Recycled Water System Project

Initial Study/Mitigated Negative Declaration

Mendocino Unified School District

February 23, 2022

Initial Study/Mitigated Negative Declaration Recycled Water System Project

This document has been prepared by:

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February 23, 2022

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1. Project Information

Project Title	Recycled Water System Project
Lead Agency Name & Address	Mendocino Unified School District 44141 Little Lake Road, Mendocino, CA 95460
Contact Person & Phone Number	Jason Morse, Superintendent (707) 937-5868 / jmorse@mcn.org
Project Location	The Project area extends from the Mendocino City Community Services District wastewater treatment plant at 10500 Kelly Street in the unincorporated Town of Mendocino, along Ukiah Street, Kasten Street, Little Lake Street, Lansing Street, Little Lake Road, School Street, State Route 1, and at Mendocino High School, Friendship Park, Mendocino K-8 School, and a tank site at 44020 Little Lake Road within unincorporated Mendocino County.
General Plan Land Use Designation	General Plan land use designations vary along the Project alignment. The property at 44020 Little Lake Road is designated as “Public and Semi-Public Facilities”.
Zoning	Zoning districts vary along the Project alignment. The property at 44020 Little Lake Road has a “Public Facilities” zoning designation.

1.1 CEQA Requirements

The Mendocino Unified School District (MUSD), serving as the California Environmental Quality Act (CEQA) Lead Agency, has prepared this Initial Study to provide the public, responsible agencies, and trustee agencies with information about the potential environmental effects of the proposed Recycled Water System Project (hereafter referred to as the “Project”). The Project would expand the use of recycled water on properties owned by the MUSD to offset potable water use and provide additional fire water storage and supply.

The purpose of this Initial Study is to provide a basis for deciding whether to prepare an Environmental Impact Report, a Mitigated Negative Declaration or a Negative Declaration. This Initial Study has been prepared to satisfy the requirements of CEQA (Public Resources Code, Div 13, Sec 21000-21177) and the CEQA Guidelines (California Code of Regulations, Title 14, Sec 15000-15387). Section 15063(d) of the State CEQA Guidelines states the content requirements of an Initial Study as follows:

1. A description of the project including the location of the project;
2. An identification of the environmental setting;
3. An identification of environmental effects by use of a checklist, matrix, or other method, provided that entries on a checklist or other form are briefly explained to indicate that there is some evidence to support the entries;

4. A discussion of the ways to mitigate the significant effects identified, if any;
5. An examination of whether the project would be consistent with existing zoning, plans, and other applicable land use controls;
6. The name of the person or persons who prepared or participated in the Initial Study.

1.2 Project Background

The MUSD's potable water supply and distribution systems currently consists of two groundwater wells, two storage tanks and distribution piping. The system is used to supply both potable water and irrigation water to facilities and properties owned by the MUSD, which are the K-8 School, Friendship Park, the Community Center, and Mendocino High School. Drought conditions in the region have resulted in decreased groundwater levels during the dry summer season and increased risk of loss due to catastrophic fires. These conditions increase water shortages, and the lack of adequate water supply can limit fire response options even during normal or wet years.

The Mendocino City Community Services District (MCCSD) currently supplies a limited amount of recycled water to irrigate athletic fields at Mendocino High School. In 2018, the MUSD was awarded grant funding under the Clean Water State Revolving Fund (CWSRF) to address requirements and recommendations as outlined in the State Water Resources Control Board (SWRCB) Title 22 Code of Regulations related to the expanded use of recycled water at its facilities.

Increasing recycled water storage and use will increase the available potable water supply, reduce usage of limited groundwater resources for irrigation, and increase available fire water storage. Thus, the purpose of the Project is to expand the use of the recycled water from the MCCSD WWTF to other MUSD sites to offset existing potable water use and provide additional fire water storage and supply.

1.3 Project Location and Existing Setting

The proposed Project would expand the use of recycled water on properties owned by the MUSD to offset potable water use and provide additional fire water storage and supply (see Figure 1, Project Area Map). The Project includes new recycled water pipelines, irrigation systems, fire hydrants, and a new recycled water storage tank (see Figure 2, Recycled Water System Overview Map). Please see Appendix A for additional project drawings.

Recycled water pipelines would be constructed within portions of the Mendocino County right-of-way on Kelly Street, Ukiah Street, Kasten Street, Little Lake Street, Lansing Street, Little Lake Road, School Street, and within the State right-of way within State Route 1. A new irrigation system would be installed at Friendship Park, and recycled water irrigation services would be provided to Mendocino High School and the K-8 School. A recycled water storage tank would be installed at MUSD-owned property at 44020 Little Lake Road.

Surrounding land uses include single family residential homes, churches, schools, residential inns, commercial land uses, cemetery, and a fire station. A portion of the proposed recycled water alignment would be located within historical zones and adjacent to historic landmarks and/or historically important built environment resources. The Mendocino County Historical Preservation District Ordinance designates the area of Mendocino that is located on the Mendocino Headlands peninsula, west of Highway 1, as Historical Zone A. Within Historical Zone A, the Mendocino and Headlands Historic District, located generally south of Little Lake Street, is listed on the National Register of Historic Places (Number 71000165) and on the California Register of Historical Resources. The area of Mendocino east of Highway 1 constitutes Historical Zone B.

The Project is located within the Big River watershed and within a designated coastal zone subject to the Coastal Zone Management Act. The Project area is underlain by groundwater basin number 1-021, the Fort Bragg Terrace Area (CDWR 2020), which is not mapped by the Environmental Protection Agency (EPA) as a sole source aquifer recharge area and is not identified as an overdrafted groundwater basin. The Project site is not located within a mapped 100-year or 500-year flood zone (FEMA 2017).

The Project site is not located within an active Alquist-Priolo earthquake fault zone and no other active or potentially active faults have been mapped within the area. The Project site is located approximately 0.5 mile north of the Big River and does not contain any aquatic habitat or intersect any riparian corridors.

The Project is located within the North Coast Mendocino County sub-basin of the North Coast Air Basin, which is within the jurisdiction of the Mendocino County Air Quality Management District (MCAQMD). The North Coast Mendocino County sub-basin, like the rest of Mendocino County, is designated as a non-attainment area for the State particulate matter (PM10) standard (ARB 2018). The sub-basin is in attainment for all other State standards and for all Federal criteria air pollutants (ARB 2018, U.S. EPA 2020).

Many large overstory trees remain intact on residential lots adjacent to the Project alignment, typically over a maintained understory, residences, and driveways. To the south and east of the Project area, there is a gradual transition to forested open space at varying distances, including Big River State Park to the south. None of the open space directly borders or closely approaches the Project area. No critical habitat has been designated for federally-listed species within the Project area.

Existing facilities at the proposed recycled water tank site include two in-service water storage tanks (one wooden tank and one steel tank), two in-service groundwater supply wells, a water treatment building, water distribution piping, maintenance building, two shallow decommissioned/abandoned water supply wells, a pump house that has been converted into a student radio transmission station, and a graded access road. The location of the proposed recycled water tank is accessible via a graded access road from the maintenance building off Little Lake Road.

1.4 Project Description

The proposed Project would expand the use of recycled water on properties owned by the MUSD to offset potable water use and provide additional fire water storage and supply. The proposed Project would decommission and replace existing recycled water system improvements with newer facilities, including construction of new recycled water pipelines, irrigation systems, fire hydrants, and a new recycled water storage tank. A description of the proposed recycled water distribution system and construction activity is provided below.

Decommissioning of Existing Facilities

The Project would disconnect and abandon an existing 2-inch pipe used to transfer recycled water from the MCCSD WWTP to an existing 55,000-gallon concrete tank at Mendocino High School. The existing 55,000-gallon concrete tank and irrigation booster pumps at Mendocino High School would be disconnected from the irrigation system and from the 2-inch pipe used to transfer recycled water from the MCCSD WWTP. The concrete tank would be left in place. At Friendship Park, an existing 8,000-gallon underground concrete tank would be disconnected from the irrigation system and left in place, and an existing irrigation system at Friendship Park would disconnected from the potable water system and abandoned in place.

New Recycled Water Distribution System

The Project would construct approximately 1.5 miles of new recycled water distribution mains. The proposed distribution pipeline would be 12-inch nominal diameter to provide acceptable fire flows during an emergency. A County of Mendocino encroachment permit would be required for installation of mains within County right-of-way, and a Caltrans encroachment permit and transportation permit would be required for installation of the pipeline segment beneath State Highway 1.

Installation of the proposed pipeline beneath Highway 1 would be installed via trenchless construction methods using a minimum 18-inch diameter steel casing for PVC pipe or 24-inch diameter HDPE casing for HDPE pipe. The casing would extend beyond the State right-of-way on both sides of Highway 1. Gate valves would be installed on each leg of every tee and services 3-inches and larger.

New Recycled Water Service Connections

The Project would provide new recycled water service connections at Mendocino High School, Friendship Park and the MUSD K-8 School. Each service connection would include a main isolation valve, water meter and backflow prevention device. Proposed service connections at Mendocino High School and the MUSD K-8 School would connect to existing irrigation systems. A new popup spray irrigation system is proposed for Friendship Park, which would replace an existing irrigation system that would be abandoned. The existing irrigation controller and valves at Friendship Park would be removed and a new irrigation controller and valves would be installed. The irrigation system would be zoned similar to those at Montgomery High School, and all boxes, covers and appurtenances would be of purple color and labeled with “Recycled Water – Do Not Drink” to signify use of recycled water.

New Recycled Water Fire Hydrants

The Project would install approximately 15 new fire hydrants throughout the new distribution system. The proposed fire hydrants would be equipped with break-off check valves and would include a gate valve on the service for isolation from the main. The final fire hydrant model selection and features was confirmed by the County of Mendocino Fire Marshal and Fire Department during detailed design, and also would be required to adhere to the design requirements of the Mendocino Historical Review Board to ensure compatibility with the historical design character of the Town.

New Recycled Water Storage Tank and Appurtenant Facilities

The Project would construct a new 250,000-gallon bolted stainless steel recycled water storage tank at the MUSD tank site on Little Lake Road east of Highway 1. The proposed tank would be approximately 40 feet in diameter and approximately 40 feet in height. The tank would include a water level sensor, magnetic flowmeter, residual chlorine analyzer, sodium hypochlorite chlorination system, tank level alarms, and SCADA system. The new tank would be constructed using slab-on-grade foundations resting on engineered fill materials. Seismic design of the new tank would conform to the most recent version of the California Building Code (CBC), ASCE 7-2010, ACI 318/350/372 and the AWWA D110 design standards with any local amendments. The tank would utilize flexible piping and other connections to minimize damage during a seismic event in accordance with site-specific geotechnical recommendations. A 10-foot wide gravel apron would be constructed around the perimeter of the new tank with a perforated pipe drain, as needed to keep subgrade from becoming saturated and direct any runoff from the tank roof to overflow point and away from the tank.

The proposed recycled water storage has been sized to provide sufficient storage capacity for the recommended operational storage as well as for fire flows. Operation storage is the volume of water

required to meet the average day maximum month demands associated with the irrigation athletic fields located at Mendocino High School, Friendship Park and the MUSD K-8 School. The maximum month irrigation demand was identified as 30,070 gpd. The fire water storage is determined as the volume required to sustain a flowrate of 1,500 gallons per minute (gpm) at one fire hydrant for a 2-hour duration. At this rate, the minimum recommended fire water storage volume is 180,000 gallons. The total recycled water storage volume was determined as the sum of the operational storage volume and the fire water storage volume. A factor of 1.2 was applied to account for peak day irrigation demands, modest growth in recycled water demand and additional community fire water storage. The resulting total recycled water storage volume was 252,084 gallons.

MCCSD Wastewater Treatment Plant Improvements

Several improvements are currently planned at the MCCSD WWTP that would enable the expansion of recycled water use. The improvements were evaluated as part of a separate CEQA review conducted by the MCCSD in 2018. The improvements include upgrades to the existing WWTP at 10500 Kelly Street, including:

- New chlorination system
- New below-grade chlorine contact chamber and recycled water storage
- New recycled water pumping system
- Recycled water piping to distribution system point of connection at Kelly Street / Ukiah Street
- SCADA monitoring and control equipment for tank level and water quality monitoring

Project Construction

A description of the proposed Project construction activities is provided below.

Construction Duration and Hours

Construction of the Project is expected to begin in 2023 and is conservatively assumed to require approximately 10 months to complete, taking into account time for mobilization, demobilization, and wet weather delays. Construction activities would generally occur Monday to Friday, 8 AM to 5 PM. The Project is not anticipated to require nighttime construction work or construction on weekends or legal holidays.

Construction Staging

Prior to construction, the contractor and its subcontractors would mobilize resources to staging areas. This would include transport of construction vehicles and equipment, as well as delivery and storage of construction materials. The contractor may also secure a job site trailer and portable sanitary facilities at certain staging areas. Several staging areas may be used to store construction materials and equipment during construction. Construction staging within and adjacent to County of Mendocino road rights-of-way would occur along various portions of the alignment in areas where work was occurring. This type of staging would generally include short-term staging of construction equipment and materials along residential streets where curbside parking is available or on undeveloped properties. Notifications to adjacent residences would be provided in advance of such work and staging, and the contractor would be required to enter into an agreement with property owners for use of private property.

Construction Equipment

A variety of construction equipment would be used to build the Project. This would include, but not necessarily be limited to, excavators, backhoes, front end loaders, scrapers, graders, concrete saws, cranes, jackhammers, impact driver for shoring installation, winches, chainsaws, forklifts, rollers, asphalt road pavers, compactors, air compressors, generator sets, and pneumatic tools. A variety of trucks including cement mixers, haul trucks, and water trucks would also be required.

System Decommissioning

Project construction activities would include abandonment of existing recycled water pipelines from the MCCSD WWTP to Mendocino High School, as well as an existing 55,000-gallon concrete tank and irrigation booster pumps at Mendocino High School. At Friendship Park, an existing 8,000-gallon underground concrete tank would be disconnected from the irrigation system, and an existing irrigation system would be abandoned. These activities would require the use of construction equipment such as an excavator, bulldozer, backhoe, grader, and concrete saws. Additional equipment likely to be used would include air compressors, generator sets, and pneumatic and electric powered tools.

Pipeline Construction

The proposed recycled water pipeline would be installed using a combination of open-trench methods and horizontal directional drilling (HDD). Underground utility mains would be identified and labeled in the field prior to construction, including sanitary sewer, water, electrical, natural gas, telecommunications, storm drains, streetlights, and other fiber optic lines. Potholing may be implemented along portions of the alignment to further confirm utility locations, which would include the digging of test holes to uncover utilities to help ascertain horizontal and vertical locations. The Project is being designed to minimize displacement of existing utilities to the extent feasible. However, in some locations, existing gas, water, electrical, and fiber optic lines would potentially need to be relocated within the road right-of-way to accommodate the Project.

In accordance with County of Mendocino and Caltrans requirements, the construction contractor would be required to obtain an applicable encroachment permit from the County for work within County roadways, and from Caltrans prior to work within the Highway 1 right-of-way. The encroachment permit applications would, in both cases, require the development and implementation of traffic and pedestrian control plans to preserve access and ensure public safety, which would typically include:

- Traffic controls, signs, and flaggers conforming with current California Manual of Uniform Traffic Control Devices
- Pedestrian and bicycle control devices
- Notifications/arrangements to public for any driveway access restrictions
- Notifications to public transit agencies, emergency responders, and school systems
- Scheduling of major lane/road closures during off-peak hours

The majority of the proposed recycled water pipeline would be installed using open-trench methods. Under this method, the construction sequence would typically include removing the ground surface along the pipeline alignment; excavating a trench; preparing and installing pipeline section; installing vaults, manholes, and other pipeline components; backfilling the trench with non-expansive fills; restoring preconstruction contours; and revegetating and paving the pipeline alignments. The maximum amount of open trench permitted in any one location would be the length necessary to accommodate the amount of pipe installed and backfilled in a single day. Trenches would be fully backfilled at the end of each day or, in

lieu thereof, would be covered by heavy steel plates adequately braced and capable of supporting vehicular traffic in those locations where it is impractical to backfill at the end of each day. Pipelines would be installed at depths ranging from approximately 3 to 6 feet below ground surface.

The installation of the proposed recycled water pipeline beneath Highway 1 would be tunneled using HDD techniques. HDD is a guided, steerable drilling system used for the trenchless installation of pipes, conduits, and cables. A pilot bore path would be excavated in a shallow arc from a surface-launched drill rig. Excavation would take place with fluid assisted cutting from a drilling tool on the drill string. As a final step, the carrier pipe would be pulled into the fluid-stabilized bore. Typical construction equipment for the HDD method would include drilling rigs, excavators, crane, rough terrain fork lift, mud pumping units, material separation plants, frac tanks, and vacuum trucks. The depth of the pipe would range between approximately 4 and 22 feet below Highway 1.

If needed, temporary groundwater dewatering would be conducted to provide a dry work area in trench excavations. Dewatering would involve pumping water out of a trench. Groundwater would typically be pumped to Baker tanks (or other similar type of settling tank). Following the settling process provided by a tank, the groundwater would typically be pumped to a bag and cartridge filter system (or similar system) before being discharged under permit to the sanitary sewer system.

Tank Construction

The proposed new recycled water tank would be constructed using slab-on-grade foundations resting on engineered fill materials. Seismic design of the new tank would conform to the most recent version of the California Building Code (CBC), ASCE 7-2010, ACI 318/350/372 and the AWWA D110 design standards with any local amendments. The tank would utilize flexible piping and other connections to minimize damage during a seismic event in accordance with site-specific geotechnical recommendations.

Restoration

Existing paving, curbs, gutters, sidewalks, utilities, landscaping, irrigation systems, planting and other improvements that would be removed, damaged or disturbed due to the installation of the recycled water facilities would be replaced in kind to pre-existing conditions or better. Restoration of paved areas would be in accordance with the requirements of Mendocino County standards and Caltrans Specifications and Standards Section 39 Asphalt Concrete. Pavement restoration and other facilities restoration would be constructed to finish grades compatible with adjacent undisturbed pavement and other facilities (i.e., valve lids, manhole covers, etc.). Damaged pavement striping also would be replaced in kind. Wherever sidewalks are removed for purposes of construction, the suitable temporary sidewalks would be installed promptly after backfilling and would be maintained in satisfactory condition until the final restoration there has been made.

Waste Management

Site preparation, including demolition, clearing and grading of the Project site as necessary would require the removal and off-haul of materials. This would include, but not necessarily be limited to, vegetation, concrete, asphalt and fill, and certain existing utilities that would be removed and replaced. The Project contractor would be required to develop and implement a waste management plan according to ASTM E 1609 and the Project specifications, including measures to divert construction waste from landfills by using recycling, reuse, salvage, and other diversion programs. Materials that could not be reused or composted at local facilities would be disposed of at regional landfills.

1.5 Operation and Maintenance

Following construction, the proposed new recycled water facilities would be put into an operation and maintenance schedule that may include periodic cleanings once or twice per year. Operation and maintenance activities could also include periodic monitoring during or after large storm events. Operation and maintenance of the new facilities would generate less than one traffic trip per day on average.

1.6 Compliance with Existing Regulations and Standard BMPs

The Project will abide by the following regulations and industry-accepted Best Management Practices (BMPs) to reduce or avoid potential adverse effects that could result from construction or operation of the Project. In addition to these BMPs, mitigation measures are presented in the following analysis sections in Chapter 3, Environmental Analysis, to reduce potentially significant environmental impacts below a level of significance. The Project's Mitigation Monitoring and Reporting Program will include these actions to ensure implementation.

Implementation of Geotechnical Design Recommendations

As part of the Project design process, the MUSD has engaged a California-registered Geotechnical Engineer to conduct a geotechnical investigation. The MUSD will design the Project to comply with the site-specific recommendations made in the geotechnical study. This will include design in accordance with the seismic and foundation design criteria, as well as site preparation and grading recommendations included in the report. The geotechnical recommendations will be incorporated into the final plans and specifications for the Project, and will be implemented during construction.

1.7 Required Agency Approvals

Construction and operation of the proposed Project would be required to adhere to applicable regulations, including local, State, and federal recycled water regulations. As CEQA Lead Agency, the MUSD would approve the Project. In addition, the following agencies may be Responsible Agencies or Trustee Agencies under CEQA and may need to issue approvals for the Project and, thus, may need to rely upon this Initial Study.

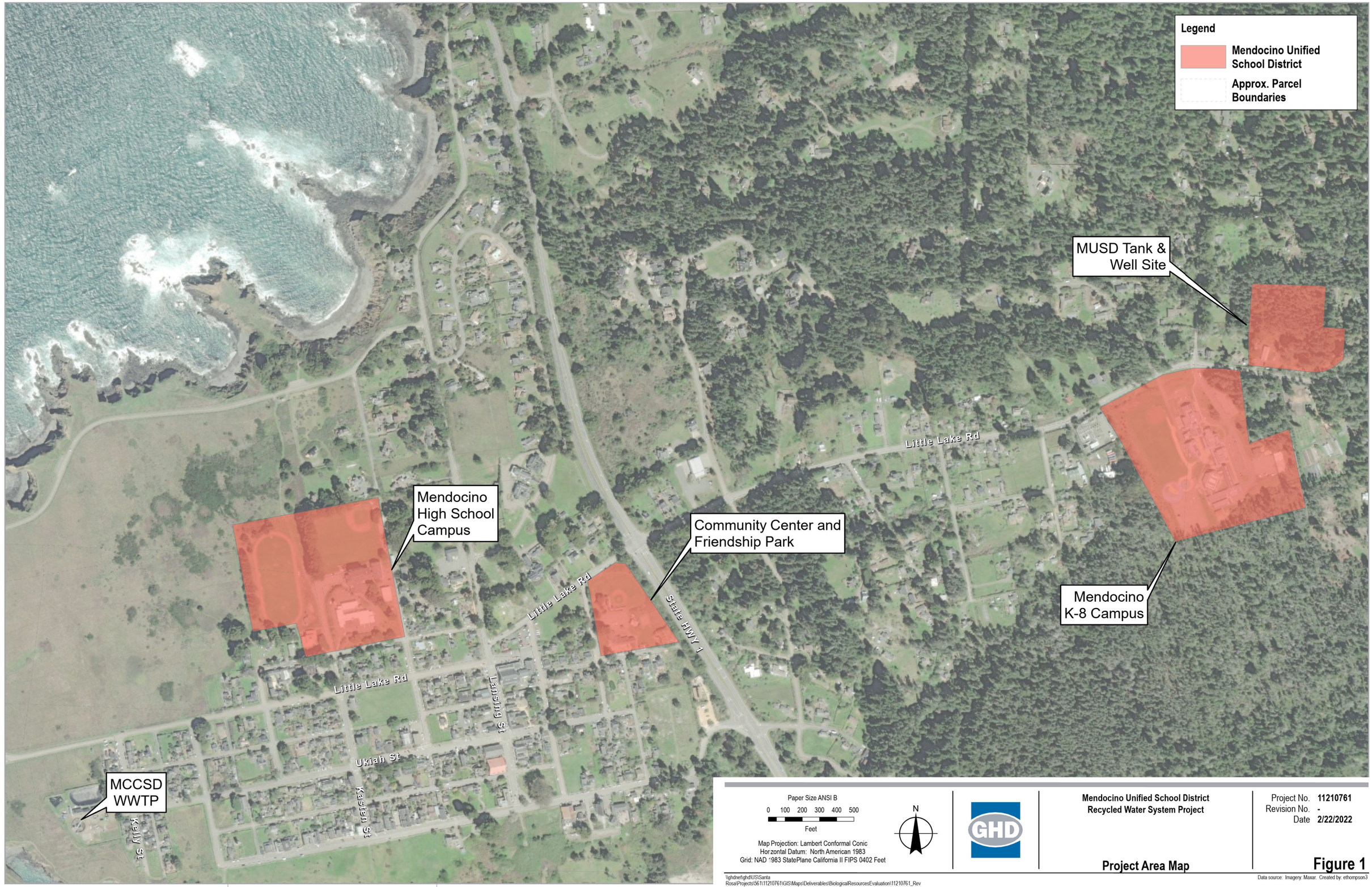
- **County of Mendocino**: The Project would require an Encroachment Permit from the Mendocino County Department of Transportation for improvements made within the County right-of-way, as well as a Use Permit and possibly a Coastal Development Permit and Building Permit from the Mendocino County Planning & Building Services Department. The Project may also be subject to review by the Mendocino Historical Review Board for construction activity within Historical Zone A, as designated by the Mendocino County Historical Preservation District Ordinance.
- **California Department of Transportation (Caltrans)**: The Project would require a Utility Encroachment Permit from Caltrans District 1 for the pipeline crossing beneath Highway 1, as well as a Transportation Permit for the movement of oversized or excessive load vehicles on Highway 1.
- **State Water Resources Control Board Division of Financial Assistance:** The Project would require a State Revolving Fund Application and Section 106 Consultations.
- **State Water Resources Control Board:** The Project may require a General Construction Permit if the project disturbs land exceeding one acre.

- **Division of the State Architect:** The recycled water storage tank structural design would require review and approval of the Division of the State Architect because it is located on a parcel owned by the MUSD.
- **California/Occupational Safety and Health Administration (OSHA)**: The Project would require a Cal/OSHA application for a tunnel classification for the pipeline crossing beneath Highway 1.
- **Mendocino County Air Quality Management District**: Renovation and Demolition Notification.

1.8 Tribal Consultation

The MUSD has no record of receiving requests for notification of proposed projects from California Native American tribes pursuant to Public Resources Code Section 21080.3.1.

As part of this Initial Study, the Anthropological Studies Center (ASC) requested a review of the Native American Heritage Commission (NAHC) Sacred Lands File for information on Native American cultural resources in the Project area. The search of the NAHC's Sacred Lands File for Sacred Sites in the Project area was positive. NAHC also provided contact information for tribal communities that may have further information. On December 6, 2021, ASC sent letters to those on the list, which included: Hopland Band of Pomo Indians, Manchester Band of Pomo Indians, Bear River Band of Rohnerville Rancheria, Robinson Rancheria Band of Pomo Indians, Guidiville Indian Rancheria, Cahto Tribe, Kashia Band of Pomo Indians of Stewarts Point Rancheria, Coyote Valley Band of Pomo Indians, Sherwood Valley Band of Pomo Indians, Noyo River Indian Community, Redwood Valley or Little River Band of Pomo Indians, Potter Valley Tribe, Round Valley Reservation/Covelo Indian Community, Habematolel Pomo of Upper Lake, Pinoleville Pomo Nation, and Yokayo Tribe. For a summary of the investigation and mitigation measures related to cultural and tribal resources, see Section 3.5 Cultural Resources and 3.18 Tribal Cultural Resources.



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Mendocino Unified School District
Recycled Water System Project

Project Area Map

Project No. **11210761**
Revision No. **-**
Date **2/22/2022**

Figure 1

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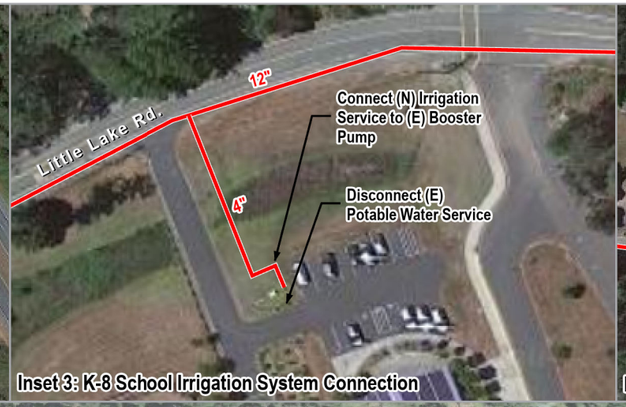
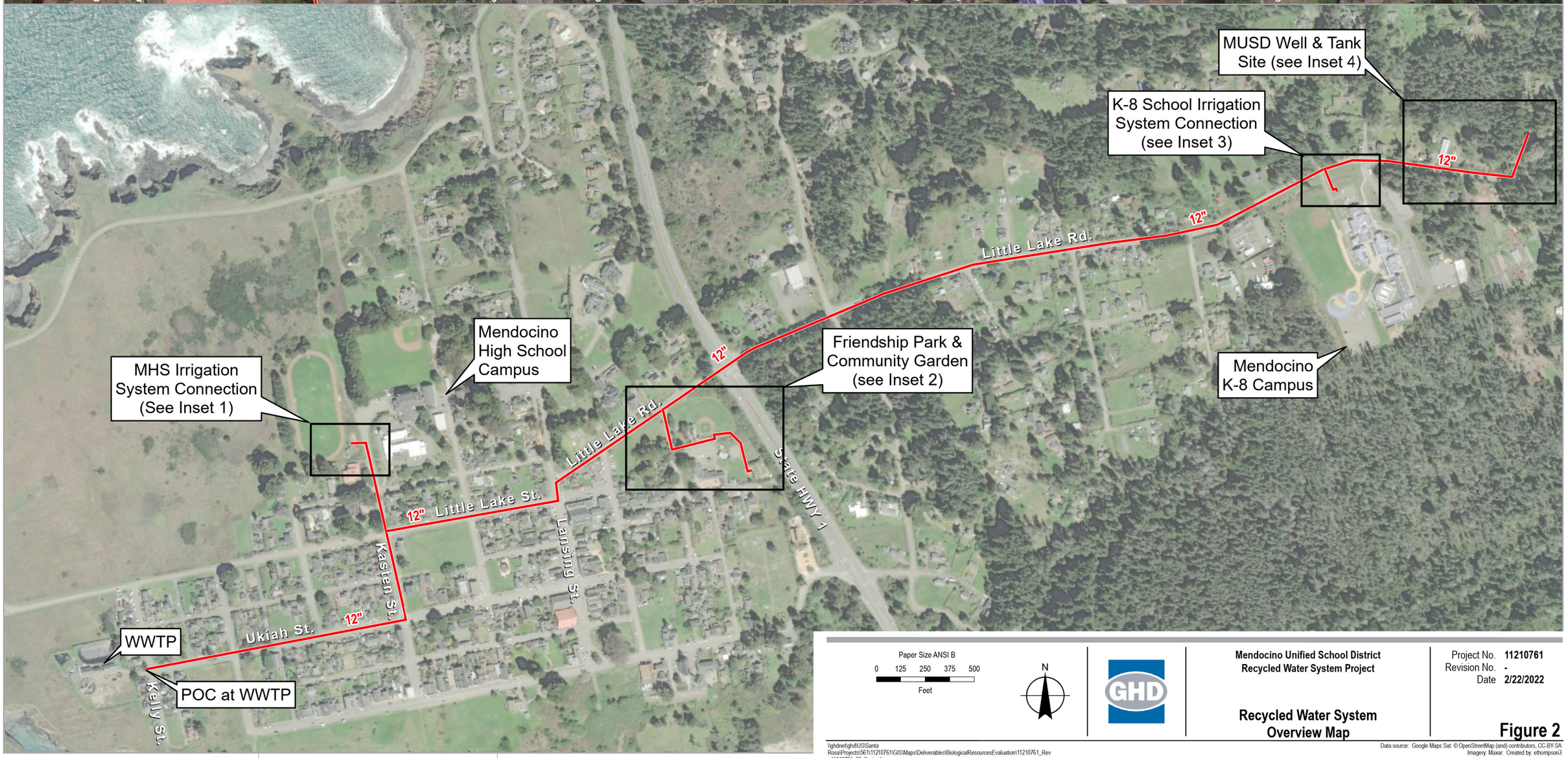
Inset 1: MHS Irrigation System Connection

Inset 2: Friendship Park & Community Garden



Inset 3: K-8 School Irrigation System Connection

Inset 4: New Recycled Water Tank



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Mendocino Unified School District
Recycled Water System Project

Recycled Water System Overview Map

Project No. **11210761**
Revision No. **-**
Date **2/22/2022**

Figure 2

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2. Environmental Factors Potentially Affected

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

☐ Aesthetics	☐ Greenhouse Gas Emissions	☐ Public Services
☐ Agricultural & Forestry Resources	☐ Hazards & Hazardous Materials	☐ Recreation
☐ Air Quality	☐ Hydrology/Water Quality	☐ Transportation
☐ Energy	☐ Land Use/Planning	☐ Tribal Cultural Resources
☐ Biological Resources	☐ Mineral Resources	☐ Utilities/Service Systems
☐ Cultural Resources	☐ Noise	☐ Wildfire
☐ Geology/Soils	☐ Population/Housing	☐ Mandatory Findings of Significance

DETERMINATION (To be completed by the Lead Agency)

On the basis of this initial evaluation:

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

☒ I find that although the proposed project could have a significant effect on the environment, there would 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 would be prepared.

☐ I find that the proposed 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 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 avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

February 23, 2022
Date

3. Environmental Analysis

3.1 Aesthetics

	Potentially Significant Impact	Less-than-Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
Except as provided in Public Resources Code Section 21099, would the project:				
a) Have a substantial adverse effect on a scenic vista?			✓	
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?			✓	
c) In non-urbanized areas, substantially degrade the existing visual character or quality of public view of the site and its surroundings? (Public Views are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?		✓		
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?				✓

a) Have a substantial adverse effect on a scenic vista? (Less than Significant)

The Mendocino County Coastal Element and the California Coastal Act seek to protect views to and along the ocean and scenic coastal areas to minimize alteration of natural land forms. The California Department of Parks and Recreation's California Coastline Preservation and Recreation Plan (CDPR 1971) identified Town of Mendocino as a State priority for protection of its natural, scenic, and historic coastal landscape through a combination of public acquisition, comprehensive planning, primary reliance on local government administration with full public participation, and State coastal agency oversight. Successful conservation, preservation, and restoration since before enactment of the 1972 California Coastal Zone Conservation Act have both protected numerous landmark buildings, historic buildings, and other historic structures in the Town of Mendocino, and resulted in the initial public acquisition of the scenic and public recreational open space of Mendocino Headlands State Park.

The Project area is not located within a visual resource area as designated in the Mendocino County Coastal Element, the Mendocino County General Plan, or the California Coastline Preservation and Recreation Plan. The Project corridor is mostly developed with existing paved roadways and with existing water storage facilities. The Project site is not located within a designated highly scenic area or within a coastal viewshed from public areas such as roads, parks and trails. Following construction, the proposed new recycled water pipeline would be located below ground and would not impede or alter views. Construction at the MUSD tank site on Little Lake Road east of State Highway 1 would include construction of a new approximately 250,000 gallon bolted stainless steel storage tank. The proposed improvements

would not block coastal views or views of ridgelines from public roadways or other vantage points. The viewshed of the Project area would not substantially change as a result of the Project. Therefore, impacts on a scenic vista would be less than significant.

b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway? (Less than Significant)

The Project is not located within or adjacent to an officially designated scenic highway. State Route 1 within Mendocino County is identified as eligible to become an officially designated scenic highway (Caltrans 2021). An eligible State Scenic Highway designation differs from an official designation and does not require local jurisdictions to enact a scenic corridor protection program. In addition, the proposed recycled pipeline that would cross State Route 1 would be located below ground. The impact would be less than significant.

c) In non-urbanized areas, substantially degrade the existing visual character or quality of public view of the site and its surroundings? (Public Views are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality? (Less than Significant with Mitigation)

The Mendocino County Historical Preservation District Ordinance designates the area of Mendocino that is located on the Mendocino Headlands peninsula, west of Highway 1, as Historical Zone A. Within Historical Zone A, the Mendocino and Headlands Historic District, located generally south of Little Lake Street, is listed on the National Register of Historic Places (Number 71000165) and on the California Register of Historical Resources. The Historical Preservation District for the Town of Mendocino, first incorporated by ordinance in the Mendocino County Code in 1973, established the Mendocino Historical Review Board that must approve activities and other work, including demolition, construction, remodeling, excavation, and painting within Historical Zone A, comprising the 19th century town west of Highway 1. The area of Mendocino east of Highway 1 constitutes Historical Zone B. The Mendocino Historical Review Board has less specific powers of approval in Historical Zone B.

Mendocino Town Design Guidelines Policy DG-1 specifies that all new development shall be designed to be compatible with the historical design character of the Town. Actions DG-1.4 of the Design Guidelines specifies that new buildings, and rehabilitation, redevelopment, and renovation of existing structures in the Mendocino and Headlands Historical Preservation District and throughout the Town shall (a) be consistent with the historical community character of the Town, and (b) not degrade the setting of buildings of landmark stature.

The proposed Project improvements would occur within the existing road rights-of-way in Historical Zone A. Installation of new fire hydrants within Historical Zone A would be required to adhere to the design requirements of the Mendocino Historical Review Board to ensure compatibility with the historical design character of the Town. Neither construction nor operation of the Project would materially alter adjacent built environment resources within Zone A, and construction activities would not require the removal of adjacent street trees or vegetation in the vicinity of the properties. Existing paving, curbs, gutters, sidewalks, utilities, and other improvements within the area of potential effect that are disturbed due to the installation the recycled water facilities would be replaced in kind to pre-existing conditions or better. Restoration of paved areas would be in accordance with the requirements of Mendocino County standards and Caltrans Specifications and Standards Section 39 Asphalt Concrete.

The Project would not materially alter any built resources adjacent to the alignment, with the exception of a 55,000-gallon concrete tank at Mendocino High School and an 8,000-gallon concrete tank at Friendship Park, which would be disconnected and left in place.

Nevertheless, during construction, the presence of machinery and disturbed ground surfaces would result in short-term changes to localized visual character. Construction areas would be visible from adjacent residences, businesses and from travelers on public roadways. Because of the nature of pipeline installation, construction activities would not impact one particular viewpoint for a substantial portion of time. However, direct views of construction activities and staging areas would result in a temporary change in visual character during the construction period, and would constitute a significant impact. With implementation of Mitigation Measure AES-1 (Minimize Visual Impacts), the temporary visual impact during construction would be reduced to a less-than-significant level.

Street trees located adjacent to built environmental resources within Historical Zone A are not intended to be directly removed during construction. However, because several of the street trees are located in the vicinity of proposed excavation limits, trench excavations may potentially encounter root zones of certain trees, which could impact the overall health or stability of a tree. If mature street trees located adjacent to properties listed in the Mendocino historic resources inventory and the Mendocino and Headlands Historic District were impacted, it could degrade the existing visual character and quality of local streets as seen from public vantage points in the surrounding neighborhood. The impact may be significant. Mitigation Measure AES-2 would reduce the impact of potential tree loss to a less-than-significant level by minimizing tree removals and replacing any trees lost to reestablish the visual character that the trees help provide.

Following construction, the proposed new recycled water pipeline would be located below ground and would not impede or alter views. Construction at the MUSD tank site on Little Lake Road east of State Highway 1 would include construction of a new approximately 250,000 gallon bolted stainless steel storage tank. As discussed in Impact “a”, the Project area is not located within a designated highly scenic area or within a coastal viewshed from public areas such as roads, parks and trails. The improvements would not block views of ridgelines from public roadways or other vantage points. Although Little Lake Road is not a designated scenic corridor, the presence of the proposed new recycled water tank and the potential need for pruning and removal of select trees could result in views of the tank that would potentially be prominently visible from Little Lake Road and adjacent vantage points. The potential impact on quality of public views of the site and its surroundings would be significant. With implementation of Mitigation Measure AES-1 (Minimize Visual Impacts), the visual impact would be reduced to a less-than-significant level.

Mitigation

Mitigation Measure AES-1 would reduce the temporary construction-related impact on visual character to a less-than-significant level by minimizing and restoring areas disturbed during construction, by minimizing tree loss, replanting trees, and incorporating aesthetic elements into the proposed improvements. Mitigation Measure AES-2 would reduce the impact related to potential tree loss to a less-than-significant level by minimizing tree removals and replacing any trees lost to reestablish the visual character that the trees help provide.

Mitigation Measure AES-1: Minimize Visual Impacts

The MUSD shall reduce construction disturbance and ensure restoration of areas disturbed during construction. Measures shall include:

- The size of construction zones and staging areas shall be the minimum operable size. The location of such zones shall be adjusted to minimize the visual impacts to surrounding residents.
- Staging areas and other areas disturbed or scarred by construction activities shall be restored and revegetated, including restoring pre-Project topographic features and reseeding with species comparable to those removed or disturbed during construction and repaving, where areas were previously paved.
- If trees are damaged or lost, trees shall be replaced at a minimum of a 1:1 ratio.
- If trees are damaged or lost at the tank site on Little Lake Road, replacement trees shall be planted on-site to provide visual screening of the site from Little Lake Road and adjacent properties.
- To the extent feasible, MUSD shall ensure that the proposed new tank is of a color that would minimize visual contrast and blend in with the surrounding landscape to increase screening of tank views from Little Lake Road and adjoining properties.

Mitigation Measure AES-2: Trenching Techniques to Minimize Tree Loss

The MUSD shall retain a certified arborist to develop special trenching and pruning techniques to minimize the potential for tree impacts and tree loss along the alignment. The contractor shall implement such techniques. Construction activities within the dripline of trees adjacent to trenches shall be avoided to the extent feasible during construction. If pruning of trees is necessary, pruning shall be completed by either a certified arborist or by the contractor under supervision of either an International Society of Arboriculture qualified arborist, American Society of Consulting Arborists consulting arborist, or a qualified horticulturalist. Pruning shall be completed to the minimum degree necessary to accommodate construction vehicles and in a manner that helps preserve tree health. If trees are damaged or lost, trees shall be replaced. To the extent allowable, replacement trees shall be planted on-site.

d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area? (No Impact)

No construction would occur after dark. Therefore, nighttime lighting would not be required during construction. No impact would result during construction.

The proposed recycled water distribution system would be located below ground and would not include new exterior lighting. The proposed new recycle water storage tank would not create new sources of substantial light or glare. No operational impact would result.

3.2 Agriculture and Forest Resources

	Potentially Significant Impact	Less-than-Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
Would the project:				
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?				✓
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?				✓
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?				✓
d) Result in the loss of forest land or conversion of forest land to non-forest use?				✓
e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?				✓

a-e) Convert farmland or forestland or conflict with zoning? (No Impact)

The Project would not be located in lands designated as Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (CDC 2021a), or on land under a Williamson Act contract (Mendocino County 2014). The Project would not be constructed on land zoned for agricultural or forestland uses and is located on land designated as urban and built-up. Thus, the Project would not convert Important Farmland, land under a Williamson Act contract, or forest land to other uses, nor conflict with zoning for agricultural or forestry uses. No impact to agriculture or forestry resources would result.

3.3 Air Quality

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

a) Conflict with or obstruct implementation of the applicable air quality plan? (Less than Significant with Mitigation)

The Project site is located within the North Coast Mendocino County sub-basin of the North Coast Air Basin, which is within the jurisdiction of the Mendocino County Air Quality Management District (MCAQMD). The MCAQMD's 2005 Particulate Matter Attainment Plan in 2005 (MCAQMD 2005a) is the applicable air quality plan for the North Coast Air Basin. According to the 2005 Particulate Matter Attainment Plan, the primary man-made sources of PM_{10} pollution in the North Coast Air Basin are wood combustion (woodstoves, fireplaces and outdoor burning), fugitive dust, and automobile traffic. Some of the automobile emissions are the result of "pass-though" traffic on US Highway 101 because of its nature as the major transportation corridor in this part of the State. Control measures recommended in the 2005 Particulate Matter Attainment Plan include measures related to woodstoves, campgrounds, unpaved roads, construction and grading activities, new residential development, and open burning emissions.

Construction activities associated with the Project would include site preparation (e.g., demolition, clearing/grubbing), grading, excavation, utility trenching, and tank installation. The types of air pollutants generated by these activities are typically nitrogen oxides and particulate matter, such as dust and exhaust. Because construction activities could temporarily increase levels of PM_{10} in a region designated as non-attainment for PM_{10}, the impact is considered significant. With implementation of Mitigation Measure AIR-1, construction activities would not conflict with or obstruct implementation of the 2005 Particulate Matter Attainment Plan.

Following construction, the Project would not prevent the MCAQMD from implementing the actions in the 2005 Particulate Matter Attainment Plan, and none apply directly to the operation of the Project. No operational impact would result.

Mitigation Measure

With implementation of Mitigation Measure AQ-1, construction activities would not conflict with or obstruct implementation of the 2005 Particulate Matter Attainment Plan. The impact following mitigation would be less than significant.

Mitigation Measure AQ-1: Dust Control Measures

In accordance with Rule 1-430(b) of the Mendocino County Air Quality Management District Regulations, the MUSD and its Contractor shall implement the following airborne dust control measures during construction activities:

- All visibly dry disturbed soil road surfaces shall be watered to minimize fugitive dust emissions.
- All unpaved surfaces, unless otherwise treated with suitable chemicals or oils, shall have a posted speed limit of 10 miles per hour.
- Earth or other material that has been transported by trucking or earth moving equipment, erosion by water, or other means onto paved streets shall be promptly removed.
- Asphalt, oil, water, or suitable chemicals shall be applied on materials stockpiles and other surfaces that can give rise to airborne dusts.
- All earthmoving activities shall cease when sustained winds exceed 15 miles per hour.
- The operator shall take reasonable precautions to prevent the entry of unauthorized vehicles onto the site during non-work hours.
- The operator shall keep a daily log of activities to control fugitive dust.

b) Result in a cumulatively considerable net increase in any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard? (Less than Significant)

The North Coast Mendocino County sub-basin, like the rest of Mendocino County, is designated as a non-attainment area for the State particulate matter (PM_{10}) standard. The sub-basin is in attainment for all other State standards and for all Federal criteria air pollutants (CARB 2018, U.S. EPA 2021).

By its nature, air pollution is largely a cumulative impact, in that individual projects are rarely sufficient in size to result in nonattainment of ambient air quality standards. Instead, a project‘s individual emissions may contribute to cumulative adverse air quality impacts. Based on the current Air Basin designations, the non-attainment pollutant of concern is PM_{10}.

The Bay Area Air Quality Management District’s (BAAQMD) CEQA guidelines and thresholds, which the MCAQMD uses as CEQA guidance, includes screening criteria to provide lead agencies with a conservative indication of whether a project could result in potentially significant air quality impacts. According to the guidelines, if a project’s characteristics (i.e., square footage, acreage, number of dwelling units) are less than associated screening criteria, then the lead agency does not need to perform a detailed air quality assessment of the project’s air pollutant emissions and a less-than-significant impact would occur.

For construction activities, several different screening criterions are recommended by the BAAQMD relative to air pollutant emissions (i.e., reactive organic gases [ROG], NOX, PM2.5, and PM10). For example, detailed air quality assessments are not required for construction of projects such as single family residential developments comprised of less than 114 dwelling units, City parks that are less than 67 acres

in size, and construction of office and commercial buildings that are less than 277,000 square feet (BAAQMD 2017). The BAAQMD CEQA thresholds do not include specific screening criteria for pipeline installation and storage tank projects. However, when one compares the screening criteria established for the types of projects described above, it is reasonable to assume that the extent of construction activities associated with the Project would be substantially less and would also not warrant a detailed air quality assessment.

The Project would not be anticipated to encounter asbestos-containing materials during construction, would not involve the simultaneous occurrence of more than two construction phases, or construction of more than one land-use type. Construction would not involve extensive site preparation or material transport. The Project would result in a short-term increase in fugitive dust emissions during construction which would include PM2.5 and PM10. The short-term impact would be less than significant. Additionally, required implementation of the dust control measures required by Mitigation Measure AQ-1 would further minimize fugitive dust and emissions during construction.

Following construction, the Project would not result in a new stationary source of emissions and the Project would not result in a substantial increase in maintenance trips. Therefore, the Project would not result in a substantial source of new mobile pollutant emissions nor result in a cumulatively considerable increase in PM10 emissions. No long-term impact would result.

c) Expose sensitive receptors to substantial pollutant concentrations? (Less than Significant)

Sensitive population groups include children, the elderly, the acutely ill, and the chronically ill, especially those with cardio-respiratory diseases. Residential uses are also considered sensitive to air pollution because residents (including children and the elderly) tend to be at home for extended periods of time, resulting in sustained exposure to any pollutants present. Sensitive receptors located adjacent to the Project area include single family residences and schools.

The main pollutants of concern for this impact are diesel particulate matter (DPM). Construction equipment and heavy-duty truck traffic generate DPM exhaust, which is a known toxic air contaminant. The installation of the proposed recycled water distribution system would occur at a rate of approximately 100 feet of pipe per day, thus the construction activities would continually be shifting. Because of continuous shifting of the construction activities, no prolonged exposure of sensitive receptors to substantial pollutant concentrations would result. Project construction would result in a less than significant impact from exposure to construction-generated DPM.

In addition, the Project area is not located within an area of concern for naturally occurring asbestos (NOA). The nearest location of concern for NOA is approximately 20 miles inland from the Project area (MCAQMD 2005b). Therefore, no human exposure to NOA is anticipated to occur during construction. No impact would result.

Following construction, Project operation would not expose sensitive receptors to substantial pollutant concentrations as the Project does not include any stationary source emissions or an increase in any mobile emissions. No long-term impact would result.

d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people? (Less than Significant)

Implementation of the Project would not result in any major sources of odor. The Project is not one of the common types of facilities known to produce odors (e.g., landfill, coffee roaster, wastewater treatment facility, etc.). Construction activities could result in short-term odors, such as diesel exhaust from

construction equipment. Such odors would be temporary, occurring only during the construction period, and would disperse rapidly. Therefore, construction would not create objectionable odors affecting a substantial number of people and the temporary impact during construction would be less than significant. Additionally, implementation of the air quality control measures required by Mitigation Measure AQ-1 would further reduce odors released from construction equipment. Following construction, there would be no features included in the Project that would, by their nature or design, result in a new source of odors. No operational impact would result.

3.4 Biological Resources

	Potentially Significant Impact	Less-than-Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
Would the project:				
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?		✓		
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or US Fish and Wildlife Service?				✓
c) Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?				✓
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?				✓

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? (Less than Significant with Mitigation)

Special-status species include those plant and wildlife species that have been formally listed, are proposed as endangered or threatened, or are candidates for such listing under the federal Endangered Species Act (ESA) or California Endangered Species Act (CESA). These acts afford protection to both listed and proposed species. In addition, California Department of Fish and Wildlife (CDFW) Species of Special Concern, which are species that face extirpation in California if current population and habitat trends continue, U.S. Fish and Wildlife Service (USFWS) Birds of Conservation Concern, and CDFW special-status invertebrates, are all considered special-status species. Although CDFW Species of Special Concern generally have no special legal status, they are given special consideration under CEQA. In addition to regulations for special-status species, most birds in the United States, including non-status

species, are protected by the Migratory Bird Treaty Act of 1918. Plant species on California Native Plant Society (CNPS) Inventory of Rare and Endangered Plants with California Rare Plant Ranks (Rank) of 1, 2 and 4 are also considered special-status plant species and must be considered under CEQA. Bat species designated as “High Priority” by the Western Bat Working Group (WBWG) qualify for legal protection under Section 15380(d) of the CEQA Guidelines. Species designated “High Priority” are defined as “imperiled or are at high risk of imperilment based on available information on distribution, status, ecology and known threats.”

A Biological Resources Report was prepared for the Project to evaluate the potential for special-status plant and wildlife species and sensitive habitats (including wetlands) to occur on or in the vicinity of the Project site (GHD 2021). The assessment included literature and database searches as well as a site survey to determine what species and habitats have potential to be present on the Project site. The information and data collected for the assessment have been used as the basis of this biological resources analysis.

Special-Status Plant Species

Due to seasonal survey timing constraints, field surveys for special status plants were not possible in 2021. The majority of the Project site is comprised of developed land, including paved roadway surfaces, parking lots, sidewalk, and areas of urban landscaping. No special-status plants are expected to occur in such areas because no suitable habitat is present.

Areas in which habitat for special status plants may be present include the MUSD tank site on Little Lake Road. According to special-status species lists, five federally listed or under review plant species that are regulated by the USFWS under the ESA were identified during scoping in the vicinity of the Project area. However, none of these are likely to occur within the Project area due to the lack of suitable habitat and/or because the Project area lies outside of the species’ known current geographic range. Three state-listed or candidate plant species that are regulated by the CDFW under the CESA were identified during scoping in the vicinity of the Project area. These include Howell's spineflower, Burke’s goldfields, and Monterey clover, none of which are likely to occur within the Project area due to lack of suitable habitat and/or because the Project lies outside of the species’ known current geographic range.

In addition, occurrences for 40+ other special status plant species with special state protections (or tracked via the CNDDB) were identified within the one-quad search area of the Project. Of these, only 13 have moderate potential to occur within the PSB. Presence (if any) of these species within the Project Area will be confirmed during seasonally-appropriate botanical surveys.

Although no special status plants were observed along the Project corridor or at the MUSD tank site during a reconnaissance level site visit, the blooming period for the plants listed above as having a moderate potential to occur is generally in the spring. Because of the proximity of the Project area to known populations of the above listed special status plant species, the impact of the Project is considered potentially significant. Implementation of Mitigation Measure BIO-1 would reduce the impact of the Project on special-status plants to a less-than-significant level by requiring pre-construction surveys by qualified biologists prior to work in applicable habitats, as well as a minimum level of compensation for loss of any habitat for special-status plant.

Special-Status Wildlife Species

A reconnaissance level biological field survey was conducted for the Project site on July 30, 2021. The survey methods were intended to identify sensitive habitat and detect wildlife activity. This included inspecting the ground, shrubs, and trees for the presence of any wildlife species.

The Project corridor is comprised primarily of developed hardscapes, including paved roadway surfaces, parking lots, sidewalk, and areas of urban landscaping. Natural habitat remains around the MUSD tank site on Little Lake Road, including Douglas fir and California bay laurel forest. These areas of natural habitat could serve as potential nesting, foraging, roosting, and breeding habitat for special status wildlife species. No federally designated critical habitat is present within or immediately adjacent to the Project area. No impact to critical habitat would result.

Northern red-legged frogs are relatively common in and near coastal portions of Mendocino County and records have documented the species within three miles of the Project site on private timberlands and in Big River State Park. This species has a moderate likelihood of periodically occurring within the Project area at the MUSD tank site as they could occasionally forage on or disperse through the area if a suitable breeding wetland is present nearby. In the event this species were to disperse onto the MUSD tank site, vegetation removal and ground disturbance may result in potentially adverse effects to the species. The potential impact is considered significant. Implementation of Mitigation Measures BIO-2 would ensure no direct effects (mortality/take) of Northern red-legged frogs would occur and thereby reduce impacts to a less-than-significant level.

Sonoma Tree Voles are primarily arboreal mammals that occur in coniferous forest habitat. Sonoma Tree Voles usually occur within the fog belt of northern California from Sonoma County to the Oregon border, and diet on needles of Douglas fir (*Pseudotsuga menziesii*) and grand fir (*Abies grandis*). Based on the location of the Project, the presence of Douglas fir trees at the MUSD tank site, and numerous historical records documenting species presence in the Project area, the Sonoma Tree Vole has a moderate likelihood of occurring at the tank site, and vegetation removal and ground disturbance may result in potentially adverse effects to the species if present. The potential impact is considered significant. Implementation of Mitigation Measure BIO-2 would ensure no direct effects no direct effects (mortality/take) of Sonoma tree vole would occur and thereby reduce impacts to a less-than-significant level.

Birds and raptors are protected under the federal Migratory Bird Treaty Act (50 CFR 10.13), and their nest, eggs, and young are also protected under the California Fish and Wildlife Code (§3503, §3503.5, and §3513). The white-tailed Kite (*Elanus leucurus*) is a California Fully Protected Species which has been recently recorded throughout the town of Mendocino within 0.5 mile of the Project site. The osprey (*Pandion haliaetus*) is a California State Watch List (Nesting) species with numerous recent occurrence records along the Big River and throughout the town of Mendocino, within 0.5 mile of the Project site. This species was observed flying in the Project area during the site reconnaissance. The purple Martin (*Progne subis*) is a California Species of Special Concern with a recorded occurrence in 2018 on Big River near West Haul Road, within 0.5 mile of the Project site. Based on historical records and available habitat, the three above-mentioned species have a moderate potential to occur within the Project site, and vegetation removal and ground disturbance may result in potentially adverse effects to the species if present. The potential impact is considered significant. Implementation of Mitigation Measure BIO-3 would reduce the impact to nesting birds to a less-than-significant level.

Townsend's Big-eared Bats are medium-sized bats, distinguished from other co-occurring bat species by their large ears and a two-pronged horseshoe-shaped lump on the muzzle. Townsends' Big-eared Bats are typically associated with coastal redwood forests, foothill oak woodlands, inland deserts, pinyon-juniper and pine forests, and mixed coniferous-deciduous forests. The species roosts colonially in a variety of structures including hollow trees, buildings (barns), mines, and lava tubes. Forests near the Project site may serve as hibernacula for this species and requisite roosting and foraging habitat is present in the 6-quad search area. The closest known occurrence record is from 2016 along the side of Highway 1, about 0.5 road miles north of Little River and 1.8 miles south of the Town of Mendocino. Foraging habitat for the species could be

present in the area of the MUSD tank site. Therefore, Townsend's Big-eared Bats have a moderate likelihood of occurring within the tank site, and vegetation and structure removal and ground disturbance for the recycled water tank may result in potentially adverse effects to the species if present. The potential impact is considered significant. Implementation of Mitigation Measure BIO-4 would reduce potential impacts to special status bats to a less-than-significant level.

Mitigation Measures

Mitigation Measures BIO-1 through BIO-4 would reduce the Project impact on special-status plants and wildlife to less-than-significant levels by requiring pre-construction surveys by qualified biologists prior to work in applicable habitats, and measures to avoid take of species as well as a minimum level of compensation for loss of habitat for special-status plant and wildlife species.

Mitigation Measure BIO-1: Avoid Loss of Sensitive Plant Species

The MUSD shall retain a qualified biologist to complete appropriate pre-construction surveys for special status plant species at the MUSD tank site prior to construction of the proposed recycled water tank. The surveys shall be conducted during the appropriate blooming time (spring or summer) for the target species. Survey methods shall comply with CDFW rare plant survey protocols, and shall be performed by a qualified field botanist. Surveys shall be modified to include detection of juvenile (pre-flowering) colonies of perennial species when necessary. Any populations of special status plant species that are detected shall be mapped. Populations (if present) shall be flagged if avoidance is feasible and if populations are located adjacent to construction areas. The locations of any special status plant populations to be avoided shall be clearly identified in the contract documents (plans and specifications).

If avoidance is not feasible, a Special Status Plant Management Plan shall be prepared and implemented in coordination with CDFW, in which recommendations shall be provided as to the feasibility of relocating the plants or collecting seeds prior to the start of construction. The report shall identify similar habitat on nearby lands to accommodate both relocation and seed spreading. If seed collection is determined to be the more appropriate method for the specified species, seeds shall either be collected and spread on- or off-site, or provided to a local native plant nursery for propagation then planting. For both relocating or seed collection, the MUSD shall indicate an on- or off-site location for relocation, establish success criteria, identify monitoring protocol of the site for one to two seasons, and determine appropriate action if the success criteria is not met.

Mitigation Measure BIO-2: Protect Northern Red Legged Frog and Sonoma Tree Voles

In the event that a Northern red-legged frog is observed in an active construction zone, the contractor shall halt construction activities in the immediate area where observed and the frog shall be moved to a safe location in similar habitat outside of the construction zone. The construction impact area at the MUSD tank site shall be surveyed by a qualified biologist within seven days prior to the start of construction for any tree nests indicative of Sonoma tree voles. If any active Sonoma tree vole nests are found, the nest shall be avoided during construction activities.

Mitigation Measure BIO-3: Protect Bat Species

If construction occurs during the bat maternity season (generally May 1st through August 30th), a qualified bat biologist shall conduct habitat surveys for special status bats for trees to be removed or limbed. The assessment shall evaluate the trees for suitable entry points and roost features and shall provide focused daytime surveys for day-roosting bats. If present, the roost shall be avoided

until after September 1 to ensure no adverse effects to maternity bat roosts. Tree removal outside the maternity season shall be performed using a two-step tree removal process which includes allowing any felled trees or tree limbs to be left overnight prior to removal from the site or on-site chipping to allow any bats to exit the roost.

Mitigation Measure BIO-4: Prevent Disturbance to Nesting Birds

Ground disturbance or removal of vegetation or nesting trees shall be conducted, if feasible, during the fall and/or winter months and outside of the avian nesting season (March 15 – August 15) to avoid any direct effects to special status and protected birds. If ground disturbance or vegetation removal cannot be confined to outside of the nesting season, a qualified ornithologist shall conduct pre-construction surveys within the vicinity of the Project area, to check for nesting activity of native birds and to evaluate the site for presence of raptors and special status bird species. The biologist shall conduct at minimum a one-day pre-construction survey within the 7-day period prior to vegetation removal and ground-disturbing activities. If ground disturbance and vegetation removal work lapses for seven days or longer during the breeding season, a qualified biologist shall conduct a supplemental avian pre-construction survey before Project work is reinitiated.

If active nests are detected within the vicinity of the construction footprint, the ornithologist shall flag a buffer around each nest (assuming property access is allowed). Construction activities shall avoid nest sites until the ornithologist determines that the young have fledged or nesting activity has ceased. Buffers shall be implemented as needed (buffer size dependent on species). In general, the buffer size for common species would be determined on a case-by-case basis in consultation with the CDFW and, if applicable, with USFWS. Buffer sizes will take into account factors such as (1) noise and human disturbance levels at the construction site at the time of the survey and the noise and disturbance expected during the construction activity; (2) distance and amount of vegetation or other screening between the construction site and the nest; and (3) sensitivity of individual nesting species and behaviors of the nesting birds.

If active nests are detected during the survey, the qualified ornithologist shall monitor all nests at least once per week to determine whether birds are being disturbed. Activities that might, in the opinion of the qualified ornithologist, disturb nesting activities (e.g., excessive noise), shall be prohibited within the buffer zone until such a determination is made. If signs of disturbance or distress are observed, the qualified ornithologist shall immediately implement adaptive measures to reduce disturbance. These measures may include, but are not limited to, increasing buffer size, halting disruptive construction activities in the vicinity of the nest until fledging is confirmed or nesting activity has ceased, placement of visual screens or sound dampening structures between the nest and construction activity, reducing speed limits, replacing and updating noisy equipment, queuing trucks to distribute idling noise, locating vehicle access points and loading and shipping facilities away from noise-sensitive receptors, reducing the number of noisy construction activities occurring simultaneously, and/or reorienting and/or relocating construction equipment to minimize noise at noise-sensitive receptors.

b,c) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or US Fish and Wildlife Service, including state or federally protected wetlands? (No Impact)

During a reconnaissance-level site visit conducted at the Project site, no potentially jurisdictional wetlands or waters were observed on-site. A search of the USFWS National Wetlands Inventory for the Project

vicinity also was completed, the results of which show no wetlands mapped within the Project area. During the reconnaissance-level site visit, a wetland containing emergent vegetation (e.g., cattails) was documented to the south of Little Lake Road in front of the Mendocino K-8 School. However, the wetland is located outside the Project Area and no construction activities would occur in or near the area of potential wetlands. The potential presence of sensitive natural communities and environmentally sensitive habitat areas was also visually assessed during the reconnaissance biological survey. No such communities or habitat areas were identified within the Project area. Therefore, no impact to riparian habitat, wetlands, or other sensitive natural communities would result.

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? (Less than Significant)

Figure 4.4-7 of the Mendocino County General Plan EIR identifies major wildlife corridors in Mendocino County. The Project site is not located within a mapped major wildlife movement corridor, and the Project site is currently developed with existing facilities which the MUSD proposes to reconstruct within substantially the same footprint. The Project corridor is located approximately one-half mile north of the Big River and does not contain any aquatic habitat or intersect any riparian corridors. Thus, there is no direct hydrologic connectivity between the Project Area and Big River and no impact on movement of any native resident or migratory fish or essential fish habitat would result. No continuous barriers to terrestrial wildlife movement are anticipated, and the Project would not substantially interfere with migratory birds, bats, or aquatic species. The impact would be less than significant.

e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance? (Less than Significant with Mitigation)

No tree preservation policy or ordinance is applicable to the Project. The Mendocino County General Plan and Coastal Element contain numerous policies and action items to protect biological resources. General Plan Policy RM-28 requires that all discretionary public and private projects that identify special-status species in a biological resources evaluation (where natural conditions of the site suggest the potential presence of special-status species) shall avoid impacts to special-status species and their habitat to the maximum extent feasible. Where impacts cannot be avoided, Policy RM-28 states that projects shall include the implementation of site-specific or project-specific effective mitigation strategies developed by a qualified professional in consultation with State or federal resource agencies with jurisdiction (if applicable). Implementation of mitigation measures listed in impact 3.4 (a) above would reduce Project-related impacts to special-status species to a less-than-significant level. Therefore, within implementation, no conflicts with local policies or ordinances protecting biological resources have been identified.

f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan? (No Impact)

Habitat Conservation Plans and Natural Community Conservation Plans are geographic specific plans to address effects on sensitive species of plants and animals. There are no such adopted plans covering the Project area. No impact would result.

3.5 Cultural Resources

	Potentially Significant Impact	Less-than-Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
Would the project:				
a) Cause a substantial adverse change in the significance of a historical resource pursuant to §15064.5?		✓		
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?		✓		
c) Disturb any human remains, including those interred outside of formal cemeteries?		✓		

a) Cause a substantial adverse change in the significance of a historical resource pursuant to §15064.5? (Less than Significant with Mitigation)

The CEQA Guidelines define a historical resource as: (1) a resource listed in the California Register of Historical Resources; (2) a resource included in a local register of historical resources, as defined in the California Public Resources Code (PRC) Section 5020.1(k), or identified as significant in a historical resource survey meeting the requirements of PRC Section 5024.1(g); or (3) any object, building, structure, site, area, place, record, or manuscript that 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, provided the lead agency's determination is supported by substantial evidence in light of the whole record.

A portion of the proposed recycled water alignment would be located within historical zones and adjacent to historic landmarks and/or historically important built environment resources. The Mendocino County Historical Preservation District Ordinance designates the area of Mendocino that is located on the Mendocino Headlands peninsula, west of Highway 1, as Historical Zone A. Within Historical Zone A, the Mendocino and Headlands Historic District, located generally south of Little Lake Street, is listed on the National Register of Historic Places (Number 71000165) and on the California Register of Historical Resources.

The Historical Preservation District for the Town of Mendocino, first incorporated by ordinance in the Mendocino County Code in 1973, established the Mendocino Historical Review Board (MHRB) that must approve activities and other work, including demolition, construction, remodeling, excavation, and painting within Historical Zone A, comprising the 19th century town west of Highway 1. The area of Mendocino east of Highway 1 constitutes Historical Zone B. The Mendocino Historical Review Board has less specific powers of approval in Historical Zone B.

Mendocino Town Design Guidelines Policy DG-1 specifies that all new development shall be designed to be compatible with the historical design character of the Town. Actions DG-1.4 of the Design Guidelines specifies that new buildings, and rehabilitation, redevelopment, and renovation of existing structures in the Mendocino and Headlands Historical Preservation District and throughout the Town shall (a) be consistent with the historical community character of the Town, and (b) not degrade the setting of buildings of landmark stature.

Portions of the proposed recycled water alignment in Ukiah Street, Kasten Street, Lansing Street, and Little Lake Street would be located adjacent to built environment resources listed in the Town of Mendocino's historic resources inventory and within Historical Zone A and the Mendocino and Headlands Historic District. The proposed alignment along Ukiah Street would be located adjacent to multiple such properties, including Crown Hall and properties located at 571, 45116, 45124, 45140, 45271, 45281, 45320, 45350, and 45370 Ukiah Street. The recycled water pipeline would also be installed near properties at 390 and 10550 Kasten Street, 10575 Lansing Street, and 43267, 44800, 44900, 45150, and 45160 Little Lake Street, which contain built environment resources that have been inventoried as historic landmarks and/or historically important.

The proposed Project improvements would occur within the existing road rights-of-way in Historical Zone A. Installation of new fire hydrants within Historical Zone A would be required to adhere to the design requirements of the Mendocino Historical Review Board to ensure compatibility with the historical design character of the Town. Neither construction nor operation of the Project would materially alter adjacent built environment resources within Zone A, and construction activities would not require the removal of adjacent street trees or vegetation in the vicinity of the properties. Existing paving, curbs, gutters, sidewalks, utilities, and other improvements within the area of potential effect that are disturbed due to the installation the recycled water facilities would be replaced in kind to pre-existing conditions or better. Restoration of paved areas would be in accordance with the requirements of Mendocino County standards and Caltrans Specifications and Standards Section 39 Asphalt Concrete. The Project would not materially alter any built resources adjacent to the alignment, with the exception of a 55,000-gallon concrete tank at Mendocino High School and an 8,000-gallon concrete tank at Friendship Park, which would be disconnected and left in place. No resources contributing to the Mendocino and Headlands Historic District are located within the direct area of potential effect for the Project.

The street trees located adjacent to the listed built environmental resources are not intended to be directly removed during construction. However, because several of the street trees are located in the vicinity of the proposed excavation limits, trench excavations may potentially encounter root zones of certain trees, which could impact the overall health or stability of a tree. If mature street trees located adjacent to properties listed in the Mendocino historic resources inventory and the Mendocino and Headlands Historic District were impacted, potential contributing landscape elements of a listed historical resource could be negatively affected. The impact may be significant. With implementation of Mitigation Measure CR-1 (Avoid Loss of Street Trees on Historic Properties), the potential impact to cultural resources during construction would be reduced to a less-than-significant level. The improvements would also be required to adhere to review conditions of approval from the Mendocino Historical Review Board.

The potential for historic-period archaeological resources impacts is evaluated in impact "b" below.

Mitigation Measure

Implementation of Mitigation Measure CR-1 would reduce significant impacts to less-than-significant levels by protecting and preserving mature trees located on or adjacent to listed historic properties.

Mitigation Measure CR-1: Avoid Loss of Street Trees on Historic Properties

The MUSD shall avoid loss of street trees that occur along the pipeline alignment on the frontage of historic properties listed on the Town of Mendocino Inventory of Historic Resources. Tree loss shall be avoided by monitoring the proximity of trenching near tree roots, using construction equipment that minimizes the extent of required excavation, moving the pipeline alignment away from trees, or other effective measures.

b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5? (Less than Significant with Mitigation)

An Archaeological Resources Study was prepared for the Project by the Anthropological Studies Center of Sonoma State University (ASC 2021). The study assessed the potential for surficial and/or buried archaeological and historical resources in the proposed improvement area through the completion of the following:

– Records and literature search at the Northwest Information Center (NWIC) of the California Historical Resources Information Center (CHRIS) on October 26, 2021;
– Further literature review of publications, files, and maps for ethnographic, historic-era, and prehistoric resources and background information;
– Communication with the Native American Heritage Commission (NAHC) to request a review of the Sacred Lands File and contact information for the appropriate tribal communities on November 29, 2021;
– Contact with the appropriate local Native American Tribes on December 7, 2021; and
– Pedestrian archaeological survey of the Project area on November 10, 2021.

The study determined that the sensitivity of the area of potential effect for buried indigenous archaeological resources is high. No previously recorded cultural resources located within the area of potential effect were identified, and a pedestrian archaeological survey of the Project site also identified no archaeological resources. However, the search of the NAHC's Sacred Lands File for Sacred Sites was positive for a resource in or near the area of potential effect, though no information suggesting the presence of sacred sites or archaeological resources was received from individuals or organizations contacted as part of the study. Such coordination included letters, faxes, and telephone calls to Native American contacts provided by the NAHC. The NWIC records search also identified several cultural resources including historic-era and indigenous cultural resources within a half mile of the area of potential effect. If previously unidentified cultural resources are encountered during construction, the impact would be significant. With implementation of Mitigation Measure CR-2 (Minimize Impacts to Unknown Archaeological Resources During Construction), the potential impact to cultural resources during construction would be reduced to a less-than-significant level.

The study also determined that the likelihood of buried historic-era features, such as a privy or artifact deposit, is also high because of the age of the recorded buildings within the Mendocino and Headlands Historic District. Four historic-artifact deposits were determined to be located within a half mile of the area of potential effect. Therefore, the possibility of encountering historic-era archaeological resources cannot be discounted. The impact related to the potential disturbance of historic-era archaeological resources during construction is considered significant. With implementation of Mitigation Measure CR-2 (Minimize Impacts to Unknown Archaeological Resources During Construction), the potential impact to archaeological resources during construction would be reduced to a less-than-significant level.

Mitigation Measure

Implementation of Mitigation Measure CR-2 would reduce the potential impact to previously undiscovered cultural resources to a less-than-significant level by performing pre-construction contractor training and outlining procedures to be taken in the event of inadvertent discovery of unrecorded resources consistent with appropriate laws and requirements.

Mitigation Measure CR-2: Minimize Impacts to Unknown Archaeological Resources During Construction

The MUSD shall retain a qualified archaeologist to conduct a pre-construction cultural sensitivity training for Contractor staff prior to the start of construction. In the event that any subsurface archaeological features or deposits, including locally darkened midden soil, are discovered during construction-related earth-moving activities, all ground-disturbing activity in the vicinity of the resource shall be halted, a qualified professional archaeologist shall be retained to evaluate the find, and the appropriate tribal representative(s) shall be notified. If the find qualifies as a historical resource, unique archaeological resource, or tribal cultural resource as defined by CEQA, the archaeologist shall develop appropriate measures to protect the integrity of the resource and ensure that no additional resources are affected.

c) Disturb any human remains, including those interred outside of formal cemeteries? (Less than Significant)

No human remains are known to exist within the Project area. Excavation and earthmoving activities would occur within previously disturbed areas that are primarily underlain by engineered soils and/or fill. However, the possibility of encountered human remains cannot be discounted, and the potential impact is considered significant. With implementation of Mitigation Measure CR-3 (Protect Human Remains if Encountered during Construction), the potential impact to human remains during construction would be reduced to a less-than-significant level.

Mitigation Measure

Implementation of Mitigation Measure CR-3 would reduce the potential impact to previously undiscovered human remains to a less-than-significant level by outlining procedures to be taken in the event of inadvertent discovery of unrecorded resources consistent with appropriate laws and requirements.

Mitigation Measure CR-3: Protect Human Remains if Encountered during Construction

If human remains, associated grave goods, or items of cultural patrimony are encountered during construction, work shall halt in the vicinity of the find and the County Coroner shall be notified immediately. The following procedures shall be followed as required by Public Resources Code § 5097.9 and Health and Safety Code § 7050.5. If the human remains are determined to be of Native American origin, the Coroner shall notify the Native American Heritage Commission within 24 hours of the determination. The Native American Heritage Commission shall then notify the Most Likely Descendant (MLD), who has 48 hours to make recommendations to the landowner for the disposition of the remains. A qualified archaeologist, the MUSD and the MLD shall make all reasonable efforts to develop an agreement for the treatment, with appropriate dignity, of any human remains and associated or unassociated funerary objects. The agreement would take into consideration the appropriate excavation, removal, recordation, analysis, custodianship, and final disposition of the human remains and associated or unassociated funerary objects.

3.6 Energy Resources

	Potentially Significant Impact	Less-than-Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
Would the project:				
a) Result in potentially significant environmental impacts due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?			✓	
b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?				✓

a) Result in potentially significant environmental impacts due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation? (Less than Significant)

Project construction activity would require the temporary use of fossil fuels (gas, diesel, and motor oil) for excavation, grading, and vehicle use. The precise amount of construction-related energy consumption that would occur is uncertain. However, construction would not require a large amount of fuel or energy usage because of the moderate number of construction vehicles and equipment that would be used during construction, worker trips, and the relatively short construction duration required for a Project of this scale. Use of fuels would not be wasteful or unnecessary because their use is necessary to complete the Project. Excessive idling and other inefficient site operations would be prohibited. Equipment idling times would be minimized either by shutting equipment off when not in use or reducing the maximum idling time to five minutes or less (as required by the California airborne toxics control measure (Title 13, Section 2485 of the CCR). Therefore, construction would not result in the use of large amounts of fuel and energy in a wasteful manner, and the impact would be less than significant.

Following construction, energy consumption associated with operation of the Project would be limited to the electricity needed to operate the recycled water distribution system. The overall electrical demand is not expected to increase substantially as a result of this Project, and the total amount of electricity utilized beyond that currently utilized for the existing recycled water system would not substantially increase. Fuel consumption would be limited to that utilized by routine maintenance workers as they traveled to and from the site. No increase in operation and maintenance related trips would occur. The operational impact would be less than significant.

b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency? (No Impact)

In 2003, the California Energy Commission (CEC), the California Power Authority (CPA), and the California Public Utilities Commission (CPUC) jointly adopted an Energy Action Plan (EAP) that listed goals for California's energy future and set forth a commitment to achieve these goals through specific actions. In 2005, the CEC and CPUC approved the EAP II, which identified further actions to meet California's future energy needs, mainly focused on the energy and natural gas sectors. Additionally, the CEC also prepared the State Alternative Fuels Plan in partnership with the California Air Resources Board and in consultation with the other state, federal, and local agencies. The alternative fuels plan presents strategies and actions California must take to increase the use of alternative non-petroleum fuels in a manner that minimizes costs

to California and maximizes the economic benefits of in-state production. Locally, the Mendocino County General Plan includes goals to promote energy conservation in the County and to increase use of renewable energy resources (Goal RM-9).

Project construction and operational activities would not conflict with or obstruct implementation of the EAP, EAP II, the State Alternative Fuels Plan, or local goals. Project construction activity would not require a large amount of fuel or energy usage because of the limited extent and nature of the proposed improvements and the minimal number of construction vehicles that would be required for a project of this scale. Project operation would not result in a substantial increase in energy use. No conflicts with a state or local plan for renewable energy or energy efficiency have been identified. Therefore, no impact would result.

3.7 Geology and Soils

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

a.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 Project site is not located within a designated Alquist-Priolo Earthquake Fault Zone, and no other active or potentially active faults have been mapped passing through the Project area or the Town of Mendocino. Additionally, the Project does not include structures intended for human occupancy. The Project would not

change the exposure of people or structures to risk of loss, injury, or death from fault rupture. No impact would result.

a.ii) Strong seismic ground shaking? (Less than Significant)

The nearest active faults to the Project site are the Maacama Fault, located approximately 25 miles to the east, and the San Andreas Fault, located approximately 20 miles to the south. Moderate to major earthquakes generated on either fault can be expected to cause strong ground shaking in the Project area.

By applying geotechnical evaluation techniques and appropriate engineering practices, potential injury and damage from seismic activity can be diminished, thereby exposing fewer people and less property to the effects of a major damaging earthquake. The design and construction of the proposed Project is subject to engineering standards of the California Building Code, which take into account soil properties, seismic shaking and foundation type. As described in Section 1.4, the seismic design of the new recycled water tank would conform to the most current version of the California Building Code (CBC) and design standards with any local amendments, including the use of flexible piping and other connections to minimize damage during a seismic event in accordance with site-specific geotechnical recommendations. In addition, as described in Section 1.6, the Project would be designed and constructed in conformance with the site-specific recommendations contained in a design-level geotechnical study report to be completed for the Project. Because the Project would be constructed in accordance with the applicable design standards and with the Project-specific recommendations contained in a design-level geotechnical study, the impact related to strong seismic ground shaking would be less than significant.

a.iii, aiv, c, d) Liquefaction, landslides, or otherwise unstable soils? (Less than Significant)

Excavation and earthmoving activities would be relatively shallow and would occur within previously disturbed areas that are primarily underlain by engineered soils and/or fill beneath the existing facilities. Mapping of liquefaction susceptibility in Mendocino County indicates that the Project site is located in an area where soils are susceptible to liquefaction (County of Mendocino, 2008). Liquefiable and otherwise unstable soils may be encountered within the Project area.

During construction, the new recycled water pipeline trench would be dug within land that is relatively flat. Following construction, Project components would not be located within areas of potential landslides, and would be located below ground.

The design and construction of new structures are subject to engineering standards of the CBC, which take into account soil properties and foundation type. As described in Section 1.6, the Project would be designed and constructed in conformance with the site-specific recommendations contained in a design-level geotechnical study report to be completed for the Project and any subsequent Project-related geotechnical reports, which would include ground improvement and pipe bedding and backfill criteria.

By applying geotechnical evaluation techniques and appropriate engineering practices, potential injury and damage from seismic activity and unstable soils can be diminished, thereby exposing fewer people and less property to the effects of a major damaging earthquake. Because the Project would be constructed in accordance with the applicable design standards and with the Project-specific recommendations contained in a design-level geotechnical study, the impact related to liquefaction, landslides, or unstable soils would be less than significant.

b) Result in substantial soil erosion or the loss of topsoil? (Less than Significant)

Construction activities would involve open trench excavation for the majority of the recycled water pipeline system, and foundation-related excavations for the new recycled water tank. Areas to be disturbed during construction consist predominantly of previously disturbed areas that are primarily underlain by engineered soils and/or fills that have been highly altered from their original, natural state. As a result, the Project would result in negligible soil erosion or disturbance to native soils. Following construction, the Project area would be redeveloped and areas of exposed soil vulnerable to erosion would not be present. The overall impact related to soil erosion or loss of topsoil would be less than significant.

Refer to Section 3.10, Hydrology and Water Quality, for a discussion of construction impacts to water quality associated with soil erosion.

d) 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 Project would not involve the use of septic tanks or other alternative wastewater disposal systems. No impact would result.

f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature? (Less than Significant)

The proposed improvements would not require modification of any unique geologic features. Excavation and earthmoving activities would occur within previously disturbed areas that are primarily underlain by engineered soils and/or fill. Project excavations would be relatively shallow and would occur in previously disturbed soils. Excavation depths would not occur to depths where paleontological resources would be likely encountered, and the Project would be required to follow procedures outlined in Public Resources Code § 5097.5 in the event of inadvertent discovery of paleontological resources. The impact would be less than significant.

3.8 Greenhouse Gas Emissions

	Potentially Significant Impact	Less-than-Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
Would the project:				
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?			✓	
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?				✓

a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment? (Less than Significant)

Construction

There is currently no applicable federal, State, or local threshold pertaining to construction-related greenhouse gas (GHG) emissions, and the BAAQMD CEQA Guidelines [used by the Mendocino County Air Quality Management District] do not include screening criteria or significance thresholds for construction-phase emissions. Therefore, this analysis uses a qualitative approach for construction activities in accordance with Section 15064.4(a)(2) of the CEQA Guidelines.

Construction activities would result in a temporary (approximately 10 months) increase in GHG emissions, including exhaust emissions from on-road haul trucks, worker commute vehicles, and off-road heavy duty equipment. Project emissions during construction would not be a considerable contribution to the cumulative GHG impact, given that construction would be temporary, and the size and nature of construction is not considered to result in significant air quality impacts (for example, the Project is well below BAAQMD construction screening criterion (see Section 3.3, Air Quality). Therefore, Project-related GHG emissions during construction are considered less than significant. Additionally, required implementation of the dust control measures required by Mitigation Measure AQ-1 would further minimize GHG emissions during construction.

Operation

The BAAQMD has established screening criteria to provide lead agencies with a conservative indication of whether a proposed Project could result in significant GHG impacts during operations. If the screening criteria are not exceeded by a proposed Project, then the lead agency does not need to perform a detailed GHG assessment of its project's GHG emissions, and the potential impact is considered less than significant. For operational activities, several different screening criteria are recommended by the BAAQMD relative to air GHG emissions. For example, detailed air quality assessments are not required for projects such as City parks that are less than 600 acres in size, and construction of government office buildings that are less than 12,000 square feet (BAAQMD 2017). The BAAQMD CEQA Guidelines do not include specific screening criteria for utility projects similar to the proposed Project. However, when one compares the screening criteria established for the types of projects described above (i.e., parks and office buildings), it is reasonable to assume that the Project would be substantially less than the screening criteria.

The recycled water distribution system would be connected to a pump station at the MCCSD WWTP and would be electric powered. No direct GHG emissions would occur during operation. Direct operational GHG emissions would be limited to emissions from periodic maintenance vehicles, which would be minimal. Therefore, the Project's operational impact on GHG emissions would be less than significant. The Project would not increase the population or bring new, permanent employees to the Project area. Project operation would generate less than one traffic trip per day on average associated with periodic maintenance. Therefore, Project-generated operational greenhouse emissions would be very small, and the impact would be less than significant.

b) Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases? (No Impact)

The Mendocino County General Plan includes several policies and action items for reducing GHG emission. General Plan Action Item DE-65.2 directs the County to work cooperatively with industrial facilities to identify greenhouse gas impacts from their operations and develop a long-term plan for reducing emissions. Because the Project is not a type of industrial development, Action Item DE-65.2 would not apply to the Project. Mendocino County General Plan Policy RM-43 and Action Items RM-43.1 through RM-43.3 direct the County to create an inventory of existing and historical GHG emissions, to create a GHG reduction plan, and to reduce the County's GHG footprint. As of the date this analysis was completed, the County had not completed such an inventory and had not developed a GHG reduction plan. In addition, the MCAQMD has not developed CEQA guidelines or significance thresholds for use in GHG analyses. Therefore, for the purpose of this analysis, Senate Bill 32 (SB32) and the CARB 2017 Climate Change Scoping Plan (CARB 2017) were used as evaluation criteria.

SB 32 requires a 40% reduction in GHG emissions below 1990 levels by 2030. The CARB 2017 Climate Change Scoping Plan provides strategies for meeting the mid-term 2030 GHG reduction target set by SB32. The 2017 Climate Change Scoping Plan also identifies how the State can substantially advance toward the 2050 greenhouse gas reduction target of Executive Order S-3-05, which consists of reducing GHG emissions to 80 percent below 1990 levels. The recommendations cover several key sectors, including energy and industry, transportation, natural and working lands, waste management, and water. The recommended measures in the 2017 Scoping Plan are broad policy and regulatory initiatives that will be implemented at the State level and do not relate to the construction and operation of individual projects. Although Project construction and operation may be affected by State level regulations and policies that will be implemented, such as the Phase 2 heavy-duty truck greenhouse gas standards proposed to be implemented within the transportation sector, the Project would not impede the State from developing or implementing the GHG reduction measures identified in the Scoping Plan.

No conflicts with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases have been identified. Therefore, no impact would result.

3.9 Hazards and Hazardous Materials

	Potentially Significant Impact	Less-than-Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
Would the project:				
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?			✓	
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?			✓	
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?			✓	
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?			✓	
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?				✓
f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?		✓		
g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?		✓		

a, b) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials, or 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)

The Project would include disconnection of an existing 55,000-gallon concrete tank at Mendocino High School and disconnection of an existing 8,000-gallon underground concrete tank at Friendship Park. The tanks would be left in place and would not require handling of potential hazardous building materials.

Construction activities would involve the use of hazardous materials such as fuels, lubricants, paints and solvents. Routine transport of hazardous materials to and from the Project site during construction could result in an incremental increase in the potential for accidents. However, numerous laws and regulations ensure the safe transportation, use, storage and disposal of hazardous materials. For example, the California Department of Transportation and the California Highway Patrol regulate the transportation of

hazardous materials and wastes, including container types and packaging requirements, as well as licensing and training for truck operators, chemical handlers, and hazardous waste haulers. Worker safety regulations cover hazards related to the prevention of exposure to hazardous materials and a release to the environment from hazardous materials use. The California Division of Occupational Safety and Health (Cal-OSHA) also enforces hazard communication program regulations, which contain worker safety training and hazard information requirements, such as procedures for identifying and labeling hazardous substances, communicating hazard information related to hazardous substances and their handling, and preparation of health and safety plans to protect workers and employees. Because contractors would be required to comply with existing and future hazardous materials laws and regulations covering the transport, use and disposal of hazardous materials, the Project's construction-related impact would be less than significant.

Following construction, operation of the Project would not result in the need for new hazardous materials that would need to be transported, used, or disposed. No operational impact would occur.

c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school? (Less than Significant)

Project construction activity would include pipeline installation on and adjacent to Mendocino High School and Mendocino K-8 School. Construction activities would include the use of materials such as fuels, lubricants, paints, and solvents, which are commonly used during construction, are not acutely hazardous, and would be used in small quantities. Numerous laws and regulations ensure the safe transportation, use, storage, and disposal of hazardous materials (see Impact "a" and "b" above).

Although construction activities could result in the inadvertent release of small quantities of hazardous construction chemicals, a spill or release would not be expected to endanger individuals at Mendocino High School or Mendocino K-8 School given the nature of the materials and the small quantities that would be used. Therefore, because the MUSD and its contractors would be required to comply with existing and future hazardous materials laws and regulations covering the transport, use, and disposal of hazardous materials, and because of the nature and quantity of the hazardous materials to be potentially used by the Project, the impact related to the use of hazardous materials during construction within one-quarter mile of a school would be less than significant.

Following construction, the Project would not include a new stationary source of hazardous emissions or handling of acutely hazardous materials or waste. No operational impact would result.

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? (Less than Significant)

The provisions in Government Code Section 65962.5 are commonly referred to as the "Cortese List." A search of the Cortese List was completed to determine if any known hazardous waste sites have been recorded on or adjacent to the Project site, including review of:

– Department of Toxic Substances Control EnviroStor database;
– List of Leaking Underground Storage Tank Sites from the Water Board GeoTracker database;
– List of solid waste disposal sites identified by the Water Board with waste constituents above hazardous waste levels;
– List of "active" Cease and Desist Orders and Cleanup and Abatement Orders from the Water Board; and

– List of hazardous waste facilities subject to corrective action pursuant to Section 25187.5 of the Health and Safety Code.

The Project corridor was not identified to pass on or immediately adjacent to any parcels on lists compiled by the California Environmental Protection Agency, Regional Water Quality Control Board, California Department of Toxic Substances Control, or the CalRecycle Waste Management Board Solid Development Waste Information System. The nearest such site was a former hazardous materials investigation and cleanup that occurred on the MUSD office and bus barn. An investigation of that site was conducted related to a former diesel fuel release, and case closure was granted in 2011 in compliance with the Health and Safety Code. The 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 two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area? (No Impact)

The Project site is not located within two miles of a public use airport or private airstrip covered by the Mendocino County Airport Comprehensive Land Use Plan (Mendocino County 1996). The nearest airport, Little River Airport, is located approximately 3.5 miles south of the Project site. No impact would result.

f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan? (Less than Significant with Mitigation)

The Mendocino County Emergency Operations Plan serves as the primary guide for coordinating and responding to all emergencies and disasters within the County's jurisdiction. It complies and integrates with local city plans and ordinances, state law, and state and federal emergency planning guidance including the Standardized Emergency Management System (SEMS), National Incident Management System (NIMS), and the Incident Command System (ICS). The Emergency Operations Plan addresses response to and short-term recovery from disasters and emergency situations affecting the Mendocino County Operational Area.

The Mendocino County Evacuation Plan (Mendocino County 2020) describes the strategies for managing evacuations which exceed the day-to-day capabilities of the various public safety agencies in Mendocino County. As dictated by the County's Emergency Operations Plan, the Sheriff's Office is charged with the responsibility of evacuation in response to a major event threatening the life safety of residents and visitors of Mendocino County. With a special emphasis placed on the wildland fire threat, the strategies outlined in the Mendocino County Evacuation Plan are designed using an all-hazards approach to preparing for and managing evacuations. Typically, most evacuations in the County are a result of a quickly spreading wildfire and "life safety" will carry the highest priority in the incident management. However, the County's Evacuation Plan is designed to be applied in any event regardless of the threat or hazard that precipitates the need to evacuate an area.

The Project site is located within the Town of Mendocino, which is located within Evacuation Planning Area 4, West Central and Coastal Region. Little Lake Road is identified as a key route for wildfire evacuations relative to nearby areas located east of Highway 1, which includes approximately 200 homes and the Mendocino elementary and high schools. During construction, work occurring within Little Lake Road and other local roadways could temporarily impair implementation of the County's Evacuation Plan, which is considered a significant impact.

Following construction, the Project would not change existing circulation patterns, would not generate substantial new traffic, and would not affect roadways that may be used as emergency response routes.

Therefore, the Project would not impair or physically interfere with implementation of Mendocino County's Emergency Operations Plan or Evacuation Plan. No operational impact would result.

Mitigation Measure

Implementation of Mitigation Measure TR-1 (Implement Traffic Controls During Construction) and Impact TR-2 (Notify Emergency Responders and Maintain Emergency Access), as summarized in Section 3.17 of this Initial Study, require the use of traffic controls and measures to maintain emergency access that would reduce the temporary impairment of evacuation routes during construction of the Project. Such measures would include traffic control plans to preserve access and ensure public safety, notifications to emergency providers, and measures to ensure that emergency access is able to be maintained, such as the use of steel trench plates to cover open excavations. Therefore, with implementation of Mitigation Measure TR-1 and TR-2, the impact would be less than significant.

g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires? (Less than Significant with Mitigation)

A wildfire is an uncontrolled fire spreading through vegetative fuels, posing danger and destruction to property, wildlife and human life. The Project site is located within a State Responsibility Area (SRA), which is an area where the California Department of Forestry and Fire Protection (CAL FIRE) has the primary responsibility for wildfire protection. Based on current CAL FIRE mapping, the Project site is located in an area that has been designated as a "moderate" fire hazard severity zone (CAL FIRE 2007). The Mendocino Volunteer Fire Department provides emergency response within the Project area, and the nearest fire station is located on Little Lake Road east of Highway 1.

The Mendocino County Fire Vulnerability Assessment (Mendocino County 2020b) identifies areas of the County that are most vulnerable to fire and provides recommendations for improving the County's existing strategies and practices for preventing wildfires. The Fire Vulnerability Assessment notes that the Town of Mendocino west of Highway 1 is not threatened by wildfire, as it is surrounded by ocean on three sides and is protected by Highway 1 on the fourth side (Mendocino County 2020b). The Fire Vulnerability Assessment notes that areas located the east of Highway 1, which includes the Project alignment along Little Lake Road and the MUSD-owned tank site property, is susceptible to wildfire.

It is possible that fire ignition could occur during construction (e.g., related to heavy machinery usage). Therefore, the potential construction-related impact is considered significant. With implementation of Mitigation Measure HAZ-1 (Reduce Wildland Fire Hazards during Construction), provided below, the impact would be less than significant.

Following construction, the Project would not result in changes to growth patterns or residential densities. The Project site is not located within a mapped wildland-urban interface area. The use of the property on Little Lake Road where the recycled water tank would be constructed would be substantially the same as the existing sites. The Project also would add approximately 13 new fire hydrants along the pipeline corridor, improving fire suppression capabilities in the Project area. The operational impact of the Project would be less than significant.

Mitigation Measure

Implementation of Mitigation Measure HAZ-1 would require the use of construction techniques that would reduce the likelihood of wildland fires during construction of the Project. Therefore, with implementation of Mitigation Measure HAZ-1, the impact related to wildland fires would be less than significant.

Mitigation Measure HAZ-1: Reduce Wildland Fire Hazards during Construction

Prior to construction, the MUSD and its contractor(s) shall remove and/or clear away dry, combustible vegetation from the construction site. Grass and other vegetation less than 18 inches in height above the ground shall be maintained where necessary to stabilize the soil and prevent erosion. Vehicles shall not be parked in areas where exhaust systems contact combustible materials. Fire extinguishers shall be available on the construction site to assist in quickly extinguishing any small fires. The contractors shall have on site the phone number for the local fire department(s).

3.10 Hydrology and Water Quality

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

a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality? (Less than Significant with Mitigation)

The Project area is located approximately half a mile north of the Big River and does not contain any on-site aquatic drainages. There is no direct hydrologic connectivity between the Project site and Big River or other perennial waterbodies, waterways or drainages. Temporary construction activities have the potential to degrade water quality that could be discharged to the local storm drain system as a result of erosion caused by earthmoving activities or the accidental release of hazardous construction chemicals. Therefore, if not properly managed, construction activities could result in erosion, as well the discharge of chemicals and materials. In such an instance, applicable water quality standards and waste discharge requirements could be violated, and polluted runoff could substantially degrade water quality in the local storm drain system. The impact is considered significant. With implementation of Mitigation Measure HYD-1

(Implement Storm Water Control Measures During Construction), the potential impact related to water quality during construction would be reduced to a less-than-significant level.

Following construction, operation and maintenance of the Project would not result in a new point discharge, a substantial increase in impervious surfaces, or require planned discharges to the local storm drain system. No operational impact would result.

Mitigation Measure

Implementation of Mitigation Measure HYD-1 would reduce potential construction-phase impacts relative to water quality standards and waste discharge requirements to a less-than-significant level by requiring implementation of best management practices and compliance with applicable State and local requirements.

Mitigation Measure HYD-1: Implement Storm Water Control Measures During Construction

The MUSD and its contractor shall implement appropriate Best Management Practices (BMPs) to prevent the discharge of construction waste, debris or contaminants during construction activities. A Water Pollution Control Plan (WPCP) shall be prepared for MUSD review and approval prior to construction. BMPs may include, but not necessarily be limited to, the following:

- Existing vegetation within the construction area shall be maintained to the maximum extent feasible.
- Areas of disturbed soil shall be restored as soon as possible after disturbance.
- Erosion and sediment control devices shall be installed in coordination with construction activities. Such devices shall include sediment controls, stabilized construction exits, stockpile management, wind erosion control, and non-storm water management.
- BMPs shall be implemented to prevent the release of hazardous construction chemicals during construction. Such BMPs shall include material handling and waste management, material stockpile management, management of any washout areas, control of vehicle/equipment fueling to contractor's staging area, vehicle and equipment cleaning performed off site, and spill prevention and control.

b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin? (Less than Significant)

Construction of the Project may potentially require temporary groundwater dewatering to create reasonably dry work areas. Dewatering methods would vary along the planned alignment to account for varying groundwater levels and excavation depths. Dewatering would be constructed as needed along the alignment to draw down the groundwater level to a minimum of three feet below and beyond the trench excavation bottom and sidewalls. For the trenchless launching and receiving shafts on either side of Highway 1, dewatering wells may potentially be used, or the shafts would be designed with a water-tight shoring system. Temporary dewatering would have an effect on localized water levels in the immediate vicinity of an excavation area. However, because pipeline installation would proceed at approximately 100 feet per day on average, construction activities would continually be shifting. Because of continuous shifting of the construction activities, prolonged lowering of groundwater levels would not occur. Therefore, no substantial deficit in aquifer volume or well interference would be expected to occur. The construction-related impact on groundwater levels would be less than significant.

Following construction, the Project would not utilize groundwater and would not result in an increase in population or employment that would indirectly increase groundwater demand. Therefore, the Project would not create a deficit in aquifer volume or a lowering of water levels. In addition, the Project would not result in a substantial increase in impervious areas, and therefore, the Project would not interfere with groundwater recharge. No operational impact would result.

c.i-iv) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site? 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? Impede or redirect flood flows? (Less than Significant)

The Project area is located approximately half a mile north of the Big River, does not contain any on-site streams, and is not within a mapped flood hazard zone (FEMA 2017). As such, implementation of the Project would not require alteration of a creek or other waterbody.

Project improvements would be located primarily within existing roadways. Areas disturbed during construction would be restored to pre-construction conditions, and the Project would not result in a substantial increase in new impervious surfaces. The new recycled water tank would be constructed in the vicinity of other existing tanks at the MUSD site on Little Lake Road. The Project would not result in a substantial increase the amount of impervious surface at the site compared to existing conditions. The Project would not result in a change to drainage patterns, would not alter the course of a stream or river, would not increase surface runoff, or create substantial additional sources of polluted runoff. The impact would be less than significant.

d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation? (No Impact)

The Project site is located in an area designated by the FEMA as Zone X, which is an area of minimal flood hazard (FEMA 2017). The Project site is not located within a 100-year flood zone as mapped by FEMA or a tsunami inundation zone as mapped by the California Office of Emergency Services (CDC 2021b), nor close enough to a waterbody which would be exposed to risks from seiche. The proposed improvements would not reduce flood storage capacity, impede or redirect flood flows, or expose people or structures to a significant risk involving flooding. Therefore, implementation of the Project would not risk release of pollutants due to Project inundation. No impact would result.

e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan? (No Impact)

The North Coast Regional Water Quality Control Board Basin Plan establishes thresholds for key water resource protection objectives for both surface waters and groundwater in the Project area. The Project is not located near a stream, creek, or river and would not alter water quality parameters established in the Basin Plan. Erosion control BMPs would be required to be implemented during construction to prevent erosion and to protect overall water quality.

The Project is located within a low priority groundwater basin (No. 1-021). The Sustainable Groundwater Management Act (SGMA) does not require development of a groundwater sustainability plan (GSP) for the

groundwater basin. Thus, the Project would not obstruct implementation of a sustainable groundwater management plan.

As described in impact “b” above, the Project would not substantially decrease groundwater supplies or interfere substantially with groundwater recharge or impede sustainable groundwater management. No conflicts with a water quality control plan or sustainable groundwater management plan have been identified. Therefore, no impact would result.

3.11 Land Use and Planning

	Potentially Significant Impact	Less-than-Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
Would the project:				
a) Physically divide an established community?				✓
b) Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?		✓		

a) Physically divide an established community? (No Impact)

The Project would involve construction and operation of a new recycled water pipeline and a new recycled water tank at the MUSD tank site on Little Lake Road. The pipeline would be underground, and the new recycled water tank would be located at the site of the existing MUSD utility site. The Project would not involve construction of a large physical structure such as a major transportation facility or removal of a primary access route such as a road or bridge. The Project would not impair mobility within the area or between the Project site and surrounding areas. The Project components would not physically divide an established Town of Mendocino. No impact would result.

b) Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect? (Less than Significant with Mitigation)

The Project alignment traverses through several different General Plan Land Use categories and is primarily located within public rights-of-way. Project activities would not permanently alter any existing land uses or their designations, and would not introduce new land uses or land use designations.

The Project also would include improvements on MUSD property currently developed with water system infrastructure. The MUSD property is currently developed with existing facilities, and the new recycled water tank would be located within the existing site. The Project is located within the Mendocino County Coastal Element and the land use designation for the MUSD property is Public and Semi-Public Facility. The zoning designation is Public Facilities (PF). The Project would not involve a change of land use on the affected property.

Specific policies and regulations adopted for the purpose of avoiding or mitigating environmental effects are evaluated in this document under the corresponding issue areas. For example, an evaluation of the Project in relation to the Mendocino County Historical Preservation District Ordinance, and Mendocino Town Design Guidelines in relation to work within Historical Zone A, is included in Section 3.5, Cultural Resources. An evaluation of wildfire risk and emergency evacuations in relation to the Mendocino County Evacuation Plan is provided in Section 3.9 (Hazards and Hazardous Materials), and Section 3.20 (Wildfire). With implementation of the recommended mitigation measures identified in this IS/MND, the Project would not conflict with land use plans, policies, or regulations.

3.12 Mineral Resources

	Potentially Significant Impact	Less-than-Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
Would the project:				
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?				✓
b) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?				✓

a, b) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state, or a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan? (No Impact)

The most predominant of the minerals found in Mendocino County are aggregate resource minerals, primarily sand and gravel, found along many rivers and streams. Although aggregate hard rock quarry mines are found throughout the county, there are no locally important aggregate or mineral resources on or in the vicinity of the Project site (Mendocino County 2008). In addition, the Project site is not located in an area designated as a Mineral Resource Zone (MRZ)-2 by the Surface Mining and Reclamation Act. The Project would not result in the loss of known mineral resources of value to the region or state, or loss of local-important mineral resources. No impact would result.

3.13 Noise

Would the project:	Potentially Significant Impact	Less-than-Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
Would the project:				
a) Result in generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?			✓	
b) Result in generation of excessive groundborne vibration or noise levels?			✓	
c) For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?				✓

a) Result in generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies? (Less than Significant)

The County of Mendocino has not established quantified construction noise limits or allowable construction hours. Noise impacts resulting from construction depend upon the noise generated by various pieces of construction equipment, the timing and duration of noise-generating activities, and the distance between construction noise sources and noise-sensitive areas. Construction noise impacts primarily result when construction activities occur during noise-sensitive times of the day (e.g., early morning, evening, or nighttime hours), the construction occurs in areas immediately adjoining noise-sensitive land uses, or when construction lasts over extended periods of time, such as more than one year. In comparison, Project construction would commence in 2023 and require approximately ten months to complete. Construction activities would generally occur Monday to Friday, 8 AM to 5 PM. The Project would not require night time construction work or construction on weekends or legal holidays. Impact pile driving is not anticipated as a method of construction. Construction activities would be temporary in nature and would not exceed established noise standards for public health and safety. The construction-related impact would be less than significant.

Mendocino County General Plan policy DE-98 and DE-99 protect residential areas and other noise-sensitive uses from excessive noise. These policies regulate the establishment of new land uses, stating that no new use regulated by the County shall be permitted to generate noise that would cause the ambient noise on any adjacent parcel to exceed guidelines shown in Policy DE-100 and DE-101. General Plan policy DE-105 also establishes a 5 decibel increase in CNEL or Ldn noise levels as a significance threshold. In comparison, the Project would not involve new, noise sensitive land uses and would not expose persons to noise levels that exceed the noise standards. The new recycled water pipelines would be underground and their operation would not be audible. Operational noise associated with a new recycled water tank would not result in a new substantial noise source. There would be no change in

existing traffic-generated noise in the Project area and Project operation would not result in increased noise levels comparative to existing conditions that could conflict with general plan policies. The operational impact would be less than significant.

b) Result in generation of excessive groundborne vibration or noise levels? (Less than Significant)

Vibration from the operation of construction equipment can result in effects ranging from annoyance of people to damage of structures. Vibration amplitudes decrease with increasing distance as the energy dissipates. The California Department of Transportation (Caltrans) recommends a vibration limit of 0.5 in/sec Peak Particle Velocity (PPV) for groundborne vibration adjacent to new residential and modern commercial/industrial structures, 0.3 in/sec PPV for older residential structures, and 0.12 in/sec PPV for historical buildings that are documented to be structurally weakened. For the purposes of this study, groundborne vibration levels exceeding the conservative 0.3 in/sec PPV limit have been selected as the significance threshold for a vibration impact, as there are no known historical buildings adjacent to the Project construction area.

No pile driving would be required for construction of the Project. At a distance of 25 feet, typical construction activities using non-pile driving construction equipment cause vibration levels up to 0.21 in/sec PPV. No structures sensitive to groundborne vibration are located within the construction area where the anticipated vibration levels would exceed the 0.3 in/sec PPV limit. Impacts related to groundborne vibration or groundborne noise levels would be less than significant.

Following construction, operation of the Project would not result in substantial sources of groundborne vibration or groundborne noise. Therefore, no operational impact would result.

c) For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels? (No Impact)

The Project site is not located within two miles of a public use airport or private airstrip covered by the Mendocino County Airport Comprehensive Land Use Plan (Mendocino County 1996). No impact from air-traffic related noise would result.

3.14 Population and Housing

	Potentially Significant Impact	Less-than-Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
Would the project:				
a) Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?			✓	
b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?				✓

a) Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)? (Less than Significant)

The Project does not include the construction of new homes or businesses in the area or extend new roads or other infrastructure into undeveloped areas. The Project is intended to expand the use of the recycled water to MUSD sites to offset existing potable water use and provide additional fire water storage and supply. Given the modest level of construction required for the Project, it is reasonable to anticipate that workforce requirements for construction can be met through the local labor force within the region. Long-term operation and maintenance of the proposed recycled water system would be performed by existing MUSD staff. The Project would not induce population growth directly or indirectly. The impact would be less than significant.

b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere? (No Impact)

Implementation of the Project would not displace existing housing units or residents. The construction of replacement housing would not be necessary. No impact would result.

3.15 Public Services

	Potentially Significant Impact	Less-than-Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
Would the project:				
a) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:				
Fire Protection?				✓
Police protection?				✓
Schools?				✓
Parks?				✓
Other public facilities?				✓

a) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for public services? (No Impact)

As discussed in Section 3.14, Population and Housing, implementation of the Project would not induce population growth and, therefore, would not require expanded fire or police protection facilities to maintain acceptable service ratios, response times, or other performance objectives. The Project would not result in an increase in student population, and therefore, no new or expanded schools would be required. The Project would not result in the increased use of Friendship Park or other existing parks or other public facilities as it would not induce population growth. The Project would not require the expansion of recreational facilities to maintain acceptable service ratios in parks and would not require the expansion of other public facilities. No impact on public services would result.

3.16 Recreation

	Potentially Significant Impact	Less-than-Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
Would the project:				
a) 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) Include recreational facilities or require the construction or expansion of recreational facilities, which might have an adverse physical effect on the environment?				✓

a) 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)

Recreational facilities in the vicinity of the Project includes Friendship Park, located at the corner of Little Lake Road and School Street. Friendship Park features a ball field with permanent bleachers, picnic area, concession stand, and adjoining parking lot. The construction area for the Project would include installation of a recycled water pipeline within a portion of the Friendship Park parking lot.

Temporary construction activities would be located on land that is not within the areas of play at Friendship Park. Construction activities at the park would include pipeline installation over an approximately 1-week period. Construction would not prevent public access to Friendship Park during construction. Access to and through the parking lot would be maintained during construction. Because of the temporary nature of the Project construction activity within the park and because the park would remain open during construction, the Project is not expected to result in the increased use of other parks such that physical deterioration could result. The impact would be less than significant.

Following construction, the Project would not increase the use of existing recreational facilities, including Friendship Park. The Project would not increase the existing population or housing supply of the Project area. Operation of the Project would not cause long-term access conflicts with Friendship Park or other recreational facilities. No increased use of parks and other recreational resources would occur at a Project-specific level that would result in physical deterioration or accelerated deterioration of existing recreational resources. The operational impact would be less than significant.

b) Include or require the construction or expansion of recreational facilities, which might have an adverse physical effect on the environment? (No Impact)

The Project does not propose new recreational facilities and would not require construction or expansion of recreational resources that might have an adverse physical effect on the environment. No impact would result.

3.17 Transportation

	Potentially Significant Impact	Less-than-Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
Would the project:				
a) Conflict with a program plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?			✓	
b) Conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?			✓	
c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?		✓		
d) Result in inadequate emergency access?		✓		

a) Conflict with a program plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities? (Less than Significant)

Project construction activities would result in a short-term increase in construction-related vehicle trips on local roadways, including Ukiah Street, Kasten Street, Little Lake Street, Lansing Street, Little Lake Road, School Street, and State Route 1. Construction activity would last approximately 10 months, but because of the nature of pipeline installation, construction activities would not impact one particular roadway for a substantial portion of time. Due to the infrequency of truck traffic and the temporary nature of construction, Project construction is not anticipated to conflict with plans, policies or programs related to the effectiveness of the circulation system. Please see impact "c" in this section for additional evaluation of construction-related impacts.

Following construction, the proposed new recycled water facilities would be put into an operation and maintenance schedule that may include periodic cleanings once or twice per year. Operation and maintenance activities could also include periodic monitoring during or after large storm events. Operation and maintenance of the new facilities would generate less than one traffic trip per day on average. Due to the infrequency of maintenance trips and the short duration of such trips, Project operation is not anticipated to conflict with plans, policies or programs related to the effectiveness of the circulation system. No transit, roadway, bicycle, or pedestrian facilities would be affected. Therefore, the operational impact would be less than significant.

b) Conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)? (Less than Significant)

As amended in December 2018 and effective statewide beginning on July 1, 2020, CEQA Guidelines section 15064.3 (Determining the Significance of Transportation Impacts) specifies that Vehicle Miles Travelled (VMT) is the primary metric or measure of effectiveness for determining the significance of transportation impacts across California. VMT refers to the amount and distance of automobile travel attributable to a project. The Governor's Office of Planning and Research (OPR) has published a Technical Advisory on Evaluating Transportation Impacts in CEQA (OPR 2018) which contains guidance on methodology and recommendations for establishing screening criteria and thresholds for VMT evaluation,

which is used to evaluate impacts in this Initial Study. OPR's Technical Advisory specifies that transportation impact analysis be based on either a project's VMT per capita (or other efficiency metric like VMT per household, per employee) or total VMT change (before and after project).

Under the OPR guidance, construction traffic is not considered a feature of a project and is temporary, therefore the Technical Guidance does not consider construction traffic in the analysis. Operation and maintenance of the proposed Project would generate less than one traffic trip per day on average. OPR's screening thresholds for Land Use Projects includes an assumption that projects that generate or attract fewer than 110 trips per day may be assumed to cause a less-than-significant transportation impact. The OPR Technical Advisory does not include specific screening criteria for utility projects similar to the proposed Project. However, when one considers the screening criteria established for Land Use Projects, it is reasonable to acknowledge that the trips associated with operation and maintenance of the Project (less than 1 trip per day) would be substantially less than the screening criteria for a Land Use Project (110 trips per day). The Project would not conflict with or be inconsistent with an applicable threshold of significance adopted per CEQA Guidelines section 15064.3, subdivision (b). The impact would be less than significant.

c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)? (Less than Significant with Mitigation)

Construction of the Project would result in a short-term increase in vehicle trips on local roadways within the Town of Mendocino and on Highway 1. Construction would result in vehicle trips by construction workers, supply trucks, and haul trucks to and from the active portion of construction along the Project alignment. The number of construction-related vehicles traveling to and from the site would vary on a daily basis. In general, construction is anticipated to require approximately 20 haul truck roundtrips each day. Construction would also result in daily vehicle trips by construction workers (approximately 10 to 15 per day). Construction related vehicle trips would be distributed throughout the day. The addition of construction-related vehicles would not substantially affect congestion on local roadway segments, because the daily construction trips would move around and because they are a small percentage of the capacity of the roadways. Therefore, the temporary impact of increased truck traffic would be less than significant.

Construction of the Project would temporarily alter the normal functionality of local roadways due to the need for temporary lane closures during pipeline installation. This would result in short-term decreases in the performance and safety of local roadways during construction. This could create the potential for conflicts between construction vehicles and cars, bicyclists, or pedestrians sharing roadways; confusion or frustration of drivers related to construction activities and detours; and confusion of bicyclists and pedestrians due to temporary alterations in bicycle and pedestrian access and circulation. The impact would be significant. Implementation of Mitigation Measure TR-1 (Implement Traffic Controls During Construction) would reduce the impact to a less-than-significant level.

Following construction, the new recycled water pipeline would be located below ground, and existing conditions along the temporarily impacted roads would be restored to pre-existing conditions. Other improvements would be located at Mendocino High School, Mendocino K-8 School, Friendship Park, and the MUSD tank site and would not present a design feature or incompatible use that would result in transportation hazards. The Project would not create sharp curves, new intersections, changes to speed limits, or other features that would prevent safe access through the area. No operational impact would result.

Mitigation Measure

Implementation of Mitigation Measure TR-1 would reduce potential impacts relative to traffic hazards during construction to a less-than-significant level by requiring implementation of traffic controls.

Mitigation Measure TR-1: Implement Traffic Controls During Construction

The MUSD and its contractor shall implement traffic controls to reduce traffic conflicts within local and state roadways during construction to minimize disruption. A traffic control plan shall be prepared for MUSD review and approval prior to construction, which shall comply with Caltrans and Mendocino County encroachment permit requirements. All traffic control devices shall comply with the California Manual on Uniform Traffic Control Devices. Traffic controls may include, but not necessarily be limited to, the following:

- During construction, at least one lane in each direction of roadways shall be kept open at all times. Through traffic shall be maintained at all times (e.g., through temporary signals, flaggers or other means).
- Bicycle and pedestrian access shall be maintained at all times, using short signed detours around the construction zone if necessary.
- Access to properties shall be maintained at all times, apart from extremely brief periods while construction work is passing through. Such exceptions shall be minimized as far as reasonably practicable.
- Advance notification of construction work to the community and stakeholders shall be conducted to provide notice of work.
- Construction work shall occur outside of peak travel hours as far as reasonably practicable.
- Road and parking configurations shall be restored to pre-Project conditions.

d) Result in inadequate emergency access? (Less than Significant with Mitigation)

Construction activities would primarily occur within the public right-of-way, including travel lanes and parking lanes on streets and other areas designated as right-of-way. In some portions of the alignment, partial lane closures would be required.

The Mendocino Volunteer Fire Department provides emergency response within the Project area. The nearest fire station is located at 44700 Little Lake Road, adjacent to a portion of the proposed pipeline alignment. Pipeline construction within and adjacent to public roadways that results in a reduction in travel lanes could result in delays for emergency response vehicles or temporarily block access to driveways and cross-streets along the pipeline route. The impact would only occur during the day when construction is ongoing given that vehicle access would be restored at the end of each workday through the use of steel trench plates or trench backfilling. Nevertheless, the impact of construction activities on emergency access to adjacent properties would be significant. Implementation of Mitigation Measure TR-2 (Notify Emergency Responders and Maintain Emergency Access) would reduce the impact to a less-than-significant level.

Following construction, operation and maintenance of the Project would not result in substantial additional daily traffic from maintenance activities or truck trips along local roadways, and would, therefore, not affect emergency services or response times in the area. Additionally, no roadway closures would occur during normal operation of the Project. The operational impact on emergency access would be less than significant.

Mitigation Measure

Mitigation Measure TR-2 would reduce the impact of construction activities on emergency access to a less-than-significant level by requiring contractor(s) to have ready at all times the means necessary to accommodate access by emergency vehicles, as well as notifying emergency responders in advance of construction activities. Therefore, the impact on emergency access following mitigation would be less than significant.

Mitigation Measure TR-2: Notify Emergency Responders and Maintain Emergency Access

The MUSD and its contractor shall implement the following measures:

- Access to driveways and public and private roads shall be maintained, as feasible, by using steel trench plates. If access must be restricted for brief periods (more than one hour), property owners shall be notified by MUSD in advance of such closures.
- At locations where the main access to a nearby property is blocked, MUSD and the contractor shall be required to have ready at all times the means necessary to accommodate access by emergency vehicles to such properties, such as plating over excavations, short detours, and/or alternate routes.
- Construction shall be coordinated with emergency service providers and administrators of land uses that may be more significantly affected by traffic impacts, such as fire stations, schools, hospitals, and ambulance providers. As construction progresses, emergency providers, and other land uses as mentioned above, shall be notified by MUSD in advance of construction of the timing, location, and duration of construction activities and the locations and durations of any temporary detours and/or lane closures.

3.18 Tribal Cultural Resources

	Potentially Significant Impact	Less-than-Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
Would the project:				
a) Cause a substantial adverse change in the significance of a tribal cultural resource listed or eligible for listing in the California Register of Historic Resources, or in a local register of historic resources as defined in Public Resources Code section 5020.1(k)?		✓		
b) Cause a substantial adverse change in the significance of a tribal cultural resource that is a resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to the criteria set forth in subdivision (c) of the Public Resources Code section 5024.1? In applying the criteria set forth in subdivision (c) of the Public Resources Code section 5024.1, the lead agency shall consider the significance of the resource to a California Native American Tribe.		✓		

a,b) Cause a substantial adverse change in the significance of a tribal cultural resource? (Less than Significant with Mitigation)

CEQA requires lead agencies to determine if a project would have a significant effect on tribal cultural resources. The CEQA Guidelines define tribal cultural resources as: (1) a site, feature, place, cultural landscape, sacred place, or object with cultural value to a California Native American Tribe that is listed or eligible for listing on the California Register of Historical Resources, or on a local register of historical resources as defined in Public Resources Code Section 5020.1(k); or (2) a resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant according to the historical register criteria in Public Resources Code Section 5024.1(c), and considering the significance of the resource to a California Native American tribe.

Efforts to identify tribal cultural resources that could be affected by the Project included notification to appropriate local Native American Tribes, and a sacred lands search through the Native American Heritage Commission (NAHC). The search of the NAHC's Sacred Lands File for Sacred Sites in the Project area was positive.

The MUSD has no record of receiving requests for notification of proposed projects from California Native American tribes pursuant to Public Resources Code Section 21080.3.1. The MUSD nevertheless initiated contact with Native American tribes as part of preparing this environmental review document. California Native American tribes also were notified of the Project on December 6, 2021 during completion of the Archaeological Resources Study for the Project. Letters were sent to the Hopland Band of Pomo Indians, Manchester Band of Pomo Indians, Bear River Band of Rohnerville Rancheria, Robinson Rancheria Band of Pomo Indians, Guidiville Indian Rancheria, Cahto Tribe, Kashia Band of Pomo Indians of Stewarts Point Rancheria, Coyote Valley Band of Pomo Indians, Sherwood Valley Band of Pomo Indians, Noyo River Indian Community, Redwood Valley or Little River Band of Pomo Indians, Potter Valley Tribe, Round Valley

Reservation/Covelo Indian Community, Habematolel Pomo of Upper Lake, Pinoleville Pomo Nation, and Yokayo Tribe. As of the date of this Initial Study, no responses were received from Native American tribes.

As summarized in Section 3.5, Cultural Resources, background research indicates a high sensitivity for prehistoric and historic-era archaeological resources in the Project area (ASC 2021). Therefore, the possibility of encountering tribal cultural resources cannot be discounted, and if tribal cultural resources are encountered during construction, a potentially significant impact could occur. Implementation of Mitigation Measures TCR-1, CUL-2, and CUL-3 would reduce the potential impact on tribal cultural resources to a less-than-significant level.

Following construction, Project operation would not include ground disturbing activities. Therefore, the operational impact would be less than significant.

Mitigation Measure

Implementation of Mitigation Measures TCR-1, CUL-2, and CUL-3 would reduce the potential impact to tribal cultural resources to a less-than-significant level by conducting pre-construction contractor training and outlining procedures to be taken in the event of inadvertent discovery of such resources consistent with appropriate laws and requirements. Please refer to Section 3.5, Cultural Resources, for a description of Mitigation Measures CUL-2 and CUL-3.

Mitigation Measure TCR-1: Protect Tribal Cultural Resources during Construction Activities

In the event that any subsurface features or deposits are discovered during construction, ground-disturbing activity in the vicinity of the resource shall be halted. The appropriate tribal representative(s) shall be notified, and a Native American monitor and a qualified professional archaeologist shall be retained to evaluate the find. If the find qualifies as a tribal cultural resource as defined by CEQA, the City shall ensure that appropriate actions to protect the resource are taken and that no additional resources are affected.

3.19 Utilities and Service Systems

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

a) Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electrical power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects? (Less than Significant)

The Project would include construction and operation of a recycled water distribution system and associated facilities, including installation of recycled water pipelines, irrigation systems, and a recycled water storage tank. The potential environmental impacts associated with construction of the proposed recycled water utilities are evaluated as part of this Initial Study. No additional utility relocations or construction of additional off-site utilities beyond those identified as necessary for the Project and evaluated in this Initial Study would be required.

Drainage patterns would remain essentially the same as they currently exist. The Project would result in a very small increase in impermeable surfaces associated with the proposed recycled water storage tank. Because the Project would not substantially increase storm water runoff or impervious surfaces, the Project would not require expanded storm water drainage. The Project also would not require new or expanded sewer, natural gas or telecommunications facilities. The impact would be less than significant.

b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years? (No Impact)

The Project is intended to expand the use of the recycled water to MUSD sites to offset existing potable water use and provide additional fire water storage and supply. The Project would not induce population growth or result in land uses that would increase demand for water supplies. No impact would result.

c) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments? (No Impact)

The Project would not generate additional wastewater demand and would not alter existing wastewater characteristics or result in the need for new treatment methods. Therefore, there would be no need to expand wastewater facilities. No impact would result.

d) Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals? (Less than Significant)

Soil excavated during construction would be used for backfill, or would be hauled off-site for re-use or disposal as required by County regulations. Materials that could not be reused or composted would be disposed of at a local transfer station or solid waste facility. Solid waste generated during Project construction would represent a very small fraction of the daily permitted tonnage of disposal facilities and would be sufficiently accommodated by existing landfills. The construction-related impact would be less than significant. Following construction, operation of the Project would not require routine disposal of solid waste. No operational impact would result.

e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste? (No Impact)

No federal solid waste regulations would apply to the Project. At the State level, the Integrated Waste Management Act mandates a reduction of waste being disposed and establishes an integrated framework for program implementation, solid waste planning, and solid waste facility and landfill compliance. The Project would not conflict with or impede implementation of such programs. Following construction, Project operation would not generate additional solid waste. No impact would result.

3.20 Wildfire

	Potentially Significant Impact	Less-than-Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
If located in or near State Responsibility Areas or lands classified as very high fire hazard severity zones, would the project:				
a) Substantially impair an adopted emergency response plan or emergency evacuation plan?		✓		
b) Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?		✓		
c) Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?			✓	
d) Expose people or structures to significant risks, including downslope or downstream flooding or landslides as a result of runoff, post-fire slop instability, or drainage changes?			✓	

a) Substantially impair an adopted emergency response plan or emergency evacuation plan? (Less than Significant with Mitigation)

The Mendocino County Emergency Operations Plan serves as the primary guide for coordinating and responding to all emergencies and disasters within the County's jurisdiction. The Mendocino County Evacuation Plan (Mendocino County 2020) describes the strategies for managing evacuations which exceed the day-to-day capabilities of the various public safety agencies in Mendocino County. With a special emphasis placed on wildland fire threat, the strategies outlined in the Mendocino County Evacuation Plan are designed using an all-hazards approach to preparing for and managing evacuations. Typically, most evacuations in the County are a result of a quickly spreading wildfire and "life safety" will carry the highest priority in the incident management. However, the County's Evacuation Plan is designed to be applied in any event regardless of the threat or hazard that precipitates the need to evacuate an area.

The Project site is located within Evacuation Planning Area 4, West Central and Coastal Region. Little Lake Road is identified as a key route for wildfire evacuations relative to nearby areas located east of Highway 1, which includes approximately 200 homes and the Mendocino elementary and high schools. During construction, work occurring within Little Lake Road and other local roadways could temporarily impair implementation of the County's Evacuation Plan, which is considered a significant impact.

Following construction, the Project would not change existing circulation patterns, would not generate substantial new traffic, and would not affect roadways that may be used as emergency response routes. Therefore, the Project would not impair or physically interfere with implementation of Mendocino County's Emergency Operations Plan or Evacuation Plan. No operational impact would result.

Mitigation Measures

Implementation of Mitigation Measure TR-1 (Implement Traffic Controls During Construction) and Impact TR-2 (Notify Emergency Responders and Maintain Emergency Access), as summarized in Section 3.17 of this Initial Study, require the use of traffic controls and measures to maintain emergency access that would reduce the temporary impairment of evacuation routes during construction of the Project. Such measures would include traffic control plans to preserve access and ensure public safety, notifications to emergency providers, and measures to ensure that emergency access is able to be maintained, such as the use of steel trench plates to cover open excavations. Therefore, with implementation of Mitigation Measure TR-1 and TR-2, the impact would be less than significant.

b) Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire? (Less than Significant with Mitigation)

Based on current CAL FIRE mapping, the Project site is located in an area that has been designated as a "moderate" fire hazard severity zone (CAL FIRE 2007). The Mendocino County Fire Vulnerability Assessment (Mendocino County 2020b) identifies areas of the County that are most vulnerable to fire and provides recommendations for improving the County's existing strategies and practices for preventing wildfires. The Fire Vulnerability Assessment notes that the Town of Mendocino west of Highway 1 is not threatened by wildfire, as it is surrounded by ocean on three sides and is protected by Highway 1 on the fourth side (Mendocino County 2020b). The Fire Vulnerability Assessment notes that areas located east of Highway 1, which includes the Project alignment along Little Lake Road and the MUSD-owned tank site property, is susceptible to wildfire.

As discussed in Section 3.9, Hazards and Hazardous Materials, it is possible that fire ignition could occur during construction (e.g., related to heavy machinery usage). Given the vegetation at the MUSD tank site on Little Lake Road and the proximity of nearby residences, the construction-related impact is considered significant. Implementation of Mitigation Measure HAZ-2, as described in Section 3.9, Hazards and Hazardous Materials, would reduce the potential impact of construction activities on wildland fires to a less-than-significant level by requiring the use of construction techniques that minimize fire risk.

Following construction, the Project would not alter site topography in a manner that exacerbates wildlife risk or exposure of the public to pollutants in the event of an uncontrolled wildlife. No new chemicals or hazardous materials would be used operationally such that the increase of pollutant exposure in the event of an uncontrolled wildfire would not increase above existing conditions. The Project would not result in changes to growth patterns or residential densities. The Project site is not located within a mapped wildland-urban interface area. The use of the property on Little Lake Road where the recycled water tank would be constructed would be substantially the same as the existing sites. The Project also would add approximately 13 new fire hydrants along the pipeline corridor, improving fire suppression capabilities in the Project area. The operational impact of the Project would be less than significant.

Mitigation Measure

Implementation of Mitigation Measure HAZ-1 (Reduce Wildland Fire Hazards during Construction), as summarized in Section 3.9 of this Initial Study, would require the use of construction techniques that would reduce the likelihood of wildland fires during construction of the Project. Therefore, with implementation of Mitigation Measure HAZ-1, the impact related to wildland fires would be less than significant.

c) Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment? (Less than Significant)

The Project would tie into existing electrical utilities, and electrical power would be provided by from existing utility lines. The Project would not require additional roads, fuel breaks, emergency water sources, power lines or other utilities. Operation and maintenance activities currently occur under existing conditions and, following construction, the Project would not result in the need for substantial additional operation and maintenance activities. Therefore, the Project would not exacerbate fire risk or result in temporary or ongoing impacts to the environment. The proposed Project consists of typical utility system infrastructure, and any increase in fire risk as a result of maintenance would be minimal. The impact would be less than significant.

d) Expose people or structures to significant risks, including downslope or downstream flooding or landslides as a result of runoff, post-fire slop instability, or drainage changes? (Less than Significant)

The Project site is located in low-lying and generally flat uplands in the Town of Mendocino. No streams or drainages are present on or near the Project site. Because the Project is located in an upland environment away from a stream or similar waterway, risk of downslope flooding or landslides associated with post-fire slope instability or changes in drainage is low. The impact would be less than significant.

3.21 Mandatory Findings of Significance

	Potentially Significant Impact	Less-than-Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
Does the project:				
a) Have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?		✓		
b) 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) Have environmental effects which would cause substantial adverse effects on human beings, either directly or indirectly?		✓		

a) Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory? (Less than Significant with Mitigation)

Potential Project impacts to biological and cultural resources are addressed in Section 3.4, Biological Resources, Section 3.5, Cultural Resources, and Section 3.18, Tribal Cultural Resources, respectively. With implementation of the recommended mitigation measures identified in this Initial Study, the potential for Project-related activities to degrade the quality of the environment, including wildlife species or their habitat, plant or animal communities, or important examples of California history or prehistory would be reduced to less-than-significant levels.

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)? (Less than Significant)

Cumulative impacts are defined as "two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts" (CEQA Guidelines Section 15355). Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time.

This cumulative impact analysis uses the list approach. Efforts to identify cumulative projects included review of proposed projects with the MUSD and online portals summarizing proposed developments within Mendocino County.

Projects identified and considered for cumulative impacts include:

- Planned water system improvements at the MUSD tank site at 44020 Little Lake Road, including replacement of existing water storage tanks, a new treatment building, and new municipal groundwater wells;
- Planned future improvements to the MCCSD WWTP at 10500 Kelly Street, including new chlorination systems, pumping, and piping improvements;
- Planned school modernization projects at Mendocino High School; and
- Planned street striping along Main Street and Lansing Street.

As summarized in this Initial Study, the Project would not result in impacts on agriculture and forestry resources, mineral resources, or public services. Therefore, implementation of the Project would not contribute to any related cumulative impact on those resources.

Based on current schedules, construction of the cumulative projects identified above would not overlap with construction of the proposed Project, and given the small footprint of the cumulative projects, would not add appreciably to any existing or foreseeable future cumulative impact. The impacts of the proposed Project related to aesthetics, air quality, biological resources, cultural and tribal cultural resources, hazards and hazardous materials, hydrology and water quality, transportation, and wildfire would be mitigated to a less-than-significant level. Incremental impacts, if any, would be very small, and the cumulative impact would be less than significant.

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)

With implementation of the recommended mitigation measures identified in this Initial Study, the potential for Project-related activities to cause substantial adverse effects on human beings would be reduced to less-than-significant levels.

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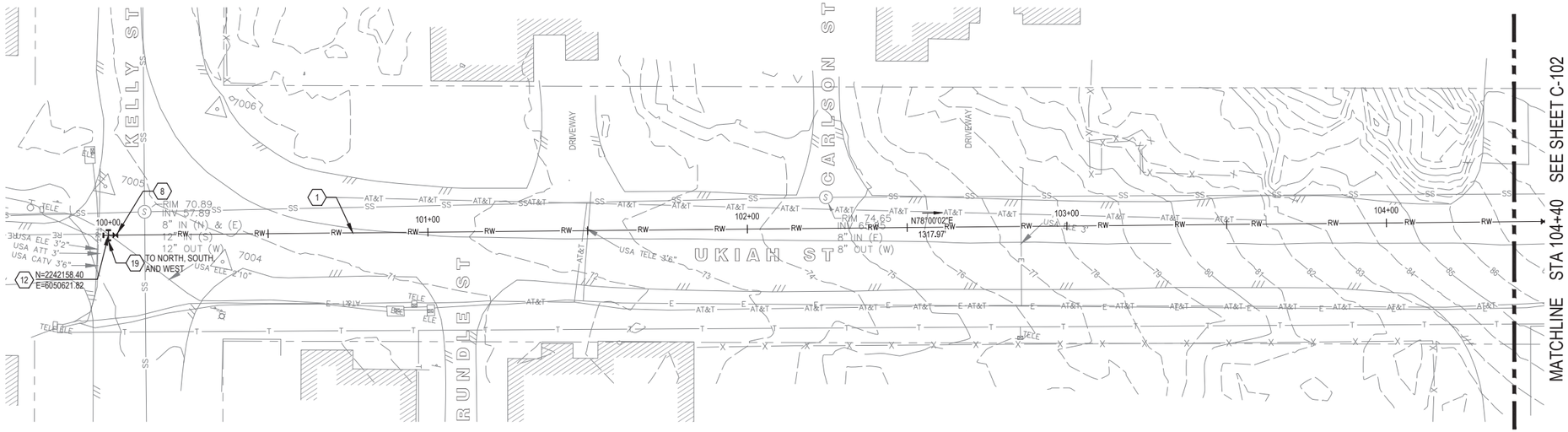
Appendices

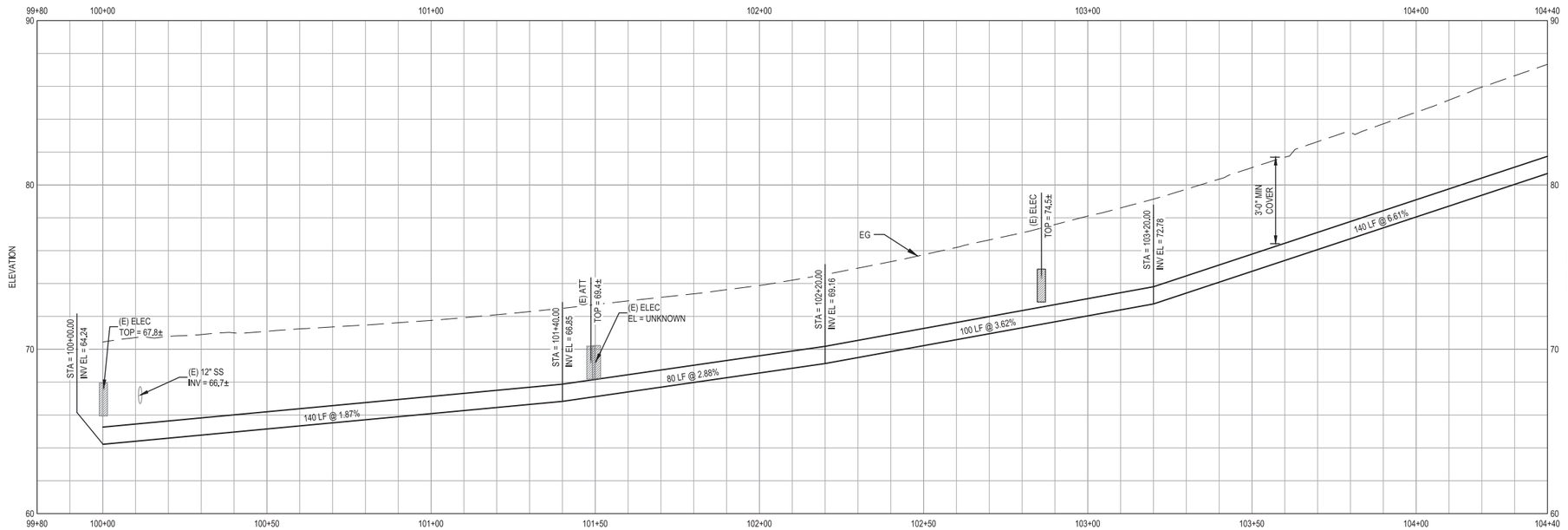
Appendix A

Project Drawings



1 PLAN VIEW

0 10' 20' 40'



2 PROFILE VIEW

0 2' 4' 8' VERTICAL
0 10' 20' 40' HORIZONTAL

SHEET GENERAL NOTES

1. LOCATION OF EXISTING UTILITIES AND STRUCTURES ARE FROM INFORMATION AVAILABLE AT THE TIME OF DESIGN. EXACT LOCATION AND COMPLETENESS ARE NOT GUARANTEED. CONTRACTOR SHALL NOTIFY THE OWNER AND UNDERGROUND SERVICES ALERT (800) 227-2600 OR 811 A MINIMUM OF 48 HOURS PRIOR TO EXCAVATION AND SHALL POTHOLE FOR EXACT LOCATION. CONTRACTOR IS RESPONSIBLE FOR LOCATING EXISTING UTILITIES.
2. THE MINIMUM ALLOWABLE PIPE COVER OVER ALL PIPES 4" NOMINAL DIAMETER AND LARGER SHALL BE 36" AS MEASURED FROM FINISH GRADE TO THE TOP OF THE PIPE.
3. PROVIDE A MINIMUM OF 12" VERTICAL CLEARANCE BETWEEN (E) WATER UTILITY AND (N) RECYCLED WATER MAIN. BACKFILL BETWEEN UTILITIES WITH CONTROLLED DENSITY FILL SLURRY, MIN 5' FROM CROSSING EACH WAY.
4. PROVIDE A MINIMUM OF 6" VERTICAL CLEARANCE BETWEEN EXISTING UNDERGROUND STORM, SEWER, POWER, TELECOMMUNICATIONS, AND GAS UTILITIES.
5. THE MINIMUM ALLOWABLE RADIUS ON 12" NOMINAL DIAMETER PIPE SHALL BE 300 FEET. CURVATURE OF THE PIPE SHALL BE ACCOMPLISHED THROUGH LONGITUDINAL BENDING OF THE PIPE BARREL. DEFLECTION OF JOINTS IS NOT ALLOWED.
6. PRIOR TO BACKFILLING, VERIFY THAT THE MANUFACTURER'S ASSEMBLY MARK ON THE PIPE JOINT IS FLUSH WITH THE END OF THE BELL.
7. ALL ELBOWS, BENDS, TEES, VALVES, AND OTHER DUCTILE IRON FITTINGS INSTALLED ON THE RECYCLED WATER PIPELINE SHALL BE MECHANICALLY RESTRAINED AS SHOWN ON DETAIL 3 ON SHEET C-505.
8. PROVIDE ALL FITTINGS AND TRANSITION COUPLINGS TO PROVIDE A COMPLETE AND WORKING SYSTEM.
9. FROM STATION 138+00 TO WEST, CONTRACTOR TO LOCATE STREET LIGHTING.

SHEET KEYNOTES

1. (N) 12" PVC DR 18 RECYCLED WATER MAIN.
2. (N) 8" PVC DR 18 RECYCLED WATER PIPE.
3. (N) 6" PVC DR 18 RECYCLED WATER PIPE.
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5. (N) 3" PVC SCH 80 RECYCLED WATER PIPE.
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7. (N) 12" FPVC DR 18 RECYCLED WATER MAIN IN 18" FPVC DR 18 CASING INSTALLED VIA HDD. SEE PROFILE.
8. (N) GATE VALVE, SIZE PER ADJOINING PIPE, UNO. SEE DETAIL 3 ON SHEET C-502.
9. (N) FIRE HYDRANT. SEE DETAIL 2 ON SHEET C-502.
10. (N) WATER SERVICE METER. SEE DETAIL 2 ON SHEET C-505.
11. (N) TEE, SIZE PER ADJOINING PIPE, UNO.
12. (N) CROSS, SIZE PER ADJOINING PIPE, UNO.
13. (N) 90° ELBOW, SIZE PER ADJOINING PIPE, UNO.
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18. PLUG AND ABANDON (E) ABANDONED WATER LINE. SEE DETAIL 4 ON SHEET C-501.
19. (N) RESTRAINED MECHANICAL PLUGS WHERE SHOWN ON PLAN.
20. (N) BACKFLOW PREVENTER AND PRESSURE REDUCER. SEE DETAIL 4 ON SHEET C-502.
21. (N) REDUCER, SIZE PER ADJOINING PIPE, UNO.

THIS SHEET NOT SUBJECT TO DSA REVIEW/APPROVAL

No.	Issue	Drawn	Approved	Date
A	DSA SUBMITTAL	TW/CB	MK	11/05/2021

Bar is one inch on original size sheet
0 1"

REGISTERED PROFESSIONAL ENGINEER GLEN KENNEDY 28304 CIVIL STATE OF CALIFORNIA 11/5/2021

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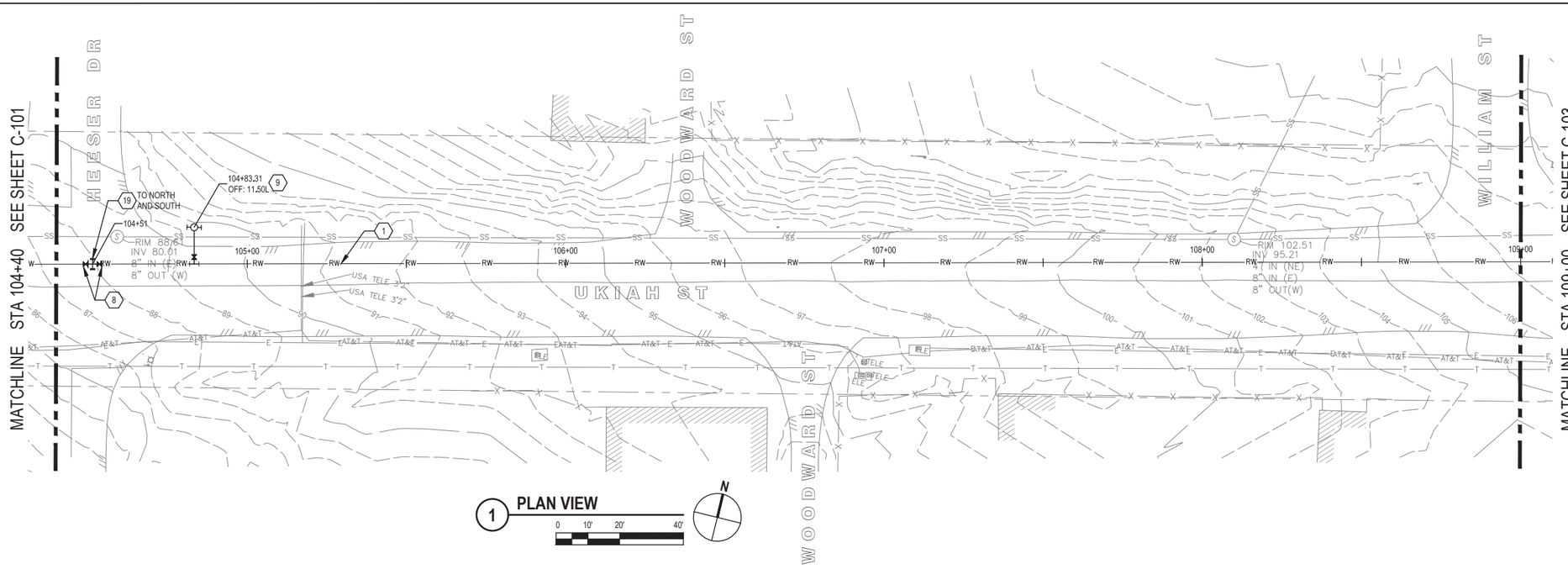
Drawn	T. WILKINS	Designer	T. WILKINS
Drafting Check	L. HALONEN	Design Check	M. KENNEDY
Project Manager	M. KENNEDY	Date	11/5/2021
		Scale	AS SHOWN

Client MENDOCINO UNIFIED SCHOOL DISTRICT
Project RECYCLED WATER SYSTEM
Title RECYCLED WATER LINE - STA 100+00 TO 104+40
Project No. 11210761
Original Size ANSI D
Sheet No. C-101
Sheet 8 of 75

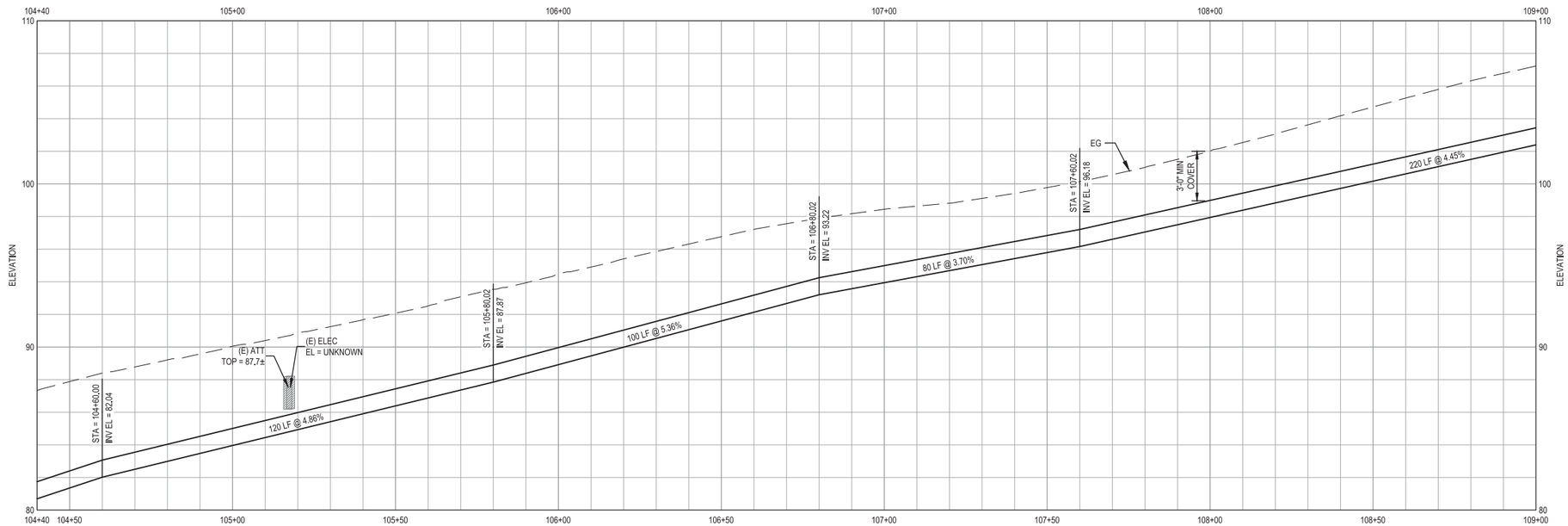
Plot Date: 4 November 2021 - 8:24 PM Plotted By: Chris Bach Filename: \\ghdnet\ghd\US\santa rosa\Projects\561\11210761\digital_design\acad 2020\Sheets\11210761_C-101-124_RW Plan and Profile.dwg



1 **PLAN VIEW**

0 10' 20' 40'

N



2 **PROFILE VIEW**

0 2' 4' 8' VERTICAL

0 10' 20' 40' HORIZONTAL

SHEET GENERAL NOTES

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No.	Issue	Drawn	Approved	Date
A	DSA SUBMITTAL	TW/CB	MK	11/05/2021

Bar is one inch on original size sheet

0 1"

LICENSED PROFESSIONAL ENGINEER — KEVIN GLEN KENNEDY — 29830 — CIVIL — STATE OF CALIFORNIA — 11/5/2021

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Drawn	T. WILKINS	Designer	T. WILKINS
Drafting Check	L. HALONEN	Design Check	M. KENNEDY
Project Manager	M. KENNEDY	Date	11/5/2021
		Scale	AS SHOWN

Client MENDOCINO UNIFIED SCHOOL DISTRICT
Project RECYCLED WATER SYSTEM
Title RECYCLED WATER LINE - STA 104+40 TO 109+00

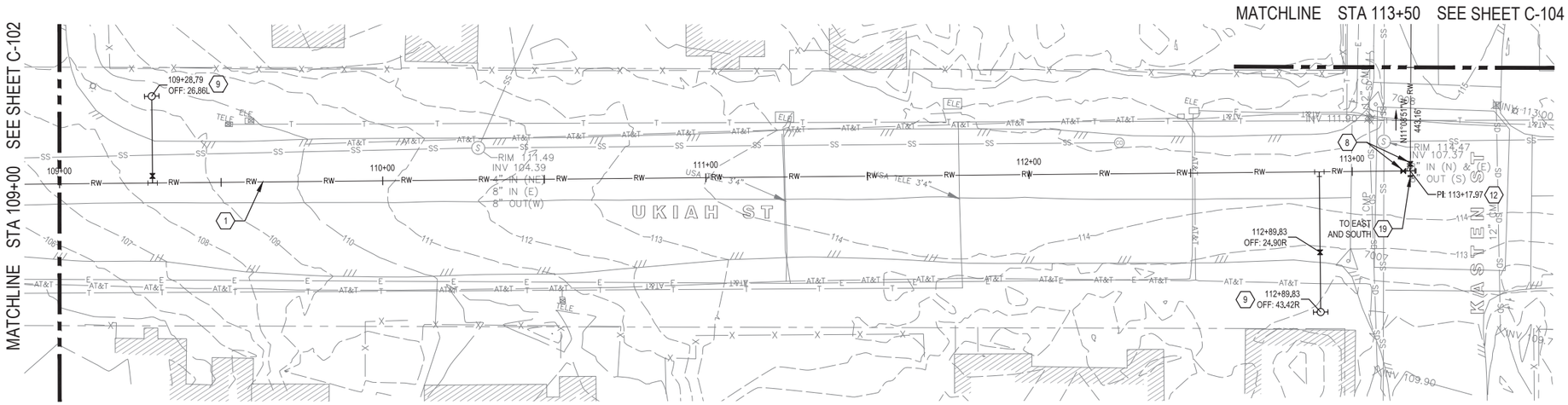
Project No. 11210761

Original Size ANSI D

Sheet No. C-102

Sheet 9 of 75

Plot Date: 4 November 2021 - 8:25 PM Plotted By: Chris Bach Filename: \\ghdnet\ghd\US\santa rosa\Projects\561\11210761\digital_design\acad 2020\Sheets\11210761_C-101-124_RW Plan and Profile.dwg



1 **PLAN VIEW**

0 10' 20' 40'

N

2 **PROFILE VIEW**

0 2' 4' 8' VERTICAL

0 10' 20' 40' HORIZONTAL

SHEET GENERAL NOTES

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No.	Issue	Drawn	Approved	Date
A	DSA SUBMITTAL	TW/CB	MK	11/05/2021

Bar is one inch on original size sheet

0 1"

REGISTERED PROFESSIONAL ENGINEER
STEVEN GLEN KENNEDY
No. 063304
CIVIL
STATE OF CALIFORNIA
11/5/2021

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Drawn	T. WILKINS	Designer	T. WILKINS
Drafting Check	L. HALONEN	Design Check	M. KENNEDY
Project Manager	M. KENNEDY	Date	11/5/2021
		Scale	AS SHOWN

Client MENDOCINO UNIFIED SCHOOL DISTRICT
Project RECYCLED WATER SYSTEM
Title RECYCLED WATER LINE - STA 109+00 TO 113+50

Project No. 11210761

Original Size ANSI D | Sheet No. C-103 | Sheet 10 of 75

Plot Date: 4 November 2021 - 8:25 PM Plotted By: Chris Bach
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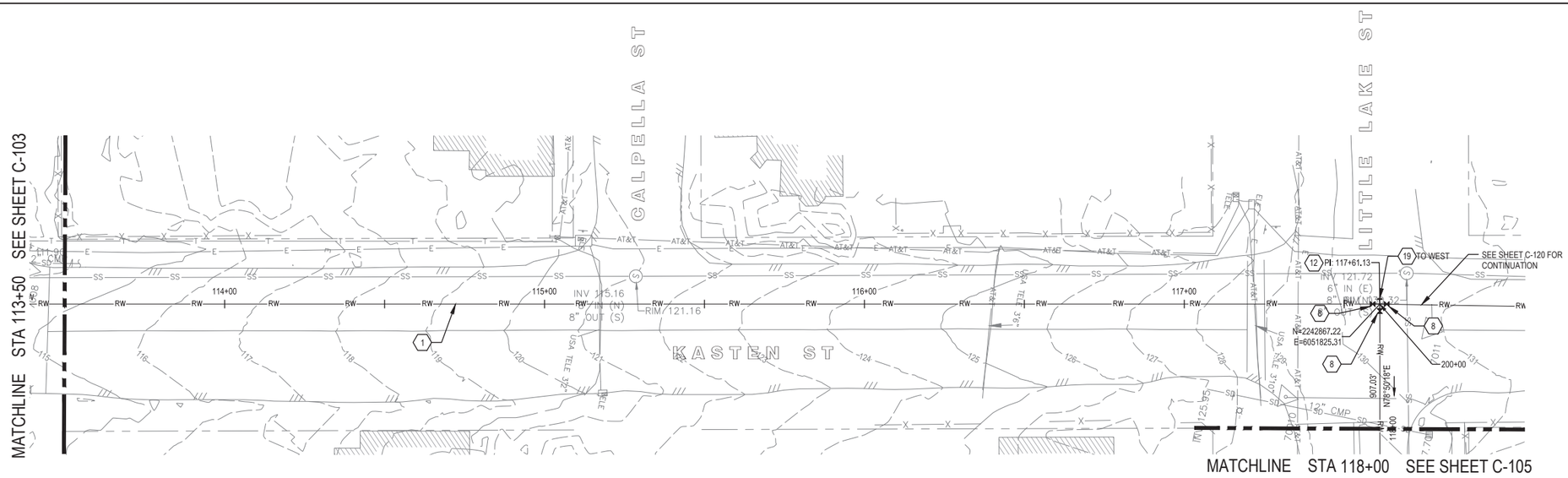
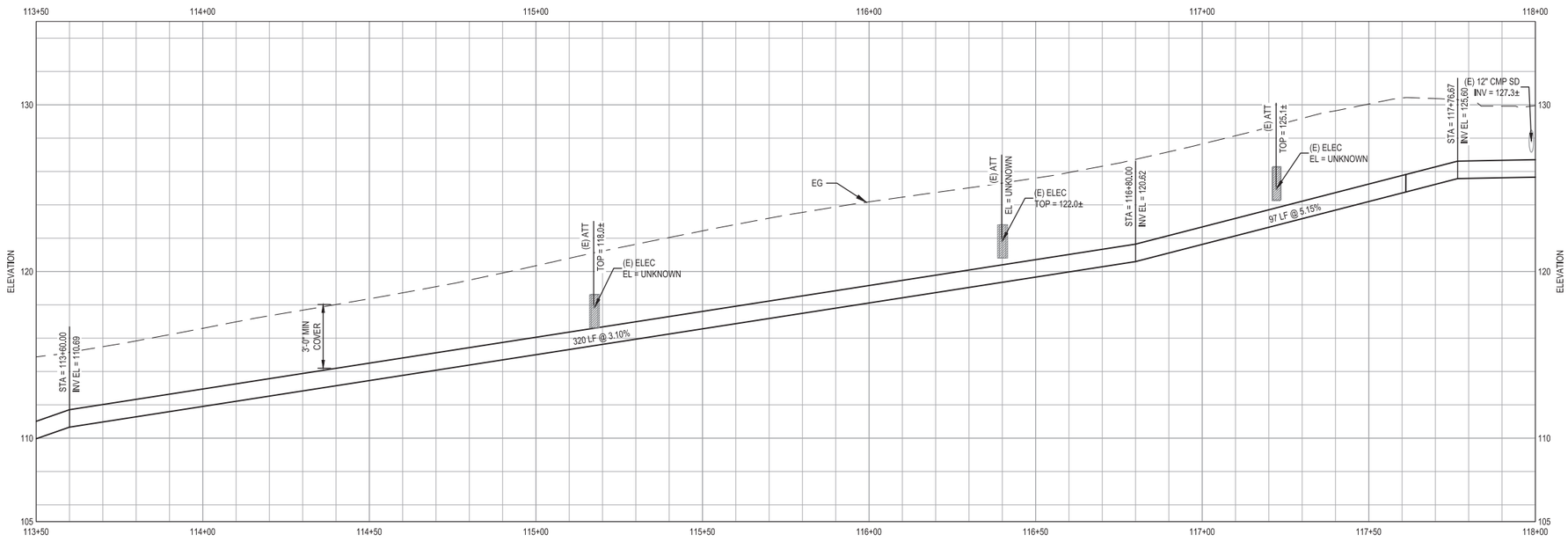


1 **PLAN VIEW**

0 10' 20' 40'



2 **PROFILE VIEW**

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A	DSA SUBMITTAL	TW/CB	MK	11/05/2021

Bar is one inch on original size sheet

0 1"

REGISTERED PROFESSIONAL ENGINEER — GLEN KENNEDY — 68304 — CIVIL — STATE OF CALIFORNIA — 11/5/2021

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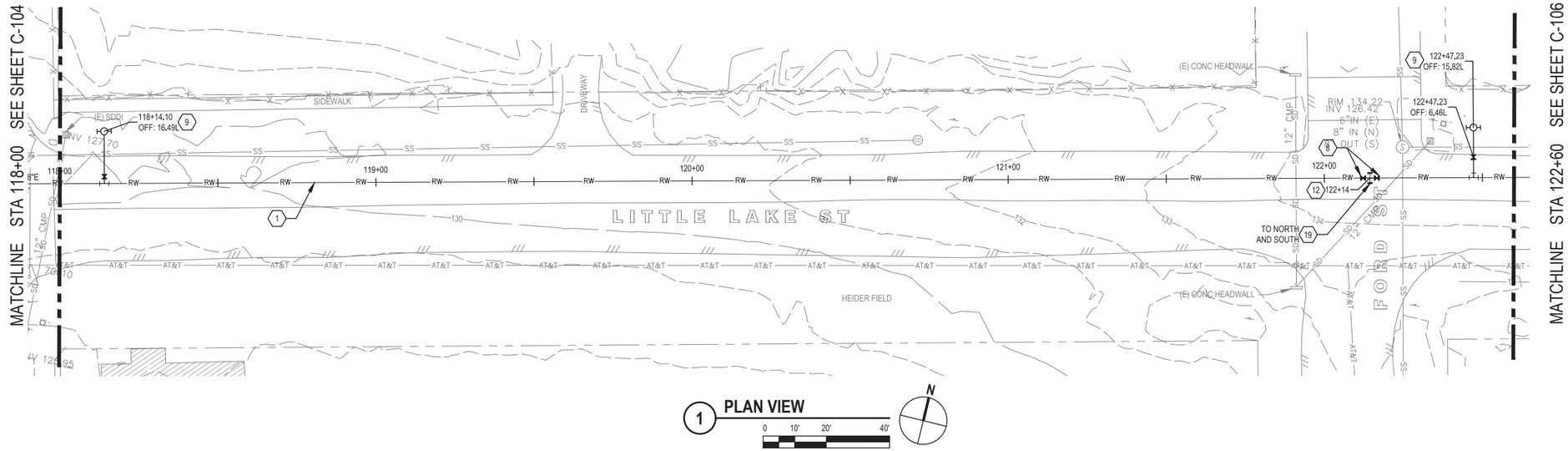
Drawn	T. WILKINS	Designer	T. WILKINS
Drafting Check	L. HALONEN	Design Check	M. KENNEDY
Project Manager	M. KENNEDY	Date	11/5/2021
		Scale	AS SHOWN

Client MENDOCINO UNIFIED SCHOOL DISTRICT
Project RECYCLED WATER SYSTEM
Title RECYCLED WATER LINE - STA 113+50 TO 118+00

Project No. 11210761

Original Size ANSI D | Sheet No. C-104 | Sheet 11 of 75



1 **PLAN VIEW**

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STEVEN GLEN KENNEDY 29334 PROFESSIONAL ENGINEER CIVIL STATE OF CALIFORNIA 11/5/2021

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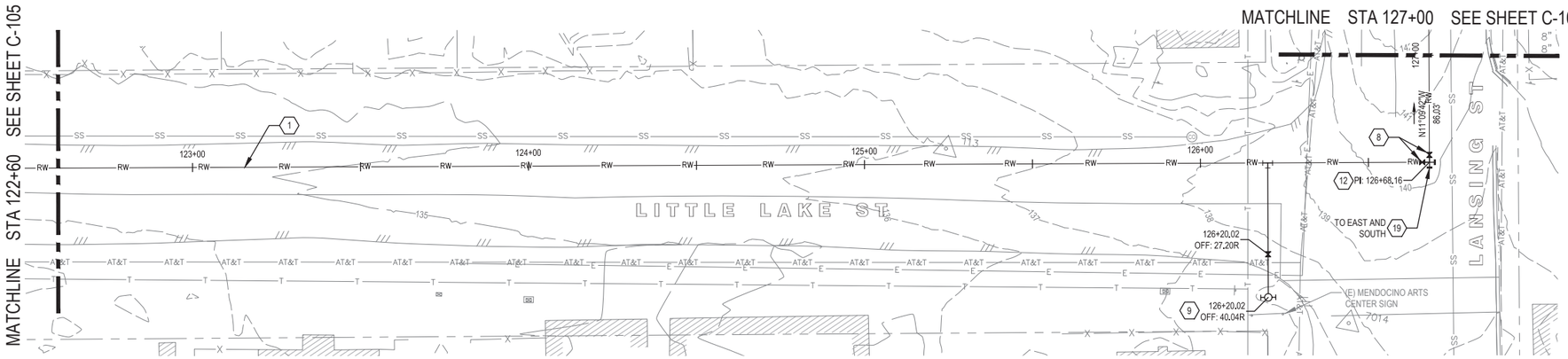
Drawn	T. WILKINS	Designer	T. WILKINS
Drafting Check	L. HALONEN	Design Check	M. KENNEDY
Project Manager	M. KENNEDY	Date	11/5/2021
		Scale	AS SHOWN

Client MENDOCINO UNIFIED SCHOOL DISTRICT
Project RECYCLED WATER SYSTEM
Title RECYCLED WATER LINE - STA 118+00 TO 122+60

Project No. 11210761

Original Size ANSI D | Sheet No. C-105 | Sheet 12 of 75

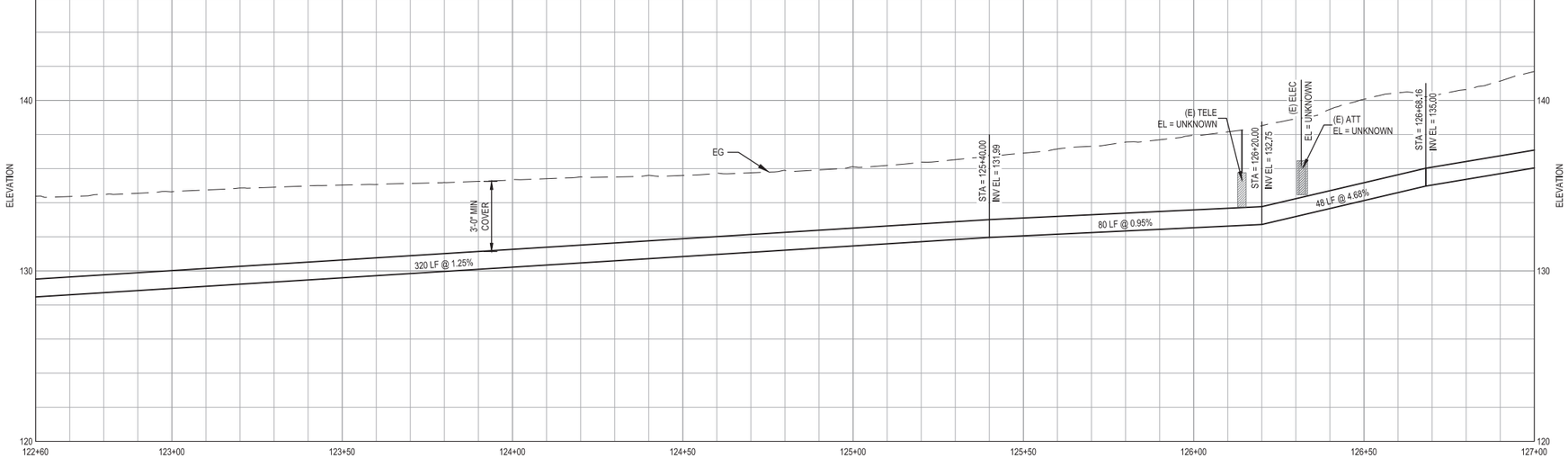
Plot Date: 4 November 2021 - 8:25 PM Plotted By: Chris Bach Filename: \\ghdnet\ghd\US\santa rosa\Projects\561\11210761\digital_design\acad 2020\Sheets\11210761_C-101-124_RW Plan and Profile.dwg



1 **PLAN VIEW**

0 10' 20' 40'

N



2 **PROFILE VIEW**

0 2' 4' 8' VERTICAL

0 10' 20' 40' HORIZONTAL

SHEET GENERAL NOTES

1. LOCATION OF EXISTING UTILITIES AND STRUCTURES ARE FROM INFORMATION AVAILABLE AT THE TIME OF DESIGN. EXACT LOCATION AND COMPLETENESS ARE NOT GUARANTEED. CONTRACTOR SHALL NOTIFY THE OWNER AND UNDERGROUND SERVICES ALERT (800) 227-2600 OR 811 A MINIMUM OF 48 HOURS PRIOR TO EXCAVATION AND SHALL POTHOLE FOR EXACT LOCATION. CONTRACTOR IS RESPONSIBLE FOR LOCATING EXISTING UTILITIES.
2. THE MINIMUM ALLOWABLE PIPE COVER OVER ALL PIPES 4" NOMINAL DIAMETER AND LARGER SHALL BE 36" AS MEASURED FROM FINISH GRADE TO THE TOP OF THE PIPE.
3. PROVIDE A MINIMUM OF 12" VERTICAL CLEARANCE BETWEEN (E) WATER UTILITY AND (N) RECYCLED WATER MAIN. BACKFILL BETWEEN UTILITIES WITH CONTROLLED DENSITY FILL SLURRY, MIN 5' FROM CROSSING EACH WAY.
4. PROVIDE A MINIMUM OF 6" VERTICAL CLEARANCE BETWEEN EXISTING UNDERGROUND STORM, SEWER, POWER, TELECOMMUNICATIONS, AND GAS UTILITIES.
5. THE MINIMUM ALLOWABLE RADIUS ON 12" NOMINAL DIAMETER PIPE SHALL BE 300 FEET. CURVATURE OF THE PIPE SHALL BE ACCOMPLISHED THROUGH LONGITUDINAL BENDING OF THE PIPE BARREL. DEFLECTION OF JOINTS IS NOT ALLOWED.
6. PRIOR TO BACKFILLING, VERIFY THAT THE MANUFACTURER'S ASSEMBLY MARK ON THE PIPE JOINT IS FLUSH WITH THE END OF THE BELL.
7. ALL ELBOWS, BENDS, TEES, VALVES, AND OTHER DUCTILE IRON FITTINGS INSTALLED ON THE RECYCLED WATER PIPELINE SHALL BE MECHANICALLY RESTRAINED AS SHOWN ON DETAIL 3 ON SHEET C-505.
8. PROVIDE ALL FITTINGS AND TRANSITION COUPLINGS TO PROVIDE A COMPLETE AND WORKING SYSTEM.
9. FROM STATION 138+00 TO WEST, CONTRACTOR TO LOCATE STREET LIGHTING.

SHEET KEYNOTES

1. (N) 12" PVC DR 18 RECYCLED WATER MAIN.
2. (N) 8" PVC DR 18 RECYCLED WATER PIPE.
3. (N) 6" PVC DR 18 RECYCLED WATER PIPE.
4. NOT USED.
5. (N) 3" PVC SCH 80 RECYCLED WATER PIPE.
6. (N) 1" PVC SCH 80 RECYCLED WATER PIPE.
7. (N) 12" FPVC DR 18 RECYCLED WATER MAIN IN 18" FPVC DR 18 CASING INSTALLED VIA HDD. SEE PROFILE.
8. (N) GATE VALVE, SIZE PER ADJOINING PIPE, UNO. SEE DETAIL 3 ON SHEET C-502.
9. (N) FIRE HYDRANT. SEE DETAIL 2 ON SHEET C-502.
10. (N) WATER SERVICE METER. SEE DETAIL 2 ON SHEET C-505.
11. (N) TEE, SIZE PER ADJOINING PIPE, UNO.
12. (N) CROSS, SIZE PER ADJOINING PIPE, UNO.
13. (N) 90° ELBOW, SIZE PER ADJOINING PIPE, UNO.
14. (N) 45° ELBOW, SIZE PER ADJOINING PIPE, UNO.
15. (N) 22.5° ELBOW, SIZE PER ADJOINING PIPE, UNO.
16. (N) 11.25° ELBOW, SIZE PER ADJOINING PIPE, UNO.
17. (N) AIR RELEASE VALVE AT HIGH POINT IN WATER MAIN. SEE DETAIL 1 ON SHEET C-505.
18. PLUG AND ABANDON (E) ABANDONED WATER LINE. SEE DETAIL 4 ON SHEET C-501.
19. (N) RESTRAINED MECHANICAL PLUGS WHERE SHOWN ON PLAN.
20. (N) BACKFLOW PREVENTER AND PRESSURE REDUCER. SEE DETAIL 4 ON SHEET C-502.
21. (N) REDUCER, SIZE PER ADJOINING PIPE, UNO.

THIS SHEET NOT SUBJECT TO DSA REVIEW/APPROVAL

No.	Issue	Drawn	Approved	Date
A	DSA SUBMITTAL	TW/CB	MK	11/05/2021

Bar is one inch on original size sheet

0 1"

STEVEN GLEN KENNEDY 26304 PROFESSIONAL ENGINEER CIVIL STATE OF CALIFORNIA 11/5/2021

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Drawn	T. WILKINS	Designer	T. WILKINS
Drafting Check	L. HALONEN	Design Check	M. KENNEDY
Project Manager	M. KENNEDY	Date	11/5/2021
		Scale	AS SHOWN

Client **MENDOCINO UNIFIED SCHOOL DISTRICT**

Project **RECYCLED WATER SYSTEM**

Title **RECYCLED WATER LINE - STA 122+60 TO 127+00**

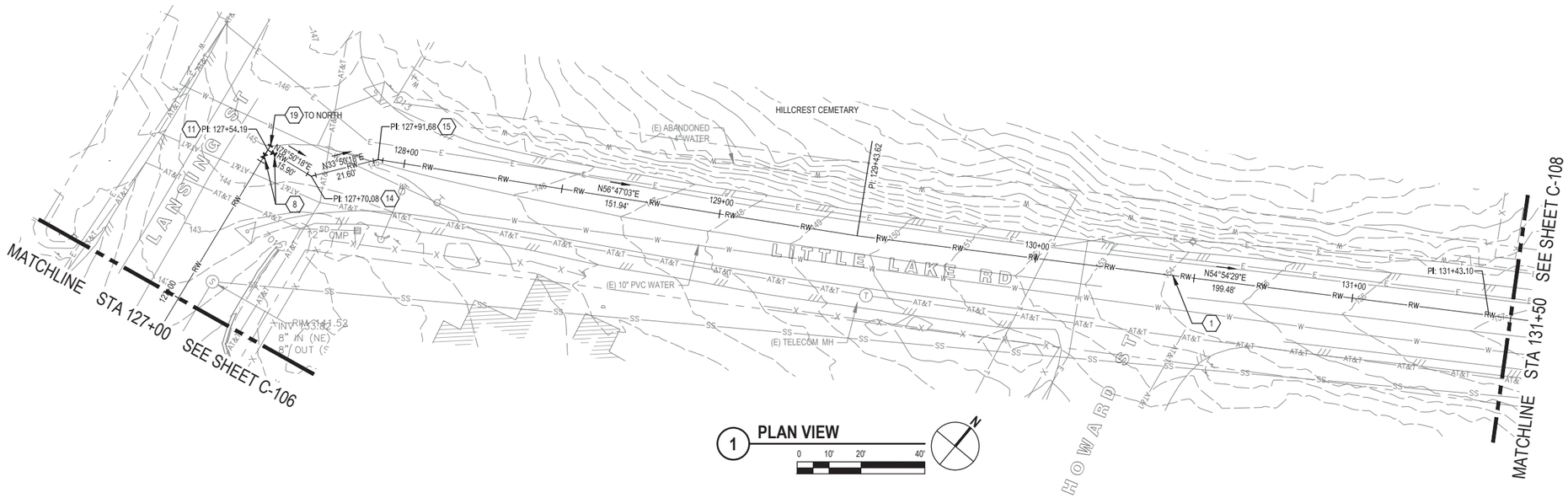
Project No. **11210761**

Original Size **ANSI D**

Sheet No. **C-106**

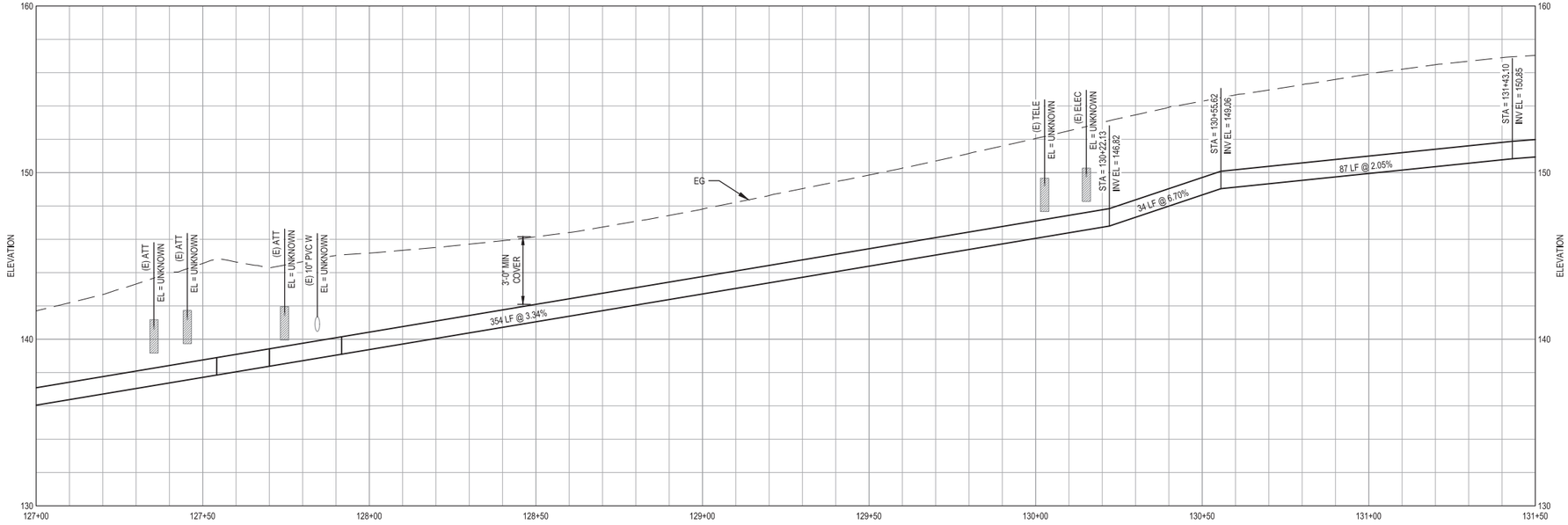
Sheet **13** of **75**

Plot Date: 4 November 2021 - 8:25 PM Plotted By: Chris Bach Filename: \\ghdnet\ghd\US\santa rosa\Projects\561\11210761\digital_design\acad 2020\Sheets\11210761_C-101-124_RW Plan and Profile.dwg



1 **PLAN VIEW**

0 10' 20' 40'



2 **PROFILE VIEW**

0 2' 4' 8' VERTICAL
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SHEET GENERAL NOTES

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3. PROVIDE A MINIMUM OF 12" VERTICAL CLEARANCE BETWEEN (E) WATER UTILITY AND (N) RECYCLED WATER MAIN. BACKFILL BETWEEN UTILITIES WITH CONTROLLED DENSITY FILL SLURRY, MIN 5' FROM CROSSING EACH WAY.
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6. PRIOR TO BACKFILLING, VERIFY THAT THE MANUFACTURER'S ASSEMBLY MARK ON THE PIPE JOINT IS FLUSH WITH THE END OF THE BELL.
7. ALL ELBOWS, BENDS, TEES, VALVES, AND OTHER DUCTILE IRON FITTINGS INSTALLED ON THE RECYCLED WATER PIPELINE SHALL BE MECHANICALLY RESTRAINED AS SHOWN ON DETAIL 3 ON SHEET C-505.
8. PROVIDE ALL FITTINGS AND TRANSITION COUPLINGS TO PROVIDE A COMPLETE AND WORKING SYSTEM.
9. FROM STATION 138+00 TO WEST, CONTRACTOR TO LOCATE STREET LIGHTING.

SHEET KEYNOTES

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3. (N) 6" PVC DR 18 RECYCLED WATER PIPE.
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5. (N) 3" PVC SCH 80 RECYCLED WATER PIPE.
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9. (N) FIRE HYDRANT. SEE DETAIL 2 ON SHEET C-502.
10. (N) WATER SERVICE METER. SEE DETAIL 2 ON SHEET C-505.
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19. (N) RESTRAINED MECHANICAL PLUGS WHERE SHOWN ON PLAN.
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No.	Issue	Drawn	Approved	Date
A	DSA SUBMITTAL	TW/CB	MK	11/05/2021

Bar is one inch on original size sheet
0 1"

REGISTERED PROFESSIONAL ENGINEER — MATTHEW GLEN KENNEDY — 66304 — 06/2021 — CIVIL — STATE OF CALIFORNIA — 11/5/2021

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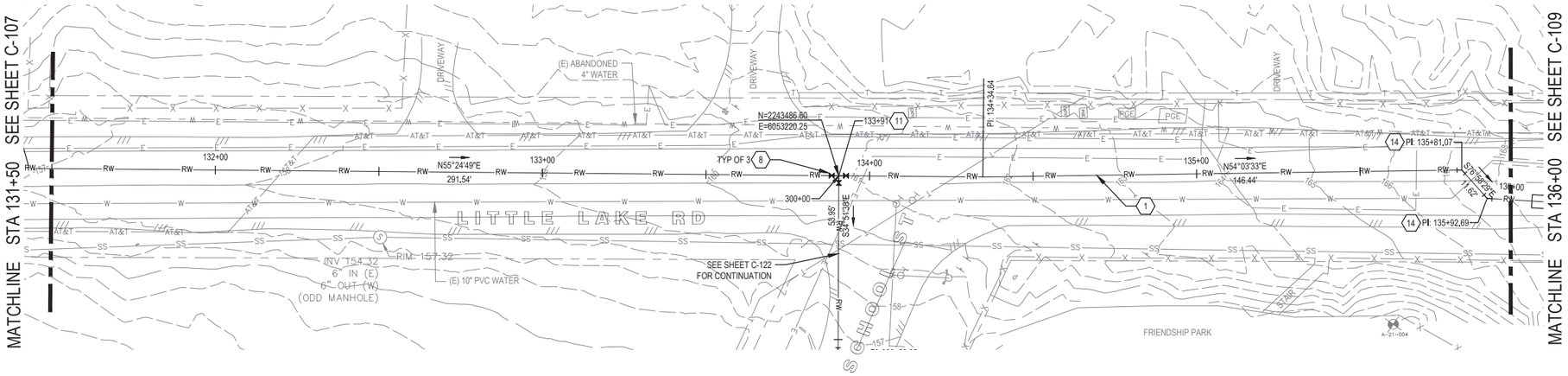
Drawn	T. WILKINS	Designer	T. WILKINS
Drafting Check	L. HALONEN	Design Check	M. KENNEDY
Project Manager	M. KENNEDY	Date	11/5/2021
This document shall not be used for construction unless signed and sealed for construction.		Scale	AS SHOWN

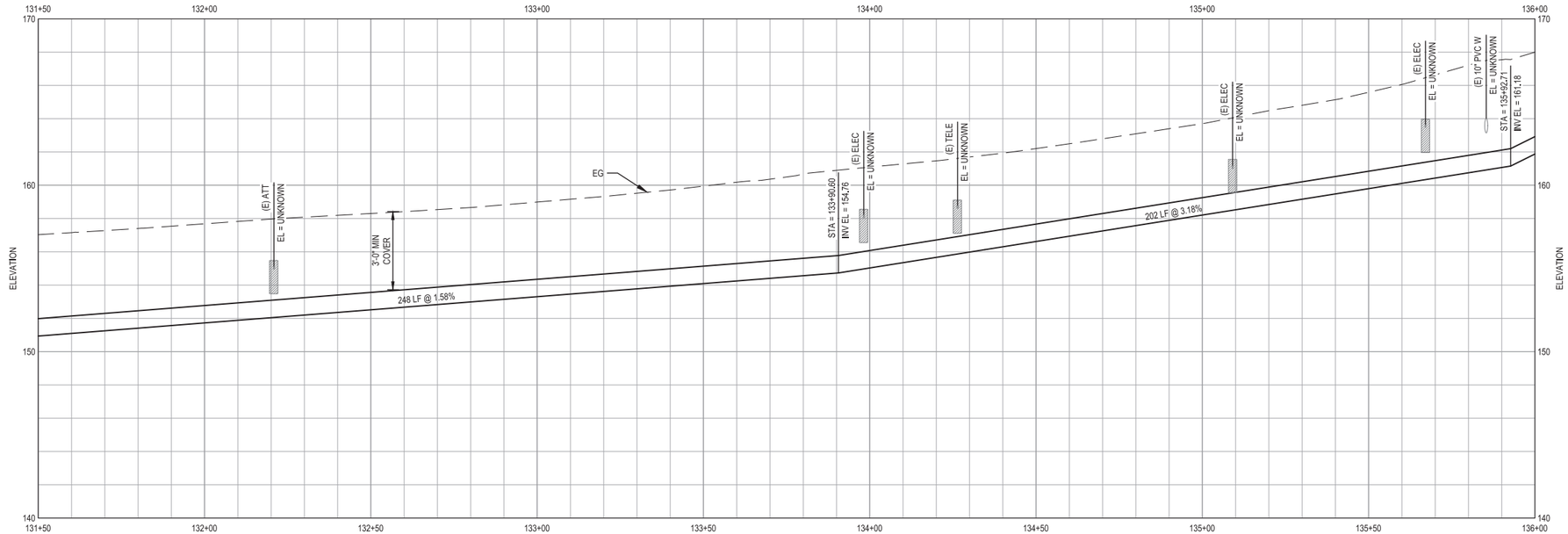
Client MENDOCINO UNIFIED SCHOOL DISTRICT
Project RECYCLED WATER SYSTEM
Title RECYCLED WATER LINE - STA 127+00 TO 131+50
Project No. 11210761
Original Size ANSI D
Sheet No. C-107
Sheet 14 of 75

Plot Date: 4 November 2021 - 8:25 PM Plotted By: Chris Bach Filename: \\ghdnet\ghd\US\santa rosa\Projects\561\11210761\digital_design\acad 2020\Sheets\11210761_C-101-124_RW Plan and Profile.dwg



1 **PLAN VIEW**

0 10' 20' 40'



2 **PROFILE VIEW**

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No.	Issue	Drawn	Approved	Date
A	DSA SUBMITTAL	TW/CB	MK	11/05/2021

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0 1"

REGISTERED PROFESSIONAL ENGINEER STEVEN GLEN KENNEDY 66304 CIVIL STATE OF CALIFORNIA 11/5/2021

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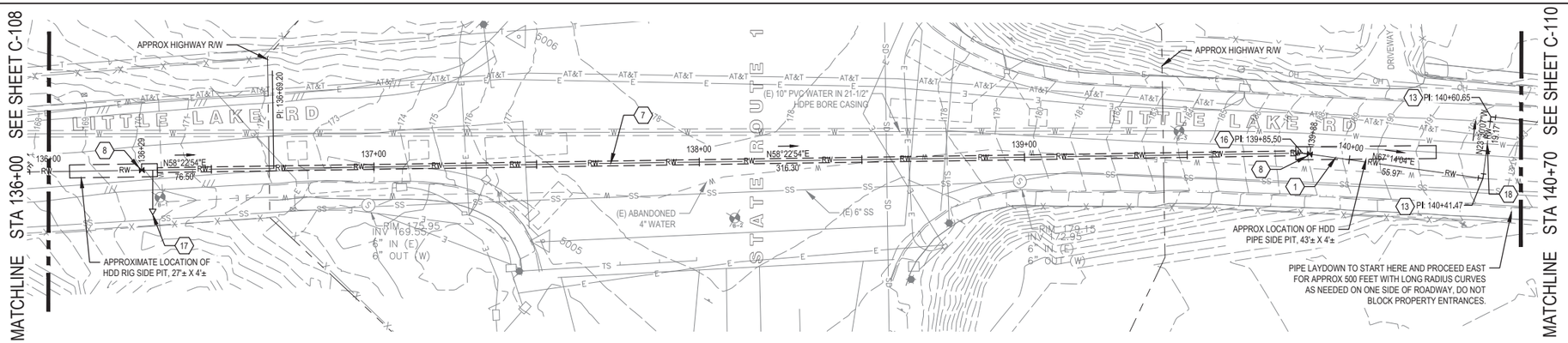
Drawn	T. WILKINS	Designer	T. WILKINS
Drafting Check	L. HALONEN	Design Check	M. KENNEDY
Project Manager	M. KENNEDY	Date	11/5/2021
		Scale	AS SHOWN

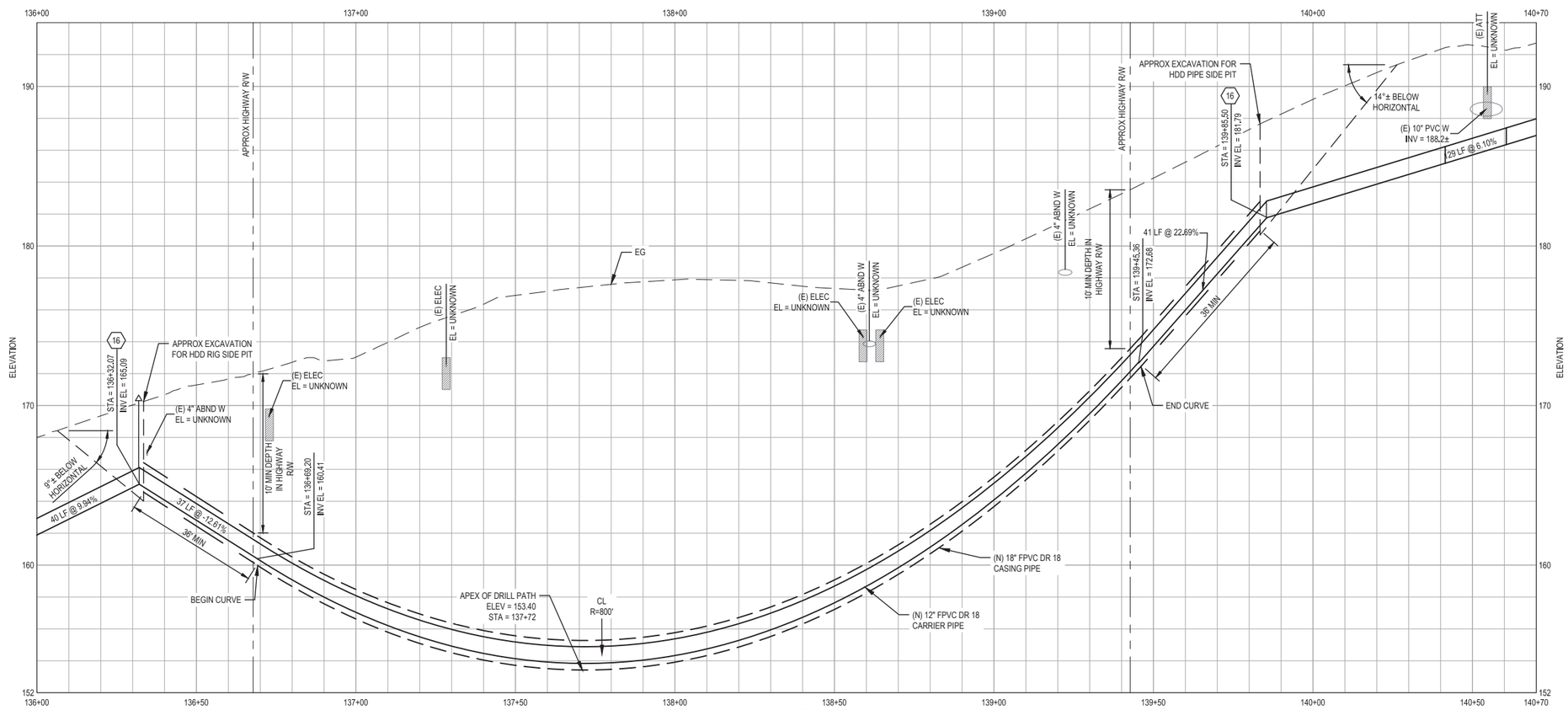
Client MENDOCINO UNIFIED SCHOOL DISTRICT
Project RECYCLED WATER SYSTEM
Title RECYCLED WATER LINE - STA 131+50 TO 136+00
Project No. 11210761
Original Size ANSI D
Sheet No. C-108
Sheet 15 of 75

Plot Date: 4 November 2021 - 8:26 PM Plotted By: Chris Bach Filename: \\ghdnet\ghd\US\santa rosa\Projects\561\11210761\digital_design\acad 2020\Sheets\11210761_C-101-124_RW Plan and Profile.dwg



1 **PLAN VIEW**

0 10' 20' 40'



2 **PROFILE VIEW**

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No.	Issue	Drawn	Approved	Date
A	DSA SUBMITTAL	TW/CB	MK	11/05/2021

Bar is one inch on original size sheet
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REGISTERED PROFESSIONAL ENGINEER — ERIK GLEN KENNEDY — 88304 — CIVIL — STATE OF CALIFORNIA — 11/5/2021

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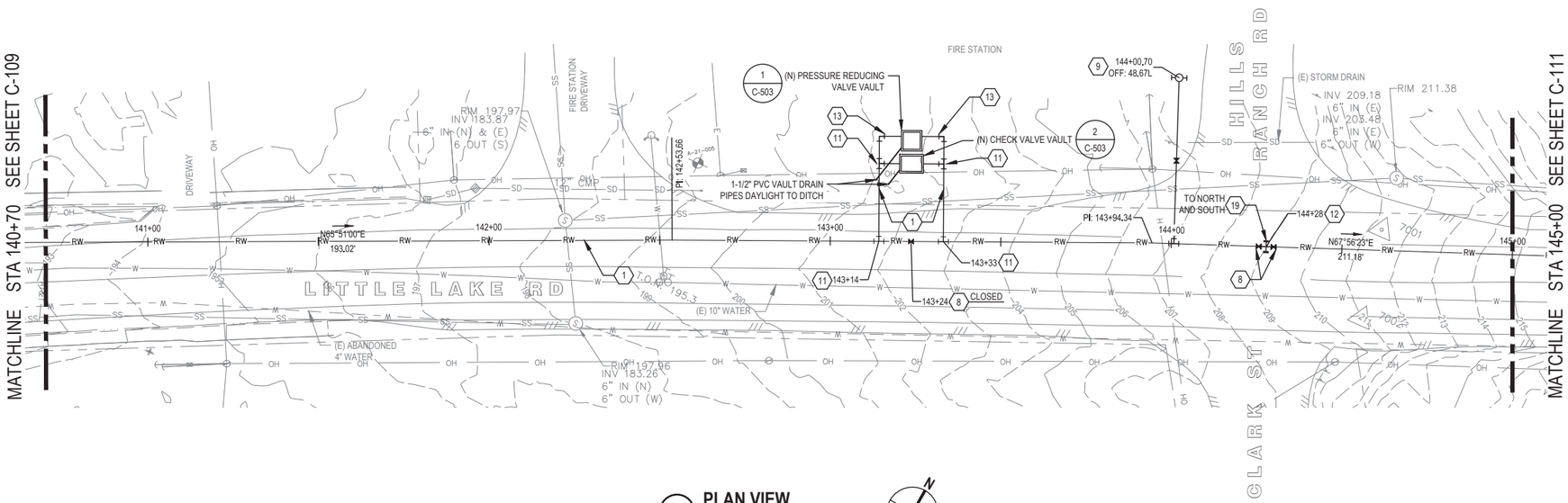
Drawn	T. WILKINS	Designer	T. WILKINS
Drafting Check	L. HALONEN	Design Check	M. KENNEDY
Project Manager	M. KENNEDY	Date	11/5/2021
		Scale	AS SHOWN

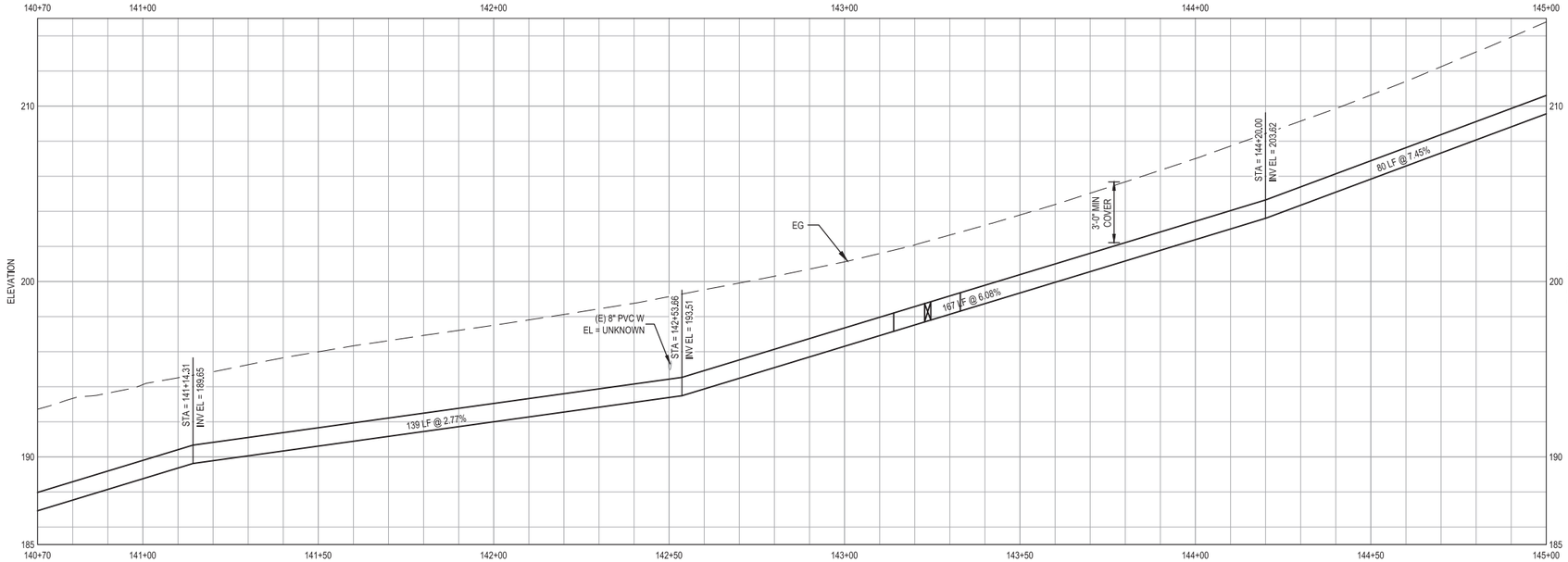
Client MENDOCINO UNIFIED SCHOOL DISTRICT
Project RECYCLED WATER SYSTEM
Title RECYCLED WATER LINE - STA 136+00 TO 140+70
Project No. 11210761
Original Size ANSI D
Sheet No. C-109
Sheet 16 of 75

Plot Date: 4 November 2021 - 8:26 PM Plotted By: Chris Bach
Filename: \\ghdnet\ghd\US\santa rosa\Projects\561\11210761\digital_design\acad 2020\Sheets\11210761_C-101-124_RW Plan and Profile.dwg



1 **PLAN VIEW**

0 10' 20' 40'



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7. ALL ELBOWS, BENDS, TEES, VALVES, AND OTHER DUCTILE IRON FITTINGS INSTALLED ON THE RECYCLED WATER PIPELINE SHALL BE MECHANICALLY RESTRAINED AS SHOWN ON DETAIL 3 ON SHEET C-505.
8. PROVIDE ALL FITTINGS AND TRANSITION COUPLINGS TO PROVIDE A COMPLETE AND WORKING SYSTEM.
9. FROM STATION 138+00 TO WEST, CONTRACTOR TO LOCATE STREET LIGHTING.

SHEET KEYNOTES

1. (N) 12" PVC DR 18 RECYCLED WATER MAIN.
2. (N) 8" PVC DR 18 RECYCLED WATER PIPE.
3. (N) 6" PVC DR 18 RECYCLED WATER PIPE.
4. NOT USED.
5. (N) 3" PVC SCH 80 RECYCLED WATER PIPE.
6. (N) 1" PVC SCH 80 RECYCLED WATER PIPE.
7. (N) 12" FPVC DR 18 RECYCLED WATER MAIN IN 18" FPVC DR 18 CASING INSTALLED VIA HDD. SEE PROFILE.
8. (N) GATE VALVE, SIZE PER ADJOINING PIPE, UNO. SEE DETAIL 3 ON SHEET C-502.
9. (N) FIRE HYDRANT. SEE DETAIL 2 ON SHEET C-502.
10. (N) WATER SERVICE METER. SEE DETAIL 2 ON SHEET C-505.
11. (N) TEE, SIZE PER ADJOINING PIPE, UNO.
12. (N) CROSS, SIZE PER ADJOINING PIPE, UNO.
13. (N) 90° ELBOW, SIZE PER ADJOINING PIPE, UNO.
14. (N) 45° ELBOW, SIZE PER ADJOINING PIPE, UNO.
15. (N) 22.5° ELBOW, SIZE PER ADJOINING PIPE, UNO.
16. (N) 11.25° ELBOW, SIZE PER ADJOINING PIPE, UNO.
17. (N) AIR RELEASE VALVE AT HIGH POINT IN WATER MAIN. SEE DETAIL 1 ON SHEET C-505.
18. PLUG AND ABANDON (E) ABANDONED WATER LINE. SEE DETAIL 4 ON SHEET C-501.
19. (N) RESTRAINED MECHANICAL PLUGS WHERE SHOWN ON PLAN.
20. (N) BACKFLOW PREVENTER AND PRESSURE REDUCER. SEE DETAIL 4 ON SHEET C-502.
21. (N) REDUCER, SIZE PER ADJOINING PIPE, UNO.

THIS SHEET NOT SUBJECT TO DSA REVIEW/APPROVAL

No.	Issue	Drawn	Approved	Date
A	DSA SUBMITTAL	TW/CB	MK	11/05/2021

Bar is one inch on original size sheet

0 1"

REGISTERED PROFESSIONAL ENGINEER GLEN KENNEDY 083804 CIVIL STATE OF CALIFORNIA 11/5/2021

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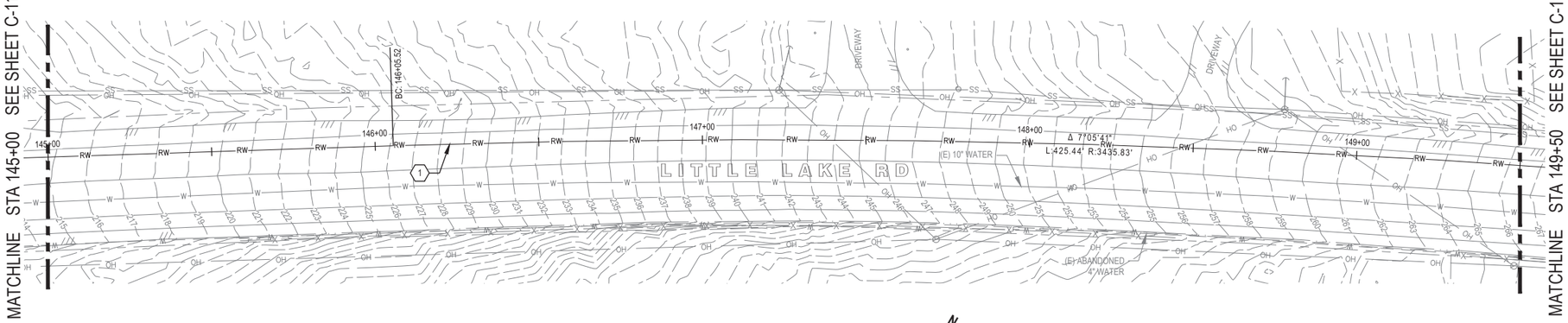
Drawn	T. WILKINS	Designer	T. WILKINS
Drafting Check	L. HALONEN	Design Check	M. KENNEDY
Project Manager	M. KENNEDY	Date	11/5/2021
		Scale	AS SHOWN

Client MENDOCINO UNIFIED SCHOOL DISTRICT
Project RECYCLED WATER SYSTEM
Title RECYCLED WATER LINE - STA 140+70 TO 145+00
Project No. 11210761
Original Size ANSI D
Sheet No. C-110
Sheet 17 of 75

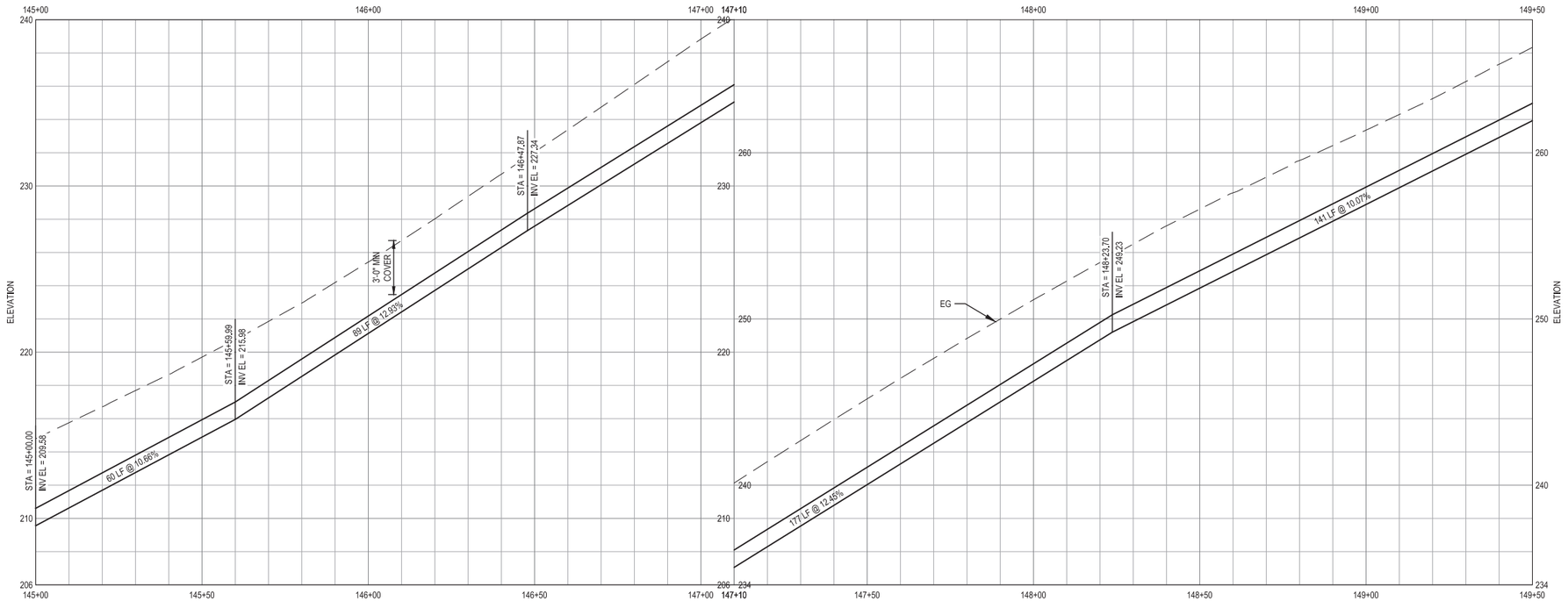
Plot Date: 4 November 2021 - 8:26 PM Plotted By: Chris Bach Filename: \\ghdnet\ghd\US\santa rosa\Projects\561\11210761\digital_design\acad 2020\Sheets\11210761_C-101-124_RW Plan and Profile.dwg



1 **PLAN VIEW**

0 10' 20' 40'

N



2 **PROFILE VIEW**

0 2' 4' 8' VERTICAL

0 10' 20' 40' HORIZONTAL

SHEET GENERAL NOTES

1. LOCATION OF EXISTING UTILITIES AND STRUCTURES ARE FROM INFORMATION AVAILABLE AT THE TIME OF DESIGN. EXACT LOCATION AND COMPLETENESS ARE NOT GUARANTEED. CONTRACTOR SHALL NOTIFY THE OWNER AND UNDERGROUND SERVICES ALERT (800) 227-2600 OR 811 A MINIMUM OF 48 HOURS PRIOR TO EXCAVATION AND SHALL POTHOLE FOR EXACT LOCATION. CONTRACTOR IS RESPONSIBLE FOR LOCATING EXISTING UTILITIES.
2. THE MINIMUM ALLOWABLE PIPE COVER OVER ALL PIPES 4" NOMINAL DIAMETER AND LARGER SHALL BE 36" AS MEASURED FROM FINISH GRADE TO THE TOP OF THE PIPE.
3. PROVIDE A MINIMUM OF 12" VERTICAL CLEARANCE BETWEEN (E) WATER UTILITY AND (N) RECYCLED WATER MAIN. BACKFILL BETWEEN UTILITIES WITH CONTROLLED DENSITY FILL SLURRY, MIN 5' FROM CROSSING EACH WAY.
4. PROVIDE A MINIMUM OF 6" VERTICAL CLEARANCE BETWEEN EXISTING UNDERGROUND STORM, SEWER, POWER, TELECOMMUNICATIONS, AND GAS UTILITIES.
5. THE MINIMUM ALLOWABLE RADIUS ON 12" NOMINAL DIAMETER PIPE SHALL BE 300 FEET. CURVATURE OF THE PIPE SHALL BE ACCOMPLISHED THROUGH LONGITUDINAL BENDING OF THE PIPE BARREL. DEFLECTION OF JOINTS IS NOT ALLOWED.
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8. PROVIDE ALL FITTINGS AND TRANSITION COUPLINGS TO PROVIDE A COMPLETE AND WORKING SYSTEM.
9. FROM STATION 138+00 TO WEST, CONTRACTOR TO LOCATE STREET LIGHTING.

SHEET KEYNOTES

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2. (N) 8" PVC DR 18 RECYCLED WATER PIPE.
3. (N) 6" PVC DR 18 RECYCLED WATER PIPE.
4. NOT USED.
5. (N) 3" PVC SCH 80 RECYCLED WATER PIPE.
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7. (N) 12" FPVC DR 18 RECYCLED WATER MAIN IN 18" FPVC DR 18 CASING INSTALLED VIA HDD. SEE PROFILE.
8. (N) GATE VALVE, SIZE PER ADJOINING PIPE, UNO. SEE DETAIL 3 ON SHEET C-502.
9. (N) FIRE HYDRANT. SEE DETAIL 2 ON SHEET C-502.
10. (N) WATER SERVICE METER. SEE DETAIL 2 ON SHEET C-505.
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17. (N) AIR RELEASE VALVE AT HIGH POINT IN WATER MAIN. SEE DETAIL 1 ON SHEET C-505.
18. PLUG AND ABANDON (E) ABANDONED WATER LINE. SEE DETAIL 4 ON SHEET C-501.
19. (N) RESTRAINED MECHANICAL PLUGS WHERE SHOWN ON PLAN.
20. (N) BACKFLOW PREVENTER AND PRESSURE REDUCER. SEE DETAIL 4 ON SHEET C-502.
21. (N) REDUCER, SIZE PER ADJOINING PIPE, UNO.

THIS SHEET NOT SUBJECT TO DSA REVIEW/APPROVAL

No.	Issue	Drawn	Approved	Date
A	DSA SUBMITTAL	TW/CB	MK	11/05/2021

Bar is one inch on original size sheet

0 1"

STEVEN GLEN KENNEDY 29334 LICENSED PROFESSIONAL ENGINEER CIVIL STATE OF CALIFORNIA 11/5/2021

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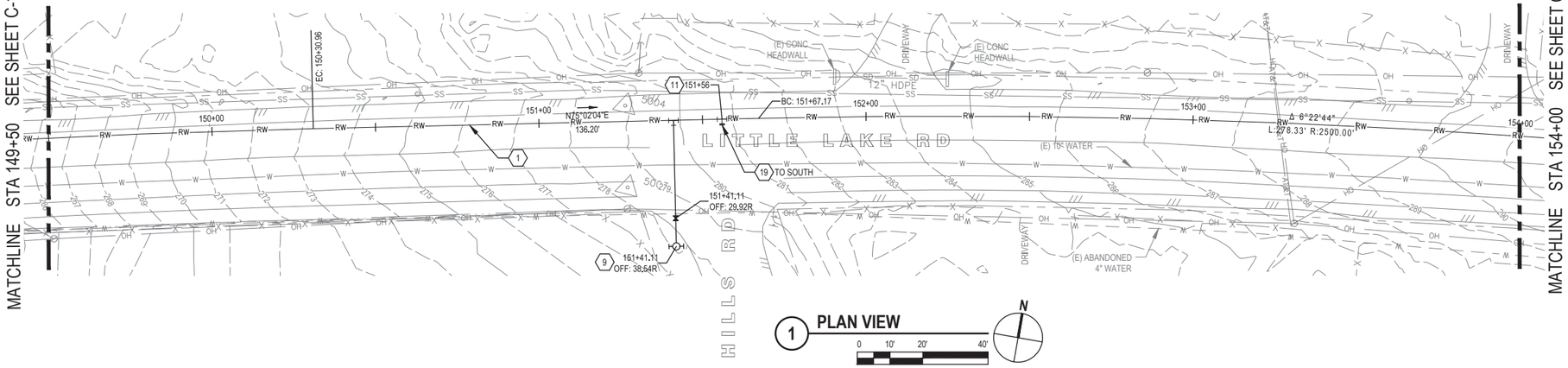
Drawn	T. WILKINS	Designer	T. WILKINS
Drafting Check	L. HALONEN	Design Check	M. KENNEDY
Project Manager	M. KENNEDY	Date	11/5/2021
This document shall not be used for construction unless signed and sealed for construction.		Scale	AS SHOWN

Client MENDOCINO UNIFIED SCHOOL DISTRICT
Project RECYCLED WATER SYSTEM
Title RECYCLED WATER LINE - STA 145+00 TO 149+50
Project No. 11210761
Original Size ANSI D
Sheet No. C-111
Sheet 18 of 75

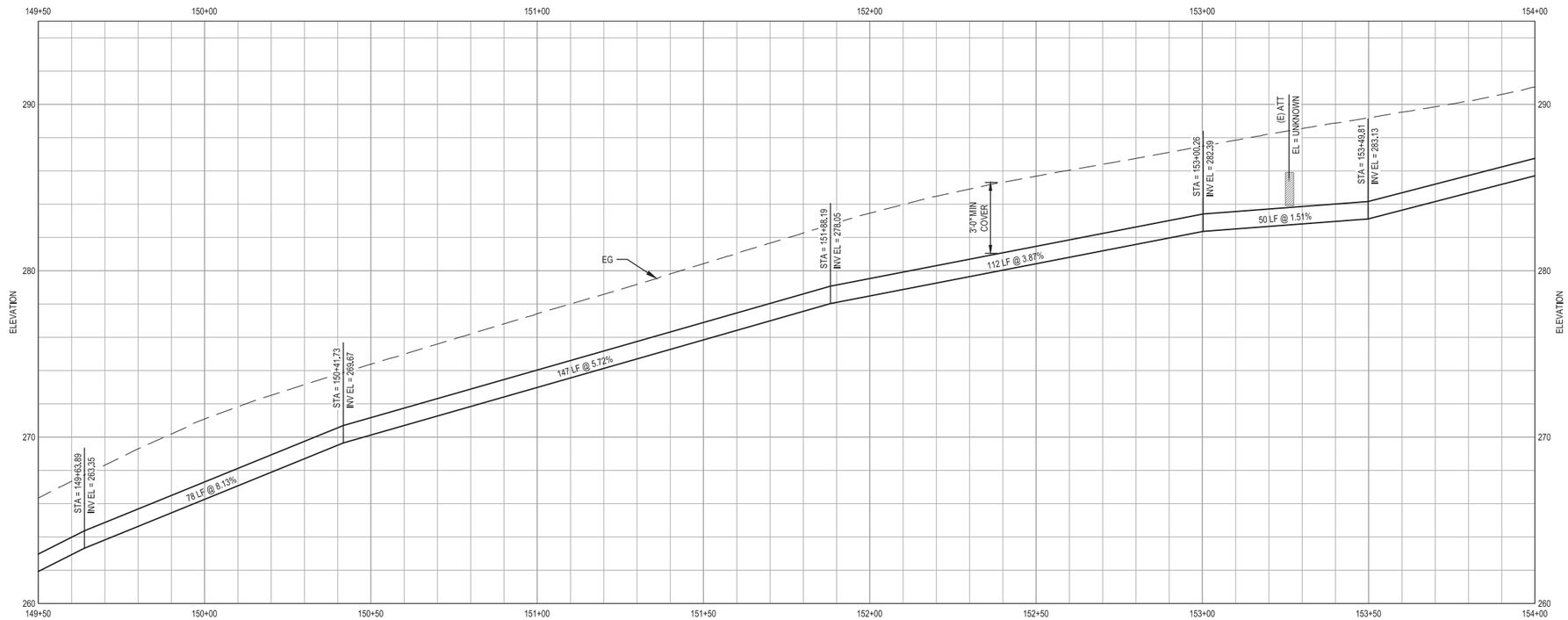
Plot Date: 4 November 2021 - 8:26 PM Plotted By: Chris Bach Filename: \\ghdnet\ghd\US\santa rosa\Projects\561\11210761\digital_design\acad 2020\Sheets\11210761_C-101-124_RW Plan and Profile.dwg



1 **PLAN VIEW**

0 10' 20' 40'

N



2 **PROFILE VIEW**

0 2' 4' 8' VERTICAL

0 10' 20' 40' HORIZONTAL

SHEET GENERAL NOTES

1. LOCATION OF EXISTING UTILITIES AND STRUCTURES ARE FROM INFORMATION AVAILABLE AT THE TIME OF DESIGN. EXACT LOCATION AND COMPLETENESS ARE NOT GUARANTEED. CONTRACTOR SHALL NOTIFY THE OWNER AND UNDERGROUND SERVICES ALERT (800) 227-2600 OR 811 A MINIMUM OF 48 HOURS PRIOR TO EXCAVATION AND SHALL POTHOLE FOR EXACT LOCATION. CONTRACTOR IS RESPONSIBLE FOR LOCATING EXISTING UTILITIES.
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4. PROVIDE A MINIMUM OF 6" VERTICAL CLEARANCE BETWEEN EXISTING UNDERGROUND STORM, SEWER, POWER, TELECOMMUNICATIONS, AND GAS UTILITIES.
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8. PROVIDE ALL FITTINGS AND TRANSITION COUPLINGS TO PROVIDE A COMPLETE AND WORKING SYSTEM.
9. FROM STATION 138+00 TO WEST, CONTRACTOR TO LOCATE STREET LIGHTING.

SHEET KEYNOTES

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2. (N) 8" PVC DR 18 RECYCLED WATER PIPE.
3. (N) 6" PVC DR 18 RECYCLED WATER PIPE.
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9. (N) FIRE HYDRANT. SEE DETAIL 2 ON SHEET C-502.
10. (N) WATER SERVICE METER. SEE DETAIL 2 ON SHEET C-505.
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THIS SHEET NOT SUBJECT TO DSA REVIEW/APPROVAL

No.	Issue	Drawn	Approved	Date
A	DSA SUBMITTAL	TW/CB	MK	11/05/2021

Bar is one inch on original size sheet

0 1"

REGISTERED PROFESSIONAL ENGINEER — HAN GLEN KENNEDY — 86304 — CIVIL — STATE OF CALIFORNIA — 11/5/2021

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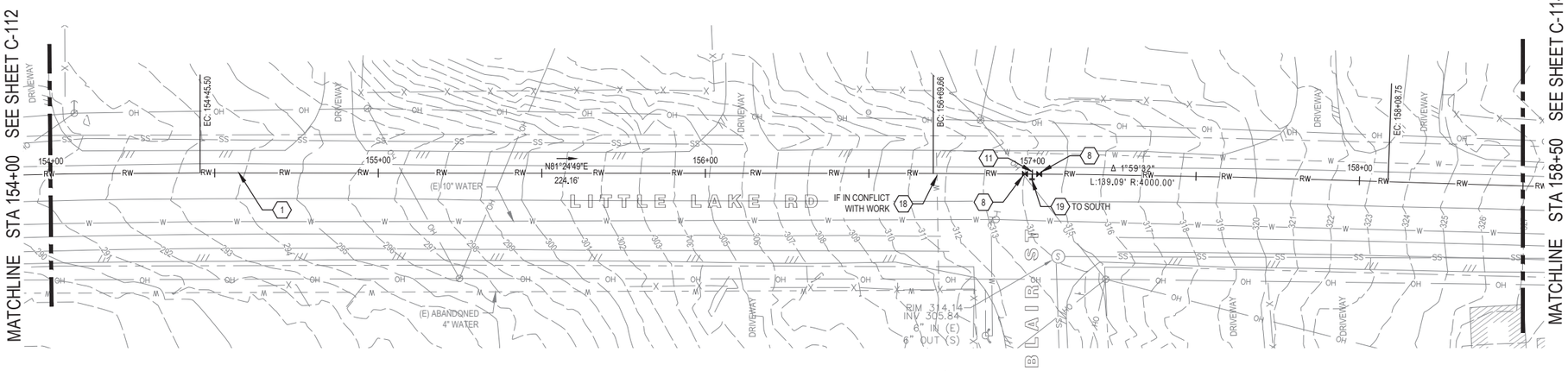
Drawn	T. WILKINS	Designer	T. WILKINS
Drafting Check	L. HALONEN	Design Check	M. KENNEDY
Project Manager	M. KENNEDY	Date	11/5/2021
This document shall not be used for construction unless signed and sealed for construction.		Scale	AS SHOWN

Client MENDOCINO UNIFIED SCHOOL DISTRICT
Project RECYCLED WATER SYSTEM
Title RECYCLED WATER LINE - STA 149+50 TO 154+00
Project No. 11210761
Original Size ANSI D
Sheet No. C-112
Sheet 19 of 75

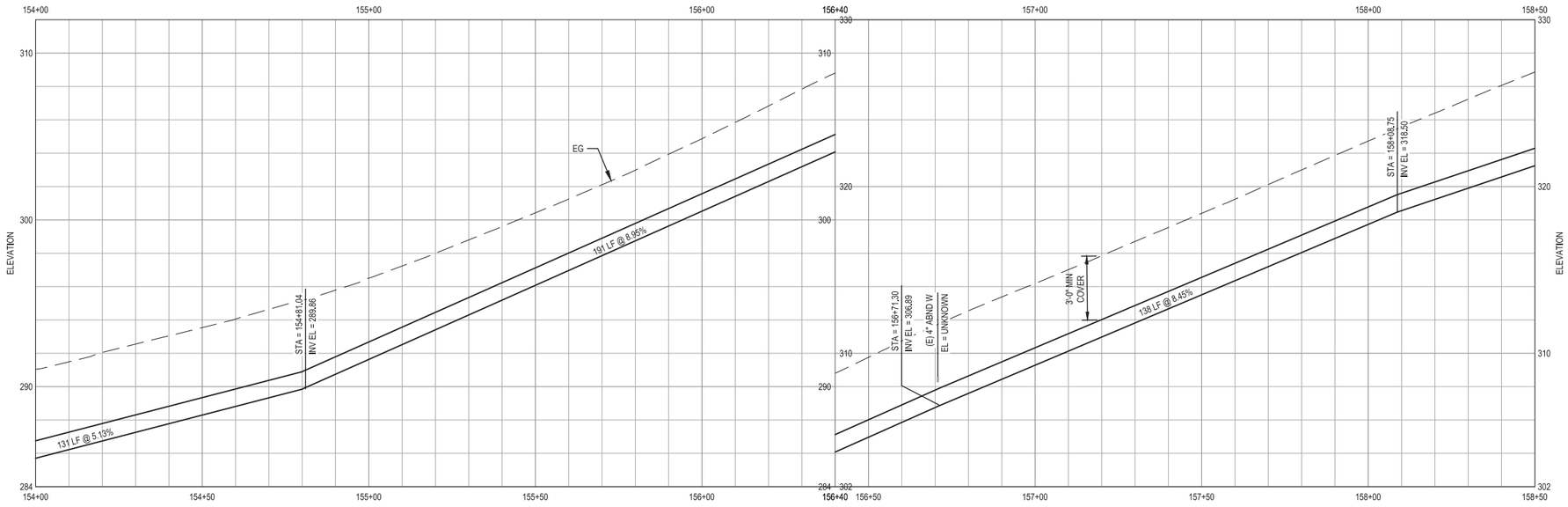
Plot Date: 4 November 2021 - 8:26 PM Plotted By: Chris Bach Filename: \\ghdnet\ghd\US\santa rosa\Projects\561\11210761\digital_design\acad 2020\Sheets\11210761_C-101-124_RW Plan and Profile.dwg



1 **PLAN VIEW**

0 10' 20' 40'

N



2 **PROFILE VIEW**

0 2' 4' 8' VERTICAL

0 10' 20' 40' HORIZONTAL

SHEET GENERAL NOTES

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6. PRIOR TO BACKFILLING, VERIFY THAT THE MANUFACTURER'S ASSEMBLY MARK ON THE PIPE JOINT IS FLUSH WITH THE END OF THE BELL.
7. ALL ELBOWS, BENDS, TEES, VALVES, AND OTHER DUCTILE IRON FITTINGS INSTALLED ON THE RECYCLED WATER PIPELINE SHALL BE MECHANICALLY RESTRAINED AS SHOWN ON DETAIL 3 ON SHEET C-505.
8. PROVIDE ALL FITTINGS AND TRANSITION COUPLINGS TO PROVIDE A COMPLETE AND WORKING SYSTEM.
9. FROM STATION 138+00 TO WEST, CONTRACTOR TO LOCATE STREET LIGHTING.

SHEET KEYNOTES

1. (N) 12" PVC DR 18 RECYCLED WATER MAIN.
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3. (N) 6" PVC DR 18 RECYCLED WATER PIPE.
4. NOT USED.
5. (N) 3" PVC SCH 80 RECYCLED WATER PIPE.
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THIS SHEET NOT SUBJECT TO DSA REVIEW/APPROVAL

No.	Issue	Drawn	Approved	Date
A	DSA SUBMITTAL	TW/CB	MK	11/05/2021

Bar is one inch on original size sheet

0 1"

REGISTERED PROFESSIONAL ENGINEER — LUKAS GLEN KENNEDY — 28304 — 6/30/21 — CIVIL — STATE OF CALIFORNIA — 11/5/2021

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Drawn	T. WILKINS	Designer	T. WILKINS
Drafting Check	L. HALONEN	Design Check	M. KENNEDY
Project Manager	M. KENNEDY	Date	11/5/2021
		Scale	AS SHOWN

Client **MENDOCINO UNIFIED SCHOOL DISTRICT**

Project **RECYCLED WATER SYSTEM**

Title **RECYCLED WATER LINE - STA 154+00 TO 158+50**

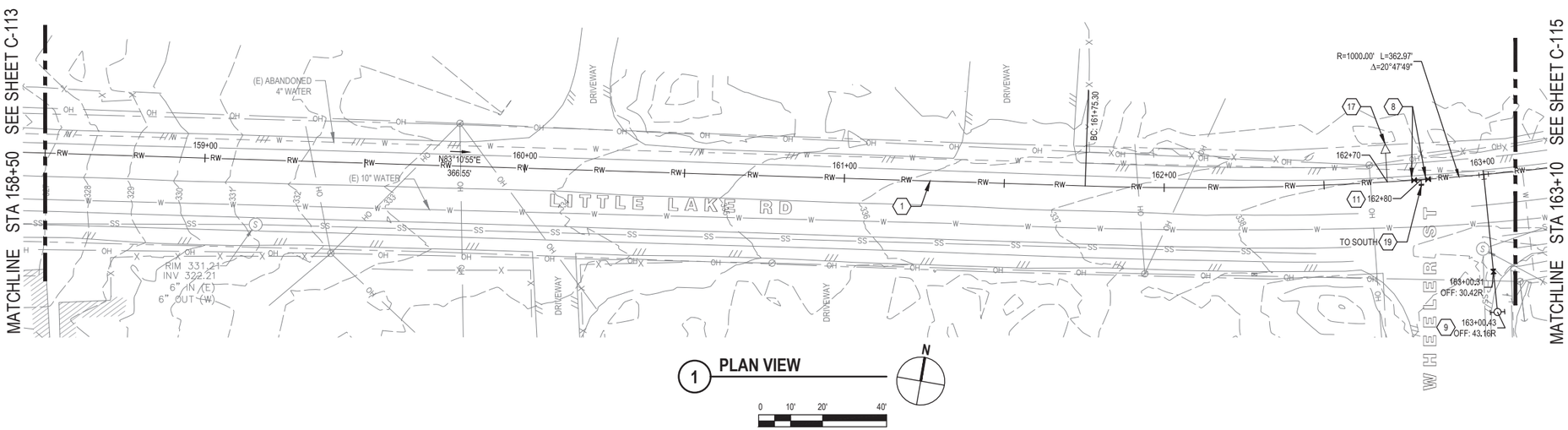
Project No. **11210761**

Original Size **ANSI D**

Sheet No. **C-113**

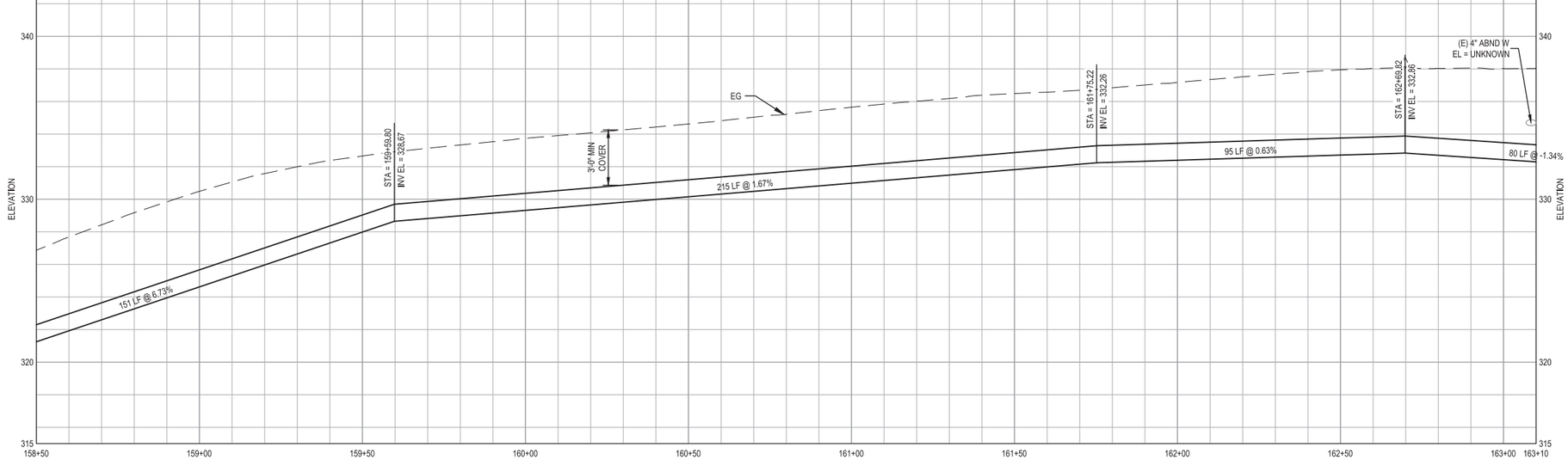
Sheet **20** of **75**

Plot Date: 4 November 2021 - 8:26 PM Plotted By: Chris Bach Filename: \\ghdnet\ghd\US\santa rosa\Projects\561\11210761\digital_design\acad 2020\Sheets\11210761_C-101-124_RW Plan and Profile.dwg



1 **PLAN VIEW**

0 10' 20' 40'



2 **PROFILE VIEW**

0 2' 4' 8' VERTICAL

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SHEET GENERAL NOTES

1. LOCATION OF EXISTING UTILITIES AND STRUCTURES ARE FROM INFORMATION AVAILABLE AT THE TIME OF DESIGN. EXACT LOCATION AND COMPLETENESS ARE NOT GUARANTEED. CONTRACTOR SHALL NOTIFY THE OWNER AND UNDERGROUND SERVICES ALERT (800) 227-2600 OR 811 A MINIMUM OF 48 HOURS PRIOR TO EXCAVATION AND SHALL POTHOLE FOR EXACT LOCATION. CONTRACTOR IS RESPONSIBLE FOR LOCATING EXISTING UTILITIES.
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No.	Issue	Drawn	Approved	Date
A	DSA SUBMITTAL	TW/CB	MK	11/05/2021

Bar is one inch on original size sheet

0 1"

REGISTERED PROFESSIONAL ENGINEER — MATTHEW GLEN KENNEDY — 29304 — CIVIL — STATE OF CALIFORNIA — 11/5/2021

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Drawn	T. WILKINS	Designer	T. WILKINS
Drafting Check	L. HALONEN	Design Check	M. KENNEDY
Project Manager	M. KENNEDY	Date	11/5/2021
This document shall not be used for construction unless signed and sealed for construction.		Scale	AS SHOWN

Client MENDOCINO UNIFIED SCHOOL DISTRICT
Project RECYCLED WATER SYSTEM
Title RECYCLED WATER LINE - STA 158+50 TO 163+10

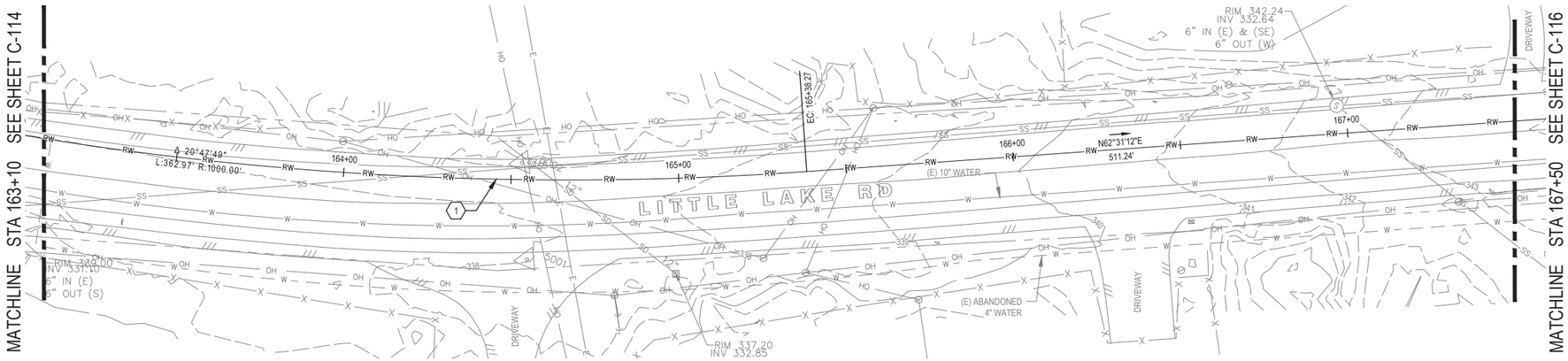
Project No. 11210761

Original Size ANSI D

Sheet No. C-114

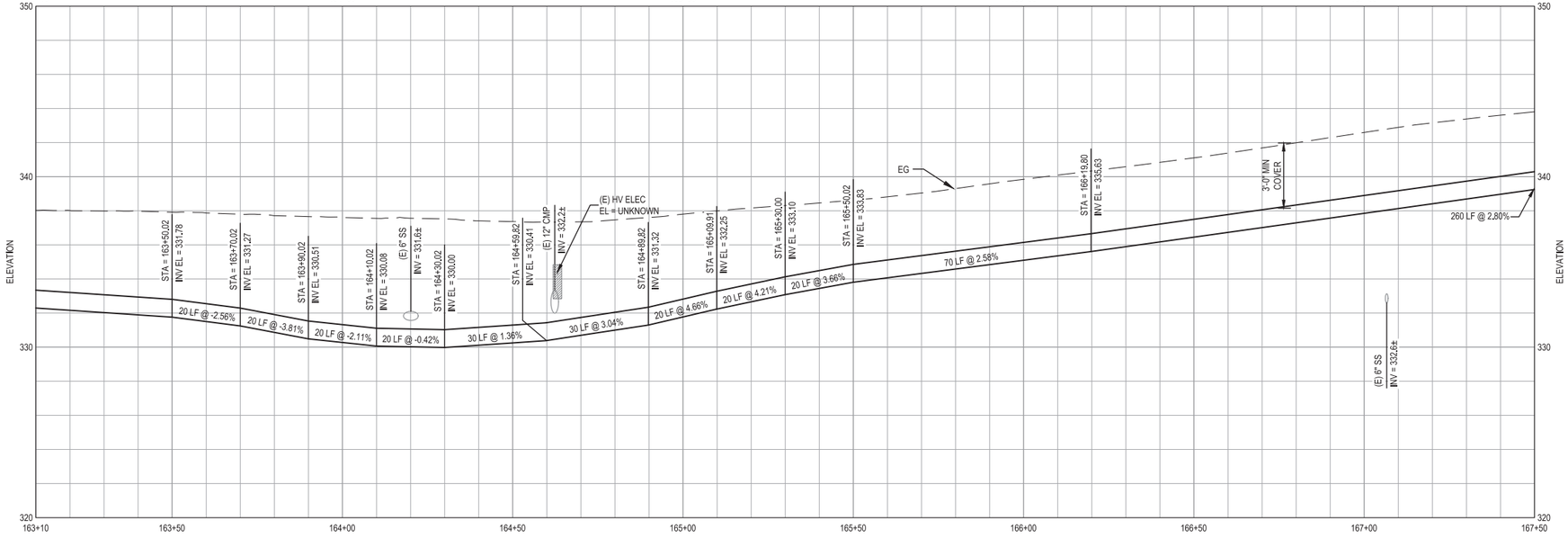
Sheet 21 of 75

Plot Date: 4 November 2021 - 8:27 PM Plotted By: Chris Bach
Filename: \\ghdnet\ghd\US\santa rosa\Projects\56\11210761\digital_design\acad 2020\Sheets\11210761_C-101-124_RW Plan and Profile.dwg



1 **PLAN VIEW**

0 10' 20' 40'



2 **PROFILE VIEW**

0 2' 4' 8' VERTICAL
0 10' 20' 40' HORIZONTAL

SHEET GENERAL NOTES

1. LOCATION OF EXISTING UTILITIES AND STRUCTURES ARE FROM INFORMATION AVAILABLE AT THE TIME OF DESIGN. EXACT LOCATION AND COMPLETENESS ARE NOT GUARANTEED. CONTRACTOR SHALL NOTIFY THE OWNER AND UNDERGROUND SERVICES ALERT (800) 227-2600 OR 811 A MINIMUM OF 48 HOURS PRIOR TO EXCAVATION AND SHALL POTHOLE FOR EXACT LOCATION. CONTRACTOR IS RESPONSIBLE FOR LOCATING EXISTING UTILITIES.
2. THE MINIMUM ALLOWABLE PIPE COVER OVER ALL PIPES 4" NOMINAL DIAMETER AND LARGER SHALL BE 36" AS MEASURED FROM FINISH GRADE TO THE TOP OF THE PIPE.
3. PROVIDE A MINIMUM OF 12" VERTICAL CLEARANCE BETWEEN (E) WATER UTILITY AND (N) RECYCLED WATER MAIN. BACKFILL BETWEEN UTILITIES WITH CONTROLLED DENSITY FILL SLURRY, MIN 5' FROM CROSSING EACH WAY.
4. PROVIDE A MINIMUM OF 6" VERTICAL CLEARANCE BETWEEN EXISTING UNDERGROUND STORM, SEWER, POWER, TELECOMMUNICATIONS, AND GAS UTILITIES.
5. THE MINIMUM ALLOWABLE RADIUS ON 12" NOMINAL DIAMETER PIPE SHALL BE 300 FEET. CURVATURE OF THE PIPE SHALL BE ACCOMPLISHED THROUGH LONGITUDINAL BENDING OF THE PIPE BARREL. DEFLECTION OF JOINTS IS NOT ALLOWED.
6. PRIOR TO BACKFILLING, VERIFY THAT THE MANUFACTURER'S ASSEMBLY MARK ON THE PIPE JOINT IS FLUSH WITH THE END OF THE BELL.
7. ALL ELBOWS, BENDS, TEES, VALVES, AND OTHER DUCTILE IRON FITTINGS INSTALLED ON THE RECYCLED WATER PIPELINE SHALL BE MECHANICALLY RESTRAINED AS SHOWN ON DETAIL 3 ON SHEET C-505.
8. PROVIDE ALL FITTINGS AND TRANSITION COUPLINGS TO PROVIDE A COMPLETE AND WORKING SYSTEM.
9. FROM STATION 138+00 TO WEST, CONTRACTOR TO LOCATE STREET LIGHTING.

SHEET KEYNOTES

1. (N) 12" PVC DR 18 RECYCLED WATER MAIN.
2. (N) 8" PVC DR 18 RECYCLED WATER PIPE.
3. (N) 6" PVC DR 18 RECYCLED WATER PIPE.
4. NOT USED.
5. (N) 3" PVC SCH 80 RECYCLED WATER PIPE.
6. (N) 1" PVC SCH 80 RECYCLED WATER PIPE.
7. (N) 12" FPVC DR 18 RECYCLED WATER MAIN IN 18" FPVC DR 18 CASING INSTALLED VIA HDD. SEE PROFILE.
8. (N) GATE VALVE, SIZE PER ADJOINING PIPE, UNO. SEE DETAIL 3 ON SHEET C-502.
9. (N) FIRE HYDRANT. SEE DETAIL 2 ON SHEET C-502.
10. (N) WATER SERVICE METER. SEE DETAIL 2 ON SHEET C-505.
11. (N) TEE, SIZE PER ADJOINING PIPE, UNO.
12. (N) CROSS, SIZE PER ADJOINING PIPE, UNO.
13. (N) 90° ELBOW, SIZE PER ADJOINING PIPE, UNO.
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15. (N) 22.5° ELBOW, SIZE PER ADJOINING PIPE, UNO.
16. (N) 11.25° ELBOW, SIZE PER ADJOINING PIPE, UNO.
17. (N) AIR RELEASE VALVE AT HIGH POINT IN WATER MAIN. SEE DETAIL 1 ON SHEET C-505.
18. PLUG AND ABANDON (E) ABANDONED WATER LINE. SEE DETAIL 4 ON SHEET C-501.
19. (N) RESTRAINED MECHANICAL PLUGS WHERE SHOWN ON PLAN.
20. (N) BACKFLOW PREVENTER AND PRESSURE REDUCER. SEE DETAIL 4 ON SHEET C-502.
21. (N) REDUCER, SIZE PER ADJOINING PIPE, UNO.

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No.	Issue	Drawn	Approved	Date
A	DSA SUBMITTAL	TW/CB	MK	11/05/2021

Bar is one inch on original size sheet
0 1"

REGISTERED PROFESSIONAL ENGINEER
CHRISTOPHER GLEN KENNEDY
No. C68304
CIVIL
STATE OF CALIFORNIA
11/5/2021

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Drafting Check	L. HALONEN	Design Check	M. KENNEDY
Project Manager	M. KENNEDY	Date	11/5/2021
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Client MENDOCINO UNIFIED SCHOOL DISTRICT
Project RECYCLED WATER SYSTEM
Title RECYCLED WATER LINE - STA 163+10 TO 167+50
Project No. 11210761
Original Size ANSI D
Sheet No. C-115
Sheet 22 of 75

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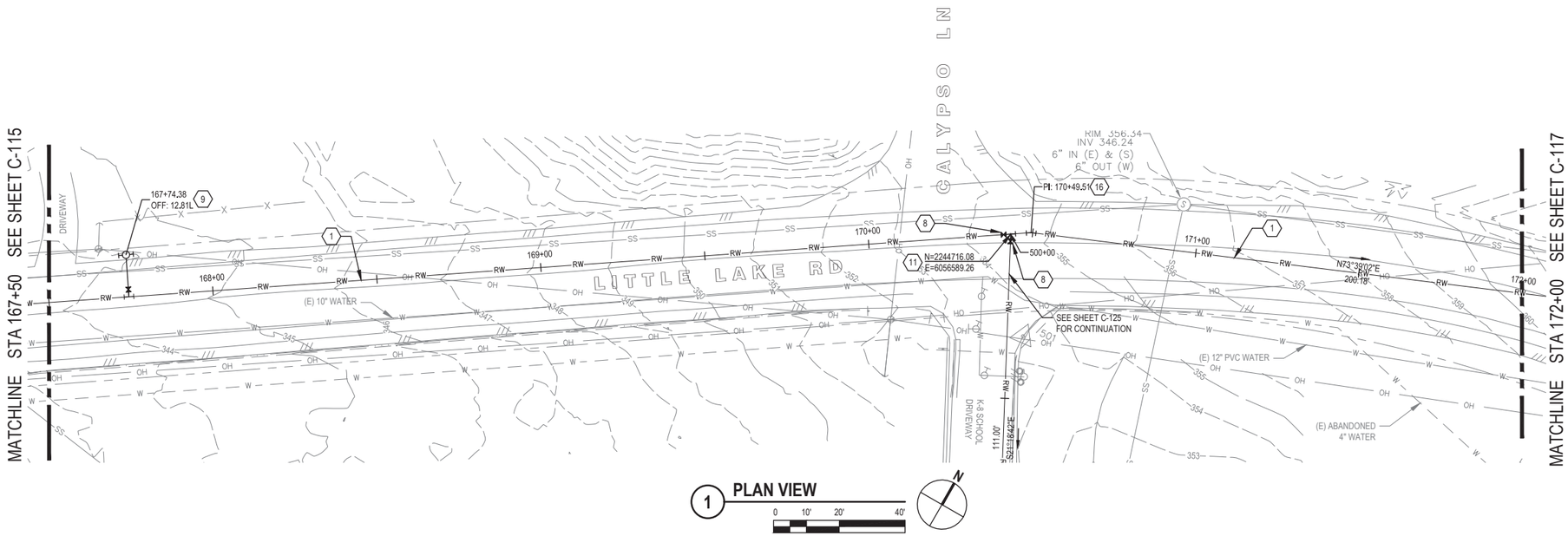
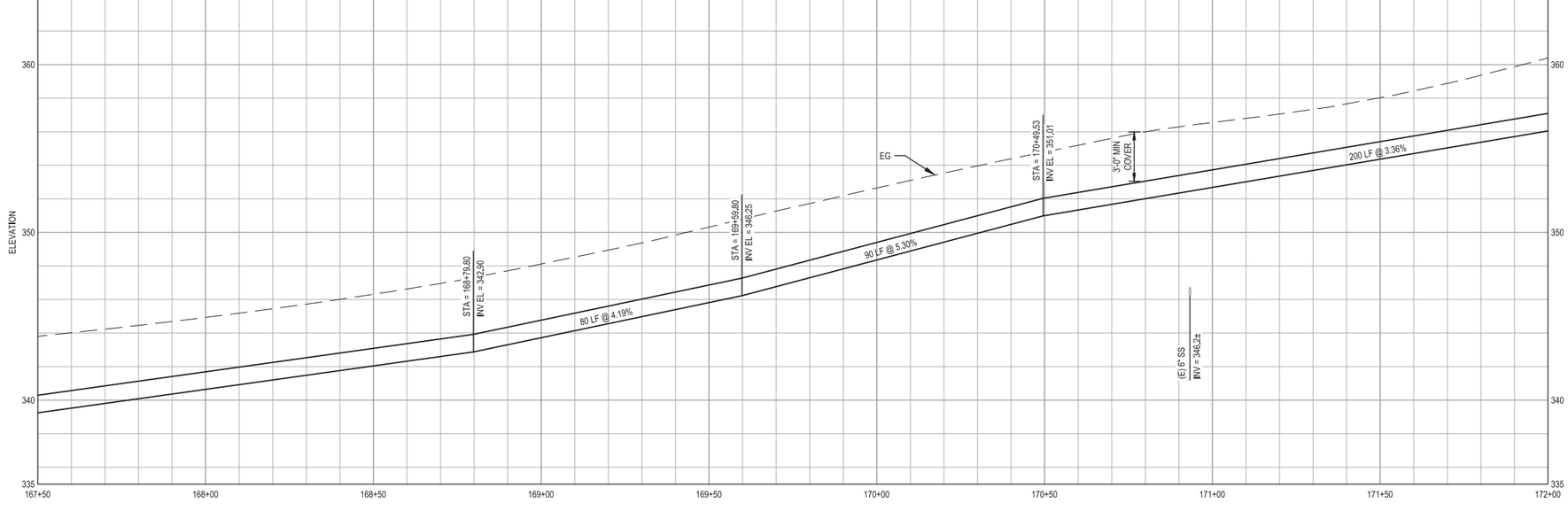


1 **PLAN VIEW**

0 10' 20' 40'



2 **PROFILE VIEW**

0 2' 4' 8' VERTICAL

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A	DSA SUBMITTAL	TW/CB	MK	11/05/2021

Bar is one inch on original size sheet

0 1"

REGISTERED PROFESSIONAL ENGINEER — HEIDI GLEN KENNEDY — 063304 — CIVIL — STATE OF CALIFORNIA — 11/5/2021

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Drawn	T. WILKINS	Designer	T. WILKINS
Drafting Check	L. HALONEN	Design Check	M. KENNEDY
Project Manager	M. KENNEDY	Date	11/5/2021
		Scale	AS SHOWN

Client MENDOCINO UNIFIED SCHOOL DISTRICT
Project RECYCLED WATER SYSTEM
Title RECYCLED WATER LINE - STA 167+50 TO 172+00

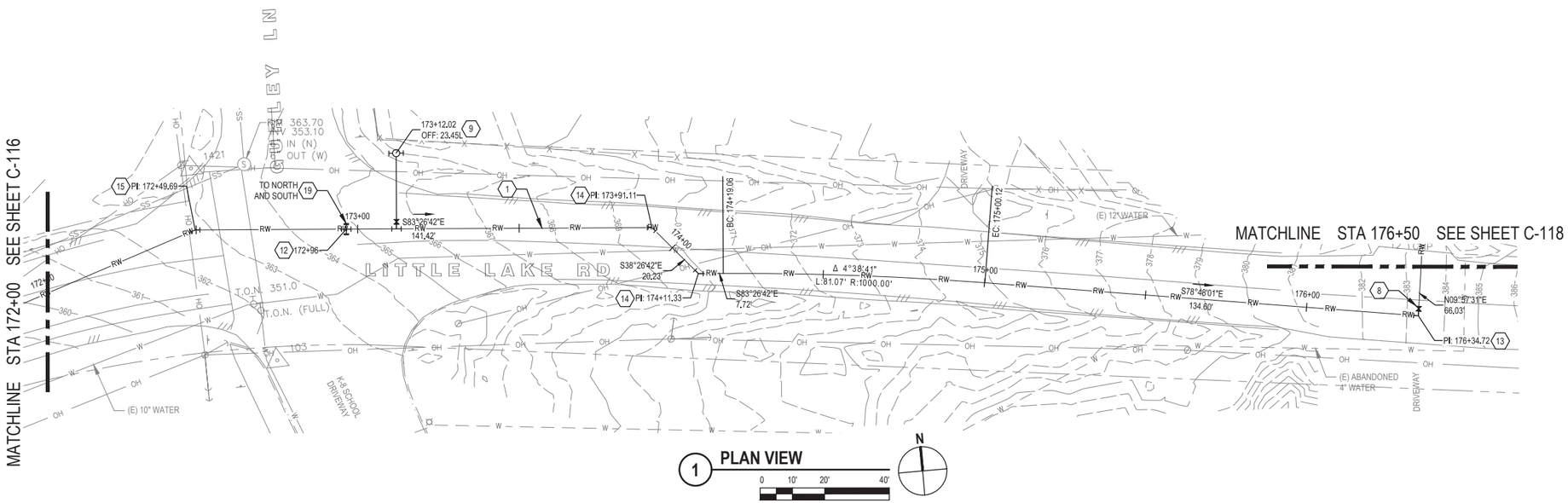
Project No. 11210761

Original Size ANSI D

Sheet No. C-116

Sheet 23 of 75

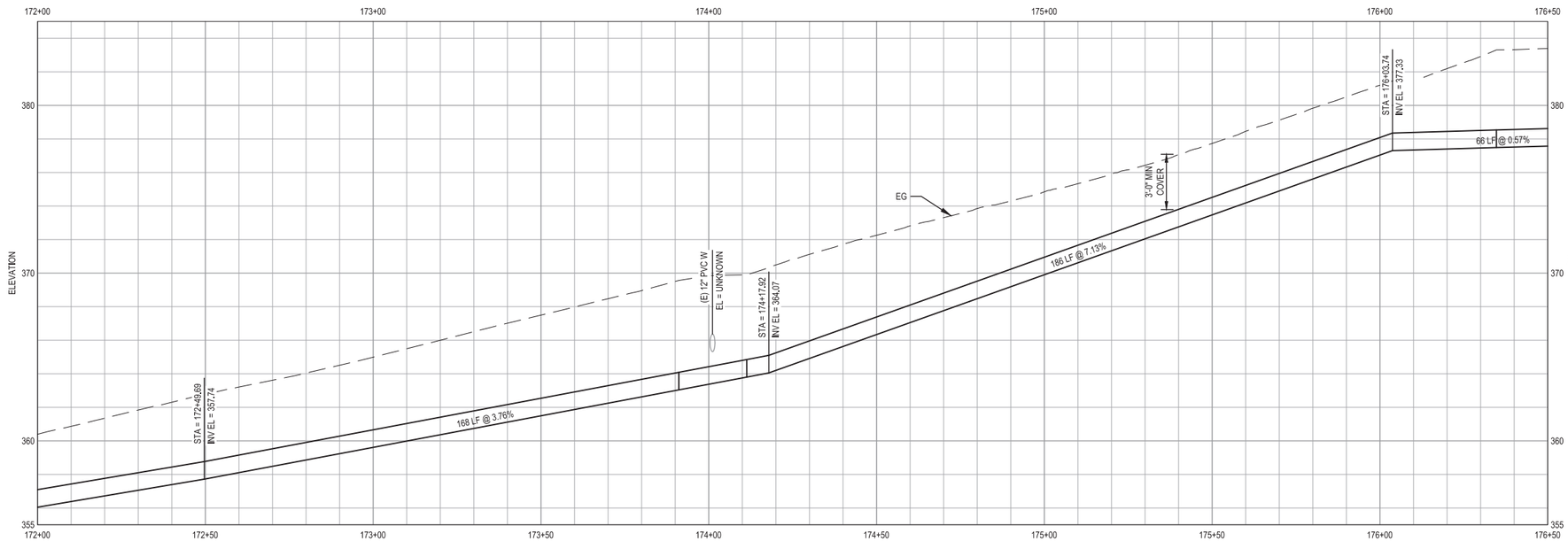
Plot Date: 4 November 2021 - 8:27 PM Plotted By: Chris Bach Filename: \\ghdnet\ghd\US\santa rosa\Projects\561\11210761\digital_design\acad 2020\Sheets\11210761_C-101-124_RW Plan and Profile.dwg



1 **PLAN VIEW**

0 10' 20' 40'

N



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A	DSA SUBMITTAL	TW/CB	MK	11/05/2021

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0 1"

REGISTERED PROFESSIONAL ENGINEER — STEVEN GLEN KENNEDY — 063004 — CIVIL — STATE OF CALIFORNIA — 11/5/2021

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Project Manager	M. KENNEDY	Date	11/5/2021
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Client MENDOCINO UNIFIED SCHOOL DISTRICT
Project RECYCLED WATER SYSTEM
Title RECYCLED WATER LINE - STA 172+00 TO 176+50
Project No. 11210761
Original Size ANSI D
Sheet No. C-117
Sheet 24 of 75

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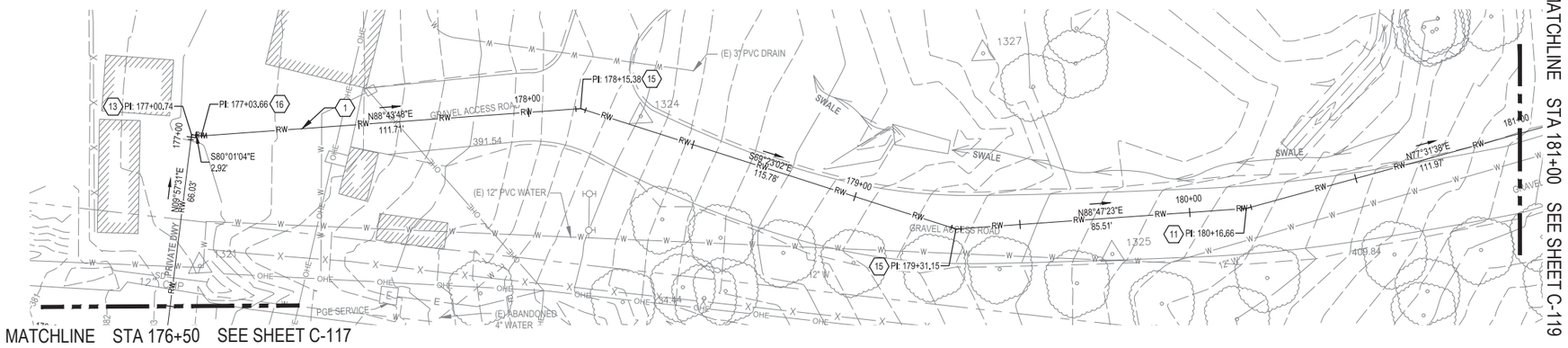
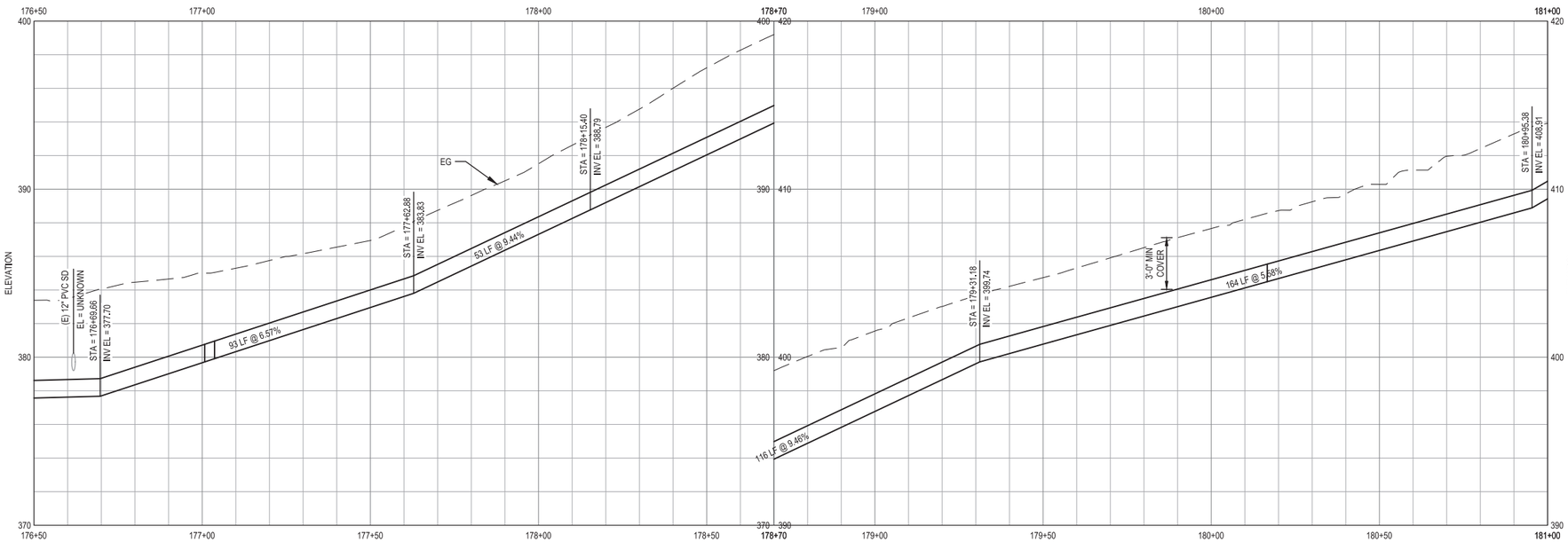


1 **PLAN VIEW**

0 10' 20' 40'

N



2 **PROFILE VIEW**

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Project No. 11210761

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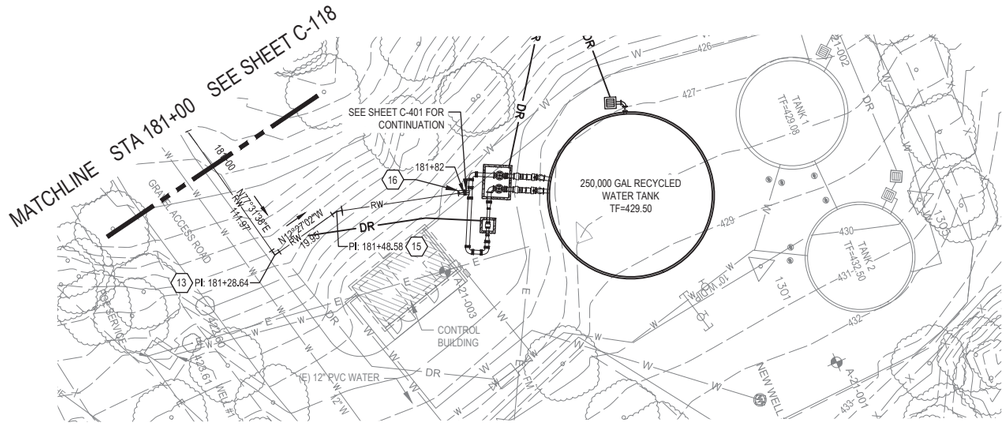

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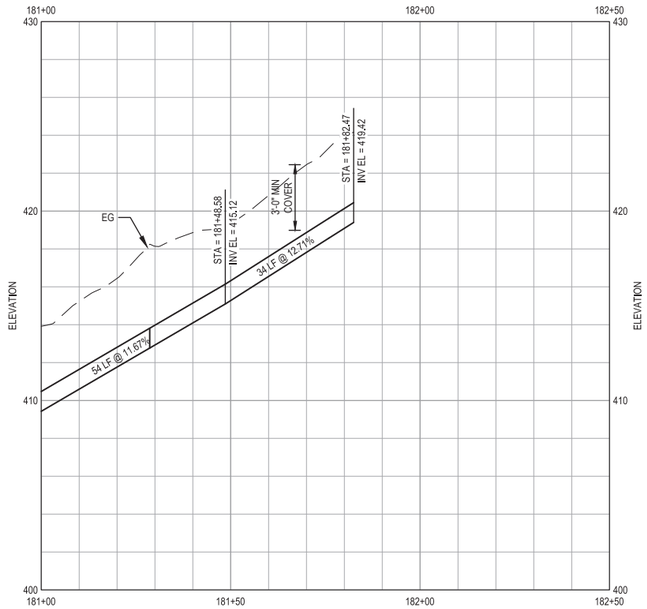

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5. THE MINIMUM ALLOWABLE RADIUS ON 12" NOMINAL DIAMETER PIPE SHALL BE 300 FEET. CURVATURE OF THE PIPE SHALL BE ACCOMPLISHED THROUGH LONGITUDINAL BENDING OF THE PIPE BARREL. DEFLECTION OF JOINTS IS NOT ALLOWED.
6. PRIOR TO BACKFILLING, VERIFY THAT THE MANUFACTURER'S ASSEMBLY MARK ON THE PIPE JOINT IS FLUSH WITH THE END OF THE BELL.
7. ALL ELBOWS, BENDS, TEES, VALVES, AND OTHER DUCTILE IRON FITTINGS INSTALLED ON THE RECYCLED WATER PIPELINE SHALL BE MECHANICALLY RESTRAINED AS SHOWN ON DETAIL 3 ON SHEET C-505.
8. PROVIDE ALL FITTINGS AND TRANSITION COUPLINGS TO PROVIDE A COMPLETE AND WORKING SYSTEM.
9. FROM STATION 138+00 TO WEST, CONTRACTOR TO LOCATE STREET LIGHTING.

SHEET KEYNOTES

1. (N) 12" PVC DR 18 RECYCLED WATER MAIN.
2. (N) 8" PVC DR 18 RECYCLED WATER PIPE.
3. (N) 6" PVC DR 18 RECYCLED WATER PIPE.
4. NOT USED.
5. (N) 3" PVC SCH 80 RECYCLED WATER PIPE.
6. (N) 1" PVC SCH 80 RECYCLED WATER PIPE.
7. (N) 12" FPVC DR 18 RECYCLED WATER MAIN IN 18" FPVC DR 18 CASING INSTALLED VIA HDD. SEE PROFILE.
8. (N) GATE VALVE, SIZE PER ADJOINING PIPE, UNO. SEE DETAIL 3 ON SHEET C-502.
9. (N) FIRE HYDRANT. SEE DETAIL 2 ON SHEET C-502.
10. (N) WATER SERVICE METER. SEE DETAIL 2 ON SHEET C-505.
11. (N) TEE, SIZE PER ADJOINING PIPE, UNO.
12. (N) CROSS, SIZE PER ADJOINING PIPE, UNO.
13. (N) 90° ELBOW, SIZE PER ADJOINING PIPE, UNO.
14. (N) 45° ELBOW, SIZE PER ADJOINING PIPE, UNO.
15. (N) 22.5° ELBOW, SIZE PER ADJOINING PIPE, UNO.
16. (N) 11.25° ELBOW, SIZE PER ADJOINING PIPE, UNO.
17. (N) AIR RELEASE VALVE AT HIGH POINT IN WATER MAIN. SEE DETAIL 1 ON SHEET C-505.
18. PLUG AND ABANDON (E) ABANDONED WATER LINE. SEE DETAIL 4 ON SHEET C-501.
19. (N) RESTRAINED MECHANICAL PLUGS WHERE SHOWN ON PLAN.
20. (N) BACKFLOW PREVENTER AND PRESSURE REDUCER. SEE DETAIL 4 ON SHEET C-502.
21. (N) REDUCER, SIZE PER ADJOINING PIPE, UNO.

THIS SHEET NOT SUBJECT TO DSA REVIEW/APPROVAL

No.	Issue	Drawn	Approved	Date
A	DSA SUBMITTAL	TW/CB	MK	11/05/2021

Bar is one inch on original size sheet

0 1"

REGISTERED PROFESSIONAL ENGINEER — STEVEN GLEN KENNEDY — 063304 — CIVIL — STATE OF CALIFORNIA — 11/5/2021

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Santa Rosa California 95407 USA
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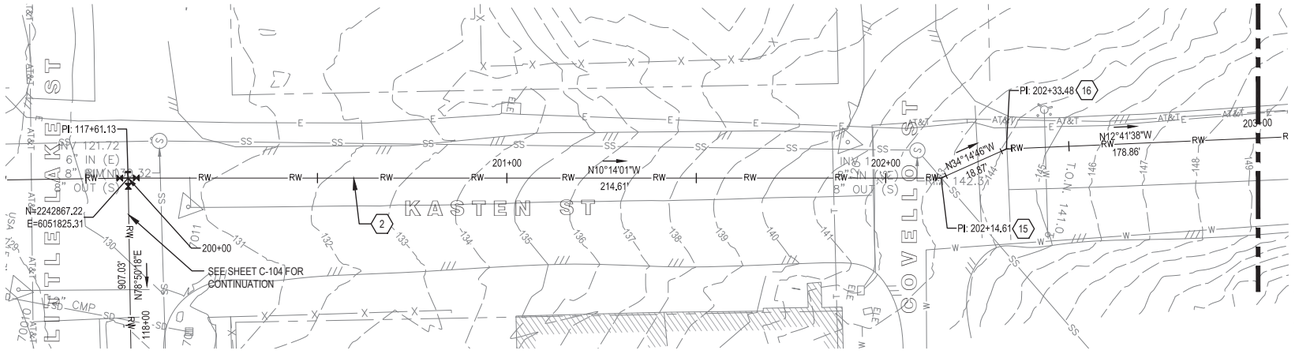
Drawn	T. WILKINS	Designer	T. WILKINS
Drafting Check	L. HALONEN	Design Check	M. KENNEDY
Project Manager	M. KENNEDY	Date	11/5/2021
		Scale	AS SHOWN

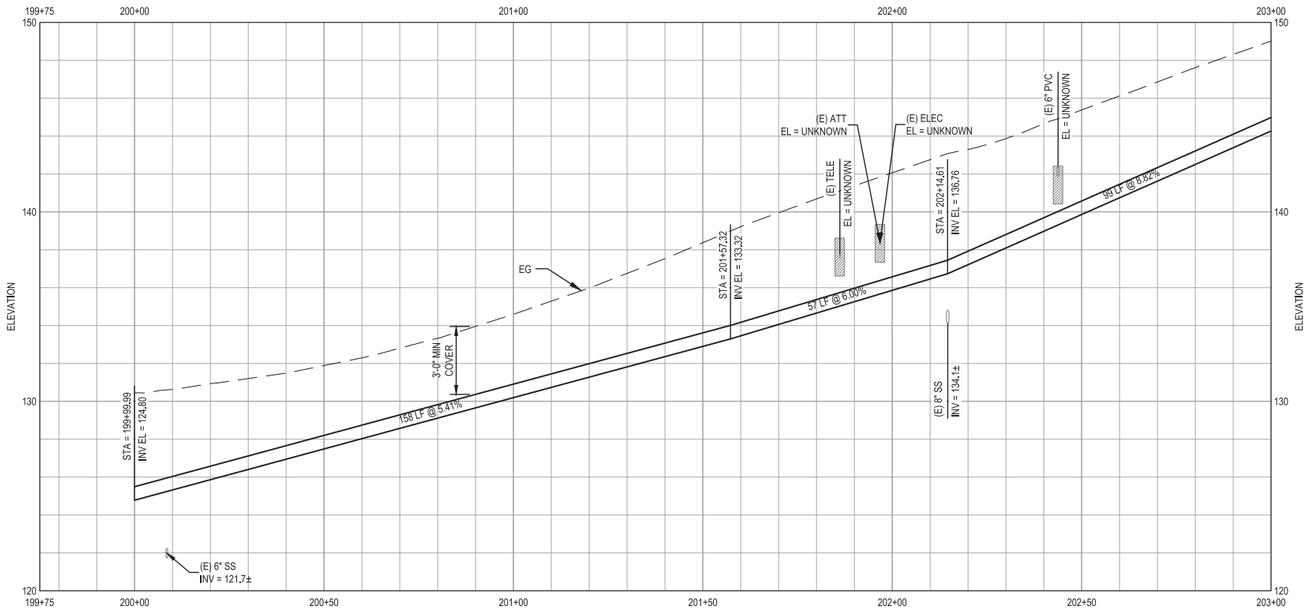
Client **MENDOCINO UNIFIED SCHOOL DISTRICT**
Project **RECYCLED WATER SYSTEM**
Title **RECYCLED WATER LINE - STA 181+00 TO 181+82**
Project No. **11210761**
Original Size **ANSI D**
Sheet No. **C-119**
Sheet **26** of **75**

Plot Date: 4 November 2021 - 8:27 PM Plotted By: Chris Bach Filename: \\ghdnet\ghd\US\santa rosa\Projects\561\11210761\digital_design\acad 2020\Sheets\11210761_C-101-124_RW Plan and Profile.dwg



1 **PLAN VIEW**

0 10' 20' 40'



2 **PROFILE VIEW**

0 2' 4' 8' VERTICAL
0 10' 20' 40' HORIZONTAL

SHEET GENERAL NOTES

1. LOCATION OF EXISTING UTILITIES AND STRUCTURES ARE FROM INFORMATION AVAILABLE AT THE TIME OF DESIGN. EXACT LOCATION AND COMPLETENESS ARE NOT GUARANTEED. CONTRACTOR SHALL NOTIFY THE OWNER AND UNDERGROUND SERVICES ALERT (800) 227-2600 OR 811 A MINIMUM OF 48 HOURS PRIOR TO EXCAVATION AND SHALL POTHOLE FOR EXACT LOCATION. CONTRACTOR IS RESPONSIBLE FOR LOCATING EXISTING UTILITIES.
2. THE MINIMUM ALLOWABLE PIPE COVER OVER ALL PIPES 4" NOMINAL DIAMETER AND LARGER SHALL BE 36" AS MEASURED FROM FINISH GRADE TO THE TOP OF THE PIPE.
3. PROVIDE A MINIMUM OF 12" VERTICAL CLEARANCE BETWEEN (E) WATER UTILITY AND (N) RECYCLED WATER MAIN. BACKFILL BETWEEN UTILITIES WITH CONTROLLED DENSITY FILL SLURRY, MIN 5' FROM CROSSING EACH WAY.
4. PROVIDE A MINIMUM OF 6" VERTICAL CLEARANCE BETWEEN EXISTING UNDERGROUND STORM, SEWER, POWER, TELECOMMUNICATIONS, AND GAS UTILITIES.
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6. PRIOR TO BACKFILLING, VERIFY THAT THE MANUFACTURER'S ASSEMBLY MARK ON THE PIPE JOINT IS FLUSH WITH THE END OF THE BELL.
7. ALL ELBOWS, BENDS, TEES, VALVES, AND OTHER DUCTILE IRON FITTINGS INSTALLED ON THE RECYCLED WATER PIPELINE SHALL BE MECHANICALLY RESTRAINED AS SHOWN ON DETAIL 3 ON SHEET C-505.
8. PROVIDE ALL FITTINGS AND TRANSITION COUPLINGS TO PROVIDE A COMPLETE AND WORKING SYSTEM.
9. FROM STATION 138+00 TO WEST, CONTRACTOR TO LOCATE STREET LIGHTING.

SHEET KEYNOTES

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2. (N) 8" PVC DR 18 RECYCLED WATER PIPE.
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5. (N) 3" PVC SCH 80 RECYCLED WATER PIPE.
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9. (N) FIRE HYDRANT. SEE DETAIL 2 ON SHEET C-502.
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17. (N) AIR RELEASE VALVE AT HIGH POINT IN WATER MAIN. SEE DETAIL 1 ON SHEET C-505.
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19. (N) RESTRAINED MECHANICAL PLUGS WHERE SHOWN ON PLAN.
20. (N) BACKFLOW PREVENTER AND PRESSURE REDUCER. SEE DETAIL 4 ON SHEET C-502.
21. (N) REDUCER, SIZE PER ADJOINING PIPE, UNO.

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No.	Issue	Drawn	Approved	Date
A	DSA SUBMITTAL	TW/CB	MK	11/05/2021

Bar is one inch on original size sheet
0 1"

STEVEN GLEN KENNEDY 26304 PROFESSIONAL ENGINEER CIVIL STATE OF CALIFORNIA 11/5/2021

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This document shall not be used for construction unless signed and sealed for construction.

Drawn	T. WILKINS	Designer	T. WILKINS
Drafting Check	L. HALONEN	Design Check	M. KENNEDY
Project Manager	M. KENNEDY	Date	11/5/2021
		Scale	AS SHOWN

Client MENDOCINO UNIFIED SCHOOL DISTRICT
Project RECYCLED WATER SYSTEM
Title RECYCLED WATER LINE - STA 200+00 TO 203+00
Project No. 11210761
Original Size ANSI D
Sheet No. C-120
Sheet 27 of 75

Plot Date: 4 November 2021 - 8:28 PM Plotted By: Chris Bach
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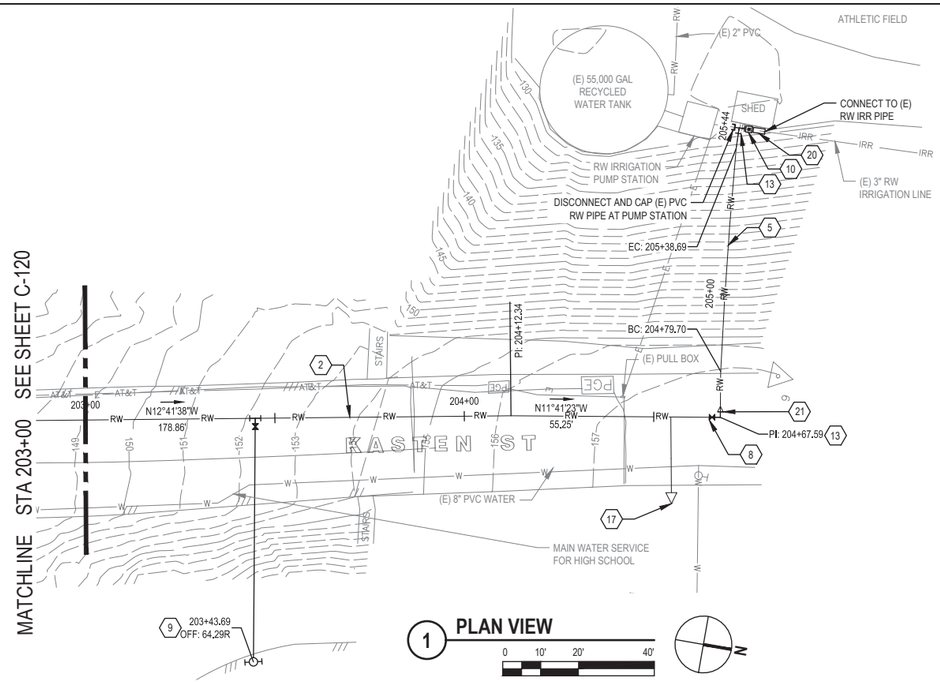

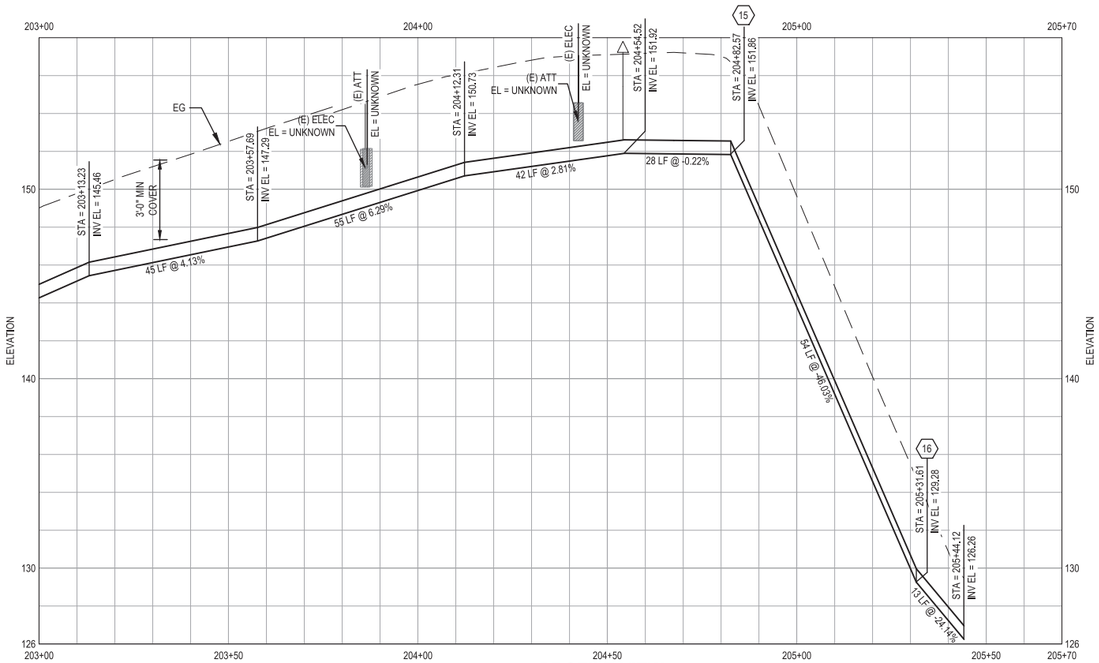

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9. FROM STATION 138+00 TO WEST, CONTRACTOR TO LOCATE STREET LIGHTING.

SHEET KEYNOTES

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No.	Issue	Drawn	Approved	Date
A	DSA SUBMITTAL	TW/CB	MK	11/05/2021

Bar is one inch on original size sheet
0 1"

REGISTERED PROFESSIONAL ENGINEER — GLEN KENNEDY — 26830 — CIVIL — STATE OF CALIFORNIA — 11/5/2021

GHD Inc.
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Drawn	T. WILKINS	Designer	T. WILKINS
Drafting Check	L. HALONEN	Design Check	M. KENNEDY
Project Manager	M. KENNEDY	Date	11/5/2021
This document shall not be used for construction unless signed and sealed for construction.		Scale	AS SHOWN

Client MENDOCINO UNIFIED SCHOOL DISTRICT
Project RECYCLED WATER SYSTEM
Title RECYCLED WATER LINE - STA 203+00 TO 205+44
Project No. 11210761
Original Size ANSI D
Sheet No. C-121
Sheet 28 of 75

Plot Date: 4 November 2021 - 8:28 PM Plotted By: Chris Bach
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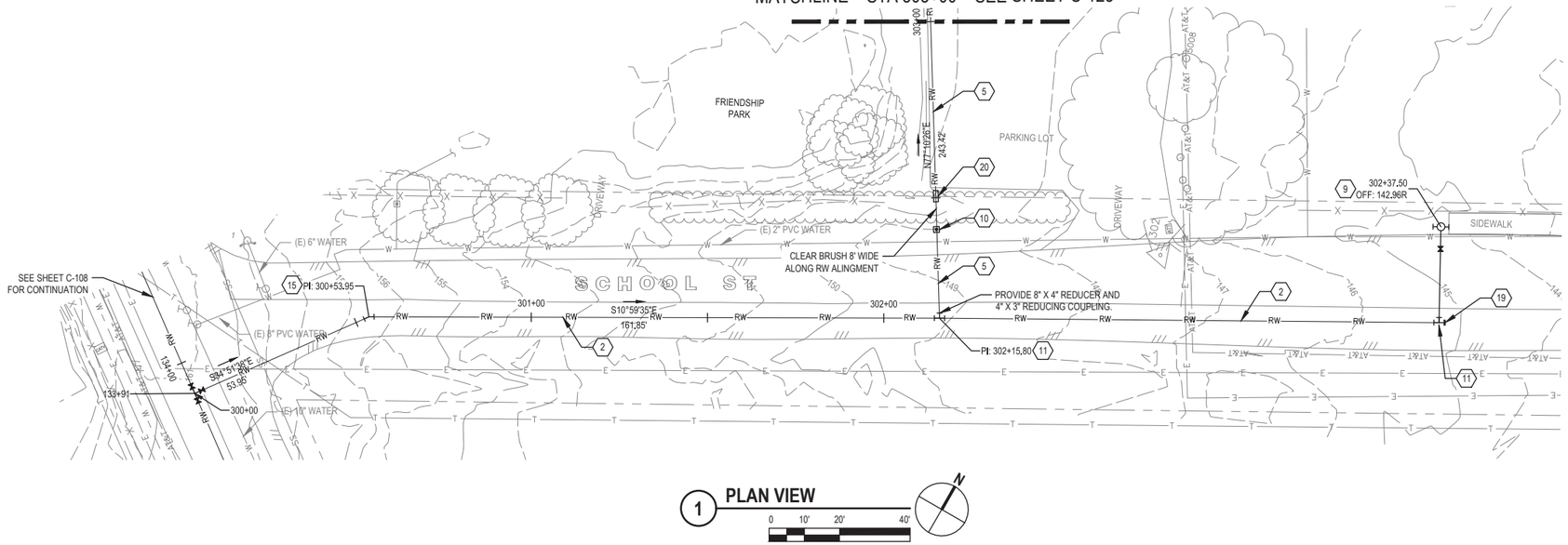
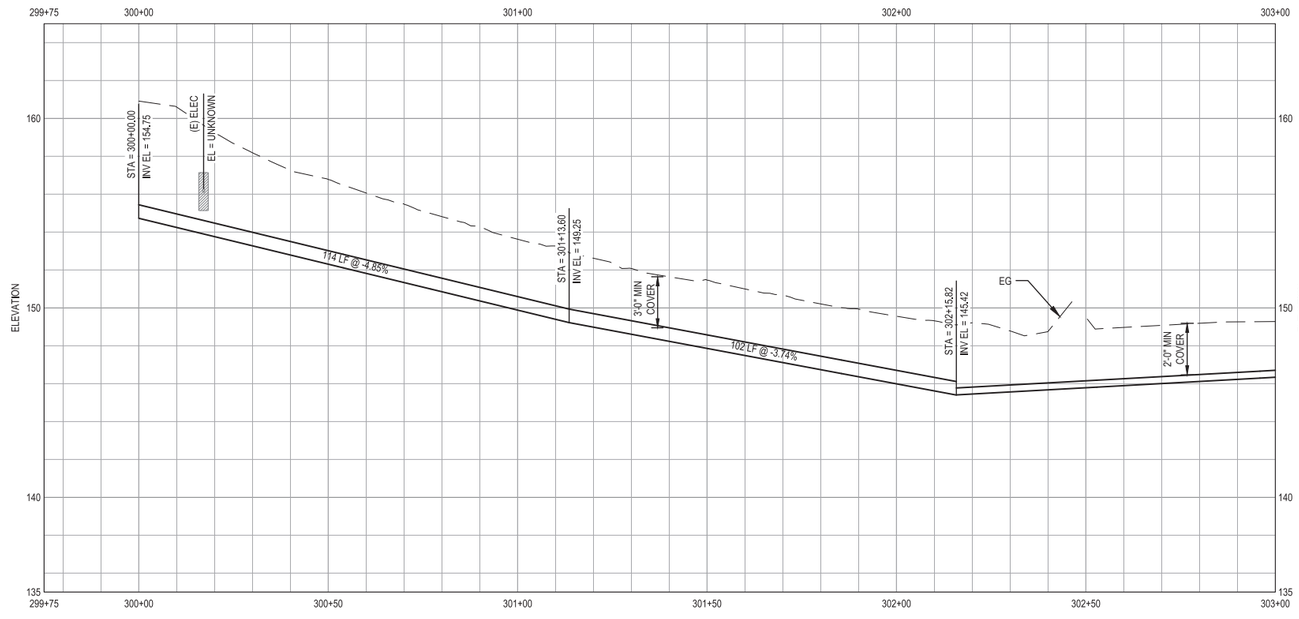


1 **PLAN VIEW**

0 10' 20' 40'



2 **PROFILE VIEW**

0 2' 4' 8' VERTICAL

0 10' 20' 40' HORIZONTAL

SHEET GENERAL NOTES

1. LOCATION OF EXISTING UTILITIES AND STRUCTURES ARE FROM INFORMATION AVAILABLE AT THE TIME OF DESIGN. EXACT LOCATION AND COMPLETENESS ARE NOT GUARANTEED. CONTRACTOR SHALL NOTIFY THE OWNER AND UNDERGROUND SERVICES ALERT (800) 227-2600 OR 811 A MINIMUM OF 48 HOURS PRIOR TO EXCAVATION AND SHALL POTHOLE FOR EXACT LOCATION. CONTRACTOR IS RESPONSIBLE FOR LOCATING EXISTING UTILITIES.
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9. FROM STATION 138+00 TO WEST, CONTRACTOR TO LOCATE STREET LIGHTING.

SHEET KEYNOTES

1. (N) 12" PVC DR 18 RECYCLED WATER MAIN.
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9. (N) FIRE HYDRANT. SEE DETAIL 2 ON SHEET C-502.
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No.	Issue	Drawn	Approved	Date
A	DSA SUBMITTAL	TW/CB	MK	11/05/2021

Bar is one inch on original size sheet

0 1"

REGISTERED PROFESSIONAL ENGINEER — GLEN KENNY — 29330 — CIVIL — STATE OF CALIFORNIA — 11/5/2021

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Drawn	T. WILKINS	Designer	T. WILKINS
Drafting Check	L. HALONEN	Design Check	M. KENNEDY
Project Manager	M. KENNEDY	Date	11/5/2021
		Scale	AS SHOWN

Client MENDOCINO UNIFIED SCHOOL DISTRICT
Project RECYCLED WATER SYSTEM
Title RECYCLED WATER LINE - STA 300+00 TO 303+00

Project No. 11210761

Original Size ANSI D | Sheet No. C-122 | Sheet 29 of 75

Plot Date: 4 November 2021 - 8:28 PM Plotted By: Chris Bach
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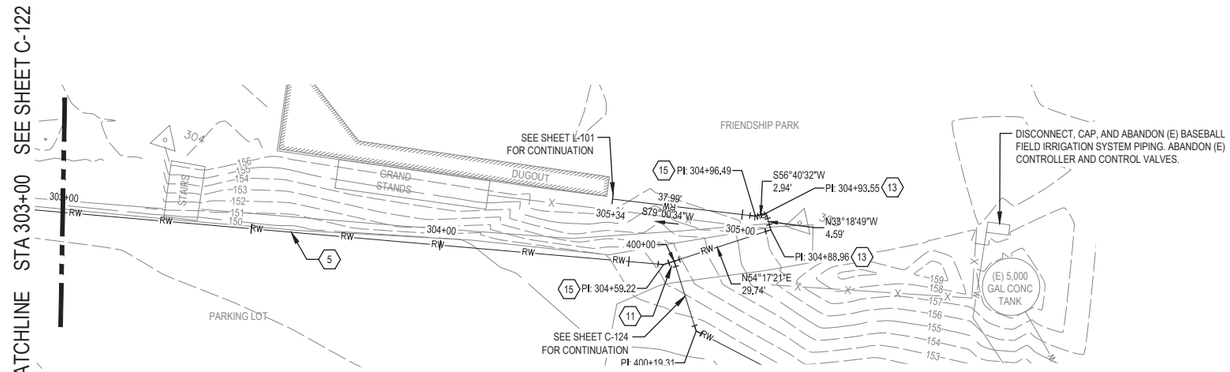
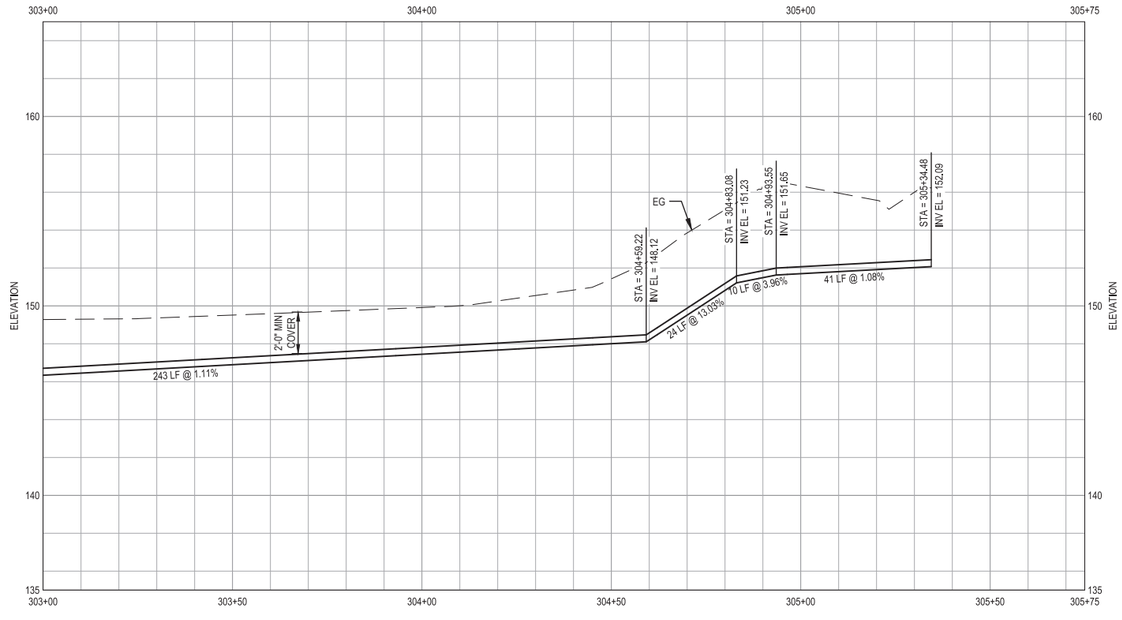


1 **PLAN VIEW**

0 10' 20' 40'



2 **PROFILE VIEW**

0 2' 4' 8' VERTICAL
0 10' 20' 40' HORIZONTAL

SHEET GENERAL NOTES

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Bar is one inch on original size sheet
0 1"

REGISTERED PROFESSIONAL ENGINEER — KIRK GLEN KENNEDY — No. C63304 — CIVIL — STATE OF CALIFORNIA — 11/5/2021

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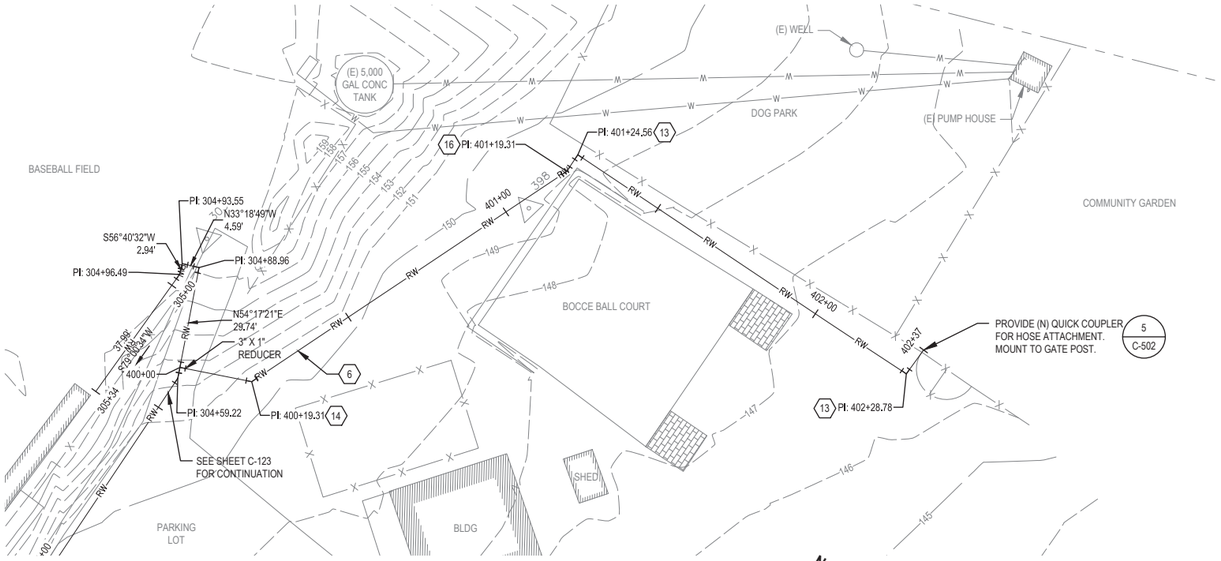
Drawn	T.WILKINS	Designer	T.WILKINS
Drafting Check	L.HALONEN	Design Check	L.HALONEN
Project Manager	M. KENNEDY	Date	11/5/2021
This document shall not be used for construction unless signed and sealed for construction.		Scale	AS SHOWN

Client MENDOCINO UNIFIED SCHOOL DISTRICT
Project RECYCLED WATER SYSTEM
Title RECYCLED WATER LINE - STA 303+00 TO 305+34

Project No. 11210761

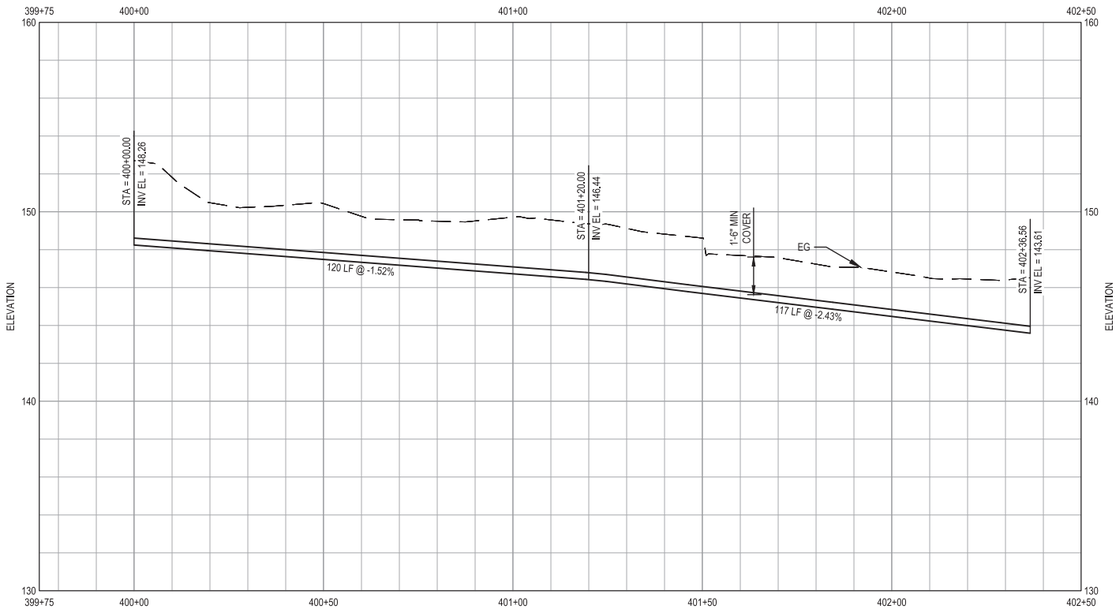
Original Size ANSI D | Sheet No. C-123 | Sheet 30 of 75

Plot Date: 4 November 2021 - 8:28 PM Plotted By: Chris Bach
Filename: \\ghdnet\ghd\US\santa rosa\Projects\56\11210761\digital_design\acad 2020\Sheets\11210761_C-101-124_RW Plan and Profile.dwg



1 PLAN VIEW

0 10' 20' 40'



2 PROFILE VIEW

0 2' 4' 8' VERTICAL
0 10' 20' 40' HORIZONTAL

SHEET GENERAL NOTES

1. LOCATION OF EXISTING UTILITIES AND STRUCTURES ARE FROM INFORMATION AVAILABLE AT THE TIME OF DESIGN. EXACT LOCATION AND COMPLETENESS ARE NOT GUARANTEED. CONTRACTOR SHALL NOTIFY THE OWNER AND UNDERGROUND SERVICES ALERT (800) 227-2600 OR 811 A MINIMUM OF 48 HOURS PRIOR TO EXCAVATION AND SHALL POTHOLE FOR EXACT LOCATION. CONTRACTOR IS RESPONSIBLE FOR LOCATING EXISTING UTILITIES.
2. THE MINIMUM ALLOWABLE PIPE COVER OVER ALL PIPES 4" NOMINAL DIAMETER AND LARGER SHALL BE 36" AS MEASURED FROM FINISH GRADE TO THE TOP OF THE PIPE.
3. PROVIDE A MINIMUM OF 12" VERTICAL CLEARANCE BETWEEN (E) WATER UTILITY AND (N) RECYCLED WATER MAIN. BACKFILL BETWEEN UTILITIES WITH CONTROLLED DENSITY FILL SLURRY, MIN 5' FROM CROSSING EACH WAY.
4. PROVIDE A MINIMUM OF 6" VERTICAL CLEARANCE BETWEEN EXISTING UNDERGROUND STORM, SEWER, POWER, TELECOMMUNICATIONS, AND GAS UTILITIES.
5. THE MINIMUM ALLOWABLE RADIUS ON 12" NOMINAL DIAMETER PIPE SHALL BE 300 FEET. CURVATURE OF THE PIPE SHALL BE ACCOMPLISHED THROUGH LONGITUDINAL BENDING OF THE PIPE BARREL. DEFLECTION OF JOINTS IS NOT ALLOWED.
6. PRIOR TO BACKFILLING, VERIFY THAT THE MANUFACTURER'S ASSEMBLY MARK ON THE PIPE JOINT IS FLUSH WITH THE END OF THE BELL.
7. ALL ELBOWS, BENDS, TEES, VALVES, AND OTHER DUCTILE IRON FITTINGS INSTALLED ON THE RECYCLED WATER PIPELINE SHALL BE MECHANICALLY RESTRAINED AS SHOWN ON DETAIL 3 ON SHEET C-505.
8. PROVIDE ALL FITTINGS AND TRANSITION COUPLINGS TO PROVIDE A COMPLETE AND WORKING SYSTEM.
9. FROM STATION 138+00 TO WEST, CONTRACTOR TO LOCATE STREET LIGHTING.

SHEET KEYNOTES

1. (N) 12" PVC DR 18 RECYCLED WATER MAIN.
2. (N) 8" PVC DR 18 RECYCLED WATER PIPE.
3. (N) 6" PVC DR 18 RECYCLED WATER PIPE.
4. NOT USED.
5. (N) 3" PVC SCH 80 RECYCLED WATER PIPE.
6. (N) 1" PVC SCH 80 RECYCLED WATER PIPE.
7. (N) 12" FPVC DR 18 RECYCLED WATER MAIN IN 18" FPVC DR 18 CASING INSTALLED VIA HDD. SEE PROFILE.
8. (N) GATE VALVE, SIZE PER ADJOINING PIPE, UNO. SEE DETAIL 3 ON SHEET C-502.
9. (N) FIRE HYDRANT. SEE DETAIL 2 ON SHEET C-502.
10. (N) WATER SERVICE METER. SEE DETAIL 2 ON SHEET C-505.
11. (N) TEE, SIZE PER ADJOINING PIPE, UNO.
12. (N) CROSS, SIZE PER ADJOINING PIPE, UNO.
13. (N) 90° ELBOW, SIZE PER ADJOINING PIPE, UNO.
14. (N) 45° ELBOW, SIZE PER ADJOINING PIPE, UNO.
15. (N) 22.5° ELBOW, SIZE PER ADJOINING PIPE, UNO.
16. (N) 11.25° ELBOW, SIZE PER ADJOINING PIPE, UNO.
17. (N) AIR RELEASE VALVE AT HIGH POINT IN WATER MAIN. SEE DETAIL 1 ON SHEET C-505.
18. PLUG AND ABANDON (E) ABANDONED WATER LINE. SEE DETAIL 4 ON SHEET C-501.
19. (N) RESTRAINED MECHANICAL PLUGS WHERE SHOWN ON PLAN.
20. (N) BACKFLOW PREVENTER AND PRESSURE REDUCER. SEE DETAIL 4 ON SHEET C-502.
21. (N) REDUCER, SIZE PER ADJOINING PIPE, UNO.

THIS SHEET NOT SUBJECT TO DSA REVIEW/APPROVAL

No.	Issue	Drawn	Approved	Date
A	DSA SUBMITTAL	TW/CB	MK	11/05/2021

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0 1"

REGISTERED PROFESSIONAL ENGINEER GLEN KENNEDY 083804 CIVIL STATE OF CALIFORNIA 11/5/2021

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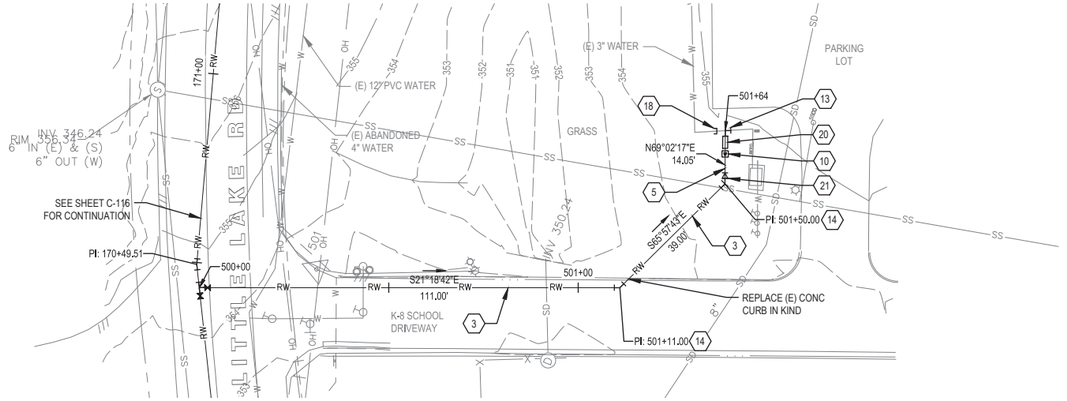
Drafting Check	L.HALONEN	Design Check	L.HALONEN
Project Manager	M. KENNEDY	Date	11/5/2021
		Scale	AS SHOWN

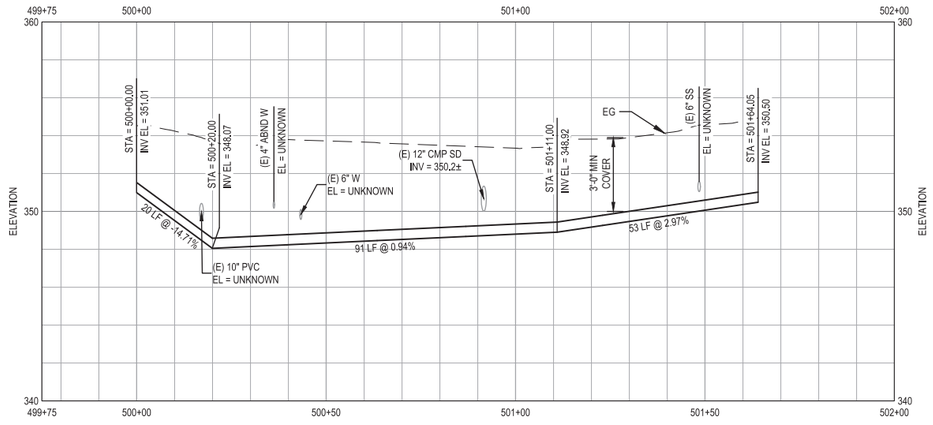
Client MENDOCINO UNIFIED SCHOOL DISTRICT
Project RECYCLED WATER SYSTEM
Title RECYCLED WATER LINE - STA 400+00 TO 402+37
Project No. 11210761
Original Size ANSI D
Sheet No. C-124
Sheet 31 of 75

Plot Date: 4 November 2021 - 8:28 PM Plotted By: Chris Bach
Filename: \\ghdnet\ghd\US\santa rosa\Projects\561\11210761\digital_design\acad 2020\Sheets\11210761_C-101-124_RW Plan and Profile.dwg



1 **PLAN VIEW**

0 10' 20' 40'



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No.	Issue	Drawn	Approved	Date
A	DSA SUBMITTAL	TW/CB	MK	11/05/2021

REGISTERED PROFESSIONAL ENGINEER — THOMAS GLEN KENNEDY — No. C63834 — 12/31/2022 — CIVIL — STATE OF CALIFORNIA — 11/5/2021

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Drawn	T. WILKINS	Designer	T. WILKINS
Drafting Check	L. HALONEN	Design Check	M. KENNEDY
Project Manager	M. KENNEDY	Date	11/5/2021
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Client MENDOCINO UNIFIED SCHOOL DISTRICT
Project RECYCLED WATER SYSTEM
Title RECYCLED WATER LINE - STA 500+00 TO 501+64

Project No. 11210761

Original Size ANSI D | Sheet No. C-125 | Sheet 32 of 75