FINAL

Mitigated Negative Declaration and Supporting Initial Study

for Siskiyou Telephone Company's

Happy Camp to Somes Bar Fiber Connectivity Project

(Commission Resolution T-17539)

Lead Agency:

California Public Utilities Commission

Technical Assistance by:

Aspen Environmental Group

May 2018

SCH No. 2018032045

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List of Acronyms

ADL	Aerially deposited lead
ADT	Average daily traffic
APCD	Air Pollution Control District
APM	Applicant-Proposed Measure
AQRV	Air quality related value
ARB	Air Resources Board
ATCM	Airborne Toxic Control Measure
BMPs	Best management practices
CAA	Clean Air Act
CAAQS	California Ambient Air Quality Standards
Cal/EPA	California Environmental Protection Agency
CalARP	California Accidental Release Prevention
CASF	California Advance Services Fund
CBC	California Building Code
CCR	California Code of Regulations
CDFW	California Department of Fish and Wildlife
CEQA	California Environmental Quality Act
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CESA	California Endangered Species Act
CGS	California Geological Survey
CHRIS	California Historical Resources Information System
CIWMB	California Integrated Waste Management Board
CNDDB	California Natural Diversity Database
CNEL	Community Noise Equivalent Level
CNPS	California Native Plant Society
CO	Carbon monoxide
CPH	California Highway Patrol
CPUC	California Public Utilities Commission
CRHR	California Register of Historic Resources
CRPR	California Rare Plant Rank
CUPA	Certified Unified Program Agencies
CVC	California Vehicle Code
CWA	Clean Water Act
DOC	Department of Conservation
DPM	Diesel particulate matter
DPR	Department of Pesticide Regulation
DTSC	Department of Toxic Substance Control
EMF	Electromagnetic field
EO	Executive Order
EPA	Environmental Protection Agency

ESA	Endangered Species Act
FAA	Federal Aviation Administration
FEMA	Federal Emergency Management Agency
FESA	Federal Endangered Species Act
FGS	Fruit Growers Supply Company
FHWA	Federal Highway Administration
FMMP	Farmland Mapping and Monitoring Program
GHG	Greenhouse gas
GPS	Global positioning system
HCP	Habitat Conservation Plan
HDD	Horizontal Directional Drilling
HFC	Hydrofluorocarbon
HSWA	Hazardous and Solid Waste Act
HWCL	Hazardous Waste Control Law
IS	Initial Study
ITP	Incidental take permit
IWMB	Integrated Waste Management Board
LSAA	Lake and Streambed Alteration Agreement
MBTA	Migratory Bird Treaty Act
MLD	Most likely descendant
MM	Mitigation Measure
MND	Mitigated Negative Declaration
MP	Milepost
MRZ	Mineral resource zone
MSDS	Material Safety Data Sheets
MTJ	Mendocino Triple Junction
NAAQS	National Ambient Air Quality Standards
NAHC	Native American Heritage Commission
NCCP	Natural Community and Conservation Plan
NCP	National Contingency Plan
NEHRP	National Earthquake Hazards Reduction Program
NEHRPA	National Earthquake Hazards Reduction Program Act
NEIC	Northeast Information Center
NEPA	National Environmental Policy Act
NHPA	National Historic Preservation Act
NIST	National Institute of Standards and Technology
NOA	Naturally occurring asbestos
NOAA	National Oceanic and Atmospheric Administration
NOI	Notice of Intent
NPDES	National Pollution Discharge Elimination System
NPL	National Priorities List
NRCS	National Resource Conservation Service

NRHP	National Register of Historic Places
NSF	National Science Foundation
OEHHA	Office of Environmental Health Hazard Assessment
OMR	Office of Mine Reclamation
PEA	Proponent's Environmental Assessment
PERP	Portable Equipment Registration Program
PFC	Perfluorocarbon
PGA	Peak ground acceleration
PM	Post Mile
PM10	Particulate matter (less than 10 microns in diameter)
PM2.5	Fine particulate matter (less than 2.5 microns in diameter)
POW	(PRO), Hydropower Generation
PRC	Public Resources Code
PRPA	Paleontological Resources Preservation Act
PSHA	Probabilistic Seismic Hazard Assessment
PTC	Permit to Construct
RCRA	Recovery Act of 1976
ROG	Reactive organic gases
ROW	Right-of-way
RPS	Renewable Portfolio Standard
RWQCB	Regional Water Quality Control Board
SARA	Superfund Amendments and Reauthorization Act
SMARA	Surface Mining and Reclamation Act of 1975
SMGB	State Mining and Geology Board
SRRE	Source Reduction Recycling Element
SSP	Standard Special Provision
SSURGO	Soil Survey Geographic Database
SWGS	Solid Waste Generation Study
SWPPP	Storm Water Pollution Prevention Plan
SWRCB	State Water Resources Control Board
TAC	Toxic air contaminant
TCR	Tribal Cultural Resource
TIS	Traffic Impact Studies
TMDL	Total Maximum Daily Load
USACE	U.S. Army Corps of Engineers
USFS	U.S. Forest Service
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Survey
VOC	Volatile organic compounds
WDR	Waste discharge requirement
WEAP	Worker Environmental Awareness Program

PUBLIC UTILITIES COMMISSION
505 VAN NESS AVENUE
SAN FRANCISCO, CA 94102-3298

FINAL

Mitigated Negative Declaration

Siskiyou Telephone Company's Happy Camp to Somes Bar Fiber Connectivity Project

Resolution No. T-17539

1. Mitigated Negative Declaration

Lead Agency: California Public Utilities Commission
Energy Division
505 Van Ness Avenue, 3rd Floor
San Francisco, California 94102

Contact: Jensen Uchida, Project Manager
(415) 703-5484 or Jensen.Uchida@cpuc.ca.gov

1.1 Project Information

Project: Happy Camp to Somes Bar Fiber Connectivity Project
Siskiyou County, California

Project Sponsor: Siskiyou Telephone Company
30 Telco Way
Etna, California 96027
(530) 467-6000

1.2 Introduction

Pursuant to CEQA, the CPUC must prepare an Initial Study (IS) for the Proposed Project to determine if any significant adverse effects on the environment would result from project implementation. The IS utilizes the significance criteria outlined in Appendix G of the CEQA *Guidelines*. If the IS for the project indicates that a significant adverse impact could occur, the CPUC would be required to prepare an Environmental Impact Report. According to Article 6 (Negative Declaration Process) and Section 15070 (Decision to Prepare a Negative Declaration or Mitigated Negative Declaration) of the CEQA *Guidelines*, a public agency shall prepare or have prepared a proposed negative declaration or mitigated negative declaration for a project subject to CEQA when:

(a) The initial study shows that there is no substantial evidence, in light of the whole record before the agency, that the project may have a significant effect on the environment, or

(b) The initial study identifies potentially significant effects, but:

(1) Revisions in the project plans or proposals made by, or agreed to by the applicant before a proposed mitigated negative declaration and initial study are released for public review would avoid the effects or mitigate the effects to a point where clearly no significant effects would occur, and

(2) There is no substantial evidence, in light of the whole record before the agency, that the project as revised may have a significant effect on the environment.

Based on the analysis in the Initial Study, it has been determined that all project-related environmental impacts could be reduced to a less than significant level with the incorporation of feasible mitigation measures. Therefore, adoption of a Mitigated Negative Declaration (MND) will satisfy the requirements of CEQA. The mitigation measures included in this MND are designed to reduce or eliminate the potentially significant environmental impacts described in the Initial Study. Where a measure described in this document has been previously incorporated into the project, either as a specific project design feature or as an Applicant-Proposed Measure, this is noted in the discussion. Mitigation measures are structured in accordance with the criteria in Section 15370 of the CEQA *Guidelines*.

NOTE: This document is the Final MND and Supporting Initial Study. Where revisions were made to the Draft MND/Initial Study based on comments received (see Chapter 7), they are indicated with ~~strikeout~~ for deletions of text, and in underline for new text.

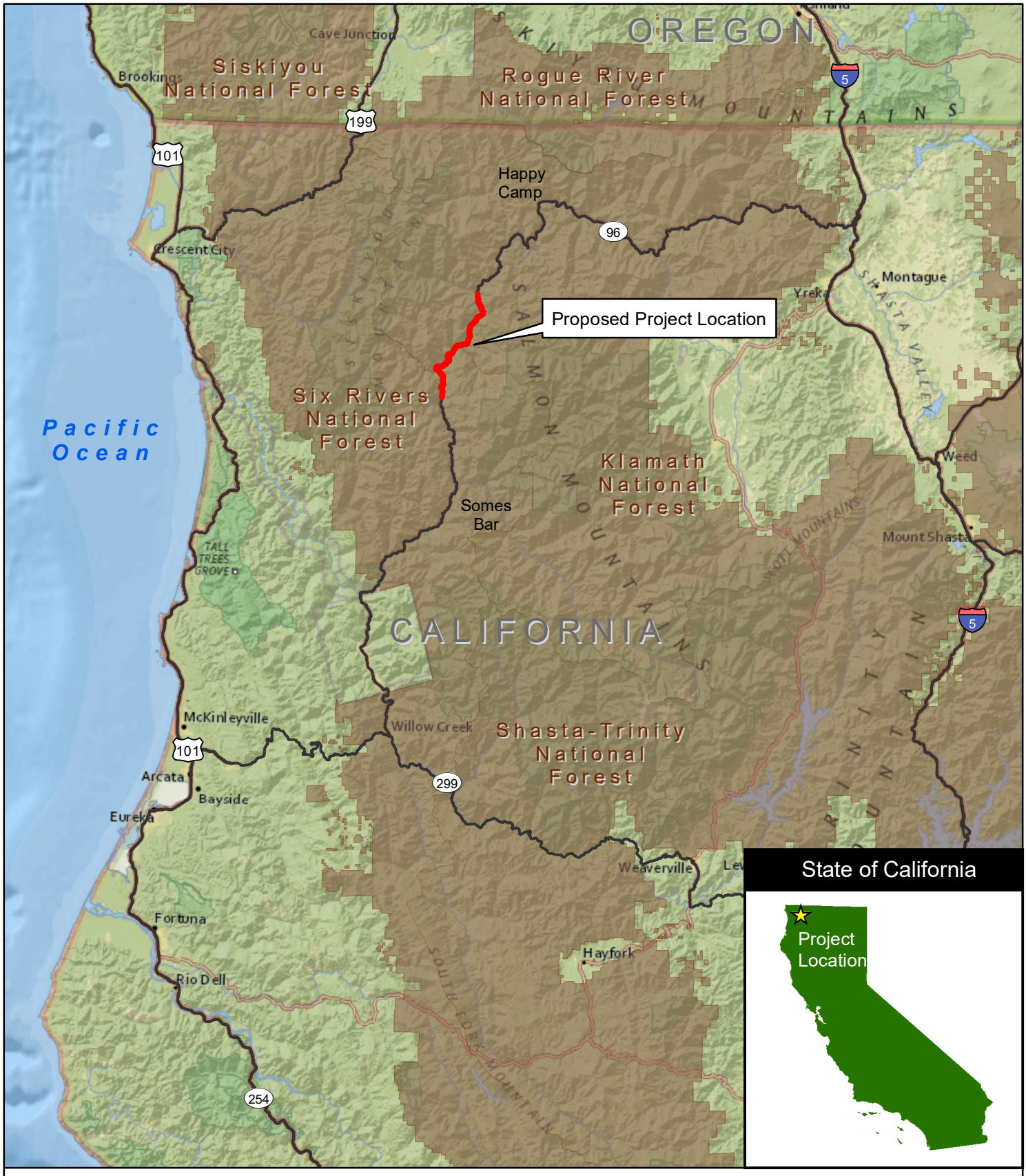
1.3 Project Description

Siskiyou Telephone Company (Siskiyou Telephone) proposes to construct the Siskiyou Telephone Happy Camp to Somes Bar Fiber Connectivity Project (Proposed Project), which would provide telephone and broadband service capability to residences in the area between Clear Creek and Ti Bar in Siskiyou County, California. Fiber optic broadband facility cable would be constructed within a conduit for approximately 17 miles within or adjacent to State Highway 96 (see Figure 1-1). The project would be constructed under a grant from the California Advanced Service Grant Program, as funded by the California Public Utilities Commission (CPUC) to Siskiyou Telephone.

1.4 Environmental Determination

The Initial Study was prepared to identify the potential environmental effects resulting from Proposed Project implementation, and to evaluate the level of significance of these effects. The Initial Study relies on information in Siskiyou Telephone's PEA, dated January 2016, project site reconnaissance by the CPUC environmental team in January 2018, and other environmental analyses.

Siskiyou Telephone's PEA identified measures to address potentially significant impacts — the Applicant-Proposed Measures (APMs) — and these APMs are considered to be part of the description of the Proposed Project. Based on the Initial Study analysis, additional mitigation measures are identified for adoption to ensure that impacts of the Proposed Project would be less than significant. The additional mitigation measures either supplement, or supersede the APMs. Siskiyou Telephone has agreed to implement all of the additional recommended mitigation measures as part of the Proposed Project.



N

Source: CalTrans 2014, US Forest Service 2017

0 10 20 Miles

Proposed Project Alignment

National Forest Area

5 Interstate Highway

101 U.S. Highway

96 State Route

Figure 1

Project Vicinity

Implementation of the following mitigation measures would avoid potentially significant impacts identified in the Initial Study or reduce them to less than significant levels.

Mitigation Measures for Reducing Air Pollutant Concentrations

MM AQ-1 **Control Construction-Related Dust.** The Applicant shall implement the following dust control strategies and any other dust control measure that may be specified by the APCD through the review of a dust control plan for naturally-occurring asbestos:

- Visible track-out on any paved public road shall be removed at the end of the work day or at least one time per day, with removal being accomplished by using wet sweeping or a HEPA filter equipped vacuum device.
- Storage piles shall be treated by either keeping the surface adequately wetted, stabilizing the surface with chemical dust suppressants, or covering with tarps or vegetative cover; where potential accidental contamination of wetlands, streams, or rivers could occur, water shall be used instead of chemical dust suppressants.
- Unpaved staging and work areas shall be watered every two hours of active operation or more frequently as needed or stabilized with chemical dust suppressants; where potential accidental contamination of wetlands, streams, or rivers could occur, water shall be used instead of chemical dust suppressants.
- Earthmoving areas and excavated materials shall be pre-wetted to the depth of the anticipated cuts.
- Trucks transporting excavated material off-site shall be: maintained such that no spillage can occur from holes or other openings in cargo compartments, loads shall be adequately wetted and covered with tarps or loaded such that the material does not touch the front, back or sides of the cargo compartment at any point less than six inches from the top and that no point of the load extends above the top of the cargo compartment.

Mitigation Measures for Special-Status Plant and Wildlife Species

MM B-1 **Conduct Environmental Training, Pre-Construction Surveys, and Biological Resources Monitoring.** Siskiyou Telephone will develop and implement a Worker Environmental Awareness Program (WEAP) for construction crews and all Project personnel. The WEAP will be conducted by a qualified biologist (approved by CPUC) prior to the commencement of the Project and during construction activities. Sessions will include discussion of the Federal Endangered Species Act (FESA) and California Endangered Species Act (CESA), California Species of Special Concern, other special-status species and listed species, identification and values of habitat, the consequences of noncompliance with these acts, and the importance of keeping all Project activities and sediments within the designated work area. Brochures summarizing special-status and listed species with potential to occur within the Project area, as well as Project requirements shall be provided to all crew members (in multiple languages if appropriate). A log shall be maintained of all trained personnel with names and dates of training, and shall be submitted to the CPUC on a monthly basis and made available for review by CDFW, USFWS, USFS, or other agencies upon request.

Pre-construction sweeps of active work areas for special-status species shall be conducted prior to the start of construction each morning by a qualified biologist (approved by CPUC). If non-listed special-status species are found, they shall be relocated outside of

the work area into adjacent appropriate habitat by the qualified biologist. If listed or candidate species are found, no work will occur in the vicinity until it has left the work area on its own, or unless otherwise authorized by USFWS and/or CDFW (as applicable). The CPUC Environmental Monitor shall be notified immediately of any special-status species or listed species observed in the Project area.

Biological monitoring shall be conducted by a qualified biologist (approved by CPUC) during all construction activities near sensitive resources, including active bird nests and creeks. If work is being conducted during light rain, full time biological monitoring shall occur. The monitor will complete daily reports summarizing construction activities and environmental compliance and weekly reports shall be submitted to the CPUC. If appropriate (based on the phase and location of construction activities), Siskiyou Telephone may request that the CPUC allow less frequent monitoring.

MM B-2 **Preserve Special-Status Plants, Wetlands, and Riparian Zones.** The following avoidance and minimization measures shall be implemented to protect both listed special-status plants, and to avoid impacts to wetlands and riparian zones:

- Design Project and construction activities to avoid impacts to wetlands and water features to the extent feasible.
- Prior to the onset of construction activities, a qualified biologist (approved by the CPUC) shall delineate any wetland or water features within the right-of-way as environmentally sensitive areas using clear markers. Construction crews shall be provided with maps of environmentally sensitive areas. No equipment, materials, or spoils shall encroach into the environmentally sensitive areas except for spill remediation purposes.
- A qualified biologist (approved by the CPUC) shall be present during construction activities within the vicinity of wetlands, creek crossings, and associated riparian zones. The biologist shall ensure that fencing and/or flagging remains intact and that construction activities do not affect the delineated areas.

MM B-3 **Minimize Horizontal Directional Drilling (HDD) Potential Impacts.** The following avoidance and minimization measures shall be implemented to protect listed and other special-status plants and animals, and to avoid impacts to wetlands and riparian zones:

- Boring activities and set-up activities for boring operations shall be situated outside of wetlands and riparian areas. An earthen or sandbag berm shall be installed around all drilling fluid mixing and pumping areas to contain any inadvertently spilled material. Sediment control devices shall be installed between the drilling staging areas and any waterways. This includes any culverts or drainage ditches that lead to a waterway.
- HDD operations at the creek crossings shall be limited to daylight hours because of the difficulty in identifying the loss of bentonite or machine pressure without daylight. This shall be defined by the termination of drilling 30 minutes before dusk, and resumption of drilling at dawn. The contractor will make every effort to schedule drilling activities to be completed between dawn and 30 minutes to dusk. Should the drilling activities be within one hour of completion, 30 minutes before dusk, drilling activities may be allowed to continue until completion if the Project environmental monitor and/or the CDFW or its agents determine that completing the drilling activities will result in less risk to the stream.

- Visual inspection along the bore alignment for frac-outs shall take place at all times while the drill is in operation. The monitor shall be in radio contact with the boring machine operator at all times. A biologist/monitor's presence shall be required during all boring activities (i.e., boring, back reaming, etc.) within CDFW jurisdiction unless the drainage is dry.
- The HDD Operator shall design, pre-plan, and direct the HDD operation in such a way as to minimize the risk of spills of all types. The HDD Operator shall prepare and implement a Frac-Out Contingency Plan and submit it to the CPUC and CDFW for review and approval 30 days prior to construction, which includes the boring plans and frac-out and clean-up plans, in the event of the accidental release of drilling lubricants through fractures in the streambed or bank ("frac-outs"). In substrates where frac-outs are likely to occur, the HDD Operator shall operate in a manner that will reduce risk, such as using lower pressure and greater boring depths. The Contingency Plan shall be kept on site at all times.
- A non-toxic fluorescent water-soluble dye shall be added to the drilling muds to allow for frac-outs to be seen in muddy waters. The dye shall be used in a concentration which allows the monitors to easily determine the source of the frac-out, and shall be a type of dye approved for use by the local Regional Water Quality Control Board.
- All equipment required to contain and clean up a frac-out release shall be available at the work site.
- Boring plans should include:
  - A sketch of the construction site, including equipment staging areas, approximate location of drill entry and exit points and the approximate location of access roads in relation to the surrounding area,
  - Proposed depth of bore and statement of streambed condition (subsurface strata and percent of gravel and cobble) that support the depth of the bore,
  - Approximate length of bores (50-foot increments),
  - Type and size of boring equipment to be used (categorized as mini, mid or maxi),
  - Estimated time to complete bore,
  - List of lubricants and HDD additives to be used including Material Safety Data Sheets (MSDS), and
  - Name of Operator's agents and cell phone numbers.
- Frac-out prevention and clean-up plans should include:
  - Name(s) and phone numbers of biological monitor(s) and crew supervisor(s),
  - Site specific resources of concern (if applicable, include factors such as possible presence of sensitive species),
  - Monitoring protocols (include biological monitoring and frac-out monitoring), and
  - Containment and clean-up plan (include staging location of vacuum trucks and equipment, equipment list, necessary hose lengths, special measures needed for steep topography, etc. at each location).

- If a frac-out or spill occurs in a sensitive resource, the Operator shall immediately notify the CPUC Environmental Monitor.
- If a frac-out occurs, the CPUC Environmental Monitor, in coordination with Siskiyou Telephone's biological monitor, shall determine whether clean-up actions are warranted. If containment and clean-up is needed to prevent additional impacts, the Contractor shall begin the following containment and clean up measures immediately. Where water flows allow, the Contractor shall immediately construct a sandbag well around the frac-out or place a standing pipe (such as a 55-gallon drum with the top and bottom removed, heavy PVC pipe or CMP or culvert type material) around the frac-out to contain the drilling mud. A trailer-mounted vacuum or vacuum truck shall be deployed to vacuum out spilled drilling fluids that continue to leak. Removed drilling fluids shall not be placed where they are likely to re-enter the stream. All cleanup and containment efforts shall adhere to the Frac-out Contingency Plan approved by the CPUC for spill response.

Mitigation Measure for Special-Status Wildlife Species

MM B-4 **Pre-Construction Surveys and Impact Avoidance Measures for Migratory and Nesting Birds.** Siskiyou Telephone shall retain a CPUC-approved, qualified avian biologist to conduct pre-construction surveys and monitor active nests during construction (hereafter referred to as the "authorized biologist"). Surveys for nesting birds shall be conducted prior to any initial ground disturbance that will occur during the breeding period (from January 31 through August 31). The authorized biologist(s) conducting the surveys shall be experienced bird surveyors and familiar with standard nest-locating techniques. Qualifications of the biologist(s) shall be submitted to the CPUC for approval. Surveys shall be conducted in accordance with the following guidelines:

a. Surveys shall cover all potential nesting habitat within disturbance areas and within a 500-foot buffer of these areas.

b. Surveys shall be conducted no more than 3 days prior to the start of ground-disturbing activity.

c. If active nests are detected during the survey, the authorized biologist shall map each nest and establish a disturbance-free buffer within which no Project activities may occur until the nest fledges or fails, as documented and confirmed by the authorized biologist. The size of the disturbance-free buffer shall be determined by the authorized biologist, and shall depend on the species' tolerance to human activity, location of the nest relative to the work area, any vegetation or other materials that may screen the nest from noise and view of work, the nature of the work (e.g., heavy equipment use vs. hand tools), and any other pertinent information. Buffer sizes shall be a minimum of 100 feet for non-raptor species and 500 feet for raptors.

d. If active nests are observed and the recommended nest avoidance buffer zones are not feasible, non-disturbance buffer zones shall be established by the authorized biologist based on but not limited to consideration of the line of sight from the nest to the worksite, the nesting bird's behavior, existing and Project-related background disturbance levels, or other biological or physical attributes. Continuous monitoring of the nest site by an authorized biologist shall occur during disturbance activities, and a nest observation log shall be updated once per hour during construction activities.

If the monitoring biologist determines nesting may fail as a result of work activities, all work shall cease (except access along existing roadways) within the recommended avoidance area until the biologist determines the adults and young are no longer reliant on the nest site. A site-specific nest protection plan shall be submitted to the CPUC for review and approval if additional nest protection measures are determined necessary by the monitoring biologist.

e. Prior to the start of any new Project-related ground disturbance activities, the authorized biologist shall provide the CPUC a report or memorandum describing the findings of the nest surveys, including the time, date, and duration of the survey; identity and qualifications of the surveyor(s); and a list of species observed. If active nests are detected during the surveys, the report shall include descriptions of avoidance zones and methods used to determine avoidance zones and maps or aerial photos identifying nest locations and the boundaries of no-disturbance buffer zones.

f. The authorized biologist shall monitor active nests no less than twice per week until nestlings have fledged and dispersed. Activities that might, in the opinion of the authorized biologist, disturb nesting activities shall be prohibited within the buffer zone until such a determination is made.

g. Throughout Project construction, nest locations, Project activities in the vicinity of nests, and any adjustments to buffer areas shall be described and reported in monthly monitoring reports to the CPUC.

h. If active nests for listed birds are found, a 500-foot buffer will be established around each nest/territory. This buffer may be adjusted in coordination with USFWS, CDFW, and the CPUC.

MM B-5 **Avoid Wildlife Entrapment.** To prevent the accidental entrapment of wildlife during construction, all excavated holes or trenches deeper than six (6) inches will be covered at the end of each work day with plywood or similar materials. Larger excavations that cannot easily be covered will be ramped at the end of the work day to allow trapped animals an escape method. Ramps for open excavations will be soil and/or rough plank ramps with a maximum 45-degree angle, and will be installed at intervals prescribed by a qualified biologist. Trenches will be backfilled as soon as possible. Construction personnel will inspect open holes and trenches in the morning and evening for trapped wildlife. In the event that an excavation would be left unattended for a period of more than 24 hours, metal or wooden covering shall be placed over the excavation prior to the departure of the biological monitor in order to completely seal the excavation and prevent longer-term wildlife entrapment, except for larger excavations that cannot easily be covered. Prior to the filling of such excavations, these areas will be thoroughly inspected for special-status species by the qualified biologist. If a trapped animal is observed, construction will cease until the animal has been relocated to an appropriate location.

Mitigation Measure for Landslide Impacts

MM GS-1 **Conduct geotechnical/geologic surveys for landslides and unstable slopes.** The Applicant shall conduct slope stability surveys in areas where Proposed Project components are located on or adjacent to slopes exceeding 20 percent or in areas with previously mapped landslides. These surveys will acquire data that will allow identification of specific areas

with the potential for unstable slopes, landslides, rock fall, and debris flows where earthquakes or project excavation could trigger slope failure. The investigations shall include an evaluation of slope conditions, identification of potential landslide hazards, and provide potential modifications to the Project design to avoid areas of unstable slopes and landslide hazards, such as modification of component locations. Where the surveys determine that landslide hazard areas cannot be avoided, best engineering design and construction measures, such as slope protection or controls along the road to divert or catch falling rocks or slides, shall be incorporated into the Project designs and excavation plans to prevent potential damage to project components.

Mitigation Measure for Potential Water Contamination

MM H-1 **Prepare and Implement Worker Environmental Awareness Program (WEAP)**. A project specific WEAP shall be prepared and submitted to the CPUC for approval prior to construction. The WEAP shall include, at a minimum, the following provisions related to hazards and hazardous materials:

- A presentation shall be prepared by the Applicant and used to train all site personnel prior to the commencement of work. A record of all trained personnel shall be kept.
- Instruction on compliance with Proposed Project mitigation measures.
- A list of phone numbers of Siskiyou Telephone environmental specialist personnel associated with the Proposed Project (archaeologist, biologist, environmental coordinator, and regional spill response coordinator).
- Instruction on the individual responsibilities under the Clean Water Act, the project SWPPP, site-specific BMPs, and the location of Material Safety Data Sheets for the project.
- Worker Training on Emergency Release Response Procedures to include hazardous materials handling procedures for reducing the potential for a spill during construction, and hazardous material clean up procedures and training to ensure quick and safe cleanup of accidental spills.
- Instructions to notify the foreman and regional spill response coordinator in case of a hazardous materials spill or leak from equipment, or upon the discovery of soil, groundwater, or surface water contamination. The foreman or regional spill response coordinator shall have authority to stop work at that location and to contact the CUPA (Siskiyou County Environmental Health Division, Hazardous Materials Management; see Section 5.8.1 – Regulatory Background, above) immediately if unanticipated visual evidence of potential contamination or chemical odors are detected. Work will be resumed at this location after any necessary consultation and approval by the CUPA or other entities as specified by the CUPA.
- Instruction that noncompliance with any laws, rules, regulations, or mitigation measures could result in being barred from participating in any remaining construction activities associated with the Proposed Project.

MM H-2 **Prepare and Implement a Hazardous Materials and Waste Management Plan**. Prior to approval of the final construction plans for the Proposed Project, a project-specific Hazardous Materials and Waste Management Plan for the construction phase of the Pro-

posed Project will be prepared and submitted to the CPUC for approval prior to construction. The Plan will be prepared to ensure compliance with all applicable federal, state, and local regulations. The Hazardous Materials and Waste Management Plan will reduce or avoid the use of potentially hazardous materials for the purposes of worker safety, protection from soil, groundwater, and surface water contamination, and proper disposal of hazardous materials. The plan will include the following information related to hazardous materials and waste, as applicable:

- A list of the hazardous materials that will be present on site and in the local construction yard during construction, including information regarding their storage, use, and transportation;
- Any secondary containment and countermeasures that will be required for onsite and construction yard hazardous materials, as well as the required responses for different quantities of potential spills;
- A list of spill response materials and the locations of such materials at the Proposed Project site and in the local construction yard during construction. Additionally, the Plan shall designate that spill response materials be kept onsite for all activities performed near to or adjacent to a stream or the river;
- Procedure for Fueling and Maintenance of Construction Vehicles and Equipment: Written procedures for fueling and maintenance of construction equipment would be prepared prior to construction. The Plan shall include the following procedures:
  - Construction vehicles shall be fueled and maintained offsite at the construction yard or at local fuel stations. Construction vehicles operated near to or adjacent to the stream/river channel shall be inspected and maintained daily to prevent leaks.
  - Construction equipment such a drill rigs and excavators shall be fueled offsite when feasible. When refueling offsite is not feasible for drilling equipment and other construction equipment onsite refueling of the equipment by refueling vehicles or fuel trucks shall follow specified procedures to prevent leaks or spills. Procedures will require refueling be located a minimum of 150 feet from a stream channel and the use of spill mats, drop cloths made of plastic, drip pans, or trays to be placed under refueling areas to ensure that fuels do not come into contact with the ground. Spill cleanup materials shall be kept readily available on the refueling vehicles.
  - Drip pans or other collection devices would be placed under equipment, such as motors, pumps, generators, and welders, during operation and at night to capture drips or spills. Equipment would be inspected and maintained daily for potential leakage or failures.
- A list of the adequate safety and fire suppression devices for construction activities involving toxic, flammable, or exposure materials;
- A description of the waste-specific management and disposal procedures that will be conducted for any hazardous materials that will be used or are discovered during construction of the Proposed Project; and
- A description of the waste minimization procedures to be implemented during construction of the Proposed Project.

Mitigation Measure for Potential Soil Contamination

MM H-3 **Conduct Sampling and Testing for ADL.** Soil along the shoulder of State Highway 96 where project related ground disturbance is to occur, should be sampled and tested prior to construction to determine the proper handling and disposal methods. Caltrans has three Standard Special Provisions with guidelines for handling, reuse, storage, and disposal of ADL contaminated soils that could apply to the Proposed Project (Caltrans, 2014). The appropriate Standard Special Provision (SSP) would be applied for Proposed Project dependent on the ADL concentrations in the soil and planned soil disturbance parameters. The three Caltrans ADL SSPs are: SSP 7-1.02K(6)(j)(iii) (01/18/2013) Earth Material Containing Lead – Requires a lead compliance plan for soil disturbance when lead concentrations are non-hazardous; SSP 14-11.03 (04/19/2013) Material Containing Hazardous Waste Concentrations of Aerially Deposited Lead – ADL management specifications when hazardous waste concentrations exist; and SSP 14-11.04 (01/18/2013) – Minimal Disturbance of Material Containing Hazardous Waste Concentrations of Aerially Deposited Lead – ADL minimal disturbance specifications for use when hazardous waste concentrations exist but material is not being excavated.

A Mitigation Monitoring Plan has been prepared to ensure that the APMs and mitigation measures presented above are properly implemented. The plan describes specific actions required to implement each measure, including information on timing of implementation and monitoring requirements.

Based on the analysis and conclusions of the Initial Study, the impacts of the project as proposed by Siskiyou Telephone would be mitigated to less than significant levels with the implementation of the mitigation measures presented herein, which have been incorporated into the Proposed Project.

2. Environmental Determination

2.1 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" and requiring implementation of mitigation as indicated by the checklist on the following pages.

☐ Aesthetics	☐ Agriculture & 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	☐ Tribal Cultural Resources	☐ Utilities/Service Systems
☒ Mandatory Findings of Significance		

2.2 Environmental Determination

On the basis of this initial evaluation:

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

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

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

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

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

Jensen Uchida

April 20, 2018

Jensen Uchida, Project Manager
Energy Division CEQA Unit
California Public Utilities Commission

Date

3. Introduction to the Initial Study

3.1 Proposed Project Overview

Siskiyou Telephone proposes to install fiber optic broadband facility cable within a conduit for approximately 17 miles within the California Department of Transportation (Caltrans) right-of-way in or adjacent to State Highway 96, in both the Klamath National Forest and Six Rivers National Forest. The United States Forest Service is performing a separate environmental review of the Proposed Project prior to issuance of a Special Use Permit.

Construction of the entire fiber optic broadband facility cable would take approximately 195 days over a 2-year period, with construction occurring only during the dry season (April through October). Siskiyou Telephone has stated that the purpose of the Proposed Project is to provide reliable telephone and broadband service capability to existing and future residences in the area between Clear Creek and Ti Bar and remote areas of Siskiyou County, and to complete a continuous fiber optic route between Interstate 5 and U.S. Highway 101.

3.2 Environmental Analysis

3.2.1 CEQA Process

This Initial Study (IS) has been prepared pursuant to the California Environmental Quality Act (CEQA), the amended State CEQA Guidelines (14 CCR 15000 et seq.), and the CPUC CEQA rules (Rule 2.4). The purpose of the IS is to inform the decision-makers, responsible agencies, and the public of the Proposed Project, the existing environment that would be affected by the project, the environmental effects that would occur if the project is approved, and proposed mitigation measures that would avoid or reduce environmental effects.

A Mitigated Negative Declaration (MND) has been prepared based on the assessment of potential environmental impacts identified in the IS. All potentially significant impacts associated with the project can be mitigated to a level below significance; therefore, an MND can be adopted by the CPUC in accordance with Section 21080 of the CEQA Public Resources Code.

3.2.2 CEQA Lead Agency

Siskiyou Telephone Company (Siskiyou Telephone) has filed an application for CASF funding in the underserved areas along the State Highway 96 corridor between Somes Bar and Happy Camp in Siskiyou County. The CPUC approved funding for the project from the CASF on December 15, 2016 in Resolution T-17539. Resolution T-17539 stipulates that prior to receiving funds from the CASF grant, the proponent is required to provide a Proponent's Environmental Assessment (PEA) and the CPUC must complete review under the California Environmental Quality Act (CEQA). The CPUC is the lead agency for review of the project under CEQA, because it must make a decision whether to adopt the MND and to approve the funding.

3.2.3 Initial Study

The IS presents an analysis of potential effects of the Proposed Project on the environment. The IS is based on information from Siskiyou Telephone's Proponent's Environmental Assessment (PEA) and associated submittals, site visits, CPUC data requests, and additional research.

Construction activities and project operation could have direct and indirect impacts on the environment. The following environmental parameters are addressed based on the potential effects of the Proposed Project and potential growth-inducing or cumulative effects of the project in combination with other projects:

- Aesthetics
- Agricultural and Forestry Resources
- Air Quality
- Biological Resources
- Cultural Resources
- Geology and Soils
- Greenhouse Gases
- Hazards and Hazardous Materials
- Hydrology and Water Quality
- Land Use and Planning
- Mineral Resources
- Noise
- Population and Housing
- Public Services
- Recreation
- Transportation and Traffic
- Tribal Cultural Resources
- Utilities and Service Systems
- Mandatory Findings of Significance

The IS has been organized into the following sections:

- Section 3: Introduction. Provides an introduction and overview describing the Proposed Project and the CEQA process, and identifies key areas of environmental concern.
- Section 4: Project Description. Presents the project objectives and provides an in-depth description of the Proposed Project, including construction details and methods.
- Section 5: Environmental Analysis and Mitigation. Includes a description of the existing conditions and analysis of the Proposed Project's potential environmental impacts, and identifies mitigation measures to reduce potentially significant impacts to less than significant levels.
- Section 6: Mitigation Monitoring Plan. Includes applicant proposed measures (APMs) and mitigation measures that Siskiyou Telephone must implement as part of the project, actions required to implement these measures, monitoring requirements, and timing of implementation for each measure.
- Section 7: Responses to Comments. Letters and responses to all public comments submitted on the Draft IS/MND.
- Appendix A: Maps of Creek Crossings
- Appendix B: Siskiyou Telephone's Site Plans
- Appendix C: Report Preparation. Lists the preparers of the Initial Study.
- Appendix D: References. Lists the sources of information used to prepare the Initial Study.
- Appendix E: Air Quality/Greenhouse Gas Emissions Calculations

4. Project Description

Siskiyou Telephone Company (Siskiyou Telephone) proposes to construct the Siskiyou Telephone Happy Camp to Somes Bar Fiber Connectivity Project (Proposed Project), which would provide telephone and broadband service capability to residences in the area between Clear Creek and Ti Bar in Siskiyou County, California. Fiber optic broadband facility cable would be constructed within a conduit for approximately 17 miles within or adjacent to State Highway 96 (see Figure 4-1). The project would be constructed under a grant from the California Advanced Service Grant Program, as funded by the California Public Utilities Commission (CPUC) to Siskiyou Telephone.

4.1 Project Title

Siskiyou Telephone Happy Camp to Somes Bar Fiber Connectivity Project

4.2 Lead Agency Name and Address

California Public Utilities Commission
Energy Division
505 Van Ness Avenue, 3rd Floor
San Francisco, California 94102

4.3 Lead Agency Contact Person and Phone Number

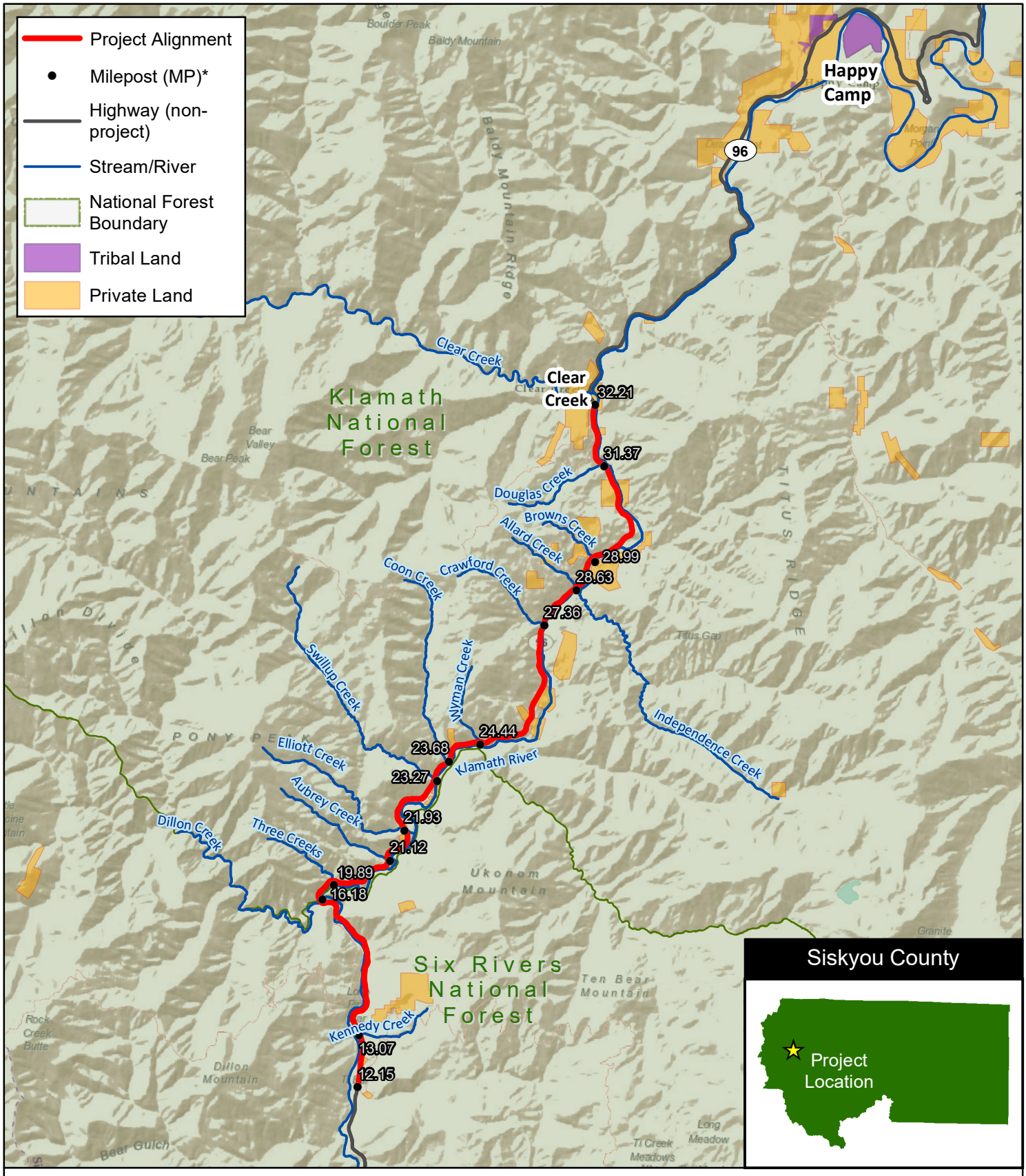
Jensen Uchida, Project Manager
Energy Division
Phone: (415) 703-5484
E-mail: Jensen.Uchida@cpuc.ca.gov

4.4 Project Location

The project site is located in Siskiyou County, approximately 70 miles west-southwest of Yreka, California. The project site begins at Milepost (MP) 12.15 on State Highway 96 and proceeds northeast approximately 16.72 miles (88,282 feet) to MP 32.21 (note: a 3-mile error in state milepost markers occurs between MP 16.38 and MP 19.64). State Highway 96 is located in both the Klamath National Forest and Six Rivers National Forest. Specifically, the project site is located in the following 7.5-minute U.S. Geological Survey (USGS) quadrangles: Dillon Mountain, Ukonom Mountain and Clear Creek. The project site is within the following legal descriptions:

- T13N; R6E; Sections 5, and 8
- T14N; R6E; Sections 1, ~~2, 5, 9, and~~ 11, and 12 and continues into Sections 14, 15, 21, 22, 28, and 33
- T14N; R7E, Section 6
- T15N; R7E; Section 18 and follows State Highway 96 into Sections 17, 20, 29, 30, and 31
- T15N; R6E; Section 36

The entire project is confined within the California Department of Transportation (Caltrans) maintenance right-of-way (ROW) in or adjacent to State Highway 96. The Project would include ten minor creek crossings: Douglas Creek, Browns Creek, Allard Creek, Crawford Creek, Wyman Creek, Coon Creek, Elliot Creek, Aubrey Creek, Three Creeks, and Kennedy Creek (see Figure 4-1 and Figures A-1 through A-10 in Appendix A, respectively). The cable would be hung on the bridges across Dillion Creek and Swillup Creek.



Source: CalTrans 2014, US Forest Service 2017

*Note: A 3-mile error in state milpost markers occurs between MP 16.38 and MP 19.64.

Figure 4-1

Project Route

4.5 Project Sponsor's Name and Address

Carl Eastlick
Siskiyou Telephone
PO Box 157
Etna, CA 96027
(530) 467-6000

4.6 General Plan Designation

The Proposed Project is located within Siskiyou County. The Siskiyou County Planning Department is responsible for land use and planning in Siskiyou County and on Siskiyou County ROW easements within the National Forests. State Highway 96 is classified as Public Lands by Siskiyou County Planning Department.

4.7 Zoning

The Siskiyou County Planning Department has zoned federal and private land in the Klamath and Six Rivers National Forests as Rural Residential Agricultural. Therefore, the majority of the land surrounding the Proposed Project is zoned Rural Residential Agricultural with a 40-acre minimum parcel size (R-R-B-40), with a small portion zoned R-R-B-5 (5-acre minimum) (Siskiyou Telephone, 2016).

Also, the Proposed Project is located in the Klamath National Forest Management Area 17, zoned as General Forest by USFS. USFS manages federal lands within the project area as General Forest for activities including timber harvest, forage for recreation, and mining (Siskiyou Telephone, 2016).

4.8 Surrounding Land Uses and Setting

Land in the Project area is under the jurisdiction of USFS or privately owned. State Highway 96, maintained by the California Department of Transportation (Caltrans), generally runs north to south through Siskiyou County. The Project alignment is located beside the eastern bank of the Klamath River and is bordered by steep slopes in every direction.

Existing land uses adjacent to the Project area are primarily private residences and forest. In addition to private residences, uses within the forested areas include logging, fuels management (including prescribed burning), dredging operations, and recreation associated with a National Forest, such as hiking, fishing, and camping.

4.9 Project Overview

The Proposed Project is partly funded by the California Advance Services Fund (CASF). On December 20, 2007, in Decision 07-12-054 established the CASF program to provide grants that support projects that will: (a) provide broadband services to areas currently without broadband access, and (b) build out facilities in underserved areas, if funds are still available. CPUC Resolution T-17539 approved funding in the amount of $3,645,085 from the CASF for the Proposed Project. The proposed $3,595,071 funding for the fiber middle-mile link will improve network reliability to the larger region by completing a critical segment of fiber link. The proposed $50,014 funding is for constructing last-mile connections to 10 unserved households.

4.9.1 Project Objectives

Siskiyou Telephone has identified the fundamental objectives of the Proposed Project as follow:

- Provide reliable telephone and broadband service capability to existing and future residences between the Clear Creek and Ti Bar areas; and
- Complete a continuous fiber optic route between Interstate 5 and U.S. Highway 101.

4.9.2 Purpose and Need

As stated above, the purpose of the Proposed Project is to provide reliable telephone and broadband service capability to existing and future residences in the area between Clear Creek and Ti Bar and remote areas of Siskiyou County. A secondary purpose of installing the fiber optic broadband facility cable underground is to minimize cost and environmental disturbances. By encasing the fiber optic broadband facility cable in buried conduit instead of direct-buried copper or fiber optic cable, the future need to replace damaged or deteriorated copper or fiber optic cable is minimized. As a general practice, Siskiyou Telephone intends to eliminate the need to disturb ground every 5 to 10 years to replace deteriorated or outsized facilities by placing conduits instead of direct-buried copper or fiber optic cable. Environmental hazards, such as fires and downed trees, would not affect underground cable components.

The existing telephone system consists of a fiber optic cable from Fort Jones to Happy Camp to Benjamin Creek, and a fiber optic cable from Somes Bar to Ti Bar (see Figure 4-2). All fiber optic lines are placed in underground conduit systems. Siskiyou Telephone has backup generators at its Fort Jones, Happy Camp, and Somes Bar central offices. The Proposed Project would also complete a continuous fiber optic broadband facility route between Interstate 5 and U.S. Highway 101 on the coast, which would allow for the provision of a geographically diverse route. The project would incorporate the use of a self-healing fiber optic ring, allowing for service to be fed from either direction, which would protect the services and provide an enhancement to the safety for the region.

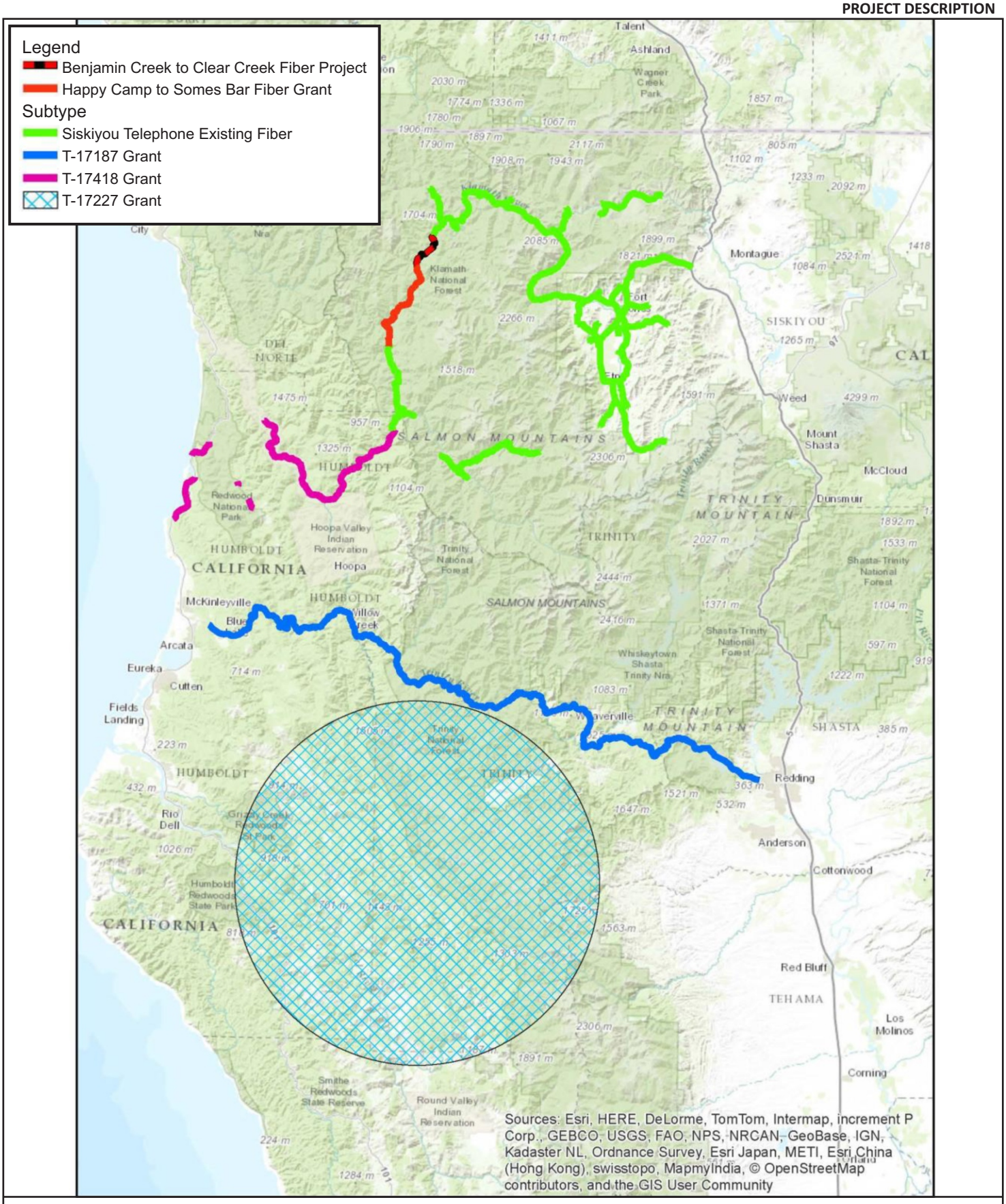
This project is needed because residents currently have minimal effective use of cell phones, satellite, or radio due to the mountainous and remote location; and currently, there are no land-based telephone or broadband services. The nearest amenities and emergency service providers are located approximately 70 miles northeast, in the town of Yreka. The absence of services in the event of an emergency, such as an accident or fire in the area, is a concern to local residents. Telephone and broadband service is required to provide reliable communication capability for the safety of residents in the area.

4.10 Project Components

The Proposed Project consists of two components: fiber optic broadband facility cable and utility box installation. The locations of the project components are shown in detail on in Appendix B. The project would consist of all new construction because no existing project components are located in the project area.

4.10.1 Fiber Optic Broadband Facility Cable

An estimated 88,282 feet of underground fiber optic broadband facility cable, including drops to subscribers, are proposed to be installed in conduit along the cable alignment. The telephone service cable would be made of fiber optic service line that would be placed in a 1.5-inch high-density polyethylene conduit. The fiber optic broadband facility cable would be installed using both directional boring and trenching.



Source: xx, 2015.

Figure 4-2
NW California CASF Grant Projects

Trenching would occur only where the shoulder width can accommodate the operation without damaging the road surface or shoulder, and where boring cannot be done. In general, the cable would be installed in the far side of the road from the Klamath River, except for short segments where there is not adequate space in the shoulder.

4.10.2 Utility Boxes

Forty concrete hand hole utility boxes are proposed to be installed as access points for subscriber drop, splice points, and grounding locations (see diagram in Figure 4-3). The opening of the hand hole boxes would be at ground surface elevation and would be approximately 6 feet 7 inches long by 3 feet 1 inch wide by 4 feet deep with a traffic-rated lid. Boxes would be placed along the fiber optic broadband facility cable route at 2,500-foot minimum spacing to provide rural utilities service grounding. Additional boxes would also be placed as needed along the route to provide access points for each residential subscriber, or fiber optic line splices.

Locations along the cable alignment could require digging out of the rocky bank to create a clearing large enough that the box can be opened and closed easily. In areas where digging the bank would be required, the bank would be less than 5 feet high. If needed, a rock retaining wall would be built around the cutout to support any loose impediments such as rocks and debris that might fall on the box or into the roadway.

4.10.3 Right-of-Way Requirements

The Proposed Project would be constructed within and adjacent to State Highway 96 ROW in Siskiyou County, which is maintained by Caltrans. A minimum construction access width of 10 feet would be required for trench or plow excavation. All construction equipment would remain within existing roadways or road shoulders.

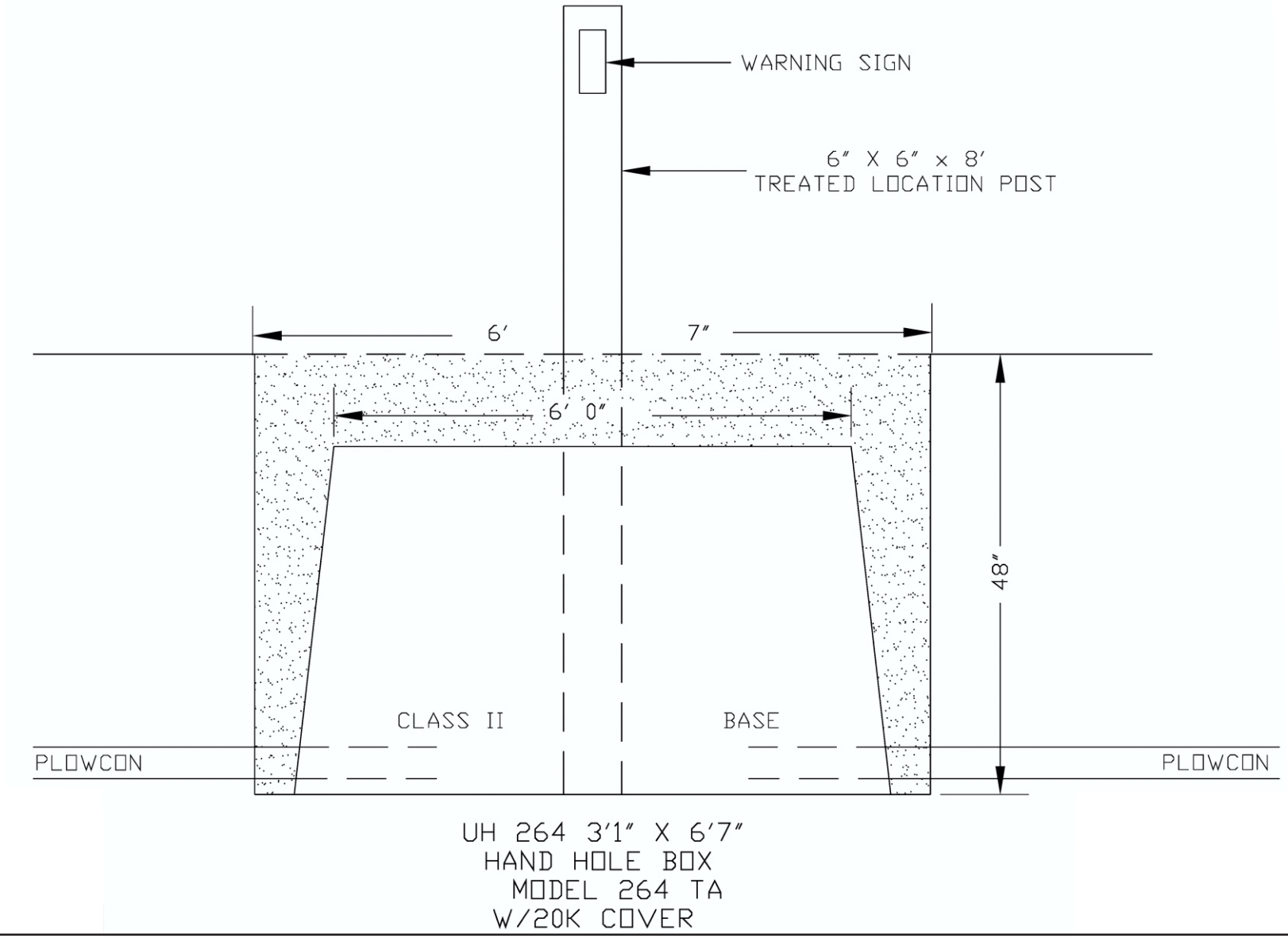
4.11 Project Construction

4.11.1 Underground Cable Installation

Fiber optic broadband facility cable would be installed using both directional boring and trenching. The majority of the Project would be constructed using horizontal (hard-rock) directional boring techniques. Several culverts would be crossed while constructing the project. If a culvert has a minimum of 4 feet of ground cover, Siskiyou Telephone would trench directly over the culvert. If the culvert had less than 4 feet of ground cover, Siskiyou Telephone would tunnel under the culvert at a minimum depth of 6 feet below the bottom of the culvert invert.

The telephone service cable would be made of fiber optic service line that would be placed in a 1.5-inch high-density polyethylene conduit. Once the conduit is placed the contractor would use a special fiber blowing machine. This requires an air compressor and the fiber is actually blown in riding on this air. Conduit may be routed around a culvert if space allows on the shoulder of the roadway.

Trenching. Trenching would only occur where the shoulder width can accommodate the operation without damaging the road surface or shoulder, and where boring cannot be done. Trenching would be conducted to a width of approximately 1.5 feet and a depth of approximately 4 feet within the road or road shoulder to provide room for the conduit. After the cable and conduit are installed, the trench would be filled with Class II base rock, compacted, and repaved (if necessary) to restore the roadway and road shoulders to preconstruction conditions.



Source: Siskiyou Telephone, 2004.

Figure 4-3

Typical Utility Box

Horizontal Directional Boring. Horizontal directional drilling (HDD) is a highly specialized boring technique that would likely be used to install the cable in areas where there are known state- or federally listed species or habitat including jurisdictional waters. HDD is trenchless method of conduit installation using a surface-launched drilling rig that installs the conduit via a pre-drilled, arc-like bore hole. The HDD process would utilize an entry bore pit and an exit bore pit to contain the drilling mud, each approximately 3 feet in width by 9 feet in length. The initial trenching for each bore pit would be monitored by a Tribal Monitor. The trench spoils would then be hauled to a temporary staging area to be hauled away to Happy Camp. The bore pit would then be backfilled with Class ll Base Rock at the end of each day until bore completed. The bore pit would then be secured with Base Rock until actual splicing of conduit is completed.

HDD would be performed using the least amount of pressure to minimize the chance of a frac-out, the unintentional return of drilling fluids to the surface during HDD. The entire bore route would be monitored to catch any frac-out fluids that might appear in the road shoulder.

4.11.2 Material Storage and Equipment Staging Areas

Siskiyou Telephone has made an agreement with a disposal site located in Happy Camp on State Highway 96 for disposal of stockpiles and temporarily storing equipment (Happy Camp disposal site). Because of the long distance to haul bore spoils, a mud cleaner would be used onsite, and the majority of the mud would be recycled back into the bore machine.

Any remaining refuse would be hauled to a temporary stockpile location and then hauled to the Happy Camp site for final disposal. Trench spoils would be temporarily stockpiled in the larger turnouts along the alignment and hauled out weekly. In the event of inclement weather, stockpiles would be covered to prevent runoff.

Two primary sites for temporary gravel and trench spoils storage are adjacent to State Highway 96 between MP 34.78 and MP 34.59 and between MP 13.21 and MP 13.32. Numerous turnouts along the route would be used as temporary day parking for transportation vehicles while crews work onsite.

All construction equipment, the trencher, backhoes, and plows would remain onsite throughout construction, parked in the same turnouts with safety cones around them so they are visible to traffic. All construction equipment would be parked so that through-traffic would not be impeded on the roadways after hours. The transportation vehicles would leave with the crews and return when work resumed.

4.11.3 Work Areas

Work areas in the project site consist of State Highway 96, which is approximately 32 feet wide. Flaggers would control traffic encountered during construction activities. Traffic delays might be as long as 10 to 15 minutes. In the case of an emergency, or if an emergency vehicle needed to pass, the equipment would move immediately, to maintain emergency vehicle access. One full, 16-foot-wide lane would be available for emergency traffic at all times.

Conduits would be laid out alongside the construction route each morning so that additional vehicles would not impede traffic during construction. Dump trucks would haul trench spoils to the Siskiyou Telephone gravel site turnouts as needed and bring loads of Class II base rock back to the Project site to be used for backfill to meet Caltrans compaction specifications. Additional trucks would then reload trench spoils and haul them to the Happy Camp disposal site for final disposal.

4.11.4 Use and Disposal of Excavated Material

Excavated material from State Highway 96 that meets Caltrans specifications would be used to backfill the trench. Remaining materials that do not meet Caltrans specifications would be removed from the site and transported to the nearest temporary stockpile location, to be reloaded and hauled to the Happy Camp disposal site. Class II base rock would be used to fill the remainder of the trench. After the Class II base rock is placed in the trench, it would be compacted in 1-foot lifts with a mechanical tamper, and the top 1 foot would be compacted with 20,000 pounds of force to meet Caltrans requirements. Caltrans currently requires 95 percent minimum compaction of materials placed in trenches in its roadways.

The excavated materials from the Proposed Project would amount to approximately 4,933 cubic yards. Excess trenched materials that are not used to backfill the trench would be disposed of at the Happy Camp disposal site.

4.11.5 Vegetation Clearance

Vegetation would not need to be cleared during construction of the project because all activities would be conducted within the existing roadway or on the shoulder of the road. The roads are used daily by residents and other traffic; thus, there is minimal vegetation along the highway due to normal operation.

4.11.6 Stream Crossings

The project alignment would require ten minor stream crossings: Douglas Creek, Browns Creek, Allard Creek, Crawford Creek, Wyman Creek, Coon Creek, Elliot Creek, Aubrey Creek, Three Creeks, and Kennedy Creek. The stream crossings would be directionally bored a minimum of 30 feet below the streambed if water is present and 18 feet below the streambed if dry. No standing trees would be removed or trimmed. The cable would be hung on the bridges across Dillion Creek and Swillup Creek.

4.11.7 Water Use

In addition to drilling operation, water would be used to wet down the work area, including materials such as backfill and other construction components as needed to minimize offsite transport of dust. Water use during construction would be approximately 14,000 gallons a day for the drilling operation as well as approximately 6,000 gallons a day for road surface cooling and gravel wetting for compaction. Water would be purchased and hauled to the work areas from the Happy Camp Community Service District in Happy Camp.

Portable toilets would be used by construction personnel and would be pumped and cleaned weekly by a licensed provider.

4.11.8 Erosion and Sediment Control and Pollution Prevention during Construction

Without implementation of best management practices (BMP) to address erosion and sediment control, sediment could be released into waters as a result of construction activities. Construction of the Proposed Project would occur during the dry season (April through October), thereby minimizing the potential for erosion and sediment transport. Siskiyou Telephone would have the contractor prepare a Storm Water Pollution Prevention Plan (SWPPP) that outlines BMPs that would be implemented to address erosion and sediment control, including placement of sediment controls at culvert crossings, such as gravel bags with filter fabric, silt fence, or coir rolls. Materials from the trenching activities would be removed from the site

and would be protected from erosion, and new material would be brought in to backfill the trench; therefore, erosion and sedimentation would be minimized.

The project would be constructed during the dry season (April through mid-October), and a water truck would be onsite to wet down the work area, including materials such as backfill and other construction components as needed to minimize offsite transport of dust.

During construction activities, the trench along the fiber optic broadband facility cable alignment would be backfilled and compacted daily. The surfaces of Caltrans roadways would be restored daily to pre-project condition. Roadway conditions could be better than existing conditions by grading the road surface following daily construction activities.

The following materials are anticipated to be used during construction:

- **Diesel Fuel,** approximately 460 gallons per day. The bore rigs (4) would use approximately 240 gallons of fuel per day, the support vehicles would use approximately 220 gallons per day. This diesel fuel would be stored on the individual personnel vehicles used to bring workers, materials and fuels to the job daily. The vehicle with storage tanks would not remain on the job site overnight but would be parked at Siskiyou Telephone's materials storage yard in Happy Camp. Construction vehicles would be fueled up on road shoulders with a hazard spill mat in place to avoid leaks. All other work vehicles would be fueled up in Happy Camp at local fuel pumps.
- **Bentonite Bore Powder.** The individual bags of bentonite are stored on the Mix Truck used for each drill machine and would remain in powder form until used. Each Mix Truck would have approximately 2,000 gallon capacity of mixed fluid to be used when drilling. These would be filled twice a day with water from a 2,500 gallon water truck hauling water from Happy Camp, where it is purchased from the Happy Camp Community Service District. The 2,500-gallon water truck would fill up in Happy Camp at least 8 times daily to keep all of the Mix Trucks full and also to wet down the stockpiles of gravel along the job route.
- **Used Bore Grindings**. These grindings would be flushed out of the bore tube by pumping bentonite into the drill from the Mix Truck. The waste would then be vacuumed into a 600 gallon vac-trailer and disposed of in Happy Camp at the approved disposal location. There would be at least 4 vac-trailers hauling spoils off of job as needed, normally a minimum of 8 trips per day.

The Applicant Proposed Measures (APMs) in Table 4-3 include measures to reduce the potential for and provide containment in the event of an accidental release of the materials discussed above that would be used during construction.

4.11.9 Site Clean-up and Roadway Restoration

The roadways including shoulders that would be impacted by the Proposed Project are presently all asphalt or gravel surface, so there would be two types of road surface to be restored at the completion of construction. The road shoulder work in areas of dirt or rock roadway surface would be repaired using Class ll Base Rock compacted in 12 inch lifts with a mechanical compactor. This would require 95% compaction.

The second surface would be in asphalt and would require 12 inches of Class ll Base Rock over the conduits and 36 inches of 2 sack concrete slurry, providing 100 % compaction. This finished surface would then be ground out to a depth of 3 inches and this would then be replaced with 3 inches of hot Asphalt Mix.

4.11.10 Construction Personnel and Equipment

Approximately 15 workers would be involved in trenching, boring, and installing conduit and fiber optic broadband facility cable for the Proposed Project, plus four personnel would be used for traffic control. The four traffic control personnel would enable two crews to work in separate locations along the cable alignment.

All of the construction personnel would stay at various RV locations in Happy Camp, as they would be long-term personnel hired by Siskiyou Telephone's contractor.

Table 4-1 lists the construction activities, personnel, and equipment required for the Proposed Project. There would be up to 30 round-trip vehicle trips estimated per day between the project site and Happy Camp. Not all of the vehicles listed in Table 4-1 would be used every day and some may be temporarily parked on private property along the route.

In general, at the start of each construction day, four mix trucks (used with drill rigs) and six 1-ton service vehicles hauling fuel and personnel would travel to job site and then return to Happy Camp at the end of the day. Three ¾-ton pickups would haul the Supervisor, Foreman and Inspector to/from the job site from Happy Camp, and would move between crews as needed during the day. A water truck would also make a minimum of eight trips per day between the project area and Happy Camp to provide water for the bore rigs and trenching operation. There would be two 10-yard dump trucks on the job as needed, one of which would be used within the daily work zone and the other would haul trench spoils back to Happy Camp for disposal. Finally, two 2-ton trucks would make six trips per day to pull the loaded vac trailers out for disposal.

Table 4-1. Construction Workforce and Equipment

Activity	Personnel Required	Equipment Required
Trenching	7 to 10	• 3 backhoes • 3 dump trucks
Conduit Placement	12 to 15	• 2 pickup trucks • 2 three-reel trailers • 5 drill rigs • 5 vac trailers/with trucks • 2 cleaners
Backfill	6 to 8	• 1 excavator (compactor) • 3 mechanical tampers • 3 backhoes • 1 water truck • 2 dump trucks
Cable Placement	4 to 8	• 1 backhoe • 1 reel dolly • 2 fiber machines • 2 air compressors • 2 pickup trucks • 2 (2-ton) reel trucks
Inspection	2	• 2 pickup trucks
Traffic Control	4	• 2 work trucks
Spoils Removal	2	• 1 transfer truck

Source: Siskiyou Telephone, 2016.

4.11.11 Construction Schedule

Due to winter weather conditions, the project area has a short construction period. Before the rainy season begins, construction sites must be restored and protected for winter, by mid-October. Because construction of the Proposed Project can only occur during the dry season (April through October), it is anticipated that installation of the entire fiber optic broadband facility cable would be over a 2-year period (up to 6 months per year). The total duration of construction is estimated to last 195 days.

4.12 Operations and Maintenance

After the cable has been installed, and service has been initiated to local residents, it is anticipated that minimal operation or maintenance of the project components would be required. Operation would generally involve accessing utility boxes for maintenance purposes.

Siskiyou Telephone maintains a single Installer Repairman for the Happy Camp area. This individual would be dispatched as needed to perform testing on the actual fiber. This individual is within an hour drive of these facilities at most time. Should damage occur to the fiber and conduits, Siskiyou Telephone maintains a 4-man construction crew out of their main office in Etna, CA. This crew would only be dispatched in the case of an emergency repair. Once these facilities are placed and barring an emergency, there is not any planned maintenance to be done on the fiber or the conduits.

4.13 Other Permits and Approvals

CPUC Resolution T-17539 stipulates that prior to receiving funds from the CASF grant, the proponent is required to provide a Proponent's Environmental Assessment (PEA) and the CPUC must complete CEQA review. Therefore, Siskiyou Telephone prepared and submitted a PEA as part of its application for a Permit to Construct (PTC). The CPUC has exclusive authority to approve or deny Siskiyou Telephone's application; however, various permits from other agencies may also need to be obtained by Siskiyou Telephone for the Proposed Project. If the CPUC issues a PTC, it would provide overall project approval and certify compliance of the project with CEQA. In addition to the PTC, Table 4-2 summarizes the permits from other federal, State, and local agencies that may be needed for the project.

Table 4-2. Permits that May Be Required for the Proposed Project

Agency	Jurisdiction	Requirements
Federal/State/Local Agencies		
U.S. Forest Service	Special Use authorization	National Environmental Policy Act (NEPA) and a special use permit for construction
California Department of Fish and ~~Game~~Wildlife	Manage fish, wildlife, plant resources and habitats; California ESA, California Native Plant Protection Act, California Fish and Game Code Section 1601	Lake or Streambed Alteration 1601 Permit
California Department of Transportation	Highways and State-owned roadways	Encroachment Permit
California Office of Historic Preservation	Consultation (through CEQA review process)	Cultural resources management (if appropriate)

Table 4-2. Permits that May Be Required for the Proposed Project

Agency	Jurisdiction	Requirements
Regional Water Quality Control Board (RWQCB) – North Coast Region (Region 1)	National Pollution Discharge Elimination System, General Construction Storm Water Pollution Prevention Plan (SWPPP)	Submittal of Notice of Intent (NOI) to Regional Board to comply with terms of the general permit and preparation of SWPPP
Siskiyou County Air Pollution Control District (APCD)	Asbestos Airborne Toxic Control Measures (ATCM) for construction	Obtain approval of a dust mitigation plan for naturally-occurring asbestos

4.14 Applicant Proposed Measures

Siskiyou Telephone proposes to implement measures to ensure the Proposed Project would occur with minimal environmental impacts in a manner consistent with applicable rules and regulations. Siskiyou Telephone proposes to implement these measures during the design, construction, and operation of the Proposed Project in order to avoid or minimize potential environmental impacts.

Applicant Proposed Measures (APMs) listed in Table 4-3 are considered part of the Proposed Project and are considered in the evaluation of environmental impacts (see Section 5, Environmental Analysis and Mitigation). CPUC approval would be based upon Siskiyou Telephone adhering to the Proposed Project as described in this document, including this project description and the APMs, as well as any adopted mitigation measures identified by this Initial Study.

Table 4-3 details each APM by environmental issue area. In some cases, mitigation measures presented in Section 5 either expand upon or add detail to the APMs presented in Table 4-3 if necessary, to ensure that potential impacts would be reduced to less than significant levels.

Table 4-3. Applicant Proposed Measures (APMs)

APM Number	Issue Area
	Air Quality
APM AQ-1	~~To reduce fugitive emissions, c~~Construction of the proposed project would occur during the dry season (April through October). To reduce fugitive emissions, w~~W~~ater trucks would be present onsite to wet down the work area, including materials such as backfill and other construction components.
	Biological Resources
APM BIO-1	To minimize the likelihood of potential adverse effects on nesting birds and raptors, preconstruction nesting surveys would be conducted during the January 31 through August 31 bird nesting season. If active nests are observed prior to construction, a qualified biologist would be retained to monitor construction within 50 feet of the active nest for passerines or 300 feet for raptors.
APM BIO-2	To minimize the likelihood of potential adverse effects on wildlife near the 10 stream crossings, preconstruction wildlife surveys would be conducted. In addition, a qualified biologist would be retained to monitor construction during directional boring activities.
APM BIO-3	To minimize the potential for wildlife to become trapped in open trenches, each excavation would be securely backfilled or covered at the end of each work day. Only excavated onsite native materials would be used to backfill trenches. One side of each excavation would be ramped to allow wildlife egress in the unlikely event that entrapment occurs.
APM BIO-4	Construction access, and material laydown and staging would occur only on existing roads and previously disturbed sites.

Table 4-3. Applicant Proposed Measures (APMs)

APM BIO-5	To reduce the introduction and spread of noxious weeds, the project would use construction equipment that is currently being used near the project area in the Klamath National Forest and Six Rivers Forest. This equipment would not be used elsewhere prior to construction without proper decontamination procedures applied prior to deployment.
APM BIO-6	Spoils known to contain noxious weed propagules or that otherwise do not meet Caltrans backfill specifications would be removed and disposed of at a Caltrans-approved disposal site.
APM BIO-7	Temporary construction equipment sound levels would not exceed 90 dB.
APM BIO-8	The contractor shall prepare and implement a plan for monitoring drilling operations and addressing frac-out if it occurs. The plan shall include visual inspections along the bore path of the pipeline alignment during all drilling operations. Monitors shall also be stationed at appropriate distances upstream and downstream from the crossing point. All equipment required to contain and clean up a frac-out release shall be available at the work site.
APM BIO-9	To minimize risk of harming the Del Norte Salamander or red-legged frog (at Wyman Creek only), work shall be conducted during dry weather.
Cultural Resources	
APM CUL-1	Prior to construction, workers would be provided with environmental awareness training to recognize potential archaeological or paleontological resources and identify and address any unearthed human remains during construction. If archaeological (or paleontological) materials are uncovered, construction activities and excavation should be conducted to avoid the resources. All construction work within 100 feet of the resource would be halted until a qualified archaeologist (or paleontologist) can assess the find. The archaeologist (or paleontologist) would assess the find and make any necessary recommendations, including any procedures to further investigate or mitigate impacts on the find as required by law, including CEQA Guidelines, Section 15126.4(b)(3)(C).
APM CUL-2	If during excavation or earth-moving activities the construction contractor identifies potential historic or archaeological resources, the county or local jurisdiction would be notified, and a professional archaeologist meeting the minimum qualifications in archaeology as set forth in the Secretary of the Interior's Standards and Guidelines would be contracted and dispatched to assess the nature and significance of the find in the following manner: ▪ All excavation and grading within 10 feet of the discovery area would cease immediately. The responding archaeologist may, after analyzing the discovery, authorize an alternate buffer around the materials to ensure adequate evaluation and protection of potential historic and archaeological resource(s) during continued construction operations. ▪ Additional evaluation of the historic and archaeological resource(s) would be conducted and significance of the materials determined. If the discovery is considered significant, the archaeologist would develop and implement a late-discovery mitigation strategy to minimize and avoid the impact, where appropriate.
APM CUL-3	If paleontological resources are discovered during earth-moving activities, the construction crew would immediately cease work near the find. In accordance with Society of Vertebrate Paleontology Guidelines, a qualified paleontologist would assess the nature and importance of the find and recommend appropriate salvage, treatment, and future monitoring and mitigation.
APM CUL-4	If human remains are encountered, Health and Safety Code Section 7050.5 states that no further disturbance would occur until the county coroner has made a determination of origin and disposition pursuant to PRC Section 5097.98. The county coroner must be notified of the find immediately. If the remains are determined to be prehistoric, the county coroner would notify the Native American Heritage Commission, which would determine and notify a most likely descendant (MLD). With the permission of the landowner and his/her authorized representative, the MLD may inspect the site of the discovery. The MLD would complete the inspection within 48 hours of the notification by the Native American Heritage Commission. The MLD may make recommendations regarding the disposition of the remains.
APM CUL-5	Siskiyou Telephone and/or USFS would work with the Karuk Tribe to provide a tribal monitor to observe conditions during construction in specified areas of interest.
Geology and Soils	
APM GEO-1	Project construction activities would be performed in accordance with the soil erosion and water quality protection measures to be specified in the SWPPP (see Section 4.11.8 of this IS/MND) for the proposed project.

Table 4-3. Applicant Proposed Measures (APMs)

APM GEO-2	Project elements, such as excavating rock or soil for utility box installation, building minor retaining walls (less than 5 feet in height) to avoid sedimentation into roadways, and trenching, would be designed and implemented in accordance with industry standards, including established engineering and construction practices and methods.
	Greenhouse Gas Emissions
APM GHG-1	To the extent feasible, unnecessary construction vehicle and idling time would be minimized.
	Hazards and Hazardous Materials
APM HAZ-1	Refueling of equipment would occur at a minimum distance of 20 feet from all active waterways.
APM HAZ-2	A SWPPP would be in place prior to the start of construction activities to implement BMPs for spill and pollution prevention. The following BMPs would minimize the potential for accidental release of hazardous materials: ▪ Equipment would be maintained in good working order, and equipment containing hazardous materials would be inspected periodically for signs of spills or leakage. ▪ Spills that occur would be cleaned up immediately, and any contaminated soil would be containerized and properly disposed of. ▪ Spills that occur would be reported in accordance with applicable federal, state, and local requirements. ▪ Emergency phone numbers would be available onsite.
APM HAZ-3	Siskiyou Telephone would develop a fire management plan, in accordance with the modified special use permit from USFS that addresses construction activities for this project. The fire management plan would establish standards and practices that would minimize the risk of fire danger and, in the case of fire, provide for immediate suppression and notification. The fire management plan would address spark arresters, smoking and fire rules, storage and parking areas, use of gasoline-powered tools, road closures, use of a fire guard, and fire suppression equipment and training requirements. In addition, a water truck would be located onsite (for fugitive dust emission control) and could be used for fire suppression if needed.
	Hydrology and Water Quality
APM HYDRO-1	Disturbed areas would be restored to preconstruction conditions to avoid altering or increasing the rate or volume of surface runoff.
APM HYDRO-2	To comply with the LUP General Permit, Siskiyou Telephone would submit a Notice of Intent to the SWRCB and a Linear Construction Activity Notification to the RWQCB prior to construction. Siskiyou Telephone would also have the construction contractor prepare an SWPPP outlining BMPs for storm water erosion and sediment control, wind erosion control, source controls, and waste management. Siskiyou Telephone would ensure that SWPPP requirements are implemented and water quality standards are maintained. BMPs would be modified as necessary to ensure adequate erosion controls. The following are examples of BMPs: ▪ Dry-season (April through October) construction to minimize erosion and storm water sediment transport ▪ Use of silt fences or fiber rolls to prevent the migration of sediment offsite ▪ Application of water to disturbed areas during work or windy conditions to prevent dust and erosion ▪ Use of drip pans for mobile fueling
	Land Use and Planning
APM LU-1	Siskiyou Telephone would obtain permits to construct from USFS, Caltrans, and the CPUC.
	Noise
APM NOI-1	During construction of the proposed project, the following BMPs would be implemented to minimize noise impacts: ▪ Construction activity would be restricted to the hours between 7 a.m. and 7 p.m. on weekdays. Work on weekends would need to be coordinated with the Siskiyou County Planning Department as needed. ▪ All stationary noise-generating equipment would be located as far as possible from nearby noise-sensitive receptors. ▪ Construction equipment powered by gasoline or diesel engines would have sound control devices at least as effective as those provided by the original equipment manufacturer. No equipment would be allowed to have an un-muffled exhaust, as appropriate. ▪ The construction contractor would ensure that noise-generating mobile equipment and machinery are turned off when not in use.

Table 4-3. Applicant Proposed Measures (APMs)

Public Services	
APM PS-1	Construction schedules would be submitted to local emergency service providers for review and comment, and updated as necessary. In addition, fire extinguishers and shovels would be maintained onsite during periods of construction or site activity for immediate fire control, if needed.
Transportation and Traffic	
APM TRF-1	The use of traffic control measures would ensure that the effects on traffic would not create unsafe conditions. In addition, Siskiyou Telephone would inform residents in Happy Camp of construction activities and potential delays.
Utilities and Service Systems	
APM UTL-1	Solid waste generated in the project area during construction is anticipated to be minimal and would be transported offsite daily to the Happy Camp disposal site.

4.15 Alternatives

The project alignment is along State Highway 96, which is bordered by steep slopes on the west and the Klamath River on the east. The applicant has stated that the Proposed Project is the only feasible alternative to service subscribers in the area because of the remote location and steep terrain.

In addition, forest fires are prevalent in the remote areas of Siskiyou County, including the project area. Most recently, in summer 2014, fires burned west of nearby Happy Camp and in adjacent areas of the Klamath National Forest, east of the Klamath River, destroying both timber lands and homes located within the fire complex. Historically, Siskiyou Telephone has had a presence in the region for over 100 years. Many of its aerial facilities, such as transmission poles, have burned in forest fires or been damaged by other natural disasters (for example, heavy snow, lost in rockslides, or broken by falling trees in winter). Remote areas are inaccessible during the winter months for repair of damaged equipment. Therefore, the installation of overhead cable was considered by Siskiyou Telephone, but rejected because overhead lines would not meet the project's purpose of providing reliable emergency communication service in the case of an environmental hazard, such as heavy snow, a fire, or downed trees. In addition, overhead lines would not meet the purpose of reducing maintenance costs.

5. Environmental Setting and Environmental Impacts

5.1 Aesthetics

AESTHETICS **Would the project:**	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Have a substantial adverse effect on a scenic vista?	☐	☐	☒	☐
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?	☐	☐	☐	☒

Significance criteria established by CEQA Guidelines, Appendix G.

5.1.1 Setting

Methodology

Visual or aesthetic resources are the natural and cultural features of the environment that can be seen and that contribute to the public's enjoyment of the environment. Visual resource or aesthetic impacts are generally defined in terms of a project's physical characteristics and potential visibility and the extent that the project's presence would change the visual character and quality of the environment in which it would be located.

Visual resources were assessed in the field and potential visual changes due to project activities were evaluated. Visual resources of the project area were investigated based on the following criteria: (1) existing visual quality and scenic attributes of the landscape; (2) location of sensitive receptors in the landscape; (3) assumptions about receptors' concern for scenery and sensitivity to changes in the landscape; (4) the magnitude of visual changes in the landscape that would be brought about by construction and operation of the Proposed Project; and (5) compliance with State, County, and local policies for visual resources. The evaluation of potential changes in the area's visual character is presented in the following paragraphs.

Existing Landscape Setting and Viewer Characteristics

This section discusses the existing visual character of the region, existing visual quality in the project area; viewer concern, and viewer exposure to the Proposed Project, leading to a rating of overall visual sensitivity. Also discussed are the existing sources of light and glare within the project area.

Aesthetic Context of the Project and its Vicinity. The entire Proposed Project is confined within the California Department of Transportation (Caltrans) maintenance right-of-way (ROW) in or adjacent to State Highway 96, which is located in both the Klamath National Forest and the Six Rivers National Forest. The project site begins at Milepost (MP) 12.15 on State Highway 96 and proceeds northeast approximately 16.72 miles (88,282 feet) to MP 32.21 (note: a 3-mile error in state milepost markers occurs between MP 16.38 and MP 19.64).

The project area is not located in an area designated as a protected scenic resource and is therefore not subject to scenic protection standards. In addition, the proposed site is not located near an officially designated scenic highway; however, State Highway 96 is eligible for designation as a State scenic highway (CA DOT, 2018).

Existing Views of the Project. Views from the project area, which is in and adjacent to State Highway 96, include conifer and hardwoods forests, mountainous slopes, scattered rural residences, and the Klamath River (Siskiyou Telephone, 2016).

Regulatory Background

There are no federal regulations associated with visual resources that are relevant to the Proposed Project.

State

California Department of Transportation: Scenic Highway Program. The Scenic Highway Program in the State of California is aimed at the protection and long-term preservation of highway corridors of scenic value to ensure the aesthetic value of lands adjacent to highways. The State Scenic Highway System includes highways that are either eligible for designation as scenic highways or have been designated as such. The status of a State scenic highway changes from eligible to officially designated when the local jurisdiction adopts a scenic corridor protection program, applies to the California Department of Transportation for scenic highway designation approval, and receives the designation. A city or county may propose adding routes with outstanding scenic elements to the list of eligible highways; however, state legislation is required for them to become designated.

Local

Siskiyou County General Plan. The Siskiyou County General Plan includes the Scenic Highways Element, which has the purpose of preserving scenic highways for the enjoyment of the general public and to provide safe, efficient, and economical transportation of people and goods. The following principles generally apply to the Proposed Project (Siskiyou County, 1975).

Principle B.3. Paved roadways and structures directly related to the scenic route, including route location and directional signs, structures related to roadside rests, and other necessary improvements should be permitted within the right of way.

Principle B.4. Special design of structure appurtenances and traffic control devices should be made as attractive as possible to blend with the natural scenery.

Principle C.1. Provide for normal use of the land and protect against unsightly features.

Principle D.2. Design streets and public developments to preserve natural features.

Applicant Proposed Measures

There are no Applicant Proposed Measures for visual resources.

5.1.2 Environmental Impacts and Mitigation Measures

a. Would the project have a substantial adverse effect on a scenic vista?

LESS THAN SIGNIFICANT. Long-range views seen from public roadways are limited by the area's topography and there are no designated scenic vistas, which typically are views of open spaces or views from elevated topographic positions, in the project area. During installation of the fiber optic cable and hand hole utility boxes, temporary visual changes due to human presence and on-site staging of equipment and materials would occur. Project activities at any one area of the project alignment would be short-term, with the installation of the entire fiber optic broadband facility cable, approximately 17 miles, anticipated to be installed over a 2-year period with up to 6 months of construction per year.

Once installed, the fiber optic cable would be underground within the State Highway 96 ROW. Occasionally utility boxes would need to be accessed for maintenance purposes, but, overall, there would not be any planned maintenance to be done on the fiber or the conduits that would result in regular visits by workers or vehicles to the project area after project construction is completed. The Proposed Project activities would therefore not result in a substantial adverse effect on a scenic vista and impacts would be less than significant.

b. Would the project substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a State scenic highway?

NO IMPACT. There are no important rock outcroppings or historic buildings in the project area. The entire Proposed Project is confined within the Caltrans maintenance ROW in or adjacent to State Highway 96, which is not officially designated as a State scenic highway. In addition, vegetation would not need to be cleared during construction of the project because all activities would be conducted within the existing roadway or on the shoulder of the road. Based on the circumstances, there would be no impacts to scenic resources within a State scenic highway.

c. Would the project substantially degrade the existing visual character or quality of the site and its surroundings?

LESS THAN SIGNIFICANT. The Proposed Project does not include grading or the construction of new, visible facilities. As discussed in Item (a), the presence of equipment and vehicles may be noticeable to the nearby residents and travelers on State Highway 96 during construction. However, construction activities at any one area of the project alignment would be temporary. Moreover, vegetation would not need to be cleared during construction of the project.

The fiber optic broadband facility cable would be installed underground and would not be visible once construction is completed. The tops of the hand hole utility boxes would be at ground surface elevation and would be visible after completion of project construction. However, the entire project is confined within the Caltrans maintenance ROW in or adjacent to State Highway 96 and therefore would result in only a minor change to the existing visual landscape of the existing roadway. Overall, potential impacts to the visual character and quality of the area would be less than significant.

d. Would the project create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?

NO IMPACT. The Proposed Project construction activities would occur during daylight hours and would not include nighttime work that would necessitate the use of lighting within work areas. No new lighting or sources of glare are proposed; therefore, no impact would occur.

5.2 Agriculture and Forestry Resources

AGRICULTURE AND FORESTRY RESOURCES

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

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	☐	☐	☐	☒
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?	☐	☐	☐	☒

Significance criteria established by CEQA Guidelines, Appendix G.

5.2.1 Setting

The project area is located in the Klamath National Forest and is near the Six Rivers National Forest. These lands are under the jurisdiction of the U.S. Forest Service (USFS) or are privately owned. The majority of the land surrounding the Proposed Project is zoned Rural Residential Agricultural (Siskiyou Telephone, 2016). Also, the Proposed Project is located in the Klamath National Forest Management Area 17, which is zoned as General Forest by USFS (Siskiyou Telephone, 2016). Minor agricultural activities and some timber harvesting occur in the Klamath and Six Rivers National Forests (USFS, 1995a; 1995b). Farmlands under cultivation are primarily located in the Shasta, Scott, and Butte Valleys and the Tulelake Basin (Siskiyou County, 1980). Commercial agriculture does not occur in the project area (Siskiyou Telephone, 2016).

The project area is designated as Other Land under the California Department of Conservation (DOC) Farmland Mapping and Monitoring Program (FMMP), which identifies various categories of farmland throughout the State (DOC, 2017a). The California Land Conservation Act of 1965 (referred to as the Williamson Act) allows counties to enter into contracts with private landowners for the purpose of restricting specific parcels of land to agricultural or related open space use in return for a reduction in assessed property taxes (DOC, 2017b). None of the lands affected by the project are under Williamson Act contracts.

Regulatory Background

Federal

Klamath National Forest Plan and Six Rivers National Forest Plan. The Forest Plan for individual National Forests describes resource management practices, levels of resource production and management, and the availability and suitability of lands for resource management. The Forest Plan aims to integrate management activities that allow for the use, management, and protection of forest resources while meeting the needs of guiding legislation and responding to local, regional and national issues. Management guidelines for the land do not apply to any State, private, or other Federal land within Forest boundaries (USFS, 1995a; 1995b).

State

Farmland Mapping and Monitoring Program (FMMP). The FMMP is part of the California Department of Conservation (DOC); it was established in 1982 to identify various categories of farmland throughout California and to assess the location, quantity, and quality of agricultural lands and conversion of these lands to other uses. Every even-numbered year, the FMMP issues a Farmland Conversion Report. FMMP data are used in elements of some county and city general plans, in regional studies on agricultural land conversion, and in environmental documents as a way of assessing project-specific impacts on Prime Farmland.

The DOC classifies lands as follows (DOC, 2016):

- **Prime Farmland:** Land that has the best combination of physical and chemical properties for the production of crops
- **Farmland of Statewide Importance:** Similar to Prime Farmland, but with minor shortcomings (e.g., steeper slopes, inability to hold water)
- **Unique Farmland:** Land of lesser quality soils, but recently used for the production of specific high economic value crops. Land is usually irrigated, but may include non-irrigated orchards or vineyards as found in some climatic zones in California
- **Farmland of Local Importance:** Land essential to the local agricultural economy
- **Grazing Land:** Land on which existing vegetation is suitable for livestock grazing.
- **Urban and Built-Up Land:** Land that is occupied by buildings or other structures at a minimum density of one unit to 1.5 acres (or approximately six structures to 10 acres). These lands are used for development purposes, including residential, commercial, industrial, construction, public administration, institutional, transportation yards, airports, cemeteries, golf courses, sewage treatment, sanitary landfills, and water control structures.
- **Other Land:** Land that is not in any other map category, such as waterbodies smaller than 40 acres; low density rural developments; confined livestock, poultry, or aquaculture facilities; and brush, timber, wetland, and riparian areas not suitable for livestock grazing.
- **Water:** Perennial waterbodies that are a minimum of 40 acres.

Williamson Act. The Williamson Act is intended to help preserve farmland by allowing counties to enter into contracts with private landowners for the purpose of restricting specific parcels of land to agricultural or related open space use in return for a reduction in assessed property taxes. The contracted land is then restricted to agricultural and compatible uses through a rolling-term, 10-year contract between the private land owner and the local government, which has the discretion to determine uses compatible with

Williamson Act enrollment. As stated in Section 51222 of the California Government Code, the minimum acreage requirement for individual parcels to enter into Williamson Act contracts is 100 acres.

Local

Siskiyou County General Plan. The Siskiyou County General Plan includes a Land Use Element, which has the goal of allowing the physical environment to determine the appropriate future land use pattern that will develop in Siskiyou County. The following policies generally apply to the Proposed Project (Siskiyou County, 1980; 1997).

Policy 33. All land uses and densities shall be designed so as not to destroy timber productivity on large parcels and high suitability woodland soils (Class I and II).

Policy 37. Only agricultural uses are permitted on prime agricultural land.

Applicant Proposed Measures

There are no Applicant Proposed Measures for agriculture and forestry resources.

5.2.2 Environmental Impacts and Mitigation Measures

a. Would the project 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?

NO IMPACT. The Proposed Project area is designated as Other Land on FMMP maps and is not designated Farmland. Commercial agriculture is not practiced in the area. The Proposed Project would not result in conversion of Farmland to non-agricultural use.

b. Would the project conflict with existing zoning for agricultural use, or a Williamson Act contract?

NO IMPACT. The Proposed Project area is not under any Williamson Act contracts. While the project area is mostly zoned as Rural Residential Agricultural, all construction and operations and maintenance activities would be conducted within the existing roadway or on the shoulder of the road. In addition, no commercial agricultural activity occurs in the project area. Therefore, the Proposed Project would not conflict with 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))?

NO IMPACT. Although the Proposed Project area is located in/near the Klamath and Six Rivers National Forests where some timber harvesting occurs, the project area itself would not be located in an area zoned for forest land or timberland. Construction and operations and maintenance activities associated with the Proposed Project would not occur in any forested land since any activities would be conducted within the existing roadway or on the shoulder of the road. Moreover, construction would not result in the need for any vegetation clearance. The Proposed Project would not conflict with zoning for forest land, timberland, or timber production.

d. Would the project result in the loss of forest land or conversion of forest land to non-forest use?

NO IMPACT. As discussed above in item (c), the Proposed Project would not affect any forest land since any activities would be conducted within the existing roadway or on the shoulder of the road and there would be no vegetation clearance needed. There would be no conversion of forest land to non-forest use.

e. Would the project 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?

NO IMPACT. There is no Farmland, agriculture, or forestland along or near the Proposed Project area that would be impacted by the Proposed Project. There would be no vegetation clearance needed during construction or operation and maintenance of the project. The Proposed Project would not result in changes in the environment that would result in the conversion to non-agricultural or non-forest uses.

5.3 Air Quality

AIR QUALITY 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:**	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
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?	☐	☐	☒	☐

Significance criteria established by CEQA Guidelines, Appendix G.

5.3.1 Setting

Air Basin. The Proposed Project would be in California's Northeast Plateau Air Basin within the jurisdiction of the Siskiyou County Air Pollution Control District (APCD), which regulates sources of air pollution and the programs to protect and improve air quality in Siskiyou County. The Northeast Plateau Air Basin consists of Siskiyou, Modoc, and Lassen Counties, and each county has local jurisdiction over air quality. The air basin is characterized by low population density. Natural sources, including wildfires and emissions of biogenic organic compounds from terrestrial vegetation, make up an important part of the emissions in the region (ARB, 2013).

Criteria Air Pollutants. Air quality is determined by measuring ambient concentrations of certain criteria air pollutants. The criteria pollutants are ozone, respirable particulate matter (PM10), fine particulate matter (PM2.5), carbon monoxide (CO), nitrogen dioxide (NO_2), sulfur dioxide (SO_2), and lead. Ozone is an example of a secondary pollutant that is not emitted directly from a source (e.g., an automobile tailpipe), but it is formed in the atmosphere by chemical and photochemical reactions. Reactive organic gases (ROG), including volatile organic compounds (VOC), are regulated as precursors to ozone formation.

The California Air Resources Board (ARB) and the U.S. Environmental Protection Agency (U.S. EPA) have independent authority to develop and establish health-protective ambient air quality standards, although the different legislative and scientific contexts cause some diversity between State and Federal standards currently in effect in California. The monitored levels of the pollutants are compared to the current National and California Ambient Air Quality Standards (NAAQS and CAAQS) to determine degree of existing air quality degradation. The standards currently in effect in California are shown in Table 5.3-1.

Table 5.3-1. National and California Ambient Air Quality Standards

Pollutant	Averaging Time	California Standards	National Standards
Ozone	1-hour 8-hour	0.09 ppm 0.070 ppm	— 0.070 ppm
Respirable Particulate Matter (PM10)	24-hour Annual Mean	50 µg/m^3 20 µg/m^3	150 µg/m^3 —
Fine Particulate Matter (PM2.5)	24-hour Annual Mean	— 12 µg/m^3	35 µg/m^3 12.0 µg/m^3
Carbon Monoxide (CO)	1-hour 8-hour	20 ppm 9.0 ppm	35 ppm 9 ppm
Nitrogen Dioxide (NO_2)	1-hour Annual Mean	0.18 ppm 0.030 ppm	0.100 ppm 0.053 ppm
Sulfur Dioxide (SO_2)	1-hour 24-hour Annual Mean	0.25 ppm 0.04 ppm —	0.075 ppm 0.14 ppm 0.030 ppm

Notes: ppm=parts per million; µg/m3= micrograms per cubic meter; "—" =no standard
Source: ARB (http://www.arb.ca.gov/research/aaqs/aaqs2.pdf , May, 2016.

Ambient Air Quality Attainment Status and Air Quality Plans. The U.S. EPA, ARB, and the local air district classify an area as attainment, unclassified, or nonattainment with regard to certain pollutants, and these designations dictate the air quality management planning activities needed to make future air pollutant reductions. The classification depends on whether the monitored ambient air quality data show compliance, insufficient data available, or non-compliance with the ambient air quality standards, respectively. Table 5.3-2 summarizes attainment status for the Siskiyou County portion of the Northeast Plateau Air Basin for the criteria pollutants in comparison with both the state and federal standards.

Table 5.3-2. Attainment Status for Siskiyou County

Pollutant	California Designation	Federal Designation
Ozone	Attainment	Attainment
PM10	Attainment	Attainment
PM2.5	Attainment	Attainment
CO	Attainment	Attainment
NO_2	Attainment	Attainment
SO_2	Attainment	Attainment

Source: ARB, 2018; U.S. EPA, 2018.

Toxic Air Contaminants. Toxic air contaminants (TACs) are air pollutants that may lead to serious illness or increased mortality, even when present in relatively low concentrations. Potential human health effects of TACs include birth defects, neurological damage, cancer, and death. There are hundreds of different types of TACs with varying degrees of toxicity. Individual TACs vary greatly in the health risk they present; at a given level of exposure, one TAC may pose a hazard that is many times greater than another's. TACs do not have ambient air quality standards, but are regulated by the local air districts using a risk-based approach. The Proposed Project would not be considered a stationary source subject to risk assessment programs. Diesel particulate matter (DPM) is classified as a TAC, and statewide ~~and local~~ programs focus on managing this pollutant through motor vehicle fuels, engine, and tailpipe standards because many toxic compounds adhere to diesel exhaust particles. The local air districts support these programs by issuing permits and requiring controls for larger stationary sources of DPM, including diesel powered engines rated over 50 horsepower. Naturally occurring asbestos, serpentine, and ultramafic rock, if disturbed by construction, is another example of a TAC that can occur in the project area.

Regulatory Background

Federal Clean Air Act (CAA). The National Ambient Air Quality Standards (NAAQS) for criteria air pollutants were established in 1970 with a mandate for periodic updating. The CAA places responsibility on state and local air agencies to maintain these ambient air quality standards. In the project area, the APCD has the responsibility to establish regulations, enforce air pollution control requirements, and develop the necessary air quality management to achieve the NAAQS. The U.S. EPA implements most aspects of the CAA, and reviews local and state air quality management plans and regulations to ensure attainment with the NAAQS.

The federal CAA provides the authority for programs to ensure that all areas of the country achieve the federal ambient air quality standards and to protect those areas that already meet the federal ambient air quality standards. Federal Class I areas are provided the greatest protection, and the CAA prevents air quality deterioration for these areas. The Marble Mountain wilderness area is managed by the Klamath National Forest and designated as a Federal Class I area. Portions of State Highway 96 in the project area are approximately 3 miles (or about 5 kilometers) from the western edge of the wilderness area.

California Clean Air Act. Implemented by the ARB, the California Clean Air Act establishes broad authority for California to regulate emissions from mobile sources and requires regions to develop and enforce strategies to attain California Ambient Air Quality Standards (CAAQS). In the project area, the APCD is responsible for demonstrating how these standards are met.

U.S. EPA/ARB Off-Road Mobile Sources Emission Reduction Program. The California Clean Air Act mandates that ARB achieve the maximum degree of emission reductions from all off-road mobile sources to attain the state ambient air quality standards. Off-road mobile sources include construction equipment. The earliest (Tier 1) standards for large compression-ignition engines used in off-road mobile sources became effective in California in 1996. Since then, the Tier 3 standards for large compression-ignition engines used in off-road mobile sources went into effect in California for most engine classes in 2006, and Tier 4 or Tier 4 Interim (4i) standards apply to all off-road diesel engines model year 2012 or newer. These standards and standards applicable to fleets that are already in-use address emissions of NOx and toxic particulate matter from diesel combustion.

ARB In-Use Off-Road Diesel-Fueled Fleets Regulation. The regulations for in-use off-road diesel equipment are designed to reduce NOx and toxic diesel particulate matter (DPM) from existing fleets of equipment. Depending on the size of the fleet, the owner would need to ensure that the average emissions performance of the fleet meets certain state-wide standards. In lieu of improving the emissions performance of the fleet, electric systems can be installed to replace diesel equipment in the fleet average calculations. Presently, all equipment owners are subject to a five-minute idling restriction in the rule (13 California Code of Regulations, Chapter 10, Section 2449).

ARB Portable Equipment Registration Program (PERP). This program allows owners or operators of portable engines and associated equipment commonly used for construction or farming to register their units under a statewide portable program that allows them to operate their equipment throughout California without having to obtain individual permits from local air districts.

ARB Asbestos Airborne Toxic Control Measures (ATCM) for Construction, Grading, Quarrying, and Surface Mining Operations (17 CCR 93105). Each local air pollution control district must implement control measures for naturally occurring asbestos (NOA) in areas known to include NOA, serpentine, or ultramafic rock. The project would be in a candidate area where the surface and subsurface is likely to be made of serpentine or ultramafic rock containing NOA (DOC-DMG, 2000; Caltrans, 2002). The APCD would require Siskiyou Telephone to demonstrate compliance with this ATCM during construction of the Proposed Project.

ARB Asbestos Airborne Toxic Control Measures (ATCM) for Surfacing Applications (17 CCR 93106). In addition to the ATCM for construction, an ATCM for surfacing applications restricts the use of asbestos-containing material in surfacing areas such as unpaved roads, parking lots, driveways, or walkways. Consistent with this statewide limitation, the APCD prohibits use, reuse, or sale of materials containing NOA unless it meets standards set forth in APCD Rule 8.7, Asbestos Airborne Toxic Control Measure – Asbestos-Containing Serpentine.

APCD Rule 6.1, Construction Permit Standards for Criteria Pollutants. This rule establishes permit requirements and control technology standards for new or modified stationary sources that would cause an increase in emissions of 250 lb/day or more of any criteria air pollutant other than CO, or 2,500 lb/day or more of CO. These requirements do not apply because the Proposed Project would not be considered a stationary source.

Applicant Proposed Measures

As part of the Proposed Project, Siskiyou Telephone has identified Applicant Proposed Measures (APMs) in its Proponent's Environmental Assessment that it would implement during construction and/or operation of the Proposed Project to reduce or avoid impacts to air quality. Siskiyou Telephone would conduct the design, construction, operation, and maintenance of the Proposed Project in accordance with its APMs. The APM for air quality are listed in Table 5.3-3.

Table 5.3-3. Applicant Proposed Measures – Air Quality

APM	Description
APM AQ-1	~~To reduce fugitive emissions, c~~Construction of the proposed project would occur during the dry season (April through October). To reduce fugitive emissions, w~~W~~ater trucks would be present onsite to wet down the work area, including materials such as backfill and other construction components.

5.3.2 Environmental Impacts and Mitigation Measures

a. Would the project conflict with or obstruct implementation of the applicable air quality plan?

NO IMPACT. The Siskiyou County APCD is responsible for managing local air quality and administering the mandatory California and federal programs protecting air quality. Across the entire State of California, the ARB ensures implementation of California's air quality management plans, known collectively as the State Implementation Plan. Generally, a project could be inconsistent with an applicable air quality management plan or an attainment plan if it causes population and/or employment growth or growth in vehicle-miles traveled in excess of the growth forecasts included in attainment projections. Activities in the project area are not subject to any local attainment planning requirements because the Siskiyou County portion of the Northeast Plateau Air Basin attains all state and federal air quality standards. Additionally, the project would not result in any growth or new permanent full-time employment after construction is complete. As such, the project would have no potential to conflict with or obstruct implementation of any applicable air quality plan, and no impact would occur.

b. Would the project violate any air quality standard or contribute substantially to an existing or projected air quality violation?

LESS THAN SIGNIFICANT – CONSTRUCTION. The proposed activities include mobilizing construction equipment, crews, and materials, trenching, directional drilling, placing the conduit and cable, backfilling, and clean-up. These construction activities would cause emissions of air pollutants due to ground disturbance and burning of fuels by the construction vehicles and off-road equipment. Diesel off-road and gasoline-powered

construction equipment would include trucks for crews, equipment, materials, and water delivery, back-hoes, drill rigs, compactors, and small compressors, vacuums, and cleaners. Air pollutants that would be directly emitted in the exhaust from vehicles and equipment include ozone precursors (volatile organic compounds and NOx), CO, and particulate matter (PM10 and PM2.5), and fugitive dust as particulate matter would be caused by ground-disturbing activities. Outside of work sites, exhaust emissions would be caused by vehicles transporting equipment and supplies to the sites, trucks removing debris, and workers commuting to and from work sites.

The Siskiyou County portion of the Northeast Plateau Air Basin attains all state and federal air quality standards. Historically, infrequent or irregular events such as wildfires have been the contributors to the highest measured concentrations in the region. The region-wide designation as an attainment area for all standards reflects the existing conditions that do not violate the ambient air quality standards.

The daily quantities of criteria air pollutants emitted during construction would occur at varying rates over 195 days of work. Maximum daily emissions are quantified based on the project-specific equipment mix and schedule using the California Emissions Estimator Model (CalEEMod; v.2016.3.2). Details appear in Appendix E, Air Quality/Greenhouse Gas Emissions Calculations. Table 5.3-4 summarizes the results of the estimated maximum daily construction emissions.

Table 5.3-4. Estimated Construction Emissions (lb/day)

	NOx	VOC	PM10	PM2.5	CO	SO_2
Maximum Daily Construction Emissions	143	13	15	10	96	0.2
Threshold of Significance	**250**	**250**	**250**	**250**	**2,500**	**250**

Source: CalEEMod; v.2016.3.2.

The daily quantities of emissions would be less than the 250 lb/day threshold that constitutes a major source ~~subject to local APCD oversight~~ under APCD Rule 6.1, although the Proposed Project would not itself be considered a stationary source. ~~and these~~ The project-related emissions would cease at the conclusion of construction. These one-time project-level construction emissions would not exceed threshold levels that could violate any air quality standard or contribute substantially to a violation for any pollutant, including ozone precursor emissions (NOx or VOC) or exhaust emissions of particulate matter (PM10 and PM2.5).

LESS THAN SIGNIFICANT – OPERATIONS AND MAINTENANCE. Operation of the project would not result in any notable incremental increase in O&M activities or emissions. Accordingly, project-related emissions would not violate any air quality standard or substantially contribute to any air quality violation, and this impact would be less than significant.

c. Would the project 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)?

LESS THAN SIGNIFICANT – CONSTRUCTION. The construction-related increase in air pollutant emissions would occur in the regional context of air quality conditions designated as "attainment" for all criteria air pollutants. Although construction could result in temporarily and variably increased local air quality impacts for the duration of construction activities, all activities must comply with local APCD rules regarding dust control and avoiding nuisances and visible emissions. Table 5.3-3 shows that construction-related criteria air pollutants would not exceed thresholds that indicate potentially cumulatively considerable levels.

The Proposed Project activities would not require use of any major stationary sources of air pollution that could permanently affect regional air quality, long-range visibility, or deposition of air pollutants to soil and water. Air quality impacts to the Marble Mountain wilderness areas, which is a mandatory Federal Class I area, and impacts to the wilderness air quality related values (AQRVs) would be minor. Therefore, construction of the project would not result in a cumulatively considerable net increase of any criteria pollutants, and the construction impacts would be less than significant under this criterion.

LESS THAN SIGNIFICANT – OPERATIONS AND MAINTENANCE. Operational emissions would be limited to the vehicles and equipment used for occasional maintenance and repair, and O&M activities would not result in any notable incremental increase in O&M activities or emissions. Accordingly, the project would not result in a cumulatively considerable net increase of any criteria pollutant, and this impact would be less than significant.

d. Would the project expose sensitive receptors to substantial pollutant concentrations?

LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED. Construction would generate toxic air contaminants routinely found in the exhaust from gasoline powered motor vehicles and from diesel-fueled equipment, including diesel particulate matter (DPM). The project would not involve any permanent or stationary sources of air pollution, but construction would temporarily bring construction equipment into the project area where the existing sensitive receptors include residences along State Highway 96, for example, adjacent to the project alignment approximately 40 feet from the edge of a work area (Siskiyou Telephone, 2016).

Short-term emissions associated with construction would be distributed across the various staging and work areas and the activities would vary in sequence, duration, and timing. Construction equipment would need to frequently move between work areas and spend only a limited amount of time in use at any one location over the construction period. The applicant expects work along the alignment to require two days or less at any one location (PEA, p.4-12). For any single location, the emissions would not occur for long; this minimizes the potential that any location would be exposed to substantial pollutant concentrations.

The available literature (DOC-DMG, 2000) indicates a likelihood of encountering naturally occurring asbestos (NOA) within the proposed construction footprint. In a survey sponsored by Caltrans District 2 along a portion of State Highway 96 in the project area, a geologic site investigation identified asbestos at concentrations between 0.25 and 3.00 percent in four of the 10 samples taken between Milepost (MP) 23.6 and MP 30.4 on State Highway 96 (Caltrans, 2002). With a known likelihood of serpentine deposits in the area, construction activities would be expected to encounter rock containing naturally occurring asbestos, and Siskiyou Telephone would be required to implement the APCD-specified control measures.

The APCD requires contractors conducting utilities work, trenching, road maintenance, or other work in areas of potential NOA to apply for and obtain approval of an NOA dust mitigation plan. Additionally, all activities must comply with the APCD rules regarding dust control and avoiding nuisances and visible emissions. The Proposed Project would not include blasting for rock removal. The available dust control measures for NOA could include track-out prevention, wetting storage piles, wetting and sweeping surfaces, and wetting or covering excavated materials during handling and transport. These types of control measures would become enforceable, as specified by the APCD through the review of the dust mitigation plan, and Siskiyou Telephone would need to demonstrate compliance with the NOA dust control plan and the requirements of the ATCM during all construction activities for the Proposed Project.

Construction contractors would control dust according to avoid creating nuisance conditions and would take steps to control of diesel exhaust. At this time, the specific commitments necessary to obtain APCD

approval of the NOA dust control plan are not known. Accordingly, this analysis identifies feasible control strategies to minimize the dust emissions (Mitigation Measure MM AQ-1). Along with the recommended mitigation measure, regulations to limit idling times and proper registration of portable equipment would reduce the construction phase emissions of DPM and other toxic air contaminants and ensure that receptors would not be exposed to substantial concentrations. With dust control practices identified in MM AQ-1, this impact would be less than significant.

Mitigation Measures for Reducing Air Pollutant Concentrations

MM AQ-1 **Control Construction-Related Dust.** The Applicant shall implement the following dust control strategies and any other dust control measure that may be specified by the APCD through the review of a dust control plan for naturally occurring asbestos:

- Visible track-out on any paved public road shall be removed at the end of the work day or at least one time per day, with removal being accomplished by using wet sweeping or a HEPA filter equipped vacuum device.
- Storage piles shall be treated by either keeping the surface adequately wetted, stabilizing the surface with chemical dust suppressants, or covering with tarps or vegetative cover; where potential accidental contamination of wetlands, streams, or rivers could occur, water shall be used instead of chemical dust suppressants.
- Unpaved staging and work areas shall be watered every two hours of active operation or more frequently as needed or stabilized with chemical dust suppressants; where potential accidental contamination of wetlands, streams, or rivers could occur, water shall be used instead of chemical dust suppressants.
- Earthmoving areas and excavated materials shall be pre-wetted to the depth of the anticipated cuts.
- Trucks transporting excavated material off-site shall be: maintained such that no spillage can occur from holes or other openings in cargo compartments, loads shall be adequately wetted and covered with tarps or loaded such that the material does not touch the front, back or sides of the cargo compartment at any point less than six inches from the top and that no point of the load extends above the top of the cargo compartment.

e. Would the project create objectionable odors affecting a substantial number of people?

LESS THAN SIGNIFICANT. The Proposed Project would not include any sources likely to create objectionable odors. Construction would involve the temporary use of vehicles and construction equipment and of materials, such as fuels and lubricants, that may generate intermittent, minor odors. Emissions of this nature would occur briefly during construction and would cease as the construction activity moved between work areas. There would be no notable impact of objectionable odors affecting a substantial number of people, and this impact would be less than significant.

5.4 Biological Resources

BIOLOGICAL RESOURCES **Would the project:**	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and 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 Game 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?	☐	☒	☐	☐

Significance criteria established by CEQA Guidelines, Appendix G.

5.4.1 Setting

This section describes the biological resources that occur in the Proposed Project area. It includes a description of the existing biotic environment, including common plants and wildlife, sensitive habitats, and special-status species and their locations in relation to the Proposed Project. The following section (5.4.2) presents an analysis of potential impacts to biological resources and, where necessary, specifies mitigation measures to reduce potential impacts to less-than-significant levels.

The Proposed Project would be located in Siskiyou County, approximately 111 miles southwest of Yreka, California. The Project site begins at Milepost (MP) 12.15 on State Highway 96 and proceeds northeast approximately 16.72 miles to MP 32.21 (note: a 3-mile error in state milepost markers occurs between MP 16.38 and MP 19.64). State Highway 96 is located in both the Klamath National Forest and Six Rivers National Forest. The USFS, Klamath National Forest and Six Rivers National Forest, manage federal lands within the Project area as General Forest for activities including timber harvest, recreation, and mining. The entire Project is confined within the Caltrans maintenance ROW in or adjacent to State Highway 96. Existing land uses adjacent to the Project area are primarily private residences and forest (CH2M Hill, 2018).

Information used in preparing this section was derived from:

- Proponent's Environmental Assessment for Siskiyou Telephone Company Happy Camp to Somes Bar Fiber Connectivity Project Clear Creek to Ti Bar (CH2M Hill, 2016);

- Supplement to the Benjamin Creek Draft Proponents Environmental Assessment (CH2M Hill, 2018);
- Records of sensitive species locations from the California Department of Fish and Wildlife's (CDFW) California Natural Diversity Database (CNDDB) for a five-mile radius surrounding the Project route (CNDDB, 2017);
- Records of sensitive species locations from the California Native Plant Society Inventory of Rare and Endangered Vascular Plants of California (CNPS, 2017);
- Technical online information available through the U.S. Fish and Wildlife Service (USFWS), California Department of Fish and Wildlife (CDFW), and Klamath National Forest;
- National Oceanic and Atmospheric Administration (NOAA) Fisheries – West Coast Region website (NOAA, 2018);
- Biological survey (partial windshield and pedestrian) conducted by CH2M Hill on June 24, 2014; and
- Reconnaissance site visit conducted by Aspen Environmental Group's biologist on January 24, 2018.
- Online resources from CDFW, USFWS, USFS, Calflora, Calherps, eBird, and iNaturalist.

Vegetation Communities

The Proposed Project would be located entirely within the roadway and disturbed road shoulders of State Highway 96, and the Project footprint contains no natural vegetation. The Project area is adjacent to the Klamath River in a steep mountainous area. Upslope from the Klamath River is characterized by steep, south-facing slopes with coniferous overstories consisting primarily of Douglas fir (*Pseudotsuga menziesii*), sugar pine (*Pinus lambertiana*), and white fir (*Abies concolor*). Understories consist of mixed and scattered forbs, shrubs, and hardwood trees including western swordfern (*Polystichum munitim*), western thimble-berry (*Rubus parviflorus*), huckleberry oak (*Quercus vaccinifolia*), Pacific madrone (*Arbutus menziesii*), tanoak (*Lithocarpus densiflorus*), and big leaf maple (*Acer macrophyllum*). The understory layer is more developed in the lower, wetter locations adjacent to creeks and springs that flow into the Klamath River. Riparian vegetation observed at the stream crossings include cottonwoods (*Populus* spp.), willows (*Salix* spp.), alders (*Alnus* spp.), oaks (*Quercus* spp.), and maples (CH2M Hill, 2018).

Several noxious weed species are within and adjacent to the Project area along the road shoulder of State Highway 96. Existing traffic along with routine ROW maintenance activities (i.e., mowing) may provide vectors for spread of noxious weed species. Common noxious weed species within the Caltrans road prism include yellow star thistle (*Centaurea solstitialis*), Scotch broom (*Cytisus scoparius*), Klamath weed (*Hypericum perforatum*), and Dyer's woad (*Isatis tinctoria*) (CH2M Hill, 2018).

General Wildlife

A wide variety of wildlife resides or migrates through the Project area; however, the Proposed Project is within an existing roadway and any wildlife moving into the Project area would be subject to mortality by existing traffic. Therefore, the Project area is not expected to provide habitat for wildlife. The following common wildlife species are known from the surrounding habitats and could move through the Project area (CH2M Hill, 2018):

- Black bear (*Ursus americanus*)
- Black-tailed deer (*Odocoileus hemionus*)
- Coastal giant salamander (*Dicamptodon tenebrosus*)
- Gray fox (*Urocyon cinereoargenteus*)

- Great blue heron (*Ardea herodias*)
- Hermit thrush (*Catharus guttatus*)
- Long-eared myotis bat (*Myotis evotis*)
- Northern Pacific rattlesnake (*Crotalus oreganus oreganus*)
- Osprey (*Pandion haliaetus*)
- Spotted towhee (*Pipilo maculatus*)
- Western fence lizard (*Sceloporus occidentalis*)
- Western gray squirrel (*Sciurus griseus*)

Special-Status Plants and Animals

Special-status species are defined as plants or animals that meet one or more of the following criteria:

- Have been designated as either rare, threatened, or endangered by CDFW or the USFWS, and are protected under the California or federal Endangered Species Act (CESA or ESA);
- Are candidate species being considered or proposed for listing under these same acts;
- Are designated Species of Special Concern by CDFW;
- Are fully protected by the California State Fish and Game Code, Sections 3511, 4700, 5050, or 5515;
- Are classified as California Rare Plant Rank (CRPR) 1, 2, 3, or 4 by CDFW and the California Native Plant Society (CNPS);
- Are of express concern to resource/regulatory agencies or local jurisdictions, such as species designated as Forest Service Sensitive; or
- Are listed on watch lists or provided with special conservation designations by professional working groups/societies (e.g., Western Bat Working Group).

Special-Status Plants

The Project footprint does not contain habitat for sensitive plants since it is within the roadway and disturbed areas, but adjacent natural areas could support several species. Fourteen special-status plants have potential to occur in habitats adjacent to the Project area and at stream crossings; these plants are presented in Table 5.4-1. Reconnaissance surveys conducted for the PEA confirmed the lack of habitat for special-status species in Project disturbance areas (CH2M Hill, 2018).

Special-Status Wildlife

The Project footprint does not contain habitat for special-status wildlife species since it is within the roadway and disturbed areas. The Klamath River is adjacent to the Project area and provides habitat for special-status fish species including the anadromous summer-run steelhead trout (*Oncorhynchus mykiss irideus*, California Species of Special Concern, Forest Service Sensitive Species), Chinook salmon (*Oncorhynchus tshawytscha*, Federally listed Threatened, Forest Service Sensitive Species), and coho salmon (*Oncorhynchus kisutch*, State listed Threatened, Federally listed Threatened), and green sturgeon (*Acipenser medirostris*, California Species of Special Concern, Federally listed Threatened) (NOAA, 2018). Table 5.4-1 presents the special-status fish species with potential to occur within the Klamath River.

The forested habitats surrounding the Project support many special-status bird, mammal, reptile, amphibian, and invertebrate species, as well as common wildlife species. Table 5.4-1 presents special-status wildlife that have the potential to occur in suitable habitat adjacent to the Project area. These include one reptile, nine amphibians, 15 birds, and 10 mammals that have the potential to occur in adjacent habitats.

Occurrence records for fisher (*Pekania pennant;* California Species of Special Concern, Forest Service Sensitive Species), northern spotted owl (*Strix occidentalis caurina;* State and Federally listed Threatened, California Species of Special Concern), and other special-status species are maintained by the Klamath National Forest internal database for Happy Camp/Oak Knoll and Salmon/Scott River ranger districts (CH2M Hill, 2018).

Marbled murrelet (*Brachyramphus marmoratus*; Federally listed Threatened) has been recorded as far inland as 50 miles from the ocean in Washington State. The Proposed Project area is approximately 35 miles inland from the Pacific Ocean over several mountain ridges and passes. There is no documentation of marbled murrelet in the vicinity of the Project area; however, suitable habitat exists at the southwestern end of the Project in adjacent habitat outside the Project footprint (CNDDB, 2018).

Northern spotted owl Critical Habitat Unit 9, subunit KLW-7 as designated by the USFWS overlaps with Project area boundaries along State Highway 96. The CDFW maintains a database of spotted owl observations and activity centers. A search of the database noted several spotted owl observations and activity centers near the Project; however, none of those observations were directly adjacent to the Project area (CDFW, 2018).

Special-status wildlife observed within the ROW and in the adjacent forested habitat during reconnaissance surveys for the PEA included foothill yellow-legged frog (*Rana boylii*, California Candidate Species ~~Species of Special Concern~~, Forest Service Sensitive Species) and nesting osprey (*Pandion haliaetus*, CDFW Watch List). The foothill yellow-legged frog was observed in a constructed concrete and stone drainage channel at Wyman Gulch. Two active osprey nests were observed in "broken top" Douglas fir trees approximately 0.25 miles from the Project area at MP 20.64 and MP 29.09 (near Browns Creek). Four additional inactive osprey nests were observed adjacent to MP 20.16, MP 27.26, MP 27.50, and MP 30.18.

The Del Norte salamander (*Plethodon elongates*, California Species of Special Concern) is documented to occur near the Project area in suitable habitat (loose rock rubble at the base of talus slopes). Moist, undisturbed rocky areas up- or downslope from State Highway 96 may provide suitable habitat for Del Norte salamander, but the specific road prism in the Project work area does not. The roadway consists of a compacted base layer that lacks interstitial spacing, required by salamanders for subsurface activity (CH2M Hill, 2018).

Table 5.4-1 lists special-status species potentially occurring within or near the Project area (CDFW, 2017). Potential for occurrence is defined as follows:

- **Present:** Species or sign of its presence recently observed on the site.
- **Likely:** Species or sign not observed on the site, but reasonably certain to occur on the site based on conditions, species ranges.
- **Possible:** Species or sign not observed on the site, but conditions suitable for occurrence.
- **Unlikely:** Species or sign not observed on the site, outside of the known range, and conditions marginal for occurrence.
- **Not likely to occur:** Species or sign not observed on the site, outside of the known range, and conditions unsuitable for occurrence.

Table 5.4-1. Special-Status Species that Could Occur in the Project Vicinity

Species	Status	Habitat	Potential to Occur within Project Area
Plants			
Applegate's milkvetch *Astragalus applegatei*	FE	Seasonally wet floodplains in alkali soils.	**Possible in adjacent off-site habitats.** Suitable habitat adjacent to the roadway.
Applegate stonecrop *Sedum oblanceolatum*	CRPR 1B	Rocky, upper montane.	**Possible in adjacent off-site habitats.** Suitable habitat adjacent to the roadway.
English peak greenbriar *Smilax jamesii*	CRPR 1B	North coast coniferous forest.	**Possible in adjacent off-site habitats.** Suitable habitat adjacent to the roadway and creek crossings.
Gentner's fritillary *Fritillaria gentneri*	FE	Edge of open woodlands at elevations between 60 and 450 feet.	**Not likely to occur.** Project area elevation exceeds documented plant occurrences in Siskiyou County.
Hoover's spurge *Chamaesyce hooveri*	FT	Vernal pool habitats.	**Not likely to occur.** No habitat observed adjacent to project area.
Howell's tauschia *Tauschia howellii*	CRPR 1B	Forested mountain areas.	**Possible in adjacent off-site habitats.** Suitable habitat adjacent to the roadway.
Klamath mountain buckwheat *Eriogonum hirtellum*	CRPR 1B, FS	Upper montane ridges in coniferous forest.	**Unlikely.** Unlikely to occur in habitat adjacent to the roadway as the project is in a canyon adjacent to the Klamath River.
Koehler's stipitate rock cress *Arabis koeheri var. stipitata*	CRPR 1B	Lower montane coniferous forest.	**Possible in adjacent off-site habitats in adjacent off-site habitats.** Suitable habitat adjacent to the roadway.
Marble Mountain campion *Silene marmorensis*	CRPR 1B	Forested mountain areas.	**Possible in adjacent off-site habitats.** Suitable habitat adjacent to the roadway.
Oregon fireweed *Epilobium oreganum*	CRPR 1B, FS	Montane forest meadows and seeps.	**Possible in adjacent off-site habitats.** Suitable habitat adjacent to the roadway.
Parish's alumroot *Heuchera parishii*	CRPR 1B	Subalpine coniferous forest.	**Possible in adjacent off-site habitats.** Suitable habitat adjacent to the roadway.
Robust false lupine *Thermopsis robusta*	CRPR 1B, FS	North coast coniferous forest.	**Likely in adjacent off-site habitats.** Suitable habitat adjacent to the roadway. Known within 0.5 miles of the project area (CNDDB and Calflora).
Shasta chaenactis *Chaenactis suffrutescens*	CRPR 1B, FS	Forested mountain areas, sand, or serpentine soils.	**Possible in adjacent off-site habitats.** Suitable habitat adjacent to the roadway.
Siskiyou fireweed *Epilobium siskiyouense*	CRPR 1B	Subalpine coniferous forest.	**Possible in adjacent off-site habitats.** Suitable habitat adjacent to the roadway.
Slender Orcutt grass *Orcuttia tenuis*	FT	Vernal pool habitats.	**Not likely to occur.** No habitat observed adjacent to project area.
Waldo rockcress *Arabis aculeolata*	CRPR 2B.2	Yellow pine forest, mixed evergreen forest, lodgepole forest, red fir forest, serpentine soils.	**Likely in adjacent off-site habitats.** Suitable habitat adjacent to the roadway. Known within 0.5 miles of project area (CNDDB and Calflora).
Whitebark pine *Pinus albicaulis*	FC	Forested mountain areas.	**Possible in adjacent off-site habitats.** Suitable habitat adjacent to the roadway.
White-flowered rein orchid *Piperia candida*	CRPR 1B	Forested mountain areas.	**Possible in adjacent off-site habitats.** Suitable habitat adjacent to the roadway.
Invertebrates			
Franklin's bumblebee *Bombus Franklini*	SSC	Builds hives in abandoned rodent burrows. Forages on flowering forbs and shrubs.	**Possible in adjacent off-site habitats.** Suitable habitat adjacent to the roadway.

Table 5.4-1. Special-Status Species that Could Occur in the Project Vicinity

Species	Status	Habitat	Potential to Occur within Project Area
Mardon skipper butterfly *Polites mardon*	FC	Fescue-dominated grasslands.	**Unlikely.** Not known for collections from forested areas of Siskiyou County. Fescue grasslands not observed in project area.
Conservancy fairy shrimp *Branchinecta conservatio*	FE	Soil-bottomed vernal pools.	**Not likely to occur.** No suitable habitat observed in project area.
Vernal pool fairy shrimp *Branchinecta lynci*	FT	Soil-bottomed vernal pools.	**Not likely to occur.** No suitable habitat observed in project area.
Vernal pool tadpole shrimp *Lepidurus packardii*	FE	Soil-bottomed vernal pools.	**Not likely to occur.** No suitable habitat observed in project area.
Shasta crayfish *Pacifastacus fortis*	SE, FE	Perennial riverine systems.	**Unlikely.** There are only seven remaining populations of the Shasta crayfish left and are found only in Shasta County, California, in the Pit River drainage and two tributary systems, Fall River and Hat Creek drainages (USFWS).
Fish			
Coho salmon, Southern Oregon/Northern California coast *Oncorhynchus kisutch*	ST, FT	Constructs nests in cobble substrates of cool streams that reach the ocean and contain shallow, partly shaded pools, riffles, and runs.	**Likely in adjacent off-site habitats.** No habitat occurs within the Project footprint. Project area is adjacent to the Klamath River and crosses 10 creeks.
Chinook, upper Klamath-Trinity ESA *Oncorhynchus tshawytscha*	FT, FS	Constructs nests in cobble substrates of cool streams that reach the ocean and contain shallow, partly shaded pools, riffles, and runs.	**Likely in adjacent off-site habitats.** Project area is adjacent to the Klamath River and crosses 10 creeks.
Northern Green sturgeon *Acipenser medirostris*	SSC, FT	Broadcast spawns in large water-courses that reach the ocean, usually within 100 miles of the coast.	**Likely in adjacent off-site habitats.** Project area is adjacent to the Klamath River and crosses 10 creeks.
Klamath River lamprey *Entosphenus similis*	SSC, FS	Large rivers. Spawns in gravel riffle substrates near muddy backwaters.	**Likely in adjacent off-site habitats.** Project area is adjacent to the Klamath River and crosses 10 creeks.
Lost River sucker *Deltistes luxatus*	SE, FE	Spawns in streams. Can be found in deep lakes and river pools within riffles.	**Likely in adjacent off-site habitats.** Project area is adjacent to the Klamath River and crosses 10 creeks.
Pacific lamprey *Entosphenus tridentatus*	SSC	Large rivers. Spawns in gravel riffle substrates near muddy backwaters. Anadromous life cycle.	**Likely in adjacent off-site habitats.** Project area is adjacent to the Klamath River and crosses 10 creeks.
Shortnose sucker *Chasmistes brevirostris*	SE, FE	Spawns in flowing river habitat, such as riffles, with gravelly or rocky substrates.	**Likely in adjacent off-site habitats.** Project area is adjacent to the Klamath River and crosses 10 creeks.
Steelhead – summer-run Klamath Mountains Province ESU *Oncorhynchus mykiss*	SSC, FS	Constructs nests in cobble substrates of cool streams that reach the ocean and contain shallow, partly shaded pools, riffles, and runs.	**Likely in adjacent off-site habitats.** Project area is adjacent to the Klamath River and crosses 10 creeks.
Western brook lamprey *Lampetra richardsoni*	SSC, FS	Small streams. Spawns in gravel riffle substrates near muddy backwaters.	**Likely in adjacent off-site habitats.** Project area is adjacent to the Klamath River and crosses 10 creeks.
Amphibians/Reptiles			
Cascade frog *Rana cascadae*	SC~~SSC~~, FS	Moist, forested slopes and drainages.	**Likely in adjacent off-site habitats.** Suitable aquatic habitat occurs adjacent to the roadway and at the creek crossings.

Table 5.4-1. Special-Status Species that Could Occur in the Project Vicinity

Species	Status	Habitat	Potential to Occur within Project Area
Oregon spotted frog *Rana pretiosa*	SSC, FT	Perennially inundated habitats.	**Possible in adjacent off-site habitats.** Suitable riverine habitats adjacent to the roadway and at the creek crossings, but outside of the historic range.
Del Norte salamander *Plethodon elongates*	SSC	Mossy rocks on shady, forested slopes.	**Present in adjacent off-site habitats.** Recorded adjacent to the roadway at Wyman Gulch creek crossing.
Foothill yellow-legged frog *Rana boylii*	SC~~SSC~~, FS	Partly shaded, shallow streams and riffles with a rocky substrate in a variety of habitats.	**Present in adjacent off-site habitats.** Observed adjacent to the roadway in Wyman Gulch creek crossing.
Northern red-legged frog *Rana aurora*	SSC	Breeds in streams, freshwater pools, and ponds with overhanging vegetation. Typically estivates underground in upland habitats near permanent waters.	**Possible in adjacent off-site habitats.** Suitable aquatic habitat occurs adjacent to the roadway and at the 10 creek crossings, but outside of the historic range.
Northwestern pond turtle *Actinemys marmorata*	SSC, FS	Found in ponds, marshes, rivers, streams, and irrigation ditches with aquatic vegetation.	**Likely in adjacent off-site habitats.** Suitable aquatic habitat occurs adjacent to the roadway and the 10 creek crossings.
Scott Bar salamander *Plethodon asupak*	ST	Rocky talus slopes beneath canopy cover.	**Unlikely.** Project area is beyond documented range. Found in a very small area of the Siskiyou Mountains in extreme northern Siskiyou County near the confluence of the Klamath and Scott Rivers (californiaherps.com).
Siskiyou Mountains salamander *Plethodon stormi*	ST, FS	Rocky talus slopes beneath canopy cover.	**Possible in adjacent off-site habitats.** Suitable habitat exists adjacent to roadway. Found in a very small area of the Siskiyou Mountains in extreme northern Siskiyou county and in the Applegate River drainage in southern Oregon (CaliforniaHerps). Documented range is east of the project area, but within 5 miles (CNDDB).
Southern torrent salamander *Rhyacotriton variegatus*	SSC, FS	Found in shallow, cold, clear, well-shaded streams, waterfalls and seepages, particularly those running through talus and under rocks all year, in mature to old-growth forests (CaliforniaHerps). Breeds in streams with gravel and rocky substrates. Primarily aquatic but capable of terrestrial activity.	**Possible in adjacent off-site habitats.** Suitable habitat exists adjacent to roadway. Documented range is west of the project area, but within 5 miles.
Western tailed frog *Ascaphus truei*	SSC	Inhabits cold, clear, rocky streams in wet forests. They do not inhabit ponds or lakes. A rocky streambed is necessary for cover for adults, eggs, and larvae (Calherps). Moist, forested slopes and drainages.	**Likely in adjacent off-site habitats.** Suitable aquatic habitat adjacent to roadway and at the 10 creek crossings.
Birds			
American peregrine falcon *Falco peregrinus anatum*	D, FP	Nests primarily on cliffs (occasionally constructed structures); forages in a variety of open habitats.	**Possible in adjacent off-site habitats.** Potential to move through the project area, but unlikely to nest or forage in the project area.

Table 5.4-1. Special-Status Species that Could Occur in the Project Vicinity

Species	Status	Habitat	Potential to Occur within Project Area
Bald eagle *Haliaeetus leucocephalus*	D, SE, FP, FS	Typically nests near large bodies of water or free-flowing rivers with abundant fish and adjacent snags and large trees. A known winter migrant.	**Possible in adjacent off-site habitats.** Suitable habitat adjacent to roadway.
California yellow warbler *Setophaga petechia brewsteri*	SSC	Breeds in riparian woodlands, particularly those dominated by willows and cottonwoods.	**Possible in adjacent off-site habitats.** Suitable habitat adjacent to roadway and at the 10 creek crossings.
Cooper's hawk *Accipiter cooperii*	SSC	Breeding resident throughout most of the forests and woodlands of California.	**Possible in adjacent off-site habitats.** Suitable habitat adjacent to roadway.
Great gray owl *Stix nebulosa*	SE, FS	Dense pine or fir forests. Breeds in large snags at edge of forest openings. Forages in grassy meadows.	**Possible in adjacent off-site habitats.** Potential to occur as migrant or dispersing species.
Greater sandhill crane *Grus Canadensis tabida*	ST, FS	Nests in wetland areas surrounded by water. May nest on structures built by mammals.	**Possible in adjacent off-site habitats.** Potential to occur as migrant or dispersing species.
Loggerhead shrike *Lanius ludovicianus*	SSC	Breeds in open habitats interspersed with shrubs and small trees.	**Possible in adjacent off-site habitats.** Suitable habitat adjacent to roadway and the 10 creek crossings.
Long-eared owl *Asio otus*	SSC	Dense stands of riparian habitat near meadow edges.	**Possible in adjacent off-site habitats.** Suitable habitat adjacent to roadway and the 10 creek crossings.
Marbled murrelet *Brachyramphus marmoratus*	SE, FT	Dense stands of tall conifer near the Pacific Ocean.	**Possible in adjacent off-site habitats.** Suitable habitat adjacent to roadway. No documentation by the Klamath National Forest of marbled murrelet near the project area.
Merlin *Falco columbarius*	SSC	Utilizes many habitats in winter and migration.	**Possible in adjacent off-site habitats.** May occur as occasional visitor during migration and winter; does not breed in the region.
Northern goshawk *Accipiter gentilis*	ST, FS	Dense stands of mature conifer forest.	**Possible in adjacent off-site habitats.** Suitable habitat adjacent to roadway.
Northern spotted owl and associated critical habitat *Strix occidentalis caurina*	ST, FT, CH	Dense stands of mature conifer forests and woodlands.	**Possible in adjacent off-site habitats.** Suitable habitat adjacent to roadway. Project area overlaps with designated critical habitat unit 9, subunit KLW-7.
Osprey *Pandion haliaetus*	WL	Feeds almost exclusively on live fish, and habitat consists of most any expanse of shallow, fish-filled water, including rivers, lakes, reservoirs, lagoons, swamps, and marshes. Nests in open, elevated sites free from predatory mammals within about 12 miles of aquatic habitats.	**Present.** Two active osprey nests were observed in "broken top" Douglas fir trees approximately 0.25 miles from the Project area, and four additional inactive nests were observed adjacent to MP 20.16, MP 27.26, MP 27.50, and MP 30.18 during Project surveys.
Sharp-shinned hawk *Accipiter striatus*	SSC	Dense wooded habitats including riparian deciduous and mixed conifer with north-facing slopes.	**Possible in adjacent off-site habitats.** Suitable habitat adjacent to roadway.
Western yellow-billed cuckoo *Coccyzus americanus*	SE, FT	Dense woodlands and thickets near streams.	**Possible in adjacent off-site habitats.** Suitable habitat adjacent to roadway and at the 10 creek crossings.
Willow flycatcher *Empidonax traillii*	SE, FS	Willow thickets or other shrubs near streams or standing water.	**Possible in adjacent off-site habitats.** Suitable habitat adjacent to roadway and at the 10 creek crossings.

Table 5.4-1. Special-Status Species that Could Occur in the Project Vicinity

Species	Status	Habitat	Potential to Occur within Project Area
Mammals			
American badger *Taxidea taxus*	SSC	Known throughout California in multiple habitat types. Requires relatively open, uncultivated ground. Preys primarily on burrowing rodents such as gophers and ground squirrels. Breeds in cavities of large trees, snags, stumps, and logs.	**Possible in adjacent off-site habitats.** Suitable habitat adjacent to roadway.
Humboldt marten *Martes caurina humboldtensis*	SC, FS	Breeds in cavities of large trees, snags, stumps, and logs.	**Possible in adjacent off-site habitats.** Suitable habitat adjacent to roadway. Currently, the Humboldt marten is known only from southern Del Norte County and northern Humboldt County, less than 5% of its historic range (USFWS).
Fisher (West coast DPS) *Pekania pennanti*	SC, FS	Breeds in cavities of large trees, snags, stumps, and logs.	**Possible in adjacent off-site habitats.** Suitable habitat adjacent to roadway.
Fringed myotis *Myotis thysandodes*	FS	Oak woodlands, pine forest, desert, grasslands. Roosts in caves, mines and buildings.	**Possible in adjacent off-site habitats.** Suitable habitat adjacent to roadway.
Pallid bat *Antrozous pallidus*	SSC, FS	Deserts, grasslands, shrublands, woodlands, and forests. Most common in open, dry habitats with rocky areas for roosting.	**Possible in adjacent off-site habitats.** Suitable habitat adjacent to roadway.
Ringtail *Bassiriscus astutus*	FP	Woodlands, forests, and chaparral. Usually near water.	**Possible in adjacent off-site habitats.** Suitable habitat adjacent to roadway.
Spotted bat *Euderma maculatum*	SSC	Associated with prominent rock features. Roosts on rock-faced cliffs. Forages in open areas.	**Possible in adjacent off-site habitats.** Suitable habitat adjacent to roadway.
Townsend's big-eared bat *Corynorhinus townsendii*	SSC, FS	Throughout California in a wide variety of habitats. Known to roost in constructed structures such as buildings and mines.	**Possible in adjacent off-site habitats.** Suitable habitat adjacent to roadway.
North American wolverine *Gulo gulo*	ST, FC, FP, FS	A variety of habitats in isolated areas.	**Possible in adjacent off-site habitats.** Suitable habitat adjacent to roadway. Known from nearby data records.
Gray wolf *Canis lupins*	FE, SE	Diversity of habitats including forests, tundra, woodlands, grasslands, and deserts.	**Possible in adjacent off-site habitats.** Suitable habitat adjacent to roadway.

Source: CDFW, 2018

STATUS CODES:

Federal Rankings:
FE – Federally Endangered
FT – Federally Threatened
FC – Federal Candidate for Listing
CH – Critical Habitat designated by USFWS
FS – Forest Service Sensitive Species – Klamath NF
D – Delisted

***State Rankings:**
SE – State Endangered
ST – State Threatened
SR – State Rare
SC – State Candidate for Listing
SSC – California Species of Special Concern
FP – Fully Protected in California
WL – CDFW Watch List

CRPR Rankings:
CRPR 1A – Presumed extinct in California
CRPR 1B – Rare or endangered in California and elsewhere
CRPR 2 – Rare or endangered in California, more common elsewhere
CRPR 3 – More information needed
CRPR 4 – Limited distribution (Watch List)
For each CRPR Ranking, the following sub-categories apply:
.1 = Seriously endangered in California (over 80 percent of occurrences threatened / high degree and immediacy of threat)
.2 = Fairly endangered in California (20 to 80 percent occurrences threatened)
.3 = Not very endangered in California (less than 20 percent of occurrences threatened or no current threats known)

Jurisdictional Waters

The Klamath River is a major hydrologic feature of the region and parallels State Highway 96 along the entire length of the Project area. The river provides important habitats for both terrestrial and aquatic species, including anadromous fishes (CH2M Hill, 2018).

The Proposed Project would include ten minor creek crossings: Douglas Creek, Browns Creek, Allard Creek, Crawford Creek, Wyman Creek, Coon Creak, Elliot Creek, Aubrey Creek, Three Creeks, and Kennedy Creek (see Appendix A). The cable would be hung on the bridges across Dillion Creek and Swillup Creek (Siskiyou Telephone, 2016).

Although the Applicant has not completed a jurisdictional delineation within the Project area to date, the Klamath River and its tributaries, including the creeks that would be crossed by the Project, would meet the regulatory definition of "Waters of the U.S." (jurisdictional waters) and wetlands as defined by Section 404 of the Clean Water Act, and "Waters of the State" under the jurisdiction of the Regional Water Quality Control Board (RWQCB). The federal and State waters, along with adjacent riparian habitat, would also be subject to CDFW jurisdiction under Section 1600-1616 of the California Fish and Game Code.

Regulatory Background

Federal

Endangered Species Act of 1973, U.S. Code, Title 16, Sections 1531 through 1543. The federal Endangered Species Act (ESA) and its subsequent amendments protect plants and wildlife (and their habitats) listed as endangered or threatened by the U.S. Fish and Wildlife Service (USFWS) and National Marine Fisheries Service. Section 9 of the ESA specifically prohibits the taking of ESA-protected wildlife and lists prohibited actions. The ESA defines take as "harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, collect, or attempt to engage in such conduct" (50 *Code of Federal Regulations* [CFR] 17.3). The ESA also governs the removal, possession, malicious damage, or destruction of endangered plants on federal land. Taking is allowed only when incidental to an otherwise legal activity through the ESA Section 7 process for federal agencies and through the ESA Section 10 habitat conservation plan process for private entities.

Migratory Bird Treaty Act, U.S. Code, Title 16, Sections 703 through 711. The Migratory Bird Treaty Act implements international treaties between the United States and other nations to protect migratory birds and their parts, eggs, and nests from activities such as hunting, pursuing, capturing, killing, selling, and shipping, unless expressly authorized by regulation or permit. Examples of authorized activities include USFWS-issued permits to qualified applicants for falconry, raptor propagation, scientific collecting, special purposes (rehabilitation, education, migratory game bird propagation, and salvage), take of depredating birds, taxidermy, and waterfowl sale and disposal. Regulations governing migratory bird permits are found in 50 CFR 13 – General Permit Procedures and 50 CFR 21 – Migratory Bird Permits.

Invasive Species, Executive Order 13112 (February 3, 1999). Executive Order (EO) 13112 directs federal agencies to prevent and control the spread of invasive plants and animals, and avoid direct or indirect impacts whenever there is a practicable alternative.

Bald and Golden Eagle Protection Act of 1940. The Bald Eagle Protection Act of 1940 (16 USC 668, enacted by 54 Stat. 250) protects bald and golden eagles by prohibiting the taking, possession, and commerce of such birds and establishes civil penalties for violation of this Act.

Clean Water Act. The Clean Water Act (33 USC 1251 et seq.) establishes legal requirements for the restoration and maintenance of the chemical, physical, and biological integrity of the nation's waters.

Section 401. Section 401 requires that an applicant for a federal license or permit that allows activities resulting in a discharge to waters of the United States must obtain a State certification that the discharge complies with other provisions of the Clean Water Act. The Regional Water Quality Control Boards (RWQCBs) administer the certification program in California.

Section 404. Section 404 establishes a permit program administered by the U.S. Army Corps of Engineers (USACE) regulating the discharge of dredged or fill material into waters of the United States, including wetlands. Implementing regulations by the USACE are found at 33 CFR Parts 320-330. Guidelines for implementation are referred to as the Section 404(b)(1) Guidelines and were developed by the EPA in conjunction with the USACE (40 CFR Parts 230). The Guidelines allow the discharge of dredged or fill material into the aquatic system only if there is no practicable alternative that would have less adverse impacts.

Plant Protection Act of 2000. Prevents importation, exportation, and spread of pests that are injurious to plants, and provides for the certification of plants and the control and eradication of plant pests. The Act consolidates requirements previously contained within multiple federal regulations including the Federal Noxious Weed Act, the Plant Quarantine Act, and the Federal Plant Pest Act.

Northwest Forest Plan. Adopted in 1994, the *Northwest Forest Plan* is an integrated and comprehensive approach for ecosystem management, intergovernmental and public collaboration, and rural community economic assistance. The mission of the *Northwest Forest Plan* is to coordinate complementary management of Bureau of Land Management- and USFS-administered lands within the range of the northern spotted owl (*Strix occidentalis caurina*) in Oregon, Washington, and northern California. Specifically in California, the *Northwest Forest Plan* applies to all or portions of the Shasta-Trinity, Klamath, Six Rivers, Mendocino, Lassen, and Modoc National Forests.

State

California Endangered Species Act, Fish and Game Code Section 2050 et seq. The California Endangered Species Act (CESA) provides that certain species of fish, wildlife, and plants that are of ecological, educational, historical, recreational, aesthetic, economic, and scientific value to the people of California are of statewide concern and should be conserved, protected, and enhanced along with their habitats. The CESA establishes that it is the policy of the state that state agencies should not approve projects as proposed that would jeopardize the continued existence of any endangered species or threatened species, or result in the destruction or adverse modification of habitat essential to the continued existence of those species, if there are reasonable and prudent alternatives available consistent with conserving the species or its habitat that would prevent jeopardy.

Furthermore, the CESA provides that reasonable and prudent alternatives shall be developed by CDFW with the project proponent and the state lead agency that are consistent with conserving the species, while at the same time maintaining the project purpose to the greatest extent possible.

Fully Protected Designations – California Fish and Game Code Sections 3511, 4700, 5515, and 5050. Prior to enactment of CESA and the federal ESA, California enacted laws to "fully protect" designated wildlife species from take, including hunting, harvesting, and other activities. Unlike the subsequent CESA and ESA, there was no provision for authorized take of designated fully protected species. Currently, 36 fish and wildlife species are designated as fully protected in California, including golden eagle.

California Senate Bill 618 (signed by Governor Brown in October 2011) authorizes take of fully protected species, where pursuant to a Natural Conservation Community Plan, approved by CDFW. The legislation

gives fully protected species the same level of protection as is provided under the Natural Community Conservation Planning Act for endangered and threatened species.

Native Plant Protection Act, Fish and Game Code Sections 1900 through 1913. The Native Plant Protection Act prohibits the taking of listed plants from the wild and requires that state agencies use their authority to conserve endangered and rare native plants. In compliance with the Native Plant Protection Act and CEQA, CDFW would notify project proponents that a rare or endangered native plant is growing within project boundaries and provide information to the project proponents concerning the protection of such plants as may be appropriate. CDFW must also be given 10-day advance notification of a land use change to provide CDFW an opportunity to salvage listed plant species that might be destroyed.

Raptors, Fish and Game Code Section 3503.5. Section 3503.5 of the Fish and Game Code states that it is "unlawful to take, possess, or destroy any birds in the order Falconiformes or Strigiformes or to take, possess, or destroy the nest or eggs of any such bird except as otherwise provided by this code or any regulation adopted pursuant thereto." Disturbance during the raptor breeding season could result in the incidental loss of fertile eggs or nestlings, or lead to nest abandonment. Although no permits are issued for species protected under this code, coordination with CDFW is required.

Non-game and Migratory Birds, Fish and Game Code Sections 3513 and 3800. Sections 3513 and 3800 of the Fish and Game Code regulate unlawful take of non-game or migratory bird species. Disturbance during the breeding season could cause the incidental loss of fertile eggs or nestlings, or lead to nest abandonment. Although no permits are issued for species protected under these code sections, coordination with CDFW is required.

Lake and Streambed Alteration Agreements – California Fish and Game Code Sections 1600-1616. Under these sections of the Fish and Game Code, an applicant is required to notify CDFW prior to constructing a project that would divert, obstruct, or change the natural flow, bed, channel, or bank of a river, stream, or lake. Preliminary notification and project review generally occur during the environmental review process. When a fish or wildlife resource may be substantially adversely affected, CDFW is required to propose reasonable project changes to protect the resource. These modifications are formalized in a Lake and Streambed Alteration Agreement (LSAA) that becomes part of the plans, specifications, and bid documents for the project. CDFW jurisdiction is determined to occur within the water body of any natural river, stream, or lake. The term "stream," which includes creeks and rivers, is defined in Title 14, CCR, Section 1.72.

California Porter-Cologne Water Quality Control Act. Pursuant to the California Porter-Cologne Water Quality Control Act, the State Water Resources Control Board (SWRCB) and the nine RWQCB may require permits ("waste discharge requirements") for the fill or alteration of "Waters of the State." The term "Waters of the State" is defined as "any surface water or groundwater, including saline waters, within the boundaries of the state" (California Water Code, Section 13050[e]). Although "waste" is partially defined as any waste substance associated with human habitation, the SWRCB interprets this to include fill discharge into water bodies. The SWRCB and the RWQCB have interpreted their authority to require waste discharge requirements to extend to any proposal to fill or alter "Waters of the State," even if those same waters are not under the jurisdiction of the USACE.

Pursuant to this authority, the SWRCB and the RWQCB may require the submission of a "report of waste discharge" under Water Code Section 13260, which is treated as an application for a waste discharge requirement.

Local

No local policies are directly applicable to the Project site.

Applicant Proposed Measures

As part of the Proposed Project, Siskiyou Telephone has identified Applicant Proposed Measures (APMs) in its Proponent's Environmental Assessment that it would implement during construction and/or operation of the Proposed Project to reduce or avoid impacts to biological resources. Siskiyou Telephone would conduct the design, construction, operation, and maintenance of the Proposed Project in accordance with its APMs. The APM for biological resources are listed in Table 5.4-2.[3]

Table 5.4-2. Applicant Proposed Measures – Biological Resources

APM	Description
APM BIO-1	To minimize the likelihood of potential adverse effects on nesting birds and raptors, preconstruction nesting surveys would be conducted during the January 31 through August 31 bird nesting season. If active nests are observed prior to construction, a qualified biologist would be retained to monitor construction within 50 feet of the active nest for passerines or 300 feet for raptors.
APM BIO-2	To minimize the likelihood of potential adverse effects on wildlife near the 10 stream crossings, preconstruction wildlife surveys would be conducted. In addition, a qualified biologist would be retained to monitor construction during directional boring activities.
APM BIO-3	To minimize the potential for wildlife to become trapped in open trenches, each excavation would be securely backfilled or covered at the end of each work day. Only excavated onsite native materials would be used to backfill trenches. One side of each excavation would be ramped to allow wildlife egress in the unlikely event that entrapment occurs.
APM BIO-4	Construction access, and material laydown and staging would occur only on existing roads and previously disturbed sites.
APM BIO-5	To reduce the introduction and spread of noxious weeds, the project would use construction equipment that is currently being used near the project area in the Klamath National Forest and Six Rivers Forest. This equipment would not be used elsewhere prior to construction without proper decontamination procedures applied prior to deployment.
APM BIO-6	Spoils known to contain noxious weed propagules or that otherwise do not meet Caltrans backfill specifications would be removed and disposed of at a Caltrans-approved disposal site.
APM BIO-7	Temporary construction equipment sound levels would not exceed 90 dB.
APM BIO-8	The contractor shall prepare and implement a plan for monitoring drilling operations and addressing frac-out if it occurs. The plan shall include visual inspections along the bore path of the pipeline alignment during all drilling operations. Monitors shall also be stationed at appropriate distances upstream and downstream from the crossing point. All equipment required to contain and clean up a frac-out release shall be available at the work site.
APM BIO-9	To minimize risk of harming the Del Norte Salamander or red-legged frog (at Wyman Creek only), work shall be conducted during dry weather.
APM AQ-1	To reduce fugitive emissions, construction of the proposed project would occur during the dry season (April through October). Water trucks would be present onsite to wet down the work area, including materials such as backfill and other construction components.

[3] Siskiyou Telephone's originally proposed APMs are part of the Proposed Project and have been considered in the evaluation of environmental impacts in this IS/MND. The mitigation measures recommended in Section 5.5.2 (Environmental Impacts and Mitigation Measures) and referenced in Section 6 (Mitigation Monitoring Plan) either expand upon or add detail to all of Siskiyou Telephone's APMs, and for the purposes of the Proposed Project, supersede them.

Table 5.4-2. Applicant Proposed Measures – Biological Resources

APM	Description
APM GEO-1	Project construction activities would be performed in accordance with the soil erosion and water quality protection measures to be specified in the SWPPP (see Section 4.11.7 of this IS/MND) for the proposed project.
APM GEO-2	Project elements, such as excavating rock or soil for utility box installation, building minor retaining walls (less than 5 feet in height) to avoid sedimentation into roadways, and trenching, would be designed and implemented in accordance with industry standards, including established engineering and construction practices and methods.
APM HAZ-1	Refueling of equipment would occur at a minimum distance of 20 feet from all active waterways.
APM HAZ-2	A SWPPP would be in place prior to the start of construction activities to implement BMPs for spill and pollution prevention. The following BMPs would minimize the potential for accidental release of hazardous materials: ▪ Equipment would be maintained in good working order, and equipment containing hazardous materials would be inspected periodically for signs of spills or leakage. ▪ Spills that occur would be cleaned up immediately, and any contaminated soil would be containerized and properly disposed of. ▪ Spills that occur would be reported in accordance with applicable federal, state, and local requirements. Emergency phone numbers would be available onsite.

5.4.2 Environmental Impacts and Mitigation Measures

Siskiyou Telephone proposes to implement measures during the design, construction, and operation of the Proposed Project to ensure it would occur with minimal environmental impacts in a manner consistent with applicable rules and regulations. Applicant Proposed Measures (APMs) are considered part of the Proposed Project in the evaluation of environmental impacts. CPUC approval would be based upon Siskiyou Telephone adhering to the Proposed Project as described in this document, including this Project description and the APMs (see Table 4-3 in Section 4, Project Description), as well as any adopted mitigation measures identified by this Initial Study.

a. Would the project 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?

LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED – CONSTRUCTION. The Proposed Project, which comprises approximately 16.7 miles of linear telecom lines within State Highway 96, follows the Klamath River and contains suitable habitat for some special-status plants and animals immediately adjacent to the work area, as well as within creeks that would be crossed via horizontal directional drilling (HDD). Special-status species potentially affected by the Proposed Project are discussed below. While direct effects to most special-status species are not anticipated, indirect effects could occur as detailed below. The Applicant has incorporated APMs into the Project that would minimize many impacts to special-status species. For effects not addressed by APMs, or where additional specificity is required, Project-specific mitigation measures are identified that would reduce impacts to less than significant.

Special-Status Plants

Several special-status plant species have potential to occur adjacent to the Project area. Siskiyou Telephone would avoid any direct impacts (e.g., excavations and fills) and indirect impacts (e.g., alteration of drainage patterns) to special-status plant species by constructing the Proposed Project within the roadway

of State Highway 96, and by staging and parking equipment and materials in disturbed areas along the road. Also, jurisdictional areas (creek crossings) that have the potential for special-status plants, would be avoided by utilizing HDD. However, direct impacts to special-status plants could occur if hazardous materials spill or frac-outs (accidental release of drilling fluids) from HDD operations move outside of the work area into sensitive biological resources areas including wetland and riparian communities.

While HDD is less intrusive than trenching, which directly impacts habitats along the surface of the route, the HDD construction method carries the risk of drilling lubricants escaping the drilled tunnel and migrating up to the surface environment through subsurface fractures (the system is pressurized during drilling). The drilling lubricant would be a bentonite slurry, a fine clay material that is non-toxic and commonly used in agriculture. However, aquatic plants and animals in sensitive riparian areas can be smothered by the fine particles of the bentonite slurry if a large unanticipated surface expression of drilling fluid occurs.

Containment and clean-up operations in the event of a frac-out would require workers to enter creeks and could cause additional impacts to sensitive riparian habitats. Some minor frac-outs that entail small releases of drilling fluid (generally a neutral bentonite slurry) may have minimal effects to a creek that would be minor compared with effects of establishing clean-up activities.

Potential indirect impacts to special-status plants could also include alterations in existing topography and hydrology, sedimentation and erosion, the accumulation of fugitive dust (which could impact plant photosynthesis and respiration), and colonization by non-native and invasive plant species brought into the Project area by vehicles and equipment.

Siskiyou Telephone has committed to several APMs that would reduce or avoid potential impacts to special-status plants. These APMs include APM BIO-4 (construction access and material laydown/staging would occur only on existing roads and previously disturbed sites), APM BIO-5 (reduce introduction and spread of noxious weeds by using local construction equipment), APM BIO-6 (properly disposing of noxious weed contaminated spoils), and APM BIO-8 (prepare and implement HDD monitoring plan), APM AQ-1 (reduce fugitive dust by watering work area), APM GEO-1 (soil erosion and water quality measures to be specified in SWPPP), APM GEO-2 (avoid sedimentation into roadways), APM HAZ-1 (refueling of equipment to occur away from all active waterways), and APM HAZ-2 (SWPPP to implement BMPs for spill and pollution prevention). The full text of all APMs is in Table 4-3 in Section 4.14 (Project Description).

While the APMs would reduce potential impacts to special-status plants, they do not include sufficient detail, timelines, and performance standards to ensure that impacts would be reduced to a less-than significant level. Therefore, the following biological resources mitigation measures have been developed to provide required details and specificity to APMs as needed. Mitigation Measure AQ-1 would require control of construction-related dust. Mitigation Measure B-1 would require environmental training, preconstruction surveys, and biological resource monitoring during all construction activities near sensitive biological resources. Mitigation Measure B-2 would require avoidance and minimization of impacts to special-status plants. Mitigation Measure B-3 would require monitoring of HDD operations and preparation and implementation of a Frac-out Contingency Plan. Mitigation Measure B-3 would also require the environmental monitors to assess the severity of any accidental release of drilling fluids and determine whether clean-up and containment activities are needed to prevent further damage. MM GS-1 would require geotechnical/geologic surveys for landslides and unstable slopes to be conducted. MM H-1 would require preparation and implementation of a Worker Environmental Awareness Program (WEAP). MM H-2 would require preparation and implementation of a Hazardous Materials and Waste Management Plan.

With implementation of the APMs and Mitigation Measures MM B-1, MM B-2, MM B-3, MM GS-1, MM H-1, and MM H-2, impacts to special-status plant species would be less than significant.

Mitigation Measure for Special-Status Plant Species

MM AQ-1 **Control Construction-Related Dust** [see full text in Section 5.3, Air Quality]

MM B-1 **Conduct Environmental Training, Pre-Construction Surveys, and Biological Resources Monitoring.** Siskiyou Telephone will develop and implement a Worker Environmental Awareness Program (WEAP) for construction crews and all Project personnel. The WEAP will be conducted by a qualified biologist (approved by CPUC) prior to the commencement of the Project and during construction activities. Sessions will include discussion of the Federal Endangered Species Act (FESA) and California Endangered Species Act (CESA), California Species of Special Concern, other special-status species and listed species, identification and values of habitat, the consequences of noncompliance with these acts, and the importance of keeping all Project activities and sediments within the designated work area. Brochures summarizing special-status and listed species with potential to occur within the Project area, as well as Project requirements shall be provided to all crew members (in multiple languages if appropriate). A log shall be maintained of all trained personnel with names and dates of training, and shall be submitted to the CPUC on a monthly basis and made available for review by CDFW, USFWS, USFS, or other agencies upon request.

Pre-construction sweeps of active work areas for special-status species shall be conducted prior to the start of construction each morning by a qualified biologist (approved by CPUC). If non-listed special-status species are found, they shall be relocated outside of the work area into adjacent appropriate habitat by the qualified biologist. If listed or candidate species are found, no work will occur in the vicinity until it has left the work area on its own, or unless otherwise authorized by USFWS and/or CDFW (as applicable). The CPUC Environmental Monitor shall be notified immediately of any special-status species or listed species observed in the Project area.

Biological monitoring shall be conducted by a qualified biologist (approved by CPUC) during all construction activities near sensitive resources, including active bird nests and creeks. If work is being conducted during light rain, full time biological monitoring shall occur. The monitor will complete daily reports summarizing construction activities and environmental compliance and weekly reports shall be submitted to the CPUC. If appropriate (based on the phase and location of construction activities), Siskiyou Telephone may request that the CPUC allow less frequent monitoring.

MM B-2 **Preserve Special-Status Plants, Wetlands, and Riparian Zones.** The following avoidance and minimization measures shall be implemented to protect both listed special-status plants, and to avoid impacts to wetlands and riparian zones:

- Design Project and construction activities to avoid impacts to wetlands and water features to the extent feasible.
- Prior to the onset of construction activities, a qualified biologist (approved by the CPUC) shall delineate any wetland or water features within the right-of-way as environmentally sensitive areas using clear markers. Construction crews shall be provided with maps of

environmentally sensitive areas. No equipment, materials, or spoils shall encroach into the environmentally sensitive areas except for spill remediation purposes.

- A qualified biologist (approved by the CPUC) shall be present during construction activities within the vicinity of wetlands, creek crossings, and associated riparian zones. The biologist shall ensure that fencing and/or flagging remains intact and that construction activities do not affect the delineated areas.

MM B-3 **Minimize Horizontal Directional Drilling (HDD) Potential Impacts.** The following avoidance and minimization measures shall be implemented to protect listed and other special-status plants and animals, and to avoid impacts to wetlands and riparian zones:

- Boring activities and set-up activities for boring operations shall be situated outside of wetlands and riparian areas. An earthen or sandbag berm shall be installed around all drilling fluid mixing and pumping areas to contain any inadvertently spilled material. Sediment control devices shall be installed between the drilling staging areas and any waterways. This includes any culverts or drainage ditches that lead to a waterway.
- HDD operations at the creek crossings shall be limited to daylight hours because of the difficulty in identifying the loss of bentonite or machine pressure without daylight. This shall be defined by the termination of drilling 30 minutes before dusk, and resumption of drilling at dawn. The contractor will make every effort to schedule drilling activities to be completed between dawn and 30 minutes to dusk. Should the drilling activities be within one hour of completion, 30 minutes before dusk, drilling activities may be allowed to continue until completion if the Project environmental monitor and/or the CDFW or its agents determine that completing the drilling activities will result in less risk to the stream.
- Visual inspection along the bore alignment for frac-outs shall take place at all times while the drill is in operation. The monitor shall be in radio contact with the boring machine operator at all times. A biologist/monitor's presence shall be required during all boring activities (i.e., boring, back reaming, etc.) within CDFW jurisdiction unless the drainage is dry.
- The HDD Operator shall design, pre-plan, and direct the HDD operation in such a way as to minimize the risk of spills of all types. The HDD Operator shall prepare and implement a Frac-Out Contingency Plan and submit it to the CPUC and CDFW for review and approval 30 days prior to construction, which includes the boring plans and frac-out and clean-up plans, in the event of the accidental release of drilling lubricants through fractures in the streambed or bank ("frac-outs"). In substrates where frac-outs are likely to occur, the HDD Operator shall operate in a manner that will reduce risk, such as using lower pressure and greater boring depths. The Contingency Plan shall be kept on site at all times.
- A non-toxic fluorescent water-soluble dye shall be added to the drilling muds to allow for frac-outs to be seen in muddy waters. The dye shall be used in a concentration which allows the monitors to easily determine the source of the frac-out, and shall be a type of dye approved for use by the local Regional Water Quality Control Board.
- All equipment required to contain and clean up a frac-out release shall be available at the work site.

- Boring plans should include:
  - A sketch of the construction site, including equipment staging areas, approximate location of drill entry and exit points and the approximate location of access roads in relation to the surrounding area,
  - Proposed depth of bore and statement of streambed condition (subsurface strata and percent of gravel and cobble) that support the depth of the bore,
  - Approximate length of bores (50-foot increments),
  - Type and size of boring equipment to be used (categorized as mini, mid or maxi),
  - Estimated time to complete bore,
  - List of lubricants and HDD additives to be used including Material Safety Data Sheets (MSDS), and
  - Name of Operator's agents and cell phone numbers.
- Frac-out prevention and clean-up plans should include:
  - Name(s) and phone numbers of biological monitor(s) and crew supervisor(s),
  - Site specific resources of concern (if applicable, include factors such as possible presence of sensitive species),
  - Monitoring protocols (include biological monitoring and frac-out monitoring), and
  - Containment and clean-up plan (include staging location of vacuum trucks and equipment, equipment list, necessary hose lengths, special measures needed for steep topography, etc. at each location).
- If a frac-out or spill occurs in a sensitive resource, the Operator shall immediately notify the CPUC Environmental Monitor.
- If a frac-out occurs, the CPUC Environmental Monitor, in coordination with Siskiyou Telephone's biological monitor, shall determine whether clean-up actions are warranted. If containment and clean-up is needed to prevent additional impacts, the Contractor shall begin the following containment and clean up measures immediately. Where water flows allow, the Contractor shall immediately construct a sandbag well around the frac-out or place a standing pipe (such as a 55-gallon drum with the top and bottom removed, heavy PVC pipe or CMP or culvert type material) around the frac-out to contain the drilling mud. A trailer-mounted vacuum or vacuum truck shall be deployed to vacuum out spilled drilling fluids that continue to leak. Removed drilling fluids shall not be placed where they are likely to re-enter the stream. All cleanup and containment efforts shall adhere to the Frac-out Contingency Plan approved by the CPUC for spill response.

MM GS-1 **Conduct Geotechnical/Geologic Surveys for Landslides and Unstable Slopes**. [see full text in Section 5.6.2, Geology and Soils]

MM H-1 **Prepare and Implement Worker Environmental Awareness Program (WEAP).** [see full text in Section 5.8.2, Hazards and Hazardous Materials]

MM H-2 **Prepare and Implement a Hazardous Materials and Waste Management Plan.** [see full text in Section 5.8.2, Hazards and Hazardous Materials]

Special-Status Wildlife Species

Siskiyou Telephone intends to avoid any direct impacts to special-status species habitat and wildlife by constructing within the roadway and utilizing disturbed areas for staging and materials, and avoiding any adjacent suitable habitats. Creek crossings that have the potential for special-status wildlife would be avoided by utilizing HDD. Therefore, roosting, foraging, nesting, and denning habitat would not be directly affected by the Project. Potential impacts to special-status wildlife would be related to accidental spills or frac-outs, or injury or mortality to any wildlife that enter the Project work areas from adjacent habitat during construction.

Direct impacts to special-status species habitat (in offsite areas) and wildlife could include hazardous materials spills that move outside of the work area and into sensitive biological resource areas, and frac-outs from HDD operations that impact sensitive wetland and riparian communities, as well as waterways. Severe frac-outs from HDD operations can also kill aquatic species, such as special-status amphibians and fish, because they cause sedimentation and reduced oxygen levels in the water; this impact would primarily affect egg or larval stages. Special-status wildlife species, such as fisher and Humboldt marten, could also be inadvertently injured or killed by construction vehicles and equipment traveling and working on the roadways.

Indirect impacts to special-status species habitat and wildlife could include alterations in existing topography and hydrology, inadvertent landslides on unstable slopes caused by adjacent construction activities and vibration, sedimentation and erosion, the accumulation of fugitive dust (which could impact plant photosynthesis and respiration), and colonization by non-native and invasive plant species. Also, indirect impacts to special-status wildlife could include disturbance from construction noise and activities (i.e., vibration). However, Project construction would occur within an existing highway, and wildlife in habitats adjacent to the Project is expected to be acclimated to the existing noise and disturbance associated with highway use.

Any animal entering the work area could also become entrapped in an open trench, but the Applicant has committed to implement APM BIO-3 which requires all trenches to be backfilled or covered at the end of each work day, ramps would be built into each active trench to allow wildlife that fall in to escape. Mitigation Measure B-5 provides additional specificity and avoidance measures to avoid wildlife entrapment.

Siskiyou Telephone has committed to several APMs that would reduce potential impacts to special-status wildlife species. These APMs include APM BIO-1 (preconstruction bird nesting surveys during the nesting season), APM BIO-2 (preconstruction wildlife surveys at stream crossings), APM BIO-3 (backfill, cover, or ramp excavations to prevent wildlife entrapment), APM BIO-4 (construction access and material laydown/ staging would occur only on existing roads and previously disturbed sites), APM BIO-5 (reduce introduction and spread of noxious weeds by using local construction equipment), APM BIO-6 (properly disposing of noxious weed contaminated spoils), APM BIO-7 (construction equipment sound levels not to exceed 90 dB), and APM BIO-8 (prepare and implement HDD monitoring plan), APM AQ-1 (reduce fugitive dust by watering work area), APM GEO-1 (soil erosion and water quality measures to be specified in SWPPP), APM GEO-2 (avoid sedimentation into roadways), APM HAZ-1 (refueling of equipment to occur away from all active waterways), APM HAZ-2 (SWPPP to implement BMPs for spill and pollution prevention), and APM NOI-1 (BMPs to minimize noise impacts). The full text of all APMs is in Table 5.4-2 in Section 5.4.1 above.

While the APMs would reduce potential impacts to special-status wildlife and nesting birds, they do not include sufficient detail, timelines, and performance standards to ensure that impacts would be reduced to a less-than significant level. Therefore, the following mitigation measures have been developed to provide required details and specificity to APMs as needed. Mitigation Measure MM AQ-1 would require control of construction-related dust. Mitigation Measure MM B-1 would require environmental training, preconstruction surveys, and biological resource monitoring during all construction activities near sensitive biological resources. Mitigation Measure MM B-2 would require avoidance and minimization of impacts to special-status plants, wetlands, and riparian zones. Mitigation Measures B-3 would require monitoring of HDD operations and a Frac-out Contingency Plan be prepared and implemented. Mitigation Measure MM B-4 would require preconstruction nesting bird surveys within 7 days prior to construction and ongoing monitoring of nests. Mitigation Measure MM B-5 would require entrapment avoidance. Mitigation Measure MM GS-1 would require geotechnical/geologic surveys for landslides and unstable slopes to be conducted. Mitigation Measure MM H-1 would require the preparation and implementation of a Worker Environmental Awareness Program (WEAP). Mitigation Measures MM H-2 would require preparation and implementation of a Hazardous Materials and Waste Management Plan. With implementation of these mitigation measures in addition to the aforementioned APMs, impacts to special-status wildlife would be less than significant.

Nesting Birds

Construction activities would occur within an existing roadway that already produces ongoing traffic noise adjacent to the Klamath River, so any nesting birds near the Project alignment would be expected to be acclimated to a higher level of background noise than would be experienced in habitats farther removed from the alignment. Two active osprey nests were found within 0.25 miles of the Project alignment during reconnaissance surveys, and four inactive osprey nests were observed adjacent to MP 20.16, MP 27.26, MP 27.50, and MP 30.18. Special-status birds and raptors with moderate or high potential to forage or nest in habitats adjacent to the Project include bald eagle (State listed Endangered, Fully Protected, Forest Service Sensitive Species), northern goshawk (State listed Threatened, Forest Service Sensitive Species), osprey (State Watch List), and northern spotted owl (State listed Threatened, Federally listed Threatened, designated Critical Habitat present). Nesting native birds, regardless of conservation status, are protected by State Fish and Game Code and the federal Migratory Bird Treaty Act (MBTA). Adjacent forest habitats could support a wide variety of nesting native birds. Due to construction restrictions during winter months, all Project construction activities would occur during the bird breeding season, and Project activities could disrupt nesting along the Project alignment. Since the Proposed Project would be entirely within the roadway, there would be no direct effects to bird nests or nesting habitat; however, indirect effects include disturbance from construction equipment noise, vibration, and human presence. Implementation of the aforementioned APMs and Mitigation Measure B-4 (Pre-Construction Surveys and Impact Avoidance Measures for Migratory and Nesting Birds), which would require preconstruction nesting bird surveys within 7 days prior to construction and ongoing monitoring of nests, would reduce impacts to nesting birds to less than significant.

Northern Spotted Owl

Suitable habitat for northern spotted owl, a federally and state-listed species, includes pine forested areas such as the habitats that abut the Project area. The Project area is within designated critical habitat for the northern spotted owl, and CNDDB reports documentation of occurrences within 0.5 miles of the Project area (CDFW, 2018). However, because the Proposed Project would not require tree or snag removals or de-limbing there would be no direct impacts on potential spotted owl nesting cavities or

roosting perches or designated critical habitat. Potential indirect effects on spotted owl could include disturbance from construction noise and activities.

The USFWS Arcata Fish and Wildlife Field Office issued guidance information for project activities that estimate effects of auditory and visual disturbances on northern spotted owl. According to the guidance, spotted owls are considered harassed when exposed to noise disturbances that exceed 90 dB at a distance of less than 500 feet or are subject to noises 25 dB above ambient background levels. According to specifications provided online by the Federal Highway Administration (FHWA) construction handbook (FHWA, 2015), noise emitted from construction equipment proposed for use by Siskiyou Telephone would not exceed 89 dB (paving equipment is rated as loudest). As discussed in Section 5.12 (Noise), the maximum intermittent noise levels from a construction work spread would typically range from 85 to 88 dBA measured at 50 feet from the source. These would be the highest levels expected due to combined use of a drill rig and a vacuum truck at one location. The noise levels associated with passing trucks and commuting worker vehicles would be approximately 71 to 76 dBA at 50 feet.

Because State Highway 96 road corridor ambient noise is estimated between 71 and 80 dB, construction equipment proposed for use by Siskiyou Telephone would emit no more than 9 to 17 dB above ambient background noise. As specified in APM BIO-7, construction noise is not expected to exceed the 90 dB threshold in habitat adjacent to the project area.

Construction activities would be temporary, lasting up to 195 days over a 2-year period. Additionally, because of the linear nature of the Project, construction activities would not be constant at any individual location throughout the entire construction period; most locations would experience a few days of significant activity that would then progress to a different location. Finally, construction activities would occur within an existing highway that already produces ongoing traffic noise adjacent to the Klamath River, so any owls nesting near the Project alignment would be expected to be acclimated to a higher level of background noise than would be experienced in habitats farther removed from the alignment. Therefore, temporary Project construction noise would not be considered harassment (take) of spotted owls nesting within 500 feet of State Highway 96. According to the guidance provided by the Arcata Fish and Wildlife Office (USFWS, 2006) and the specifications provided by FHWA (2015), owls nesting within 500 feet of the road corridor may be subject to temporary noise disturbance at levels defined as high (81 to 90 dB), but would not be subject to noise disturbance levels defined as harassment (90+ dB). Implementation of APM BIO-7 would ensure that construction noise is not expected to exceed the 90 dB threshold in habitat adjacent to the project area and impacts to northern spotted owls would be less than significant.

Mitigation Measures for Special-Status Wildlife Species

MM B-1 **Conduct Environmental Training, Pre-Construction Surveys, and Biological Resources Monitoring.** [see full text above]

MM B-2 **Preserve Special-Status Plants, Wetlands, and Riparian Zones.** [see full text above]

MM B-3 **Minimize Horizontal Directional Drilling (HDD) Potential Impacts.** [see full text above]

MM B-4 **Pre-Construction Surveys and Impact Avoidance Measures for Migratory and Nesting Birds.** Siskiyou Telephone shall retain a CPUC-approved, qualified avian biologist to conduct pre-construction surveys and monitor active nests during construction (hereafter referred to as the "authorized biologist"). Surveys for nesting birds shall be conducted prior to any initial ground disturbance that will occur during the breeding period (from January 31 through August 31). The authorized biologist(s) conducting the surveys shall be expe-

rienced bird surveyors and familiar with standard nest-locating techniques. Qualifications of the biologist(s) shall be submitted to the CPUC for approval. Surveys shall be conducted in accordance with the following guidelines:

a. Surveys shall cover all potential nesting habitat within disturbance areas and within a 500-foot buffer of these areas.

b. Surveys shall be conducted no more than 3 days prior to the start of ground-disturbing activity.

c. If active nests are detected during the survey, the authorized biologist shall map each nest and establish a disturbance-free buffer within which no Project activities may occur until the nest fledges or fails, as documented and confirmed by the authorized biologist. The size of the disturbance-free buffer shall be determined by the authorized biologist, and shall depend on the species' tolerance to human activity, location of the nest relative to the work area, any vegetation or other materials that may screen the nest from noise and view of work, the nature of the work (e.g., heavy equipment use vs. hand tools), and any other pertinent information. Buffer sizes shall be a minimum of 100 feet for non-raptor species and 500 feet for raptors.

d. If active nests are observed and the recommended nest avoidance buffer zones are not feasible, non-disturbance buffer zones shall be established by the authorized biologist based on but not limited to consideration of the line of sight from the nest to the worksite, the nesting bird's behavior, existing and Project-related background disturbance levels, or other biological or physical attributes. Continuous monitoring of the nest site by an authorized biologist shall occur during disturbance activities, and a nest observation log shall be updated once per hour during construction activities. If the monitoring biologist determines nesting may fail as a result of work activities, all work shall cease (except access along existing roadways) within the recommended avoidance area until the biologist determines the adults and young are no longer reliant on the nest site. A site-specific nest protection plan shall be submitted to the CPUC for review and approval if additional nest protection measures are determined necessary by the monitoring biologist.

e. Prior to the start of any new Project-related ground disturbance activities, the authorized biologist shall provide the CPUC a report or memorandum describing the findings of the nest surveys, including the time, date, and duration of the survey; identity and qualifications of the surveyor(s); and a list of species observed. If active nests are detected during the surveys, the report shall include descriptions of avoidance zones and methods used to determine avoidance zones and maps or aerial photos identifying nest locations and the boundaries of no-disturbance buffer zones.

f. The authorized biologist shall monitor active nests no less than twice per week until nestlings have fledged and dispersed. Activities that might, in the opinion of the authorized biologist, disturb nesting activities shall be prohibited within the buffer zone until such a determination is made.

g. Throughout Project construction, nest locations, Project activities in the vicinity of nests, and any adjustments to buffer areas shall be described and reported in monthly monitoring reports to the CPUC.

h. If active nests for listed birds are found, a 500-foot buffer will be established around each nest/territory. This buffer may be adjusted in coordination with USFWS, CDFW, and the CPUC.

MM B-5 **Avoid Wildlife Entrapment.** To prevent the accidental entrapment of wildlife during construction, all excavated holes or trenches deeper than six (6) inches will be covered at the end of each work day with plywood or similar materials. Larger excavations that cannot easily be covered will be ramped at the end of the work day to allow trapped animals an escape method. Ramps for open excavations will be soil and/or rough plank ramps with a maximum 45-degree angle, and will be installed at intervals prescribed by a qualified biologist. Trenches will be backfilled as soon as possible. Construction personnel will inspect open holes and trenches in the morning and evening for trapped wildlife. In the event that an excavation would be left unattended for a period of more than 24 hours, metal or wooden covering shall be placed over the excavation prior to the departure of the biological monitor in order to completely seal the excavation and prevent longer-term wildlife entrapment, except for larger excavations that cannot easily be covered. Prior to the filling of such excavations, these areas will be thoroughly inspected for special-status species by the qualified biologist. If a trapped animal is observed, construction will cease until the animal has been relocated to an appropriate location.

MM GS-1 **Conduct Geotechnical/Geologic Surveys for Landslides and Unstable Slopes.** [see full text in Section 5.6.2, Geology and Soils]

MM H-1 **Prepare and Implement Worker Environmental Awareness Program (WEAP)**. [see full text in Section 5.8.2, Hazards and Hazardous Materials]

MM H-2 **Prepare and Implement a Hazardous Materials and Waste Management Plan**. [see full text in Section 5.8.2, Hazards and Hazardous Materials]

*NO IMPACT – OPERATIONS AND MAINTENANCE***.** During Project operation, it is anticipated that minimal maintenance of the Proposed Project components would be required within the roadway and at utility boxes; therefore, minimal disturbance to special-status species would occur, and operation of the Project would result in no impact under this criterion, and thus, no mitigation is required.

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

LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED – CONSTRUCTION. The Proposed Project could have a direct impact to riparian habitat or other sensitive natural communities if dust controls were not implemented, BMPs in the SWPPP were not properly installed or maintained, there was a hazardous material spill that left the Project work area, or a frac-out from HDD operations. However, with the implementation of APM AQ-1 (reduce fugitive dust by watering work area), APM GEO-1 (soil erosion and water quality measures to be specified in SWPPP), APM GEO-2 (avoid sedimentation into roadways), APM HAZ-1 (refueling of equipment to occur away from all active waterways), APM HAZ-2 (SWPPP to implement BMPs for spill and pollution prevention), MM AQ-1 (control construction-related dust), MM B-2 (preserve special-status plants, wetlands, and riparian zones), and MM B-3 (requires monitoring of HDD operations and a Frac-out Contingency Plan be prepared and implemented), MM GS-1 (conduct geotechnical/ geologic surveys for landslides and unstable slopes), MM H-1 (prepare and implement Worker Environmental Awareness Program), and MM H-2 (prepare and implement a Hazardous Materials and Waste Management Plan), the impact would be reduced to less than significant.

Mitigation Measure for Potential Impacts to Wetlands

MM AQ-1 **Control Construction-Related Dust** [see full text in Section 5.3, Air Quality]

MM B-2 **Preserve Special-Status Plants, Wetlands, and Riparian Zones** [see full text above under Item (a)]

MM B-3 **Minimize Horizontal Directional Drilling (HDD) Potential Impacts** [see full text above under Item (a)]

MM GS-1 **Conduct Geotechnical/Geologic Surveys for Landslides and Unstable Slopes.** [see full text in Section 5.6.2, Geology and Soils]

MM H-1 **Prepare and Implement Worker Environmental Awareness Program (WEAP)**. [see full text in Section 5.8.2, Hazards and Hazardous Materials]

MM H-2 **Prepare and Implement a Hazardous Materials and Waste Management Plan**. [see full text in Section 5.8.2, Hazards and Hazardous Materials]

*NO IMPACT – OPERATIONS AND MAINTENANCE***.** During Project operation, it is anticipated that minimal maintenance of the Proposed Project components would be required within the roadway and at utility boxes; therefore, no disturbance to riparian habitat or other sensitive natural communities would occur, and operation of the Project would result in a less than significant impact under this criterion. Therefore, no mitigation is required.

c. Would the Project 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.) either individually or in combination with the known or probable impacts of other activities through direct removal, filling, hydrological interruption, or other means?

LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED – CONSTRUCTION. The Project would avoid impacts to wetlands and other jurisdictional waters by installing fiber optic lines within the road bridges over the creeks (where depth of bridge allows), or using HDD to install the lines underneath creeks to avoid affecting flows or riparian habitat at proposed crossings. However, the Proposed Project could have a direct impact to federally protected wetlands adjacent to the Project work area or at the creek crossings if dust controls were not implemented, BMPs in the SWPPP were not properly installed or maintained, there was a hazardous material spill that left the Project work area, or a frac-out from horizontal directional drilling (HDD) operations. However, with the implementation of APM AQ-1 (reduce fugitive dust by watering work area), APM GEO-1 (soil erosion and water quality measures to be specified in SWPPP), APM GEO-2 (avoid sedimentation into roadways), APM HAZ-1 (refueling of equipment to occur away from all active waterways), APM HAZ-2 (SWPPP to implement BMPs for spill and pollution prevention), MM AQ-1 (control construction-related dust), MM B-2 (preserve special-status plants, wetlands, and riparian zones), MM B-3 (requires monitoring of HDD operations and a Frac-out Contingency Plan be prepared and implemented), MM H-1 (prepare and implement Worker Environmental Awareness Program), and MM H-2 (prepare and implement a Hazardous Materials and Waste Management Plan),the impact would be reduced to less than significant.

Mitigation Measure for Potential Impacts to Wetlands

MM AQ-1 **Control Construction-Related Dust** [see full text in Section 5.3, Air Quality]

MM B-2 **Preserve Special-Status Plants, Wetlands, and Riparian Zones** [see full text above under Item (a)]

MM B-3 **Minimize Horizontal Directional Drilling (HDD) Potential Impacts** [see full text above under Item (a)]

MM H-1 **Prepare and Implement Worker Environmental Awareness Program (WEAP)**. [see full text in Section 5.8.2, Hazards and Hazardous Materials]

MM H-2 **Prepare and Implement a Hazardous Materials and Waste Management Plan**. [see full text in Section 5.8.2, Hazards and Hazardous Materials]

*NO IMPACT – OPERATIONS AND MAINTENANCE***.** During Project operation, it is anticipated that minimal maintenance of the Proposed Project components would be required within the roadway and at utility boxes; therefore, no disturbance to wetlands would occur, and operation of the Project would result no impact under this criterion ,and thus, no mitigation is required.

d. Would the Project 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 wildlife nursery sites?

LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED – CONSTRUCTION. The Klamath River is a wildlife corridor and is adjacent to the Project area; however, the Project footprint would be located within the roadway above the river. The topography of the Project area would make it difficult for wildlife to use the Project footprint as a movement corridor because there are very steep embankments on the upslope side of the highway, and steep drop-offs to the Klamath River on the downslope side of the roadway. Wildlife that enter the roadway are at risk of mortality from existing road traffic. The creek crossings could be used as wildlife corridors from the mountains down to the Klamath River; however, these creek crossings would be constructed using HDD methods to avoid impacts to surface features and sensitive species that may be present.

Construction of the Proposed Project includes digging a trench in places along the fiber optic broadband facility cable alignment, which would have the potential to trap animal species migrating through the Project area during non-construction hours. However, the magnitude of this effect would be minor as the Project would be located along a highway, outside of any known wildlife movement corridors. In addition, Siskiyou Telephone would cover or backfill and compact the trenches at the end of each work day (APM BIO-3). Mitigation Measure B-5 (entrapment avoidance) includes additional specificity to ensure that construction activities avoid wildlife entrapment, and would reduce potential impacts to migratory wildlife to a less-than-significant level.

Mitigation Measure for Impacts to Wildlife

MM B-5 **Avoid Wildlife Entrapment** [see full text above under Item (a)]

*NO IMPACT – OPERATIONS AND MAINTENANCE***.** During Project operation, it is anticipated that minimal maintenance of the Proposed Project components would be required within the roadway and at utility boxes; therefore, no interference with the movement of wildlife would occur, and operation of the Project would result in no impact to wildlife movement under this criterion, and thus, no mitigation is required.

e. Would the Project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

LESS THAN SIGNIFICANT – CONSTRUCTION. The USFS is concerned about the introduction and spread of non-native, invasive, noxious weeds to the existing habitat. Vehicles and equipment brought in from outside the general area could carry seeds of non-native, invasive, noxious weeds that could then be introduced in the area of the Project site. Additionally, Project vehicles and equipment could spread weeds from existing roadside infestations to other locations within the Project alignment if they park or work within infested areas or if soils from infested areas are used within other locations along the Project. However, with the implementation of APM BIO-4 (construction access and material laydown and staging would occur only on existing roads and previously disturbed areas), APM BIO-5 (use construction equipment that is currently being used near the Project area in the Klamath National Forest and Six Rivers Forest), and APM BIO-6 (spoils known to contain noxious weed propagules would be removed), any potential impacts would be reduced to a less-than-significant level.

*NO IMPACT – OPERATIONS AND MAINTENANCE***.** During Project operation, it is anticipated that minimal maintenance of the Proposed Project components would be required within the roadway and at utility boxes; therefore, no additional spread of weeds would occur, and operation of the Project would result in no impact under this criterion, and thus, no mitigation is required.

f. Would the Project conflict with the provisions of an adopted Habitat Conservation Plan, Natural Communities Conservation Plan, or other approved local, regional, or State habitat conservation plan?

LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED – CONSTRUCTION. The Klamath and Six Rivers National Forest lands in the Project area are managed under the *Northwest Forest Plan*. Managed as General Forest, habitats adjacent to the Project area contain a mixture of riparian reserve and matrix allocations. Riparian reserves emphasize the conservation of aquatic- and riparian-dependent terrestrial resources and include wetlands, ponds, and lakes. In contrast, silviculture and timber harvest are emphasized on matrix lands; however, there are no other adopted habitat conservations plans, natural community conservation plans, or other approved local plans (CH2M Hill, 2018). Riparian reserves would be protected with the implementation of APM AQ-1 (reduce fugitive dust by watering work area), APM BIO-4 (construction access and material laydown and staging would occur only on existing roads and previously disturbed sites), APM GEO-1 (soil erosion and water quality measures to be specified in SWPPP), APM GEO-2 (avoid sedimentation into roadways), APM HAZ-1 (refueling of equipment to occur away from all active waterways), APM HAZ-2 (SWPPP to implement BMPs for spill and pollution prevention), MM AQ-1 (control construction-related dust), MM B-2 (preserve special-status plants, wetlands, and riparian zones), and MM B-3 (requires monitoring of HDD operations and a Frac-out Contingency Plan be prepared and implemented), MM H-1 (prepare and implement Worker Environmental Awareness Program), and MM H-2 (prepare and implement a Hazardous Materials and Waste Management Plan), the impact would be reduced to less than significant and the Project would not conflict with the *Northwest Forest Plan*.

Mitigation Measure for Potential Conflicts with Adopted Plans

MM AQ-1 **Control Construction-Related Dust** [see full text in Section 5.3, Air Quality]

MM B-2 **Preserve Special-Status Plants, Wetlands, and Riparian Zones** [see full text above under Item (a)]

MM B-3 **Minimize Horizontal Directional Drilling (HDD) Potential Impacts** [see full text above under Item (a)]

MM H-1 **Prepare and Implement Worker Environmental Awareness Program (WEAP)**. [see full text in Section 5.8.2, Hazards and Hazardous Materials]

MM H-2 **Prepare and Implement a Hazardous Materials and Waste Management Plan**. [see full text in Section 5.8.2, Hazards and Hazardous Materials]

*NO IMPACT – OPERATIONS AND MAINTENANCE***.** During Project operation, it is anticipated that minimal maintenance of the Proposed Project components would be required within the roadway and at utility boxes; therefore, no impacts to riparian reserves would occur, and operation of the Project would result in no impacts under this criterion, and thus, no mitigation is required.

5.5 Cultural Resources

CULTURAL RESOURCES **Would the project:**	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?	☐	☐	☒	☐
b. Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	☐	☐	☒	☐
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 dedicated cemeteries?	☐	☐	☒	☐

Significance criteria established by CEQA Guidelines, Appendix G.

5.5.1 Cultural Resources and Paleontological Setting

Cultural resources reflect the history, diversity, and culture of the region and people who created them. They are unique in that they are often the only remaining evidence of activity that occurred in the past. Cultural resources can be natural or built, purposeful or accidental, physical or intangible. They encompass archaeological, traditional, and built environmental resources, including buildings, structures, objects, districts, and sites.

Paleontological resources, or fossils, are the evidence of once-living organisms preserved in the geologic record. They include both the fossilized remains of ancient plants and animals and their traces (e.g., track ways, imprints, burrows, etc.). In general, fossils are greater than 5,000 years old (middle Holocene) and are typically preserved in sedimentary rocks.

Cultural Resources Setting

Approach to Analysis of Cultural Resources and Previous Cultural Resources Studies

Information presented in this section was gathered from a review of three reports prepared by CH2MHill in November 2014 (Cardenas, 2014a, b, c). A cultural resources literature and records search was completed by staff (Huberland, 2014) at the California Historical Resources Information System's (CHRIS) Northeast Information Center of the California Historical Resources Information System (NEIC) to identify any previously recorded cultural resources and existing survey reports in the Project study area and surrounding area. Cultural resources field surveys were conducted by CH2MHill in 2014 (results are presented below).

The Proposed Project's effects on cultural resources were evaluated using the significance criteria set forth in Appendix G of the CEQA Guidelines. The conclusions are summarized in the impact summary table above and discussed in more detail below. One historic-era resource is present within the Proposed Project area. However, multiple very sensitive resources are immediately adjacent to the Project area. The incorporation of Applicant Proposed Measures CUL-1 through CUL-4 would ensure that impacts to these resources and any potential impacts to presently unknown or unrecorded cultural resources would be less than significant.

Record Searches

The results of the CHRIS NEIC records search indicate that there are 3 prehistoric-era resources, 7 ethnographic villages (also with historic components), 5 tribal ceremonial sites, 51 historic-era resources, and 7 multicomponent resources recorded within the Project study area (Cardenas, 2014a, b, c). In addition, portions of the study area are being evaluated as a Traditional Cultural Property. The Project study area is defined as the 10-foot-wide corridor which follows the cable alignment within the existing State Highway 96 right-of way (ROW) where direct impacts may take place (referred to by the USFS as the Area of Potential Effect) plus 0.50-mile buffer.

No previously recorded resources are within the area of direct impacts. On a USGS topographical map (1:24,000 scale), it originally appeared that multiple previously recorded archaeological sites and ethnographic villages were within the area of direct impacts. Upon review at the design scale mapping and locating these resources (see IS/MND Appendix B), it was found that these resources are actually located outside of the area of direct impacts but within the study area. These resources are located outside of the Project area not only horizontally but vertically due to topographical differences in elevations in existing ground surface versus bridges and State Highway 96. Resources depicted to traverse the Project area are actually beneath it and outside of the vertical area of direct impacts.

Pedestrian Survey

CH2MHill completed a pedestrian survey of the Project area between June 22 and June 25, 2014. For the purpose of the archaeological survey, the pedestrian survey corridor was increased beyond the 10-foot-wide area of direct impacts to cover a traditional intensive survey transect of 15 meters (49 feet) in width in order to stay within survey standards and to ascertain that no cultural resources would be affected as a result of the Project's components. The pedestrian survey area included the proposed corridor, aboveground Project components, and proposed construction laydown areas. Engineering drawings and a hand-held global positioning system (GPS) unit were used to navigate to start and end points along the route, and to record data as conditions required.

Transects throughout the survey area were spaced no more than 15 meters apart. The topography of the survey area is hilly, consisting of extreme topographic features. Areas with a greater than 25 percent slope were surveyed opportunistically, and conditions such as unsafe footing, steep drops, ravines, canyons, and dense vegetation were taken into account. Ground visibility within the surveyed areas was generally poor to fair and ranged from approximately 40 to 60 percent. Subsurface exposures, including rodent burrows and any cut banks, were examined. Soil stratigraphy was opportunistically examined in these areas for evidence of stratified cultural deposits, but none were present. Soils observed consisted entirely of gravel/sandy alluvium. No artifacts were collected.

The results of the survey indicate that no previously recorded cultural resources are present on the ground surface in the Project study area. However, sensitive resources are located immediately adjacent to the area of direct impacts.

One cultural resource (CH-GC-01), was discovered within the direct effects area. This resource is a circa late 1930s hand-laid stone water conveyance feature. Although likely constructed by the Civilian Conservation Corps in the late 1930s, possibly early 1940s, it does not represent the work of an important creative individual or possess high artistic values. The property is not associated with events that have made a significant contribution to the broad patterns of local or regional history or the cultural heritage of California or the United States; and it is not associated with any persons important to local, California, or national history. The water feature is not likely to yield information important to understanding

prehistory or history. Although it appears to retain good integrity, the water feature does not appear to meet any of the California Register of Historic Resources (CRHR) or National Register of Historic Places (NRHP) criteria.

Native American Consultation

A Sacred Lands File search for the Project study area was received from the California Native American Heritage Commission (NAHC) on April 10, 2013. The Sacred Lands File search results prepared by the NAHC failed to indicate the presence of Native American cultural resources within the Project study area. On July 17, 2014, a request for updated information was made to the NAHC for any changes in contact lists or Sacred Land information. Follow-up correspondence was sent on July 8, 2014 to all individuals and groups indicated by the NAHC as having affiliation with the Proposed Project area. These tribes included: Karuk Tribe, Karuk Tribe of California, Quartz Valley Indian Community, Shasta Indian Nation, and the Shasta Nation.

Native American consultation for the Project was initially conducted by the USFS. Several phone calls and meetings between the District Archaeologist for Klamath National Forest, Happy Camp/Oak Knoll District and the Karuk Tribal Historic Preservation Officer took place in 2014.

A supplemental Sacred Lands File search for the Project study area was received from the California Native American Heritage Commission (NAHC) on February 2, 2018. The results of this search were positive. Follow-up correspondence was sent on February 9, 2018 to all individuals and groups indicated by the NAHC as having affiliation with the Proposed Project area. These tribes included: Karuk Tribe, Karuk Tribe of California, Klamath Tribe, Quartz Valley Indian Community, Modoc Tribe of Oklahoma, Pit River Tribe of California, Pit River Tribe of California–Madesi Band, Pit River Tribe of California–Atwaminsini Band, Shasta Indian Nation, Shasta Nation, Winnemenm Wintu Tribe, and the Wintu Tribe of Northern California.

Follow-up correspondence consisted of a letter describing the Proposed Project and a map indicating the Project's study area. Recipients were requested to reply with any information they could share about resources of interested to Native Americans that might be adversely affected by the Proposed Project. No responses were received.

Paleoenvironment

Precipitation in the Project vicinity occurs mostly as rainfall in the lower elevations, with snow occurring at the higher elevations. Average rainfall for the Project area is approximately 21 inches, and average snowfall is approximately 19 inches. Most precipitation occurs between October and March. The average annual temperatures range from a low of 33 degrees Fahrenheit to a high of 67 degrees Fahrenheit. The Project area is in the Klamath Mountains Geomorphic Province, which is characterized by uplifted and dissected mountain ranges that generally run north-south. The widely varied granitic, metamorphic, and sedimentary materials found in the Klamath Mountains provided well for local prehistoric populations whose tool kits predominately consisted of stone tools.

The Project area is historically located within the Transition life zone, which is California's main forest belt. The Transition life zone includes several native biotic communities; the Project is located within the cedar-hemlock-Douglas fir forest and is characterized by a steep, mixed conifer overstory with a mixed hard-wood and shrub understory component (Moratto, 1984). The dominant conifer species in the Project area are Douglas fir (*Pseudotsuga menziesii*), sugar pine (*Pinus lambertiana*), and white fir (*Abies concolor*). Hardwood species include Pacific madrone (*Arbutus menziesii*), tanoak (*Lithocarpus densiflorus*), and big leaf maple (*Acer macrophyllum*). Shrub species include western thimbleberry (*Rubus parviflorus*) and

huckleberry oak (*Quercus vaccinifolia*). The general understory in the Project area consists of mixed and scattered forbs, shrubs, and hardwood trees including western swordfern (*Polystichum munitum)*, western thimbleberry (*Rubus parviflorus*), huckleberry oak (*Quercus vaccinifolia*), Pacific madrone (*Arbutus menziesii*), tanoak (*Lithocarpus densiflorus*), and big leaf maple (*Acer macrophyllum*). The understory layer is more developed in the lower, wetter locations adjacent to creeks and springs that flow into the Klamath River.

The surrounding forested habitat supports an abundant array of wildlife, including black bear (*Ursus americanus*), black-tailed deer (*Odocoileus hemionus*), gray fox (*Urocyon cinereoargenteus*), ringtail (*Bassariscus astutus*), long-eared myotis bat (*Myotis evotis*), Northern Pacific rattlesnake (*Crotalus oreganus oreganus*), western fence lizard (*Sceloporus occidentalis*), coastal giant salamander (*Dicamptodon tenebrosus*), Siskiyou Mountains salamander (*Plethodon stormi*), hermit thrush (*Catharus guttatus*)*,* spotted towhee (*Pipilo maculatus*), and osprey (*Pandion haliaetus*).

The Klamath River is a major hydrologic feature of the region and parallels State Highway 96 along the entire length of the Project area. The river provides important habitats for both terrestrial and aquatic species including the anadromous summer-run steelhead trout (*Oncorhynchus mykiss irideus*), Chinook salmon (*Oncorhynchus tshawytscha*), and Coho salmon (*Oncorhynchus kisutch*). Two species of elk, Rocky Mountain and Roosevelt, once found within the Project area, are now found only in small pockets outside of Siskiyou County. Grizzly bears ranged in the area, as did bighorn sheep; neither is found within Siskiyou County today.

Prehistory

The prehistory of the southern Klamath Mountains region is poorly documented. The Project is located within the northwest region of California, which encompasses the area from the northern coast of California to the eastern slopes of the North Coast Ranges and the Klamath Mountains. The northwest region of California has two subdivisions: the northern division, which includes the coastal counties of Del Norte and Humboldt and the inland counties of Siskiyou and Trinidad, and the southern division, which includes the coastal counties of Mendocino and Sonoma and inland Lake County.

The general trend throughout California prehistory has been an increase in population density over time, coupled with greater sedentism and the use of a greater diversity of food resources. Three major periods of prehistory have been observed for California: Pleistocene/Holocene Transition, Early Holocene, Middle Holocene, and Late Holocene. Along the north coast of California, the following patterns are noted: Post, Borax Lake, Mendocino, and Gunther.

The **Post Pattern** is the earliest pattern recognized in the northwest region of California and appears to date from the transition of the Pleistocene to the Holocene, approximately 11500 B.C. to 8000 B.C. Assemblages include Clovis points and chipped stone crescents. Subsistence strategies are represented by a highly mobile hunting and gathering pattern, and populations were small. The Post Pattern is not found within inland Siskiyou County, California, nor is it well defined in the overall region. Finds in the region, which could date to the Post Pattern, are generally limited to isolated artifacts and old deposits found well south of the Project area, with material that cannot be dated, such as those near Clear Lake in Lake County.

The **Borax Lake Pattern** dates from approximately 8000 to 5000 B.C. within the northwest region. The period is typified by wide-stemmed points and indented base points, serrated bifaces, ovoid flake tools, manos, milling slabs, and edge-flaked spalls. A wide range of environments were exploited during the

Borax Lake Pattern. One well-developed site near Clear Lake has been argued to be representative of a northern California variant of the Millingstone Horizon.

The **Mendocino Pattern** has an apparent age of approximately 3000 B.C. to A.D. 500 within the northwest region. This pattern is not well defined in its earliest years, and is represented by side-notched, corner-notched, and concave-base darts; manos milling slabs; flake and cobble tools; and cobble mortar and pestles. Sites appear to fall within one of two categories: temporary hunting camps or seasonal encampments of groups that subsist primarily on terrestrial resources. Interior sites of this pattern are generally found along rivers and appear to represent either temporary hunting camps or short-term residential bases. Within the northern mountains of this region, many of these camps appear to be specialized hunting camps, and sites close to the rivers appear to be more sedentary and based on harvest and storage of salmon and acorns.

The **Gunther Pattern** dates from approximately A.D. 500 into the Historic Era and is named for a site on Gunther Island in Humboldt Bay. According to some sources, the Gunther Pattern represents the influx of the Algic (Algonkian language family) speakers into the Humboldt Bay area, with the Wiyot arriving in the area around A.D. 100 and the Yurok arriving in the area around A.D. 700 or 800. Villages of this period were well defined. Permanent residences were made of redwood, some with stone patios and clay floors. Cemeteries and midden areas were separated from living areas. Riverine resources were heavily exploited with the use of bone and antler hooks, harpoons, spears, net sinkers, and other fishing gear. Gunther barbed projectile points are typical of this pattern. Concave-base points were used to tip composite harpoons. Differentiation in burial goods appears to represent social stratification; well-made and valuable goods have been found interred with a wide range of ages, but few burials contain such goods. Ceremonial items include large obsidian blades. Ground and polished stone artifacts with artistic elaboration, flanged pestles, steatite bowls, polished stone adze handles, and zooform clubs are found with Gunther Pattern sites.

Excavations along the Smith River in the interior of the northwest region indicate the development of a possible **previously undefined pattern**. The site, a post-A.D. 1000 Gunther Pattern village site, contains an earlier sedentary component of plank houses and trace amounts of salmon bone and acorns. This earlier component, which dates to 500 B.C., appears to indicate the beginnings of sedentism within the interior of the northwest region and contrasts with the current description of the Mendocino Pattern.

Ethnography

The Project area is located in a transition area where the Karuk and the Shasta territories met. The Shasta village site of Sam'ay was located in the Seiad Valley, and several Karuk villages, Patsiriris, Akramurum, Yuxtoy, Xansifi Kiri, Pipta'as, and Pikiawish (a World Renewal Ceremony site), were located in or near the Project area. Additionally, the Project area is within a Klamath National Forest Cultural Management Area, Inam, and is currently being evaluated for eligibility for the National Register as a Traditional Cultural Property. The area continues to be used every year for Karuk cultural ceremonies.

The Shasta. Six contiguous northern California groups are referred to as "Shastan." One of these groups, the Shasta, occupied the northerly portions of present day Siskiyou County from south of Callahan, along the Scott River, to the Rogue River in southwestern Oregon. Early explorers noted the Shasta living along the ridge of the Siskiyou Mountains and the drainage of the Klamath River, near Happy Camp, and southward and eastward along the edge of the Scott River and the Shasta River drainage areas to Mount Shasta. The Shasta were composed of several groups and had distinct names for each of these groups. Within the Project location, the Kammatwa, who spoke a dialect not understood by other Shasta, occu-

pied the area from the Seiad Valley to the Scott River and up the Scott River to Scott Bar. Directly adjacent to Kammatwa territory were the Iruwaitsu (Iruaíťsuhis) who occupied the Scott Valley starting a few miles outside of Fort Jones and ending at Kammatwa territory.

The Shasta language was derived from the Hokan dialect. The name appears to have been derived from the name of an important person, perhaps a chief, named Sasti. The Shasta have also been referred to as the Saste, Shasty, and the Shastika. Historically, the Shasta population was sparse, and, today, there are few remaining true Shasta. Several groups living in and near Mount Shasta and in Shasta County are sometimes referred to as Shasta, even though they are not the historic Shasta.

The Shasta lived in the valley bottom, surrounded by uplands. Most of their territory was above 2,500 feet elevation. Villages in Scott and Shasta Valleys were usually located at the valley edges, along creeks. The Shasta of the two valleys and the Klamath River area had much friendly interaction interspersed by feuds. The Shasta were known to have fought battles with the neighboring Wintu. The Shasta also were often in a state of warfare with the Modoc, who raided Shasta territory each summer. The Shasta appeared to have more friendly relations with the Karuk (Silver, 1978). Historic maps show the locations of several ethnographic Shasta villages in the Project vicinity, including Ha'kah-tok and Ko-waldn'an-nan, near where the Scott River branches south off of the Klamath River; two villages [names are not readable] near present-day Hamburg; and Habs-ko-nuh'-ra and Xaskuwa, located east of the Klamath River and south of the present-day community of Horse Creek.

The Shasta actively traded with neighboring groups and were an intermediary in trade between coastal and inland groups. Common trade items that flowed in or out of Shasta territory included obsidian, buckskin, acorns, shell and shell beads, baskets, pine nuts, wolf skins, woodpecker scalps, dried fish, and pepperwood gourds (Silver, 1978). Each large Shasta village had a headman, and each village claimed a definable territory with privately held hunting and fishing areas. The principal duty of a chief consisted of mediating disputes and maintaining the peace of the village. Permanent rectangular family houses were abandoned in spring for simple brush huts. Shasta winter structures were constructed over 3- to 4-footdeep rectangular excavations with poles and bark. The center of the structure had a smoke hole and the door was covered with a tule mat. A communal sweat house, primarily used by unmarried men and widowers, was a circular structure with numerous rafters and covered with bark, pine needles, and dirt.

As among other groups in inland California, the most important food resources were deer, salmon, and acorns, supplemented by a vast array of other resources. The Shasta would occasionally hunt elk, as well; a group of men in snowshoes could run down an elk in deep snow. Small game, such as rabbits and ground squirrels, were also hunted. Black bears were hunted by a hunting party of several men, and grizzlies were occasionally hunted as well. Tobacco was the only cultivated crop. Acorns were generally consumed in a mush. Salmon were caught in wicker traps and nets, sun-dried, and then mixed with other ingredients, such as sugar pine nuts, crushed, and made into cakes.

Technologies included basketry and use of pipes; mush paddles; spoons; and flaked-stone scrapers, awls, knives, and projectile points. Several materials, including pitch and fish, were made into adhesives. The Shasta made cylindrical pestles and soapstone vessels, and containers also were made of hide. Cordage and netting were made from wild hemp and grapevine. The Shasta made painted sinew-backed wooden bows and matching painted arrows. Elk hide and stick armor were used for battle.

The arrival of Europeans to the area was disastrous to the Shasta. By the 1870s, Shasta culture had been seriously disrupted, and the Shasta people sought solace in various religious movements, such as the Ghost Dance religion and Earth Lodge cult. Very few of the Shasta survived into the latter decades of the

twentieth century, and their language and culture were nearly extinct. Contemporary survivors are attempting to revive aspects of their traditional language and culture.

The Karuk. Karuk society consisted of a series of villages located in favorable spots along waterways such as the Klamath and Salmon Rivers, which were optimally used both for their resources and for conveyance. Travelers in the 1880s noted the Karuk living along the banks of the Klamath River from a few miles north of Happy Camp down to Redcap Creek in Humboldt County. Karuk villages generally consisted of several family houses and sweat lodges constructed of sugar pine planks. Most of these villages consisted of two or three to six structures with as many as 15 families. Karuk villages were interlinked by a system of ritual and ceremonialism; a system not duplicated in any other tribal religion save amongst the Yurok and Hupa. Within the Project area, villages and World Renewal Ceremony sites have been ethnographically documented, including: Patsiriris, Akramurum, Yuxtoy, Xansifi Kiri, Pipta'as, Inam, and Pikiawish.

The Karuk focused on ancestral worship and veneration of family histories. Ceremonies, traditions, and festivals united villages and the Karuk into one cultural system. One of the most sacred of ceremonies was the World Renewal Ceremony in which the Karuk performed rituals that re-enacted the creation of the world in order to renew the world and provide for its well-being. Karuk holy men would beseech sprits to preserve the world and prevent natural disasters; they would pray for community growth, health, and success. This ceremony has been in practice since prehistoric times and continues to be observed to date.

The Karuk did not have chiefs; instead, the richest men in the villages wielded the power. The wealthiest personages sponsored the important ceremonies key to Karuk society. Karuk ways of life centered on the Klamath and Salmon Rivers, and fishing represented the primary subsistence activity. Fish were caught with nets, harpoons with detachable points, and hooks. Hunting and gathering of land resources and firewood were practiced at seasonal campsites located near resource locations. Karuk cultivated tobacco. Deer and elk were hunted, frequently with the assistance of domesticated dogs. As with many other California groups, acorns were a very important food source to the Karuk.

During the Gold Rush years, many Karuk villages were burned, and the villagers moved into the mountains, away from the miners. Karuk village sites located in attractive locations along the Klamath and Salmon Rivers were often built upon by Europeans. Mining activities declined in the late 1800s, and the Karuk returned to the original locations of their villages and rebuilt. Many ceremonies, including the World Renewal Ceremony, have been revived in recent years.

Regional History

In California, the Historic Era is generally divided into three periods: the Spanish or Mission Period (1769 to 1821), the Mexican or Rancho Period (1821 to 1848), and the American Period (1848 to present). Although European interests were being established in many parts of California, the Project area, because of its remote location, remained relatively unexplored by Europeans until the Gold Rush era. As such the following discussion emphasizes the American Period.

American Period. Following the signing of the Treaty of Guadalupe Hidalgo in 1848, the United States took possession of California. The treaty bound the United States to honor the legitimate land claims of Mexican citizens residing in captured territories. The Land Act of 1851 established a Board of Land Commissioners to review these records and adjudicate claims, and charged the Surveyor General with surveying confirmed land grants. To investigate and confirm titles of California, American officials acquired the provincial records of the Spanish and Mexican governments that were located in Monterey. Those records, most of which were transferred to the U.S. Surveyor General's Office in San Francisco, included land deeds and sketch maps.

From 1852 to 1856, a Board of Land Commissioners determined the validity of grant claims. The commissioners rejected many of the original land claims, which then became public domain and fair game for squatters. Ranch titles represented little as collateral. Although the claims of some owners were eventually substantiated, many of the owners lost their land through bankruptcy or the inability to meet the exorbitant interest on their legal debts. Many of the original rancho owners eventually lost their land to the United States. Unsurveyed land boundaries created a loophole through which squatters could occupy plots on the fringes of land grants and eventually come to own those plots through squatters' rights. In 1848, gold was discovered in California; and by 1849, the Gold Rush was in full effect with many speculators from the eastern United States and European countries flocking to California to make their fortune. The discovery of gold added to the burden of Native Tribes.

For the Project region, it was during this period that a maintained significant presence by American and Europeans in the area occurred. Population estimates of the time did not include Native Americans; but it is believed that before the Gold Rush there were approximately 4,000 Europeans, Mexicans, and others in California. Directly following the Gold Rush, there were an estimated 26,000 people, again, not including Native Americans, within the modern California territory. In 1862, the National Homestead Act was enacted, which allowed potential farmers and ranchers the opportunity to acquire government land for a nominal filing fee, in addition to adhering to several specific stipulations. Americans had already begun to settle in California, following land grant annulments and the Pre-Emption Act of 1853, which allowed squatters to purchase a quarter section of public lands for $1.25 per acre. However, the 1862 Act opened up the west for a more aggressive rate of settlement by Americans and European immigrants.

Siskiyou County. Siskiyou County was named after the mountain ranges that feed the waters of the Rogue and Klamath Rivers; Siskiyou is also a place name for a tribal ground shared by the Rogue, Klamath, and Shasta Tribes. Siskiyou County was originally created in 1852 from the northern part of Shasta County and portions of Klamath County; however, the modern boundaries were not established until 1901. Regardless of shifting boundaries, Yreka has continuously been the county seat.

The first explorers appear to have traveled into Siskiyou County via the Siskiyou Trail, which runs through the county, connecting the Central Valley of California and the Pacific Northwest. Russian trappers could have been among the first explorers in the area, possibly as early as 1825. In 1827, Native Americans, likely Shasta or Takelma, guided Peter Skene Ogden, Stephen Meek, Thomas McKay, and others of the Hudson's Bay Company over Siskiyou Summit and along the Siskiyou Trail. The Siskiyou Trail was opened by Ewing Young in the 1830s. Young drove cattle from California into the Willamette Valley for American settlers.

The area of western Siskiyou County is composed of three major valleys — the Scott Valley, the Quartz Valley, and Seiad Valley — and the rugged mountain ranges that surround these valleys. The early history of the region is closely bound to the Gold Rush. Gold was first discovered in the South Fork of Salmon River above Cecilville in 1849. Six weeks later, more than 2,000 miners had arrived in the area. Gold was discovered by John W. Scott at the later named Scott's Bar in 1850. Miners continued to move into the region in large numbers throughout the early 1850s. The early days of mining in the area saw the use of a variety of hand placer mining methods. Eventually, miners employed wing dams, flumes, and tunnels and, more recently, bucket-line and dragline dredges. Hydraulic and drift mining, including hard rock mining, also occurred.

The heavy influx of miners into the area created tension between the newly arrived Americans and the original residents. Between 1872 and 1873, a small band of Modoc fought against the U.S. Army to remain

on their traditional lands. The Modoc kept the Army at bay for more than 7 months by hiding among the lava beds of Tule Lake. The Modoc War was the last armed Native American resistance in California.

The Central Pacific Railroad was completed in the 1880s, and the first tourists in search of excellent fishing and hunting ventured into Siskiyou County. The early 1900s saw an increase in logging in the area. Ranching and agriculture became important as well, particularly in the valleys. In the 1940s, backers of the State of Jefferson sought to create a new state from many of the counties in northern California and southern Oregon. Efforts to create the State of Jefferson flagged at the outset of World War II. The flag of the State of Jefferson is still flown in areas of Siskiyou County.

Communities in the Project Region. As a direct result of the Gold Rush and general mining, several communities, such as Somes Bar, Clear Creek, Fort Jones, Hooperville, Scott Bar, and Seiad Valley, were established in the Project region, along what is today State Highway 96 in Siskiyou County.

Hamburg. During the 1850s, the community of Hamburg grew to a bustling town of approximately 5,000 people. The area was known to be a good source of mineral diggings, and a form of mining involving wing dams was developed in the area. Most of the population during the late 1850s was Chinese. At the height of the rush, Hamburg had three stores, saloons, a hotel, a rooming house, and a livery stable, and was a stop along the stagecoach route. After the Civil War, logging became an important local industry. The Swartz Mill and Walter Morgan's Mill were constructed at Hamburg and Hamburg Gulch, respectively. Logs were moved to the mills via the rivers or hauled out of the area on high-wheeled logging wagons. The Maplesden Sawmill in Hamburg supplied lumber to local carpenters who constructed many of the large water wheels used in local mining operations. Many of the buildings were washed away in the winter of 1861/1862, when the Klamath River flooded. Many of the town buildings were rebuilt; however, the population never again reached the mining boom years. At present, the community is a small collection of residents and the Hamburg store.

Happy Camp. During the population boom of the Gold Rush in California, the Siskiyou region drew in prospectors from the eastern United States as well as from abroad. The area today known as Happy Camp was first inhabited by Euro-Americans pioneers for mining resources. Happy Camp was officially settled in July 1851. By 1877, the mining at Happy Camp was under management by James Camp and Company, who additionally managed other mining facilities in the Lower Klamath River region. Because of the vast forest resources available in the Klamath River area, long after mining activities drew to a close the area thrived in the lumber industry as well as fishing. Following the closure of a prominent lumber company in 1995, the Happy Camp community decided to change its focus and concentrate on recreation and tourism. The Project area continues to serve as an outdoor recreation destination.

Cultural Resources Regulatory Background

This section includes a description of the cultural resources regulatory framework.

Federal

Because portions of the Project are located on U.S. Forest Service land and requires a special use permit, the Project is a federal undertaking that requires compliance with the National Environmental Policy Act (NEPA) and Section 106 of the National Historic Preservation Act (NHPA). Section 106 requires that federal agencies take into account the effect of their actions on properties that may be eligible for or listed in the National Register of Historic Places.

State

California Environmental Quality Act

CEQA requires that impacts to cultural resources be identified and, if impacts would be significant, that mitigation measures be implemented to reduce those impacts to the extent feasible (Public Resources Code (PRC) Section 21081). In the protection and management of the cultural environment, both the statute and the CEQA Guidelines (14 California Code of Regulations Section 15000 et seq.) provide definitions and standards for cultural resources management. Pursuant to Guideline 15064.5(a), the term "historical resource" includes:

A resource listed in, or determined to be eligible by the State Historical Resources Commission for listing in, the California Register of Historical Resources (CRHR). A resource included in a local register of historical resources…or identified as significant in a historical resource survey…shall be presumed to be historically or culturally significant. Public agencies must treat any such resource as significant unless the preponderance of evidence demonstrates that it is not historically or culturally significant. Any object, building, structure, site, area, place, record, or manuscript which a lead agency determines to be historically significant or significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California may be considered to be a historical resource, provided the lead agency's determination is supported by substantial evidence in light of the whole record. Generally, a resource shall be considered by the lead agency to be "historically significant" if the resource meets the criteria for listing on the CRHR, including the following:

- It is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage;
- It is associated with the lives of persons important in our past;
- It embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values; or
- It has yielded, or may be likely to yield, information important in prehistory or history.

The fact that a resource is not listed in, or determined to be eligible for listing in the CRHR, not included in a local register of historical resources, or identified in a historical resources survey, does not preclude a lead agency from determining that the resource may be a historical resource. As defined in PRC Section 21083.2(g), a "unique archaeological resource" is, an archaeological artifact, object, or site about which it can be clearly demonstrated that, without merely adding to the current body of knowledge, there is a high probability that it meets any of the following criteria:

- It contains information needed to answer important scientific research questions and that there is a demonstrable public interest in that information;
- It has a special and particular quality, such as being the oldest of its type or the best available example of its type; or
- It is directly associated with a scientifically recognized important prehistoric or historical event or person.

Section 15064.5(b)(1) of the CEQA Guidelines explains that effects on historical resources would be considered adverse if they involve physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings such that the significance of the resource would be materially impaired. Adverse effects on historical resources may result in a project having a significant effect on the environ-

ment. Section 15064(c)(3) requires that unique archaeological resources receive treatment under PRC Section 21083.2, which requires these resources to be preserved in place or left in an undisturbed state. If these treatments are not possible, then mitigation for significant effects is required, as outlined in PRC Section 21082.2(c). The statutes and guidelines cited above specify how cultural resources are to be analyzed for projects subject to CEQA. Archival and field surveys must be conducted, and identified cultural resources must be inventoried and evaluated in prescribed ways.

California Register of Historical Resources (CRHR)

The CRHR is a public listing that was established by the California Office of Historic Preservation to encourage public recognition and protection of resources of architectural, historical, archeological, and cultural significance (Section 5024.1). Any resource eligible for listing in the CRHR must also be considered significant under CEQA. A historical resource may be listed in the CRHR if it meets one or more of the following criteria:

- It is associated with events that have made a significant contribution to the broad patterns of local or regional history or the cultural heritage of California or the United States;
- It is associated with the lives of persons important to local, California, or national history;
- It embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of a master or possesses high artistic value; or
- It has yielded or has the potential to yield information that is important in the prehistory or history of the local area, California, or the nation.

Automatic listings include properties listed in the National Register of Historic Places (NRHP) or State Historical Landmarks from number 770 onward (PRC Section 5024.1(d)). In addition, Points of Historical Interest nominated since January 1998 are to be jointly listed as Points of Historical Interest and in the CRHR. Landmarks prior to number 770 and Points of Historical Interest may be listed through an action of the State Historical Resources Commission. Resources listed in a local historic register or deemed significant in a historical resources survey, as provided under PRC Section 5024.1(g), are presumed to be historically or culturally significant unless the preponderance of evidence demonstrates that they are not (PRC Section 21084.1). A resource that is not listed on or determined to be ineligible for listing in the CRHR, not included in a local register of historical resources, or not deemed significant in a historical resources survey may, nonetheless, be historically significant.

State Regulations Concerning Human Remains

Broad provisions for the protection of Native American cultural resources are contained in the California Health and Safety Code, Division 7, Part 2, Chapter 5 (Sections 8010 through 8030), including the California Native American Graves Protection and Repatriation Act (Cal NAGPRA). Cal NAGPRA established a state policy to ensure that California Native American human remains and cultural items are treated with respect and dignity. Cal NAGPRA also provides the mechanism for disclosure and return of human remains and cultural items held by publicly funded agencies and museums in California. In addition, Cal NAGPRA outlines the process that California Native American tribes who are not recognized by the federal government may follow to file claims for human remains and cultural items held in agencies or museums.

Several provisions of the California PRC govern archaeological finds in terms of human remains or any other related object of archaeological or historical interest or value. Procedures are detailed under PRC Section 5097.9 through 5097.994 (Native American Historic Resource Protection Act) for actions to be taken whenever Native American remains are discovered. Under these provisions, if a county coroner

determines that human remains found during excavation or disturbance of land are Native American, the coroner must contact the California Native American Heritage Commission (NAHC) within 24 hours (Health and Safety Code Section 7050.5(c)), and the NAHC must determine and notify the most likely descendant, who may make recommendations for removal and nondestructive analysis of the remains and for the removal of items associated with Native American burials or cremations within 24 hours (Section 5097.98).

Furthermore, Section 7050.5 of the California Health and Safety Code states that any person who knowingly mutilates or disinters, wantonly disturbs, or willfully removes any human remains in or from any location other than a dedicated cemetery without authority of law is guilty of a misdemeanor, except as provided in PRC Section 5097.99. Any person removing any human remains without authority of law or written permission of the person or persons having the right to control the remains under PRC Section 7100 has committed a public offense that is punishable by imprisonment (Health and Safety Code Section 7051).

Local

As provided in CPUC General Order 131-D, the CPUC has exclusive jurisdiction over the siting, design, and construction of the Proposed Project, preempting local discretionary authority over the location and construction of electrical utility facilities. Therefore, the Proposed Project is not subject to local discretionary land use regulations. Nonetheless, as part of the environmental review process, Siskiyou Telephone Company considers local land use plans and policies that pertain to cultural resources.

The Conservation Element of the Siskiyou County General Plan is dated 1973. The Archaeology section of the Conservation Element states that Siskiyou County "has a wealth of archaeological history within its borders" and the County shall "preserve, protect, and develop the county's Archaeological, Paleontological, and Historic as well as Geologic sites." The County will (1) strictly enforce State laws which prohibit unauthorized excavation on all lands under its jurisdiction; and (2) encourage scientific excavation, with all projects directed to the Siskiyou County Museum or Historical Society for guidance to assure that the proper procedures are followed which will insure the validity and authenticity of any and all finds.

Paleontological Setting

Approach to Analysis of Paleontological Resources and Previous Paleontological Studies

A paleontological record search was conducted at the University of California Berkeley Museum of Paleontology online database (UCBMP, 2018). Existing literature on the geology and paleontology of the project area was reviewed to identify the existence of known fossils or areas with a high potential for the existence of fossils based on geologic conditions that could potentially be impacted by the Proposed Project (USGS, 1994).

Potential impacts identified for this analysis are based upon the "paleontological sensitivity" of geologic formations that would be encountered during construction. Paleontological sensitivity is an estimate of the likelihood that fossils will be discovered during excavations in a given area. However, this estimate does not measure the significance of individual fossils that may be present or discovered in an area. Individual fossils that may be discovered must be examined to determine the nature, age, and value of the fossil.

The sensitivity standards of the Society of Vertebrate Paleontology (SVP, 2010) are used here. These national standards provide four classification levels of sensitivity as follows:

- **High Sensitivity:** Rock units from which vertebrate or significant invertebrate fossils or significant suites of plant fossils have been recovered are considered to have a high potential for containing significant nonrenewable fossiliferous resources.
- **Low Sensitivity:** Reports in the paleontologic literature of field survey by a qualified vertebrate paleontologist may allow determination that some areas or units have low potentials for yielding significant nonrenewable fossiliferous resources.
- **Undetermined Sensitivity:** Specific areas underlain by sedimentary rock units for which little information is available are considered to have undetermined fossiliferous potential.
- **No Sensitivity:** Metamorphic and granitic rock units do not yield fossils and therefore have no potential to yield significant nonrenewable fossiliferous resources.

Paleontological History

The results of the literature review demonstrate that the Proposed Project area would traverse a variety of fossiliferous geologic units with high to contain significant nonrenewable paleontologic resources.

Late Jurassic Sedimentary rocks (Js). Late Jurassic (160 to 145 million years ago). Mildly slaty to phyllitic argillite, graywacke and stretched-pebble conglomerate. Locally contains pyroclastic interlayers. Unit locally metamorphosed to mica schist along tectonic boundaries of terrane. Locally contact metamorphosed to hornfels and chiastolite-bearing schist adjacent to plutons. Includes Western Klamath terrane, Smith River subterrane, and Galice Formation. These sediments have yield fossils of marine species. Therefore, Late Jurassic Sedimentary rocks in the Project area are considered to have a high paleontological sensitivity.

Jurassic Gabbro (Jgb). Dark, coarse grained intrusive igneous rocks from the Early to Middle Jurassic (200 to 145 million years ago). These rocks do not typically preserve fossil remains as they are formed at a high temperature; therefore, igneous rocks within the Project area are considered to have no paleontological sensitivity.

Jurassic Diorite (Jdi). An intrusive igneous rock composed principally of the silicate minerals plagioclase feldspar (typically andesine), biotite, hornblende, and/or pyroxene from the Early to Middle Jurassic (200 to 145 million years ago). These rocks do not typically preserve fossil remains as they are formed at a high temperature; therefore, igneous rocks within the Project area are considered to have no paleontological sensitivity.

Melange (rcm). A jumble of large blocks of varied lithologies from the Early to Middle Jurassic (200 to 145 million years ago). Typically formed in active continental margin settings and consist of altered oceanic crustal material and blocks of continental slope sediments in a sheared mudstone matrix. Some of these sediments have yielded fossils. Therefore, Melange rocks in the Project area may contain sediments that have a high paleontological sensitivity.

Serpentinized Ultramafic Rocks (rcum). Metamorphized igneous rocks with a very low silica content of uncertain age. These rocks do not typically preserve fossil remains as they are formed at a high temperature; therefore, igneous rocks within the Project area are considered to have no paleontological sensitivity.

Paleontological Resources Regulatory Setting

Federal

Because portions of the Project are located on U.S. Forest Service land and requires an amendment to the existing land use permit, the Project requires compliance with NEPA and the Paleontological Resources Preservation Act (PRPA).

California Environmental Quality Act

Paleontological resources are limited, nonrenewable resources of scientific, cultural, and educational value that are protected under CEQA. CEQA Appendix G, Part V inquires whether a project will destroy a unique paleontological resource. PRC Section 5097.5 protects paleontological resources located on public lands from the knowing and willful excavation, removal, destruction, injury, or defacement without a permit from the agency with jurisdiction over the land. Section 5097 further outlines the preservation and protection of these resources.

Local

As provided in CPUC General Order 131-D, the CPUC has exclusive jurisdiction over the siting, design, and construction of the Proposed Project, preempting local discretionary authority over the location and construction of electrical utility facilities. Therefore, the Proposed Project is not subject to local discretionary land use regulations. Nonetheless, as part of the environmental review process, Siskiyou Telephone Company considers local land use plans and policies that pertain to cultural resources.

The Conservation Element of the Siskiyou County General Plan is dated 1973. The Archaeology section of the Conservation Element states that Siskiyou County "has a wealth of archaeological history within its borders" and the County shall "preserve, protect, and develop the county's Archaeological, Paleontological, and Historic as well as Geologic sites." The County will (1) strictly enforce State laws which prohibit unauthorized excavation on all lands under its jurisdiction; and (2) encourage scientific excavation, with all projects directed to the Siskiyou County Museum or Historical Society for guidance to assure that the proper procedures are followed which will insure the validity and authenticity of any and all finds.

Applicant Proposed Measures

As part of the Proposed Project, Siskiyou Telephone has identified Applicant Proposed Measures (APMs) in its Proponent's Environmental Assessment that it would implement during construction and/or operation of the Proposed Project to reduce or avoid impacts to cultural resources. Siskiyou Telephone would conduct the design, construction, operation, and maintenance of the Proposed Project in accordance with its APMs. The APMs for cultural resources are listed in Table 5.5-1.

Table 5.5-1. Applicant Proposed Measures – Cultural Resources

APM	Description
APM CUL-1	Prior to construction, workers would be provided with environmental awareness training to recognize potential archaeological or paleontological resources and identify and address any unearthed human remains during construction. If archaeological (or paleontological) materials are uncovered, construction activities and excavation should be conducted to avoid the resources. All construction work within 100 feet of the resource would be halted until a qualified archaeologist (or paleontologist) can assess the find. The archaeologist (or paleontologist) would assess the find and make any necessary recommendations, including any procedures to further investigate or mitigate impacts on the find as required by law, including CEQA Guidelines, Section 15126.4(b)(3)(C).
APM CUL-2	If during excavation or earth-moving activities the construction contractor identifies potential historic or archaeological resources, the county or local jurisdiction would be notified, and a professional archaeologist meeting the minimum qualifications in archaeology as set forth in the Secretary of the Interior's Standards and Guidelines would be contracted and dispatched to assess the nature and significance of the find in the following manner: ▪ All excavation and grading within 10 feet of the discovery area would cease immediately. The responding archaeologist may, after analyzing the discovery, authorize an alternate buffer around the materials to ensure adequate evaluation and protection of potential historic and archaeological resource(s) during continued construction operations. ▪ Additional evaluation of the historic and archaeological resource(s) would be conducted and significance of the materials determined. If the discovery is considered significant, the archaeologist would develop and implement a late-discovery mitigation strategy to minimize and avoid the impact, where appropriate.
APM CUL-3	If paleontological resources are discovered during earth-moving activities, the construction crew would immediately cease work near the find. In accordance with Society of Vertebrate Paleontology Guidelines, a qualified paleontologist would assess the nature and importance of the find and recommend appropriate salvage, treatment, and future monitoring and mitigation.
APM CUL-4	If human remains are encountered, Health and Safety Code Section 7050.5 states that no further disturbance would occur until the county coroner has made a determination of origin and disposition pursuant to PRC Section 5097.98. The county coroner must be notified of the find immediately. If the remains are determined to be prehistoric, the county coroner would notify the Native American Heritage Commission, which would determine and notify a most likely descendant (MLD). With the permission of the landowner and his/her authorized representative, the MLD may inspect the site of the discovery. The MLD would complete the inspection within 48 hours of the notification by the Native American Heritage Commission. The MLD may make recommendations regarding the disposition of the remains.
APM CUL-5	Siskiyou Telephone and/or USFS would work with the Karuk Tribe to provide a tribal monitor to observe conditions during construction in specified areas of interest.

5.5.2 Environmental Impacts and Mitigation Measures

a. Would the project cause a substantial adverse change in the significance of an historical resource as defined in §15064.5 [§15064.5 generally defines historical resource *under CEQA]?*

LESS THAN SIGNIFICANT. There are no known historical resources identified within the Proposed Project area; however, previously unknown buried historical resources could be discovered and damaged, or destroyed, during ground disturbing work which would constitute a significant impact. Therefore, as part of the project, the Applicant would implement APMs CUL-1 and CUL-2, described above (see Table 5.5-1). APM CUL-1 requires environmental awareness training and a halt to construction after a discovery. APM CUL-2 requires evaluation and protection of unanticipated discoveries of historical resources. Together implementation of these APMs would ensure that impacts to known and unknown historical resources would be less than significant. No mitigation is required.

b. Would the project cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?

LESS THAN SIGNIFICANT. No unique archaeological resources have been identified in the Proposed Project area; however, previously unknown buried archaeological resources could be discovered and damaged, or destroyed, during ground disturbing work. Therefore, as part of the project, the Applicant would implement APM CUL-1 and CUL-2, described above (see Table 5.5-1). APM CUL-1 requires environmental awareness training and a halt to construction after a discovery. APM CUL-2 requires evaluation and protection of unanticipated discoveries of unique archaeological resources. Implementation of these APMs would ensure that impacts to unique archaeological resources would be less than significant. No mitigation is required.

c. Would the project directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

LESS THAN SIGNIFICANT. Sediments that are high sensitivity for paleontological resources have been identified in the Proposed Project area. However, these sediments have been disturbed by previous construction efforts. Nonetheless, previously unknown buried paleontological resources could be discovered and damaged, or destroyed, during ground disturbing work. Damage or destruction of a buried historical resource would constitute a significant impact. Therefore, as part of the project, the Applicant would implement APMs CUL-1 and CUL-3, described above, (see Table 5.5-1). APM CUL-1 requires environmental awareness training and a halt to construction after a discovery. APM CUL-2 requires evaluation and treatment of unanticipated discoveries of paleontological resources. Implementation of these APMs would ensure that impacts to unique paleontological resources would be less than significant. No mitigation is required.

d. Would the project disturb any human remains, including those interred outside of formal cemeteries?

LESS THAN SIGNIFICANT. Background archival research identified 4 cemeteries within 0.5 miles of the Project area. However, there is no indication that human remains are present within the Proposed Project area. The nature of the proposed ground disturbance in areas of artificial fill and previously disturbed soils makes it unlikely that human remains would be unearthed during construction. However, it is still possible that previously unknown human remains could be discovered and damaged or destroyed during ground disturbance, which would constitute a significant impact.

Therefore, as part of the project, the Applicant would implement APMs CUL-1 and CUL-4, described above (see Table 5.5-1). APM CUL-1 requires environmental awareness training and a halt to construction after a discovery. APM CUL-4 requires the notification of the landowner, county coroner, and most likely descendent to make decisions about the disposition of unanticipated human remains. Implementation of these APMs would ensure that impacts to human remains would be less than significant. No mitigation is required.

5.6 Geology and Soils

GEOLOGY AND SOILS **Would the project:**	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
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 groundshaking?	☐	☐	☒	☐
iii) Seismic-related ground failure, including liquefaction?	☐	☒	☐	☐
iv) Landslides?	☐	☒	☐	☐
b. Result in substantial soil erosion or the loss of topsoil?	☐	☐	☒	☐
c. Be located on geologic units or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse?	☐	☒	☐	☐
d. Be located on expansive soil, as defined in Section 1803.5.3 of the California Building Code (2010), 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?	☐	☐	☐	☒

*Geology and Soils question (d) reflects the current 2016 California Building Code (CBC), effective January 1, 2017.
Significance criteria established by CEQA Guidelines, Appendix G.

5.6.1 Setting

This section describes geologic, seismic, and soil conditions and analyzes environmental impacts related to geologic and seismic hazards as they pertain to the implementation of the Proposed Project. The discussion addresses existing environmental conditions in the affected area, identifies and analyzes environmental impacts, and recommends measures to reduce or avoid adverse impacts anticipated from Project construction and operation. In addition, existing laws and regulations relevant to geologic and seismic hazards are described. In some cases, compliance with these existing laws and regulations would serve to reduce or avoid certain impacts that might otherwise occur with the implementation of the Proposed Project.

Baseline geologic, seismic, and soils information were collected from published and unpublished literature, GIS data, and online sources for the Proposed Project site and surrounding area. Data sources included the following: the Proponent's Environmental Assessment (Siskiyou Telephone, 2016), Reponses to CPUC Data Request #1 (Siskiyou Telephone, 2018), geologic literature from the U.S. Geological Survey (USGS) and California Geological Survey (CGS), geologic and soils GIS data, and online reference materials. The study area was defined as the locations of Proposed Project components and the areas of the Klamath River drainage immediately adjacent to the Proposed Project for most geologic and soils issue areas. The study area related to seismically induced ground shaking includes significant regional active and potentially active faults within 100 miles of the Proposed Project.

Regional Geologic Setting

The Proposed Project is located in the Klamath Mountains Province, generally paralleling the Klamath River along State Highway 96. The Klamath Mountains Province consists of several mountain ranges; the major ranges are the Siskiyou Mountains, Salmon Mountains, Scott Mountains, and Trinity Alps. The mountains in the Klamath Mountains Province generally range in elevation from about 5,000 to 7,000 feet, with the Trinity Alps reaching about 8,900 feet and are dissected by steep valleys and gorges cut by the numerous rivers traversing the range (Norris & Webb, 1976). The Proposed Project is located along the Klamath River which generally serves as the dividing line between the Siskiyou Mountains on the west and the Salmon Mountains on the east.

The Klamath Mountains Province consists primarily of accreted volcanic arc and oceanic terranes (remnants of oceanic plates sutured onto the continental plate during the Nevadan Orogeny) ranging in age from Jurassic (approximately 150 million years old) to Cambrian (greater than 500 million years old), youngest to oldest from west to east (Harden, 2004). The Proposed Project is located in the Western Klamath terrane which is comprised of Jurassic metasedimentary rocks unconformably overlying Jurassic to Permian ophiolite sequences consisting of metasedimentary, metavolcanic, metamorphic, and marine sedimentary rocks. These units were complexly folded and faulted during the Nevadan Orogeny. Mesozoic granitic to ultramafic plutons have intruded these units throughout the Klamath Mountains Province. Surficial deposits of Quaternary sediments are located throughout the many valleys in the Klamath Mountains.

Local Geology

The Proposed Project runs within the roadway and shoulder of State Highway 96, along the western side of the Klamath River for most of its length, until it crosses the Klamath River Bridge, where the Proposed Project alignment and highway crosses to the east side of the river. Based on USGS geologic mapping (USGS, 1987) and aerial photo review (Google Earth, 2018), geologic units expected to be encountered during trenching and directional drilling for the project include, recent river sediments of sand and gravel, Quaternary landslide deposits, Jurassic Galice Formation (consists of slate, metagraywacke, and some massive greenstone), and Mesozoic ophiolitic rocks consisting of metamorphic amphibolite and greenschist, mafic gabbro and diabase, and ultramafic peridotite, serpentinite, and metaserpentinite. Small amounts of artificial fill is likely found beneath the highway paving.

Naturally occurring asbestos minerals are known to occur in Siskiyou County (USGS and CGS, 2011). Asbestos is a term for several minerals that form very thin mineral fibers and fiber bundles, such as chrysotile, tremolite, and actinolite (USGS and CGS, 2011). Asbestos minerals are commonly found in metamorphosed ultramafic and mafic rocks, with the most common minerals being serpentine-group minerals such as chrysotile in ultramafic rocks (USGS and CGS, 2011). Several mapped occurrences of asbestos minerals are located within 10 miles of the project alignment in mafic and ultramafic rock units (USGS and CGS, 2011).

Soils

Soils within the Proposed Project area reflect the underlying rock type, the extent of weathering of the rock, the degree of slope, and the degree of human modification. The National Resource Conservation Service (NRCS) Soil Survey Geographic (SSURGO) database for Klamath National Forest Area, Parts of Siskiyou County, California, and Jackson County, Oregon (CA702) was reviewed to identify soil units and characteristics underlying the Proposed Project (NRCS, 2017). Seven soil associations/families are mapped as underlying most of the Proposed Project alignment, as presented in Table 5.6-1 (Key Characteristics of

Soils Underlying the Proposed Project Alignment). In the Proposed Project area, all of the soil associations/families are well drained soils formed on mountain slopes in the residuum of metamorphic and/or igneous rocks, except for the Riverwash unit. Riverwash is identified by the NRCS as a miscellaneous area that has little or no natural soil or soil development.

Select physical characteristics of these soils, including limitations for shallow excavations, hazards of erosion, and shrink/swell potential for these soils were reviewed to evaluate potential hazards to the Proposed Project related to unsuitable soil conditions, and are presented in Table 5.6-1.

The properties of soil that influence erosion by rainfall and runoff are ones that affect the infiltration capacity of a soil, and those that affect the resistance of a soil to detachment and being carried away by falling or flowing water. Sheet erosion occurs when water runs over a large uniform area picking up and distributing soil particles. Rill erosion occurs as concentrated surface runoff begins to remove soil along concentrated zones which numerous small, but conspicuous, water channels or tiny rivulets. Soils containing high percentages of fine sands and silt and that are low in density, are generally the most wind erodible. As the clay and organic matter content of these soils increases, the potential for erosion decreases. Soils with shrink-swell potential are typically very fine grained with a high to very high percentage of clay. Soils with moderate to high shrink-swell potential would be classified as expansive soils. Expansive soils are characterized by their ability to undergo significant volume change (shrink and swell) due to variation in soil moisture content. Changes in soil moisture could result from a number of factors, including rainfall, landscape irrigation, utility leakage, and/or perched groundwater

Table 5.6-1. Key Characteristics of Soils Underlying the Proposed Project Alignment

Soil Association/Family	Limitations for Shallow Excavations	Susceptibility to Sheet and Rill Erosion[1]	Wind Erodibility[2]	Shrink-Swell Potential[3]
Clallam family, deep, 15 to 70 percent slopes	Slopes, depth to hard bedrock	Low	Low	Low
Deadwood-Clallam, deep families association, 50 to 90 percent slopes	Slopes, depth to hard bedrock	Low	Low	Low
Clallam, deep-Deadwood families association, 50 to 90 percent slopes	Slopes, depth to hard bedrock	Low	Low	Low
Clallam, deep-Goldridge, gravelly families association, 30 to 90 percent slopes	Slopes, depth to hard bedrock	Low	Low	Low to Moderate
Deadwood family–Rock outcrop association, 50 to 90 percent slopes	Slopes, depth to hard bedrock	Low	Low	Low
Riverwash	NA	NA	NA	NA
Goldridge, gravelly-Clallam, deep-Prather families association, 30 to 90 percent slopes	Slopes, depth to hard bedrock	Low	Low	Low to Moderate

Source: NRCS, 2017. (NRCS) Soil Survey Geographic (SSURGO) database for Klamath National Forest Area, Parts of Siskiyou County, California, and Jackson County, Oregon (CA702)

1 - Based on Erosion factor K (used by the NRCS in the Universal Soil Lose Equation), which indicates the susceptibility of a soil to sheet and rill erosion. Values of K range from 0.02 to 0.69 with higher values being more susceptible to sheet and rill erosion.

2 - Soils are assigned to wind erodibility groups based on their susceptibility to wind erosion, soils assigned to group 1 are the most susceptible and soils assigned to group 8 are the least susceptible.

3 - Linear extensibility is the method used by the NRCS to determine the shrink-swell potential of soils. Linear extensibility refers to the change in length of an unconfined clod as moisture content is decreased from a moist to a dry state. The shrink-swell potential is low if the soil has a linear extensibility of less than 3 percent; moderate if 3 to 6 percent; high if 6 to 9 percent; and very high if more than 9 percent. If the linear extensibility is more than 3 percent, shrinking and swelling can cause damage to buildings, roads, and other structures and to plant roots. Special design commonly is needed in areas with expansive soils.

Slope Stability

Important factors that affect the slope stability of an area include the steepness of the slope, the relative strength of the underlying rock material, and the thickness and cohesion of the overlying colluvium and alluvium. The steeper the slope and/or the less strong the rock, the more likely the area is susceptible to landslides. The steeper the slope and the thicker the colluvium, the more likely the area is susceptible to debris flows. Another indication of unstable slopes is the presence of old or recent landslides or debris flows.

Although the Proposed Project is located within and along the flat, graded State Highway 96 roadway and shoulder, geologic mapping of the project area indicates numerous landslides along the steep slopes on either side of State Highway 96 and the Proposed Project alignment (USGS, 1987). Several of these mapped landslides appear to infringe upon State Highway 96 and the Proposed Project alignment.

Seismicity

The seismicity of northern California is dominated by San Andreas System translational faulting on the west and Basin and Range normal faulting to the east. Northwestern California seismicity is dominated by the Mendocino Triple Junction (MTJ), which is one of the most seismically active regions of the San Andreas transform system. Since 1983 the MTJ region has generated about 80 M3.0 or greater quakes each year, and historically the region has experienced major offshore quakes including the 1980 M7.3, 1992 M7.1, and 2005 M7.2. The seismic activity in the MTJ region is generated in response to subduction of the Gorda beneath the North America plate, and oblique convergence of the Gorda Plate and Pacific Plate along the Mendocino transform fault. In northeastern California, Quaternary faulting is a result of Basin and Range extension and has resulted in sub-parallel normal faults along the Cascade mountain ranges.

Quaternary faults can be classified as historically active, active, potentially active, or inactive, based on the following criteria (CGS, 1999):

- Faults that have generated earthquakes accompanied by surface rupture during historic time (approximately the last 200 years) and faults that exhibit aseismic fault creep are defined as Historically Active.
- Faults that show geologic evidence of movement within Holocene time (approximately the last 11,000 years) are defined as Active.
- Faults that show geologic evidence of movement during the Quaternary time (approximately the last 1.6 million years) are defined as Potentially Active.
- Faults that show direct geologic evidence of inactivity during all of Quaternary time or longer are classified as Inactive.

Although it is difficult to quantify the probability that an earthquake will occur on a specific fault, this classification is based on the assumption that if a fault has moved during the Holocene epoch, it is likely to produce earthquakes in the future. Periodic earthquakes can be expected to continue in the area throughout the lifetime of the Proposed Project.

A Quaternary fault search of the USGS 2008 National Seismic Hazard Maps Fault Parameters website (USGS, 2018a) for the Proposed Project alignment indicated that four active faults and one potentially active fault (the Big Lagoon–Bald Mountain fault) are within 80 miles of the Proposed Project alignment, as presented in Table 5.6-2. However, no active or potentially active faults cross or are in close vicinity to the Proposed Project.

Table 5.6-2. Active and Potentially Active Faults in the Project Vicinity

Name	Closest Distance to Project (miles)[1]	Estimated Max. Earthquake Magnitude[2]	Fault Type and Dip Direction[3]
Big Lagoon–Bald Mountain	37.2	7.5	Thrust, 35°NE
Mad River	49.6	7.2	Thrust, 35°NE
Whaleshead fault zone	55.3	7.0	Right Lateral Strike Slip, 90°
Little Salmon	63.9	7.1	Normal, 60°N
Cedar Mountain-Mahogany Mtn.	72.1	7.5	Thrust, 30°NE

1 - Fault distances obtained from USGS 2008 National Seismic Hazard Maps – Fault Parameters website (USGS, 2018a).
2 - Maximum Earthquake Magnitude – the maximum earthquake that appears capable of occurring under the presently known tectonic framework, magnitude listed is "Ellsworth-B" magnitude from USGS OF08 1128 (Documentation for the 2008 Update of the U.S. National Seismic Hazard Maps) (USGS, 2008) unless otherwise noted. Magnitude varies by rupture strategy, one or several segments of the fault rupturing in the same event.
3 - Fault parameters from the 2008 National Seismic Hazard Maps – Fault Parameters website (USGS, 2018a).

Seismic Ground Shaking

An earthquake is classified by the amount of energy released, which historically was quantified using the Richter scale. Seismologists now use the Moment Magnitude (M) scale because it provides a more accurate measurement of the size of major and great earthquakes. For earthquakes of less than M 7.0, the Moment and Richter Magnitude scales are nearly identical. For earthquake magnitudes greater than M 7.0, readings on the Moment Magnitude scale are slightly greater than a corresponding Richter Magnitude. The intensity of the seismic shaking, or strong ground motion, during an earthquake is dependent on the distance between the Project area and the epicenter of the earthquake, the magnitude of the earthquake, and the geologic conditions underlying and surrounding the Project area. Earthquakes occurring on faults closest to the Project area would most likely generate the largest ground motion.

No earthquakes greater than M5.6 have occurred within 50 miles of the Proposed Project, however as noted above, numerous large offshore earthquakes have occurred approximately 62 to 190 miles to the west of the Proposed Project. The largest onshore earthquake in the general Project vicinity was the 1954 M6.5 that occurred on the Mad River fault zone (USGS, 2018b), located approximately 54.5 miles southwest of the Proposed Project.

The intensity of earthquake-induced ground motions can be described using ground accelerations, represented as a fraction of the acceleration of gravity (g). The CGS Probabilistic Seismic Hazards Ground Motion Interpolator website, using data from the CGS/USGS 2008 Probabilistic Seismic Hazard Assessment (PSHA) Maps was used to estimate peak ground accelerations (PGAs) for the Project (CGS, 2018). PSHA Maps depict peak ground accelerations with a 2 percent probability of exceedance in 50 years which corresponds to a return interval of 2,475 years for a maximum considered earthquake. Peak ground acceleration is the maximum acceleration experienced by a particle on the Earth's surface during the course of an earthquake, and the units of acceleration are most commonly measured in terms of fractions of g, the acceleration due to gravity (980 cm/sec2). Peak ground accelerations along the Proposed Project alignment range from about 0.58g to 0.65g which correspond to minor to moderate ground shaking (CGS, 2018). The higher estimated PGAs coincide with areas underlain by landslide deposits and river sediments.

Liquefaction

Liquefaction is the phenomenon in which saturated granular sediments temporarily lose their shear strength during periods of earthquake-induced strong ground shaking. The susceptibility of a site to liquefaction is

a function of the depth, density, and water content of the granular sediments and the magnitude and frequency of earthquakes in the surrounding region. Saturated, unconsolidated silts, sands, and silty sands within 50 feet of the ground surface are most susceptible to liquefaction. Liquefaction-related phenomena include lateral spreading, ground oscillation, flow failures, loss of bearing strength, subsidence, and buoyancy effects (Youd and Perkins, 1978). In addition, densification of the soil resulting in vertical settlement of the ground can also occur.

In order to determine liquefaction susceptibility of a region, three major factors must be analyzed. These include: (a) the density and textural characteristics of the alluvial sediments; (b) the intensity and duration of ground shaking; and (c) the depth to groundwater. The igneous and metamorphic rocks in the project area are not susceptible to liquefaction. The river sediments and landslide deposits along the alignment are likely coarse grained and not of significant thickness, and as the project site is not likely to experience strong ground shaking liquefaction is unlikely along the Proposed Project alignment.

Seismic Slope Instability

Other forms of seismically induced ground failures which may affect the Project area include ground cracking, and seismically induced landslides. Landslides triggered by earthquakes have been a significant cause of earthquake damage; in southern California, large earthquakes such as the 1971 San Fernando and 1994 Northridge earthquakes triggered landslides that were responsible for destroying or damaging numerous structures, blocking major transportation corridors, and damaging life-line infrastructure. Areas that are most susceptible to earthquake-induced landslides are steep slopes in poorly cemented or highly fractured rocks, areas underlain by loose, weak soils, and areas on or adjacent to existing landslide deposits. As noted above, the Proposed Project is located within a steep sided canyon with existing landslides mapped on either side of the alignment.

Regulatory Background

Federal Regulations

Federal Earthquake Hazards Reduction Act. In 1977, the U.S. Congress passed the Earthquake Hazards Reduction Act to reduce the risks to life and property from future earthquakes through the establishment and maintenance of an effective earthquake hazards and reduction program. To accomplish this, the act established the National Earthquake Hazards Reduction Program (NEHRP). The agencies responsible for coordinating NEHRP are the Federal Emergency Management Agency (FEMA), the National Institute of Standards and Technology (NIST), the National Science Foundation (NSF); and the United States Geological Survey (USGS). In 1990, NEHRP was amended by the National Earthquake Hazards Reduction Program Act (NEHRPA), which refined the description of the agency responsibilities, program goals, and objectives. The four goals of the NEHRP are: (1) develop effective practices and policies for earthquake loss-reduction and accelerate their implementation; (2) improve techniques to reduce seismic vulnerability of facilities and systems; (3) improve seismic hazards identification and risk-assessment methods and their use; and (4) improve the understanding of earthquakes and their effects.

Clean Water Act. The Clean Water Act establishes the basic structure for regulating discharges of pollutants into the waters of the United States. The Act authorized the Public Health Service to prepare comprehensive programs for eliminating or reducing the pollution of interstate waters and tributaries and improving the sanitary condition of surface and underground waters with the goal of improvements to and conservation of waters for public water supplies, propagation of fish and aquatic life, recreational purposes, and agricultural and industrial uses. The Proposed Project construction would disturb a surface area greater than one acre; therefore, SCE would be required to obtain under Clean Water Act regulations

a National Pollution Discharge Elimination System (NPDES) General Permit for Storm Water Discharges Associated with Construction Activity. Compliance with the NPDES would require that the applicant submit a Storm Water Pollution Prevention Plan (SWPPP).

California State Regulations

Alquist-Priolo Earthquake Fault Zoning Act. The Alquist-Priolo Earthquake Fault Zoning Act of 1972, Public Resources Code (PRC) Sections 2621–2630 (formerly the Special Studies Zoning Act) regulates development and construction of buildings intended for human occupancy to avoid the hazard of surface fault rupture. While this Act does not specifically regulate oil field components not intended for human occupancy; it does help define areas where fault rupture, and thus related damage, is most likely to occur. This Act groups faults into categories of active, potentially active, and inactive. Historic and Holocene age faults are considered active, Late Quaternary and Quaternary age faults are considered potentially active, and pre-Quaternary age faults are considered inactive. These classifications are qualified by the conditions that a fault must be shown to be "sufficiently active" and "well defined" by detailed site-specific geologic explorations in order to determine whether building setbacks should be established. Cities and counties affected by the zones must regulate certain development "projects" within the zones. They must withhold development permits for sites within the zones until geologic investigations demonstrate that the sites are not threatened by surface displacement from future faulting. Although this act does not apply to the project as it does not include any habitable structures, it serves as a gauge to determine if there are active faults of concern crossing or in immediate vicinity to the Proposed Project.

The Seismic Hazards Mapping Act (the Act) of 1990 (Public Resources Code, Chapter7.8, Division 2, sections 2690–2699). The Act directs the California Department of Conservation, Division of Mines and Geology [now called California Geological Survey (CGS)] to delineate Seismic Hazard Zones. The purpose of the Act is to reduce the threat to public health and safety and to minimize the loss of life and property by identifying and mitigating seismic hazards. Cities, counties, and State agencies are directed to use seismic hazard zone maps developed by CGS in their land-use planning and permitting processes. The Act requires that site-specific geotechnical investigations be performed prior to permitting most urban development projects within seismic hazard zones. The California Geological Survey has not yet completed seismic hazards mapping in Siskiyou County.

California Public Utilities Commission General Order 128 (GO 128) contain State of California rules formulated to provide uniform requirements for underground electrical supply and communication systems, respectively, to insure adequate service and secure safety to persons engaged in the construction, maintenance, operation or use of underground electrical supply and communication systems and to the public. GO 128 is not intended as complete construction specifications, but to embody requirements which are most important from the standpoint of safety and service. Construction shall be according to accepted good practice for the given local conditions in all particulars not specified in the rules. GO 128 applies to the following activities related to underground electrical supply and communication systems: Construction and Reconstruction of Lines, Maintenance, Systems Constructed Prior to These Rules, Reconstruction or Alteration, and Third Party Nonconformance.

Local

Siskiyou County. The Siskiyou County Planning Division of the Community Development Department serves as the land use information center for the County and functions as the professional staff to the Board of Supervisors and the Planning Commission. The Division disseminates information regarding potential development areas for residential, commercial, industrial, and resource development and management. The Division is responsible for the maintenance and implementation of the County General Plan, the

County's Zoning Ordinance Plan, and implementation of the California Environmental Quality Act (CEQA). The Division processes development applications and permit requests for land divisions, use permits, General Plan amendments, zone changes, and variances. The County General Plan Conservation Element (1973) and Seismic Safety and Safety Element (1975) contains goals and policies for protection of the public from geologic and seismic hazards.

Applicant Proposed Measures

As part of the Proposed Project, Siskiyou Telephone has identified Applicant Proposed Measures (APMs) in its Proponent's Environmental Assessment that it would implement during construction and/or operation of the Proposed Project to reduce or avoid impacts to geology and soils. Siskiyou Telephone would conduct the design, construction, operation, and maintenance of the Proposed Project in accordance with its APMs. The APMs related to geology and soils are listed in Table 5.6-3.[4]

Table 5.6-3. Applicant Proposed Measures – Geology and Soils

APM	Description
APM GEO-1	Project construction activities would be performed in accordance with the soil erosion and water quality protection measures to be specified in the SWPPP (see Section 4.11.7 of this IS/MND) for the proposed project.
APM GEO-2	Project elements, such as excavating rock or soil for utility box installation, building minor retaining walls (less than 5 feet in height) to avoid sedimentation into roadways, and trenching, would be designed and implemented in accordance with industry standards, including established engineering and construction practices and methods.
APM AQ-1	To reduce fugitive emissions, construction of the proposed project would occur during the dry season (April through October). Water trucks would be present onsite to wet down the work area, including materials such as backfill and other construction components.

5.6.2 Environmental Impacts and Mitigation Measures

a. Would the project 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.

NO IMPACT. The Proposed Project is located near to a seismically active area of northern California; however no active or potentially active faults cross or are in close vicinity to the Proposed Project. The closest active fault is located approximately 50 southwest of the Proposed Project. Therefore there is no potential impact from surface fault rupture.

ii) Strong seismic ground shaking?

LESS THAN SIGNIFICANT. Although the project is located near to a seismically active area of northern California, no significant active faults are located in the Proposed Project and only moderately sized earthquakes have occurred since 1900 within 50 miles of the site. Estimated peak ground accelerations along the Proposed Project alignment range from about 0.58g to 0.65g which correspond to minor to moderate

[4] Siskiyou Telephone's originally proposed APMs are part of the Proposed Project and have been considered in the evaluation of environmental impacts in this IS/MND. The mitigation measure recommended in Section 5.6.2 (Environmental Impacts and Mitigation Measures) and referenced in Section 6 (Mitigation Monitoring Plan) either expand upon or add detail to all of Siskiyou Telephone's APMs, and for the purposes of the Proposed Project, supersede them.

ground shaking. This level of ground shaking is not likely to result in damage to buried utilities such as telecommunications lines, resulting in a less than significant impact.

iii) Seismic-related ground failure, including liquefaction?

LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED. The Proposed Project is located within a steep sided canyon with known mapped landslides on either side of the Proposed Project alignment. Although it is unlikely that strong seismic ground shaking would occur in the area, minor to moderate earthquake induced ground shaking could potentially accelerate already unstable slopes or these existing slope failures. Slope failures such as landslides or rock falls could damage or bury utility boxes or injure construction or maintenance workers. Applicant Proposed Measure APM GEO-2 does not specifically discuss potential landslide impacts, therefore implementation of Mitigation Measure MM GS-1 would identify unstable areas and thus is required to reduce the impact related to seismically induced slope failures to less than significant.

Mitigation Measure for Impacts for Landslide Impacts

MM GS-1 **Conduct geotechnical/geologic surveys for landslides and unstable slopes.** The Applicant shall conduct slope stability surveys in areas where Proposed Project components are located on or adjacent to slopes exceeding 20 percent or in areas with previously mapped landslides. These surveys will acquire data that will allow identification of specific areas with the potential for unstable slopes, landslides, rock fall, and debris flows where earthquakes or project excavation could trigger slope failure. The investigations shall include an evaluation of slope conditions, identification of potential landslide hazards, and provide potential modifications to the Project design to avoid areas of unstable slopes and landslide hazards, such as modification of component locations. Where the surveys determine that landslide hazard areas cannot be avoided, best engineering design and construction measures, such as slope protection or controls along the road to divert or catch falling rocks or slides, shall be incorporated into the Project designs and excavation plans to prevent potential damage to project components.

Liquefaction related phenomena are unlikely to occur along the Proposed Project as the site is not likely to experience strong ground shaking. The igneous and metamorphic rocks in the project area are not susceptible to liquefaction. The river sediments and landslide deposits along the alignment are likely coarse grained and not of significant thickness and thus not likely to be susceptible to liquefaction with the expected minor to moderate ground shaking the area will likely experience. Therefore, the potential for damage due to liquefaction related phenomena is less than significant.

iv) Landslides?

LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED. As discussed above, the Proposed Project is located along a canyon with steep sides and mapped existing landslides. Several of the existing landslides are mapped as intersecting the Proposed Project alignment. Although the cable would be installed along the flat roadway and shoulder of State Highway 96, ground disturbance in Proposed Project work areas consisting of excavation for trenches, boring pits, and utility boxes could destabilize adjacent slopes and trigger slope failures. Excavation within or near existing slope failures could also trigger renewed movement. As noted in under Item (a)(iii), APM GEO-2 does not specifically discuss potential landslide impacts, therefore implementation of Mitigation Measure MM GS-1 is required to identify unstable areas and thereby reduce the impact related to seismically induced slope failures to less than significant.

Mitigation Measure for Landslide Impacts

MM GS-1 **Conduct geotechnical/geologic surveys for landslides and unstable slopes**. [see full text under Item (a)(iii) above]

b. Would the project result in substantial soil erosion or the loss of topsoil?

LESS THAN SIGNIFICANT. Excavation for project components would loosen soil and sediment, potentially triggering soil erosion by wind or water. As noted in Table 5.6-1, soils underlying the Proposed Project all have low susceptibility to sheet and rill erosion and wind erodibility. As part of APM AQ-1 the Applicant has committed to construction of the project during the dry season (April to October) and to wet down work areas. Additionally under APM GEO-1, the Applicant would perform all project construction activities in accordance with a project SWPPP. Implementation of APMs AQ-1 and GEO-1 would ensure that the potential for substantial soil erosion impact would be less than significant.

c. Would the project be located on geologic units or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse?

LESS THAN SIGNIFICANT WITH MITIGATION. Potential issues related to liquefaction and liquefaction related phenomena and seismically induced landslides are discussed above under Item (a)(iii), and impacts related to construction triggered landslides are discussed under Item (a)(iv). Impacts related to liquefaction and liquefaction related phenomena would be less than significant. Impacts related to seismically induced landslides and construction triggered landslides would be reduced to less than significant with implementation of MM GS-1.

Mitigation Measure for Landslide Impacts

MM GS-1 **Conduct geotechnical/geologic surveys for landslides and unstable slopes**. [see full text under Item (a)(iii) above]

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

LESS THAN SIGNIFICANT. Soils underlying Proposed Project components primarily have low shrink-swell potential, with a two of the soil units having low to moderate shrink-swell potential., as shown in Table 5.6-2. The bulk of the cable with be installed in conduit emplaced by hard rock boring. Where trenching takes place, The Applicant indicates that the excavations will be back filled with Class II base rock, compacted, and repaved. The low shrink-swell of the soils underlying the project and the anticipated construction techniques reduces the potential impact form expansive soils to less than significant.

e. Would the project 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?

NO IMPACT. The Proposed Project would not include any wastewater disposal, therefore there would be no impacts related to wastewater disposal.

5.7 Greenhouse Gas Emissions

GREENHOUSE GAS EMISSIONS **Would the project:**	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
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 of an agency adopted for the purpose of reducing the emissions of greenhouse gases?	☐	☐	☒	☐

Note: Significance criteria established by CEQA Guidelines, Appendix G.

5.7.1 Setting

Physical Setting and Effects of GHG Emissions. The global climate depends on the presence of naturally occurring greenhouse gases (GHG) to provide what is commonly known as the "greenhouse effect" that allows heat radiated from the Earth's surface to warm the atmosphere. The greenhouse effect is driven mainly by water vapor, aerosols, carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), and other constituents. Globally, the presence of GHG affects temperatures, precipitation, sea levels, ocean currents, wind patterns, and storm activity.

Human activity directly contributes to emissions of six primary anthropogenic GHGs: CO_2, CH_4, N_2O, hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulfur hexafluoride (SF_6). The standard definition of anthropogenic GHG includes these six substances under the 1997 Kyoto Protocol (UNFCCC, 1998). The most important and widely occurring anthropogenic GHG is CO_2, primarily from the use of fossil fuels as a source of energy.

Changing temperatures, precipitation, sea levels, ocean currents, wind patterns, and storm activity provide indicators and evidence of the effects of climate change. For the period 1950 onward, relatively comprehensive data sets of observations are available. Research by California's Office of Environmental Health Hazard Assessment (OEHHA) documented effects of climate change including impacts on terrestrial, marine, and freshwater biological systems, with resulting changes in habitat, agriculture, and food supply. Various indicators and evidence illustrate the many aspects of climate change, namely, how temperature and precipitation are changing, and how these changes are affecting the environment, specifically freshwater and marine systems, as well as humans, plants and animals (OEHHA, 2013).

GHG-Emissions Trends. California first formalized a strategy to achieve GHG reductions in 2008, when California produced approximately 483 million metric tons of CO_2 equivalent (MMTCO2e) according to the official Air Resources Board inventory (ARB, 2017a). The economy-wide emissions have been declining in recent years, and California emitted approximately 440 MMTCO2e in 2015 (ARB, 2017a). Globally, anthropogenic GHG emissions have increased by roughly 80%, from around 27,000 to 49,000 MMTCO2e per year between 1970 and 2010 (IPCC, 2014). In this global context, California emits less than one percent of the global anthropogenic GHG.

Regulatory Background

California Global Warming Solutions Act of 2006 [Assembly Bill 32 (AB 32)]. The California Global Warming Solutions Act of 2006 (AB 32) required that California's GHG emissions be reduced to 1990 levels by 2020. The reduction is being accomplished through an enforceable statewide cap on global warming emissions beginning in 2012. AB 32 directs the ARB to develop regulations and a mandatory reporting system to track and monitor global warming emissions levels (AB 32, Chapter 488, Statutes of 2006). The ARB Climate

Change Scoping Plan, initially approved December 2008 and most recently updated by ARB in December 2017, provides the framework for achieving California's goals (ARB, 2017b).

In passing AB 32, the California Legislature found that:

> *Global warming poses a serious threat to the economic well-being, public health, natural resources, and the environment of California. The potential adverse impacts of global warming include the exacerbation of air quality problems, a reduction in the quality and supply of water to the state from the Sierra snowpack, a rise in sea levels resulting in the displacement of thousands of coastal businesses and residences, damage to marine eco-systems and the natural environment, and an increase in the incidences of infectious diseases, asthma, and other human health-related problem."*

Other major Executive Orders, legislation, and regulations adopted for the purpose of reducing GHG emissions support the implementation of AB 32 and California's climate goals, as described below.

California Governor's Executive Order B-30-15 and Senate Bill 32 (SB 32). Executive Order B-30-15 (April 2015) establishes a California GHG reduction target of 40 percent below 1990 levels by 2030. One purpose of this interim target is to ensure California meets its target of reducing greenhouse gas emissions to 80 percent below 1990 levels by 2050. This executive order also specifically addresses the need for climate adaptation and directs state agencies to update the California Climate Adaptation Strategy to identify how climate change will affect California infrastructure and industry and what actions the state can take to reduce the risks posed by climate change. Senate Bill 32 (SB 32) of 2016 codifies this GHG emissions target to 40 percent below the 1990 level by 2030.

Clean Energy and Pollution Reduction Act of 2015 [Senate Bill 350 (SB 350)]. California's state policy objectives on long-term energy planning were updated with SB 350 legislation that was signed into law on October 7, 2015. With SB 350 California expanded the specific set of objectives to be achieved by 2030, with the following:

- To increase the Renewable Portfolio Standard (RPS) from 33 percent to 50 percent for the procurement of California's electricity from renewable sources; and
- To double the energy efficiency savings in electricity and natural gas end uses by retail customers.

Cap-and-Trade Program (17 CCR 95801 to 96022). The California Cap on Greenhouse Gas Emissions and Market-Based Compliance Mechanisms Regulation (Cap-and-Trade Program) was initially approved by ARB in 2011. The Cap-and-Trade Program applies to covered entities that fall within certain source categories, including petroleum refiners and suppliers of transportation fuels, and is triggered when facility emissions exceed 25,000 metric tons of CO_2 equivalent (MTCO2e) in a year. The covered entities must hold compliance instruments sufficient to cover the actual GHG emissions, as evidenced through the MRR requirements. This means that transportation fuel suppliers bear the GHG compliance obligation in the Cap-and-Trade Program for the GHG emissions from motor vehicle and off-road equipment fuels used by construction workforces and crews.

Applicant Proposed Measures

As part of the Proposed Project, Siskiyou Telephone has identified Applicant Proposed Measures (APMs) in its Proponent's Environmental Assessment that it would implement during construction and/or operation of the Proposed Project to reduce or avoid impacts to greenhouse gas emissions. Siskiyou Telephone would conduct the design, construction, operation, and maintenance of the Proposed Project in accordance with its APMs. The APM for greenhouse gas emissions are listed in Table 5.7-1.

Table 5.7-1. Applicant Proposed Measures – Greenhouse Gas Emissions

APM	Description
APM GHG-1	To the extent feasible, unnecessary construction vehicle and idling time would be minimized.

5.7.2 Environmental Impacts and Mitigation Measures

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

LESS THAN SIGNIFICANT. The proposed activities include mobilizing construction equipment, crews, and materials, and would require trenching, directional drilling, placing the conduit and cable, backfilling, and clean-up. These activities during construction would cause GHG emissions due to fuels used by the construction vehicles and off-road equipment. Diesel off-road and gasoline-powered construction equipment would include trucks for crews, equipment, materials, and water delivery, backhoes, drill rigs, compactors, and small compressors, vacuums, and cleaners. Equipment and motor vehicles would directly emit CO_2, CH_4, and N_2O due to fuel use and combustion. Motor vehicle fuel combustion emissions in terms of CO2e are approximately 95 percent CO_2, and CH_4 and N_2O emissions occur at rates of less than 1 percent of the mass of combustion CO_2 emissions.

The resulting one-time quantity of GHG emitted during construction would be a total of 1,823 MTCO2e, estimated to occur over 195 days of work spanning two calendar years, as quantified using the California Emissions Estimator Model (CalEEMod; v.2016.3.2). Details appear in Appendix E, Air Quality/Greenhouse Gas Emissions Calculations. These emissions would cease at the conclusion of construction. These one-time project-level emissions would not exceed a threshold level of GHG emissions that could have a significant impact on the environment.

Upon completion of construction, operations and maintenance activities to support the project would not result in a notable incremental increase in GHG emissions. No new crews or planned maintenance activities would be added by the project, and a local crew would dispatched for emergency repairs. The resultant level of GHG would not have a significant impact on the environment, and the impact associated with the GHG emissions would be less than significant.

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

LESS THAN SIGNIFICANT. California's regulatory setting for GHG emissions (Section 5.7.1) ensures that most of the existing and foreseeable GHG sources are subject to one or more programs aimed at reducing GHG. The Climate Change Scoping Plan (ARB, 2017b) provides an outline of actions to reduce California's GHG emissions. The scoping plan requires ARB and other state agencies to adopt regulations and other initiatives to reduce GHGs.

The Proposed Project would generate the limited quantities of direct GHG emissions from the construction and O&M activities. California's Cap-and-Trade regulation is the major climate program covering project related GHG emissions. Construction and O&M activities would cause GHG emissions due to the transportation fuels used by the vehicles and equipment. The end-users of motor vehicle fuels like gasoline and diesel may include construction contractors that are not otherwise designated as covered entities in the Cap-and-Trade program, and these do not directly bear the Cap-and-Trade compliance obligation. However, all fuel suppliers and petroleum refiners must cover the end-user's GHG emissions. Because the project-related GHG emissions, including construction-phase emissions, would be "covered" by the fuel suppliers subject to Cap-and-Trade requirements, these emissions would not conflict with California's progress towards achieving GHG reductions.

5.8 Hazards and Hazardous Materials

HAZARDS AND HAZARDOUS MATERIALS **Would the project:**	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	☐	☒	☐	☐
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 2 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?	☐	☐	☒	☐

Significance criteria established by CEQA Guidelines, Appendix G.

5.8.1 Setting

This section addresses issues related to environmental hazards and hazardous materials in the existing conditions. Environmental hazards include accidental spills of hazardous materials, the presence of existing subsurface contamination, the risk of wildfire, and aircraft safety. Hazardous materials include fuel, oil, and lubricants. If encountered, contaminated soil can pose a health and safety threat to workers or the public.

Land Use

Existing and past land use activities are commonly used as indicators of sites or areas where hazardous material storage and use may have occurred or where potential environmental contamination may exist. For example, many historic and current industrial sites have soil or groundwater contaminated by hazardous substances. Other hazardous materials sources include leaking underground tanks in commercial and rural areas, contaminated surface runoff from polluted sites, and contaminated groundwater plumes. Current and former agricultural properties commonly have herbicide, pesticide, and/or fumigant soil contamination.

The Proposed Project starts south of the community of Happy Camp and runs within the roadway and shoulder of State Highway 96 through the Klamath National Forest. Highway 96 and the Proposed Project alignment run along the western side of the Klamath River for most of its length, until it crosses the Klamath River Bridge, where the Proposed Project alignment and highway cross to the east side of the river. The area the Proposed Project traverses is undeveloped forest land except for Highway 96 and a few National Forest roads. Land uses in the area consist of logging, a few private residences, recreation, and mining. No schools or airports are located within a mile of the Proposed Project. The closest school, Happy Camp Elementary, is located about 2.3 miles north of the Proposed Project and the closest airport, Happy Camp Airport is located approximately 1.3 miles north of the Proposed Project. The Happy Camp Airport is a non-commercial airport that is open to the public and is home to a US Forest Service Helitac Base.

Hazards and Hazardous Materials

During construction, hazardous materials such as paints, vehicle fuels, oil, hydraulic fluid, and other vehicle and equipment maintenance fluids would be used and stored in a construction staging yard in Happy Camp. Spills and leaks of hazardous materials during construction activities could result in soil or ground-water contamination. Normal maintenance of construction equipment would be conducted at the staging yards or offsite. Refueling of construction equipment will occur on road shoulders with a hazard spill mat in place to avoid leaks, other construction vehicles will be fueled in Happy Camp at local fuel pumps. The refueling vehicle will be parked at the material storage yard in Happy Camp when not in use (Siskiyou Telephone Company, 2018).

Hazardous materials used during the directional boring consist of diesel fuel for the boring rigs and bentonite bore powder to be used to mix drilling mud for the boring operations. As noted above, refueling of the boring equipment will take place onsite with the use of hazard spill mats to avoid leaks to the ground surface. The bentonite bore powder will be stored on Mix Trucks and mixed with water in the trucks as needed (Siskiyou Telephone Company, 2018).

Naturally occurring hazardous materials in the Proposed Project area include naturally occurring asbestos. Asbestos is a term for several minerals that form very thin mineral fibers and fiber bundles, such as chrysotile, tremolite, and actinolite (USGS and CGS, 2011). Several mapped occurrences of asbestos minerals are located within 10 miles of the project alignment in mafic and ultramafic rock units (USGS and CGS, 2011). Asbestos is considered a hazardous material because when inhaled, the fibrous mineral strands embed in the lungs and have been known to cause development of lung cancer or mesothelioma.

Environmental Contamination

Components of the Proposed Project where ground disturbance would occur would be susceptible to encountering environmental contamination, if located in the vicinity of commercial or industrial sites with known contamination or adjacent to sites that store and use large quantities of hazardous materials, or in agricultural areas that may have used herbicides, pesticides, or fumigants. Ground disturbing activities for the Proposed Project include horizontal directional drilling, trenching, and excavation within and adjacent to State Highway 96.

The Proposed Project alignment crosses through undeveloped forest land with no commercial, agricultural, or industrial uses nearby. A review of the State Water Resources Control Board's (SWRCB's) GeoTracker website indicates no hazardous material or environmental contaminated sites within a mile of the Pro-posed Project (SWRCB, 2018). The closest listed sites, approximately a mile north of the Proposed project alignment, are two closed leaking underground tank sites located just south of Happy Camp (SWRCB, 2018).

Although State Highway 96 is a rural highway with light traffic, due to its many decades of vehicle use it is possible that aerially deposited lead (ADL) has built up in the soils adjacent to the roadway. Depending on the concentrations of ADL in the soil, the surficial soil generated during trenching and excavation may need to be treated as a hazardous waste. Trenching spoils, all dirt and rock spoils removed from the portions of the project being trenched will be temporarily stored at gravel locations (larger turnouts along the alignment) and be hauled off of job to Happy Camp daily (Siskiyou Telephone Company, 2018).

Wildland Fires

The Proposed Project is located in the Klamath National Forest in an area with forest vegetation on the slopes above the highway and project alignment. The area is designated as a federal responsibility area with very high fire hazards on the CALFIRE Fire Hazard Severity Maps for Siskiyou County (CALFIRE, 2007). Historically, forest fires are prevalent in the remote areas of Siskiyou County, including the project area. In the summers of 2008 and 2014, fires burned through the Klamath National Forest, destroying timber lands and structures. The 2014 fires that burned near the project site joined together in a wildfire known as the Happy Camp Complex (Siskiyou Telephone Company, 2016). Over the 100 plus year history of operation in the region, Siskiyou Telephone has had many of its aerial facilities, such as transmission poles burned in forest fires (Siskiyou Telephone Company, 2016). Although, some fuels management within the forest is currently taking place through prescribed burning and thinning, issues such as weather, the time required to complete prescribed fire plans, government regulations, litigation and appeals, and occasionally the impacts of prescribed fire on air quality have limited the ability of land managers to ignite fuel management fires Siskiyou Telephone Company, 2016).

Electromagnetic Fields

Electric voltage and electric current from transmission lines create electromagnetic fields (EMF). Possible health effects associated with exposure to EMF have been the subject of scientific investigation since the 1970s, and there continues to be public concern about the health effects of EMF exposure. However, EMF is not addressed here as an environmental impact under CEQA. The CPUC has repeatedly recognized that EMF is not an environmental impact to be analyzed in the context of CEQA because (1) there is no agreement among scientists that EMF does create a potential health risk, and (2) there are no defined or adopted CEQA standards for defining health risks from EMF.

Regulatory Background

Hazardous substances are defined by federal and State regulations that aim to protect public health and the environment. Hazardous materials have certain chemical, physical, or infectious properties that cause them to be considered hazardous. Hazardous substances are defined in the federal Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) Section 101(14), and also in the California Code of Regulations (CCR), Title 22, Chapter 11, Article 2, Section 66261, which provides the following definition:

A hazardous material is a substance or combination of substances which, because of its quantity, concentration, or physical, chemical or infectious characteristics, may either (1) cause, or significantly contribute to, an increase in mortality or an increase in serious irreversible, or incapacitating reversible, illness; or (2) pose a substantial present or potential hazard to human health or environment when improperly treated, stored, transported or disposed of or otherwise managed.

For this analysis, soil that is excavated from a site containing hazardous materials would be considered to be a hazardous waste if it exceeded specific CCR Title 22 criteria or criteria defined in CERCLA or other

relevant federal regulations. Remediation (cleanup and safe removal/disposal) of hazardous wastes found at a site is required if excavation of these materials occurs; it may also be required if certain other activities occur. Even if soils or groundwater at a contaminated site do not have the characteristics required to be defined as hazardous wastes, remediation of the site may be required by regulatory agencies subject to jurisdictional authority. Cleanup requirements are determined on a case-by-case basis by the agency taking lead jurisdiction.

Federal

The federal Toxic Substances Control Act (1976) and the Resource Conservation and Recovery Act of 1976 (RCRA) established a program administered by the U.S. Environmental Protection Agency (EPA) for the regulation of the generation, transportation, treatment, storage, and disposal of hazardous waste. RCRA was amended in 1984 by the Hazardous and Solid Waste Act (HSWA), which affirmed and extended the "cradle to grave" system of regulating hazardous wastes. The use of certain techniques for the disposal of some hazardous wastes was specifically prohibited by HSWA.

The Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), including the Superfund program, was enacted by Congress on December 11, 1980. This law provided broad federal authority to respond directly to releases or threatened releases of hazardous substances that may endanger public health or the environment. CERCLA established requirements concerning closed and abandoned hazardous waste sites; provided for liability of persons responsible for releases of hazardous waste at these sites; and established a trust fund to provide for cleanup when no responsible party could be identified. CERCLA also enabled the revision of the National Contingency Plan (NCP). The NCP provided the guidelines and procedures needed to respond to releases and threatened releases of hazardous substances, pollutants, and/or contaminants. The NCP also established the National Priorities List (NPL). CERCLA was amended by the Superfund Amendments and Reauthorization Act (SARA) on October 17, 1986.

Other federal regulations overseen by the USEPA relevant to hazardous materials and environmental contamination include Title 40 CFR Chapter I, Subchapter D – Water Programs and Subchapter I – Solid Wastes. Title 40 CFR Chapter I, Subchapter D Parts 116 and 117 designate hazardous substances under the Federal Water Pollution Control Act and set forth a determination of the reportable quantity for each substance that is designated as hazardous in Title 40 CFR Part 116. Title 40 CFR 117 applies to quantities of designated substances equal to or greater than the reportable quantities that may be discharged into waters of the United States.

State of California

The California Environmental Protection Agency (Cal/EPA) was created in 1991, which unified California's environmental authority in a single cabinet-level agency and brought the Air Resources Board (ARB), State Water Resources Control Board (SWRCB), Regional Water Quality Control Boards (RWQCBs), Integrated Waste Management Board (IWMB), DTSC, Office of Environmental Health Hazard Assessment (OEHHA), and Department of Pesticide Regulation (DPR) under one agency. These agencies were placed within the Cal/EPA "umbrella" for the protection of human health and the environment and to ensure the coordinated deployment of State resources. Their mission is to restore, protect, and enhance the environment, to ensure public health, environmental quality, and economic vitality.

The California Hazardous Waste Control Law (HWCL) is administered by Cal/EPA to regulate hazardous wastes. While the HWCL is generally more stringent than RCRA, until the EPA approves the California program, both the State and federal laws apply in California. The HWCL lists 791 chemicals and about 300

common materials that may be hazardous; establishes criteria for identifying, packaging and labeling hazardous wastes; prescribes management controls; establishes permit requirements for treatment, storage, disposal and transportation; and identifies some wastes that cannot be disposed of in landfills.

Department of Toxic Substance Control (DTSC) is a department of Cal/EPA and is the primary agency in California that regulates hazardous waste, cleans-up existing contamination, and looks for ways to reduce the hazardous waste produced in California. DTSC regulates hazardous waste in California primarily under the authority of RCRA and the California Health and Safety Code. Other laws that affect hazardous waste are specific to handling, storage, transportation, disposal, treatment, reduction, cleanup, and emergency planning.

The California Occupational Safety and Health Administration (Cal/OSHA) is the primary agency responsible for worker safety in the handling and use of chemicals in the workplace. Cal/OSHA standards are generally more stringent than federal regulations. The employer is required to monitor worker exposure to listed hazardous substances and notify workers of exposure (8 CCR Sections 337-340). The regulations specify requirements for employee training, availability of safety equipment, accident-prevention programs, and hazardous substance exposure warnings. Title 8 CCR Section 1532.1 covers the requirements on lead safety in construction, and makes employers responsible for complying with those requirements. Employers can reduce the hazard from lead in construction by meeting these requirements and following industry best practices. It is the responsibility of the Cal-OSHA to ensure compliance with the provisions of the Hazard Communication Standard. California Labor Code Sections 6360 through 6399.7 and Title 8 CCR Sections 5191 and 5194 are intended to ensure that both employers and employees understand how to identify potentially hazardous substances in the workplace, understand the health hazards associated with these chemicals, and follow safe work practices. This is accomplished by preparation of a Hazard Communication Plan.

The Porter-Cologne Water Quality Act is a State law that provides a comprehensive water quality management system for the protection of California waters. The Act designates the SWRCB as the ultimate authority over state water rights and water quality policy, and also established nine Regional Water Quality Control Boards (RWQCB) to oversee water quality on a day-to-day basis at the local and regional levels. The RWQCBs have the responsibility of granting National Pollution Discharge Elimination System (NPDES) permits and waste discharge requirements (WDRs) for stormwater runoff from construction sites.

Caltrans has several Standard Special Provisions with guidelines for handling, reuse, storage, and disposal of ADL contaminated soils (Caltrans, 2014). The appropriate Standard Special Provision (SSP) would be applied for individual projects dependent on the ADL concentrations in the soil and planned soil disturbance parameters. The three Caltrans ADL SSPs are: SSP 7-1.02K(6)(j)(iii) (01/18/2013) Earth Material Containing Lead – Requires a lead compliance plan for soil disturbance when lead concentrations are non-hazardous; SSP 14-11.03 (04/19/2013) Material Containing Hazardous Waste Concentrations of Aerially Deposited Lead – ADL management specifications when hazardous waste concentrations exist; and SSP 14-11.04 (01/18/2013) – Minimal Disturbance of Material Containing Hazardous Waste Concentrations of Aerially Deposited Lead - ADL minimal disturbance specifications for use when hazardous waste concentrations exist but material is not being excavated.

Local

In 1993 the State (Cal/EPA) was mandated by Senate Bill 1082 (Health and Safety Code Chapter 6.11) to establish a “unified hazardous waste and hazardous materials management” regulatory program (Unified

Program). The Unified Program consolidates, coordinates, and makes consistent the administrative requirements, permits, inspections, and enforcement activities of the following six environmental and emergency response programs:

- Hazardous Materials Release Response Plans and Inventories (Business Plans),
- California Accidental Release Prevention (CalARP) Program,
- Underground Storage Tank Program,
- Aboveground Petroleum Storage Act,
- Hazardous Waste Generator and Onsite Hazardous Waste Treatment (tiered permitting) Programs,
- California Uniform Fire Code: Hazardous Material Management Plans and Hazardous Material Inventory Statements.

The Unified Program is implemented at the local level by various local government agencies certified by the Secretary of Cal/EPA. These agencies, known as Certified Unified Program Agencies (CUPA), implement all of the Unified Program elements and serve as a local contact for area businesses. The Siskiyou County Environmental Health Division, Hazardous Materials Management serves as CUPA for Siskiyou County and is responsible overseeing the above listed program elements and for responding to incidents involving any release or threatened release of hazardous materials.

Applicant Proposed Measures

As part of the Proposed Project, Siskiyou Telephone has identified Applicant Proposed Measures (APMs) in its Proponent's Environmental Assessment that it would implement during construction and/or operation of the Proposed Project to reduce or avoid impacts to hazards and hazardous materials. Siskiyou Telephone would conduct the design, construction, operation, and maintenance of the Proposed Project in accordance with its APMs. The APM related to hazards and hazardous materials are listed in Table 5.8-1.[5]

Table 5.8-1. Applicant Proposed Measures – Hazards and Hazardous Materials

APM	Description
APM HAZ-1	Refueling of equipment would occur at a minimum distance of 20 feet from all active waterways.
APM HAZ-2	A SWPPP would be in place prior to the start of construction activities to implement BMPs for spill and pollution prevention. The following BMPs would minimize the potential for accidental release of hazardous materials: ▪ Equipment would be maintained in good working order, and equipment containing hazardous materials would be inspected periodically for signs of spills or leakage. ▪ Spills that occur would be cleaned up immediately, and any contaminated soil would be containerized and properly disposed of. ▪ Spills that occur would be reported in accordance with applicable federal, state, and local requirements. Emergency phone numbers would be available onsite.

[5] Siskiyou Telephone's originally proposed APMs are part of the Proposed Project and have been considered in the evaluation of environmental impacts in this IS/MND. The mitigation measures recommended in Section 5.5.2 (Environmental Impacts and Mitigation Measures) and referenced in Section 6 (Mitigation Monitoring Plan) either expand upon or add detail to all of Siskiyou Telephone's APMs, and for the purposes of the Proposed Project, supersede them.

Table 5.8-1. Applicant Proposed Measures – Hazards and Hazardous Materials

APM	Description
APM HAZ-3	Siskiyou Telephone would develop a fire management plan, in accordance with the modified special use permit from USFS that addresses construction activities for this project. The fire management plan would establish standards and practices that would minimize the risk of fire danger and, in the case of fire, provide for immediate suppression and notification. The fire management plan would address spark arresters, smoking and fire rules, storage and parking areas, use of gasoline-powered tools, road closures, use of a fire guard, and fire suppression equipment and training requirements. In addition, a water truck would be located onsite (for fugitive dust emission control) and could be used for fire suppression if needed.
APM PS-1	Construction schedules would be submitted to local emergency service providers for review and comment, and updated as necessary. In addition, fire extinguishers and shovels would be maintained onsite during periods of construction or site activity for immediate fire control, if needed.
APM TRF-1	The use of traffic control measures would ensure that the effects on traffic would not create unsafe conditions. In addition, Siskiyou Telephone would inform residents in Happy Camp of construction activities and potential delays.

5.8.2 Environmental Impacts and Mitigation Measures

a. Would the project create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?

LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED – CONSTRUCTION. Only small amounts of hazardous materials such as paints, vehicle fuels, oil, hydraulic fluid, and other vehicle and equipment maintenance fluids would be stored at the construction yard in Happy Camp and in construction vehicles during project construction. Refueling vehicles will transport diesel fuel to the drilling rigs on a daily basis as needed. No acutely hazardous materials would be used. Spills or releases of hazardous materials could occur due to improper handling and/or storage practices during construction activities potentially causing soil or groundwater contamination, or contamination of the adjacent Klamath River. Planned implementation of APMs HAZ-1 (Refueling a minimum distance of 20 feet from all active waterways) and HAZ-2 (Implementation of SWPPP and associated BMPs) would reduce potential impacts related to hazardous material transport, use, and disposal, however due to the very close proximity of the Klamath River, implementation of Mitigation Measures MM H-1 (Prepare and Implement Worker Environmental Awareness Program) and H-2 (Prepare and Implement a Hazardous Materials and Waste Management Plan) would be required to reduce the potential impact to the Klamath River to less than significant.

NO IMPACT – OPERATION AND MAINTENANCE. No hazardous materials would be used during operation or maintenance of the Proposed Project.

Mitigation Measure for Potential Water Contamination

MM H-1 **Prepare and Implement Worker Environmental Awareness Program (WEAP)**. A project specific WEAP shall be prepared and submitted to the CPUC for approval prior to construction. The WEAP shall include, at a minimum, the following provisions related to hazards and hazardous materials:

- A presentation shall be prepared by the Applicant and used to train all site personnel prior to the commencement of work. A record of all trained personnel shall be kept.
- Instruction on compliance with Proposed Project mitigation measures.

- A list of phone numbers of Siskiyou Telephone environmental specialist personnel associated with the Proposed Project (archaeologist, biologist, environmental coordinator, and regional spill response coordinator).
- Instruction on the individual responsibilities under the Clean Water Act, the project SWPPP, site-specific BMPs, and the location of Material Safety Data Sheets for the project.
- Worker Training on Emergency Release Response Procedures to include hazardous materials handling procedures for reducing the potential for a spill during construction, and hazardous material clean up procedures and training to ensure quick and safe cleanup of accidental spills.
- Instructions to notify the foreman and regional spill response coordinator in case of a hazardous materials spill or leak from equipment, or upon the discovery of soil, groundwater, or surface water contamination. The foreman or regional spill response coordinator shall have authority to stop work at that location and to contact the CUPA (Siskiyou County Environmental Health Division, Hazardous Materials Management; see Section 5.8.1 – Regulatory Background above) immediately if unanticipated visual evidence of potential contamination or chemical odors are detected. Work will be resumed at this location after any necessary consultation and approval by the CUPA or other entities as specified by the CUPA.
- Instruction that noncompliance with any laws, rules, regulations, or mitigation measures could result in being barred from participating in any remaining construction activities associated with the Proposed Project.

MM H-2 **Prepare and Implement a Hazardous Materials and Waste Management Plan**. Prior to approval of the final construction plans for the Proposed Project, a project-specific Hazardous Materials and Waste Management Plan for the construction phase of the Proposed Project will be prepared and submitted to the CPUC for approval prior to construction. The Plan will be prepared to ensure compliance with all applicable federal, state, and local regulations. The Hazardous Materials and Waste Management Plan will reduce or avoid the use of potentially hazardous materials for the purposes of worker safety, protection from soil, groundwater, and surface water contamination, and proper disposal of hazardous materials. The plan will include the following information related to hazardous materials and waste, as applicable:

- A list of the hazardous materials that will be present on site and in the local construction yard during construction, including information regarding their storage, use, and transportation;
- Any secondary containment and countermeasures that will be required for onsite and construction yard hazardous materials, as well as the required responses for different quantities of potential spills;
- A list of spill response materials and the locations of such materials at the Proposed Project site and in the local construction yard during construction. Additionally, the Plan shall designate that spill response materials be kept onsite for all activities performed near to or adjacent to a stream or the river;

- Procedure for Fueling and Maintenance of Construction Vehicles and Equipment: Written procedures for fueling and maintenance of construction equipment would be prepared prior to construction. The Plan shall include the following procedures:
  - Construction vehicles shall be fueled and maintained offsite at the construction yard or at local fuel stations. Construction vehicles operated near to or adjacent to the stream/river channel shall be inspected and maintained daily to prevent leaks.
  - Construction equipment such a drill rigs and excavators shall be fueled offsite when feasible. When refueling offsite is not feasible for drilling equipment and other construction equipment onsite refueling of the equipment by refueling vehicles or fuel trucks shall follow specified procedures to prevent leaks or spills. Procedures will require refueling be located a minimum of 150 feet from a stream channel and the use of spill mats, drop cloths made of plastic, drip pans, or trays to be placed under refueling areas to ensure that fuels do not come into contact with the ground. Spill cleanup materials shall be kept readily available on the refueling vehicles.
  - Drip pans or other collection devices would be placed under equipment, such as motors, pumps, generators, and welders, during operation and at night to capture drips or spills. Equipment would be inspected and maintained daily for potential leakage or failures.
- A list of the adequate safety and fire suppression devices for construction activities involving toxic, flammable, or exposure materials;
- A description of the waste-specific management and disposal procedures that will be conducted for any hazardous materials that will be used or are discovered during construction of the Proposed Project; and
- A description of the waste minimization procedures to be implemented during construction of the Proposed Project.

b. Would the project 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?

LESS THAN SIGNIFICANT WITH MITIGATION. Spills of hazardous materials could occur due to improper handling and/or storage practices during construction activities potentially causing soil or groundwater contamination, or contamination of the adjacent Klamath River. However, as above, Planned implementation of APMs HAZ-1 (Refueling a minimum distance of 20 feet from all active waterways) and HAZ-2 (Implementation of SWPPP and associated BMPs) and implementation of Mitigation Measures MM H-1 (Prepare and Implement Worker Environmental Awareness Program) and H-2 (Prepare and Implement a Hazardous Materials and Waste Management Plan) would be required to reduce the potential impact from spills of hazardous materials to soil and groundwater and to the Klamath River to less than significant.

The Project area is also known to contain naturally occurring asbestos, a hazardous material. Drilling and excavation of the local soil and rock could encounter naturally occurring asbestos; dust created by construction activities could contain asbestos, a health hazard. Current air quality. Regulations and impacts related to the naturally occurring asbestos are further discussed in the Air Quality section [see Section 5.3.2, Item (d)] and the impacts have been determined to be less than significant with implementation of Mitigation Measure AQ-1 (Control construction-related dust).

Due to its many decades of vehicle use it is possible that aerially deposited lead (ADL) has built up in the soils adjacent to the roadway. Depending on the concentrations of ADL in the soil, the surficial soil generated during trenching and excavation may need to be treated as a hazardous waste. Implementation of Mitigation Measure H-3 (Conduct Sampling and Testing for ADL) would ensure that impacts related to ADL are reduced to less than significant.

Mitigation Measure for Potential Soil Contamination

MM H-3 **Conduct Sampling and Testing for ADL.** Soil along the shoulder of State Highway 96 where project related ground disturbance is to occur, should be sampled and tested prior to construction to determine the proper handling and disposal methods. Caltrans has three Standard Special Provisions with guidelines for handling, reuse, storage, and disposal of ADL contaminated soils that could apply to the Proposed Project (Caltrans, 2014). The appropriate Standard Special Provision (SSP) would be applied for Proposed Project dependent on the ADL concentrations in the soil and planned soil disturbance parameters. The three Caltrans ADL SSPs are: SSP 7-1.02K(6)(j)(iii) (01/18/2013) Earth Material Containing Lead – Requires a lead compliance plan for soil disturbance when lead concentrations are non-hazardous; SSP 14-11.03 (04/19/2013) Material Containing Hazardous Waste Concentrations of Aerially Deposited Lead – ADL management specifications when hazardous waste concentrations exist; and SSP 14-11.04 (01/18/2013) – Minimal Disturbance of Material Containing Hazardous Waste Concentrations of Aerially Deposited Lead – ADL minimal disturbance specifications for use when hazardous waste concentrations exist but material is not being excavated.

c. Would the project emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?

NO IMPACT. The Proposed Project will not use or handle acutely hazardous materials and the closest school to the project alignment is the Happy Camp Elementary School, located about 2.3 miles north of the project.

d. Would the project be located on a site that is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?

NO IMPACT. A review of the SWRCB GeoTracker website indicates there are no known hazardous material or environmentally contaminated sites with one mile of the Proposed Project. Therefore, there is no impact from hazardous material sites.

e. For a project located within an airport land use plan or, where such a plan has not been adopted, within 2 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?

NO IMPACT. There are no airport land use plans within 2 miles of the Proposed Project. The Proposed Project's northern end is approximately 1.3 miles south of the Happy Camp Airport, a public use airport and U.S. Forest Service Helitac Base. However, the Proposed Project consists of construction of underground telecommunication cables using standard trenching and horizontal boring technologies, and none of the construction equipment would be tall enough to be of concern and the completed project cable would be underground. Additionally, the Proposed Project does not cross the projected path of the airport runway. Therefore, there would be no potential safety impacts related to the airport during construction or operations and maintenance.

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?

NO IMPACT. The Proposed Project is not within the vicinity of a private airstrip.

g. Would the project impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?

LESS THAN SIGNIFICANT. The Proposed Project would not impair or interfere with emergency response or evacuation plans. Temporary partial road closures due to movement of construction equipment or loading and unloading of construction trucks may occur, however one traffic lane would always remain open (Siskiyou Telephone, 2016). Additionally, the Applicant has committed to consulting with affected agencies regarding construction schedule and necessary road closures under APM PS-1, to moving equipment as quickly as possible in the event an emergency response vehicle need to pass, and to implementing APM TRF-1 (Traffic control measures and informing residents) (Siskiyou Telephone, 2016).

h. Would the project 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?

LESS THAN SIGNIFICANT. The project area is known to have experienced at least two significant wildland fires since the year 2000. Fires in the Klamath National Forest have been responsible for destruction of Siskiyou Telephone's equipment numerous times. The area is classified as a Very High Fire Hazard Severity Zone by CALFIRE (CALFIRE, 2009). Implementation of APM HAZ-3 would ensure that the potential impact due to wildland fire would be less than significant with preparation and implementation of a Fire Management Plan for project construction and operation and maintenance.

5.9 Hydrology and Water Quality

HYDROLOGY AND WATER QUALITY **Would the project:**	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Violate Regional Water Quality Control Board water quality standards or waste discharge requirements?	☐	☒	☐	☐
b. Substantially deplete groundwater supplies or interfere substantially with groundwater discharge such that there would be a net deficit in the aquifer volume or a lowering of the local groundwater table level (i.e., 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, or substantially increase the rate or amount of surface runoff in a manner that 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 that 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 hazard delineation map?	☐	☐	☐	☒
h. Place within 100-year flood hazard area structures that 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.	☐	☐	☒	☐
j. Cause inundation by seiche, tsunami, or mudflow?	☐	☐	☒	☐

Significance criteria established by CEQA Guidelines, Appendix G.

5.9.1 Setting

Surface Water

The Proposed Project is located within the State Highway 96 right-of-way, which generally parallels the Klamath River in Siskiyou County. The right-of-way runs immediately adjacent to the river in many places, and generally is not more than 0.25 miles from the river. The Klamath-Trinity river system is the largest between the Sacramento and Columbia rivers in terms of flow, salmon production, and economic importance, and one of the most highly modified (NRC, 2008). Average annual discharge on the Klamath River is roughly 50,000 (cubic feet per second (cfs) to 100,000 cfs (USGS, 2018)

This portion of the Klamath River paralleled by the Proposed Project is within the Lower Klamath Basin of the greater Klamath River Basin (NRCS, 2015). There are four major tributaries in the lower basin: the

Shasta River, Scott River, Salmon River, and the Trinity River (NRC, 2008). The Lower Klamath Basin consists of six hydrologic subbasins: Lower Klamath, Salmon, Scott, Shasta, South Fork Trinity, and Trinity. The Lower Klamath Basin comprises an area of 984,709 acres (NRCS, 2015) and is characterized by steep, rugged watersheds within the Klamath Mountains of Northern California (NRC, 2008).

The project alignment traverses 10 tributary creek crossings: Douglas Creek, Browns Creek, Allard Creek, Crawford Creek, Wyman Creek, Coon Creek, Elliot Creek, Aubrey Creek, Three Creeks, and Kennedy Creek.

Groundwater

Although subsurface water would exist beneath and alongside the Klamath River and tributaries, most of the project alignment is outside any designated groundwater basin (CDWR, 2018). Small segments of the northern and southern portions of the project alignment ware within the Happy Camp Town Area Groundwater Basin (northern) and the Hoopa Valley Groundwater Basin (southern). Both are small groundwater basins, 4 to 6 square miles in area. The basins are used for municipal, industrial, and agricultural uses. Groundwater in the Hoopa Valley Groundwater Basin averages 20 to 30 feet below the ground surface (CDWR, 2018).

Water Quality

The project is within the jurisdictional area of the North Coast California Regional Water Quality Control Board (RWQCB). The RWQCB designates beneficial uses of waters within the region. Beneficial uses for the Lower Klamath River Hydrologic Unit include: Municipal and Domestic Supply (MUN), Agricultural Supply (AGR), Industrial Service Supply (IND), Groundwater Recharge (GWR), Freshwater Replenishment (FRSH), Navigation (NAV), Water-Contact Recreation (REC1), Non-Contact Water Recreation (REC2), Cold Freshwater Habitat (COLD), Commercial and Sport Fishing (COMM), Warm Freshwater Habitat (WARM), Wildlife Habitat (WILD), Rare, Threatened, or Endangered Species (RARE), Migration of Aquatic Organisms (MIGR), Spawning, Reproduction, and/or Early Development (SPWN), and Native American Culture (CUL). Potential beneficial uses include Industrial Process Supply (PRO), Hydropower Generation (POW), Shellfish Harvesting (SHELL), and Aquaculture (AQUA) (RWQCB, 2011).

The entire Lower Klamath River hydrologic unit, which includes all surface waters near or crossed by the project is listed as impaired under Section 303(d) of the Clean Water Act (see the Regulatory Background) for Cyanobacteria, nutrients, organic enrichment/low dissolved oxygen, sediment, and temperature. Pollutant sources include agricultural water diversion, agriculture, dam construction, drainage/filling of wetlands, flow regulation/modification, hydromodification, internal nutrient cycling, natural, out of state, municipal and industrial point sources, upstream impoundment, wastewater – land disposal, agriculture, sewer overflow, flow regulation/modification, channel erosion, dredge mining, erosion/siltation, grazing, highway/road/bridge runoff, logging roads, construction/maintenance, removal of riparian vegetation, silviculture, streambank modification/destabilization, channelization, and unknown sources (RWQCB, 2011).

Flooding

Although most of the highway right-of-way is outside the 100-year floodplain, some segments, which include portions of the project, are within the 100-year floodplain of the Klamath River and tributaries (FEMA, 2011).

Regulatory Background

The Clean Water Act (CWA; 33 U.S.C. Section 1251 et seq.), formerly the Federal Water Pollution Control Act of 1972, was enacted with the intent of restoring and maintaining the chemical, physical, and biological integrity of the waters of the United States. The CWA requires states to set standards to protect, maintain, and restore water quality through the regulation of point source and certain non-point source discharges to surface water. Those discharges are regulated by the National Pollutant Discharge Elimination System (NPDES) permit process (CWA Section 402). NPDES permitting authority is delegated to, and administered by, California's nine Regional Water Quality Control Boards (RWQCB). In addition, the State Water Resources Control Board (SWRCB) regulates the NPDES stormwater program. The Proposed Project is under the jurisdiction of the North Coast Regional Water Quality Control Board and the SWRCB.

Projects that disturb one or more acres are required to obtain NPDES coverage under the California General Permit for Discharges of Storm Water Associated with Construction Activity. The Construction General Permit requires the development and implementation of a Storm Water Pollution Prevention Plan (SWPPP). The SWPPP describes Best Management Practices (BMPs) the discharger will use to protect stormwater runoff. The SWPPP must contain a visual monitoring program and a chemical monitoring program for "non-visible" pollutants to be implemented if there is a failure of BMPs.

Section 401 of the CWA requires that any activity that may result in a discharge into waters of the U.S. be certified by the RWQCB. This certification ensures that the proposed activity not violate State and/or federal water quality standards.

Section 404 of the CWA authorizes the U.S. Army Corps of Engineers to regulate the discharge of dredged or fill material to the waters of the U.S. and adjacent wetlands. Discharges to waters of the U.S. must be avoided where possible, and minimized and mitigated where avoidance is not possible. Permits are issued by the Corps of Engineers.

Section 303(d) of the Clean Water Act requires states to assess surface water quality and prepare a list of waters (the 303(d) list of water quality limited segments) considered to be impaired by not meeting water quality standards and not supporting their beneficial uses. Impairment may result from point-source pollutants or non-point source pollutants. The SWRCB, through its nine regional boards, assesses water quality and establishes Total Maximum Daily Load (TMDL) programs for streams, lakes and coastal waters that do not meet water quality standards.

Klamath National Forest Land and Resource Management Plan. The Wild and Scenic River Management Program of the Klamath National Forest Land and Resource Management Plan sets forth policies for the preservation and protection of components included in the National Wild and Scenic Rivers System (USFS, 1995). In 1981 the Klamath River was designated a Recreational River within the National Wild and Scenic Rivers System (USFS, 2018).

California Streambed Alteration Agreement. Sections 1600–1616 of the California Fish and Game Code require that any entity that proposes an activity that will substantially divert or obstruct the natural flow of any river, stream or lake, substantially change or use any material from the bed, channel, or bank of, any river, stream, or lake, or deposit material where it may pass into any river, stream, or lake, must notify the California Department of Fish and Wildlife (CDFW). If the CDFW determines the alteration may adversely affect fish and wildlife resources, a Lake and Streambed Alteration Agreement (LSAA) will be prepared. The LSAA includes conditions necessary to protect those resources. The Agreement applies to any stream including ephemeral streams.

California Porter Cologne Water Quality Control Act. The Porter Cologne Water Quality Control Act of 1967, Water Code Section 13000 et seq., requires the SWRCB to adopt water quality criteria to protect State waters. Each RWQCB has developed a Water Quality Control Plan (Basin Plan) specifying water quality objectives, beneficial uses, numerical standards of pollution concentrations, and implementation procedures for Waters of the State. Waters of the State is defined by the Porter Cologne Water Quality Control Act as "any surface water or groundwater, including saline waters, within the boundaries of the State." General objectives of the Basin Plans state that all waters (of the State) shall be maintained free of toxic substances in concentrations which are toxic to, or which produce detrimental physiological responses in, human, plant, animal, or aquatic life. The water quality control plans are intended to protect designated beneficial uses of waters, avoid altering the sediment discharge rate of surface waters, and avoid introducing toxic pollutants to the water resource. The Porter Cologne Water Quality Control Act requires anyone proposing to discharge waste that could affect the quality of the waters of the State to report the waste discharge to the appropriate RWQCB.

The Conservation Element of Siskiyou County's General Plan (Siskiyou County, 1973) considers groundwater resources, water quality, and flood control to remain the county's most important land use determinants. Objectives of the Siskiyou County General Plan include conservation of water resources by preserving the quality of the existing water supply, by adequately planning for future generations, and through erosion control and type conversion of vegetation. In addition, fire hazards would be reduced by developing a program for sustained management of watersheds (Siskiyou County, 1973).

Applicant Proposed Measures

As part of the Proposed Project, Siskiyou Telephone has identified Applicant Proposed Measures (APMs) in its Proponent's Environmental Assessment that it would implement during construction and/or operation of the Proposed Project to reduce or avoid impacts to hydrology and water quality. Siskiyou Telephone would conduct the design, construction, operation, and maintenance of the Proposed Project in accordance with its APMs. The APMs for hydrology and water quality are listed in Table 5.9-1.

Table 5.9-1. Applicant Proposed Measures – Hydrology and Water Quality

APM	Description
APM BIO-4	Construction access, and material laydown and staging would occur only on existing roads and previously disturbed sites.
APM BIO-8	The contractor shall prepare and implement a plan for monitoring drilling operations and addressing frac-out if it occurs. The plan shall include visual inspections along the bore path of the pipeline alignment during all drilling operations. Monitors shall also be stationed at appropriate distances upstream and downstream from the crossing point. All equipment required to contain and clean up a frac-out release shall be available at the work site.
APM HAZ-1	Refueling of equipment would occur at a minimum distance of 20 feet from all active waterways.
APM HAZ-2	A SWPPP would be in place prior to the start of construction activities to implement BMPs for spill and pollution prevention. The following BMPs would minimize the potential for accidental release of hazardous materials: ▪ Equipment would be maintained in good working order, and equipment containing hazardous materials would be inspected periodically for signs of spills or leakage. ▪ Spills that occur would be cleaned up immediately, and any contaminated soil would be containerized and properly disposed of. ▪ Spills that occur would be reported in accordance with applicable federal, state, and local requirements. ▪ Emergency phone numbers would be available onsite.

Table 5.9-1. Applicant Proposed Measures – Hydrology and Water Quality

APM	Description
APM HYDRO-1	Disturbed areas would be restored to preconstruction conditions to avoid altering or increasing the rate or volume of surface runoff.
APM HYDRO-2	To comply with the LUP General Permit, Siskiyou Telephone would submit a Notice of Intent to the SWRCB and a Linear Construction Activity Notification to the RWQCB prior to construction. Siskiyou Telephone would also have the construction contractor prepare an SWPPP outlining BMPs for storm water erosion and sediment control, wind erosion control, source controls, and waste management. Siskiyou Telephone would ensure that SWPPP requirements are implemented and water quality standards are maintained. BMPs would be modified as necessary to ensure adequate erosion controls. The following are examples of BMPs: ▪ Dry-season (April through October) construction to minimize erosion and storm water sediment transport ▪ Use of silt fences or fiber rolls to prevent the migration of sediment offsite ▪ Application of water to disturbed areas during work or windy conditions to prevent dust and erosion ▪ Use of drip pans for mobile fueling

5.9.2 Environmental Impacts and Mitigation Measures

a. Would the project violate any water quality standards or waste discharge requirements?

LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED - CONSTRUCTION. Required permits and approvals applicable to the Proposed Project are identified in the Regulatory Background section above. The Proposed Project is within the jurisdiction of the North Coast Regional Water Quality Control Board (RWQCB) and is subject to the management direction of the Water Quality Control Plan for the North Coast region. Compliance with the California Stormwater Construction General Permit, and other applicable regulations, will be required. It is expected that the Proposed Project would follow all applicable permits and regulations.

The Klamath River and tributaries qualify as jurisdictional waters of the State under Section 1600 of the State Fish and Game Code. Prior to initiation of the Project, correspondence with the California Department of Fish and Wildlife (CDFW) would be required to obtain a Lake and Streambed Alteration Agreement for stream crossings and other activities that require construction or activities within the stream bed. The Klamath River and tributaries are also jurisdictional under Section 404 of the Federal Clean Water Act (CWA). Therefore, a CWA Section 404 permit would be required. A 404 Permit would ensure minimization of, and mitigation of, impacts to Waters of the U.S. A water quality certification from the RWQCB would be required under Section 401 of the CWA.

During construction of the Proposed Project there would be a potential for spills of oil, grease, or other water contaminants associated with the use of vehicles, equipment, and materials used in construction, as well as the potential for increased erosion and sedimentation associated with soil disturbance. Crossings of the ten tributary streams would be by directional boring with potential for introduction of drilling slurry (bentonite drilling lubricant) to the stream through spills and release through fractures in the earth (frac-out).

Any spill of a hazardous or potentially hazardous material, including oil or grease, would be immediately addressed in accordance with standard construction best management practices (BMPs) required by the Construction General Permit. In addition, compliance with existing laws and regulations, including the federal CWA, would include use of erosion control measures such as but not limited to straw wattles, as necessary, thereby minimizing or avoiding the potential for disturbed soils to migrate and result in increased turbidity in surface waters. Potential water quality impacts would likely only pose an immediate issue if a precipitation event were to occur during soil disturbing activities. It is not anticipated that soil-disturbing activities would be carried out during precipitation events, as construction is scheduled for the dry season.

APMs BIO-4, HAZ-1, HAZ-2, HYDRO-1 and HYDRO-2 require a variety of measures to prevent contamination of waters through minimization of disturbance areas, refueling setbacks, SWPPP, restoration, dry-season construction, and BMPs, which will reduce the potential for construction-related contamination. Vehicle fueling would be done on road shoulders with a hazard spill mat in place, or at Happy Camp.

The risk of contamination related to directional boring beneath stream beds would be minimized by boring a minimum of 30 feet below the streambed if water is present and 18 feet below the streambed if dry. APM BIO-8 requires a frac-out monitoring and clean-up plan to address contamination from the bentonite slurry, and APM BIO-8 is further supplemented by MM B-3 (Minimize Horizontal Directional Drilling (HDD) Potential Impacts) to provide greater detail and performance standards for the plan and HDD activities. Bentonite would be stored in powder form until used, and bore grindings would be collected and disposed of at an approved disposal location. Disturbed areas would be restored at the conclusion of construction.

Given the location of the HDD and trenching in close proximity to the Klamath River, implementation of MM H-1 (Prepare and Implement Worker Environmental Awareness Program) and H-2 (Prepare and Implement a Hazardous Materials and Waste Management Plan) would also be required to reduce potential water quality impacts to the Klamath River from accidental spills to less than significant.

In summary, there is potential for project-related construction and operation activities to result in adverse water quality effects, but such potential occurrences would be immediately addressed as required by permits, existing regulations, the adopted APMs, and implementation of the aforementioned mitigation measures to ensure that water quality impacts would be less than significant.

Operation and maintenance of the Proposed Project is anticipated to be minimal and not involve extensive ground disturbance or the use of heavy equipment.

Mitigation Measure for Potential Water Contamination

MM B-3 **Minimize Horizontal Directional Drilling (HDD) Potential Impacts** [see full text in Section 5.4.2, Biological Resources]

MM H-1 **Prepare and Implement Worker Environmental Awareness Program (WEAP)**. [see full text in Section 5.8.2, Hazards and Hazardous Materials]

MM H-2 **Prepare and Implement a Hazardous Materials and Waste Management Plan**. [see full text in Section 5.8.2, Hazards and Hazardous Materials]

b. Would the project 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 (i.e., 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)?

NO IMPACT. The project would not use groundwater. Very little of the project is above a groundwater basin, and trenching is anticipated to be above the groundwater level.

c. Would the project 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?

LESS THAN SIGNIFICANT. Some minor alteration of drainage could occur during construction, but since this will be done in the dry season, and the site will be restored to original conditions following construction, the impact would be temporary and less than significant.

d. Would the project 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 that would result in flooding on or off site?

LESS THAN SIGNIFICANT. Some minor alteration of drainage could occur during construction, but since this will be done in the dry season, and the site will be restored to original conditions following construction, the impact would be temporary and less than significant. The proposed cable would be installed underground in existing road right-of-way and would not alter rainfall/runoff characteristics. Utility boxes have an impervious surface that may slightly increase runoff potential but since this will only be a few square feet, the impact is less than significant.

e. Would the project create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems to provide substantial additional sources of polluted runoff?

LESS THAN SIGNIFICANT. As described under (d) above, any increase in or additional source of runoff would be negligible.

f. Would the project otherwise substantially degrade water quality?

LESS THAN SIGNIFICANT. Aside from the impacts described under (a) above, project features would have no potential to degrade water quality.

g. Would the project place housing within a 100-year floodplain, as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?

NO IMPACT. There would be no housing constructed with this project.

h. Would the project place within a 100-year floodplain structures that would impede or redirect flood flows?

LESS THAN SIGNIFICANT. Some of the project structures would be constructed within known flood hazard areas. Most of these would be underground, with the ground surface restored to the existing condition, with no obstruction of flow. Utility boxes within the floodplain would be small in comparison to the floodplain area and would not be a significant obstruction. There would be temporary placement of materials and equipment within the floodplain during construction, mainly at the tributary stream crossings, but these would be removed after construction. Construction would be during the dry season resulting in little chance of unexpected flooding.

i. Would the project 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?

LESS THAN SIGNIFICANT. There are dams within the Klamath River system, but none are in the immediate vicinity of the Proposed Project. Because the project consists of an underground cable, the potential for risk associated with the failure of a dam is minimal for the same reasons as described under Item (h). Flood impacts to crews and equipment from natural sources during construction are possible, especially at the stream crossings, but would be unlikely during the dry season when construction would occur.

j. Would the project cause inundation by seiche, tsunami, or mudflow?

LESS THAN SIGNIFICANT. There are no lakes near the project that could produce seiche. The Pacific Ocean is approximately 70 miles away (along the course of the Klamath River) and 680 feet lower in elevation than the Proposed Project. There is no risk of tsunami at this location. Mudflows are possible due to the steep

terrain, particularly in any area that has been denuded by fire. During operation the risk of damage due to mudflow would be minimal because almost all of the project would be underground. Some mudflow risk could occur during construction, but since construction will only occur during dry periods, the likelihood is low.

5.10 Land Use and Planning

LAND USE PLANNING **Would the project:**	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
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?	☐	☒	☐	☐

Significance criteria established by CEQA Guidelines, Appendix G.

5.10.1 Setting

The Proposed Project would be located in western Siskiyou County, in a rural, forested area east of the Klamath River. The entire project is confined within the California Department of Transportation (Caltrans) maintained right-of-way (ROW) in or adjacent to State Highway 96. Land in the project area is located in the Klamath National Forest and is near the Six Rivers National Forest. These lands are under the jurisdiction of the U.S. Forest Service (USFS) or are privately owned. The majority of the land surrounding the Proposed Project is zoned Rural Residential Agricultural (R-R-B-40 and R-R-B-5) (Siskiyou Telephone, 2016). There are approximately 7 scattered private residences in the project vicinity.

In addition, the Proposed Project is located in the Klamath National Forest Management Area 17, which is zoned as General Forest by USFS (Siskiyou Telephone, 2016). Uses within the forested areas of the Klamath and Six Rivers National Forests include logging, fuels management, dredging operations, and recreation activities associated with a National Forest, such as hiking, fishing, and camping.

Regulatory Background

There are no federal regulations related to land use and planning applicable to the project.

State

Natural Community and Conservation Planning Act. The Natural Community and Conservation Planning Act (California Fish and Wildlife Code Section 2800-2835) aims to reconcile wildlife and ecosystem conservation with land development and population growth. It allows for the creation of Natural Community and Conservation Plans (NCCPs) to protect state-listed species, usually in connection with the issuance of a Section 2081 take permit under the California Endangered Species Act (CESA). Currently, there are 9 approved NCCPs and 14 NCCPs in the active planning phase. Cumulatively, these plans cover more than 9.5 million acres throughout California and will provide conservation for more than 500 special status plant and animal species.

Local

Siskiyou County General Plan. The Siskiyou County General Plan includes the Land Use Element, which has the goal of allowing the physical environment to determine the appropriate future land use pattern that will develop in Siskiyou County. The following policies generally apply to the Proposed Project (Siskiyou County, 1980; 1997).

Policy 41.19. It is the intent of all the policies in the Land Use Element to accomplish the following:

- *Encourage intensive development near existing urban areas and away from the natural resources.*
- *Insure compatibility of all land uses.*
- *Encourage heavy industrial and heavy commercial uses near major thoroughfares, existing urban areas, other locations most suited for the particular type of heavy commercial or heavy industrial use.*
- *Recognize the need for heavy commercial and heavy industrial land uses that most logically must be located in isolated areas of the county.*

Fruit Growers Supply Company Multi-Species Habitat Conservation Plan. The Fruit Growers Supply Company Multi-Species Habitat Conservation Plan is a Habitat Conservation Plan (HCP) prepared by Fruit Growers Supply Company (FGS) to cover commercial timberland that FGS owns and manages in Siskiyou County. The HCP was a requirement of FGS's application to the U.S. Fish and Wildlife Service (USFWS) and the National Oceanic and Atmospheric Administration's National Marine Fisheries Service for 50-year incidental take permits (ITPs) for northern spotted owl, Southern Oregon/Northern California Coasts coho salmon, and Upper Klamath and Trinity Rivers Chinook salmon and Klamath Mountains Province steelhead if the salmon and steelhead become federally listed species within the 50-year term of the permits. (FGS, 2012)

Applicant Proposed Measures

As part of the Proposed Project, Siskiyou Telephone has identified Applicant Proposed Measures (APMs) in its Proponent's Environmental Assessment that it would implement during construction and/or operation of the Proposed Project to reduce or avoid impacts to land use and planning. Siskiyou Telephone would conduct the design, construction, operation, and maintenance of the Proposed Project in accordance with its APMs. The APM for land use and planning are listed in Table 5.10-1.

Table 5.10-1. Applicant Proposed Measures – Land Use and Planning

APM Number	Description
APM LU-1	Siskiyou Telephone would obtain permits to construct from USFS, Caltrans, and the CPUC.

5.10.2 Environmental Impacts and Mitigation Measures

a. Would the project physically divide an established community?

LESS THAN SIGNIFICANT. Activities associated with installation of the new fiber optic broadband facility cable and hand hole utility boxes would be conducted within the existing roadway or on the shoulder of the road and all construction equipment would remain within existing roadways or road shoulders. Construction might result in occasional traffic delays as long as 10 to 15 minutes within the project area during the 6-month construction period that would occur over each of 2 years. However, flaggers would control traffic encountered during construction and one full, 16-foot-wide lane would be available for emergency traffic at all times. APM LU-1 would ensure that Siskiyou Telephone obtains the necessary permits and approvals from USFS, Caltrans, and other agencies prior to commencing project activities. Given the short construction time period and Siskiyou Telephone's coordination with local agencies, there would be a less than significant impact to the local established community as a result of the construction of the Proposed Project.

b. Would the project 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?

NO IMPACT. The Proposed Project would be consistent with the policies of the Siskiyou County General Plan, as noted above in Section 5.10.1, Setting. APM LU-1 would ensure that Siskiyou Telephone obtains the necessary permits from USFS, Caltrans, and other agencies prior to commencing project activities. The Proposed Project therefore would not conflict with any applicable land use plans, policy, or regulation.

c. Would the project conflict with any applicable habitat conservation plan or natural community conservation plan?

LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED – CONSTRUCTION. As discussed in Section 5.4.2 (Biological Resources), the Klamath and Six Rivers National Forest lands in the Project area are managed under the *Northwest Forest Plan*. The area is managed as General Forest and habitats adjacent to the Project area contain a mixture of riparian reserve and matrix allocations. Implementing the following APMs and MMs would protect riparian reserves and would reduce any conflicts with the *Northwest Forest Plan* to a less than significant level:

- APM AQ-1 (reduce fugitive dust by watering work area),
- APM BIO-4 (construction access and material laydown and staging would occur only on existing roads and previously disturbed sites),
- APM GEO-1 (soil erosion and water quality measures to be specified in SWPPP),
- APM GEO-2 (avoid sedimentation into roadways),
- APM HAZ-1 (refueling of equipment to occur away from all active waterways),
- APM HAZ-2 (SWPPP to implement BMPs for spill and pollution prevention)

Mitigation Measures for Potential Conflicts with Adopted Plans

MM AQ-1 **Control Construction-Related Dust** [see full text in Section 5.3, Air Quality]

MM B-2 **Preserve Special-Status Plants, Wetlands, and Riparian Zones** [see full text in Section 5.4.2, Biological Resources]

MM B-3 **Minimize Horizontal Directional Drilling (HDD) Potential Impacts** [see full text in Section 5.4.2, Biological Resources]

MM H-1 **Prepare and Implement Worker Environmental Awareness Program (WEAP)**. [see full text in Section 5.8.2, Hazards and Hazardous Materials]

MM H-2 **Prepare and Implement a Hazardous Materials and Waste Management Plan**. [see full text in Section 5.8.2, Hazards and Hazardous Materials]

NO IMPACT – OPERATIONS AND MAINTENANCE. No conflict with the *Northwest Forest Plan* during operation and maintenance is anticipated.

5.11 Mineral Resources

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

Significance criteria established by CEQA Guidelines, Appendix G.

5.11.1 Setting

The main mineral resource of significance found and extracted in Siskiyou County is gold (Siskiyou County, 1996). The project area is in the Klamath National Forest and is near the Six Rivers National Forest. Common minerals, such as rock, gravel, sand, stone, and volcanic cinders, are found in Klamath National Forest, in addition to chromite and copper, which are locatable minerals, and oil and gas, which are leasable minerals (USFS, 1995a). Sand, gravel, rock aggregate, gold, chromite, mercury, nickel, cobalt, manganese, and copper can be found in Six Rivers National Forest; gas and oil are not known to be found in Six Rivers National Forest (USFS, 1995b). As a result of the history of extensive gold mining in Siskiyou County, there are many past or present mines in the County (Siskiyou County, 1996; USGS, 2018). However, there are no mines directly in the Proposed Project area (USGS, 2018). A review of U.S. Geological Survey (USGS) data indicate that the Proposed Project area would not be in a classified mineral resource zone (MRZ) (DOC, 2018a).

Siskiyou County also has geothermal development potential (Siskiyou County, 1984). There are a few geothermal wells in the County, but none are in the Proposed Project area (DOC, 2002).

Regulatory Background

This section includes a description of the mineral resources regulatory framework. There are no federal or local regulations associated with mineral resources that are relevant to the Proposed Project.

State

California Surface Mining and Reclamation Act of 1975 (SMARA). SMARA requires that the State Geologist classify land into Mineral Resource Zones (MRZs) according to the known or inferred mineral potential of the land. The California Department of Conservation's Office of Mine Reclamation (OMR) and the State Mining and Geology Board (SMGB) are jointly charged with administration of the Act's requirements. The OMR provides technical assistance to lead agencies and operators, maintains a statewide database of mine locations and operational information, and is responsible for matters involving SMARA compliance. The SMGB promulgates regulations to clarify and interpret SMARA requirements in addition to serving as a policy and appeals board (DOC, 2018b). The SMGB has the authority to further regulate the authority of the local agencies if it finds that the agencies are not in compliance with the provisions of SMARA.

Mineral resources in the State have been mapped using the California Mineral Land Classification System, which include the following four MRZs:

- **MRZ-1**: Areas where adequate information indicates that no significant mineral deposits are present, or where it is judged that little likelihood exists for their presence;

- **MRZ-2**: Areas where adequate information indicates that significant mineral deposits are present, or where it is judged that a high likelihood exists for their presence;
- **MRZ-3**: Areas containing mineral deposits, the significance of which cannot be evaluated; and
- **MRZ-4**: Areas where available information is inadequate for assignment to any other zone

California Division of Oil, Gas, and Geothermal Resources. PRC Section 3106 mandates the supervision of drilling, operation, maintenance, and abandonment of oil wells for the purpose of preventing the following:

- Damage to life, health, property, and natural resources
- Damage to underground and surface waters suitable for irrigation or domestic use
- Loss of oil, gas, or reservoir energy
- Damage to oil and gas deposits by infiltrating water and other causes

Applicant Proposed Measures

There are no Applicant Proposed Measures for mineral resources.

5.11.2 Environmental Impacts and Mitigation Measures

a. Would the project 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?

NO IMPACT. The Proposed Project and the surrounding vicinity are not located within a classified Mineral Resource Zone and there are no known important mineral resources that would be impacted by the Project. Therefore, the project would not result in the loss of availability of a known mineral resource of value to the region or State.

b. Would the project 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?

NO IMPACT. As stated above, there are no designated Mineral Resource Zones in the Proposed Project vicinity and there are no known important mineral resources that would be impacted by the Project. Therefore, the Project would have no impact on any locally important mineral resource recovery sites.

5.12 Noise

NOISE **Would the project:**	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
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 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 2 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?	☐	☐	☐	☒

Significance criteria established by CEQA Guidelines, Appendix G.

5.12.1 Setting

Existing Conditions

Community Noise. A measurement scale that simulates human perception is used to describe environmental noise and to assess project impacts on areas that are sensitive to community noise. The A-weighted scale of frequency sensitivity accounts for the sensitivity of the human ear, which is less sensitive to low frequencies, and correlates well with human perceptions of the annoying aspects of noise. The A-weighted decibel scale (dBA) is cited in most noise criteria. Decibels are logarithmic units that can be used to conveniently compare wide ranges of sound intensities.

Community noise levels can be highly variable from day to day as well as between day and night. For simplicity, sound levels are usually best represented by an equivalent level over a given time period (Leq) or by an average level occurring over a 24-hour day-night period (Ldn). The Leq, or equivalent sound level, is a single value (in dBA) for any desired duration, which includes all of the time-varying sound energy in the measurement period, usually one hour. The L50, is the median noise level that is exceeded fifty per cent of the time during any measuring interval. The Ldn, or day-night average sound level, is equal to the 24-hour A-weighted equivalent sound level with a 10-decibel penalty applied to nighttime sounds occurring between 10:00 p.m. and 7:00 a.m. Community Noise Equivalent Level (CNEL) is another metric that is the average equivalent A-weighted sound level during a 24-hour day, obtained after addition of five decibels to sound levels in the evening from 7:00 p.m. to 10:00 p.m. and after addition of 10 decibels to sound levels in the night from 10:00 p.m. to 7:00 a.m. To easily estimate the day-night level caused by any noise source emitting steadily and continuously over 24-hours, the Ldn is 6.4 dBA higher than the source's Leq. For example, if the expected continuous noise level from equipment is 50.0 dBA Leq for every hour, the day-night noise level would be 56.4 dBA Ldn.

Community noise levels are usually closely related to the intensity of human activity. Noise levels are generally considered low when below 45 dBA, moderate in the 45 to 60 dBA range, and high above 60 dBA. In wilderness areas, the Ldn noise levels can be below 35 dBA. In small towns or wooded and lightly used residential areas, the Ldn is more likely to be around 50 or 60 dBA. Levels around 75 dBA are more common in busy urban areas, and levels up to 85 dBA occur near major freeways and airports. Although people often accept the higher levels associated with very noisy urban residential and residential-commercial zones, they nevertheless are considered to be adverse to public health.

Surrounding land uses dictate what noise levels would be considered acceptable or unacceptable. Lower levels are expected in rural or suburban areas than what would be expected for commercial or industrial zones. Nighttime ambient levels in urban environments are about seven decibels lower than the corresponding daytime levels. In rural areas away from roads and other human activity, the day-to-night difference can be considerably less. Areas with full-time human occupation and residency are often considered incompatible with substantial nighttime noise because of the likelihood of disrupting sleep. Noise levels above 45 dBA at night can result in the onset of sleep interference. At 70 dBA, sleep interference effects become considerable (U.S. EPA, 1974).

Noise Environment. The noise environment of the project area is defined by State Highway 96, which is a source of traffic noise, the adjacent Klamath River, and the surrounding forest. Historically, noise surveys conducted around Happy Camp for the Siskiyou County General Plan found the Happy Camp Elementary School and approximately 100 housing units in Happy Camp being potentially exposed to noise from the state highway over 60 dBA, with median ambient noise levels of 55 dBA when set back from State Highway 96, at Davis Road and Crumpton Street; any location within approximately 100 feet of State Highway 96 may experience noise over 65 dBA (Siskiyou County, 1978). Aside from traffic noise on State Highway 96, few human-induced sources of noise occur along the project alignment. The noise environment is generally serene and quiet, and users of the forest land would expect the existing serenity and quiet to be preserved.

Noise Sensitive Areas. Private residences represent noise sensitive receptors, and recreational user of the river and forest would also be noise sensitive. The nearest residential receptor would be located adjacent to the project alignment approximately 40 feet from the edge of a work area (Siskiyou Telephone, 2016).

Regulatory Background

Regulating environmental noise generally is the responsibility of local governments. The U.S. EPA once published guidelines on recommended maximum noise levels to protect public health and welfare (U.S. EPA, 1974), and the State of California maintains recommendations for local jurisdictions in the General Plan Guidelines published by the Governor's Office of Planning and Research (OPR, 2017). The following summarizes the local requirements.

Siskiyou County General Plan, Noise Element. The Siskiyou County General Plan includes a Noise Element that focuses on guiding decisions on land use to achieve compatibility of the land use patterns with the noise environment. The Noise Element lists the acceptable exterior noise level for residential uses and other sensitive areas, such as lodging and school classrooms, as 60 dBA Ldn, and the acceptable interior noise level for residences as 45 dBA Ldn. For passively-used open space land use, the acceptable outdoor noise level is 50 dBA Ldn (Siskiyou County, 1978).

Siskiyou County Code, Planning and Zoning (Title 10). The County Code does not include an ordinance for noise control, and generally the code aims to minimize exposure to excessive noise. For example, for certain demolition activities the County Code requires implementation of "best management practices" for noise control, "so as to avoid adverse impacts on the public health, welfare, and safety and so as to avoid noise and/or the discharge of contaminants to the soil, water or atmosphere so as to avoid any violation of any applicable rules, regulations, ordinances, statutes, or other applicable law" (County Code, Sec. 10-13.10).

Applicant Proposed Measures

As part of the Proposed Project, Siskiyou Telephone has identified Applicant Proposed Measures (APMs) in its Proponent's Environmental Assessment that it would implement during construction and/or operation of the Proposed Project to reduce or avoid impacts to noise. Siskiyou Telephone would conduct the design, construction, operation, and maintenance of the Proposed Project in accordance with its APMs. The APM for noise are listed in Table 5.12-1.

Table 5.12-1. Applicant Proposed Measures – Noise

APM Number	Description
APM NOI-1	During construction of the proposed project, the following BMPs would be implemented to minimize noise impacts: ▪ Construction activity would be restricted to the hours between 7 a.m. and 7 p.m. on weekdays. Work on weekends would need to be coordinated with the Siskiyou County Planning Department as needed. ▪ All stationary noise-generating equipment would be located as far as possible from nearby noise-sensitive receptors. ▪ Construction equipment powered by gasoline or diesel engines would have sound control devices at least as effective as those provided by the original equipment manufacturer. No equipment would be allowed to have an un-muffled exhaust, as appropriate. ▪ The construction contractor would ensure that noise-generating mobile equipment and machinery are turned off when not in use.

5.12.2 Environmental Impacts and Mitigation Measures

a. Would the project result in 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?

LESS THAN SIGNIFICANT. The Proposed Project would require a 195-day duration of construction activities occurring over two construction seasons. The activities would include mobilizing construction equipment, crews, and materials, trenching, directional drilling, placing the conduit and cable, backfilling, and clean-up. The construction activities would require use of vehicles and heavy-duty equipment capable of generating noise along the Proposed Project alignment, at the proposed staging and work areas, and along the roadways used to access these locations. The types of equipment used at work sites and staging areas would include trucks for crews, equipment, materials, and water delivery, backhoes, drill rigs, compactors, and small compressors, vacuums, and cleaners. Outside of work sites, increased traffic noise would be caused by vehicles transporting equipment and supplies to the sites, trucks removing excavated spoils, and workers commuting to and from work sites.

Construction would temporarily increase the noise levels within the project area. The surrounding land uses are limited to State Highway 96, a source of traffic noise, the adjacent Klamath River, the surrounding forest, and private residences along the highway.

Construction activities along the alignment and at staging areas would create both intermittent and continuous noises. Intermittent noise would be caused by periodic, short-term equipment operation at each site. Additionally, continuous noise would emanate from equipment operation over longer periods, such as when steady use of an excavator or compressor is needed. For example, use of a horizontal drilling bore would tend to cause noise steadily during each workday, while a vacuum truck and trailer would be used more sporadically to gather the grindings for disposal. The maximum intermittent noise levels from a construction work spread would typically range from 85 to 88 dBA measured at 50 feet from the source. These would be the highest levels expected due to combined use of a drill rig and a vacuum truck at one

location. At 50 feet, continuous noise levels could range up to about 84 dBA. Because sound fades over distance, these levels would diminish over additional distance and could be reduced further by intervening topography or structures. At 100 feet from a work spread, continuous noise levels could range up to 78 dBA and at 200 feet, up to 72 dBA.

Table 5.12-2 summarizes the typical noise levels for individual pieces of typical construction equipment.

Table 5.12-2. Typical Noise Levels for Individual Construction Equipment

Equipment	Typical Lmax (dBA, at 50 ft)	Typical Leq (dBA, at 50 ft)
Drill rig, auger	84	77
Crane	81	73
Backhoe	78	74
Excavator	81	77
Compactor	83	76
Vacuum truck	85	81
Dump truck, haul truck	76-79	73-76
Pickup truck, crew truck	75	62-71

Source: FHWA, 2006.
Lmax = Maximum noise level from Actual Measured in Roadway Construction Noise Model.
Leq = Equivalent noise level for one hour incorporating the Acoustical Usage Factor.

Construction would also cause noise away from work areas, primarily from commuting workers and from trucks needed to bring materials to the sites. Haul trucks would make trips to bring equipment and materials to the construction sites and remove excavated soil and waste. The noise levels associated with passing trucks and commuting worker vehicles would be approximately 71 to 76 dBA at 50 feet.

Construction noise levels could be in excess of land use compatibility standards shown in the General Plan for the limited duration of activity nearest to individual receptors. To minimize any potentially incompatible noise levels for construction activities that would be occasionally occur near sensitive land uses, the Applicant Proposed Measures include precautions to avoid creating unnecessary noise. Construction would be restricted to daytime hours, and steps would be taken to avoid unnecessary noise near residences and other noise sensitive locations. Construction equipment would be positioned away from residences, when possible. With the Applicant Proposed Measures, construction noise levels would implement "best management practices" consistent with the County Code. Because of the project's linear nature, construction noise at any one location would be of limited duration. The project-related construction noise would cease after construction is complete and would pose no conflict regarding compatibility of existing or future land uses with noise levels in the area. Upon completing construction, the occasional nature of maintenance noise would not result noise levels in excess of standards established in the General Plan. This impact would be less than significant.

b. Would the project result in exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?

LESS THAN SIGNIFICANT. Groundborne vibration levels from construction equipment and activities might be perceptible in the immediate vicinity of work or staging areas. The activities that would be most likely to cause groundborne vibration would be trenching, directional boring, and the passing of heavy trucks on uneven surfaces. Blasting would not be required. The impact from construction-related groundborne vibration would be short-term and confined to only the immediate area around activities (within about 25 feet). As work sites would be more than 25 feet from residences, no homes would be exposed to excessive vibration, and the impact would be less than significant.

c. Would the project result in a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?

LESS THAN SIGNIFICANT. Permanent increases in ambient noise levels in the project vicinity would not occur. Construction would not result in any new or different permanent source of noise. Operation and maintenance activities, including any emergency repairs, would be limited, with the project requiring minimal planned maintenance. The project would not contribute substantially to any increase in ambient noise levels, and this impact would be less than significant.

d. Would the project result in a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?

LESS THAN SIGNIFICANT. Construction noise would affect the locations closest to the work areas and along the alignment and State Highway 96 as it would be used by haul trucks and other construction traffic. The surrounding land uses would experience a temporary increase in noise above the conditions that exist without the project. However, the intermittent and variable nature of construction noise limits the potential for adverse effects such as annoyance to be experienced for any single location, and sleep interference would not be a concern because activities would be limited to daylight hours. Siskiyou Telephone expects work along the alignment to require two days or less at any one location (Siskiyou Telephone, 2016). Incremental noise from construction vehicles and traffic noise would not represent a substantial increase in the context of the project surroundings and the existing noise levels along the project alignment. As such, this impact would be less than significant.

e. For a project located within an airport land use plan or, where such a plan has not been adopted, within 2 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?

NO IMPACT. The northernmost portion of the project alignment and the disposal site would be located within 2 miles of the Happy Camp public airport (Siskiyou County, 2018), which is mostly used for general aviation. The majority of the project alignment would be more than 2 miles from the runway. Because the project would require no permanent staffing, the project would not expose people to noise from the airport. Similarly, no excessive noise would result from project operations that could impact people presently residing or working near the airport. As such, the Proposed Project would not expose people to excessive noise from aircraft, and there would be no impact.

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

NO IMPACT. The airport at Happy Camp is a public runway, and no private airstrips are located within 2 miles of the project; therefore, the project would have no impact under this criterion. The Proposed Project would not expose people to excessive noise from aircraft.

5.13 Population and Housing

POPULATION AND HOUSING Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
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?	☐	☐	☐	☒

Significance criteria established by CEQA Guidelines, Appendix G.

5.13.1 Setting

The Proposed Project area is mostly zoned as Rural Residential Agricultural (Siskiyou County, 2016). The entire Proposed Project is within the California Department of Transportation (Caltrans) maintenance right-of-way (ROW) in or adjacent to State Highway 96, which is located in both the Klamath National Forest and the Six Rivers National Forest. The vicinity of the Proposed Project alignment is not built-out and is primarily forest with scattered rural residences. There are approximately seven residences along the Proposed Project alignment (Siskiyou County, 2016).

Table 5.13-1 provides existing conditions for Siskiyou County; Yreka, CA, (approximately 70 miles east-northeast of the project area and the location of the nearest amenities and emergency service providers); and Etna, CA (the location of the Siskiyou Telephone main office and where operations and maintenance crew are dispatched from if needed).

Table 5.13-1. Year 2017 Existing Conditions – Population, Housing, and Employment

		Housing Units		Employment	
Location	**Population**	**Total Units**	**Vacancy Rate**	**Total Employed[1]**	**Unemployment Rate**
Yreka	7,777	3,673	8.0%	2,340	11.5%
Etna	733	361	10.5%	—[2]	—[2]
Siskiyou County	44,688	24,088	19.1%	16,190	8.2%

1 - Accounts for population greater than 16 years of age and in Labor Force.
2 - Data unavailable.
Source: CA DOF, 2017; CA EDD, 2018

Regulatory Background

There are no federal or state regulations, plans, and standards for population and housing that apply to the Proposed Project.

Local

Siskiyou County General Plan. The Siskiyou County General Plan includes a Housing Element, which establishes specific goals and policies relative to the provision of housing and provides for adoption of an action

plan to achieve this purpose. The following policies generally apply to the Proposed Project (Siskiyou County, 2014):

Policy HE.1.1. The County will ensure that its current building permit process and procedures do not unnecessarily constrain the production of affordable housing.

Policy HE.1.4. The County will ensure that an adequate number of housing units are available to meet the needs of its citizens.

Policy HE.2.1. The County will maintain an adequate supply of residentially zoned land necessary to meet its share of Regional Housing Needs.

Applicant Proposed Measures

There are no Applicant Proposed Measures for population and housing.

5.13.2 Environmental Impacts and Mitigation Measures

a. Would the project 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)?

LESS THAN SIGNIFICANT. There would be no direct population growth induced by the project, as it would not provide new housing and would not require an expansion of the Siskiyou Telephone workforce to service and maintain the new fiber optic broadband facility cable and utility boxes. Project personnel are expected to be mostly, if not completely, long-term personnel hired by Siskiyou Telephone's contractor already working on other projects in the area. During the construction periods occurring over 2 years, the Proposed Project would provide short-term jobs for this small workforce of Siskiyou Telephone contractors. Construction needs are not anticipated to result in workers relocating to the area. The Proposed Project would therefore generate neither a permanent increase in population levels nor a decrease in available housing.

The construction and operation of the new fiber optic line would facilitate potential future growth by ensuring providing reliable telephone and broadband service capability in an area that currently has minimal effective use of cell phone, satellite, or radio communications due to the mountainous terrain and remote location. Greater communication capability would potentially provide development and increased employment opportunities to the regional workforce. While the further development of this area of Siskiyou County may induce some population growth, this has already been accounted for through the County's General Plan (Siskiyou County, 2014). Therefore, there would be a less than significant effect as a result of the Proposed Project.

b. Would the project displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?

NO IMPACT. The Proposed Project would not be expected to result in an increase in population within the area. Installation of the fiber optic broadband facility cable and hand hole utility boxes would occur over 195 days spread over 2 years and would not require the permanent relocation of workers to the Proposed Project area. All the construction personnel (15 to 20 workers) would stay at various RV locations in Happy Camp, at the northernmost part of the project alignment, as they would be long-term personnel hired by Siskiyou Telephone's contractor. Any non-regional workers are not expected to remain in the area after construction of the Proposed Project is completed. Siskiyou Telephone maintains a single installer

repairman for the Happy Camp area and a 4-man construction crew would be dispatched out the Siskiyou Telephone's main office in Etna, California, in the event of an emergency (Siskiyou Telephone, 2018). The Proposed Project would not displace any housing and therefore would not necessitate the construction of replacement housing. Therefore, no impacts would occur.

c. Would the project displace substantial numbers of people necessitating the construction of replacement housing elsewhere?

NO IMPACT. As stated above, the Proposed Project would not be expected to result in an increase in population within the area. Since construction of the Propose Project would not require the relocation of workers to the Proposed Project area, residents would not be displaced and no replacement housing would be required. There, no impacts would occur.

5.14 Public Services

PUBLIC SERVICES

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:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Fire protection?	☐	☐	☒	☐
b. Police protection?	☐	☐	☒	☐
c. Schools?	☐	☐	☐	☒
d. Parks?	☐	☐	☐	☒
e. Other public facilities?	☐	☐	☐	☒

Significance criteria established by CEQA Guidelines, Appendix G.

5.14.1 Setting

In the area where the Proposed Project would be located, fire and police services, as well as schools, parks, recreational areas, and other public services, are provided by the Siskiyou County, the U.S. Forest Service (USFS), special districts, and private entities.

Fire Protection

Structural fire management and other types of wildland fire responsibilities in Siskiyou County are distributed among the CAL FIRE, the USFS, and local city fire departments. The Proposed Project area falls within a very high fire hazard severity zone (CAL FIRE, 2007). Since the project area is located in or adjacent to State Highway 96, which is located in both the Klamath National Forest and the Six Rivers National Forest, the USFS would provide the majority of fire protection services to the project area. However, there are areas along the project alignment over which CAL FIRE has responsibility for providing fire protection services (CAL FIRE, 2007).

A centralized, automatic dispatch system in Yreka is used to dispatch all USFS fire protection resources and services (USFS, 1995a). The nearest CAL FIRE station to the project area that provides year-around fire protection services is the Hornbrook Station located at 14638 Bradley Henley Road, Hornbrook, CA (CAL FIRE, 2018). Seasonal CAL FIRE stations near the project area are the Yreka Station, located at 1809 Fairlane Road, Yreka, CA, and Fort Jones Station, located at 17140 McAdams Creek Road, Fort Jones, CA.

Police Protection

Law enforcement services within the Proposed Project area are provided by the Siskiyou County Sheriff's Office. The sheriff's main office is located at 305 Butte Street, Yreka, CA (Siskiyou County, 2018). The California Highway Patrol (CPH) provides traffic enforcement in unincorporated areas of Siskiyou County. The CHP Yreka Area office, located at 1739 South Main Street, Yreka, CA, oversees traffic enforcement of State Highway 96, including the 17 miles within or adjacent to State Highway 96 where the project would be located. In addition, USFS provides police protection services for properties in the Proposed Project vicinity that are located in the National Forests (USFS, 1995a).

Schools

The Proposed Project area is served by Happy Camp Elementary School and Happy Camp High School, which is operated by Siskiyou Union High School District (SCOE, 2018). Both schools are located about 2.5 miles northeast of the northernmost part of the project alignment.

Parks

There are no parks within 0.25 miles of the Proposed Project alignment. Recreational activities such as hiking, fishing, and camping occur in Klamath National Forest, where the project is located, and the nearby Six Rivers National Forest (See Section 5.15, Recreation).

Hospitals

The following 2 hospitals are closest to the northernmost part of the Proposed Project alignment. Both are about 75 miles by road northeast of the project.

- Fairchild Medical Center, located at 444 Bruce Street, Yreka, CA, and
- Siskiyou Hospital Inc., located at 475 Bruce Street, # 200, Yreka, CA.

K'ima:w Medical Center is closest to the southernmost part of the project alignment. It is about 45 miles south of the project and is located at 535 Airport Rd, Hoopa, CA.

Regulatory Background

There are no local regulations associated with public services that are relevant to the Proposed Project.

Federal

Klamath National Forest Plan and Six Rivers National Forest Plan. The Forest Plan describes resource management practices, levels of resource production and management, and the availability and suitability of lands for resource management. The Forest Plan aims to integrate management activities that allow for the use, management, and protection of forest resources while meeting the needs of guiding legislation and responding to local, regional and national issues. Management guidelines for the land do not apply to any State, private, or other Federal land within the Forest boundaries (USFS, 1995a; 1995b).

State

2010 Strategic Fire Plan for California. The 2010 Strategic Fire Plan for California was developed in coordination with the State Board of Forestry and Fire Protection and CAL FIRE to reduce and prevent the impacts of fire in California. Goal 6 of the Plan sets objectives to determine the level of suppression resources (staffing and equipment) needed to protect private and public state resources. Specific objectives include, but are not limited to, maintaining an initial attack policy which prioritizes life, property, and natural resources; determining suppression resources allocation criteria; analyzing appropriate staffing levels and equipment needs in relation to the current and future conditions; increasing the number of CAL FIRE crews for fighting wildfires and other emergency response activities; maintaining cooperative agreements with local, state, and federal partners; and implementing new technologies to improve firefighter safety, where available (State Board of Forestry and Fire Protection).

Applicant Proposed Measures

As part of the Proposed Project, Siskiyou Telephone has identified Applicant Proposed Measures (APMs) in its Proponent's Environmental Assessment that it would implement during construction and/or operation of the Proposed Project to reduce or avoid impacts to public services. Siskiyou Telephone would conduct the design, construction, operation, and maintenance of the Proposed Project in accordance with its APMs. The APM for public services are listed in Table 5.14-1.

Table 5.14-1. Applicant Proposed Measures – Public Services

APM Number	Description
APM PS-1	Construction schedules would be submitted to local emergency service providers for review and comment, and updated as necessary. In addition, fire extinguishers and shovels would be maintained onsite during periods of construction or site activity for immediate fire control, if needed.

5.14.2 Environmental Impacts and Mitigation Measures

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

a) Fire protection?

LESS THAN SIGNIFICANT. Installation of the fiber optic broadband facility cable and hand hole utility boxes would not result in increased fire risk since there would be no electricity conducted through the glass and plastic fiber optic cables that would be buried in an underground conduit. The Proposed Project area, while in a very high fire hazard severity zone as designated by CAL FIRE, would continue to be supported by the existing fire protection services and the construction and operation of the Proposed Project would not induce growth in the project area. The fire risk from the Proposed Project would not create the need for new or physically altered fire protection facilities. In addition, operation and maintenance would not affect the ability of fire personnel to respond to fires.

The entirety of the approximately 17-mile project would occur within or adjacent to State Highway 96 and could cause traffic delays of up to 10 to 15 minutes that could impact fire emergency response. However, flaggers would control traffic encountered during construction activities and one full, 16-foot-wide lane would be available for emergency traffic at all times (Siskiyou Telephone, 2018). In addition, implementation of APM PS-1 would ensure that local emergency service providers would be aware of any potential impacts to emergency response during construction of the Proposed Project. Minimal maintenance of the project components is anticipated after completion of project construction. Overall, impacts on local or regional fire protection would be less than significant.

b) Police Protection?

LESS THAN SIGNIFICANT. The Proposed Project would not require police services during construction or operation and maintenance beyond routine patrols and response at the level currently provided. As with fire protection services discussed in Item (a) above, the construction and operation of the Proposed Project would not induce growth in the project area, result in a need for additional police facilities, or significantly affect response times or other service performance.

During construction, with flaggers to control potential traffic, a roadway lane on State Highway 96 available to emergency traffic at all times, and implementation of APM PS-1, any potential impacts to police protection services would result in a less than significant impact.

c) Schools?

NO IMPACT. The Proposed Project would not be expected to result in an increase in population within the area. Installation of the fiber optic broadband cable and hand hole utility boxes would occur over a 2-year period with up to 6 months of construction in any one year and would not require the permanent relocation of workers to the Proposed Project area. All the construction personnel (15 to 20 workers, as needed) would stay at various RV locations in Happy Camp, just north of the project alignment. Any non-regional workers are not expected to remain in the area after construction of the Proposed Project is completed. There would not be an expected increase in families or in school-age children as a result of the temporary construction activities or any workers who might temporarily migrate to the area.

After construction, Siskiyou Telephone's existing maintenance and operations group would assume inspection, patrol, and maintenance duties as needed; therefore, no additional staff would be required after project construction work is completed. The Proposed Project would result in no impact related to requiring expanded schools.

d) Parks?

NO IMPACT. There are no parks that exist near the project alignment. In addition, as discussed in Item (e) above, the Proposed Project would not increase the region's population. The Proposed Project would therefore have no impacts on parks.

e) Other Public Facilities?

NO IMPACT. The Proposed Project would not increase population and would not affect other governmental services or public facilities that would lead to the requirement of new or expanded facilities to be developed. Therefore, no impact on other public facilities is expected.

5.15 Recreation

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

Significance criteria established by CEQA Guidelines, Appendix G.

5.15.1 Setting

The entire Proposed Project is east of the Klamath River within the California Department of Transportation (Caltrans) right-of-way (ROW) in or adjacent to State Highway 96, which is located in both the Klamath National Forest and the Six Rivers National Forest. There are no parks within of the vicinity of the Proposed Project alignment. However, recreational activities such as hiking, fishing, and camping occur in Klamath National Forest and Six Rivers National Forest.

The Klamath National Forest has scenic landscapes; wildlife; and many lakes, rivers and streams. The National Forest has over 152 miles of Wild and Scenic Rivers, 381,000 acres of wilderness, 9 trailheads, over 1,330 miles of trails, 30 campgrounds, 2 picnic grounds, 3 observation sites, and 7 visitor information sites. The most popular recreational activities in the National Forest are boating, camping, fishing, hiking, backpacking, horseback riding, hunting and winter sports. (USFS, 1995a)

The Six Rivers National Forest has many rivers, streams, and lakes; steep mountains; oak woodlands, 4 wildernesses, the Smith River National Recreation Area, a vehicle-accessible road system, 15 developed campgrounds, 2 developed camping areas, 10 camping areas with no potable water, a boat ramp, 230 miles of trails, and 2 nationally designated Scenic Byways. The most popular recreational activities in the National Forest are camping, picnicking, swimming, fishing, hiking, horseback riding, boating, scenery viewing, and off-highway vehicle travel. (USFWS, 1995b)

Regulatory Background

There are no federal or State regulations associated with recreation that are relevant to the Proposed Project.

Federal

Klamath National Forest Plan and Six Rivers National Forest Plan. The Forest Plan describes resource management practices, levels of resource production and management, and the availability and suitability of lands for resource management. The Forest Plan aims to integrate management activities that allow for the use, management, and protection of forest resources while meeting the needs of guiding legislation and responding to local, regional and national issues. Management guidelines for the land do not apply to any State, private, or other Federal land within the Forest boundaries (USFS, 1995a; 1995b).

Local

Siskiyou County General Plan – Open Space Element. The Siskiyou County General Plan includes an Open Space Element, which has the goal of protecting and preserving open spaces, including agricultural lands,

recreational lands, and habitat for fish, wildlife, and plant life (Siskiyou County, 1972). There are no specific policies in the Open Space Element.

Siskiyou County General Plan – Conservation Element. The Siskiyou County General Plan also includes a Conservation Element, which has the goal of conserving and protecting the land, water, air, and biological resources of Siskiyou County. The following recommendations in the Conservation Element generally apply to the Proposed Project (Siskiyou County, 1980; 1997).

> *Recommendation 1. Provide for the orderly development and control of a comprehensive recreation system for Siskiyou County.*
>
> *Recommendation 7. The river areas which provide the best recreational attraction should be preserved.*

Applicant Proposed Measures

There are no Applicant Proposed Measures for recreation.

5.15.2 Environmental Impacts and Mitigation Measures

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?

LESS THAN SIGNIFICANT. Installation of the entire fiber optic broadband facility cable, approximately 17 miles of conduit and 40 hand hole utility boxes, is anticipated to occur over a 2-year period, with up to 6 months of construction in any one year. Project personnel are expected to be mostly, if not completely, long-term personnel hired by Siskiyou Telephone's contractor already working on other projects in the area. While it is possible that the 15-20 construction personnel staying temporarily at various RV locations in Happy Camp for the duration of project construction may visit the Klamath and Six Rivers National Forests to partake in recreational activities, the potential increase in use and demand in these National Forests would be minimal and temporary. Possible recreational activities by construction personnel would not contribute substantially to the physical deterioration of existing facilities. Consequently, the Proposed Project would not increase any long-term demands on existing parks or recreational facilities in the project area, and no new or expanded park facilities would be required because of the Proposed Project.

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?

NO IMPACT. The Proposed Project does not include recreational facilities, nor does it require the construction of new or expanded parks or recreational facilities that could create an adverse physical effect on the environment. There would be no impact.

5.16 Transportation/Traffic

TRANSPORTATION AND TRAFFIC **Would the project:**	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
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?	☐	☐	☐	☒

Significance criteria established by CEQA Guidelines, Appendix G.

5.16.1 Setting

The Proposed Project would use local roadways, primarily State Highway 96, for accessing work areas during construction. Portions of State Highway 96 would be temporarily disrupted during installation of the new fiber optic broadband facility cable and hand hole utility boxes. Baseline conditions of regional and local roadways likely used to access the Proposed Project area and work locations and those temporarily affected by Proposed Project construction activities are discussed below.

Highways

During the construction season, most the construction personnel (15 to 20 workers, as needed) would stay at various RV locations in Happy Camp, CA (Siskiyou Telephone, 2018). Access to the Proposed Project area from Happy Camp would be via State Highway 96. State Highway 96 is a 32-foot wide, 2-lane (1 lane each direction) divided east-west highway that extends through Siskiyou and Humboldt Counties. Main Street and Second Street in Happy Camp would likely be used to access State Highway 96. At the Main Street and State Highway 96 intersection, the 2016 average daily traffic (ADT) volume on State Highway 96 were 1,100 vehicles per day. At the Second Street and State Highway 96 intersection, the 2016 ADT volumes on U.S. 101 were 1,900 vehicles per day (Caltrans, 2016). The 2016 ADT volumes are the most recently published data.

Construction of the Proposed Project would result in temporary disruption to State Highway 96 in some locations. Traffic delays might be as long as 10 to 15 minutes, but one full, 16-foot-wide lane would be available for emergency traffic at all times. Temporary lane closures are anticipated, but no road closures would be required.

Mass Transit

Existing public transit service within Siskiyou County is primarily provided by Greyhound Bus Lines, Trailways Bus Lines, and the Siskiyou Transit and General Express (Siskiyou County, 1987).

Air Transportation

The following Siskiyou County airports are nearest to the Proposed Project area (Siskiyou County, 1987):

- Siskiyou County Airport is located about 48 miles east of the Proposed Project area. The airport, classified as a basic transport facility, is operated by Siskiyou County and is the major airport in the County.
- Montague-Yreka Municipal Airport is located about 44 miles east of the Proposed Project area. The airport, classified as landing strip, is operated jointly by the City of Montague and the City of Yreka.
- Scott Valley Airport is located about 31 miles east of the Proposed Project area. The airport, classified as a landing strip, is operated by Siskiyou County.
- Happy Camp Airport is located about 1.5 north of the Proposed Project area. The airport, classified as basic utility facility – stage 1, is operated by Siskiyou County.

There are also 2 privately-owned airports, both approximately 35 miles east of the project area: Round Mountain Airport and Lefko Airport. In addition, there are 2 public airports operated by Del Norte County west of the project area: Andy McBeth Airport, about 25 miles from the project area, and Ward Field, about 30 miles from the project area.

Regulatory Background

Federal

14 CFR Part 77 – Safe, Efficient Use, and Preservation of the Navigable Airspace. Construction of a project could potentially impact aviation activities if a structure or equipment were positioned such that it would be a hazard to navigable airspace. The Federal Aviation Administration (FAA) has established reporting requirements if any construction includes equipment or structures more than 200 feet above ground level or results in an object penetrating an imaginary surface extending outward and upward at a ratio of 100 to 1 from a public or military airport runway out to a horizontal distance of 20,000 feet (approximately 3.78 miles) (FAA, 2016). For areas around heliports, this same requirement applies to any construction that is more than 200 feet above ground level or would penetrate an imaginary surface extending outward and upward at a ratio 25 to 1 from a public or military heliport out to a horizontal distance of 5,000 feet.

State

California Vehicle Code (CVC). The CVC includes regulations pertaining to licensing, size, weight, and load of vehicles operated on highways; safe operation of vehicles; and the transportation of hazardous materials.

Caltrans Guide for the Preparation of Traffic Impact Studies (TIS). TIS identifies the following criteria as a starting point in determining when a TIS is needed for a project (Caltrans, 2002):

1. *Generates over 100 peak hour trips assigned to a State highway facility.*
2. *Generates 50 to 100 peak hour trips assigned to a State highway facility – and, affected State highway facilities are experiencing noticeable delay; approaching unstable traffic flow conditions (LOS C or D).*
3. *Generates 1 to 49 peak hour trips assigned to a State highway facility – and, affected State highway facilities are experiencing significant delay; unstable or forced traffic flow conditions (LOS E or F).*

Applicable Caltrans highways include State Highway 96. As stated in Caltrans' *Guide for the Preparation of Traffic Impact Studies*, a TIS may be as simple as providing a traffic count to as complex as a microscopic simulation (Caltrans, 2002). (Because the Proposed Project does not result in traffic after the construction period, the need for a separate full TIS analysis is not warranted and was not prepared. The analysis provided in Section 3.16.1 compares project trips against the existing volumes and capacities of affected roadways. This level of analysis is considered consistent with the *Guide for the Preparation of Traffic Impact Studies*).

Local

Siskiyou County General Plan – Land Use Element. The Siskiyou County General Plan includes a Land Use Element, which has the goal of allowing the physical environment to determine the appropriate future land use pattern that will develop in Siskiyou County. The following policies generally apply to the Proposed Project (Siskiyou County, 1980; 1997).

Policy 41.3. The following policies shall determine the location of any proposed use of the land:

- *All heavy commercial, and heavy industrial uses must provide or have direct access onto major thoroughfares or existing industrial/commercial streets capable of accommodating the traffic that could be generated from the proposed use.*
- *All light commercial, light industrial, multiple family residential, and commercial/recreational, public and quasi public uses must provide or have direct access to a public read capable of accommodating the traffic that could be generated from the proposed use.*
- *All heavy commercial and heavy industrial uses should be located away from areas clearly committed to residential uses.*
- *All heavy, non-agriculturally related commercial and industrial uses should be located away form areas clearly committed to agricultural uses.*
- *All proposed uses of the land shall be clearly compatible with the surrounding and planned uses of the area.*
- *All proposed uses of the land may only be allowed if they clearly will not be disruptive or destroy the intent of protecting each mapped resource.*
- *Existing or planned industrial areas shall not be developed in a manner that will destroy industrial potential.*

Policy 41.9. Buildable, safe access must exist to all proposed uses of land. The access must also be adequate to accommodate the immediate and cumulative traffic impacts of the proposed development.

Siskiyou County General Plan – Circulation Element. The Siskiyou County General Plan includes a Circulation Element, which was designed to work with the Land Use Element and be applied to right-of-way acquisitions and road development. The following policy generally apply to the Proposed Project (Siskiyou County, 1987).

Road Rights-of-Way Policy 4. All easements must be adequate to provide for ingress, egress, public utilities, parking, and encroachments.

Applicant Proposed Measures

As part of the Proposed Project, Siskiyou Telephone has identified Applicant Proposed Measures (APMs) in its Proponent's Environmental Assessment that it would implement during construction and/or operation of the Proposed Project to reduce or avoid impacts to traffic and transportation. Siskiyou Telephone would conduct the design, construction, operation, and maintenance of the Proposed Project in accordance with its APMs. The APM for transportation and traffic are listed in Table 5.16-1.

Table 5.16-1. Applicant Proposed Measures – Transportation and Traffic

APM Number	Description
APM TRF-1	The use of traffic control measures would ensure that the effects on traffic would not create unsafe conditions. In addition, Siskiyou Telephone would inform residents in Happy Camp of construction activities and potential delays.

5.16.2 Environmental Impacts and Mitigation Measures

a. Would the project 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?

LESS THAN SIGNIFICANT – CONSTRUCTION. Project construction would occur in and adjacent to State Highway 96 and would therefore create impacts to public and private transit in the project area. Traffic delays caused by construction activities might be as long as 10 to 15 minutes.

While construction would create impacts, these impacts would be localized, temporary in nature, and would not change long-term traffic loads or patterns. Designated flaggers would control traffic encountered during construction activities and fiber optic cable conduits would be laid out alongside the construction route each morning so that additional vehicles would not impede traffic during construction. APM TRF-1 would ensure that traffic control measures would prevent the creation of unsafe conditions for traffic. With implementation of APM TRF-1, construction would result in a less-than-significant impact to the performance of the local circulation system.

NO IMPACT – OPERATION AND MAINTENANCE. Minimal maintenance of the project components is anticipated after completion of project construction and would not result in any impacts to roadways. No additional staff would be required after project construction work is completed. No substantial increase in traffic or traffic-related impacts would occur due to operation and maintenance activities.

b. Would the project 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?

LESS THAN SIGNIFICANT – CONSTRUCTION. Construction of the Proposed Project would cause a minor short-term increase in the local traffic on State Highway 96. Traffic delays might be as long as 10 to 15 minutes. However, designated flaggers would control traffic encountered during construction activities and the Proposed Project would not increase traffic substantially as compared to the existing traffic volume and the capacity of State Highway 96. Therefore, it is not anticipated that the temporary construction traffic generated by the Proposed Project would alter the existing level of service designations on area roadways,

and level of service standards would not be exceeded. The Proposed Project would result in less than significant impacts on an applicable congestion management program.

NO IMPACT – OPERATION AND MAINTENANCE. Minimal maintenance of the project components is anticipated after completion of project construction and would not result in any impacts to roadways. These activities are not expected to require temporary lane closures and therefore would not cause level of service standards to be exceeded. The result would be no impacts on an applicable congestion management program.

c. Would the project 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?

NO IMPACT. The Proposed Project does not include any objects over 200 feet in height and is located outside of the height notification boundary established by the FAA. Therefore, the Proposed Project would not involve the construction of any structures near any aviation facilities or of such a height that could pose a hazard to air navigation. No impact to air traffic would occur.

d. Would the project substantially increase hazards because of a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?

LESS THAN SIGNIFICANT – CONSTRUCTION. Construction of the Proposed Project would involve activities within and adjacent to State Highway 96, a public roadway. Heavy equipment operating adjacent to or within a road right-of-way could increase the risk of accidents. There would be up to 30 round-trip construction vehicle trips estimated per day between the project site and Happy Camp. Construction trucks on the State Highway 96 would interact with other vehicles and potentially create hazards.

In addition, possible trenching could impact the condition of the roadway. However, the surfaces of any impacted Caltrans roadways and road shoulders would be restored daily to pre-project condition.

Construction traffic related impacts would be reduced with implementation of APM TRF-1 to ensure that traffic control measures would prevent the creation of unsafe conditions for traffic. While there may be a limited increase in hazards due to construction activities proximate to State Highway 96, construction would be temporary and, with the implementation of APM TRF-1, temporary impacts during construction would be less than significant.

NO IMPACT – OPERATION AND MAINTENANCE. Minimal maintenance of the project components is anticipated after completion of project construction and would not result in any impacts to roadways. These activities are not expected to require temporary lane closures and therefore would not cause hazards due to maintenance activities proximate to a public roadway. There would be no impact.

e. Would the project result in inadequate emergency access?

LESS THAN SIGNIFICANT – CONSTRUCTION. The entirety of the approximately 17-mile project would occur within or adjacent to State Highway 96, which is approximately 32 feet wide, and could cause traffic delays of up to 10 to 15 minutes that could impact fire and police protection emergency response. However, designated flaggers would control traffic encountered during construction activities and one full, 16-foot-wide lane would be available for emergency traffic at all times (Siskiyou Telephone, 2018). In addition, implementation of APM PS-1 would ensure that local emergency service providers would be aware of any potential impacts to emergency response during construction of the Proposed Project and implementation of APM TRF-1 would ensure that traffic control measures would prevent the creation of unsafe conditions for traffic. Overall, impacts on emergency access would be less than significant.

NO IMPACT – OPERATION AND MAINTENANCE. Once operational, the Proposed Project would have no impact on access or movement to emergency service providers. Minimal maintenance of the project components is anticipated after completion of project construction and would not result in any impacts to roadways. Therefore, maintenance of the Proposed Project would have no impact to emergency vehicle access and movements.

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?

NO IMPACT. There are no adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities in or adjacent to State Highway 96. The Proposed Project would therefore not conflict with any policies, plans, or programs or otherwise decrease the performance or safety of such facilities. Impacts would not result from project activities.

5.17 Tribal Cultural Resources

TRIBAL CULTURAL RESOURCES

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:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
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.	☐	☐	☒	☐

Significance criteria established by CEQA Guidelines, Appendix G.

5.17.1 Setting

Tribal Cultural Resources (TCRs) are a defined class of resources under Assembly Bill 52 (AB 52). TCRs include sites, features, places, cultural landscapes, and sacred places or objects that have cultural value or significance to a Tribe. To qualify as a TCR, the resource must either: (1) be listed on, or be eligible for listing on, the California Register of Historical Resources or other local historic register; or (2) constitute a resource that the lead agency, at its discretion and supported by substantial evidence, determines should be treated as a TCR (PRC § 21074). AB 52 also establishes that, "California Native American tribes traditionally and culturally affiliated with a geographic area may have expertise concerning their tribal cultural resources." Therefore, tribal representatives may be able to provide substantial evidence regarding the locations, types, and significance of TCRs located within their traditional and cultural affiliated geographic areas (AB 52 § 4; PRC § 21074(a)(2); PRC § 21080(e); PRC § 21080.3.1(a)). Thus, the identification and analysis of TCRs should involve consultation between the CEQA lead agency and interested tribal groups and/or tribal persons (AB 52 § 1(5); PRC § 21080.3.1(a)).

Approach to Analysis of Tribal Cultural Resources

Information presented in this section was gathered through AB 52 consultation between the CPUC and California Native American Tribes that have cultural affiliations with the Proposed Project area and that have requested to consult on the Proposed Project. Supplementary information was gathered from the cultural resources literature and records search, cultural resources field survey, ethnographic summary, and pre-AB 52 tribal outreach that is described in detail in Section 5.5.

The Proposed Project's effects on TCRs were evaluated using the significance criteria set forth in Appendix G of the CEQA Guidelines and with consideration to AB 52 and the Governor's Office of Planning and Research "Draft Technical Advisory: AB 52 and Tribal Cultural Resources in CEQA." The conclusions are summarized in the impact summary table above and discussed in more detail below.

There are no TCRs located within the Proposed Project area or within 0.5 miles of the Proposed Project

area's boundary. Therefore, the analysis concludes that there will be no potential impacts to known TCRs. However, there is always the potential for impacts to cause an unexpected impact to buried TCRs that are at present unknown and unrecorded. Implementation of APMs CUL-1, CUL-2, CUL-4 and CUL-5 Mitigation Measure TCR-1 would reduce this impact to a less than significant level.

Background Research

A letter was sent to the Native American Heritage Commission (NAHC) on February 1, 2018, requesting an updated search of the Sacred Lands File and a current AB 52 Tribal Consultation List consisting of any tribal groups or persons who have expressed an interest in receiving notification about projects being undertaken or applications being reviewed by the CPUC. On February 2, 2018 the NAHC responded that the Sacred Lands File search was positive and provided a list of tribal representatives identified as potentially having an interest in the CPUC's service area. The results of this search were positive. Follow-up correspondence was sent on February 9, 2018 to all individuals and groups indicated by the NAHC as having affiliation with the Proposed Project area. These tribes included: Karuk Tribe; Karuk Tribe of California; Klamath Tribe; Quartz Valley Indian Community; Modoc Tribe of Oklahoma; Pit River Tribe of California; Pit River Tribe of California, Madesi Band; Pit River Tribe of California, Atwaminsini Band; Shasta Indian Nation; Shasta Nation; Winnemenm Wintu Tribe; and the Wintu Tribe of Northern California.

Project Notification

AB 52 requires that within 14 days of the lead agency determining that a project application is complete, a formal notice and invitation to consult about the Proposed Project be sent to all tribal representatives who have requested in writing to be notified of projects that may have a significant effect on TCRs located within the Proposed Project area (PCR § 21080.3.1(d)). On February 9, 2018, the CPUC mailed certified letters to representatives of one tribe that had previously submitted a written request to the CPUC to receive notification of proposed projects and a second identified by the NAHC Sacred Lands File search. These tribes included the Karuk Tribe, the Elk Valley Rancheria and the Shasta Nation. The letters included a brief description of the Proposed Project, information on how to contact the lead agency Project Manager, and a USGS topographic quadrangle showing the project components and lay-down areas. The letters noted that requests for consultation needed to be received within 30 days of the date of receipt of the notification letter. No responses were received.

AB 52 Native American Tribal Consultation

AB 52 states that once California Native American tribes have received the project notification letter, the tribe then has 30 days to submit a written request to consult (PCR § 21080.3.1(d)). Upon receiving a Tribe's written request to consult, the lead agency then has 30 days to begin tribal consultation. Consultation must include discussion of specific topics or concerns identified by tribes. Any information shared between the Tribes and the lead agency representatives is protected under confidentiality laws and not subject to public disclosure (GC § 6254(r); GC § 6254.10) and can be disclosed only with the written approval of the Tribes who shared the information (PCR § 21082.3(c)(1-2)).

Consultation as defined in AB 52 consists of the good faith effort to seek, discuss, and carefully consider the views of others. Consultation between the lead agency and a consulting Tribe concludes when either of the following occurs: (1) the parties agree to measures to mitigate or avoid a significant effect, if a significant effect exists on a TCR; or (2) a consulting party, acting in good faith and after reasonable effort, concludes that mutual agreement cannot be reached (PCR § 21080.3.2(b)).

No tribes requested to consult on the Proposed Project within the 30-day time limit. As such the consultation component of the AB 52 process is complete. While there are resources in the Proposed Project vicinity that meet the definition of TCRs, none of them will be impacted by the Proposed Project. However, construction could inadvertently disturb presently unknown and unrecorded TCRs. APMs CUL-1, CUL-2, and CUL-4 and CUL-5 were developed to address potential impacts cultural resources and TCRs.

Regulatory Background

This section includes a description of the tribal cultural resources regulatory framework.

Federal

Because portions of the Project are located on U.S. Forest Service land and requires an amendment to the existing land use permit, the Project is a federal undertaking that requires compliance with the National Environmental Policy Act (NEPA) and Section 106 of the National Historic Preservation Act (NHPA). Section 106 requires that federal agencies take into account the effect of their actions on properties that may be eligible for or listed in the National Register of Historic Places.

State

California Environmental Quality Act

CEQA requires that impacts to TCRs be identified and, if impacts will be significant, that mitigation measures be implemented to reduce those impacts to the extent feasible (PCR § 21081). In the protection and management of the cultural environment, both the statute and the CEQA Guidelines (14 California Code of Regulations Section 15000 et seq.) provide definitions and standards for management of TCRs. The Public Resources Code section 21074 defines a Tribal Cultural Resource as "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." TCRs also include "non-unique archaeological resources" that may not be scientifically significant, but still hold sacred or cultural value to a consulting tribe. A resource shall be considered significant if it is: (1) listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in PCR § 5020.1(k) (discussed in detail above); or (2) a resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in of PCR § 5024.1(c). In applying these criteria, the lead agency must consider the significance of the resource to a California Native American tribe.

A project may have substantial adverse change in the significance of a TCR if:

- The adverse change is identified through consultation with any California Native American tribe that requests consultation and is traditionally and culturally affiliated with the geographic area of a proposed project (PCR § 21084.2).
- The resource is listed, or eligible for listing, in the California Register of Historical Resources or in a local register of historical resources, and it is demolished as described in detail above (State CEQA Guidelines section 15064.5 (b)).

The fact that a TCR is not listed in, or determined to be ineligible for listing in, the CRHR, is not included in a local register of historical resources, or is not identified in a historical resources survey does not preclude a lead agency from determining that the resource may be a historical resource. (Please refer to Section 5.5 for a detailed discussion of the term "historical resource" pursuant to Guideline 15064.5(a)). Section

15064.5(b)(1) of the CEQA Guidelines explains that effect on historical resources (or TCRs) would be considered adverse if it involves physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings such that the significance of the resource would be materially impaired. Adverse effects on historical resources may result in a project having a significant effect on the environment. Section 15064.5(c)(3) requires that TCRs receive treatment under PRC Section 21083.2, which requires that these resources be preserved in place or left in an undisturbed state. If these treatments are not possible, then mitigation for significant effects is required, as outlined in PRC Section 21082.2(c).

The statutes and guidelines cited above specify how TCRs are to be analyzed for projects subject to CEQA.

Applicant Proposed Measures

As part of the Proposed Project, Siskiyou Telephone has identified Applicant Proposed Measures (APMs) in its Proponent's Environmental Assessment that it would implement during construction and/or operation of the Proposed Project to reduce or avoid impacts to tribal cultural resources. Siskiyou Telephone would conduct the design, construction, operation, and maintenance of the Proposed Project in accordance with its APMs. The APM for tribal cultural resources are listed in Table 5.17-1.

Table 5.17-1. Applicant Proposed Measures – Tribal Cultural Resources

APM	Description
APM CUL-1	Prior to construction, workers would be provided with environmental awareness training to recognize potential archaeological or paleontological resources and identify and address any unearthed human remains during construction. If archaeological (or paleontological) materials are uncovered, construction activities and excavation should be conducted to avoid the resources. All construction work within 100 feet of the resource would be halted until a qualified archaeologist (or paleontologist) can assess the find. The archaeologist (or paleontologist) would assess the find and make any necessary recommendations, including any procedures to further investigate or mitigate impacts on the find as required by law, including CEQA Guidelines, Section 15126.4(b)(3)(C).
APM CUL-2	If during excavation or earth-moving activities the construction contractor identifies potential historic or archaeological resources, the county or local jurisdiction would be notified, and a professional archaeologist meeting the minimum qualifications in archaeology as set forth in the Secretary of the Interior's Standards and Guidelines would be contracted and dispatched to assess the nature and significance of the find in the following manner: ▪ All excavation and grading within 10 feet of the discovery area would cease immediately. The responding archaeologist may, after analyzing the discovery, authorize an alternate buffer around the materials to ensure adequate evaluation and protection of potential historic and archaeological resource(s) during continued construction operations. ▪ Additional evaluation of the historic and archaeological resource(s) would be conducted and significance of the materials determined. If the discovery is considered significant, the archaeologist would develop and implement a late-discovery mitigation strategy to minimize and avoid the impact, where appropriate.
APM CUL-4	If human remains are encountered, Health and Safety Code Section 7050.5 states that no further disturbance would occur until the county coroner has made a determination of origin and disposition pursuant to PRC Section 5097.98. The county coroner must be notified of the find immediately. If the remains are determined to be prehistoric, the county coroner would notify the Native American Heritage Commission, which would determine and notify a most likely descendant (MLD). With the permission of the landowner and his/her authorized representative, the MLD may inspect the site of the discovery. The MLD would complete the inspection within 48 hours of the notification by the Native American Heritage Commission. The MLD may make recommendations regarding the disposition of the remains.
APM CUL-5	Siskiyou Telephone and/or USFS would work with the Karuk Tribe to provide a tribal monitor to observe conditions during construction in specified areas of interest.

5.17.2 Environmental Impacts and Mitigation Measures

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)?

LESS THAN SIGNIFICANT. There are no known TCRs that are listed in, or are known to be eligible for listing in, the California Register of Historical Resources or local register of historical resources within the Proposed Project or the 0.5-mile surrounding area. However, it is possible that previously unidentified TCRs that may be eligible for inclusion in the CRHR or local registers could be discovered and damaged, or destroyed, during ground disturbance, which would constitute a significant impact absent mitigation.

Implementation of APMs CUL-1, CUL-2, CUL-4 and CUL-5 would evaluate and protect unanticipated TCR discoveries, including historical and archaeological resources and human remains, thereby reducing this impact to less than significant.

(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?

LESS THAN SIGNIFICANT. There are no known TCRs that are listed in, or are known to be eligible for listing in, the California Register of Historical Resources or local register of historical resources within the Proposed Project or the 0.5-mile surrounding area. However, it is possible that previously unidentified TCRs that may be eligible for inclusion in the CRHR or local registers could be discovered and damaged, or destroyed, during ground disturbance, which would constitute a significant impact absent mitigation.

Implementation of APM CUL-1, CUL-2, CUL-4 and CUL-5 would evaluate and protect unanticipated TCR discoveries, including historical and archaeological resources and human remains, thereby reducing this impact to a less than significant level.

5.18 Utilities and Service Systems

UTILITIES AND SERVICE SYSTEMS **Would the project:**	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
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?	☐	☐	☐	☒

Significance criteria established by CEQA Guidelines, Appendix G.

5.18.1 Setting

Utility

Water Supply

The lands along State Highway 96 in west Siskiyou County are rural and sparsely populated. There is no public water supply that service the area. Water is derived from privately owned sources (Siskiyou Telephone, 2018).

Electricity and Natural Gas

The project area primarily service by power from Pacific Power or by privately owned propane tanks, solar energy generators, or electrical generators (Siskiyou Telephone, 2018).

Service System

Sewerage/Wastewater

There is no sewer collection facility or wastewater treatment provider that serves the area. Wastewater treatment systems are privately owned and operated (Siskiyou Telephone, 2018).

Solid Waste Disposal

Two active, permitted solid waste disposal facilities are available in western Siskiyou County. Happy Camp Transfer Station is located at 2 M. SW Happy Camp, Highway 96–Chambers Road, Happy Camp, CA. The transfer station is operated by the County of Siskiyou General Services and has a maximum throughput of

99 cubic yards/day (CalRecycle, 2018a). Scott Valley Disposal is located at 11217 North Highway 3, Fort Jones, CA. The transfer and processing station has a maximum permitted throughput of 15 tons per day and a permitted capacity of 2,600 tons per day (CalRecycle, 2018b).

Regulatory Background

There are no federal regulations associated with utilities and service systems that are relevant to the Proposed Project.

State

California Government Code – Protection of Underground Infrastructure. The responsibilities of California utility operators working in the vicinity of utilities are detailed in Section 1, Chapter 3.1, "Protection of Underground Infrastructure" (Article 2 of California Government Code §§4216-4216.9). This law requires that an excavator must contact a regional notification center at least two days prior to excavation of any subsurface installation. Any utility provider seeking to begin a project that may damage underground infrastructure can call Underground Service Alert, the regional notification center. Underground Service Alert will notify the utilities that may have buried lines within 1,000 feet of the project. Representatives of the utilities are required to mark the specific location of their facilities within the work area prior to the start of project activities in the area. The code also requires excavators to probe and expose underground facilities by hand prior to using power equipment.

California Integrated Waste Management Act of 1989. Assembly Bill 939 codified the California Integrated Waste Management Act of 1989 in the Public Resources Code and established a hierarchy to help the California Integrated Waste Management Board (CIWMB) and local agencies implement three major priorities under the Integrated Waste Management Act: source reductions; recycling and composting; and environmentally safe transformation and land disposal. Waste diversion mandates are included under these priorities. The duties and responsibilities of the CIWMB have since been transferred to the California Department of Resources Recycling and Recovery (CalRecycle) after the abolishment of the CIWMB in 2010, but all other aspects of the Act remain unchanged.

The Act requires all local and county governments to adopt a waste reduction measure designed to manage and reduce the amount of solid waste sent to landfills. This Act established reduction goals of 25 percent by the year 1995 and 50 percent by the year 2000. Senate Bill 1016 (2007) streamlines the process of goal measurement related to Assembly Bill 939 by using a disposal-based indicator: the per capita disposal rate. The per capita disposal rate uses only two factors: the jurisdiction's population (employment can be considered in place of population in certain circumstances) and the jurisdiction's disposal as reported by disposal facilities. CalRecycle encourages reduction measures through the continued implementation of reduction measures, legislation, infrastructure, and support of local requirements for new developments to include areas for waste disposal and recycling on-site.

California Code of Regulations (Title 27). Title 27 (Environmental Protection) of the California Code of Regulations defines regulations and minimum standards for the treatment, storage, processing, and disposal of solid waste at disposal sites. The State Water Resources Control Board maintains and regulates compliance with Title 27 (Environmental Protection) of the California Code of Regulations by establishing waste and site classifications and waste management requirements for solid waste treatment, storage, or disposal in landfills, surface impoundments, waste piles, and land treatment units. The compliance of the Proposed Project would be enforced by the San Francisco RWQCB Region 2 and the California Department of Resources Recycling and Recovery (CalRecycle) (formerly the California Integrated Waste Management Board). Compost facilities are regulated under CCR Title 14, Division 7, Chapter 3.1 Section 17850 through 17895, by CalRecycle. Permit requests, Reports of Waste Discharge, and Reports and Disposal Site Information are submitted to the RWQCB and CalRecycle, and are used by the two agencies to review, permit, and monitor these facilities.

Local

Siskiyou County General Plan. The Siskiyou County General Plan includes a Land Use Element, which has the goal of allowing the physical environment to determine the appropriate future land use pattern that will develop in Siskiyou County. The following policies generally apply to the Proposed Project (Siskiyou County, 1980; 1997).

Policy 41.6. There shall be a demonstration to the satisfaction of the Siskiyou County Health Department and/or the California Regional Water Quality Control Board that sewage disposal from all proposed development will not contaminate ground water.

Policy 41.7. Evidence of water quality and quantity acceptable to the Siskiyou County Health Department must be separate prior to development approval.

Policy 41.8. All proposed development shall be accompanied by evidence acceptable to the Siskiyou County Health Department as to the adequacy of on-site sewage disposal or the ability to connect into an existing city or existing Community Services District with adequate capacity to accommodate the proposed development. In these cases the minimum parcel sizes and uses of the land permitted for all development will be the maximum density and land uses permitted that will meet minimum water quality and quantity requirements, and the requirements of the country's flood plain management ordinance.

Applicant Proposed Measures

As part of the Proposed Project, Siskiyou Telephone has identified Applicant Proposed Measures (APMs) in its Proponent's Environmental Assessment that it would implement during construction and/or operation of the Proposed Project to reduce or avoid impacts to utilities and service systems. Siskiyou Telephone would conduct the design, construction, operation, and maintenance of the Proposed Project in accordance with its APMs. The APM for utilities and service systems are listed in Table 5.18-1.

Table 5.18-1. Applicant Proposed Measures – Utilities and Service Systems

APM Number	Description
APM UTL-1	Solid waste generated in the project area during construction is anticipated to be minimal and would be transported offsite daily to the Happy Camp disposal site.

5.18.2 Environmental Impacts and Mitigation Measures

a. Would the project exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?

LESS THAN SIGNIFICANT. During construction, water would primarily be used to wet down the work area and during horizontal directional drilling during installation of the fiber optic broadband facility cables. During drilling/boring operations, drilling fluid composed of water and bentonite bore powder would be used to flush out grindings out of the bore tube. The waste would then be vacuumed into a 600 gallon vac-trailer and disposed of in Happy Camp. Siskiyou Telephone has an agreement with the disposal site located in Happy Camp on State Highway 96 for all project wastes, which includes trench spoils, drilling fluids, and portable toilet waste (Siskiyou Telephone, 2018). At least 4 vac-trailers would haul the wastewater from the work area a minimum of 8 times per day during drilling/boring construction work.

Dewatering is not anticipated; however, if dewatering is required, approximately 8,500 gallons of containment is available via the vac-trailers and water trucks, which can draught water if needed. Any wastewater

generated through dewatering would also be disposed of at the same location in Happy Camp. Moreover, portable toilets will be pumped and cleaned weekly and the waste would be disposed of in Happy Camp. No wastewater would be generated as a result of operation or maintenance of the Project.

Overall, the proper disposal of fluid wastes and implementation of BMPs would result in a less than significant impact.

b. Would the project 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?

LESS THAN SIGNIFICANT. Water use during construction would primarily be for drilling operations and to minimize offsite transport of dust. The water used for drilling operations and to minimize offsite transport of dust would be purchased from the Happy Camp Community Service District in Happy Camp. Water use during construction would be approximately 14,000 gallons a day for the drilling operation as well as approximately 6,000 gallons a day for road surface cooling and gravel wetting for compaction. A water truck would make 6 or more trips per day between the work area and Happy Camp to provide water for construction activities. As discussed in Item (a), above, drilling fluid would be vacuumed into a 600 gallon vac-trailer and disposed of at an approved disposal location in Happy Camp. In addition, waste from portable toilets would be disposed of in Happy Camp. Existing water sources are sufficient to supply the required water; no facilities would need to be expanded and new facilities would need to be constructed.

Upon completion of construction, the Proposed Project would not generate any demand for water or wastewater treatment. Existing water resources and wastewater disposal facilities are adequate to accommodate the demand generated by the Proposed Project. The project would have less than significant impact that would not increase the need for the construction or expansion of water or wastewater treatment facilities.

c. Would the project 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?

LESS THAN SIGNIFICANT. Wastewater created during construction of the Proposed Project would be collected and disposed of at an approved location off-site in Happy Camp and none is anticipated to be disposed on site or enter the stormwater drainage along State Highway 96. Installation of all the project's utility boxes would create approximately 780 square feet of impervious area that could result in a nominal amount of runoff (Siskiyou Telephone, 2016). However, the runoff would not exceed the capacity of the existing storm water drainage system along the highway since disturbed areas would be restored to grade and would not alter or increase the rate or volume of surface runoff (Siskiyou Telephone, 2016). The Proposed Project therefore would not require, or result in the construction of, new stormwater drainage facilities or the expansion of existing facilities.

d. Would the project have sufficient water supplies available to serve the proposed project from existing entitlements and resources, or would new or expanded entitlements be needed?

LESS THAN SIGNIFICANT. The project does not require a permanent, long-term water source. The water used for drilling operations and to minimize offsite transport of dust would be purchased from the Happy Camp Community Service District in Happy Camp. Water use during construction would be approximately 14,000 gallons a day for the drilling operation as well as approximately 6,000 gallons a day for road surface

cooling and gravel wetting for compaction. A water truck would make 6 or more trips per day between the work area and Happy Camp to provide water for construction activities.

Upon completion, the Proposed Project would not generate any demand for water demand. Therefore, the Proposed Project would not be expected to exceed the existing water supplies available to serve the Proposed Project, and this impact would be less than significant.

e. Would the project result in a determination by the wastewater treatment provider that serves or may serve the proposed project that it has adequate capacity to serve the proposed project's projected demand in addition to the provider's existing commitments?

NO IMPACT. There is no sewer collection facility or wastewater treatment provider that serves the area. The wastewater generated during construction would be disposed away from the work area at an approved disposal location in Happy Camp. The Proposed Project would also require portable toilets for construction workers and the waste would also be disposed of in Happy Camp. As discussed in Items (a) and (b), above, disposal site in Happy Camp would adequately accommodate the demand caused by project construction while serving existing commitments. Overall, since no wastewater treatment provider services the area, there would be no impact.

f. Would the project be served by a landfill with sufficient permitted capacity to accommodate the proposed project's solid waste disposal needs?

LESS THAN SIGNIFICANT. Trench spoils would be the main source of solid waste generated by construction. Trench spoils will be deposited at approved temporary sites along the project, reloaded onto dump trucks, and delivered to an approved disposal site in Happy Camp on a daily basis. As discussed above, Siskiyou Telephone has an agreement with a disposal site located in Happy Camp on State Highway 96 for all project wastes, which include trench spoils, drilling fluids and portable toilet waste (Siskiyou Telephone, 2018). The amount of excess excavated materials generated as a result of construction activities is anticipated to be minor compared to the capacity of the Happy Camp Transfer Station or locally used landfills. No solid waste would be generated as a result of operation or maintenance of the Project. Implementation of APM UTL-1 would ensure that solid waste generated by the Proposed Project would be properly disposed. Therefore, the impact of solid waste disposal on landfill capacity would be less than significant.

g. Would the project comply with federal, state, and local statutes and regulations related to solid waste?

NO IMPACT. The California Integrated Waste Management Act of 1989, which emphasizes resource conservation through the reduction, recycling, and reuse of solid waste guide solid waste management requires that localities conduct a Solid Waste Generation Study (SWGS) and develop a Source Reduction Recycling Element (SRRE). The Proposed Project would operate in accordance with these applicable Solid Waste Management Policy Plans by including recycling where feasible. As identified in Item (f) above, the disposal site serving the project would have sufficient capacity to accommodate project construction solid waste disposal needs, and project solid waste disposal would not require the need for new or expanded landfill facilities. Therefore, the Proposed Project would comply with federal, State, and local statutes and regulations related to solid waste disposal limits and landfill capacities. No impact would occur.

5.19 Mandatory Findings of Significance

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 that would cause substantial adverse effects on human beings, either directly or indirectly?	☐	☐	☒	☐

Significance criteria established by CEQA Guidelines, Appendix G.

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?

LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED. The Proposed Project would follow the Klamath River and contains suitable habitat for some special-status plants and animals immediately adjacent to the work area, as well as within creeks that would be crossed via horizontal directional drilling (HDD). Special-status species potentially affected by the Proposed Project are discussed in Section 5.4. While direct effects to most special-status species are not anticipated, indirect effects could occur. The Applicant has incorporated APMs into the Project that would minimize many impacts to special-status species. For effects not addressed by APMs, or where additional specificity is required, Project-specific mitigation measures would be implemented to reduce impacts to biological resources to less than significant. Specifically, Mitigation Measure B-1 requires environmental training, preconstruction surveys, and biological resource monitoring during all construction activities near sensitive biological resources. Mitigation Measure B-2 requires avoidance and minimization of impacts to special-status plants, wetlands, and riparian zones. Mitigation Measures B-3 requires monitoring of HDD operations and a Frac-out Contingency Plan be prepared and implemented. Mitigation Measure B-4 requires preconstruction nesting bird surveys within 7 days prior to construction and ongoing monitoring of nests. Mitigation Measure B-5 (Avoid Wildlife Entrapment) requires entrapment avoidance.

Section 5.5, Cultural Resources, shows that the project would have a less than significant impact to important examples of the major periods of California history or prehistory. As described in Section 5.5, Cultural Resources, the Proposed Project could have an adverse effect on previously undiscovered cultural resources or disturb human remains during ground-disturbing activities. However, with implementation of Applicant Proposed Measures CUL-1 through CUL-5, the project would not eliminate important examples of 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, effects of other current projects, and the effects of probable future projects.)

LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED. CEQA defines a cumulative impact as an effect that is created as a result of the combination of the Proposed Project together with other projects (past, present, or future) causing related impacts. Cumulative impacts of a project need to be evaluated when the project's incremental effect is cumulatively considerable and, therefore, potentially significant.

A list of cumulative projects used for this analysis is provided in Table 5.19-1 (Planned and Current Projects in the Vicinity of the Proposed Project). The list includes projects in the vicinity of the project area in and adjacent to State Highway 96 in western Siskiyou County. The projects were reviewed to identify whether the Proposed Project could contribute to cumulatively significant impacts when evaluated in combination with other projects. The projects listed are either approved, under construction, or under the formal application review process.

Table 5.19-1. Planned and Current Projects in the Vicinity of the Proposed Project

Project Name	Address	Proximity to Fiber Optic Cable Alignment (approx.)	Type of Development	Description	Size (approx.)	Status*	Construction Dates
Klamath River Bridge Project	State Highway 263, Post Mile (PM) 57.1	~60 miles	Civic	Replacement of Klamath River Bridge (Bridge No. 02-0015)	269 feet	P	May 2018 to January 2021
Siskiyou-96 Culvert Rehabilitation Project	State Highway 96 from PM 23.2 to PM 56.0	Overlaps with Project alignment	Civic	Drainage system rehabilitation	30 miles	P	May through October 2018
Siskiyou 3 Bridges Rail Upgrade Project	Thompson Creek (PM 52.48), Seiad Creek (PM 60.17) and Beaver Creek (PM 88.26) Bridges on State Highway 96	15 to 30 miles	Civic	Bridge widening and replacement of bridge rails	N/A	U	2016 and 2017

Source: Caltrans, 2018; Siskiyou Telephone, 2016
* Status: P = The project is pending in the formal application review process; A = The project is approved; U = The project is under construction.

As discussed in preceding Sections 5.1 through 5.18, any potential impacts of the Proposed Project would occur during construction, with few, if any, operational effects. Because the construction-related impacts of the Project would be temporary and localized, they would have the potential to combine with similar impacts of other projects only if they occur at the same time and in close proximity to the Proposed Project site. The construction of some of the projects listed in Table 5.19-1 are likely to overlap with that of the new fiber optic broadband facility cable and hand hole utility boxes at some point during its construction. The cumulative temporary and localized impacts of the construction of the Proposed Project are considered by issue area below. There would be no long-term impacts from the Proposed Project that would have the potential to combine with impacts from the projects listed in Table 5.19-1 (Planned and Current Projects in the Vicinity of the Proposed Project).

Aesthetics. As described in Section 5.1, the project area is located in the Klamath National Forest and is near the Six Rivers National Forest. Views from the project area include conifer and hardwoods forests, mountainous slopes, scattered rural residences, and the Klamath River. The impacts from the installation of the fiber optic broadband facility cable and hand hole utility boxes would be minimal because the work would be temporary in nature. Construction activities would occur only in the daytime and would not require lighting. The fiber optic cable would be installed underground; therefore, only the tops of the utility boxes at ground surface elevation would be visible after construction is completed. However, the entire project is in or adjacent to State Highway 96 and therefore would result in only a minor change to the existing visual landscape of the existing roadway. While the incremental change in visual conditions associated with the Proposed Project would contribute to a cumulative change in visual conditions, it represents only a relatively minor incremental change in cumulative conditions given the existing presence of the roadway. Therefore, the Project's visual effects are less than significant and are not considerable enough to represent a significant cumulative impact.

Agriculture and Forestry Resources. There is no commercial agricultural activity logging that occurs in the project area, which is in and adjacent to State Highway 96. The Proposed Project site is not in an area designated as "good" or "fair" for farming. The Proposed Project nor any of the cumulative projects would convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance to non-agricultural use. The Project would not contribute to cumulative impacts to agriculture and forestry resources.

Air Quality. Construction activities would cause emissions of air pollutants due to ground disturbance and use of the fuels by the construction vehicles and off-road equipment. Emissions of this nature would occur briefly during construction and would cease as the construction activity would move between work areas. Air pollutants that would be directly emitted in the exhaust from vehicles and equipment include ozone precursors (volatile organic compounds and NOx), CO, and particulate matter (PM10 and PM2.5), and fugitive dust as particulate matter would be caused by ground-disturbing activities. Outside of work sites, exhaust emissions would be caused by vehicles transporting equipment and supplies to the sites, trucks removing debris, and workers commuting to and from work sites. The project would not involve any permanent or stationary sources of air pollution, but construction would temporarily bring construction equipment into the project area where the existing sensitive receptors include residences along State Highway 96. Adherence to APM AQ-1 and implementation of MM AQ-1 (Control Construction-Related Dust) would reduce fugitive emissions to a less than significant level.

Concurrent construction of other projects in close proximity to the Proposed Project would result in increased local air quality impacts for the duration of simultaneous construction activities. However, simultaneous construction projects would also need to comply with Siskiyou County Air Pollution Control District ~~BAAQMD~~ rules and regulations regarding criteria pollutants. Any potential adverse cumulative air quality impacts would be short-term (lasting for the duration of construction) and would not be cumulatively considerable; therefore, the cumulative impact would be less than significant.

Biological Resources. The Proposed Project would follow the Klamath River and contains suitable habitat for some special-status plants and animals immediately adjacent to the work area, as well as within creeks that would be crossed via horizontal directional drilling (HDD). While direct effects to most special-status species are not anticipated because the fiber optic cable would be installed within the Caltrans ROW, indirect effects could occur. Construction of other projects in the area during the same construction timeframe may contribute to temporary cumulative impacts to biological resources in the project area, mainly through ground disturbing activities and noise. The Applicant has incorporated APMs into the Project that would minimize many impacts to special-status species. For effects not addressed by APMs, or where additional specificity is required, Project-specific Mitigation Measures MM B-1 through MM B-5,

as well as MM AQ-1, MM H-1, and MM H-2 would be implemented to reduce impacts to less than significant. Any potential conflicts with the existing *Northwest Forest Plan* would also be reduced to less than significant with implementation of mitigation. The project would not represent a significant contribution to cumulative impacts. Impacts to biological resources during operation and maintenance would be minimal since the cable would be installed underground in the roadway ROW; therefore, no contribution to cumulative impacts would occur.

Cultural Resources. There are no known historical or unique archaeological resources identified within the Proposed Project area; however, previously unknown buried historical resources or human remains could be discovered and damaged, or destroyed, during ground disturbing work. Short-term construction activities and operation and maintenance activities would not significantly affect any unknown cultural or paleontological resources or human remains with the implementation of APMs CUL-1 through CUL-5. No cultural resources would be significantly affected during project construction or during operation of the project, and no contribution to cumulative impacts would occur.

Geology and Soils. As discussed in Section 5.6, no active or potentially active faults cross or are in close vicinity to the Proposed Project. However, the Proposed Project is located along a canyon with steep sides and mapped existing landslides. Several of the existing landslides are mapped as intersecting the Proposed Project alignment. The Siskiyou-96 Culvert Rehabilitation Project listed in Table 5.19-1 (Planned and Current Projects in the Vicinity of the Proposed Project) would overlap the Proposed Project alignment, which would have the potential for significant cumulative impacts from or seismically related or construction-induced landslides. With implementation of Mitigation Measure GS-1 (Conduct geotechnical/geologic surveys for landslides and unstable slopes), which would ensure that project design and construction activities would reduce the potential for landslide impacts, the Project would not increase potential risks associated with landslides or other geologic hazards. Adherence to similar design and engineering standards, which are applicable to all of the projects listed in Table 5.19-1, would ensure that their cumulative impacts to geology and soils would also be less than significant.

Greenhouse Gas Emissions. Greenhouse gas (GHG) emissions would result from the burning of fuel required to operate construction equipment and vehicle use during construction activities. Equipment and motor vehicles would directly emit CO2, CH4, and N2O due to fuel use and combustion. Motor vehicle fuel combustion emissions in terms of CO2e are approximately 95 percent CO2, and CH4 and N2O emissions occur at rates of less than 1 percent of the mass of combustion CO2 emissions. The resulting one-time quantity of GHG emitted during construction would be around ~~1,113~~1,823 MTCO2e, estimated to occur over 195 days of work. These emissions would cease at the conclusion of the construction duration. In addition, adherence to APM GHG-1 would ensure that unnecessary construction vehicle and idling time would be minimized to reduce emissions. Any potential adverse GHG impacts would be short-term and not cumulatively considerable; therefore, GHG emissions during construction would have a less than significant cumulative impact.

GHG emissions from operation and maintenance would not result in a notable incremental increase in GHG emissions. No new crews or planned maintenance activities would be added by the project, and a local crew would dispatched for emergency repairs. The small amount of emissions created during operation and maintenance would result in a relatively minor incremental change in cumulative conditions and would not significantly contribute to cumulative impacts.

Hazards and Hazardous Materials. The use of hazardous materials for the project would be minimal during construction and operation. Hazardous materials would be stored and used in compliance with applicable regulations. The project would not result in an increase in usage of hazardous materials.

Impacts from routine use, transportation, disposal, and accidental spillage of hazardous materials would be reduced to a less than significant level with implementation of APM HAZ-1 (Refueling a minimum distance of 20 feet from all active waterways), APM HAZ-2 (Implementation of SWPPP and associated BMPs), MM H-1 [Prepare and Implement Worker Environmental Awareness Program (WEAP)], and MM H-2 (Prepare and Implement a Hazardous Materials and Waste Management Plan) discussed in Section 5.8, Hazards and Hazardous Materials. Implementation of APM HAZ-3 would ensure that the potential impact due to wildland fire would be less than significant with preparation and implementation of a Fire Management Plan for project construction and operation and maintenance. Due to its many decades of vehicle use it is possible that aerially deposited lead (ADL) has built up in the soils adjacent to State Highway 96. Depending on the concentrations of ADL in the soil, the surficial soil generated during trenching and excavation may need to be treated as a hazardous waste. Implementation of Mitigation Measure H-1 (Conduct Sampling and Testing for ADL) would ensure that impacts related to ADL are reduced to less than significant and that Project would not increase potential risks from ADL soil contamination to other projects in the area. The Siskiyou-96 Culvert Rehabilitation Project listed in Table 5.19-1 (Planned and Current Projects in the Vicinity of the Proposed Project) would overlap the Proposed Project alignment, which would have the potential to encounter ADL in the soils along State Highway 96. Adherence to similar Caltrans disposal regulations would ensure that their cumulative impacts to geology and soils would also be less than significant and no contribution to cumulative impacts would occur.

Hydrology and Water Quality. The project could result in some minor alteration of drainage during construction, but since construction activities would be done in the dry season and since the site will be restored to preconstruction conditions for operation, the impact would be temporary and less than significant. The proposed cable will be installed underground in existing road right of way and will not alter rainfall/runoff characteristics. Utility boxes may slightly increase runoff potential but since this will only be a few square feet, the impact is less than significant.

The Proposed Project would not use groundwater for construction activities. In addition, while there would be temporary placement of materials and equipment within the floodplain for construction (mainly at the tributary stream crossings), the materials and equipment would be removed after construction. Construction would be during the dry season resulting in little chance of unexpected flooding. Implementation of APMs would ensure that erosion and sedimentation would not significantly affect water quality. Given the proximity to the Klamath River, implementation of MM B-3 [Minimize Horizontal Directional Drilling (HDD) Potential Impacts], MM H-1 [Prepare and Implement Worker Environmental Awareness Program (WEAP)], and MM H-2 (Prepare and Implement a Hazardous Materials and Waste Management Plan) would provide further specificity to ensure that potential impacts from an accidental spill would be less than significant. Adherence to similar existing regulations and permit conditions, which are applicable to all of the projects listed in Table 5.19-1, would ensure that their cumulative impacts to hydrology and water quality would also be less than significant.

Land Use and Planning. The Proposed Project would be located in a rural, forested area in the western Siskiyou County east of the Klamath River. The current zoning of the Proposed Project area and adjacent areas is Rural Residential Agricultural and General Forest. Installation of the new fiber optic broadband facility cable and hand hole utility boxes all activities might result in traffic delays as long as 10 to 15 minutes during project construction. However, flaggers would control traffic encountered during construction activities and one full, 16-foot-wide lane would be available for emergency traffic at all times. Implementation of APM LU-1 would ensure that the necessary permits from USFS, Caltrans, and the CPUC prior to commencing project activities and that that conflicts with existing land uses are minimized or avoided. Any potential conflicts with the existing *Northwest Forest Plan* would be reduced to less than significant with implementation of mitigation.

The Proposed Project, as well as the projects listed in Table 5.19-1 (Planned and Current Projects in the Vicinity of the Proposed Project), are required to minimize any impacts to state and federally listed species and/or habitats through compliance with CEQA, the federal ESA, the CESA, and/or applicable local habitat conservation plans. The project would, therefore, not conflict with applicable land use policies and regulations and would not contribute to cumulative impacts to land use.

Mineral Resources. No commercial mineral resources are known to exist within the Proposed Project area in and adjacent to State Highway 96. Therefore, the Proposed Project would not result in the loss of availability of a known mineral resource. The project would not contribute to potential cumulative impacts that may result in the loss of mineral resources.

Noise. The Proposed Project is not expected to contribute to a long-term cumulative impact on ambient noise levels in the Proposed Project area. Construction activities along the alignment and at staging areas would create both intermittent and continuous noises. Construction would also cause noise away from work areas, primarily from commuting workers and from trucks needed to bring materials to the sites. Noise from construction activities could possibly be audible to some residences, but work sites would be more than 25 feet from residences and construction would be limited to daytime hours and would be short-term. Adherence to APMs would minimize any potentially incompatible noise levels for construction activities that would be occasionally occur near sensitive land uses. Permanent increases in ambient noise levels in the project vicinity would not occur. Construction would not result in any new or different permanent source of noise. Operation and maintenance activities, including any emergency repairs, would be limited with the project requiring minimal planned maintenance.

It is assumed that the projects listed in Table 5.19-1 (Planned and Current Projects in the Vicinity of the Proposed Project) would also be constructed during daytime construction timeframes. None of the projects listed in Table 5.19-1 are located in the immediate vicinity of the Proposed Project or have sufficiently varied construction schedules as to make combined construction noise unlikely. These projects are therefore not likely to combine with noise generated from the construction of the Proposed Project to create significant adverse effects since noise reduces rapidly with distance.

Population and Housing. The Proposed Project would not result in impacts to population and housing. During its construction, the Project would provide short-term jobs for a small workforce. Construction workers would be contracted workers and would stay in various RV locations in Happy Camp, CA. These jobs are not anticipated to result in workers permanently relocating to the area. The Project would not displace any existing housing or people. The Proposed Project, combined with those from the projects listed in Table 5.19-1 (Planned and Current Projects in the Vicinity of the Proposed Project), would have the potential to increase the population in the area due to improved infrastructure and communication capability. The Proposed Project itself can facilitate future planned growth by ensuring a reliable emergency communication service in the case of an environmental hazard, such as heavy snow, a fire, or downed trees to an area that currently has minimal effective use of cell phones, satellite, or radio due to the mountainous and remote location. While the development of these properties may induce some population growth, this has already been accounted for through the General Plan for Siskiyou County. The Project's population and housing impacts would be less than significant and are not considerable enough to represent a significant cumulative impact.

Public Services. The Proposed Project would not require the cessation or interruption of fire or police protection services, schools, access to public parks, or other public facilities; nor would it require the construction of new public service facilities. The completion of the projects listed in Table 5.19-1 (Planned and Current Projects in the Vicinity of the Proposed Project) may have the potential to also increase the

demand for public services and public facilities, primarily fire and police protection. Adherence to APM PS-1 would ensure that construction schedules are submitted to local emergency service providers for review and comment to minimize interruption to emergency services. Impacts from the Proposed Project on public services would be incremental and would not contribute to a cumulatively significant impact.

Recreation. Although some workers may visit Klamath National Forest or Six Rivers National Forest to partake in recreational activities during project construction, increased use would be minimal and temporary and would not contribute substantially to the physical deterioration of existing facilities. The projects from Table 5.19-1 (Planned and Current Projects in the Vicinity of the Proposed Project) also have the potential to add users to the National Forests, but the increased use would also be minimal and, in most cases, temporary. The project would have less than significant effects on recreation and would not contribute to cumulative effects associated with other projects.

Transportation and Traffic. Construction of the Proposed Project would have the potential for temporary impacts to traffic volumes, level-of-service standards, road hazards, and emergency access. Use of State Highway 96 for transport of construction equipment and construction personnel would increase traffic slightly but would be temporary and short-term and could not exceed existing capacities. The installation of the new fiber optic broadband facility cable and utility boxes would result in temporary traffic delays of 10 to 15 minutes. Impacts due to traffic as a result of the construction of the Proposed Project would be reduced to a less than significant level with implementation of APM TRF-1, discussed in Section 5.16, Transportation and Traffic. Impacts from the Proposed Project, combined with construction of the projects listed in Table 5.19-1 (Planned and Current Projects in the Vicinity of the Proposed Project), would have the potential to cumulatively impact transportation and traffic in the surrounding area; however, the construction schedules of the projects listed in Table 5.19-1 and that of the Proposed Project are varied. In addition, it is not anticipated that the planned and current projects in the proposed project's vicinity will require lane closures simultaneously. Adherence to APM TRF-1 would ensure that the proposed project's cumulative impacts to traffic and transportation would be incremental, short-term, and less than significant.

Tribal Cultural Resources. There are no known Tribal Cultural Resources (TCRs) listed in, or are known to be eligible for listing in, the California Register of Historical Resources (CRHR) or local register of historical resources within the Proposed Project or the 0.25-mile surrounding area. In addition, Native American tribes did not request to be notified of projects pursuant to AB 52, and thus did not participate in government-to-government consultation to identify TCRs present. However, it is possible that previously unidentified TCRs that may be eligible for inclusion in the CRHR or local registers could be discovered and damaged, or destroyed, during ground disturbance, which would constitute a significant impact absent mitigation. Implementation of APMs CUL-1, CUL-2, CUL-4 and CUL-5 would evaluate and protect unanticipated TCR discoveries, including historical and archaeological resources and human remains, thereby reducing this impact to less than significant. Adherence to these APMs would ensure that no tribal cultural resources would be affected during project construction or during operation of the project, and no contribution to cumulative impacts would occur.

Utilities and Service Systems. The construction of the Proposed Project would temporarily require a minimal water supply and would potentially generate wastewater that would be appropriately disposed. Construction would require the disposal of a less than significant amount of all types of waste, including trench spoils, drilling fluids, and portable toilet waste.

Adherence to APM UTL-1 would ensure that wastes are properly transported offsite daily to the Happy Camp disposal site. No expanded facilities or services would be needed for the project, and use and disposal of

all water and waste products would comply with all applicable laws and regulations. Operation and maintenance of the new fiber optic broadband facility line and utility boxes would not require any water consumption. Therefore, a less than significant contribution to cumulative impacts to utilities and service systems would occur.

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

LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED. The Proposed Project would not substantially adversely affect human beings directly or indirectly. The Initial Study identified no environmental effects that would cause substantial adverse effects on human beings. Adverse effects would be mitigated by implementation of APMs and mitigation measures and, in most instances, would be related to short-term construction impacts. Each type of impact with the potential to cause substantial adverse effects on human beings has been evaluated, and this Initial Study concludes that all of these potential impacts are either less than significant or can be mitigated to a less than significant level with the implementation of measures presented herein (see also Section 6, Mitigation Monitoring Plan, for a complete listing of the mitigation measures). Therefore, the Proposed Project does not involve any activities, either during construction or operation, which would cause significant adverse effects on human beings that cannot be readily mitigated to a less than significant level. The operation and maintenance activities are not anticipated and would not result in impacts on human beings. The beneficial effects of the Project include providing reliable communication capability for the safety of residents in an area where there currently are no land-based telephone or broadband services.

6. Mitigation Monitoring Plan

Siskiyou Telephone proposes to construct and operate the Happy Camp to Somes Bar Fiber Connectivity Project ("Proposed Project"). An Initial Study was prepared to assess the Proposed Project's potential environmental effects. The Initial Study was prepared based on information in the Proponent's Environmental Assessment (PEA), project site visits, and supplemental research. The majority of the Proposed Project's impacts would occur during project construction. Within Siskiyou Telephone's application, Applicant Proposed Measures (APMs) were proposed to reduce potentially significant adverse impacts related to project construction and operation.

The purpose of this Mitigation Monitoring Plan is to ensure effective implementation of each APM, as well as the mitigation measures identified by the Initial Study and imposed by the CPUC as part of project approval.

This Mitigation Monitoring Plan includes:

- The Applicant Proposed Measures and mitigation measures that Siskiyou Telephone must implement as part of the Proposed Project;
- The actions required to implement these measures;
- The monitoring requirements; and
- The timing of implementation for each measure.

A CPUC-designated environmental monitor will carry out all construction field monitoring to ensure full implementation of all measures. In all instances where non-compliance occurs, the CPUC's designated environmental monitor will issue a warning to the construction foreman and Siskiyou Telephone's project manager. Continued non-compliance shall be reported to the CPUC's designated project manager. Any decisions to halt work due to non-compliance will be made by the CPUC. The CPUC's designated environmental monitor will keep a record of any incidents of non-compliance with mitigation measures, APM, or other conditions of project approval. Copies of these documents shall be supplied to Siskiyou Telephone and the CPUC.

6.1 Minor Project Refinements

The CPUC along with its environmental monitors will ensure that any project change or deviation from the procedures identified under the monitoring program is consistent with CEQA requirements; no project changes will be approved by the CPUC if it creates new significant impacts. A project change should be strictly limited to minor refinements that will not trigger other permit requirements, that does not increase the severity of an impact or create a new impact, and that clearly and strictly complies with the intent of the mitigation measure. If a proposed change to the project has the potential for creating significant environmental effects, it will be evaluated to determine whether supplemental CEQA review is required. Any proposed deviation from the approved project, adopted mitigation measures, and Applicant Proposed Measures, and correction of such deviation, shall be reported immediately to the CPUC and the environmental monitor assigned to the construction spread for their review and approval. In some cases, a minor project refinements may also require approval by a CEQA responsible agency.

6.2 Dispute Resolution

It is expected that the Mitigation Monitoring Plan will reduce or eliminate many potential disputes. However, even with the best preparation, disputes may occur. In such event, the following procedure will be observed:

- **Step 1.** Disputes and complaints (including those of the public) should be directed first to the CPUC-designated Project Manager for resolution. The Project Manager will attempt to resolve the dispute.
- **Step 2.** Should this informal process fail, the CPUC Project Manager may initiate enforcement or compliance action to address deviations from the Proposed Project or adopted Mitigation Monitoring Plan.
- **Step 3.** If a dispute or complaint regarding the implementation or evaluation of the Mitigation Monitoring Plan cannot be resolved informally or through enforcement or compliance action by the CPUC, any affected participant in the dispute or complaint may file a written "notice of dispute" with the CPUC Executive Director. This notice should be filed in order to resolve the dispute in a timely manner, with copies concurrently served on other affected participants. Within 10 days of receipt, the Executive Director or designee(s) shall meet or confer with the filer and other affected participants for purposes of resolving the dispute. The Executive Director shall issue an Executive Resolution describing his/her decision, and serve it on the filer and other affected participants.
- **Step 4.** If one or more of the affected parties is not satisfied with the decision as described in the Resolution, such party(ies) may appeal it to the Commission via a procedure to be specified by the Commission.

Parties may also seek review by the Commission through existing procedures specified in the CPUC Rules of Practice and Procedure for formal and expedited dispute resolution, although a good faith effort should first be made to use the foregoing procedure.

Table 6-1. Mitigation Monitoring Plan

Impact	Applicant Proposed Measure (APM) or Mitigation Measure	Monitoring Requirement	Timing of Action
Air Quality			
APM AQ-1	~~To reduce fugitive emissions, c~~Construction of the proposed project would occur during the dry season (April through October). To reduce fugitive emissions, w~~W~~ater trucks would be present onsite to wet down the work area, including materials such as backfill and other construction components.	Ensure work areas are wet and particulate matter emissions are minimized	During construction
Reducing Air Pollutant Concentrations	**MM AQ-1: Control Construction-Related Dust.** The Applicant shall implement the following dust control strategies and any other dust control measure that may be specified by the APCD through the review of a dust control plan for naturally-occurring asbestos: ▪ Visible track-out on any paved public road shall be removed at the end of the work day or at least one time per day, with removal being accomplished by using wet sweeping or a HEPA filter equipped vacuum device. ▪ Storage piles shall be treated by either keeping the surface adequately wetted, stabilizing the surface with chemical dust suppressants, or covering with tarps or vegetative cover; where potential accidental contamination of wetlands, streams, or rivers could occur, water shall be used instead of chemical dust suppressants. ▪ Unpaved staging and work areas shall be watered every two hours of active operation or more frequently as needed or stabilized with chemical dust suppressants; where potential accidental contamination of wetlands, streams, or rivers could occur, water shall be used instead of chemical dust suppressants. ▪ Earthmoving areas and excavated materials shall be pre-wetted to the depth of the anticipated cuts. ▪ Trucks transporting excavated material off-site shall be: maintained such that no spillage can occur from holes or other openings in cargo compartments, loads shall be adequately wetted and covered with tarps or loaded such that the material does not touch the front, back or sides of the cargo compartment at any point less than six inches from the top and that no point of the load extends above the top of the cargo compartment.	Ensure work areas are wet, roadways are cleaned, piles are stabilized, and particulate matter emissions are minimized	During construction
Biological Resources			
APM BIO-1	To minimize the likelihood of potential adverse effects on nesting birds and raptors, preconstruction nesting surveys would be conducted during the January 31 through August 31 bird nesting season. If active nests are observed prior to construction, a qualified biologist would be retained to monitor construction within 50 feet of the active nest for passerines or 300 feet for raptors.	Review survey report. Ensure biological monitor for active nests, if necessary.	Prior to and during construction
APM BIO-2	To minimize the likelihood of potential adverse effects on wildlife near the 10 stream crossings, preconstruction wildlife surveys would be conducted. In addition, a qualified biologist would be retained to monitor construction during directional boring activities.	Review survey report. Ensure biological monitor onsite during HDD activities.	Prior to and during construction

Table 6-1. Mitigation Monitoring Plan

Impact	Applicant Proposed Measure (APM) or Mitigation Measure	Monitoring Requirement	Timing of Action
APM BIO-3	To minimize the potential for wildlife to become trapped in open trenches, each excavation would be securely backfilled or covered at the end of each work day. Only excavated onsite native materials would be used to backfill trenches. One side of each excavation would be ramped to allow wildlife egress in the unlikely event that entrapment occurs.	Ensure excavated areas are properly backfilled, ramped, and/or covered at the end of each work day	During construction
APM BIO-4	Construction access, and material laydown and staging would occur only on existing roads and previously disturbed sites.	Ensure all access, laydown and staging occurs on existing roads and previously disturbed areas.	During construction
APM BIO-5	To reduce the introduction and spread of noxious weeds, the project would use construction equipment that is currently being used near the project area in the Klamath National Forest and Six Rivers Forest. This equipment would not be used elsewhere prior to construction without proper decontamination procedures applied prior to deployment.	Review proof that construction equipment has been used nearby or has been properly decontaminated prior to deployment.	During construction
APM BIO-6	Spoils known to contain noxious weed propagules or that otherwise do not meet Caltrans backfill specifications would be removed and disposed of at a Caltrans-approved disposal site.	Ensure spoils are removed.	During construction
APM BIO-7	Temporary construction equipment sound levels would not exceed 90 dB.	Ensure noise threshold not exceeds and noise-related complaints from nearby sensitive receptors are minimized.	During construction
APM BIO-8	The contractor shall prepare and implement a plan for monitoring drilling operations and addressing frac-out if it occurs. The plan shall include visual inspections along the bore path of the pipeline alignment during all drilling operations. Monitors shall also be stationed at appropriate distances upstream and downstream from the crossing point. All equipment required to contain and clean up a frac-out release shall be available at the work site.	Review drilling monitoring plan. Ensure monitors present at appropriate distances from crossing points and frac-out equipment is onsite.	Prior to and during construction
APM BIO-9	To minimize risk of harming the Del Norte Salamander or red-legged frog (at Wyman Creek only), work shall be conducted during dry weather.	Ensure work at Wyman Creek is conducted during dry weather.	During construction at Wyman Creek

Table 6-1. Mitigation Monitoring Plan

Impact	Applicant Proposed Measure (APM) or Mitigation Measure	Monitoring Requirement	Timing of Action
Special-Status Plant and Wildlife Species	**MM B-1: Conduct Environmental Training, Pre-Construction Surveys, and Biological Resources Monitoring.** Siskiyou Telephone will develop and implement a Worker Environmental Awareness Program (WEAP) for construction crews and all Project personnel. The WEAP will be conducted by a qualified biologist (approved by CPUC) prior to the commencement of the Project and during construction activities. Sessions will include discussion of the Federal Endangered Species Act (FESA) and California Endangered Species Act (CESA), California Species of Special Concern, other special-status species and listed species, identification and values of habitat, the consequences of noncompliance with these acts, and the importance of keeping all Project activities and sediments within the designated work area. Brochures summarizing special-status and listed species with potential to occur within the Project area, as well as Project requirements shall be provided to all crew members (in multiple languages if appropriate). A log shall be maintained of all trained personnel with names and dates of training, and shall be submitted to the CPUC on a monthly basis and made available for review by CDFW, USFWS, USFS, or other agencies upon request. Pre-construction sweeps of active work areas for special-status species shall be conducted prior to the start of construction each morning by a qualified biologist (approved by CPUC). If non-listed special-status species are found, they shall be relocated outside of the work area into adjacent appropriate habitat by the qualified biologist. If listed or candidate species are found, no work will occur in the vicinity until it has left the work area on its own, or unless otherwise authorized by USFWS and/or CDFW (as applicable). The CPUC Environmental Monitor shall be notified immediately of any special-status species or listed species observed in the Project area. Biological monitoring shall be conducted by a qualified biologist (approved by CPUC) during all construction activities near sensitive resources, including active bird nests and creeks. If work is being conducted during light rain, full time biological monitoring shall occur. The monitor will complete daily reports summarizing construction activities and environmental compliance and weekly reports shall be submitted to the CPUC. If appropriate (based on the phase and location of construction activities), Siskiyou Telephone may request that the CPUC allow less frequent monitoring.	Biologist resumes to be submitted to the CPUC for review and approval prior to the start of construction. WEAP brochure to be submitted to the CPUC for review and approval prior to construction. Weekly compliance reports shall be submitted to the CPUC for review.	Prior to and during construction

Table 6-1. Mitigation Monitoring Plan

Impact	Applicant Proposed Measure (APM) or Mitigation Measure	Monitoring Requirement	Timing of Action
Special-Status Plant and Wildlife Species	**MM B-2: Preserve Special-Status Plants, Wetlands, and Riparian Zones**. The following avoidance and minimization measures shall be implemented to protect both listed special-status plants, and to avoid impacts to wetlands and riparian zones: ▪ Design Project and construction activities to avoid impacts to wetlands and water features to the extent feasible. ▪ Prior to the onset of construction activities, a qualified biologist (approved by the CPUC) shall delineate any wetland or water features within the right-of-way as environmentally sensitive areas using clear markers. Construction crews shall be provided with maps of environmentally sensitive areas. No equipment, materials, or spoils shall encroach into the environmentally sensitive areas except for spill remediation purposes. ▪ A qualified biologist (approved by the CPUC) shall be present during construction activities within the vicinity of wetlands, creek crossings, and associated riparian zones. The biologist shall ensure that fencing and/or flagging remains intact and that construction activities do not affect the delineated areas.	Ensure wetland and water features are clearly marked for avoidance. Confirm construction crews have maps with environmentally sensitive areas. Ensure that no equipment, materials, or spoils encroach into environmentally sensitive areas. Ensure monitors present when working near wetlands, creek crossings, and associated riparian zones.	Prior to and during construction
Special-Status Plant and Wildlife Species	**MM B-3: Minimize Horizontal Directional Drilling (HDD) Potential Impacts.** The following avoidance and minimization measures shall be implemented to protect listed and other special-status plants and animals, and to avoid impacts to wetlands and riparian zones: ▪ Boring activities and set-up activities for boring operations shall be situated outside of wetlands and riparian areas. An earthen or sandbag berm shall be installed around all drilling fluid mixing and pumping areas to contain any inadvertently spilled material. Sediment control devices shall be installed between the drilling staging areas and any waterways. This includes any culverts or drainage ditches that lead to a waterway. ▪ HDD operations at the creek crossings shall be limited to daylight hours because of the difficulty in identifying the loss of bentonite or machine pressure without daylight. This shall be defined by the termination of drilling 30 minutes before dusk, and resumption of drilling at dawn. The contractor will make every effort to schedule drilling activities to be completed between dawn and 30 minutes to dusk. Should the drilling activities be within one hour of completion, 30 minutes before dusk, drilling activities may be allowed to continue until completion if the Project environmental monitor and/or the CDFW or its agents determine that completing the drilling activities will result in less risk to the stream. ▪ Visual inspection along the bore alignment for frac-outs shall take place at all times while the drill is in operation. The monitor shall be in radio contact with the boring machine operator at all times. A biologist/monitor's presence shall be required during all boring activities (i.e. boring, back reaming, etc.) within CDFW jurisdiction unless the drainage is dry.	Ensure boring operations are situated outside of wetlands and riparian areas. Ensure drilling is conducted during daylight hours. Review and approve Frac-Out Contingency Plan. Ensure any frac-outs are handled according to the approved Frac-Out Contingency Plan.	Prior to and during construction

Table 6-1. Mitigation Monitoring Plan

Impact	Applicant Proposed Measure (APM) or Mitigation Measure	Monitoring Requirement	Timing of Action
	▪ The HDD Operator shall design, pre-plan, and direct the HDD operation in such a way as to minimize the risk of spills of all types. The HDD Operator shall prepare and implement a Frac-Out Contingency Plan and submit it to the CPUC and CDFW for review and approval 30 days prior to construction, which includes the boring plans and frac-out and clean-up plans, in the event of the accidental release of drilling lubricants through fractures in the streambed or bank ("frac-outs"). In substrates where frac-outs are likely to occur, the HDD Operator shall operate in a manner that will reduce risk, such as using lower pressure and greater boring depths. The Contingency Plan shall be kept on site at all times. ▪ A non-toxic fluorescent water-soluble dye shall be added to the drilling muds to allow for frac-outs to be seen in muddy waters. The dye shall be used in a concentration which allows the monitors to easily determine the source of the frac-out, and shall be a type of dye approved for use by the local Regional Water Quality Control Board. ▪ All equipment required to contain and clean up a frac-out release shall be available at the work site. ▪ Boring plans should include: – A sketch of the construction site, including equipment staging areas, approximate location of drill entry and exit points and the approximate location of access roads in relation to the surrounding area, – Proposed depth of bore and statement of streambed condition (subsurface strata and percent of gravel and cobble) that support the depth of the bore, – Approximate length of bores (50-foot increments), – Type and size of boring equipment to be used (categorized as mini, mid or maxi), – Estimated time to complete bore, – List of lubricants and HDD additives to be used including Material Safety Data Sheets (MSDS), and – Name of Operator's agents and cell phone numbers. ▪ Frac-out prevention and clean-up plans should include: – Name(s) and phone numbers of biological monitor(s) and crew supervisor(s), – Site specific resources of concern (if applicable, include factors such as possible presence of sensitive species), – Monitoring protocols (include biological monitoring and frac-out monitoring), and – Containment and clean-up plan (include staging location of vacuum trucks and equipment, equipment list, necessary hose lengths, special measures needed for steep topography, etc. at each location). ▪ If a frac-out or spill occurs in a sensitive resource, the Operator shall immediately notify the CPUC Environmental Monitor. ▪ If a frac-out occurs, the CPUC Environmental Monitor, in coordination with Siskiyou Telephone's biological monitor, shall determine whether clean-up actions are warranted. If containment and		

Table 6-1. Mitigation Monitoring Plan

Impact	Applicant Proposed Measure (APM) or Mitigation Measure	Monitoring Requirement	Timing of Action
	clean-up is needed to prevent additional impacts, the Contractor shall begin the following containment and clean up measures immediately. Where water flows allow, the Contractor shall immediately construct a sandbag well around the frac-out or place a standing pipe (such as a 55-gallon drum with the top and bottom removed, heavy PVC pipe or CMP or culvert type material) around the frac-out to contain the drilling mud. A trailer-mounted vacuum or vacuum truck shall be deployed to vacuum out spilled drilling fluids that continue to leak. Removed drilling fluids shall not be placed where they are likely to re-enter the stream. All cleanup and containment efforts shall adhere to the Frac-out Contingency Plan approved by the CPUC for spill response. *[Supersedes APM BIO-8]*		
Special-Status Wildlife Species	**MM B-4: Pre-Construction Surveys and Impact Avoidance Measures for Migratory and Nesting Birds.** Siskiyou Telephone shall retain a CPUC-approved, qualified avian biologist to conduct pre-construction surveys and monitor active nests during construction (hereafter referred to as the "authorized biologist"). Surveys for nesting birds shall be conducted prior to any initial ground disturbance that will occur during the breeding period (from January 31 through August 31). The authorized biologist(s) conducting the surveys shall be experienced bird surveyors and familiar with standard nest-locating techniques. Qualifications of the biologist(s) shall be submitted to the CPUC for approval. Surveys shall be conducted in accordance with the following guidelines: a. Surveys shall cover all potential nesting habitat within disturbance areas and within a 500-foot buffer of these areas. b. Surveys shall be conducted no more than 3 days prior to the start of ground-disturbing activity. c. If active nests are detected during the survey, the authorized biologist shall map each nest and establish a disturbance-free buffer within which no Project activities may occur until the nest fledges or fails, as documented and confirmed by the authorized biologist. The size of the disturbance-free buffer shall be determined by the authorized biologist, and shall depend on the species' tolerance to human activity, location of the nest relative to the work area, any vegetation or other materials that may screen the nest from noise and view of work, the nature of the work (e.g., heavy equipment use vs. hand tools), and any other pertinent information. Buffer sizes shall be a minimum of 100 feet for non-raptor species and 500 feet for raptors. d. If active nests are observed and the recommended nest avoidance buffer zones are not feasible, non-disturbance buffer zones shall be established by the authorized biologist based on but not limited to consideration of the line of sight from the nest to the worksite, the nesting bird's behavior, existing and Project-related background disturbance levels, or other biological or physical attributes. Continuous monitoring of the nest site by an authorized biologist shall occur during disturbance activities, and a nest observation log shall be updated once per hour during construction activities. If the monitoring biologist determines nesting may fail as a result of work activities, all work shall cease (except access along existing roadways) within the recommended avoidance area until the biologist determines the adults and young are no longer reliant on the nest site. A site-specific nest protection plan shall be submitted to the	Avian biologist resume shall be submitted to the CPUC for review and approval. Ensure surveys and monitoring are conducted in accordance with guidelines outlined in MM B-4.	Prior to and during construction

Table 6-1. Mitigation Monitoring Plan

Impact	Applicant Proposed Measure (APM) or Mitigation Measure	Monitoring Requirement	Timing of Action
	CPUC for review and approval if additional nest protection measures are determined necessary by the monitoring biologist. e. Prior to the start of any new Project-related ground disturbance activities, the authorized biologist shall provide the CPUC a report or memorandum describing the findings of the nest surveys, including the time, date, and duration of the survey; identity and qualifications of the surveyor(s); and a list of species observed. If active nests are detected during the surveys, the report shall include descriptions of avoidance zones and methods used to determine avoidance zones and maps or aerial photos identifying nest locations and the boundaries of no-disturbance buffer zones. f. The authorized biologist shall monitor active nests no less than twice per week until nestlings have fledged and dispersed. Activities that might, in the opinion of the authorized biologist, disturb nesting activities shall be prohibited within the buffer zone until such a determination is made. g. Throughout Project construction, nest locations, Project activities in the vicinity of nests, and any adjustments to buffer areas shall be described and reported in monthly monitoring reports to the CPUC. h. If active nests for listed birds are found, a 500-foot buffer will be established around each nest/territory. This buffer may be adjusted in coordination with USFWS, CDFW, and the CPUC. *[Supersedes APMs BIO-1]*		
Special-Status Wildlife Species	**MM B-5: Avoid Wildlife Entrapment.** To prevent the accidental entrapment of wildlife during construction, all excavated holes or trenches deeper than six (6) inches will be covered at the end of each work day with plywood or similar materials. Larger excavations that cannot easily be covered will be ramped at the end of the work day to allow trapped animals an escape method. Ramps for open excavations will be soil and/or rough plank ramps with a maximum 45-degree angle, and will be installed at intervals prescribed by a qualified biologist. Trenches will be backfilled as soon as possible. Construction personnel will inspect open holes and trenches in the morning and evening for trapped wildlife. In the event that an excavation would be left unattended for a period of more than 24 hours, metal or wooden covering shall be placed over the excavation prior to the departure of the biological monitor in order to completely seal the excavation and prevent longer-term wildlife entrapment, except for larger excavations that cannot easily be covered. Prior to the filling of such excavations, these areas will be thoroughly inspected for special-status species by the qualified biologist. If a trapped animal is observed, construction will cease until the animal has been relocated to an appropriate location. *[Supersedes APM BIO-3]*	Ensure excavated areas are properly backfilled, ramped, and/or covered at the end of each work day	During construction

Table 6-1. Mitigation Monitoring Plan

Impact	Applicant Proposed Measure (APM) or Mitigation Measure	Monitoring Requirement	Timing of Action
Cultural Resources			
APM CUL-1	Prior to construction, workers would be provided with environmental awareness training to recognize potential archaeological or paleontological resources and identify and address any unearthed human remains during construction. If archaeological (or paleontological) materials are uncovered, construction activities and excavation should be conducted to avoid the resources. All construction work within 100 feet of the resource would be halted until a qualified archaeologist (or paleontologist) can assess the find. The archaeologist (or paleontologist) would assess the find and make any necessary recommendations, including any procedures to further investigate or mitigate impacts on the find as required by law, including CEQA Guidelines, Section 15126.4(b)(3)(C).	Review training materials and ensure construction personnel sign an environmental training attendance sheet. Ensure work within 100 feet of the find stops and the find is assessed and treated in accordance with laws.	Prior to and during construction
APM CUL-2	If during excavation or earth-moving activities the construction contractor identifies potential historic or archaeological resources, the county or local jurisdiction would be notified, and a professional archaeologist meeting the minimum qualifications in archaeology as set forth in the Secretary of the Interior's Standards and Guidelines would be contracted and dispatched to assess the nature and significance of the find in the following manner: ▪ All excavation and grading within 10 feet of the discovery area would cease immediately. The responding archaeologist may, after analyzing the discovery, authorize an alternate buffer around the materials to ensure adequate evaluation and protection of potential historic and archaeological resource(s) during continued construction operations. ▪ Additional evaluation of the historic and archaeological resource(s) would be conducted and significance of the materials determined. If the discovery is considered significant, the archaeologist would develop and implement a late-discovery mitigation strategy to minimize and avoid the impact, where appropriate.	Ensure notification occurs, disturbance ceases, and the find is assessed by a qualified archaeologist.	During construction
APM CUL-3	If paleontological resources are discovered during earth-moving activities, the construction crew would immediately cease work near the find. In accordance with Society of Vertebrate Paleontology Guidelines, a qualified paleontologist would assess the nature and importance of the find and recommend appropriate salvage, treatment, and future monitoring and mitigation.	Ensure work ceases near the find and assessment occurs in accordance with Guidelines	During construction
APM CUL-4	If human remains are encountered, Health and Safety Code Section 7050.5 states that no further disturbance would occur until the county coroner has made a determination of origin and disposition pursuant to PRC Section 5097.98. The county coroner must be notified of the find immediately. If the remains are determined to be prehistoric, the county coroner would notify the Native American Heritage Commission, which would determine and notify a most likely descendant (MLD). With the permission of the landowner and his/her authorized representative, the MLD may inspect the site of the discovery. The MLD would complete the inspection within 48 hours of the notification by the Native American Heritage Commission. The MLD may make recommendations regarding the disposition of the remains.	Ensure no further disturbance would occur and the find is treated in compliance with State and federal regulations	During construction

Table 6-1. Mitigation Monitoring Plan

Impact	Applicant Proposed Measure (APM) or Mitigation Measure	Monitoring Requirement	Timing of Action
APM CUL-5	Siskiyou Telephone and/or USFS would work with the Karuk Tribe to provide a tribal monitor to observe conditions during construction in specified areas of interest.	Ensure tribal monitor present in specified areas of interest.	During construction
Geology and Soils			
APM GEO-1	Project construction activities would be performed in accordance with the soil erosion and water quality protection measures to be specified in the SWPPP (see Section 4.11.7 of this IS/MND) for the Proposed Project.	Ensure a SWPPP is prepared and implemented to minimize construction impacts on surface water and groundwater quality.	Prior to and during construction
APM GEO-2	Project elements, such as excavating rock or soil for utility box installation, building minor retaining walls (less than 5 feet in height) to avoid sedimentation into roadways, and trenching, would be designed and implemented in accordance with industry standards, including established engineering and construction practices and methods.	Ensure features incorporated into Project design to avoid sedimentation.	Prior to construction
Landslide Impacts	**MM GS-1: Conduct geotechnical/geologic surveys for landslides and unstable slopes.** The Applicant shall conduct slope stability surveys in areas where Proposed Project components are located on or adjacent to slopes exceeding 20 percent or in areas with previously mapped landslides. These surveys will acquire data that will allow identification of specific areas with the potential for unstable slopes, landslides, rock fall, and debris flows where earthquakes or project excavation could trigger slope failure. The investigations shall include an evaluation of slope conditions, identification of potential landslide hazards, and provide potential modifications to the Project design to avoid areas of unstable slopes and landslide hazards, such as modification of component locations. Where the surveys determine that landslide hazard areas cannot be avoided, best engineering design and construction measures, such as slope protection or controls along the road to divert or catch falling rocks or slides, shall be incorporated into the Project designs and excavation plans to prevent potential damage to project components.	Review slope stability studies and proposed design features and/or construction measures to reduce landslide potential impacts.	Prior to construction
Greenhouse Gas Emissions			
APM GHG-1	To the extent feasible, unnecessary construction vehicle and idling time would be minimized.	Ensure idling is minimized to reduce emissions from construction equipment.	During construction
Hazards and Hazardous Materials			
APM HAZ-1	Refueling of equipment would occur at a minimum distance of 20 feet from all active waterways.	Ensure all refueling occurs at least 20 feet from active waterways.	During construction

Table 6-1. Mitigation Monitoring Plan

Impact	Applicant Proposed Measure (APM) or Mitigation Measure	Monitoring Requirement	Timing of Action
APM HAZ-2	A SWPPP would be in place prior to the start of construction activities to implement BMPs for spill and pollution prevention. The following BMPs would minimize the potential for accidental release of hazardous materials: ▪ Equipment would be maintained in good working order, and equipment containing hazardous materials would be inspected periodically for signs of spills or leakage. ▪ Spills that occur would be cleaned up immediately, and any contaminated soil would be containerized and properly disposed of. ▪ Spills that occur would be reported in accordance with applicable federal, state, and local requirements. ▪ Emergency phone numbers would be available onsite.	Ensure a SWPPP is prepared and BMPs are implemented to minimize the potential for accidental release of hazardous materials.	Prior to and during construction
APM HAZ-3	Siskiyou Telephone would develop a fire management plan, in accordance with the modified special use permit from USFS that addresses construction activities for this project. The fire management plan would establish standards and practices that would minimize the risk of fire danger and, in the case of fire, provide for immediate suppression and notification. The fire management plan would address spark arresters, smoking and fire rules, storage and parking areas, use of gasoline-powered tools, road closures, use of a fire guard, and fire suppression equipment and training requirements. In addition, a water truck would be located onsite (for fugitive dust emission control) and could be used for fire suppression if needed.	Review fire management plan.	Prior to and during construction
Potential Water Contamination	**MM H-1: Prepare and Implement Worker Environmental Awareness Program (WEAP).** A project specific WEAP shall be prepared and submitted to the CPUC for approval prior to construction. The WEAP shall include, at a minimum, the following provisions related to hazards and hazardous materials: ▪ A presentation shall be prepared by the Applicant and used to train all site personnel prior to the commencement of work. A record of all trained personnel shall be kept. ▪ Instruction on compliance with Proposed Project mitigation measures. ▪ A list of phone numbers of Siskiyou Telephone environmental specialist personnel associated with the Proposed Project (archaeologist, biologist, environmental coordinator, and regional spill response coordinator). ▪ Instruction on the individual responsibilities under the Clean Water Act, the project SWPPP, site-specific BMPs, and the location of Material Safety Data Sheets for the project. ▪ Worker Training on Emergency Release Response Procedures to include hazardous materials handling procedures for reducing the potential for a spill during construction, and hazardous material clean up procedures and training to ensure quick and safe cleanup of accidental spills. ▪ Instructions to notify the foreman and regional spill response coordinator in case of a hazardous materials spill or leak from equipment, or upon the discovery of soil, groundwater, or surface water contamination. The foreman or regional spill response coordinator shall have authority to stop work at that location and to contact the CUPA (Siskiyou County Environmental Health	WEAP brochure and emergency response procedures to be submitted to the CPUC for review and approval prior to construction.	Prior to and during construction

Table 6-1. Mitigation Monitoring Plan

Impact	Applicant Proposed Measure (APM) or Mitigation Measure	Monitoring Requirement	Timing of Action
	Division, Hazardous Materials Management; see Section 5.8.1 - Regulatory Background above) immediately if unanticipated visual evidence of potential contamination or chemical odors are detected. Work will be resumed at this location after any necessary consultation and approval by the CUPA or other entities as specified by the CUPA. ▪ Instruction that noncompliance with any laws, rules, regulations, or mitigation measures could result in being barred from participating in any remaining construction activities associated with the Proposed Project.		
Potential Water Contamination	**MM H-2**: **Prepare and Implement a Hazardous Materials and Waste Management Plan**. Prior to approval of the final construction plans for the Proposed Project, a project-specific Hazardous Materials and Waste Management Plan for the construction phase of the Proposed Project will be prepared and submitted to the CPUC for approval prior to construction. The Plan will be prepared to ensure compliance with all applicable federal, state, and local regulations. The Hazardous Materials and Waste Management Plan will reduce or avoid the use of potentially hazardous materials for the purposes of worker safety, protection from soil, groundwater, and surface water contamination, and proper disposal of hazardous materials. The plan will include the following information related to hazardous materials and waste, as applicable: ▪ A list of the hazardous materials that will be present on site and in the local construction yard during construction, including information regarding their storage, use, and transportation; ▪ Any secondary containment and countermeasures that will be required for onsite and construction yard hazardous materials, as well as the required responses for different quantities of potential spills; ▪ A list of spill response materials and the locations of such materials at the Proposed Project site and in the local construction yard during construction. Additionally, the Plan shall designate that spill response materials be kept onsite for all activities performed near to or adjacent to a stream or the river; ▪ Procedure for Fueling and Maintenance of Construction Vehicles and Equipment: Written procedures for fueling and maintenance of construction equipment would be prepared prior to construction. The Plan shall include the following procedures: – Construction vehicles shall be fueled and maintained offsite at the construction yard or at local fuel stations. Construction vehicles operated near to or adjacent to the stream/river channel shall be inspected and maintained daily to prevent leaks. – Construction equipment such a drill rigs and excavators shall be fueled offsite when feasible. When refueling offsite is not feasible for drilling equipment and other construction equipment onsite refueling of the equipment by refueling vehicles or fuel trucks shall follow specified procedures to prevent leaks or spills. Procedures will require refueling be located a minimum of 150 feet from a stream channel and the use of spill mats, drop cloths made of plastic, drip pans, or trays to be placed under refueling areas to ensure that fuels do not come into contact with the ground. Spill cleanup materials shall be kept readily available on the refueling vehicles.	Review and approve Hazardous Materials and Waste Management Plan and ensure procedures are implemented during construction.	Prior to and during construction

Table 6-1. Mitigation Monitoring Plan

Impact	Applicant Proposed Measure (APM) or Mitigation Measure	Monitoring Requirement	Timing of Action
	– Drip pans or other collection devices would be placed under equipment, such as motors, pumps, generators, and welders, during operation and at night to capture drips or spills. Equipment would be inspected and maintained daily for potential leakage or failures. ▪ A list of the adequate safety and fire suppression devices for construction activities involving toxic, flammable, or exposure materials; ▪ A description of the waste-specific management and disposal procedures that will be conducted for any hazardous materials that will be used or are discovered during construction of the Proposed Project; and ▪ A description of the waste minimization procedures to be implemented during construction of the Proposed Project.		
Potential Soil Contamination	**MM H-3: Conduct Sampling and Testing for ADL.** Soil along the shoulder of State Highway 96 where project related ground disturbance is to occur, should be sampled and tested prior to construction to determine the proper handling and disposal methods. Caltrans has three Standard Special Provisions with guidelines for handling, reuse, storage, and disposal of ADL contaminated soils that could apply to the Proposed Project (Caltrans, 2014). The appropriate Standard Special Provision (SSP) would be applied for Proposed Project dependent on the ADL concentrations in the soil and planned soil disturbance parameters. The three Caltrans ADL SSPs are: SSP 7-1.02K(6)(j)(iii) (01/18/2013) Earth Material Containing Lead - Requires a lead compliance plan for soil disturbance when lead concentrations are non-hazardous; SSP 14-11.03 (04/19/2013) Material Containing Hazardous Waste Concentrations of Aerially Deposited Lead – ADL management specifications when hazardous waste concentrations exist; and SSP 14-11.04 (01/18/2013) – Minimal Disturbance of Material Containing Hazardous Waste Concentrations of Aerially Deposited Lead - ADL minimal disturbance specifications for use when hazardous waste concentrations exist but material is not being excavated.	Review soil testing results. Ensure that guidelines for handling, reuse, storage, and disposal of ADL contaminated soils are implemented, if required.	Prior to construction
Hydrology and Water Quality			
APM HYDRO-1	Disturbed areas would be restored to preconstruction conditions to avoid altering or increasing the rate or volume of surface runoff.	Ensure restoration of disturbed areas.	Post construction

Table 6-1. Mitigation Monitoring Plan

Impact	Applicant Proposed Measure (APM) or Mitigation Measure	Monitoring Requirement	Timing of Action
APM HYDRO-2	To comply with the LUP General Permit, Siskiyou Telephone would submit a Notice of Intent to the SWRCB and a Linear Construction Activity Notification to the RWQCB prior to construction. Siskiyou Telephone would also have the construction contractor prepare an SWPPP outlining BMPs for storm water erosion and sediment control, wind erosion control, source controls, and waste management. Siskiyou Telephone would ensure that SWPPP requirements are implemented and water quality standards are maintained. BMPs would be modified as necessary to ensure adequate erosion controls. The following are examples of BMPs: ▪ Dry-season (April through October) construction to minimize erosion and storm water sediment transport ▪ Use of silt fences or fiber rolls to prevent the migration of sediment offsite ▪ Application of water to disturbed areas during work or windy conditions to prevent dust and erosion ▪ Use of drip pans for mobile fueling	Ensure a SWPPP is prepared and BMPs are implemented to minimize construction impacts on surface water and groundwater quality.	Prior to and during construction
Land Use and Planning			
APM LU-1	Siskiyou Telephone would obtain permits to construct from USFS, Caltrans, and the CPUC.	Ensure permits are received prior to construction	Prior to construction
Noise			
APM NOI-1	During construction of the proposed project, the following BMPs would be implemented to minimize noise impacts: ▪ Construction activity would be restricted to the hours between 7 a.m. and 7 p.m. on weekdays. Work on weekends would need to be coordinated with the Siskiyou County Planning Department as needed. ▪ All stationary noise-generating equipment would be located as far as possible from nearby noise-sensitive receptors. ▪ Construction equipment powered by gasoline or diesel engines would have sound control devices at least as effective as those provided by the original equipment manufacturer. No equipment would be allowed to have an un-muffled exhaust, as appropriate. ▪ The construction contractor would ensure that noise-generating mobile equipment and machinery are turned off when not in use.	Ensure activities limited to specified hours. Review notification (if weekend work is necessary). Ensure BMPs implementation during construction such that construction noise is minimized and noise-related complaints from nearby sensitive receptors are minimized.	During construction

Table 6-1. Mitigation Monitoring Plan

Impact	Applicant Proposed Measure (APM) or Mitigation Measure	Monitoring Requirement	Timing of Action
Public Services			
APM PS-1	Construction schedules would be submitted to local emergency service providers for review and comment, and updated as necessary. In addition, fire extinguishers and shovels would be maintained onsite during periods of construction or site activity for immediate fire control, if needed.	Review correspondences with local emergency service providers and ensure fire extinguishers and shovels are maintained onsite.	Prior to and during construction
Transportation and Traffic			
APM TRF-1	The use of traffic control measures would ensure that the effects on traffic would not create unsafe conditions. In addition, Siskiyou Telephone would inform residents in Happy Camp of construction activities and potential delays.	Review and ensure implementation of traffic control measures in accordance with Caltrans requirements.	Prior to and during construction
Utilities and Service Systems			
APM UTL-1	Solid waste generated in the project area during construction is anticipated to be minimal and would be transported offsite daily to the Happy Camp disposal site.	Ensure solid waste is transported offsite daily.	During construction

7. Comments and Responses to Comments

This section presents responses to the comments received during the public review period for the Mitigated Negative Declaration (March 16 to April 16, 2018). The CPUC received five public comments from the various State agencies, tribes, and the public that were notified of the intent to adopt the Mitigated Negative Declaration.

Table 7-1 lists the persons and agencies that submitted comments on the Proposed MND. The individual comments are numbered, and responses immediately follow the comments. If revisions were made to the MND and supporting Initial Study based on the comments, the revisions are provided with the response to the specific comment and are indicated in the text of this Final MND with ~~strikeout~~ for deletions of text, and in underline for new text.

Table 7-1. Comments Received on the Proposed Mitigated Negative Declaration

Commenter	Date of Comment	Comment Set
California Department of Fish and Wildlife	4/10/18	A1
Siskiyou County Air Potential Control District	4/16/18	A2
California Department of Transportation	4/16/18	A3
Karuk Tribe	3/9/18	C1
Eric Olson	4/16/18	E1

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Comment Set A1 – California Department of Fish and Wildlife

State of California – Natural Resources Agency
DEPARTMENT OF FISH AND WILDLIFE
Region 1 – Northern
601 Locust Street
Redding, CA 96001
www.wildlife.ca.gov

EDMUND G. BROWN JR., Governor
CHARLTON H. BONHAM, Director

April 10, 2018

Jensen Uchida
California Public Utilities Commission
C/O Aspen Environmental Group
235 Montgomery Street, Suite 935
San Francisco, CA 94104

Subject: Mitigated Negative Declaration for Siskiyou Telephone Company Happy Camp to Somes Bar Fiber Connectivity Project, Siskiyou County, State Clearinghouse Number 2018032045

Dear Mr. Uchida:

A1-1

The California Department of Fish and Wildlife (Department) has reviewed the mitigated negative declaration (MND) for the above-referenced project (Project). Pursuant to Fish and Game Code section 1802, and as a Trustee Agency, the Department has jurisdiction over the conservation, protection, and management of California's fish, wildlife, native plants, and the habitat necessary for biologically sustainable populations of those species. As a Responsible Agency, the Department administers the California Endangered Species Act and other provisions of the Fish and Game Code (FGC) that conserve the State's fish and wildlife public trust resources. The Department offers the following comments and recommendations on the Project in our role as the State's trustee for fish and wildlife resources and as a Responsible Agency under the California Environmental Quality Act, California Public Resources Code section 21000 et seq.

Project Description

The Project is a proposal to construct the Siskiyou Telephone Happy Camp to Somes Bar Fiber Connectivity Project, which would provide telephone and broadband service capability to residences in the area between Clear Creek and Ti Bar in Siskiyou County. Fiber optic broadband facility cable would be constructed within a conduit for approximately 17 miles within or adjacent to State Highway 96.

Comments and Recommendations

The Department provided conditions regarding stream protection and horizontal directional drilling activities and appreciates the inclusion of these conditions in the MND.

Conserving California's Wildlife Since 1870

Comment Set A1 – California Department of Fish and Wildlife (cont.)

Dust suppression

A1-1 cont.

Mitigation Measure (MM) AQ-1, Control Construction-Related Dust, discusses dust control strategies including stabilizing the surface of storage piles and unpaved staging and work areas with chemical dust suppressants. Instead of utilizing chemical dust suppressants, the Department recommends utilizing the other methods proposed in MM AQ-1. If the use of chemical dust suppressants are necessary, any use of chemicals shall be kept a suitable distance from wetlands, streams, or rivers in order to preclude accidental discharge into or the contamination of adjacent water resources.

Candidate Amphibian Species - Foothill Yellow-legged Frog and Cascades Frog

A1-2

Foothill yellow-legged frog (*Rana boylii*) habitat occurs adjacent to the Project area, and this species was observed in Wyman Gulch, a stream with a required crossing, during reconnaissance surveys for this Project. The MND identifies this species as a Species of Special Concern; however, on June 21, 2017, the California Fish and Game Commission (Commission) accepted the petition to list the foothill yellow-legged frog as a threatened species and will be preparing a Status Review to determine whether listing as threatened is warranted. Based on the findings published July 7, 2017, the foothill yellow-legged frog is considered a candidate species as defined by FGC section 2068.

Cascades frog (*R. cascadae*) is discussed as likely to occur in adjacent off-site habitat in the MND, and is also identified as a Species of Special Concern. On October 11, 2017, the Commission accepted the petition to list Cascades frog as a threatened or endangered species and will be preparing a Status Review to determine whether listing as a threatened or endangered species is warranted. Based on findings published October 17, 2017, the Cascades frog is considered a candidate species as defined by FGC section 2068.

During the Status Review period, FGC section 2085 confers full legal protection of an endangered or threatened species on a candidate species. This includes the general prohibition on "take" of the species, as defined in FGC section 86 as to "hunt, pursue, catch, capture or kill" or to attempt to engage in any of these activities.

The Department recommends the completion of focused surveys for these species in all areas of the Project in which direct or indirect impacts could occur. If take of foothill-yellow legged frog or Cascades frog may be potential due to direct or indirect impacts related to Project construction, such as through direct removal, hydrological interruption, sedimentation, impaired water quality, or other means, the applicant will need to apply for an Incidental Take Permit (ITP) in order to comply with CESA. The Department may issue an ITP authorizing the take of a candidate species when it is incidental to an otherwise lawful activity, the impacts of the take are minimized and fully mitigated, the applicant ensures there is adequate funding to implement any required measures, and take is not likely to jeopardize the continued existence of the species. If, at the time of Project implementation, the foothill yellow-legged frog or

Comment Set A1 – California Department of Fish and Wildlife (cont.)

Cascades frog are not listed under CESA or are no longer a candidate, CESA authorization will not be required. However, both species are Species of Special Concern and impacts to either one may still be considered significant under CEQA.

A1-2 cont.

The Department appreciates the opportunity to provide comments on the MND. If you have any questions, please contact Kristin Hubbard, Environmental Scientist, at (530) 225-2138, or by email at Kristin.Hubbard@wildlife.ca.gov.

Sincerely,

Michael R. Harris
Interior Conservation Planning Supervisor

ec: Jensen Uchida
California Public Utilities Commission
c/o Aspen Environmental Group
SiskiyouTelCo@aspeneg.com

Kristin Hubbard and Michael R. Harris
California Department of Fish and Wildlife
Kristin.Hubbard@wildlife.ca.gov; Michael.R.Harris@wildlife.ca.gov

State Clearinghouse
state.clearinghouse@opr.ca.gov

Comment Set A2 – Siskiyou County Air Pollution Control District

COUNTY OF SISKIYOU
AIR POLLUTION CONTROL DISTRICT

James E. Smith
Air Pollution Control Officer

525 SOUTH FOOTHILL DRIVE
YREKA, CALIFORNIA 96097-3090
PHONE: (530) 841-4029
FAX: (530) 842-6690

April 16, 2018

California Public Utilities Commission
c/o Aspen Environmental Group
235 Montgomery Street, Suite 935
San Francisco, CA 94104-3002

RE: Siskiyou Telephone Co. Somes Bar Fiber Optic Project MND IS Comments

Ms. Jensen Uchida,

The following are Siskiyou County Air Pollution Control District comments to the Siskiyou Telephone Company Somes Bar Fiber Optic Project MND IS.

Page 4-1, Section 4.4 Project Location,

- lists legal descriptions of sections outside of project area while omitting sections that are presumably within project area, e.g. Missing T13NR6E Section 5, Off Highway 96 - T14NR6E Sections 2, 5, & 9. The legal descriptions of Proposed Project area need corrections. **A2-1**

Page 5-9, Toxic Air Contaminants (TAC):

- This section mentions that the Proposed Project would not be considered a stationary source then goes on to refer to District Rule 6.1 on Pages 5-11 and 5-12. Rationale for further references to Rule 6.1 applicability, a stationary source rule, and its thresholds of significance needs to be clarified. **A2-2**

- Diesel Particulate Matter (DPM) is mentioned here as being managed by California Air Resource Board (CARB) "and local programs" addressing fuels, engines, and tailpipe standards however that authority rests solely with US EPA and CARB. The District regulates through its permitting process stationary sources of DPM that utilize diesel engines greater than 50HP as per State law. **A2-3**

- This section fails to mention Naturally Occurring Asbestos (NOA). NOA is a TAC that exists in the project area, and should be included in Section 5.3.1 Setting, Toxic Air Contaminants. **A2-4**

Page 5-11:

- APCD Rule 6.1, Construction Permit Standards for Criteria Pollutants, applies to stationary sources of air pollutants and is not applicable to the project. **A2-5**

James E Smith, APCO
Siskiyou County Air Pollution Control District

Comment Set A3 – California Department of Transportation

DEPARTMENT OF TRANSPORTATION
OFFICE OF COMMUNITY AND REGIONAL PLANNING
1657 RIVERSIDE DRIVE
REDDING, CA 96001
PHONE (530) 229-0517
FAX (530) 225-3020
TTY 711
www.dot.ca.gov/dist2/

Making Conservation a California Way of Life.

April 16, 2018

IGR/CEQA Review
Sis -96 12.15/32.31
Siskiyou Telephone
Mitigated Negative Declaration
SCH# 2018032045

Mr. Jensen Uchida
California Public Utilities Commission
505 Van Ness Avenue
San Francisco, CA 94102

Dear Mr. Uchida:

Thank you for the opportunity to review the Mitigated Negative Declaration prepared for the Siskiyou Telephone Company Happy Camp to Somes Bar Fiber Connectivity Project. The project is located along State Route 96 between the communities of Happy Camp and Somes Bar in Siskiyou County. The project will install fiber optic broadband cable within the highway right of way for approximately 17 miles. A3-1

The document adequately identifies that a Caltrans encroachment permit will be required. The proponents are advised that there is a potential to encounter Naturally Occurring Asbestos (NOA) during the construction operations. The environmental document should address how the materials will be handled, if encountered. Contact with NOA, although minimal, should be addressed along with mitigation/control measures to be implemented.

If you have any questions, please call me at (530) 225-3369 or our Encroachment Permits office at (530)225-3400 for the permit requirements.

Sincerely,

MARCELINO GONZALEZ
Local Development Review
Office of Community Planning
District 2

"Provide a safe, sustainable, integrated and efficient transportation system to enhance California's economy and livability"

Comment Set C1 – Karuk Tribe

Email: Siskiyou Telephone Happy Camp to Somes Bar Fiber Connectivity Project

From: Alex Watts-Tobin [mailto:atobin@karuk.us]

March 9, 2018

Jensen Uchida
California Public Utilities Commission
Energy Division
505 Van Ness Avenue, Fourth Floor
San Francisco, CA 94102

Dear Jensen Uchida,

This letter is in reference to the Siskiyou Telephone Happy Camp to Somes Bar Fiber Connectivity Project. The THPO Office acknowledges receipt of the letter to Chairman Attebery on this project, and it was discussed at the March 6th Karuk Resources Advisory Board Meeting. At that meeting, Carl Eastlick of Siskiyou Telephone attended to present various Siskiyou Telephone initiatives including the one referenced here. C1-1

The Karuk Resources Advisory Board (KRAB) expressed support for this project, while acknowledging that the project is located in a very sensitive area along the course of Hwy 96 from Happy Camp to Orleans. The KRAB has already recommended monitoring on a number of such projects in the past. This particularly applies to trenching work and pits for bore work. Activities with significant ground disturbance should be monitored.

Alex Watts-Tobin
Karuk THPO
atobin@karuk.us
530-643-9823

Comment Set E1 – Eric Olson

Email: Siskiyou Telephone Happy Camp to Somes Bar Fiber Connectivity Project

From: Eric Olson <mr.e.b.olson@gmail.com>
Sent: Monday, April 16, 2018 4:48 PM
To: Siskiyou Telco Project
Subject: Siskiyou Telephone Fiber Optic Project MND/IS Comments

Ms. Uchida,
Please accept the following comments regarding the CPUC Happy Camp to Somes Bar Fiber Optic Connectivity Project MND/IS:

E1-1

Pg 5-11 state to reduce fugitive emissions that the project shall be completed during the dry season. How does dry season construction reduce fugitive dust?

The project area includes ultramafic rock areas where California Air Resources Board Air Toxic Control Measure (ATCM) 93105 and possibly ATCM 93106 shall need to be complied with in all ultramafic rock areas including those ultramafic rock areas where naturally occurring asbestos (NOA) was not identified.

Appendix E emissions calculations appears to show no difference between mitigated vs non-mitigated PM emissions. Do the PM calculations include dust from ultramafic rock areas? As per the NOA ATCM there shouldn't be any PM or dust emissions from the project area in ultramafic rock areas. What are the sources of PM/fugitive dust in App E?

The default hours listed in App E calculations/modeling is 35, however the text in the MND/IS states 195 project hours. Are the calculations default values or actually for the project?

Thank you,
Eric Olson

Responses to Comment Set A1 – California Department of Fish and Wildlife

A1-1 The comment reviews the analysis from the perspective of a Trustee Agency, with a focus on stream protection and oversight of the proposed horizontal directional drilling activities. The comment recommends using dust control methods other than "chemical dust suppressants" when possible, in order to avoid the possibility of accidental contamination of wetlands, streams, or rivers. The Siskiyou County Air Pollution Control District (APCD) requires that the proposed activities "comply with the APCD rules regarding dust control" (Draft IS/MND, pp. 5-13), and the IS/MND identifies a range of feasible control strategies to minimize the dust emissions (Mitigation Measure MM AQ-1).

The range of acceptable dust control strategies in the Final IS/MND has been revised as follows in response to this comment so that Mitigation Measure (MM) AQ-1 indicates a preference to use water instead of chemical dust suppressants when near water resources:

MM AQ-1 ***Control Construction-Related Dust.*** *The Applicant shall implement the following dust control strategies and any other dust control measure that may be specified by the APCD through the review of a dust control plan for naturally occurring asbestos:*

- *Visible track-out on any paved public road shall be removed at the end of the work day or at least one time per day, with removal being accomplished by using wet sweeping or a HEPA filter equipped vacuum device.*
- *Storage piles shall be treated by either keeping the surface adequately wetted, stabilizing the surface with chemical dust suppressants, or covering with tarps or vegetative cover; where potential accidental contamination of wetlands, streams, or rivers could occur, water shall be used instead of chemical dust suppressants.*
- *Unpaved staging and work areas shall be watered every two hours of active operation or more frequently as needed or stabilized with chemical dust suppressants; where potential accidental contamination of wetlands, streams, or rivers could occur, water shall be used instead of chemical dust suppressants.*
- *Earthmoving areas and excavated materials shall be pre-wetted to the depth of the anticipated cuts.*
- *Trucks transporting excavated material off-site shall be: maintained such that no spillage can occur from holes or other openings in cargo compartments, loads shall be adequately wetted and covered with tarps or loaded such that the material does not touch the front, back or sides of the cargo compartment at any point less than six inches from the top and that no point of the load extends above the top of the cargo compartment.*

A1-2 The commenter indicates that foothill yellow-legged frog and Cascade frog were both recently considered candidates for state listing as defined by Fish and Game Code 2068. During the Status Review period, Fish and Game Code section 2085 confers full legal protection of an endangered or threatened species on a candidate species. This includes the general prohibition on "take" of the species, as defined by Fish and Game Code section 86 as to "hunt, pursue, catch, capture or kill" or to attempt to engage in any of these activities. Section 5.4.1 and Table 5.4-1 of the Draft IS/MND identified these amphibians as species of special concern, which was their previous status.

Section 5.4.1 and Table 5.4-1 of the Final IS/MND have been edited to reflect the recent change in status of these two species to candidate species.

In Section 5.4.2 of the Draft IS/MND, Mitigation Measure (MM) B-1 requires preconstruction sweeps of work areas for special-status species, and the Final IS/MND has been edited to include candidate species. Mitigation Measure MM B-1 would be implemented to prevent "take" by requiring preconstruction sweeps and full-time monitoring during light rain when frogs would most likely be encountered. Also, Mitigation Measure MM B-3 requires full-time monitoring within California Department of Fish and Wildlife jurisdictional habitats (areas most likely to have frogs) during Horizontal Directional Drilling (HDD) activities, and a variety of measures to prevent frac-outs. Additionally, Mitigation Measure MM B-5 requires avoiding any entrapment hazards for wildlife.

Responses to Comment Set A2 – Siskiyou County Air Pollution Control District

A2-1 The commenter notes that the legal descriptions in Section 4.4 (Project Location) of the Draft IS/MND should be corrected. The legal descriptions in Section 4.4 of the Final IS/MND have been revised, as follows:

- T13N; R6E; Sections 5, and 8
- T14N; R6E; Sections 1, ~~2, 5, 9, and~~ 11, and 12 and continues into Sections 14, 15, 21, 22, 28, and 33
- T14N; R7E, Section 6
- T15N; R7E; Section 18 and follows State Highway 96 into Sections 17, 20, 29, 30, and 31
- T15N; R6E; Section 36

A2-2 The comment suggests clarification within part of the Air Quality regulatory background where APCD Rule 6.1 is identified (Draft IS/MND, p. 5-11), because the Proposed Project is not subject to this rule. Section 5.3 (Air Quality) of the Final IS/MND has been revised to clarify that the rule is not applicable, although the IS/MND continues to refer to the rule as a basis for mass-based thresholds of significance.

A2-3 The comment suggests clarifications in the Air Quality setting to delineate the APCD jurisdiction on sources of diesel particulate matter, and Section 5.3.1 (Air Quality, Setting) of the Final IS/MND has been revised accordingly.

A2-4 The comment suggests clarifications in the Air Quality setting to identify naturally occurring asbestos as a relevant toxic air contaminant, and Section 5.3.1 (Air Quality, Setting, Toxic Air Contaminants) of the Final IS/MND has been revised accordingly.

A2-5 The Final IS/MND includes revisions to clarify that APCD Rule 6.1 is not applicable to the Proposed Project, although the IS/MND continues to refer to the rule as a basis for mass-based thresholds of significance (see also Response to Comment A2-2).

Responses to Comment Set A3 – California Department of Transportation

A3-1 The commenter acknowledges that a Caltrans encroachment would be required and indicates there is a potential to encounter naturally-occurring asbestos (NOA) during construction. The IS/MND identifies the need to obtain approval of a dust mitigation plan for naturally occurring asbestos from the APCD (Draft IS/MND, Table 4-2), and Siskiyou Telephone would need to demonstrate compliance with the NOA dust control plan and the requirements of the asbestos Airborne Toxic Control

Measures (ATCM) during all construction activities (Draft IS/MND, p. 5-13). The IS/MND identifies a range of feasible control strategies to minimize the dust emissions and avoid potentially adverse exposure of persons to airborne NOA (see Mitigation Measure MM AQ-1).

Responses to Comment Set C1 – Karuk Tribe

C1-1 The Karuk Resources Advisory Board's support for the Project is noted.

The commenter also states that the proposed Project is located in a sensitive area, and recommends monitoring for activities with significant ground disturbance, such as trenching work and pits for bore work. Applicant Proposed Measures (APMs) CUL-1 through CUL-5 have been incorporated into Project design and would be implemented prior to and during construction to protect the cultural and paleontological resources in the Project area. Specifically, APM CUL-5 in the IS/MND states that "Siskiyou Telephone and/or USFS would work with the Karuk Tribe to provide a tribal monitor to observe conditions during construction in specified areas of interest."

Responses to Comment Set E1 – Eric Olson

E1-1 The commenter details some concerns about the air quality analysis and the potential to encounter ultramafic rock containing naturally occurring asbestos (NOA) during construction.

The comment identifies one misplaced phrase in Applicant Proposed Measures (APM) for Air Quality, APM AQ-1 (Draft IS/MND, Table 5.3-3), which has been revised accordingly in response to this comment, as follows.

> *~~To reduce fugitive emissions, c~~Construction of the proposed project would occur during the dry season (April through October). To reduce fugitive emissions, w~~W~~ater trucks would be present onsite to wet down the work area, including materials such as backfill and other construction components.*

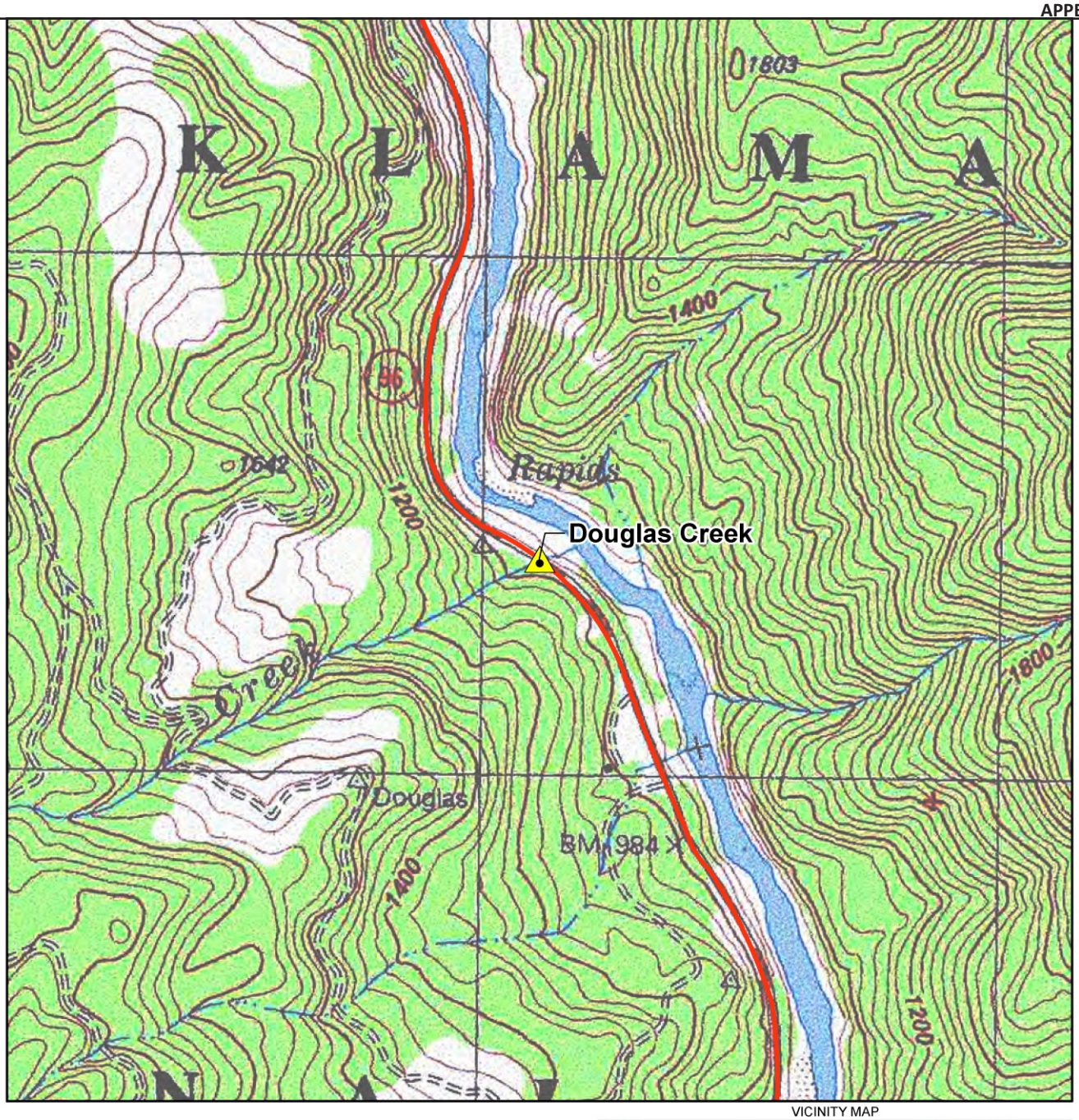
Regarding applicability of Air Resources Board (ARB) rules, the MND describes, as part of the Air Quality regulatory background (Draft IS/MND, pp. 5-10 and 5-11), the asbestos Airborne Toxic Control Measures (ATCM) that would apply during all construction activities (Draft IS/MND, p. 5-13). Within the ATCM, the regulation defines the areas of applicability [17 CCR 93105, subsection (b)] and how an exemption may be provided by the APCD on the basis of a site geologic evaluation [17 CCR 93105, subsection (c)]. Dust control requirements for road construction, as overseen by the APCD, are also delineated in the ATCM [17 CCR 93105, subsection (d)].

The emission calculations in Appendix E reflect no specialized dust controls, although the applicable requirements include the asbestos ATCM (Draft IS/MND, p.5-13). The comment incorrectly indicates that dust would be eliminated through ATCM compliance. Even with controls, some levels of residual dust emissions would continue to occur; emissions from sources like the handling of excavated materials or tire-wear from the travel on paved surfaces can be feasibly avoided, but not totally eliminated.

The report in Appendix E reflects how the "default" setting of 35 days per phase was replaced by a project-specific breakout of four phases total 195 days (e.g., see Appendix E, p. 7 of 22 and p. 8 of 27), consistent with the total duration of construction shown in the Project Description (Draft IS/MND, p. 4-12).

Appendix A

Maps of Creek Crossings



LEGEND

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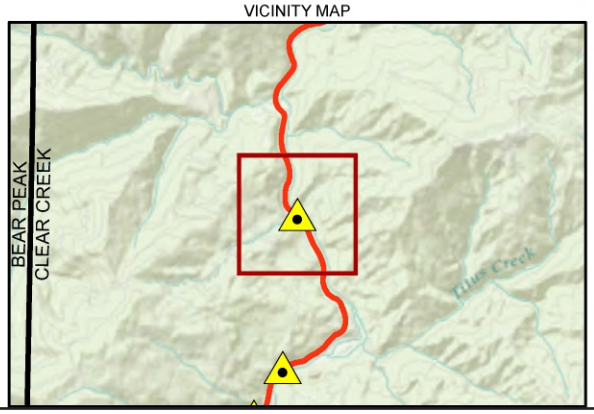
- Project
- USGS Quad (24K)



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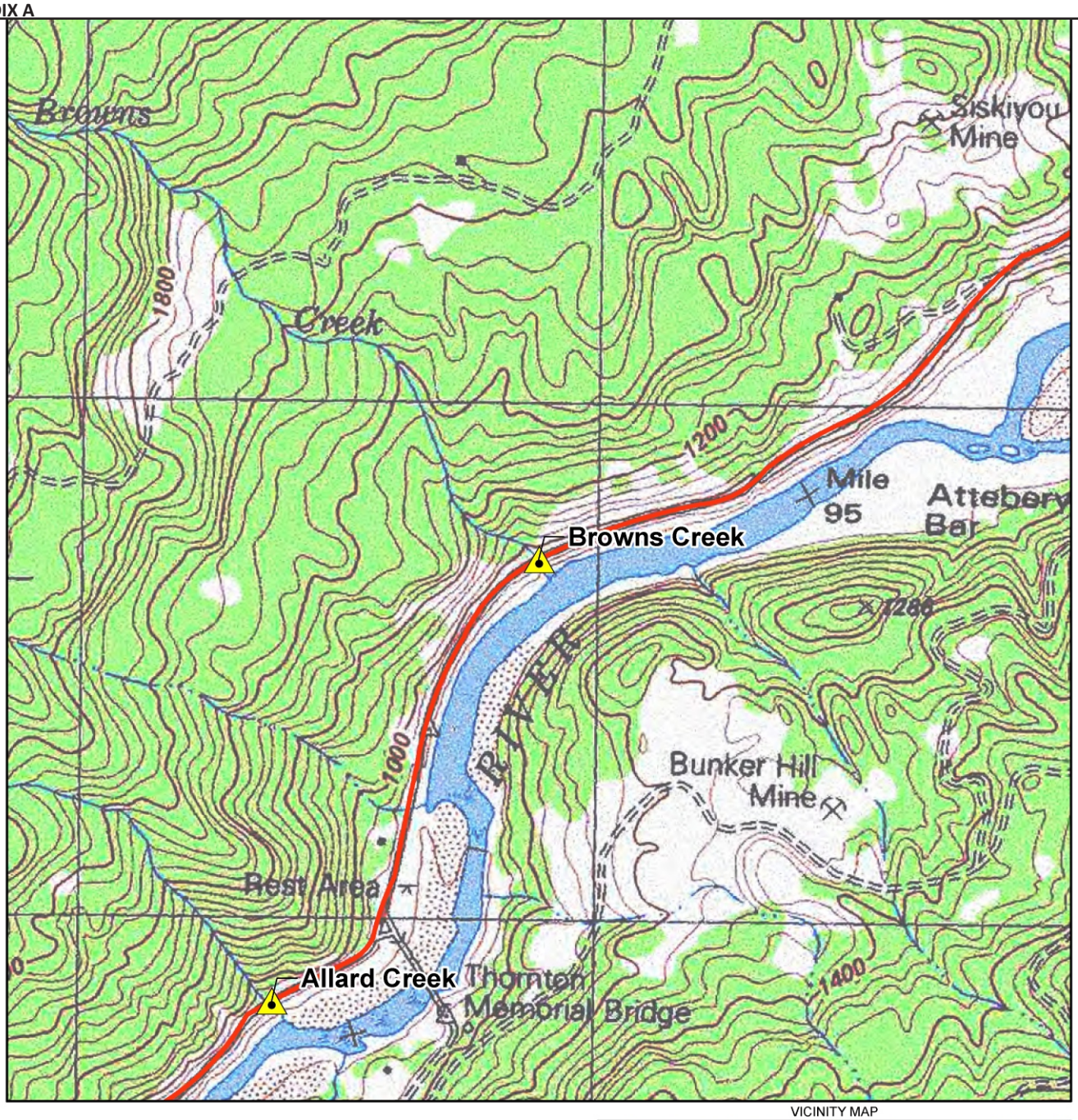
Feet

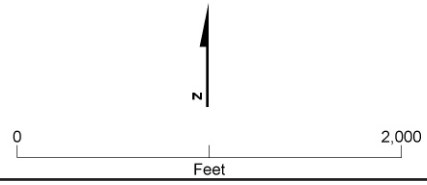
Source: CH2M, 2015.

Figure A-1
Project Area and Douglas Creek Crossing

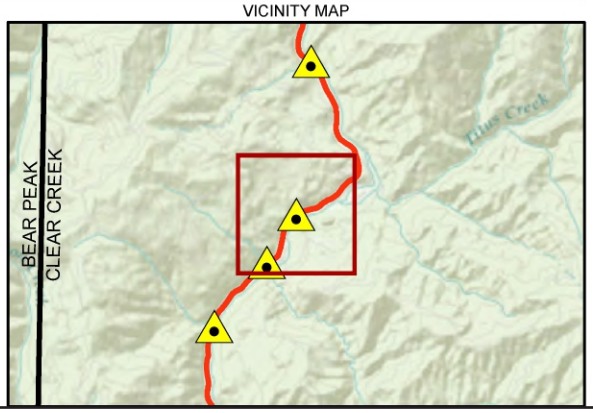


LEGEND

- Creek Crossing
- Project
- USGS Quad (24K)

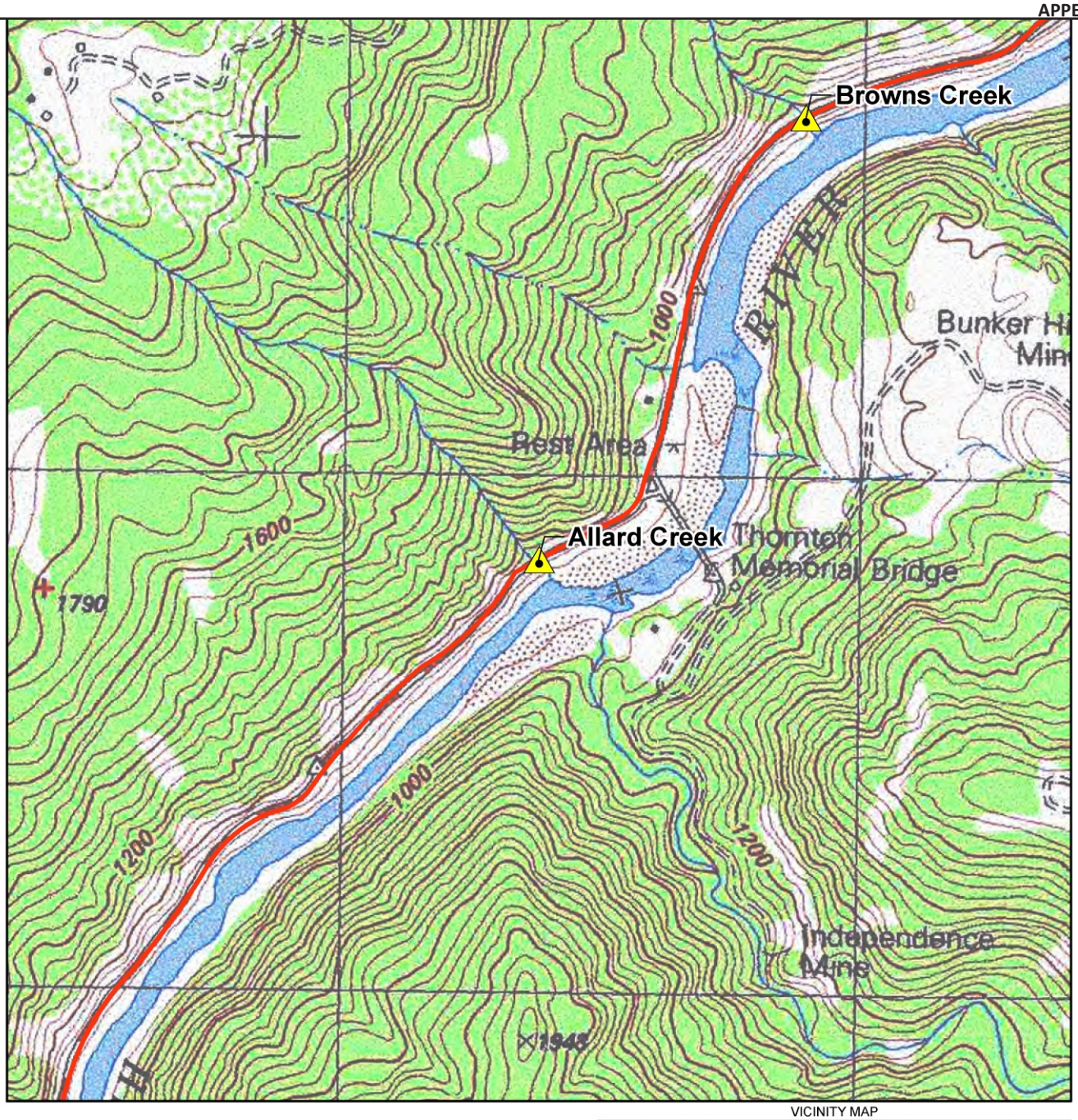


VICINITY MAP



Source: CH2M, 2015.

Figure A-2
Project Area and Browns Creek Crossing



LEGEND

- Creek Crossing
- Project
- USGS Quad (24K)

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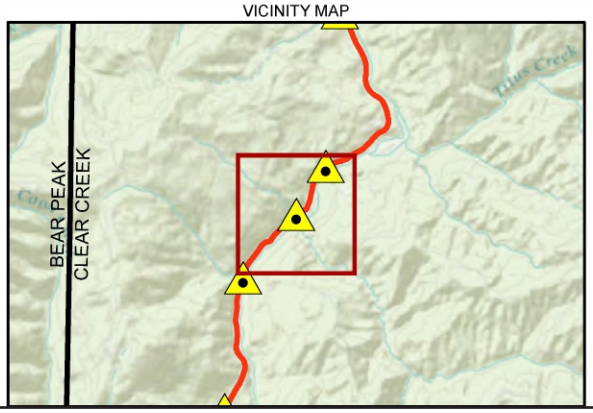
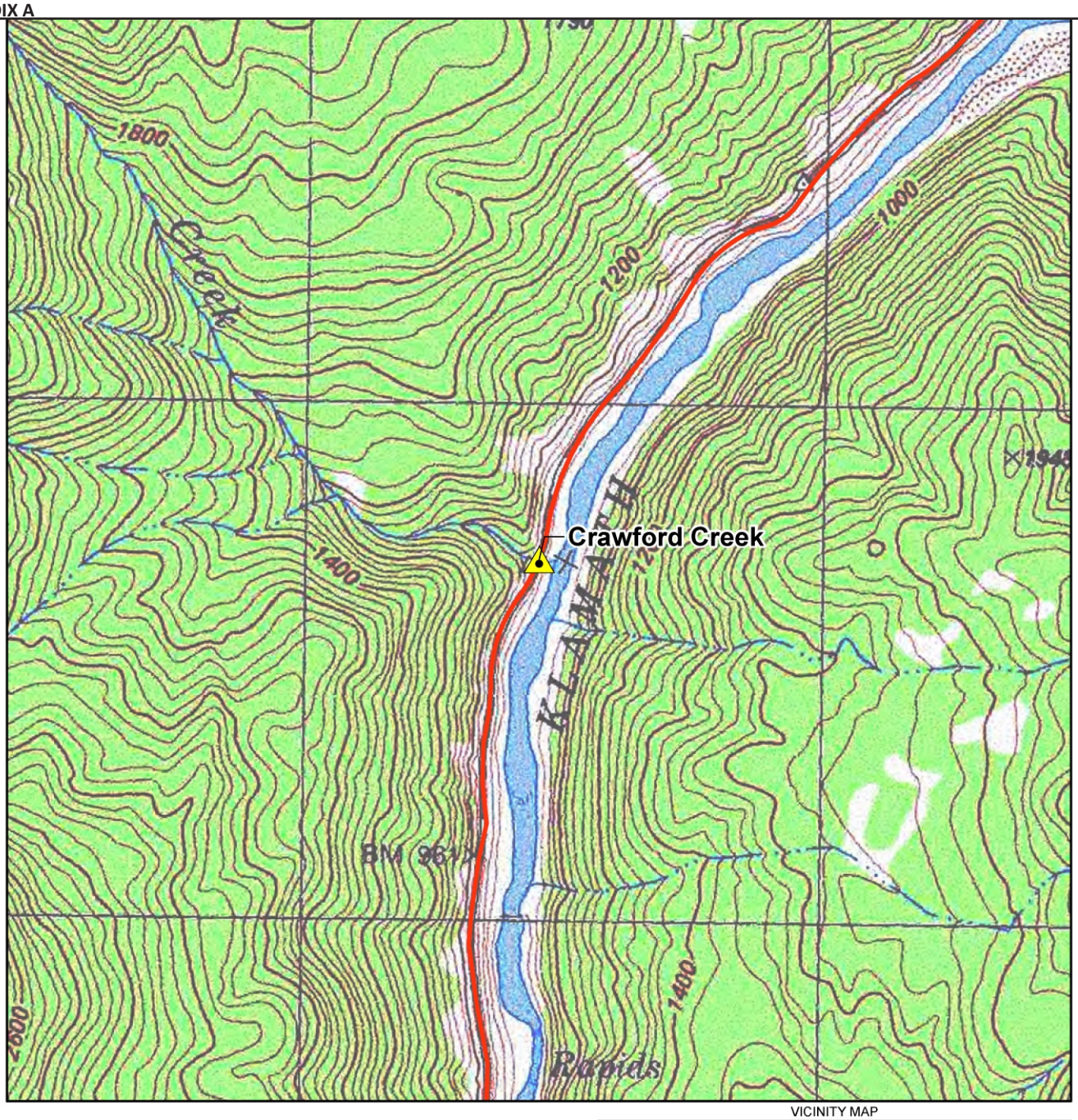
Feet

VICINITY MAP

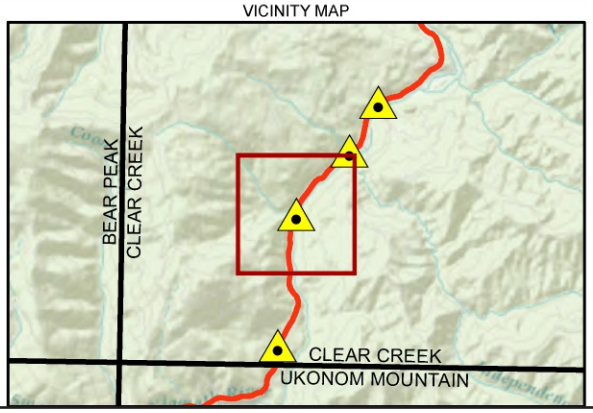


Source: CH2M, 2015.

Figure A-3
Project Area and Allard Creek Crossing



VICINITY MAP



LEGEND

- Creek Crossing
- Project
- USGS Quad (24K)

N

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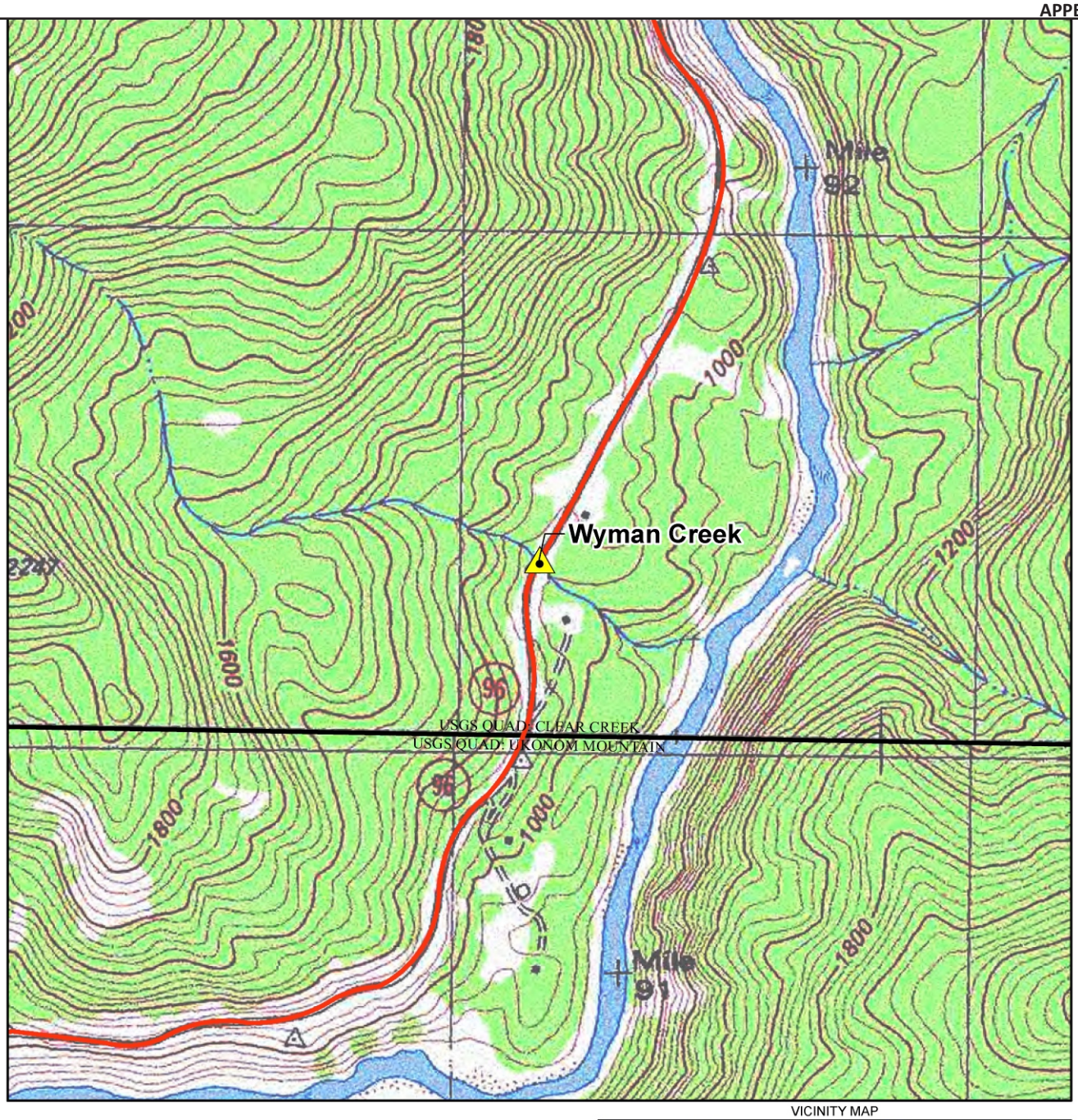
Feet

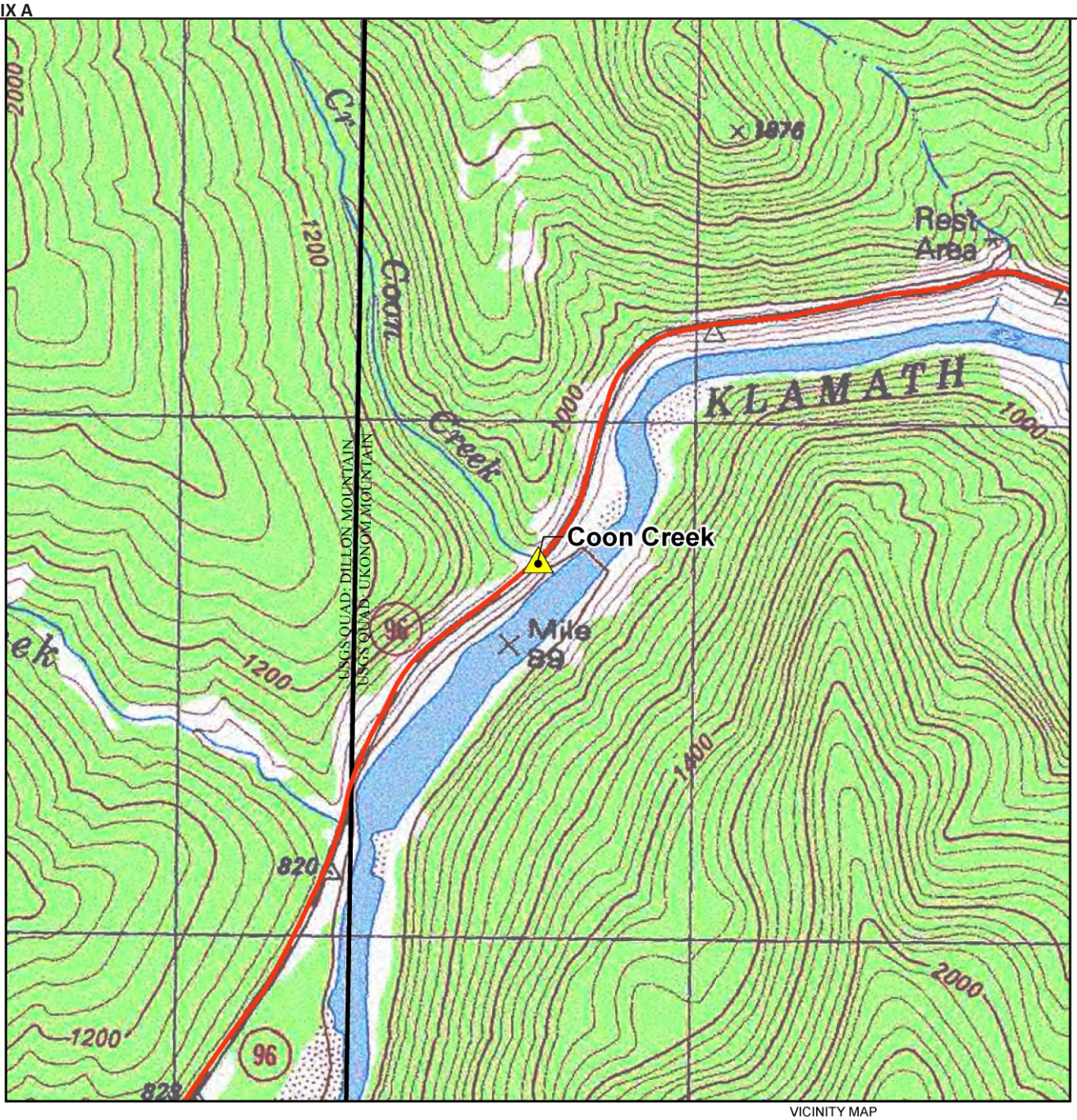
Source: CH2M, 2015.

Figure A-4
Project Area and Crawford Creek Crossing



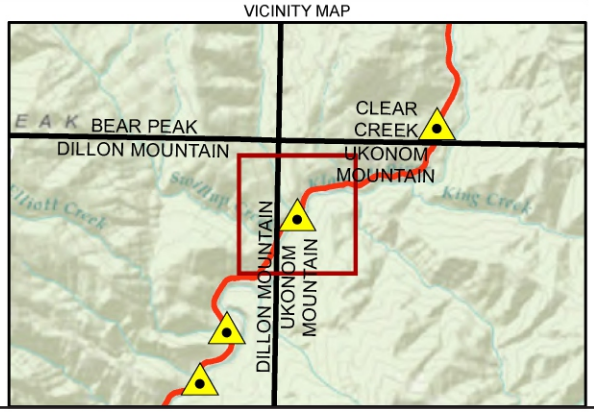
Source: CH2M, 2015.

Figure A-5
Project Area and Wyman Creek Crossing



LEGEND

- Creek Crossing
- Project
- USGS Quad (24K)



N

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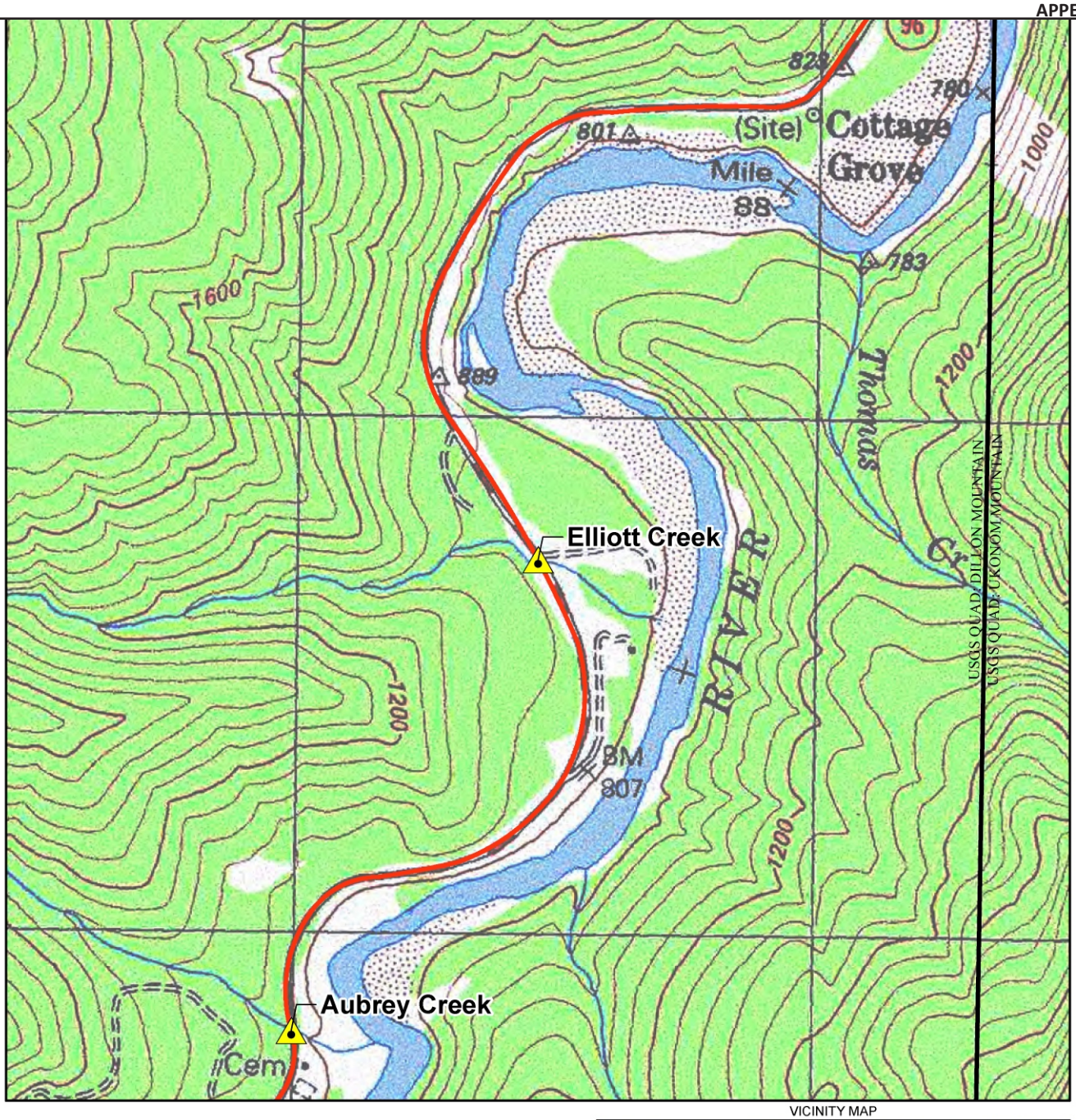
Feet

Source: CH2M, 2015.

Figure A-6
Project Area and Coon Creek Crossing



LEGEND

- Creek Crossing
- Project
- USGS Quad (24K)

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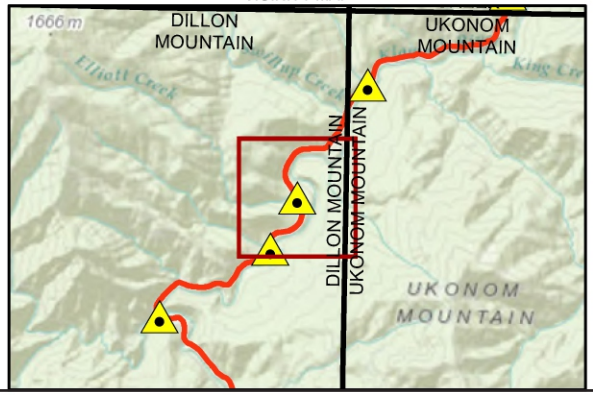
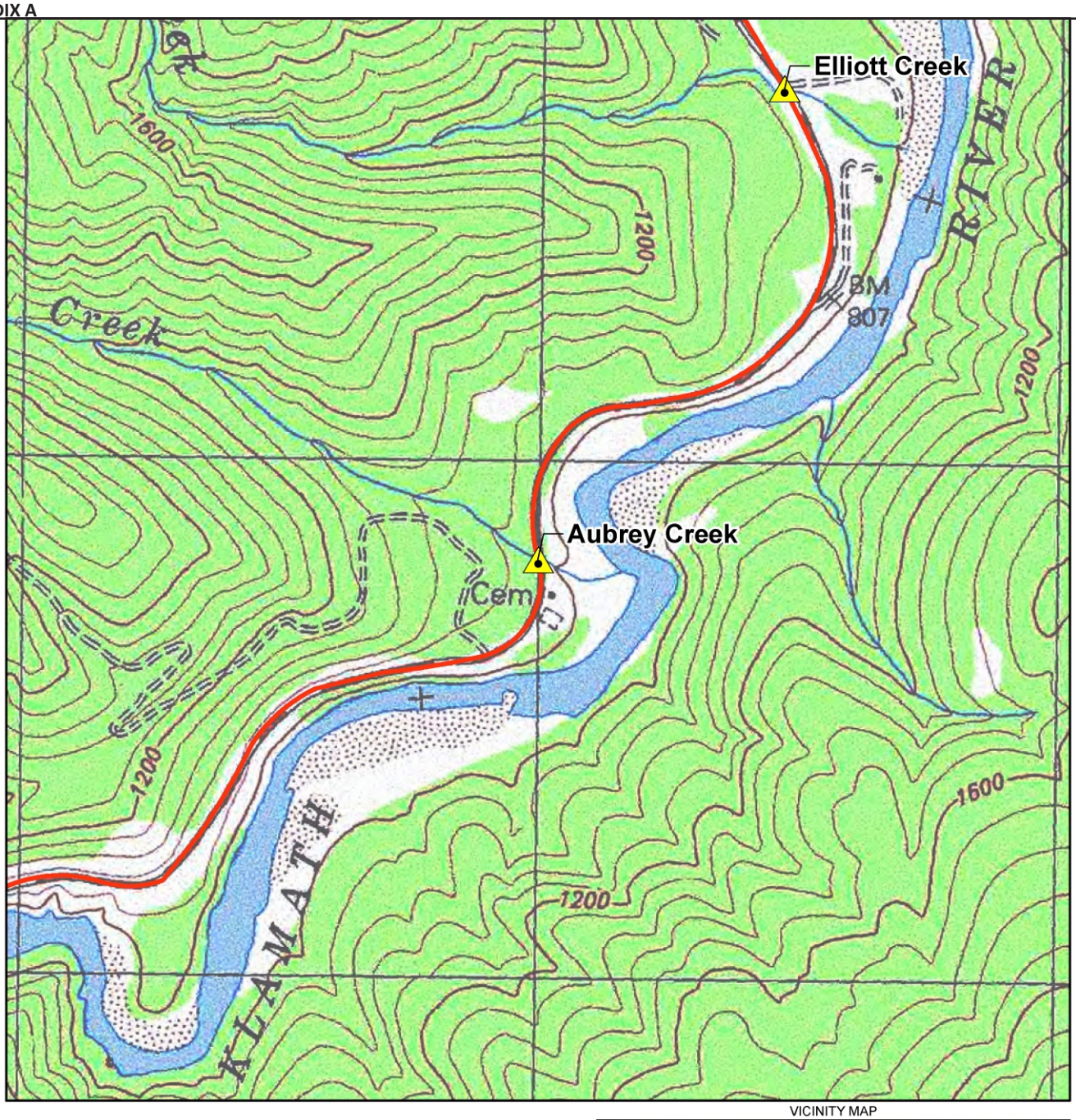
Feet

VICINITY MAP

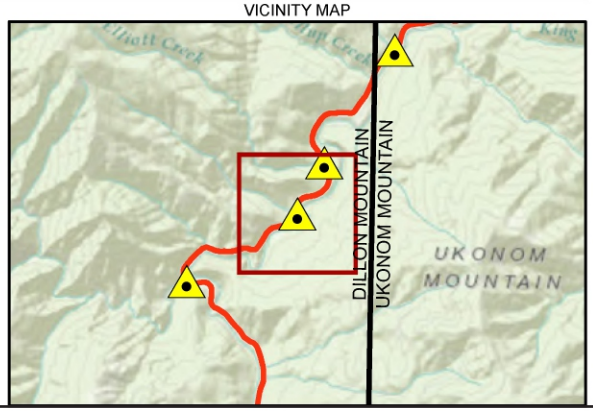


Source: CH2M, 2015.

Figure A-7
Project Area and Elliott Creek Crossing



VICINITY MAP



LEGEND

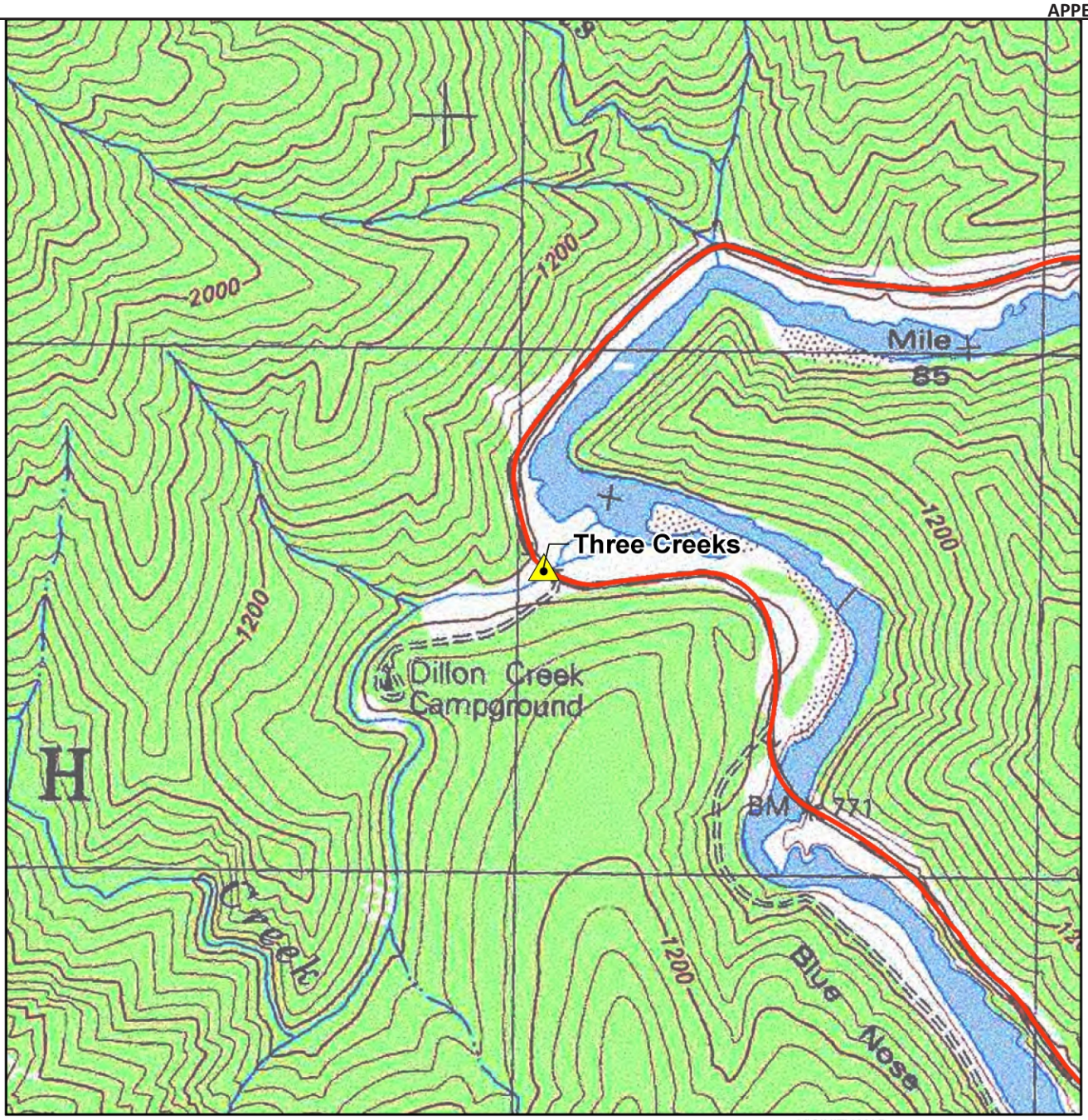
- Creek Crossing
- Project
- USGS Quad (24K)

N

0 2,000
Feet

Source: CH2M, 2015.

Figure A-8
Project Area and
Aubrey Creek Crossing



LEGEND

- Creek Crossing
- Project
- USGS Quad (24K)

N

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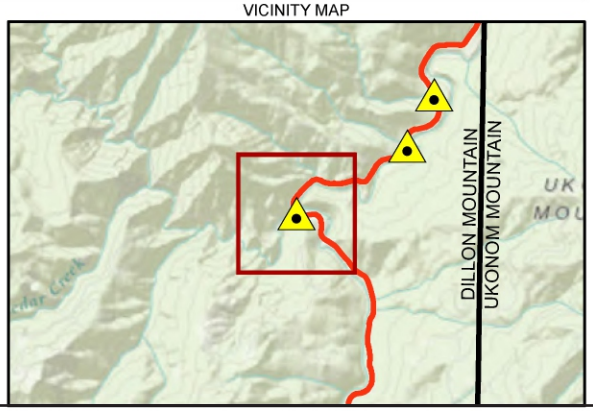
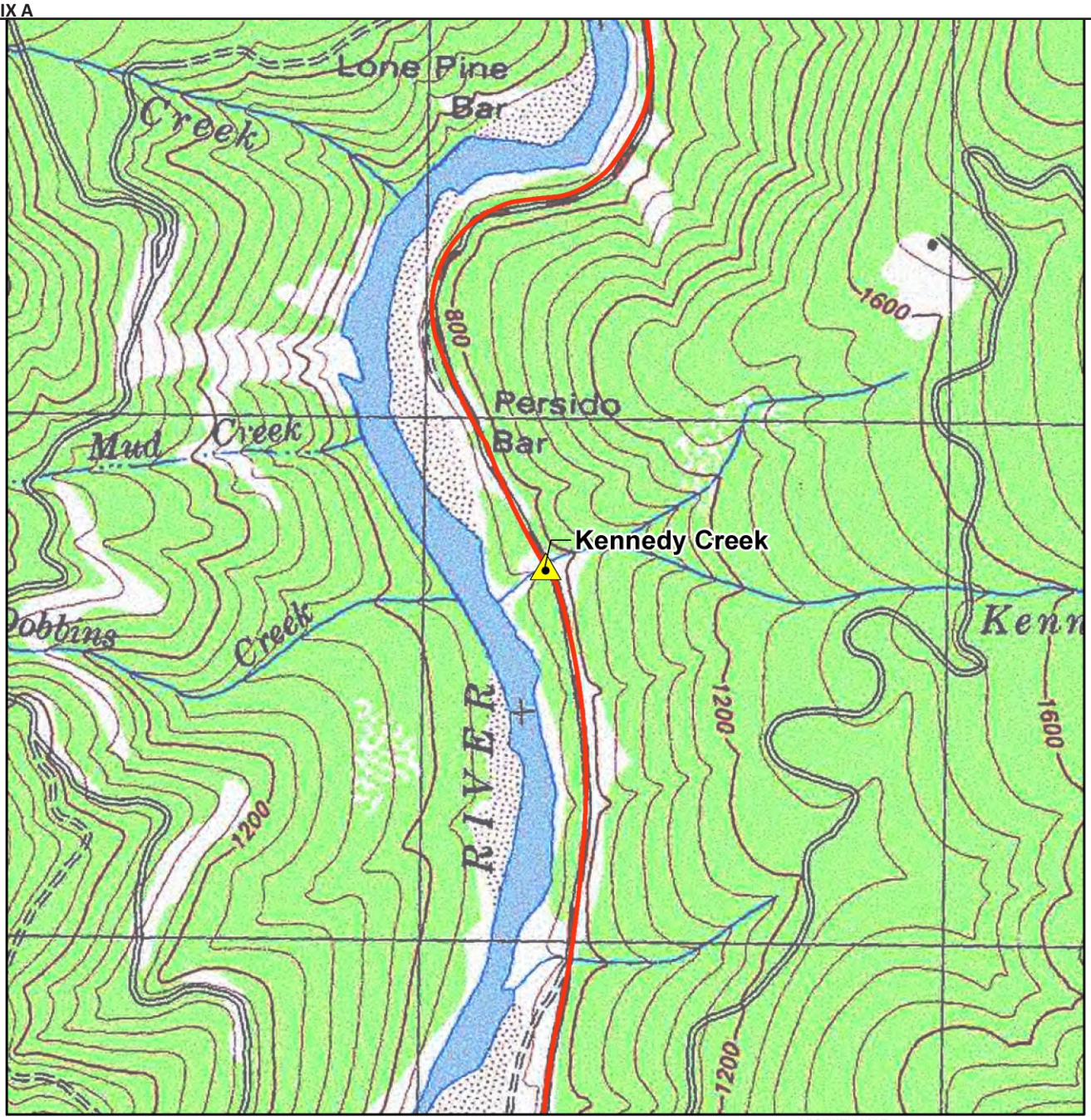
Feet

VICINITY MAP



Source: CH2M, 2015.

Figure A-9
Project Area and Three Creeks Crossing



LEGEND

- Creek Crossing
- Project
- USGS Quad (24K)

N

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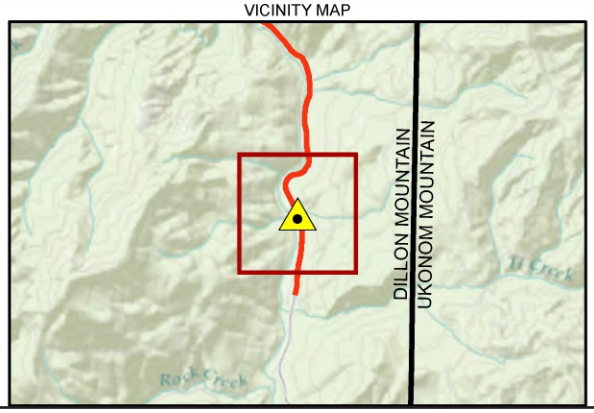
Feet

VICINITY MAP



Source: CH2M, 2015.

Figure A-10
Project Area and Kennedy Creek Crossing

Appendix B

Siskiyou Telephone Design Plans

VICINITY MAP

MASTER TAB

LEGEND

EX. MISC. ROAD SIGN

PROPOSED CONDUIT WITH CABLE

EX. STATE M.P.

HDD INCLUDING CONDUITS

EX. CULVERT

ABOVE GROUND PEDESTAL

FLUSH TO SURFACE HAND HOLE

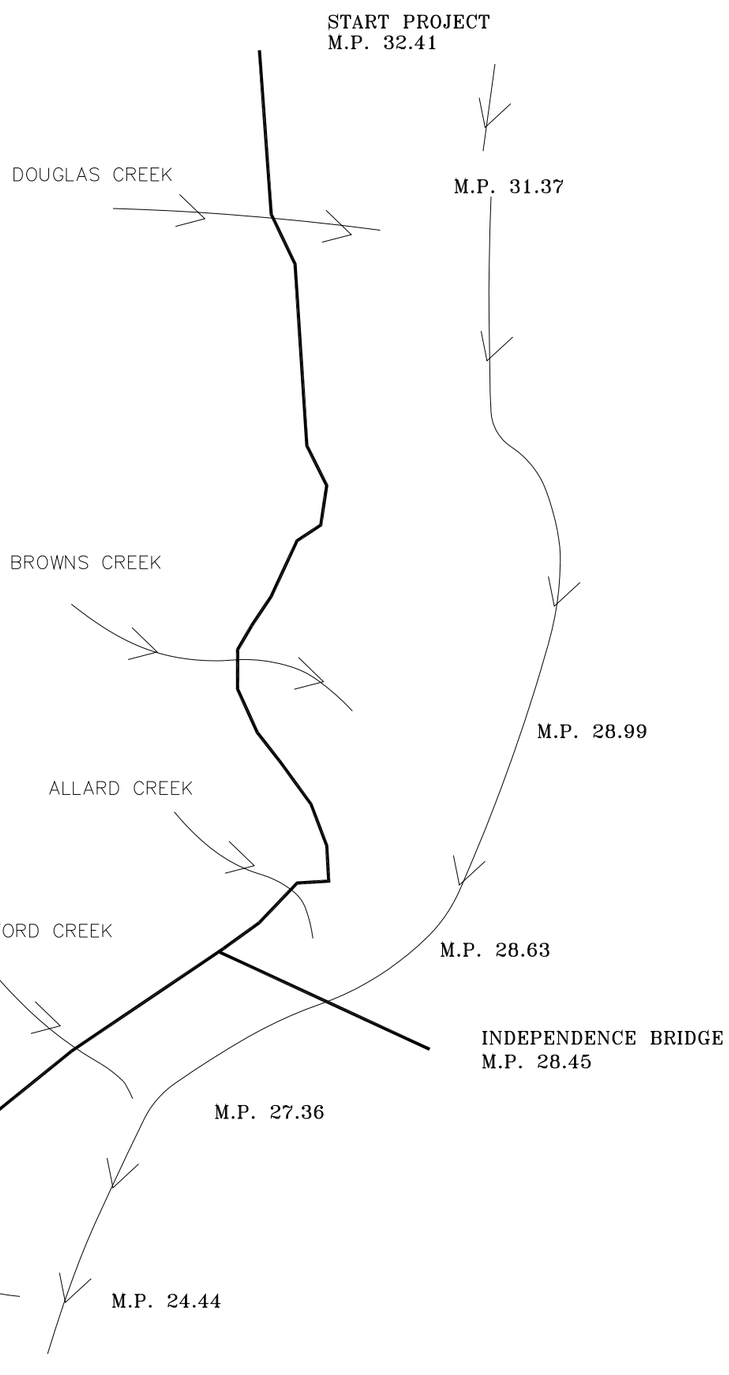
E.O.P. — EDGE OF PAVEMENT

PROPOSED BORE PIT

CENTERLINE OF HIGHWAY

EX. STATE MARKER

ROW — EX. ROW LINES



CARL EASTLICK
PROJECT ENGINEER

DATE _____

ACCT CODES	Date: Units	Actl.	Yr.	ST	Unit Summary Unit Discription	WO: Reel#
	2				BA 22	
	19				BM2(5/8)(5)	
	6710				BM61(4")D	
	28488				BM61(4")DR	
	6000				BM71	
	82				UD(1X1-1.5")ORG/ADDER/V	
	386				UD(1X1-1.5")ORG/V	
	24				UD(1X2-1.5")BLU/ORG/A	
	5660				UD(1X2-1.5)ORG/BLU	
	19				UH264	
	45236				U072	

CO. SISKIYOU

EXCH. HAPPY CAMP

ROUTE

J.O. NO. 15HC500

SHEET 01 OF 50

MAP REF.

COUNTY SISKIYOU

T. | R. | SEC

TAX CODES

TITLE: PHASE ONE. BUILD FIBER AND CONDUITS M.P.32.2 TO M.P. 24.0

AS BUILT DATE

SCALE: NTS

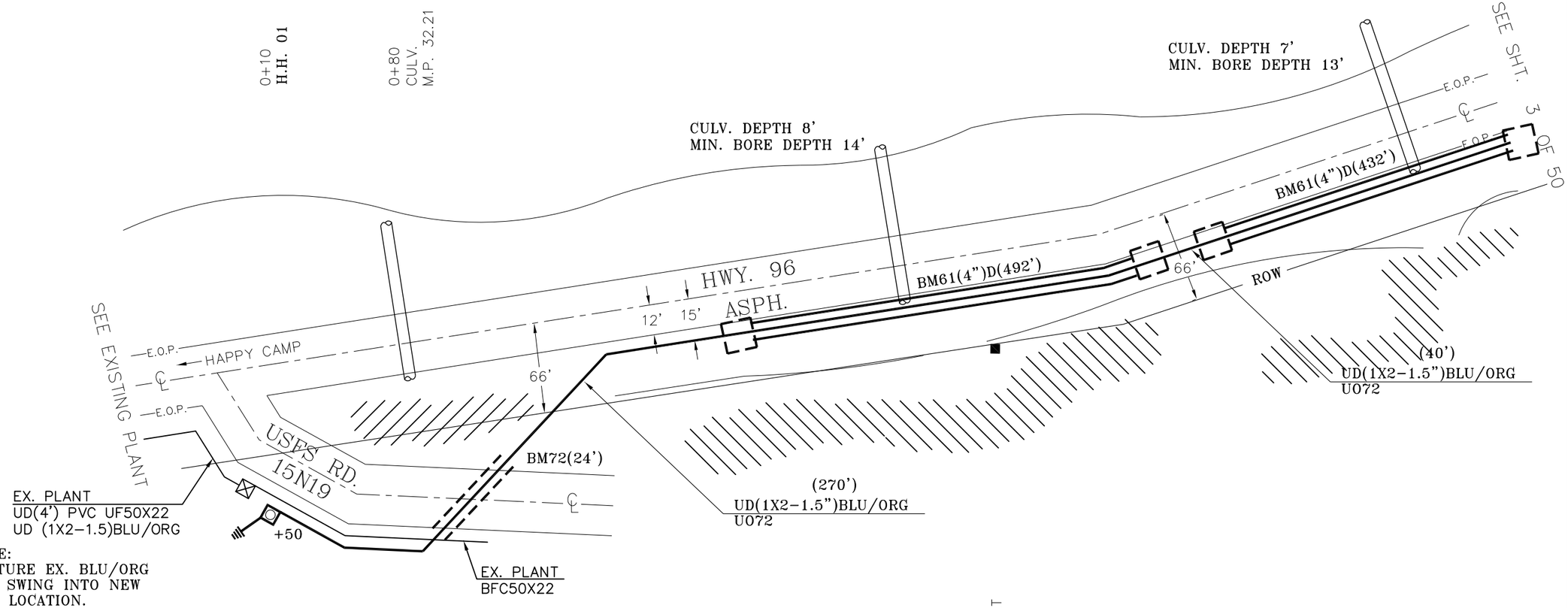
SISKIYOU TELEPHONE

CONTACT ENG. C.EASTLICK

PHONE NO. 530-598-1617

Filename: VICINITY MAP
Engineer: C. EASTLICK
Drafter: C.EASTLICK
Last Accessed: 04/24/14
Time: 1:19 PM

UTILITY LOCATIONS ARE APPROXIMATE.
CONTRACTOR RESPONSIBLE FOR EXACT LOCATION.



NOTE:
CAPTURE EX. BLU/ORG AND SWING INTO NEW H.H. LOCATION.

CO.	SISKIYOU TELEPHONE
EXCH.	HAPPY CAMP
ROUTE	
J.O. NO.	15HC500
SHEET	2 OF 50
MAP REF.	
COUNTY	SISKIYOU
T. 15N	R. 7E SEC 18
TAX CODES	
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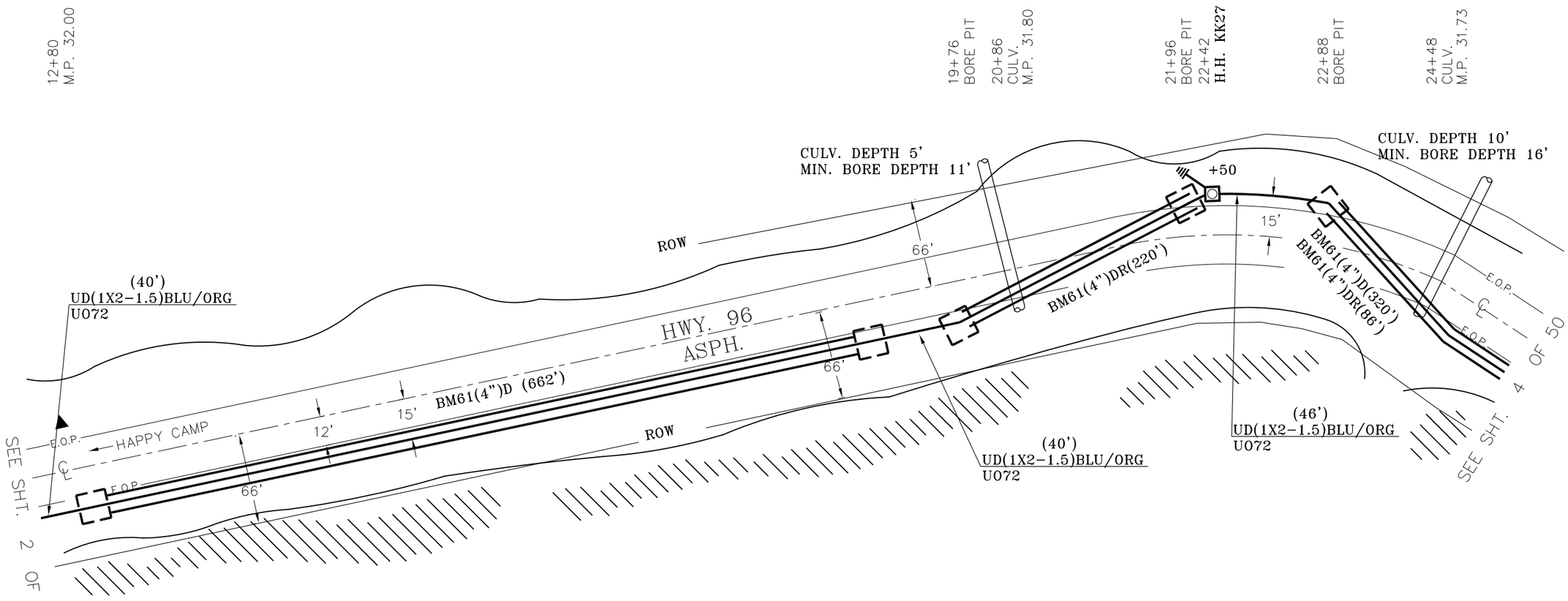
AS BUILT DATE	
SCALE	NTS

CONTACT ENG.

PHONE NO.

Filename: 02-50
Engineer: C. EASTLICK
Drafter: C.EASTLICK
Last Accessed: 10/22/15
Time: 1:48 PM

PED OR POLE NUMBER	BM2(5/8)(5)	UH264			0+00 (PED J10) H.H. KK26			0+60 P.O.T.								2+70 BORE PIT		4+10 CULV. M.P. 32.18		PMP OUTLET			PED OR POLE NUMBER	SUB NUMBER	7+62 BORE PIT	8+02 BORE PIT			11+04 CULV. M.P. 32.12		12+34 BORE PIT	
H.H. KK26	1	1																													
	1	1																													



CO.	SISKIYOU TELEPHONE
EXCH.	HAPPY CAMP
ROUTE	
J.O. NO.	15HC500
SHEET	3 OF 50
MAP REF.	
COUNTY	SISKIYOU
T. 15N	R. 7E SEC 18
TAX CODES	
TITLE:	PHASE ONE. BUILD FIBER AND CONDUITS M.P. 32.2 TO M.P. 24.0
AS BUILT DATE	

SCALE NTS

SISKIYOU TELEPHONE

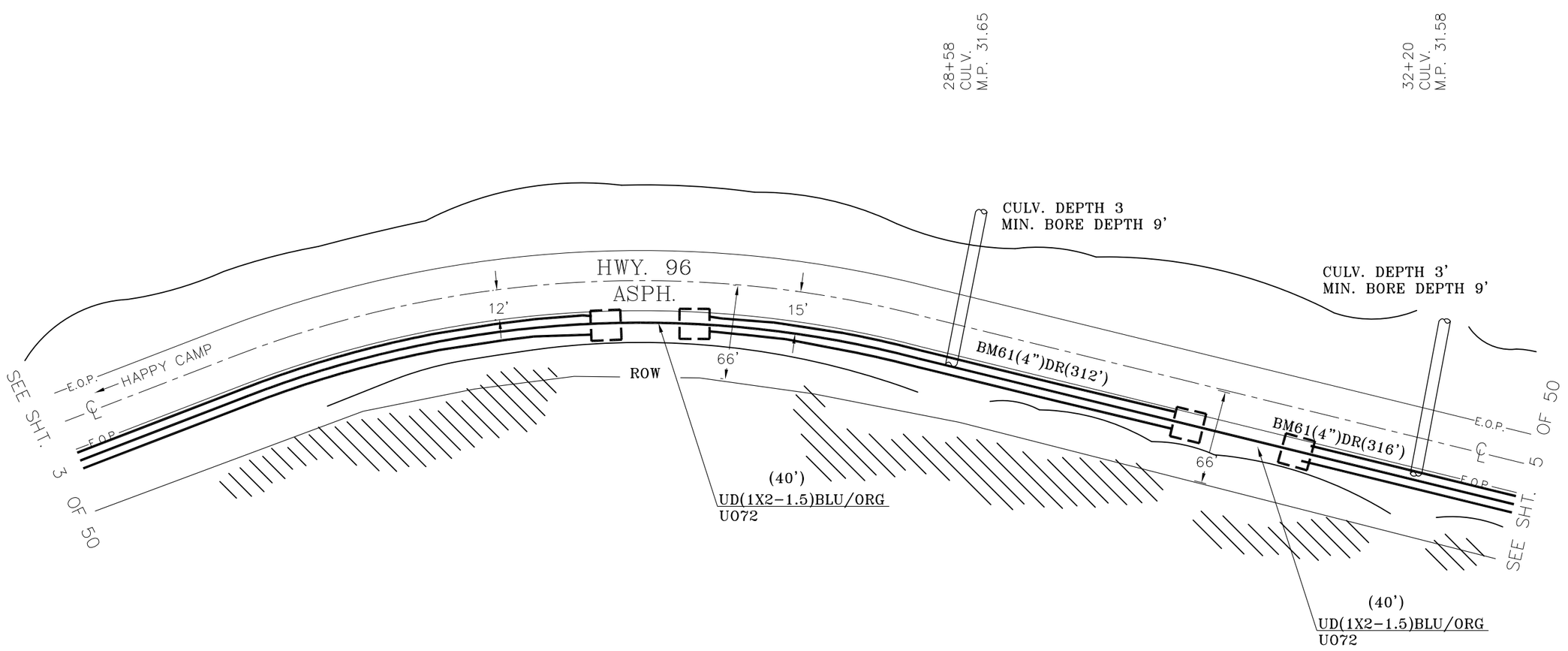
CONTACT ENG.

PHONE NO.

Filename: 03-50
Engineer: C. EASTLICK
Drafter: C.EASTLICK
Last Accessed: 10/22/15
Time: 2:21 PM

SUB. INFO.

PED OR POLE NUMBER	BM2(5/8)(5)	BM61(4")D	BM61(4")DR	UD(1X2-1.5) A BLU/ORG	UD(1X2-1.5) BLU/ORG	U072	UM264															PED OR POLE NUMBER	SUB NUMBER							
H.H. KK27	1	1586	220	24	366	2282	1																							
	1	1586	220	24	366	2282	1																							



CO.	SISKIYOU TELEPHONE
EXCH.	HAPPY CAMP
ROUTE	
J.O. NO.	15HC500
SHEET	4 OF 50
MAP REF.	
COUNTY	SISKIYOU
T. 15N	R. 7E SEC 18
TAX CODES	
TITLE:	PHASE ONE. BUILD FIBER AND CONDUITS M.P. 32.2 TO M.P. 24.0
AS BUILT DATE	
SCALE	NTS

UTILITY LOCATIONS ARE APPROXIMATE.
CONTRACTOR RESPONSIBLE FOR EXACT LOCATION.

26+88 BORE PIT

27+28 BORE PIT

30+40 BORE PIT

30+80 BORE PIT

CONTACT ENG.

PHONE NO.

Filename: 04-50
Engineer: C. EASTLICK
Drafter: C.EASTLICK
Last Accessed: 10/22/15
Time: 2:28 PM

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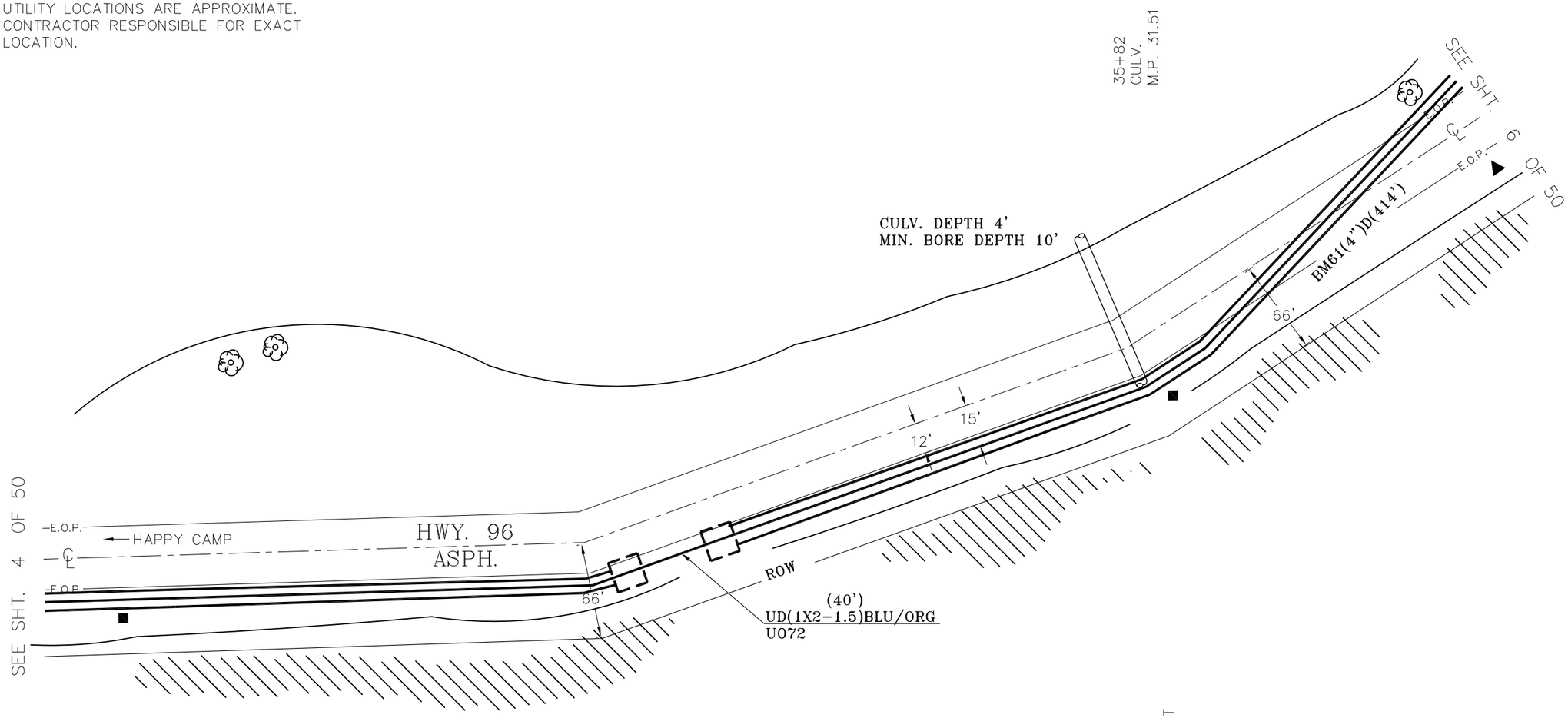
UTILITY LOCATIONS ARE APPROXIMATE.
CONTRACTOR RESPONSIBLE FOR EXACT
LOCATION.



CO.	SISKIYOU TELEPHONE
EXCH.	HAPPY CAMP
ROUTE	
J.O. NO.	15HC500
SHEET	5 OF 50
MAP REF.	
COUNTY	SISKIYOU
T. 15N	R. 7E SEC 18
TAX CODES	
TITLE:	PHASE ONE. BUILD FIBER AND CONDUITS M.P. 32.2 TO M.P. 24.0
AS BUILT DATE	

SCALE NTS

CONTACT ENG.

PHONE NO.

Filename: 05-50
Engineer: C. EASTLICK
Drafter: C.EASTLICK
Last Accessed: 10/22/15
Time: 2:36 PM

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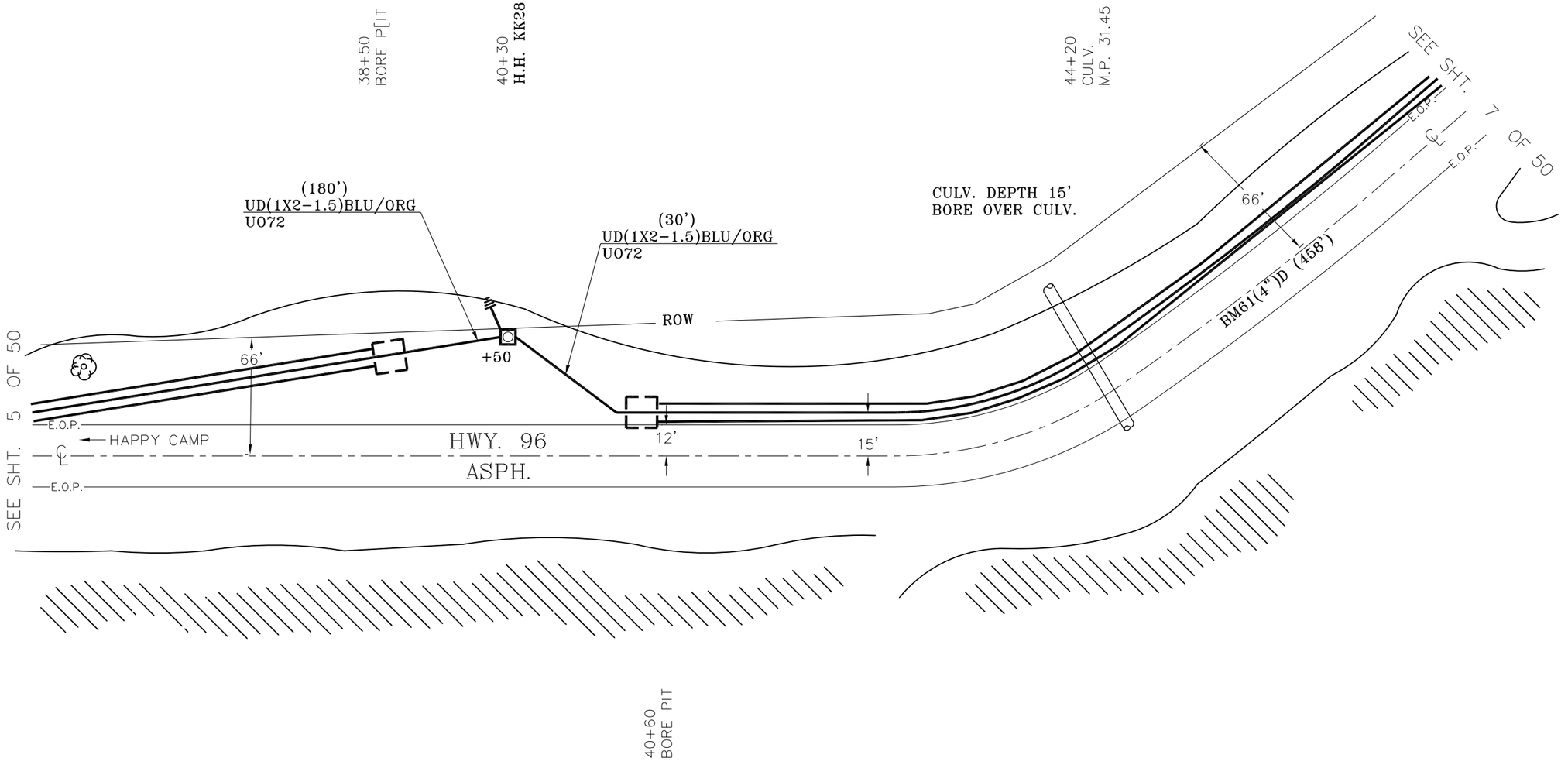
UTILITY LOCATIONS ARE APPROXIMATE.
CONTRACTOR RESPONSIBLE FOR EXACT
LOCATION.



CO.	SISKIYOU TELEPHONE
EXCH.	HAPPY CAMP
ROUTE	
J.O. NO.	15HC500
SHEET	6 OF 50
MAP REF.	
COUNTY	SISKIYOU
T. 15N	R. 7E SEC 18
TAX CODES	
TITLE:	PHASE ONE. BUILD FIBER AND CONDUITS M.P. 32.2 TO M.P. 24.0
AS BUILT DATE	

SCALE NTS

SISKIYOU TELEPHONE

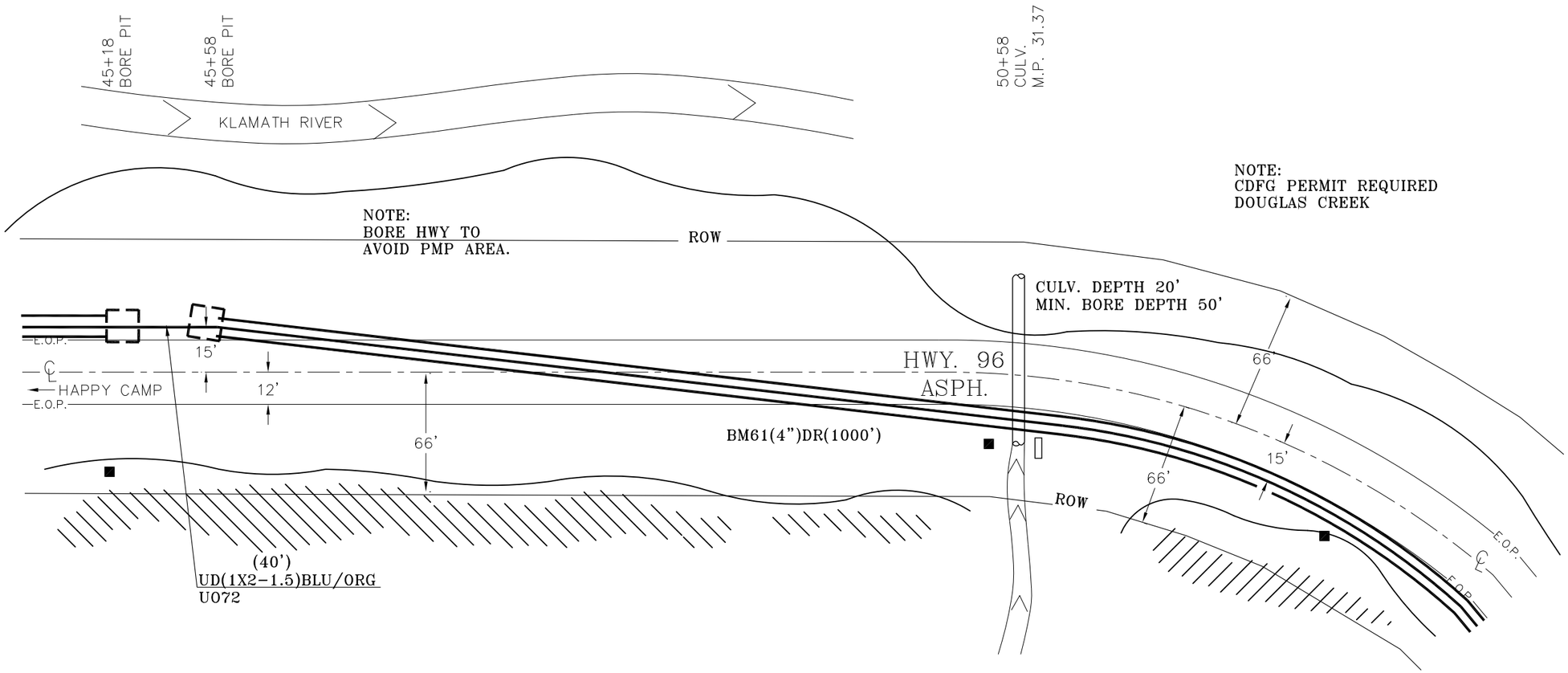
CONTACT ENG.

PHONE NO.

Filename: 06-50
Engineer: C. EASTLICK
Drafter: C.EASTLICK
Last Accessed: 10/22/15
Time: 2:41 PM

SUB. INFO.

PED OR POLE NUMBER	BM2(5/8)(5)	BM61(4")D	BM61(4")DR	UD(1X2-1.5) BLU/ORG	U072	UH264																PED OR POLE NUMBER	SUB NUMBER							
H.H. KK28	1	734	714	346	1954	1																								
	1	734	714	346	1954	1																								



44+92
PMP INLET

UTILITY LOCATIONS ARE APPROXIMATE.
CONTRACTOR RESPONSIBLE FOR EXACT
LOCATION.

PMP OUTLET
50+88
SIGN
DOUGLAS CREEK

54+66
PMP INLET

CO.	SISKIYOU TELEPHONE
EXCH.	HAPPY CAMP
ROUTE	
J.O. NO.	15HC500
SHEET	7 OF 50
MAP REF.	
COUNTY	SISKIYOU
T. 15N	R. 7E SEC 17
TAX CODES	
TITLE:	PHASE ONE. BUILD FIBER AND CONDUITS M.P. 32.2 TO M.P. 24.0
AS BUILT DATE	

SCALE NTS

SISKIYOU TELEPHONE

CONTACT ENG.

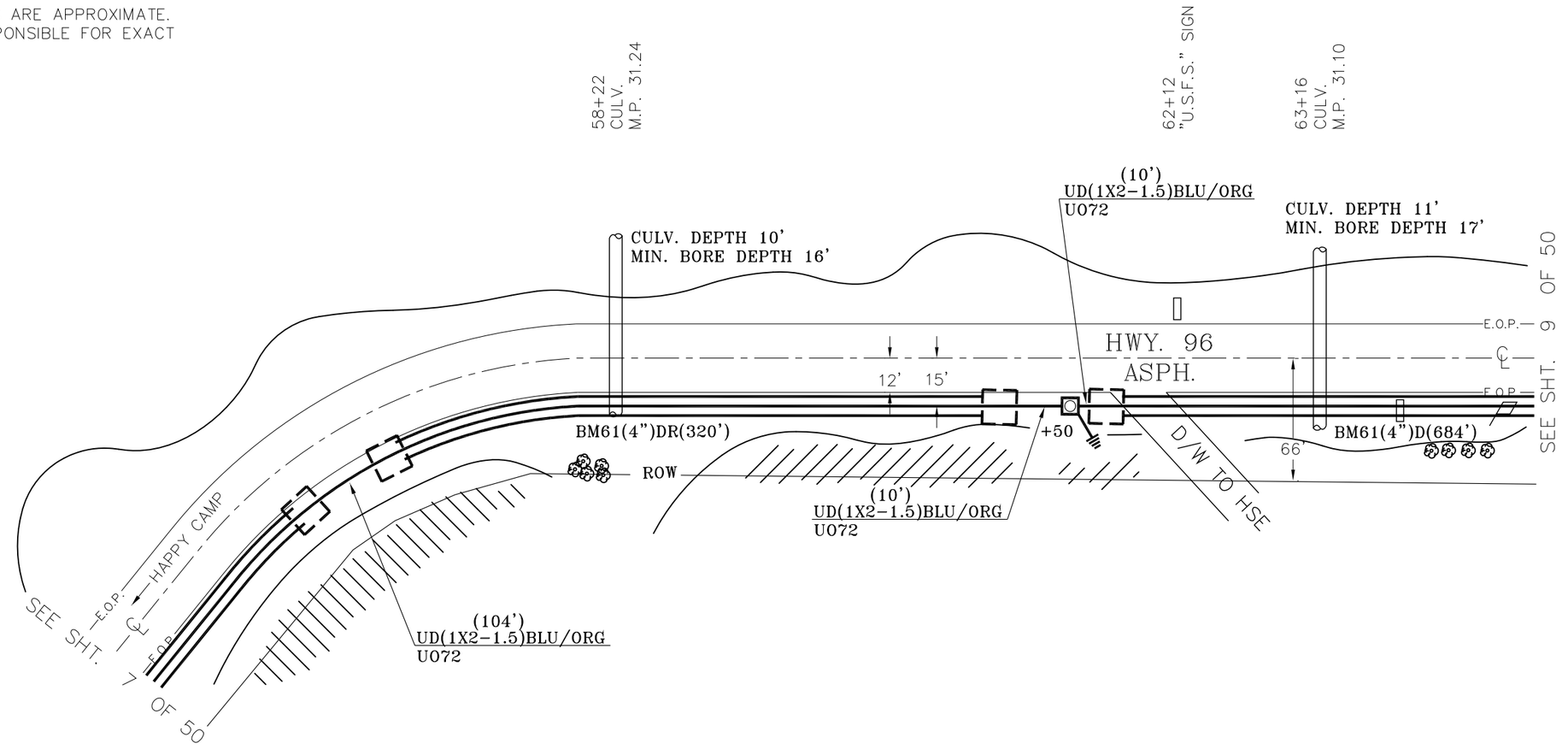
PHONE NO.

Filename: 07-50
Engineer: C. EASTLICK
Drafter: C.EASTLICK
Last Accessed: 10/22/15
Time: 2:50 PM

SUB. INFO.

PED OR POLE NUMBER																							PED OR POLE NUMBER	SUB NUMBER							

UTILITY LOCATIONS ARE APPROXIMATE.
CONTRACTOR RESPONSIBLE FOR EXACT
LOCATION.



CO.	SISKIYOU TELEPHONE
EXCH.	HAPPY CAMP
ROUTE	
J.O. NO.	15HC500
SHEET	8 OF 50
MAP REF.	
COUNTY	SISKIYOU
T. 15N	R. 7E SEC 17
TAX CODES	
TITLE:	PHASE ONE. BUILD FIBER AND CONDUITS M.P. 32.2 TO M.P. 24.0
AS BUILT DATE	

SCALE NTS

SISKIYOU TELEPHONE

CONTACT ENG.

PHONE NO.

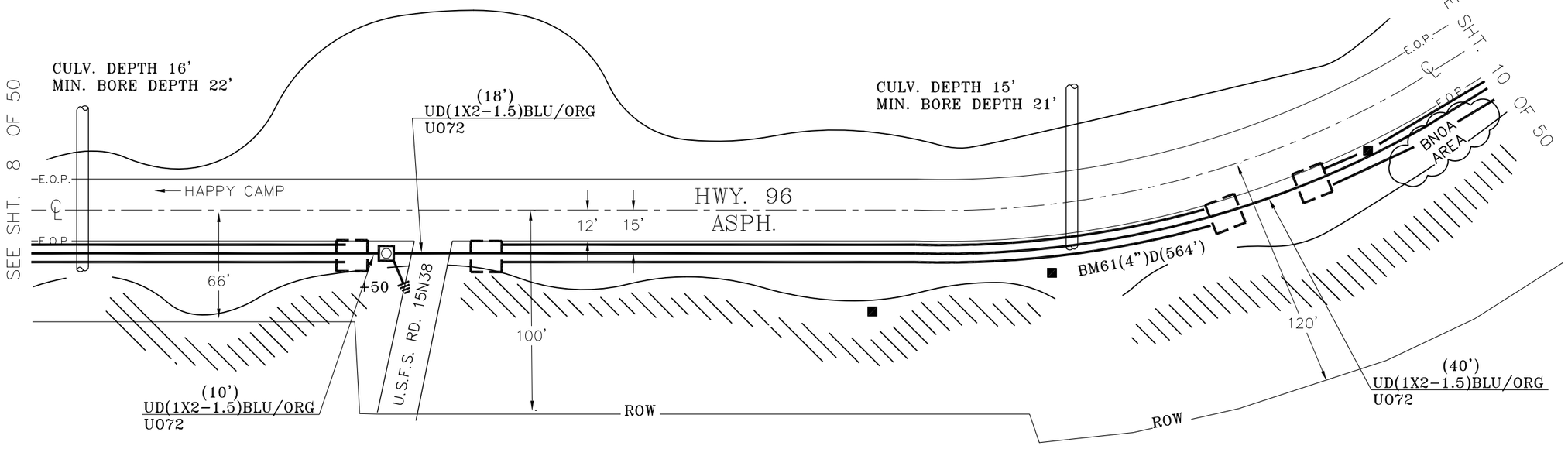
Filename: 08-50
Engineer: C. EASTLICK
Drafter: C.EASTLICK
Last Accessed: 10/23/15
Time: 3:41 AM

SUB. INFO.

PED OR POLE NUMBER	BM2(5/8)(5)	BM61(4")D	BM61(4")DR	UD(1X2-1.5) BLU/ORG	U072	UM264	55+58 BORE PIT		56+62 BORE PIT												61+26 BORE PIT	61+36 H.H. KK29	61+46 BORE PIT	62+26 D/W
H.H. KK29	1	458	1320	184	2100	1																		
	1	458	1320	184	2100	1																		

PED OR POLE NUMBER	SUB NUMBER	64+32 SIGN	65+16 MAILBOX 76017

UTILITY LOCATIONS ARE APPROXIMATE. CONTRACTOR RESPONSIBLE FOR EXACT LOCATION.



CO.	SISKIYOU TELEPHONE
EXCH.	HAPPY CAMP
ROUTE	
J.O. NO.	15HC500
SHEET	9 OF 50
MAP REF.	
COUNTY	SISKIYOU
T. 15N	R. 7E SEC 17
TAX CODES	
TITLE:	PHASE ONE. BUILD FIBER AND CONDUITS M.P. 32.2 TO M.P. 24.0
AS BUILT DATE	
SCALE	NTS

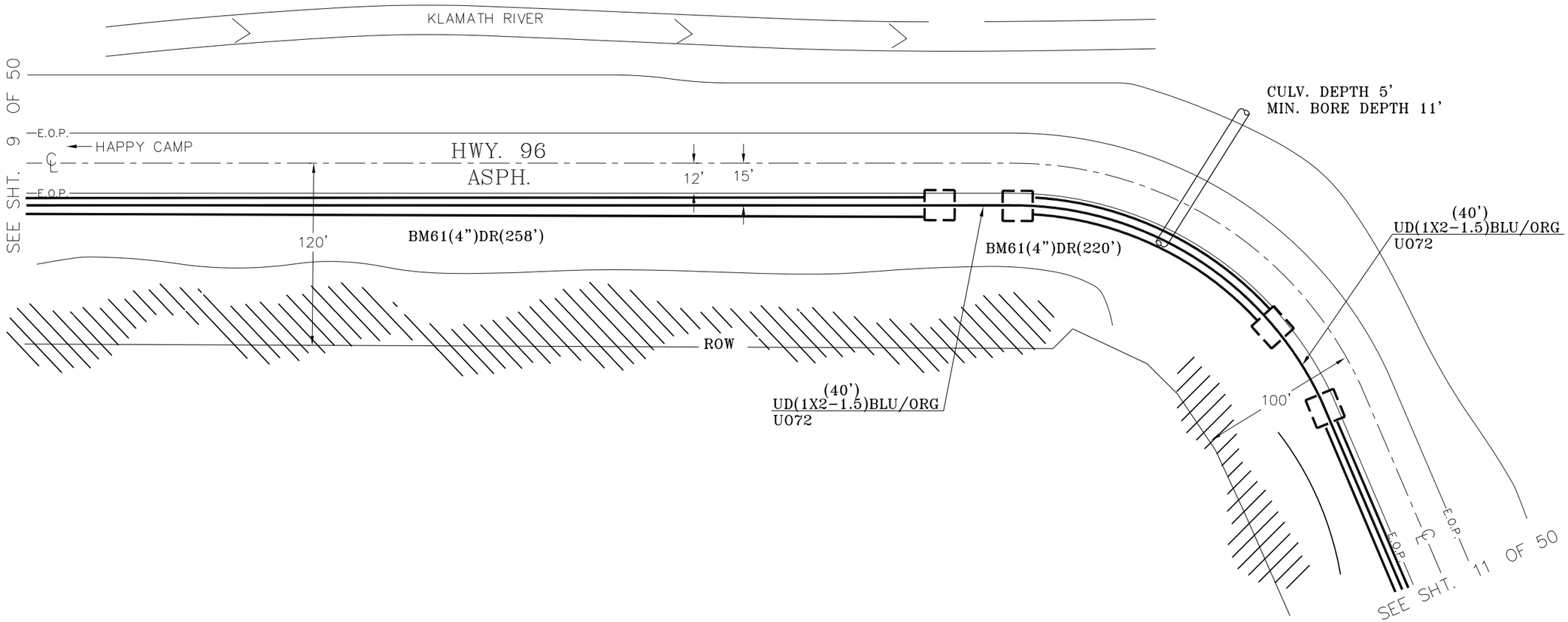
CONTACT ENG.

PHONE NO.

Filename: 09-50
Engineer: C. EASTLICK
Drafter: C.EASTLICK
Last Accessed: 10/23/15
Time: 3:50 AM

SUB. INFO.

PED OR POLE NUMBER	BM2(5/8)(5)	BW61(4")D	UD(1X2-1.5) BLU/ORG	U072	UH264		68+30 BORE PIT		68+48 U.S.F.S. RD.	68+66 BORE PIT							70+18 PMP INLET			PMP OUTLET		PED OR POLE NUMBER	SUB NUMBER	74+30 BORE PIT	74+70 BORE PIT	75+14 BNOA				
H.H. 30	1	684	70	754	1																									
	1	684	70	754	1																									



CO.	SISKIYOU TELEPHONE
EXCH.	HAPPY CAMP
ROUTE	
J.O. NO.	15HC500
SHEET	10 OF 50
MAP REF.	
COUNTY	SISKIYOU
T. 15N	R. 7E SEC 17
TAX CODES	
TITLE:	PHASE ONE. BUILD FIBER AND CONDUITS M.P. 32.2 TO M.P. 24.0
AS BUILT DATE	

SCALE NTS

SISKIYOU TELEPHONE

CONTACT ENG.

PHONE NO.

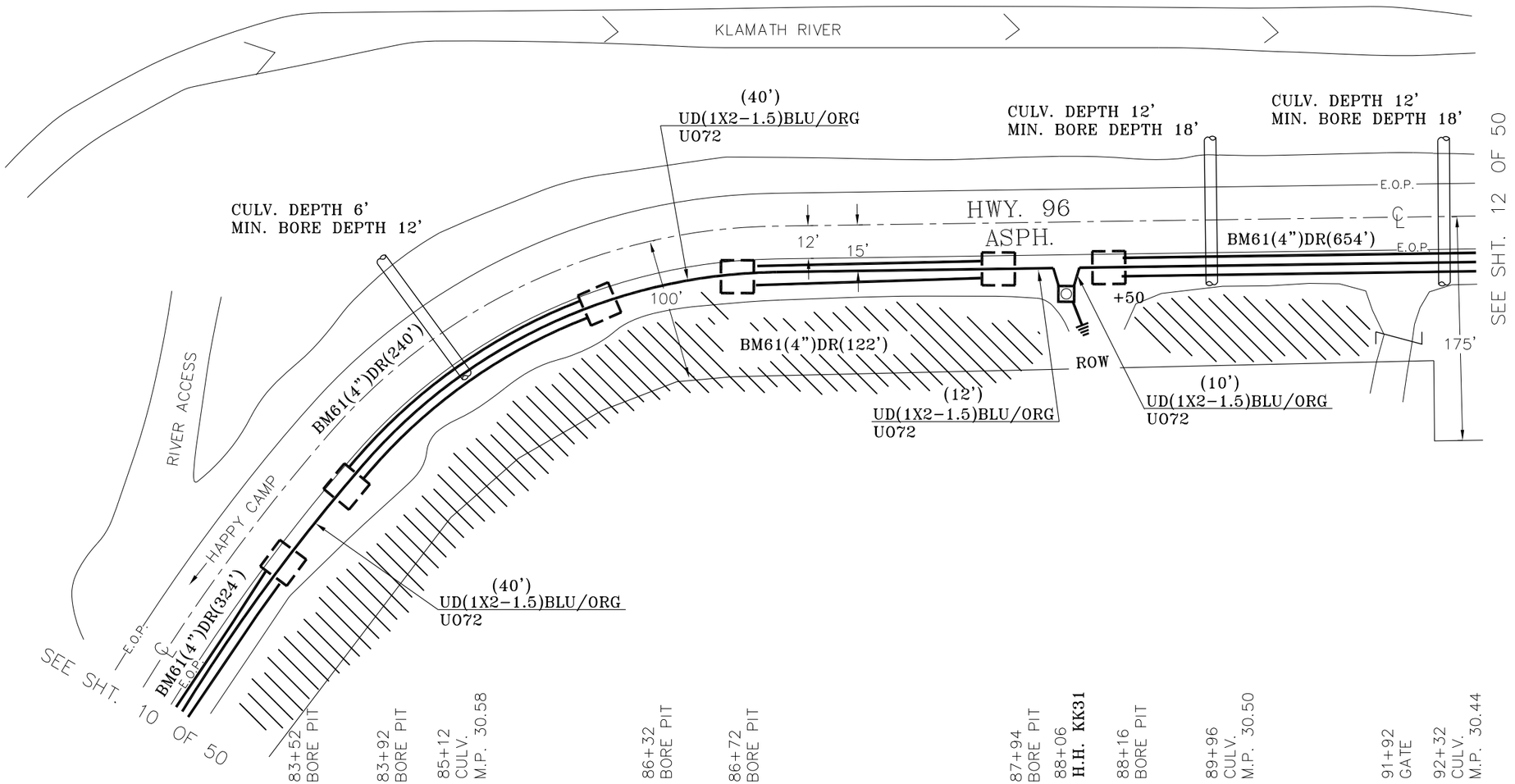
Filename: 10-50
Engineer: C. EASTLICK
Drafter: C.EASTLICK
Last Accessed: 10/23/15
Time: 3:58 AM

UTILITY LOCATIONS ARE APPROXIMATE.
CONTRACTOR RESPONSIBLE FOR EXACT LOCATION.

77+28 BORE PIT
77+68 BORE PIT
78+78 CULV. M.P. 30.70
79+88 BORE PIT
80+28 BORE PIT

PED OR POLE NUMBER																					PED OR POLE NUMBER	SUB NUMBER							SUB. INFO.

UTILITY LOCATIONS ARE APPROXIMATE.
CONTRACTOR RESPONSIBLE FOR EXACT
LOCATION.



CO.	SISKIYOU TELEPHONE
EXCH.	HAPPY CAMP
ROUTE	
J.O. NO.	15HC500
SHEET	11 OF 50
MAP REF.	
COUNTY	SISKIYOU
T. 15N	R. 7E SEC 20
TAX CODES	
TITLE:	PHASE ONE BUILD FIBER AND CONDUITS M.P. 32.2 TO M.P. 24.0
AS BUILT DATE	

SCALE NTS

SISKIYOU TELEPHONE

CONTACT ENG.

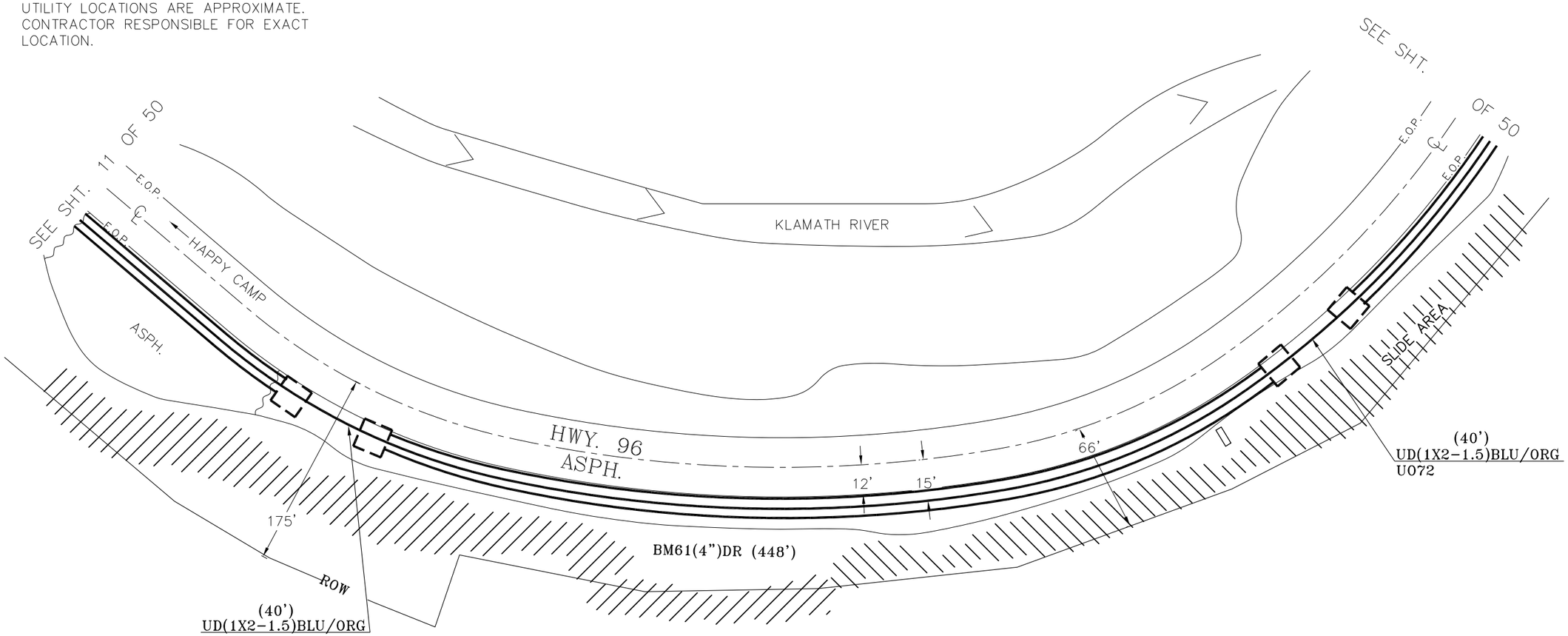
PHONE NO.

Filename: 11-50
Engineer: C. EASTLICK
Drafter: C.EASTLICK
Last Accessed: 10/23/15
Time: 4:07 AM

SUB. INFO.

PED OR POLE NUMBER	BM2(5/8)(5)	BM61(4")D	BM61(4")DR	UD(1X2-1.5) BLU/ORG	U072	UH264																PED OR POLE NUMBER	SUB NUMBER						
H.H. KK31	1	564	1164	230	2038	1																							
	1	564	1164	230	2038	1																							

UTILITY LOCATIONS ARE APPROXIMATE.
CONTRACTOR RESPONSIBLE FOR EXACT
LOCATION.



94+60 E/ ASPH. TURNOUT
94+70 BORE PIT
95+10 BORE PIT
97+94 SIGN
99+58 BORE PIT
99+98 BORE PIT

CO.	SISKIYOU TELEPHONE
EXCH.	HAPPY CAMP
ROUTE	
J.O. NO.	15HC500
SHEET	12 OF 50
MAP REF.	
COUNTY	SISKIYOU
T. 15N	R. 7E SEC 20
TAX CODES	
TITLE:	PHASE ONE. BUILD FIBER AND CONDUITS M.P. 32.2 TO M.P. 24.0
AS BUILT DATE	
SCALE	NTS

SISKIYOU TELEPHONE

CONTACT ENG.

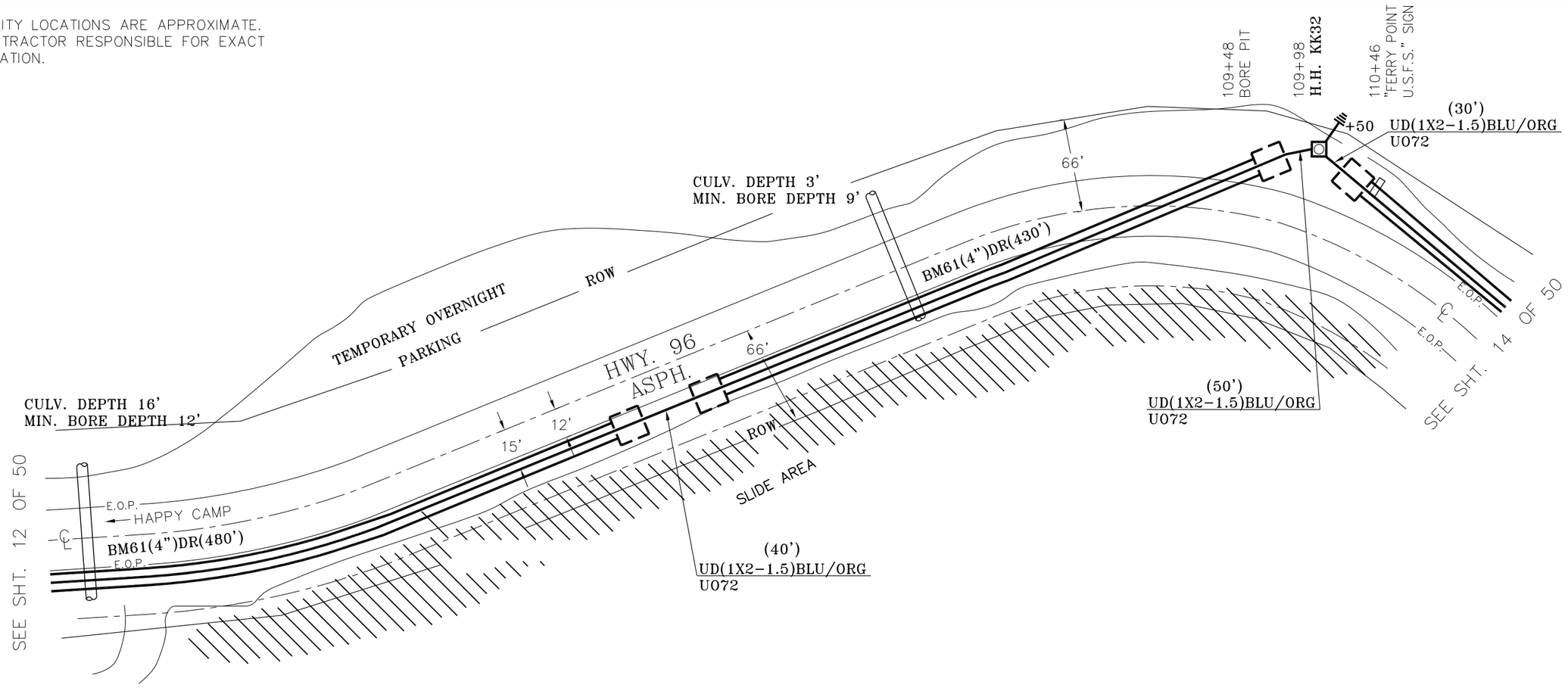
PHONE NO.

Filename: 12-50
Engineer: C. EASTLICK
Drafter: C.EASTLICK
Last Accessed: 10/23/15
Time: 4:18 AM

SUB. INFO.

PED OR POLE NUMBER																							PED OR POLE NUMBER	SUB NUMBER						

UTILITY LOCATIONS ARE APPROXIMATE.
CONTRACTOR RESPONSIBLE FOR EXACT
LOCATION.



CO.	SISKIYOU TELEPHONE
EXCH.	HAPPY CAMP
ROUTE	
J.O. NO.	15HC500
SHEET	13 OF 50
MAP REF.	
COUNTY	SISKIYOU
T. 15N	R. 7E SEC 20
TAX CODES	
TITLE:	PHASE ONE. BUILD FIBER AND CONDUIT M.P. 32.2 TO M.P. 24.0
AS BUILT DATE	

SCALE NTS

SISKIYOU TELEPHONE

CONTACT ENG.

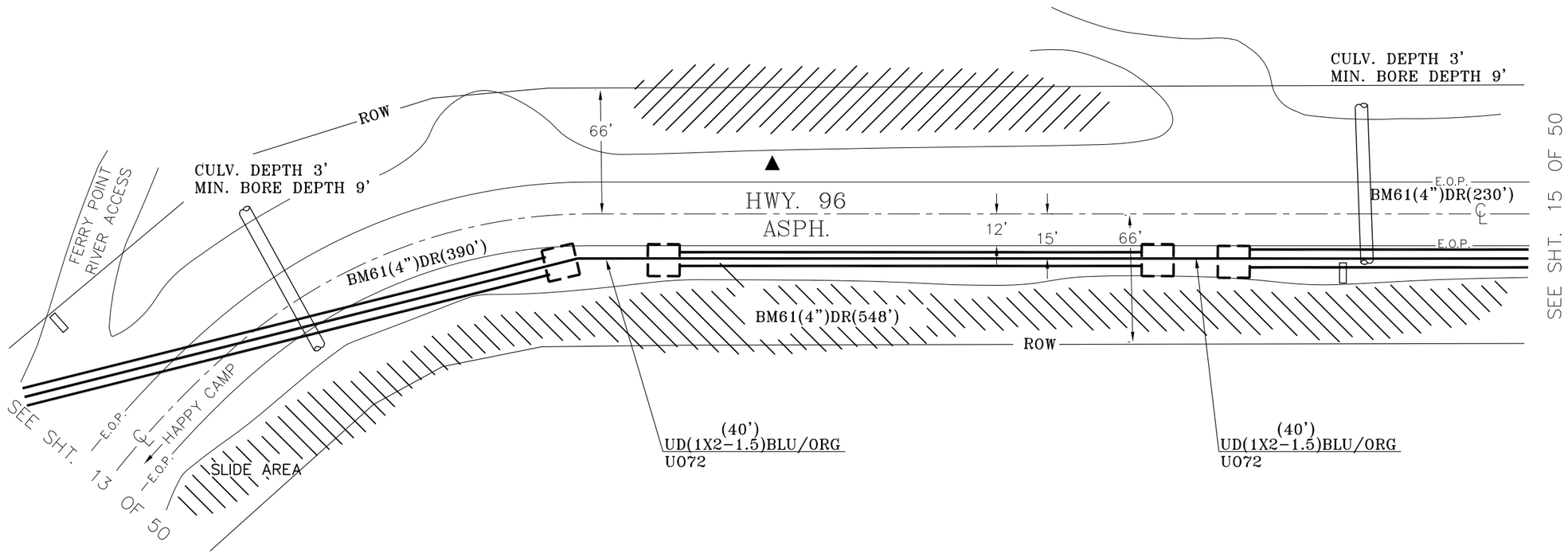
PHONE NO.

Filename: 13-50
Engineer: C. EASTLICK
Drafter: C.EASTLICK
Last Accessed: 10/23/15
Time: 4:29 AM

SUB. INFO.

PED OR POLE NUMBER	BM2(5/8)(5)	BM61(4")DR	UD(1X2-1.5) BLU/ORG	U072	UH264																		PED OR POLE NUMBER	SUB NUMBER							
H.H. KK32	1	2012	180	2272	1																										
	1	2012	180	2272	1																										

UTILITY LOCATIONS ARE APPROXIMATE.
CONTRACTOR RESPONSIBLE FOR EXACT LOCATION.



CO.	SISKIYOU TELEPHONE
EXCH.	HAPPY CAMP
ROUTE	
J.O. NO.	15HC500
SHEET	14 OF 50
MAP REF.	
COUNTY	SISKIYOU
T. 15N	R. 7E SEC 20
TAX CODES	
TITLE:	PHASE ONE. BUILD FIBER AND CONDUITS M.P. 32.2 TO M.P. 24.0
AS BUILT DATE	

SCALE NTS

SISKIYOU TELEPHONE

CONTACT ENG.

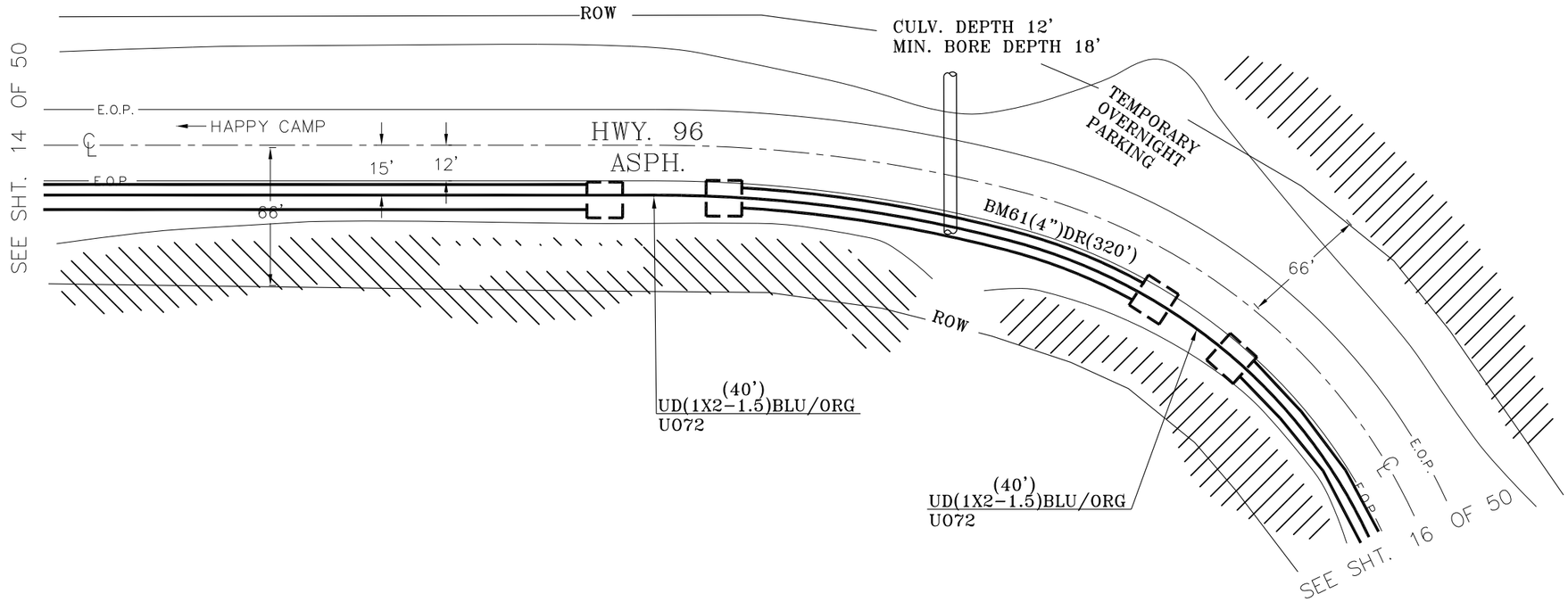
PHONE NO.

Filename: 14-50
Engineer: C. EASTLICK
Drafter: C.EASTLICK
Last Accessed: 10/23/15
Time: 4:42 AM

SUB. INFO.

PED OR POLE NUMBER																							PED OR POLE NUMBER	SUB NUMBER							

UTILITY LOCATIONS ARE APPROXIMATE.
CONTRACTOR RESPONSIBLE FOR EXACT
LOCATION.



CO.	SISKIYOU TELEPHONE
EXCH.	HAPPY CAMP
ROUTE	
J.O. NO.	15HC500
SHEET	15 OF 50
MAP REF.	
COUNTY	SISKIYOU
T. 15N	R. 7E SEC 20
TAX CODES	
TITLE:	PHASE ONE. BUILD FIBER AND CONDUITS M.P. 32.2 TO M.P. 24.0
AS BUILT DATE	

SCALE NTS

CONTACT ENG.

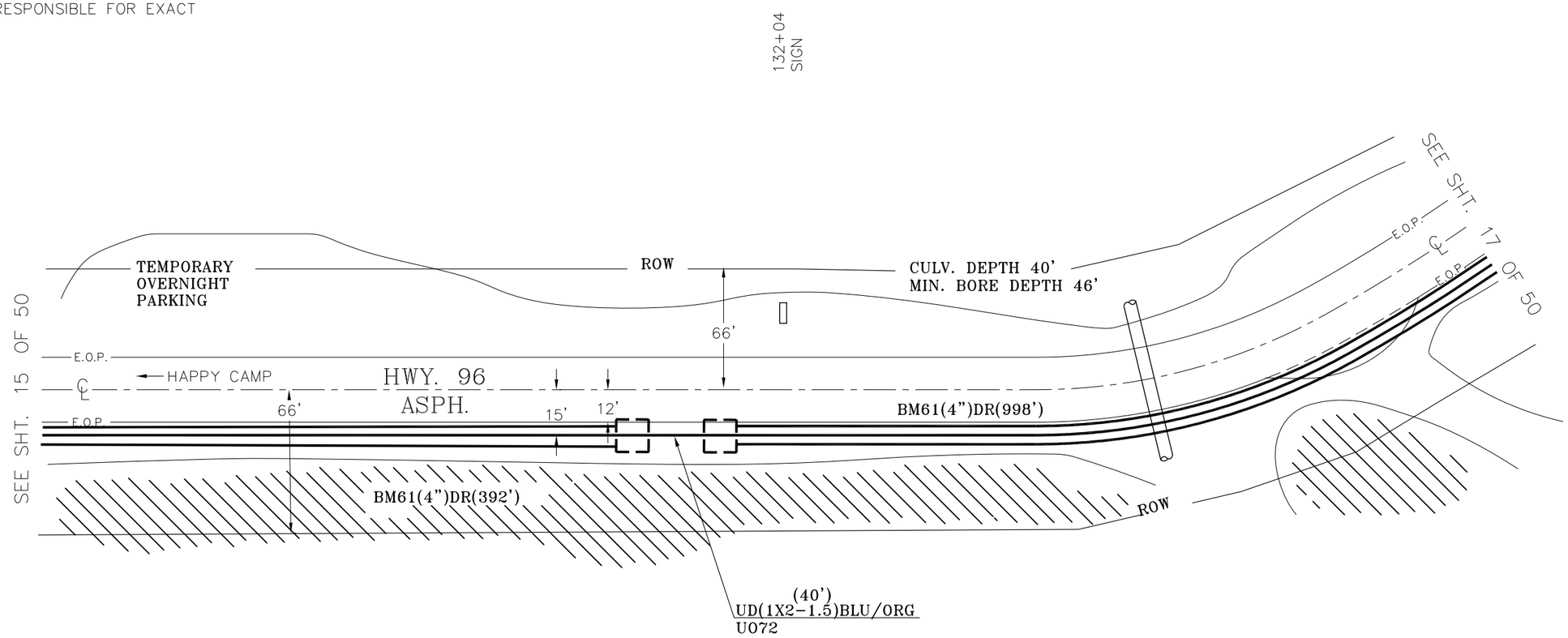
PHONE NO.

Filename: 15-50
Engineer: C. EASTLICK
Drafter: C.EASTLICK
Last Accessed: 10/23/15
Time: 4:49 AM

SUB. INFO.

PED OR POLE NUMBER															122+76 BORE PIT		123+16 BORE PIT			124+56 CULV. M.P. 29.83			126+36 BORE PIT	PED OR POLE NUMBER	SUB NUMBER	126+76 BORE PIT						

UTILITY LOCATIONS ARE APPROXIMATE.
CONTRACTOR RESPONSIBLE FOR EXACT
LOCATION.



CO.	SISKIYOU TELEPHONE
EXCH.	HAPPY CAMP
ROUTE	
J.O. NO.	15HC500
SHEET	16 OF 50
MAP REF.	
COUNTY	SISKIYOU
T. 15N	R. 7E SEC 20
TAX CODES	
TITLE:	PHASE ONE. BUILD FIBER AND CONDUITS M.P. 32.2 TO M.P. 24.0
AS BUILT DATE	
SCALE	NTS

CONTACT ENG.

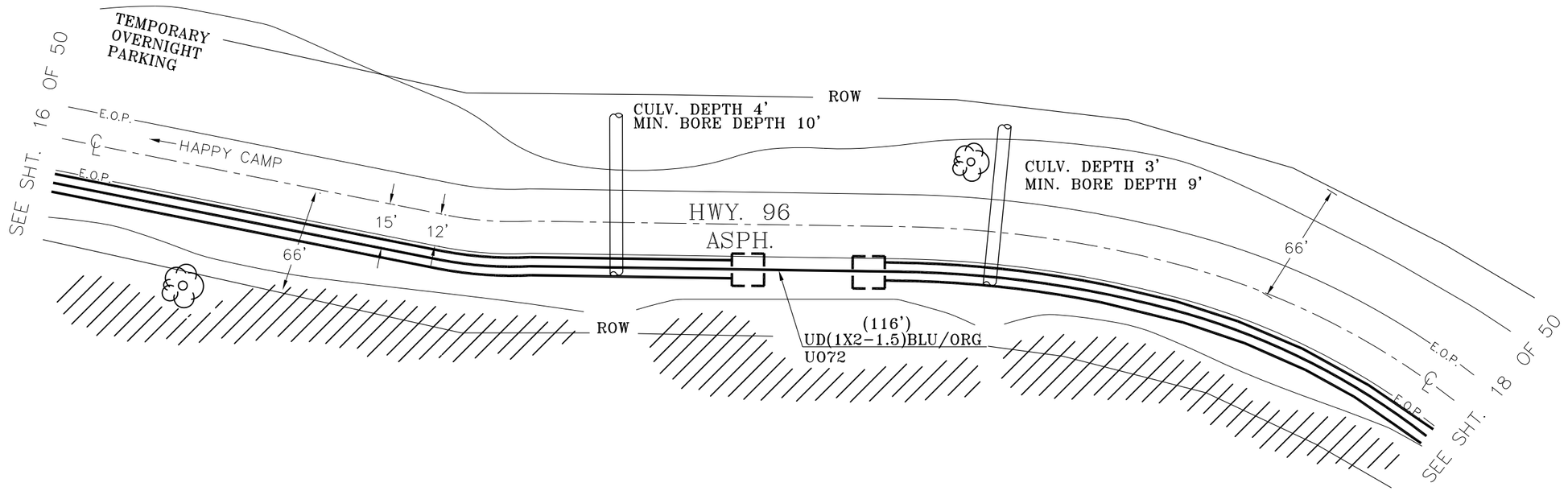
PHONE NO.

Filename: 16-50
Engineer: C. EASTLICK
Drafter: C.EASTLICK
Last Accessed: 10/23/15
Time: 4:55 AM

SUB. INFO.

PED OR POLE NUMBER																						PED OR POLE NUMBER	SUB NUMBER							

UTILITY LOCATIONS ARE APPROXIMATE.
CONTRACTOR RESPONSIBLE FOR EXACT
LOCATION.



CO.	SISKIYOU TELEPHONE
EXCH.	HAPPY CAMP
ROUTE	
J.O. NO.	15HC500
SHEET	17 OF 50
MAP REF.	
COUNTY	SISKIYOU
T. 15N	R. 7E SEC 29
TAX CODES	
TITLE:	PHASE ONE. BUILD FIBER AND CONDUITS M.P. 32.2 TO M.P. 24.0
AS BUILT DATE	

SCALE NTS

SISKIYOU TELEPHONE

CONTACT ENG.

PHONE NO.

Filename: 17-50
Engineer: C. EASTLICK
Drafter: C.EASTLICK
Last Accessed: 10/26/15
Time: 8:17 AM

SUB. INFO.

138+46 FIR TREE

140+06 CULV. M.P. 29.6

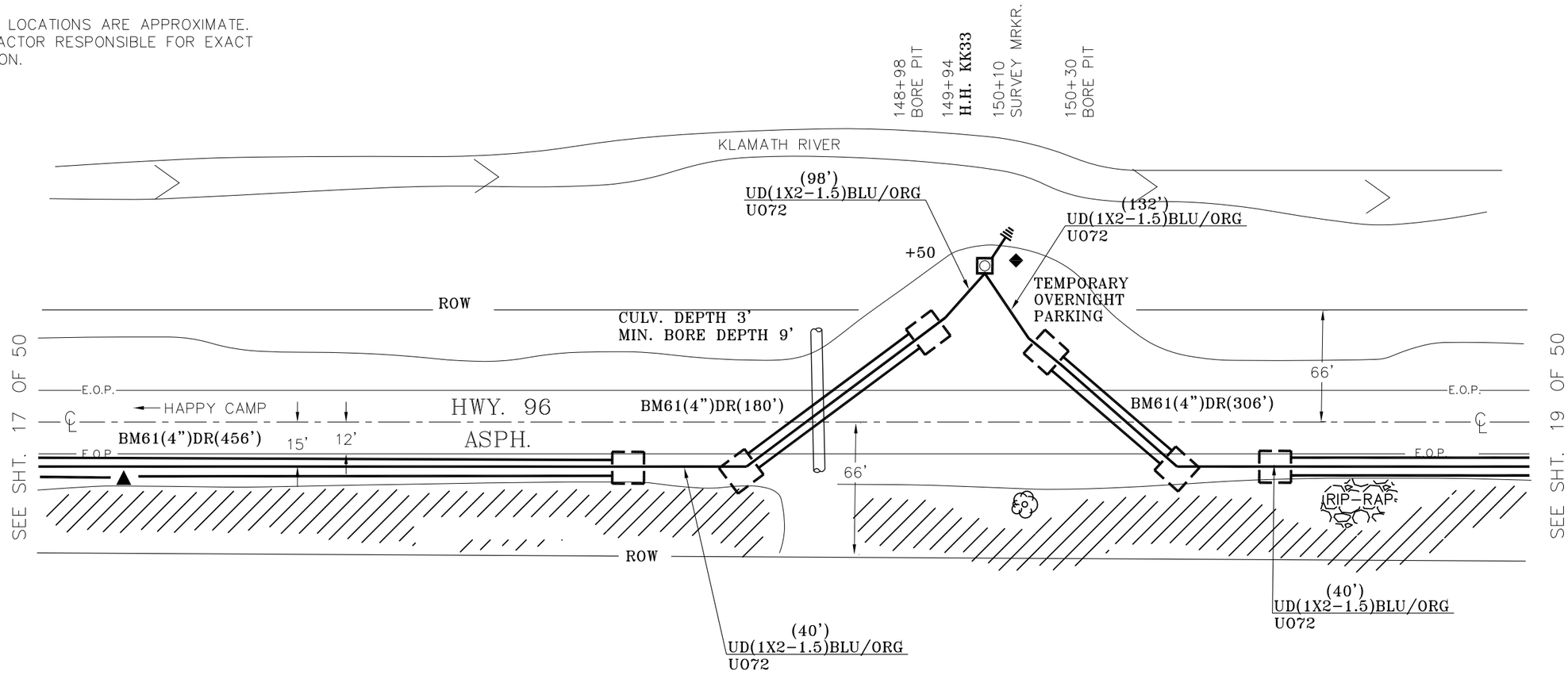
141+06 BORE PIT

142+22 BORE PIT

143+12 CULV. M.P. 29.54

PED OR POLE NUMBER																						PED OR POLE NUMBER	SUB NUMBER							

UTILITY LOCATIONS ARE APPROXIMATE.
CONTRACTOR RESPONSIBLE FOR EXACT
LOCATION.



CO.	SISKIYOU TELEPHONE
EXCH.	HAPPY CAMP
ROUTE	
J.O. NO.	15HC500
SHEET	18 OF 50
MAP REF.	
COUNTY	SISKIYOU
T. 15N	R. 7E SEC 29
TAX CODES	
TITLE:	PHASE ONE. BUILD FIBER AND CONDUITS M.P. 32.2 TO M.P. 24.0
AS BUILT DATE	

SCALE NTS

SISKIYOU TELEPHONE

CONTACT ENG.

PHONE NO.

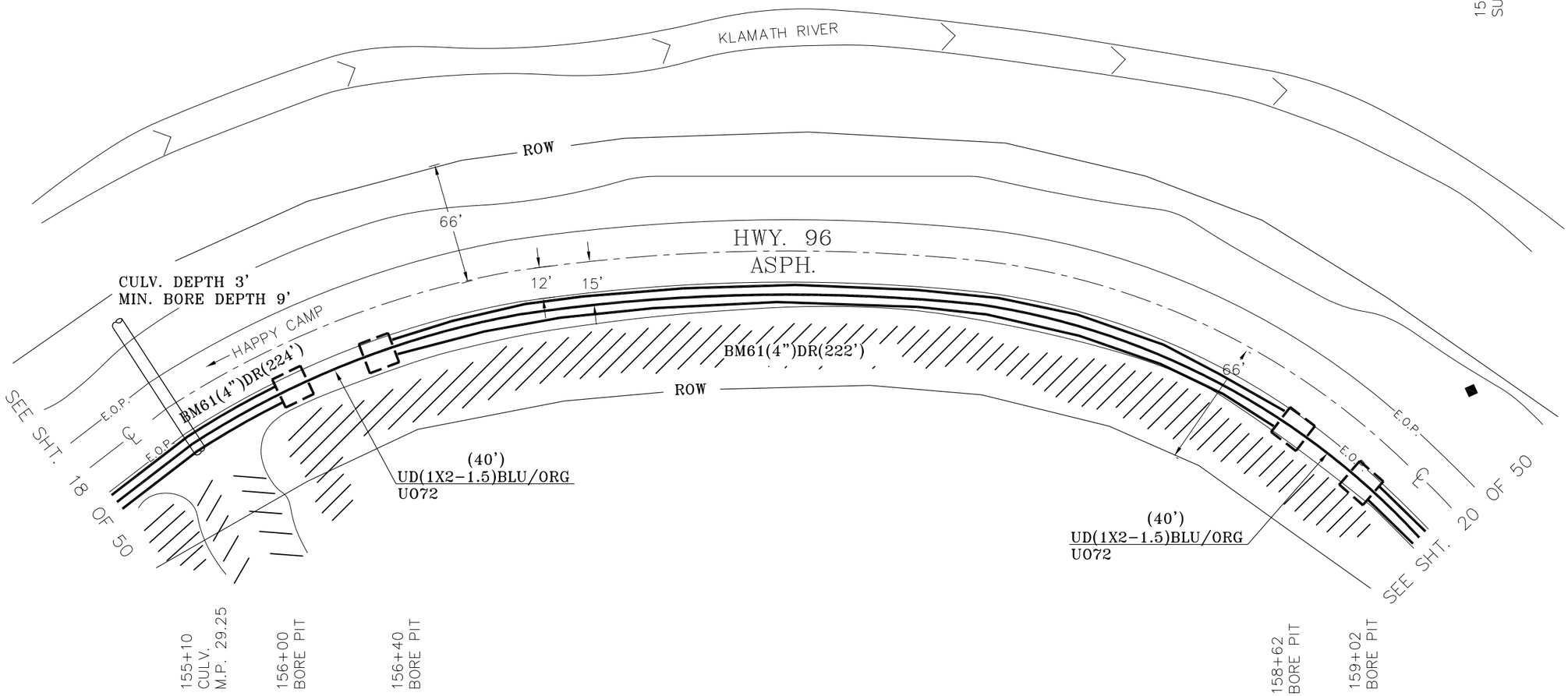
Filename: 18-50
Engineer: C. EASTLICK
Drafter: C.EASTLICK
Last Accessed: 10/23/15
Time: 5:02 AM

SUB. INFO.

PED OR POLE NUMBER	BM2(5/8)(5)	BM61(4")DR	UD(1X2-1.5) BLU/ORG	U072	UH264	144+58 M.P. 29.50	146+78 BORE PIT	147+18 BORE PIT	148+08 CULV. M.P. 29.39	153+36 BORE PIT	153+76 BORE PIT	153+46 RIP-RAP
H.H. KK33	1	3514	484	4078	1							
	1	3514	484	4078	1							

PED OR POLE NUMBER	SUB NUMBER

UTILITY LOCATIONS ARE APPROXIMATE.
CONTRACTOR RESPONSIBLE FOR EXACT
LOCATION.



CO.	SISKIYOU TELEPHONE
EXCH.	HAPPY CAMP
ROUTE	
J.O. NO.	15HC500
SHEET	19 OF 50
MAP REF.	
COUNTY	SISKIYOU
T. 15N	R. 7E SEC 29
TAX CODES	
TITLE:	PHASE ONE. BUILD FIBER AND CONDUITS M.P. 32.2 TO M.P. 24.0
AS BUILT DATE	
SCALE	NTS

SISKIYOU TELEPHONE

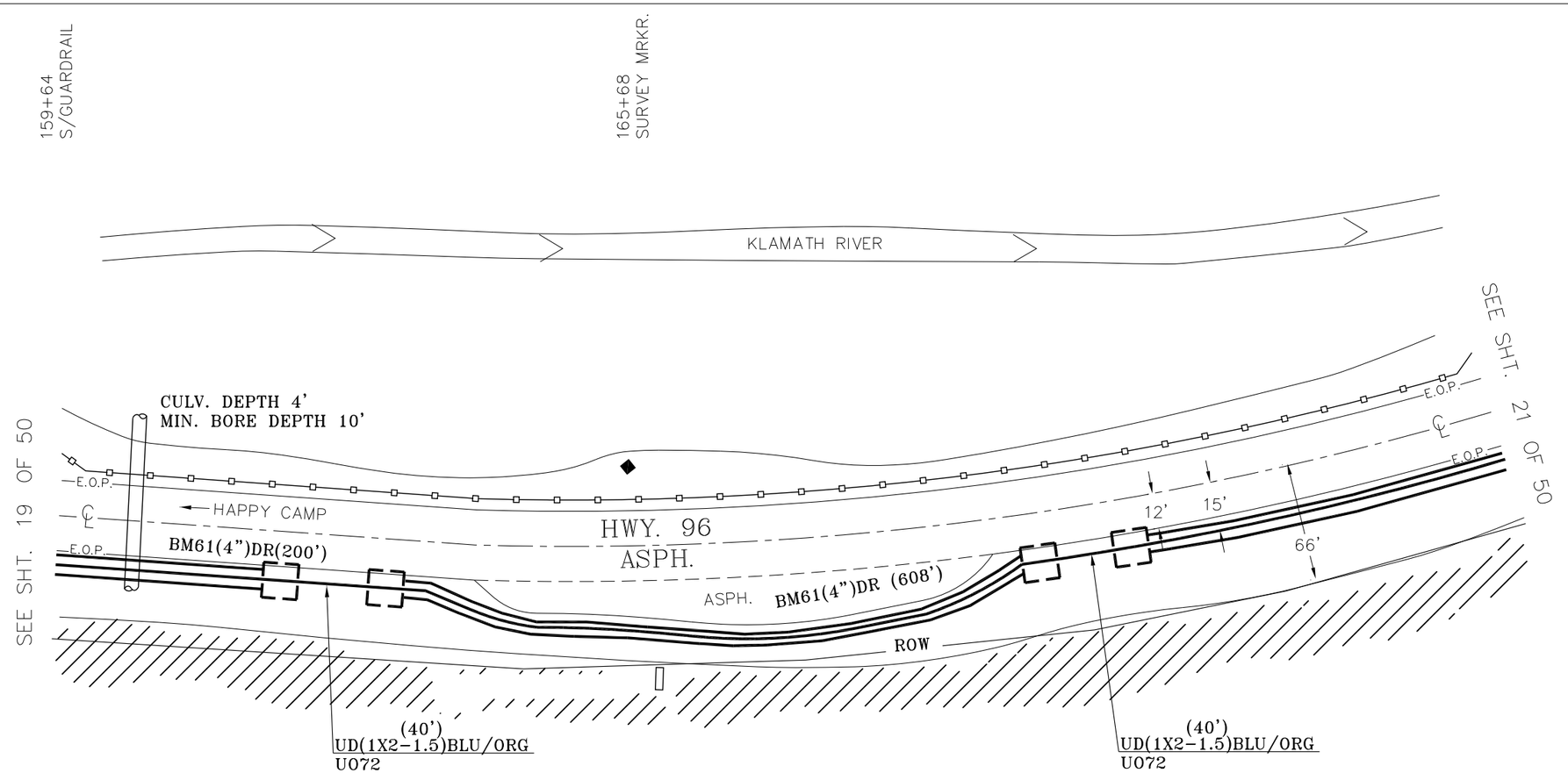
CONTACT ENG.

PHONE NO.

Filename: 19-50
Engineer: C. EASTLICK
Drafter: C.EASTLICK
Last Accessed: 10/23/15
Time: 5:21 AM

SUB. INFO.

PED OR POLE NUMBER																							PED OR POLE NUMBER	SUB NUMBER							



160+02 CULV. M.P. 29.16 | 161+02 BORE PIT | BORE PIT 161+42 | 163+66 B/ASPH. | 165+80 SIGN | 167+30 E/ASPH. | BORE PIT 167+50 | BORE PIT 167+90

UTILITY LOCATIONS ARE APPROXIMATE. CONTRACTOR RESPONSIBLE FOR EXACT LOCATION.

PED OR POLE NUMBER																						PED OR POLE NUMBER	SUB NUMBER							

CO. SISKIYOU TELEPHONE
EXCH. HAPPY CAMP
ROUTE
J.O. NO. 15HC500
SHEET 20 OF 50
MAP REF.
COUNTY SISKIYOU
T. 15N | R. 7E | SEC 30
TAX CODES
TITLE: PHASE ONE. BUILD FIBER AND CONDUITS M.P. 32.2 TO M.P. 24.0
AS BUILT DATE
SCALE NTS

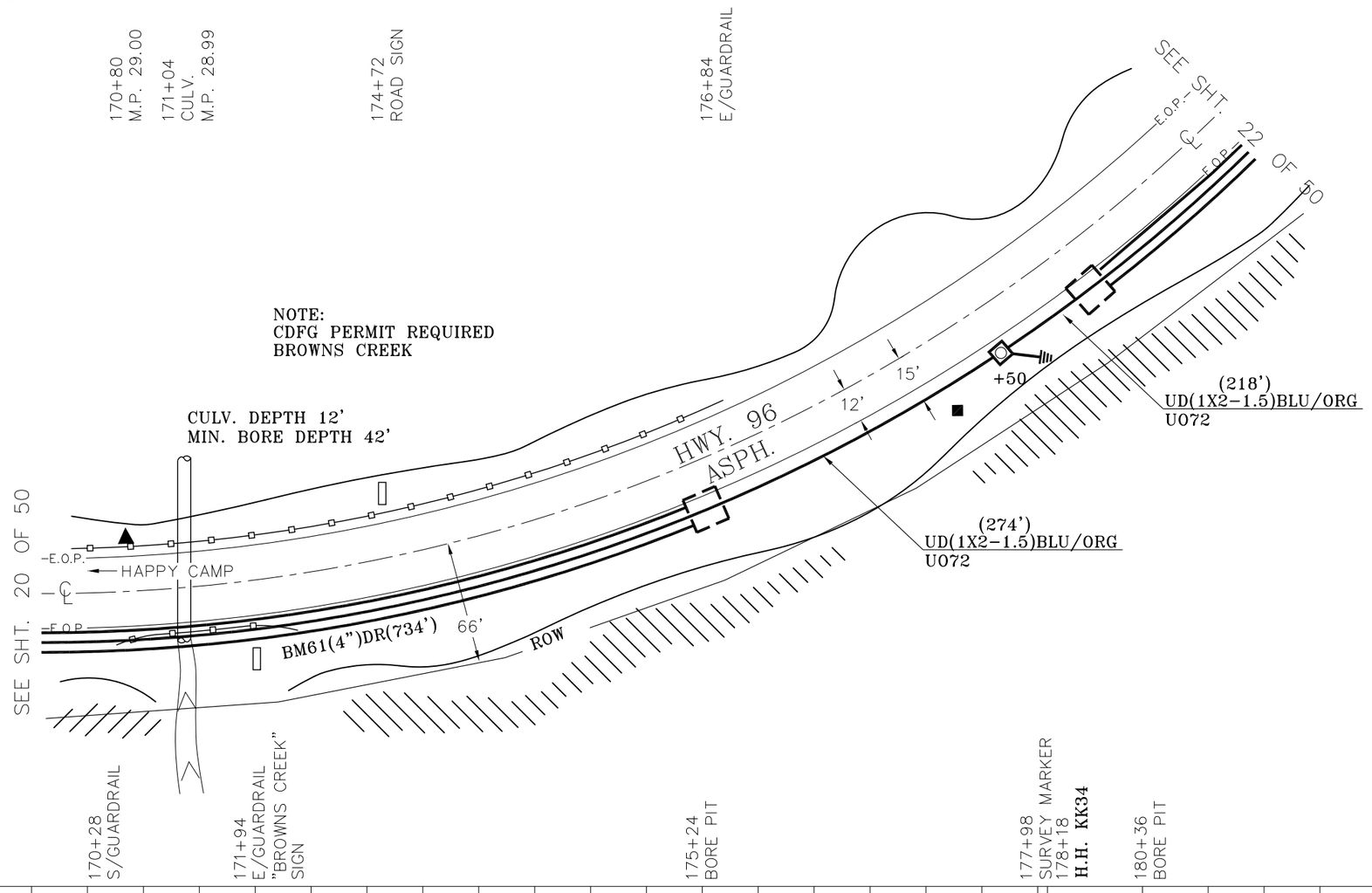
SISKIYOU TELEPHONE

CONTACT ENG.
PHONE NO.

Filename: 20-50
Engineer: C. EASTLICK
Drafter: C.EASTLICK
Last Accessed: 10/26/15
Time: 8:22 AM

SUB. INFO.

UTILITY LOCATIONS ARE APPROXIMATE.
CONTRACTOR RESPONSIBLE FOR EXACT LOCATION.



CO.	SISKIYOU TELEPHONE
EXCH.	HAPPY CAMP
ROUTE	
J.O. NO.	15HC500
SHEET	21 OF 50
MAP REF.	
COUNTY	SISKIYOU
T. 15N	R. 7E SEC 30
TAX CODES	
TITLE:	PHASE ONE. BUILD FIBER AND CONDUITS M.P. 32.2 TO M.P. 24.0
AS BUILT DATE	

SCALE NTS

SISKIYOU TELEPHONE

CONTACT ENG.

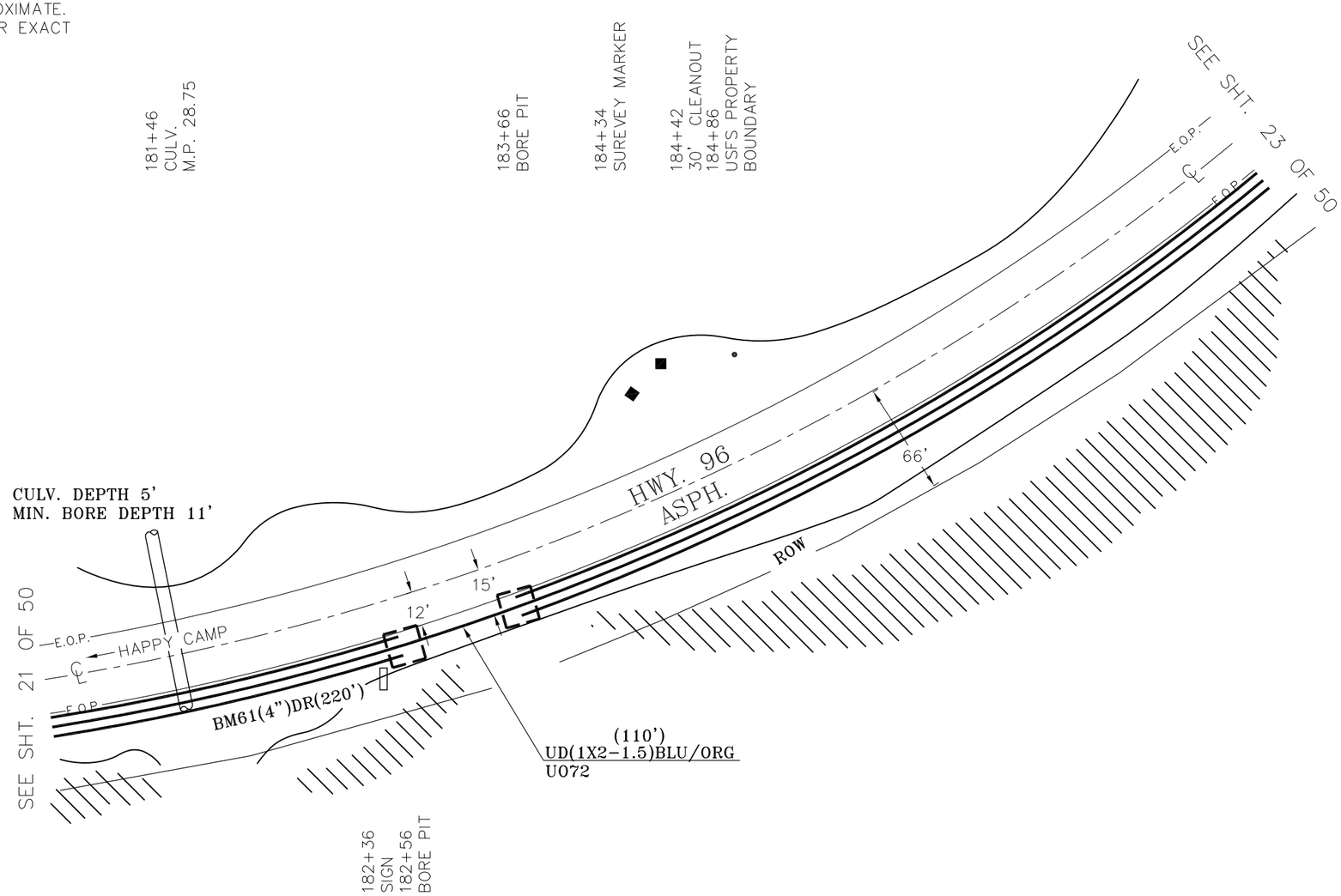
PHONE NO.

Filename: 21-50
Engineer: C. EASTLICK
Drafter: C.EASTLICK
Last Accessed: 10/23/15
Time: 5:40 AM

SUB. INFO.

PED OR POLE NUMBER	BM2(5/8)(5)	BM61(4")DR	UD(1X2-1.5) BLU/ORG	U072	UH264	PED OR POLE NUMBER	SUB NUMBER
H.H. KK34	1	2294	606	2874	1		
	1	2294	606	2874	1		

UTILITY LOCATIONS ARE APPROXIMATE.
CONTRACTOR RESPONSIBLE FOR EXACT
LOCATION.



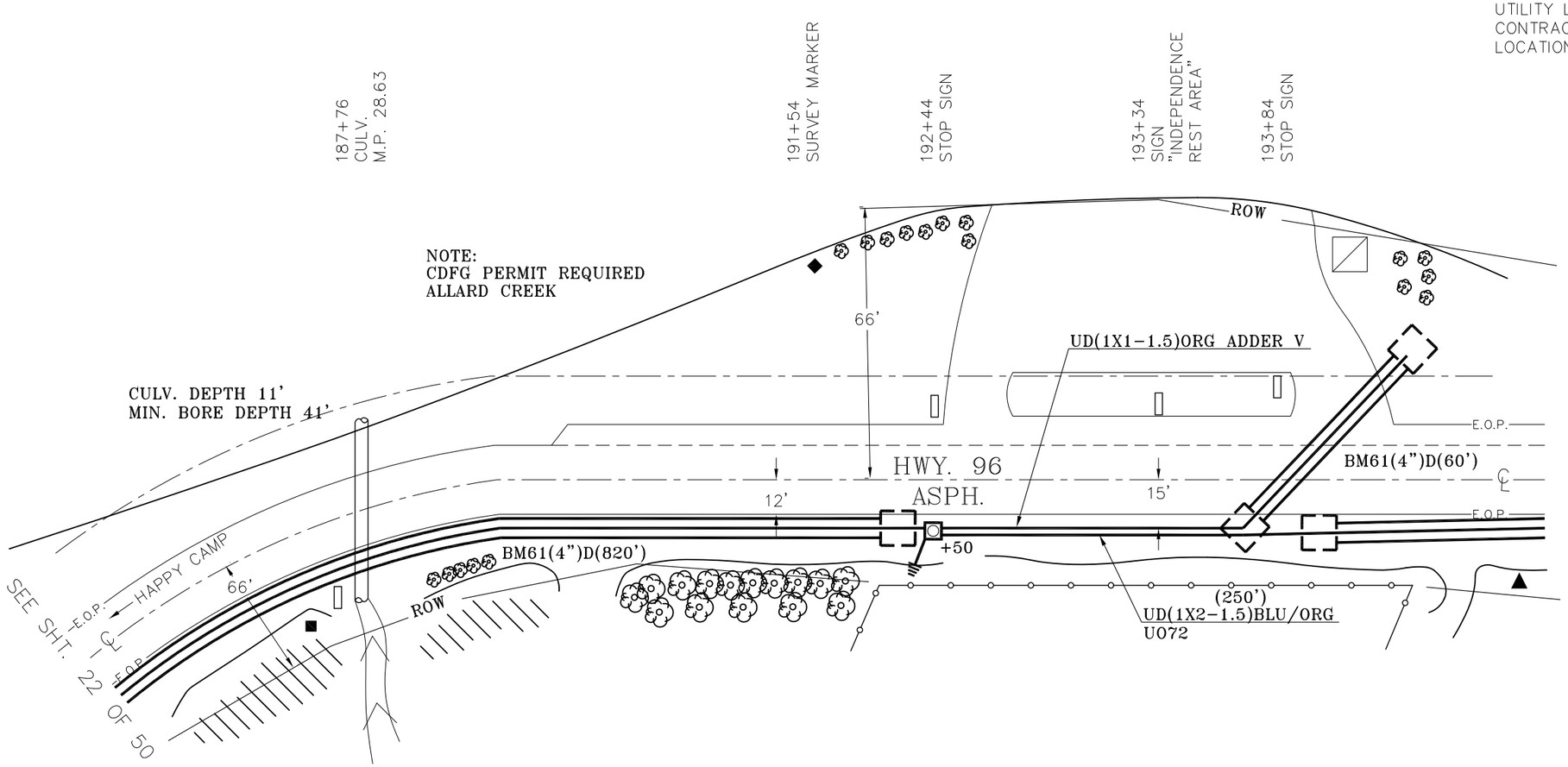
CO.	SISKIYOU TELEPHONE
EXCH.	HAPPY CAMP
ROUTE	
J.O. NO.	15HC500
SHEET	22 OF 50
MAP REF.	
COUNTY	SISKIYOU
T. 15N	R. 7E SEC 30
TAX CODES	
TITLE:	PHASE ONE BUILD FIBER AND CONDUITS M.P. 32.2 TO M,P, 24,0
AS BUILT DATE	
SCALE	NTS
CONTACT ENG.	
PHONE NO.	

Filename: 22-50
Engineer: C. EASTLICK
Drafter: C.EASTLICK
Last Accessed: 10/23/15
Time: 5:44 AM

SUB. INFO.

PED OR POLE NUMBER																						PED OR POLE NUMBER	SUB NUMBER							

UTILITY LOCATIONS ARE APPROXIMATE. CONTRACTOR RESPONSIBLE FOR EXACT LOCATION.



CO.	SISKIYOU TELEPHONE
EXCH.	HAPPY CAMP
ROUTE	
J.O. NO.	15HC500
SHEET	23 OF 50
MAP REF.	
COUNTY	SISKIYOU
T. 15N	R. 7E SEC 30
TAX CODES	
TITLE:	PHASE ONE. BUILD FIBER AND CONDUITS M.P. 32.2 TO M.P. 24.0
AS BUILT DATE	

SCALE NTS

SISKIYOU TELEPHONE

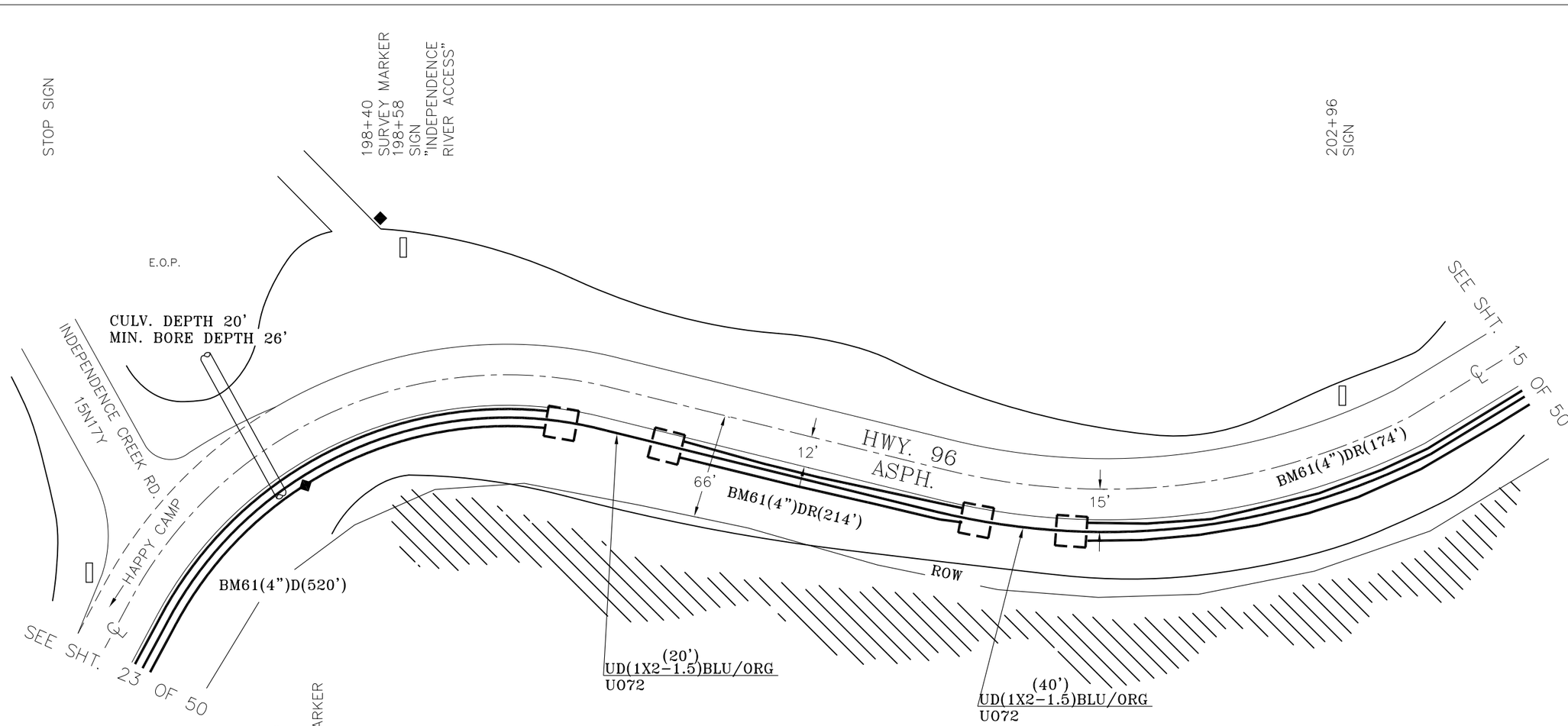
CONTACT ENG.

PHONE NO.

Filename: 23-50
Engineer: C. EASTLICK
Drafter: C.EASTLICK
Last Accessed: 10/17/15
Time: 7:21 AM

SUB. INFO.

PED OR POLE NUMBER	BM2(5/8)(5)	BM61(4")D	UD(1X1-1.5) ORG ADDER V	UD(1X2-1.5) BLU/ORG	UDN OUTLET "ALLARD CREEK" SIGN U072	UM264				189+26 CENTER D/W					191+66 FENCE	191+86 BORE PIT 192+06 H.H. KK35						192+92 P.O.T. BORE PIT	194+36 BORE PIT	194+98 FENCE	SUB NUMBER	BM61D(4")	195+66 M.P. 28.50 UD(1X1-1.5") ORG					
H.H. KK35	1	1040		130	1438	1																			60	82					
			86																												
	1	1040	86	130	1438	1																			60	82					



UTILITY LOCATIONS ARE APPROXIMATE. CONTRACTOR RESPONSIBLE FOR EXACT LOCATION.

CO.	SISKIYOU TELEPHONE
EXCH.	HAPPY CAMP
ROUTE	
J.O. NO.	15HC500
SHEET	24 OF 50
MAP REF.	
COUNTY	SISKIYOU
T. 15N	R. 7E SEC 30
TAX CODES	
TITLE:	PHASE ONE BUILD FIBER AND CONDUITS M.P. 32.2 TO M.P. 24.0
AS BUILT DATE	

SCALE NTS

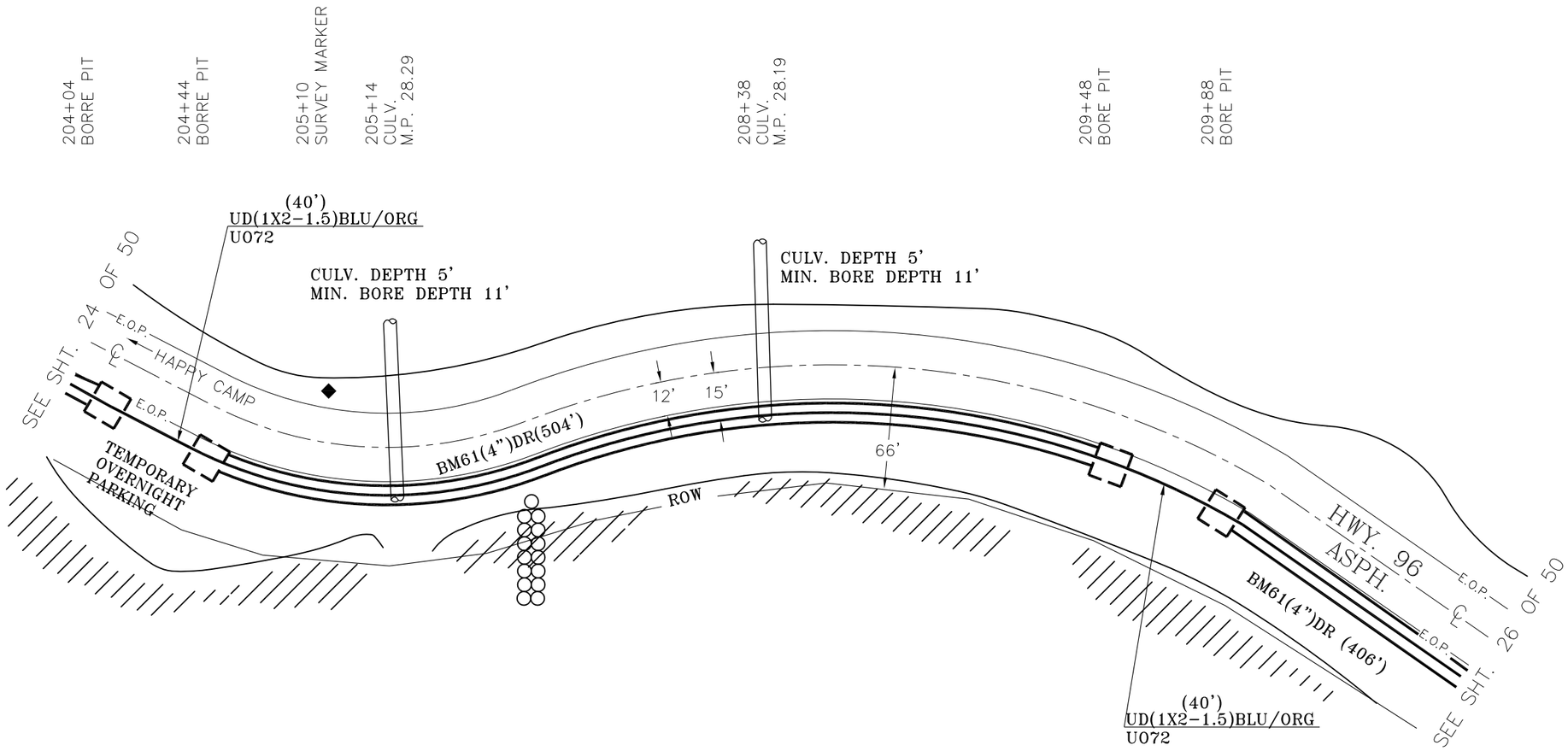
SISKIYOU TELEPHONE

CONTACT ENG.

PHONE NO.

Filename: 24-50
Engineer: C. EASTLICK
Drafter: C.EASTLICK
Last Accessed: 10/23/15
Time: 5:53 AM

PED OR POLE NUMBER																							PED OR POLE NUMBER	SUB NUMBER							SUB. INFO.



UTILITY LOCATIONS ARE APPROXIMATE.
CONTRACTOR RESPONSIBLE FOR EXACT
LOCATION.

206+86
M.P. 28.30
RIP-RAP
VERTICAL PIPE

CO.	SISKIYOU TELEPHONE
EXCH.	HAPPY CAMP
ROUTE	
J.O. NO.	15HC500
SHEET	25 OF 50
MAP REF.	
COUNTY	SISKIYOU
T. 15N	R. 7E SEC 30
TAX CODES	
TITLE:	PHASE ONE. BUILD FIBER AND CONDUITS M.P. 32.2 TO M.P. 24.0
AS BUILT DATE	

SCALE NTS

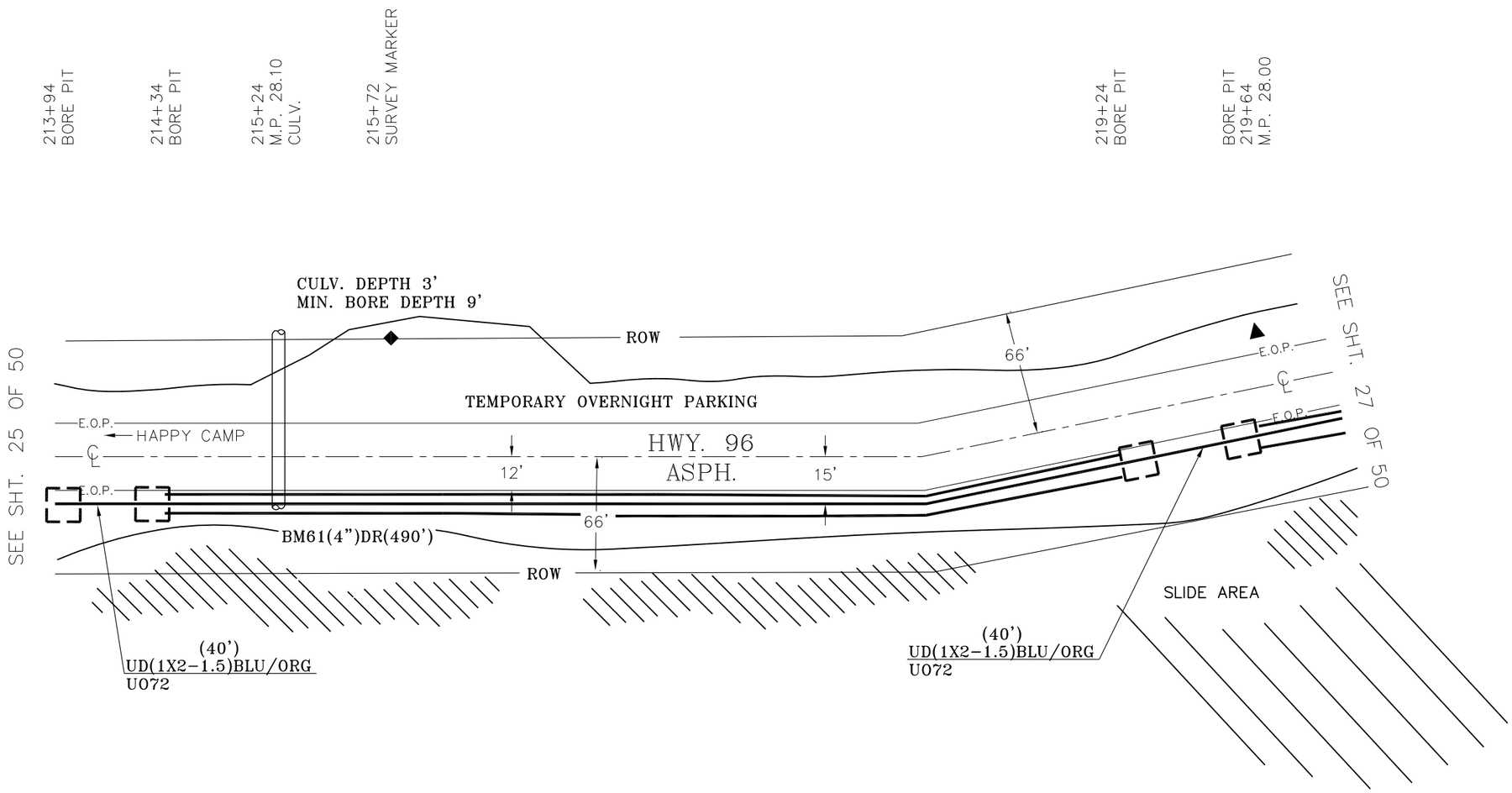
CONTACT ENG.

PHONE NO.

Filename: 25-50
Engineer: C. EASTLICK
Drafter: C.EASTLICK
Last Accessed: 10/26/15
Time: 8:26 AM

SUB. INFO.

PED OR POLE NUMBER																							PED OR POLE NUMBER	SUB NUMBER							



UTILITY LOCATIONS ARE APPROXIMATE.
CONTRACTOR RESPONSIBLE FOR EXACT LOCATION.

PED OR POLE NUMBER																						PED OR POLE NUMBER	SUB NUMBER							

SCALE NTS

SISKIYOU TELEPHONE

CONTACT ENG.

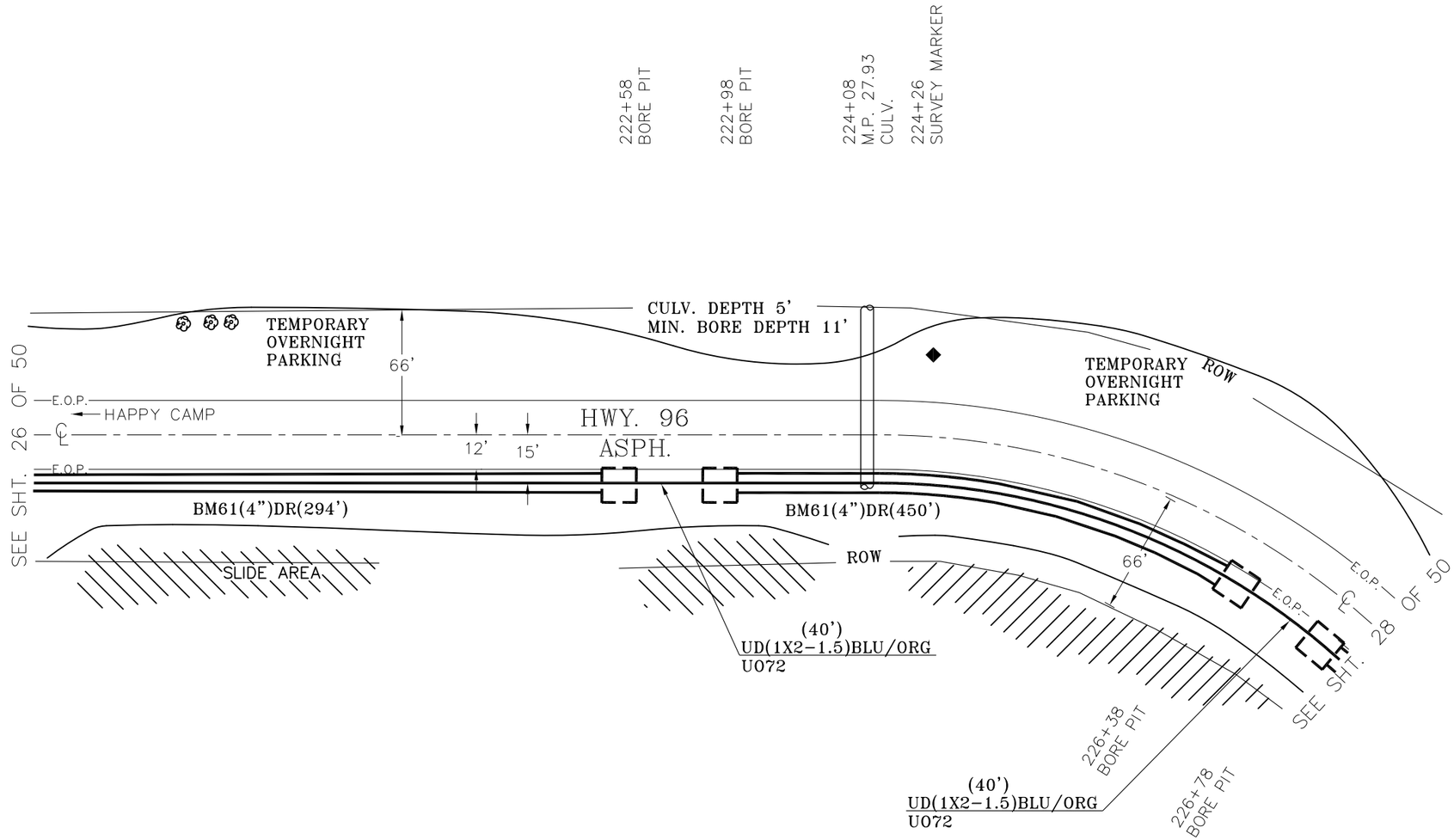
PHONE NO.

Filename: 26-50
Engineer: C. EASTLICK
Drafter: C.EASTLICK
Last Accessed: 10/23/15
Time: 6:06 AM

SUB. INFO.

CO.	SISKIYOU TELEPHONE
EXCH.	HAPPY CAMP
ROUTE	
J.O. NO.	15HC500
SHEET	26 OF 50
MAP REF.	
COUNTY	SISKIYOU
T. 15N	R. 7E SEC 30
TAX CODES	
TITLE:	PHASE ONE. BUILD FIBER AND CONDUITS M.P. 32.2 TO M.P. 24.0
AS BUILT DATE	

UTILITY LOCATIONS ARE APPROXIMATE.
CONTRACTOR RESPONSIBLE FOR EXACT
LOCATION.



CO.	SISKIYOU TELEPHONE
EXCH.	HAPPY CAMP
ROUTE	
J.O. NO.	15HC500
SHEET	27 OF 50
MAP REF.	
COUNTY	SISKIYOU
T. 15N	R. 7E SEC 31
TAX CODES	
TITLE:	PHASE ONE. BUILD FIBER AND CONDUITS M.P. 32.2 TO M.P. 24.0
AS BUILT DATE	
SCALE	NTS

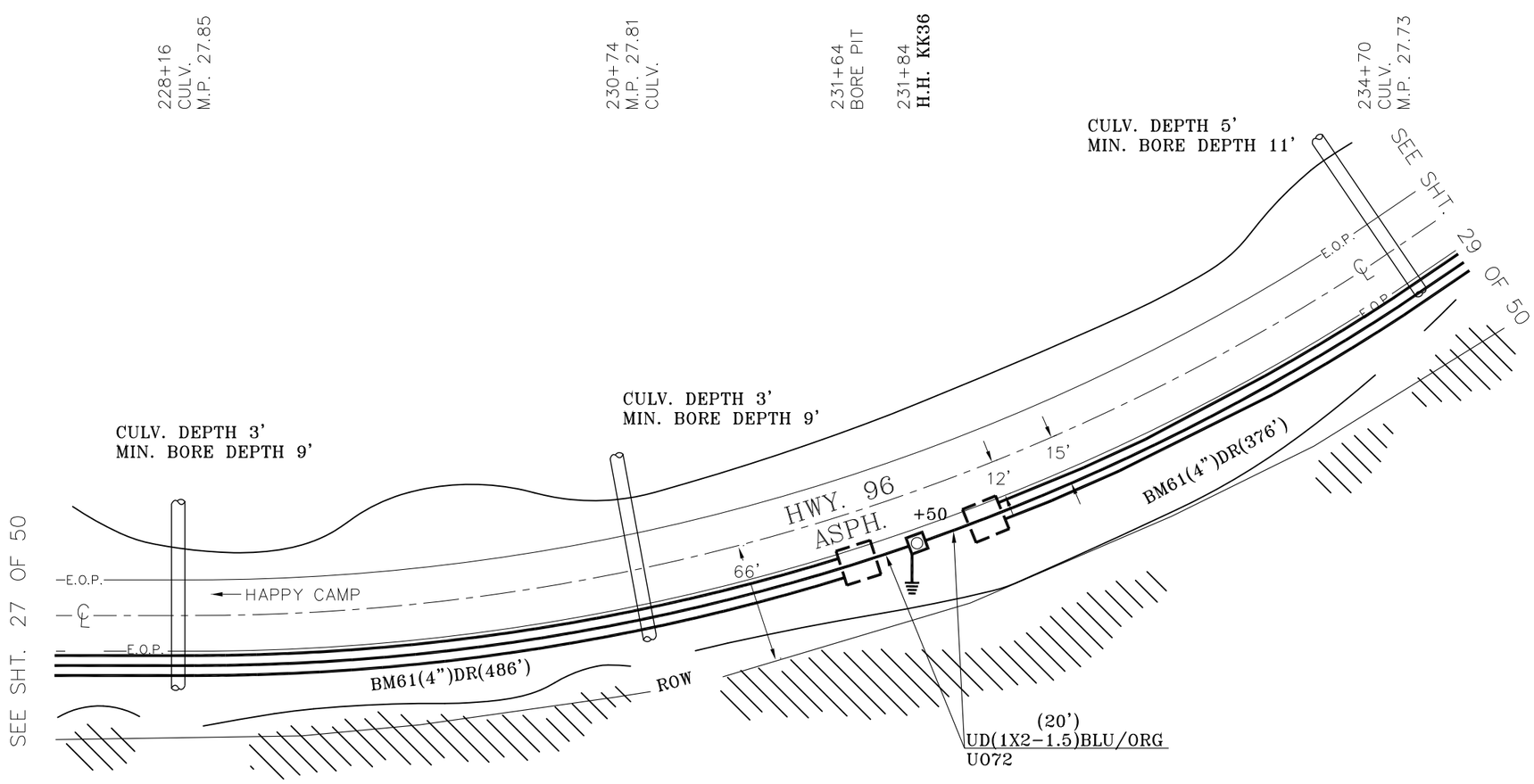
CONTACT ENG.

PHONE NO.

Filename: 27-50
Engineer: C. EASTLICK
Drafter: C.EASTLICK
Last Accessed: 10/23/15
Time: 6:16 AM

SUB. INFO.

PED OR POLE NUMBER																					PED OR POLE NUMBER	SUB NUMBER							



UTILITY LOCATIONS ARE APPROXIMATE.
CONTRACTOR RESPONSIBLE FOR EXACT LOCATION.

PED OR POLE NUMBER	BM2(5/8)(5)	BM61(4")D	BM61(4")DR	UD(1X2-1.5) BLU/ORG	U072	UH264																PED OR POLE NUMBER	SUB NUMBER							
H.H. KK36	1	580	3018	570	4248	1																								
	1	580	3018	570	4248	1																								

CO. SISKIYOU TELEPHONE
EXCH. HAPPY CAMP
ROUTE
J.O. NO. 15HC500
SHEET 28 OF 50
MAP REF.
COUNTY SISKIYOU
T. 15N | R. 7E | SEC 31
TAX CODES
TITLE: PHASE ONE. BUILD FIBER AND CONDUITS M.P. 32.2 TO M.P. 24.0
AS BUILT DATE
SCALE NTS

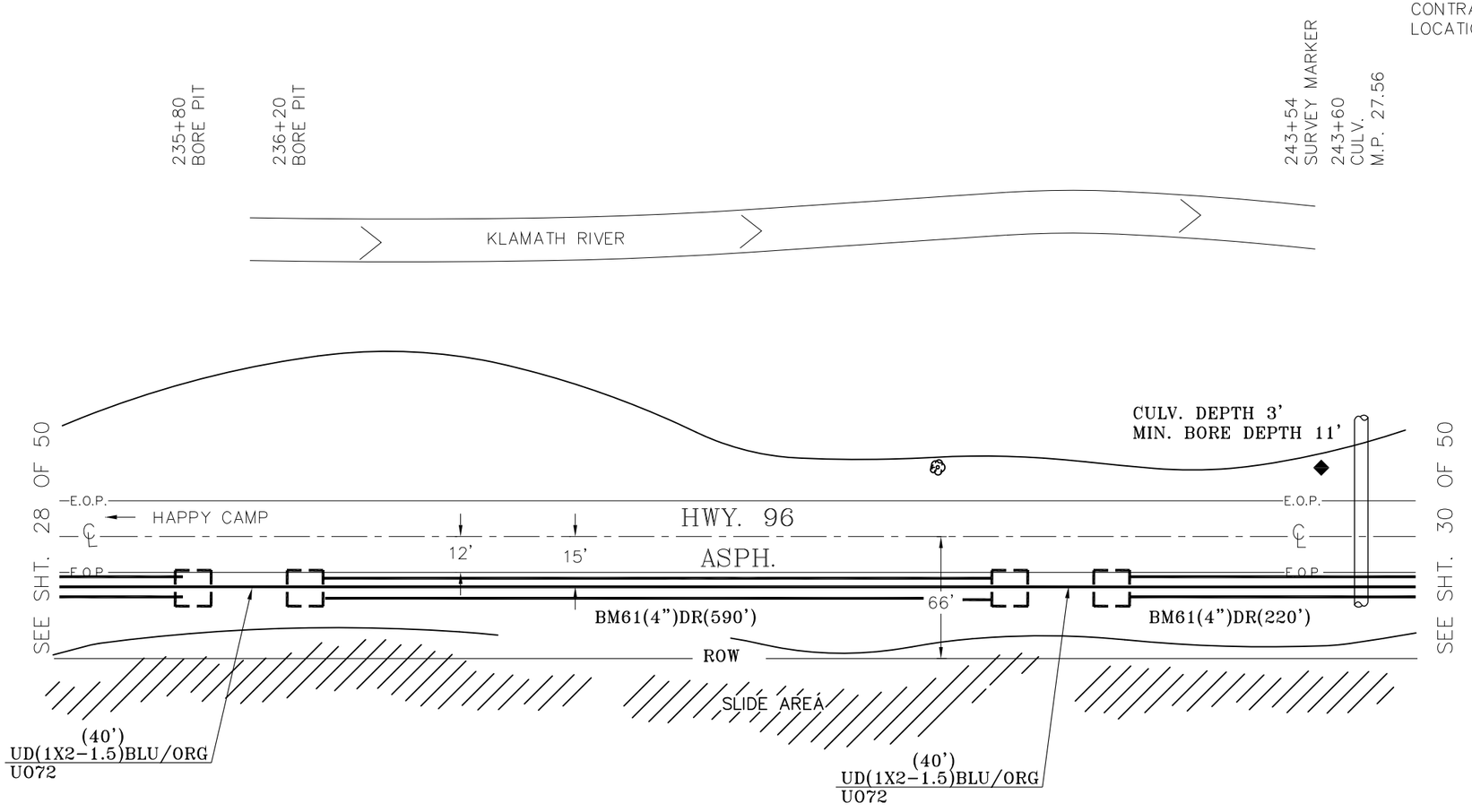
SISKIYOU TELEPHONE

CONTACT ENG.
PHONE NO.

Filename: 28-50
Engineer: C. EASTLICK
Drafter: C.EASTLICK
Last Accessed: 10/23/15
Time: 6:22 AM

SUB. INFO.

UTILITY LOCATIONS ARE APPROXIMATE. CONTRACTOR RESPONSIBLE FOR EXACT LOCATION.

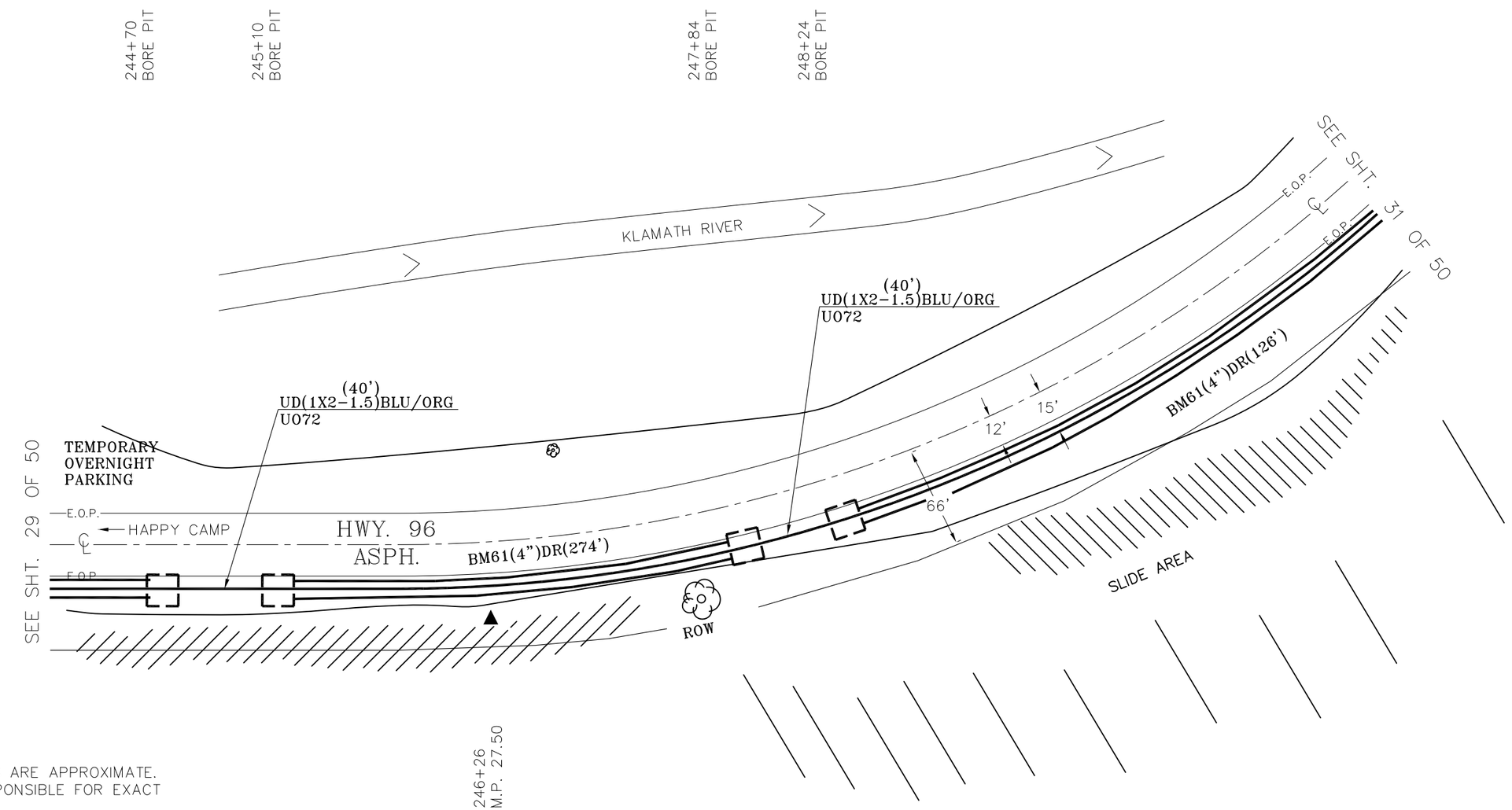


CO.	SISKIYOU TELEPHONE
EXCH.	HAPPY CAMP
ROUTE	
J.O. NO.	15HC500
SHEET	29 OF 50
MAP REF.	
COUNTY	SISKIYOU
T. 15N	R. 7E SEC 31
TAX CODES	
TITLE:	PHASE ONE. BUILD FIBER AND CONDUITS M.P. 32.2 TO M.P. 24.0
AS BUILT DATE	
SCALE	NTS
CONTACT ENG.	
PHONE NO.	

Filename: 29-50
Engineer: C. EASTLICK
Drafter: C.EASTLICK
Last Accessed: 10/23/15
Time: 6:30 AM

SUB. INFO.

PED OR POLE NUMBER																						PED OR POLE NUMBER	SUB NUMBER							



UTILITY LOCATIONS ARE APPROXIMATE.
CONTRACTOR RESPONSIBLE FOR EXACT
LOCATION.

CO.	SISKIYOU TELEPHONE
EXCH.	HAPPY CAMP
ROUTE	
J.O. NO.	15HC500
SHEET	30 OF 50
MAP REF.	
COUNTY	SISKIYOU
T. 15N	R. 7E SEC 31
TAX CODES	
TITLE:	PHASE ONE. BUILD FIBEER AND CONDUITS M.P. 32.2 TO M.P. 24.0
AS BUILT DATE	

SCALE NTS

SISKIYOU TELEPHONE

CONTACT ENG.

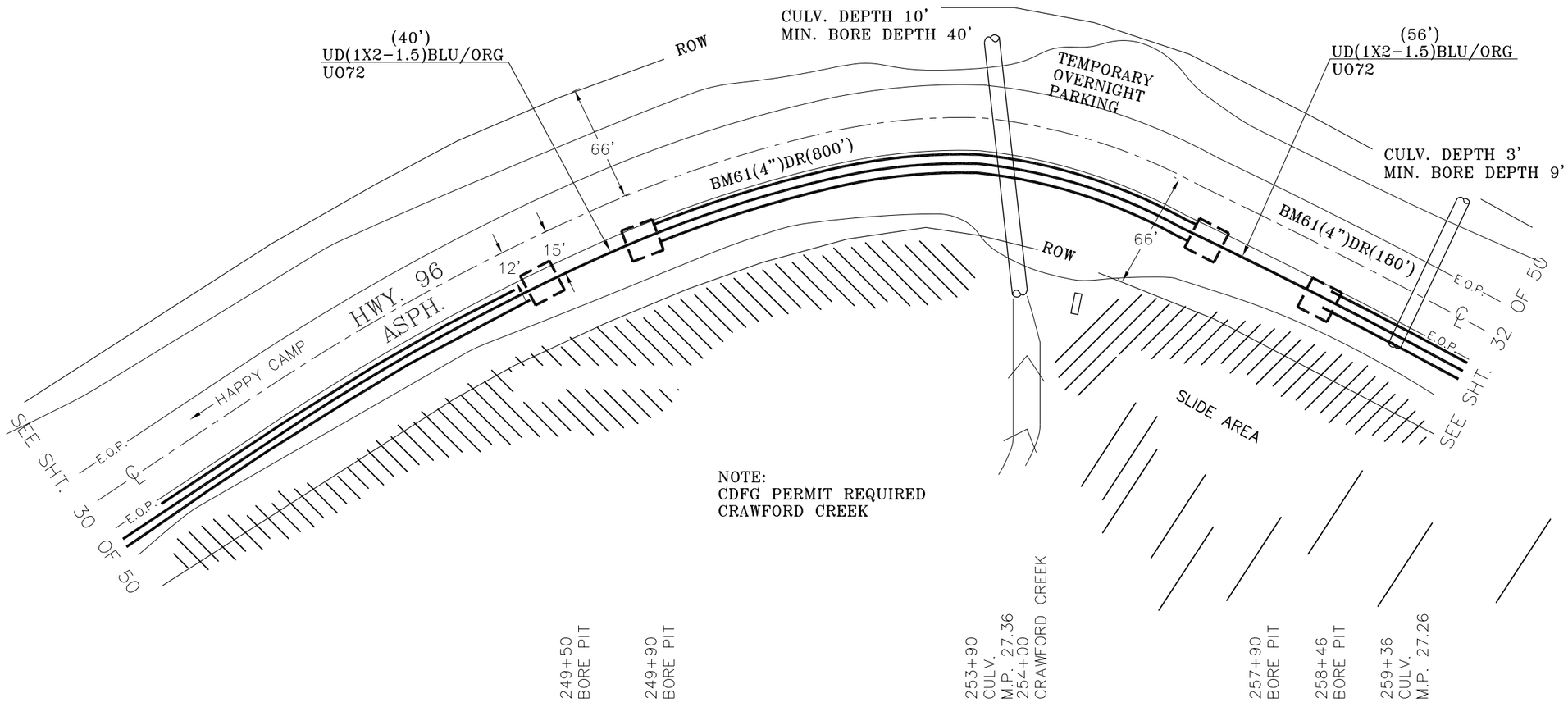
PHONE NO.

Filename: 30-50
Engineer: C. EASTLICK
Drafter: C.EASTLICK
Last Accessed: 10/23/15
Time: 6:36 AM

SUB. INFO.

PED OR POLE NUMBER																						PED OR POLE NUMBER	SUB NUMBER							

UTILITY LOCATIONS ARE APPROXIMATE.
CONTRACTOR RESPONSIBLE FOR EXACT
LOCATION.



CO.	SISKIYOU TELEPHONE
EXCH.	HAPPY CAMP
ROUTE	
J.O. NO.	15HC500
SHEET	31 OF 50
MAP REF.	
COUNTY	SISKIYOU
T. 15N	R. 6E SEC 36
TAX CODES	
TITLE:	PHASE ONE. BUILD FIBER AND CONDUITS M.P. 32.2 TO M.P. 24.0
AS BUILT DATE	

SCALE NTS

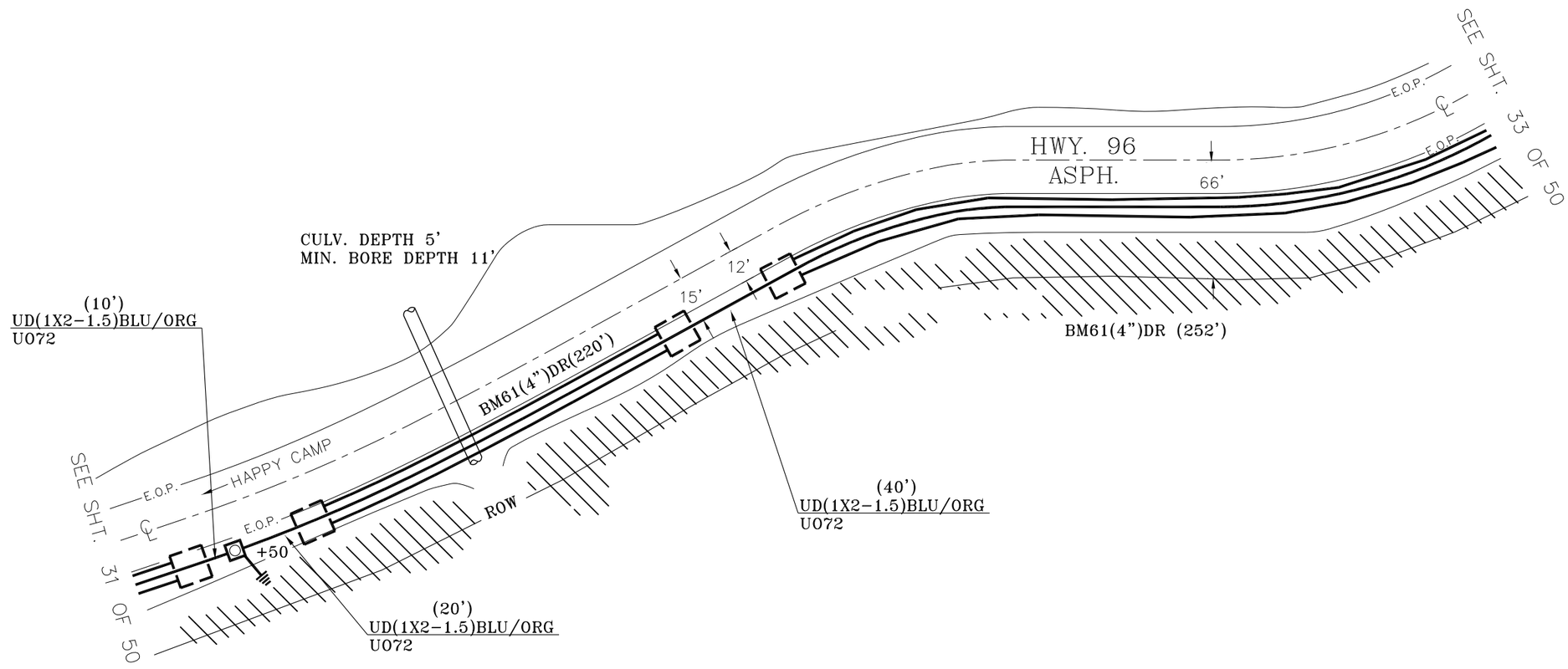
SISKIYOU TELEPHONE

CONTACT ENG.

PHONE NO.

Filename: 31-50
Engineer: C. EASTLICK
Drafter: C.EASTLICK
Last Accessed: 10/23/15
Time: 6:45 AM

PED OR POLE NUMBER																						PED OR POLE NUMBER	SUB NUMBER								SUB. INFO.



UTILITY LOCATIONS ARE APPROXIMATE. CONTRACTOR RESPONSIBLE FOR EXACT LOCATION.

CO.	SISKIYOU TELEPHONE
EXCH.	HAPPY CAMP
ROUTE	
J.O. NO.	15HC500
SHEET	32 OF 50
MAP REF.	
COUNTY	SISKIYOU
T. 15N	R. 6E SEC 36
TAX CODES	
TITLE:	PHASE ONE. BUILD FIBER AND CONDUITS M.P. 32.2 TO M.P. 24.0
AS BUILT DATE	

SCALE NTS

SISKIYOU TELEPHONE

CONTACT ENG.

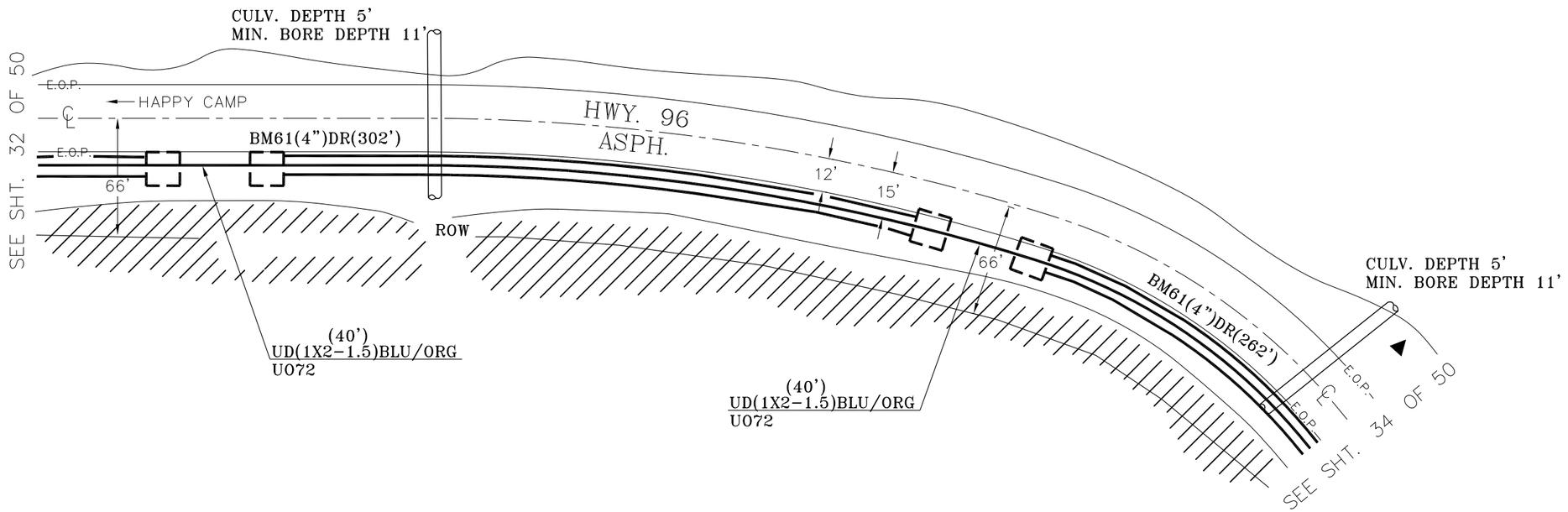
PHONE NO.

Filename: 32-50
Engineer: C. EASTLICK
Drafter: C.EASTLICK
Last Accessed: 10/23/15
Time: 6:55 AM

SUB. INFO.

PED OR POLE NUMBER	BM2(5/8)(5)	BM61(4")DR	UD(1X2-1.5) BLU/ORG	U072	UH264																			PED OR POLE NUMBER	SUB NUMBER							
H.H. KK37	1	2566	286	2932	1																											
	1	2566	286	2932	1																											

UTILITY LOCATIONS ARE APPROXIMATE.
CONTRACTOR RESPONSIBLE FOR EXACT
LOCATION.



CO.	SISKIYOU TELEPHONE
EXCH.	HAPPY CAMP
ROUTE	
J.O. NO.	15HC500
SHEET	33 OF 50
MAP REF.	
COUNTY	SISKIYOU
T. 15N	R. 6E SEC 36
TAX CODES	
TITLE:	PHASE ONE. BUILD FIBER AND CONDUITS M.P. 32.2 TO M.P. 24.0
AS BUILT DATE	

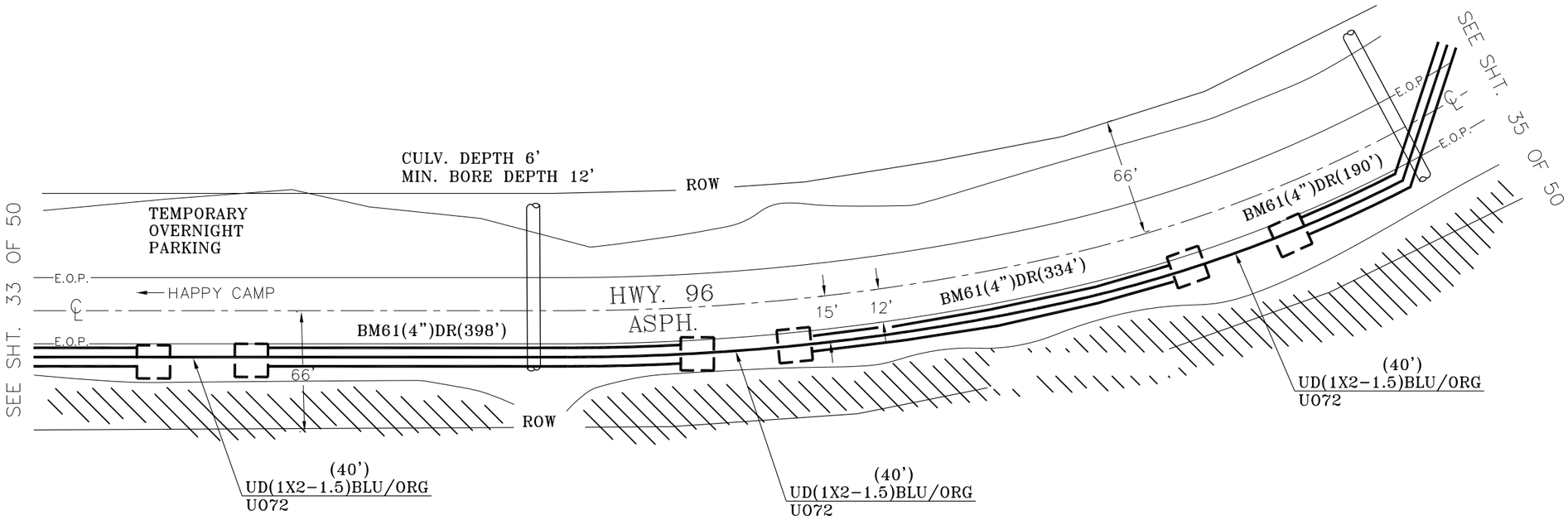
SCALE NTS

CONTACT ENG.

PHONE NO.

Filename: 33-50
Engineer: C. EASTLICK
Drafter: C.EASTLICK
Last Accessed: 10/23/15
Time: 7:01 AM

PED OR POLE NUMBER			268+68 BORE PIT		269+08 BORE PIT		270+18 CULV. M.P. 27.05									272+10 BORE PIT		272+50 BORE PIT				274+02 CULV. M.P. 26.98	SUB NUMBER							SUB. INFO.



UTILITY LOCATIONS ARE APPROXIMATE.
CONTRACTOR RESPONSIBLE FOR EXACT
LOCATION.

PED OR POLE NUMBER

PED OR POLE NUMBER

SUB NUMBER

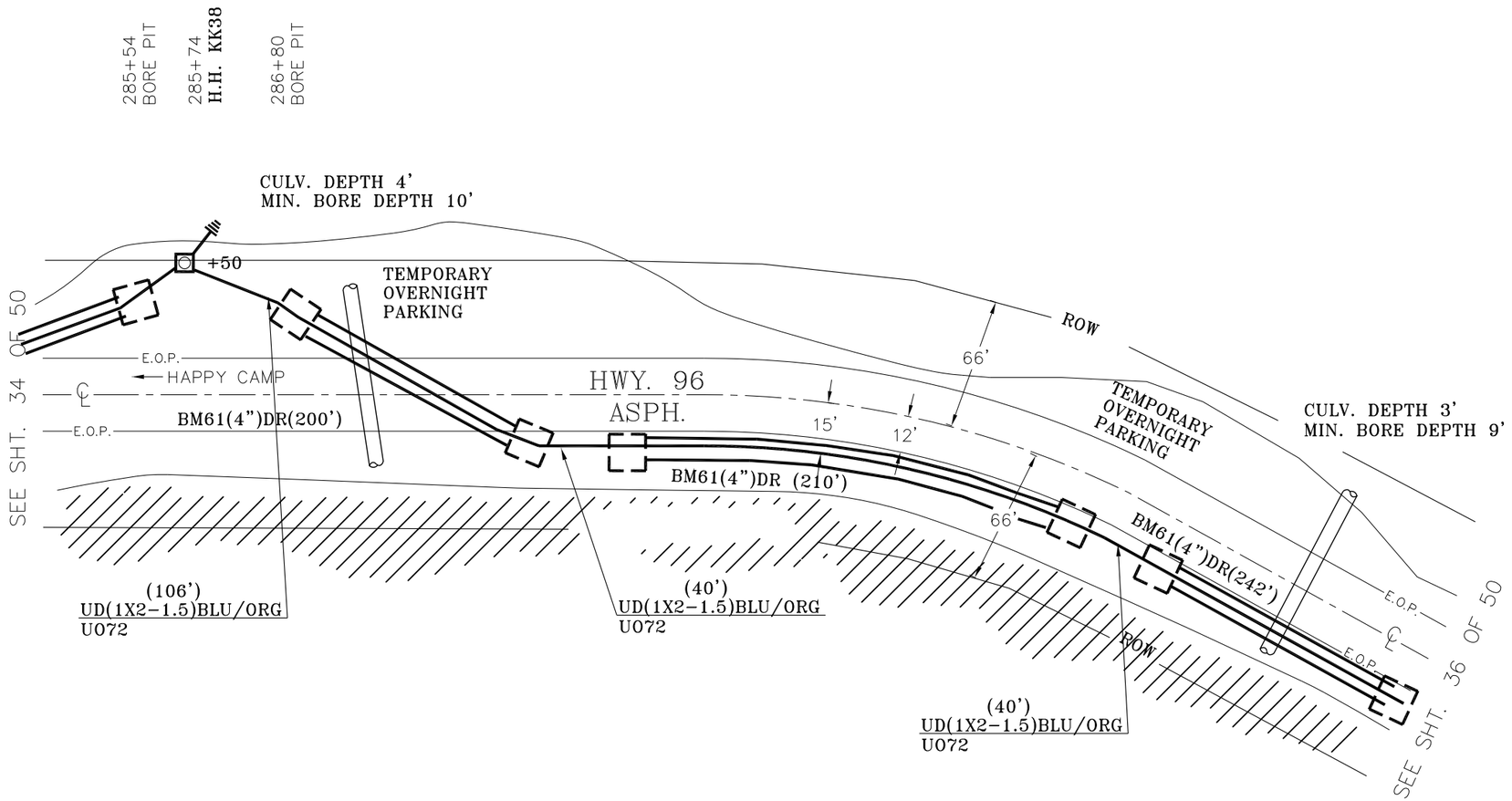
CO. SISKIYOU TELEPHONE
EXCH. HAPPY CAMP
ROUTE
J.O. NO. 15HC500
SHEET 34 OF 50
MAP REF.
COUNTY SISKIYOU
T. 15N R. 6E SEC 36
TAX CODES
TITLE: PHASE ONE. BUILD FIBER AND CONDUITS M.P. 32.2 TO M.P. 24.0
AS BUILT DATE
SCALE NTS

SISKIYOU TELEPHONE

CONTACT ENG.
PHONE NO.

Filename: 34-50
Engineer: C. EASTLICK
Drafter: C.EASTLICK
Last Accessed: 10/23/15
Time: 7:34 AM

SUB. INFO.



UTILITY LOCATIONS ARE APPROXIMATE.
CONTRACTOR RESPONSIBLE FOR EXACT
LOCATION.

287+80 CULV. M.P. 26.72
288+80 BORE PIT
289+20 BORE PIT
291+30 BORE PIT
291+70 BORE PIT
292+60 CULV. M.P. 26.63
293+50 BORE PIT

PED OR POLE NUMBER	BM2(5/8)(5)	BM61(4")DR	UD(1X2-1.5) BLU/ORG	U072	UH264																	PED OR POLE NUMBER	SUB NUMBER							
H.H. KK38	1	1958	280	2588	1																									
	1	1958	280	2588	1																									

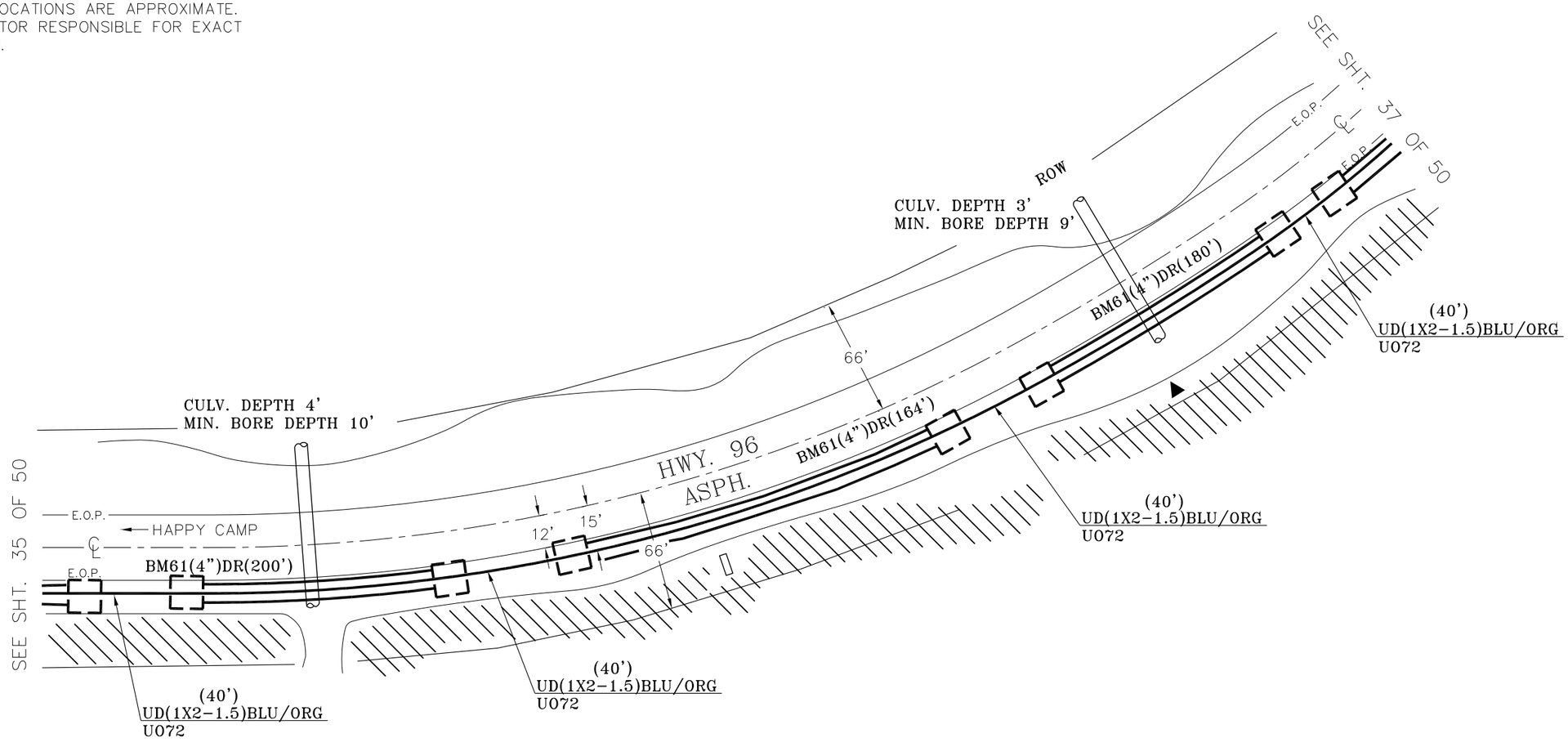
CO. SISKIYOU TELEPHONE
EXCH. HAPPY CAMP
ROUTE
J.O. NO. 15HC500
SHEET 35 OF 50
MAP REF.
COUNTY SISKIYOU
T. 15N R. 6E SEC 36
TAX CODES
TITLE: PHASE ONE. BUILD FIBER AND CONDUITS M.P. 32.2 TO M.P. 24.0
AS BUILT DATE
SCALE NTS

CONTACT ENG.
PHONE NO.

Filename: 35-50
Engineer: C. EASTLICK
Drafter: C.EASTLICK
Last Accessed: 10/23/15
Time: 7:41 AM

SUB. INFO.

UTILITY LOCATIONS ARE APPROXIMATE.
CONTRACTOR RESPONSIBLE FOR EXACT
LOCATION.



294+12 BORE PIT
294+62 BORE PIT
295+62 CULV. M.P. 26.57
296+62 BORE PIT
297+02 BORE PIT
298+00 SIGN
298+66 BORE PIT
299+06 BORE PIT
299+96 CULV. M.P. 26.50
300+86 BORE PIT
301+26 BORE PIT

CO.	SISKIYOU TELEPHONE
EXCH.	HAPPY CAMP
ROUTE	
J.O. NO.	15HC500
SHEET	36 OF 50
MAP REF.	
COUNTY	SISKIYOU
T. 15N	R. 6E SEC 36
TAX CODES	
TITLE:	PHASE ONE. BUILD FIBER AND CONDUITS M.P. 32.2 TO M.P. 24.0
AS BUILT DATE	

SCALE NTS

SISKIYOU TELEPHONE

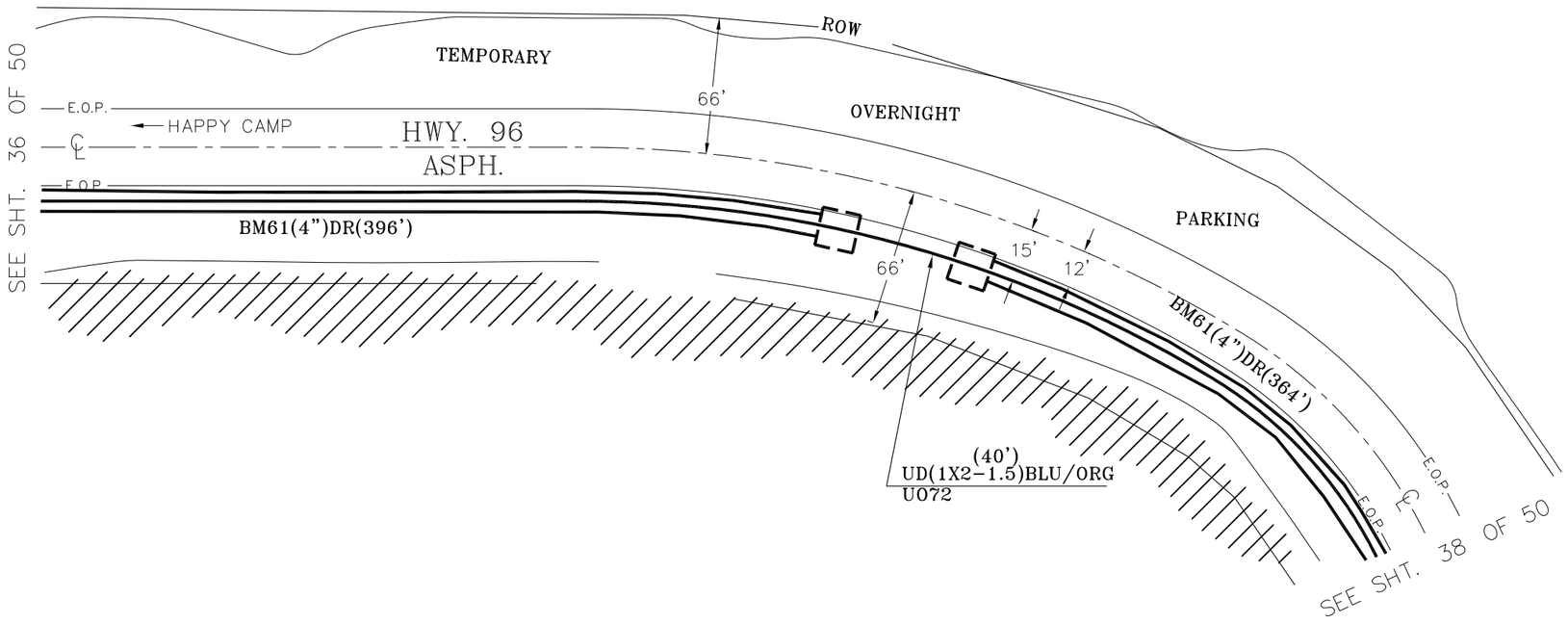
CONTACT ENG.

PHONE NO.

Filename: 36-50
Engineer: C. EASTLICK
Drafter: C.EASTLICK
Last Accessed: 10/23/15
Time: 7:57 AM

SUB. INFO.

PED OR POLE NUMBER																							PED OR POLE NUMBER	SUB NUMBER							



CO.	SISKIYOU TELEPHONE
EXCH.	HAPPY CAMP
ROUTE	
J.O. NO.	15HC500
SHEET	37 OF 50
MAP REF.	
COUNTY	SISKIYOU
T. 14N	R. 6E SEC 2
TAX CODES	
TITLE:	PHASE ONE. BUILD FIBER AND CONDUITS M.P. 32.2 TO M.P. 24.0
AS BUILT DATE	

SCALE NTS

SISKIYOU TELEPHONE

CONTACT ENG.

PHONE NO.

UTILITY LOCATIONS ARE APPROXIMATE.
CONTRACTOR RESPONSIBLE FOR EXACT LOCATION.

305+22 BORE PIT

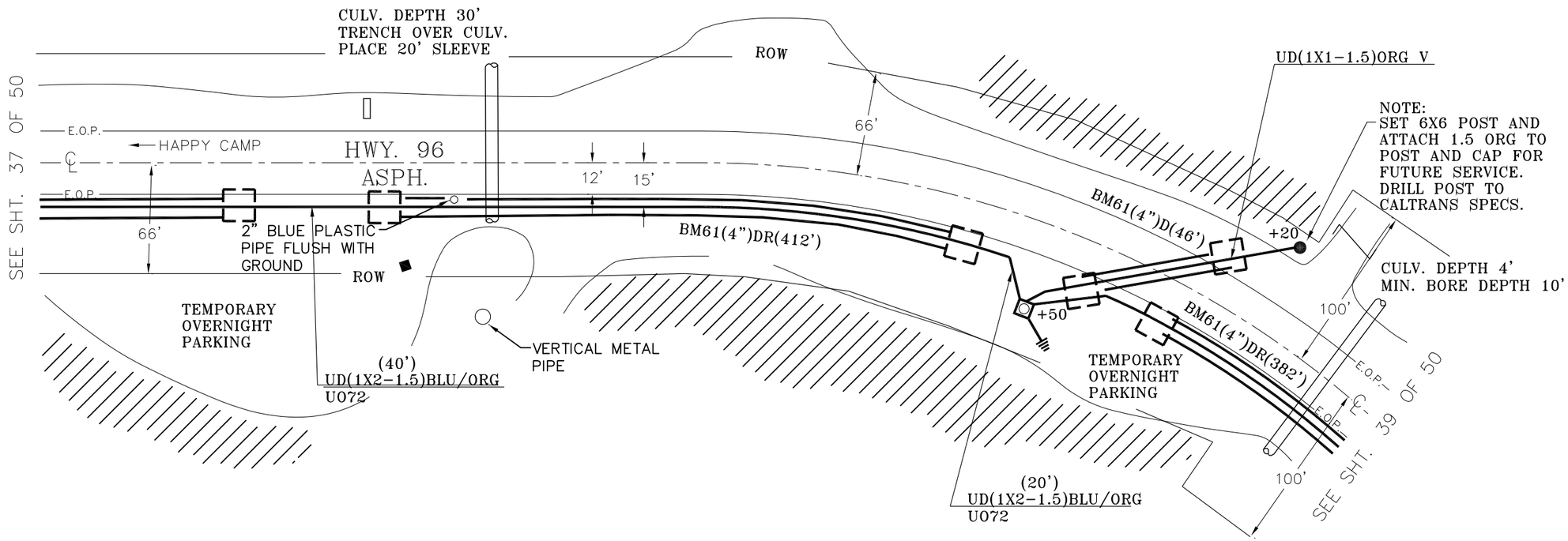
305+62 BORE PIT

Filename: 37-50
Engineer: C. EASTLICK
Drafter: C.EASTLICK
Last Accessed: 10/23/15
Time: 8:08 AM

SUB. INFO.

PED OR POLE NUMBER																						PED OR POLE NUMBER	SUB NUMBER							

UTILITY LOCATIONS ARE APPROXIMATE.
CONTRACTOR RESPONSIBLE FOR EXACT
LOCATION.



309+26 BORE PIT
309+56 SURVEY MRKR.
309+66 BORE PIT
310+36 CULV. M.P. 26.29
313+78 BORE PIT
313+98 **H.H. KK39**
314+08 BORE PIT
314+18 BORE PIT
315+18 CULV. M.P. 26.2

PED OR POLE NUMBER	BA22	BM2(5/8)(5)	BM61(4")D	BM61(4")DR	UD(1X1-1.5) ORG V	UD(1X2-1.5) BLU/ORG	U072	UH264															PED OR POLE NUMBER	SUB NUMBER	BM61D(4")	UD(1X1-1.5") GRN	BA22				
H.H. KK39		1		2368		446	3014	760																	46	30	1				
POST	1		46		30																										
	1	1	46	2368	30	446	3014	760																	46	30	1				

CO.	SISKIYOU TELEPHONE
EXCH.	HAPPY CAMP
ROUTE	
J.O. NO.	15HC500
SHEET	38 OF 50
MAP REF.	
COUNTY	SISKIYOU
T. 14N	R. 6E SEC 2
TAX CODES	
TITLE:	PHASE ONE. BUILD FIBER AND CONDUITS M.P. 32.2 TO M.P. 24.0
AS BUILT DATE	
SCALE	NTS

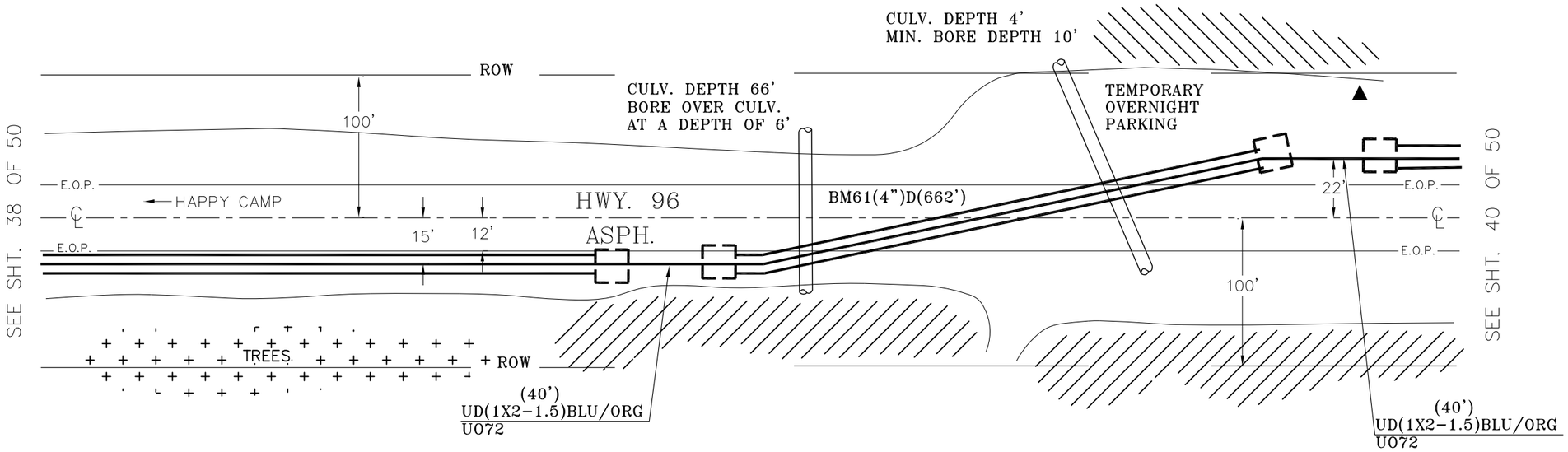
CONTACT ENG.

PHONE NO.

Filename: 38-50
Engineer: C. EASTLICK
Drafter: C.EASTLICK
Last Accessed: 10/23/15
Time: 8:18 AM

SUB. INFO.

UTILITY LOCATIONS ARE APPROXIMATE.
CONTRACTOR RESPONSIBLE FOR EXACT
LOCATION.



CO.	SISKIYOU TELEPHONE
EXCH.	HAPPY CAMP
ROUTE	
J.O. NO.	15HC500
SHEET	39 OF 50
MAP REF.	
COUNTY	SISKIYOU
T. 14N	R. 6E SEC 2
TAX CODES	
TITLE:	PHASE ONE. BUILD FIBER AND CONDUITS M.P. 32.2 TO M.P. 24.0
AS BUILT DATE	
SCALE	NTS

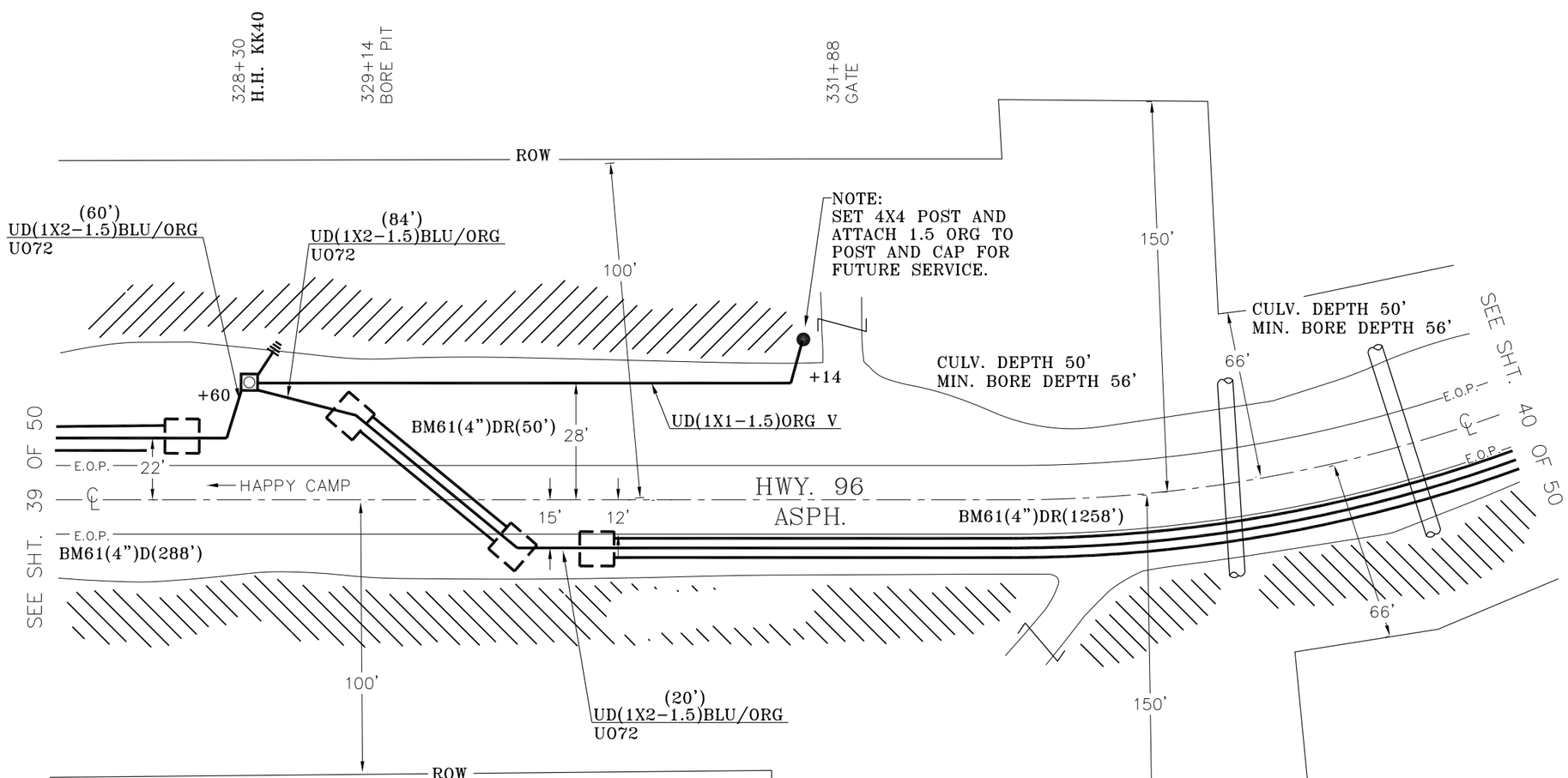
318+00 BORE PIT
318+40 BORE PIT
320+22 CULV. M.P. 26.1
324+02 CULV. M.P. 26.02

CONTACT ENG.

PHONE NO.

Filename: 39-50
Engineer: C. EASTLICK
Drafter: C.EASTLICK
Last Accessed: 10/23/15
Time: 8:31 AM

PED OR POLE NUMBER																						PED OR POLE NUMBER	SUB NUMBER							SUB. INFO.



UTILITY LOCATIONS ARE APPROXIMATE.
CONTRACTOR RESPONSIBLE FOR EXACT LOCATION.

CO.	SISKIYOU TELEPHONE
EXCH.	HAPPY CAMP
ROUTE	
J.O. NO.	15HC500
SHEET	40 OF 50
MAP REF.	
COUNTY	SISKIYOU
T. 14N	R. 6E SEC 2
TAX CODES	
TITLE:	PHASE ONE. BUILD FIBER AND CONDUITS M.P. 32.2 TO M.P. 24.0
AS BUILT DATE	
SCALE	NTS

CONTACT ENG.

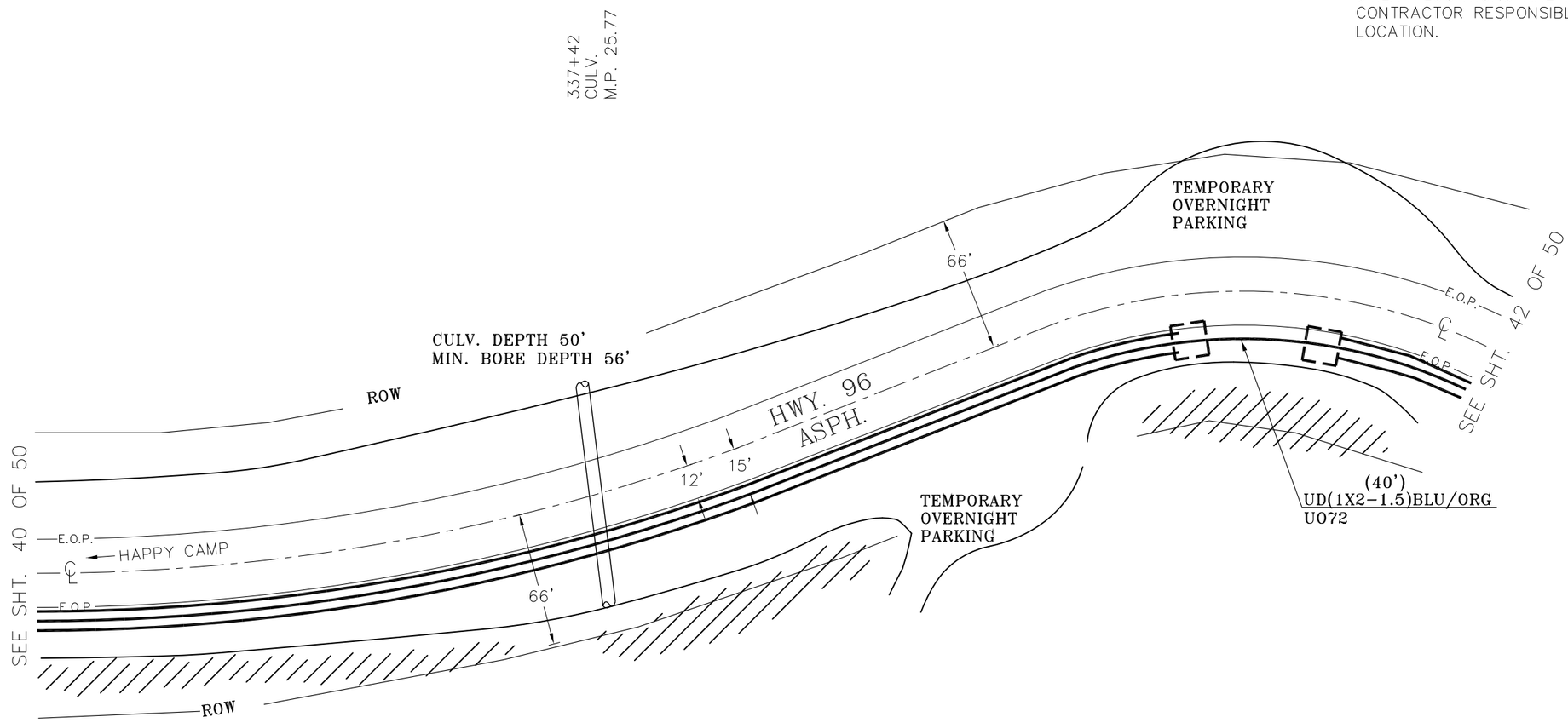
PHONE NO.

Filename: 40-50
Engineer: C. EASTLICK
Drafter: C.EASTLICK
Last Accessed: 10/23/15
Time: 8:35 AM

SUB. INFO.

PED OR POLE NUMBER		BM2(5/8)(5)	BM61(4")D	BM61(4")DR	UD(1X2-1.5) BLU/ORG	U072	UH264														PED OR POLE NUMBER	SUB NUMBER		UD(1X1-1.5) ORG V	BA22				
H.H. KK40		1	996	382	170	1692	1																						
																								356	1				
		1	996	382	170	1692	1																	356	1				

UTILITY LOCATIONS ARE APPROXIMATE. CONTRACTOR RESPONSIBLE FOR EXACT LOCATION.



CO.	SISKIYOU TELEPHONE
EXCH.	HAPPY CAMP
ROUTE	
J.O. NO.	15HC500
SHEET	41 OF 50
MAP REF.	
COUNTY	SISKIYOU
T. 14N	R. 6E SEC 2
TAX CODES	
TITLE:	PHASE ONE. BUILD FIBER AND CONDUITS M.P.; 32.2 TO M.P. 24.0
AS BUILT DATE	

SCALE NTS

SISKIYOU TELEPHONE

CONTACT ENG.

PHONE NO.

Filename: 41-50
Engineer: C. EASTLICK
Drafter: C.EASTLICK
Last Accessed: 10/23/15
Time: 8:49 AM

SUB. INFO.

336+36 REFLECTOR

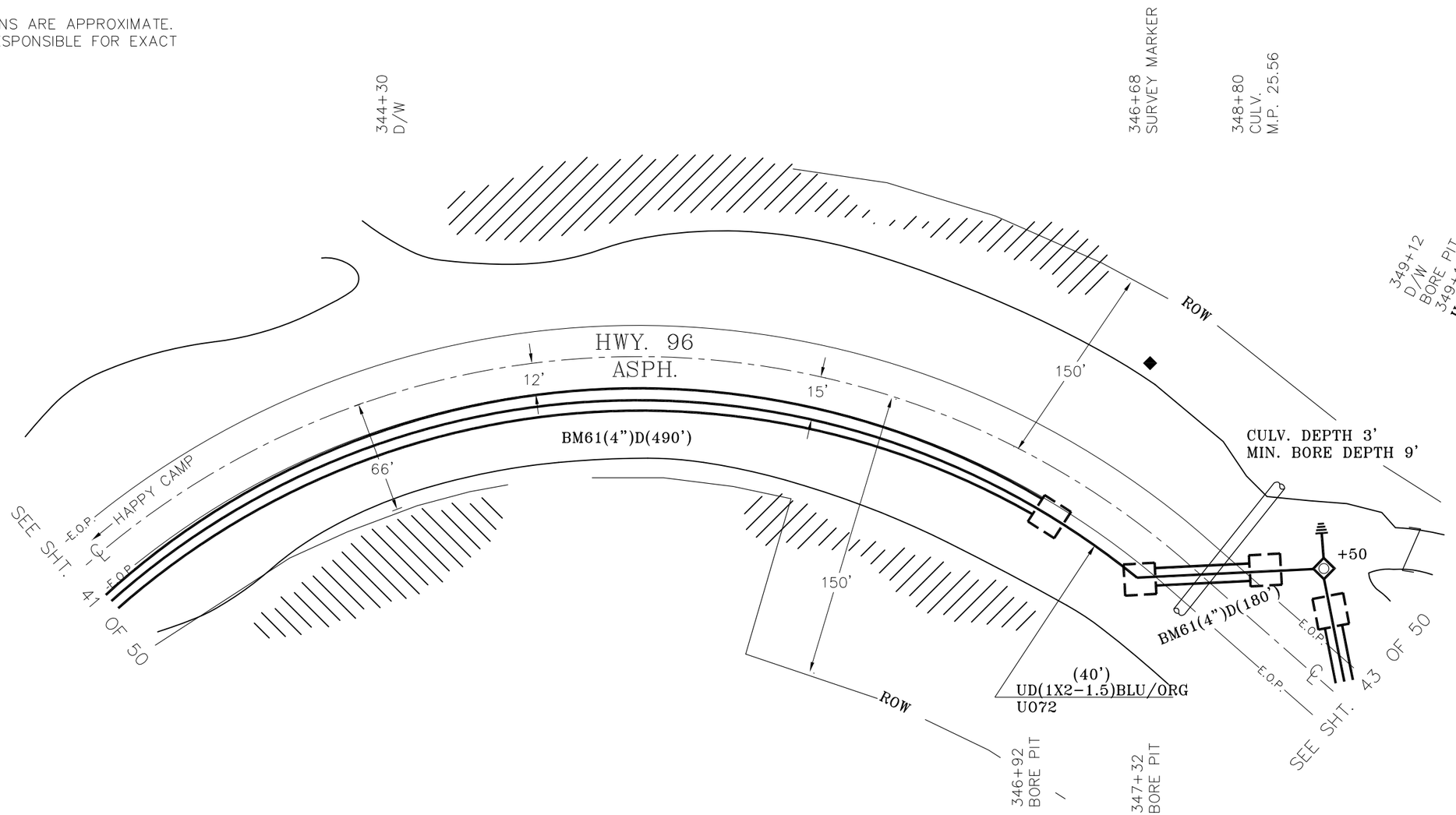
338+24 REFLECTOR

342+42 BORE PIT

342+82 BORE PIT

PED OR POLE NUMBER																						PED OR POLE NUMBER	SUB NUMBER							

UTILITY LOCATIONS ARE APPROXIMATE.
CONTRACTOR RESPONSIBLE FOR EXACT
LOCATION.



CO.	SISKIYOU TELEPHONE
EXCH.	HAPPY CAMP
ROUTE	
J.O. NO.	15HC500
SHEET	42 OF 50
MAP REF.	
COUNTY	SISKIYOU
T. 14N	R. 6E SEC 11
TAX CODES	
TITLE:	PHASE ONE. BUILD FIBER AND CONDUITS M.P. 32.2 TO M.P. 24.0
AS BUILT DATE	

SCALE NTS

SISKIYOU TELEPHONE

CONTACT ENG.

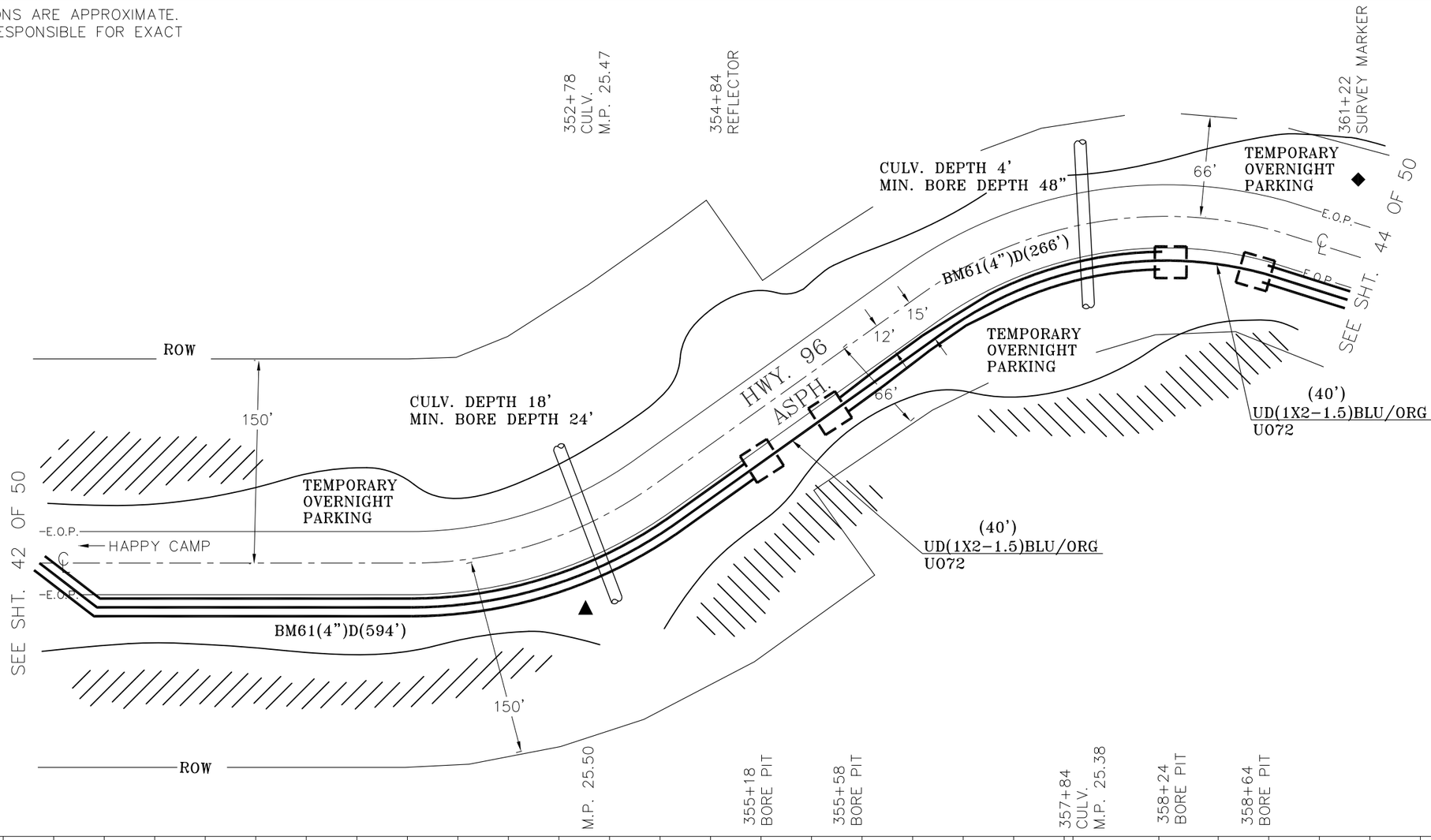
PHONE NO.

Filename: 42-50
Engineer: C. EASTLICK
Drafter: C.EASTLICK
Last Accessed: 10/23/15
Time: 9:09 AM

SUB. INFO.

PED OR POLE NUMBER	BM2(5/8)(5)	BM61(4")D	BM61(4")DR		UD(1X2-1.5) BLU/ORG	UH264	U072																PED OR POLE NUMBER	SUB NUMBER							
H.H. KK41	1	670	1308		414	1	2472																								
	1	670	1308		414	1	2472																								

UTILITY LOCATIONS ARE APPROXIMATE.
CONTRACTOR RESPONSIBLE FOR EXACT
LOCATION.



CO.	SISKIYOU TELEPHONE
EXCH.	HAPPY CAMP
ROUTE	
J.O. NO.	15HC500
SHEET	43 OF 50
MAP REF.	
COUNTY	SISKIYOU
T. 14N	R. 6E SEC 11
TAX CODES	
TITLE:	PHASE ONE. BUILD FIBER AND CONDUITS M.P. 32.2 TO M.P. 24.0
AS BUILT DATE	
SCALE	NTS

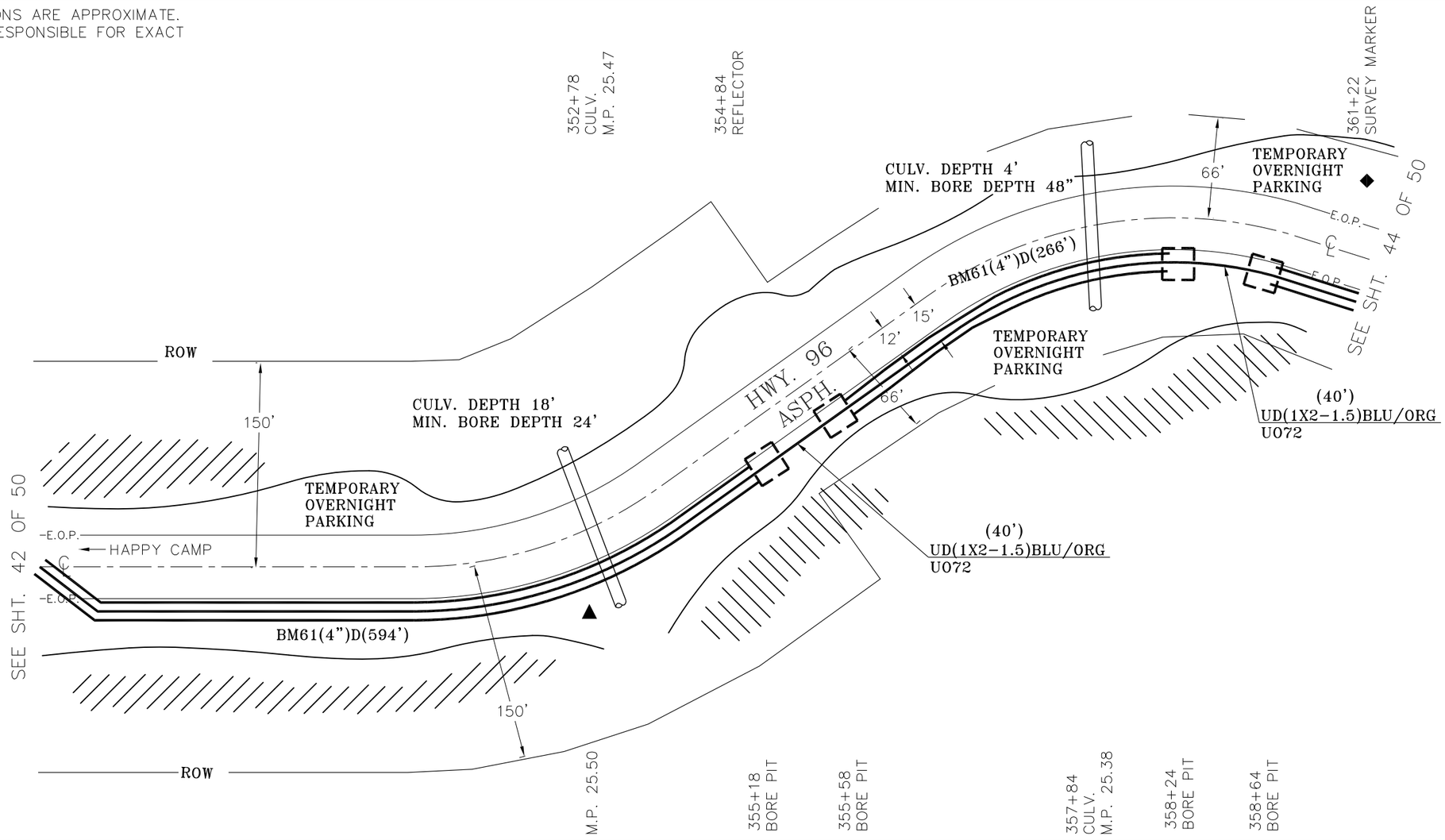
CONTACT ENG.

PHONE NO.

Filename: 43-50
Engineer: C. EASTLICK
Drafter: C.EASTLICK
Last Accessed: 10/23/15
Time: 9:20 AM

PED OR POLE NUMBER																						PED OR POLE NUMBER	SUB NUMBER							SUB. INFO.

UTILITY LOCATIONS ARE APPROXIMATE.
CONTRACTOR RESPONSIBLE FOR EXACT
LOCATION.



CO.	SISKIYOU TELEPHONE
EXCH.	HAPPY CAMP
ROUTE	
J.O. NO.	15HC500
SHEET	43 OF 50
MAP REF.	
COUNTY	SISKIYOU
T. 14N	R. 6E SEC 11
TAX CODES	
TITLE:	PHASE ONE. BUILD FIBER AND CONDUITS M.P. 32.2 TO M.P. 24.0
AS BUILT DATE	
SCALE	NTS

CONTACT ENG.

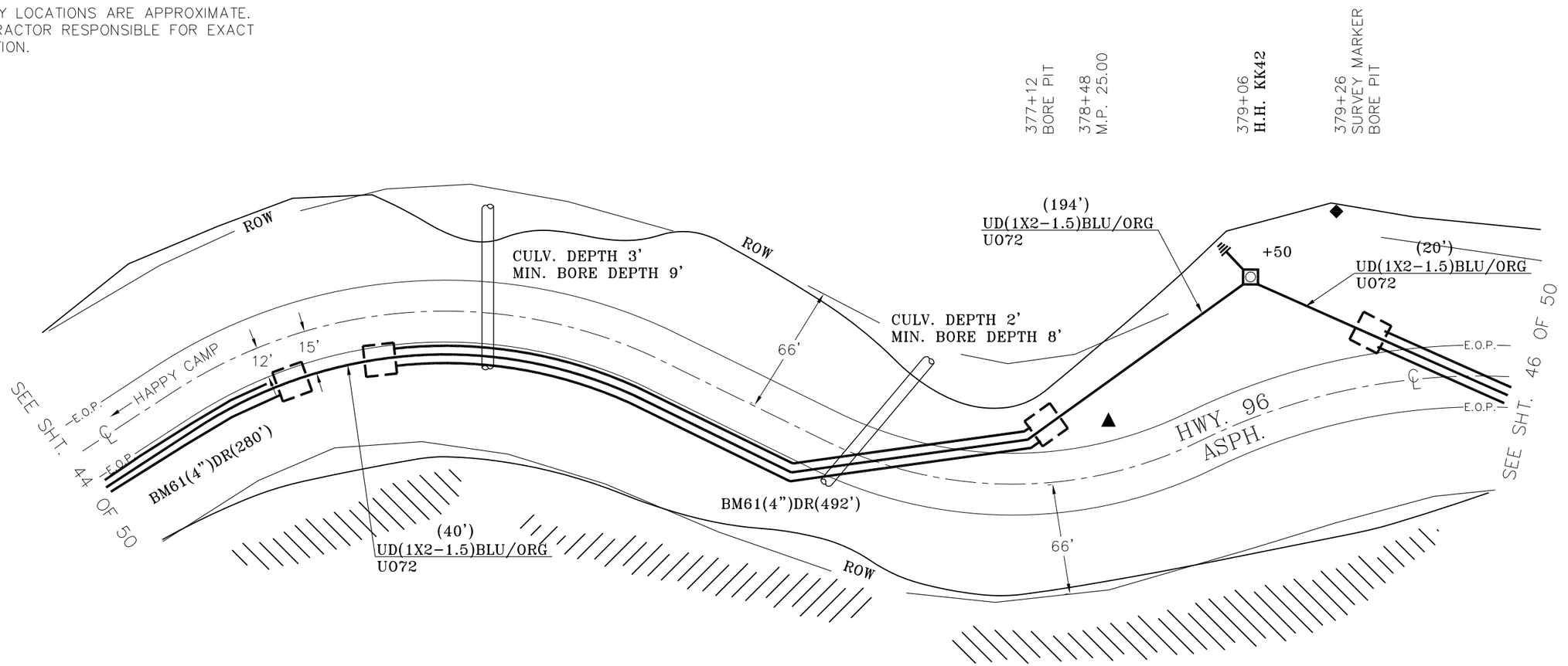
PHONE NO.

Filename: 43-50
Engineer: C. EASTLICK
Drafter: C.EASTLICK
Last Accessed: 10/23/15
Time: 9:20 AM

SUB. INFO.

PED OR POLE NUMBER																						PED OR POLE NUMBER	SUB NUMBER							

UTILITY LOCATIONS ARE APPROXIMATE.
CONTRACTOR RESPONSIBLE FOR EXACT
LOCATION.



CO.	SISKIYOU TELEPHONE
EXCH.	HAPPY CAMP
ROUTE	
J.O. NO.	15HC500
SHEET	45 OF 50
MAP REF.	
COUNTY	SISKIYOU
T. 14N	R. 6E SEC 10
TAX CODES	
TITLE:	PHASE ONE. BUILD FIBER AND CONDUITS M.P. 32.2 TO M.P. 24.0
AS BUILT DATE	

SCALE NTS

CONTACT ENG.

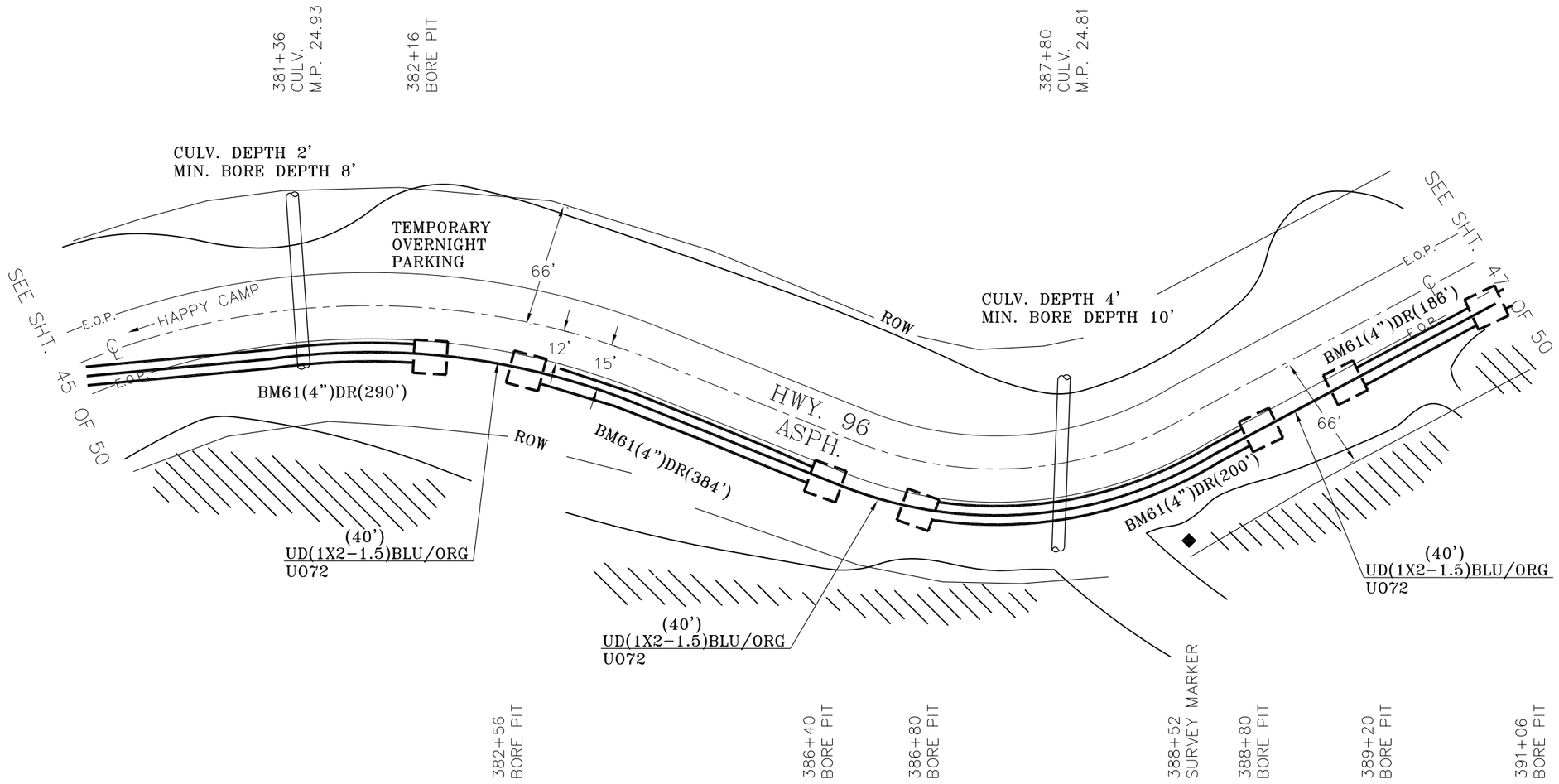
PHONE NO.

Filename: 45-50
Engineer: C. EASTLICK
Drafter: C.EASTLICK
Last Accessed: 10/23/15
Time: 9:40 AM

SUB. INFO.

PED OR POLE NUMBER	BM2(5/8)(5)	BM61(4")D	BM61(4")DR	UD(1X2-1.5) BLU/ORG	U072	UH264																	PED OR POLE NUMBER	SUB NUMBER							
H.H. KK42	1	860	1768	444	3238	1																									
	1	860	1768	444	3238	1																									

UTILITY LOCATIONS ARE APPROXIMATE.
CONTRACTOR RESPONSIBLE FOR EXACT
LOCATION.



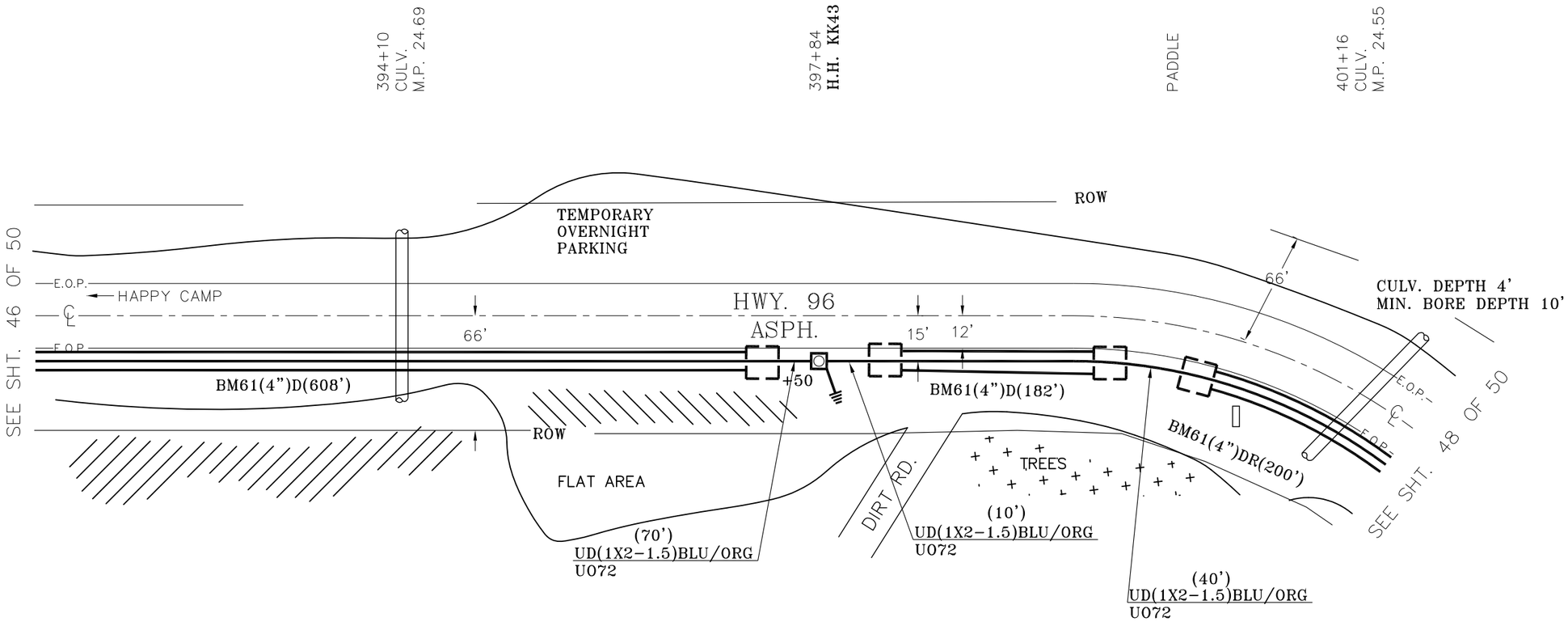
CO.	SISKIYOU TELEPHONE
EXCH.	HAPPY CAMP
ROUTE	
J.O. NO.	15HC500
SHEET	46 OF 50
MAP REF.	
COUNTY	SISKIYOU
T. 14N	R. 6E SEC 10
TAX CODES	
TITLE:	PHASE ONE. BUILD FIBER AND CONDUITS M.P. 32.2 TO M.P. 24.0
AS BUILT DATE	
SCALE	NTS
CONTACT ENG.	
PHONE NO.	

Filename: 46-50
Engineer: C. EASTLICK
Drafter: C.EASTLICK
Last Accessed: 10/23/15
Time: 9:45 AM

SUB. INFO.

PED OR POLE NUMBER																						PED OR POLE NUMBER	SUB NUMBER							

UTILITY LOCATIONS ARE APPROXIMATE.
CONTRACTOR RESPONSIBLE FOR EXACT
LOCATION.



CO.	SISKIYOU TELEPHONE
EXCH.	HAPPY CAMP
ROUTE	
J.O. NO.	15HC500
SHEET	47 OF 50
MAP REF.	
COUNTY	SISKIYOU
T. 14N	R. 6E SEC 10
TAX CODES	
TITLE:	PHASE ONE. BUILD FIBER AND CONDUITS M.P. 32.2 TO M.P. 24.0
AS BUILT DATE	
SCALE	NTS

CONTACT ENG.

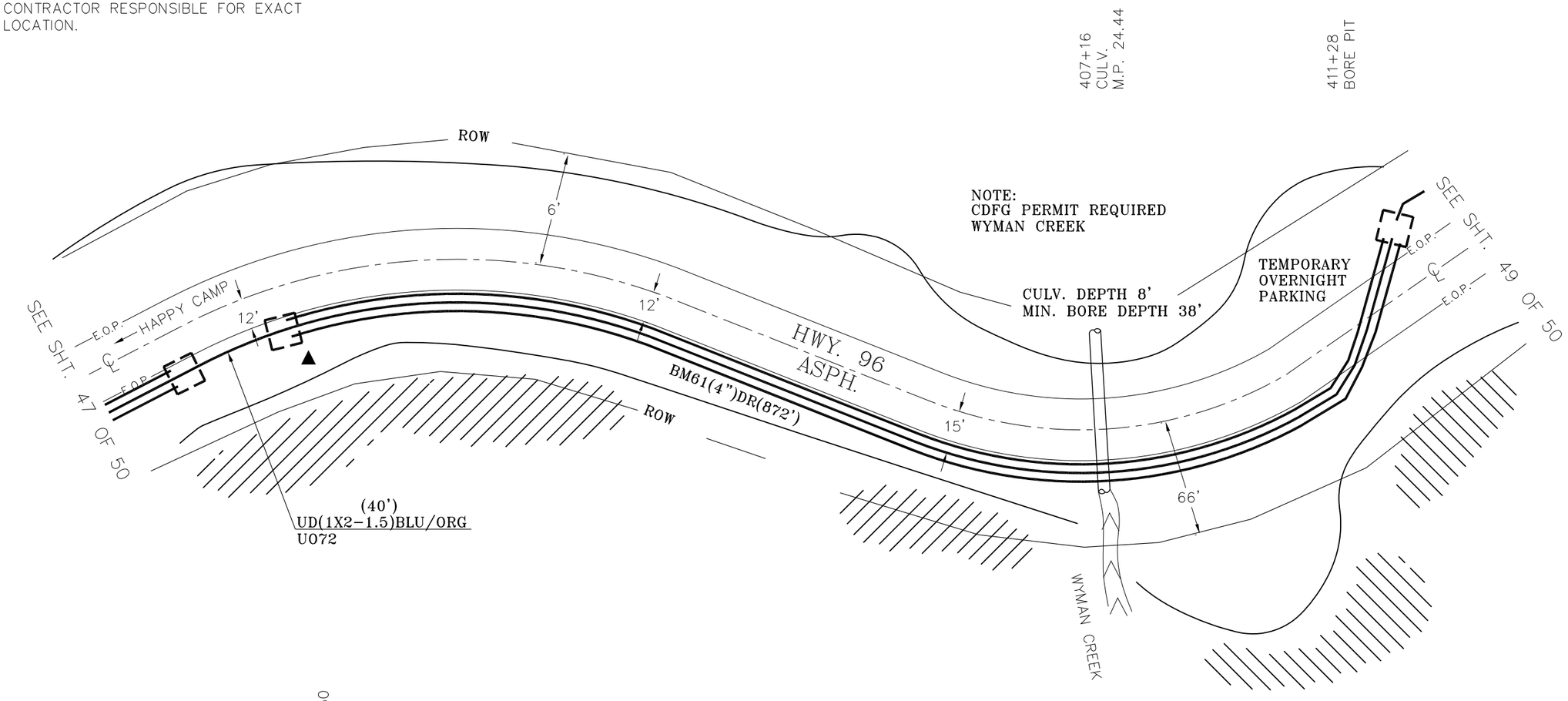
PHONE NO.

Filename: 47-50
Engineer: C. EASTLICK
Drafter: C.EASTLICK
Last Accessed: 10/23/15
Time: 9:56 AM

SUB. INFO.

PED OR POLE NUMBER	BM2(5/8)(5)	BM61(4")D	BM61(4")DR	UD(1X2-1.5) BLU/ORG	U072	UH264										397+14 BORE PIT		397+94 BORE PIT	398+56 D/W				399+76 BORE PIT	400+16 BORE PIT	400+98 SIGN							
																									PED OR POLE NUMBER	SUB NUMBER						
H.H. KK43	1	608	1060	210	1958	1																									
	1	608	1060	210	1958	1																									

UTILITY LOCATIONS ARE APPROXIMATE.
CONTRACTOR RESPONSIBLE FOR EXACT
LOCATION.



CO.	SISKIYOU TELEPHONE
EXCH.	HAPPY CAMP
ROUTE	
J.O. NO.	15HC500
SHEET	48 OF 50
MAP REF.	
COUNTY	SISKIYOU
T. 14N	R. 6E SEC 10
TAX CODES	
TITLE:	PHASE ONE. BUILD FIBER AND CONDUITS M.P. 32.2 TO M.P. 24.0
AS BUILT DATE	
SCALE	NTS

CONTACT ENG.

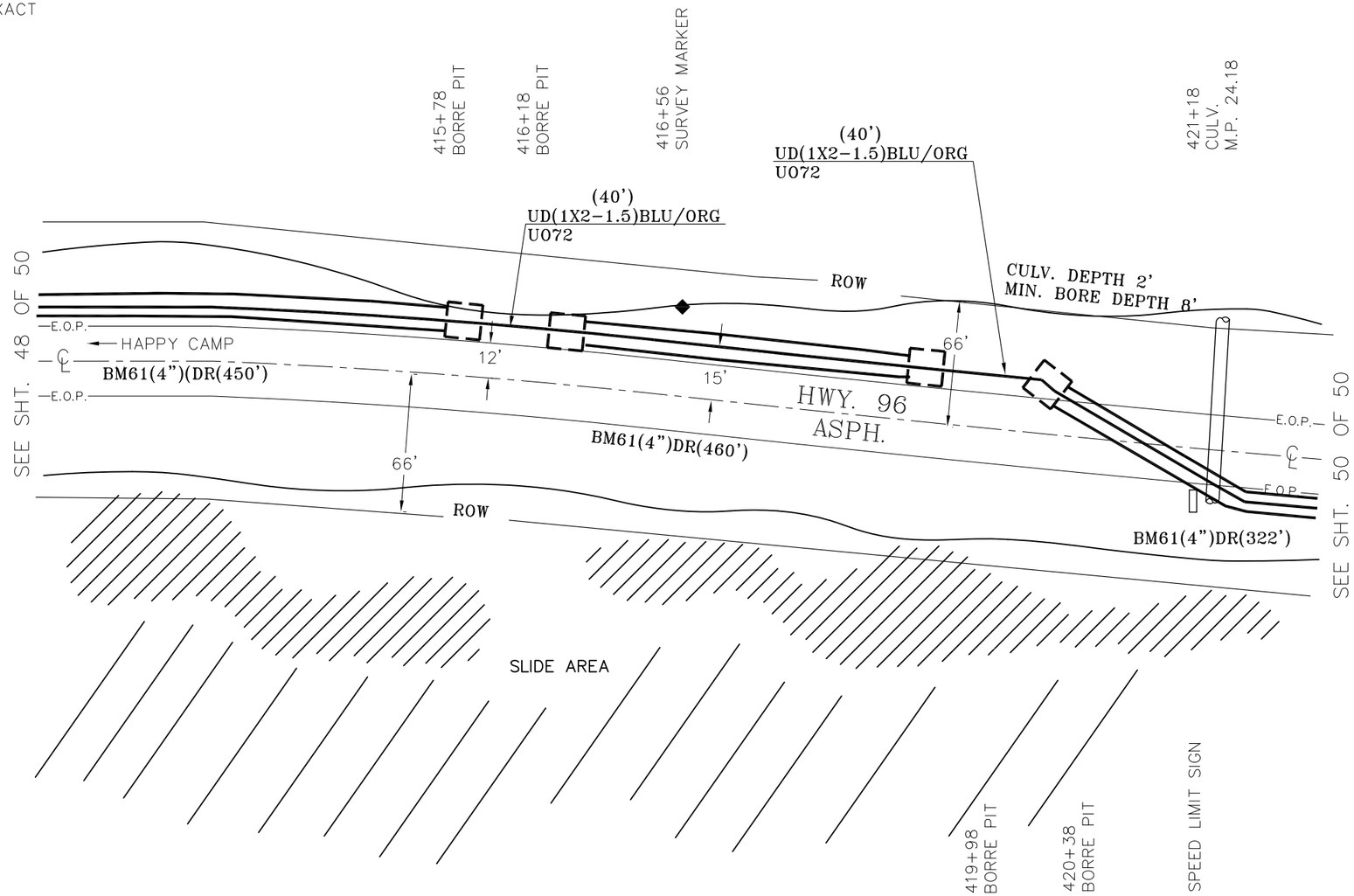
PHONE NO.

Filename: 48-50
Engineer: C. EASTLICK
Drafter: C.EASTLICK
Last Accessed: 10/26/15
Time: 8:42 AM

SUB. INFO.

PED OR POLE NUMBER																						PED OR POLE NUMBER	SUB NUMBER							

UTILITY LOCATIONS ARE APPROXIMATE.
CONTRACTOR RESPONSIBLE FOR EXACT
LOCATION.



CO.	SISKIYOU TELEPHONE
EXCH.	HAPPY CAMP
ROUTE	
J.O. NO.	15HC500
SHEET	49 OF 50
MAP REF.	
COUNTY	SISKIYOU
T. 14N	R. 6E SEC 10
TAX CODES	
TITLE:	PHASE ONE. BUILD FIBER AND CONDUITS M.P. 32.2 TO M.P. 24.0
AS BUILT DATE	
SCALE	NTS

SISKIYOU TELEPHONE

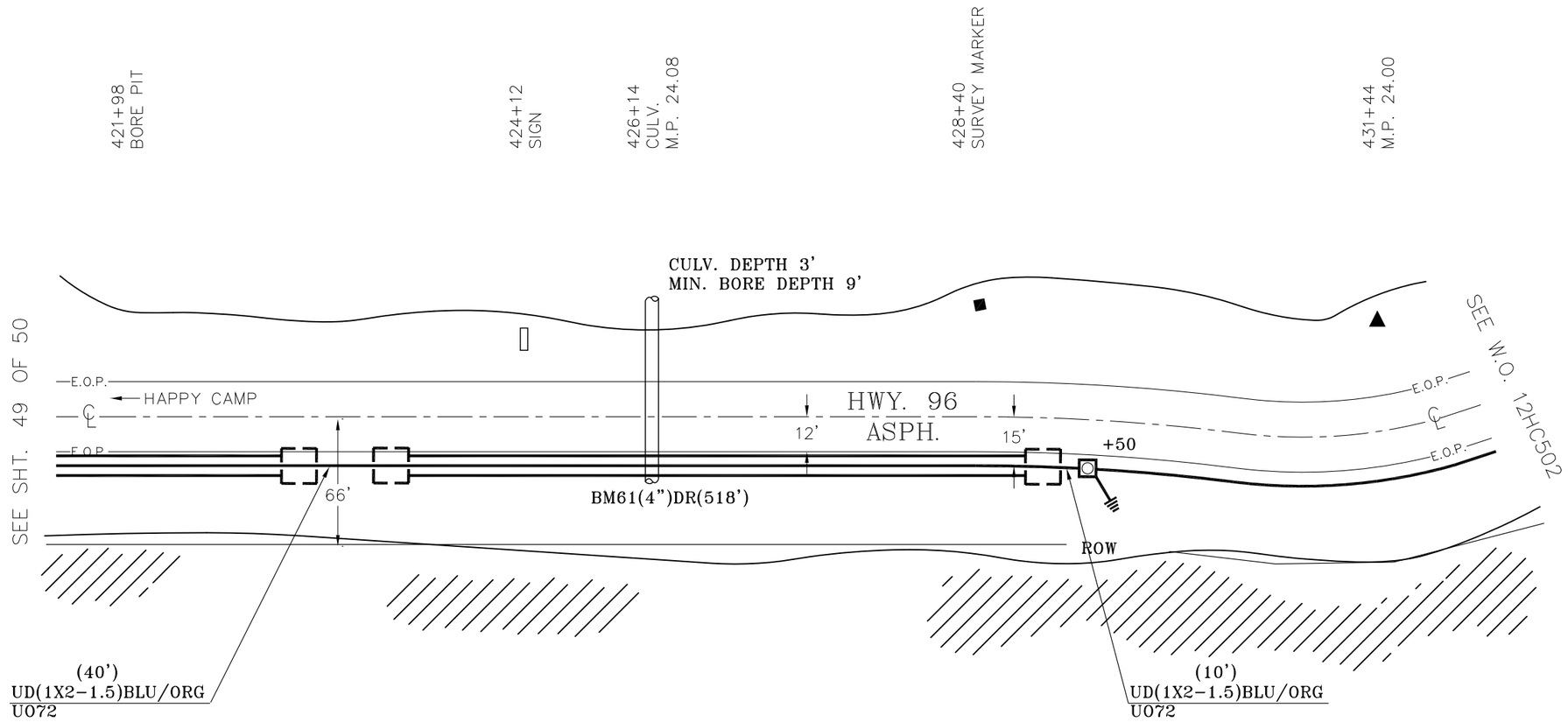
CONTACT ENG.

PHONE NO.

Filename: 49-50
Engineer: C. EASTLICK
Drafter: C.EASTLICK
Last Accessed: 10/23/15
Time: 10:05 AM

SUB. INFO.

PED OR POLE NUMBER																						PED OR POLE NUMBER	SUB NUMBER						



UTILITY LOCATIONS ARE APPROXIMATE. CONTRACTOR RESPONSIBLE FOR EXACT LOCATION.

423+60 BORE PIT

424+00 BORE PIT

428+78 BORE PIT

428+88 **H.H. KK44**

PED OR POLE NUMBER	BM2(5/8)(5)	BM61(4")D	BM61(4")DR	UD(1X2-1.5) BLU/ORG	U072	UH264																	PED OR POLE NUMBER	SUB NUMBER							
H.H. KK44	1	182	2822	220	3304	1																									
	1	182	2822	220	3304	1																									

CO.	SISKIYOU TELEPHONE
EXCH.	HAPPY CAMP
ROUTE	
J.O. NO.	15HC500
SHEET	50 OF 50
MAP REF.	
COUNTY	SISKIYOU
T. 14N	R. 6E SEC 09
TAX CODES	
TITLE:	PHASE ONE. BUILD FIBER AND CONDUITS M.P. 32.2 TO M.P. 24.0
AS BUILT DATE	
SCALE	NTS

SISKIYOU TELEPHONE

CONTACT ENG.

PHONE NO.

Filename: 50-50
Engineer: C. EASTLICK
Drafter: C.EASTLICK
Last Accessed: 10/23/15
Time: 11:15 AM

SUB. INFO.

MASTER TAB

LEGEND

EX. MISC. ROAD SIGN

PROPOSED CONDUIT WITH CABLE

EX. STATE M.P.

HDD INCLUDING CONDUITS

EX. CULVERT

ABOVE GROUND PEDESTAL

FLUSH TO SURFACE HAND HOLE

E.O.P. EDGE OF PAVEMENT

PROPOSED BORE PIT

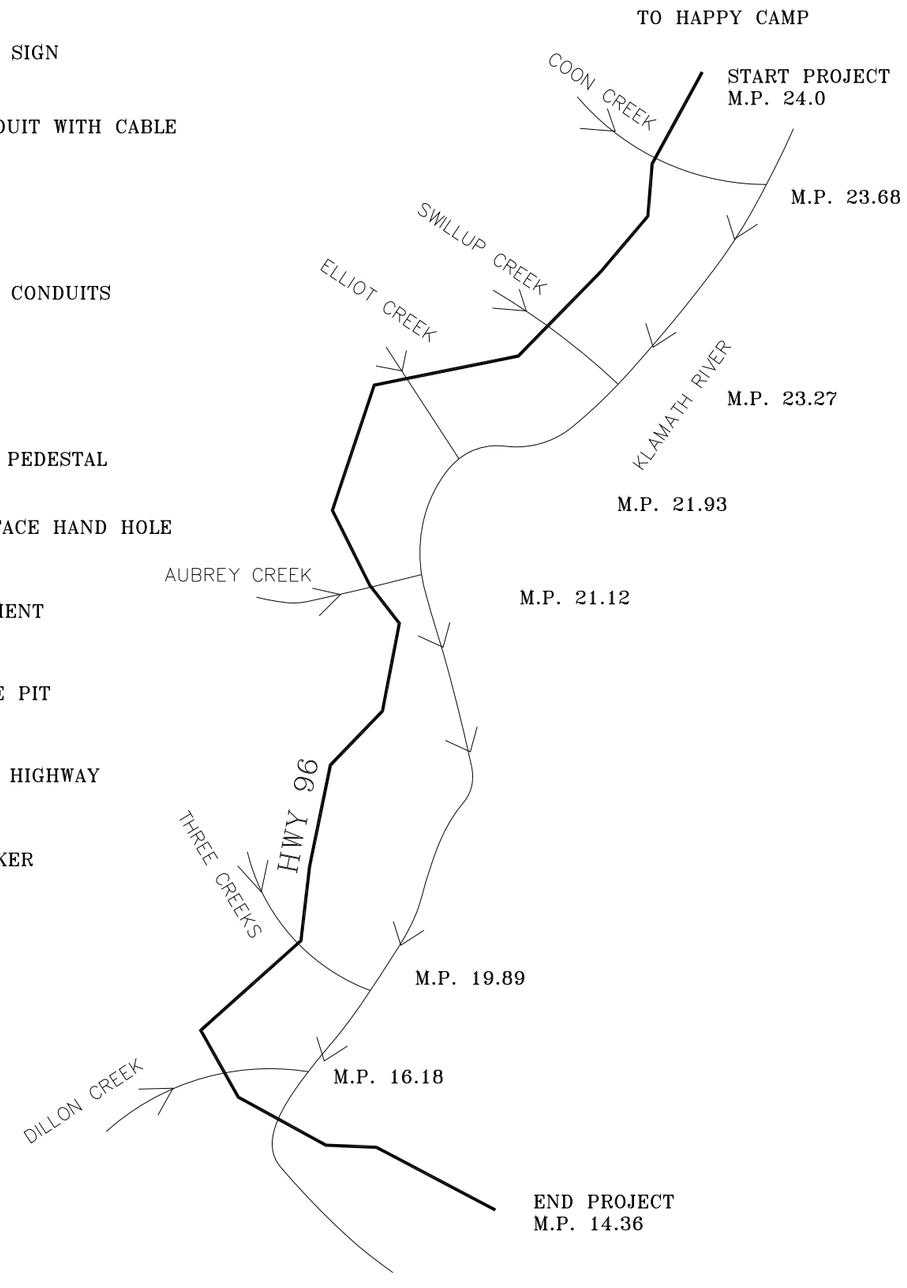
CENTERLINE OF HIGHWAY

EX. STATE MARKER

ROW EX. ROW LINES

CARL EASTLICK
PROJECT ENGINEER

DATE _____



ACCT CODES	Date:	Unit Summary				WO:
	Units	Actl.	Yr.	ST	Unit Discription	Reel#
	16				BM2(5/8)(5)	
	13244				BM61(4")D	
	18386				BM61(4")DR	
	900				BM66(4")	
	5280				BM71(48")	
	30				BM72	
	2014				UD(1X2-1.5)BLU/ORG	
	998				UD(1X2-1.5)A BLU/ORG	
	16				UH264	
	37868				UO72	

VICINITY MAP

CO. SISKIYOU

EXCH. HAPPY CAMP

ROUTE

J.O. NO. 15HC501

SHEET 1 OF 54

MAP REF.

COUNTY SISKIYOU

T. | R. | SEC

TAX CODES

TITLE: PHASE TWO BUILD FIBER AND CONDUITS M.P. 24.0 TO SOMES EAB

AS BUILT DATE

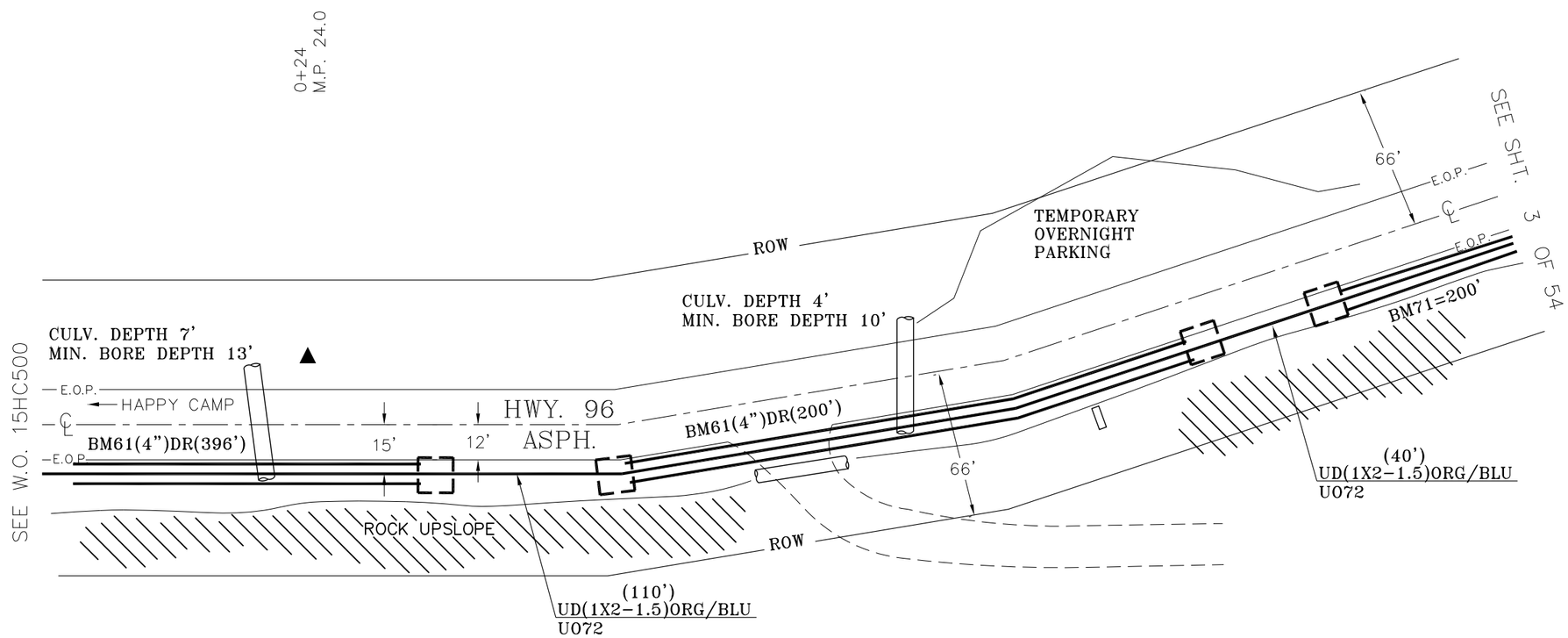
SISKIYOU TELEPHONE

CONTACT ENG. C.F. EASTLICK

PHONE NO. 530-467-6151

Filename: 01-54
Engineer: CARL EASTLICK
Drafter: C.EASTLICK
Last Accessed: 11/05/15
Time: 10:56 AM

UTILITY LOCATIONS ARE APPROXIMATE.
CONTRACTOR RESPONSIBLE FOR EXACT
LOCATION.



0+00 CULV. M.P. 23.98
1+30 BORE PIT
2+40 BORE PIT
3+04 CULV. M.P. 23.92
3+36 SIGN
4+04 BORE PIT
4+44 BORE PIT

CO.	SISKIYOU TELEPHONE
EXCH.	HAPPY CAMP
ROUTE	
J.O. NO.	15HC501
SHEET	2 OF 54
MAP REF.	14-06E-11B
COUNTY	SISKIYOU
T. 14N	R. 6E SEC 11
TAX CODES	
TITLE:	PHASE TWO. BUILD FIBER AND CONDUITS M.P. 24.0 TO SOMES EAB
AS BUILT DATE	
SCALE	NTS

CONTACT ENG.

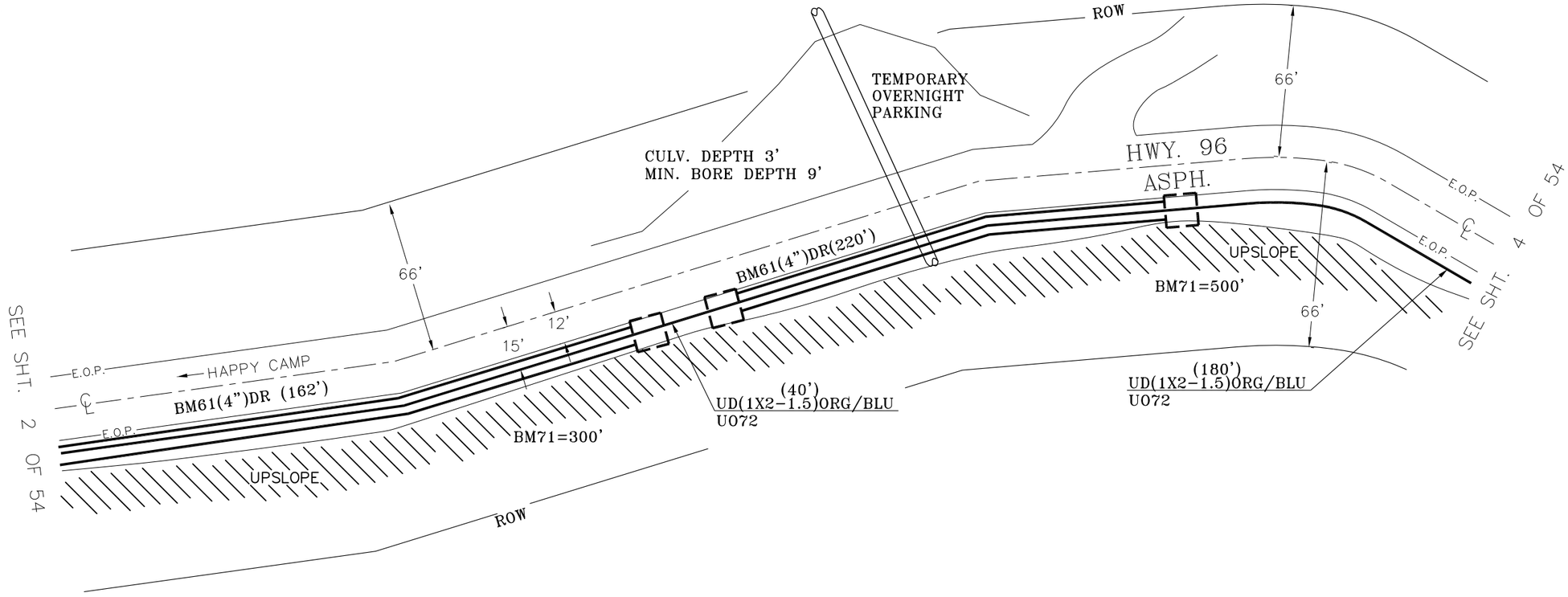
PHONE NO.

Filename: 02-54
Engineer: C. EASTLICK
Drafter: C.EASTLICK
Last Accessed: 10/26/15
Time: 1:08 PM

SUB. INFO.

PED OR POLE NUMBER																							PED OR POLE NUMBER	SUB NUMBER							

UTILITY LOCATIONS ARE APPROXIMATE.
CONTRACTOR RESPONSIBLE FOR EXACT
LOCATION.



CO.	SISKIYOU TELEPHONE
EXCH.	HAPPY CAMP
ROUTE	
J.O. NO.	15HC501
SHEET	3 OF 54
MAP REF.	14-6E-11B
COUNTY	SISKIYOU
T. 14N	R. 6E SEC 11
TAX CODES	
TITLE:	PHASE TWO. BUILD FIBER AND CONDUIT M.P 24.0 TO SOMES EAB
AS BUILT DATE	

SCALE NTS

CONTACT ENG.

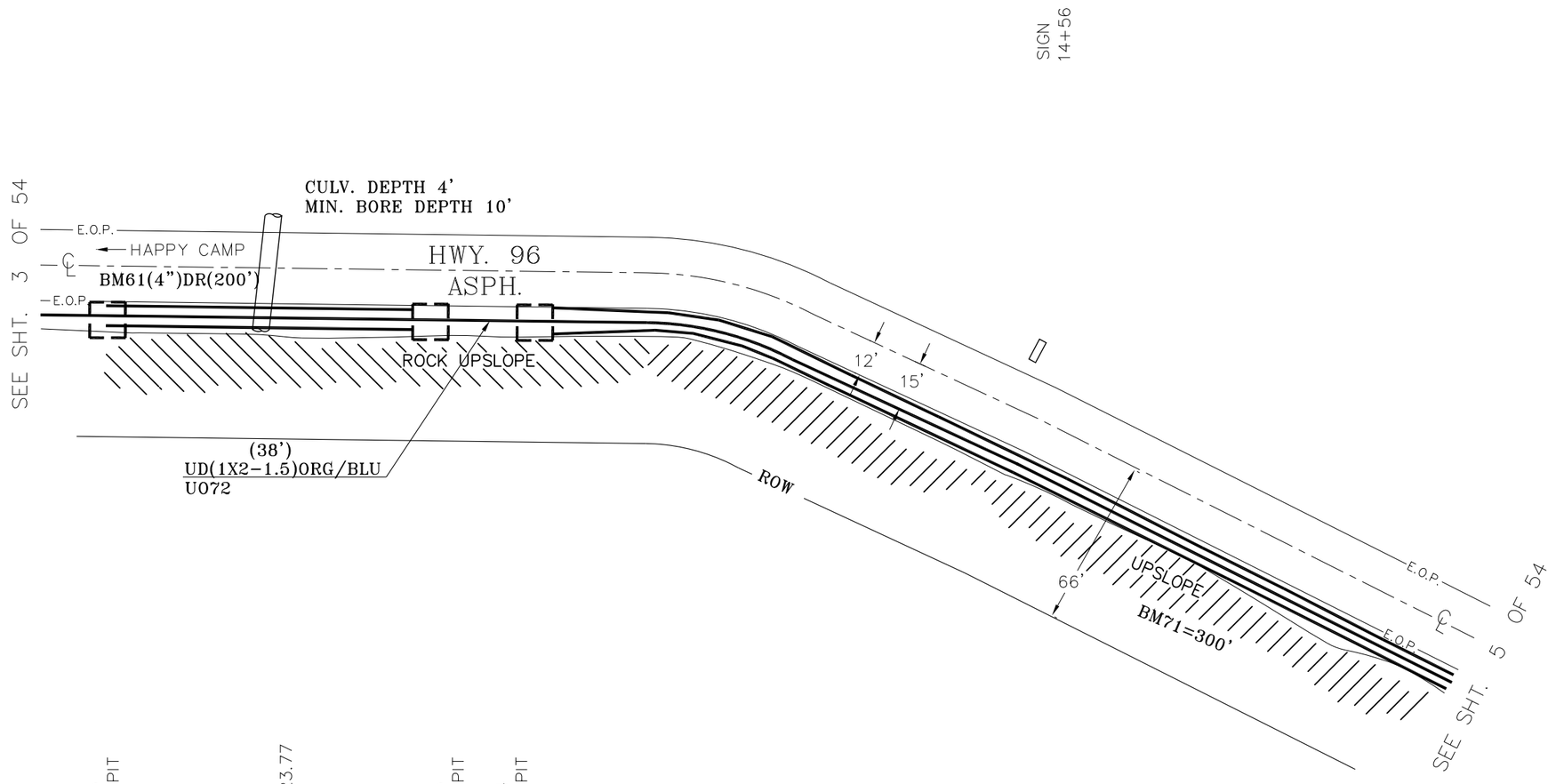
PHONE NO.

Filename: 03-54
Engineer: C. EASTLICK
Drafter: C.EASTLICK
Last Accessed: 10/26/15
Time: 1:17 PM

6+06 BORE PIT
6+46 BORE PIT
7+16 CULV. M.P. 23.85
8+66 BORE PIT

PED OR POLE NUMBER																							PED OR POLE NUMBER	SUB NUMBER							SUB. INFO.

UTILITY LOCATIONS ARE APPROXIMATE.
CONTRACTOR RESPONSIBLE FOR EXACT
LOCATION.



10+46 BORE PIT

11+46 CULV. M.P. 23.77

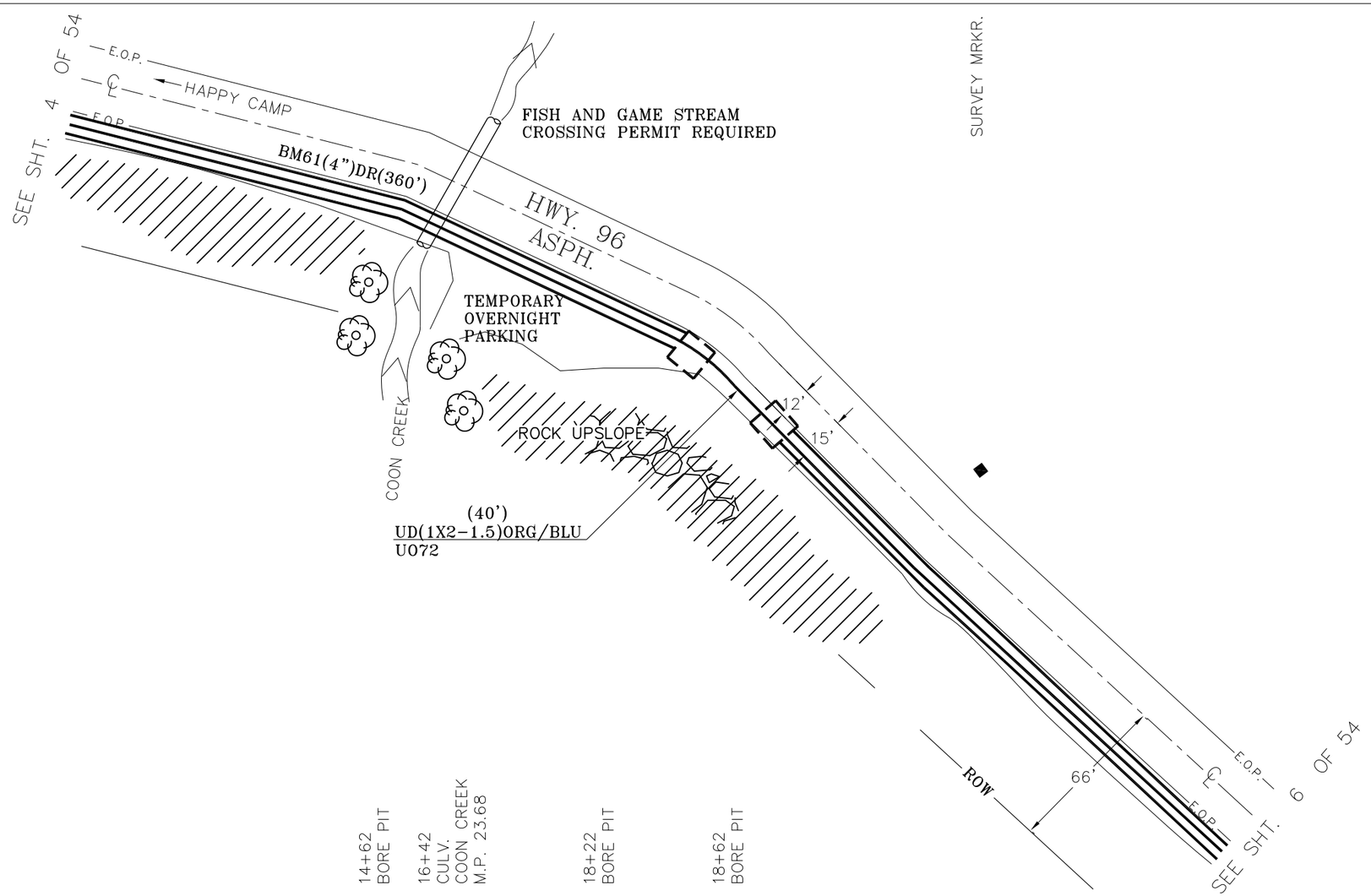
12+46 BORE PIT

12+84 BORE PIT

PED OR POLE NUMBER	
PED OR POLE NUMBER	SUB NUMBER

CO. SISKIYOU TELEPHONE
EXCH. HAPPY CAMP
ROUTE
J.O. NO. 15HC501
SHEET 4 OF 54
MAP REF. 14-06E-14A
COUNTY SISKIYOU
T. 14N R. 6E SEC 14
TAX CODES
TITLE: PHASE TWO. BUILD FIBER AND CONDUITS M.P. 24. TO SOMES EAB
AS BUILT DATE
SCALE NTS
CONTACT ENG.
PHONE NO.

Filename: 04-54
Engineer: C. EASTLICK
Drafter: C.EASTLICK
Last Accessed: 10/26/15
Time: 1:21 PM
SUB. INFO.



UTILITY LOCATIONS ARE APPROXIMATE. CONTRACTOR RESPONSIBLE FOR EXACT LOCATION.

CO.	SISKIYOU TELEPHONE
EXCH.	HAPPY CAMP
ROUTE	
J.O. NO.	15HC501
SHEET	5 OF 54
MAP REF.	14-06E-14A
COUNTY	SISKIYOU
T. 14N	R. 6E SEC 14
TAX CODES	
TITLE:	PHASE TWO. BUILD FIBER AND CONDUITS M.P. 24. TO SOMES EAB
AS BUILT DATE	

SCALE NTS

SISKIYOU TELEPHONE

CONTACT ENG.

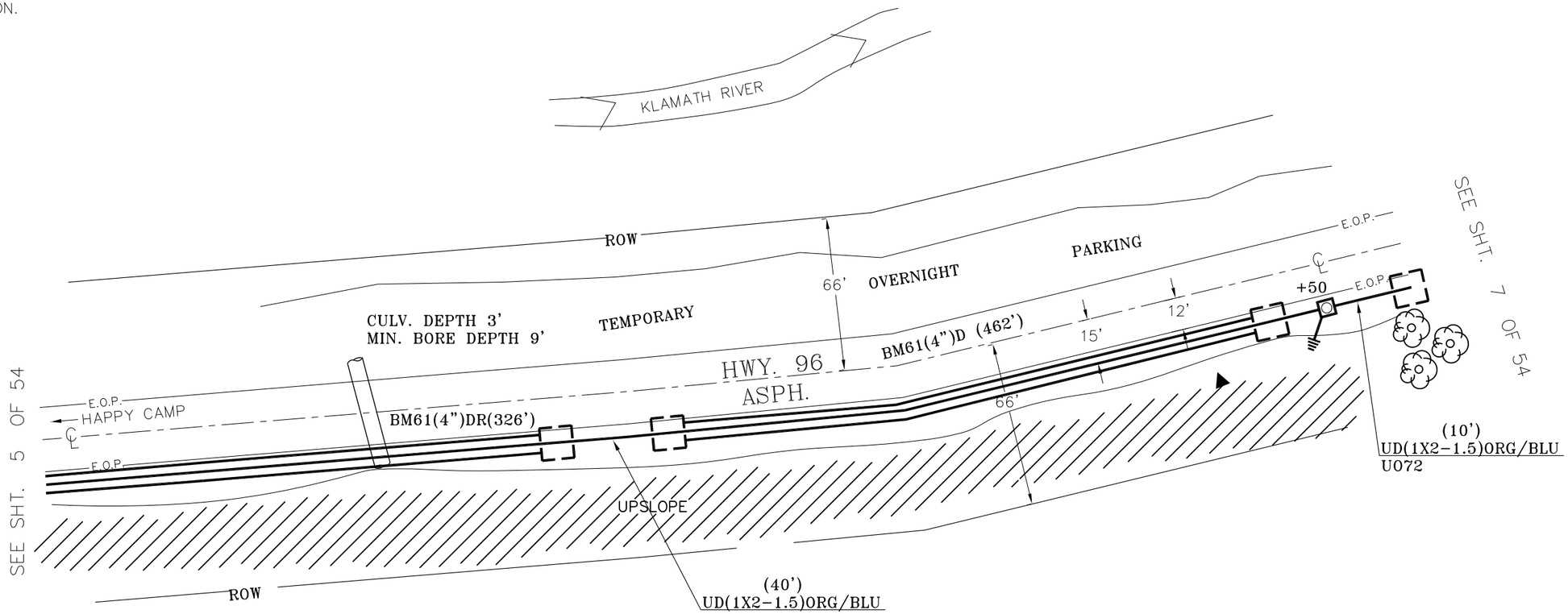
PHONE NO.

Filename: 05-54
Engineer: C. EASTLICK
Drafter: C.EASTLICK
Last Accessed: 10/26/15
Time: 1:23 PM

SUB. INFO.

PED OR POLE NUMBER																						PED OR POLE NUMBER	SUB NUMBER							

UTILITY LOCATIONS ARE APPROXIMATE.
CONTRACTOR RESPONSIBLE FOR EXACT
LOCATION.



20+98 CULV. M.P. 23.59
21+88 BORE PIT
22+28 BORE PIT
25+02 M.P. 23.50
26+90 BORE PIT
26+92 **H.H. KK45**
27+02 BORE PIT

PED OR POLE NUMBER	BM2(5/8)(5)	BM61(4")D	BM61(4")DR	BM7I(48")	UD(1X2-1.5) ORG/BLU	U072	UH264
H.H. KK45	1	462	1864	1300	448	2954	1
	1	462	1864	1300	448	2954	1

PED OR POLE NUMBER	SUB NUMBER

CO. SISKIYOU TELEPHONE
EXCH. HAPPY CAMP
ROUTE
J.O. NO. 15HC501
SHEET 6 OF 54
MAP REF. 14-06E-14-A
COUNTY SISKIYOU
T. 14N | R. 6E | SEC 14
TAX CODES
TITLE: PHASE TWO. BUILD FIBER AND CONDUITS M.P. 24. TO SOMES EAB
AS BUILT DATE
SCALE NTS

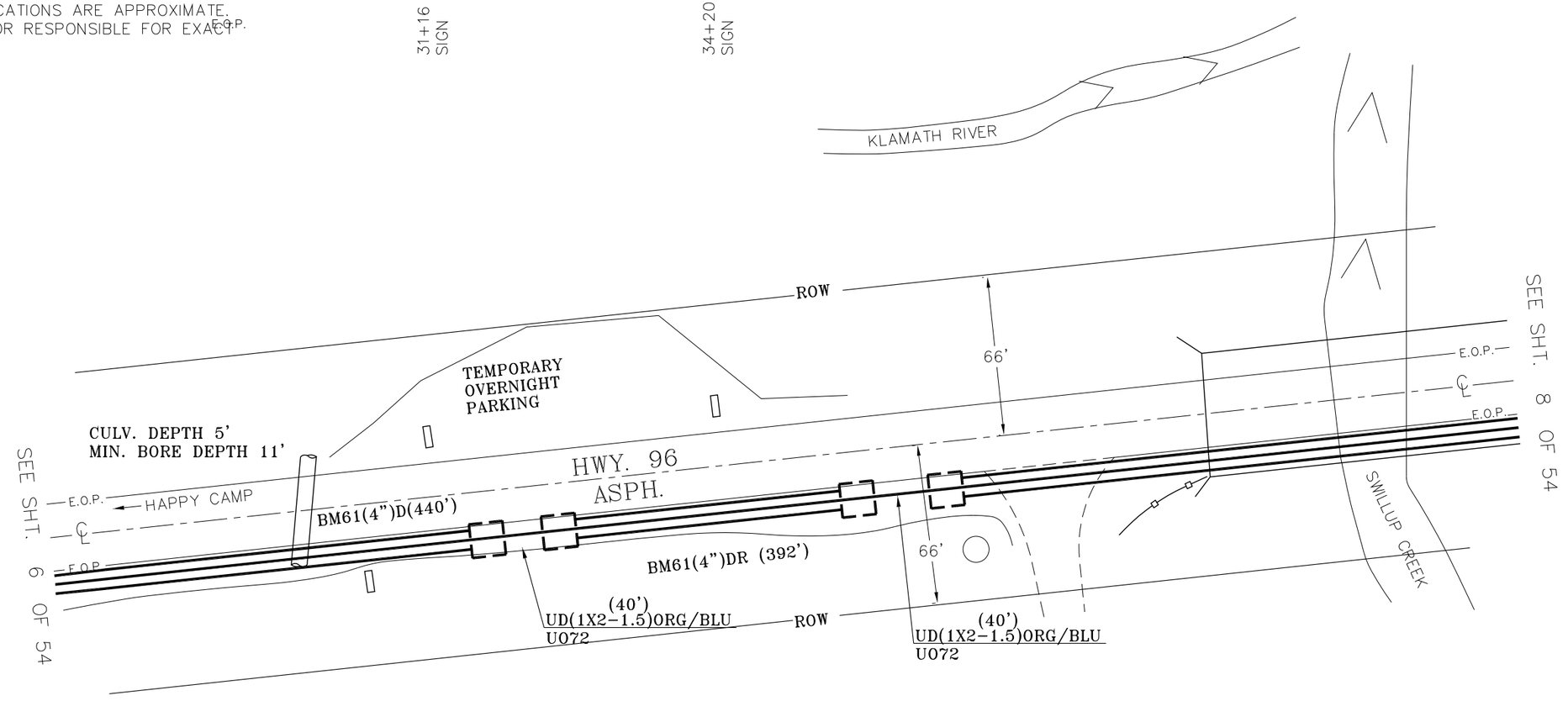
SISKIYOU TELEPHONE

CONTACT ENG.
PHONE NO.

Filename: 06-54
Engineer: C. EASTLICK
Drafter: C.EASTLICK
Last Accessed: 10/26/15
Time: 1:29 PM

SUB. INFO.

UTILITY LOCATIONS ARE APPROXIMATE.
CONTRACTOR RESPONSIBLE FOR EXACT
LOCATION.



CO.	SISKIYOU TELEPHONE
EXCH.	HAPPY CAMP
ROUTE	
J.O. NO.	15HC501
SHEET	7 OF 54
MAP REF.	14-06E-14A
COUNTY	SISKIYOU
T. 14N	R. 6E SEC 14
TAX CODES	
TITLE:	PHASE TWO. BUILD FIBER AND CONDUITS M.P. 24. TO SOMES EAB
AS BUILT DATE	
SCALE	NTS

SISKIYOU TELEPHONE

CONTACT ENG.

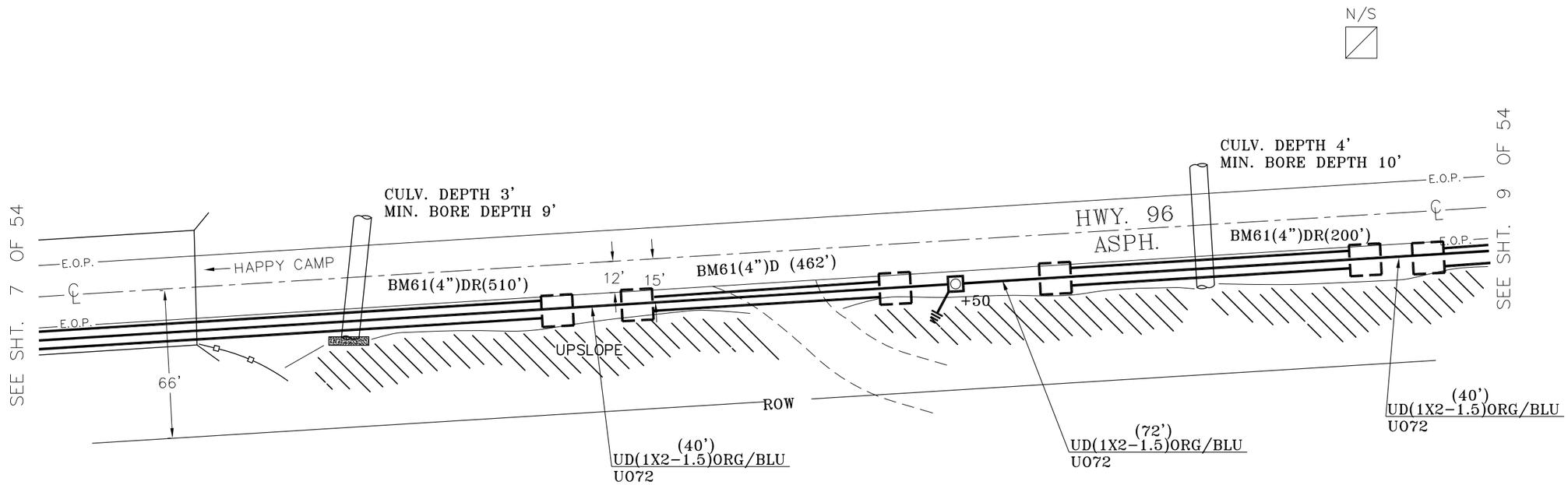
PHONE NO.

Filename: 07-54
Engineer: C. EASTLICK
Drafter: C.EASTLICK
Last Accessed: 10/26/15
Time: 1:44 PM

SUB. INFO.

PED OR POLE NUMBER																						PED OR POLE NUMBER	SUB NUMBER							

UTILITY LOCATIONS ARE APPROXIMATE.
CONTRACTOR RESPONSIBLE FOR EXACT
LOCATION.

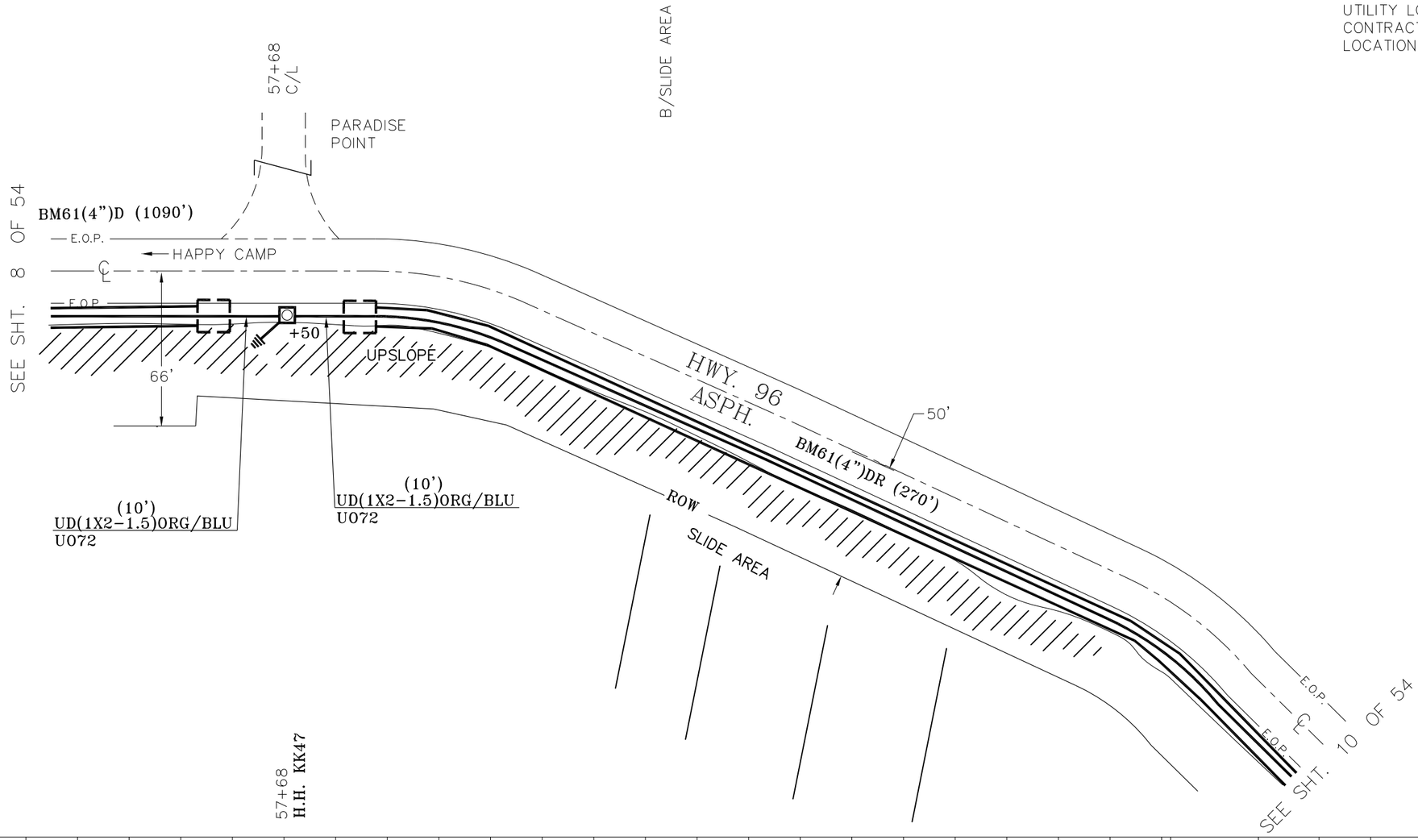


CO.	SISKIYOU TELEPHONE
EXCH.	HAPPY CAMP
ROUTE	
J.O. NO.	15HC501
SHEET	8 OF 54
MAP REF.	14-06E-14A
COUNTY	SISKIYOU
T. 14N	R. 6E SEC 14
TAX CODES	
TITLE:	PHASE TWO. BUILD FIBER AND CONDUITS M.P. 24. TO SOMES EAB
AS BUILT DATE	
SCALE	NTS
CONTACT ENG.	
PHONE NO.	

Filename: 08-54
Engineer: C. EASTLICK
Drafter: C.EASTLICK
Last Accessed: 10/26/15
Time: 1:56 PM

SUB. INFO.

PED OR POLE NUMBER	BM2(5/8)(5)	BM61(4")D	BM61(4")DR	UD(1X2-1.5) ORG/BLU	U072	UH264	39+50 E/GUARDRAIL	40+34 CULV. M.P. 23.23				41+24 BORE PIT		41+64 BORE PIT					43+46 BORE PIT	43+56 **H.H. KK46**		44+28 BORE PIT		PED OR POLE NUMBER	SUB NUMBER	45+28 CULV. M.P. 23.12			46+28 BORE PIT				
H.H. KK46	1	622	942	100	1844	1																										
	1	622	942	100	1844	1																										



CO.	SISKIYOU TELEPHONE
EXCH.	HAPPY CAMP
ROUTE	
J.O. NO.	15HC501
SHEET	9 OF 54
MAP REF.	14-06E-15B
COUNTY	SISKIYOU
T. 14N	R. 6E SEC 15
TAX CODES	
TITLE:	PHASE TWO. BUILD FIBER AND CONDUITS M.P.24. TO SOMES EAB
AS BUILT DATE	

SCALE NTS

SISKIYOU TELEPHONE

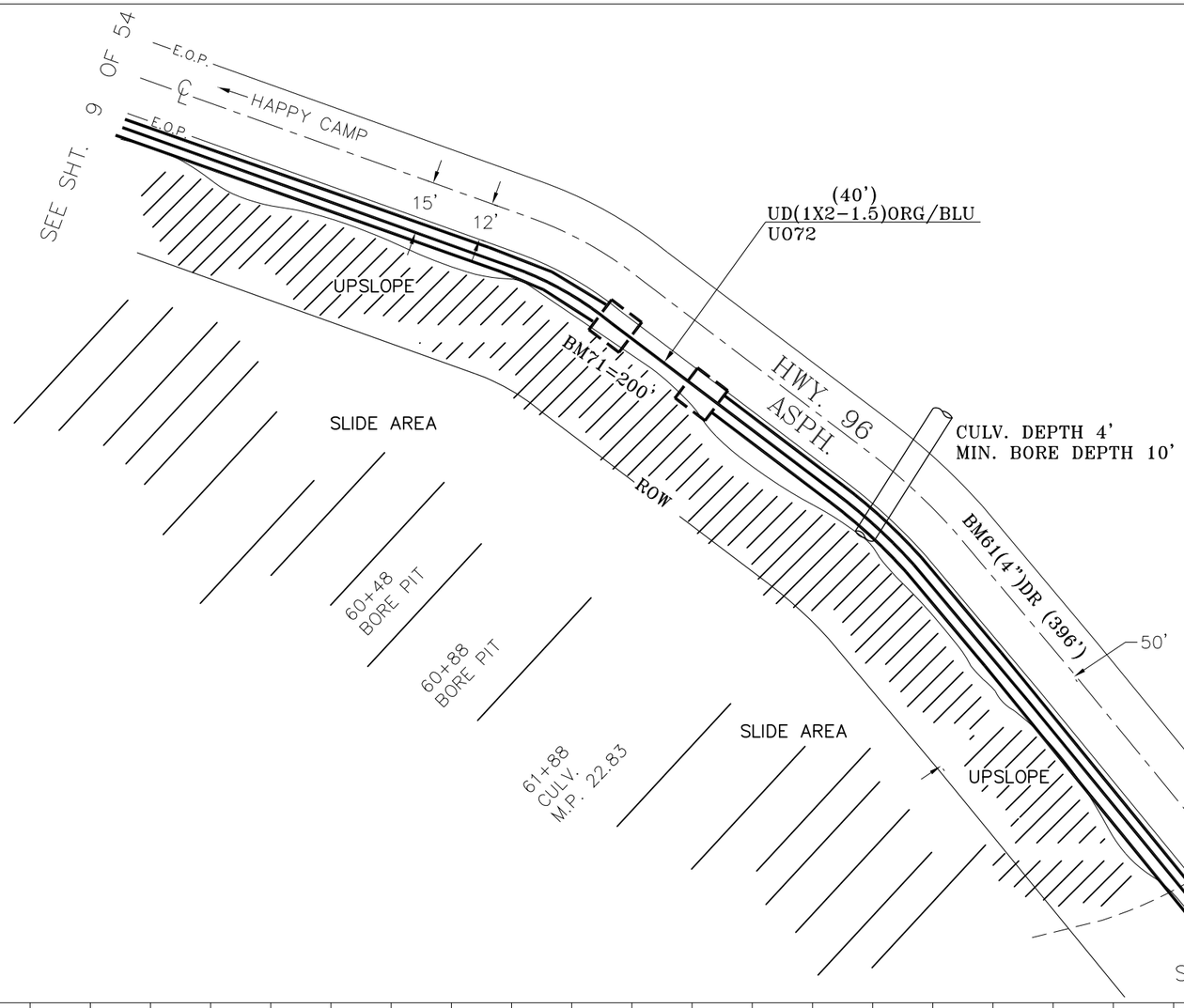
CONTACT ENG.

PHONE NO.

Filename: 09-54
Engineer: C. EASTLICK
Drafter: C.EASTLICK
Last Accessed: 10/26/15
Time: 2:09 PM

SUB. INFO.

PED OR POLE NUMBER	BM2(5/8)(5)	BM61(4")D	BM61(4")DR	UD(1X2-1.5) ORG/BLU	U072	UH264																	PED OR POLE NUMBER	SUB NUMBER							
H.H. KK47	1	1090	200	122	1492	1																									
	1	1090	200	122	1492	1																									



UTILITY LOCATIONS ARE APPROXIMATE.
CONTRACTOR RESPONSIBLE FOR EXACT LOCATION.

CO.	SISKIYOU TELEPHONE
EXCH.	HAPPY CAMP
ROUTE	
J.O. NO.	15HC501
SHEET	10 OF 54
MAP REF.	14-06E-15B
COUNTY	SISKIYOU
T. 14N	R. 6E SEC 15
TAX CODES	
TITLE:	PHASE TWO. BUILD FIBER AND CONDUITS M.P. 24. TO SOMES EAB
AS BUILT DATE	

SCALE NTS

SISKIYOU TELEPHONE

CONTACT ENG.

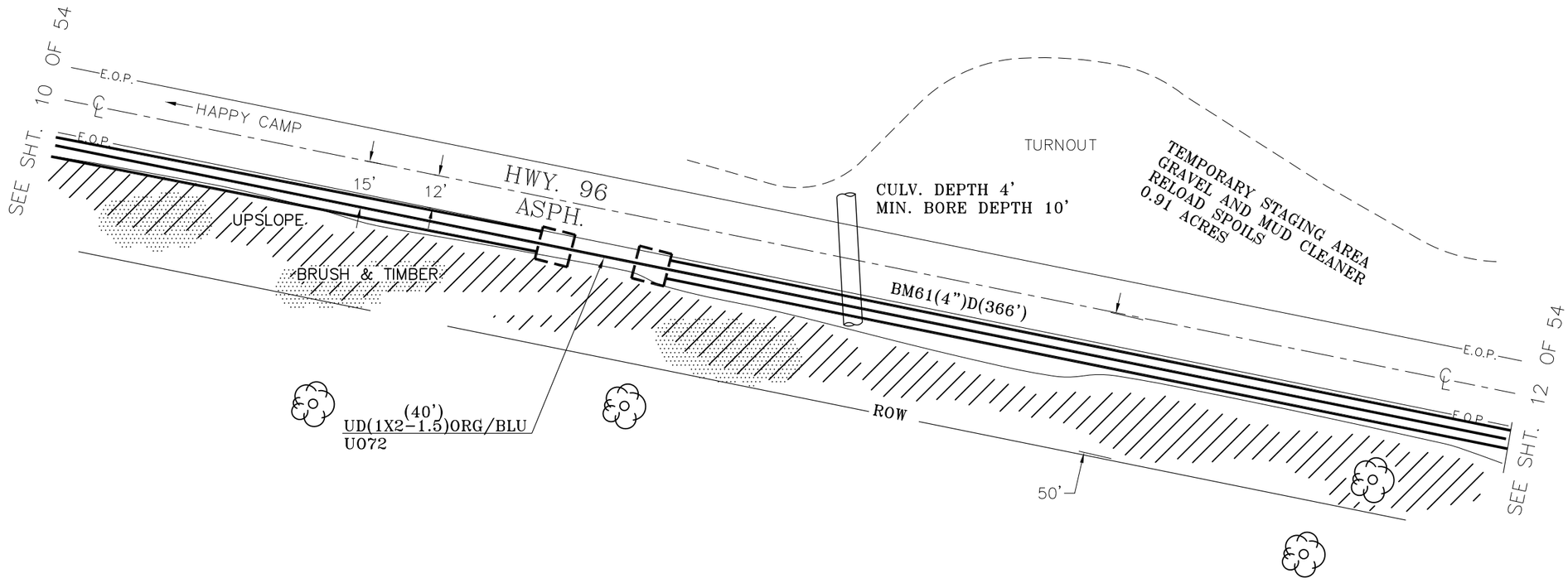
PHONE NO.

Filename: 10-54
Engineer: C. EASTLICK
Drafter: C.EASTLICK
Last Accessed: 11/05/15
Time: 10:35 AM

SUB. INFO.

PED OR POLE NUMBER																						PED OR POLE NUMBER	SUB NUMBER							

UTILITY LOCATIONS ARE APPROXIMATE.
CONTRACTOR RESPONSIBLE FOR EXACT
LOCATION.



CO.	SISKIYOU TELEPHONE
EXCH.	HAPPY CAMP
ROUTE	
J.O. NO.	15HC501
SHEET	11 OF 54
MAP REF.	14-06E-15B
COUNTY	SISKIYOU
T. 14N	R. 6E SEC 15
TAX CODES	
TITLE:	PHASE TWO. BUILD FIBER AND CONDUITS M.P. 24. TO SOMES EAB
AS BUILT DATE	

SCALE NTS

SISKIYOU TELEPHONE

CONTACT ENG.

PHONE NO.

Filename: 11-54
Engineer: C. EASTLICK
Drafter: C.EASTLICK
Last Accessed: 11/05/15
Time: 10:37 AM

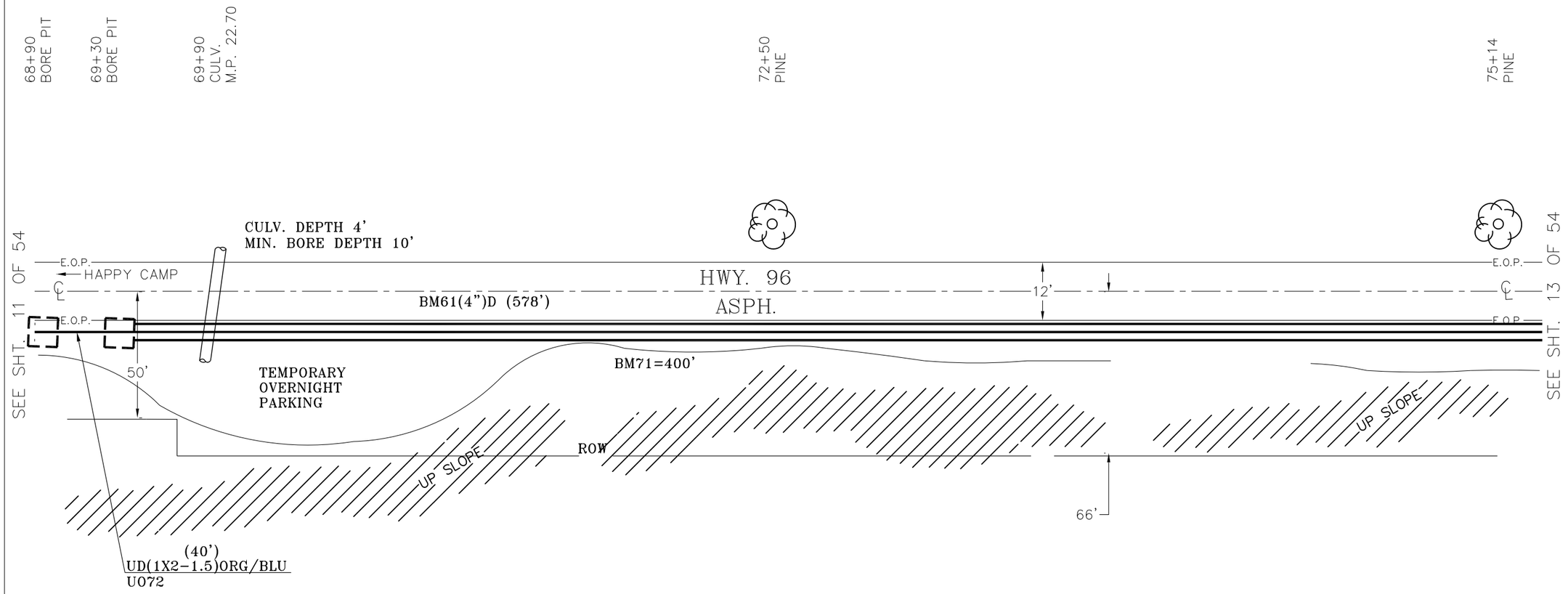
SUB. INFO.

64+84 BORE PIT

65+24 BORE PIT

66+24 CULV. M.P. 22.76

PED OR POLE NUMBER																						PED OR POLE NUMBER	SUB NUMBER							



UTILITY LOCATIONS ARE APPROXIMATE.
CONTRACTOR RESPONSIBLE FOR EXACT
LOCATION.

CO.	SISKIYOU TELEPHONE
EXCH.	HAPPY CAMP
ROUTE	
J.O. NO.	15HC501
SHEET	12 OF 54
MAP REF.	14-06E-15B
COUNTY	SISKIYOU
T. 14N	R. 6E SEC 15
TAX CODES	
TITLE:	PHASE TWO. BUILD FIBER AND CONDUITS M.P. 24. TO SOMES EAB
AS BUILT DATE	
SCALE	NTS

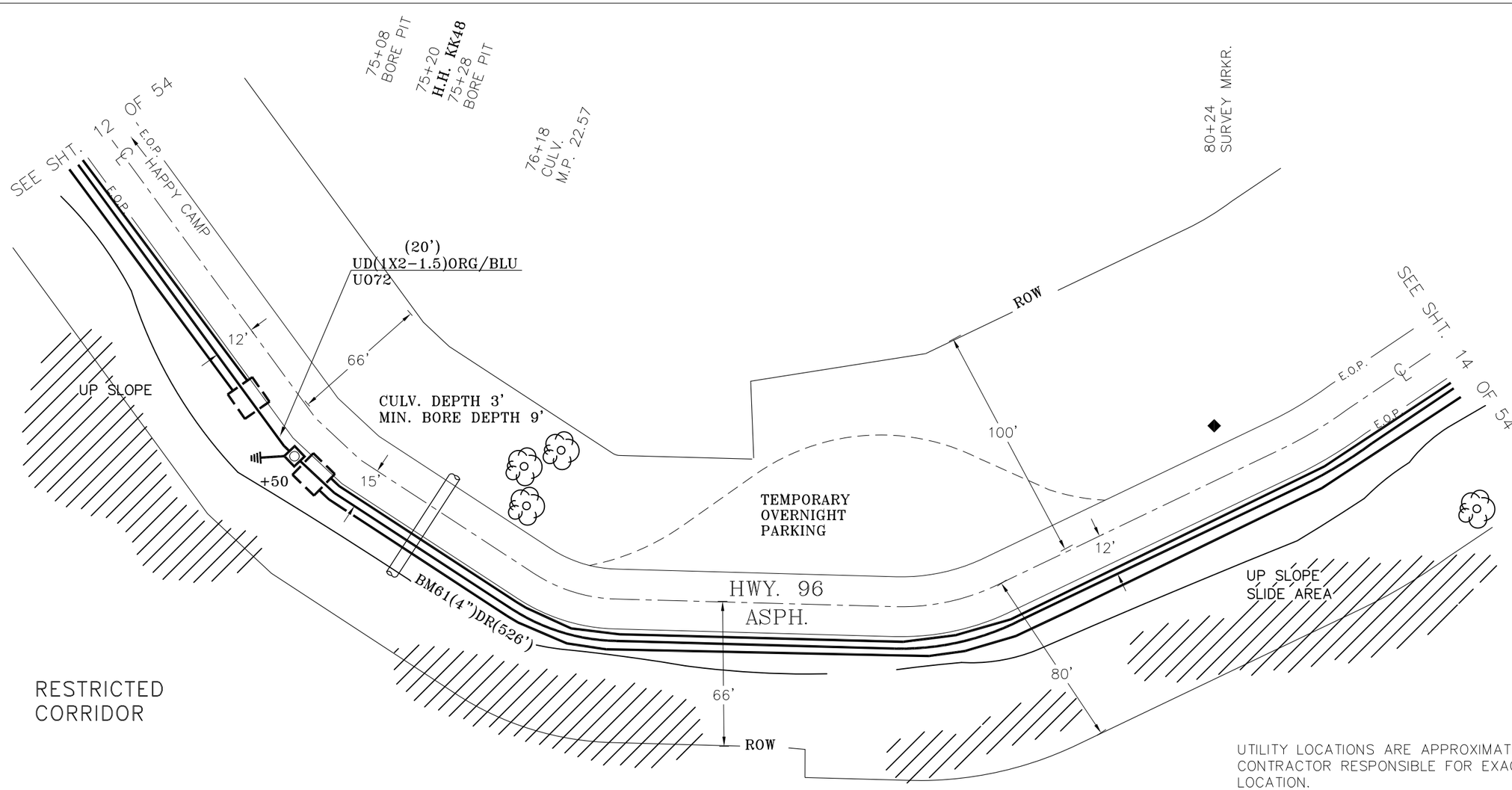
CONTACT ENG.

PHONE NO.

Filename: 12-54
Engineer: C. EASTLICK
Drafter: C.EASTLICK
Last Accessed: 10/26/15
Time: 2:37 PM

SUB. INFO.

PED OR POLE NUMBER																						PED OR POLE NUMBER	SUB NUMBER							



UTILITY LOCATIONS ARE APPROXIMATE. CONTRACTOR RESPONSIBLE FOR EXACT LOCATION.

CO.	SISKIYOU TELEPHONE
EXCH.	HAPPY CAMP
ROUTE	
J.O. NO.	15HC501
SHEET	13 OF 54
MAP REF.	14-06E-15B
COUNTY	SISKIYOU
T. 14N	R. 6E SEC 15
TAX CODES	
TITLE:	PHASE TWO. BUILD FIBER AND CONDUITS M.P. 24. TO SOMES EAB
AS BUILT DATE	

SCALE NTS

SISKIYOU TELEPHONE

CONTACT ENG.

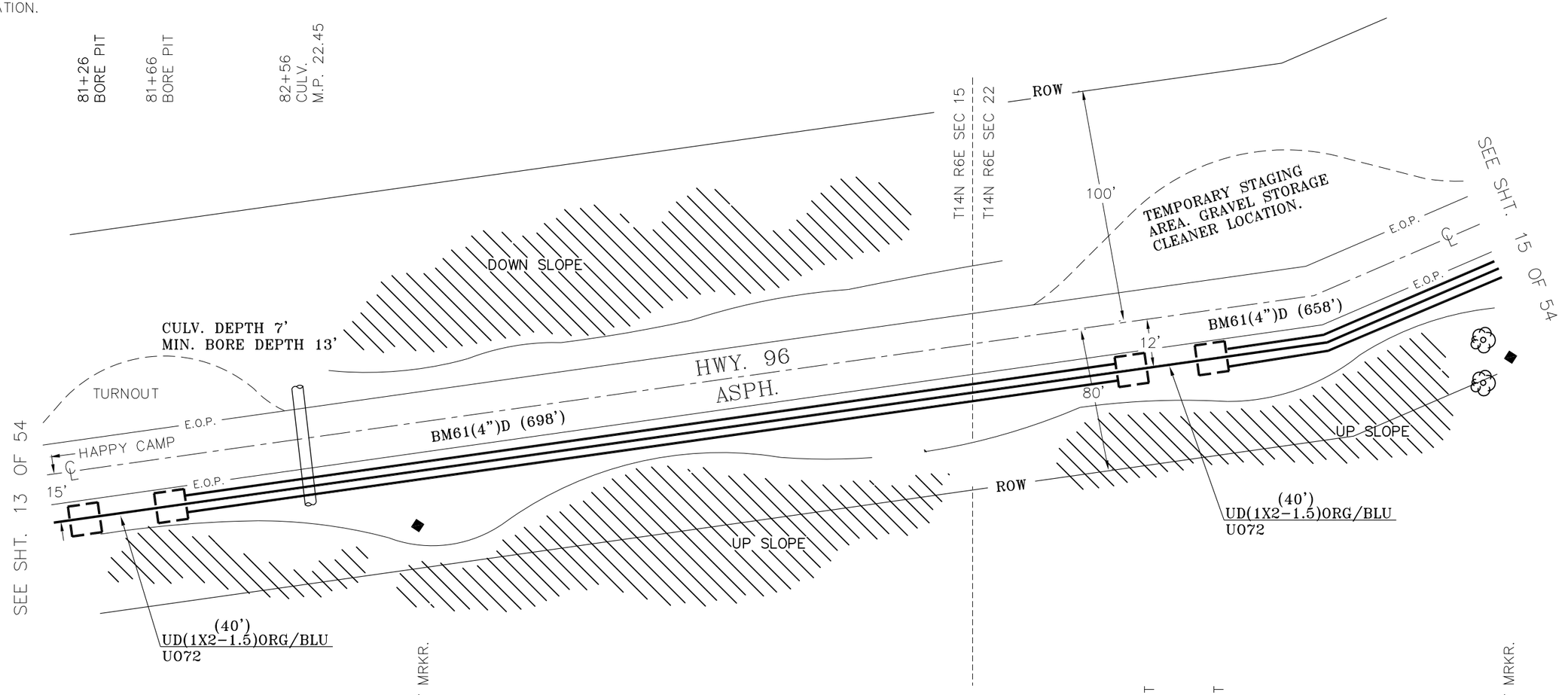
PHONE NO.

Filename: 13-54
Engineer: C. EASTLICK
Drafter: C.EASTLICK
Last Accessed: 10/26/15
Time: 2:39 PM

SUB. INFO.

PED OR POLE NUMBER	BM2(5/8)(5)	BM61(4")D	BM61(4")DR	BM71(48")	UD(1X2-1.5) ORG/BLU	U072	UH264															PED OR POLE NUMBER	SUB NUMBER						
H.H. KK48	1	2136	270	600	142	2708	1																						
	1	2136	270	600	142	2708	1																						

UTILITY LOCATIONS ARE APPROXIMATE.
CONTRACTOR RESPONSIBLE FOR EXACT
LOCATION.



CO.	SISKIYOU TELEPHONE
EXCH.	HAPPY CAMP
ROUTE	
J.O. NO.	15HC501
SHEET	14 OF 54
MAP REF.	14-06E-15B
COUNTY	SISKIYOU
T. 14N	R. 6E SEC 15/22
TAX CODES	
TITLE:	PHASE TWO. BUILD FIBER AND CONDUITS M.P. 24. TO SOMES EAB
AS BUILT DATE	

SCALE NTS

SISKIYOU TELEPHONE

CONTACT ENG.

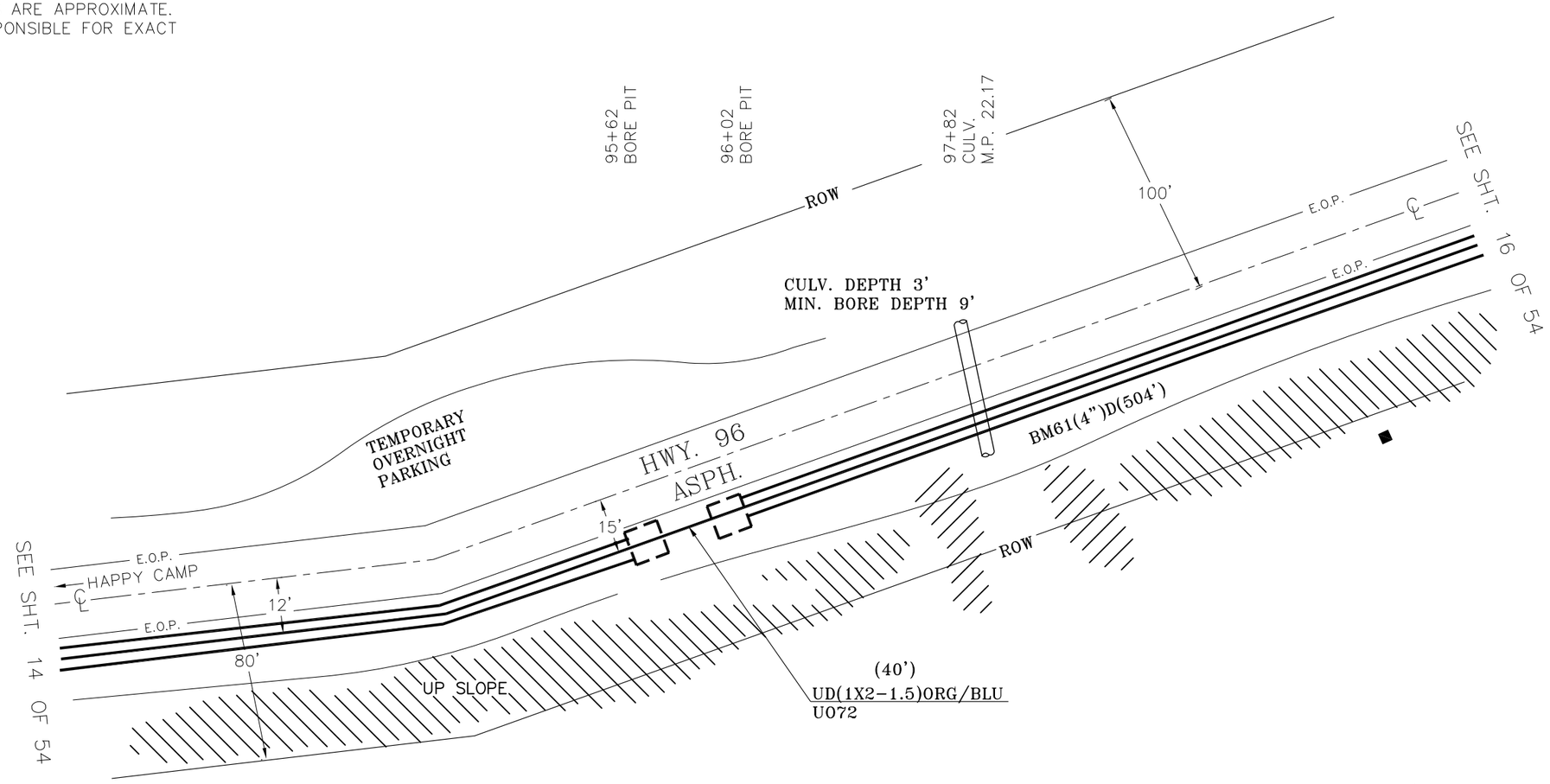
PHONE NO.

Filename: 14-54
Engineer: C. EASTLICK
Drafter: C.EASTLICK
Last Accessed: 10/26/15
Time: 2:54 PM

SUB. INFO.

PED OR POLE NUMBER																							PED OR POLE NUMBER	SUB NUMBER							

UTILITY LOCATIONS ARE APPROXIMATE.
CONTRACTOR RESPONSIBLE FOR EXACT
LOCATION.



CO.	SISKIYOU TELEPHONE
EXCH.	HAPPY CAMP
ROUTE	
J.O. NO.	15HC501
SHEET	15 OF 54
MAP REF.	14-06E-22A
COUNTY	SISKIYOU
T. 174N	R. 6E SEC 22
TAX CODES	
TITLE:	PHASE TWO. BUILD FIBER AND CONDUITS M.P. 24. TO SOMES EAB
AS BUILT DATE	
SCALE	NTS

SISKIYOU TELEPHONE

CONTACT ENG.

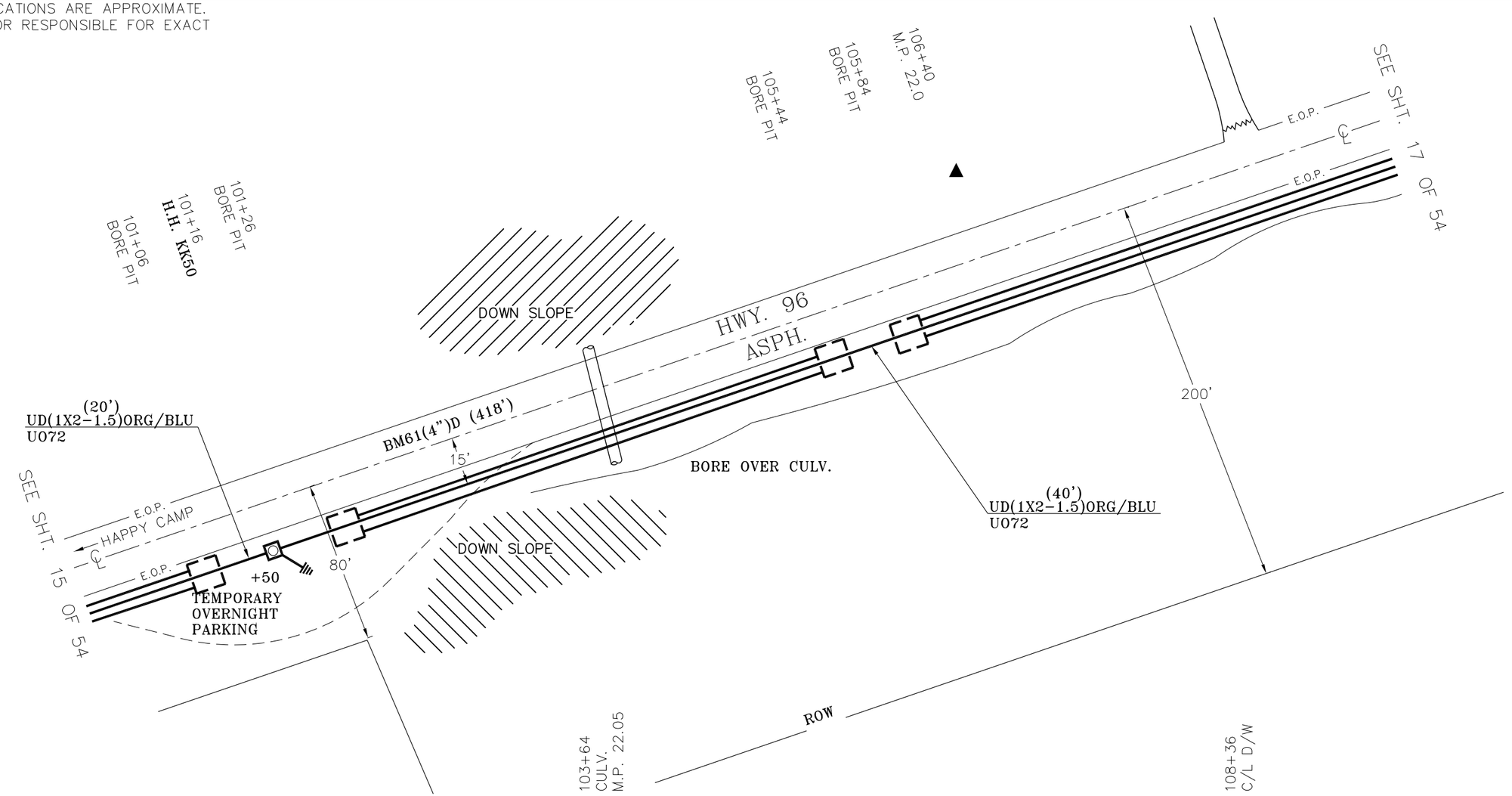
PHONE NO.

Filename: 15-54
Engineer: C. EASTLICK
Drafter: C.EASTLICK
Last Accessed: 10/26/15
Time: 3:06 PM

SUB. INFO.

PED OR POLE NUMBER																						PED OR POLE NUMBER	SUB NUMBER							

UTILITY LOCATIONS ARE APPROXIMATE.
CONTRACTOR RESPONSIBLE FOR EXACT
LOCATION.



CO.	SISKIYOU TELEPHONE
EXCH.	HAPPY CAMP
ROUTE	
J.O. NO.	15HC501
SHEET	16 OF 54
MAP REF.	14-06E-22A
COUNTY	SISKIYOU
T. 14N	R. 6E SEC 22
TAX CODES	
TITLE:	PHASE TWO. BUILD FIBER AND CONDUITS M.P. 24. TO SOMES EAB
AS BUILT DATE	

SCALE NTS

SISKIYOU TELEPHONE

CONTACT ENG.

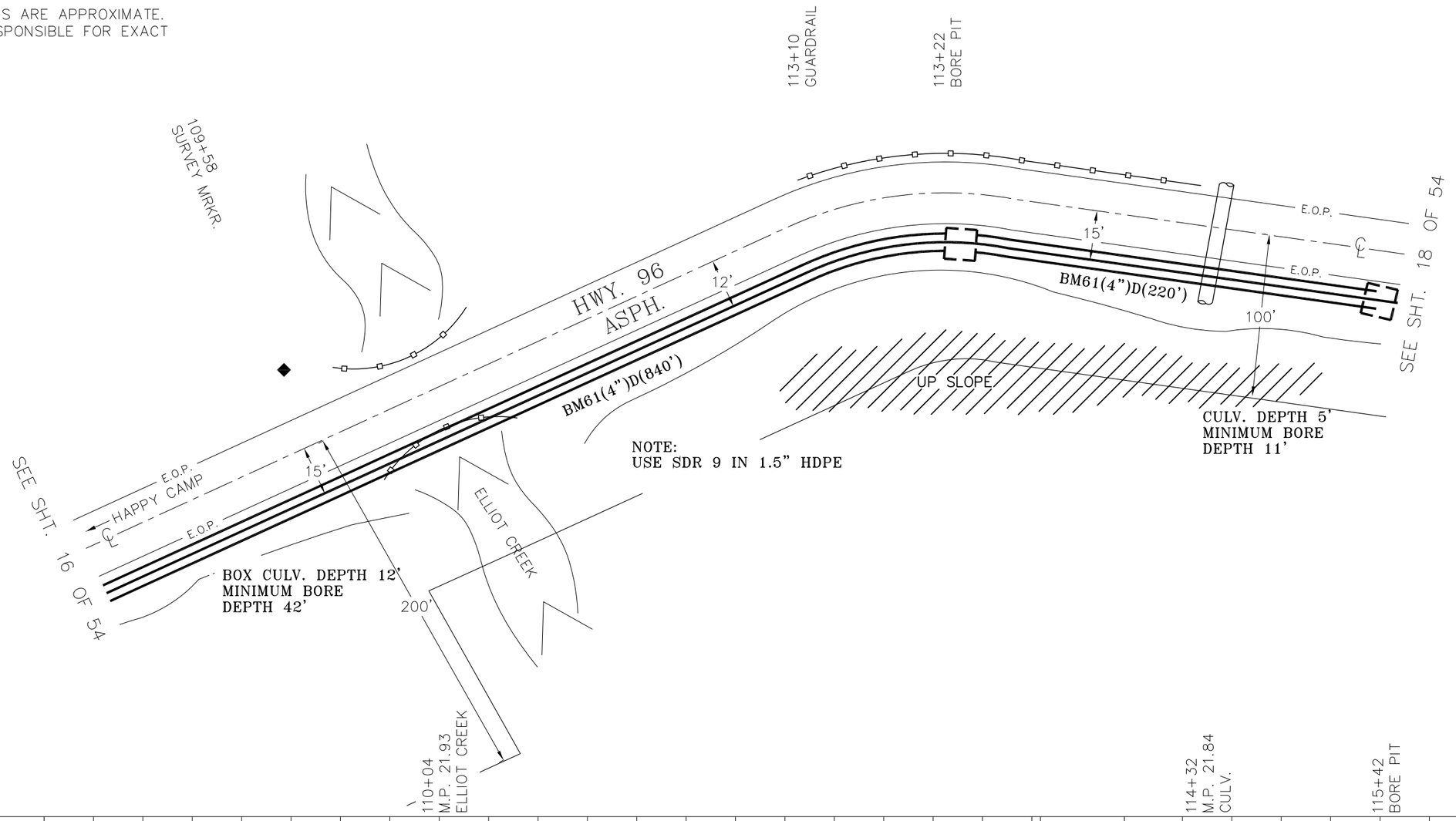
PHONE NO.

Filename: 16-54
Engineer: C. EASTLICK
Drafter: C.EASTLICK
Last Accessed: 10/26/15
Time: 3:12 PM

SUB. INFO.

PED OR POLE NUMBER	BM2(5/8)(5)	BM61(4")D	BM61(4")DR	UD(1X2-1.5) ORG/BLU	U072	UH264																PED OR POLE NUMBER	SUB NUMBER							
H.H. KK50	1	1860	526	140	2646	1																								
	1	1860	526	140	2646	1																								

UTILITY LOCATIONS ARE APPROXIMATE.
CONTRACTOR RESPONSIBLE FOR EXACT
LOCATION.



CO.	SISKIYOU TELEPHONE
EXCH.	HAPPY CAMP
ROUTE	
J.O. NO.	15HC501
SHEET	17 OF 54
MAP REF.	14-06E-22A
COUNTY	SISKIYOU
T. 14N	R. 6E SEC 22
TAX CODES	
TITLE:	PHASE TWO. BUILD FIBER AND CONDUITS M.P. 24. TO SOMES EAB
AS BUILT DATE	
SCALE	NTS

SISKIYOU TELEPHONE

CONTACT ENG.

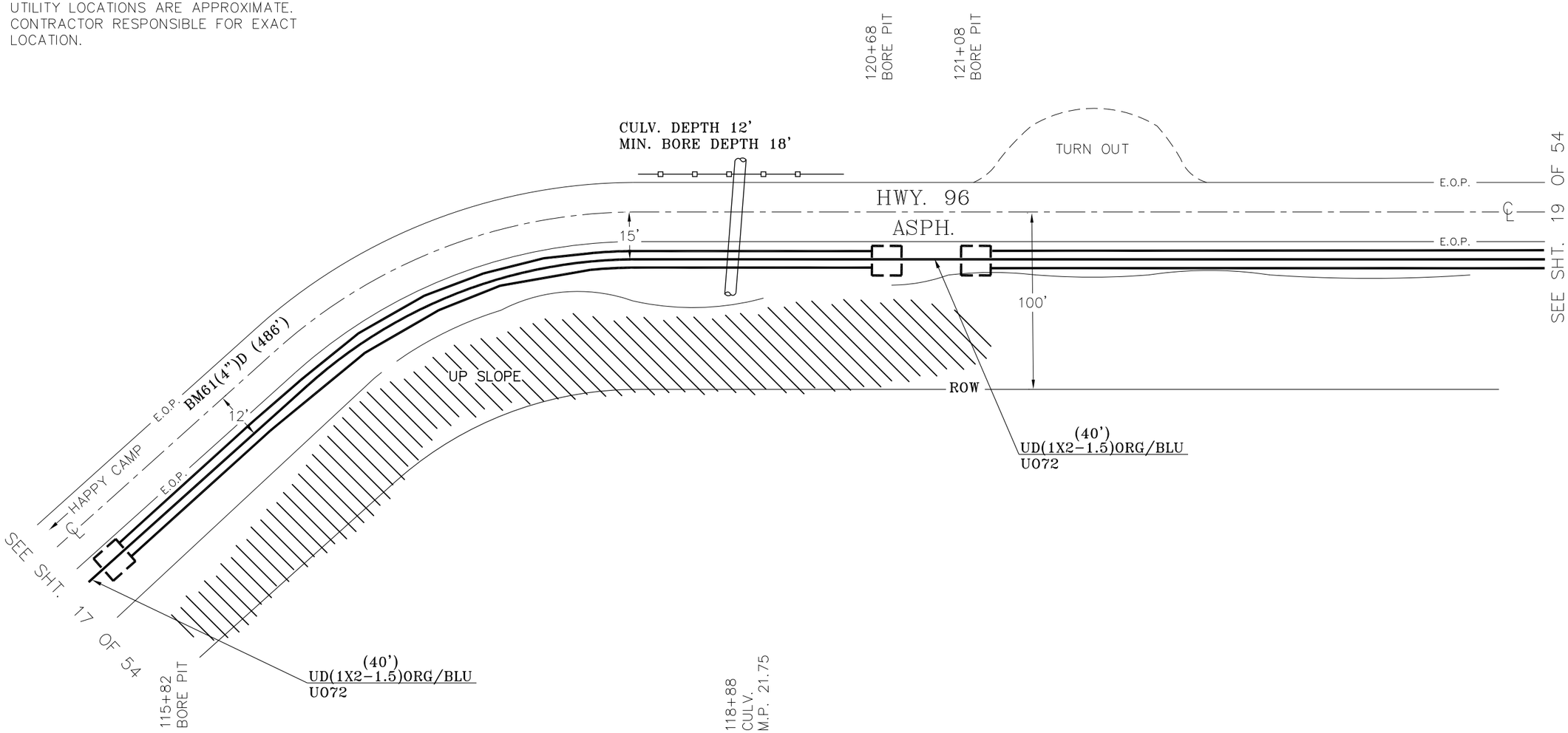
PHONE NO.

Filename: 17-54
Engineer: C. EASTLICK
Drafter: C.EASTLICK
Last Accessed: 10/26/15
Time: 3:18 PM

SUB. INFO.

PED OR POLE NUMBER																							PED OR POLE NUMBER	SUB NUMBER							

UTILITY LOCATIONS ARE APPROXIMATE.
CONTRACTOR RESPONSIBLE FOR EXACT
LOCATION.



CO.	SISKIYOU TELEPHONE
EXCH.	HAPPY CAMP
ROUTE	
J.O. NO.	15HC501
SHEET	18 OF 54
MAP REF.	14-06E-22A
COUNTY	SISKIYOU
T. 14N	R. 6E SEC 22
TAX CODES	
TITLE:	PHASE TWO. BUILD FIBER AND CONDUITS M.P. 24. TO SOMES EAB
AS BUILT DATE	
SCALE	NTS

CONTACT ENG.

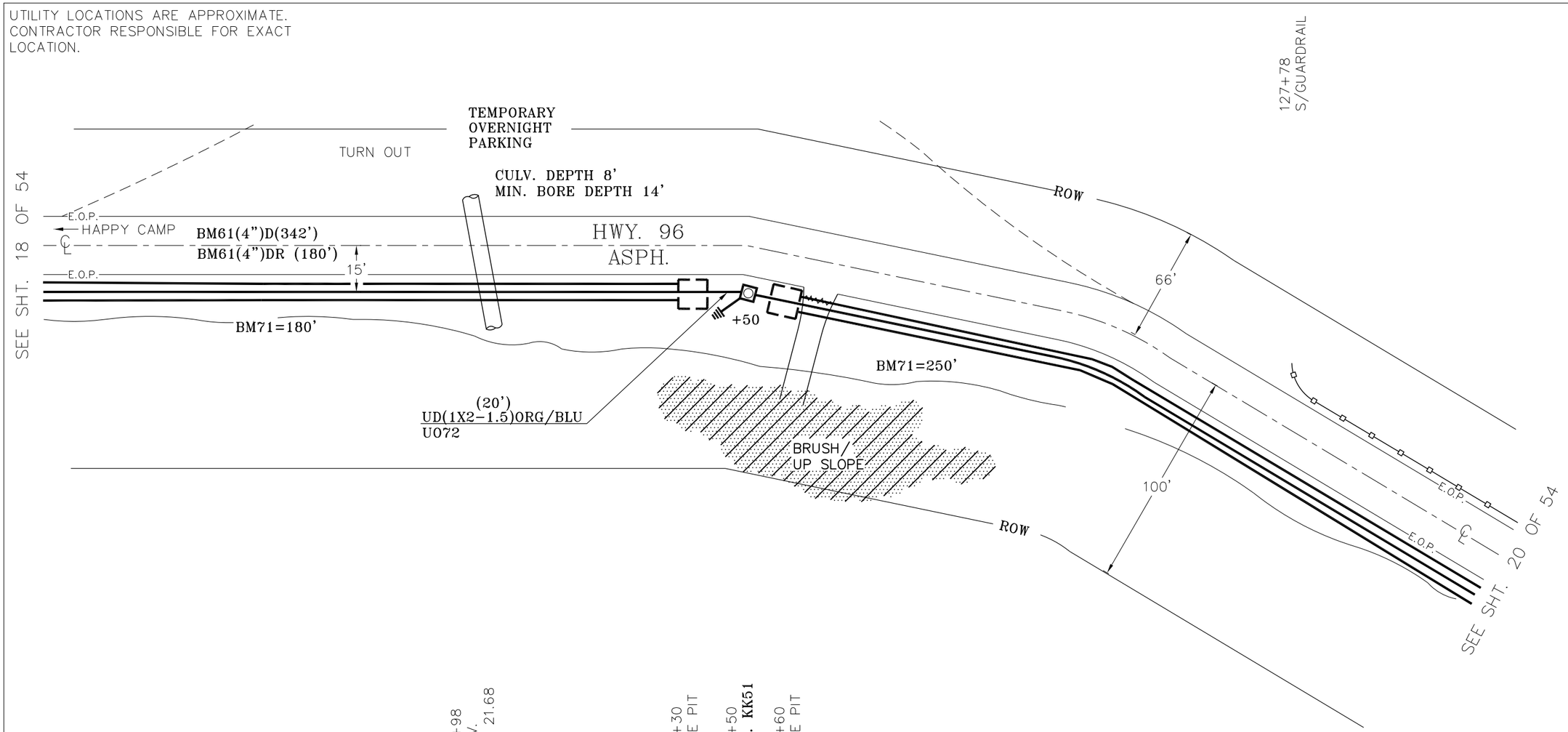
PHONE NO.

Filename: 18-54
Engineer: C. EASTLICK
Drafter: C.EASTLICK
Last Accessed: 10/26/15
Time: 3:23 PM

SUB. INFO.

PED OR POLE NUMBER																						PED OR POLE NUMBER	SUB NUMBER							

UTILITY LOCATIONS ARE APPROXIMATE.
CONTRACTOR RESPONSIBLE FOR EXACT
LOCATION.



CO.	SISKIYOU TELEPHONE
EXCH.	HAPPY CAMP
ROUTE	
J.O. NO.	15HC501
SHEET	19 OF 54
MAP REF.	14-06E-22A
COUNTY	SISKIYOU
T. 14N	R. 6E SEC 22
TAX CODES	
TITLE:	PHASE TWO. BUILD FIBER AND CONDUITS M.P. 24. TO SOMES EAB
AS BUILT DATE	

SCALE NTS

SISKIYOU TELEPHONE

CONTACT ENG.

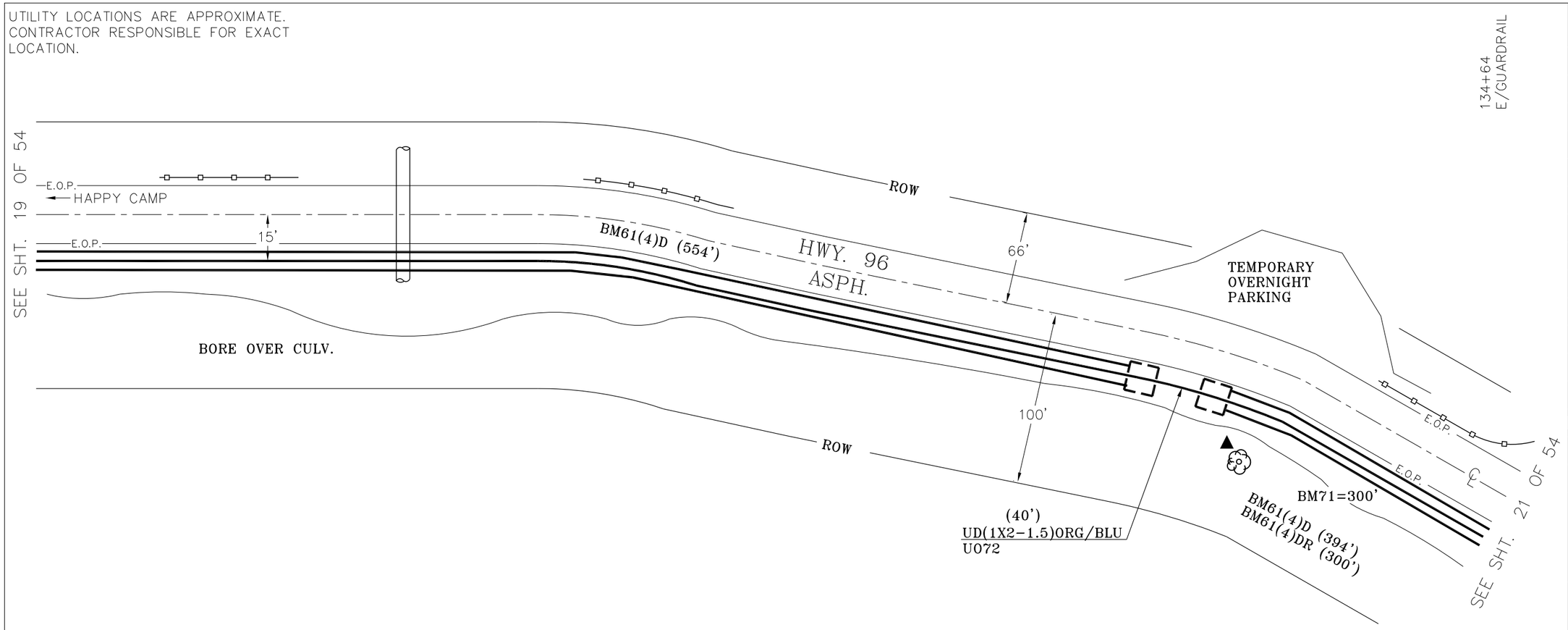
PHONE NO.

Filename: 19-54
Engineer: C. EASTLICK
Drafter: C.EASTLICK
Last Accessed: 10/26/15
Time: 3:33 PM

SUB. INFO.

PED OR POLE NUMBER	BM2(5/8)(5)	BW61(4")D	BW61(4")DR	BM71(48")	UD(1X2-1.5) ORG/BLU	U072	UH264															PED OR POLE NUMBER	SUB NUMBER							
H.H. KK51	1	2180	346	180	120	2726	1																							
	1	2180	346	180	120	2726	1																							

UTILITY LOCATIONS ARE APPROXIMATE.
CONTRACTOR RESPONSIBLE FOR EXACT
LOCATION.



CO.	SISKIYOU TELEPHONE
EXCH.	HAPPY CAMP
ROUTE	
J.O. NO.	15HC501
SHEET	20 OF 54
MAP REF.	14-06E-22B
COUNTY	SISKIYOU
T. 14N	R. 6E SEC 22
TAX CODES	
TITLE:	PHASE TWO. BUILD FIBER AND CONDUITS M.P. 24. TO SOMES EAB
AS BUILT DATE	
SCALE	NTS

CONTACT ENG.

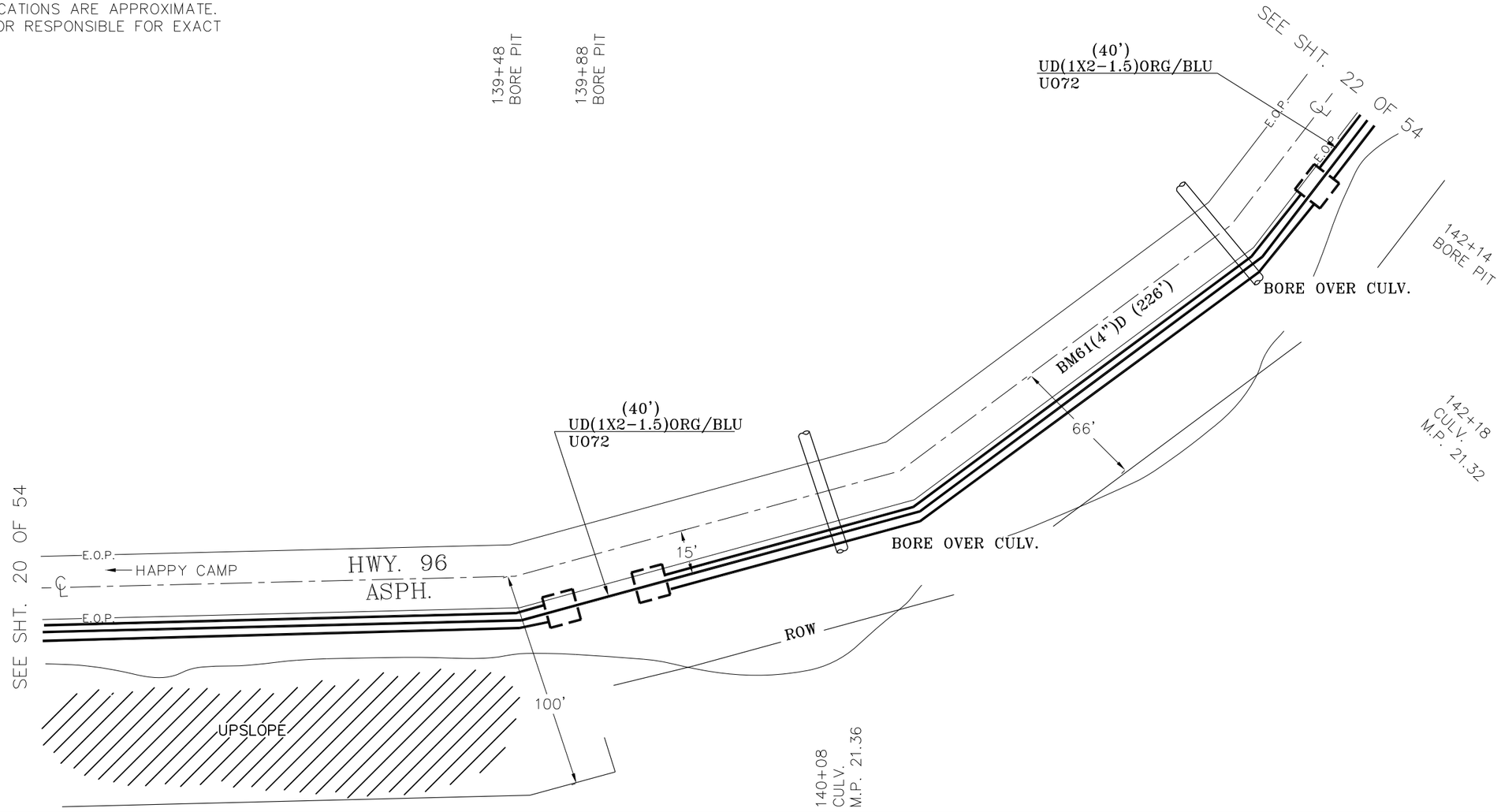
PHONE NO.

Filename: 20-54
Engineer: C. EASTLICK
Drafter: C.EASTLICK
Last Accessed: 10/26/15
Time: 3:49 PM

SUB. INFO.

PED OR POLE NUMBER																							PED OR POLE NUMBER	SUB NUMBER						

UTILITY LOCATIONS ARE APPROXIMATE.
CONTRACTOR RESPONSIBLE FOR EXACT
LOCATION.



CO.	SISKIYOU TELEPHONE
EXCH.	HAPPY CAMP
ROUTE	
J.O. NO.	15HC501
SHEET	21 OF 54
MAP REF.	14-06E-28A
COUNTY	SISKIYOU
T. 14N	R. 6E SEC 22
TAX CODES	
TITLE:	PHASE TWO. BUILD FIBER AND CONDUITS M.P. 24. TO SOMES EAB
AS BUILT DATE	
SCALE	NTS

SISKIYOU TELEPHONE

CONTACT ENG.

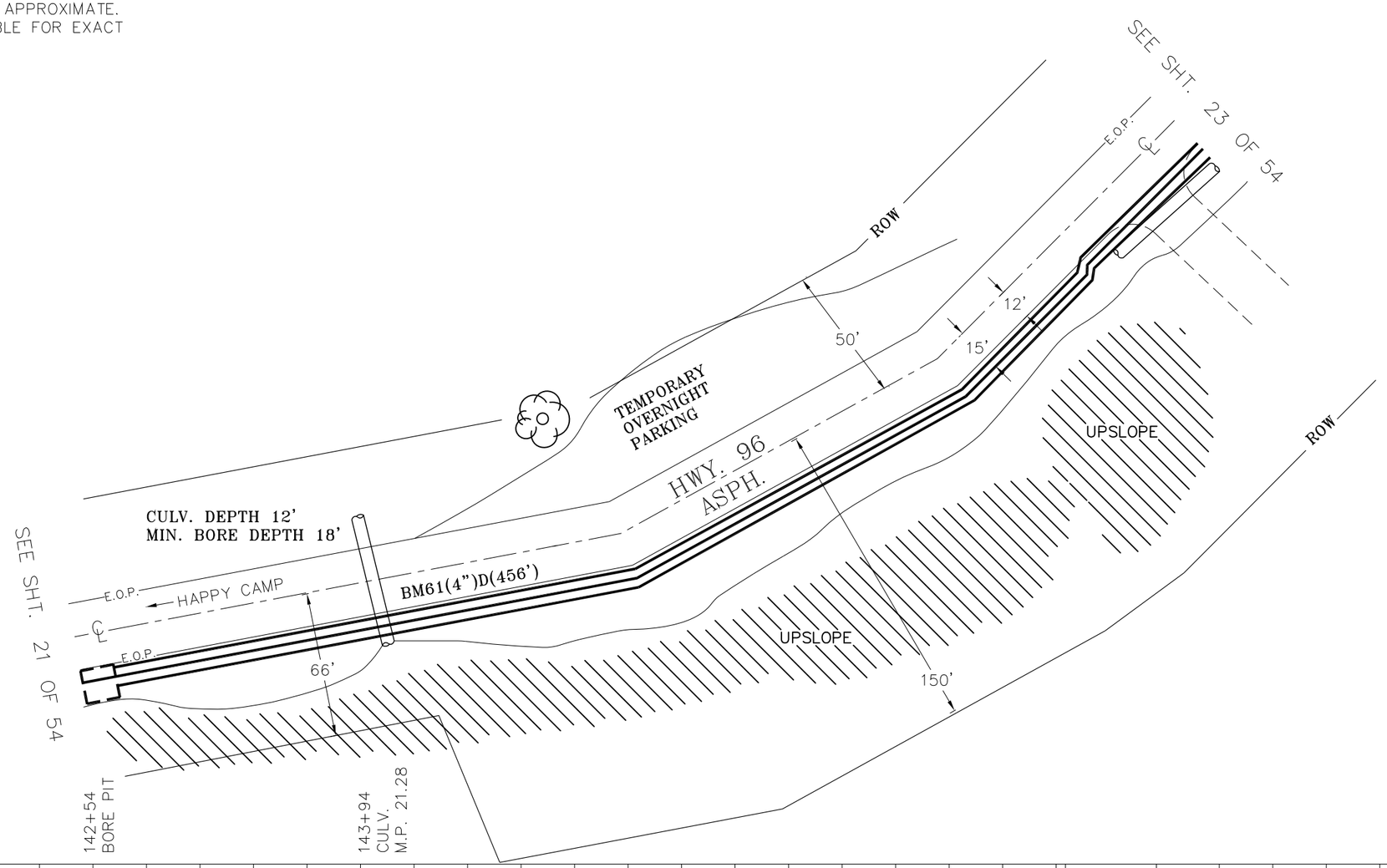
PHONE NO.

Filename: 21-54
Engineer: C. EASTLICK
Drafter: C.EASTLICK
Last Accessed: 10/27/15
Time: 4:58 AM

SUB. INFO.

PED OR POLE NUMBER																						PED OR POLE NUMBER	SUB NUMBER							

UTILITY LOCATIONS ARE APPROXIMATE.
CONTRACTOR RESPONSIBLE FOR EXACT
LOCATION.



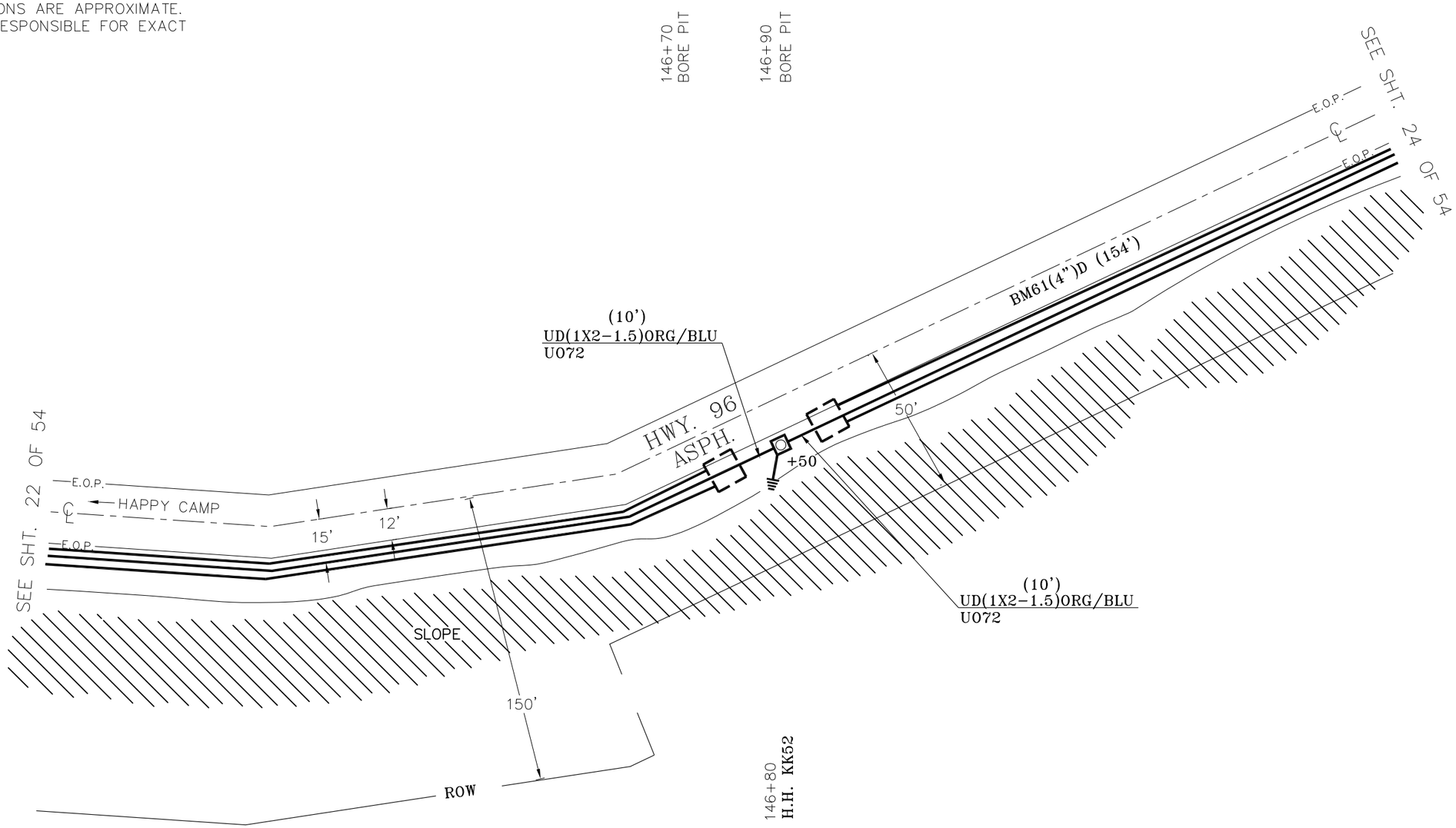
CO.	SISKIYOU TELEPHONE
EXCH.	HAPPY CAMP
ROUTE	
J.O. NO.	15HC501
SHEET	22 OF 54
MAP REF.	14-06E-28A
COUNTY	SISKIYOU
T. 14N	R. 6E SEC 22
TAX CODES	
TITLE:	PHASE TWO. BUILD FIBER AND CONDUITS M.P. 24. TO SOMES EAB
AS BUILT DATE	
SCALE	NTS
CONTACT ENG.	
PHONE NO.	

Filename: 22-54
Engineer: C. EASTLICK
Drafter: C.EASTLICK
Last Accessed: 10/27/15
Time: 5:09 AM

SUB. INFO.

PED OR POLE NUMBER																						PED OR POLE NUMBER	SUB NUMBER							

UTILITY LOCATIONS ARE APPROXIMATE.
CONTRACTOR RESPONSIBLE FOR EXACT
LOCATION.



SEE SHT. 24 OF 54

CO.	SISKIYOU TELEPHONE
EXCH.	HAPPY CAMP
ROUTE	
J.O. NO.	15HC501
SHEET	23 OF 54
MAP REF.	14-06E-28A
COUNTY	SISKIYOU
T. 14N	R. 6E SEC 22
TAX CODES	
TITLE:	PHASE TWO. BUILD FIBER AND CONDUITS M.P. 24. TO SOMEA EAB
AS BUILT DATE	

SEE SHT. 22 OF 54

SCALE NTS

SISKIYOU TELEPHONE

CONTACT ENG.

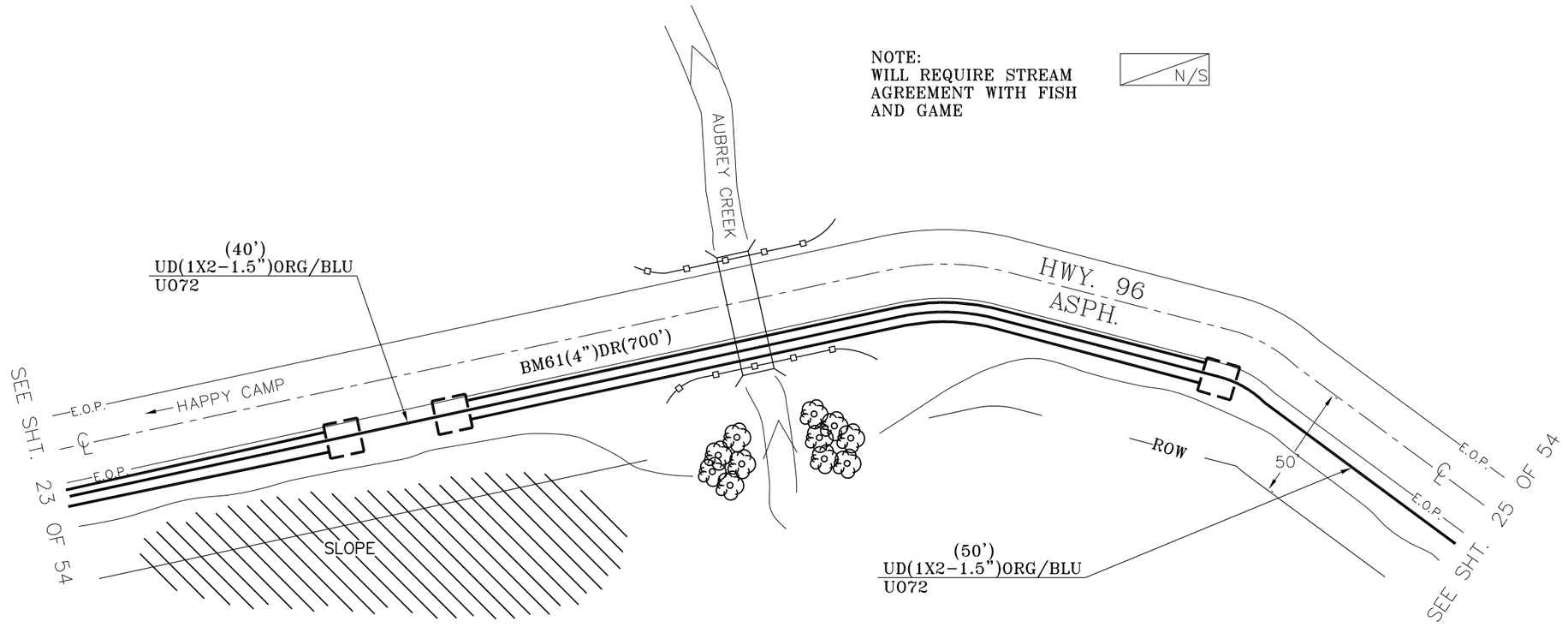
PHONE NO.

Filename: 23-54
Engineer: C. EASTLICK
Drafter: C.EASTLICK
Last Accessed: 10/27/15
Time: 5:12 AM

SUB. INFO.

PED OR POLE NUMBER	BM2(5/8)(5)	BM61(4")D	BM61(4")DR	BM71(48")	UD(1X2-1.5) ORG/BLU	U072	UH264															PED OR POLE NUMBER	SUB NUMBER							
H.H. KK52	1	1630	300	550	150	2160	1																							
	1	1630	300	550	150	2160	1																							

UTILITY LOCATIONS ARE APPROXIMATE.
CONTRACTOR RESPONSIBLE FOR EXACT
LOCATION.



148+44 BORE PIT

148+84 BORE PIT

152+34 BOX CULV. DEPTH 15' M.P. 21.12

155+84 BORE PIT

PED OR POLE NUMBER																							PED OR POLE NUMBER	SUB NUMBER							

SCALE NTS

SISKIYOU TELEPHONE

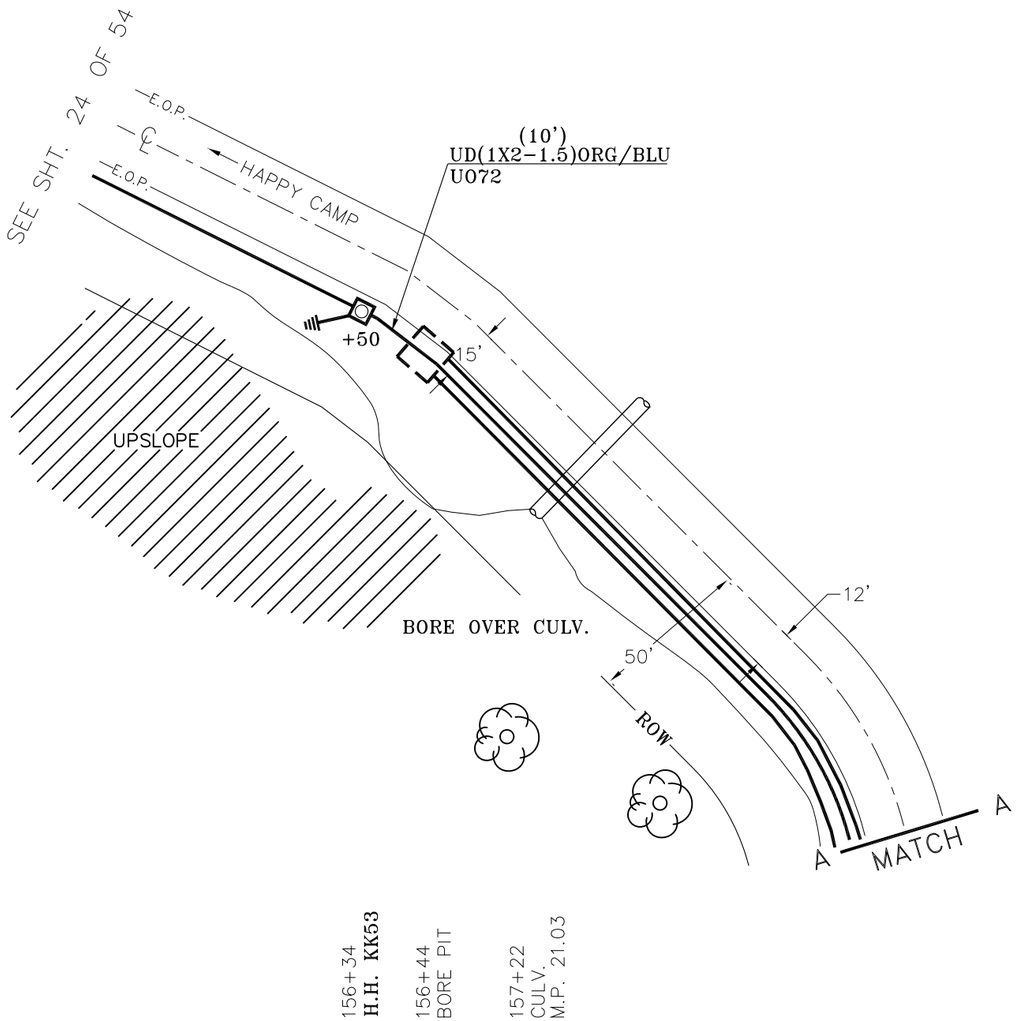
CONTACT ENG.

PHONE NO.

Filename: 24-54
Engineer: C. EASTLICK
Drafter: C.EASTLICK
Last Accessed: 10/27/15
Time: 5:23 AM

SUB. INFO.

CO.	SISKIYOU TELEPHONE
EXCH.	HAPPY CAMP
ROUTE	
J.O. NO.	15HC501
SHEET	24 OF 54
MAP REF.	14-06E-28A
COUNTY	SISKIYOU
T. 14N	R. 6E SEC 22
TAX CODES	
TITLE:	PHASE TWO. BUILD FIBER AND CONDUITS M.P. 24. TO SOMES EAB
AS BUILT DATE	

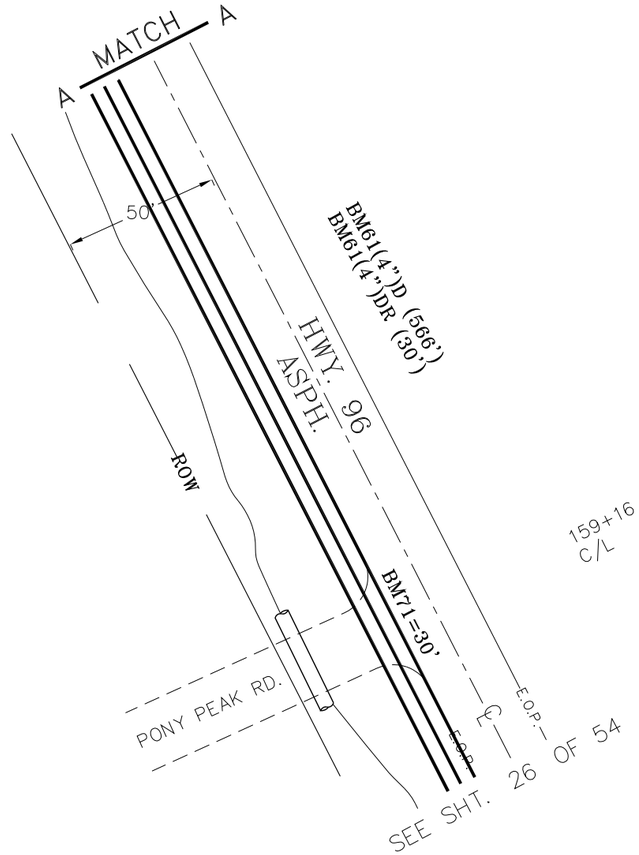


156+34
H.H. KK53

156+44
BORE PIT

157+22
CULV.
M.P. 21.03

UTILITY LOCATIONS ARE APPROXIMATE. CONTRACTOR RESPONSIBLE FOR EXACT LOCATION.



CO.	SISKIYOU TELEPHONE
EXCH.	HAPPY CAMP
ROUTE	
J.O. NO.	15HC501
SHEET	25 OF 54
MAP REF.	14-06E-28A
COUNTY	SISKIYOU
T. 14N	R. 6E SEC 22
TAX CODES	
TITLE:	PHASE TWO. BUILD FIBER AND CONDUITS M.P. 24. TO SOMES EAB
AS BUILT DATE	
SCALE	NTS

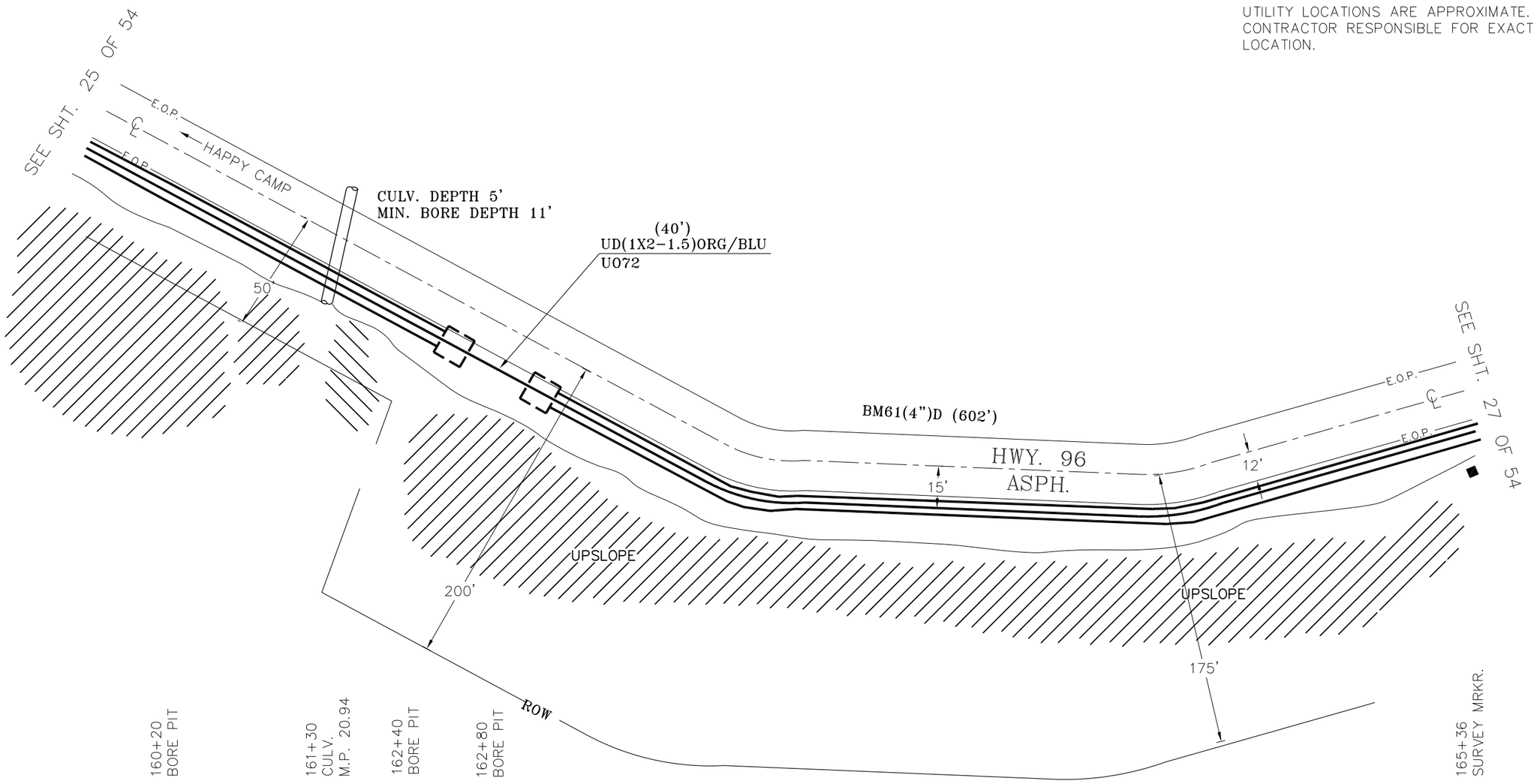
CONTACT ENG.

PHONE NO.

Filename: 25-54
Engineer: C. EASTLICK
Drafter: C.EASTLICK
Last Accessed: 10/27/15
Time: 5:30 AM

SUB. INFO.

PED OR POLE NUMBER	BM2(5/8)(5)	BM61(4")D	BM61(4")DR	UD(1X2-1.5) ORG/BLU	U072	UH264																PED OR POLE NUMBER	SUB NUMBER							
H.H. KK53	1	154	700	100	1034	1																								
	1	154	700	100	1034	1																								



CO.	SISKIYOU TELEPHONE
EXCH.	HAPPY CAMP
ROUTE	
J.O. NO.	15HC501
SHEET	26 OF 54
MAP REF.	14-06E-28A
COUNTY	SISKIYOU
T. 14N	R. 6E SEC 22
TAX CODES	
TITLE:	PHASE TWO. BUILD FIBER AND CONDUITS M.P. 24. TO SOMES EAB
AS BUILT DATE	

SCALE NTS

SISKIYOU TELEPHONE

CONTACT ENG.

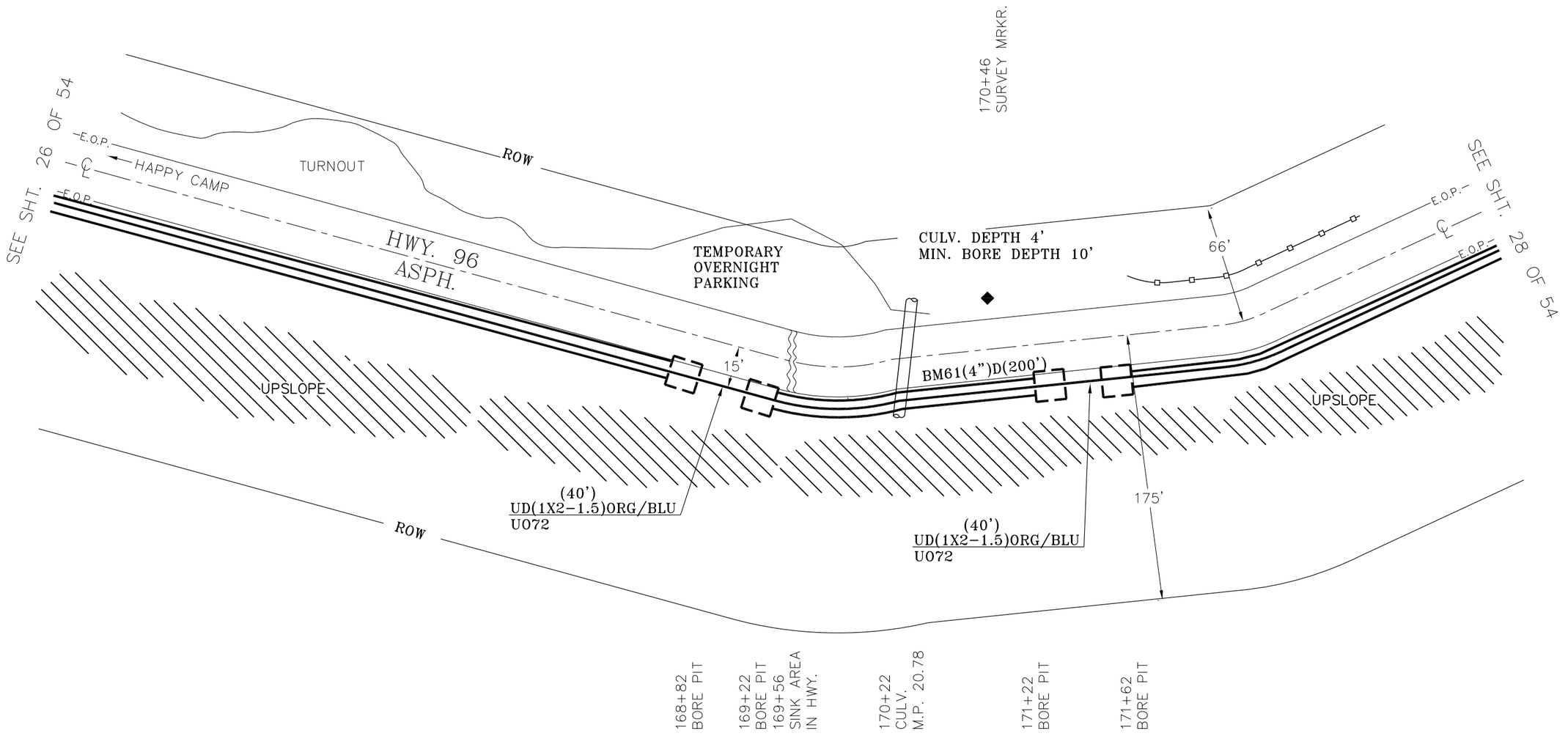
PHONE NO.

Filename: 26-54
Engineer: C. EASTLICK
Drafter: C.EASTLICK
Last Accessed: 10/27/15
Time: 5:43 AM

SUB. INFO.

PED OR POLE NUMBER																						PED OR POLE NUMBER	SUB NUMBER							

UTILITY LOCATIONS ARE APPROXIMATE.
CONTRACTOR RESPONSIBLE FOR EXACT
LOCATION.



CO.	SISKIYOU TELEPHONE
EXCH.	HAPPY CAMP
ROUTE	
J.O. NO.	15HC501
SHEET	27 OF 54
MAP REF.	14-06E-28A
COUNTY	SISKIYOU
T. 14N	R. 6E SEC 21
TAX CODES	
TITLE:	PHASE TWO. BUILD FIBER AND CONDUITS M.P. 24. TO SOMES EAB
AS BUILT DATE	
SCALE	NTS

CONTACT ENG.

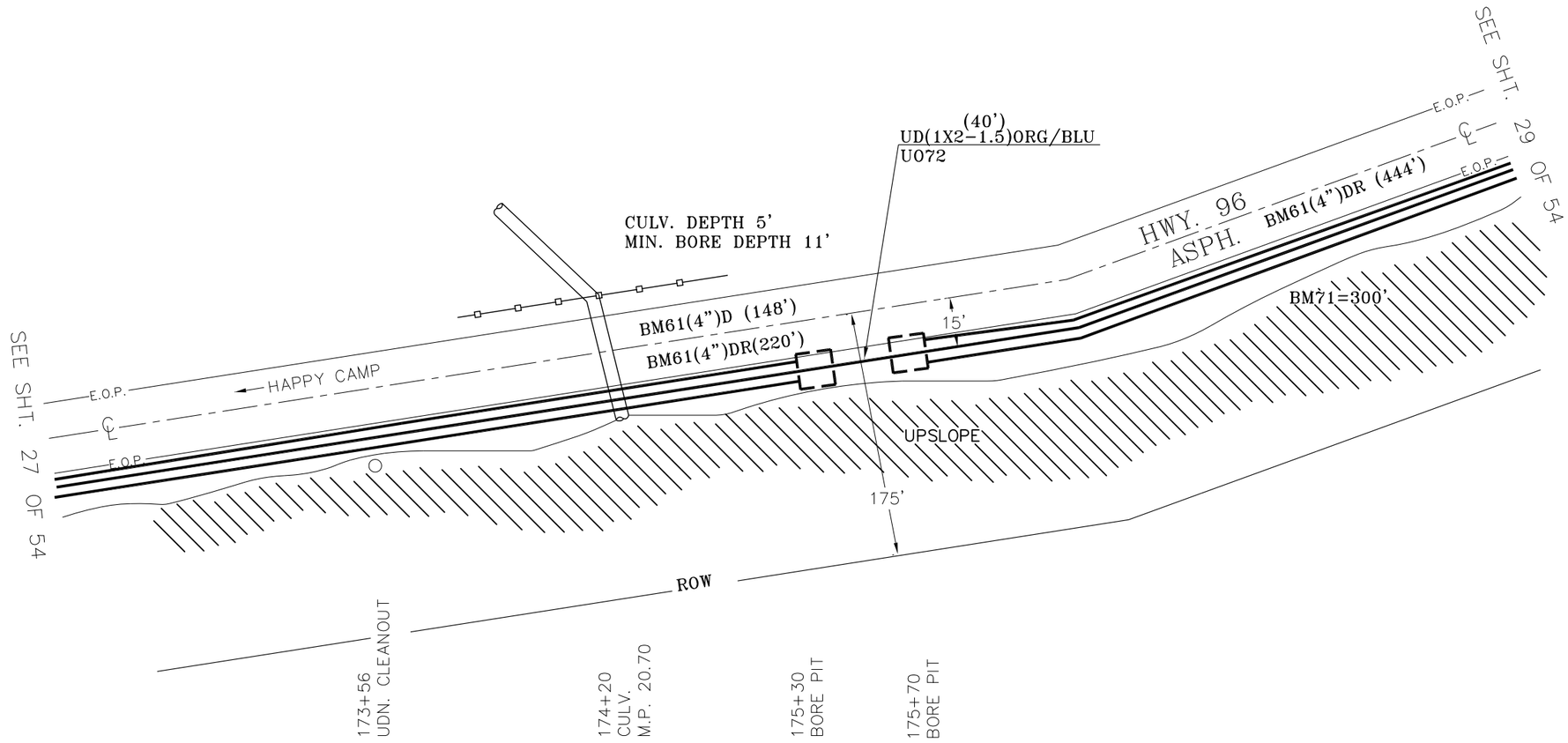
PHONE NO.

Filename: 27-54
Engineer: C. EASTLICK
Drafter: C.EASTLICK
Last Accessed: 10/27/15
Time: 5:47 AM

SUB. INFO.

PED OR POLE NUMBER																						PED OR POLE NUMBER	SUB NUMBER							

UTILITY LOCATIONS ARE APPROXIMATE.
CONTRACTOR RESPONSIBLE FOR EXACT
LOCATION.



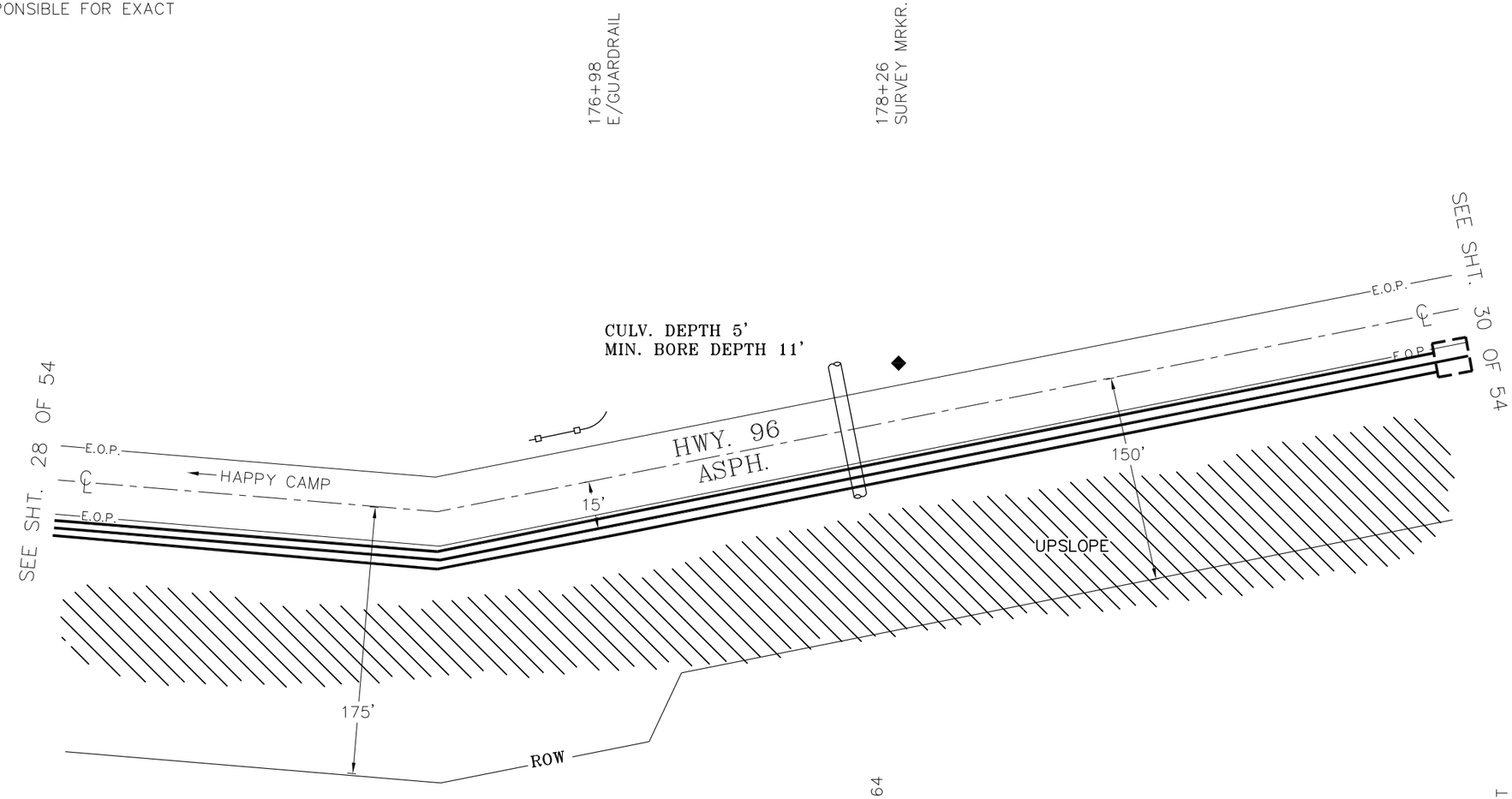
CO.	SISKIYOU TELEPHONE
EXCH.	HAPPY CAMP
ROUTE	
J.O. NO.	15HC501
SHEET	28 OF 54
MAP REF.	14-06E-28A
COUNTY	SISKIYOU
T. 14N	R. 6E SEC 28
TAX CODES	
TITLE:	PHASE TWO. BUILD FIBER AND CONDUITS M.P. 24. TO SOMES EAB
AS BUILT DATE	
SCALE	NTS
CONTACT ENG.	
PHONE NO.	

Filename: 28-54
Engineer: C. EASTLICK
Drafter: C.EASTLICK
Last Accessed: 11/05/15
Time: 10:42 AM

SUB. INFO.

PED OR POLE NUMBER																						PED OR POLE NUMBER	SUB NUMBER							

UTILITY LOCATIONS ARE APPROXIMATE.
CONTRACTOR RESPONSIBLE FOR EXACT
LOCATION.



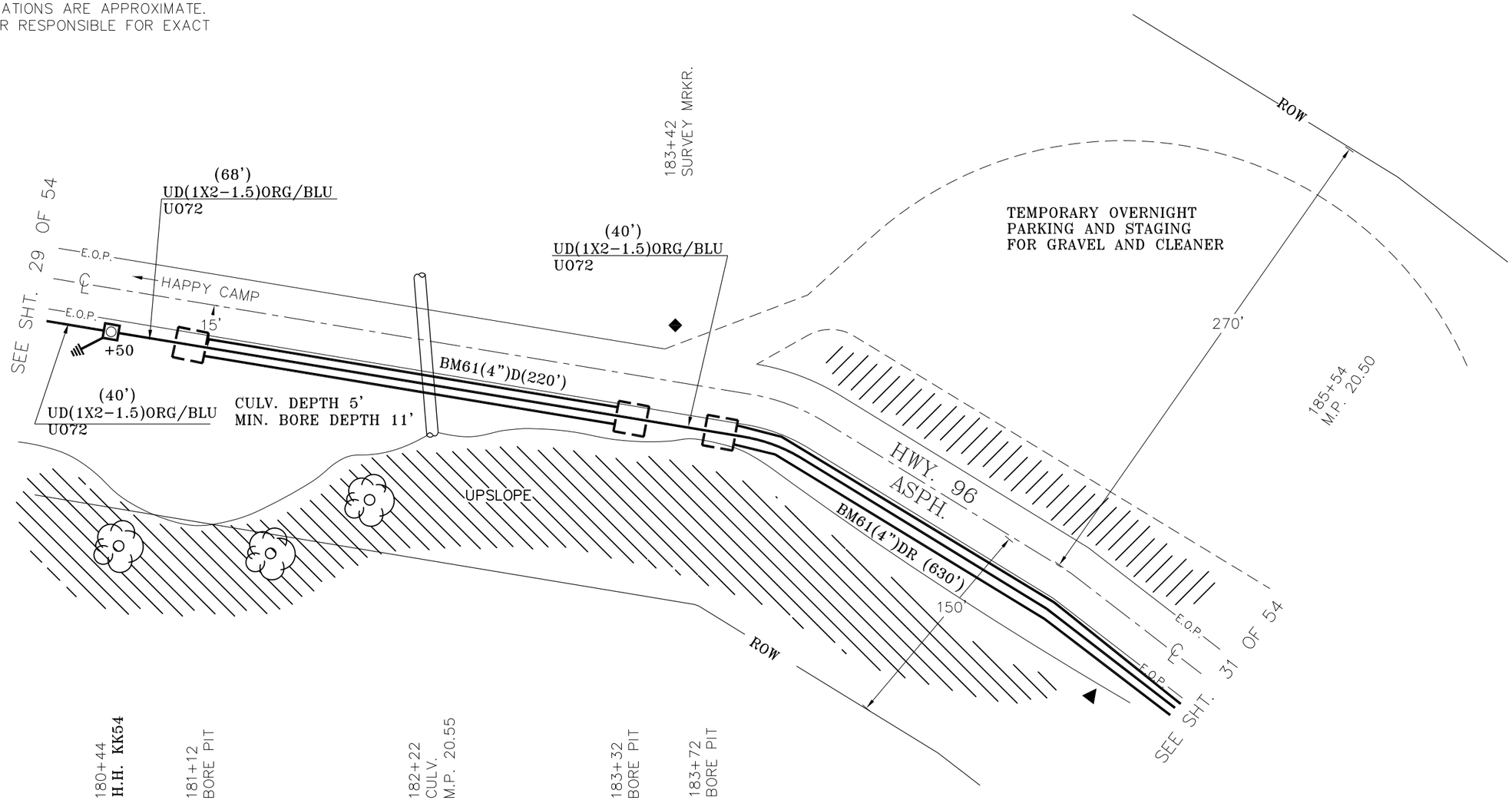
CO.	SISKIYOU TELEPHONE
EXCH.	HAPPY CAMP
ROUTE	
J.O. NO.	15HC501
SHEET	29 OF 54
MAP REF.	14-06E-28A
COUNTY	SISKIYOU
T. 14N	R. 6E SEC 28
TAX CODES	
TITLE:	PHASE TWO. BUILD FIBER AND CONDUITS M.P. 24. TO SOMEA EAB
AS BUILT DATE	
SCALE	NTS
CONTACT ENG.	
PHONE NO.	

Filename: 29-54
Engineer: C. EASTLICK
Drafter: C.EASTLICK
Last Accessed: 10/27/15
Time: 6:08 AM

SUB. INFO.

PED OR POLE NUMBER																						PED OR POLE NUMBER	SUB NUMBER							

UTILITY LOCATIONS ARE APPROXIMATE.
CONTRACTOR RESPONSIBLE FOR EXACT
LOCATION.



CO.	SISKIYOU TELEPHONE
EXCH.	HAPPY CAMP
ROUTE	
J.O. NO.	15HC501
SHEET	30 OF 54
MAP REF.	14-06E-28A
COUNTY	SISKIYOU
T. 14N	R. 6E SEC 28
TAX CODES	
TITLE:	PHASE TWO. BUILD FIBER AND CONDUITS M.P. 24. TO SOMEA EAB
AS BUILT DATE	

SCALE NTS

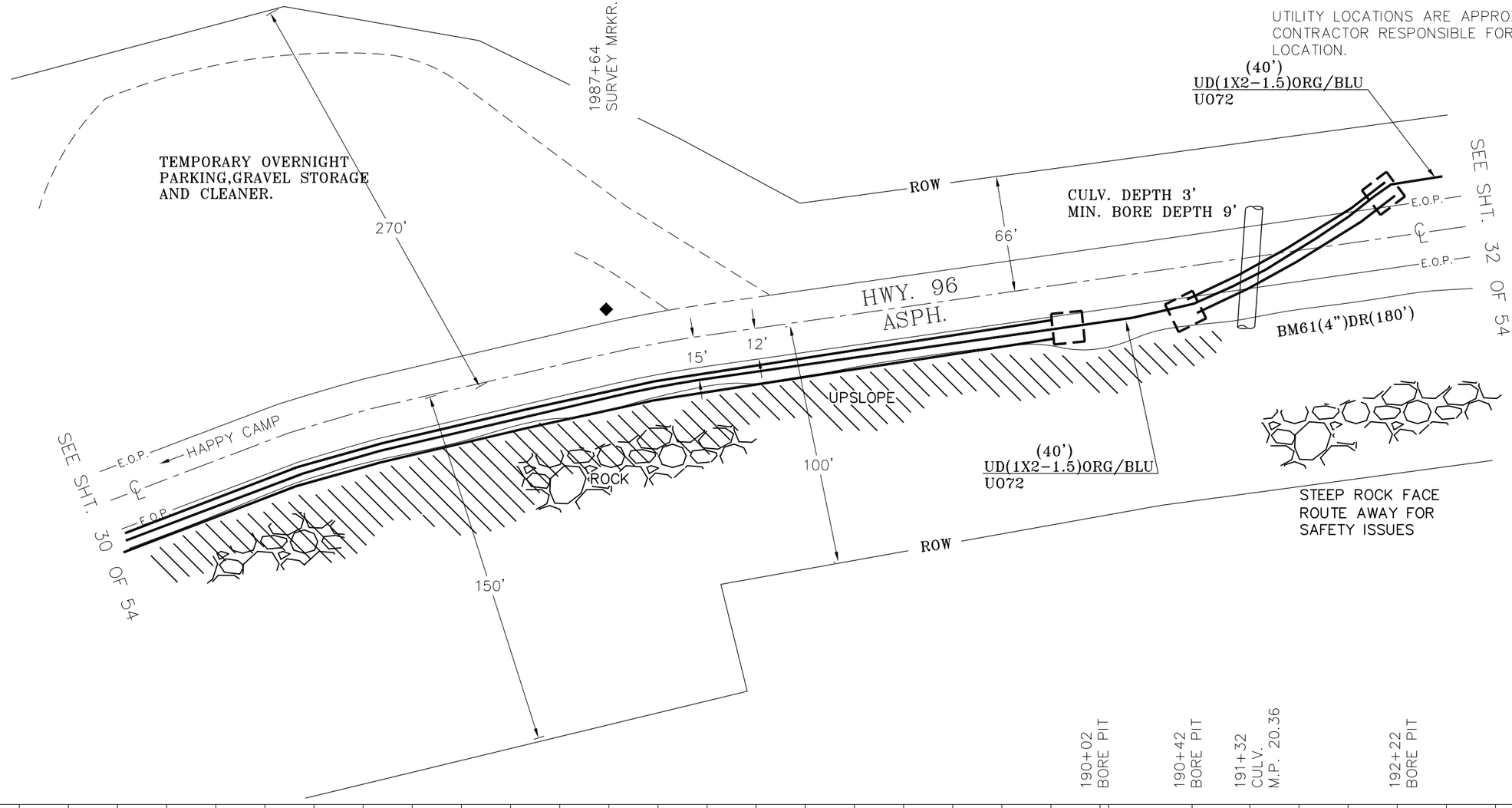
SISKIYOU TELEPHONE

CONTACT ENG.

PHONE NO.

Filename: 30-54
Engineer: C. EASTLICK
Drafter: C.EASTLICK
Last Accessed: 10/27/15
Time: 6:11 AM

PED OR POLE NUMBER	BM2(5/8)(5)	BM61(4")D	BM61(4")DR	BM71(48")	BM72		UD(1X2-1.5) ORG/BLU	U072	UH264													PED OR POLE NUMBER	SUB NUMBER								SUB. INFO.
H.H. KK54	1	1660	550	300	30		210	2688	1																						
	1	1660	550	300	30		210	2688	1																						



CO.	SISKIYOU TELEPHONE
EXCH.	HAPPY CAMP
ROUTE	
J.O. NO.	15HC501
SHEET	31 OF 54
MAP REF.	14-06E-28A
COUNTY	SISKIYOU
T. 14N	R. 6E SEC 28
TAX CODES	
TITLE:	PHASE TWO. BUILD FIBER AND CONDUITS M.P. 24. TO SOMES EAB
AS BUILT DATE	
SCALE	NTS

CONTACT ENG.

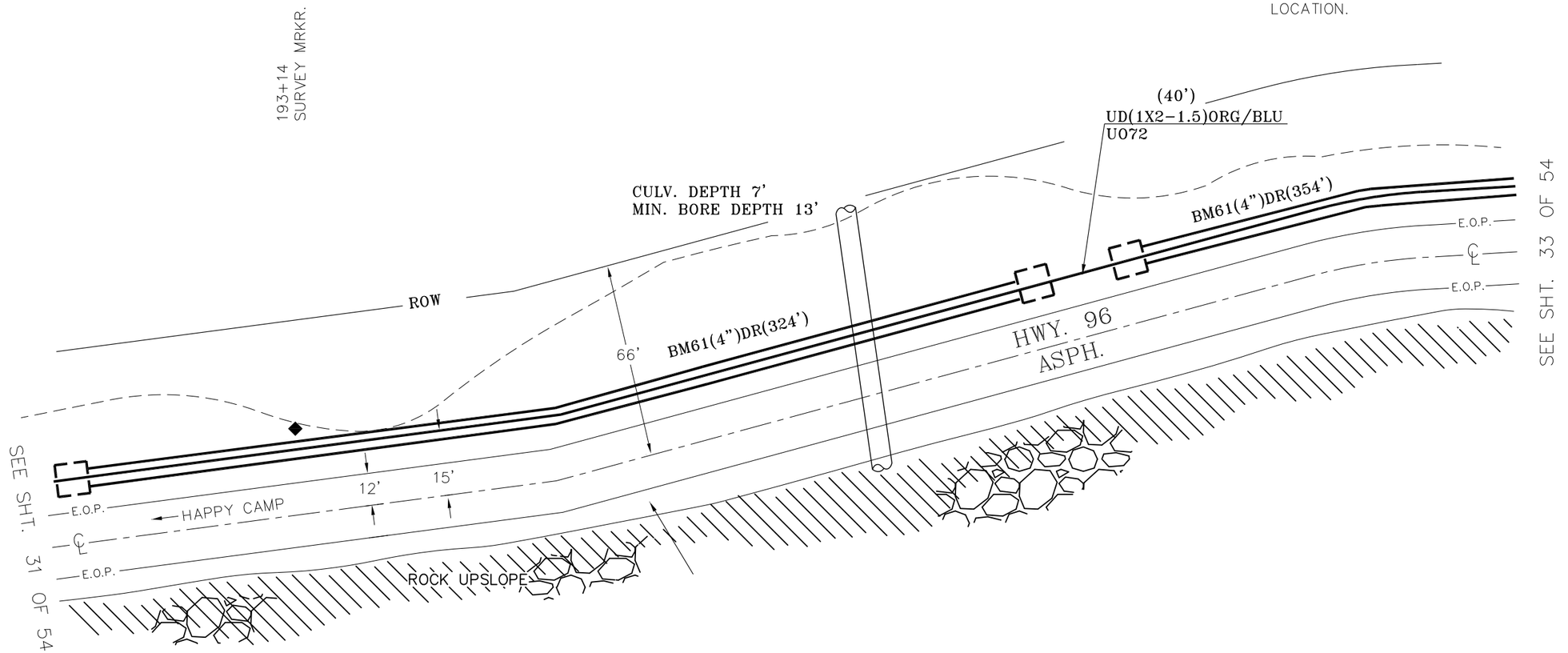
PHONE NO.

Filename: 31-54
Engineer: C. EASTLICK
Drafter: C.EASTLICK
Last Accessed: 10/27/15
Time: 6:23 AM

SUB. INFO.

PED OR POLE NUMBER																							PED OR POLE NUMBER	SUB NUMBER						

UTILITY LOCATIONS ARE APPROXIMATE. CONTRACTOR RESPONSIBLE FOR EXACT LOCATION.



CO.	SISKIYOU TELEPHONE
EXCH.	HAPPY CAMP
ROUTE	
J.O. NO.	15HC501
SHEET	32 OF 54
MAP REF.	14-06E-28A
COUNTY	SISKIYOU
T. 14N	R. 6E SEC 28
TAX CODES	
TITLE:	PHASE TWO. BUILD FIBER AND CONDUITS M.P. 24. TO SOMES EAB
AS BUILT DATE	

SCALE NTS

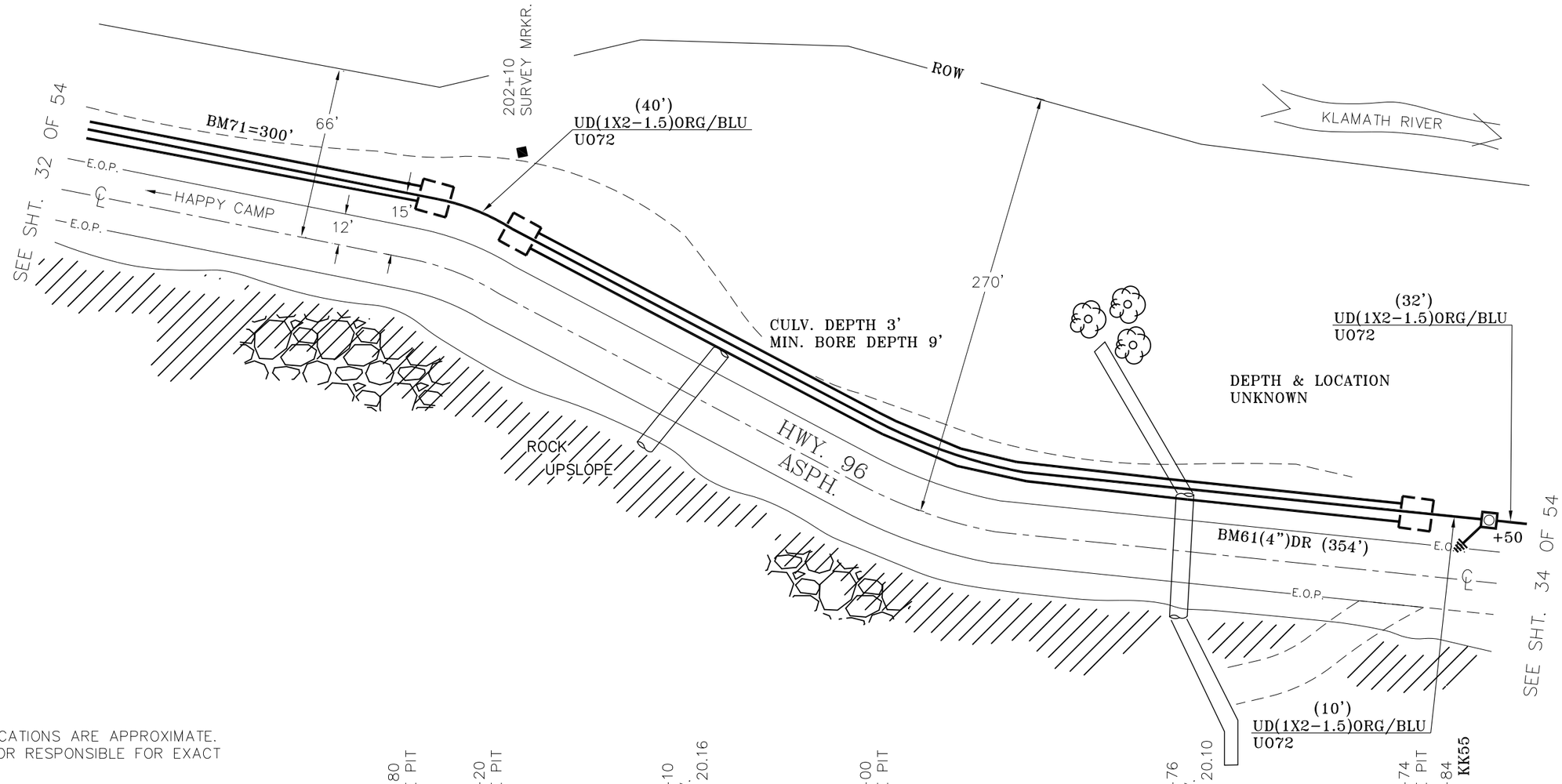
SISKIYOU TELEPHONE

CONTACT ENG.

PHONE NO.

Filename: 32-54
Engineer: C. EASTLICK
Drafter: C.EASTLICK
Last Accessed: 10/27/15
Time: 6:29 AM

PED OR POLE NUMBER																						PED OR POLE NUMBER	SUB NUMBER							SUB. INFO.



UTILITY LOCATIONS ARE APPROXIMATE.
CONTRACTOR RESPONSIBLE FOR EXACT
LOCATION.

199+80 BORE PIT
202+20 BORE PIT
203+10 CULV. M.P. 20.16
204+00 BORE PIT
204+76 CULV. M.P. 20.10
205+74 BORE PIT
205+84 H.H. KK55

PED OR POLE NUMBER	BM2(5/8)(5)	BM61(4")D	BM61(4")DR	BM71(48")	UD(1X2-1.5) ORG/BLU	U072	UH264															PED OR POLE NUMBER	SUB NUMBER							
H.H. KK55	1	220	1852	300	198	2590	1																							
	1	220	1852	300	198	2590	1																							

CO.	SISKIYOU TELEPHONE
EXCH.	HAPPY CAMP
ROUTE	
J.O. NO.	15HC501
SHEET	33 OF 54
MAP REF.	14-06E-28A
COUNTY	SISKIYOU
T. 14N	R. 6E SEC 28
TAX CODES	
TITLE:	PHASE TWO. BUILD FIBER AND CONDUITS M.P. 24. TO SOMES EAB
AS BUILT DATE	

SCALE NTS

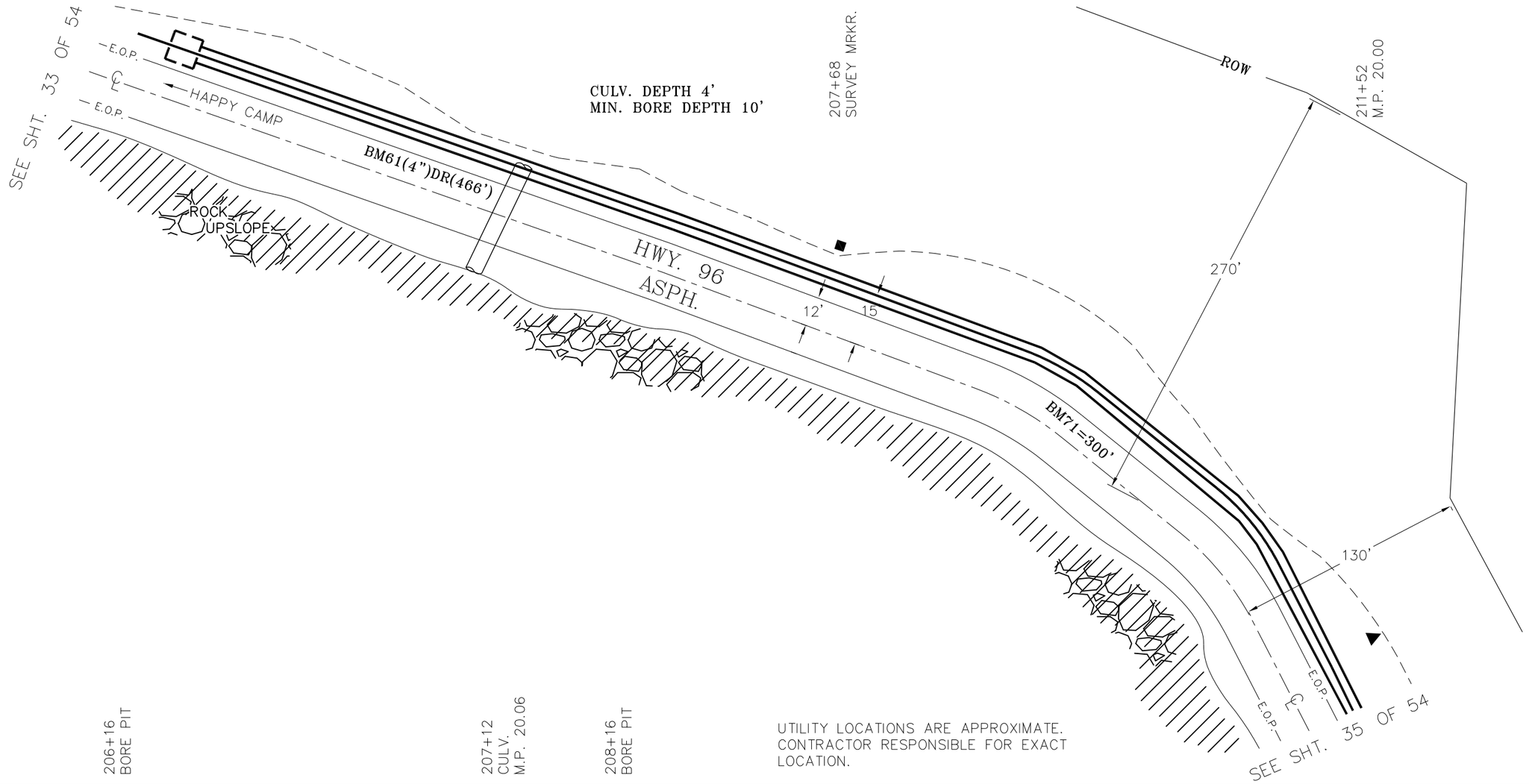
SISKIYOU TELEPHONE

CONTACT ENG.

PHONE NO.

Filename: 33-54
Engineer: C. EASTLICK
Drafter: C.EASTLICK
Last Accessed: 11/05/15
Time: 10:44 AM

SUB. INFO.



206+16
BORE PIT

207+12
CULV.
M.P. 20.06

208+16
BORE PIT

UTILITY LOCATIONS ARE APPROXIMATE.
CONTRACTOR RESPONSIBLE FOR EXACT
LOCATION.

CO.	SISKIYOU TELEPHONE
EXCH.	HAPPY CAMP
ROUTE	
J.O. NO.	15HC501
SHEET	34 OF 54
MAP REF.	14-06E-28A
COUNTY	SISKIYOU
T. 14N	R. 6E SEC 28
TAX CODES	
TITLE:	PHASE TWO. BUILD FIBER AND CONDUITS M.P. 24. TO SOMES EAB
AS BUILT DATE	

SCALE NTS

SISKIYOU TELEPHONE

CONTACT ENG.

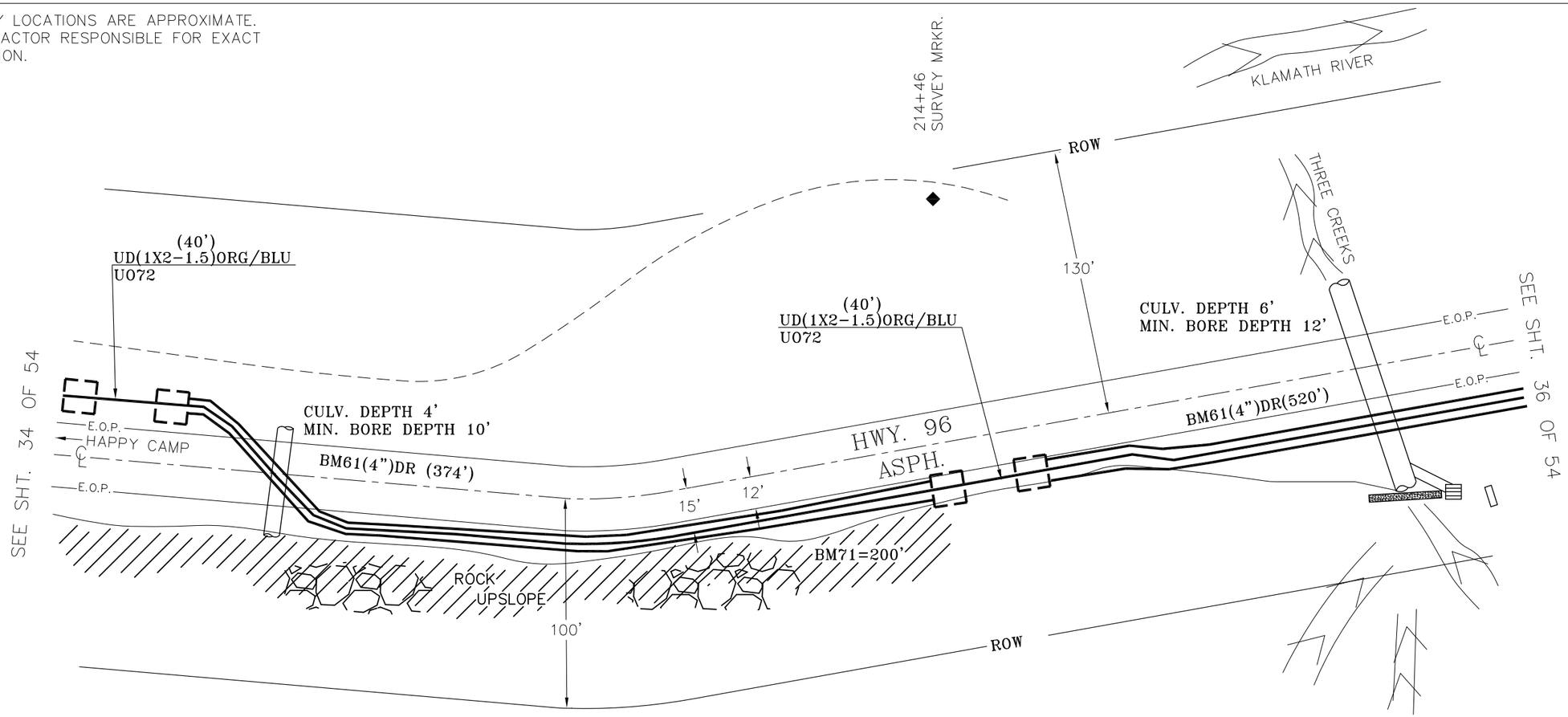
PHONE NO.

Filename: 34-54
Engineer: C. EASTLICK
Drafter: C.EASTLICK
Last Accessed: 10/27/15
Time: 6:57 AM

SUB. INFO.

PED OR POLE NUMBER																						PED OR POLE NUMBER	SUB NUMBER							

UTILITY LOCATIONS ARE APPROXIMATE.
CONTRACTOR RESPONSIBLE FOR EXACT
LOCATION.



CO.	SISKIYOU TELEPHONE
EXCH.	HAPPY CAMP
ROUTE	
J.O. NO.	15HC501
SHEET	35 OF 54
MAP REF.	14-06E-28A
COUNTY	SISKIYOU
T. 14N	R. 6E SEC 28
TAX CODES	
TITLE:	PHASE TWO. BUILD FIBER AND CONDUITS M.P. 24. TO SOMES EAB
AS BUILT DATE	
SCALE	NTS

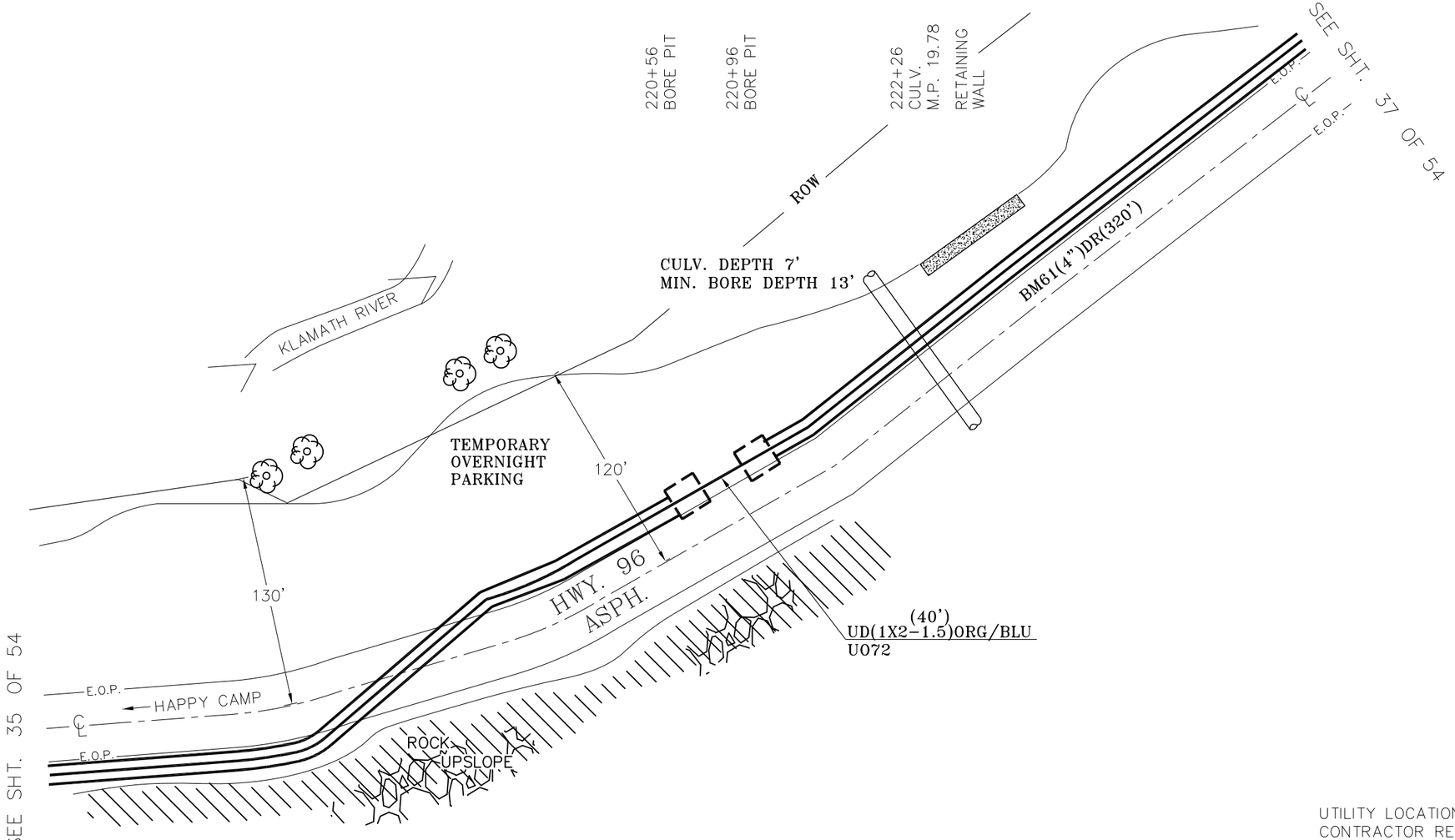
CONTACT ENG.

PHONE NO.

Filename: 35-54
Engineer: C. EASTLICK
Drafter: C.EASTLICK
Last Accessed: 10/27/15
Time: 7:24 AM

SUB. INFO.

PED OR POLE NUMBER		210+82 BORE PIT	211+22 BORE PIT			212+22 CULV. M.P. 19.99													214+92 BORE PIT	212+32 BORE PIT			PED OR POLE NUMBER	SUB NUMBER		216+36 CULV. M.P. 19.89		SIGN			



UTILITY LOCATIONS ARE APPROXIMATE. CONTRACTOR RESPONSIBLE FOR EXACT LOCATION.

CO.	SISKIYOU TELEPHONE
EXCH.	HAPPY CAMP
ROUTE	
J.O. NO.	15HC501
SHEET	36 OF 54
MAP REF.	14-06E-28A
COUNTY	SISKIYOU
T. 14N	R. 6E SEC 28
TAX CODES	
TITLE:	PHASE TWO. BUILD FIBER AND CONDUITS M.P. 24. TO SOMES EAB
AS BUILT DATE	
SCALE	NTS

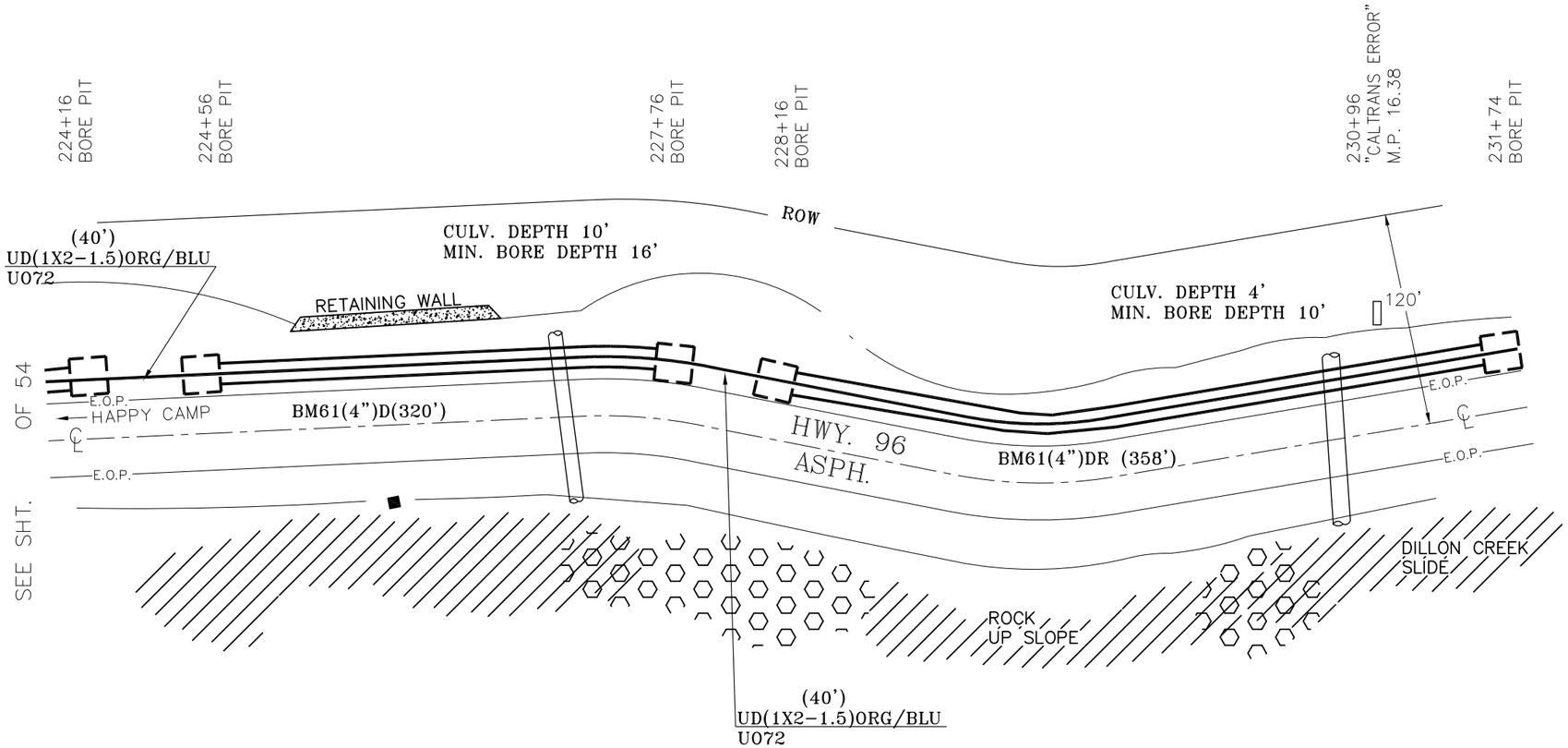
SISKIYOU TELEPHONE

CONTACT ENG.

PHONE NO.

Filename: 36-54
Engineer: C. EASTLICK
Drafter: C.EASTLICK
Last Accessed: 10/27/15
Time: 7:30 AM

PED OR POLE NUMBER																						PED OR POLE NUMBER	SUB NUMBER							SUB. INFO.



CO.	SISKIYOU TELEPHONE
EXCH.	HAPPY CAMP
ROUTE	
J.O. NO.	15HC501
SHEET	37 OF 54
MAP REF.	14-06E-28A
COUNTY	SISKIYOU
T. 14N	R. 6E SEC 28
TAX CODES	
TITLE:	PHASE TWO. BUILD FIBER AND CONDUITS M.P. 24. TO SOMES EAB
AS BUILT DATE	
SCALE	NTS

UTILITY LOCATIONS ARE APPROXIMATE.
CONTRACTOR RESPONSIBLE FOR EXACT LOCATION.

225+22 SURVEY MRKR.

226+16 CULV. M.P. 19.71

230+74 CULV. M.P. 19.64

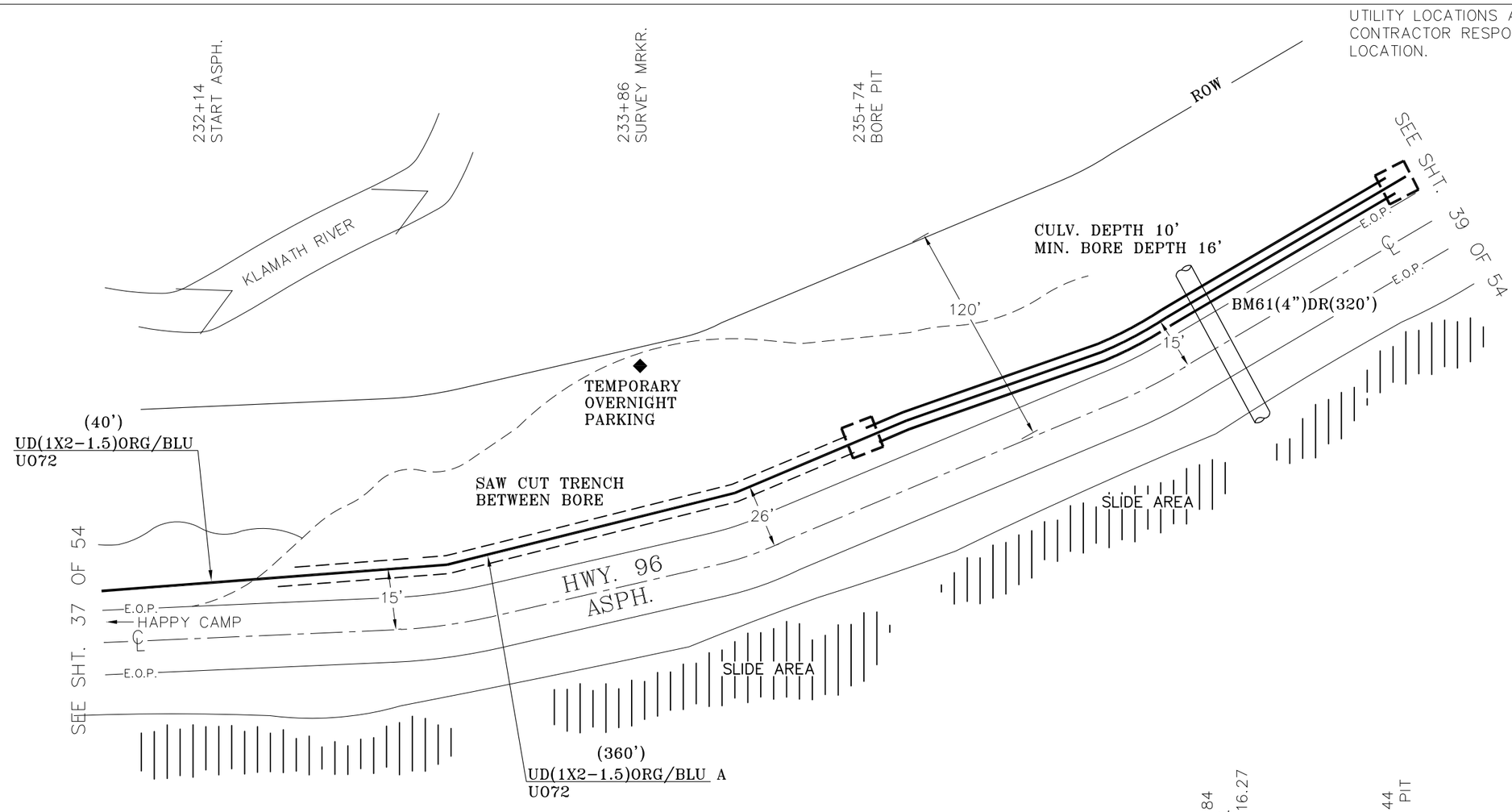
CONTACT ENG.

PHONE NO.

Filename: 37-54
Engineer: C. EASTLICK
Drafter: C.EASTLICK
Last Accessed: 10/27/15
Time: 7:36 AM

SUB. INFO.

PED OR POLE NUMBER																							PED OR POLE NUMBER	SUB NUMBER						



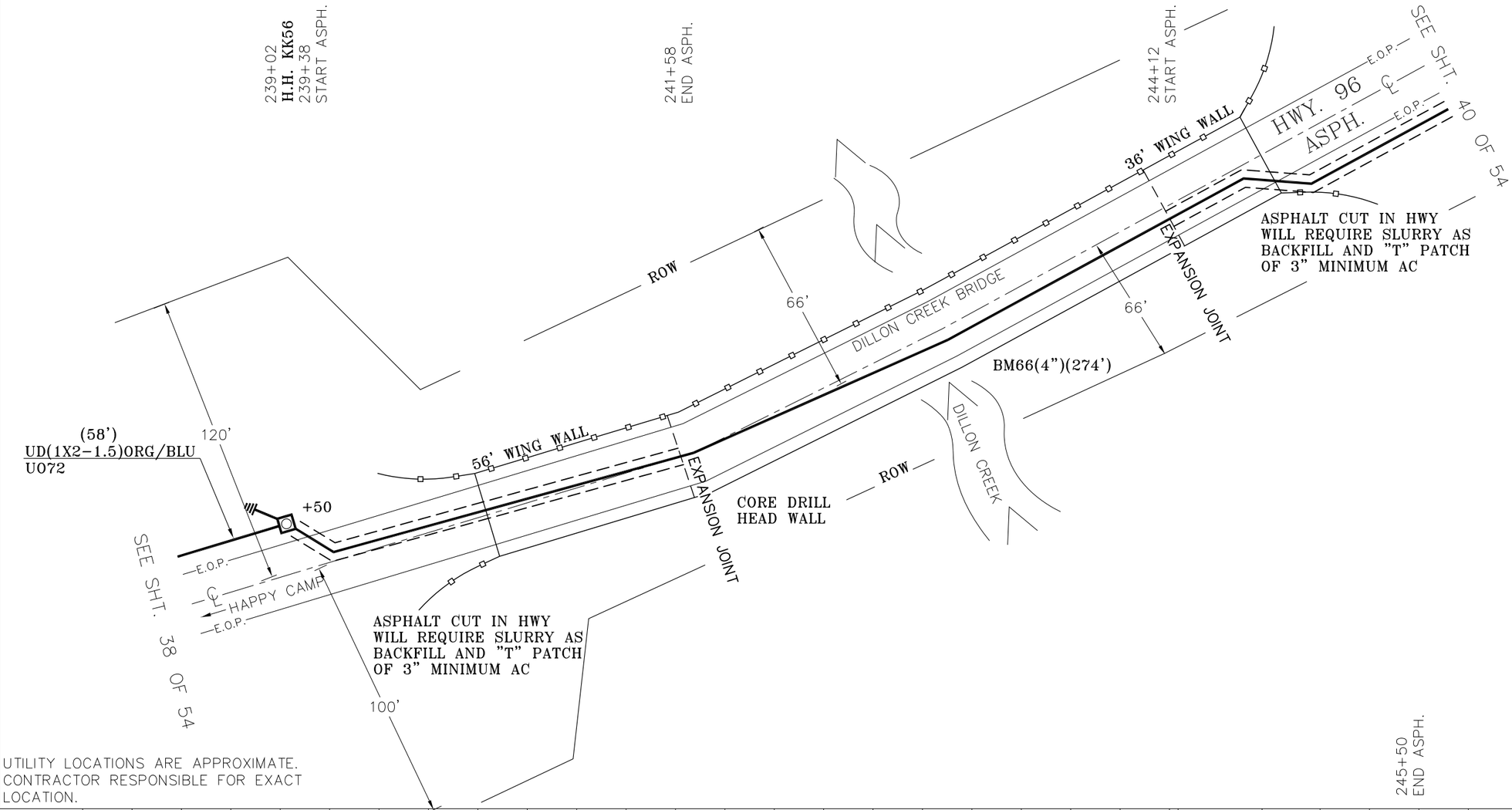
CO.	SISKIYOU TELEPHONE
EXCH.	HAPPY CAMP
ROUTE	
J.O. NO.	15HC501
SHEET	38 OF 54
MAP REF.	14-06E-28B
COUNTY	SISKIYOU
T. 14N	R. 6E SEC 28
TAX CODES	
TITLE:	PHASE TWO. BUILD FIBER AND CONDUITS M.P. 24. TO SOMES EAB
AS BUILT DATE	
SCALE	NTS

CONTACT ENG.

PHONE NO.

Filename: 38-54
Engineer: C. EASTLICK
Drafter: C.EASTLICK
Last Accessed: 10/27/15
Time: 7:53 AM

PED OR POLE NUMBER																							PED OR POLE NUMBER	SUB NUMBER							SUB. INFO.



UTILITY LOCATIONS ARE APPROXIMATE.
CONTRACTOR RESPONSIBLE FOR EXACT LOCATION.

PED OR POLE NUMBER	BM2(5/8)(5)	BM61(4")D	BM61(4")DR	BM71(48")	UD(1X2-1.5) A ORG/BLU	UD(1X2-1.5) ORG/BLU	U072	UH264														PED OR POLE NUMBER	SUB NUMBER							
H.H. KK56	1	320	2358	500	360	330	3528	1																						
	1	320	2358	500	360	996	3528	1																						

CO.	SISKIYOU TELEPHONE
EXCH.	HAPPY CAMP
ROUTE	
J.O. NO.	15HC501
SHEET	39 OF 54
MAP REF.	14-06E-28B
COUNTY	SISKIYOU
T. 14N	R. 6E SEC 28
TAX CODES	
TITLE:	PHASE TWO. BUILD FIBER AND CONDUITS M.P. 24. TO SOMES EAB
AS BUILT DATE	
SCALE	NTS

SISKIYOU TELEPHONE

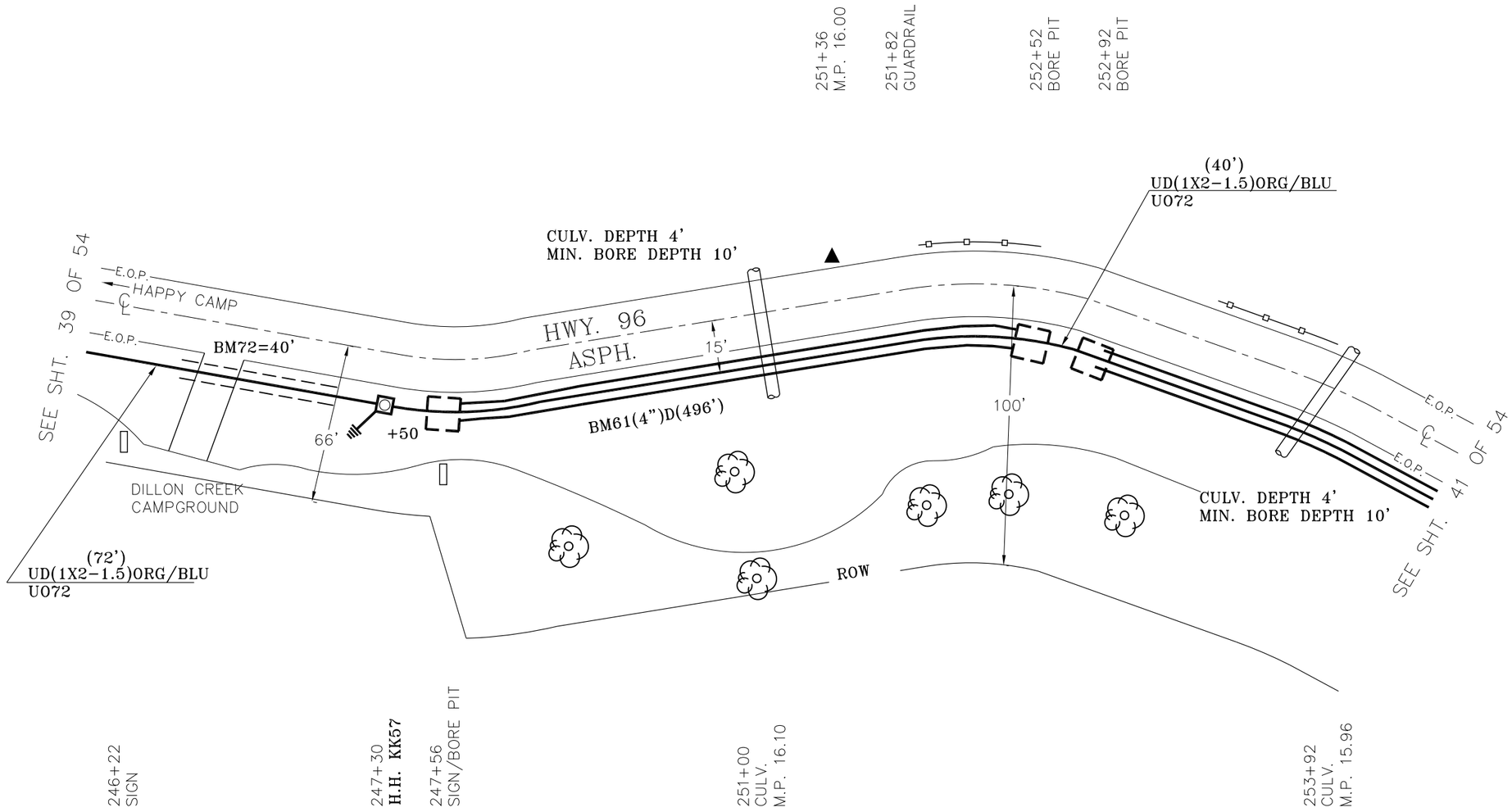
CONTACT ENG.

PHONE NO.

Filename: 39-54
Engineer: C. EASTLICK
Drafter: C.EASTLICK
Last Accessed: 10/27/15
Time: 8:15 AM

SUB. INFO.

UTILITY LOCATIONS ARE APPROXIMATE.
CONTRACTOR RESPONSIBLE FOR EXACT
LOCATION.



CO.	SISKIYOU TELEPHONE
EXCH.	HAPPY CAMP
ROUTE	
J.O. NO.	15HC501
SHEET	40 OF 54
MAP REF.	14-06E-28B
COUNTY	SISKIYOU
T. 14N	R. 6E SEC 28
TAX CODES	
TITLE:	PHASE TWO. BUILD FIBER AND CONDUITS M.P. 24. TO SOMES EAB
AS BUILT DATE	

SCALE NTS

SISKIYOU TELEPHONE

CONTACT ENG.

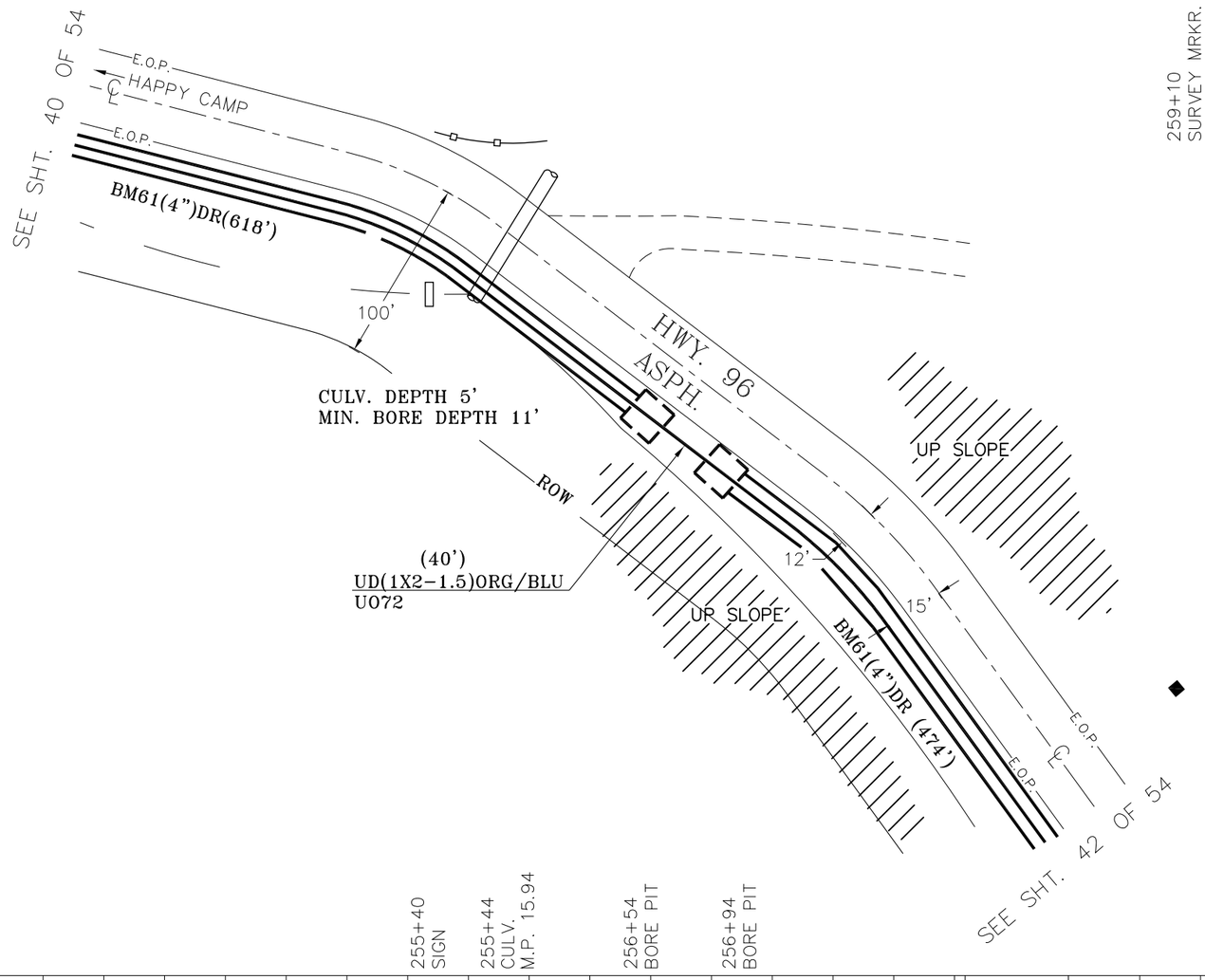
PHONE NO.

Filename: 40-54
Engineer: C. EASTLICK
Drafter: C.EASTLICK
Last Accessed: 10/27/15
Time: 8:25 AM

SUB. INFO.

PED OR POLE NUMBER	BM2(5/8)(5)	BM66(4")	UD(1X2-1.5)A ORG/BLU	UD(1X2-1.5) ORG/BLU	UH264	U072																PED OR POLE NUMBER	SUB NUMBER							
H.H. KK57	1	274	398	236	1	878																								
	1	274	398	236	1	878																								

UTILITY LOCATIONS ARE APPROXIMATE.
CONTRACTOR RESPONSIBLE FOR EXACT LOCATION.



CO.	SISKIYOU TELEPHONE
EXCH.	HAPPY CAMP
ROUTE	
J.O. NO.	15HC501
SHEET	41 OF 54
MAP REF.	14-06E-28B
COUNTY	SISKIYOU
T. 14N	R. 6E SEC 28
TAX CODES	
TITLE:	PHASE TWO. BUILD FIBER AND CONDUITS M.P. 24. TO SOMES EAB
AS BUILT DATE	
SCALE	NTS

CONTACT ENG.

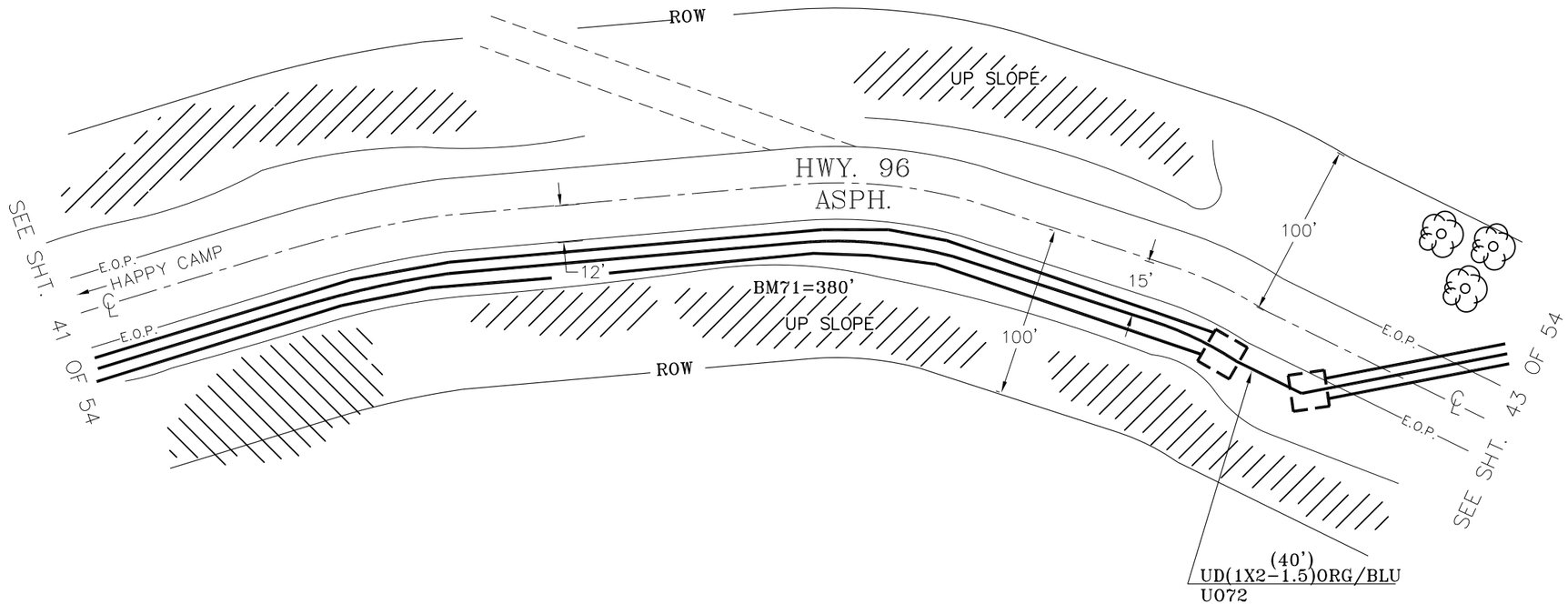
PHONE NO.

Filename: 41-54
Engineer: C. EASTLICK
Drafter: C.EASTLICK
Last Accessed: 10/27/15
Time: 8:36 AM

SUB. INFO.

PED OR POLE NUMBER																						PED OR POLE NUMBER	SUB NUMBER							

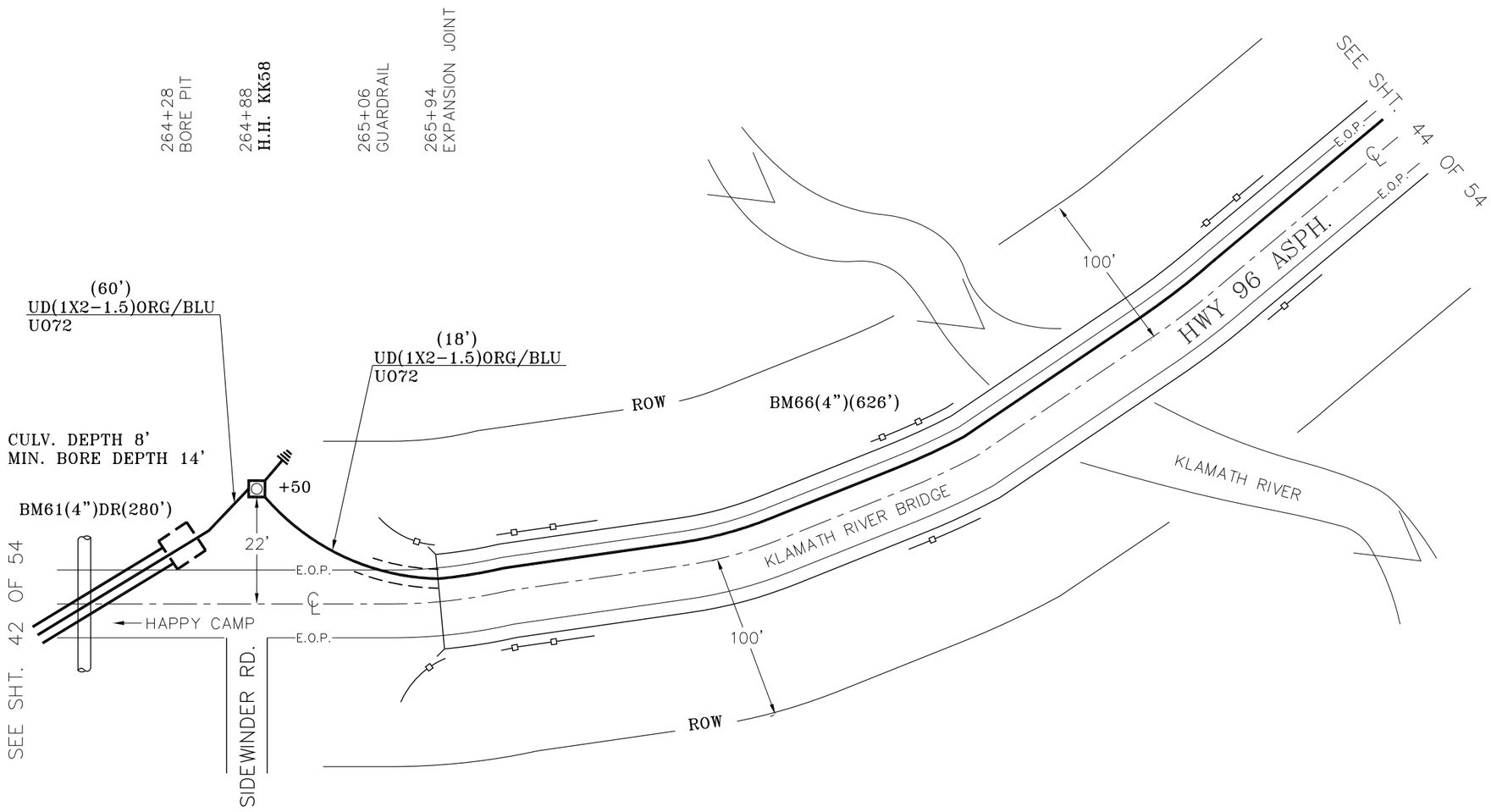
UTILITY LOCATIONS ARE APPROXIMATE.
CONTRACTOR RESPONSIBLE FOR EXACT
LOCATION.



CO.	SISKIYOU TELEPHONE
EXCH.	HAPPY CAMP
ROUTE	
J.O. NO.	15HC501
SHEET	42 OF 54
MAP REF.	14-06E-28B
COUNTY	SISKIYOU
T. 14N	R. 6E SEC 28
TAX CODES	
TITLE:	PHASE TWO. BUILD FIBER AND CONDUITS M.P. 24. TO SOMES EAB
AS BUILT DATE	
SCALE	NTS
CONTACT ENG.	
PHONE NO.	

Filename: 42-54
Engineer: C. EASTLICK
Drafter: C.EASTLICK
Last Accessed: 10/27/15
Time: 8:42 AM

PED OR POLE NUMBER																							PED OR POLE NUMBER	SUB NUMBER							SUB. INFO.



UTILITY LOCATIONS ARE APPROXIMATE. CONTRACTOR RESPONSIBLE FOR EXACT LOCATION.

CO.	SISKIYOU TELEPHONE
EXCH.	HAPPY CAMP
ROUTE	
J.O. NO.	15HC501
SHEET	43 OF 54
MAP REF.	14-06E-28B
COUNTY	SISKIYOU
T. 14N	R. 6E SEC 28
TAX CODES	
TITLE:	PHASE TWO. BUILD FIBER AND CONDUITS M.P. 24. TO SOMES EAB
AS BUILT DATE	
SCALE	NTS

SISKIYOU TELEPHONE

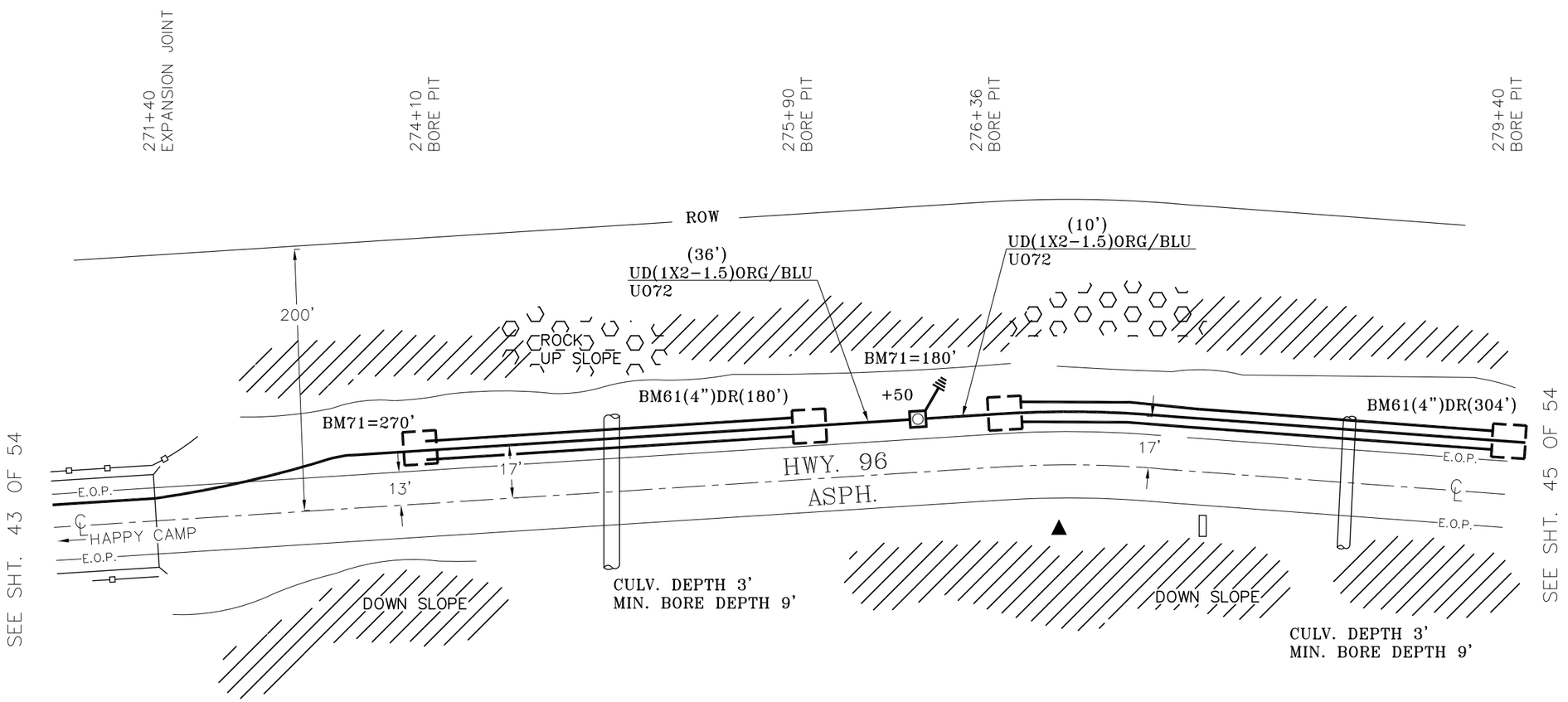
CONTACT ENG.

PHONE NO.

Filename: 43-54
Engineer: C. EASTLICK
Drafter: C.EASTLICK
Last Accessed: 10/27/15
Time: 8:47 AM

SUB. INFO.

PED OR POLE NUMBER	BM2(5/8)(5)	BM61(4")D	BM61(4")DR	BM71(48")	UD(1X2-1.5) ORG/BLU	UH264	U072															PED OR POLE NUMBER	SUB NUMBER							
H.H. KK58	1	496	1372	380	200	1	2108																							
	1	496	1372	380	200	1	2108																							



UTILITY LOCATIONS ARE APPROXIMATE.
CONTRACTOR RESPONSIBLE FOR EXACT LOCATION.

275+00 CULV. M.P. 15.56

276+26 **H.H. KK59**

276+94 M.P. 15.50

277+86 SIGN

278+50 CULV. M.P. 15.48

PED OR POLE NUMBER	BM2(5/8)(5)	BM66(4")	BM61(4")DR	BM71(48")	UD(1X2-1.5)A ORG/BLU	UD(1X2-1.5) ORG/BLU	UH264	U072																						
H.H. KK59	1	626	180	270	240	272	1	1478																						
	1	626	180	270	240	272	1	1478																						

PED OR POLE NUMBER	SUB NUMBER

CO. SISKIYOU TELEPHONE
EXCH. HAPPY CAMP
ROUTE
J.O. NO. 15HC501
SHEET 44 OF 54

MAP REF. 14-06E-28B
COUNTY SISKIYOU

T. 14N | R. 6E | SEC 28
TAX CODES

TITLE: PHASE TWO. BUILD FIBER AND CONDUITS M.P. 24. TO SOMES EAB
AS BUILT DATE

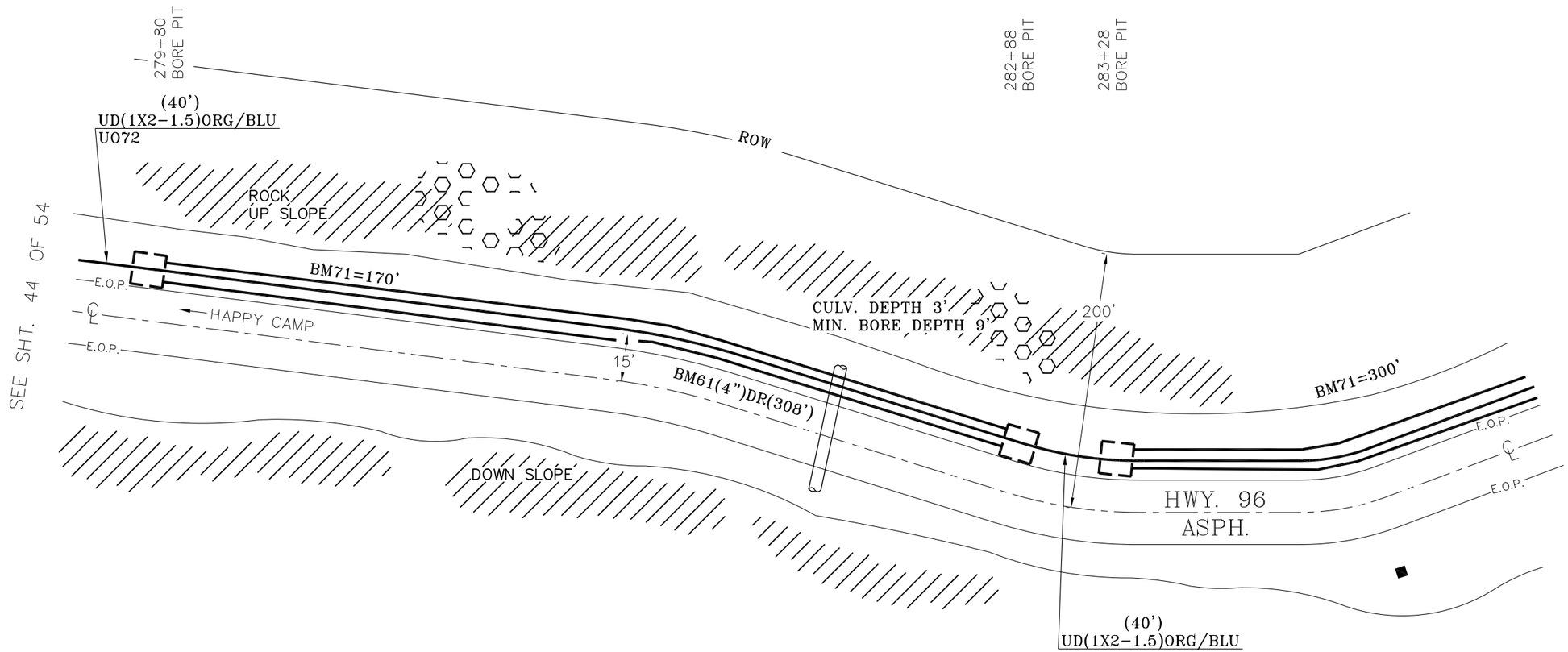
SCALE NTS

SISKIYOU TELEPHONE

CONTACT ENG.
PHONE NO.

Filename: 44-54
Engineer: C. EASTLICK
Drafter: C.EASTLICK
Last Accessed: 10/27/15
Time: 8:52 AM

SUB. INFO.



CO.	SISKIYOU TELEPHONE
EXCH.	HAPPY CAMP
ROUTE	
J.O. NO.	15HC501
SHEET	45 OF 54
MAP REF.	14-06E-28B
COUNTY	SISKIYOU
T. 14N	R. 6E SEC 28
TAX CODES	
TITLE:	PHASE TWO. BUILD FIBER AND CONDUITS M.P. 24. TO SOMES EAB
AS BUILT DATE	
SCALE	NTS
CONTACT ENG.	
PHONE NO.	

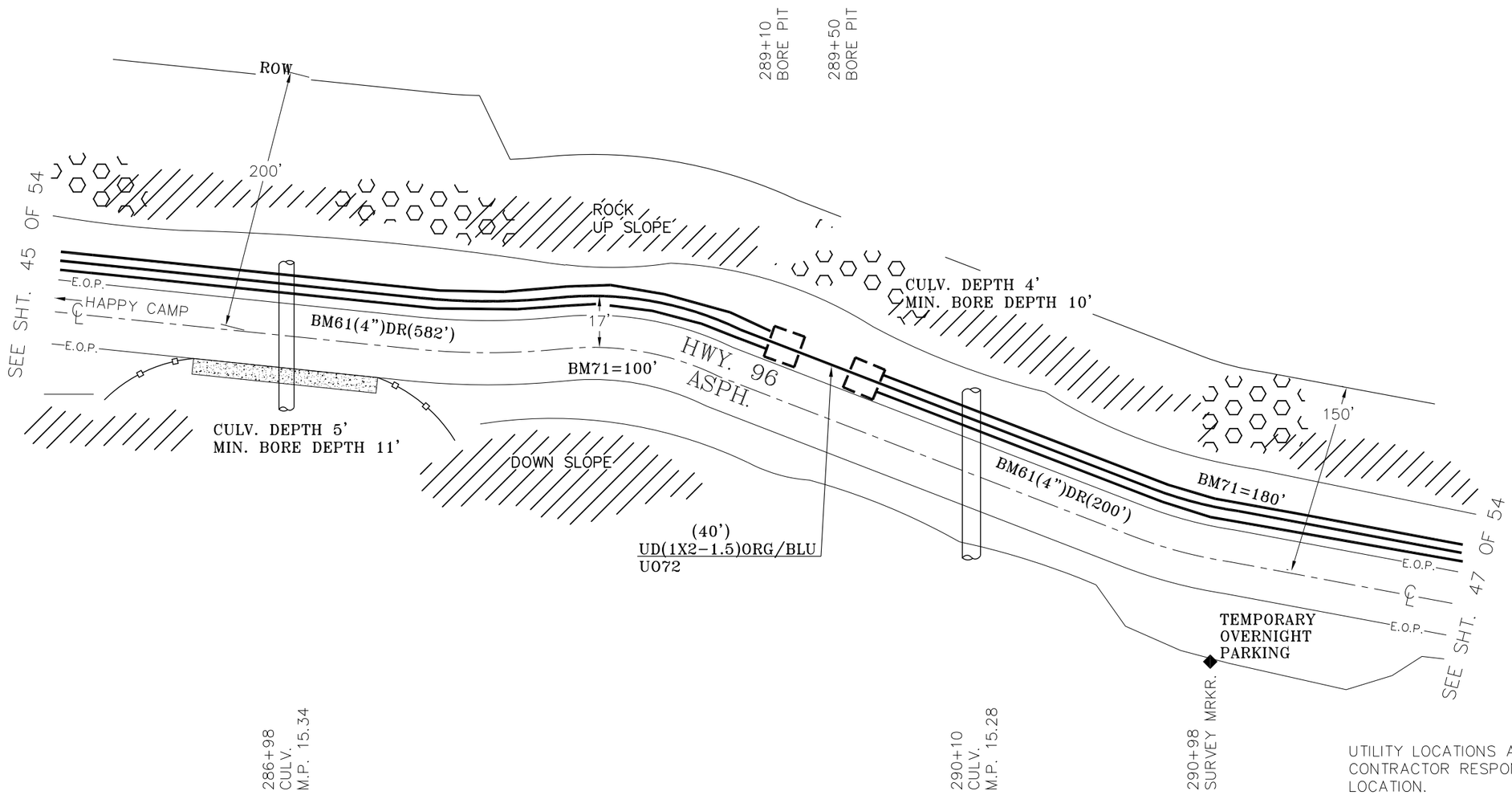
UTILITY LOCATIONS ARE APPROXIMATE.
CONTRACTOR RESPONSIBLE FOR EXACT LOCATION.

281+98 CULV. M.P. 15.41

284+86 SURVEY MRKR.

Filename: 45-54
Engineer: C. EASTLICK
Drafter: C.EASTLICK
Last Accessed: 10/27/15
Time: 9:08 AM

PED OR POLE NUMBER																						PED OR POLE NUMBER	SUB NUMBER							



UTILITY LOCATIONS ARE APPROXIMATE. CONTRACTOR RESPONSIBLE FOR EXACT LOCATION.

CO.	SISKIYOU TELEPHONE
EXCH.	HAPPY CAMP
ROUTE	
J.O. NO.	15HC501
SHEET	46 OF 54
MAP REF.	14-06E-33A
COUNTY	SISKIYOU
T. 14N	R. 6E SEC 33
TAX CODES	
TITLE:	PHASE TWO. BUILD FIBER AND CONDUITS M.P. 24. TO SOMES EAB
AS BUILT DATE	
SCALE	NTS

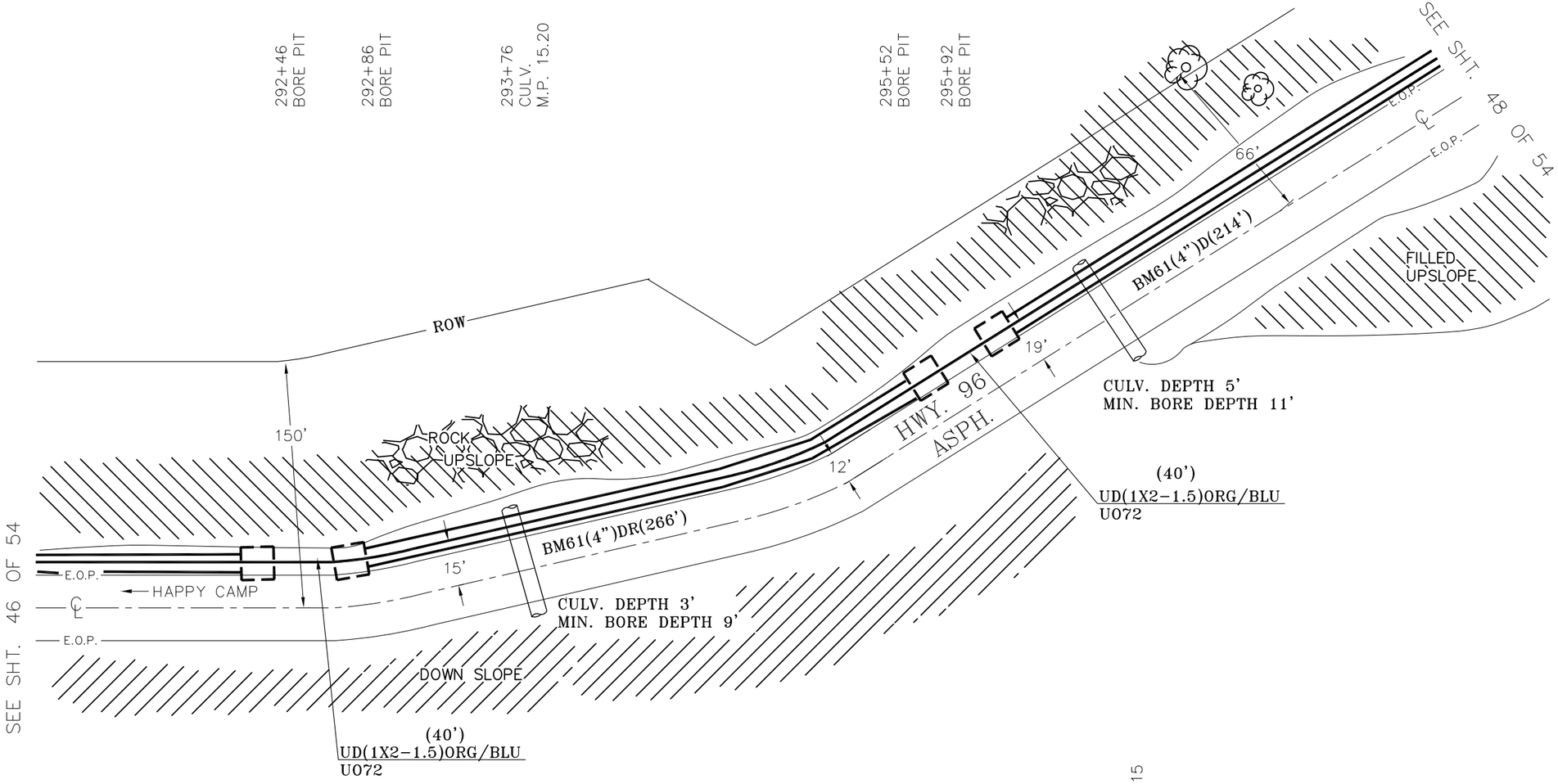
CONTACT ENG.

PHONE NO.

Filename: 46-54
Engineer: C. EASTLICK
Drafter: C.EASTLICK
Last Accessed: 10/27/15
Time: 9:43 AM

SUB. INFO.

PED OR POLE NUMBER																						PED OR POLE NUMBER	SUB NUMBER							



UTILITY LOCATIONS ARE APPROXIMATE.
CONTRACTOR RESPONSIBLE FOR EXACT
LOCATION.

CO.	SISKIYOU TELEPHONE
EXCH.	HAPPY CAMP
ROUTE	
J.O. NO.	15HC501
SHEET	47 OF 54
MAP REF.	14-06E-33A
COUNTY	SISKIYOU
T. 14N	R. 6E SEC 33
TAX CODES	
TITLE:	PHASE TWO. BUILD FIBER AND CONDUITS M.P. 24. TO SOMES EAB
AS BUILT DATE	
SCALE	NTS

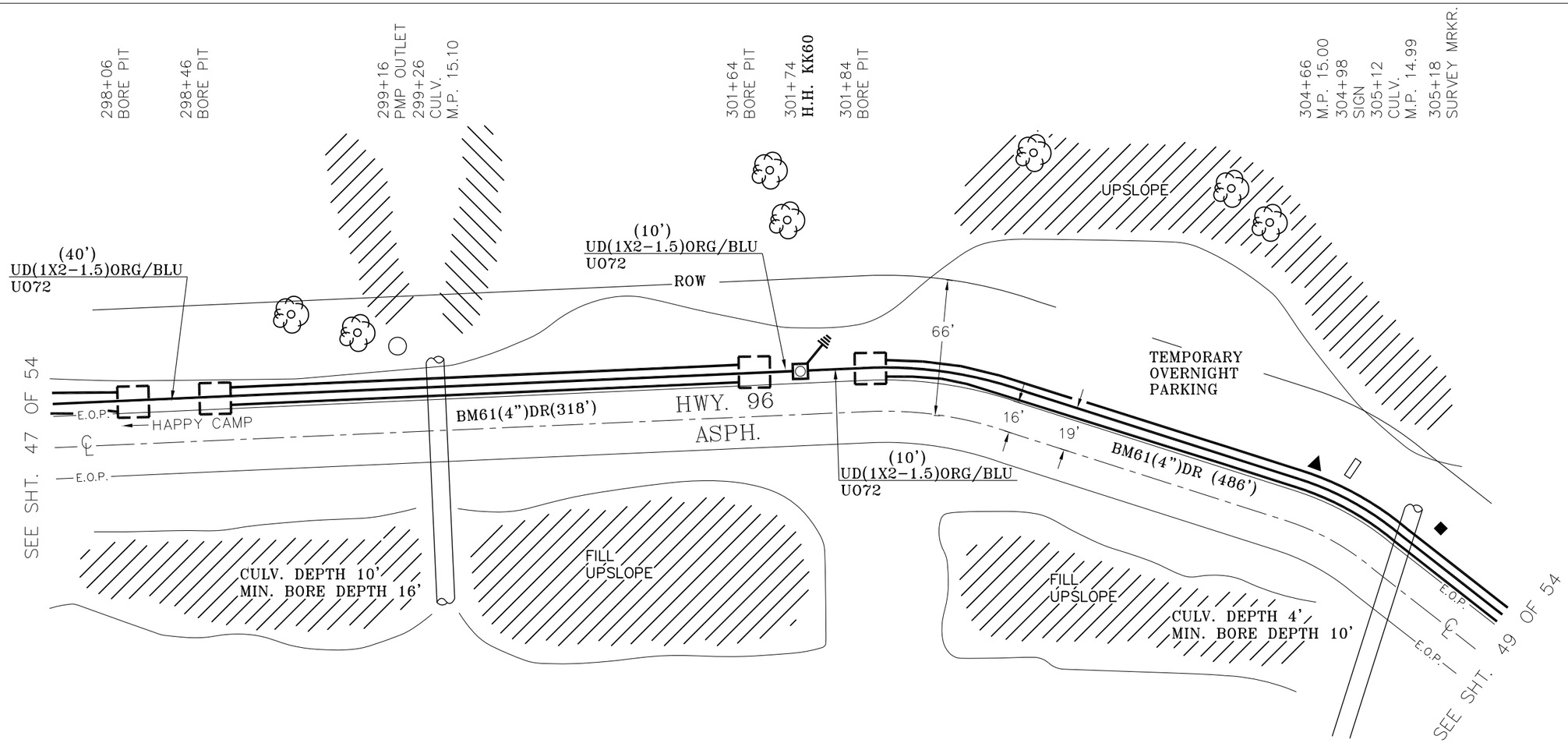
SISKIYOU TELEPHONE

CONTACT ENG.

PHONE NO.

Filename: 47-54
Engineer: C. EASTLICK
Drafter: C.EASTLICK
Last Accessed: 10/27/15
Time: 9:48 AM

PED OR POLE NUMBER																						PED OR POLE NUMBER	SUB NUMBER							SUB. INFO.



UTILITY LOCATIONS ARE APPROXIMATE.
CONTRACTOR RESPONSIBLE FOR EXACT
LOCATION.

CO.	SISKIYOU TELEPHONE
EXCH.	HAPPY CAMP
ROUTE	
J.O. NO.	15HC501
SHEET	48 OF 54
MAP REF.	14-06E-33A
COUNTY	SISKIYOU
T. 14N	R. 6E SEC 33
TAX CODES	
TITLE:	PHASE TWO. BUILD FIBER AND CONDUITS M.P. 24. TO SOMES EAB
AS BUILT DATE	
SCALE	NTS

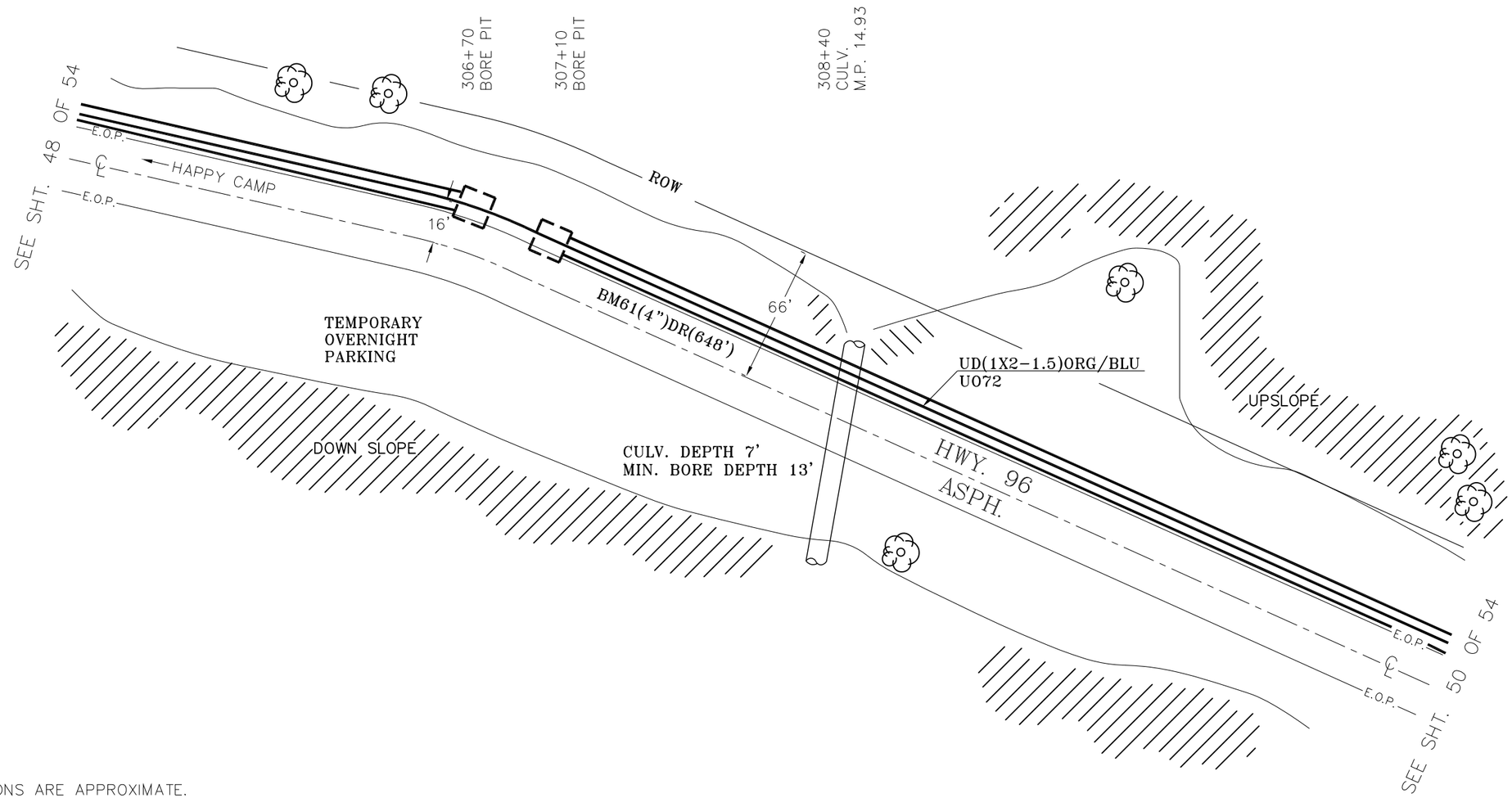
CONTACT ENG.

PHONE NO.

Filename: 48-54
Engineer: C. EASTLICK
Drafter: C.EASTLICK
Last Accessed: 10/27/15
Time: 9:58 AM

SUB. INFO.

PED OR POLE NUMBER	BM2(5/8)(5)	BM61(4")D	BM61(4")DR	UD(1X2-1.5) ORG/BLU	U072	UH264																PED OR POLE NUMBER	SUB NUMBER							
H.H. KK60	1	214	2154	220	2748	1																								
	1	214	2154	220	2748	1																								



UTILITY LOCATIONS ARE APPROXIMATE.
CONTRACTOR RESPONSIBLE FOR EXACT
LOCATION.

CO.	SISKIYOU TELEPHONE
EXCH.	HAPPY CAMP
ROUTE	
J.O. NO.	15HC501
SHEET	49 OF 54
MAP REF.	14-06E-33A
COUNTY	SISKIYOU
T. 14N	R. 6E SEC 33
TAX CODES	
TITLE:	PHASE TWO. BUILD FIBER AND CONDUITS M.P. 24. TO SOMES EAB
AS BUILT DATE	
SCALE	NTS

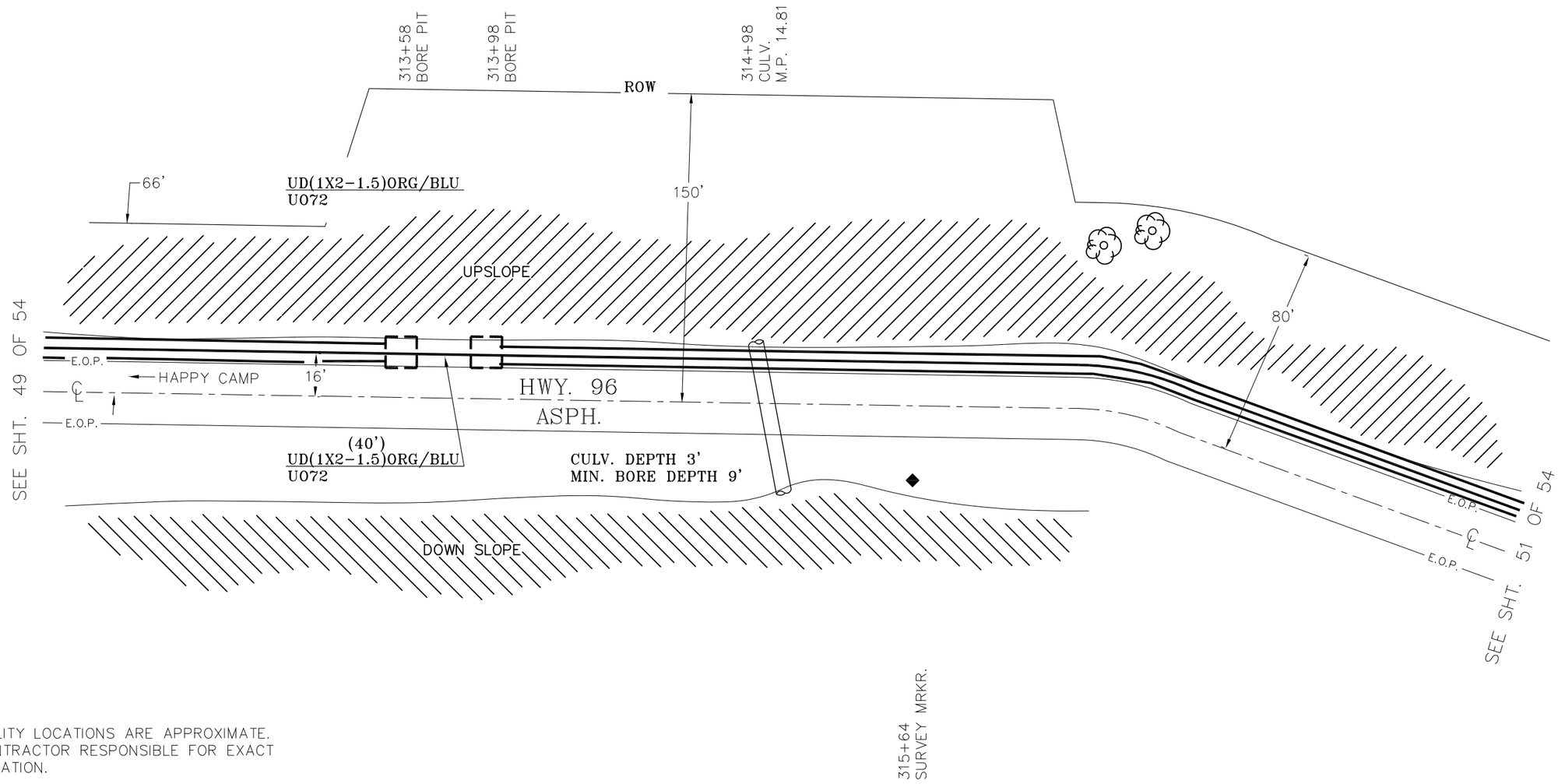
CONTACT ENG.

PHONE NO.

Filename: 49-54
Engineer: C. EASTLICK
Drafter: C.EASTLICK
Last Accessed: 10/27/15
Time: 10:11 AM

SUB. INFO.

PED OR POLE NUMBER																						PED OR POLE NUMBER	SUB NUMBER							



UTILITY LOCATIONS ARE APPROXIMATE.
CONTRACTOR RESPONSIBLE FOR EXACT
LOCATION.

315+64
SURVEY MRKR.

CO.	SISKIYOU TELEPHONE
EXCH.	HAPPY CAMP
ROUTE	
J.O. NO.	15HC501
SHEET	50 OF 54
MAP REF.	14-06E-33B
COUNTY	SISKIYOU
T. 14N	R. 6E SEC 33
TAX CODES	
TITLE:	PHASE TWO. BUILD FIBER AND CONDUITS M.P. 24. TO SOMES EAB
AS BUILT DATE	
SCALE	NTS

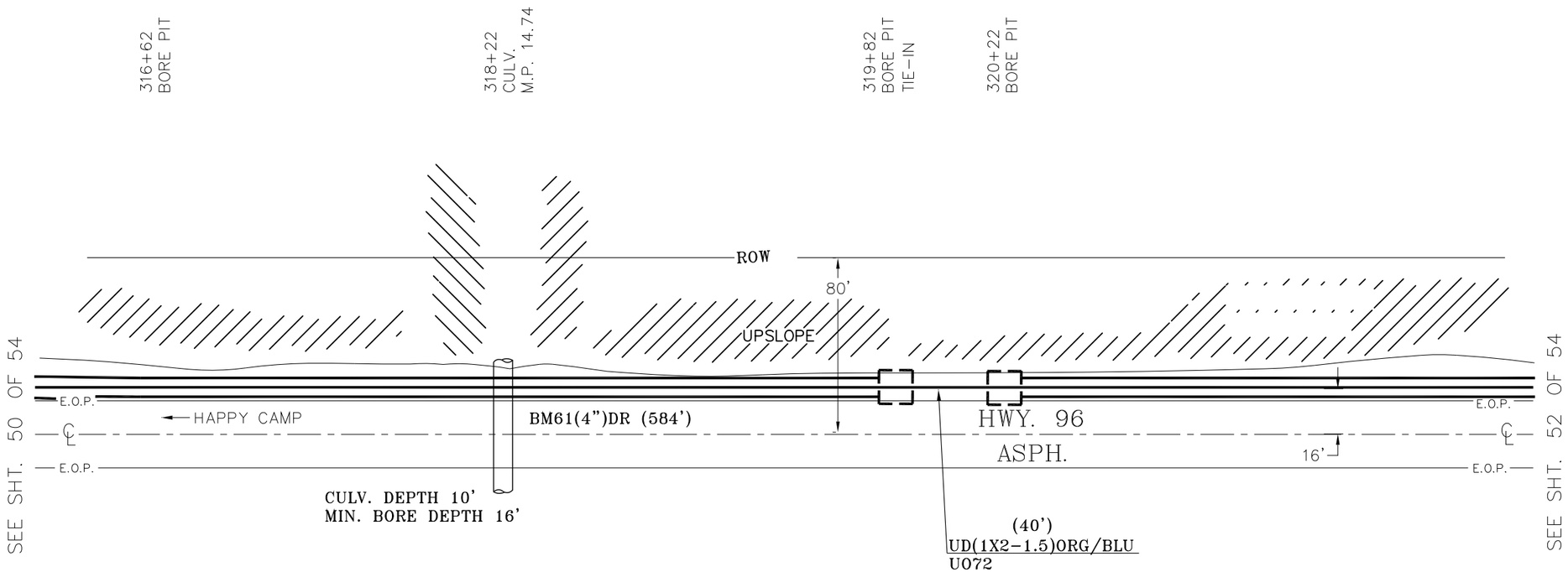
CONTACT ENG.

PHONE NO.

Filename: 50-54
Engineer: C. EASTLICK
Drafter: C.EASTLICK
Last Accessed: 10/27/15
Time: 10:15 AM

SUB. INFO.

PED OR POLE NUMBER																						PED OR POLE NUMBER	SUB NUMBER							



UTILITY LOCATIONS ARE APPROXIMATE.
CONTRACTOR RESPONSIBLE FOR EXACT
LOCATION.

CO.	SISKIYOU TELEPHONE
EXCH.	HAPPY CAMP
ROUTE	
J.O. NO.	15HC501
SHEET	51 OF 54
MAP REF.	14-06E-33A
COUNTY	SISKIYOU
T. 14N	R. 6E SEC 33
TAX CODES	
TITLE:	PHASE TWO. BUILD FIBER AND CONDUITS M.P;. 24. TO SOMES EAB
AS BUILT DATE	
SCALE	NTS

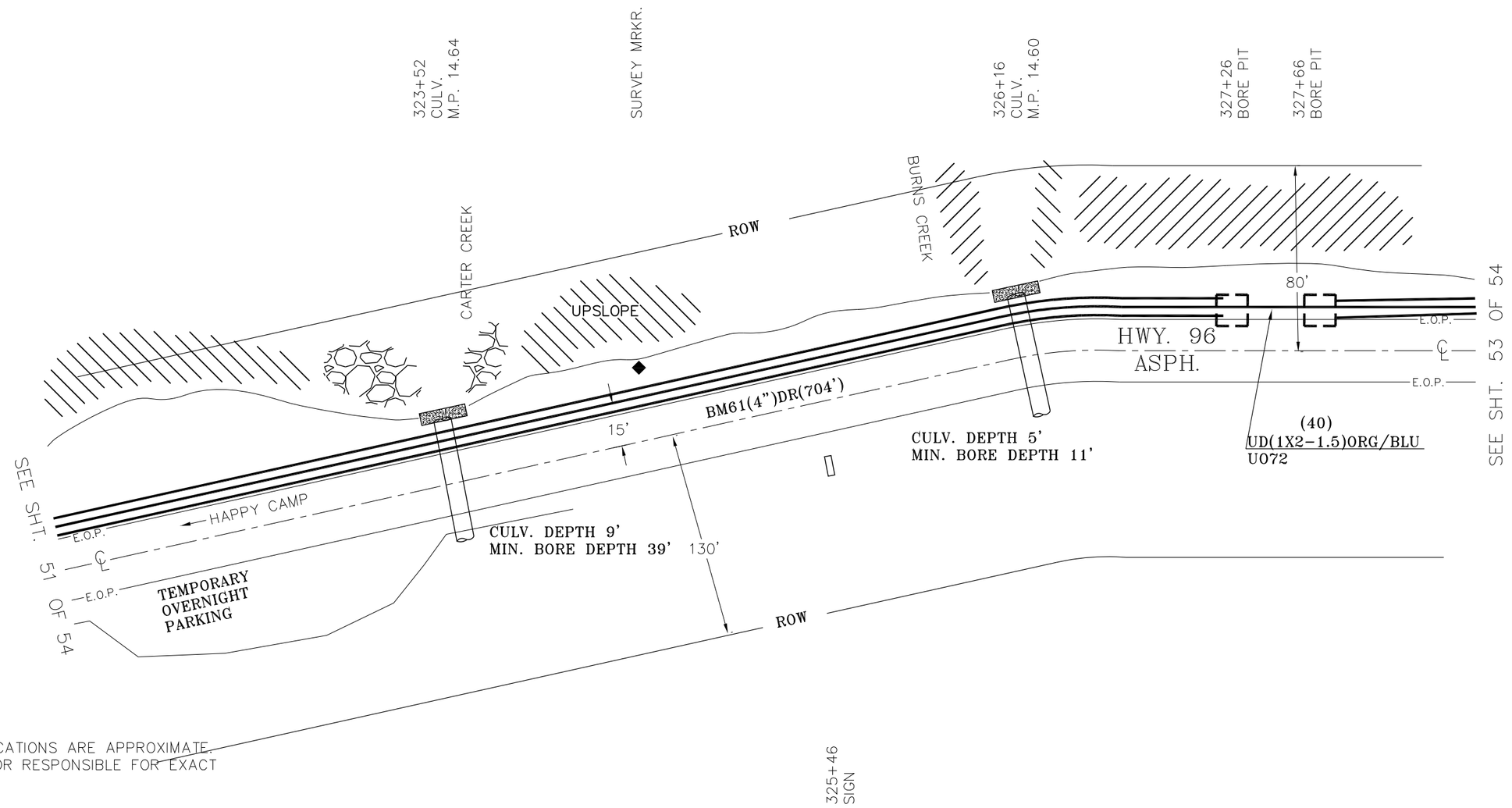
CONTACT ENG.

PHONE NO.

Filename: 51-54
Engineer: C. EASTLICK
Drafter: C.EASTLICK
Last Accessed: 10/27/15
Time: 10:20 AM

SUB. INFO.

PED OR POLE NUMBER																							PED OR POLE NUMBER	SUB NUMBER							



UTILITY LOCATIONS ARE APPROXIMATE.
CONTRACTOR RESPONSIBLE FOR EXACT LOCATION.

CO.	SISKIYOU TELEPHONE
EXCH.	HAPPY CAMP
ROUTE	
J.O. NO.	15HC501
SHEET	52 OF 54
MAP REF.	14-06E-33A
COUNTY	SISKIYOU
T. 14N	R. 6E SEC 33
TAX CODES	
TITLE:	PHASE TWO. BUILD FIBER AND CONDUITS M.P. 24. TO SOMES EAB
AS BUILT DATE	
SCALE	NTS

SISKIYOU TELEPHONE

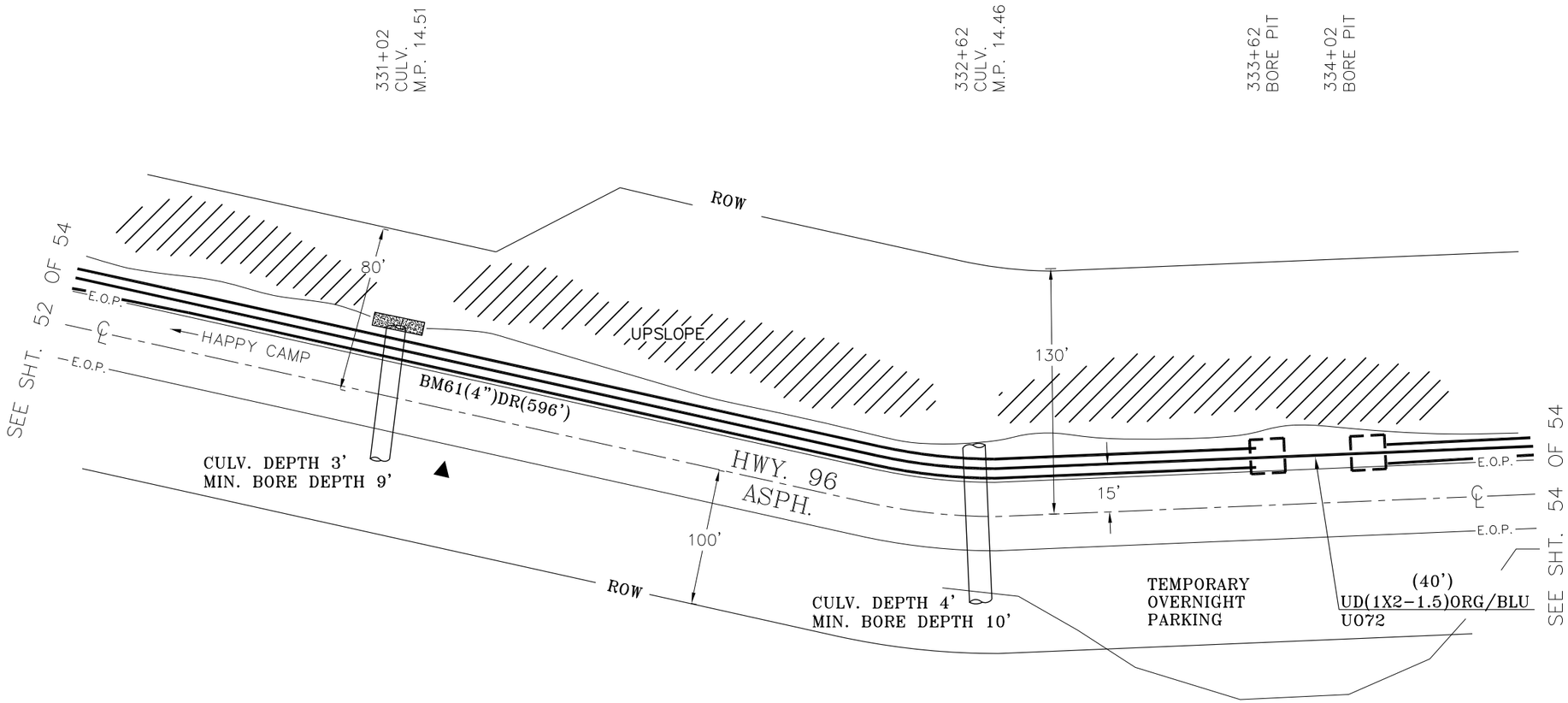
CONTACT ENG.

PHONE NO.

Filename: 52-54
Engineer: C. EASTLICK
Drafter: C.EASTLICK
Last Accessed: 10/27/15
Time: 10:25 AM

SUB. INFO.

PED OR POLE NUMBER																						PED OR POLE NUMBER	SUB NUMBER							



UTILITY LOCATIONS ARE APPROXIMATE.
CONTRACTOR RESPONSIBLE FOR EXACT
LOCATION.

M.P. 14.50

CO.	SISKIYOU TELEPHONE
EXCH.	HAPPY CAMP
ROUTE	
J.O. NO.	15HC501
SHEET	53 OF 54
MAP REF.	14-06E-33A
COUNTY	SISKIYOU
T. 14N	R. 6E SEC 33
TAX CODES	
TITLE:	PHASE TWO. BUILD FIBER AND CONDUITS M.P. 24. TO SOMES EAB
AS BUILT DATE	

SCALE NTS

SISKIYOU TELEPHONE

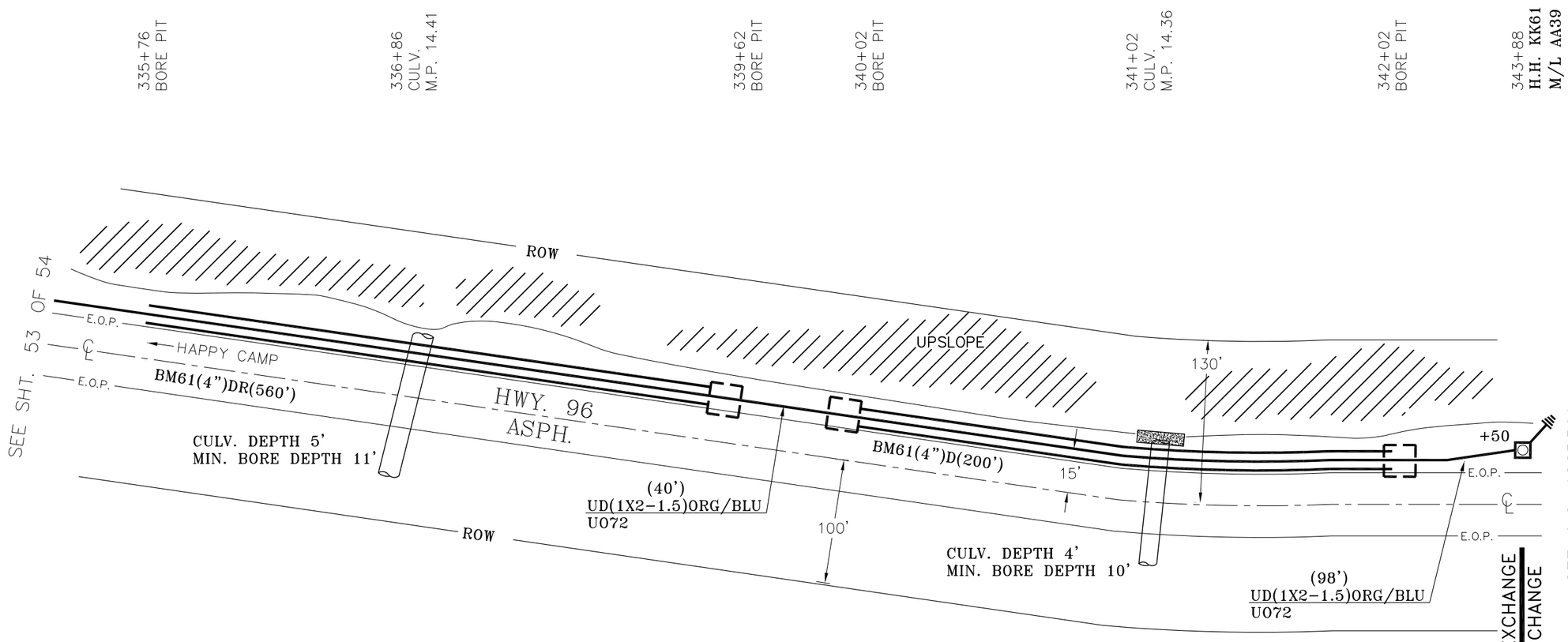
CONTACT ENG.

PHONE NO.

Filename: 53-54
Engineer: C. EASTLICK
Drafter: C.EASTLICK
Last Accessed: 10/27/15
Time: 10:29 AM

SUB. INFO.

PED OR POLE NUMBER																						PED OR POLE NUMBER	SUB NUMBER							



UTILITY LOCATIONS ARE APPROXIMATE.
CONTRACTOR RESPONSIBLE FOR EXACT
LOCATION.

CO.	SISKIYOU TELEPHONE
EXCH.	HAPPY CAMP
ROUTE	
J.O. NO.	15HC501
SHEET	54 OF 54
MAP REF.	14-06E-33A
COUNTY	SISKIYOU
T. 14N	R. 6E SEC 33
TAX CODES	
TITLE:	PHASE TWO. BUILD FIBER AND CONDUITS M.P. 24. TO SOMES EAB
AS BUILT DATE	
SCALE	NTS

SISKIYOU TELEPHONE

CONTACT ENG.

PHONE NO.

Filename: 54-54
Engineer: C. EASTLICK
Drafter: C.EASTLICK
Last Accessed: 10/27/15
Time: 10:40 AM

SUB. INFO.

PED OR POLE NUMBER	BM2(5/8)(5)	BM61(4")D	BM61(4")DR	BM71(48")	UD(1X2-1.5) ORG/BLU	U072	UH264															PED OR POLE NUMBER	SUB NUMBER							
H.H. KK61	1	200	3578	900	348	4286	1																							
	1	200	3578	900	348	4286	1																							

VICINITY MAP

LEGEND

EX. MISC. ROAD SIGN

PROPOSED CONDUIT WITH CABLE

EX. STATE M.P.

HDD INCLUDING CONDUITS

EX. CULVERT

CULVERT SLEEVE

ABOVE GROUND PEDESTAL

FLUSH TO SURFACE HAND HOLE

E.O.P. EDGE OF PAVEMENT

PROPOSED BORE PIT

CENTERLINE OF HIGHWAY

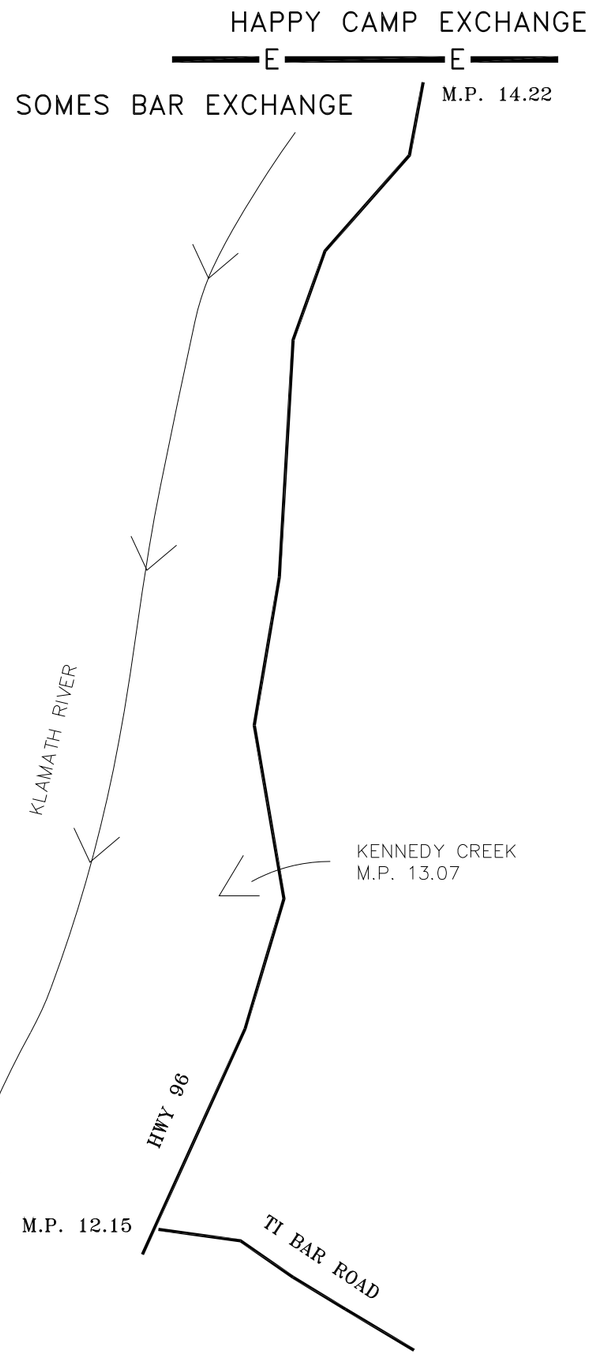
EX. STATE MARKER

ROW EX. ROW LINES

CARL EASTLICK
PROJECT ENGINEER

DATE _____

MASTER TAB



ACCT CODES	Date: Units	Actl.	Yr.	ST	Unit Summary Unit Discription	WO: Reel#
	6				BM2(5/8)(5)	
	9256				BM61(4")D	
	790				BM61(4")DR	
	2000				BM71	
	1028				UD(1X2-1.5)ORG/BLU	
	5				UH264	
	11866				U072	

CO. SISKIYOU

EXCH. SOMES BAR

ROUTE

J.O. NO. 15SB502

SHEET 01 OF 19

MAP REF.

COUNTY SISKIYOU

T. R. SEC

TAX CODES

TITLE: PHASE THREE TI BAR TO HAPPY CAMP EAB. BUILD FIBER AND CONDUITS

AS BUILT DATE

SCALE: NTS

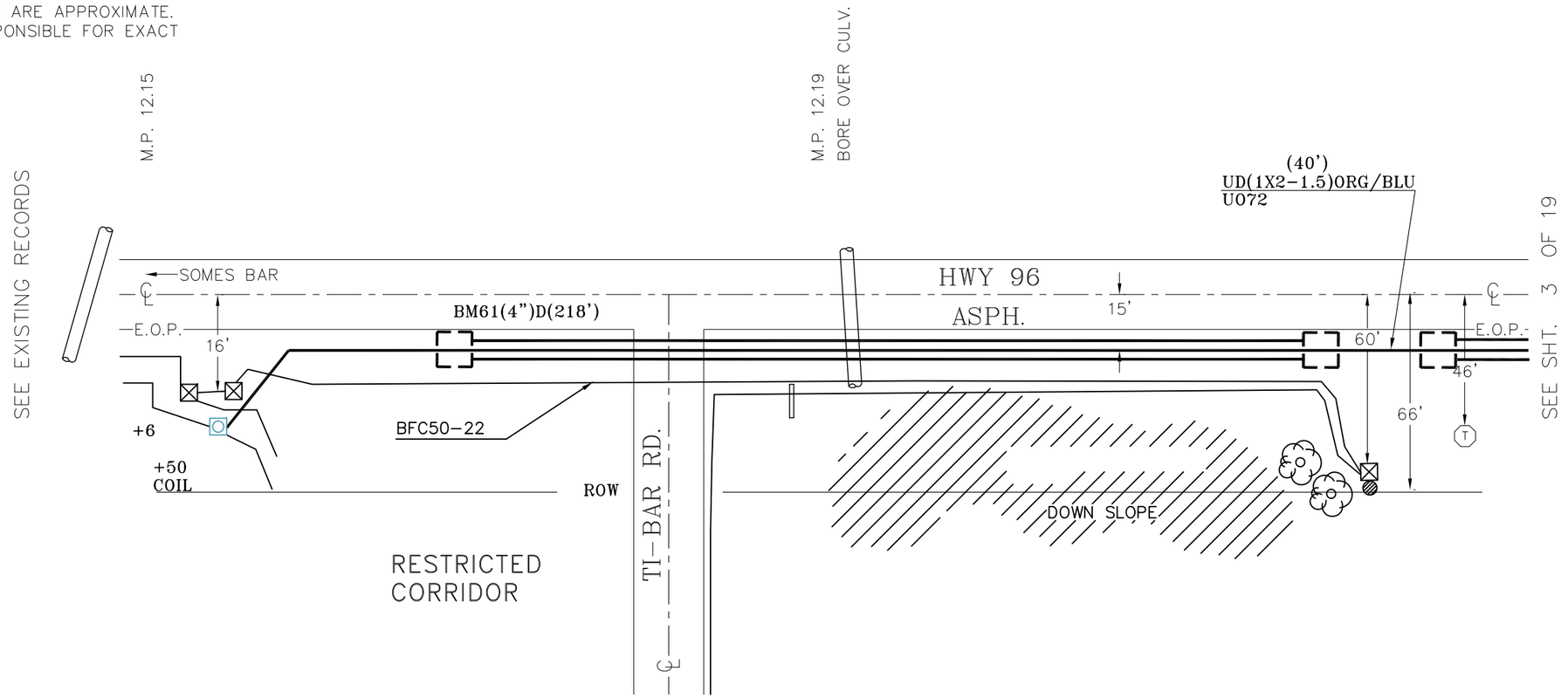
SISKIYOU TELEPHONE

CONTACT ENG. C.EASTLICK

PHONE NO. 530-598-1617

Filename: 01-19
Engineer: C. EASTLICK
Drafter: C.EASTLICK
Last Accessed: 10/17/15
Time: 10:21 AM

UTILITY LOCATIONS ARE APPROXIMATE.
CONTRACTOR RESPONSIBLE FOR EXACT
LOCATION.



	0+00 PED AK04 H.H. AA34 (PED AK04-1)	0+30 BORE PIT	1+80 CULV.	2+48 BORE PIT	2+68 (PED AK04-2)	2+88 BORE PIT	2+90 COURTESY PHONE
PED OR POLE NUMBER							
(PED AK04)							
HAND HOLE							
AA34							

PED OR POLE NUMBER	SUB NUMBER							

CO.	SISKIYOU TELEPHONE
EXCH.	SOMES BAR
ROUTE	
J.O. NO.	15SB502
SHEET	2 OF 19
MAP REF.	11-6E-04-B
COUNTY	SISKIYOU
T. 13N	R. 6E SEC 8
TAX CODES	
TITLE:	PHASE THREE TI BAR TO HAPPY CAMP EAB. BUILD FIBER AND CONDUITS
AS BUILT DATE	
SCALE	NTS

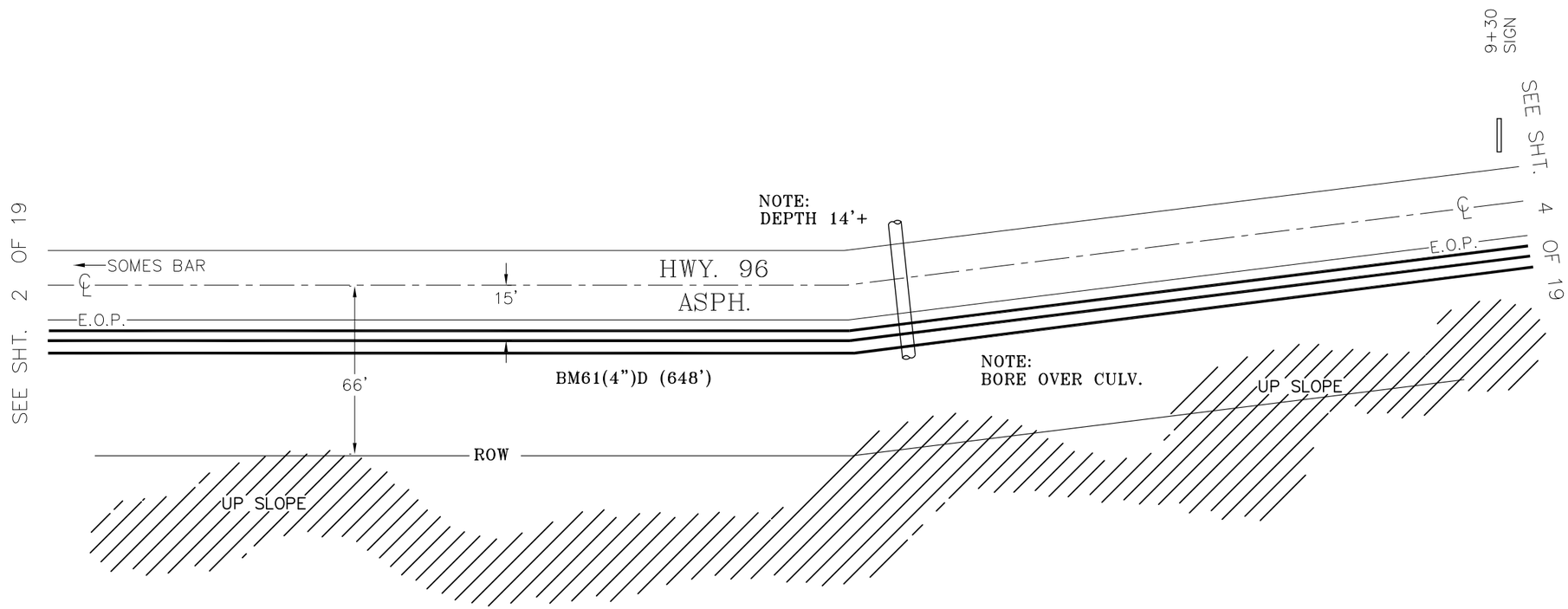
SISKIYOU TELEPHONE

CONTACT ENG.

PHONE NO.

Filename: 02-19
Engineer: C.J.CALLIHAM
Drafter: C.EASTLICK
Last Accessed: 10/27/15
Time: 3:01 PM

SUB. INFO.

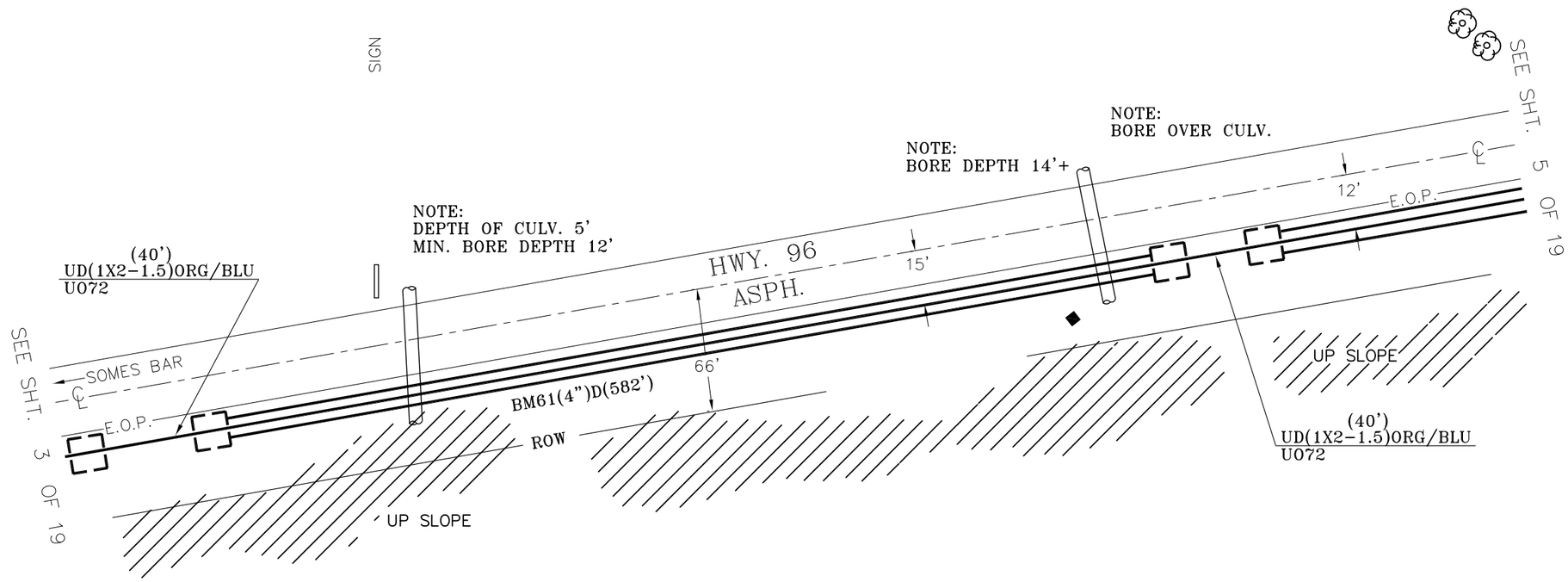


CO.	SISKIYOU TELEPHONE
EXCH.	SOMES BAR
ROUTE	
J.O. NO.	15SB502
SHEET	3 OF 19
MAP REF.	
COUNTY	SISKIYOU
T. 13N	R. 6E SEC 8
TAX CODES	
TITLE:	PHASE THREE TI BAR TO HAPPY CAMP EAB. BUILD FIBER AND CONDUITS
AS BUILT DATE	
SCALE	NTS
CONTACT ENG.	
PHONE NO.	

Filename: 03-19
Engineer: C.J.CALLIHAM
Drafter: C.EASTLICK
Last Accessed: 10/27/15
Time: 3:36 PM

SUB. INFO.

PED OR POLE NUMBER																							PED OR POLE NUMBER	SUB NUMBER							



9+16 BORE PIT

9+56 BORE PIT

12+18 CULV. M.P. 12.38

14+84 SURVEY MRKR.

15+08 CULV. M.P. 12.50

15+38 BORE PIT

15+78 BORE PIT

CO.	SISKIYOU TELEPHONE
EXCH.	SOMES BAR
ROUTE	
J.O. NO.	15SB502
SHEET	4 OF 19
MAP REF.	
COUNTY	SISKIYOU
T. 13N	R. 6E SEC 8
TAX CODES	
TITLE:	PHASE THREE TI BAR TO HAPPY CAMP EAB. BUILD FIBER AND CONDUITS
AS BUILT DATE	
SCALE	NTS

SISKIYOU TELEPHONE

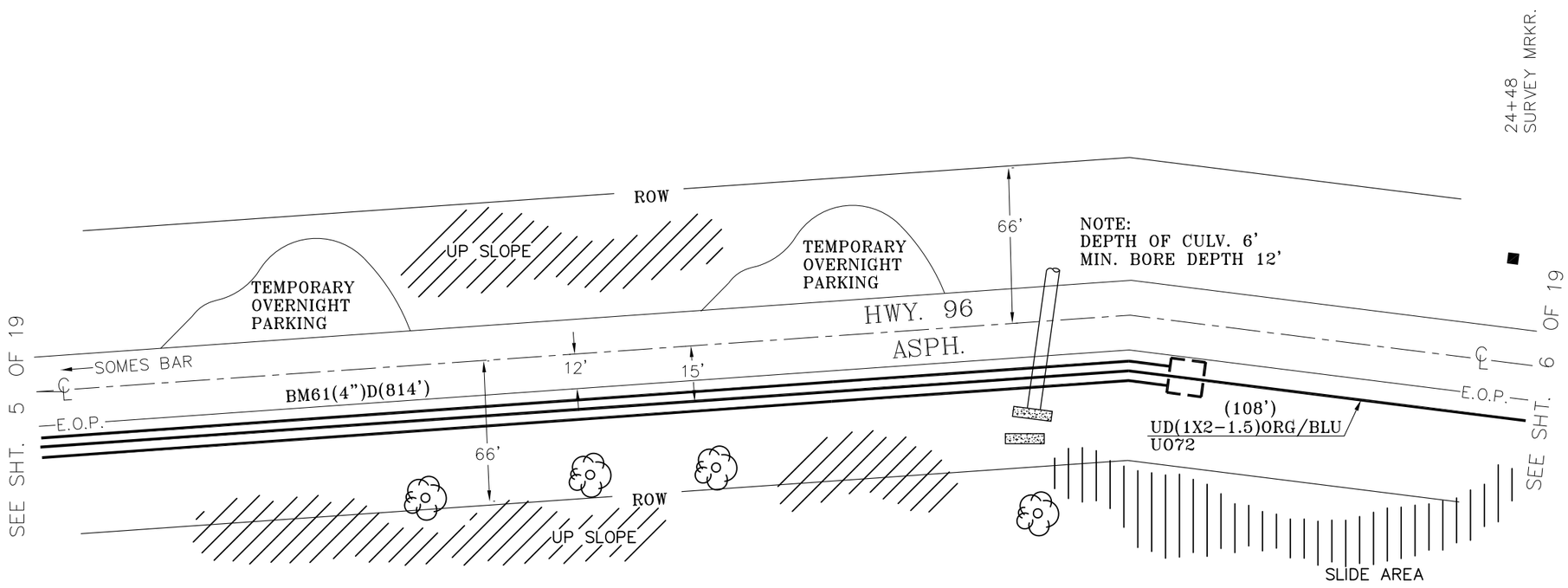
CONTACT ENG.

PHONE NO.

Filename: 04-19
Engineer: C.J.CALLIHAM
Drafter: C.EASTLICK
Last Accessed: 10/27/15
Time: 3:38 PM

SUB. INFO.

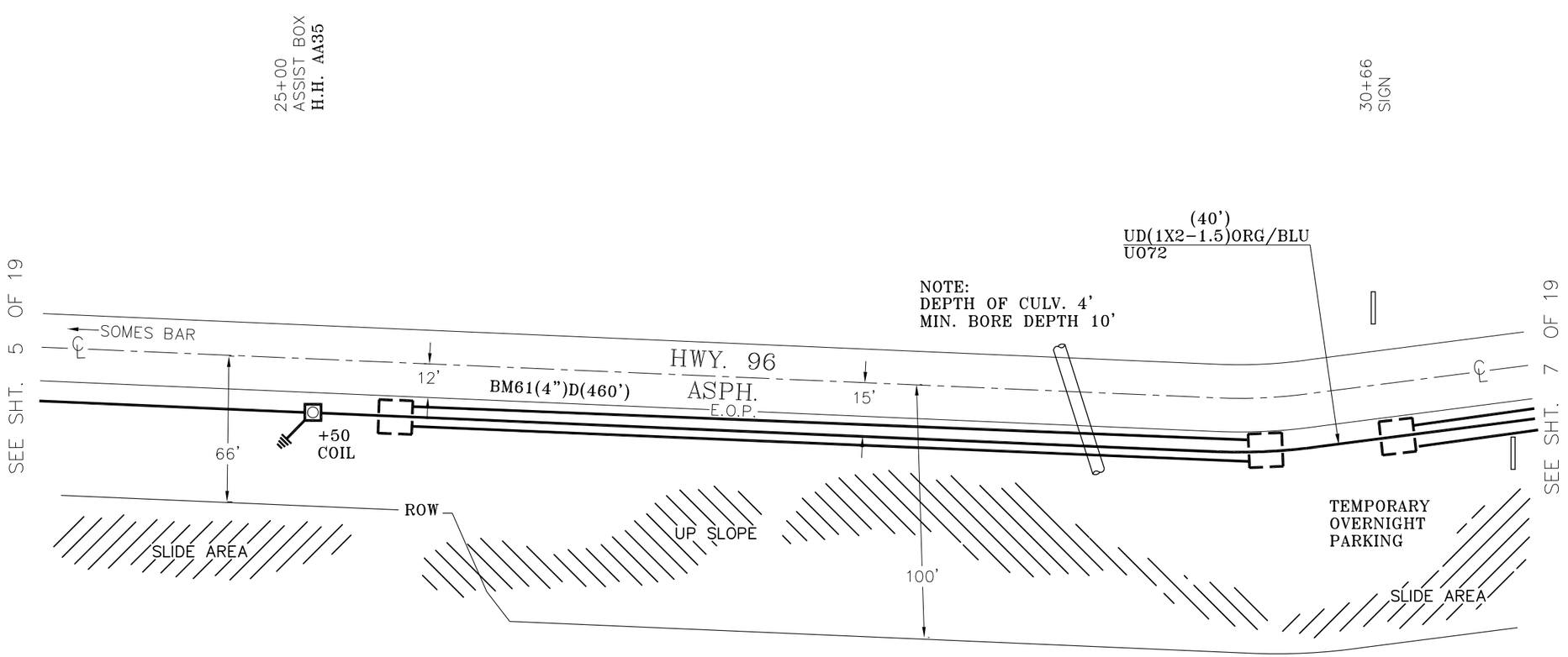
PED OR POLE NUMBER																							PED OR POLE NUMBER	SUB NUMBER							



CO.	SISKIYOU TELEPHONE
EXCH.	SOMES BAR
ROUTE	
J.O. NO.	15sb502
SHEET	5 OF 19
MAP REF.	
COUNTY	SISKIYOU
T. 13N	R. 6E SEC 8
TAX CODES	
TITLE:	PHASE THREE TI BAR TO HAPPY CAMP EAB. BUILD FIBER AND CONDUITS
AS BUILT DATE	
SCALE	NTS
CONTACT ENG.	
PHONE NO.	

Filename: 05-19
Engineer: C.J.CALLIHAM
Drafter: C.EASTLICK
Last Accessed: 10/27/15
Time: 3:50 PM

PED OR POLE NUMBER																						PED OR POLE NUMBER	SUB NUMBER							SUB. INFO.



25+20 BORE PIT
27+80 BORE PIT
28+80 CULV. M.P. 12.70
29+80 BORE PIT
30+20 BORE PIT
31+36 SIGN

PED OR POLE NUMBER	ASSIST BOX	BM2(5/8)(5)	BM61(4")D		UD(1X2-1.5) ORG/BLU	U072																PED OR POLE NUMBER	SUB NUMBER							
H.H. AA35	1	1	2262		258	2680																								
	1	1	2262		258	2680																								

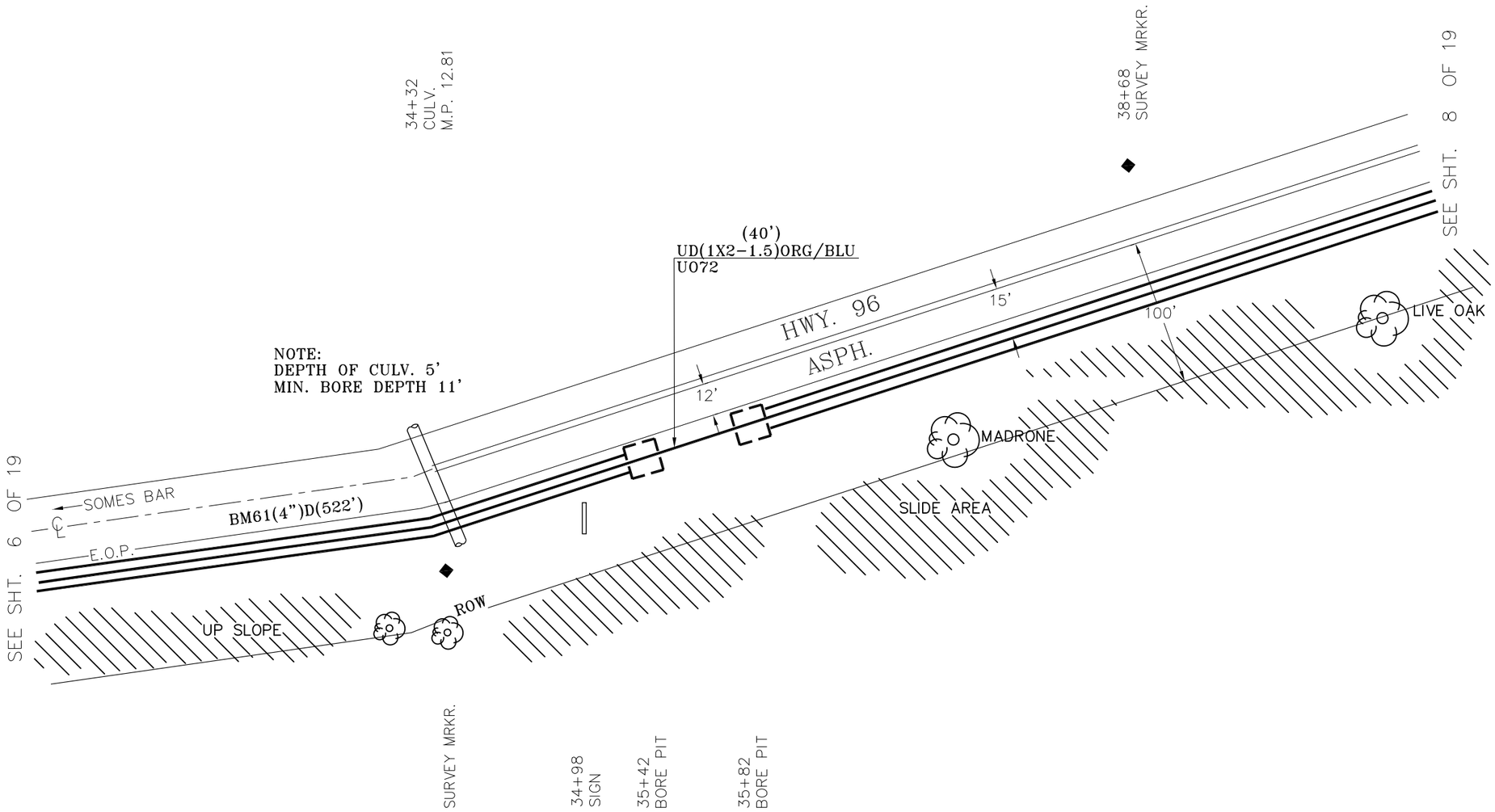
CO. SISKIYOU TELEPHONE
EXCH. SOMES BAR
ROUTE
J.O. NO. 15SB502
SHEET 6 OF 19
MAP REF.
COUNTY SISKIYOU
T. 13N R. 6E SEC 8
TAX CODES
TITLE: PHASE THREE TI BAR TO HAPPY CAMP EAB. BUILD FIBER AND CONDUITS
AS BUILT DATE
SCALE NTS

SISKIYOU TELEPHONE

CONTACT ENG.
PHONE NO.

Filename: 06-19
Engineer: C.J.CALLIHAM
Drafter: C.EASTLICK
Last Accessed: 10/27/15
Time: 3:54 PM

SUB. INFO.



CO.	SISKIYOU TELEPHONE
EXCH.	SOMES BAR
ROUTE	
J.O. NO.	15SB502
SHEET	7 OF 19
MAP REF.	
COUNTY	SISKIYOU
T. 13N	R. 6E SEC 8
TAX CODES	
TITLE:	PHASE THREE TI BAR TO HAPPY CAMP EAB. BUILD FIBER AND CONDUITS
AS BUILT DATE	
SCALE	NTS

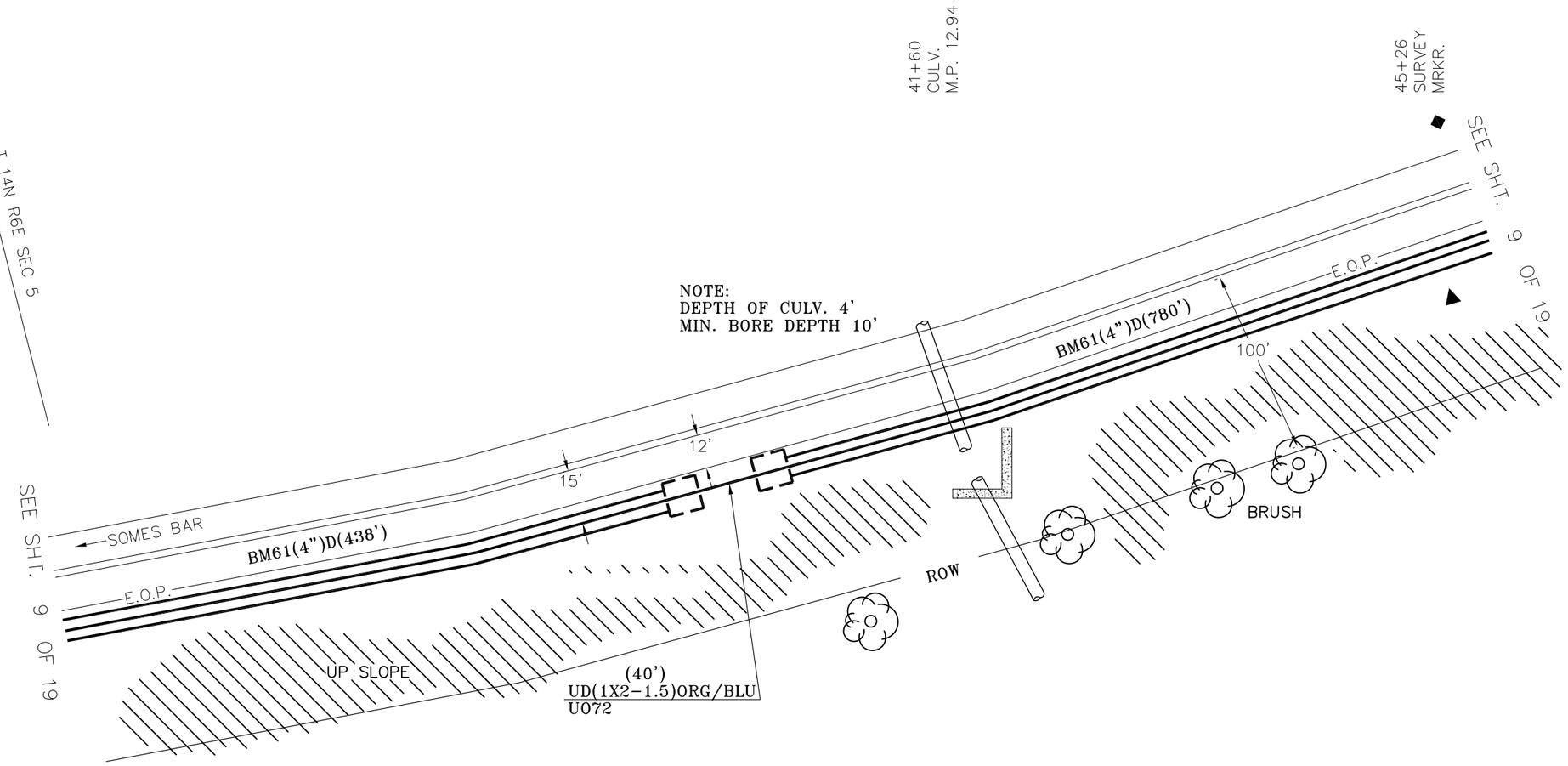
CONTACT ENG.

PHONE NO.

Filename: 07-19
Engineer: C.J.CALLIHAM
Drafter: C.EASTLICK
Last Accessed: 10/28/15
Time: 4:52 AM

SUB. INFO.

PED OR POLE NUMBER																						PED OR POLE NUMBER	SUB NUMBER							



CO.	SISKIYOU TELEPHONE
EXCH.	SOMES BAR
ROUTE	
J.O. NO.	15SB502
SHEET	8 OF 19
MAP REF.	
COUNTY	SISKIYOU
T. 13N	R. 6E SEC 8
TAX CODES	
TITLE:	PHASE THREE TI BAR TO HAPPY CAMP EAB. BUILD FIBER AND CONDUITS
AS BUILT DATE	

SCALE NTS

SISKIYOU TELEPHONE

CONTACT ENG.

PHONE NO.

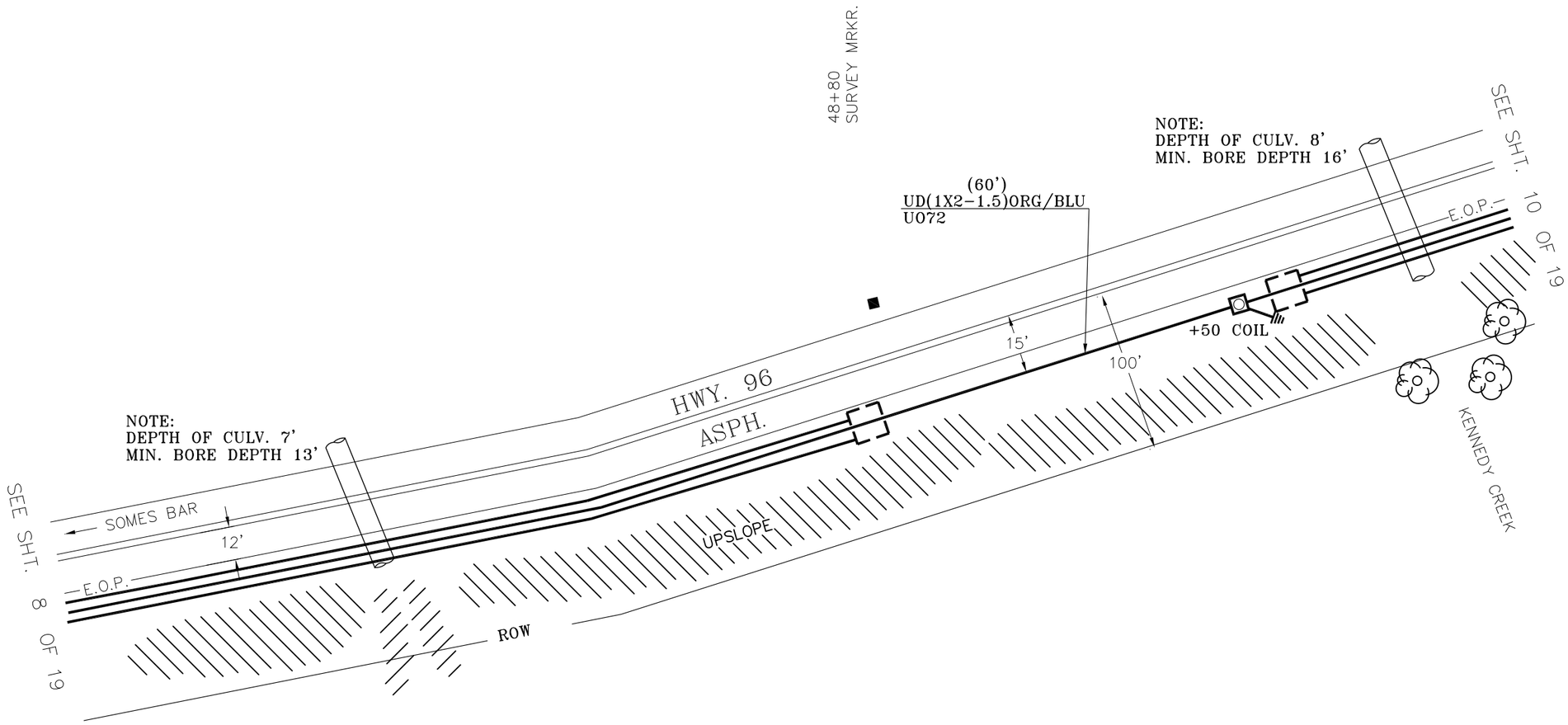
Filename: 08-19
Engineer: C.J.CALLIHAM
Drafter: C.EASTLICK
Last Accessed: 10/28/15
Time: 4:59 AM

40+20 BORE PIT

40+60 BORE PIT

44+62 M.P. 13.00

PED OR POLE NUMBER																						PED OR POLE NUMBER	SUB NUMBER								SUB. INFO.



CO.	SISKIYOU TELEPHONE
EXCH.	SOMES BAR
ROUTE	
J.O. NO.	15SB502
SHEET	9 OF 19
MAP REF.	
COUNTY	SISKIYOU
T. 14N	R. 6E SEC 5
TAX CODES	
TITLE:	PHASE THREE TI BAR TO HAPPY CAMP EAB. BUILD FIBER AND CONDUITS
AS BUILT DATE	
SCALE	NTS
CONTACT ENG.	
PHONE NO.	

Filename: 09-19
Engineer: C.J.CALLIHAM
Drafter: C.EASTLICK
Last Accessed: 10/28/15
Time: 5:04 AM

SUB. INFO.

47+10 CULV. M.P. 13.05

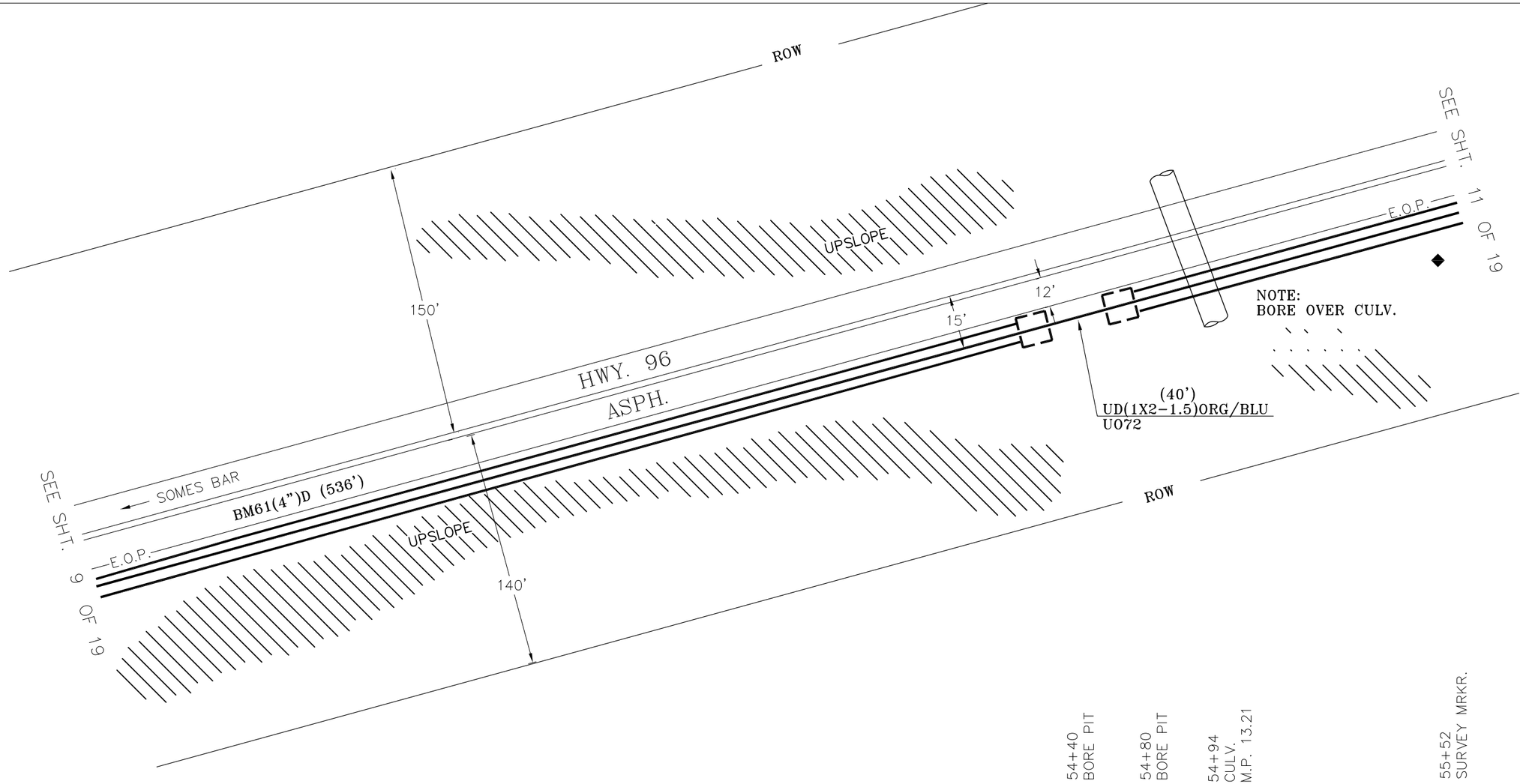
48+40 BORE PIT

49+00 **H.H. AA36**

49+04 BORE PIT

50+64 CULV. M.P. 13.07

PED OR POLE NUMBER	BM2(5/8)(5)	BM6I(4")D	UD(1X2-1.5) ORG/BLU	UF072	UH264																		PED OR POLE NUMBER	SUB NUMBER							
H.H. AA36	1	2200	180	2540	1																										
	1	2200	180	2540	1																										

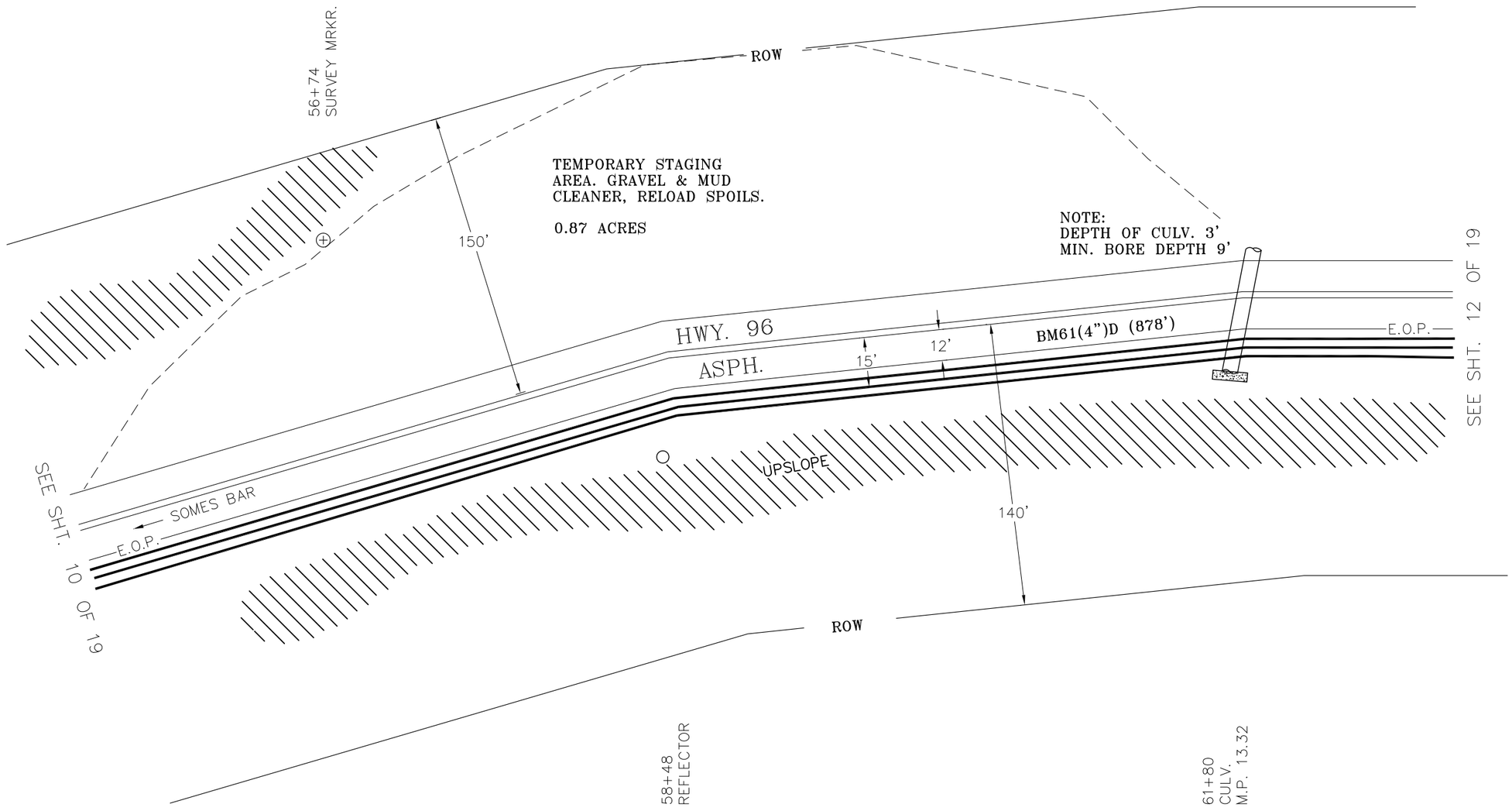


CO.	SISKIYOU TELEPHONE
EXCH.	SOMES BAR
ROUTE	
J.O. NO.	15SB502
SHEET	10 OF 19
MAP REF.	
COUNTY	SISKIYOU
T. 14N	R. 6E SEC 5
TAX CODES	
TITLE:	PHASE THREE TI BAR TO HAPPY CAMP EAB. BUILD FIBER AND CONDUITS
AS BUILT DATE	
SCALE	NTS
CONTACT ENG.	
PHONE NO.	

Filename: 10-19
Engineer: C.J.CALLIHAM
Drafter: C.EASTLICK
Last Accessed: 10/28/15
Time: 5:26 AM

SUB. INFO.

PED OR POLE NUMBER																						PED OR POLE NUMBER	SUB NUMBER						



CO.	SISKIYOU TELEPHONE
EXCH.	SOMES BAR
ROUTE	
J.O. NO.	15SB502
SHEET	11 OF 19
MAP REF.	
COUNTY	SISKIYOU
T. 14N	R. 6E | SEC 5
TAX CODES	
TITLE:	PHASE THREE TI BAR TO HAPPY CAMP EAB. BUILD FIBER AND CONDUITS
AS BUILT DATE	

SCALE NTS

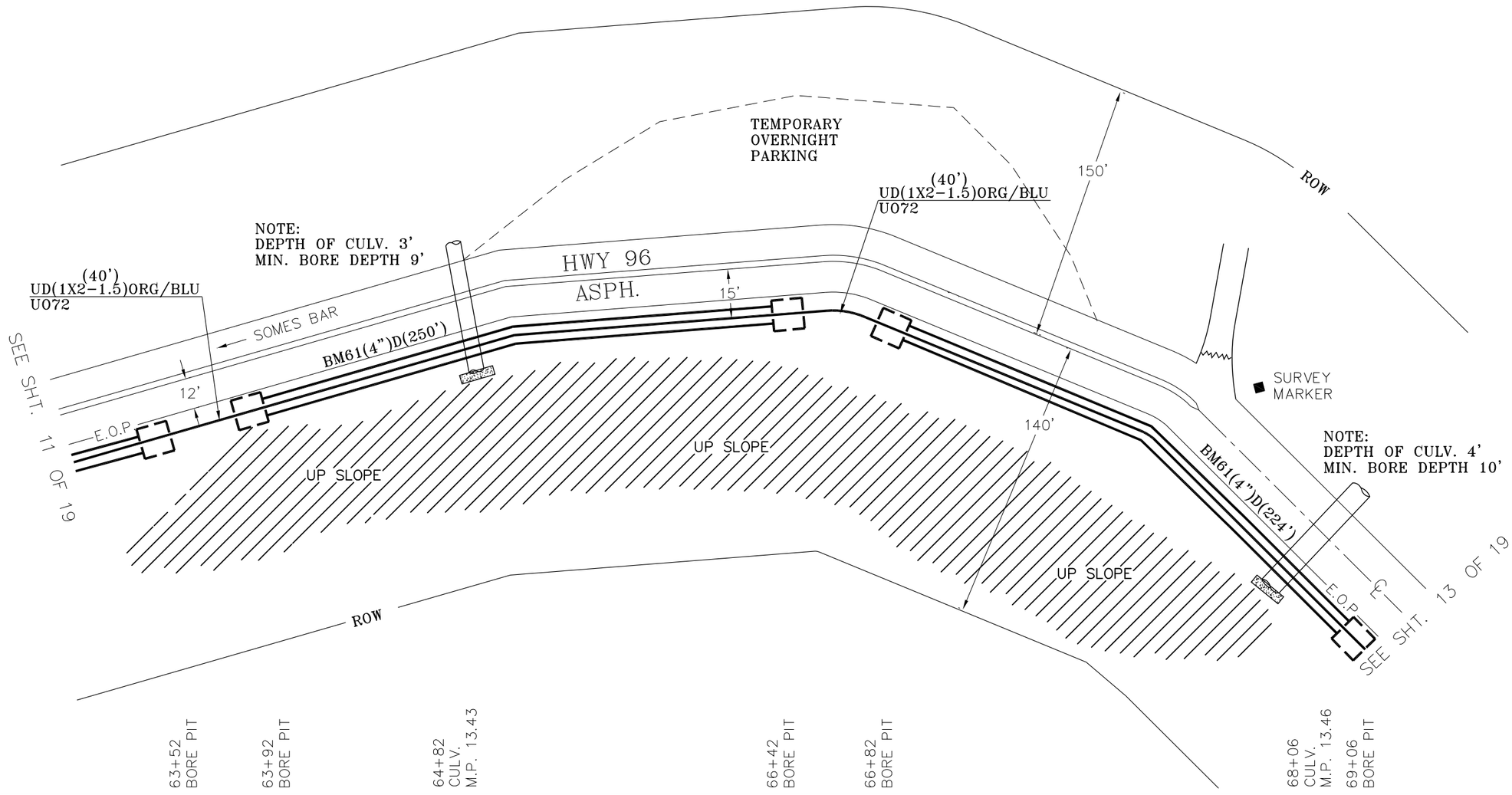
SISKIYOU TELEPHONE

CONTACT ENG.

PHONE NO.

Filename: 11-19
Engineer: C.J.CALLIHAM
Drafter: C.EASTLICK
Last Accessed: 10/28/15
Time: 5:29 AM

PED OR POLE NUMBER																							PED OR POLE NUMBER	SUB NUMBER							SUB. INFO.



CO.	SISKIYOU TELEPHONE
EXCH.	SOMES BAR
ROUTE	
J.O. NO.	15SB502
SHEET	12 OF 19
MAP REF.	
COUNTY	SISKIYOU
T. 14N	R. 6E SEC 5
TAX CODES	
TITLE:	PHASE THREE TI BAR TO HAPPY CAMP EAB. BUILD FIBER AND CONDUITS
AS BUILT DATE	
SCALE	NTS

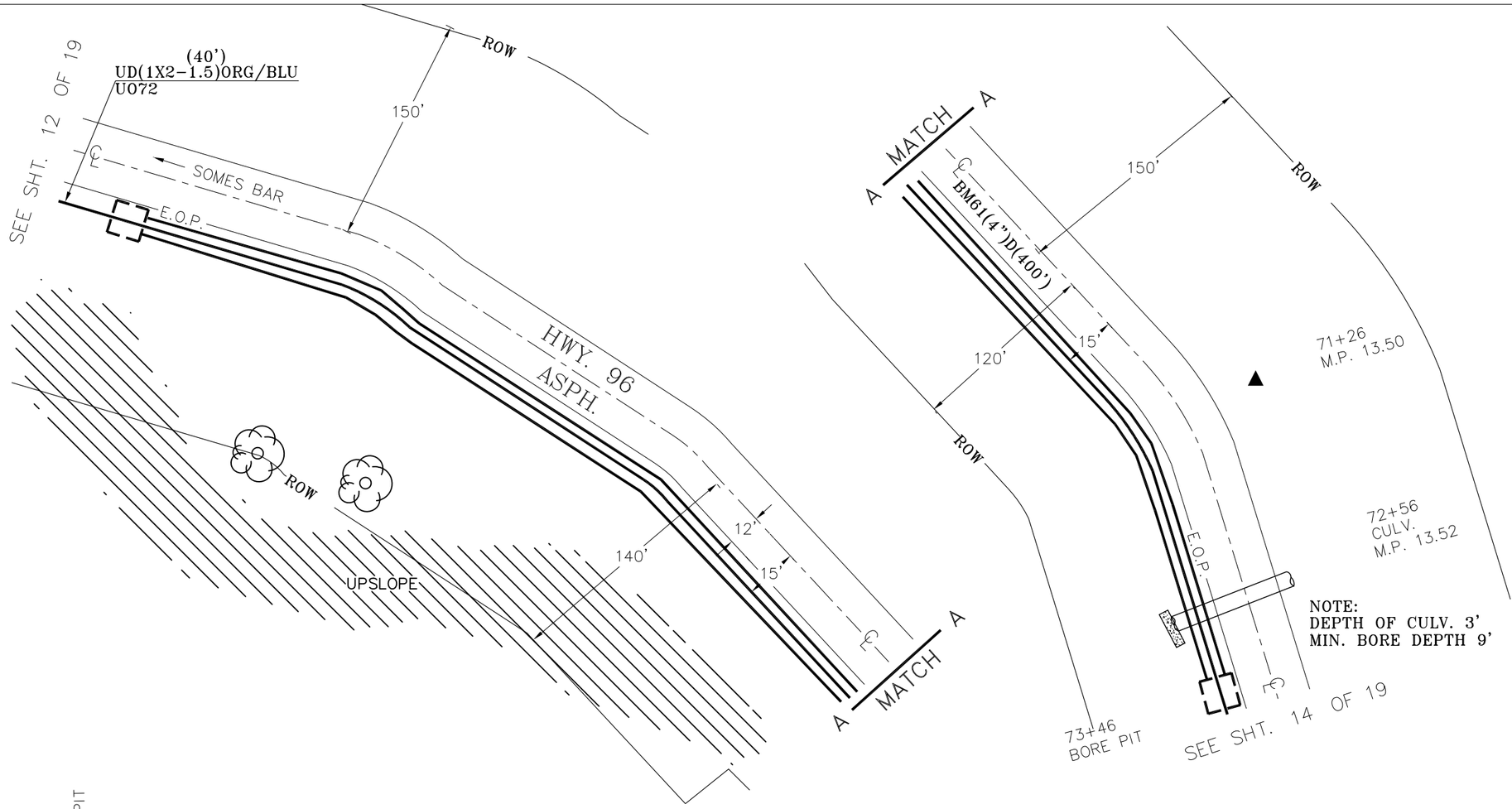
CONTACT ENG.

PHONE NO.

Filename: 12-19
Engineer: C.J.CALLIHAM
Drafter: C.EASTLICK
Last Accessed: 10/28/15
Time: 5:33 AM

SUB. INFO.

PED OR POLE NUMBER																						PED OR POLE NUMBER	SUB NUMBER							



CO.	SISKIYOU TELEPHONE
EXCH.	SOMES BAR
ROUTE	
J.O. NO.	15SB502
SHEET	13 OF 19
MAP REF.	
COUNTY	SISKIYOU
T. 14N	R. 6E SEC 5
TAX CODES	
TITLE:	PHASE THREE TI BAR TO HAPPY CAMP EAB. BUILD FIBER AND CONDUITS
AS BUILT DATE	
SCALE	NTS

SISKIYOU TELEPHONE

CONTACT ENG.

PHONE NO.

Filename: 13-19
Engineer: C.J.CALLIHAM
Drafter: C.EASTLICK
Last Accessed: 10/28/15
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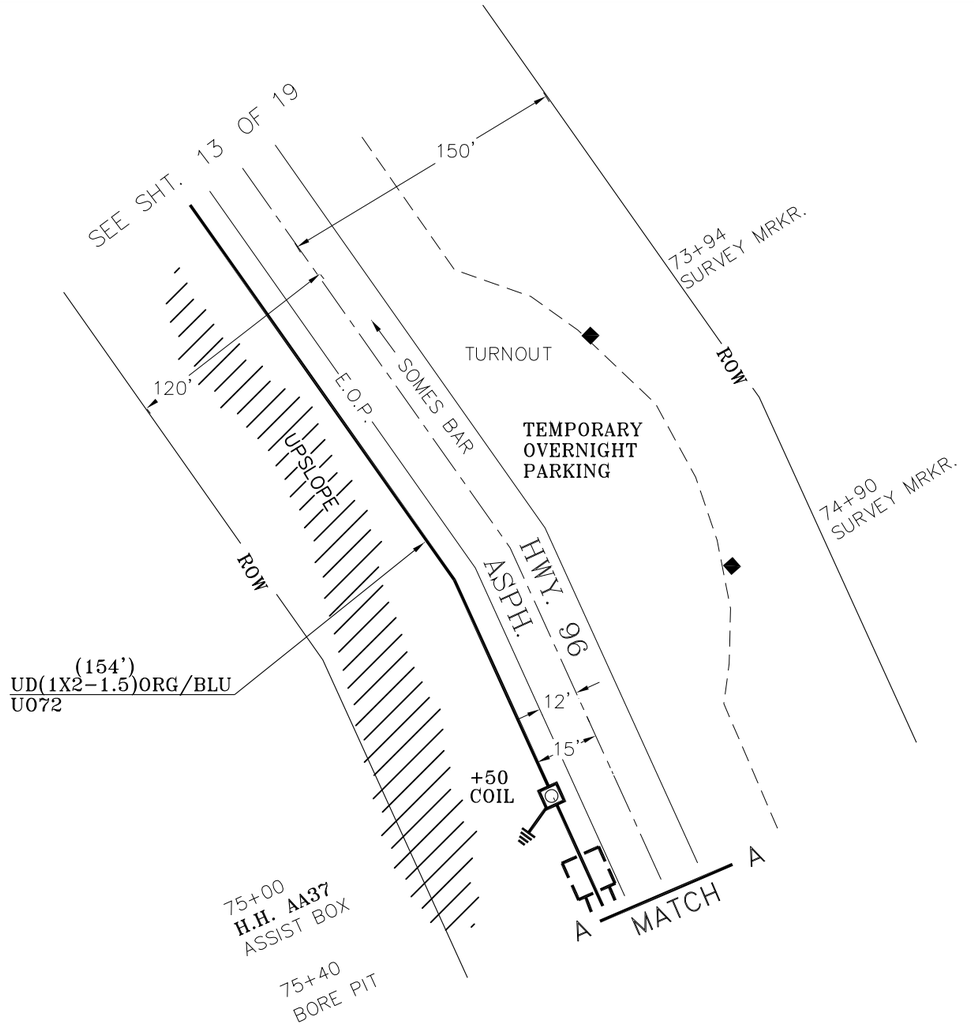

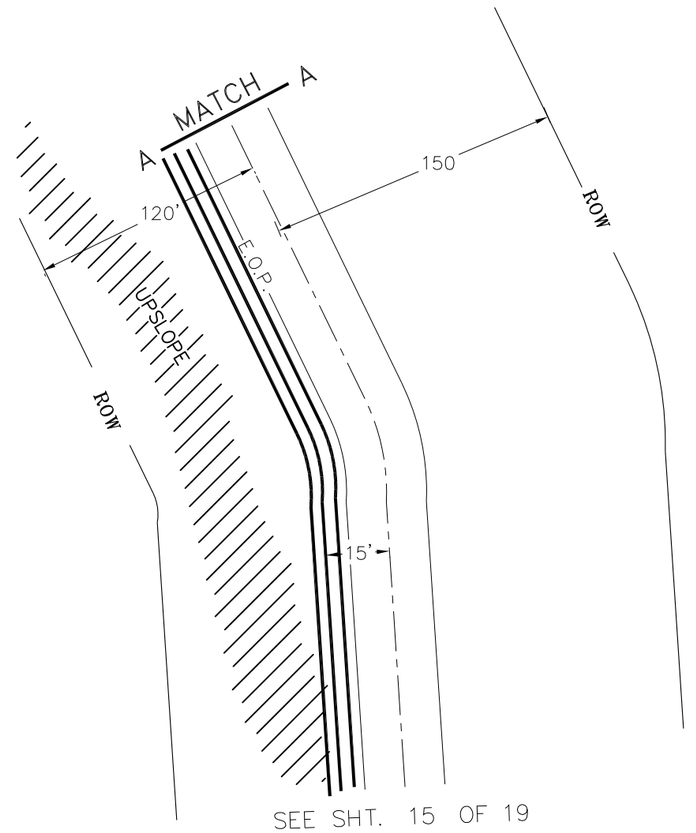

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J.O. NO.	15SB502
SHEET	14 OF 19
MAP REF.	
COUNTY	SISKIYOU
T. 14N	R. 6E SEC 5
TAX CODES	
TITLE:	PHASE THREE TI BAR TO HAPPY CAMP EAB. BUILD FIBER AND CONDUITS
AS BUILT DATE	
SCALE	NTS

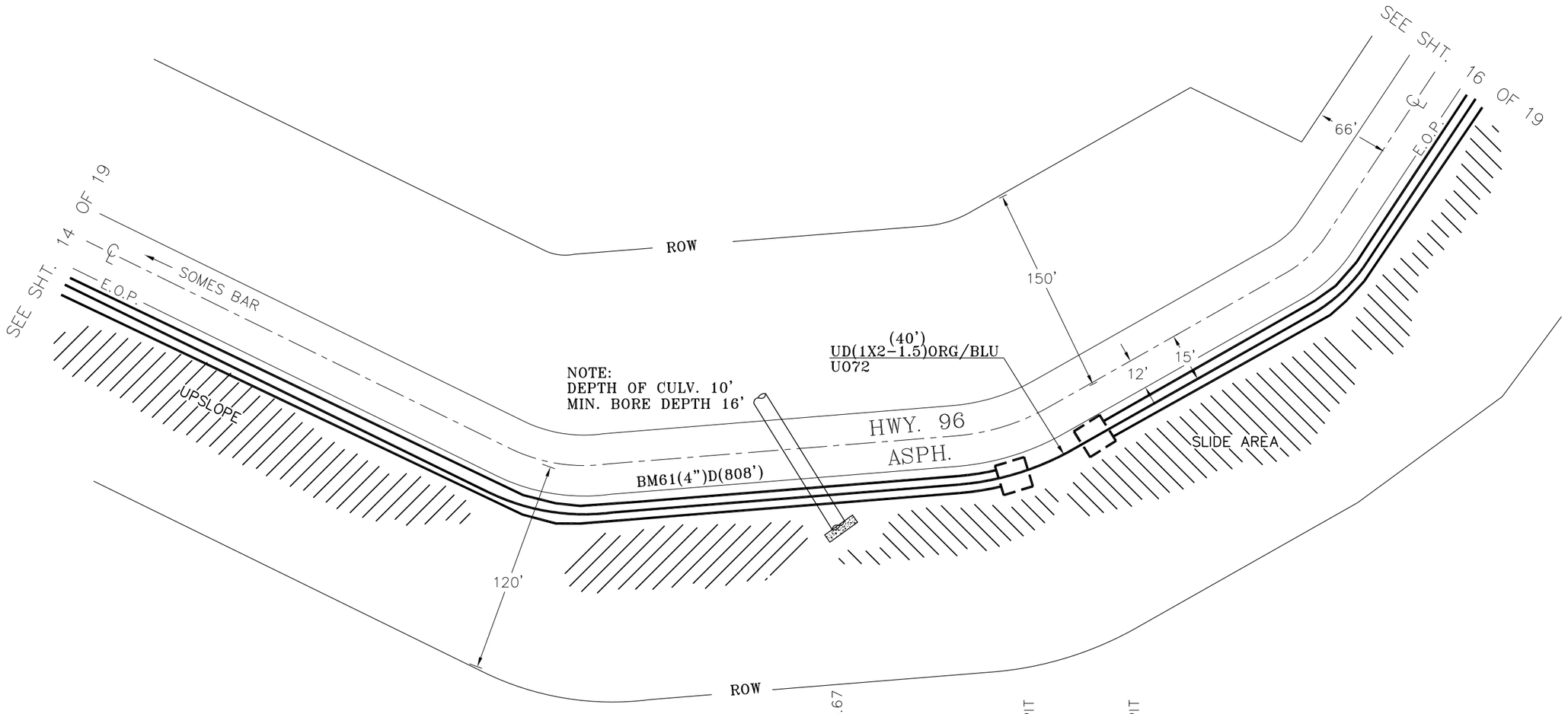
CONTACT ENG.

PHONE NO.

Filename: 14-19
Engineer: C.J.CALLIHAM
Drafter: C.EASTLICK
Last Accessed: 10/28/15
Time: 6:00 AM

SUB. INFO.

PED OR POLE NUMBER	ASSIST BOX	BM2(5/8)(5)	BM61(4")D		UD(1X2-1.5) ORG/BLU	U072																PED OR POLE NUMBER	SUB NUMBER							
H.H. AA37	1	1	2288		314	2754																								
	1	1	2288		314	2754																								



CO.	SISKIYOU TELEPHONE
EXCH.	SOMES BAR
ROUTE	
J.O. NO.	15SB502
SHEET	15 OF 19
MAP REF.	
COUNTY	SISKIYOU
T. 14N	R. 6E SEC 5
TAX CODES	
TITLE:	PHASE THREE TI BAR TO HAPPY CAMP EAB. BUILD FIBER AND CONDUITS
AS BUILT DATE	
SCALE	NTS
CONTACT ENG.	
PHONE NO.	

Filename: 15-19
Engineer: C.J.CALLIHAM
Drafter: C.EASTLICK
Last Accessed: 10/28/15
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SUB. INFO.

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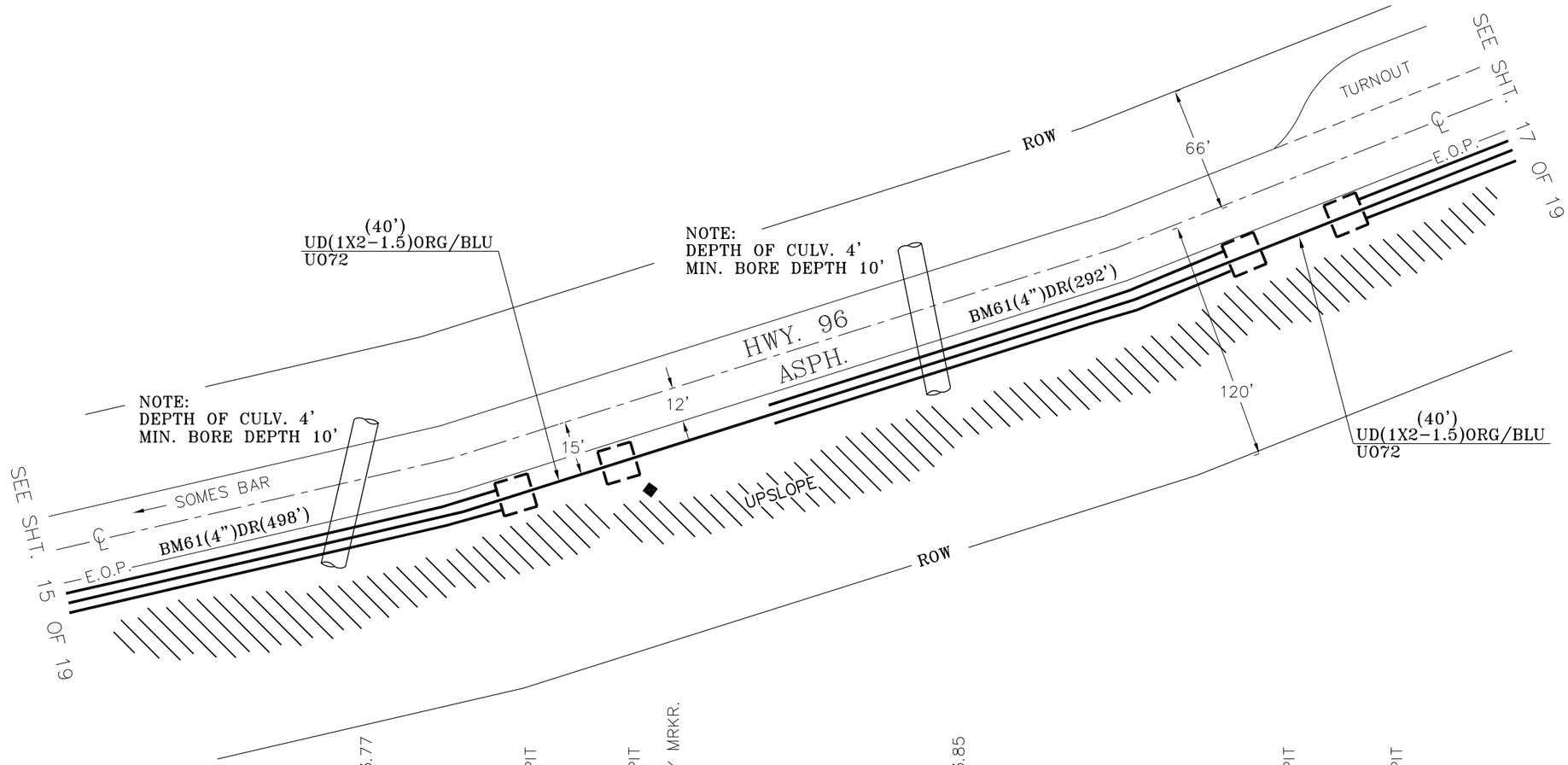

CO.	SISKIYOU TELEPHONE
EXCH.	SOMES BAR
ROUTE	
J.O. NO.	15SB502
SHEET	16 OF 19
MAP REF.	
COUNTY	SISKIYOU
T. 14N	R. 6E SEC 5
TAX CODES	
TITLE:	PHASE THREE TI BAR TO HAPPY CAMP EAB. BUILD FIBER AND CONDUITS
AS BUILT DATE	
SCALE	NTS

CONTACT ENG.

PHONE NO.

Filename: 16-19
Engineer: C.J.CALLIHAM
Drafter: C.EASTLICK
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SUB. INFO.

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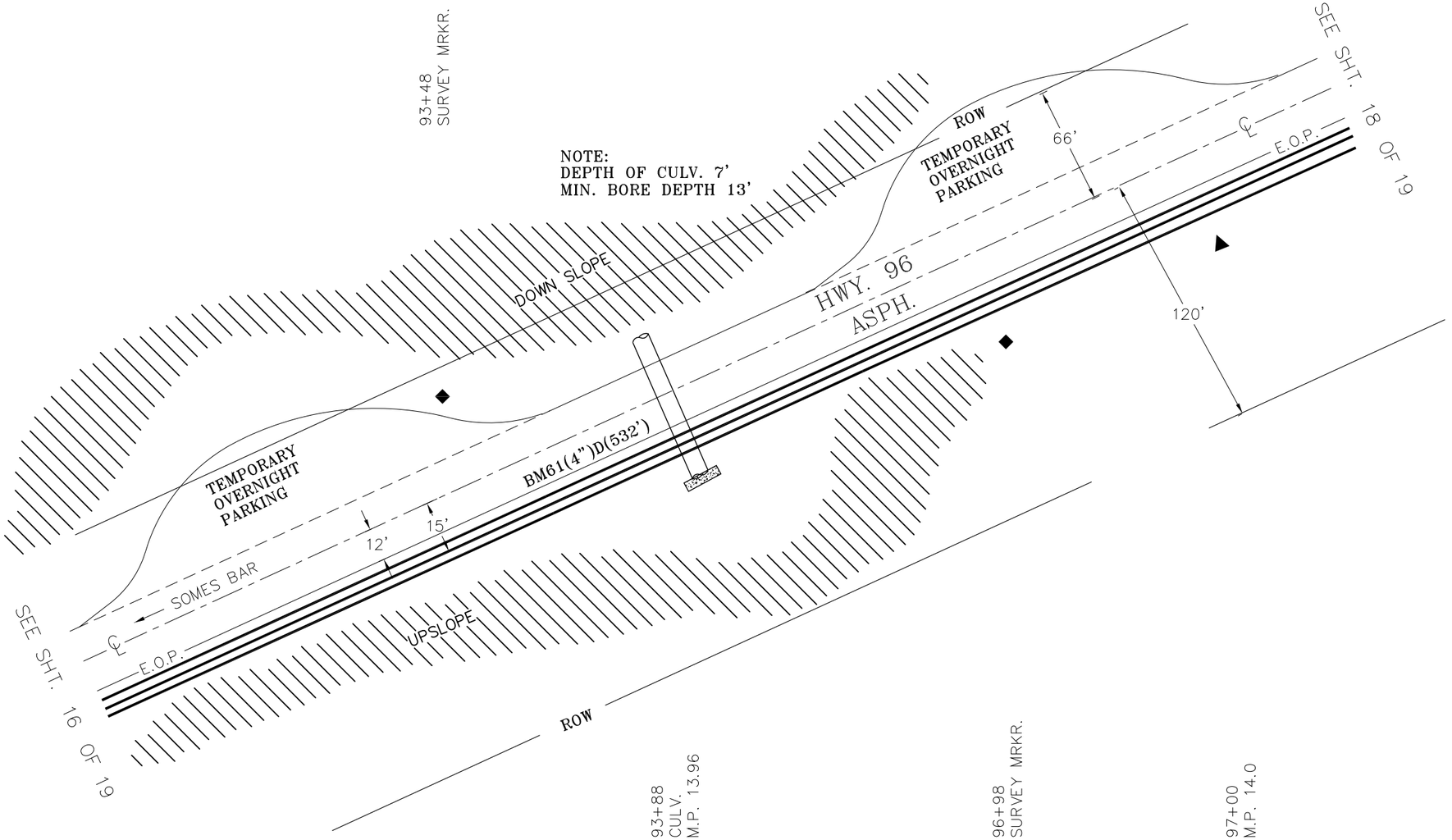

CO.	SISKIYOU TELEPHONE
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ROUTE	
J.O. NO.	15SB502
SHEET	17 OF 19
MAP REF.	
COUNTY	SISKIYOU
T. 14N	R. 6E SEC 5
TAX CODES	
TITLE:	PHASE THREE TI BAR TO HAPPY CAMP EAB. BUILD FIBER AND CONDUITS
AS BUILT DATE	
SCALE	NTS
CONTACT ENG.	
PHONE NO.	

Filename: 17-19
Engineer: C.J.CALLIHAM
Drafter: C.EASTLICK
Last Accessed: 10/28/15
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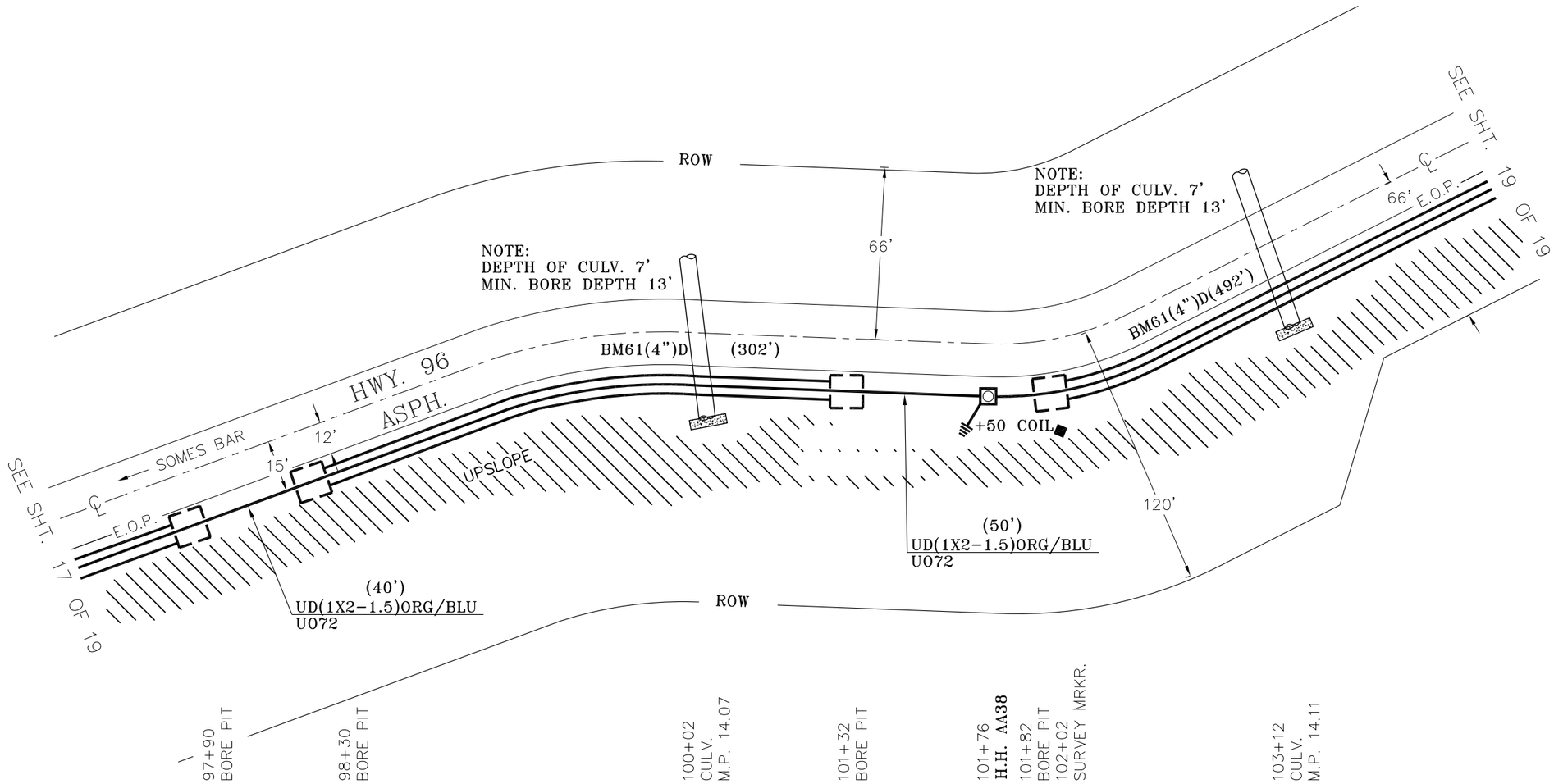

PED OR POLE NUMBER	UH264	BM2(5/8)(5)	BM61(4")D	BM61(4")DR	UD(1X2-1.5) ORG/BLU	U072																PED OR POLE NUMBER	SUB NUMBER							
H.H. AA38	1	1	1642	790	210	2802																								
	1	1	1642	790	210	2802																								

CO. SISKIYOU TELEPHONE

EXCH. SOMES BAR

ROUTE

J.O. NO. 15SB502

SHEET 18 OF 19

MAP REF.

COUNTY SISKIYOU

T. 14N R. 6E SEC 5

TAX CODES

TITLE: PHASE THREE TI BAR TO HAPPY CAMP EAB. BUILD FIBER AND CONDUITS

AS BUILT DATE

SCALE NTS

SISKIYOU TELEPHONE

CONTACT ENG.

PHONE NO.

Filename: 18-19
Engineer: C.J.CALLIHAM
Drafter: C.EASTLICK
Last Accessed: 10/28/15
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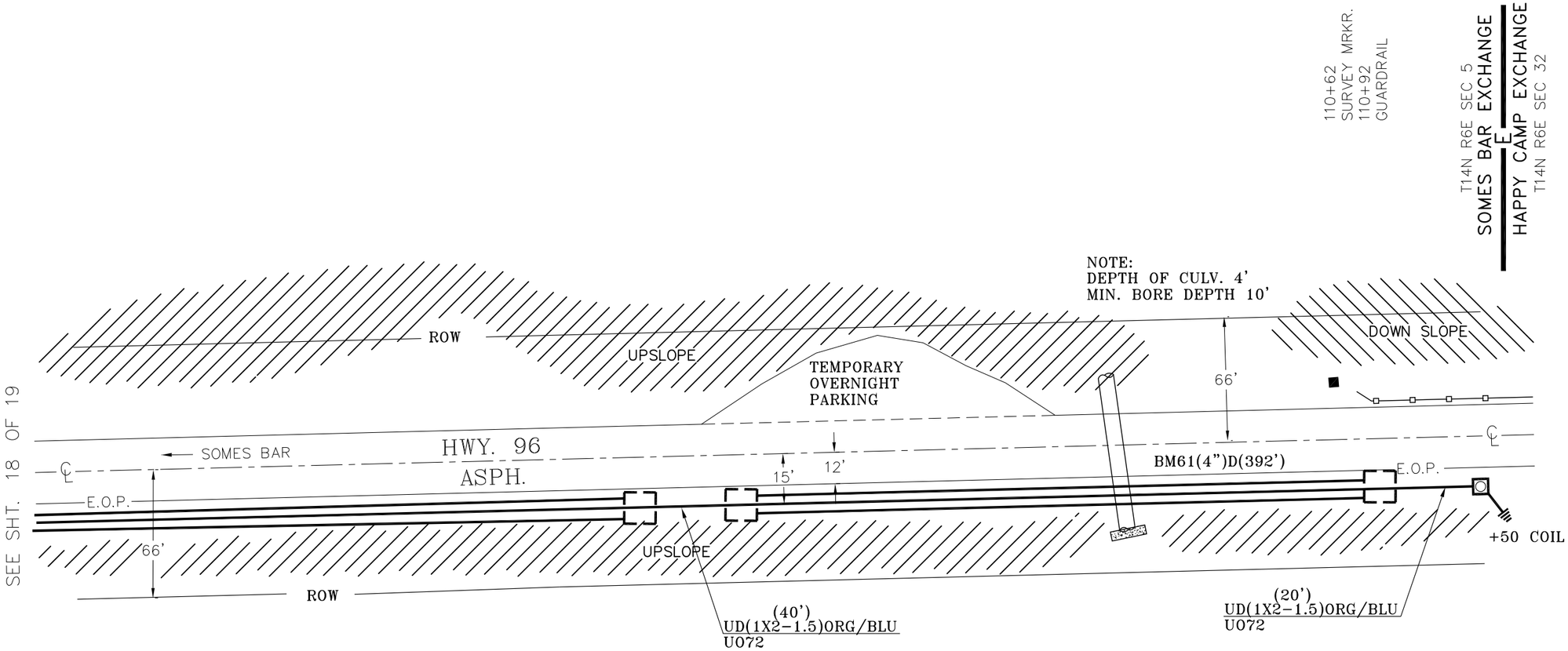
SUB. INFO.



CO.	SISKIYOU TELEPHONE
EXCH.	SOMES BAR
ROUTE	
J.O. NO.	15SB502
SHEET	19 OF 19
MAP REF.	
COUNTY	SISKIYOU
T. 14N	R. 6E | SEC 5
TAX CODES	
TITLE:	PHASE THREE TI BAR TO HAPPY CAMP EAB. BUILD FIBER AND CONDUITS
AS BUILT DATE	
SCALE	NTS

CONTACT ENG.

PHONE NO.

Filename: 19-19
Engineer: C.J.CALLIHAM
Drafter: C.EASTLICK
Last Accessed: 10/28/15
Time: 6:55 AM

SUB. INFO.

PED OR POLE NUMBER	UH264	BM2(5/8)(5)	BM61(4")D	UD(1X2-1.5) ORG/BLU	U072									106+54 BORE PIT	106+94 BORE PIT						108+54 CULV. M.P. 14.22	PED OR POLE NUMBER	SUB NUMBER			110+86 BORE PIT		111+06 H.H. AA39 M/L KK61		
H.H. AA39	1	1	864	66	1090																									
	1	1	864	66	1090																									

Appendix C

List of Preparers

Appendix C. List of Preparers

A consultant team headed by Aspen Environmental Group prepared this document under the direction of the California Public Utilities Commission. The preparers and technical reviewers of this document are presented below.

Lead Agency

California Public Utilities Commission, Energy Division

Jensen Uchida, Project Manager	Lead Agency Contact

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Aspen Environmental Group – Prime Contractor

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Beth Bagwell, Senior Cultural Resources Specialist	Cultural Resources, Tribal Cultural Resources
Brewster Birdsall, Senior Associate	Air Quality, Greenhouse Gas Emissions, Noise
Melissa Do, Environmental Scientist	Aesthetics; Agriculture and Forestry; Hydrology and Water Quality; Land Use and Planning; Mineral Resources; Population and Housing; Public Services; Utilities and Service Systems, Recreation, Transportation & Traffic
Diana Dyste, Interim Cultural Resources Supervisor	Cultural Resources, Tribal Cultural Resources
Jody Fessler, Environmental Scientist	Biological Resources
Fritts Golden, Senior Associate	Document Review
Joshua Noyer, Cultural Resources Specialist	Cultural Resources, Tribal Cultural Resources
Tracy Popiel, GIS Specialist	GIS/Graphics
Kati Simpson, Senior Graphic Designer	Graphics
Mark Tangard, Associate	Document Production

Granite Data Solutions, Inc. - Geology and Soils, Hazards and Hazardous Materials

Aurie Patterson, PG	Geology and Soils; Hazards and Hazardous Materials
Jim Thurber, PG, CHG, CEG	Geology and Soils; Hazards and Hazardous Materials

Appendix D

References

Appendix D. References

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Appendix E

Air Quality/Greenhouse Gas
Emission Calculations

Siskiyou Telco

Siskiyou County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Light Industry	883.00	1000sqft	20.27	883,000.00	0

1.2 Other Project Characteristics

Urbanization	Rural	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	85
Climate Zone	14			**Operational Year**	2020
Utility Company	PacifiCorp				
CO2 Intensity (lb/MWhr)	1656.39	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Siskiyou Telco - Siskiyou County, Annual

Project Characteristics -

Land Use -

Construction Phase - Overall 195 day duration wo overlap per PEA

Off-road Equipment - Appx 20 pcs each phase per PEA and Proj Desc

Off-road Equipment - Appx 20 pcs each phase per PEA and Proj Desc

Off-road Equipment - Appx 20 pcs each phase per PEA and Proj Desc

Off-road Equipment - Appx 20 pcs each phase per PEA and Proj Desc

Trips and VMT - 40 mi one way per PEA and Proj Desc

Grading - 4933 cy hauled

Vehicle Trips - Negligible operational activity

Consumer Products - Negligible operational activity

Area Coating - Negligible operational activity

Energy Use - Negligible operational activity

Water And Wastewater - Negligible operational activity

Solid Waste - Negligible operational activity

Table Name	Column Name	Default Value	New Value
tblAreaCoating	ReapplicationRatePercent	10	0.1
tblConstructionPhase	NumDays	35.00	87.00
tblConstructionPhase	NumDays	35.00	30.00
tblConsumerProducts	ROG_EF	2.14E-05	0
tblConsumerProducts	ROG_EF_Degreaser	3.542E-07	1E-09
tblEnergyUse	LightingElect	1.81	0.00
tblEnergyUse	NT24E	1.85	0.00
tblEnergyUse	NT24NG	0.31	0.00
tblEnergyUse	T24E	0.62	0.00
tblEnergyUse	T24NG	3.20	0.00

tblGrading	AcresOfGrading	217.50	10.27
tblGrading	AcresOfGrading	75.00	10.00
tblGrading	MaterialExported	0.00	4,000.00
tblGrading	MaterialExported	0.00	933.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	5.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	5.00
tblOffRoadEquipment	UsageHours	8.00	7.00
tblProjectCharacteristics	UrbanizationLevel	Urban	Rural
tblSolidWaste	SolidWasteGenerationRate	1,094.92	0.00
tblTripsAndVMT	HaulingTripLength	20.00	40.00
tblTripsAndVMT	HaulingTripLength	20.00	40.00
tblTripsAndVMT	HaulingTripLength	20.00	40.00
tblTripsAndVMT	HaulingTripLength	20.00	40.00
tblTripsAndVMT	HaulingTripNumber	500.00	1,071.00
tblTripsAndVMT	HaulingTripNumber	0.00	492.00
tblTripsAndVMT	HaulingTripNumber	0.00	468.00
tblTripsAndVMT	HaulingTripNumber	117.00	369.00
tblTripsAndVMT	VendorTripLength	6.60	40.00
tblTripsAndVMT	VendorTripLength	6.60	40.00
tblTripsAndVMT	VendorTripLength	6.60	40.00
tblTripsAndVMT	VendorTripLength	6.60	40.00
tblTripsAndVMT	VendorTripNumber	0.00	15.00
tblTripsAndVMT	VendorTripNumber	0.00	15.00
tblTripsAndVMT	VendorTripNumber	0.00	15.00
tblTripsAndVMT	VendorTripNumber	0.00	15.00
tblTripsAndVMT	WorkerTripLength	16.80	80.00
tblTripsAndVMT	WorkerTripLength	16.80	80.00

tblTripsAndVMT	WorkerTripLength	16.80	80.00
tblTripsAndVMT	WorkerTripLength	16.80	80.00
tblTripsAndVMT	WorkerTripNumber	55.00	30.00
tblTripsAndVMT	WorkerTripNumber	55.00	30.00
tblTripsAndVMT	WorkerTripNumber	55.00	30.00
tblTripsAndVMT	WorkerTripNumber	55.00	30.00
tblVehicleTrips	CC_TL	6.60	80.00
tblVehicleTrips	CNW_TL	6.60	80.00
tblVehicleTrips	CW_TL	14.70	80.00
tblVehicleTrips	ST_TR	1.32	1.0000e-003
tblVehicleTrips	SU_TR	0.68	1.0000e-003
tblVehicleTrips	WD_TR	6.97	1.0000e-003
tblWater	IndoorWaterUseRate	204,193,750.00	0.00

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					
2018	0.8090	8.4602	5.8456	0.0132	0.4376	0.3691	0.8067	0.1909	0.3409	0.5318	0.0000	1,212.5913	1,212.5913	0.2803	0.0000	1,219.5988
2019	0.3752	3.8106	2.8579	6.6100e-003	0.1867	0.1668	0.3534	0.0750	0.1539	0.2289	0.0000	599.4792	599.4792	0.1376	0.0000	602.9193
Maximum	**0.8090**	**8.4602**	**5.8456**	**0.0132**	**0.4376**	**0.3691**	**0.8067**	**0.1909**	**0.3409**	**0.5318**	**0.0000**	**1,212.5913**	**1,212.5913**	**0.2803**	**0.0000**	**1,219.5988**

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					
2018	0.8090	8.4602	5.8456	0.0132	0.4376	0.3691	0.8067	0.1909	0.3409	0.5318	0.0000	1,212.5902	1,212.5902	0.2803	0.0000	1,219.5977
2019	0.3752	3.8106	2.8579	6.6100e-003	0.1867	0.1668	0.3534	0.0750	0.1539	0.2289	0.0000	599.4787	599.4787	0.1376	0.0000	602.9188
Maximum	**0.8090**	**8.4602**	**5.8456**	**0.0132**	**0.4376**	**0.3691**	**0.8067**	**0.1909**	**0.3409**	**0.5318**	**0.0000**	**1,212.5902**	**1,212.5902**	**0.2803**	**0.0000**	**1,219.5977**

	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	7-16-2018	10-15-2018	4.0947	4.0947
3	1-16-2019	4-15-2019	0.0393	0.0393
4	4-16-2019	7-15-2019	3.7826	3.7826
5	7-16-2019	9-30-2019	0.1974	0.1974
		Highest	4.0947	4.0947

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	0.0110	8.0000e-005	8.1700e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.0158	0.0158	4.0000e-005	0.0000	0.0168
Energy	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
Mobile	2.4300e-003	0.0236	0.0414	1.4000e-004	8.9300e-003	1.9000e-004	9.1200e-003	2.4100e-003	1.8000e-004	2.5800e-003	0.0000	13.2239	13.2239	5.3000e-004	0.0000	13.2372
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0134**	**0.0237**	**0.0495**	**1.4000e-004**	**8.9300e-003**	**2.2000e-004**	**9.1500e-003**	**2.4100e-003**	**2.1000e-004**	**2.6100e-003**	**0.0000**	**13.2397**	**13.2397**	**5.7000e-004**	**0.0000**	**13.2540**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.0110	8.0000e-005	8.1700e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.0158	0.0158	4.0000e-005	0.0000	0.0168
Energy	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
Mobile	2.4300e-003	0.0236	0.0414	1.4000e-004	8.9300e-003	1.9000e-004	9.1200e-003	2.4100e-003	1.8000e-004	2.5800e-003	0.0000	13.2239	13.2239	5.3000e-004	0.0000	13.2372
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0134**	**0.0237**	**0.0495**	**1.4000e-004**	**8.9300e-003**	**2.2000e-004**	**9.1500e-003**	**2.4100e-003**	**2.1000e-004**	**2.6100e-003**	**0.0000**	**13.2397**	**13.2397**	**5.7000e-004**	**0.0000**	**13.2540**

	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	Grading	Grading	4/16/2018	8/14/2018	5	87	Ph 1
2	Trenching 2-1	Trenching	8/15/2018	10/9/2018	5	40	Ph 2-1
3	Trenching 2-2	Trenching	4/15/2019	6/5/2019	5	38	Ph 2-2
4	Cleanup	Grading	6/10/2019	7/19/2019	5	30	Ph 3

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 10.27

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Grading	Air Compressors	1	8.00	78	0.48
Grading	Bore/Drill Rigs	5	8.00	221	0.50
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Other Construction Equipment	5	10.00	172	0.42
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	5	8.00	97	0.37
Trenching 2-1	Air Compressors	1	7.00	78	0.48
Trenching 2-1	Bore/Drill Rigs	5	7.00	221	0.50
Trenching 2-1	Excavators	2	7.00	158	0.38
Trenching 2-1	Other Construction Equipment	7	10.00	172	0.42

Trenching 2-1	Sweepers/Scrubbers	2	7.00	64	0.46
Trenching 2-1	Tractors/Loaders/Backhoes	5	7.00	97	0.37
Trenching 2-2	Air Compressors	1	7.00	78	0.48
Trenching 2-2	Bore/Drill Rigs	5	7.00	221	0.50
Trenching 2-2	Excavators	2	7.00	158	0.38
Trenching 2-2	Other Construction Equipment	7	10.00	172	0.42
Trenching 2-2	Sweepers/Scrubbers	2	7.00	64	0.46
Trenching 2-2	Tractors/Loaders/Backhoes	5	7.00	97	0.37
Cleanup	Bore/Drill Rigs	5	7.00	221	0.50
Cleanup	Excavators	2	8.00	158	0.38
Cleanup	Graders	1	8.00	187	0.41
Cleanup	Other Construction Equipment	5	10.00	172	0.42
Cleanup	Rubber Tired Dozers	1	8.00	247	0.40
Cleanup	Scrapers	2	8.00	367	0.48
Cleanup	Tractors/Loaders/Backhoes	5	7.00	97	0.37
Cleanup	Welders	1	7.00	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
Grading	22	30.00	15.00	1,071.00	80.00	40.00	40.00	LD_Mix	HDT_Mix	HHDT
Trenching 2-1	22	30.00	15.00	492.00	80.00	40.00	40.00	LD_Mix	HDT_Mix	HHDT
Trenching 2-2	22	30.00	15.00	468.00	80.00	40.00	40.00	LD_Mix	HDT_Mix	HHDT
Cleanup	22	30.00	15.00	369.00	80.00	40.00	40.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Grading - 2018

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					0.2676	0.0000	0.2676	0.1446	0.0000	0.1446	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.4902	5.6085	3.5243	7.0000e-003		0.2601	0.2601		0.2400	0.2400	0.0000	637.9382	637.9382	0.1954	0.0000	642.8231
Total	**0.4902**	**5.6085**	**3.5243**	**7.0000e-003**	**0.2676**	**0.2601**	**0.5277**	**0.1446**	**0.2400**	**0.3846**	**0.0000**	**637.9382**	**637.9382**	**0.1954**	**0.0000**	**642.8231**

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	9.4900e-003	0.2809	0.0471	8.2000e-004	0.0179	1.7700e-003	0.0197	4.9400e-003	1.6900e-003	6.6400e-003	0.0000	77.8311	77.8311	2.4400e-003	0.0000	77.8920
Vendor	0.0219	0.3051	0.1108	8.5000e-004	0.0232	4.3400e-003	0.0275	6.7000e-003	4.1600e-003	0.0109	0.0000	80.0333	80.0333	2.5900e-003	0.0000	80.0981
Worker	0.0671	0.0620	0.5119	8.8000e-004	0.0753	7.8000e-004	0.0761	0.0200	7.2000e-004	0.0208	0.0000	78.8937	78.8937	5.1700e-003	0.0000	79.0228
Total	**0.0986**	**0.6480**	**0.6698**	**2.5500e-003**	**0.1164**	**6.8900e-003**	**0.1233**	**0.0317**	**6.5700e-003**	**0.0383**	**0.0000**	**236.7581**	**236.7581**	**0.0102**	**0.0000**	**237.0129**

3.2 Grading - 2018

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					0.2676	0.0000	0.2676	0.1446	0.0000	0.1446	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.4902	5.6085	3.5243	7.0000e-003		0.2601	0.2601		0.2400	0.2400	0.0000	637.9375	637.9375	0.1954	0.0000	642.8223
Total	**0.4902**	**5.6085**	**3.5243**	**7.0000e-003**	**0.2676**	**0.2601**	**0.5277**	**0.1446**	**0.2400**	**0.3846**	**0.0000**	**637.9375**	**637.9375**	**0.1954**	**0.0000**	**642.8223**

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	9.4900e-003	0.2809	0.0471	8.2000e-004	0.0179	1.7700e-003	0.0197	4.9400e-003	1.6900e-003	6.6400e-003	0.0000	77.8311	77.8311	2.4400e-003	0.0000	77.8920
Vendor	0.0219	0.3051	0.1108	8.5000e-004	0.0232	4.3400e-003	0.0275	6.7000e-003	4.1600e-003	0.0109	0.0000	80.0333	80.0333	2.5900e-003	0.0000	80.0981
Worker	0.0671	0.0620	0.5119	8.8000e-004	0.0753	7.8000e-004	0.0761	0.0200	7.2000e-004	0.0208	0.0000	78.8937	78.8937	5.1700e-003	0.0000	79.0228
Total	**0.0986**	**0.6480**	**0.6698**	**2.5500e-003**	**0.1164**	**6.8900e-003**	**0.1233**	**0.0317**	**6.5700e-003**	**0.0383**	**0.0000**	**236.7581**	**236.7581**	**0.0102**	**0.0000**	**237.0129**

3.3 Trenching 2-1 - 2018

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	0.1749	1.9060	1.3436	2.5100e-003		0.0990	0.0990		0.0914	0.0914	0.0000	229.0708	229.0708	0.0700	0.0000	230.8214
Total	**0.1749**	**1.9060**	**1.3436**	**2.5100e-003**		**0.0990**	**0.0990**		**0.0914**	**0.0914**	**0.0000**	**229.0708**	**229.0708**	**0.0700**	**0.0000**	**230.8214**

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	4.3600e-003	0.1290	0.0216	3.8000e-004	8.2400e-003	8.1000e-004	9.0500e-003	2.2700e-003	7.8000e-004	3.0500e-003	0.0000	35.7544	35.7544	1.1200e-003	0.0000	35.7823
Vendor	0.0101	0.1403	0.0509	3.9000e-004	0.0107	2.0000e-003	0.0127	3.0800e-003	1.9100e-003	4.9900e-003	0.0000	36.7969	36.7969	1.1900e-003	0.0000	36.8267
Worker	0.0309	0.0285	0.2354	4.0000e-004	0.0346	3.6000e-004	0.0350	9.2200e-003	3.3000e-004	9.5500e-003	0.0000	36.2730	36.2730	2.3800e-003	0.0000	36.3323
Total	**0.0453**	**0.2978**	**0.3079**	**1.1700e-003**	**0.0535**	**3.1700e-003**	**0.0567**	**0.0146**	**3.0200e-003**	**0.0176**	**0.0000**	**108.8242**	**108.8242**	**4.6900e-003**	**0.0000**	**108.9414**

3.3 Trenching 2-1 - 2018

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	0.1749	1.9060	1.3436	2.5100e-003		0.0990	0.0990		0.0914	0.0914	0.0000	229.0705	229.0705	0.0700	0.0000	230.8211
Total	**0.1749**	**1.9060**	**1.3436**	**2.5100e-003**		**0.0990**	**0.0990**		**0.0914**	**0.0914**	**0.0000**	**229.0705**	**229.0705**	**0.0700**	**0.0000**	**230.8211**

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	4.3600e-003	0.1290	0.0216	3.8000e-004	8.2400e-003	8.1000e-004	9.0500e-003	2.2700e-003	7.8000e-004	3.0500e-003	0.0000	35.7544	35.7544	1.1200e-003	0.0000	35.7823
Vendor	0.0101	0.1403	0.0509	3.9000e-004	0.0107	2.0000e-003	0.0127	3.0800e-003	1.9100e-003	4.9900e-003	0.0000	36.7969	36.7969	1.1900e-003	0.0000	36.8267
Worker	0.0309	0.0285	0.2354	4.0000e-004	0.0346	3.6000e-004	0.0350	9.2200e-003	3.3000e-004	9.5500e-003	0.0000	36.2730	36.2730	2.3800e-003	0.0000	36.3323
Total	**0.0453**	**0.2978**	**0.3079**	**1.1700e-003**	**0.0535**	**3.1700e-003**	**0.0567**	**0.0146**	**3.0200e-003**	**0.0176**	**0.0000**	**108.8242**	**108.8242**	**4.6900e-003**	**0.0000**	**108.9414**

3.4 Trenching 2-2 - 2019

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	0.1539	1.6524	1.2687	2.3900e-003		0.0850	0.0850		0.0784	0.0784	0.0000	214.1068	214.1068	0.0664	0.0000	215.7675
Total	**0.1539**	**1.6524**	**1.2687**	**2.3900e-003**		**0.0850**	**0.0850**		**0.0784**	**0.0784**	**0.0000**	**214.1068**	**214.1068**	**0.0664**	**0.0000**	**215.7675**

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	3.7200e-003	0.1137	0.0191	3.5000e-004	7.8400e-003	6.1000e-004	8.4500e-003	2.1600e-003	5.8000e-004	2.7400e-003	0.0000	33.6380	33.6380	1.0300e-003	0.0000	33.6637
Vendor	8.0100e-003	0.1217	0.0393	3.7000e-004	0.0101	1.5500e-003	0.0117	2.9300e-003	1.4800e-003	4.4100e-003	0.0000	34.6865	34.6865	1.0200e-003	0.0000	34.7120
Worker	0.0270	0.0240	0.1978	3.7000e-004	0.0329	3.3000e-004	0.0332	8.7500e-003	3.0000e-004	9.0600e-003	0.0000	33.4818	33.4818	2.0000e-003	0.0000	33.5317
Total	**0.0387**	**0.2594**	**0.2561**	**1.0900e-003**	**0.0509**	**2.4900e-003**	**0.0533**	**0.0138**	**2.3600e-003**	**0.0162**	**0.0000**	**101.8062**	**101.8062**	**4.0500e-003**	**0.0000**	**101.9074**

3.4 Trenching 2-2 - 2019

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	0.1539	1.6524	1.2687	2.3900e-003		0.0850	0.0850		0.0784	0.0784	0.0000	214.1066	214.1066	0.0664	0.0000	215.7673
Total	**0.1539**	**1.6524**	**1.2687**	**2.3900e-003**		**0.0850**	**0.0850**		**0.0784**	**0.0784**	**0.0000**	**214.1066**	**214.1066**	**0.0664**	**0.0000**	**215.7673**

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	3.7200e-003	0.1137	0.0191	3.5000e-004	7.8400e-003	6.1000e-004	8.4500e-003	2.1600e-003	5.8000e-004	2.7400e-003	0.0000	33.6380	33.6380	1.0300e-003	0.0000	33.6637
Vendor	8.0100e-003	0.1217	0.0393	3.7000e-004	0.0101	1.5500e-003	0.0117	2.9300e-003	1.4800e-003	4.4100e-003	0.0000	34.6865	34.6865	1.0200e-003	0.0000	34.7120
Worker	0.0270	0.0240	0.1978	3.7000e-004	0.0329	3.3000e-004	0.0332	8.7500e-003	3.0000e-004	9.0600e-003	0.0000	33.4818	33.4818	2.0000e-003	0.0000	33.5317
Total	**0.0387**	**0.2594**	**0.2561**	**1.0900e-003**	**0.0509**	**2.4900e-003**	**0.0533**	**0.0138**	**2.3600e-003**	**0.0162**	**0.0000**	**101.8062**	**101.8062**	**4.0500e-003**	**0.0000**	**101.9074**

3.5 Cleanup - 2019

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					0.0957	0.0000	0.0957	0.0502	0.0000	0.0502	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1520	1.6942	1.1310	2.2700e-003		0.0774	0.0774		0.0713	0.0713	0.0000	203.2269	203.2269	0.0639	0.0000	204.8252
Total	**0.1520**	**1.6942**	**1.1310**	**2.2700e-003**	**0.0957**	**0.0774**	**0.1731**	**0.0502**	**0.0713**	**0.1215**	**0.0000**	**203.2269**	**203.2269**	**0.0639**	**0.0000**	**204.8252**

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	2.9400e-003	0.0897	0.0150	2.8000e-004	6.1800e-003	4.8000e-004	6.6600e-003	1.7000e-003	4.6000e-004	2.1600e-003	0.0000	26.5222	26.5222	8.1000e-004	0.0000	26.5425
Vendor	6.3200e-003	0.0961	0.0310	2.9000e-004	7.9900e-003	1.2200e-003	9.2100e-003	2.3100e-003	1.1700e-003	3.4800e-003	0.0000	27.3841	27.3841	8.1000e-004	0.0000	27.4042
Worker	0.0213	0.0189	0.1561	2.9000e-004	0.0260	2.6000e-004	0.0262	6.9100e-003	2.4000e-004	7.1500e-003	0.0000	26.4330	26.4330	1.5800e-003	0.0000	26.4724
Total	**0.0306**	**0.2047**	**0.2021**	**8.6000e-004**	**0.0401**	**1.9600e-003**	**0.0421**	**0.0109**	**1.8700e-003**	**0.0128**	**0.0000**	**80.3393**	**80.3393**	**3.2000e-003**	**0.0000**	**80.4192**

3.5 Cleanup - 2019

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					0.0957	0.0000	0.0957	0.0502	0.0000	0.0502	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1520	1.6942	1.1310	2.2700e-003		0.0774	0.0774		0.0713	0.0713	0.0000	203.2267	203.2267	0.0639	0.0000	204.8249
Total	**0.1520**	**1.6942**	**1.1310**	**2.2700e-003**	**0.0957**	**0.0774**	**0.1731**	**0.0502**	**0.0713**	**0.1215**	**0.0000**	**203.2267**	**203.2267**	**0.0639**	**0.0000**	**204.8249**

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	2.9400e-003	0.0897	0.0150	2.8000e-004	6.1800e-003	4.8000e-004	6.6600e-003	1.7000e-003	4.6000e-004	2.1600e-003	0.0000	26.5222	26.5222	8.1000e-004	0.0000	26.5425
Vendor	6.3200e-003	0.0961	0.0310	2.9000e-004	7.9900e-003	1.2200e-003	9.2100e-003	2.3100e-003	1.1700e-003	3.4800e-003	0.0000	27.3841	27.3841	8.1000e-004	0.0000	27.4042
Worker	0.0213	0.0189	0.1561	2.9000e-004	0.0260	2.6000e-004	0.0262	6.9100e-003	2.4000e-004	7.1500e-003	0.0000	26.4330	26.4330	1.5800e-003	0.0000	26.4724
Total	**0.0306**	**0.2047**	**0.2021**	**8.6000e-004**	**0.0401**	**1.9600e-003**	**0.0421**	**0.0109**	**1.8700e-003**	**0.0128**	**0.0000**	**80.3393**	**80.3393**	**3.2000e-003**	**0.0000**	**80.4192**

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	2.4300e-003	0.0236	0.0414	1.4000e-004	8.9300e-003	1.9000e-004	9.1200e-003	2.4100e-003	1.8000e-004	2.5800e-003	0.0000	13.2239	13.2239	5.3000e-004	0.0000	13.2372
Unmitigated	2.4300e-003	0.0236	0.0414	1.4000e-004	8.9300e-003	1.9000e-004	9.1200e-003	2.4100e-003	1.8000e-004	2.5800e-003	0.0000	13.2239	13.2239	5.3000e-004	0.0000	13.2372

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Light Industry	0.88	0.88	0.88	23,978	23,978
Total	0.88	0.88	0.88	23,978	23,978

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
General Light Industry	80.00	80.00	80.00	59.00	28.00	13.00	92	5	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
General Light Industry	0.480138	0.040615	0.180049	0.120387	0.037372	0.006792	0.008746	0.115531	0.001256	0.001655	0.005192	0.001016	0.001248

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	0.0000	0.0000	0.0000	0.0000	0.0000
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Mitigated	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
NaturalGas Unmitigated	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

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					
General Light Industry	0	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
Total		**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**

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					
General Light Industry	0	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
Total		**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**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Light Industry	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Light Industry	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

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	0.0110	8.0000e-005	8.1700e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.0158	0.0158	4.0000e-005	0.0000	0.0168
Unmitigated	0.0110	8.0000e-005	8.1700e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.0158	0.0158	4.0000e-005	0.0000	0.0168

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	0.0102					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	7.7000e-004	8.0000e-005	8.1700e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.0158	0.0158	4.0000e-005	0.0000	0.0168
Total	**0.0110**	**8.0000e-005**	**8.1700e-003**	**0.0000**		**3.0000e-005**	**3.0000e-005**		**3.0000e-005**	**3.0000e-005**	**0.0000**	**0.0158**	**0.0158**	**4.0000e-005**	**0.0000**	**0.0168**

6.2 Area by SubCategory

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	0.0102					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	7.7000e-004	8.0000e-005	8.1700e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.0158	0.0158	4.0000e-005	0.0000	0.0168
Total	**0.0110**	**8.0000e-005**	**8.1700e-003**	**0.0000**		**3.0000e-005**	**3.0000e-005**		**3.0000e-005**	**3.0000e-005**	**0.0000**	**0.0158**	**0.0158**	**4.0000e-005**	**0.0000**	**0.0168**

7.0 Water Detail

7.1 Mitigation Measures Water

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

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Light Industry	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Light Industry	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

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

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Light Industry	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Light Industry	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

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

Siskiyou Telco

Siskiyou County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Light Industry	883.00	1000sqft	20.27	883,000.00	0

1.2 Other Project Characteristics

Urbanization	Rural	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	85
Climate Zone	14			**Operational Year**	2020
Utility Company	PacifiCorp				
CO2 Intensity (lb/MWhr)	1656.39	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use -

Construction Phase - Overall 195 day duration wo overlap per PEA

Off-road Equipment - Appx 20 pcs each phase per PEA and Proj Desc

Off-road Equipment - Appx 20 pcs each phase per PEA and Proj Desc

Off-road Equipment - Appx 20 pcs each phase per PEA and Proj Desc

Off-road Equipment - Appx 20 pcs each phase per PEA and Proj Desc

Trips and VMT - 40 mi one way per PEA and Proj Desc

Grading - 4933 cy hauled

Vehicle Trips - Negligible operational activity

Consumer Products - Negligible operational activity

Area Coating - Negligible operational activity

Energy Use - Negligible operational activity

Water And Wastewater - Negligible operational activity

Solid Waste - Negligible operational activity

Table Name	Column Name	Default Value	New Value
tblAreaCoating	ReapplicationRatePercent	10	0.1
tblConstructionPhase	NumDays	35.00	87.00
tblConstructionPhase	NumDays	35.00	30.00
tblConsumerProducts	ROG_EF	2.14E-05	0
tblConsumerProducts	ROG_EF_Degreaser	3.542E-07	1E-09
tblEnergyUse	LightingElect	1.81	0.00
tblEnergyUse	NT24E	1.85	0.00
tblEnergyUse	NT24NG	0.31	0.00
tblEnergyUse	T24E	0.62	0.00
tblEnergyUse	T24NG	3.20	0.00

Siskiyou Telco - Siskiyou County, Summer

tblGrading	AcresOfGrading	217.50	10.27
tblGrading	AcresOfGrading	75.00	10.00
tblGrading	MaterialExported	0.00	4,000.00
tblGrading	MaterialExported	0.00	933.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	5.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	5.00
tblOffRoadEquipment	UsageHours	8.00	7.00
tblProjectCharacteristics	UrbanizationLevel	Urban	Rural
tblSolidWaste	SolidWasteGenerationRate	1,094.92	0.00
tblTripsAndVMT	HaulingTripLength	20.00	40.00
tblTripsAndVMT	HaulingTripLength	20.00	40.00
tblTripsAndVMT	HaulingTripLength	20.00	40.00
tblTripsAndVMT	HaulingTripLength	20.00	40.00
tblTripsAndVMT	HaulingTripNumber	500.00	1,071.00
tblTripsAndVMT	HaulingTripNumber	0.00	492.00
tblTripsAndVMT	HaulingTripNumber	0.00	468.00
tblTripsAndVMT	HaulingTripNumber	117.00	369.00
tblTripsAndVMT	VendorTripLength	6.60	40.00
tblTripsAndVMT	VendorTripLength	6.60	40.00
tblTripsAndVMT	VendorTripLength	6.60	40.00
tblTripsAndVMT	VendorTripLength	6.60	40.00
tblTripsAndVMT	VendorTripNumber	0.00	15.00
tblTripsAndVMT	VendorTripNumber	0.00	15.00
tblTripsAndVMT	VendorTripNumber	0.00	15.00
tblTripsAndVMT	VendorTripNumber	0.00	15.00
tblTripsAndVMT	WorkerTripLength	16.80	80.00
tblTripsAndVMT	WorkerTripLength	16.80	80.00

tblTripsAndVMT	WorkerTripLength	16.80	80.00
tblTripsAndVMT	WorkerTripLength	16.80	80.00
tblTripsAndVMT	WorkerTripNumber	55.00	30.00
tblTripsAndVMT	WorkerTripNumber	55.00	30.00
tblTripsAndVMT	WorkerTripNumber	55.00	30.00
tblTripsAndVMT	WorkerTripNumber	55.00	30.00
tblVehicleTrips	CC_TL	6.60	80.00
tblVehicleTrips	CNW_TL	6.60	80.00
tblVehicleTrips	CW_TL	14.70	80.00
tblVehicleTrips	ST_TR	1.32	1.0000e-003
tblVehicleTrips	SU_TR	0.68	1.0000e-003
tblVehicleTrips	WD_TR	6.97	1.0000e-003
tblWater	IndoorWaterUseRate	204,193,750.00	0.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

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	lb/day										lb/day					
2018	13.3907	143.2875	96.3540	0.2203	8.9629	6.1366	15.0996	4.0861	5.6670	9.7530	0.0000	22,265.9026	22,265.9026	5.2083	0.0000	22,396.1100
2019	12.0407	126.1106	88.9047	0.2097	9.1892	5.2877	14.4769	4.1104	4.8759	8.9862	0.0000	20,937.3723	20,937.3723	4.9314	0.0000	21,060.6566
Maximum	**13.3907**	**143.2875**	**96.3540**	**0.2203**	**9.1892**	**6.1366**	**15.0996**	**4.1104**	**5.6670**	**9.7530**	**0.0000**	**22,265.9026**	**22,265.9026**	**5.2083**	**0.0000**	**22,396.1100**

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	lb/day										lb/day					
2018	13.3907	143.2875	96.3540	0.2203	8.9629	6.1366	15.0996	4.0861	5.6670	9.7530	0.0000	22,265.9026	22,265.9026	5.2083	0.0000	22,396.1100
2019	12.0407	126.1106	88.9047	0.2097	9.1892	5.2877	14.4769	4.1104	4.8759	8.9862	0.0000	20,937.3723	20,937.3723	4.9314	0.0000	21,060.6566
Maximum	**13.3907**	**143.2875**	**96.3540**	**0.2203**	**9.1892**	**6.1366**	**15.0996**	**4.1104**	**5.6670**	**9.7530**	**0.0000**	**22,265.9026**	**22,265.9026**	**5.2083**	**0.0000**	**22,396.1100**

	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**

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	lb/day										lb/day					
Area	0.0646	8.4000e-004	0.0907	1.0000e-005		3.3000e-004	3.3000e-004		3.3000e-004	3.3000e-004		0.1933	0.1933	5.2000e-004		0.2062
Energy	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
Mobile	0.0134	0.1229	0.2287	8.1000e-004	0.0516	1.0400e-003	0.0526	0.0138	9.8000e-004	0.0148		82.0895	82.0895	3.2600e-003		82.1710
Total	**0.0780**	**0.1238**	**0.3194**	**8.2000e-004**	**0.0516**	**1.3700e-003**	**0.0530**	**0.0138**	**1.3100e-003**	**0.0152**		**82.2828**	**82.2828**	**3.7800e-003**	**0.0000**	**82.3772**

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	lb/day										lb/day					
Area	0.0646	8.4000e-004	0.0907	1.0000e-005		3.3000e-004	3.3000e-004		3.3000e-004	3.3000e-004		0.1933	0.1933	5.2000e-004		0.2062
Energy	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
Mobile	0.0134	0.1229	0.2287	8.1000e-004	0.0516	1.0400e-003	0.0526	0.0138	9.8000e-004	0.0148		82.0895	82.0895	3.2600e-003		82.1710
Total	**0.0780**	**0.1238**	**0.3194**	**8.2000e-004**	**0.0516**	**1.3700e-003**	**0.0530**	**0.0138**	**1.3100e-003**	**0.0152**		**82.2828**	**82.2828**	**3.7800e-003**	**0.0000**	**82.3772**

	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	Grading	Grading	4/16/2018	8/14/2018	5	87	Ph 1
2	Trenching 2-1	Trenching	8/15/2018	10/9/2018	5	40	Ph 2-1
3	Trenching 2-2	Trenching	4/15/2019	6/5/2019	5	38	Ph 2-2
4	Cleanup	Grading	6/10/2019	7/19/2019	5	30	Ph 3

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 10.27

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Grading	Air Compressors	1	8.00	78	0.48
Grading	Bore/Drill Rigs	5	8.00	221	0.50
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Other Construction Equipment	5	10.00	172	0.42
Grading	Rubber Tired Dozers	1	8.00	247	0.40

Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	5	8.00	97	0.37
Trenching 2-1	Air Compressors	1	7.00	78	0.48
Trenching 2-1	Bore/Drill Rigs	5	7.00	221	0.50
Trenching 2-1	Excavators	2	7.00	158	0.38
Trenching 2-1	Other Construction Equipment	7	10.00	172	0.42
Trenching 2-1	Sweepers/Scrubbers	2	7.00	64	0.46
Trenching 2-1	Tractors/Loaders/Backhoes	5	7.00	97	0.37
Trenching 2-2	Air Compressors	1	7.00	78	0.48
Trenching 2-2	Bore/Drill Rigs	5	7.00	221	0.50
Trenching 2-2	Excavators	2	7.00	158	0.38
Trenching 2-2	Other Construction Equipment	7	10.00	172	0.42
Trenching 2-2	Sweepers/Scrubbers	2	7.00	64	0.46
Trenching 2-2	Tractors/Loaders/Backhoes	5	7.00	97	0.37
Cleanup	Bore/Drill Rigs	5	7.00	221	0.50
Cleanup	Excavators	2	8.00	158	0.38
Cleanup	Graders	1	8.00	187	0.41
Cleanup	Other Construction Equipment	5	10.00	172	0.42
Cleanup	Rubber Tired Dozers	1	8.00	247	0.40
Cleanup	Scrapers	2	8.00	367	0.48
Cleanup	Tractors/Loaders/Backhoes	5	7.00	97	0.37
Cleanup	Welders	1	7.00	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
Grading	22	30.00	15.00	1,071.00	80.00	40.00	40.00	LD_Mix	HDT_Mix	HHDT
Trenching 2-1	22	30.00	15.00	492.00	80.00	40.00	40.00	LD_Mix	HDT_Mix	HHDT
Trenching 2-2	22	30.00	15.00	468.00	80.00	40.00	40.00	LD_Mix	HDT_Mix	HHDT
Cleanup	22	30.00	15.00	369.00	80.00	40.00	40.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Grading - 2018

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	lb/day										lb/day					
Fugitive Dust					6.1525	0.0000	6.1525	3.3245	0.0000	3.3245			0.0000			0.0000
Off-Road	11.2680	128.9303	81.0175	0.1609		5.9785	5.9785		5.5163	5.5163		16,165.6667	16,165.6667	4.9514		16,289.4523
Total	**11.2680**	**128.9303**	**81.0175**	**0.1609**	**6.1525**	**5.9785**	**12.1310**	**3.3245**	**5.5163**	**8.8408**		**16,165.6667**	**16,165.6667**	**4.9514**		**16,289.4523**

3.2 Grading - 2018

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	lb/day										lb/day					
Hauling	0.2155	6.3446	1.0341	0.0190	0.4314	0.0405	0.4718	0.1183	0.0387	0.1570		1,985.6568	1,985.6568	0.0585		1,987.1194
Vendor	0.4939	6.8235	2.4574	0.0195	0.5555	0.0997	0.6552	0.1598	0.0954	0.2551		2,036.3561	2,036.3561	0.0644		2,037.9652
Worker	1.4132	1.1891	11.8450	0.0209	1.8236	0.0180	1.8416	0.4835	0.0166	0.5000		2,078.2230	2,078.2230	0.1340		2,081.5731
Total	**2.1227**	**14.3572**	**15.3365**	**0.0594**	**2.8105**	**0.1581**	**2.9686**	**0.7615**	**0.1507**	**0.9122**		**6,100.2359**	**6,100.2359**	**0.2569**		**6,106.6577**

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	lb/day										lb/day					
Fugitive Dust					6.1525	0.0000	6.1525	3.3245	0.0000	3.3245			0.0000			0.0000
Off-Road	11.2680	128.9303	81.0175	0.1609		5.9785	5.9785		5.5163	5.5163	0.0000	16,165.6667	16,165.6667	4.9514		16,289.4523
Total	**11.2680**	**128.9303**	**81.0175**	**0.1609**	**6.1525**	**5.9785**	**12.1310**	**3.3245**	**5.5163**	**8.8408**	**0.0000**	**16,165.6667**	**16,165.6667**	**4.9514**		**16,289.4523**

3.2 Grading - 2018

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	lb/day										lb/day					
Hauling	0.2155	6.3446	1.0341	0.0190	0.4314	0.0405	0.4718	0.1183	0.0387	0.1570		1,985.6568	1,985.6568	0.0585		1,987.1194
Vendor	0.4939	6.8235	2.4574	0.0195	0.5555	0.0997	0.6552	0.1598	0.0954	0.2551		2,036.3561	2,036.3561	0.0644		2,037.9652
Worker	1.4132	1.1891	11.8450	0.0209	1.8236	0.0180	1.8416	0.4835	0.0166	0.5000		2,078.2230	2,078.2230	0.1340		2,081.5731
Total	**2.1227**	**14.3572**	**15.3365**	**0.0594**	**2.8105**	**0.1581**	**2.9686**	**0.7615**	**0.1507**	**0.9122**		**6,100.2359**	**6,100.2359**	**0.2569**		**6,106.6577**

3.3 Trenching 2-1 - 2018

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	lb/day										lb/day					
Off-Road	8.7466	95.2979	67.1793	0.1257		4.9506	4.9506		4.5686	4.5686		12,625.3639	12,625.3639	3.8594		12,721.8496
Total	**8.7466**	**95.2979**	**67.1793**	**0.1257**		**4.9506**	**4.9506**		**4.5686**	**4.5686**		**12,625.3639**	**12,625.3639**	**3.8594**		**12,721.8496**

3.3 Trenching 2-1 - 2018

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	lb/day										lb/day					
Hauling	0.2154	6.3393	1.0332	0.0189	0.4310	0.0404	0.4714	0.1182	0.0387	0.1569		1,983.9882	1,983.9882	0.0585		1,985.4495
Vendor	0.4939	6.8235	2.4574	0.0195	0.5555	0.0997	0.6552	0.1598	0.0954	0.2551		2,036.3561	2,036.3561	0.0644		2,037.9652
Worker	1.4132	1.1891	11.8450	0.0209	1.8236	0.0180	1.8416	0.4835	0.0166	0.5000		2,078.2230	2,078.2230	0.1340		2,081.5731
Total	**2.1225**	**14.3519**	**15.3356**	**0.0594**	**2.8101**	**0.1581**	**2.9682**	**0.7614**	**0.1506**	**0.9121**		**6,098.5673**	**6,098.5673**	**0.2568**		**6,104.9878**

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	lb/day										lb/day					
Off-Road	8.7466	95.2979	67.1793	0.1257		4.9506	4.9506		4.5686	4.5686	0.0000	12,625.3639	12,625.3639	3.8594		12,721.8496
Total	**8.7466**	**95.2979**	**67.1793**	**0.1257**		**4.9506**	**4.9506**		**4.5686**	**4.5686**	**0.0000**	**12,625.3639**	**12,625.3639**	**3.8594**		**12,721.8496**

3.3 Trenching 2-1 - 2018

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	lb/day										lb/day					
Hauling	0.2154	6.3393	1.0332	0.0189	0.4310	0.0404	0.4714	0.1182	0.0387	0.1569		1,983.9882	1,983.9882	0.0585		1,985.4495
Vendor	0.4939	6.8235	2.4574	0.0195	0.5555	0.0997	0.6552	0.1598	0.0954	0.2551		2,036.3561	2,036.3561	0.0644		2,037.9652
Worker	1.4132	1.1891	11.8450	0.0209	1.8236	0.0180	1.8416	0.4835	0.0166	0.5000		2,078.2230	2,078.2230	0.1340		2,081.5731
Total	**2.1225**	**14.3519**	**15.3356**	**0.0594**	**2.8101**	**0.1581**	**2.9682**	**0.7614**	**0.1506**	**0.9121**		**6,098.5673**	**6,098.5673**	**0.2568**		**6,104.9878**

3.4 Trenching 2-2 - 2019

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	lb/day										lb/day					
Off-Road	8.1012	86.9704	66.7718	0.1256		4.4719	4.4719		4.1261	4.1261		12,421.7034	12,421.7034	3.8539		12,518.0519
Total	**8.1012**	**86.9704**	**66.7718**	**0.1256**		**4.4719**	**4.4719**		**4.1261**	**4.1261**		**12,421.7034**	**12,421.7034**	**3.8539**		**12,518.0519**

3.4 Trenching 2-2 - 2019

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	lb/day										lb/day					
Hauling	0.1937	5.8846	0.9588	0.0188	0.4316	0.0317	0.4633	0.1184	0.0304	0.1487		1,965.0771	1,965.0771	0.0566		1,966.4912
Vendor	0.4138	6.2364	2.0157	0.0194	0.5555	0.0813	0.6368	0.1598	0.0777	0.2375		2,020.7476	2,020.7476	0.0580		2,022.1969
Worker	1.3010	1.0517	10.5322	0.0203	1.8236	0.0172	1.8408	0.4835	0.0159	0.4993		2,019.4465	2,019.4465	0.1188		2,022.4175
Total	**1.9085**	**13.1727**	**13.5067**	**0.0585**	**2.8107**	**0.1302**	**2.9408**	**0.7616**	**0.1240**	**0.8856**		**6,005.2711**	**6,005.2711**	**0.2334**		**6,011.1056**

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	lb/day										lb/day					
Off-Road	8.1012	86.9704	66.7718	0.1256		4.4719	4.4719		4.1261	4.1261	0.0000	12,421.7034	12,421.7034	3.8539		12,518.0519
Total	**8.1012**	**86.9704**	**66.7718**	**0.1256**		**4.4719**	**4.4719**		**4.1261**	**4.1261**	**0.0000**	**12,421.7034**	**12,421.7034**	**3.8539**		**12,518.0519**

3.4 Trenching 2-2 - 2019

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	lb/day										lb/day					
Hauling	0.1937	5.8846	0.9588	0.0188	0.4316	0.0317	0.4633	0.1184	0.0304	0.1487		1,965.0771	1,965.0771	0.0566		1,966.4912
Vendor	0.4138	6.2364	2.0157	0.0194	0.5555	0.0813	0.6368	0.1598	0.0777	0.2375		2,020.7476	2,020.7476	0.0580		2,022.1969
Worker	1.3010	1.0517	10.5322	0.0203	1.8236	0.0172	1.8408	0.4835	0.0159	0.4993		2,019.4465	2,019.4465	0.1188		2,022.4175
Total	**1.9085**	**13.1727**	**13.5067**	**0.0585**	**2.8107**	**0.1302**	**2.9408**	**0.7616**	**0.1240**	**0.8856**		**6,005.2711**	**6,005.2711**	**0.2334**		**6,011.1056**

3.5 Cleanup - 2019

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	lb/day										lb/day					
Fugitive Dust					6.3791	0.0000	6.3791	3.3489	0.0000	3.3489			0.0000			0.0000
Off-Road	10.1325	112.9454	75.3992	0.1513		5.1576	5.1576		4.7520	4.7520		14,934.6206	14,934.6206	4.6981		15,052.0722
Total	**10.1325**	**112.9454**	**75.3992**	**0.1513**	**6.3791**	**5.1576**	**11.5367**	**3.3489**	**4.7520**	**8.1009**		**14,934.6206**	**14,934.6206**	**4.6981**		**15,052.0722**

3.5 Cleanup - 2019

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	lb/day										lb/day					
Hauling	0.1934	5.8770	0.9576	0.0187	0.4310	0.0317	0.4627	0.1182	0.0303	0.1485		1,962.5577	1,962.5577	0.0565		1,963.9701
Vendor	0.4138	6.2364	2.0157	0.0194	0.5555	0.0813	0.6368	0.1598	0.0777	0.2375		2,020.7476	2,020.7476	0.0580		2,022.1969
Worker	1.3010	1.0517	10.5322	0.0203	1.8236	0.0172	1.8408	0.4835	0.0159	0.4993		2,019.4465	2,019.4465	0.1188		2,022.4175
Total	**1.9082**	**13.1652**	**13.5055**	**0.0584**	**2.8101**	**0.1302**	**2.9403**	**0.7615**	**0.1239**	**0.8854**		**6,002.7517**	**6,002.7517**	**0.2333**		**6,008.5844**

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	lb/day										lb/day					
Fugitive Dust					6.3791	0.0000	6.3791	3.3489	0.0000	3.3489			0.0000			0.0000
Off-Road	10.1325	112.9454	75.3992	0.1513		5.1576	5.1576		4.7520	4.7520	0.0000	14,934.6205	14,934.6205	4.6981		15,052.0722
Total	**10.1325**	**112.9454**	**75.3992**	**0.1513**	**6.3791**	**5.1576**	**11.5367**	**3.3489**	**4.7520**	**8.1009**	**0.0000**	**14,934.6205**	**14,934.6205**	**4.6981**		**15,052.0722**

3.5 Cleanup - 2019

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	lb/day										lb/day					
Hauling	0.1934	5.8770	0.9576	0.0187	0.4310	0.0317	0.4627	0.1182	0.0303	0.1485		1,962.5577	1,962.5577	0.0565		1,963.9701
Vendor	0.4138	6.2364	2.0157	0.0194	0.5555	0.0813	0.6368	0.1598	0.0777	0.2375		2,020.7476	2,020.7476	0.0580		2,022.1969
Worker	1.3010	1.0517	10.5322	0.0203	1.8236	0.0172	1.8408	0.4835	0.0159	0.4993		2,019.4465	2,019.4465	0.1188		2,022.4175
Total	**1.9082**	**13.1652**	**13.5055**	**0.0584**	**2.8101**	**0.1302**	**2.9403**	**0.7615**	**0.1239**	**0.8854**		**6,002.7517**	**6,002.7517**	**0.2333**		**6,008.5844**

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	lb/day										lb/day					
Mitigated	0.0134	0.1229	0.2287	8.1000e-004	0.0516	1.0400e-003	0.0526	0.0138	9.8000e-004	0.0148		82.0895	82.0895	3.2600e-003		82.1710
Unmitigated	0.0134	0.1229	0.2287	8.1000e-004	0.0516	1.0400e-003	0.0526	0.0138	9.8000e-004	0.0148		82.0895	82.0895	3.2600e-003		82.1710

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Light Industry	0.88	0.88	0.88	23,978	23,978
Total	0.88	0.88	0.88	23,978	23,978

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
General Light Industry	80.00	80.00	80.00	59.00	28.00	13.00	92	5	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
General Light Industry	0.480138	0.040615	0.180049	0.120387	0.037372	0.006792	0.008746	0.115531	0.001256	0.001655	0.005192	0.001016	0.001248

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	lb/day										lb/day					
NaturalGas Mitigated	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
NaturalGas Unmitigated	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

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	lb/day										lb/day					
General Light Industry	0	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
Total		**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**

5.2 Energy by Land Use - NaturalGas

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	lb/day										lb/day					
General Light Industry	0	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
Total		**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**

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	lb/day										lb/day					
Mitigated	0.0646	8.4000e-004	0.0907	1.0000e-005		3.3000e-004	3.3000e-004		3.3000e-004	3.3000e-004		0.1933	0.1933	5.2000e-004		0.2062
Unmitigated	0.0646	8.4000e-004	0.0907	1.0000e-005		3.3000e-004	3.3000e-004		3.3000e-004	3.3000e-004		0.1933	0.1933	5.2000e-004		0.2062

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	lb/day										lb/day					
Architectural Coating	0.0561					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	8.5400e-003	8.4000e-004	0.0907	1.0000e-005		3.3000e-004	3.3000e-004		3.3000e-004	3.3000e-004		0.1933	0.1933	5.2000e-004		0.2062
Total	**0.0646**	**8.4000e-004**	**0.0907**	**1.0000e-005**		**3.3000e-004**	**3.3000e-004**		**3.3000e-004**	**3.3000e-004**		**0.1933**	**0.1933**	**5.2000e-004**		**0.2062**

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	lb/day										lb/day					
Architectural Coating	0.0561					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	8.5400e-003	8.4000e-004	0.0907	1.0000e-005		3.3000e-004	3.3000e-004		3.3000e-004	3.3000e-004		0.1933	0.1933	5.2000e-004		0.2062
Total	**0.0646**	**8.4000e-004**	**0.0907**	**1.0000e-005**		**3.3000e-004**	**3.3000e-004**		**3.3000e-004**	**3.3000e-004**		**0.1933**	**0.1933**	**5.2000e-004**		**0.2062**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

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