

City of Bishop

Positive Pressure Water System Improvements Initial Study

March 2013

Prepared For:

CITY OF BISHOP
Department of Public Works
377 West Line Street
Bishop, CA 93514

Prepared By:

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NEGATIVE DECLARATION

The City of Bishop Department of Public Works has completed an assessment of the proposed project to construct a new water storage tank and ancillary structures on West Line Street. This Negative Declaration for the Positive Pressure Water System Improvements Project (Project) has been prepared in compliance with the California Environmental Quality Act (CEQA) and is based on the Initial Study for the proposed project (Attached).

Project Description and Purpose

The purpose of the Project is to construct a constant pressurized water line between Well 4 and the existing water tank, which will eliminate the risk of contamination to the water supply due to the lack of positive pressure in the existing system. To accomplish the Project purpose, the City of Bishop proposes to construct, maintain and operate a 50,000-gallon water storage tank and ancillary structures for the City of Bishop. The Positive Pressure Water System Improvements Project will be located on two sites: Project Site 1 - City of Bishop's Well Site 4 parcel (T7S R32E Section 10) located within the City of Bishop, and Project Site 2 - the City of Bishop's existing water tank site (T7S R32E Section 11).

Environmental Determination

The Initial Study attached to this finding was prepared to assess the potential effects of the proposed Positive Pressure Water System Improvements Project. Data and information used to complete the assessment was compiled from existing agency databases, reports for similar projects, and a reconnaissance survey of the proposed project area.

Based on the assessment of potential impacts disclosed in the Initial Study for the proposed project, the Water Storage Tank Project would have less than significant impacts on the environment.

Contact Person

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Department of Public Works
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Signature

9 APR 13

Date

DIRECTOR OF PUBLIC WORKS

Title

INITIAL STUDY

1.0 Introduction

1.1 *Project Description and Purpose*

The Positive Pressure Water System Improvements Project (Project) proposes to construct, operate, and maintain a 50,000-gallon water storage tank and ancillary structures. The purpose of the Project is to provide a constant pressurized system within the existing water line leading from Well 4, located on Project Site 1, to the existing water tank, located on Project Site 2. Creation of a constant pressurize system will eliminate the risk of contamination to the City's water supply due to the lack of positive pressure in the existing water line.

Project construction activities will occur primarily on the City of Bishop Well 4 site (Project Site 1) on West Line Street in Bishop, CA. Existing on-site features include an inactive, concrete-lined open reservoir, an existing chlorination room, the Well 4 pump house, and underground utility conduits.

The proposed water storage tank to be located on Project Site 1 would have a diameter of 25-feet 7-inches, and tank height would be 16-feet 3-inches. A shallow swale leading to an overflow basin (2-foot water depth) would be constructed adjacent to the tank. The project also includes installation of underground piping to connect the water storage tank to existing infrastructure located on-site and within West Line Street. An earthen berm and concrete wall would be constructed around the southwest corner of the site, tying into and extending an existing berm between the Well 4 pump house building and the North Fork of Bishop Creek. The earthen berms will be fortified with rock riprap along the outer side. The constructed berms and concrete wall serve to prevent floodwaters from the North Fork of Bishop Creek, located immediately west of the site, from impacting the Well 4 site (Reference plan sheet C1 in Attachment 5).

The existing chlorination system will be relocated into the Well 4 pump house. Once the new tank and chlorination system are on-line, the existing chlorination room will be demolished and foundation removed.

Additionally, a new control valve and hot box are needed to control the flow from the new proposed water tank to the existing water tank located at Project Site 2. Project Site 2 is located on the south side of West Line Street, approximately 0.5 miles east of Project Site 1, on property owned by the Los Angeles Department of Water and Power, and leased to the City of Bishop. Project Site 2 is located adjacent to the Inyo County Road Department yard. Installation of the new hot box and control valve will be installed on a graded pad (117 inches by 83 inches) and will be connected to existing conduit which leads to the existing water tank on Project Site 2 (Reference plan sheet C3 in Attachment 5). Height of the control valve piping will be 53 inches.

Project Sites 1 and 2 can be accessed off of West Line Street utilizing existing roads and would not require any additional access roads to be constructed. Both access roads are gravel with paved entrances along West Line Street. The area of new disturbance totals approximately 0.3 acres and would be limited to the footprint of the water storage tank,

overflow swale, overflow basin, constructed berm and concrete wall, control valve pad, and new pipeline installation.

The project is anticipated to be constructed in late summer and fall of 2013 and will take approximately three months to complete. Due to the proximity of residential areas, construction activities would be limited to the hours of 7:00 a.m. to 7:00 p.m. Monday through Saturday. No construction would occur on Sunday or holidays.

1.2 Location and Land Ownership

Project Site 1 is located within the City of Bishop, California and owned by the City of Bishop. Specifically, Project Site 1 is located at:

Section 10, T 07S, R 32E
37° 21.641' N, 118° 26.861' W WGS 84

Project Site 2 is located approximately 1.5 miles west of the City of Bishop, CA. The site is owned by the Los Angeles Department of Water and Power and is leased to the City. Specifically, Project Site 2 is located at:

Section 11, T 07S, R 32E
37° 21.647' N, 118° 26.319' W WGS 84

1.3 Project Proponent

City of Bishop Public Works Department
Dave Grah, Director of Public Works
377 West Line Street
Bishop, CA 93514
Tel: (760) 873-8458

1.4 Environmental Setting

Construction and staging activities for the proposed project would occur entirely within Project Sites 1 and 2. Both sites are currently fenced with gated entrances off West Line Street.

On Project Site 1, one old building that was formerly used in conjunction with the surface reservoir remains on site. Next to it is a smaller building currently used for chlorination. The site has previously been graded, and vegetation is sparse throughout. Vegetation consists predominately of weedy species indicative of previous disturbance and includes: cheatgrass (*Bromus tectorum*), cranesbill (*Erodium cicutarium*), tansy mustard (*Descurainia californica*), and crested wheatgrass (*Agropyron cristatum*). Four large (> 12-inch dbh) locusts trees and several small diameter (< 2-inch) stems are located near the center of the Project Site 1 parcel. These trees will not be disturbed. Along the western fence line, several small diameter trees and one large (~40-inch diameter locust tree, *Robinia pseudoacacia*) are present. To the extent practicable, this tree and any other nesting vegetation will be removed outside of the bird-nesting season (March 1 – August 31).

There are no surface waters within Project Site 1; however, the North Fork of Bishop Creek is located adjacent to and abuts the toe-of-slope of the earthen berm along the

southwest corner of the project area. A concrete channel, which was constructed to divert water from the creek to the remnant surface reservoirs, is located along the western fence line.

The surrounding parcels to the west, east, and south are undeveloped. To the north and across West Line Street from Project Site 1 is a low-density residential development.

The City's existing water tank is located on Project Site 2, which is leased by the City of Bishop and is located adjacent to the Inyo County Road Department yard. The site is predominately disturbed, but contains scattered locusts and cottonwood (*Populus* sp.) trees with a sparse herbaceous layer consisting predominately of cheatgrass. No trees are expected to be impacted by construction. One roadside drainage ditch is located along the northern property edge adjacent to West Line Street. The parcels to the north, west and south are undeveloped. To the east is moderate density residential housing.

A review of the project areas by a qualified biologist on April 7, 2011 did not identify any special status plant or wildlife species or potential habitat within the proposed project area.

1.5 General Plan Land Use Designation

Project Site 1 is located within the City of Bishop and is zoned as "Public District." Use of Project Site 1 is consistent with the City of Bishop zoning.

Project Site 2 is designated in the Inyo County Plan as "Agriculture"; however, the site is not currently used for agricultural purposes, but is used by the City as a public works facility. Placement of the proposed water tank appurtenances remains consistent with existing use of the land.

2.0 Environmental Checklist

| 1. Aesthetics | | Potentially Significant Impact | Less Than Significant With Mitigation | Less Than Significant Impact | No Impact |
|---------------------------|--|--------------------------------|---------------------------------------|-------------------------------------|-------------------------------------|
| <i>Would the project:</i> | | | | | |
| a) | Have a substantial adverse effect on a scenic vista? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| b) | Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic building within a state scenic highway? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| c) | Substantially degrade the existing visual character or quality of the site and its surroundings? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| d) | Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

1a – 1d *The proposed project would have less than significant impacts on aesthetics.*

The project areas are not visible from designated scenic vistas or a designated state scenic highway; however, the project areas are located within an area that is generally scenic, with panoramic views of the Sierra Nevada Mountains dominating the landscape.

The visibility of the new water tank on Project Site 1 would be limited and filtered due to existing trees screening the site on the north, west and south sides of the project area. The tank would not likely to be seen from residences located north of West Line Street.

From the east, the proposed tank on Project Site 1 would be viewed by westbound traffic on West Line Street, and travelers would experience views of the water tank for brief durations as they approach the site (reference Figure 2 in Attachment 1). The project would attract some attention, but would not dominate the characteristic landscape. To minimize impacts to scenic resources, the tank would be constructed of cement or welded steel with non-reflective paint and would not create glare. No new lighting would be installed on the tank. Because the tank would not dominate the landscape and visibility would be only for short durations, the project would have less than significant effects on aesthetics.

The new hot box and control valve would be visible for brief durations from West Line Street, but due to it’s low height (approximately 53 inches), it will not dominate the landscape or significantly detract from the scenic resources.

| 2. Agriculture Resources | Potentially Significant Impact | Less Than Significant With Mitigation | Less Than Significant Impact | No Impact |
|---|--------------------------------|---------------------------------------|------------------------------|-------------------------------------|
| <i>In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Department of Conservation as an optional model to use in assessing impacts on agriculture and farmland. Would the project:</i> | | | | |
| a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| b) Conflict with existing zoning for agricultural use, or a Williamson Act contract? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| c) Involve other changes in the existing environment, which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

2a – 2c The proposed project would have no impact on agricultural resources.

The proposed project would have *no impact* on agricultural resources as the project will not affect or convert any agricultural resources to other uses. There is no Prime Farmland, Farmland of Statewide Importance or a Williamson Act contract that would be affected by the project.

Although Project Site 2 is designated as “Agricultural Use” per the Inyo County General Plan, the site is currently not used for agricultural purposes. The proposed modifications are consistent with the current use of the site as a public works facility where the City’s existing 1 million gallon water tank is located. .

| 3. Air Quality | Potentially Significant Impact | Less Than Significant With Mitigation | Less Than Significant Impact | No Impact |
|--|--------------------------------|---------------------------------------|-------------------------------------|-------------------------------------|
| <i>Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the project:</i> | | | | |
| a) Conflict with or obstruct implementation of the applicable air quality plan? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions, which exceed quantitative thresholds for ozone precursors)? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| d) Expose sensitive receptors to substantial pollutant | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

| 3. Air Quality | | Potentially Significant Impact | Less Than Significant With Mitigation | Less Than Significant Impact | No Impact |
|-----------------------|---|--------------------------------|---------------------------------------|-------------------------------------|-------------------------------------|
| concentrations? | | | | | |
| e) | Create objectionable odors affecting a substantial number of people? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| f) | Increase the level of greenhouse gas emissions beyond that existing in the area before the project? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

3a - 3e *The proposed project would have less than significant impacts on air quality.*

Air quality within the City of Bishop and surrounding Inyo County is regulated by the Great Basin Unified Air Pollution Control District. The location of the project is not within any area designated in non-attainment for Federal air quality standards. However, Inyo County and most of the counties within the Great Basin Unified Air Pollution Control District are designated in non-attainment for the State standards for ozone and PM-10. Construction of the project would temporarily generate emissions related to fuel combustion and fugitive dust, which would contribute to localized, short-term increase in PM-10 and ozone precursors (NOx and VOCs). Temporary BMPs would be implemented to control construction related emissions (fugitive dust and combustion products from equipment), including:

- Site watering or application of dust suppressants;
- Covering of stockpiles;
- Suspension of grading activities during high wind periods (wind speeds greater than 25 miles per hour),
- Equipment would be maintained in proper working condition; and
- Equipment would use low sulfur diesel fuel.

Currently there are four areas in Inyo County with air quality plans (State Implementation Plan or SIPs) for PM-10. The project is not located within any of the designated areas and the SIPs are not applicable. Construction emissions associated with the project would have no impact on local or regional air quality plans.

The Great Basin Unified Air Pollution Control District has not established any quantitative emission thresholds. Given the extent of soil disturbance (0.3 acres) and the duration of the construction activity (~3 months), the project would not create a cumulatively considerable increase in PM-10 or ozone precursors (NOx and VOCs). Construction and operation emissions associated with the project would have a less than significant impact on the regional non-attainment status for State PM-10 and ozone air quality standards.

Construction, maintenance or long-term use of the water storage tank would not expose sensitive receptors to substantial pollutant concentrations, as there are no sensitive receptors (ie. schools, nursing homes, or healthcare facilities) within 500 feet of the project areas.

The project does not propose to use any construction techniques that would result in unusual odors that would be objectionable to the general public. Temporary odors from

diesel exhaust would be dispersed within a short distance from the project area, and due to the temporary nature of the construction activities, impacts would be less than significant.

Diesel fuel combustion and workers commuting to the job site would slightly increase Greenhouse Gas (GHG) emissions during the construction period; however, long-term use and operation of the water tank would not result in new sources of combustion emissions or increase local traffic. The slight increase of GHG emissions would be temporary and the impact to global climate change would be less than significant.

| 4. Biological Resources | | Potentially Significant Impact | Less Than Significant With Mitigation | Less Than Significant Impact | No Impact |
|--------------------------------|---|--------------------------------|---------------------------------------|-------------------------------------|-------------------------------------|
| <i>Would the project:</i> | | | | | |
| a) | Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| b) | Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| c) | Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| d) | Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of wildlife nursery sites? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| e) | Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| f) | Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

4a - 4f *The proposed project would have less than significant impacts on biological resources.*

The US Fish and Wildlife Service (USFWS) and the California Natural Diversity Database (CNDDDB) were queried regarding the potential for state and federally listed threatened, endangered, and candidate species and other special status species occurrence within the proposed project areas. An RCI Biologist surveyed the project areas and determined that the proposed project would not have an adverse effect on any state or federally listed special status species, critical habitat, or migration routes for

any species (reference Attachment 4). There are no native plant communities or wildlife habitats within the proposed project areas. The project areas have been previously disturbed, impacted by grading, and are currently fenced.

There are no aquatic habitats or jurisdictional wetlands or other Waters of the United States within the proposed project areas. Riparian vegetation along the banks of the North Fork of Bishop Creek, located adjacent to the constructed berms in the southwest corner of Project Site 1, extends to the edge of the project area. For construction of the new concrete wall, the project requires removal of a 40-inch diameter locust tree and has potential to affect nesting or foraging migratory birds or raptors if removed during the nesting season. To avoid impacts to nesting birds, the locust tree and any other nesting vegetation will be removed outside of the bird breeding season (March 1 – August 31). If the tree is removed during the nesting period, a qualified biologist will conduct a survey for nesting birds within ten (10) days prior to the vegetation removal and ensure no nesting birds or raptors will be impacted by the project.

There are no existing habitat/natural community conservation plans for the proposed project areas.

| 5. Cultural Resources | | Potentially Significant Impact | Less Than Significant With Mitigation | Less Than Significant Impact | No Impact |
|------------------------------|--|--------------------------------|---------------------------------------|------------------------------|-------------------------------------|
| <i>Would the project:</i> | | | | | |
| a) | Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| b) | Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| c) | Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| d) | Disturb any human remains, including those interred outside of formal cemeteries? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

5a – 5d *The proposed project would have no impact on cultural resources.*

The proposed project areas have been previously graded and soils compacted by construction traffic. There are no known or visible historic or prehistoric cultural resources within the proposed project areas.

If cultural resources are observed during construction, construction activity will cease immediately and a qualified archaeologist will be called to determine the appropriate action.

The existing chlorination building to be removed was built circa 1969 and is not considered a historic resource.

The open water reservoir and associated shed were constructed in the 1950s and may be considered historic resources; however, these features are located outside the Area

of Potential Effect for cultural resources. There will be no impacts to these structures from the proposed project.

| 6. Geology and Soils | | Potentially Significant Impact | Less Than Significant With Mitigation | Less Than Significant Impact | No Impact |
|-----------------------------|---|--------------------------------|---------------------------------------|-------------------------------------|-------------------------------------|
| <i>Would the project:</i> | | | | | |
| a) | Expose people or structures to potential substantial adverse effects, including the risk of loss, injury or death involving: | | | | |
| i) | Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| ii) | Strong seismic ground shaking? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| iii) | Seismic-related ground failure, including liquefaction? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| iv) | Landslides? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| b) | Result in substantial soil erosion or the loss of topsoil? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| c) | Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| d) | Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 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? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

6a - 6e *The proposed project would have less than significant impacts on Geology and Soils.*

In March 2012, a geotechnical survey and report was prepared for the site by Geocon Consultants, Inc. Based on the findings of this report, the project is not located across a known earthquake fault. The nearest faults are mapped approximately 8.75 miles east of the site (White Mountain Fault Zone, Central Section) and 12.15 miles south of the site (Owens Valley Fault Zone, 1872 Rupture Section.)

Seismic activity and significant ground-shaking are anticipated to occur during the design life of the proposed project. The water tank will be designed to withstand seismic events typical of those occurring on the Owens Valley Fault Zone and White Mountain Fault Zone. The Seismic risk along this site is not considered to be greater than that of the surrounding area.

The soils within the proposed project area are mapped by the Natural Resources Conservation Service (NRCS) as Muranch family 0-2 percent slopes. The texture varies from sandy loam to very cobbly coarse sand in the upper 60 inches. The topography in the site vicinity is relatively flat-lying to gently sloping, and there is no potential hazard for landsliding. Based on the field observations and laboratory data, hazards associated with expansive soils, or liquefaction and related lateral spreading, are not considered to be a hazard to the proposed construction (Geocon 2012).

| 7. Hazards and Hazardous Materials <i>Would the project:</i> | Potentially Significant Impact | Less Than Significant With Mitigation | Less Than Significant Impact | No Impact |
|--|--------------------------------|---------------------------------------|-------------------------------------|-------------------------------------|
| a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the likely release of hazardous materials into the environment? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 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 create a significant hazard to the public or environment? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| h) Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

7a – 7j *The proposed project would have less than significant impacts for hazards or from hazardous materials.*

Construction and operation of the proposed project would not involve any hazardous materials other than diesel fuel and grease associated with construction equipment and support vehicles. Construction equipment would be inspected daily for potential leaks or failures. Equipment would be fueled off-site, or if fueled on-site, fuel tanks would be

placed within a secondary containment area. The project would result in the production of diluted chlorine, which would be stored in tanks of suitable material to prevent leakage. The project would result in no long-term use of hazardous materials.

The Cortese list of data resources were reviewed to determine sites potentially containing hazardous material or waste near the project areas. The Cortese list includes hazardous waste facilities subject to corrective action and sites designated as hazardous waste property, hazardous waste disposal areas, contaminated sites, and abandoned sites. There are no hazardous waste sites within or near the project area.

| 8. Hydrology and Water Quality | | Potentially Significant Impact | Less Than Significant With Mitigation | Less Than Significant Impact | No Impact |
|---------------------------------------|--|--------------------------------|---------------------------------------|-------------------------------------|-------------------------------------|
| <i>Would the project:</i> | | | | | |
| a) | Violate any water quality standards or waste discharge requirements? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| b) | Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted?) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| c) | Substantially alter the existing drainage pattern of area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| d) | Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner, which would result in flooding on- or off-site? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| e) | Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| f) | Otherwise substantially degrade water quality? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| g) | Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| h) | Place within a 100-year flood hazard area structures, which would impede or redirect flood flows? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| i) | Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| j) | Inundation by seiche, tsunami, or mudflow? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

8a – 8j *The proposed project will have less than significant effects on hydrology or water quality.*

The proposed project would not violate any water quality standards or waste discharge requirements. The area of disturbance is small (approximately 0.3 acres), and Best Management Practices (BMPs) would be implemented to control surface water runoff from the site, which flows to the east and away from the North Fork of Bishop Creek. BMPs may include measures such as the use of silt fencing, coir rolls, and plastic tarps to cover spoil piles. Project Site 1 currently has earthen berms between the developable area and the North Fork of Bishop Creek, located immediately west of the site. These berms will be extended and a concrete wall constructed to divert flood flows from the creek around the site and away from Well 4. Because the combined length of the wall and berms are approximately 280 linear feet, the alteration of the creeks flood flows within the watershed is less than significant and will not result in substantial off-site flooding. The earthen berms will be fortified with 4-8 inch rock riprap placed over filter fabric to prevent erosion of soils into the creek.

Construction and long-term use of the water storage tank and associated structures would have no impact on groundwater supplies. The water tank and concrete pad for the hot box and control valves would minimally decrease site infiltration, but relative to the watershed size, would have no impact on groundwater recharge or lead to a net deficit in aquifer volume.

Neither project sites are located within a 100-year flood hazard area layer prepared by the Federal Emergency Management Agency (FEMA).

| 9. Land Use and Planning | | Potentially Significant Impact | Less Than Significant With Mitigation | Less Than Significant Impact | No Impact |
|---------------------------------|--|--------------------------------|---------------------------------------|------------------------------|-------------------------------------|
| <i>Would the project:</i> | | | | | |
| a) | Physically divide an established community? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| b) | Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| c) | Conflict with any applicable habitat conservation plan or natural communities conservation plan? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

9a – 9c *The proposed project would have no impact on land use and planning.*

The proposed project is not located within an established community. Project Site 1 is zoned by the City of Bishop as a “Public District.” Use of Project Site 1 is consistent with the City of Bishop General Plan. Project Site 2 is located outside of the City of Bishop, and Inyo County General Plan designates the land use as Agriculture. Project Site 2 is not currently used for agriculture, but used by the City of Bishop as a public facility where the City’s existing 1 million gallon water tank is located. Project activities proposed on Project Site 2 would be consistent with existing land uses.

There are no habitat conservation or natural communities conservation plans that are applicable to the project areas.

| 10. Mineral Resources | | Potentially Significant Impact | Less Than Significant With Mitigation | Less Than Significant Impact | No Impact |
|------------------------------|--|--------------------------------|---------------------------------------|-------------------------------------|-------------------------------------|
| <i>Would the project:</i> | | | | | |
| a) | Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| b) | Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

10a – 10b The proposed project would have less than significant impact on mineral resources.

The project areas contain aggregate, a valuable mineral resource. Direct impact to aggregate resources from the project will be minimal, but the project will likely preclude future mining and use of the resource. Due to the small size of the project areas (< 2 acres) relative to the abundant supply of aggregate in the surrounding area, the proposed project would have less than significant impact on mineral resources.

| 11. Noise | | Potentially Significant Impact | Less Than Significant With Mitigation | Less Than Significant Impact | No Impact |
|-------------------------------------|--|--------------------------------|---------------------------------------|-------------------------------------|-------------------------------------|
| <i>Would the project result in:</i> | | | | | |
| a) | Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| b) | Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| c) | A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| d) | A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| e) | For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| f) | For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

11a – 11f The proposed project would have less than significant impacts on noise.

The proposed project would generate noise from the operation of construction equipment and would result in a temporary increase in ambient noise levels. Typical construction noise has the potential to be 45 to 65 dB(A) at about 500 feet, and 65 dB(A) is the level generally recognized to be perceived as an annoyance in residential areas. To avoid and minimize adverse effects to residences within 500 feet of the project area, construction activities would be limited to the hours of 7:00 a.m. to 7:00 p.m. Monday through Saturday. No construction would occur on Sunday or federal holidays.

The proposed project would temporarily generate groundborne vibrations from compaction activities related to installation of the water tank footers that would affect areas within 50 to 100 feet of the project. As the nearest residence is greater than 100 feet from Project Site 1, the project would have less than significant impacts from vibrations.

The maintenance and long-term use of the water storage tank and Well 4 would not result in a permanent increase in ambient noise levels as it would not generate noise that can be heard outside of the building.

The project is not located within an airport land use plan or within the vicinity of a private airstrip.

| 12. Population and Housing | | Potentially Significant Impact | Less Than Significant With Mitigation | Less Than Significant Impact | No Impact |
|-----------------------------------|--|--------------------------------|---------------------------------------|------------------------------|-------------------------------------|
| <i>Would the project:</i> | | | | | |
| a) | Induce substantial population growth in an area, either directly (e.g., by proposing new homes and businesses) or indirectly (e.g., through extension of roads or other infrastructure)? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| b) | Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| c) | Displace substantial numbers of people necessitating the construction of replacement housing elsewhere? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

12a – 12c The proposed project would have no impact on population and housing.

The project proposes to construct a water storage tank and pressurized system that would benefit the City of Bishop by improving water quality. There is no housing located on the project area and none is proposed. As such, the project would not induce population growth in the area. The proposed project would not displace any existing housing or people.

| 13. Public Services | | Potentially Significant Impact | Less Than Significant With Mitigation | Less Than Significant Impact | No Impact |
|---|--------------------------|--------------------------------|---------------------------------------|------------------------------|-------------------------------------|
| <i>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:</i> | | | | | |
| a) | Fire Protection? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| b) | Police Protection? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| c) | Schools? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| d) | Parks? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| e) | Other public facilities? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

13a – 13e *The proposed project would have no impact on public services.*

The proposed project would not adversely impact any government facilities or public services. The project proposes to construct a water storage tank and pressurized system that would benefit the City of Bishop by protecting water quality. The project would provide a constant pressurized system between Well 4 and the existing water tank. The pressurized system will eliminate the risk of contamination of the water supply, which currently exists due to the lack of positive pressure in the existing water line leading from Well 4 to the tank.

| 14. Recreation | | Potentially Significant Impact | Less Than Significant With Mitigation | Less Than Significant Impact | No Impact |
|-----------------------|---|--------------------------------|---------------------------------------|------------------------------|-------------------------------------|
| a) | Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| b) | Does the project include recreational facilities or require the construction or expansion of recreational facilities, which might have an adverse physical effect on the environment? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

14a – 14b *The proposed project would have no impact on recreation.*

The proposed project areas are not used for recreation or have no recreation-related components and are not proposed for recreational use or enhancement.

| 15. Transportation/Traffic | | Potentially Significant Impact | Less Than Significant With Mitigation | Less Than Significant Impact | No Impact |
|-----------------------------------|--|--------------------------------|---------------------------------------|-------------------------------------|--------------------------|
| <i>Would the project:</i> | | | | | |
| a) | Cause an increase in traffic, which is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

| 15. Transportation/Traffic | | Potentially Significant Impact | Less Than Significant With Mitigation | Less Than Significant Impact | No Impact |
|---|---|--------------------------------|---------------------------------------|-------------------------------------|-------------------------------------|
| <i>Would the project:</i> | | | | | |
| increase in either the number of vehicle trips, the volume to capacity ratio on roads, or congestion at intersections)? | | | | | |
| b) | Exceed, either individually or cumulatively, a level of service standard established by the county congestion management agency for designated roads or highways? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| c) | Result in a change in air traffic patterns, including an increase in traffic levels or a change in location that results in substantial safety risks? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| d) | Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| e) | Result in inadequate emergency access? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| f) | Result in inadequate parking capacity? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

15a – 15f The proposed project would have less than significant impacts on transportation and traffic.

The proposed project would require typical construction equipment that would be transported to the sites at the start of the project and removed upon project completion. On a daily basis, several light trucks and automobiles would be used over a period of 3 months during construction. Traffic on surrounding roadways is typically light. Construction traffic would not have a measurable impact on local traffic volumes or patterns.

| 16. Utilities and Service Systems | | Potentially Significant Impact | Less Than Significant With Mitigation | Less Than Significant Impact | No Impact |
|--|---|--------------------------------|---------------------------------------|------------------------------|-------------------------------------|
| <i>Would the project:</i> | | | | | |
| a) | Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| b) | Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| c) | Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| d) | Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| e) | Result in a determination by the wastewater treatment provider, which serves or may serve the project that it has adequate capacity to serve the | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

| 16. Utilities and Service Systems | | Potentially Significant Impact | Less Than Significant With Mitigation | Less Than Significant Impact | No Impact |
|--|---|--------------------------------|---------------------------------------|------------------------------|-------------------------------------|
| <i>Would the project:</i> | | | | | |
| project's projected demand in addition to the provider's existing commitments? | | | | | |
| f) | Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| g) | Comply with federal, state, and local statutes and regulations related to solid waste? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

16a – 16g The proposed project will have no negative effect on utilities and service systems.

The proposed project would benefit the City of Bishop and its residents by protecting water quality. The project would provide a constant pressurized system between Well 4 and the existing water tank, which will eliminate the risk of contamination of the water supply that currently exists due to the lack of positive pressure in the existing water line leading from Well to the tank.

The proposed project will not affect wastewater treatment. Existing City water supplies would be adequate to serve the project dust control needs during the construction period.

| 17. Mandatory Findings of Significance | | Potentially Significant Impact | Less Than Significant With Mitigation | Less Than Significant Impact | No Impact |
|---|--|--------------------------------|---------------------------------------|-------------------------------------|--------------------------|
| a) | Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal, or eliminate important examples of the major periods of California history or prehistory? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| b) | Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.) | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| c) | Does the project have environmental effects, which will cause substantial adverse effects on human beings, either directly or indirectly? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

Project impacts would be short-term and minor. Impacts would be limited to 0.3 acres of previously disturbed and sparsely vegetated area. The proposed project would not cause any potential impacts to the environment that could result in a mandatory finding of significance.

3.0 References

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- California Department of Fish and Game. Accessed 2011. California Natural Diversity Data Base Nine Quad Quick Viewer List centered on Bishop quadrangle. Accessed Aug 20, 2009. Available at: <http://www.dfg.ca.gov/biogeodata/cnddb/mapsanddata.asp>
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- California Geological Survey, 2010. 2010 Geologic Map of California. Map No. 2
- The Cortese List Data Resources accessed 5-26-2011 at www.calepa.ca.gov/sitecleanup/corteselist/ including List of Hazardous Waste and Substances sites from the Dept of Toxic Substances Control EnviroStor database
- List of Leaking Underground Storage Tank Sites from Water Board GeoTracker database
- Geocon Consultants, Inc. *Geotechnical Investigation, 50,000-Gallon Water Tank Well 4 Site, Bishop, CA.* March 2012.
- Great Basin Unified Air Pollution Control District. 2011. Air Quality Plans. Available at: <http://www.gbuapcd.org/airqualityplans.html>
- Inyo County Planning Department. 2011. Inyo County General Plan, Goals and Policies Report. December 11, 2001.
- Mapcard. 2011. Available at: <http://www.mapcard.com>
- Natural Resource Conservation Service Web Soil Survey accessed at <http://websoilsurvey.nrcs.usda.gov> accessed on 5-26-2011. Benton-Owens Valley Area Pars of Inyo and Mono Counties, California Soil Maps and Soil Data Version 2 and 5 May 18, 2011.
- US Fish and Wildlife Service. 2012. Species List for the Water Tank Project, Inyo County, California. Correspondence dated December 26, 2012 from Carl T. Benz, Assistant Field Supervisor.

Attachment 1

Figures

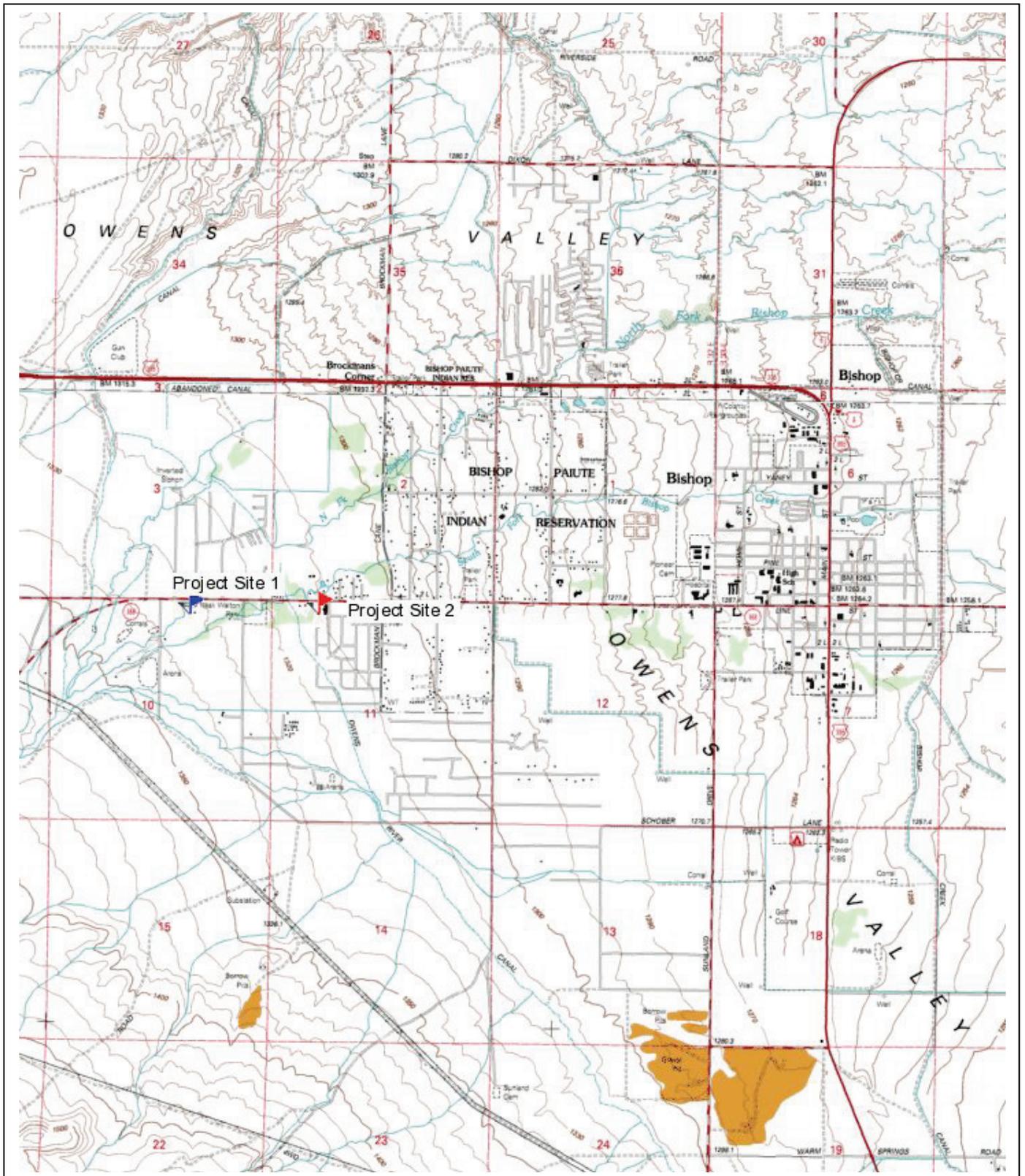


Figure 1. Location Map of Project Site 1 and Project Site 2.

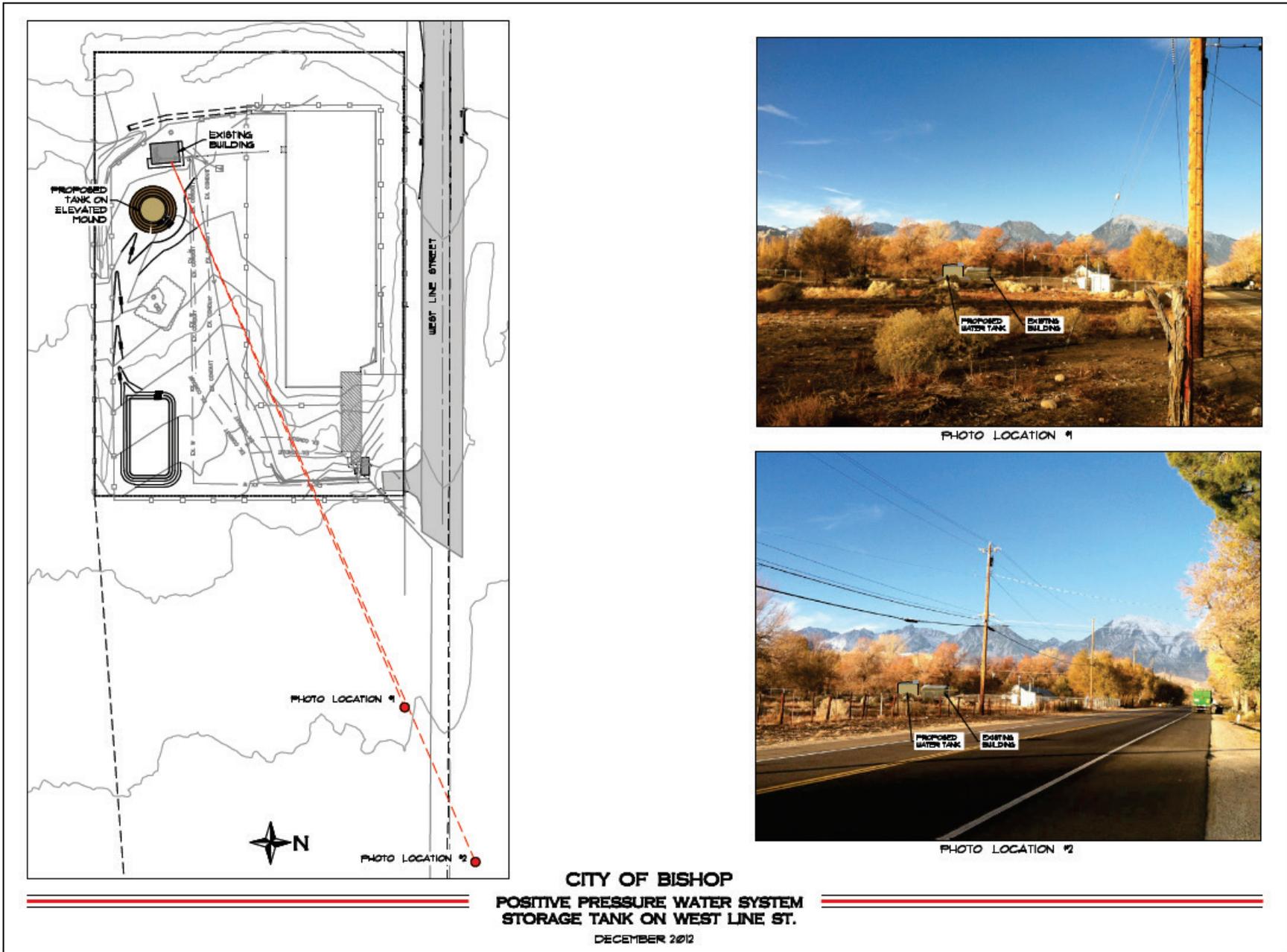


Figure 2. Photosimulation of new water tank on Project Site 1.

Attachment 2

Site Photographs

Positive Pressure Water System Improvement Project – Site Photographs



Photo 1. View to the west of Project Site 1 (Well 4 Site) as seen from West Line Street.



Photo 2. View to the south at entrance to Project Site 1 from West Line Street.

Positive Pressure Water System Improvement Project – Site Photographs



Photo 3. View to the south of Project Site 1 from West Line Street. Existing roadside vegetation would partially screen new water tank.



Photo 4. View to the east of project area from West Line Street.

Positive Pressure Water System Improvement Project – Site Photographs



Photo 5. Overview to the west of project area and water tank location. Building in background of picture to remain.



Photo 6. View of existing earthen berm and building located near northern property line.

Positive Pressure Water System Improvement Project – Site Photographs



Photo 7. View to the south of gated entrance to Project Site 2 from West Line Street.



Photo 8. Location of proposed concrete pad for control valve and hot box.

Positive Pressure Water System Improvement Project – Site Photographs



Photo 9. Overview to the east toward existing water tank on Project Site 2.



Photo 10. View to the north on Project Site 2 toward West Line Street.

Attachment 3

U.S. Fish and Wildlife Service Correspondence



United States Department of the Interior

FISH AND WILDLIFE SERVICE
Ventura Fish and Wildlife Office
2493 Portola Road, Suite B
Ventura, California 93003



IN REPLY REFER TO:
08EVEN00-2013-SL-0051

December 26, 2012

JoAnne Robben
Senior Environmental Specialist
Resource Concepts, Inc.
340 North Minnesota Street
Carson City, Nevada 89703

Subject: Species List for the Proposed Water Tank in the City of Bishop, Inyo County, California

Dear Ms. Robben:

This letter is in response to your request, dated November 16, 2012, and received in our office on November 19, 2012, for updated information on federally threatened and endangered species that may occur in the vicinity of the subject project. The proposed project would involve the construction of a water storage tank on one of two proposed sites located in Bishop, California. The federally endangered southwestern willow flycatcher (*Empidonax trailli extimus*) may occur in the vicinity of the proposed project. There is no critical habitat located in the vicinity of the proposed project.

The U.S. Fish and Wildlife Service's (Service) responsibilities include administering the Endangered Species Act of 1973, as amended (Act), including sections 7, 9, and 10. Section 9 of the Act prohibits the taking of any federally listed endangered or threatened species. Section 3(19) of the Act defines take to mean to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct. Service regulations (50 Code of Federal Regulations 17.3) define harm to include significant habitat modification or degradation which actually kills or injures wildlife by significantly impairing essential behavioral patterns, including breeding, feeding, or sheltering. Harassment is defined by the Service as an intentional or negligent action that creates the likelihood of injury to wildlife by annoying it to such an extent as to significantly disrupt normal behavioral patterns which include, but are not limited to, breeding, feeding, or sheltering. The Act provides for civil and criminal penalties for the unlawful taking of listed species.

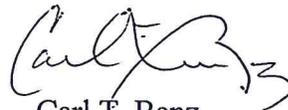
Exemptions to the prohibitions against take may be obtained through coordination with the Service in two ways. If the subject project is to be funded, authorized, or carried out by a Federal agency and may affect a listed species, the Federal agency must consult with the Service, pursuant to section 7(a)(2) of the Act. If a proposed project does not involve a Federal agency but may result in the take of a listed animal species, the project proponent should apply for an

incidental take permit, pursuant to section 10(a)(1)(B) of the Act. Once you have determined if the proposed project will have a lead Federal agency, we can provide you with more detailed information regarding the section 7 or 10(a)(1)(B) permitting process.

The information provided in this letter is based on the best available information, including your letter, scientific and technical literature, and information in our files. Newer information based on updated surveys, changes in the abundance and distribution of listed species, changed habitat conditions, or other factors could change this information. Please feel free to contact us if you need more current information or assistance regarding the potential presence of federally proposed, listed, or candidate species, and critical habitat. We also recommend that you contact the California Department of Fish and Game to determine whether any species of state concern may occur in the project area.

If you have any questions, please call Erin Nordin of the Ventura Fish and Wildlife Office at (760) 872-5020.

Sincerely,

A handwritten signature in black ink, appearing to read 'Carl F. Benz', with a stylized flourish at the end.

Carl F. Benz
Assistant Field Supervisor

Attachment 4

Evaluated Sensitive Species

Table 1. Evaluation of Sensitive Species with Potential to Occur within Project Area

| Common Name ¹ | Scientific Name | Federal Status | State Status ² | Habitat | Conclusion | Rationale |
|--------------------------------|---|----------------|---------------------------|--|------------|----------------------|
| PLANTS | | | | | | |
| Fish Slough milk-vetch | <i>Astragalus lentiginosus</i> <i>var. piscinensis</i> | Threatened | 1B.1 | Alkaline flats paralleling Fish Slough | No effect | No potential habitat |
| July gold | <i>Dedekera eurekaensis</i> | | Rare/1B.3 | Steep limestone canyons, creosote | No effect | No potential habitat |
| Father Crowley's lupine | <i>Lupinus padre-crowleyi</i> | | Rare/1B.3 | Sagebrush scrub, lodgepole | No effect | No potential habitat |
| Owens Valley checkerbloom | <i>Sidalcea covillei</i> | | Endangered/ 1B.1 | Sagebrush scrub, meadow | No effect | No potential habitat |
| ANIMALS | | | | | | |
| Swainson's hawk | <i>Buteo swainsoni</i> | | Threatened | Riparian | No effect | No potential habitat |
| Western yellow-billed cuckoo | <i>Coccyzus americanus</i> <i>occidentalis</i> | Candidate | Endangered | Riparian woodland | No effect | No potential habitat |
| Owens pupfish | <i>Cyprinodon radiosus</i> | Endangered | Endangered | Aquatic | No effect | No potential habitat |
| Southwestern willow flycatcher | <i>Empidonax traillii</i> <i>extimus</i> | Endangered | Endangered | Dense willow or other dense woody riparian | No effect | No potential habitat |
| California wolverine | <i>Gulo gulo</i> | Candidate | Threatened | Mixed conifer | No effect | No potential habitat |
| Paiute cutthroat trout | <i>Oncorhynchus clarkii</i> <i>seleniris</i> | Threatened | | Aquatic | No effect | No potential habitat |
| Sierra Nevada bighorn sheep | <i>Ovis canadensis sierrae</i> | Endangered | Endangered | | | |
| Bank swallow | <i>Riparia riparia</i> | | Threatened | Riparian or lakeside banks and bluffs | No effect | No potential habitat |
| Owens tui chub | <i>Sphateles bicolor</i> <i>snyderi</i> | Endangered | Endangered | Aquatic | No effect | No potential habitat |
| Sierra Nevada red fox | <i>Vulpes vulpes necator</i> | | Threatened | | | |

¹ Species selected for evaluation were based on U.S. Fish and Wildlife Service Consultation and a 9-quad search (centered on the Bishop Quadrangle) of the California Natural Diversity Database.

² California Department of Fish and Game (rare or endangered) or California Native Plant Society (1B status).

Attachment 5

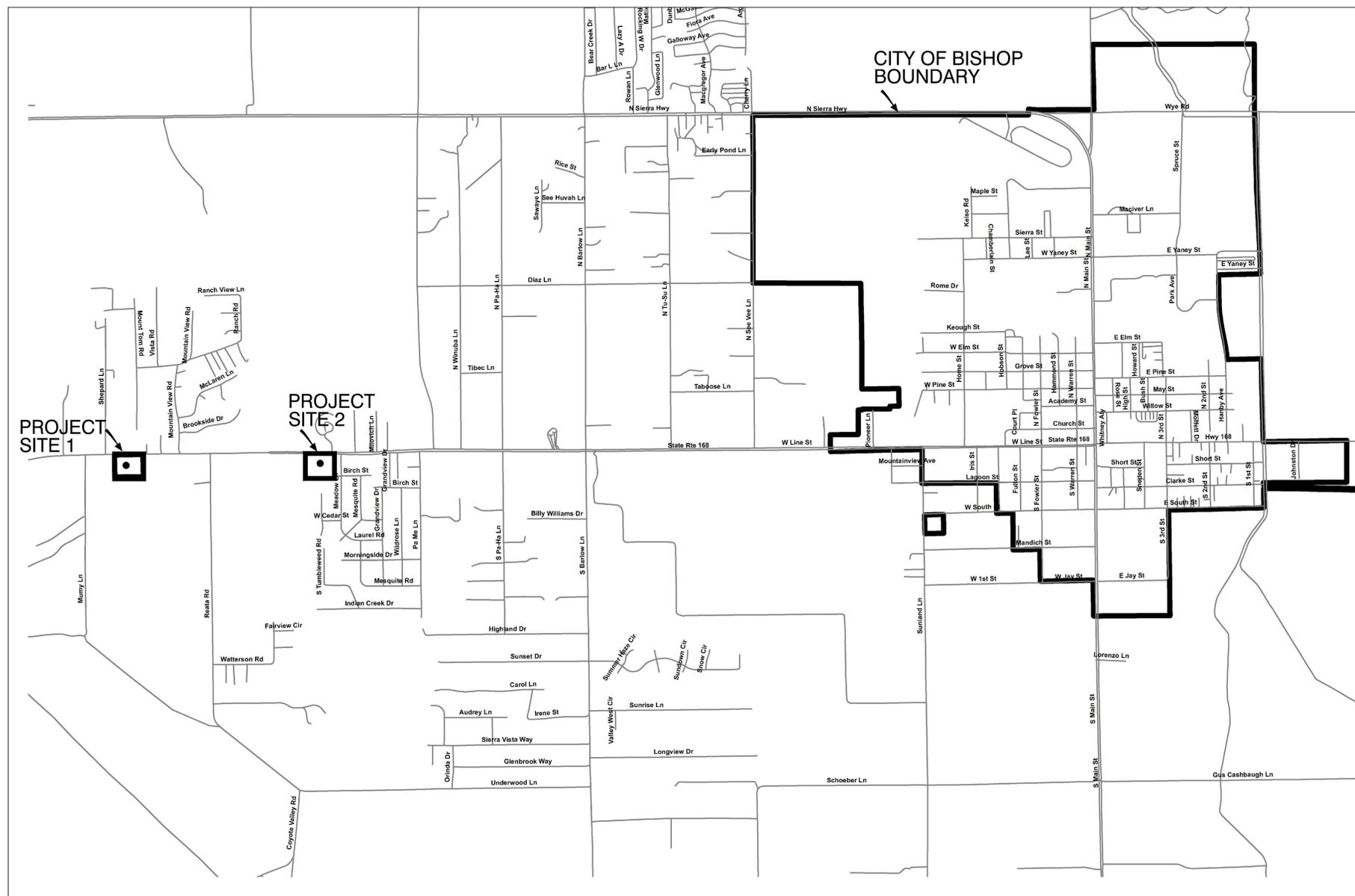
Plan Sheets

CITY OF BISHOP

Positive Pressure Water System Improvements

At Well 4 and Storage Tank on West Line Street Inyo County, California

TO BE SUPPLEMENTED BY THE 2010 CALTRANS STANDARD PLANS AND STANDARD SPECIFICATIONS, THE 2012 CALIFORNIA MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, THE 1991 CITY OF BISHOP SPECIFICATIONS FOR DOMESTIC WATER AND SANITARY SEWER SYSTEMS, AND OTHER CONTRACT DOCUMENTS



VICINITY MAP
NO SCALE

SHEET INDEX

- SHEET C1 - TITLE SHEET
- SHEET C2 - WELL 4 SITE PLAN
- SHEET C3 - EX. STORAGE TANK SITE PLAN
- SHEET C4 - WELL 4 BUILDING - REVISED PIPING PLAN & METER
- SHEET C5 - WELL 4 FLOOD PROTECTION BERM
- SHEET T1 - TANK DETAILS
- SHEET T2 - TANK DETAILS
- SHEET T3 - TANK DETAILS
- SHEET T4 - TANK DETAILS
- SHEET D1 - DETAILS
- SHEET D2 - DETAILS

OWNER

CITY OF BISHOP
PUBLIC WORKS DEPARTMENT
377 WEST LINE STREET
BISHOP, CA 93514

APPROVALS:

CITY OF BISHOP, PUBLIC WORKS DEPARTMENT
DAVID GRAH, PUBLIC WORKS DIRECTOR

Avoid cutting underground utility lines. It's costly.

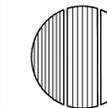
**CALL
BEFORE YOU
DIG.
1-800-227-2600**

UNDERGROUND SERVICE ALERT (USA)

ENGINEERING • PLANNING • RESOURCE MANAGEMENT

RESOURCE CONCEPTS, INC.

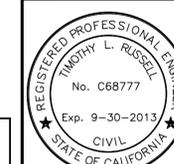
212 ELKS POINT ROAD, STE. 443
P.O. BOX 11796
ZEPHYR COVE, NEVADA 89448
PHONE: 775-883-1600 FAX: 775-883-1656
WEB SITE: www.rci-nv.com



| REVISION | DATE |
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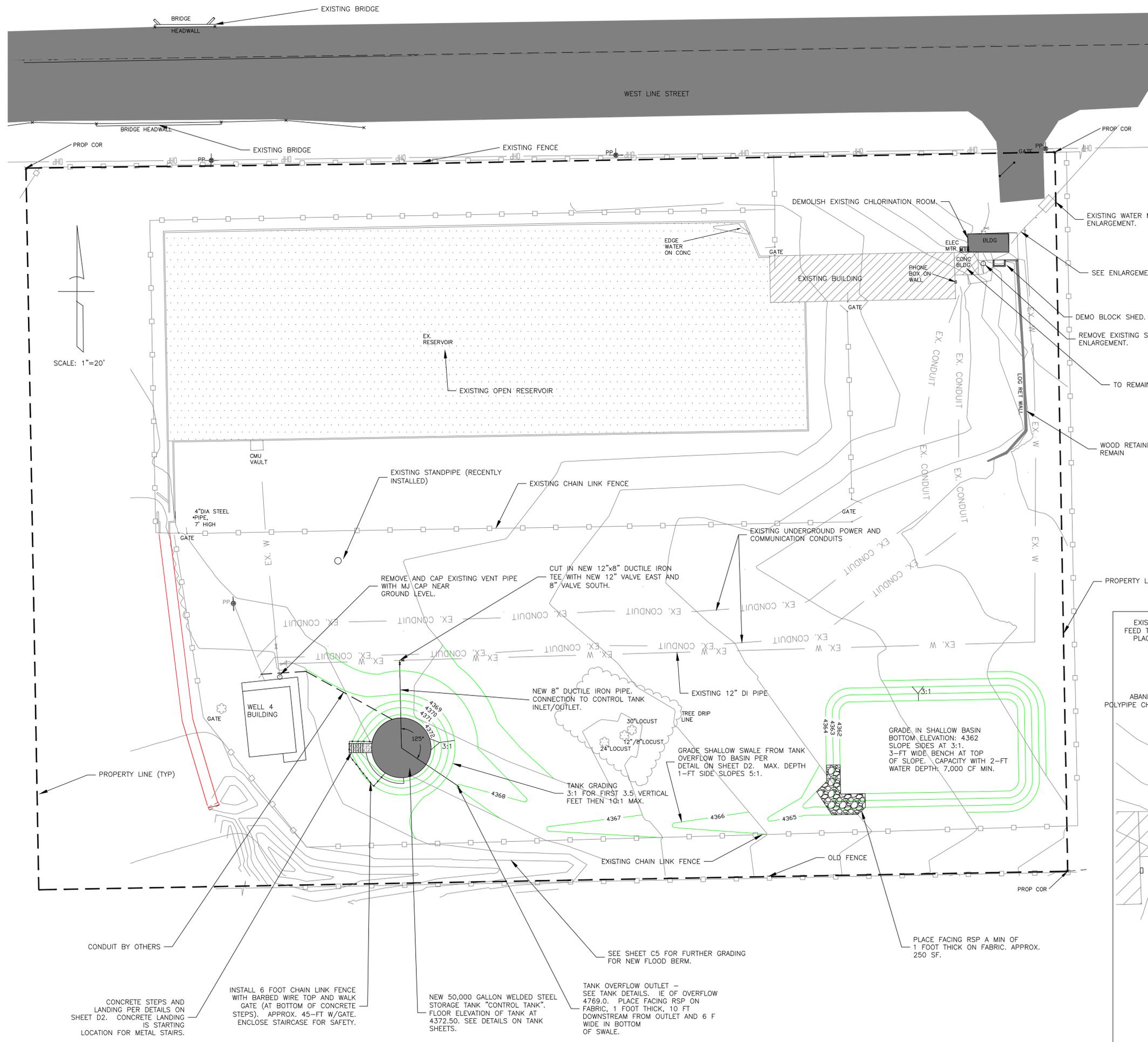
CITY OF BISHOP
POSITIVE PRESSURE WATER SYSTEM
IMPROVEMENTS AT WELL 4 AND
STORAGE TANK ON WEST LINE STREET

TITLE SHEET



| |
|--------------------|
| JOB NO.: 10-003.11 |
| DATE: 4/8/13 |
| DESIGNED: TC |
| DRAWN: MLM |
| CHECKED: |

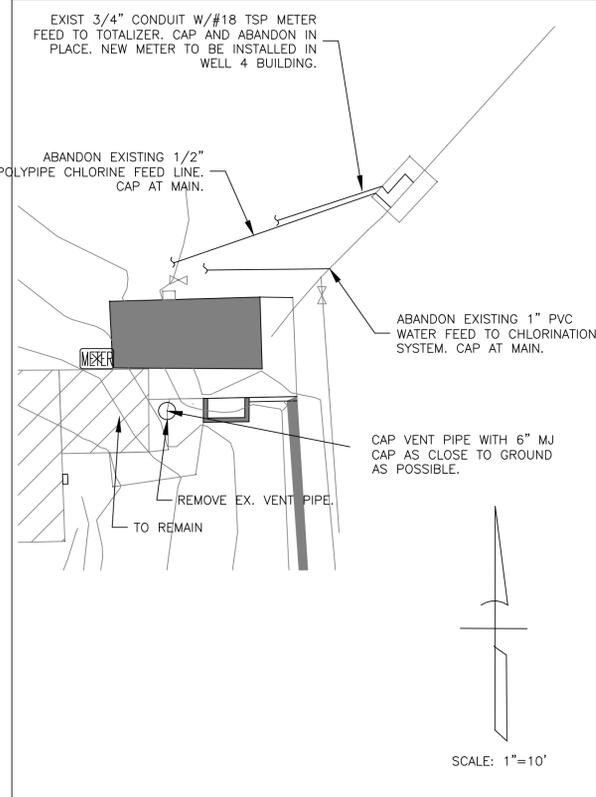
SHEET C1



- NOTES:
1. SEE SHEET C4 FOR WELL 4 PIPING MODIFICATIONS AND NEW METER INSTALLATION.
 2. SEE SHEET C5 FOR NEW FLOOD BERM IMPROVEMENTS.
 3. TREES TO REMAIN UNLESS SPECIFICALLY CALLED OUT FOR REMOVAL.

SURVEY INFORMATION:
 CONTROL POINTS: REFER TO CITY OF BISHOP CONTROL POINTS RECORD OF SURVEY LOCATED ON THE CITY'S WEBSITE.

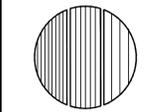
Avoid cutting underground utility lines. It's costly.
CALL BEFORE YOU DIG.
 1-800-227-2600
UNDERGROUND SERVICE ALERT (USA)



SCALE: 1"=20'

SCALE: 1"=10'

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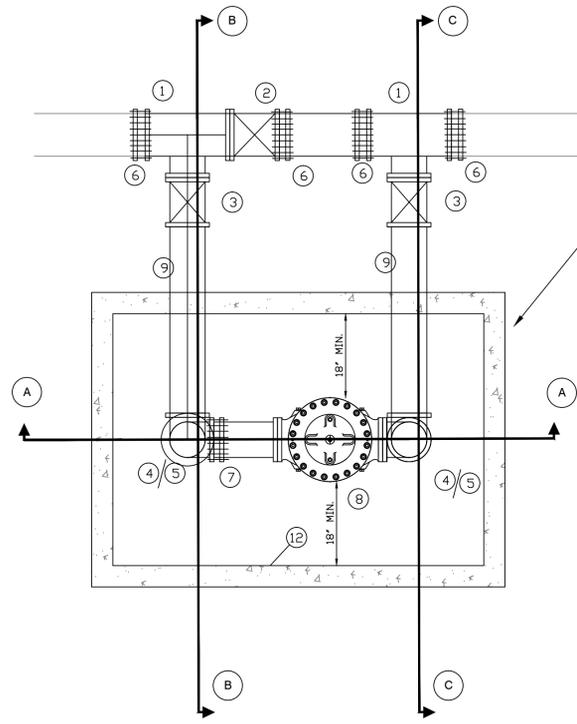
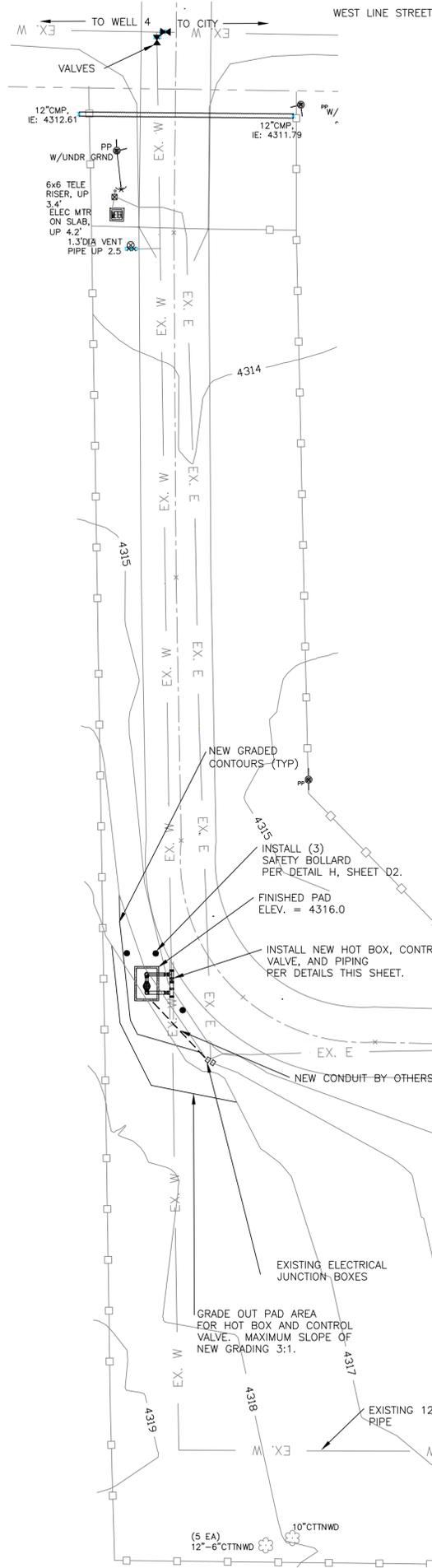
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CITY OF BISHOP
 POSITIVE PRESSURE WATER SYSTEM
 IMPROVEMENTS AT WELL 4 AND
 STORAGE TANK ON WEST LINE STREET
 WELL 4 SITE PLAN



JOB NO.: 10-003.11
 DATE: 4/8/13
 DESIGNED: TC
 DRAWN: MLM
 CHECKED:

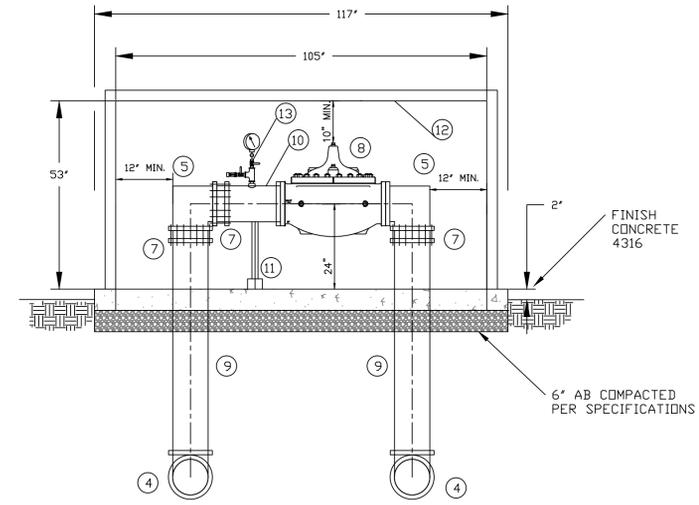
SHEET C2



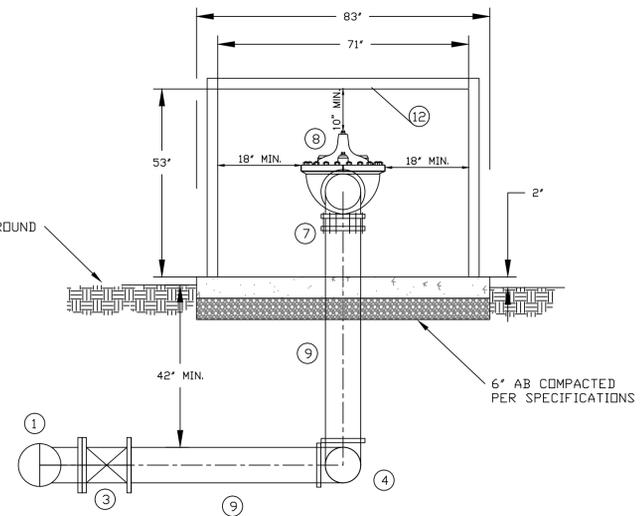
PLAN VIEW OF SOLENOID CONTROL VALVE PIPING
DETAIL A

- 117'x83' 6" THICK CONCRETE SLAB FOR HB6N-D HOTBOX
- ① 12"x10" DUCTILE IRON FLANGED TEE
 - ② 12" FLANGED GATE VALVE
 - ③ 10" GATE VALVE
 - ④ 10" MECHANICAL JOINT 90° DUCTILE BEND
 - ⑤ 10" FLANGEXFLANGE 90° DUCTILE BEND
 - ⑥ 12" RESTRAINED FLANGE COUPLING ADAPTOR
 - ⑦ 10" RESTRAINED FLANGE COUPLING ADAPTOR
 - ⑧ 10" CLA-VAL ELECTRONIC CONTROL VALVE
 - ⑨ 10" PLAIN ENDXPLAIN END SPOOL
 - ⑩ 10" PLAIN ENDXFLANGE SPOOL
 - ⑪ PIPE SUPPORT
 - ⑫ HOTBOX - MODEL HB6N-D (W/POWER)
 - ⑬ PRESSURE GAUGE AND SAMPLE TAP (F, D2)

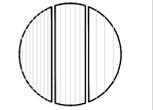
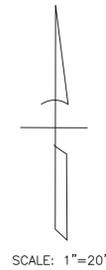
ALL CONNECTIONS SHALL BE MECHANICALLY RESTRAINED.



SECTION A-A



SECTIONS B-B & C-C



| REVISION |
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CITY OF BISHOP
 POSITIVE PRESSURE WATER SYSTEM
 IMPROVEMENTS AT WELL 4 AND
 STORAGE TANK ON WEST LINE STREET
 EXISTING STORAGE TANK - SITE PLAN



JOB NO: 10-619.2
 DATE: 4/8/13
 DESIGNED:
 DRAWN: CNJ
 CHECKED: DMH

NOTE: ELECTRICAL AND CONDUIT WORK SHOWN ON THIS SHEET TO BE DONE BY OTHERS.

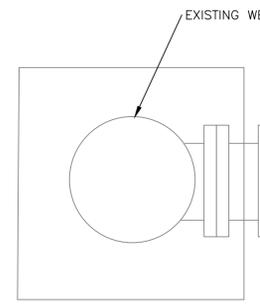
| CONDUIT & WIRE SCHEDULE (BY OTHERS) | | | | | | | | | | | | | | | | |
|-------------------------------------|----------------------------|------------------------------|---------|--------|------|--------|-----|------|-------|------|-----|---------|-----|--------|---|--|
| CONDUIT | FROM | TO | CONDUIT | | | GROUND | | | POWER | | | CONTROL | | SIGNAL | | REMARKS |
| | | | QTY | SIZE | TYPE | WIRE | QTY | SIZE | QTY | SIZE | QTY | SIZE | QTY | SIZE | | |
| 10 | RTU-4 | FLOW METER FIT 471 | 1 | 3/4" | GRS | - | - | - | - | - | - | - | - | - | - | FINAL CONNECTION, FLEX / PULL ROPE |
| 11 | LIGHTING PANEL LP | FLOW METER FIT 471 | 1 | 3/4" | GRS | #14 | 2 | #14 | - | - | - | - | - | - | - | FINAL CONNECTION, FLEX PULL ROPE / COORDINATE FINAL CONNECTION TO RELOCATED EQUIPMENT WITH OWNER |
| 12 | RTU-4 | RELOCATED CHLORINE EQUIPMENT | 1 | 3/4" | GRS | - | - | - | - | - | - | - | - | - | - | COORDINATE FINAL CONNECTION TO RELOCATED EQUIPMENT WITH OWNER |
| 13 | LIGHTING PANEL LP | RELOCATED CHLORINE EQUIPMENT | 1 | 1" | GRS | #10 | 4 | #10 | - | - | - | - | - | - | - | COORDINATE FINAL CONNECTION TO RELOCATED EQUIPMENT WITH OWNER |
| 14 | RTU-4 | J-BOX | 1 | 1" | GRS | - | - | - | - | - | - | - | - | - | - | PULL ROPE (FOR TANK LEVEL TRANSMITTER LT451) |
| 15 | LIGHTING PANEL LP | J-BOX | 1 | 1" | GRS | #12 | 2 | #12 | - | - | - | - | - | - | - | PULL ROPE (FOR TANK LEVEL TRANSMITTER HEAT TAPE) |
| 16 | MAIN BUS | 60A DISCONNECT | - | - | - | #6 | 3 | #4 | - | - | - | - | - | - | - | |
| 17 | 60A DISCONNECT | NEW 30KVA TRANSFORMER | 1 | 1" | GRS | #8 | 3 | #6 | - | - | - | - | - | - | - | FLEX CONNECTION TO TRANSFORMER |
| 18 | NEW 30KVA TRANSFORMER | LIGHTING PANEL LP | 1 | 1-1/2" | GRS | #8 | 3 | #2 | - | - | - | - | - | - | - | FLEX CONNECTION TO TRANSFORMER |
| 19 | EXISTING LIGHTING PANEL LP | LIGHTING PANEL LP | 1 | 1" | GRS | - | - | - | - | - | - | - | - | - | - | NECESSARY TO RELOCATE EXISTING CIRCUITS TO NEW PANEL. |

EX. DOUBLE DOORS

- ① 10" PEXFL SPOOL
- ② PIPE SUPPORT, SHEET D2
- ③ 10" RFCA
- ④ 10" FLXFL 45° DI BEND
- ⑤ 10" FLXFL 90° DI BEND
- ⑥ 10" MAG METER
- ⑦ SAMPLE TAP (DETAIL F, D2)

EX. MAN DOOR

SCALE: 1"=1'



EXISTING 10" CHECK VALVE

APPROXIMATE AVAILABLE AREA FOR NEW SODIUM HYPOCHLORITE GENERATOR AND CHLORINE INJECTION SYSTEM. CHLORINATION EQUIPMENT RELOCATED FROM EXISTING CHLORINATION ROOM TO THIS AREA BY OTHERS.

EXISTING 10" DI PIPE. TO BE REMOVED FROM EX. CHECK VALVE TO EX. VERTICAL 90° BEND.

CONTRACTOR SHALL VERIFY NECESSARY GASKETS AND FLANGE CONNECTION REQUIREMENTS FOR MAG METER. (TYP)

CONTRACTOR SHALL FIELD VERIFY PIPE DIMENSIONS PRIOR TO ORDERING PIPE SPOOLS.

NEW J-BOX 12" AFG

EXISTING 120V OUTLETS (2)

INSTALL NEW 10" FLOW METER.

EX. PUMP CONTROL PANEL

EX. 400 A (600 V) 3-POLE DISCONNECT SWITCH.
EX. (8) SCG METER ASSEMBLY

EX. MOTOR CONTROL CENTER 'MCC'

NEW E60A/3P DISCONNECT

EX. ELECTRICAL LOAD CENTER

NEW 30 KVA TRANSFORMER 480-120/208 VOLT, 3-PHASE

NEW ELECTRICAL PANEL LP (BELOW TRANSFORMER)

EX. RTU

EX. WALL HEATER TO REMAIN

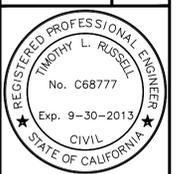
FLOOR MOUNTED CONDUIT ON SS UNISTRUT

EXISTING 10" VERTICAL 90-DEGREE BEND.

TO SYSTEM

REVISION

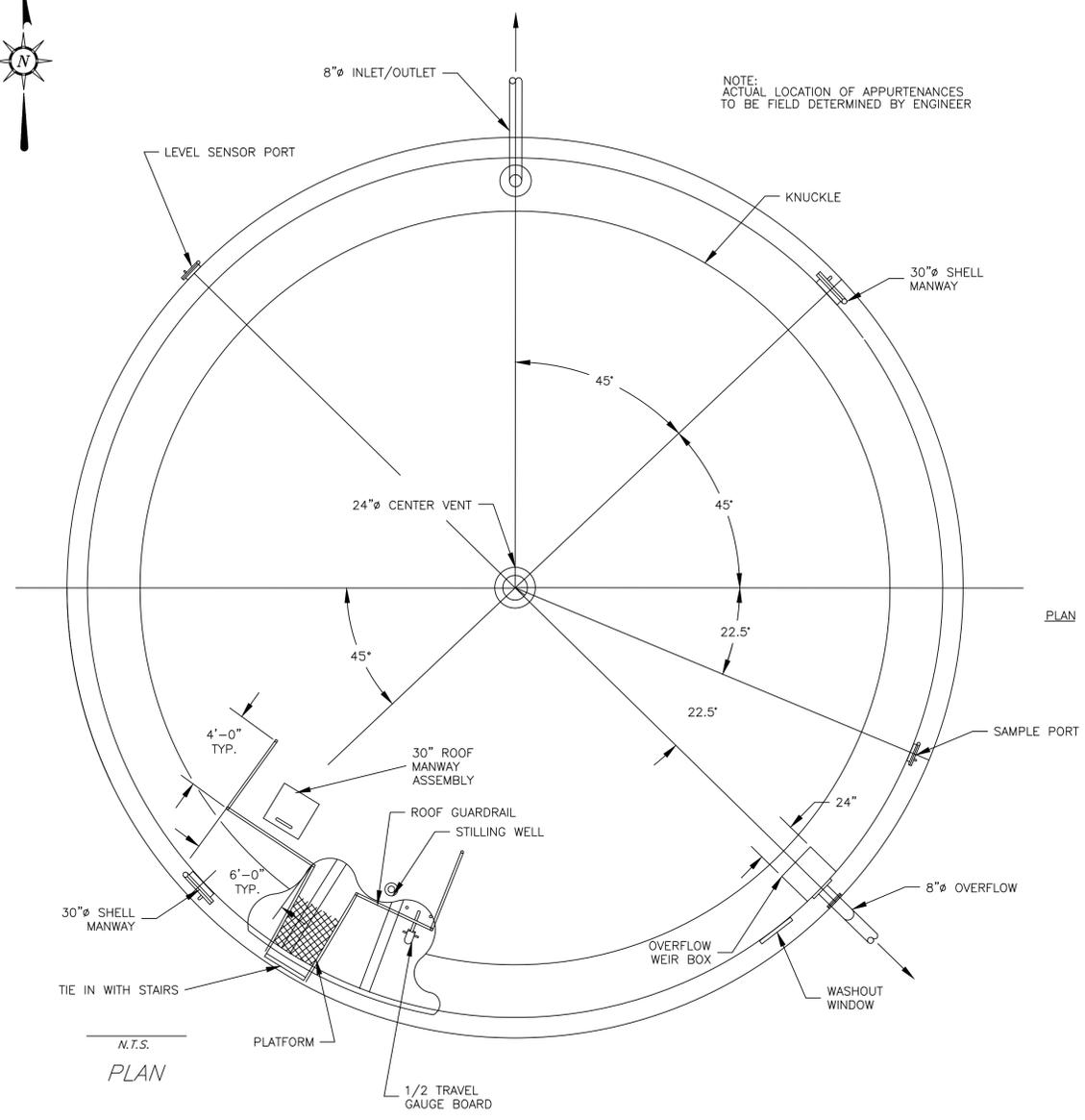
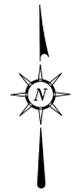
CITY OF BISHOP
POSITIVE PRESSURE WATER SYSTEM
IMPROVEMENTS AT WELL 4 AND
STORAGE TANK ON WEST LINE STREET
WELL 4 BUILDING
CHLORINE SYSTEM CONNECTIONS



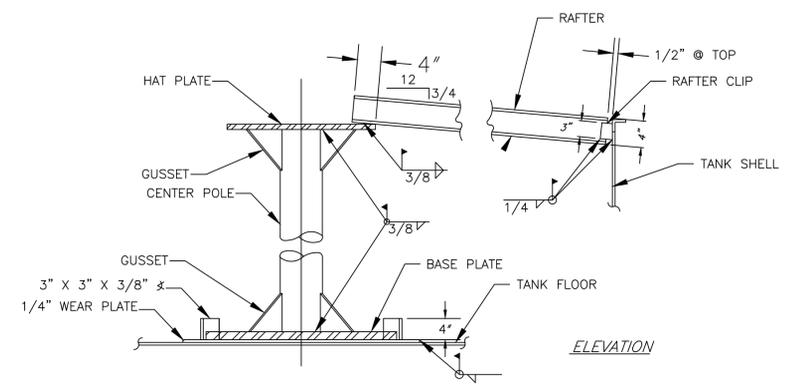
JOB NO: 10-619.2
DATE: 4/8/13
DESIGNED:
DRAWN: CNJ
CHECKED: DMH

SHEET C4

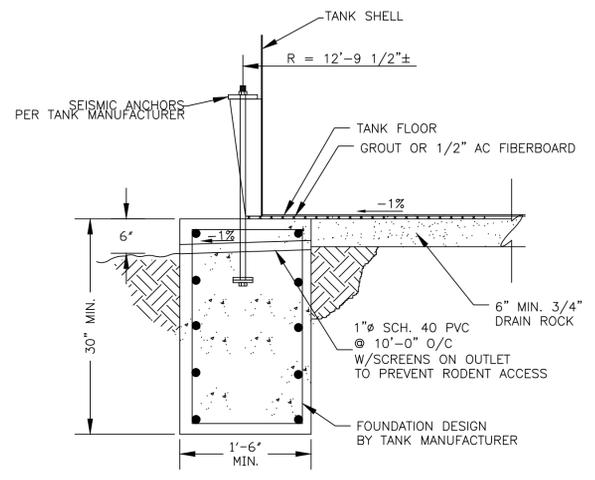
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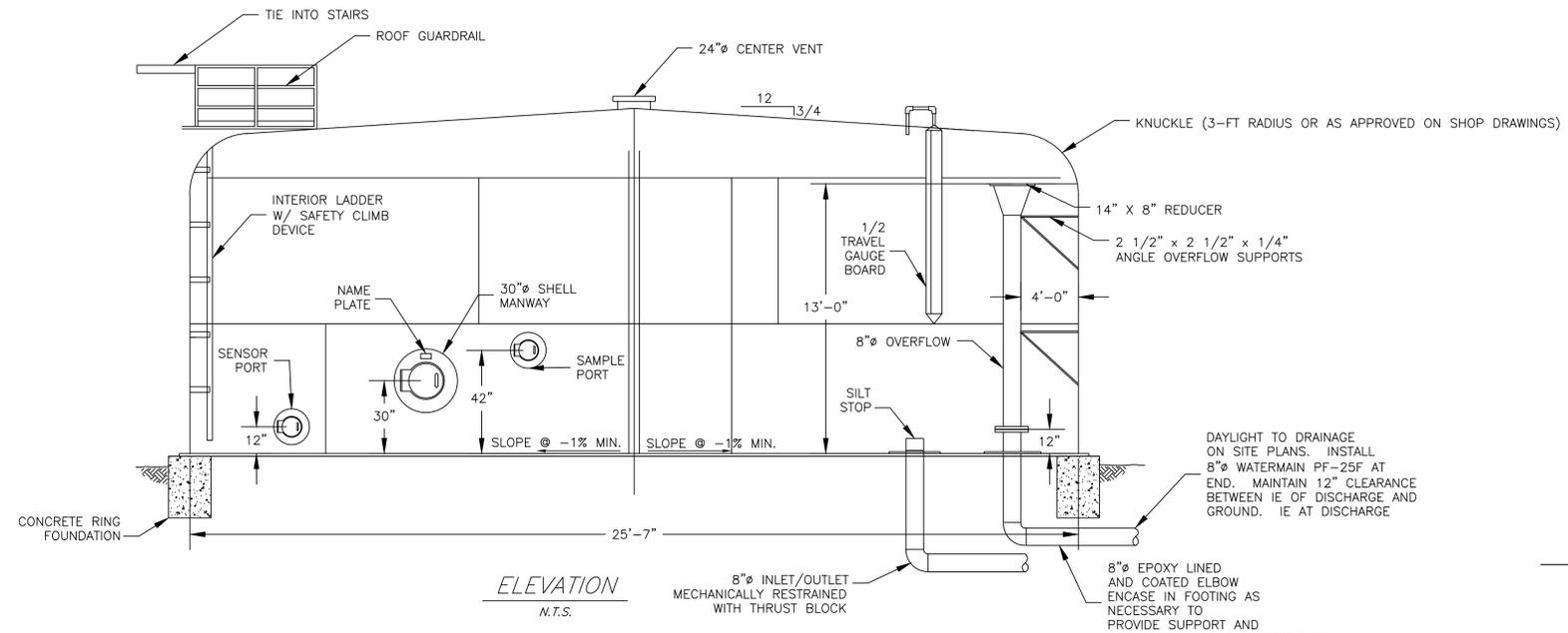
N.T.S.
PLAN



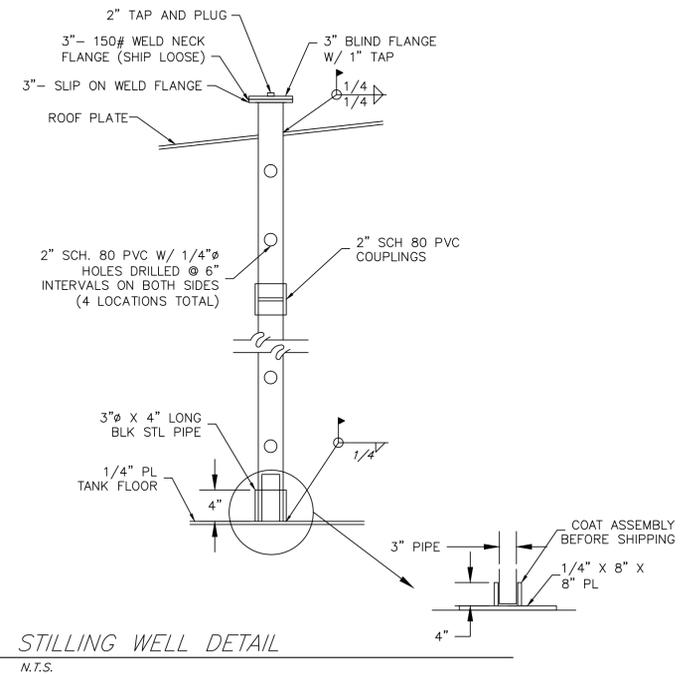
CENTER POLE (IF REQUIRED)
N.T.S.



FOOTING DETAIL
N.T.S.

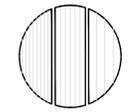


ELEVATION
N.T.S.



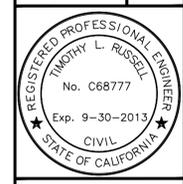
STILLING WELL DETAIL
N.T.S.

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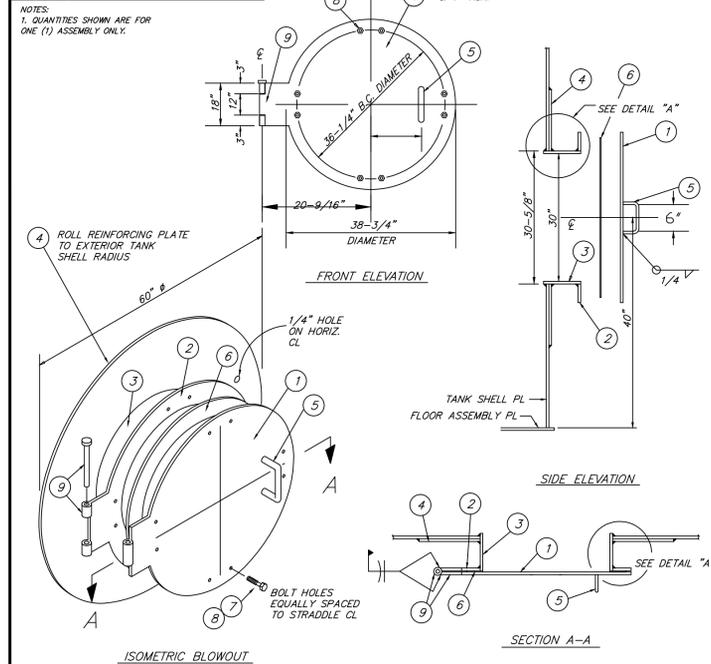
| REVISION |
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CITY OF BISHOP
 POSITIVE PRESSURE WATER SYSTEM
 IMPROVEMENTS AT WELL 4 AND
 STORAGE TANK ON WEST LINE STREET
 TANK DETAILS



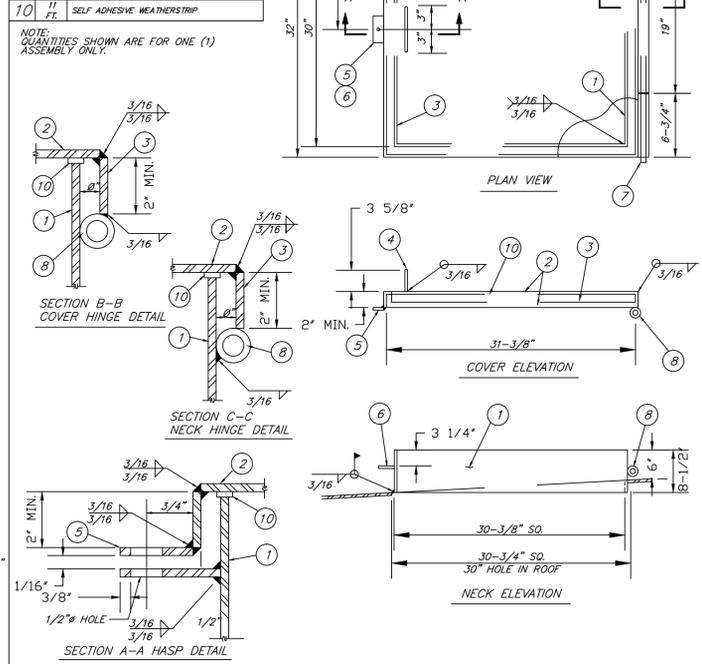
JOB NO: 10-619.2
 DATE: 4/8/13
 DESIGNED:
 DRAWN: CNJ
 CHECKED: DMH

| ITEM | QTY | DESCRIPTION |
|------|------------|--|
| 1 | 8.2 SOFT. | A-36 7/16" PL X 38-3/4" W/7/8" HOLES |
| 2 | 8.2 SOFT. | A-36 5/16" PL X 30-1/2" I.D. X 38-3/4" O.D. W/7/8" HOLES |
| 3 | 5 FT. | 3/16" X 6" PL ROLLED TO 30" I.D. |
| 4 | 10.6 SOFT. | A-36 3/16" PL X 30-1/2" I.D. X 60" O.D. |
| 5 | 1 FT. | 1/2" BAR X 12" LONG |
| 6 | 1 | 1/4" GASKET 1/8" THK. X 30" I.D. X 35-3/8" O.D. |
| 7 | 42 | 3/4" X 2" LG. N.C. BOLTS |
| 8 | 42 | 3/4" N.C. HEX NUTS |
| 9 | 1 | HINGE ASSY. W/ 3/4" X 18" PIN W/ 1/4" THK. HEAD |



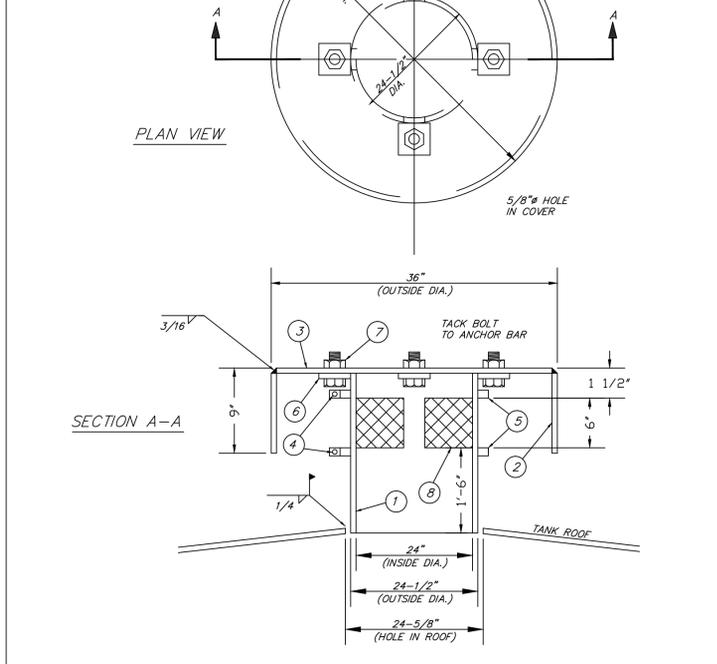
OUTWARD SHELL MANWAY - 30" Ø
N.T.S.

| ITEM | QTY | DESCRIPTION |
|------|------------|--|
| 1 | 7.3 SOFT. | A-36 3/16" PL X 8-1/2" X 31" (4 REED.) |
| 2 | 1.78 SOFT. | A-36 10 GA. PL. X 32" X 32" (4 REED.) |
| 3 | 1.78 SOFT. | A-36 10 GA. PL. X 32" X 32" (4 REED.) |
| 4 | 1-1/8 FT. | 1/2" RND. BAR X 13-1/4" LG. (1 REED.) |
| 5 | .04 SOFT. | A-36 1/4" PL X 2-1/16" X 4" (1 REED.) |
| 6 | .04 SOFT. | A-36 1/4" PL X 2-1/16" X 4" (1 REED.) |
| 7 | 2.7 FT. | 1/2" ROD X 32-1/2" LONG, TACK WELD EACH END. |
| 8 | 2.7 FT. | 1/2" SCHD. 40 PIPE X 32-1/2" LONG |
| 9 | 11 FT. | SELF ADHESIVE WEATHERSTRIP |



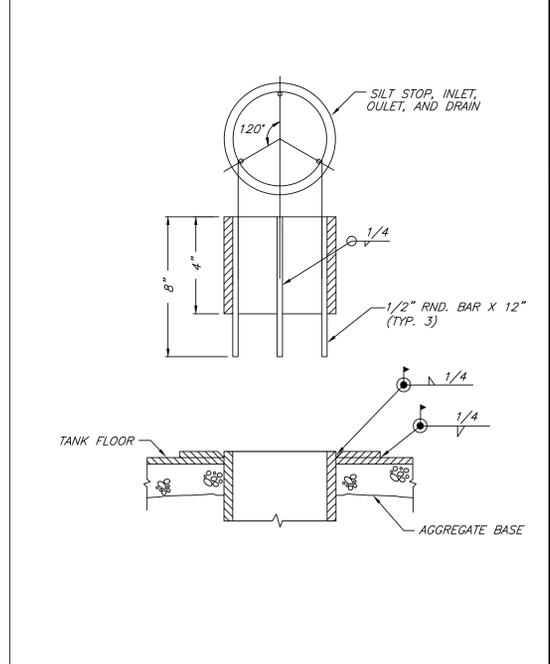
ROOF MANWAY ASSEMBLY - 30" SQ.
N.T.S.

| ITEM | QTY | DESCRIPTION |
|------|-----------|---|
| 1 | 1 | 1/4" PL X 77" X 20" (ROLL TO DIA.) |
| 2 | 1 | 1/4" PL X 8" X 113" SKIRT |
| 3 | 2.1 SOFT. | 1/4" PL - COVER |
| 4 | 2 | 3/8" X 2-1/2" Q MACHINE BOLT W/NUT |
| 5 | 2 | 3/16" X 1" X 80" FB BAND |
| 6 | 4 | 1/4" X 2" X 2" FB |
| 7 | 4 | 1/2" X 1-1/2" Q MACHINE BOLT W/NUT |
| 8 | 1 | 14 X 14 S518 INSECT SCREEN 84" LONG X 8" WIDE |



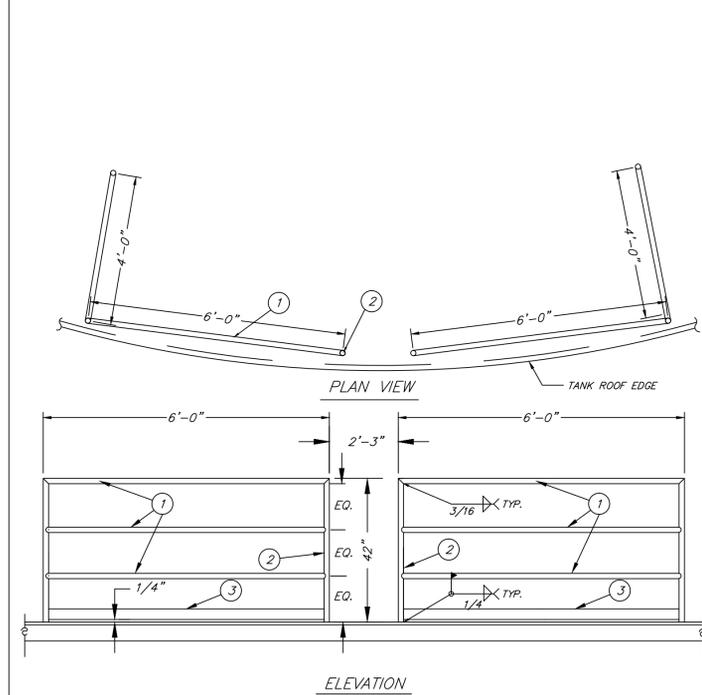
CENTER VENT - 24" Ø
N.T.S.

| ITEM | QTY | DESCRIPTION |
|------|-----|-------------|
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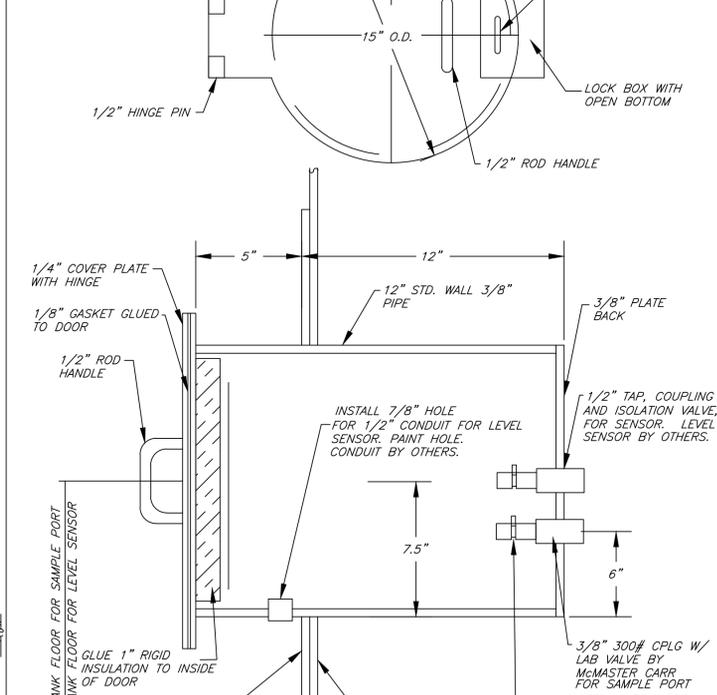
8" SILT STOP DETAIL
N.T.S.

| ITEM | QTY | DESCRIPTION |
|------|-----|--|
| 1 | 24 | NOM. 1 1/4" (1.66" O.D.) SCH. 40 STL. PIPE (4 REED.) 72" LG. |
| 2 | 14 | NOM. 1 1/4" (1.66" O.D.) SCH. 40 STL. PIPE (4 REED.) 42" LG. |
| 3 | 12 | FLAT BAR 1/4" X 4" (2 REED.) 72" LG. |



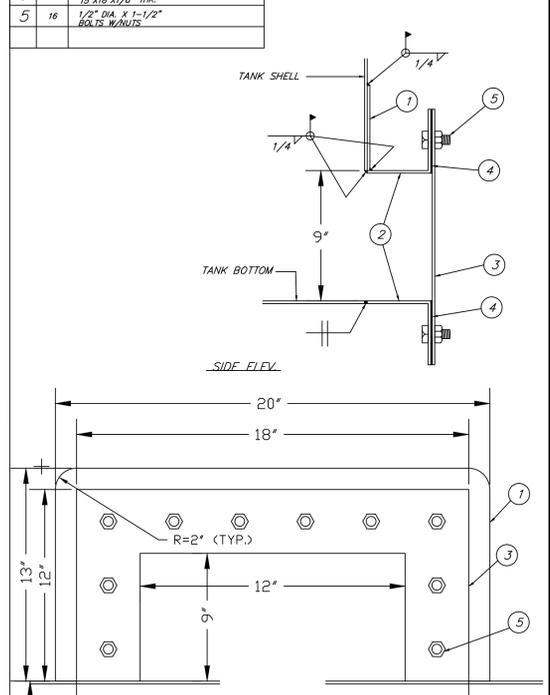
ROOF GUARDRAIL ASSEMBLY
N.T.S.

| ITEM | QTY | DESCRIPTION |
|------|-----------|--|
| 1 | 1 | A-36 13" X 20" X 5/16" DBLR. W/2" X 1/2" OPENING |
| 2 | 1 | A-36 3" X 3" X 3/8" J |
| 3 | 1.5 SOFT. | A-36 12X18X3/8" COVER PL. |
| 4 | 1 | JM60 GASKET 15" X 18" X 1/8" THK. |
| 5 | 16 | 1/2" DIA. X 1-1/2" RND. W/NUIS. |



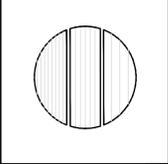
SAMPLE/SENSOR PORT DETAIL
N.T.S.

| ITEM | QTY | DESCRIPTION |
|------|-----|-------------|
|------|-----|-------------|



WASH OUT WINDOW 9" X 12"
N.T.S.

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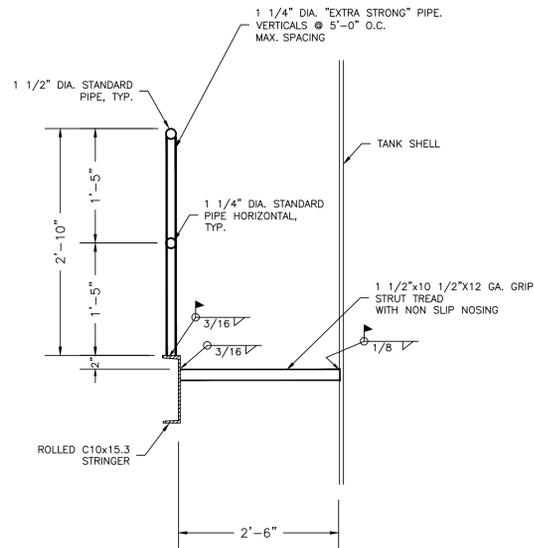


| REVISION | DESCRIPTION |
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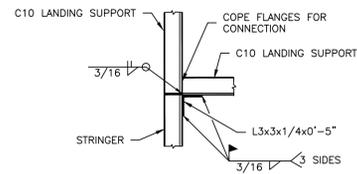
CITY OF BISHOP
POSITIVE PRESSURE WATER SYSTEM
IMPROVEMENTS AT WELL 4 AND
STORAGE TANK ON WEST LINE STREET
TANK DETAILS (2)



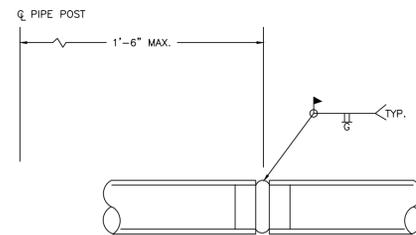
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| JOB NO: | 10-619.2 |
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| CHECKED: | DMH |



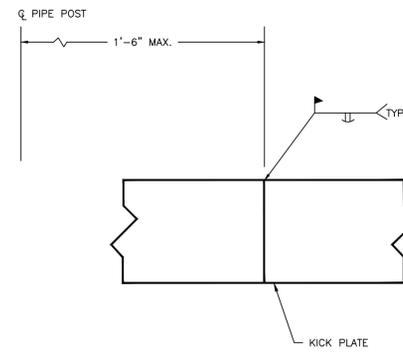
**SECTION B - B
STAIR SECTION**
SCALE: 1"=1'-0"



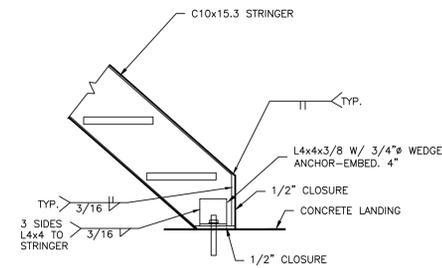
**DETAIL 1
CHANNEL CONNECTION**
SCALE: 1"=1'-0"



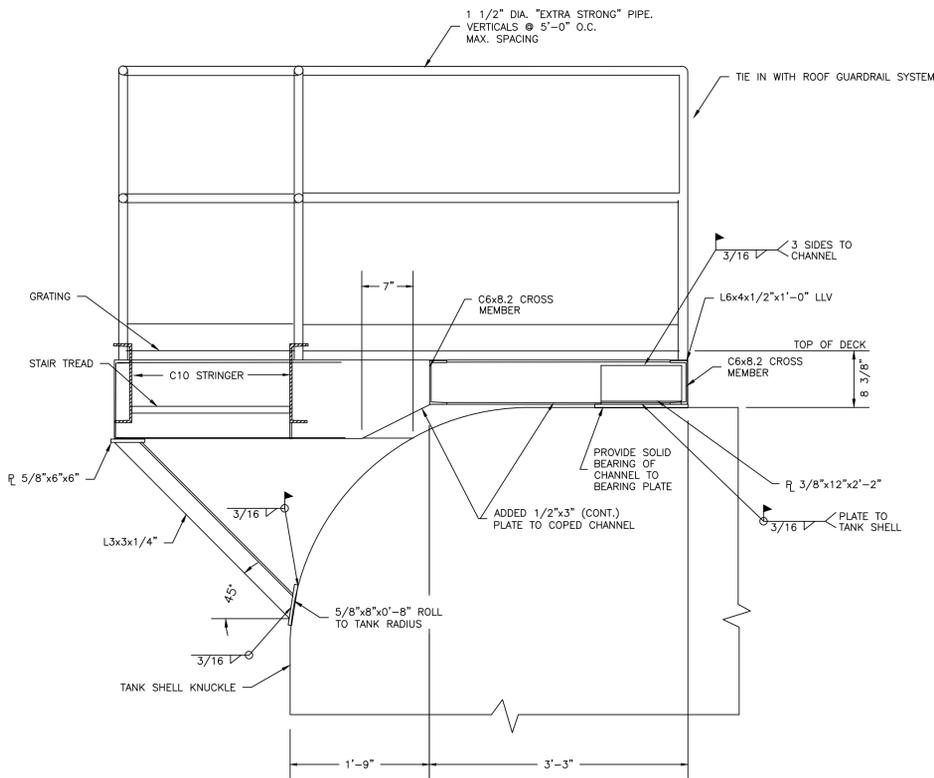
**DETAIL 2
TYPICAL HANDRAIL WITH GUARDRAIL SPLICE**
NOT TO SCALE



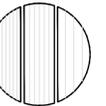
**DETAIL 3
TYPICAL KICK PLATE SPLICE**
NOT TO SCALE



**DETAIL 4
STRINGER TO CONCRETE PAD CONNECTION**
SCALE: 1"=1'-0"



**SECTION C - C
WALKWAY FIXED CONNECTION**
SCALE: 1"=1'-0"



REVISION

CITY OF BISHOP
POSITIVE PRESSURE WATER SYSTEM
IMPROVEMENTS AT WELL 4 AND
STORAGE TANK ON WEST LINE STREET

TANK DETAILS (4)



JOB NO.: 10-619.2
DATE: 4/8/13
DESIGNED:
DRAWN: CNJ
CHECKED: DMH

SHEET T4

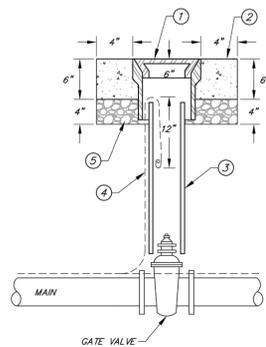
ABBREVIATIONS

| | |
|-------|--|
| ASTM | AMERICAN SOCIETY FOR TESTING AND MATERIALS |
| AWWA | AMERICAN WATER WORKS ASSOCIATION |
| C | CENTERLINE |
| COMM | COMMERCIAL |
| COMP | COMPRESSION |
| C/S | COPPER TUBE SIZE |
| FIP | FEMALE IRON PIPE |
| FL | FLANGE |
| IPT | IRON PIPE THREAD |
| MIP | MALE IRON PIPE |
| MJ | MECHANICAL JOINT |
| NS | NATIONAL STANDARD |
| PROP. | PROPERTY |
| PSI | POUNDS PER SQUARE INCH |
| O.C. | ON CENTER |
| RSE | RESIDENTIAL |
| SDR | STANDARD DIMENSION RATIO |

NOTE: REFER TO CALTRANS STANDARD PLANS A10A AND A10B FOR ADDITIONAL ABBREVIATIONS.

| | | | |
|---|--------------------------------------|--|---------------------|
|  | APPROVED BY PUBLIC WORKS DIRECTOR | STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION | STANDARD DETAIL NO. |
| | ABBREVIATIONS | | G-1 |
| DATE | REVISION | | SCALE |
| | | | NOT TO SCALE |

STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION
VALVE BOX & RISER



NOTES:

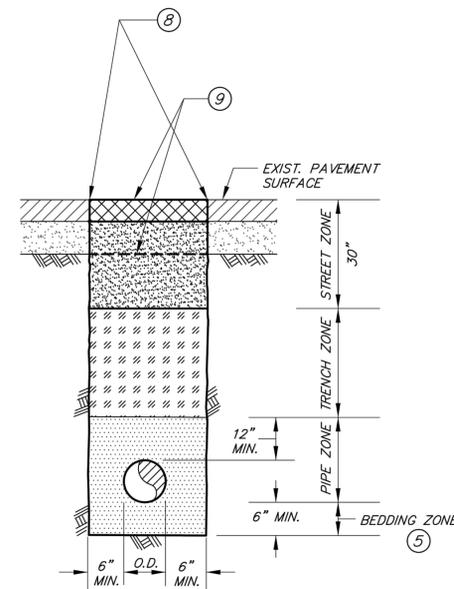
- CHRISTY G-5 VALVE BOX.
- CLASS 1 CONCRETE COLLAR.
- 8" PVC SDR 35 RISER.
- LOCATOR WIRE.
- AGGREGATE BASE.

| | | | |
|---|--------------------------------------|--|---------------------|
|  | APPROVED BY PUBLIC WORKS DIRECTOR | STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION | STANDARD DETAIL NO. |
| | VALVE BOX & RISER | | W-4 |
| DATE | REVISION | | SCALE |
| | | | NOT TO SCALE |

STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION
PIPE BEDDING AND BACKFILL

NOTES:

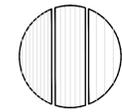
- THE FOLLOWING APPLIES FOR WORK ACCOMPLISHED THROUGH EXCAVATION AND BACKFILL.
 - EXCEPT AS SHOWN, WORK SHALL BE IN ACCORDANCE WITH THE STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION (CALTRANS) STANDARD SPECIFICATIONS.
 - BACKFILL SHALL BE AS FOLLOWS:
- | ZONE | MINIMUM COMPACTION | MINIMUM CALTRANS R VALUE | MATERIAL |
|------------------|--------------------|--------------------------|---------------------|
| STREET | 95% | 60 | AS SHOWN AND NOTE 7 |
| TRENCH | 90% | 60 | NOTE 7 |
| PIPE AND BEDDING | 90% | | NOTE 4 |
- MATERIAL IN THE PIPE AND BEDDING ZONES SHALL BE SAND OR CRUSHED ROCK EXCEPT THAT CRUSHED ROCK SHALL NOT BE USED WITHIN 6 INCHES OF WATER LINES, UNLESS DIRECTED BY THE ENGINEER.
 - IN UNSUITABLE AREAS AS SHOWN ON THE PLANS OR DIRECTED BY THE ENGINEER, MINIMUM THICKNESS OF BEDDING SHALL BE 18 INCHES.
 - INSTALLATION OF MANHOLES AND OTHER IN-GROUND STRUCTURES IS SIMILAR.
 - SLURRY CEMENT BACKFILL MAY BE USED IN PLACE OF COMPACTED MATERIAL AND IN PLACE OF AGGREGATE BASE IN THE TRENCH ZONE AND THE STREET ZONE. NOT LESS THAN 70 POUNDS AND NOT MORE THAN 75 POUNDS OF CEMENT SHALL BE USED FOR EACH CUBIC YARD OF SLURRY CEMENT BACKFILL.
 - SAWCUT EXISTING ASPHALT TO A CLEAN STRAIGHT VERTICAL EDGE.
 - REPAVE TRENCH WITH 4" MIN. A.C. OVER 6" MIN. A.B. IN PAVED AREAS.



| | | | |
|---|--------------------------------------|--|---------------------|
|  | APPROVED BY PUBLIC WORKS DIRECTOR | STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION | STANDARD DETAIL NO. |
| | PIPE BEDDING AND BACKFILL | | WS-1 |
| DATE | REVISION | | SCALE |
| | | | |

STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION
PIPE BEDDING AND BACKFILL

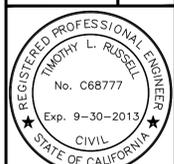
ENGINEERING • PLANNING • RESOURCE MANAGEMENT
RESOURCE CONCEPTS, INC.
 340 N. MINNESOTA ST. • CARSON CITY, NEVADA 89703-4152
 OFFICE: 775-883-1600 • FAX: 775-883-1666 • WEB SITE: www.rci-nv.com



REVISION

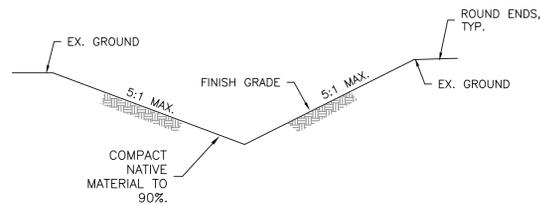
CITY OF BISHOP
 POSITIVE PRESSURE WATER SYSTEM
 IMPROVEMENTS AT WELL 4 AND
 STORAGE TANK ON WEST LINE STREET

DETAILS

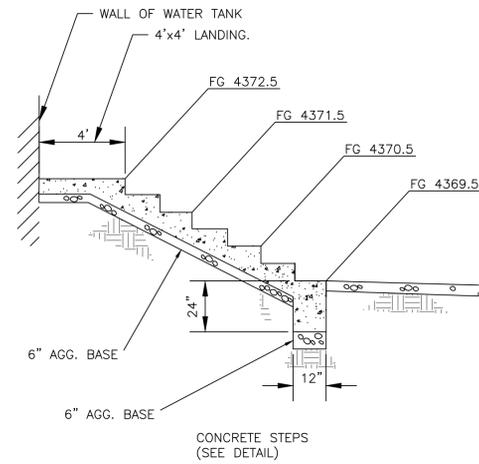


JOB NO: 10-619.2
 DATE: 4/8/13
 DESIGNED:
 DRAWN: CNJ
 CHECKED: DMH

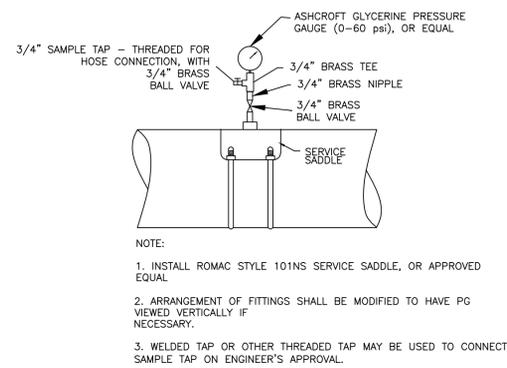
SHEET D1



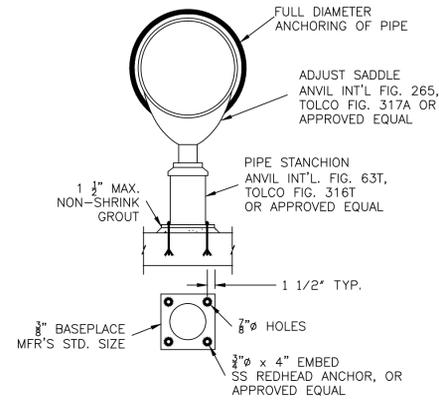
SWALE DETAIL
NOT TO SCALE
DETAIL B



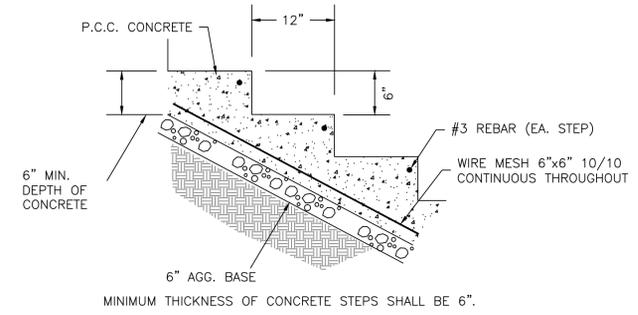
STEPS CROSS SECTION
NO SCALE
DETAIL E



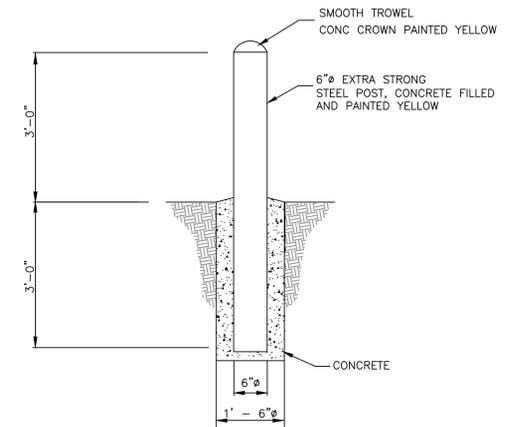
SAMPLE TAP AND PRESSURE GAUGE
NO SCALE
DETAIL F



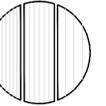
PIPE SUPPORT DETAIL
NOT TO SCALE
DETAIL C



STEP DETAIL
NO SCALE
DETAIL D



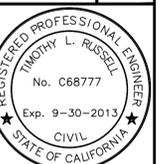
BOLLARD DETAIL
DETAIL H



REVISION

CITY OF BISHOP
POSITIVE PRESSURE WATER SYSTEM
IMPROVEMENTS AT WELL 4 AND
STORAGE TANK ON WEST LINE STREET

DETAILS



JOB NO.: 10-619.2
DATE: 4/8/13
DESIGNED:
DRAWN: CNJ
CHECKED: DMH

SHEET D2