architect and Andy Cassano of Nevada City Engineering, as environmental and community planner. All of the team have lived in the Sierra Nevada for decades and have a good grasp on what works for rural economic development, rural design, and site planning design that minimizes environmental impacts.

The formal application was submitted to the County of Sierra in February 2015. The County retained the environmental planning firm of Dudek to prepare the environmental initial study. The County and the applicant chose to work though identified issues as they were identified, before the completion of the environmental initial study.

This process included, but was not limited to, a wetland delineation, extensive archaeological study of selected area, responsible agency consultation, extensive consultation with Sierra County Fire Protection District No. 1 and Calfire, hammering out a road improvement program with the County, informational emails to interested parties, and an open house held at Sierra Hot Springs.

Following the decline of the mining and timber industries, opportunities for economic development are few and far between in the rural Sierra Nevada. The first rule of economic development is to support existing businesses and to assist them in expanding.

The Sierra Hot Spring Masterplan represents a rare opportunity for economic development on an appropriate scale to enhance tax base, employment, workforce housing, and high-quality visitor services.

Section 1
Master Plan
Masterplan Regulations, Infrastructure, and Implementation

Section 2
Sketch Design Portfolio
Building Program and Design

Section 1

Sierra Hot Springs Resort and Retreat Center Masterplan

Updated September 2018

1.00 Introduction

The Sierra Hot Springs Masterplan defines the intended buildout of the resort, including a master site plan, architectural design, development standards, and a development agreement initially allowing development over a 20 year period.

The "Sketch Design Portfolio" in the following section outlines the size, site plan, and design intentions for each new building in the masterplan. The Master Site Plan shows the relationship of all of the existing and proposed improvements and how they are clustered on the property.

This text will further elaborate on the required infrastructure and discuss implementation of the plan. The development agreement will provide mutual assurances to the applicant and the County to allow buildout over a period of time as the market allows.

1.05 Site Planning Basis

All site planning is based on an analysis of the capabilities and constraints of the land as assessed by the Sierra Hot Springs planning team. Although various technical studies are typically not done until the environmental review by the County, this site planning included completion of a detailed archaeology study and a biological assessment. These two major constraints of the property needed to be further defined before site planning could occur to ensure sensitive resources would be avoided. Information from all assessments were compiled to identify environmentally sensitive areas as shown in Figure 1.

1.10 Existing Development

The site has operated as a resort off and on for decades, with various improvements remaining in place from days gone by. All such improvements have been maintained, improved, and enhanced by the current owner. Existing key improvements include:

- The lodge, including 5 lodging rooms, restaurant, meeting room, lobby, and office
- The dome hot springs bath consisting of warm pool under a dome, cold pool, deck, changing rooms, and bathrooms
- The medicine bath, consisting of a hot springs pool and small gazebo
- Phoenix baths, supporting private hot springs tubs and massage facilities
- The round house, a small dome building used for various purposes
- Various outbuildings and utility building supporting the resort
- Expansive camping areas with no limits on camping
- The fire circle, a meeting area used in various ways, sometime supporting a tent, bonfire, and other meeting support uses
- Spring fed cold water system serving the consumptive water needs of the resort
- Hot springs systems serving the facilities
- Various septic systems, most of which have been upgraded within the last 10 years, to support all current uses
- Various dirt and gravel access and service roads serving the project
- On-site quarters for the co-managers
- The Meadow House, proposed to be removed in the masterplan
- The Globe Hotel (off-site in downtown Sierraville, and not a part of this application)

1.15 Proposed Development

The proposed buildout of this masterplan is summarized in the table in Figure 2. The details of each new facility are further defined in the architect's Sketch Design Portfolio following this section.

1.20 Project Phasing

The project reserves the right to build the facilities in any order that meets the marketing needs of the resort. It is important to note that the first phase of development will include meeting facilities and lodging, as there is more demand for these than the project can currently meet.

1.25 Implementation Procedure

Following adoption of this Masterplan by the County of Sierra based on the appropriate environmental review and findings and approval of the underlining entitlements, individual components of the Masterplan will be implemented by the applicant applying for a building permit. The County of Sierra staff will review the building permit application for consistency with this approved Masterplan and the accompanying Development Agreement and issue the building permit. The County staff may apply conditions related to the installation of the required infrastructure needed to protect the public health, safety, and welfare. Decisions on phase requirements by the County staff may be appealed to the Sierra County Board of Supervisors if a disagreement arises.

1.30 Applicable Conditions Applied to Phase Development

When application is made to the County for a building permit, the County staff will review it for substantial compliance with the approved masterplan. The Planning Director will circulate it to other departments, including Building, Public Works, and Environmental Health for review and comment. Substantial compliance means that in the judgment of the Planning Director and department staff that the general location, general use, appearance, and size is consistent with this plan and the plan approval document. The Planning Director may refer the compliance issue to the Planning Commission if their judgment seems necessary to make a decision.

The County staff will apply appropriate conditions from the masterplan approval to each individual building permit and occupancy. Applicable conditions might require access road improvements, extension of fire mains, installation of a fire hydrant, etc., provided that the infrastructure was shown and approved in the final masterplan. Conditions will typically include temporarily or even permanently fencing sensitive site areas to protect them from incidental damage.

From time to time, the land owner may request modifications to the masterplan details that cannot be granted under the substantial compliance test, whether by the staff or Planning Commission. In that case, the Planning Director may require that the land owner process an “amendment to the approved masterplan,” which will require circulation to the staff and consideration by the Planning Commission and/or Board of Supervisors at an advertised public hearing. Depending on the magnitude of the change, the County may make a finding that the change remains consistent with the original environmental review and that no new review is needed. If, in the judgment of the Planning Director the masterplan change is substantial and may create new environmental impacts not originally contemplated with environmental review, the Planning Director may direct that a new, supplemental environmental review be completed prior to a project decision.

If the land owner is dissatisfied with the judgment of the Planning Director on any aspect of the masterplan administration, the land owner may appeal the Planning Director’s decision to the Planning Commission or Board of Supervisors for a final determination.

1.35 Infrastructure and Public Services

a. Water

The existing development obtains water from a natural cold water spring east of the lodge. It is chlorinated and pumped to a holding tank above the lodge. It then feeds the lodge area by gravity after residual chlorine is removed by charcoal filters.

Beyond providing water for the consumptive daily demands of the masterplan, it is essential that water be provided for fire protection, in both building sprinkler systems and through on-site fire hydrants.

The firm of Sauers Engineering, Inc., specialists in water systems, was retained to complete a pre-design study on a master water system, as included in their technical report accompanying this masterplan. The system will use the same spring system, continue to chlorinate the water if necessary, and then pump the water to a new 135,000 gallon tank on a high point of the property, currently accessible by dirt service road.

The water will then feed a water main and service system throughout the masterplan area, with pipe sizes based on consumptive demand and fire flow needs. A schematic of the Sauers Engineering Design is included as Figure 3.

The water tank and pumping system would be installed with the first parts of development. After that, water mains and services would be extended only as needed to serve phased development. See the Fire and Emergency Response section below for more information on fire safety.

The State of California will require that a supplemental water source be developed prior to the construction of the on-site workforce housing. This will be in the form of a commercial well, developed in compliance with the existing approval of the Sierra Valley Groundwater Management District. The well will double the source capacity of the system, assuring adequate potable water under all circumstances.

b. Wastewater Disposal

All existing facilities are now served by individual septic tank and leach field systems, approved by the County of Sierra. The applicant is currently working with Sierra County Environmental Health and septic engineer Dennis Dodds on a gray water system that would direct laundry and other sanitary wastewater away from the septic tank/leachfield system.

In preparing this Masterplan, several new sets of percolation and mantle tests were done, with the locations indicated on Figure 4.

New improvement sewage disposal will be handled by individual septic tank and leach field systems. Beyond being a proven technology in the Sierra to protect ground and surface water, such systems help to recharge the groundwater being taken from the spring and well to serve the project. The use of gray water systems may also be explored as a way to reduce septic system loads and to provide limited irrigation needs.

Individual septic tank and leachfield systems will be phased in as individual buildings are constructed, in the appropriate areas. Appropriate areas are generally mapped on Figure 4, and are described as meeting these criteria:

1. Not within 50’ of exterior boundaries
2. Not within 10’ of structures
3. Not within 50’ of seasonal drainages
4. Not within 100’ of perennial streams (none noted)
5. Not within wetland areas
6. Not within areas of important prehistoric resources
7. Not within 4 times the height of any road cut slope (40’ maximum)
8. Not within areas that fail to meet basic soil depth and percolation standards
9. Not within roadways or other areas subject to compaction by equipment or traffic

Representative percolation and mantle testing was completed in several areas of the site, as indicated on Figure 4.

When applying for new sewage disposal systems, the following standards shall be met:

- Site specific percolation and mantle testing may be required by the Sierra County Environmental Health official, prior to issuing each sewage disposal permit
- System sizing shall be based on standard design criteria for the specified use, or the applicant’s engineer can provide customized wastewater generation information unique to the project
- Special design systems, such as pre-filtered pressure dosed systems, may be required by the Sierra County Environmental Health Official, where warranted
- System installation shall be inspected by the Sierra County Environmental Health Official
- System locations shall be accurately mapped and marked by steel markers and/or locator wires to avoid conflicts between systems, maintain 100% repair areas, and provide for convenience of maintenance if repairs are ever needed; with this documentation also filed with Sierra County Environmental Health

c. Access

Access to the property will continue to be via Lemmon Canyon Road and Campbell Hot Springs Roads, both County maintained gravel roads. County maintenance stops on Campbell Hot Spring Road just short of the existing lodge on the property. Campbell Hot Spring Road continues as a dirt road beyond the County maintenance area, providing public access to the Tahoe National Forest and perhaps other private properties south of the project.

The Masterplan proposes to keep this corridor open to public use and will prohibit any new buildings within 50’ of the centerline of the road, to leave room for possible future widening and ample setbacks.

During the processing of this masterplan, Tim Beals, Sierra County Public Works, Roads, and Transportation Director fashioned the following program:

The applicant and County have worked out a proposed cost sharing program to systematically improve the access roads to the project to blend the General Plan guidance with the various uses and beneficiaries that will enjoy improvements to Lemmon Canyon Road and Campbell Hot Springs Road. The existence of the County airport and the master plan that has been in place for the airport are critical components to supporting future road improvements sponsored by the County but the existence of the only transportation network that affords access to administrative and fire protection traffic of the US Forest Service and public and private lands beyond the first mile of either road is equally critical to future road improvements. Specifically, the Lemmon Canyon Road, from State Route 49 to its intersection with Campbell Hot Springs Road and beyond, is a significantly used County maintained road that benefits recreational traffic, fire prevention and protection traffic by the US Forest Service, public land access, private land access beyond the Sierra Valley Floor, ranch access on the southern fringe of the Sierra Valley Floor located in Lemmon Canyon, and finally, to lands up Campbell Hot Springs Road that include the same uses and categories of use outlined from Lemmon Canyon Road but also include direct access to the County Airport (Sierraville-Dearwater Field) and to the Sierra Hot Springs Resort.

Sierra County has long-identified this road network as a high priority for funding opportunities that may arise whether these opportunities occur as a result of specialized grants or through normal funding channels. The current direction issued by the County Transportation Commission and by the Board of Supervisors establishes a high priority to road improvements to Lemmon Canyon Road and Campbell Hot Springs Road through use of normal funding streams as well as possible Economic Development Administration or USDA grant programs that are appropriate in this location. As a result, Sierra County is proposing to reconstruct Lemmon Canyon Road from State Route 49 to the intersection of Campbell Hot Springs Road and to construct Campbell Hot Springs Road from its intersection of Lemmon Canyon Road to the existing Sierra Hot Springs Resort (where the routinely maintained section of the County Road Systems ends and the balance of the road to State Route 89 which wanders through the balance of the Sierra Hot Springs property would remain unimproved and somewhat primitive). This proposed project consists of 1.35 miles (2.7 lane miles). This section of road is highly used and exhibits raveling, shrinkage and cracking, severe washboard conditions and ongoing potholes that are difficult to maintain in the freeze-thaw and wet conditions that are experienced on this road. The proposed construction will provide two twelve-foot paved lanes and be constructed in accordance with Caltrans Highway Design Manual and the AASHTO Design for very low use roads. The estimated construction cost is $2,895,000. There are no bridges in the project and County-owned right-of-way already exists and all work will be within existing limits of the right-of-way.

The potential for contribution of costs for road improvements from the proposed Sierra Hot Springs Resort Project is necessary so that a proportionate share of costs required to meet current and proposed “LOS” thresholds are met. The level of service goals of the General Plan as outlined suggest a current LOS of “B’ with attaining LOS “D” and “E” at full buildout of phased improvements. Likewise, the County Transportation Plan has a target LOS of “C” and the inconsistency between the two target designations can be easily accommodated by increased routine maintenance on the existing road network until such time as phased improvements as part of the development rise to a level requiring these increased road improvements. The initial study and independent traffic analysis conclude that “a regular maintenance program that ensures adequate conditions on gravel roads on an interim basis could be part of a phased mitigation implementation program”. The phasing of road improvements will be in part, mitigated by an increased routine road maintenance program in the interim and a more aggressive funding contribution from the project proponent over the course of project development and build out. This contribution can be established through a square footage assessment for the proposed 89,000 square feet of new improvements (plus the fifty-unit campground) or be a single contribution.

The estimated 2018 costs for the road improvements as stated previously is $2,895,000 and the length of the improvement is 1.35 miles. Sierra County recognizing the critical public values in addressing uses and traffic on Lemmon Canyon Road as addressed previously is assuming full cost of the improvements to Lemmon Canyon Road. The portion of the Campbell Hot Springs Road from its intersection with Lemmon Canyon Road to the County Airport Access Road is also established to be a County responsibility as previously addressed. The portion of Campbell Hot Springs Road from the Airport Access Road to the Sierra Hot Springs Resort is 25% of the 1.35 miles of road improvements and this segment of the road improvements to attain the proper LOS service level for the proposed project must be funded by a combination of County and project generated funding streams including Transient Occupancy Tax incremental growth/other revenues/direct applicant contributions/building assessments. In this case, 25% of the road improvements are limited to the segment from the Airport Access Road to the Sierra Hot Springs Resort which is equal to $723,750 in construction costs. The County

and the applicant/developer will be splitting this burden on a 50/50 basis and the applicant/developer obligation should be $361,875. Mitigation for this contribution is proposed to be either a direct contribution or a per-square-foot assessment of the 89,000 square feet of new improvements and fifty (50) unit campground to attain the required contribution.

It is also necessary to identify that should grant opportunities arise and be pursued by the County for road improvements, the funding contribution noted above could be used for grant match as may be required. Additionally, should the Local Transportation Commission secure funding streams for the entire project and a contribution is determined not to be necessary by the Commission, the Commission and the applicant/developer shall negotiate the use of a portion or all of the estimated mitigation of $361,875 toward transportation related improvements that benefit the proposed development (encroachments, parking lots, signage, pathways, etc.) and the transportation system that tie into the road improvements for the project. The Commission could also decide to not use any applicant generated contributions.

Alternative access points were explored during development of the Masterplan, but no useful routes were identified.

d. Parking

Parking areas will be developed in phases along with new buildings and uses. All parking will be provided at a ratio consistent with prevailing Sierra County site development standards and may be interpreted based on discussions between the applicant and Sierra County Planning Staff for shared and special uses. The approximate magnitude of parking areas is shown on the Masterplan site plan, Figure 5. In developing parking areas, an effort will be made to minimize tree removal.

e. Drainage

By maintaining some roads and parking areas as graveled surfaces, the amount of impervious area proposed to be added by the plan will be minimal. All drainage will be designed so as to maintain pre-project concentrations and flows to the largest extent possible. If areas are paved in the future, infiltration trenches and/or other storm water detention facilities may be required by the Sierra County Department of Public Works.

Storm water runoff is generally directed to the Sierra Valley floor, as opposed to any neighboring improvements, where it can assist in recharging groundwater in the Valley.

Roof drains will be dissipated in appropriate areas to return water runoff to appropriate preconstruction flows to the highest extent possible.

Temporary and permanent erosion control measures shall be implemented at all times to prevent sediment from leaving the construction area in storm water. Any construction phases shall be subject to prevailing State standards for the preparation and implementation of a Storm Water Pollution Prevention Plan (SWPPP).

f. Electrical

The site has 2 phase electrical power, served by overhead lines which are undergrounded as they cross the Deerwater Airport from the northwest. The magnitude of the Masterplan will likely require that the electrical service be upgraded to three phase power at the applicant's expense.

The electrical provider is Plumas-Sierra Rural Electric Co-op. In reviewing an earlier draft of the Masterplan, they indicated that higher capacity power would need be extended from the Highway 49 area, over the existing power line route, to serve adequate electricity to the masterplan.

Plumas-Sierra Rural Electric Co-op shall be consulted with each phase of development and may require completion of the electrical upgrade, before new construction is served.

Nothing shall prevent building permits to be issued for "off-the grid" construction that would rely on solar energy or other natural resources for power.

Nothing shall prevent the installation of solar arrays on project roofs, parking covers, or on ground facilities or other structures, provided Sierra County Building Codes are followed to assure public safety.

g. Telephone

A telephone service is currently provided to the site by Global Linx and AT&T and by various cellular providers. Any expansion of phone services or phone line based internet services shall be in accordance with the provider's requirements.

Nothing shall prevent the site from relying on cellular only services, satellite internet, and or other prevailing technologies.

h. Broadband or Cable

The resort currently utilizes satellite internet service provided by DigitalPath. It is not known if cable television or cable broadband internet service is currently available to the site, but it is not in place at the time of preparing this Masterplan. Nothing shall prevent these services from being installed when needed or available.

i. Propane

Propane tanks shall be installed as needed as buildings are developed, in locations approved by the Sierra County Building Official, and honoring the locations and circulation patterns of the Masterplan. All mandatory setbacks shall be met.

j. Solid Waste

Solid waste (trash) service is provided by InterMountain Disposal Inc. All dumpster and trash collection locations will be located in masonry screened containers in locations compatible with the Masterplan and in locations approved by the provider.

k. Fire and Emergency Response

During the processing of this Masterplan, the original fire and emergency response plan was reviewed and entirely replaced by the following requirements identified in an October 13, 2017 letter to Sierra County from CalFire Fire Captain Matt Furtado, serving as Fire Planner for this region of the Sierra Nevada:

- Emergency Access and Egress
    - Road Width-All roads shall be constructed to provide a minimum of two ten (10) foot traffic lanes.
    - Roadway Surface-Roadways shall be designed and maintained to support the imposed load of fire apparatus weighing at least 75,000 pounds and provide an aggregate base.
    - Roadway Radius- No roadway shall have a horizontal inside radius of curvature of less than 50 feet and additional surface width of 4 feet shall be added to curves of 50-100 feet radius; 2 feet to those from 100-200 feet.
    - Roadway Turnarounds- Turnarounds are required on driveways and dead-end roads. The minimum turning radius for a turnaround shall be forty (40) feet, not including parking, in accordance with the following figure. If a hammerhead/T is used instead, the top of the “T” shall be a minimum of sixty (60) feet in length.
    - Roadway Turnouts- Turnouts shall be a minimum of twelve (12) feet wide and thirty (30) feet long with a minimum twenty-five (25) foot taper on each end.
    - Dead-End Roads-Mitigations to Dead-End Road limits will be listed below.
    - Gate Entrances- Gate entrances shall be at least two (2) feet wider than the width of the traffic lane(s) serving that gate and a minimum width of fourteen (14) feet unobstructed horizontal clearance and unobstructed vertical clearance of fifteen (15) feet.
    - The access road to the “Warm Pool” may remain a single lane roadway with the utilization of turnouts in approved locations and the addition of the gated access way for emergency vehicles only. This access way will connect the single lane roadway from the “Warm Pool” to the “Sacred Circle Campground”.
    - The access road to the “Phoenix Pool” may remain a single lane roadway with the utilization of turnouts in approved locations and the identification of the secondary access road west of the Main Lodge.

- Road Signing and Building Identification
    - Size of letters, numbers, and symbols for road signs and building identification shall be a minimum 4 inch letter height, .5 inch stroke, reflectorized, contrasting with the background color of the sign.
    - Building and road identification signs shall be visible and legible from both directions of vehicle travel for a distance of at least 100 feet.
    - A sign identifying traffic access or flow limitations, including but not limited to one-way road or single lane conditions, shall be placed: at the intersection preceding the traffic access limitation, and no more than 100 feet before such traffic access limitation.

- Emergency Water
  - Fire Hydrants shall be of the same standard as utilized within the Town of Sierraville, shall have an approved snow stake, and bollards if necessary.
  - A reflectorized blue marker, with a minimum dimension of 3 inches, shall be mounted on a fire retardant post. The sign post shall be within 3 feet of each fire hydrant, with the sign no less than 3 feet nor greater than 5 feet above ground, in a horizontal position and visible from each direction of the roadway.
  - Identify the refresh rate (in gallons per minute) of the storage tank for the emergency water supply.
  - Final fire hydrant locations shall be determined by the SCFPD #1 at the time of development.

- All other applicable standards of Title 14/PRC 4290 not identified in this document may be required.

Due to this proposed project being significantly past the Title 14- Dead End Road Standard, the following mitigations will be required;

- The section of water line supplying the hydrant system from the "Existing Main Lodge" to the bifurcation near the "Dragonfly Lodge" parking lot shall be increased to 8".

- A Vegetation Management Plan shall be developed for the purpose of removing, thinning, and maintaining vegetation throughout the facility.
  - The standard for the plan will mirror the Defensible Space standards of PRC 4291.
  - This plan will provide;
    aa. Twenty feet (20') of vegetation management on each side of all roadways measured from the shoulder.
    bb. Five feet (5') of vegetation management on each side of all walking paths measured from the center of the path.
    cc. Two Hundred feet (200') of vegetation management around all structures or to the property line, whichever is closer.
    dd. One hundred feet (100') vegetation management around the 135,000 gallon water tank.
    ee. One hundred feet (100') vegetation management around all campsites.
    ff. This Vegetation Management Plan will live in perpetuity with this facility and any further development identified will, at a minimum be subject to the same conditions.

- Two Shelter in Place sites have been identified.
  - Shelter in Place Site #1, shall be on the east side of Campbell Hot Springs Road directly across from the Main Reception/Day Use Parking area and shall be comparable in size to the shelter in place area shown on the Master Site Plan.
  - Shelter in Place Site #2, shall be on the east side of Campbell Hot Springs Road directly south/southeast of the "Existing Meadow Edge House", extending to the access road north of the restaurant, and be comparable in size to the shelter in place area shown on the Master Site Plan.
  - Final locations of the shelter in place areas shall be approved by Cal Fire.

- An Evacuation Plan and a Shelter in Place Plan shall be developed for the entire site and shall include;
  - Identifying the duties/roles of staff during implementation of the plans.
  - Identify the common communication that will be utilized during an event.
  - Performing drills to educate and ensure practices are followed.
  - Incorporate the plan with the needs of the SCFPD#1.

- Fire Boxes shall be installed at hydrant locations.
  - Within each Fire Box shall be a cache of hose, nozzle, hydrant wrench, and any additional appliances deemed necessary by the SCFPD#1.

- The development of an Emergency Response Team.
  - The Emergency Response Team will be comprised of Sierra Hot Springs staff.
  - The Emergency Response Teams primary mission is to;
    - Assist with implementing the Evacuation or Shelter in Place Plans from ***all*** or ***specific*** areas within the facility, to ensure guests are guided to exits and/or designated shelter in place sites.
    - Assist with guiding emergency first responders during a fire or medical emergency event.
  - The Emergency Response Team will conduct annual training with the SCFPD#1 on building/facility evacuation and best practices to assist the SCFPD#1

l. Police Services

Police services will continue to be provided by the Sierra County Sheriff's office. Their primary office is in Downieville, with a substation in Loyalton, approximately 14 miles away. Jail and court services are located in Downieville.

m. Energy Conservation

All new construction will meet the stringent conservation standards of the Uniform Building Code, including prevailing insulation and heat loss standards. Although the use of solar energy may be possible for some of the structures, the emphasis on the plan is to conserve natural woodlands, so in many locations, tree conservation will outweigh solar access.

n. Lighting

The dark Sierra sky is an asset to the resort. All new lighting will be subdued to the extent possible. Filaments shall be shaded from surrounding areas, with lighting directed down on traveled ways, walk ways, and intersections. Prevailing energy conservation lighting will be used.

o. Signs

The existing sign design will be used throughout the project to maintain a common theme. Signs will be as small as possible while still being effective. In some cases, indirect lighting will be used for night time clarity. Internally lit and neon tube lighting will not be used in the exterior areas of the project.

p. Landscaping

Guests visit Sierra Hot Springs for its natural beauty and vegetation. The use of exotic, introduced, and ornamental landscaping is discouraged. Where possible, any new landscaping should utilize naturally occurring, drought resistant plant species. Landscaping should be minimal so as to not increase fire danger in parking lots and next to buildings.

The use of vegetable, herb, and flower gardens in limited areas is encouraged, as is the use of traditional fruit trees, in addition to native vegetation. The Sierra Valley has a long and proud agricultural heritage that can be honored with the limited use of edible landscaping.

1.40 Environmental Standards

Environmental standards and requirements are fully evaluated in the California Environmental Quality Act review of the project masterplan. See the project conditions of approval and mitigation measures for more detail.

However, this masterplan includes the basic environmental standards based on this particular site and standards that have proved effective in other areas of the Sierra.

a. Erosion Control

Avoiding soil erosion is a common important and effective environmental standard everywhere. The details of erosion control will be included in every building permit application and/or grading permit application. Under current State law, the surface disturbance of more that 1 acre of land will require preparation of a Storm Water Pollution and Prevention Plan (SWPPP) by a certified designer and monitoring throughout construction by a certified practitioner.

If a SWPPP is not applicable, the grading plan or building permit site plan shall include an erosion control plan with sufficient detail of installation and management as to allow on-site workers to understand and implement erosion control measures.

The standard of erosion control is that no dirt or sediment leave the construction area and that all storm water leaving the construction area be clear, clean water without muddy sediment.

Techniques to control erosion are referred to as Best Management Practices, or simply BMP's. Erosion control is simple and not overly expensive, but it requires constant attention and action during storm events. The following are typical BMP's:

- If possible complete all grading during the dry season of the year and then, before the winter months, treat all exposed soil with seeding, mulch, and other permanent techniques. When working during winter months, minimize the amount of exposed, bare soil, to allow the quick application of BMP's if storm events are expected.
- If grading during storm events, cover all exposed soils with seeding, mulch, and waddles. For temporary measures, sheets of plastic may be used to cover dirt areas.

- Consider temporary sedimentation basins downhill of activities, where sediment can settle out of water before it travels from the site.
- After permanent erosion control techniques are applied, they should be monitored throughout the first two winter seasons and any exposed areas should be retreated as needed.

b. Wetland Protection

Most of the Sierra Valley floor and a number of tributaries running to the valley are either jurisdictional or practical wetlands. Except where drainage crossings are approved in this masterplan, wetland areas shall be avoided during site construction and project occupancy.

Whenever masterplan site development is proposed near wetlands, the County may require that the wetland edges be flagged by a qualified biologist. Then prior to site construction activity, temporary orange construction fence shall be securely placed along the edge during the construction stage, to prevent inadvertent damage to these resources.

After construction is complete, if it appears that wetland areas might be subject to further vehicle or substantial pedestrian incursion, the County may require a decorative board or split rail fence along the edge with modest signage stating: "Sensitive Environmental Resources. Please Stay Out."

All new site drainage will require permanent best management practices (BMP's) as discussed above, to assure that only clear, clean water travels into wetland areas along existing drainage tributaries or sheet flows.

c. Archaeological Resource Protection

For thousands of years before Europeans came to the Sierra Nevada during the Gold Rush, Native American people occupied the region and enjoyed the natural wonder of the Hot Springs. Before the Gold Rush, the area around Sierra Hot Springs was rich with existing and past village and camp sites of the Washoe, Maidu, and perhaps other indigenous tribes.

Unfortunately, over 165 years of European occupation took a toll on these resources, with the village sites being picked over by arrow head hunters and other persons interested in Native American artifacts. Most such collectors were well meaning, not realizing that such activity was inappropriate and now for many years, illegal.

Sites were also affected by the past development of Campbell Hot Springs on the property and by other activities, including logging, road building, and fire break construction.

This masterplan does not clearly identify archaeological sites and their character because under State law, it is not legal to make these locations public. The reason being that such disclosures could lead to additional illegal collection of artifacts and damage to such sites.

However, in developing this masterplan, the locations of sites were identified confidentially through examination of site records and additional field review by a qualified archaeologist. In one area, a systematic dig of a major village site was completed, to determine its extents and current significance for future study.

The County of Sierra maintains prehistoric resource information in confidential files that can be reviewed as individual site plan improvements are proposed.

Whenever masterplan site development is proposed near archaeological resources, the County may require that the limits of such sites be flagged by a qualified archaeologist. Then prior to site disturbance, temporary orange construction fence shall be securely placed at the site edges to prevent inadvertent damage to these resources.

After construction is complete, a small decorative board or split rail fence shall be placed around the resource with modest signage stating: "Sensitive Environmental Resources. Please Stay Out."

d. Steep Slopes

For purposes of this masterplan, steep slopes are naturally occurring areas where the prevailing slopes are greater than 30 percent, that is that the ground changes vertically 30' or more for every 100' of horizontal distance. Man made slopes associated with roadways and past development are not considered steep slopes for development purposes.

The improvements planned in this masterplan have been sited to avoid intrusion on steep slopes to the greatest extent possible. There are minor steep banks

associated with existing drainageways that will be affected slightly by new roadway or pedestrian crossings.

Whenever any new construction associated with the masterplan affects slopes of over 30%, the County may require a soils report or other technical study to assure that the proposed improvement will not be adversely affected by future soil stability or increased erosion potential.

e. Drainage Crossings

This masterplan will involve two crossings over an existing seasonal drainage that flows northerly into the valley from the south line of the property. Most of the planned development is on the west side of this drainage. The existing medicine bath and planned new baths and pools complex (map no. 17) and the remote workshop (map no. 20) are located on the east side.

The seasonal drainage flows during the winter and spring depending on the seasonal rainfall. The bottom of the drainage is broad and cobbled with washed gravel from the seasonal flow. Near the north end of the drainage as it enters the valley floor there is a cold water spring that continues into the summer months.

New crossings are desirable since the existing crossing is a seasonal road on natural ground with a small culvert underneath, that actually encroaches into the wetlands. Day to day use of this existing roadway keep the dirt exposed so that the surface is subject to erosion. During the wettest times of the year, the crossing is muddy and not conducive to all weather access, which is needed to service the facilities east of the drainage.

This masterplan proposes two crossings of the drainage. One is a pedestrian crossing connecting the Dragonfly Lodge (map no. 16) to the baths/pools complex (map no. 17). This will be a seasonal trail, proposing no pipes or infrastructure. The drainage swale is dry or minimal for a good part of the year. The other crossing is both a pedestrian and service road connection from the guest cabins (map no. 15) to the baths/pools complex. This road will be for only pedestrian use for guests, but it will be a service road for staff, and an emergency vehicle roadway allowing fire and ambulance access to the eastern improvements.

A variety of crossings will work in this location in an environmentally sound way, as long as the site development standards below are followed. Typical options include a bridge, culvert, and/or bottomless arch culvert. The options vary in terms of expense and aesthetics, but all are environmentally sound with the following development standards:

- The drainage crossings shall be designed by a civil engineer to assure proper foundations and bedding, and that the drainage facility capacity will handle normal storm events without damage or hazard.
- Construction work shall be done in the dry season of the year, when the seasonal flow has ceased for the summer. This will allow latitude in construction techniques, including entering the channel with personnel and equipment.
- Final construction shall cover all bare soils using best management practices (BMP's) to prevent erosion. Surfaces subject to drainage flow shall be armored with concrete headwalls, rock rip rap, and/or other techniques.
- If a conventional culvert pipe is used, it shall be bedded in the historic flow line of the channel to allow free access to aquatic life.

f. Road and Parking Surfacing

Currently all public roads, private drives, and parking areas are surfaced with gravel in the project area. Such surfaces are consistent with the parking and drives of other Sierra County resorts and recreation areas, such as the Lakes Basin, Big Springs Gardens, and area camp grounds. Gravel surfaces are environmentally superior in terms of retaining impervious surfaces that allow storm water to seep through, recharging ground water.

Depending on traffic intensity and the grade of gravel used, un-watered gravel surfaces can create dust, decreasing air quality, coating all surfaces with dust, and annoying walkers and bicyclists along the roadways.

See Section 1.35(c) above for a description of the improvement program for the County maintained roadways (Lemmon Canyon Road and Campbell Hot Springs Road) and Section 1.35(k) for the minimum fire safe road standards.

This masterplan otherwise allows gravel surfaces to remain and at the option of the landowner, surfaces can be paved as needed. Where areas are paved, minimal storm water detention should be provided by deepening adjoining gutters, providing infiltration trenches, and directing water to temporary basins or underground storage.

High levels of storm water detention do not appear necessary given the overall nature of the Sierra Valley and its ability to detain and filter water and to recharge ground water. The likelihood of downstream flooding from under detained storm water flows is very remote. As discussed above under Erosion Control, all site runoff must be clean and clear.

1.45 Development Agreement

This masterplan is associated with a development agreement which will allow the masterplan approval to have a lifespan of 20 years, plus additional extensions if approved by the Sierra County Board of Supervisors.

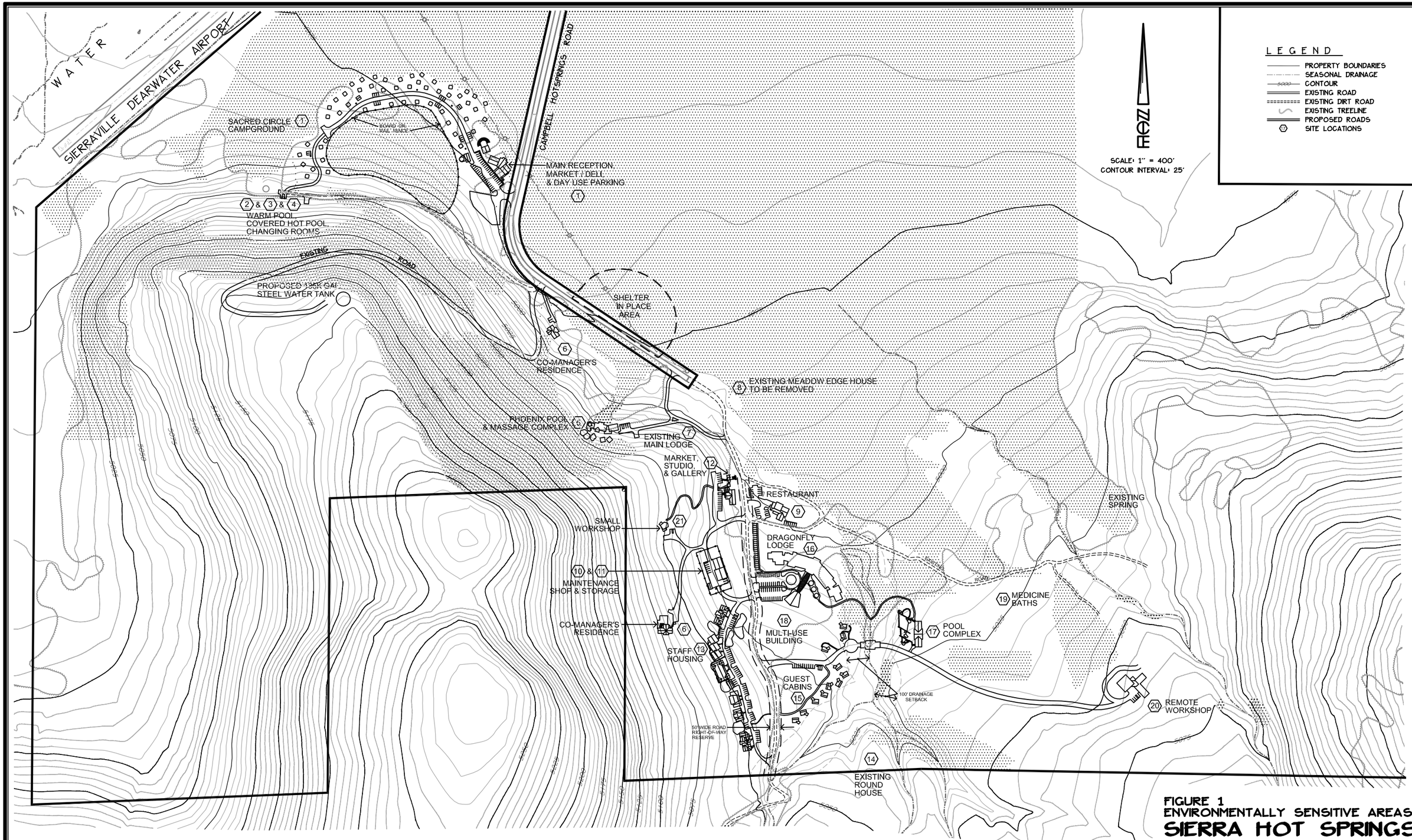
The development agreement is a signed agreement between the property owner and the Sierra County Board of Supervisors, allowing the approval for the masterplan to run for a longer period of time than would be allowed without the development agreement.

Because the masterplan encompasses a significant amount of development, it would be a hardship to try to build every part of the masterplan within a short period of time of 3-5 years, typically required of project with no development agreement. The longer term allows the property owner additional time to seek financing for various improvements, build them, occupy them, and realize some return on that part of the investment before moving on to additional phases.

The format and administration of the development agreement is governed by State law and local ordinances, as well as the content of the agreement itself. Copies of the development agreement are available upon request through the Sierra County Planning Department.

1.50 Public/Private Partnerships

The masterplan encourages the continual exploration of public/private partnerships that can be utilized from time to time to the mutual benefit of the resort and the County at large. Exploration of grants for road improvements to the site, activities related to the airport, and job creation/retention are typical candidates. See Section 1.35(c) above for a more detailed discussion of cooperative public/private opportunities pertaining to the public roads serving the project.



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ENVIRONMENTALLY SENSITIVE AREA
(ARCH. SITES, >30% SLOPES, BIO-AREAS)

FIGURE 1
ENVIRONMENTALLY SENSITIVE AREAS

SIERRA HOT SPRINGS

SIERRA COUNTY , CALIFORNIA

SCALE: 1" = 400' JULY, 2017

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12-024

Sierra Hot Springs - Masterplan

Figure 2

Map Key	Structure Name	Existing Sq Ft	Proposed New Sq Ft	Total Sq Ft	Priorities
1	Camping 50 spaces - Shower complex, Restrooms, Picnic/cooking, Reception, Deli, Market	0	4,060	4,060	4,060
2	Warm Pool	1,600	0	1,600	0
3	Hot Pool (covered)	1,000	0	1,000	0
4	Changing Rooms	600	400	1,000	400
5	Phoenix Baths	1,400	1,600	3,000	1,600
6	Co-Manager's House - total with two separate homes	0	3,600	3,600	3,600
7	Existing Lodge	3,000	0	3,000	0
8	Meadow House - to be removed	1,000	-1,000	0	0
9	Restaurant	0	4,400	4,400	0
10 & 11	Maintenance Shop, Equipment Shed, Yard and Parking	0	4,000	4,000	0
12	Existing Studio & Gallery, New Market	1,290	2,180	3,470	1,290
13	Staff Cabins - size varies by type, 40 units total, includes laundry/storage facility	0	22,000	22,000	0
14	Round House	100	0	100	0
15	Guest Cabins 11 – sizes vary	0	4,740	4,740	4,740
16	Lodge - multi-story building, 60 rooms	0	35,600	35,600	26,500
17	Pools Complex	0	1,200	1,200	1,200
18	Multi-use Building	0	2,000	2,000	0
19	Medicine Bath - No building associated with this feature	0	0	0	0
20	Remote Workshop	0	3,800	3,800	0
21	Small Workshop	0	1,000	1,000	1,000
	Totals:	**9,990**	**89,580**	**99,570**	**44,390**

Sierra Hot Springs - Maximum Anticipated Population

Guest/ Staff Type	Existing Population	New Population	Total Population
Campers	200	-50	150
Lodging	10	132	142
Day Use Only	160	0	160
Staff	24	41	65
Staff Dependents	0	12	12
Totals:	**394**	**135**	**529**

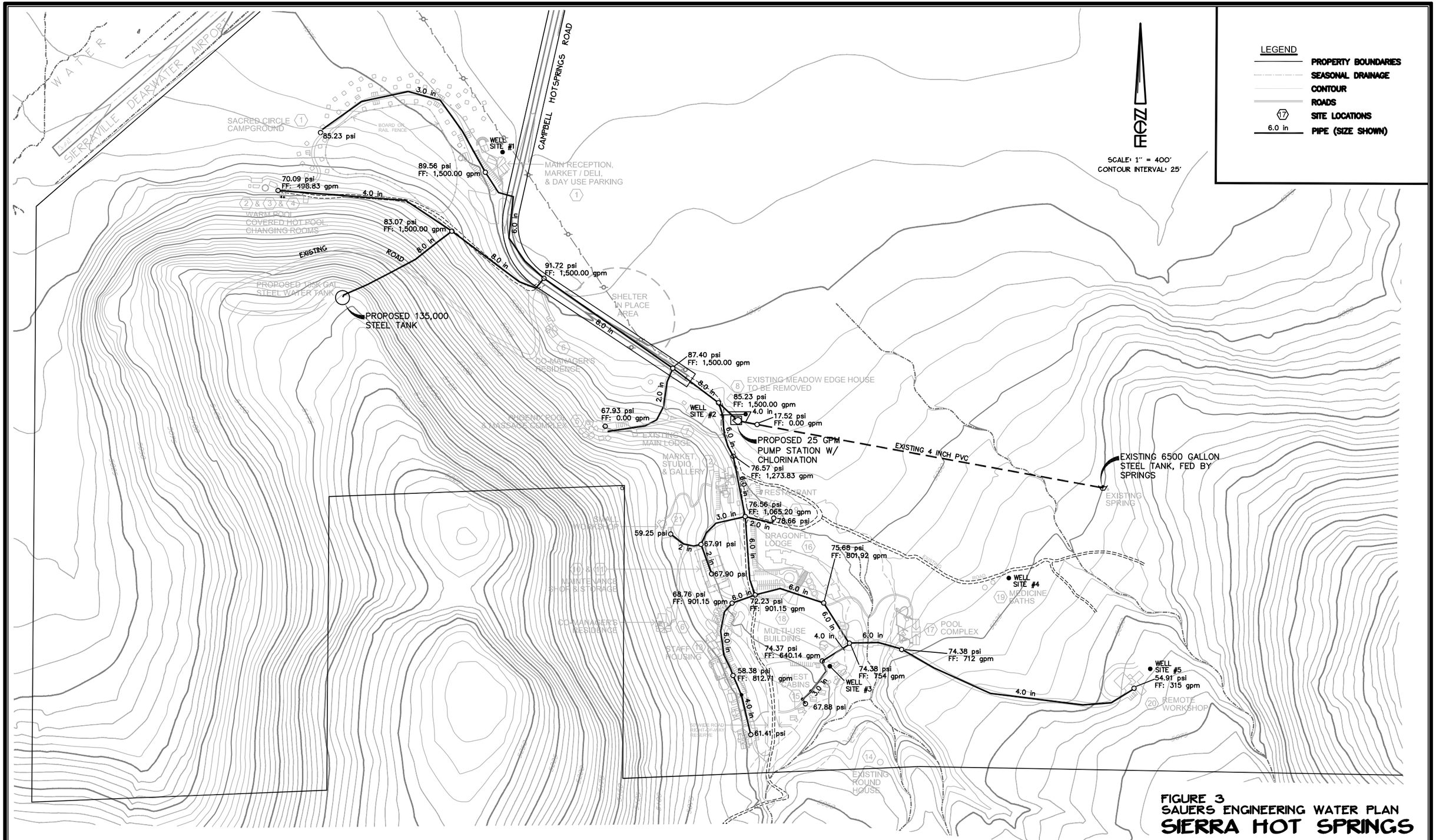

FIGURE 3
SAUERS ENGINEERING WATER PLAN

SIERRA HOT SPRINGS

SIERRA COUNTY . CALIFORNIA

SCALE: 1" = 400' JULY. 2017

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P:\Land Projects 2012\12-024 Sierra Hot Springs\Drawings\12-024 SHS New base REVISED3.dwg, FIGURE 3, 9/24/2018 12:57:32 PM, 1:2

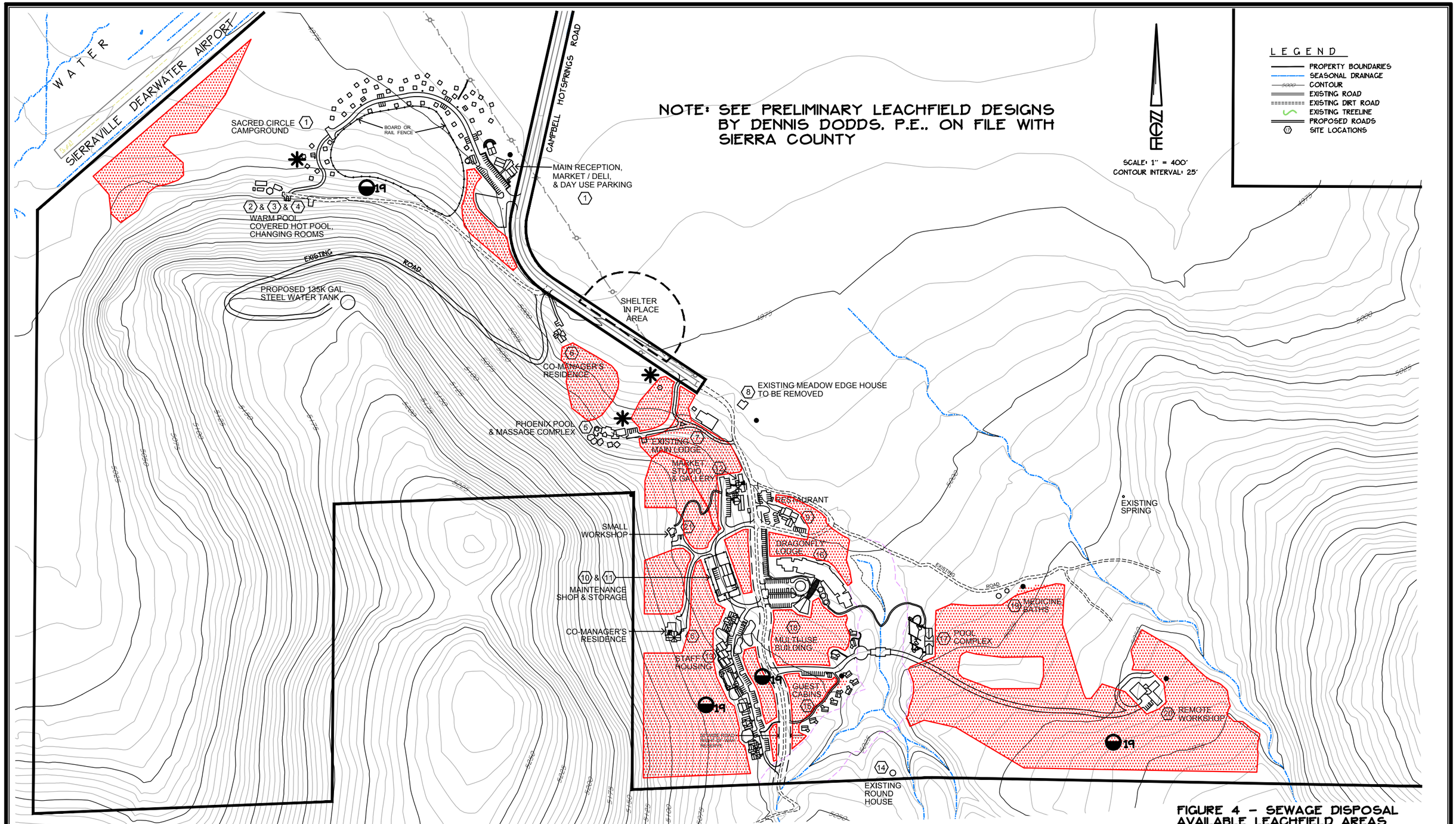

FIGURE 4 – SEWAGE DISPOSAL AVAILABLE LEACHFIELD AREAS

SIERRA HOT SPRINGS

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SCALE: 1" = 400' JULY. 2017

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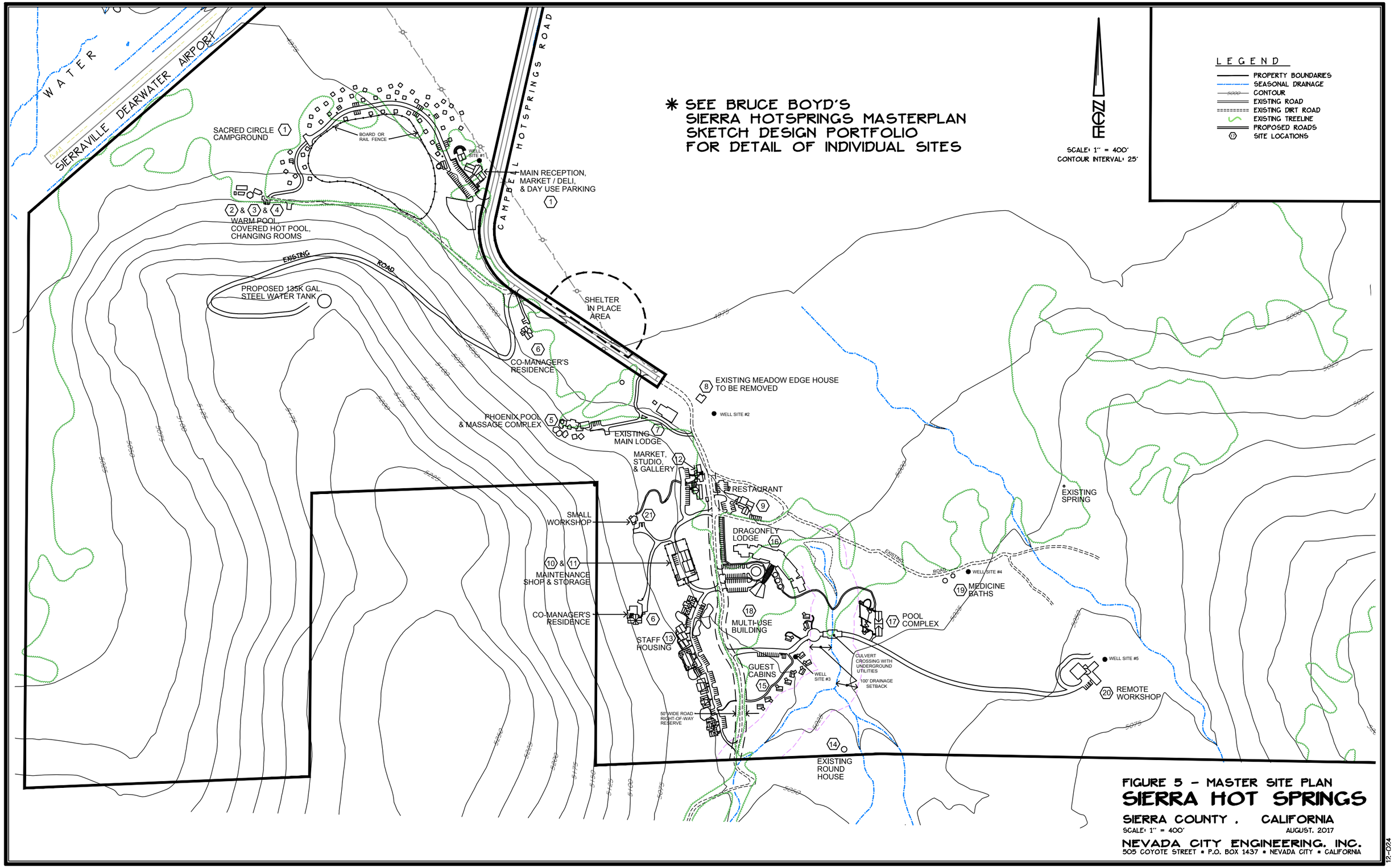

FIGURE 5 – MASTER SITE PLAN

SIERRA HOT SPRINGS

SIERRA COUNTY . CALIFORNIA

SCALE: 1" = 400' AUGUST, 2017

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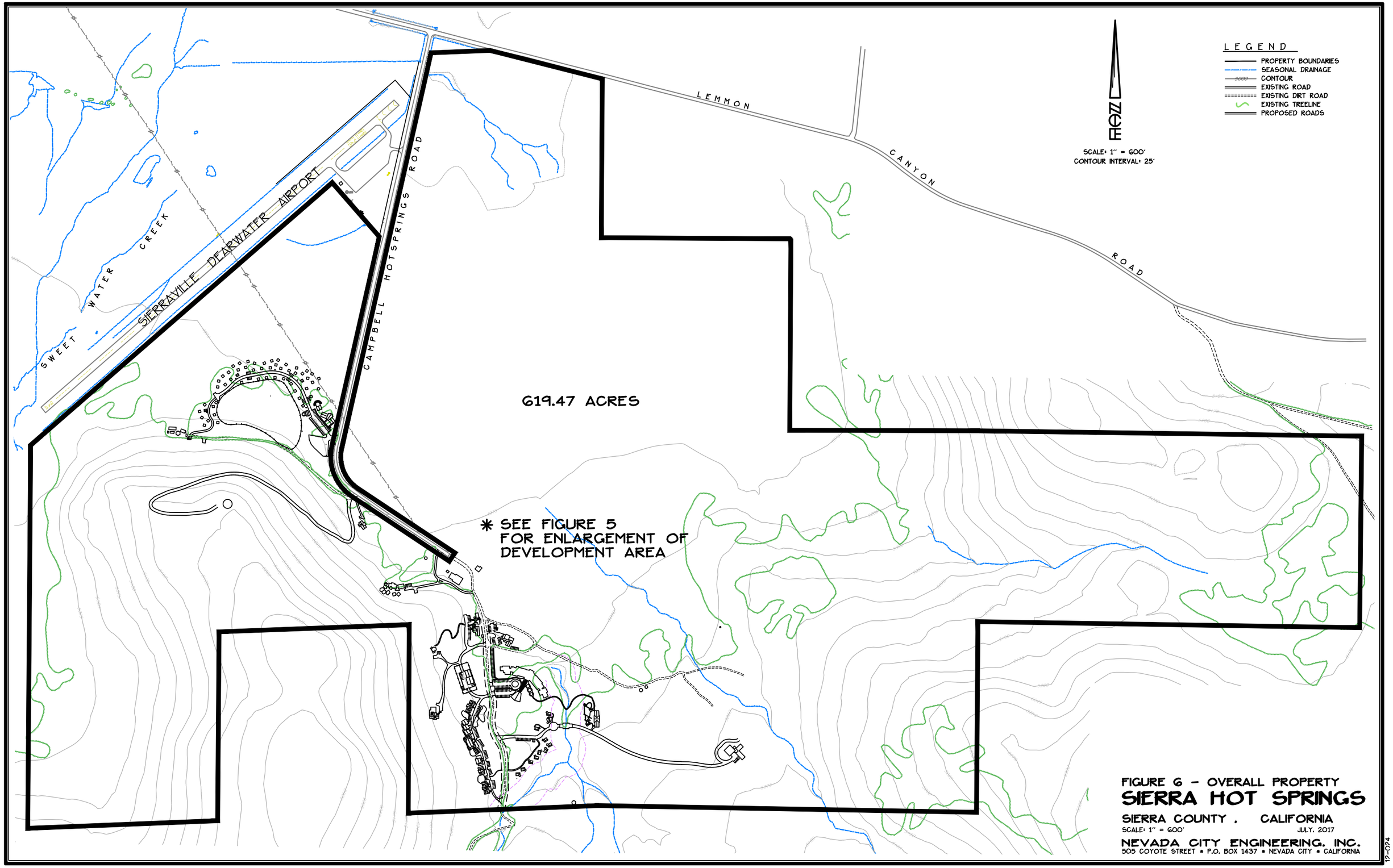

FIGURE 6 – OVERALL PROPERTY

SIERRA HOT SPRINGS

SIERRA COUNTY . CALIFORNIA

SCALE: 1" = 600' JULY, 2017

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SIERRA HOT SPRINGS MASTERPLAN
SKETCH DESIGN PORTFOLIO

DESIGN STUDIES
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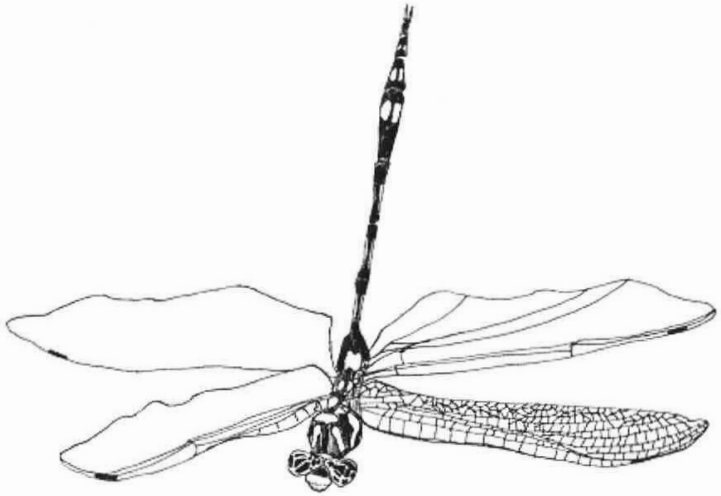


DESIGN NARRATIVE – SIERRA HOT SPRINGS MASTER PLAN BUILD-OUT

The following describes the proposed new and/or remodeled buildings that are included in this Master Plan update of Sierra Hot Springs. These narrative descriptions are a summary description of the buildings shown in the attached sketch studies. The sketch studies illustrate the general design goals for each facility. This design narrative supplements the information contained in the Sierra Hot Springs - Proposed Coverage & Capacity Information spread sheet and the overall project site plan, prepared by Nevada City Engineering. The narratives and sketch studies are based on the uses for the proposed buildings and our interpretation of those uses, and technical issues such as ADA compliance, access, fire safety, building codes and zoning requirements. The intent is to provide a base of requirements, information, and ideas to focus discussion.

COMMON ASSUMPTIONS:

1. All new buildings and baths should take advantage of the natural setting, views and solar aspects.
2. A menu of natural materials will be used in all building designs to develop a cohesive sense of place. As far as possible, “green” materials should be employed in construction.
3. New buildings should be highly energy efficient.
4. A non-staffed gateway entrance will direct all visitors, including campers, to the reception center at the entrance to the campground for registration. Automatic vehicle counters will be used to monitor the entry and track visitors to maintain control of the number of visitors.
5. Minimize driveways and roads within the new development areas. Keep vehicles away from sensitive bathing areas and quiet places.
6. Utilize carts and shuttles to service buildings and to move groups of users around. Maximize the use of walking trails.
7. Provide a central registration office to be assigned camp sites, cabins, day-use, and remote workshop use. Guests that are staying at the lodge and cabins, or dining at the restaurant would be directed to the appropriate registration desks and given a map of the facility and assigned parking. Scheduling massages, private sauna and pool use, classes, hikes and other activities would be done here for campers or done at the lodge for guests.
8. Provide telephone and computer connectivity to all major buildings.
9. Minimize soil disturbance and grading. Protect sensitive flora and archaeologic sites
10. Establish a baseline for requirements for fire safety access and California Accessibility Guidelines for all new buildings.

PROPOSED SIERRA HOT SPRINGS FACILITIES

Item 1 **Main Reception with Market/Deli and Campground: 50 tent sites, 50 to 100 campers. ADA Parking and User Facilities**

The main Reception Office and small Market/Deli are located at the entrance to the campground, just off the main road, at the edge of the meadow. The Reception Center is the first destination for all visitors to Sierra Hot Springs. The Registration Office would book day use, camping, pre-registration to the lodge and cabins, direct guests to all facilities, and assign parking. An adjoining small market/deli would serve day use guests and campers.

The 50 unit Sacred Circle campground surrounds an existing “Sensitive Area”. The location of campsites, both platform type and on ground type, would be subject to careful on-site analysis. There are two campsites with wheel chair access from parking and access to restrooms and cooking/picnic areas. All campsites are walk-in and primitive, without any water or cooking areas. A dedicated common kitchen adjoins the campground for use by campers. It is ADA accessible, with picnic areas and fire safe BBQ’s. There is a dedicated restroom/shower/clean-up facility and vault type restrooms scattered within the campgrounds. Fire hydrants would be located along a fire access road through out the campground.

The camping area would be connected to the Warm pool by a series of trails to minimize vehicle traffic. The deli/cafe/market located at the Reception Center at the entrance to the camping area will serve campers and Day Use guests. ADA restrooms would be included as part of the market. Most food preparation would be done in the restaurant kitchen. Sandwich preparation and beverage service would be done in the deli. Campground and RV parking is located near the Reception Center.

New Construction:

Reception/administration offices:	1,000 SF
Market:	700 SF
ADA Restroom and Guest Kitchen Facility:	1,780 SF
Shower House:	580 SF
Total:	4,060 SF

Platform campsites: 10 @ 150 SF each

On grade campsite: 40 @ 160 SF

Parking: 36 including 2 ADA , Bike Rack, and

Overflow and RV parking area for additional 8 - 12 vehicles.

Items 2, 3, & 4 **Warm Pool, Covered Hot Pool, Changing rooms**

Improvements would include a trail from the campground, an ADA parking area and wheel chair access to the warm pool. New ADA changing space and access from changing building to warm pool would be built. This bath complex will become the major focal point for campers due to its proximity and size.

New Construction: 400 SF

Parking: 2 ADA spaces

Items 5 **Phoenix pool and Massage complex (includes conversion of existing manager's house)**

Remodel and connect indoor and outdoor baths. Provide ADA access. Existing Managers House converted to massage bookings, reception/waiting area, changing rooms, and ADA restrooms. Enlarge and remodel existing massage building. Create new pools, including group class pool

New Construction:

Remodeling: 1,400 SF

New Pools, decks, and walkways: 2,800 SF

Parking: 4 w/ 2 ADA,

Item 6 **Co-Managers Residence's**

The two new Manager's Residence's are separated from grouped staff housing. They would be situated to provide easy access to all facilities. Each house would be 2 - 3 bedrooms with fenced yards and parking.

New Construction:

2 Co-Manager Houses: 3,600 SF

Item 7 **Existing Main Lodge**

The Lodge has great historic value and is a prominent landmark as you enter the hot springs, The Lodge would be renovated and the exterior restored. Existing ground floor and basement uses would mostly remain. The Green room would be revamped for theatre, events, music and class use. The current lobby would be remodeled to house a coffee shop and bookstore. ADA restrooms would be added. The second floor would be converted to administrative use.

New Construction:

Remodeled area: 3,000 SF

Items 8 **Existing Meadow Edge House: Demolish and restore site.**

As part of the site restoration work a water feature would be created with three small natural pools surrounded by native vegetation and a rock sculpture as fore ground to the meadow view from the Lodge.

Item 9 **Restaurant**

The new restaurant is located near the new lodge, guest cabins, new pool complex and multipurpose facility. It provides an alternative and seated dining experience to the cafeteria style restaurant at the existing Lodge or the self-serve campground kitchen. The restaurant would be able to handle 50 to 60 patrons at one sitting for a total of between 100 and 120 meals at breakfast, lunch and Dinner. An outdoor dining area for 20 to 40 guests is attached to the restaurant. The restaurant has vehicular access, Fire access, ADA parking and ADA restrooms. Trails would connect to the new lodge, pool complex and cabins.

New Construction:

Restaurant: 2,200 SF

Kitchen: 1,200 SF

Reception/waiting/restrooms: 400 SF

Utility and Storage; 400 SF

Total: 4,400 SF

Parking: 16 – 2 ADA, 4 staff, 10 patrons. (Assumes walk-in guests)

Item 10, 11 **Maintenance Shop and Storage**

Provide a fenced, fire resistant, secure and accessible maintenance area. The shop would include an office for the maintenance supervisor, parts storage, equipment repair and covered storage for maintenance vehicles and equipment. The shop will accommodate light metal working and woodworking. A powerhouse with main electrical panel, transformers and backup generator would be located in this area. The maintenance shop would be located south and west of the new Market and served by an access road from the Market parking area.

New Construction:

Maintenance Buildings: 4,000 SF

Item 12 **Market, Studio, and Gallery**

Located off Campbell Hot Springs Road above the main lodge. The market would provide a well stocked inventory of grocery items for guests and employees. Two existing buildings would be remodeled into art studio and gallery spaces. ADA and patron parking would be placed uphill and behind the building.

New Construction:

Market:	2,180 SF
Studio and Gallery Renovation:	1,290 SF
Total:	3,470 SF

Item 13 **Staff Housing for 48 employees**

Staff housing could consist of small cabins for seasonal workers (2 to 4 person units) and permanent staff. The staff housing is sited for access and privacy. Some units will be ADA compliant. Married staff and staff with children will be housed in larger units. The staff housing is arranged in three clusters consisting of 6 - 7 residences housing 12 to 16 people and a laundry/storage building along a semi-private access road. Tentative square footage allocation:

New Construction:

30 Single use:	14,000 SF
8 multiple use:	6,200 SF
3 Laundry/storage buildings:	1,800 SF
Total:	22,000 SF

Parking: 48 with 3 ADA stalls

Item 14 **Existing Round House, 100 Sf**

Unspecified use

Item 15 **Guest Cabins: 11 - 360 - 500 SF units**

These scattered cabins provide maximum privacy and separation from other activities. They would be connected to facilities by walking trails only. Some units are close to other units for use by small groups of visiting couples. There is a discrete central building to house cleaning equipment and supplies accessible by vehicle or cart. One cabin needs to be ADA accessible. Cabins would range from 16’ x 24’ to 16’ x 32’ with deck, private entrance, closet, and bathroom.

New Construction:

8 Cabins:	3,200 SF
3 Cabins:	1,400 SF
Maid Service:	140 SF
Total:	4,740 SF

Parking: 11 guest parking spaces in an adjacent lot.

Item 16 **Dragon Fly Lodge with 60 rooms**

The lodge is designed for 60 rooms on two floors arranged around a central public area with stairs, elevators, lounge area with Wi-fi, and reception desk. Some rooms are set up as suites and others with interconnections. The lodge needs ADA access and parking. 4 rooms are ADA accessible. The Lodge as the largest building on site, will address fire safety issues through the use of fire separation walls, fire doors, and exit distances. In addition to housing the bulk of Hot Springs guests, the lodge would also incorporate a central laundry facility in the basement under the lounge and reception area. A staff room, storage, and utilities would be added to the mix of basement uses. The Lodge is connected to the Multi-purpose building by a fanciful arbor and to the restaurant, cabins, and pool complex by trails.

Tentative square footage allocation:

New Construction:

56 - 16’ x 24‘ rooms:	21,500 SF
4 - 25’ x 25’ Suites:	2,500 SF
Lounge:	2,400 SF
Reception/Office:	700 SF
Circulation:	4,000 SF
Staff, Storage, cleaning:	2,400 SF
Basement utility and laundry:	2,000 SF
Total:	35,600 SF

Parking: 68 – 4 ADA, 4 staff, 60 guests

Item 17 **Pool Complex**

The pool complex consists of four outdoor pools connected in series from hot and small, to large and warm, to cold. All pools overlook the wetland swale with views to the meadow and beyond. There are outdoor sitting areas, and covered outdoor space. The roof also covers the saunas, dressing rooms with two showers, and ADA restrooms. Trails would come from the Lodge and cabins. Service access would be by gravel drive.

New Construction:

Dressing, restrooms, saunas:	1,200 SF
Covered area:	3,200 SF
Pools and hardscaping:	8,000 SF

Item 18 **Multi-use Building**

The multi-use building is connected to the Lodge via a curved and finely crafted arbor that would be roofed with clear glazing. The multipurpose room opens out to the south for maximum daylight. 40 to 80 people can be accommodated for events from meditation to yoga to dances. Walking paths connect it to the cabins and pool complex. The building will have vehicle access for service. Parking is provided at the Lodge.

New Construction:

Multi-purpose Room:	1,650 SF
Restrooms and circulation:	350 SF
Total:	2,000 SF

Item 19 **Medicine Baths:**

The Medicine bath will remain as a small hot soaking pool in a natural setting with primitive facilities. The facility will remain walk-in only.

Item 20 **Remote WorkShop:**

Provides a secluded large meeting room for up to 45 people for group use - yoga, exercise, meditation, and private workshops. The building will have a quiet, open to the landscape feel, with good acoustics, wood floors, and be constructed of natural, non-toxic materials. The building would include a serving kitchen and dining area, restrooms and overnight accommodations in two individual rooms and a dorm. The building will have ADA access and parking as well as access for fire safety. Paths would connect this building with the Lodge and multi-use building.

New Construction:

Large Meditation Room:	1,600 SF
Dining and Kitchen:	1,400 SF
Guest quarters:	800 SF
Total:	3,800 SF

Parking: 4 – 2 ADA, 2 staff

Item 21 **Small Workshop:**

Located in close proximity to the existing Lodge and proposed new restaurant, this small workshop space is designed for smaller group use for classes, yoga, dance, exercise, and meditation. The building is designed to nestle into the hillside, with an entrance through a rock garden that opens to the main room and a view across the distant meadows. The building will include a serving kitchen/eating area and restrooms. The site will include ADA parking and access. Paths will connect the small workshop to the lodge and the restaurant. Guest parking will be at the nearby Market.

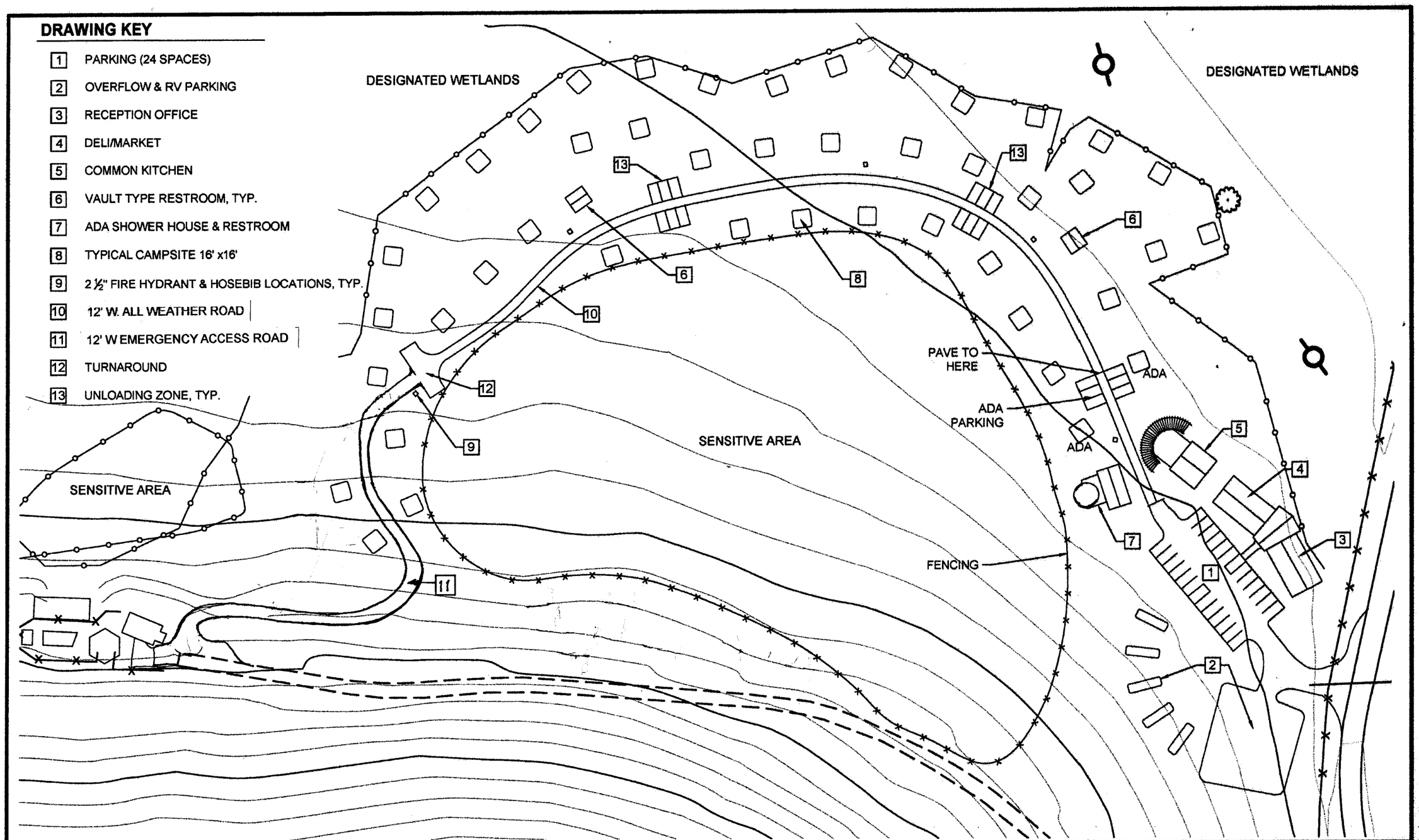
New Construction:

Workshop:	800 SF
Restrooms:	200 SF
Total:	1,000 SF

Parking: 2 ADA

DRAWING KEY

1. PARKING (24 SPACES)
2. OVERFLOW & RV PARKING
3. RECEPTION OFFICE
4. DELI/MARKET
5. COMMON KITCHEN
6. VAULT TYPE RESTROOM, TYP.
7. ADA SHOWER HOUSE & RESTROOM
8. TYPICAL CAMPSITE 16' x16'
9. 2 ½" FIRE HYDRANT & HOSEBIB LOCATIONS, TYP.
10. 12' W. ALL WEATHER ROAD
11. 12' W EMERGENCY ACCESS ROAD
12. TURNAROUND
13. UNLOADING ZONE, TYP.



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SACRED CIRCLE CAMPGROUND

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SCALE: 1"=80'

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MASTER PLAN
SIERRAVILLE, CA 96126

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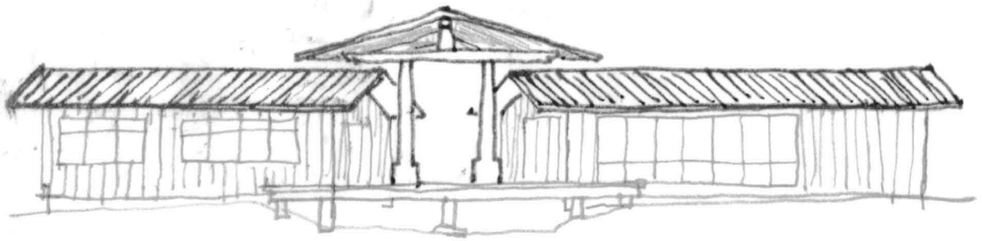
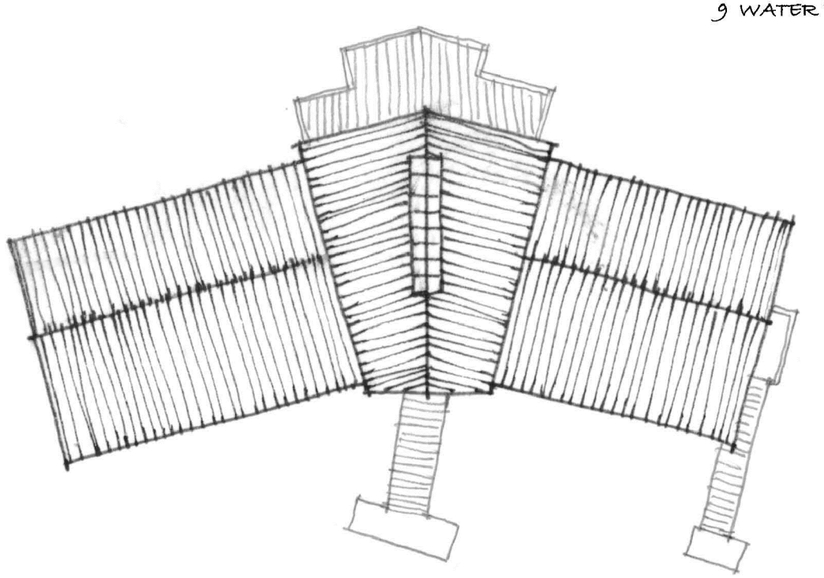


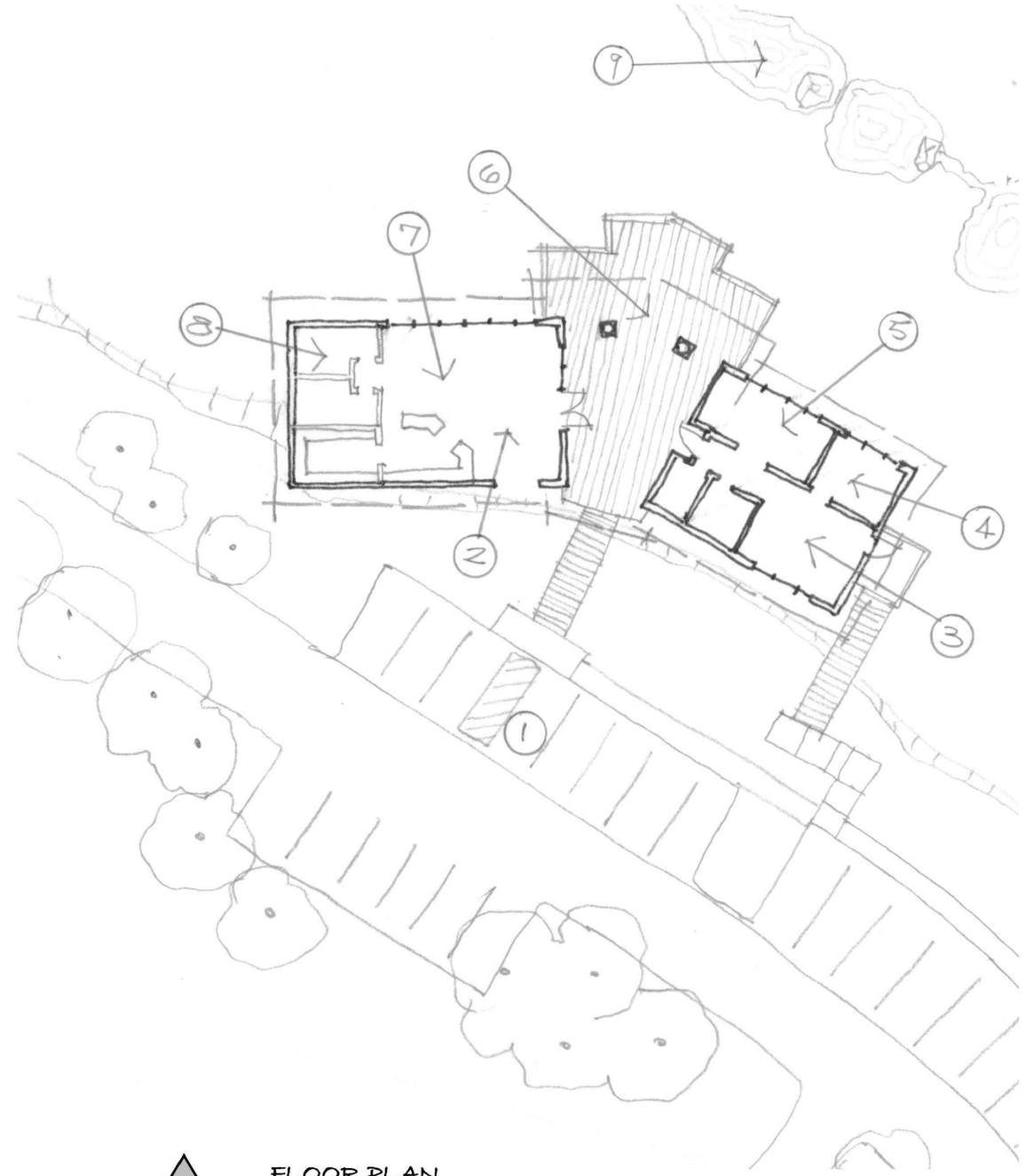
NORTH ELEVATION

DRAWING KEY

1 ADA PARKING
2 RECEPTION
3 OFFICE
4 OFFICE
5 CONFERENCE ROOM
6 MEADOW OBSERVATION DECK
7 DELI/MARKET/RECEPTION
8 RESTROOMS
9 WATER POOLS & FOUNTAIN



ROOF PLAN



FLOOR PLAN

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RECEPTION

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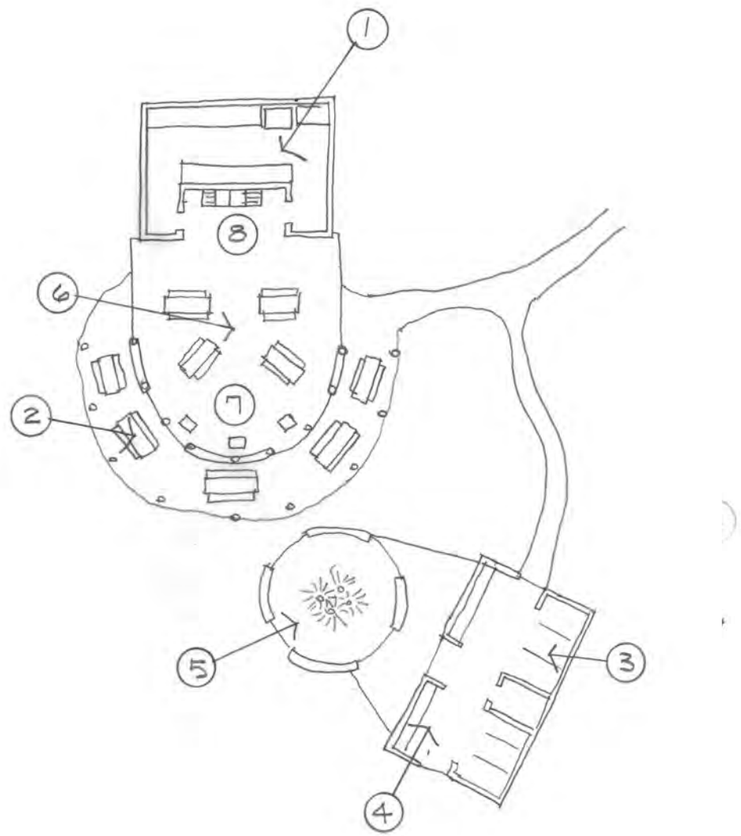
#1 Reception and Campground Facilities

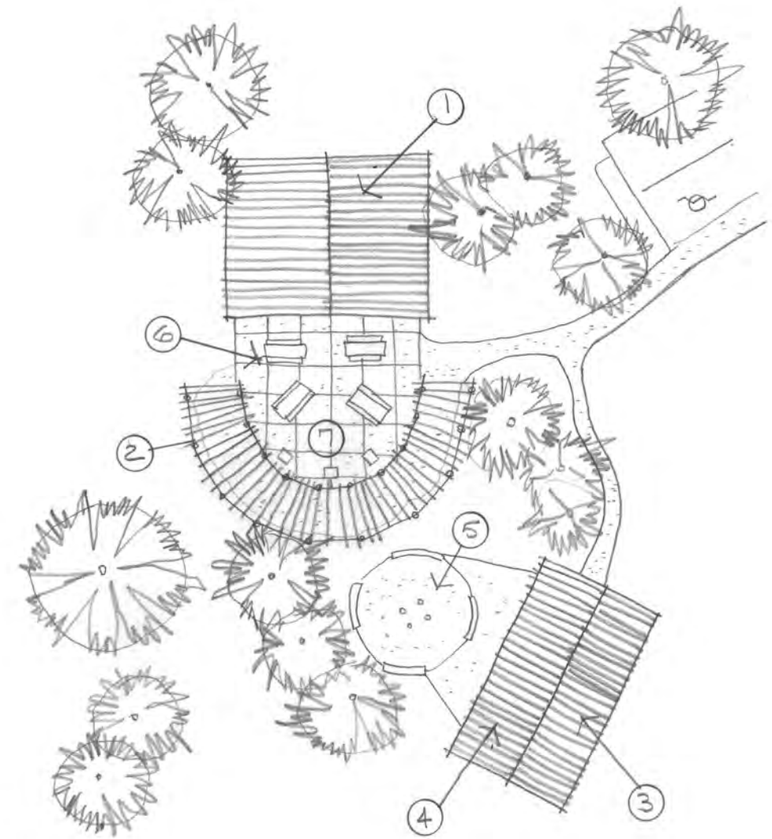


Floor Plan

Drawing Key

1 Common Camp Kitchen
2 Shade Trellis
3 ADA Showers
4 Dressing Area
5 Outdoor Showers
6 Picnic Area
7 Barbecues
8 Shade Arbor
9 Serving & Wash-up

Campground Facilities consist of large restroom building connected to outdoor eating and BBQ area and a five stall shower house with dressing area facing an outdoor four head shower area for quick wash-offs and children. All facilities with ADA accessibility. An adjacent parking area contains ADA parking for cars and vans.
In addition to main restroom building there should be a few pit type restrooms located within the main camping area.



Roof Plan

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CAMPGROUND FACILITIES

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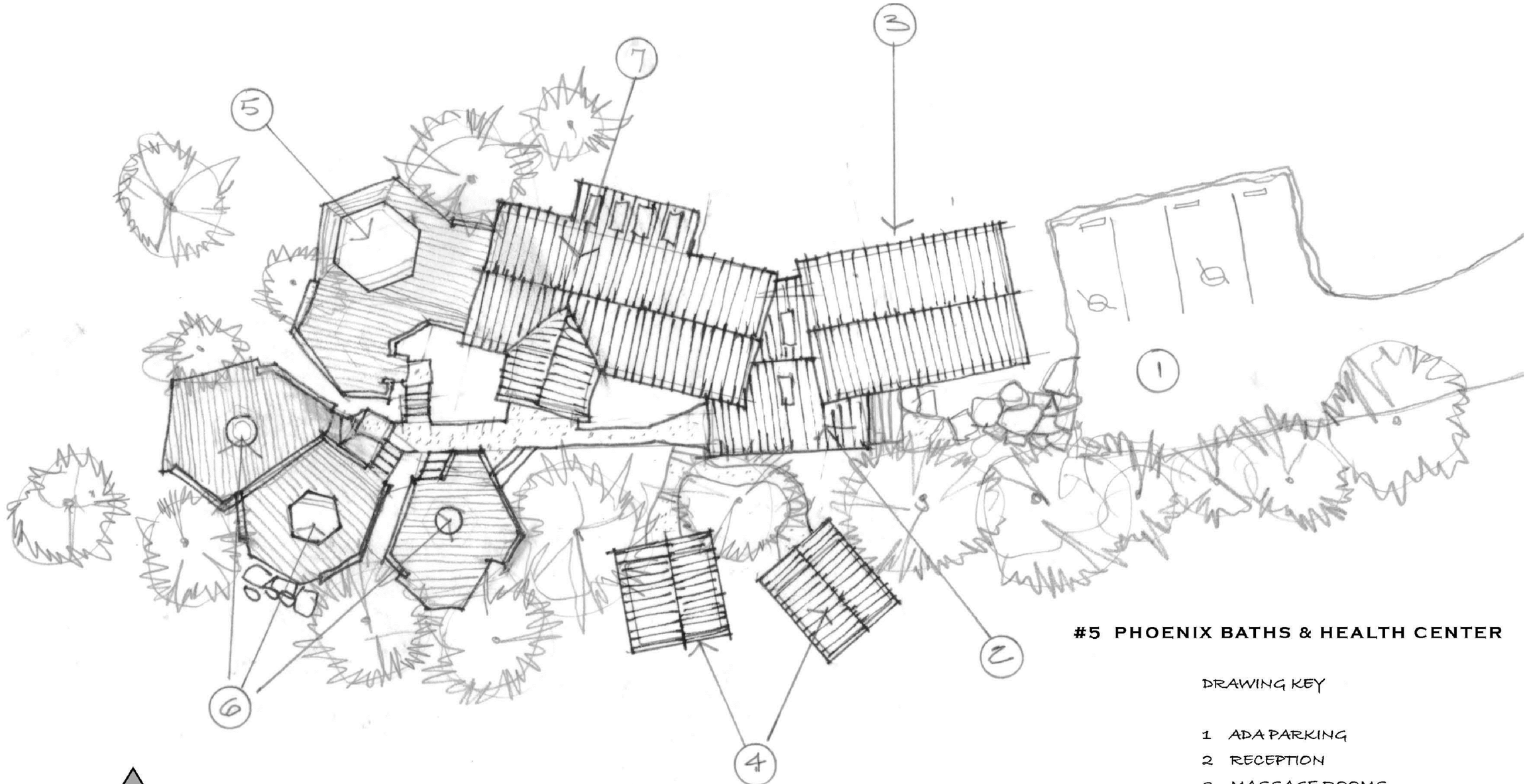

#5 PHOENIX BATHS & HEALTH CENTER

DRAWING KEY

1 ADA PARKING
2 RECEPTION
3 MASSAGE ROOMS
4 MASSAGE STUDIOS
5 COMMUNAL BATHING (12)
6 PRIVATE BATHS
7 MASSAGE AND DRESSING ROOMS

SITE PLAN W/ OUTDOOR SPAS

NORTH

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PHOENIX BATHS

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#9 Meadow Vista Restaurant

MAIN RESTAURANT
3,500 SF

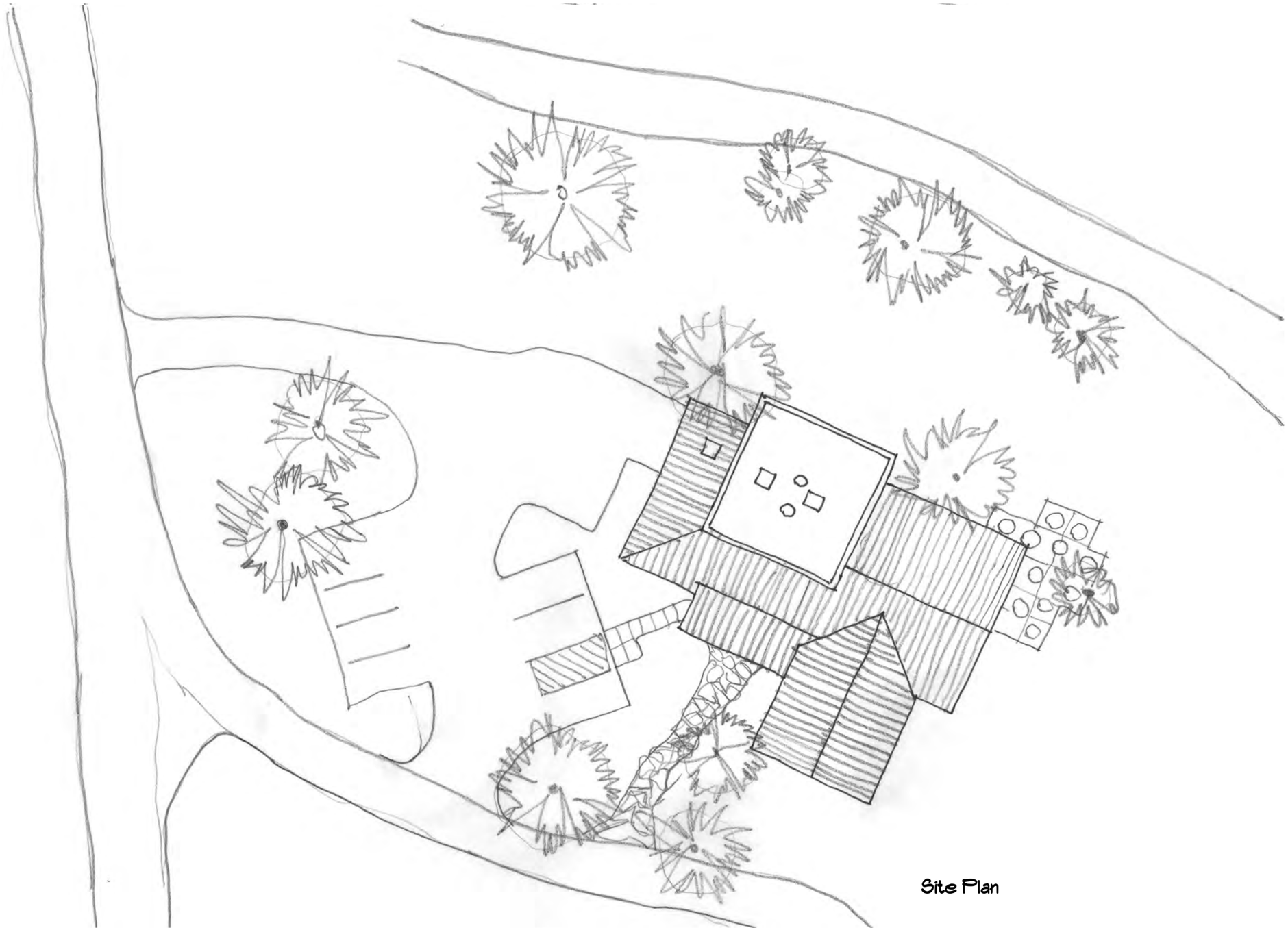
The restaurant is situated overlooki the valley, set back behind the old Campbell Hotsprings Road. It consists of two dining rooms set up serve from 60 to 100 diners. One dining room can be closed off from the other in slow seasons or to be use as banquet space.

There is a terrace overlooking the valley with small tables for lunchtime service.

The kitchen is laid out as a full service commercial kitchen for tabl service. A buffet could be added for parties.

There is delivery access and ADA parking, accessed from the main spine road. The entrance porch and lobby faces south and is connected the Lodge by a well marked and lighted pathway.

The style keeps the elements of open covered porches, sloping roofs, board and batten siding and timber fram interiors.



Site Plan

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MEADOW VISTA RESTAURANT

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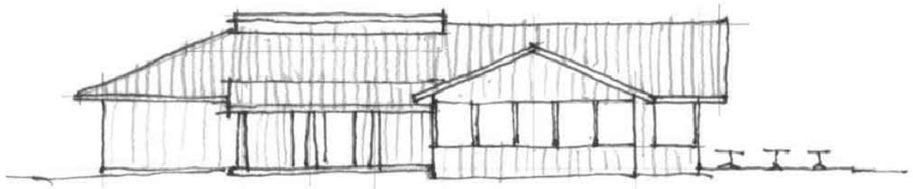
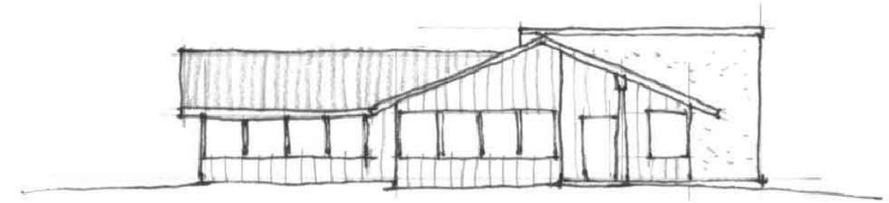
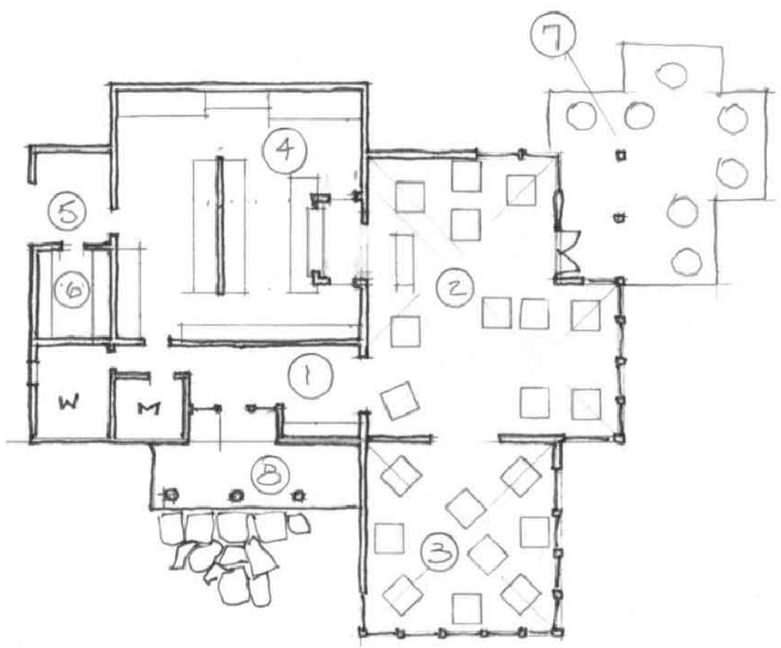


North Elevation (Entry)

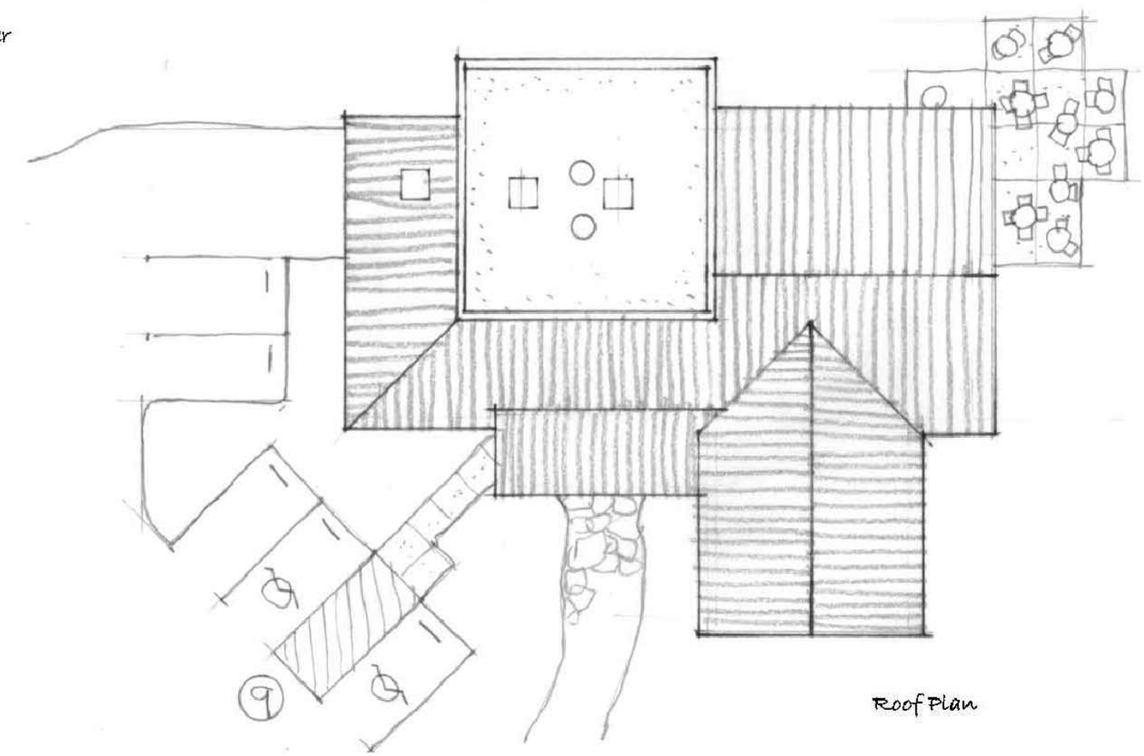


East Elevation

DRAWING KEY
1 Lobby
2 Dining Room
3 Dining Room
4 Commercial Kitchen
5 Deliveries
6 Walk-in Freezer
7 Terrace
8 Entry Porch
9 ADA Parking



Floor Plan



Roof Plan

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MEADOW VISTA RESTAURANT

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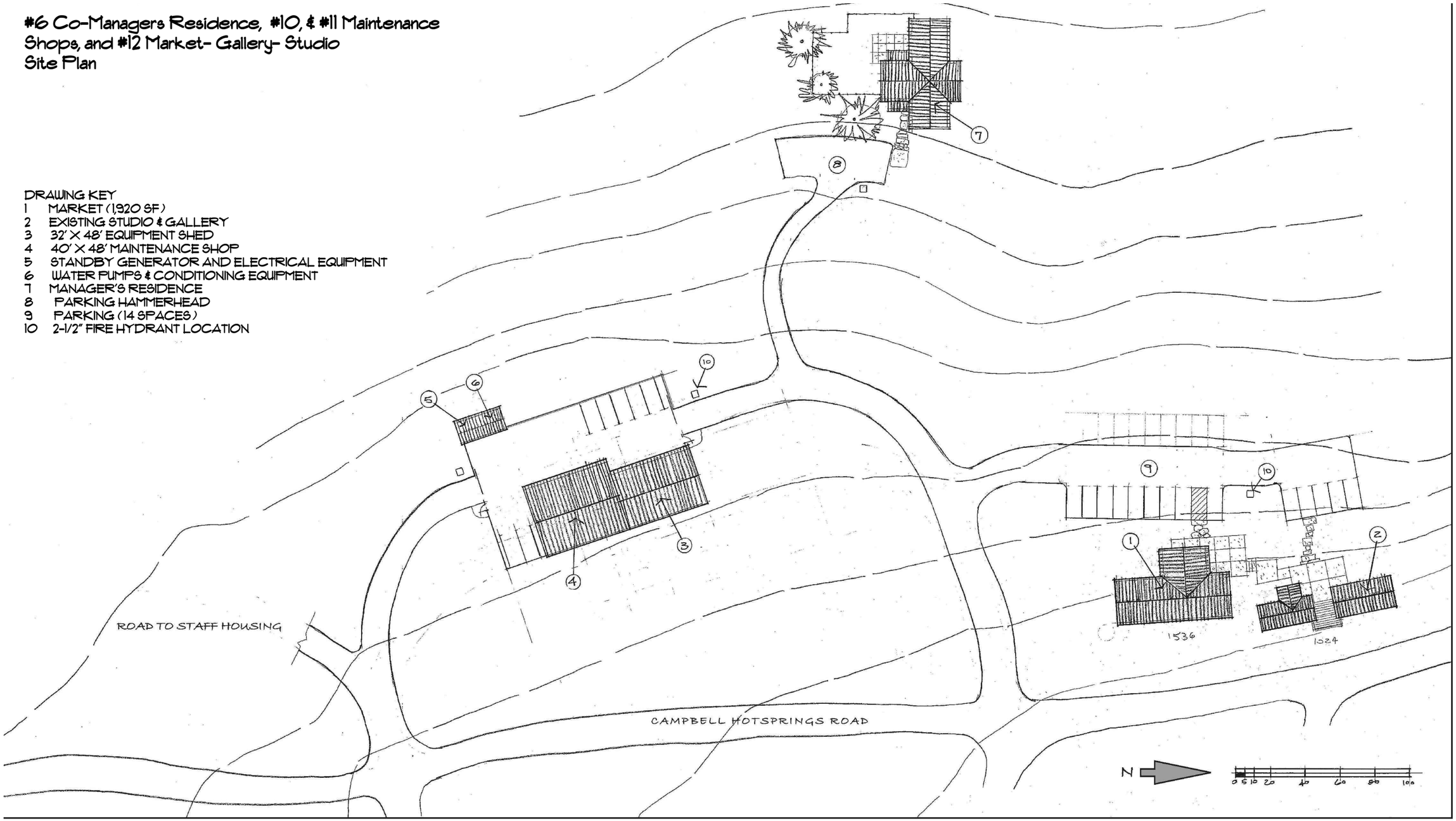
#6 Co-Managers Residence, #10, & #11 Maintenance Shops, and #12 Market- Gallery- Studio
Site Plan

DRAWING KEY
1 MARKET (1,920 SF)
2 EXISTING STUDIO & GALLERY
3 32' X 48' EQUIPMENT SHED
4 40' X 48' MAINTENANCE SHOP
5 STANDBY GENERATOR AND ELECTRICAL EQUIPMENT
6 WATER PUMPS & CONDITIONING EQUIPMENT
7 MANAGER'S RESIDENCE
8 PARKING HAMMERHEAD
9 PARKING (14 SPACES)
10 2-1/2" FIRE HYDRANT LOCATION



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CO-MANAGERS RESIDENCES, MARKET, MAINTENANCE SHOP

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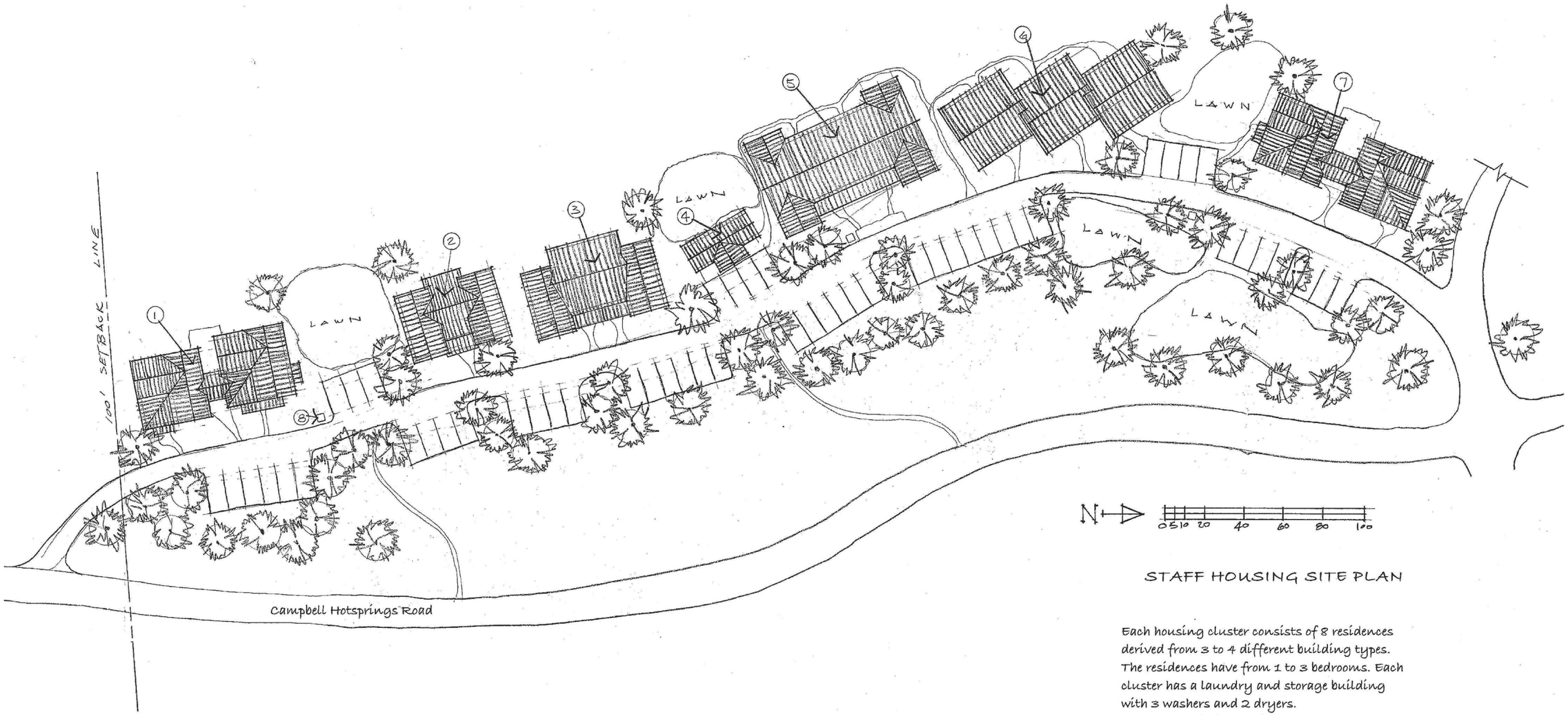

STAFF HOUSING SITE PLAN

Each housing cluster consists of 8 residences derived from 3 to 4 different building types. The residences have from 1 to 3 bedrooms. Each cluster has a laundry and storage building with 3 washers and 2 dryers.
Total cluster bedrooms is 16.
Stringing out 3 clusters uphill from Campbell Hotsprings Road would house 48 employees.

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STAFF HOUSING

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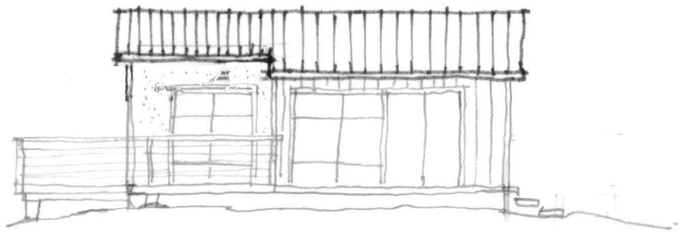
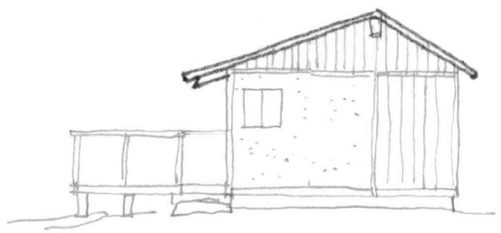
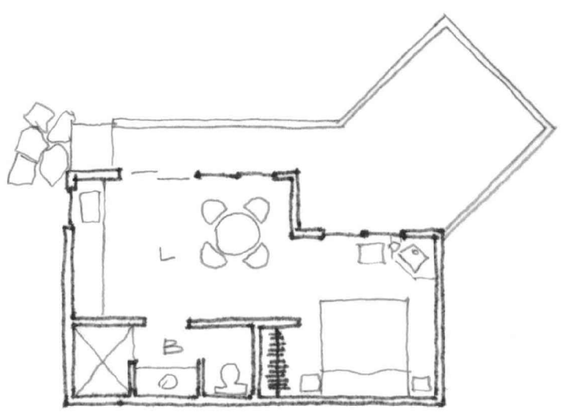
#15 GUEST CABINS



FRONT ELEVATION



SIDE ELEVATION



FLOOR PLAN

DRAWING KEY

1 TYPICAL CABIN

2 CABIN GROUP

3 BRIDBE OVER WETLAND

4 TO POOL COMPLEX

5 TO PARKING

SITE PLAN

SCALE: 1" = 30'

NORTH

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GUEST CABINS

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SIERRA HOT SPRINGS MASTER PLAN
SIERRAVILLE, CA 96126

#16 DRAGONFLY LODGE

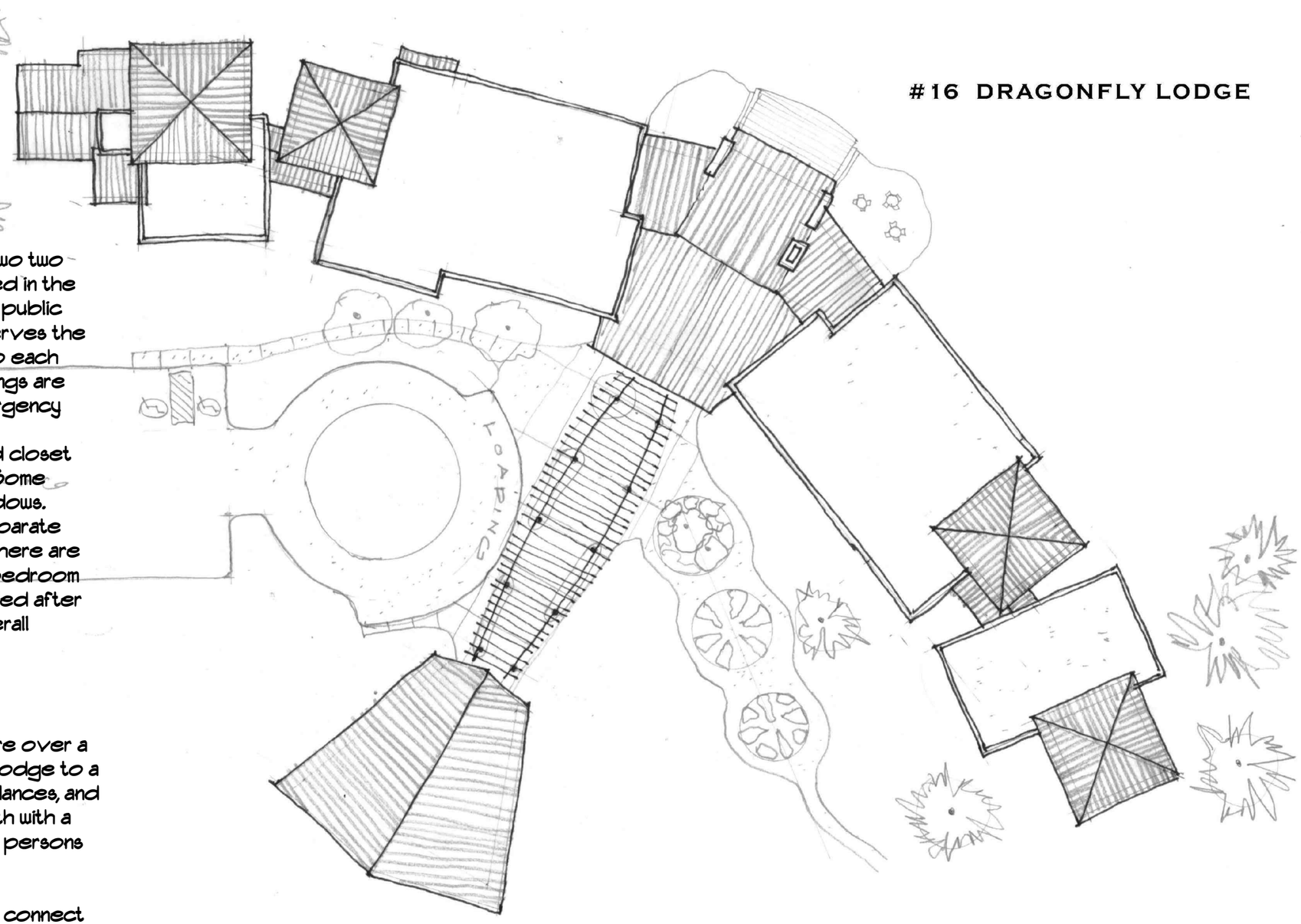
DRAGONFLY LODGE

The Dragonfly Lodge consists of two two story wings with 30 suites each, linked in the middle by a main reception area and public space. An elevator and staircase serves the second floor via an open walkway to each wing on on the second floor. The wings are further separated by walkways, emergency stairways and fire doors.
The typical suite has a bathroom and closet area and room for a king size bed. Some suites will have balconies or bay windows. Others can be configured with a separate bedroom and efficiency kitchens. There are also 4 "tower" units that will have a bedroom and bath in a loft. The towers, modeled after ranch water towers, balance the overall Lodge Design.

MULTIPURPOSE BUILDING

A curved and arched trellis structure over a landscaped walkway connects the Lodge to a multi-use building for classes, talks, dances, and banquets. The main room faces South with a view of the forest. From 40 to 80 persons will be able to use the space.

The Lodge and Multipurpose room connect to the cabins, new restaurant, and the new pool area by trails. A dedicated parking area with accessible loading area and parking is shown to the west. This will connect to the major spine road.



North

Site Plan

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DRAGONFLY LODGE

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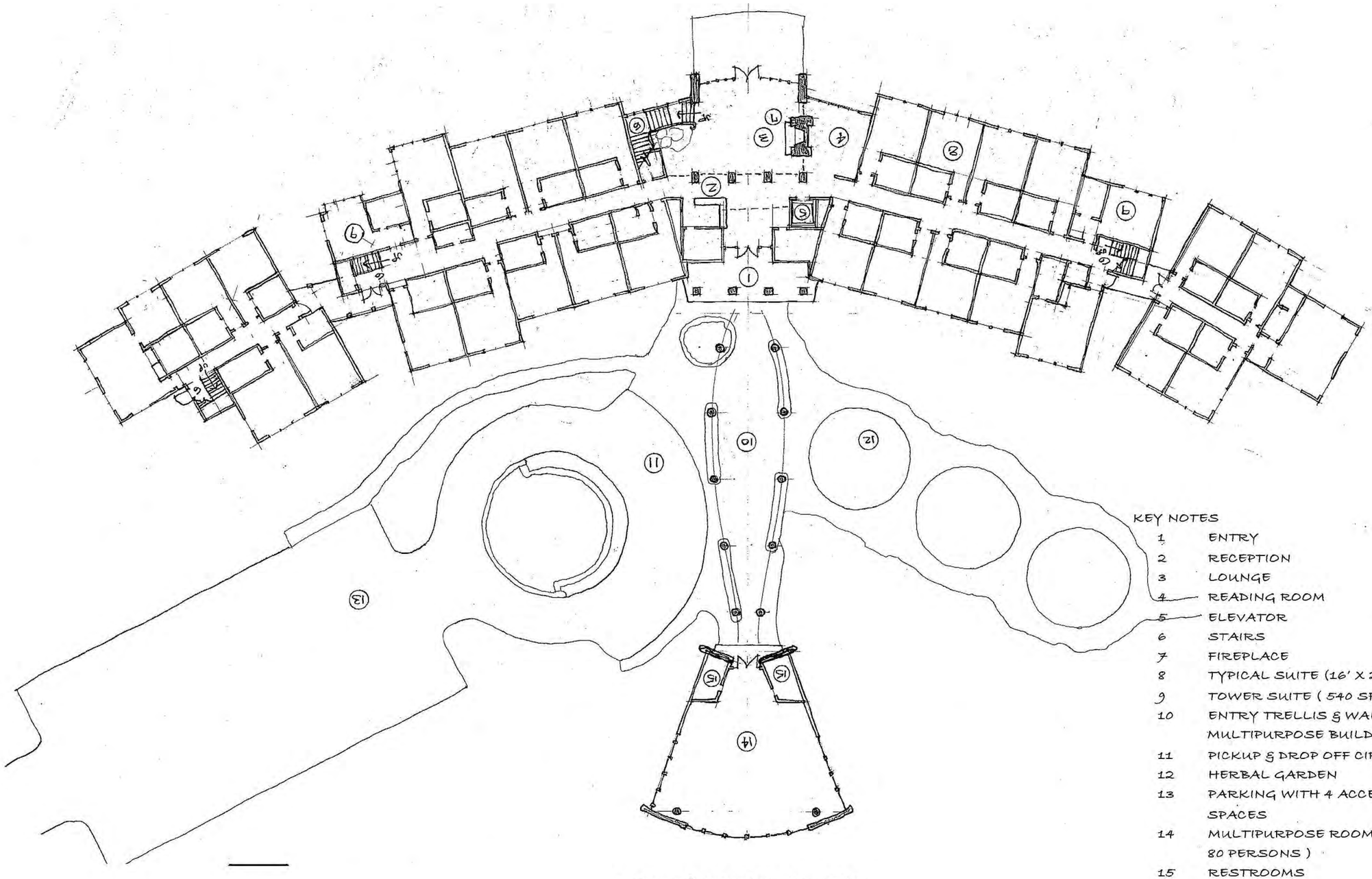

KEY NOTES

1 ENTRY
2 RECEPTION
3 LOUNGE
4 READING ROOM
5 ELEVATOR
6 STAIRS
7 FIREPLACE
8 TYPICAL SUITE (16' X 24', 384 SF)
9 TOWER SUITE (540 SF)
10 ENTRY TRELLIS & WALKWAY TO MULTIPURPOSE BUILDING
11 PICKUP & DROP OFF CIRCLE
12 HERBAL GARDEN
13 PARKING WITH 4 ACCESSIBLE SPACES
14 MULTIPURPOSE ROOM (1,620 SF, 40 - 80 PERSONS)
15 RESTROOMS

Dragonfly Lodge Floor Plan

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DRAGONFLY LODGE

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MASTER PLAN
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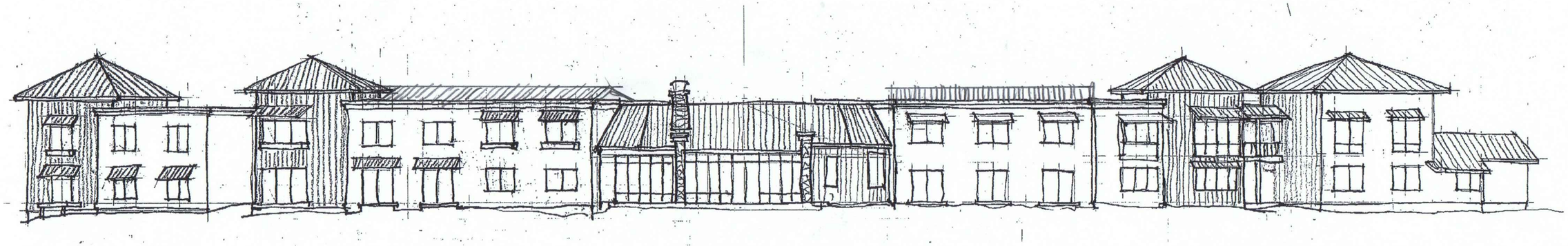
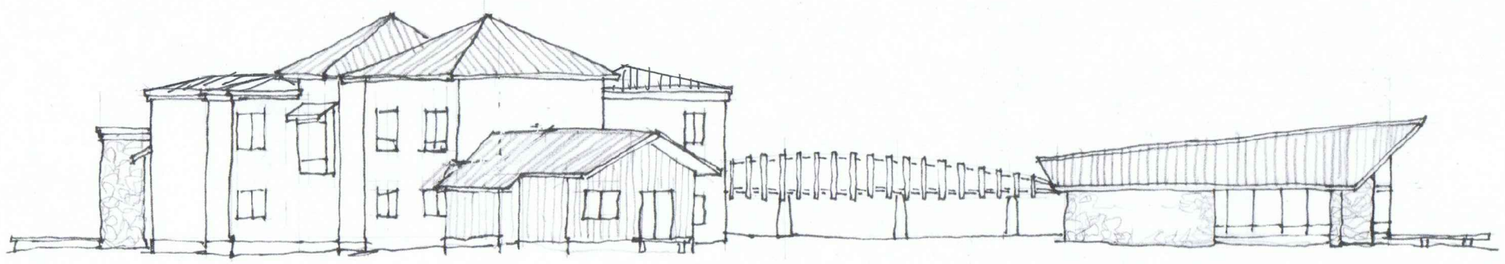


NORTH ELEVATION



WEST ELEVATION WITH MULTIPURPOSE

#16 DRAGONFLY LODGE

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DRAGONFLY LODGE

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MASTER PLAN
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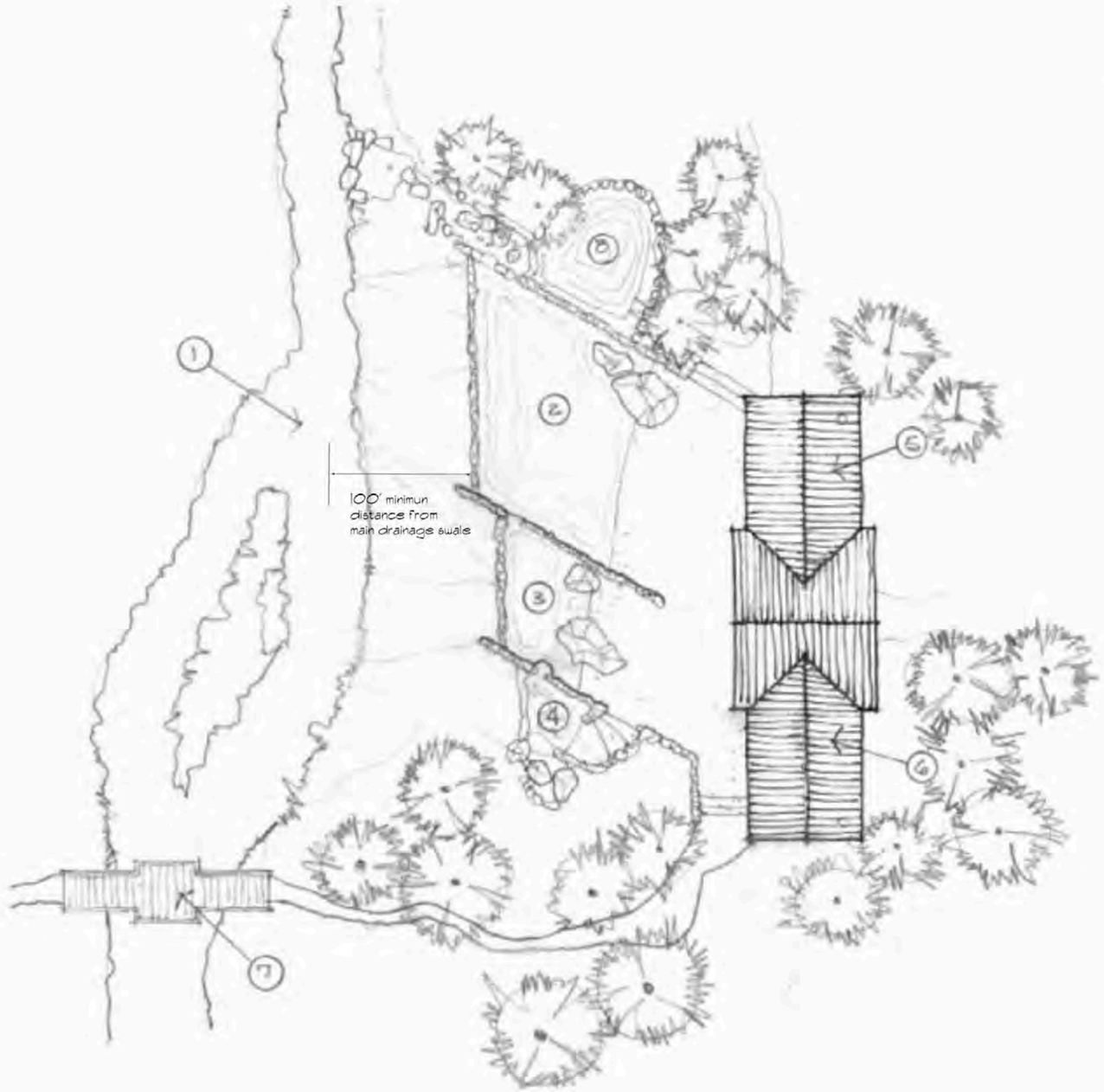
#17 Pools Complex



Drawing Key

1 Drainage Swale
2 Warm Pool
3 Medium Pool
4 Hot Pool
5 Dressing & Sauna
6 Dressing & sauna
7 Bridge to Cabins & Lodge
8 Cold Pool

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POOLS COMPLEX

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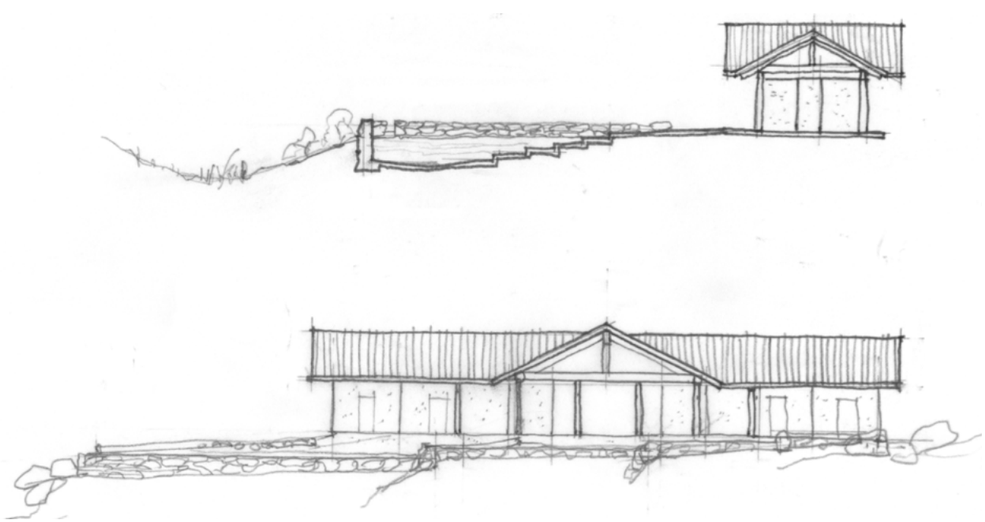
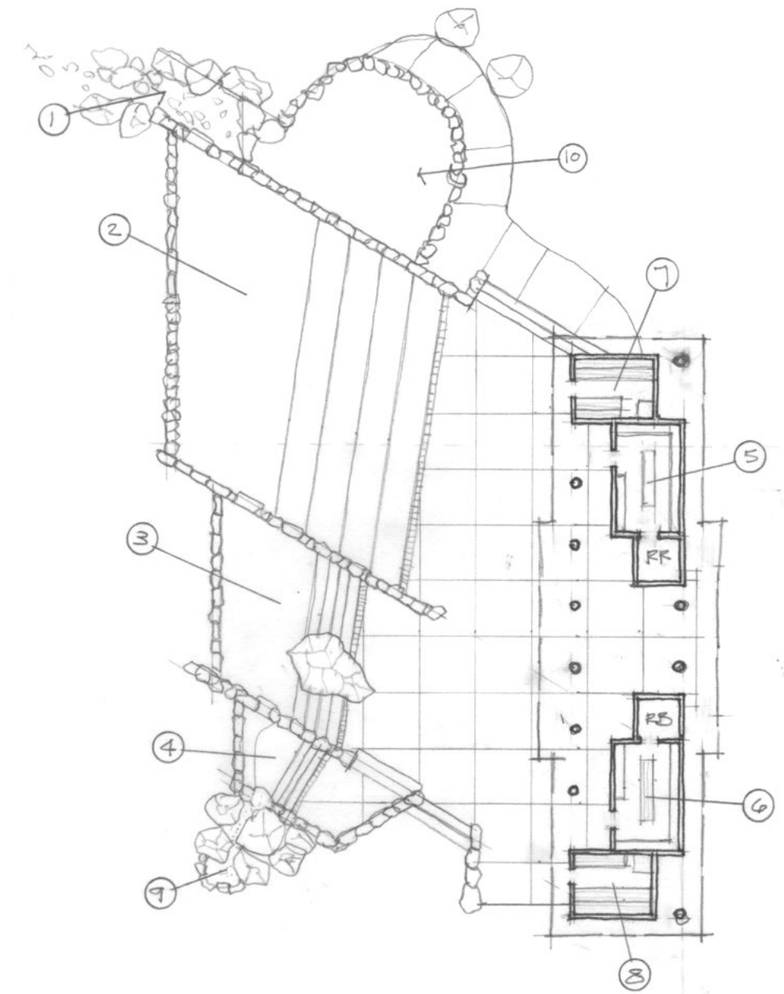
SIERRA HOT SPRINGS MASTER PLAN
SIERRAVILLE, CA 96126

17 POOLS COMPLEX

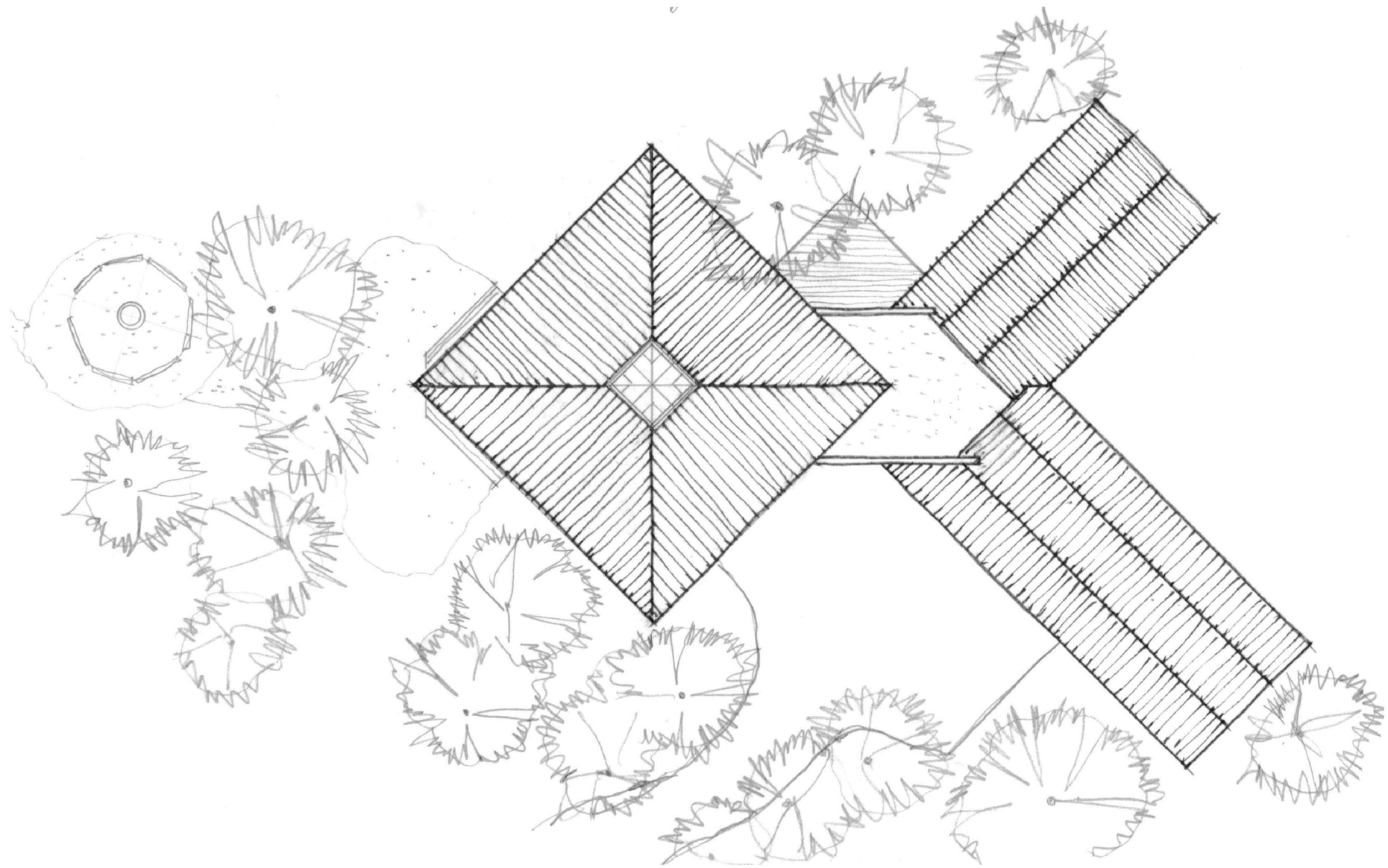
Drawing Key

1 Cool water outlet swale
2 Warm Pool
3 Medium Hot Pool
4 Hot Pool
5 Dressing room
6 Dressing room
7 Sauna
8 Sauna
9 Hot Spring inlet rock pond
10 Cold Pool





#20 Remote Workshop



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REMOTE WORKSHOP

N

NTS

AUGUST 28, 2014

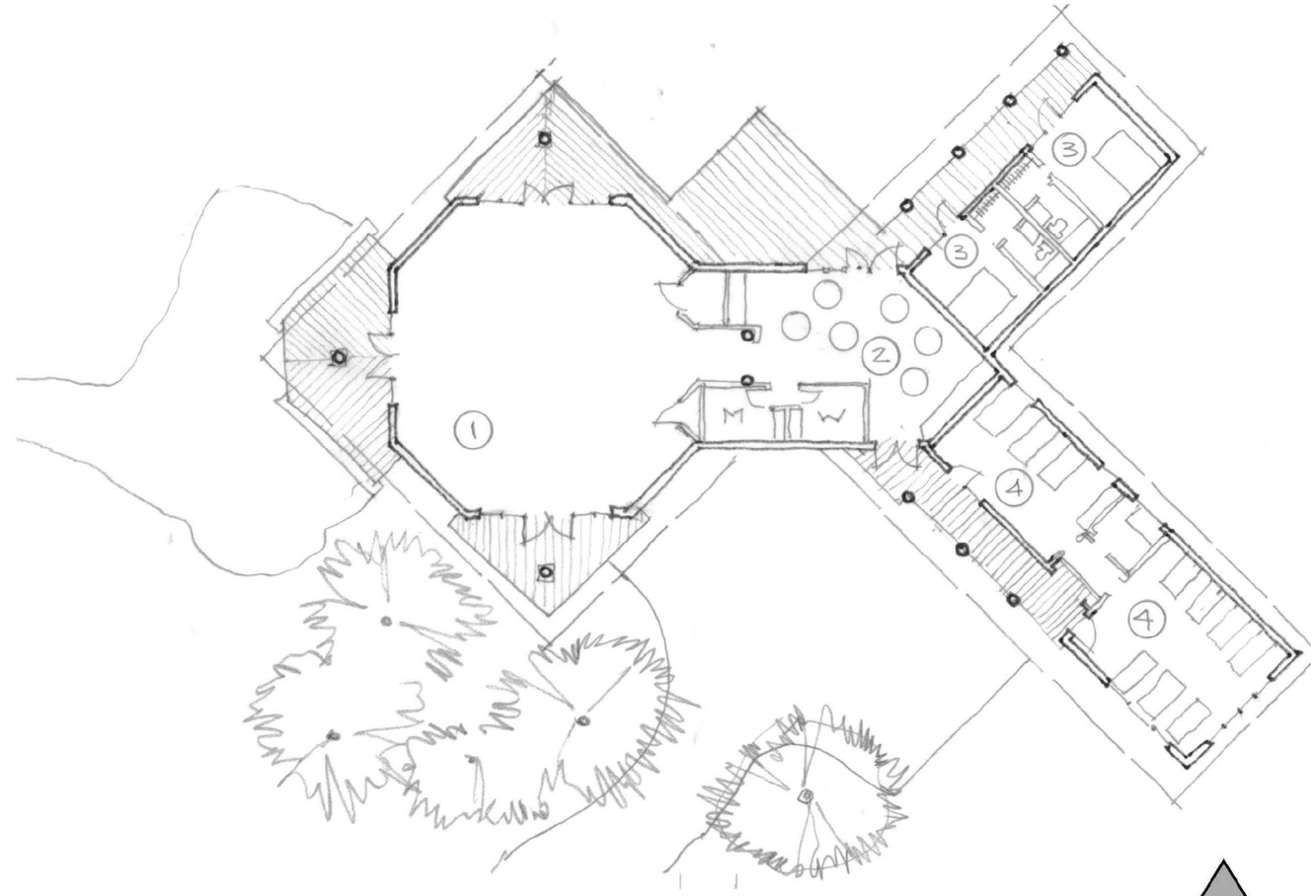
SIERRA HOT SPRINGS MASTER PLAN
SIERRAVILLE, CA 96126

#20 Remote Workshop

The Remote Workshop consists of a 1,564 SF classroom space (48' x 48') connected to a dining area with a warming kitchen, a wing with two rooms for teachers and a wing with dorm style sleeping area for students.

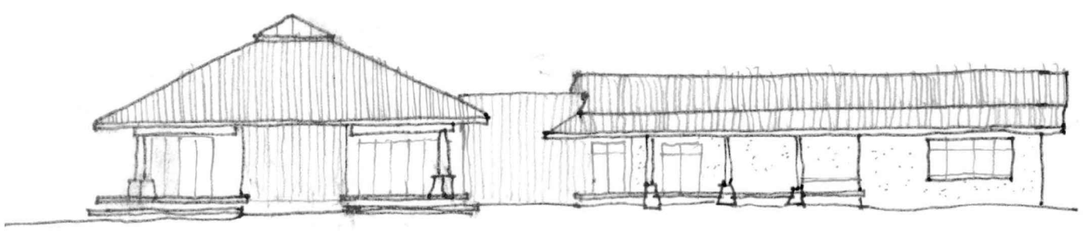
The Workshop materials include rusting steel roofs, heavy timber framing, board and batten and stucco siding. The main classroom is lighted by a central skylight and glazing on three sides. The sleeping areas are reached by covered porches

The classrooms, dining and sleeping areas all have access to outdoor spaces



Floor Plan – 4,400 SF

NORTH



Drawing Key
1 Classroom (1,564 SF)
2 Dining Area
3 Single occupancy room w/ bath
4 Preparation Kitchen & Classroom

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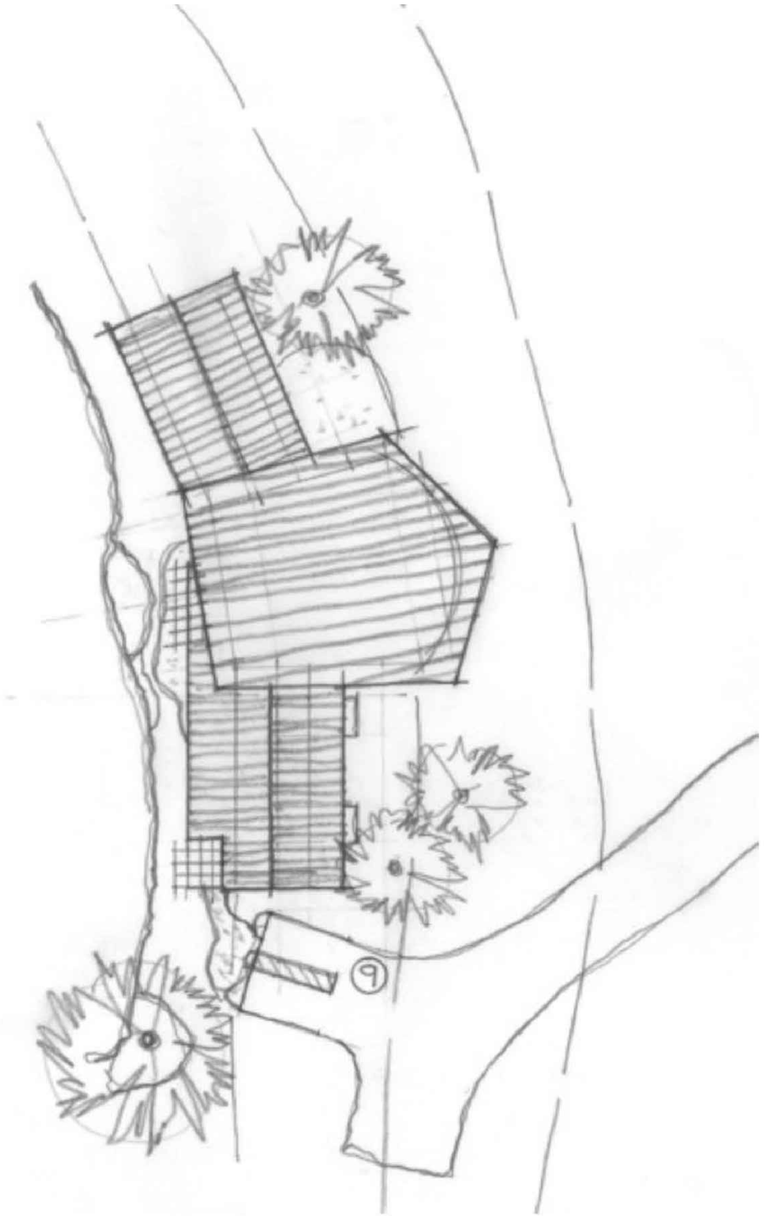
REMOTE WORKSHOP

N

NTS

AUGUST 28, 2014

SIERRA HOT SPRINGS MASTER PLAN SIERRAVILLE, CA 96126



Workshop Roof Plan

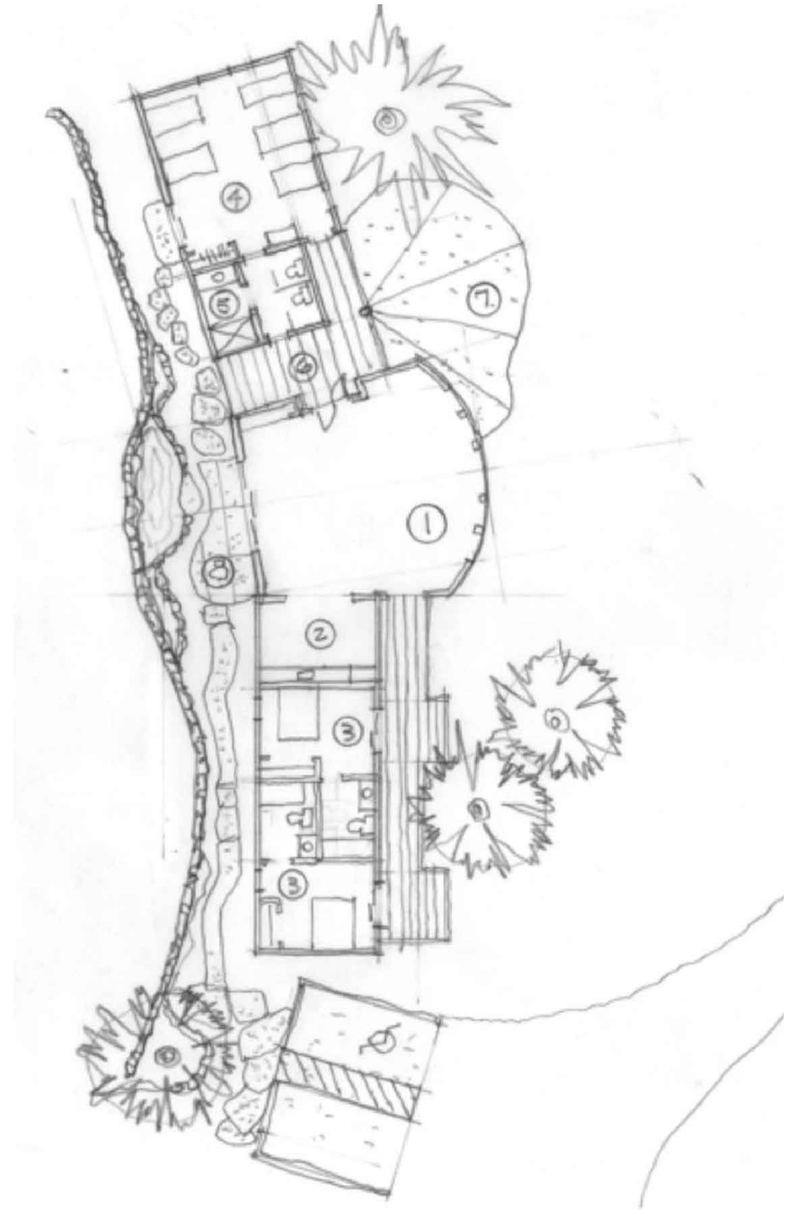
NORTH

SMALL WORKSHOP – 2,200 SF

A smaller sized meeting room for groups of 20 to 30 participants. Includes food service area and sleeping accommodations for 7 – 10 people.

LEGEND

1 MEETING ROOM
2 SERVING AREA
3 GUEST SUITE
4 GUEST DORM
5 RESTROOM
6 COVERED PORCH
7 PATIO
8 ENTRYWAY
9 ADA PARKING



Workshop Floor Plan

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SMALL WORKSHOP

N

NTS

AUGUST 28, 2014

SIERRA HOT SPRINGS
MASTER PLAN
SIERRAVILLE, CA 96126

APPENDIX B

Air Quality Emissions Modeling

Sierra Hot Springs Master Plan Development

Sierra County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Health Club	45.00	1000sqft	12.00	45,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	64
Climate Zone	14			**Operational Year**	2019
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	641.35	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - PG&E used as proxy for Plumas-Sierra Rural Electric Cooperative

Land Use - site size

Construction Phase - approx schedule for construction of masterplan development priorities in a single season

Off-road Equipment - for applying exterior paint

Off-road Equipment -

Off-road Equipment - limited excavation

Off-road Equipment -

Off-road Equipment -

Grading - grading for building pads, internal circulation, campsite amenities

Architectural Coating - low VOC paint required by air district rules

Vehicle Trips - trip rates adjusted per traffic study, saturday is peak traffic volume for this development

Energy Use -

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	250.00	150.00
tblArchitecturalCoating	EF_Nonresidential_Interior	250.00	150.00
tblConstructionPhase	NumDays	20.00	8.00
tblConstructionPhase	NumDays	300.00	30.00
tblConstructionPhase	NumDays	30.00	10.00
tblConstructionPhase	NumDays	20.00	10.00
tblConstructionPhase	NumDays	10.00	12.00
tblConstructionPhase	PhaseEndDate	7/30/2017	10/18/2017
tblConstructionPhase	PhaseEndDate	7/30/2017	10/6/2017
tblConstructionPhase	PhaseEndDate	7/30/2017	8/11/2017
tblConstructionPhase	PhaseEndDate	7/30/2017	8/25/2017
tblConstructionPhase	PhaseEndDate	7/30/2017	8/4/2017
tblConstructionPhase	PhaseStartDate	7/31/2017	10/9/2017
tblConstructionPhase	PhaseStartDate	7/31/2017	8/28/2017
tblConstructionPhase	PhaseStartDate	7/31/2017	8/14/2017
tblConstructionPhase	PhaseStartDate	7/31/2017	7/20/2017
tblGrading	AcresOfGrading	25.00	8.00
tblLandUse	LotAcreage	1.03	12.00
tblOffRoadEquipment	OffRoadEquipmentType		Air Compressors
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblProjectCharacteristics	OperationalYear	2018	2019
tblVehicleTrips	SU_TR	26.73	17.00
tblVehicleTrips	WD_TR	32.93	12.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2017	0.4342	1.1613	0.7280	1.1200e-003	0.1480	0.0651	0.2131	0.0780	0.0605	0.1385	0.0000	102.5867	102.5867	0.0274	0.0000	103.2712
Maximum	**0.4342**	**1.1613**	**0.7280**	**1.1200e-003**	**0.1480**	**0.0651**	**0.2131**	**0.0780**	**0.0605**	**0.1385**	**0.0000**	**102.5867**	**102.5867**	**0.0274**	**0.0000**	**103.2712**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2017	0.4342	1.1613	0.7280	1.1200e-003	0.1480	0.0651	0.2131	0.0780	0.0605	0.1385	0.0000	102.5866	102.5866	0.0274	0.0000	103.2711
Maximum	**0.4342**	**1.1613**	**0.7280**	**1.1200e-003**	**0.1480**	**0.0651**	**0.2131**	**0.0780**	**0.0605**	**0.1385**	**0.0000**	**102.5866**	**102.5866**	**0.0274**	**0.0000**	**103.2711**

	ROG	**NOx**	**CO**	**SO2**	**Fugitive PM10**	**Exhaust PM10**	**PM10 Total**	**Fugitive PM2.5**	**Exhaust PM2.5**	**PM2.5 Total**	**Bio- CO2**	**NBio-CO2**	**Total CO2**	**CH4**	**N20**	**CO2e**
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Quarter	**Start Date**	**End Date**	**Maximum Unmitigated ROG + NOX (tons/quarter)**	**Maximum Mitigated ROG + NOX (tons/quarter)**
1	**7-31-2017**	**9-30-2017**	0.8739	0.8739
		Highest	0.8739	0.8739

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.2279	0.0000	4.2000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	8.0000e-004	8.0000e-004	0.0000	0.0000	8.6000e-004
Energy	8.6000e-004	7.7900e-003	6.5400e-003	5.0000e-005		5.9000e-004	5.9000e-004		5.9000e-004	5.9000e-004	0.0000	65.5537	65.5537	2.7400e-003	6.9000e-004	65.8277
Mobile	0.3360	0.8631	3.7197	5.6600e-003	0.4030	7.9700e-003	0.4110	0.1080	7.4800e-003	0.1155	0.0000	511.3308	511.3308	0.0377	0.0000	512.2720
Waste						0.0000	0.0000		0.0000	0.0000	52.0672	0.0000	52.0672	3.0771	0.0000	128.9942
Water						0.0000	0.0000		0.0000	0.0000	0.8444	5.8503	6.6947	0.0870	2.1000e-003	9.4959
Total	**0.5648**	**0.8709**	**3.7266**	**5.7100e-003**	**0.4030**	**8.5600e-003**	**0.4115**	**0.1080**	**8.0700e-003**	**0.1161**	**52.9115**	**582.7356**	**635.6471**	**3.2045**	**2.7900e-003**	**716.5907**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.2279	0.0000	4.2000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	8.0000e-004	8.0000e-004	0.0000	0.0000	8.6000e-004
Energy	8.6000e-004	7.7900e-003	6.5400e-003	5.0000e-005		5.9000e-004	5.9000e-004		5.9000e-004	5.9000e-004	0.0000	65.5537	65.5537	2.7400e-003	6.9000e-004	65.8277
Mobile	0.3360	0.8631	3.7197	5.6600e-003	0.4030	7.9700e-003	0.4110	0.1080	7.4800e-003	0.1155	0.0000	511.3308	511.3308	0.0377	0.0000	512.2720
Waste						0.0000	0.0000		0.0000	0.0000	52.0672	0.0000	52.0672	3.0771	0.0000	128.9942
Water						0.0000	0.0000		0.0000	0.0000	0.8444	5.8503	6.6947	0.0870	2.1000e-003	9.4959
Total	**0.5648**	**0.8709**	**3.7266**	**5.7100e-003**	**0.4030**	**8.5600e-003**	**0.4115**	**0.1080**	**8.0700e-003**	**0.1161**	**52.9115**	**582.7356**	**635.6471**	**3.2045**	**2.7900e-003**	**716.5907**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Architectural Coating	Architectural Coating	10/9/2017	10/18/2017	5	8	coatings for new buildings
2	Building Construction	Building Construction	8/28/2017	10/6/2017	5	30	construction of development priorities
3	Grading	Grading	7/31/2017	8/11/2017	5	10	grading for buildings and campsite amenities
4	Paving	Paving	8/14/2017	8/25/2017	5	10	internal circulation, building pads
5	Site Preparation	Site Preparation	7/20/2017	8/4/2017	5	12	site prep for buildings and campsites

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 8

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 67,500; Non-Residential Outdoor: 22,500; Striped Parking Area: 0

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
	Air Compressors	2	6.00	78	0.48
Grading	Excavators	1	6.00	158	0.38
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Paving	Pavers	2	8.00	130	0.42
Paving	Rollers	2	8.00	80	0.38
Grading	Rubber Tired Dozers	1	8.00	247	0.40

Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Grading	Graders	1	8.00	187	0.41
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Paving	Paving Equipment	2	8.00	132	0.36
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Building Construction	Welders	1	8.00	46	0.45

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Architectural Coating	1	4.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	19.00	7.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	7	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Architectural Coating - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.3129					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.3300e-003	8.7400e-003	7.4700e-003	1.0000e-005		6.9000e-004	6.9000e-004		6.9000e-004	6.9000e-004	0.0000	1.0213	1.0213	1.1000e-004	0.0000	1.0240

Total	**0.3142**	**8.7400e-003**	**7.4700e-003**	**1.0000e-005**		**6.9000e-004**	**6.9000e-004**		**6.9000e-004**	**6.9000e-004**	**0.0000**	**1.0213**	**1.0213**	**1.1000e-004**	**0.0000**	**1.0240**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.5000e-004	1.3000e-004	1.2700e-003	0.0000	1.3000e-004	0.0000	1.3000e-004	3.0000e-005	0.0000	4.0000e-005	0.0000	0.1419	0.1419	1.0000e-005	0.0000	0.1422
Total	**1.5000e-004**	**1.3000e-004**	**1.2700e-003**	**0.0000**	**1.3000e-004**	**0.0000**	**1.3000e-004**	**3.0000e-005**	**0.0000**	**4.0000e-005**	**0.0000**	**0.1419**	**0.1419**	**1.0000e-005**	**0.0000**	**0.1422**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.3129					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.3300e-003	8.7400e-003	7.4700e-003	1.0000e-005		6.9000e-004	6.9000e-004		6.9000e-004	6.9000e-004	0.0000	1.0213	1.0213	1.1000e-004	0.0000	1.0240
Total	**0.3142**	**8.7400e-003**	**7.4700e-003**	**1.0000e-005**		**6.9000e-004**	**6.9000e-004**		**6.9000e-004**	**6.9000e-004**	**0.0000**	**1.0213**	**1.0213**	**1.1000e-004**	**0.0000**	**1.0240**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.5000e-004	1.3000e-004	1.2700e-003	0.0000	1.3000e-004	0.0000	1.3000e-004	3.0000e-005	0.0000	4.0000e-005	0.0000	0.1419	0.1419	1.0000e-005	0.0000	0.1422
Total	**1.5000e-004**	**1.3000e-004**	**1.2700e-003**	**0.0000**	**1.3000e-004**	**0.0000**	**1.3000e-004**	**3.0000e-005**	**0.0000**	**4.0000e-005**	**0.0000**	**0.1419**	**0.1419**	**1.0000e-005**	**0.0000**	**0.1422**

3.3 Building Construction - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0467	0.3983	0.2727	4.0000e-004		0.0268	0.0268		0.0252	0.0252	0.0000	36.0739	36.0739	8.8900e-003	0.0000	36.2961
Total	**0.0467**	**0.3983**	**0.2727**	**4.0000e-004**		**0.0268**	**0.0268**		**0.0252**	**0.0252**	**0.0000**	**36.0739**	**36.0739**	**8.8900e-003**	**0.0000**	**36.2961**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					

Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.9300e-003	0.0171	0.0134	3.0000e-005	6.9000e-004	3.4000e-004	1.0300e-003	2.0000e-004	3.3000e-004	5.3000e-004	0.0000	2.8428	2.8428	3.1000e-004	0.0000	2.8506
Worker	2.6500e-003	2.3500e-003	0.0226	3.0000e-005	2.2500e-003	3.0000e-005	2.2800e-003	6.0000e-004	3.0000e-005	6.3000e-004	0.0000	2.5271	2.5271	2.2000e-004	0.0000	2.5325
Total	**4.5800e-003**	**0.0194**	**0.0360**	**6.0000e-005**	**2.9400e-003**	**3.7000e-004**	**3.3100e-003**	**8.0000e-004**	**3.6000e-004**	**1.1600e-003**	**0.0000**	**5.3699**	**5.3699**	**5.3000e-004**	**0.0000**	**5.3831**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0467	0.3983	0.2727	4.0000e-004		0.0268	0.0268		0.0252	0.0252	0.0000	36.0739	36.0739	8.8900e-003	0.0000	36.2961
Total	**0.0467**	**0.3983**	**0.2727**	**4.0000e-004**		**0.0268**	**0.0268**		**0.0252**	**0.0252**	**0.0000**	**36.0739**	**36.0739**	**8.8900e-003**	**0.0000**	**36.2961**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.9300e-003	0.0171	0.0134	3.0000e-005	6.9000e-004	3.4000e-004	1.0300e-003	2.0000e-004	3.3000e-004	5.3000e-004	0.0000	2.8428	2.8428	3.1000e-004	0.0000	2.8506
Worker	2.6500e-003	2.3500e-003	0.0226	3.0000e-005	2.2500e-003	3.0000e-005	2.2800e-003	6.0000e-004	3.0000e-005	6.3000e-004	0.0000	2.5271	2.5271	2.2000e-004	0.0000	2.5325
Total	**4.5800e-003**	**0.0194**	**0.0360**	**6.0000e-005**	**2.9400e-003**	**3.7000e-004**	**3.3100e-003**	**8.0000e-004**	**3.6000e-004**	**1.1600e-003**	**0.0000**	**5.3699**	**5.3699**	**5.3000e-004**	**0.0000**	**5.3831**

3.4 Grading - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0344	0.0000	0.0344	0.0170	0.0000	0.0170	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0265	0.3152	0.1731	2.8000e-004		0.0142	0.0142		0.0130	0.0130	0.0000	25.7868	25.7868	7.9000e-003	0.0000	25.9843
Total	**0.0265**	**0.3152**	**0.1731**	**2.8000e-004**	**0.0344**	**0.0142**	**0.0485**	**0.0170**	**0.0130**	**0.0300**	**0.0000**	**25.7868**	**25.7868**	**7.9000e-003**	**0.0000**	**25.9843**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	8.4000e-004	7.4000e-004	7.1300e-003	1.0000e-005	7.1000e-004	1.0000e-005	7.2000e-004	1.9000e-004	1.0000e-005	2.0000e-004	0.0000	0.7980	0.7980	7.0000e-005	0.0000	0.7997
Total	**8.4000e-004**	**7.4000e-004**	**7.1300e-003**	**1.0000e-005**	**7.1000e-004**	**1.0000e-005**	**7.2000e-004**	**1.9000e-004**	**1.0000e-005**	**2.0000e-004**	**0.0000**	**0.7980**	**0.7980**	**7.0000e-005**	**0.0000**	**0.7997**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0344	0.0000	0.0344	0.0170	0.0000	0.0170	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0265	0.3152	0.1731	2.8000e-004		0.0142	0.0142		0.0130	0.0130	0.0000	25.7868	25.7868	7.9000e-003	0.0000	25.9843
Total	**0.0265**	**0.3152**	**0.1731**	**2.8000e-004**	**0.0344**	**0.0142**	**0.0485**	**0.0170**	**0.0130**	**0.0300**	**0.0000**	**25.7868**	**25.7868**	**7.9000e-003**	**0.0000**	**25.9843**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	8.4000e-004	7.4000e-004	7.1300e-003	1.0000e-005	7.1000e-004	1.0000e-005	7.2000e-004	1.9000e-004	1.0000e-005	2.0000e-004	0.0000	0.7980	0.7980	7.0000e-005	0.0000	0.7997
Total	**8.4000e-004**	**7.4000e-004**	**7.1300e-003**	**1.0000e-005**	**7.1000e-004**	**1.0000e-005**	**7.2000e-004**	**1.9000e-004**	**1.0000e-005**	**2.0000e-004**	**0.0000**	**0.7980**	**0.7980**	**7.0000e-005**	**0.0000**	**0.7997**

3.5 Paving - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	9.7200e-003	0.1036	0.0752	1.1000e-004		5.8000e-003	5.8000e-003		5.3300e-003	5.3300e-003	0.0000	10.5716	10.5716	3.2400e-003	0.0000	10.6526

Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**9.7200e-003**	**0.1036**	**0.0752**	**1.1000e-004**		**5.8000e-003**	**5.8000e-003**		**5.3300e-003**	**5.3300e-003**	**0.0000**	**10.5716**	**10.5716**	**3.2400e-003**	**0.0000**	**10.6526**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.0000e-004	6.2000e-004	5.9400e-003	1.0000e-005	5.9000e-004	1.0000e-005	6.0000e-004	1.6000e-004	1.0000e-005	1.6000e-004	0.0000	0.6650	0.6650	6.0000e-005	0.0000	0.6665
Total	**7.0000e-004**	**6.2000e-004**	**5.9400e-003**	**1.0000e-005**	**5.9000e-004**	**1.0000e-005**	**6.0000e-004**	**1.6000e-004**	**1.0000e-005**	**1.6000e-004**	**0.0000**	**0.6650**	**0.6650**	**6.0000e-005**	**0.0000**	**0.6665**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	9.7200e-003	0.1036	0.0752	1.1000e-004		5.8000e-003	5.8000e-003		5.3300e-003	5.3300e-003	0.0000	10.5716	10.5716	3.2400e-003	0.0000	10.6526
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**9.7200e-003**	**0.1036**	**0.0752**	**1.1000e-004**		**5.8000e-003**	**5.8000e-003**		**5.3300e-003**	**5.3300e-003**	**0.0000**	**10.5716**	**10.5716**	**3.2400e-003**	**0.0000**	**10.6526**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.0000e-004	6.2000e-004	5.9400e-003	1.0000e-005	5.9000e-004	1.0000e-005	6.0000e-004	1.6000e-004	1.0000e-005	1.6000e-004	0.0000	0.6650	0.6650	6.0000e-005	0.0000	0.6665
Total	**7.0000e-004**	**6.2000e-004**	**5.9400e-003**	**1.0000e-005**	**5.9000e-004**	**1.0000e-005**	**6.0000e-004**	**1.6000e-004**	**1.0000e-005**	**1.6000e-004**	**0.0000**	**0.6650**	**0.6650**	**6.0000e-005**	**0.0000**	**0.6665**

3.6 Site Preparation - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1084	0.0000	0.1084	0.0596	0.0000	0.0596	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0298	0.3137	0.1407	2.3000e-004		0.0173	0.0173		0.0159	0.0159	0.0000	21.2006	21.2006	6.5000e-003	0.0000	21.3630
Total	**0.0298**	**0.3137**	**0.1407**	**2.3000e-004**	**0.1084**	**0.0173**	**0.1257**	**0.0596**	**0.0159**	**0.0755**	**0.0000**	**21.2006**	**21.2006**	**6.5000e-003**	**0.0000**	**21.3630**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					

Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.0000e-003	8.9000e-004	8.5500e-003	1.0000e-005	8.5000e-004	1.0000e-005	8.6000e-004	2.3000e-004	1.0000e-005	2.4000e-004	0.0000	0.9576	0.9576	8.0000e-005	0.0000	0.9597
Total	**1.0000e-003**	**8.9000e-004**	**8.5500e-003**	**1.0000e-005**	**8.5000e-004**	**1.0000e-005**	**8.6000e-004**	**2.3000e-004**	**1.0000e-005**	**2.4000e-004**	**0.0000**	**0.9576**	**0.9576**	**8.0000e-005**	**0.0000**	**0.9597**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1084	0.0000	0.1084	0.0596	0.0000	0.0596	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0298	0.3137	0.1407	2.3000e-004		0.0173	0.0173		0.0159	0.0159	0.0000	21.2006	21.2006	6.5000e-003	0.0000	21.3630
Total	**0.0298**	**0.3137**	**0.1407**	**2.3000e-004**	**0.1084**	**0.0173**	**0.1257**	**0.0596**	**0.0159**	**0.0755**	**0.0000**	**21.2006**	**21.2006**	**6.5000e-003**	**0.0000**	**21.3630**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.0000e-003	8.9000e-004	8.5500e-003	1.0000e-005	8.5000e-004	1.0000e-005	8.6000e-004	2.3000e-004	1.0000e-005	2.4000e-004	0.0000	0.9576	0.9576	8.0000e-005	0.0000	0.9597
Total	**1.0000e-003**	**8.9000e-004**	**8.5500e-003**	**1.0000e-005**	**8.5000e-004**	**1.0000e-005**	**8.6000e-004**	**2.3000e-004**	**1.0000e-005**	**2.4000e-004**	**0.0000**	**0.9576**	**0.9576**	**8.0000e-005**	**0.0000**	**0.9597**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.3360	0.8631	3.7197	5.6600e-003	0.4030	7.9700e-003	0.4110	0.1080	7.4800e-003	0.1155	0.0000	511.3308	511.3308	0.0377	0.0000	512.2720
Unmitigated	0.3360	0.8631	3.7197	5.6600e-003	0.4030	7.9700e-003	0.4110	0.1080	7.4800e-003	0.1155	0.0000	511.3308	511.3308	0.0377	0.0000	512.2720

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Health Club	540.00	939.15	765.00	1,086,986	1,086,986
Total	540.00	939.15	765.00	1,086,986	1,086,986

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Health Club	9.50	7.30	7.30	16.90	64.10	19.00	52	39	9

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Health Club	0.506289	0.051167	0.217521	0.145832	0.042159	0.008416	0.007167	0.009449	0.001871	0.002244	0.005904	0.000469	0.001511

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	57.0768	57.0768	2.5800e-003	5.3000e-004	57.3005
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	57.0768	57.0768	2.5800e-003	5.3000e-004	57.3005
NaturalGas Mitigated	8.6000e-004	7.7900e-003	6.5400e-003	5.0000e-005		5.9000e-004	5.9000e-004		5.9000e-004	5.9000e-004	0.0000	8.4768	8.4768	1.6000e-004	1.6000e-004	8.5272
NaturalGas Unmitigated	8.6000e-004	7.7900e-003	6.5400e-003	5.0000e-005		5.9000e-004	5.9000e-004		5.9000e-004	5.9000e-004	0.0000	8.4768	8.4768	1.6000e-004	1.6000e-004	8.5272

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Health Club	158850	8.6000e-004	7.7900e-003	6.5400e-003	5.0000e-005		5.9000e-004	5.9000e-004		5.9000e-004	5.9000e-004	0.0000	8.4768	8.4768	1.6000e-004	1.6000e-004	8.5272
Total		**8.6000e-004**	**7.7900e-003**	**6.5400e-003**	**5.0000e-005**		**5.9000e-004**	**5.9000e-004**		**5.9000e-004**	**5.9000e-004**	**0.0000**	**8.4768**	**8.4768**	**1.6000e-004**	**1.6000e-004**	**8.5272**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Health Club	158850	8.6000e-004	7.7900e-003	6.5400e-003	5.0000e-005		5.9000e-004	5.9000e-004		5.9000e-004	5.9000e-004	0.0000	8.4768	8.4768	1.6000e-004	1.6000e-004	8.5272
Total		**8.6000e-004**	**7.7900e-003**	**6.5400e-003**	**5.0000e-005**		**5.9000e-004**	**5.9000e-004**		**5.9000e-004**	**5.9000e-004**	**0.0000**	**8.4768**	**8.4768**	**1.6000e-004**	**1.6000e-004**	**8.5272**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Health Club	196200	57.0768	2.5800e-003	5.3000e-004	57.3005
Total		**57.0768**	**2.5800e-003**	**5.3000e-004**	**57.3005**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e

Land Use	kWh/yr	MT/yr			
Health Club	196200	57.0768	2.5800e-003	5.3000e-004	57.3005
Total		**57.0768**	**2.5800e-003**	**5.3000e-004**	**57.3005**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.2279	0.0000	4.2000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	8.0000e-004	8.0000e-004	0.0000	0.0000	8.6000e-004
Unmitigated	0.2279	0.0000	4.2000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	8.0000e-004	8.0000e-004	0.0000	0.0000	8.6000e-004

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0521					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Consumer Products	0.1758					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	4.0000e-005	0.0000	4.2000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	8.0000e-004	8.0000e-004	0.0000	0.0000	8.6000e-004
Total	**0.2279**	**0.0000**	**4.2000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**8.0000e-004**	**8.0000e-004**	**0.0000**	**0.0000**	**8.6000e-004**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0521					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.1758					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	4.0000e-005	0.0000	4.2000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	8.0000e-004	8.0000e-004	0.0000	0.0000	8.6000e-004
Total	**0.2279**	**0.0000**	**4.2000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**8.0000e-004**	**8.0000e-004**	**0.0000**	**0.0000**	**8.6000e-004**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	6.6947	0.0870	2.1000e-003	9.4959
Unmitigated	6.6947	0.0870	2.1000e-003	9.4959

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Health Club	2.66144 / 1.63121	6.6947	0.0870	2.1000e-003	9.4959
Total		**6.6947**	**0.0870**	**2.1000e-003**	**9.4959**

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Health Club	2.66144 / 1.63121	6.6947	0.0870	2.1000e-003	9.4959
Total		**6.6947**	**0.0870**	**2.1000e-003**	**9.4959**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	52.0672	3.0771	0.0000	128.9942
Unmitigated	52.0672	3.0771	0.0000	128.9942

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Health Club	256.5	52.0672	3.0771	0.0000	128.9942
Total		**52.0672**	**3.0771**	**0.0000**	**128.9942**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			

Health Club	256.5	52.0672	3.0771	0.0000	128.9942
Total		**52.0672**	**3.0771**	**0.0000**	**128.9942**

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation