RESOLUTION OF THE ZONING ADMINISTRATOR
OF THE COUNTY OF HUMBOLDT

Resolution Number 24-058

Record Number: PLN-2023-18152

Assessor Parcel Numbers: 513-181-014, 514-012-013, 514-015-007, 514-112-014, 514-113-006, 514-132-007, 514-132-008, 514-133-001, 514-211-034, 514-211-035, 514-221-008, 515-011-023, 515-011-063, 515-011-073, 515-041-014, 515-041-020, 515-121-018

County Right-of-Ways: Westhaven Drive (County Road No.C4N030), Sixth Avenue (C4N050), Kay Avenue (4N060), Kahlstrom Avenue (C4N070), Driver Road (4N020), South Westhaven Drive (C4N030)

Makes the required findings for certifying compliance with the California Environmental Quality Act and conditionally approves Westhaven Community Services District's Coastal Development Permit.

WHEREAS, Westhaven Community Services District submitted an application and evidence in support of approving Coastal Development Permit and Conditional Use Permit No. PLN-2023-18152; and

WHEREAS, the County Planning Division has reviewed the submitted application and evidence and has referred the application and evidence to involved reviewing agencies for site inspections, comments, and recommendations; and

WHEREAS, the Planning Division has considered the Mitigated Negative Declaration prepared by the Westhaven Community Services District and agrees with their evaluation; and

WHEREAS, the Planning Division as a Responsible Agency has considered the Lead Agency's determination that elements of the project qualify for exemptions found in the CEQA guidelines; and

WHEREAS, Attachment 3 in the Planning Division staff report includes evidence in support of making all of the required findings for approving the proposed Coastal Development Permit and Conditional Use Permit (Record Number PLN-2023-18152); and

WHEREAS, the Humboldt County Zoning Administrator held a duly-noticed public hearing on **November 21, 2024** and reviewed, considered, and discussed the application for a Coastal Development Permit reviewed and considered all evidence and testimony presented at the hearing.

Now, THEREFORE BE IT RESOLVED, that the Zoning Administrator makes all the following findings:

1. **FINDING:** **Project Description:** The Coastal Development Permit for Westhaven Community Services District proposed project including five elements: the Disinfection Byproduct Reduction Project, the Water Diversion Infrastructure Upgrades and Maintenance Project, the Wells and Water Line Replacement Project, the Water Loss Reduction Project, and the Trinidad Emergency Intertie Project. The project involves a Coastal Development for new development, the Modification of [(PLN-16307, existing coastal development permits], and a Conditional Use Permit for Civic Use Types on an RS zoned parcel. Approval of Coastal Development Permit PLN-18151 allowed for the initiation of some of the projects.

EVIDENCE: a) Project File: PLN-2023-18152

2. **FINDING:** **CEQA**: The project complies with the requirements of the California Environmental Quality Act (CEQA). Acting as Lead Agency, the Westhaven Community Services District submitted a Mitigated Negative Declaration and three Notices of Exemption encompassing most elements of this project. The County of Humboldt is acting as a responsible agency per CEQA §15381. The County of Humboldt reviewed and agrees with the findings of the MND and the NOEs. Additionally, the Trinidad Emergency Intertie Project is exempt from environmental review under CEQA Section 15302, Replacement or Reconstruction, and 15303, New Construction or Conversion of Small Structures.

EVIDENCE: a) Westhaven CSD prepared and published a Mitigated Negative Declaration for the Disinfection Byproduct Reduction Project (SCH #2024080630).

b) Westhaven CSD prepared Notices of Exemption for the Westhaven Community Services District Water Diversion Infrastructure Upgrades and Maintenance Project (SCH #2024010738), exempt under CEQA Section 15301, the Westhaven CSD Wells and Water Line Replacement Project (SCH #2020080047), exempt under CEQA Section 15302 (class 2) and 15303 (class 3), and the Westhaven Community Services District Water Loss Reduction Project (SCH #2014098050) exempt under CEQA Section 15302(c).

c) Westhaven CSD has not yet submitted a Notice of Exemption for the Trinidad Emergency Intertie Project but the project is exempt from environmental review under CEQA Section 15302, Replacement or Reconstruction, and 15303, New Construction or Conversion of Small Structures.

FINDINGS FOR COASTAL DEVELOPMENT PERMIT

3. FINDING: **General Plan:** The project is consistent with the Humboldt County General Plan, Open Space Plan and Open Space Action Program, and the Trinidad Area Local Coastal Plan (TAP).

EVIDENCE: The parcels included in the project are designated as follows:

Public Lands (P), Rural Residential (RR(c)) 513-181-014;

Rural Village (RV), Urban Reserve 514-012-013, 514-015-007, 514-112-014, 514-113-006, 514-132-007, 514-132-008, 514-133-001, 514-211-034, 514-211-035, 515-011-023, 515-011-063, 515-011-073 ;

Rural Residential (RR(e)) 515-041-014, 515-041-020;

Rural Residential (RR(d)) 515-121-018;

Coastal Commercial Timberland (TC) 514-221-008;

All - Urban Reserve Trinidad Area Local Coastal Plan; Density 0 to 1 unit per acre; Slope Stability: Low Instability (1)

4.30 RURAL PLAN DESIGNATIONS

All relevant elements of the project are consistent with Trinidad Area Local Coastal Plan section 4.30 RURAL PLAN DESIGNATIONS.

Much of the proposed work for the Waterline Replacement Project and the Water Loss Reduction Project is in the County right of way, but occasionally the development extends onto legal parcels. The waterline replacement work is ancillary to and supportive of existing development on those legal parcels and is consistent with the Trinidad Area Local Coastal Plan.

The Disinfection Byproduct Reduction Project, the Water Diversion Infrastructure Upgrades and Maintenance Project, and the Wells and Water Line Replacement Project involve

development on APNs 514-132-007, -008, and 514-133-001, and include replacing and upgrading existing water treatment facilities, an essential service, on Rural Village (RV) designated parcels. This use is not explicitly supported, as the RV designation as written principally permits residential single-family with neighborhood commercial services and conditionally permits the production of food, fiber, or plants, and Cottage Industry.

Notwithstanding the lack of support for essential uses in the land use designation, the project would improve the availability and quality of water for the WCSD. It would not lead to increased densities in the area and is a consistent use within rural land use designation. The wells, borings, and water treatment facilities are confined to parcels owned by WCSD.

3.23 PUBLIC SERVICES

All relevant elements of the project are consistent with Trinidad Area Local Coastal Plan section 3.23 (A) PLANNED USES.

The Water Diversion Infrastructure Upgrades and Maintenance Project includes the expansion of the WSCD public works facilities to accommodate existing, unserved need for water service within the Westhaven Village area caused by insufficient existing water treatment capacity. The WCSD plans to serve 200 homes, but is limited to 150, restricted by the condition of the current treatment system. The proposed improvements to the public services will enable the WCSD to be compliant with their service plan.

The Trinidad Emergency Intertie Project provides for a more resilient water system and ensures that in the event the City of Trinidad or Westhaven Village experiences an emergency loss of water supply, the affected community service district would still be able to provide water to its service area by using the resources of the unaffected CSD.

3.30 NATURAL RESOURCE PROTECTION POLICIES AND STANDARDS.

The Wells and Water Line Replacement Project, the Water Loss Reduction Project, and the Trinidad Emergency Intertie Project elements of the project are consistent with Trinidad Area Local

Coastal Plan section 3.30 NATURAL RESOURCE PROTECTION POLICIES AND STANDARDS.

The Disinfection Byproduct Reduction Project and the Water Diversion Infrastructure Upgrades and Maintenance Project are not consistent with section 3.30 NATURAL RESOURCE PROTECTION POLICIES AND STANDARDS

According to the Trinidad Area Local Coastal Plan, Riparian corridors on all perennial and intermittent streams shall be, at a minimum, the larger of the following:

(1) 100 feet, measured as the horizontal distance from the stream transition line on both sides.

(2) 50 feet plus four times the average percent of slope, measured as a slope distance from the stream transition line on both sides of intermittent and perennial streams.

Proposed project work will occur within these setbacks. Although the Trinidad Area Local Coastal Plan has no mechanisms to reduce setbacks, the Humboldt County Zoning Code provides a process and mitigation measures to facilitate the reduction. Through consultation with CDFW, qualified biologists, and considering the fact that existing water treatment infrastructure exists onsite, the development will be permitted with best management practices in place to protect the resource. More details are in Finding 7 and 8.

The Disinfection Byproduct Reduction Project and the Water Diversion Infrastructure Upgrades and Maintenance Project, involves redevelopment of the WCSD Water Treatment Plant on APNs 514-132-007, -008, and 514-133-001 to ensure a reliable and safe source of domestic water for the WCSD. These improvements were assessed in part under PLN-16307. The Biological and Wetland Assessment submitted with PLN-16307 inventoried ESHA in the project area and suggested mitigation measures for some of the proposed developments. Modification of PLN-16307 will make temporary wells permanent. This modification will cause many of the mitigation measures including the required restoration of the parcel to be non-applicable to the project. As such, appropriate mitigation

measures relevant to the permanent development will be required for the project's development.

County Staff consulted with the California Department of Fish and Wildlife to solicit amended mitigation measures and refreshed support for the project. CDFW supported both the expanded improvements and the reduced setbacks to ESHA, suggesting the proposed development would have no effect to adjacent wetlands and riparian corridors, and providing some additional considerations and best practices to ensure no impacts would occur **(Conditions 4-30)**.

As depicted on the site plan, no work will occur in a watercourse or wetland, but some of the work will be located within 100 feet of the two sensitive habitats. Finding 4 Evidence B and Finding 8 examine conformance with the County Code's requirements for doing work in the riparian areas in the Coastal Zone.

The Biological and Wetland Assessment provides operational measures to minimize the project's potential impacts on the sensitive communities and riparian buffer areas. These include excluding equipment and construction from the stream and riparian area, using construction fencing near sensitive areas to prevent accidental incursion, and using BMPs during construction to prevent runoff and potential discharge to the riparian areas. and wetlands.

3.23 PUBLIC SERVICES

All elements of the project are consistent with the Trinidad Area Local Coastal Plan section 3.23 PUBLIC SERVICES ***30254. New or expanded public works facilities shall be designated and limited to accommodate needs generated by development or uses permitted consistent with the provisions of this division; provided, however, that it is the intent of the legislature that State Highway Route l in rural areas of the coastal zone remain a scenic two-lane road. Special districts shall not be formed or expanded except where assessment for, and provision of, the service would not induce new development inconsistent with this division. Where existing or planned public works facilities can accommodate only a limited amount of new development, services to coastal- dependent land use, essential public services, and basic industries vital to the economic health of the region, state, or nation, public recreation, commercial

recreation, and visitor-serving land uses shall not be precluded by other development.

3.31 NATURAL RESOURCE PROTECTION POLICIES AND STANDARDS

If appropriate minimization measures and recommendations are incorporated into the proposed activities, the consulting qualified biologist's opinion is that there will be no significant loss of biological resources, including sensitive species or ESHA, at the project site.

Wetland areas were identified according to the Coastal Act's definition of wetlands (See Chapter 5: Definitions) - In general, lands which meet the classifications definition of subtidal estuarine aquatic beds, estuarine intertidal flats and emergent habitats, and palustrine emergent and non-riparian palustrine shrub-scrub and forested habitats were considered wetlands.

3.17 ARCHAEOLOGICAL AND PALENTOLOGICAL RESOURCES

No referral response was received from the Yurok Tribe. The inadvertent discovery protocol has been added as an information note to the Conditions of Approval.

4. **FINDING:** **Zoning Designation**: The proposed development is consistent with the purposes of the existing zone in which the site is located.

EVIDENCE: a) Much of the proposed work for the Wells and Water Line Replacement Project, the Water Loss Reduction Project, and the Trinidad Emergency Intertie Project is in the County right-of-way, but occasionally the development extends onto the subject parcels. The work is ancillary and supportive of existing development, is consistent with the Humboldt County Code, and is supported by County of Humboldt Public Works Department.

A Conditional Use Permit is required for the Modification affecting PLN-2020-16307, which proposes to make the two approved temporary test wells at APNs 514-132-007, -008, and 514-133-001 permanent, to allow the construction of a 16-foot by 20-foot well control building, to install a 6-foot by 6-foot pump house at each well location, and to install two approximately parallel trenches, each 140 lineal feet in length,

for a transmission pipe and electrical well control conduits.

Development on APNs 514-132-007, -008, and 514-133-001 includes replacing and upgrading existing water treatment facilities, an essential service, on RS-X-M/R zoned parcels. The civic use type Essential Services is a conditionally permitted use, and a Conditional Use Permit is required for the work.

In all circumstances, the minor improvements to the water system are accessory to principal uses and are consistent with the purposes of the zone districts and access easements applied to parcels and rights-of-way where work will occur.

Unclassified (U) - 513-181-014

Residential Single Family, No Further Subdivision Allowed, Manufactured Home, Streams, and Riparian Corridor Protection (RS-X-M/R) - 514-012-013, 514-015-007, 514-112-014, 514-113-006, 514-132-007, 514-132-008, 514-133-001, 515-011-023, 515-011-063, 515-011-073

Rural Residential Agriculture, Provision for Manufactured Homes, Riparian Corridor Protection (RA-5-M-R) - 515-121-018

Rural Residential Agriculture, Modified Building Standards Including Provision for Manufactured Homes, Design Review (RA-SM/D) - 515-041-014, 515-041-020

Residential Single Family, No Further Subdivision Allowed, Streams and Riparian Corridor Protection (RS-X/R) - 514-211-034, 514-211-035

Timber Production Zone, Streams, and Riparian Corridor Protection (TPZ/R) - 514-221-008

b) **HCC 33.1 Streams and Riparian Corridor Protection (R)** – The project requires the width of a riparian corridor and wetland buffer area be reduced on APN 514-132-007, -008 and APN 514-133-001-000 to enable to the development of the 16-foot by 20-foot well control building and to install two 6-foot by 6-foot pump houses. This reduction is permitted pursuant to HCC 313-33.1.6.3. The work on APN 515-121-018 is outside of the buffer area.

The width of the riparian corridor, as described in paragraph 33.1.6.1, may be reduced where:

1. Such a reduction would not result in the removal of the woody vegetation,
2. The County determines, based on specific factual findings, that a reduction of the corridor width will not result in a significant adverse impact to the habitat,
3. Is consistent with the adopted Local Coastal Plan.

The Planning and Building Department contacted CDFW, who provided insight into whether the reduction of the corridor width would result in significant adverse impact to the habitat. They indicated that they did not have any major concerns about impacts to the biological resources. CDFW recommended, beyond the best practices suggested by the Qualified Biologist, several additional measures that would minimize or mitigate potential impacts (Conditions of Approval 4-30).

The proposed development shall not result in the removal of woody vegetation besides the special situation described in CoA 30.

No specific pathway facilitating the reduction of riparian corridors is in the Trinidad Area Local Coastal Plan. Explicit minimums for riparian corridors are 100 feet measured from the stream transition line.

5. **FINDING:** **Zoning Code:** The proposed development conforms with all applicable standards and requirements of the Humboldt County Code.

EVIDENCE: a) Complies with **HCC Section 312-1.1.2 Legal Lot Requirement -**

Development permits shall be issued only for a lot that was created in compliance with all applicable state and local subdivision regulations.

The project area occurs in legal public right of ways and approves development on 17 parcels.

The legal parcel status of APNs 513-181-014, 514-132-007, 514-132-008 and 514-133-001 were all confirmed by the issuance of PLN-2020-16307.

The legal parcel status of APN 514-211-034 and APN 514-211-035 was confirmed by the Notice of Merger dated 1981 and recorded as document number 1654 O.R. 1257.

The legal parcel status of 514-012-013 was established by the Planning Approval, issuance, and final inspection of Building Permit 72-1245NB.

The legal parcel status of APN 515-011-023 was confirmed due to the approval of CDP 11-11, approved August 7th, 2012.

The legal status of APN 515-011-063 and APN 514-221-008 has been confirmed following the inspection of Grant Deeds recorded prior to October 8, 1964. APN 515-011-063 was first described March 22nd, 1958 in Book 487, Page 144 I#5917. APN 514-221-008 was first described in Book 808, Page 338 I#17446.

The legal parcel status of APN 515-011-073 was confirmed by the approval of LLA 06-01, approved in 2006.

The legal parcel status of APN 515-041-014 was confirmed by Parcel Map 416, recorded in Book 4 of Parcel Maps, page 26.

The legal parcel status of APN 514-112-014 was confirmed by the issuance of PLN_2020-16808.

The legal parcel status of APN 513-113-006 was confirmed by issuance of PLN-2287-CDP.

APN 515-121-018 cannot be identified as a legal parcel, however as the parcel was conveyed to a government agency, the City of Trinidad, it is exempt from the Subdivision Map Act. Additionally, as the development on this parcel is going to be developed by the City of Trinidad and the Westhaven Community Services District, the issuance of a development permit will not serve to legalize the parcel.

The legal parcel status of APN 515-041-020 was confirmed by the Notice of Lot Line Adjustment and Certificate of Subdivision Compliance recorded as instrument number 2017-010279.

Additionally, the project area spans two jurisdictional areas of the Coastal Zone, the Local jurisdiction and the appeals jurisdiction. The Coastal Development Permit that follows the approval of this ECDP will be prepared pursuant to Humboldt County Code section 312-3.1.4.

b) Complies with **HCC 313-125 Wetland Buffer Areas** –

A reduction of the Wetland Buffer Area is required on APN 514-132-008-000 and APN 514-133-001-000 to enable the Disinfection Byproduct Reduction Project, the Water Diversion Infrastructure Upgrades and Maintenance Project,.

See HCC Section 313-125.7.3 Reduction of Required Setback: In both urban and rural areas, setbacks of less than the distance specified in this section may be permitted only when:

1. The applicant for the proposed development demonstrates, to the satisfaction of the County, that a setback of less than the distance specified will not result in significant adverse impacts to the wetland habitat and will be compatible with the continuance of such habitats.
2. Any such reduction in development setback may require mitigation measures, in addition to those specified below, to ensure new development does not adversely affect the wetland habitat values.

The following required Project Components **(Conditions of Approval 4-36)** ensure new development does not adversely affect the wetland habitat values:

125.9.1 Coverage of the lot or parcel with impervious surfaces shall not exceed twenty-five percent (25%) of the total lot area – The total development will be 4% impervious.

125.9.2 The release rate of stormwater runoff to adjacent wetlands shall not exceed the natural rate of stormwater runoff for a 50-year storm of 10-minute duration – (Condition 11);

125.9.3 Stormwater outfalls, culverts, gutters, and the like, shall be dissipated, and where feasible, screened (Condition 10);

125.9.4 Areas disturbed during construction, grading, etc., within 100 feet of the boundary of the wetland shall be restored to original contours and sufficiently and promptly replanted with vegetation naturally occurring in the immediate area (Condition 12);

125.9.5 Development and construction shall minimize cut-and-fill operations and erosion and sedimentation potential through construction of temporary and permanent sediment basins, seeding or planting bare soil, diversion of runoff away from grading areas and areas heavily used during construction, and, when feasible, avoidance of grading during the rainy season (November through April) (Condition 13).

6. **FINDING:** The proposed development and conditions under which it may be operated or maintained will not be detrimental to the public health, safety, or welfare or materially injurious to properties or improvements in the vicinity.

EVIDENCE:

a) All reviewing referral agencies that responded to the County have approved or conditionally approved the proposed project. The application is complete. Parcels to be developed are found to comply with the Subdivision Map Act. The proposal neither causes non-conformance nor increase the severity of preexisting nonconformities with zoning and building ordinances.

b) County of Humboldt Public Works Department provided comment regarding work in the public right of way. The applicant's adherence to the recommendations provided by Public Works ensures the proposed development will not be detrimental to the public health, safety, or welfare or materially injurious to properties or improvements in the vicinity.

c) The proposed work does not pose a risk or exacerbate any hazards to the health, safety, or welfare of the public because a large majority of the work is on pre-disturbed ground.

7. **FINDING:** **Residential Density:** The proposed project does not reduce the residential density for any parcel below that utilized by the Department of Housing and Community Development.

EVIDENCE: a) The parcels included in this project are not included in the 2009 Adopted Housing Element Inventory, and the potential reduction in residential density is consistent with the General Plan and the County can continue to accommodate its share of the regional housing need.

8. **FINDING:** **All elements of the project comply with HCC Section 312-39.15 of the Humboldt County Code - Coastal Wetland Buffers:**

Development will be sited and designed to prevent impacts which would significantly degrade wetland habitat areas, and shall be compatible with the continuance of such habitat areas; and

The biological productivity and the quality of coastal waters, streams, wetlands, estuaries, and lakes appropriate to maintain optimum populations of marine organisms shall be maintained, and where feasible, restored.

EVIDENCE: a) The development associated with the Disinfection Byproduct Reduction Project, the Water Diversion Infrastructure Upgrades and Maintenance Project, and some of the Wells and Water Line Replacement Project are within 100 feet of wetlands as identified by qualified biologists associated with SHN. SHN examined the subject parcels to determine project feasibility within environmental constraints and suggested the most environmentally superior location for the project in **Attachment 3B**. The area assessed for project feasibility was one of the only sites within the study area that did not have a shrubby or forested layer and was not dominated by native coastal habitat features. As such, the proposed development will be sited in most feasible area to be compatible with the wetland habitat areas. See Site Plan and 90% Project Plans (Attachment 1B and 1C).

b) Special Considerations were recommended by SHN and CDFW and are conditions of project approval.

Specific Conditions of Approval are required for the work on APN 513-181-014514-132-007, 412-132-008, 514-133-001, the Disinfection Byproduct Reduction Project and the Water Diversion Infrastructure Upgrades and Maintenance Project (Conditions of Approval 10-29).

c) LACO reviewed the potential negative effects of the Trinidad Emergency Intertie Project on coastal wetlands and recommended the following considerations memorialized as **Conditions of Approval 30-35**.

9. **FINDING:** **All elements of the project comply with HCC Section 39.4 COASTAL STREAMS AND RIPARIAN AREAS**

1. There are no significant adverse effects on habitat areas;
2. There is no less environmentally damaging feasible alternative;
3. The best mitigation measures feasible have been provided to minimize adverse environmental effects.

EVIDENCE: a)

1. By adhering to the best management practices recommended in the Biological Assessment prepared by SHN and recommended by CDFW, there is no significant adverse effects on the coastal stream and its related riparian area.
2. The proposed development is upgrading existing facilities, and so the work is in the most appropriate location.
3. Best management practices and habitat enhancement activities are recorded in the Conditions of Approval and provide to minimize adverse environmental effects.

10. **FINDING:** **All elements of the project comply with HCC Section 39.8 COASTAL NATURAL DRAINAGE COURSES**

Natural drainage courses, including ephemeral streams, will be retained and protected from development which would impede the natural drainage pattern or have a significant adverse effect on water quality or wildlife habitat.

EVIDENCE: a) This requirement has been included as **Condition of Approval 4**, and the project site plan and building plans appear to avoid impeding natural drainage patterns and shouldn't have significant adverse effects on water quality or wildlife habitat.

11. FINDING: **All elements of the project comply with the California Coastal Commission's seven (7) standards for determining the appropriate width of a wetland buffer area.**

EVIDENCE: a) 1. Biological significance of adjacent lands: According to SHN Consulting's Qualified Biologist, the study area near the worksite of the Disinfection Byproduct Reduction Project and the Water Diversion Infrastructure Upgrades and Maintenance Project is dominated by coast redwood, sword fern, English ivy, deer fern, red alder, salmon berry, and thimble berry. All dominant species within the study area are upland, facultative upland, or facultative wetland plants, designated as facultative or drier species. One special status natural community was identified at the treatment site – Redwood Forest Community. Red alder forest was observed at the site but is not considered to be a sensitive natural community because it does meet the criteria for sensitive association, nor is it located within a riparian area. The main portion of the terrace at the water treatment site has been graded and compacted with a graveled surface.

2. Sensitivity of species to disturbance: The width of the buffer area is based, in part, on the distance necessary to ensure that the most sensitive species of plants and animals will not be disturbed significantly by the permitted development. Measures are taken to reduce harassment of sensitive species as follows:

    a. Equipment and construction personnel should stay within the approved work area during construction;

    b. Temporary fencing should be installed around the permitted construction work area, to prevent accidental incursion into wetlands or streams;

    c. Minor impacts from project-related activities at the well site to the surrounding special-status

natural communities will be mitigated through the removal of invasive species such as English ivy;

d. Where project construction activities occur within close proximity to special status resources, these resources should be demarcated by high visibility construction fencing during the project construction period in a manner sufficient to avoid unintentional impacts;

e. Best management practices identified in the project description shall be used during construction to prevent runoff and potential discharge into wetlands and streams.

f. Large stumps and snags shall be retained for wildlife habitat.

g. To avoid potential impacts to nesting birds, in accordance with the Migratory Bird Treaty Act, one of the following shall be implemented:

    i. Conduct vegetation removal and other ground disturbance activities associated with any construction activities between late August and mid-March, when birds are not typically nesting, or

    ii. If vegetation removal or ground-disturbing activity is to take place during the nesting season (March 15 to August 15 for most birds), a qualified biologist shall conduct a pre-construction nesting bird survey. Pre-construction surveys for nesting pairs, nests, and eggs shall occur within the construction limits and within 100 feet (200 feet for raptors) of the construction limits. If active nests are encountered, species-specific measures shall be prepared by a qualified biologist in consultation with the USFWS and CDFW and implemented to prevent abandonment of the active nest.

h. Migratory Nesting Bird Season: Construction with heavy machinery shall only occur between August 16 and March 14 to minimize disturbance to migratory nesting birds. If construction is proposed within the migratory bird nesting season, a biological survey shall be conducted no more than 14 days prior to construction or any vegetation removal to assess the presence of nesting birds near the project area. This should include a raptor survey (Condition 37).

i. Amphibian Surveys: Project activities near the riparian area at the WTP site that provides amphibian habitat should occur from July 15 through October 31, to minimize potential impacts to these species (Condition 24)

j. As the area around the ESHA is already developed and impacted by human disturbance, organisms which reside in those habitats are likely adapted to human disturbance.

3. Susceptibility of parcel to erosion: The width of the buffer area was based, in part, on an assessment of the slope, soils, impervious surface coverage, runoff characteristics, and vegetative cover of the parcel, and considers the degree the development will change the potential for erosion. During the development and construction of this project, BMPs shall be used to prevent sediment, fuels, or contaminants from entering the surrounding terrestrial and aquatic environments/habitats. (Condition 20).

4. Use of natural topographic features to locate development: Hills and bluffs adjacent to environmentally sensitive habitat areas are used, where feasible, to buffer habitat areas. Where otherwise permitted, development is located On upland areas of the parcel, away from environmentally sensitive habitat areas and riparian corridors.

5. Use of existing cultural features to locate buffer zones: Cultural features, (e.g., roads and dikes) are used, where feasible, to buffer habitat areas. Where feasible, development is located on the side of roads, dikes, irrigation canals, flood control channels, etc., opposite the

environmentally sensitive habitat area.

6. Lot configuration and location of existing development: Although some existing development is built-out, the proposed development is larger than the existing development. The buffer area from the riparian corridor is reduced to the side of the road farthest from the stream. Additional conditions are required to ensure additional protection (Conditions 11 – 37).

7. Type and scale of development proposed: The type and scale of the proposed development will, to a large degree, determine the size of the buffer area necessary to protect the environmentally sensitive habitat area. Due to domestic pets, human use and vandalism, residential developments may not be as compatible adjacent to wetlands, and therefore require the widest feasible buffer areas. The proposed construction is sited to be the least disturbing to ESHA and includes mitigation measures to reduce the disturbance caused by the development.

DECISION

NOW, THEREFORE, based on the above findings and evidence, the Humboldt County Zoning Administrator does hereby:

- Adopt the findings set forth in this resolution; and
- Conditionally approve Westhaven Community Services District Coastal Development Permit based upon the Findings and Evidence and subject to the conditions of approval attached hereto as Attachment 1 and incorporated herein by reference; and

Adopt after review and consideration of all the evidence on **November 21, 2022**.

I, John H. Ford, Secretary to the Zoning Administrator of the County of Humboldt, do hereby certify the foregoing to be a true and correct record of the action taken on the above-entitled matter by said Commission at a meeting held on the date noted above.

John H. Ford, Director

Planning and Building Department

ATTACHMENT 1A

CONDITIONS OF APPROVAL

APPROVAL OF THE COASTAL DEVELOPMENT PERMIT IS CONDITIONED ON THE FOLLOWING TERMS AND REQUIREMENTS WHICH MUST BE SATISFIED BEFORE THE COASTAL DEVELOPMENT PERMIT CAN BE FINALIZED.

A. General Conditions

1. The applicant is responsible for obtaining all necessary County and State permits and licenses, and for meeting all requirements set forth by other regulatory agencies.

2. The applicant is required to pay for permit processing on a time and material basis as set forth in the schedule of fees and charges as adopted by ordinance of the Humboldt County Board of Supervisors. The Planning and Building Department will provide a bill to the applicant after the decision. Any and all outstanding planning fees to cover the processing of the application to decision by the Hearing Officer shall be paid to the Humboldt County Planning Division, 3015 "H" Street, Eureka.

3. The approved building plans shall meet all applicable fire codes, including fire suppression infrastructure requirements deemed necessary for the project by the Building Inspection Division. Sign-off on the Occupancy Permit by the Building Division shall satisfy this requirement.

Project Specific Conditions:

4. Natural drainage courses, including ephemeral streams, will be retained and protected from development which would impede the natural drainage pattern or have a significant adverse effect on water quality or wildlife habitat.

5. Encroachment Permit: Applicant must apply for and obtain an encroachment permit for the replacement of the water main line within the County maintained road rights-of-way of Westhaven Drive, 6th Avenue, Kahlstrom Avenue, Kay Avenue, and Driver Road.

6. Traffic Control Plan: A traffic control plan prepared by a civil engineer or traffic engineer is required. Traffic control shall be conducted in a manner that provides the least inconvenience to motorists as possible. Emergency vehicles shall be allowed to pass through the controlled areas at all times. One travel lane shall be available for through traffic at all times. Permittee shall notify the Department of Public Works 48 hours prior to conducting any traffic control that requires closures of both travel

lanes for longer than 5 minutes. Closure of both travel lanes for longer than 5 minutes requires prior written approval by the Director of Public Works. The California Highway Patrol and the Humboldt County Sheriff's Office shall also be notified of any traffic control that requires closure of both travel lanes at least 48 hours in advance.

7. Storm Water Quality: Storm Drain inlets tributary to the work area shall be protected from storm water pollution. The discharge of non-storm water (flushing of the new water lines) into the County storm drain system will require approval from the State of California Water Quality Control Board.

8. Construction plans: Unless otherwise approved in writing by the Department all watermains not in use shall be removed from the public right of way. Construction plans shall state whether the existing water main is to be removed or abandoned in place (if approved by the Department). If the line is to be abandoned in place, the line shall be slurry-filled and the construction plans shall clearly show the location of the line.

9. Applicant shall be responsible to correct any involved drainage problem related to the project construction within the County Road right of way to the satisfaction of this Department.

<u>The Disinfection Byproduct Reduction Project, the Water Diversion Infrastructure Upgrades and Maintenance Project, the Wells and Water Line Replacement Project, the Water Loss Reduction Project</u>

10. Stormwater outfalls, culverts, gutters, and the like, shall be dissipated, and where feasible, screened;

11. The release rate of stormwater runoff to adjacent wetlands shall not exceed the natural rate of stormwater runoff for a 50-year storm of 10-minute duration;

12. Areas disturbed during construction, grading, etc., within 100 feet of the boundary of the wetland shall be restored to original contours and sufficiently and promptly replanted with vegetation naturally occurring in the immediate area;

13. Development and construction shall minimize cut-and-fill operations and erosion and sedimentation potential through construction of temporary and permanent sediment basins, seeding or planting bare soil, diversion of runoff away from grading areas and areas heavily used during construction, and, when feasible, avoidance of grading during the rainy season (November through April);

14. Equipment and construction personnel should stay within the approved work area drying construction;

15. Temporary fencing should be installed around the permitted construction work area, to prevent accidental incursion into wetlands or streams;

16. If impacts to special-status resources cannot be avoided while still accomplishing project objectives, these impacts should be mitigated at a ratio or in a manner to be determined by consultation with the appropriate regulatory agency;

17. Minor impacts from project-related activities at the well site to the surrounding special-status natural communities could be mitigated through the removal of invasive species such as English ivy;

18. Where project construction activities occur within close proximity, to special-status resources, as defined in the Humboldt County General Plan and the Trinidad Area Plan, these resources should be demarcated by high visibility construction fencing during the project construction period in a manner sufficient to avoid unintentional impacts. If revegetation is needed as part of the project, native plant species should be used;

19. Best management practices identified in the project description should be incorporated during construction to prevent runoff and potential discharge into wetland and OHWM areas;

20. To avoid potential impacts to nesting birds, in accordance with the Migratory Bird Treaty Act, one of the following shall be implemented:

21. Conduct vegetation removal and other ground disturbance activities associated with any construction activities between late August and mid-March, when birds are not typically nesting, or

22. If vegetation removal or ground-disturbing activity is to take place during the nesting season (March 15 to August 15 for most birds), a qualified biologist shall conduct a pre-construction nesting bird survey. Pre-construction surveys for nesting pairs, nests, and eggs shall occur within the construction limits and within 100 feet (200 feet for raptors) of the construction limits. If active nests are encountered, species-specific measures shall be prepared by a qualified biologist in consultation with the USFWS and CDFW and implemented to prevent abandonment of the active nest.

23. Project activities near the riparian area at the WTP site that provides amphibian habitat should occur from July 15 through October 31, to minimize potential impacts to these species;

24. If excavation that requires dewatering occurs as part of project activities, dewatering pump intakes should be fitted with a filter basket or screen to prevent impacts to aquatic wildlife that may have entered the excavated area; and

25. Retain large stumps and snags for wildlife habitat (e.g. roosting bats).

26. Clearly mark the edge of the project footprint/work area (e.g., gravel access roads, building envelope) to avoid unnecessary impacts to adjacent forest. Pull back any gravel fill or other materials that may have "crept" outside those limits. Replant disturbed areas with sword fern (Polystichum munitum) or other redwood forest understory species.

27. Continue to implement and maintain basic erosion and sediment control Best Management Practices (e.g., straw wattles).

28. Continue to manage invasive species such as English ivy (Hedera helix), holly (Ilex aquifolium), Crocosmia, and cherry laurel (Prunus laurocerasus).

29. If some alder trees ultimately need to be removed as hazard mitigation, replant the area with locally appropriate riparian shrubs that are less likely to pose a threat to infrastructure in the future. Good options include evergreen huckleberry (Vaccinium ovatum), red huckleberry (Vaccinium parviflorum), thimbleberry (Rubus parviflorus), and salmonberry (Rubus spectabilis). Sword fern and other understory species like false lily of the valley (Maianthemum dilatatum) would also be appropriate.

<u>Emergency Intertie</u>

30. Where the waterline crosses Westhaven Drive to connect with the Water Treatment Plant, it may be necessary to use horizontal direction drilling (HDD) to avoid impacts to the seasonal creek and reach the required depth of 36 inches (the existing roadbed above the culvert may be too shallow). If this is the case, wait until the dry season (mid-June at the earliest) to begin this component of the project. Install and maintain appropriate erosion and sediment control as you would for any excavation or ground disturbance close to an aquatic feature. This would also apply to the flushing hydrant near the gated gravel driveway to the east.

31. Native plant communities shall be adequately protected and construction should kept to the existing roadways, County rights-of-way, and already developed rural residential properties.

32. All staged equipment and materials outside of the rights-of-way shall be restricted to clearly marked areas shown on construction documents and clearly marked in the field. The Class II streams (Jolan Creek, tributary of Luffenholtz Creek, and Luffenholtz

Creek) and associated riparian buffer areas shall be identified on construction documents.

33. Riparian buffers shall be placed at the tree drip line at each stream crossing along Westhaven Drive and no work shall extend beyond this point. Additionally, the construction contractor and/or District shall provide straw wattles adjacent to open trenching between the adjacent open trenching and the stream courses.

34. No heavy equipment shall be allowed beyond the wattle installations. It is further recommended that construction occur during the late spring to fall dry season.

35. Additionally, a breeding bird survey shall be conducted prior to construction if operations occur between March 15 and August 15. If an active native bird nest is found in proposed staging areas, then a qualified biologist shall determine if the nest is no longer active prior to construction disturbance at nest location(s).

36. Per the Department of Public Works Memo dated April 19, 2023:

    1. Encroachment Permit: Applicant must apply for and obtain an encroachment permit for the replacement of the water main line within the County maintained road right of ways of Westhaven Drive, 6th Avenue, Kahlstrom Avenue, Kay Avenue, and Driver Road. [reference: County Code §411-11 (a)(b)]

    2. Traffic Control Plan: A traffic control plan prepared by a civil engineer or traffic engineer is required. Traffic control shall be conducted in a manner that provides the least inconvenience to motorists as possible. Emergency vehicles shall be allowed to pass through the controlled areas at all times. One travel lane shall be available for through traffic at all times. Permittee shall notify the Department of Public Works 48 hours prior to conducting any traffic control that requires closures of both travel lanes for longer than 5 minutes. Closure of both travel lanes for longer than 5 minutes requires prior written approval by the Director of Public Works. The California Highway Patrol and the Humboldt County Sheriff's Office shall also be notified of any traffic control that requires closure of both travel lanes at least 48 hours in advance.

    3. Storm Water Quality: Storm Drain inlets tributary to the work area shall be protected from storm water pollution. The discharge of non-storm water (flushing of the new water lines) into the County storm drain system will require approval from the State of California Water Quality Control Board.

    4. Construction plans: Unless otherwise approved in writing by the Department all watermains not in use shall be removed from the public right of way. Construction plans shall state whether the existing water main is to be removed or abandoned in

place (if approved by the Department). If the line is to be abandoned in place, the line shall be slurry filled and the construction plans shall clearly show the location of the line.

5. Applicant shall be responsible to correct any involved drainage problem related to the project construction within the County road right of way to the satisfaction of this Department.

Informational Notes:

1. If cultural resources are encountered during construction activities, the contractor on-site shall cease all work in the immediate area and within a 50-foot buffer of the discovery location. A qualified archaeologist and the appropriate Tribal Historic Preservation Officer(s) are to be contacted to evaluate the discovery and, in consultation with the applicant and the lead agency, develop a treatment plan in any instance where significant impacts cannot be avoided. Prehistoric materials may include obsidian or chert flakes, tools, locally darkened midden soils, groundstone artifacts, shellfish or faunal remains, and human burials.

   If human remains are found, California Health and Safety Code 7050.5 requires that the County Coroner be contacted immediately at 707-445-7242. If the Coroner determines the remains to be Native American, the Native American Heritage Commission will then be contacted by the Coroner to determine appropriate treatment of the remains pursuant to Public Resources Code (PRC) Section 5097.98. Violators shall be prosecuted in accordance with PRC Section 5097.99.

2. Public Works Plan

   a. During construction, roadways shall be periodically cleaned of mud, soil, rock, and debris.

   b. No construction materials or debris shall be placed within the County road right of way during the project, unless permitted through an encroachment permit.

   c. All special districts providing or authorized to provide sewer or water services, including all County Service Areas providing or authorized to provide these services, and all private providers of such services with 20 or more residential-equivalent connections, shall annually submit to the County Planning Commission a Public Works Plan consisting of: five-year projection of service growth and a specific plan, if any, for system expansion in the following year. The Commission, after public hearing, shall recommend approval or disapproval of the plan to the Board of Supervisors, based on criteria of Section 3.12 B2c. Where an approved expansion plan does not exist, no permit will be issued by

the County for any work contributing to the extension of services outside the serviceable area, or to expansion of system capacity above the capacity above the capacity needed to provide services in the serviceable area. Where Public Works Plan has been approved, all permitted work on said utility shall conform to the Plan.

A Public Works Plan may be amended by the Planning Commission, up to three times in a year; and any such amendment shall be based on the criteria of Section 3.21B 2c:

Criteria for approval of a Public Works Plan shall be:

(1) That the public works plan will provide services consistent with the proposed scale and pattern of development shown in the Area Plan within the Urban Limit.

(2) That provision of service to all lots in the expanded portion of the serviceable area, for uses permitted in the Area Plan, will not remove capacity necessary to serve future development of undeveloped lots in the Urban Limit area to the uses permitted in the Area Plan.

(3) That no assessments, readiness to serve fees, or other costs or encumbrances, including bonded indebtedness, related to water or sewer expansion, will be assessed against lands designated Agriculture Exclusive.

3. Notification for a Lake and Streambed Alteration Agreement is unlikely to be necessary for the Trinidad Emergency Intertie Project provided the work avoids all impacts to the bed, bank and channel of the seasonal drainage, but CDFW may notify the applicant if an LSAA is required.

WESTHAVEN COMMUNITY SERVICE DISTRICT

WESTHAVEN WELL AND PIPELINE REPLACEMENT PROJECT

SCHEDULE A
FUNDING AGREEMENT BETWEEN
THE STATE OF CALIFORNIA (DEPARTMENT OF WATER RESOURCES) AND
WESTHAVEN COMMUNITY SERVICES DISTRICT
4600014508
SMALL COMMUNITY DROUGHT RELIEF PROGRAM

APPROVED
NOV 21 2024
Humboldt County
PLANNING

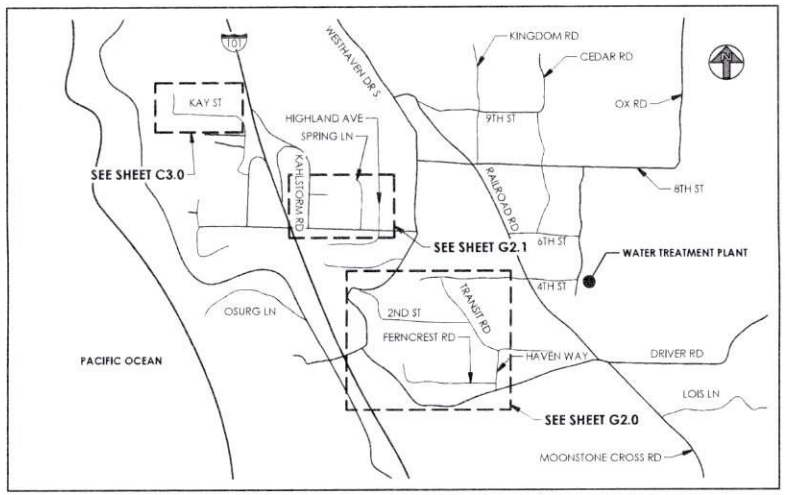
Received 4/11/2023 HCP&B

WESTHAVEN COMMUNITY SERVICES DISTRICT BOARD

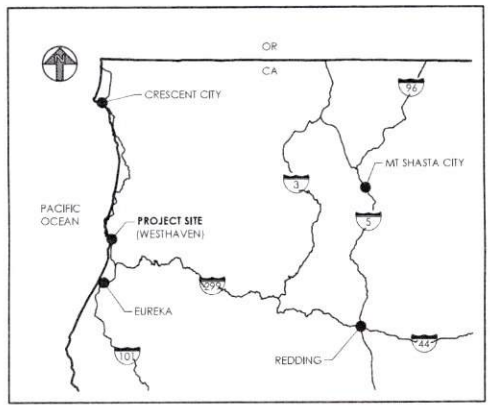
BILL VERICK	PRESIDENT
BARBARA CLINE	VICE PRESIDENT
DAVID HANKIN	FINANCE
RICHARD SWISHER	SAFETY OFFICER
ANTONIO LLANOS	MEMBER

WESTHAVEN COMMUNITY SERVICES DISTRICT STAFF

PAUL M. ROSENBLATT	GENERAL MANAGER / CHIEF PLANT OPERATOR T2-34384/D2-42549
KATRINA MARTIN	LEAD OPERATOR T2-44809/D1-55736
ROXANNE LEVANG	SECRETARY / BOOKKEEPER
MADISON HEWITT	OPERATOR-IN-TRAINING / EIT



VICINITY MAP
NOT TO SCALE

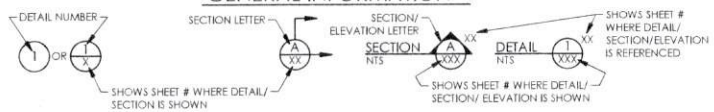


LOCATION MAP
NOT TO SCALE

SHEET INDEX		
NO	DESCRIPTION	SHEET NAME
1	G1.0	TITLE
2	G1.1	LEGEND AND NOTES
3	G2.0	SHEET INDEX MAP
4	G2.1	SHEET INDEX MAP
5	C1.0	4TH AVE AND TRANSIT AVE
6	C1.1	TRANSIT AVE AND 1ST AVE
7	C1.2	1ST AVE AND HAVEN WAY
8	C1.3	HAVEN WAY AND DRIVER RD
9	C1.4	DRIVER RD
10	C1.5	DRIVER RD AND WESTHAVEN DR
11	C2.0	6TH AVE AND HIGHLAND AVE
12	C2.1	6TH AVE, SPRING LN, AND KAHLSTORM AVE
13	C2.2	KAHLSTORM AVE, 7TH AVE, AND SPRING LN
14	C2.3	HIGHLAND AVE
15	C3.0	KAY AVE AND TEPONA LN
16	C4.0	DETAILS
17	C4.1	DETAILS
18	C4.2	DETAILS

90% DRAFT

GENERAL INFORMATION



DETAIL CALLOUT | SECTION MARKERS | DETAIL/SECTION/ELEVATION TITLE WHERE SHOWN

PACE ENGINEERING

12/28/2022 2973.02

SHEET
G1.0
PG 1 OF 18

ABBREVIATIONS - WATER/MECHANICAL

@	AT
Ø	DIAMETER
ℓ or PL	PLATE OR PROPERTY LINE
AB	ANCHOR BOLT, AGGREGATE BASE
AC	ASBESTOS CEMENT PIPE or ASPHALT CONCRETE
ADDN'L	ADDITIONAL
ADH AB	ADHESIVE ANCHOR BOLT
AFF	ABOVE FINISH FLOOR
AGG or AGGR	AGGREGATE
AGS	ABOVE GROUND SURFACE
APPROX	APPROXIMATELY
ARV	AIR RELEASE VALVE
ASTM	AMERICAN SOCIETY FOR TESTING OF MATERIALS
BGS	BELOW GROUND SURFACE
BKFL	BACKFILL
BLDG	BUILDING
BLK	BLOCK
BLKG	BLOCKING
BM	BENCH MARK OR BEAM
BO	BLOW OFF or BLOCK-OUT
BOT or BOTT	BOTTOM
BUSH	BUSHING
BV	BALL VALVE
C or C/L or ℄	CENTERLINE
C or COND	CONDUIT
CAV	COMBINATION AIR RELEASE VALVE
CHEM	CHEMICAL
CI	CAST IRON PIPE
CIP	CAST IN PLACE
CISP	CAST IRON SOIL PIPE
CJ	CONTROL JOINT or CEILING JOIST
CL or CLR	CLEAR
CLG	CEILING
CMP	CORRUGATED METAL PIPE
CMU	CONCRETE MASONRY UNIT
COL	COLUMN
COMB	COMBINATION
COMP	COMPACTED or COMPOSITION SHINGLES
CONC	CONCRETE
CONST	CONSTRUCTION
CONT	CONTINUOUS
CONTR	CONTRACTOR
CORP	CORPORATION
CP	CONTROL PANEL
CTR	CENTER
CU	COPPER
CV	CHECK VALVE
CY	CUBIC YARD
D	DRAIN
DB	DIRECT BURIAL
DBL	DOUBLE
DET	DETAIL
DIP	DUCTILE IRON PIPE
DIA	DIAMETER
DIM	DIMENSION
DN	DOWN
DWG	DRAWING
D/W	DRIVEWAY
E	ELECTRICAL CONDUIT
(E) or EXIST	EXISTING
EA	EACH
EG	EXISTING GRADE
EL or ELEV	ELEVATION
ELEC	ELECTRICAL
ELB	ELBOW
EMBED	EMBED or EMBEDMENT
EN	EDGE NAILING
ENGR	ENGINEER
EP	EDGE OF PAVEMENT
EQ	EQUAL
ER	EDGE OF ROAD
ESMT	EASEMENT
EW	EACH WAY
EXP AB	EXPANSIVE ANCHOR BOLT
EXP JT	EXPANSION JOINT(S)
F	FEMALE
FC	FLEXIBLE COUPLING
FCA	FLANGED COUPLING ADAPTOR
FD	FRENCH DRAIN OR FLOOR DRAIN
FEP	FLUORINATED ETHYLENE-PROPYLENE
FF	FINISHED FLOOR or FAR FACE
FG	FINISH GRADE
FH	FIRE HYDRANT
FIN	FINISH
FLEX	FLEXIBLE
FLG	FLANGE
FMJA	FLANGE x MJ ADAPTER
FND	FOUNDATION
FRP	FIBER REINFORCED POLYETHYLENE
FTG	FOOTING or FITTING
FTGS	FITTINGS
GA	GAGE
GAL	GALLON
GALV	GALVANIZED
GC	GROOVED COUPLING
GSP	GALVANIZED STEEL PIPE
GV	GATE VALVE
HC	HALF COUPLING
HD	HOLDOWN or HOT DIPPED
HDPE	HIGH DENSITY POLYETHYLENE
HMA	HOT MIX ASPHALT
HORIZ	HORIZONTAL
HP	HORSE POWER
HT	HEIGHT
HVAC	HEATING, VENTILATION, AND AIR CONDITIONING
I	INSTRUMENTATION
ID	INSIDE DIAMETER
IN	INCHES
INSUL	INSULATION
INT	INTERIOR or INTERMEDIATE
INV	INVERT
IRRIG	IRRIGATION
JT	JOINT
L	STEEL ANGLE
LF	LINEAL FOOT
LG	LIP OF GUTTER
M	MALE or MECHANICAL
MECH	MECHANICAL
MAX	MAXIMUM
MFR	MANUFACTURER
MG	MILLION GALLONS
MH	MANHOLE
MIN	MINIMUM
MISC	MISCELLANEOUS
MJ	MECHANICAL JOINT
MRS	MECHANICAL RUBBER SEAL
MTL	METAL
(N)	NEW
NB&G	NUTS, BOLTS, & GASKETS
NF	NEAR FACE
NIC	NOT IN CONTRACT
No.	NUMBER
NPT	NATIONAL PIPE THREAD
NTS	NOT TO SCALE
O/	OVER
OC	ON CENTER
OD	OUTSIDE DIAMETER
OF	OUTSIDE FACE
OG	ORIGINAL GROUND
OH	OVERHEAD
OPG or OPNG	OPENING
OPP	OPPOSITE or OPERATING
P&ID or PID	PROCESS INSTRUMENTATION DIAGRAM
PE	PLAIN END
PER	PERIMETER
PNL	PANEL
PNT	PAINT
#	POUND
PP	POWER POLE
PR	PAIR
PREFAB	PREFABRICATED
PROJ	PROJECT
PRV	PRESSURE RELIEF VALVE
PS	PIPE SUPPORT
PSI	POUNDS PER SQUARE INCH
PVC	POLYVINYL CHLORIDE PIPE
PW	POTABLE WATER
R	RADIUS
RDW OR RDWD	REDWOOD
RED	REDUCER
REINF	REINFORCEMENT STEEL, REBAR
REQ'D	REQUIRED
REST	RESTRAINED
RFCA	RESTRAINED FLANGED COUPLING ADAPTER
RFMJA	RESTRAINED FLANGED MECHANICAL JOINT ADAPTER
RFG	ROOFING
RMJ	RESTRAINED MECHANICAL JOINT
RO	ROUGH OPENING
ROW or R/W	RIGHT OF WAY
RPP	REDUCED PRESSURE PRINCIPLE
S	SLOPE
SCH or SCHED	SCHEDULE
SD	STORM DRAIN
SECT	SECTION
SGL	SINGLE
SH or SHT	SHEET
SHTG	SHEATHING, SHEETING
SIM	SIMILAR
SMS	SHEET METAL SCREW
SP	SPACE or SPACES
SPEC'S	SPECIFICATIONS
SQ	SQUARE
SS	SANITARY SEWER or STAINLESS STEEL
STD	STANDARD
STL	STEEL
STRUCT	STRUCTURAL
SYM	SYMMETRICAL
T	TELEPHONE CONDUIT or TOP
T&B	TOP AND BOTTOM
TBC	TOP BACK OF CURVE
TBM	TEMPORARY BENCH MARK
TC	TOP OF CONCRETE
TELE	TELEPHONE
THD	THREADED
THK	THICK or THICKNESS
TL	TRAFFIC LID
TN	TOE NAIL
TOW	TOP OF WALL
TUBE	TUBING
TYP	TYPICAL
UG	UNDER GROUND
UNO	UNLESS NOTED OTHERWISE
V	VENT
VERT	VERTICAL
W	WATER
W/	WITH
W/O	WITHOUT
WM	WATER METER
WS	WATER STOP or WATER SERVICE
WTP	WATER TREATMENT PLANT
WV	WATER VALVE
WW	WELL WATER

SYMBOL LEGEND

- AREA DRAIN
- BOLLARD
- CENTERLINE
- CP# CONTROL POINT
- CULVERT
- DRAINAGE DIRECTION ARROW
- ELECTRICAL PANEL / BOX
- FOUND MONUMENT AS NOTED
- (E) FIRE HYDRANT
- (N) FIRE HYDRANT
- GUY ANCHOR
- GRID TICK
- HOSE BIB
- LIGHT POLE
- POLE- JOINT UTILITY
- POLE- POWER
- SIGN
- SANITARY SEWER MANHOLE
- SANITARY SEWER CLEANOUT / RODHOLE
- STORM DRAIN CATCH BASIN
- TREE/SHRUB
- WATER BLOWOFF OR AIR RELEASE VALVE
- WATER METER/BOX
- (E) WATER VALVE
- (N) WATER VALVE
- (E) WELL
- PROPOSED WELL
- MONITORING WELL / BORE LOCATION

LINE LEGEND

- (E) EP
- (N) EP
- (E) CONC
- (N) CONC
- PROPERTY LINE
- FLOWLINE
- (E) WATER MAIN
- (N) WATER MAIN
- (E) STORM DRAIN
- (N) STORM DRAIN
- (E) SANITARY SEWER
- (N) SANITARY SEWER
- (E) GAS LINE
- (N) GAS LINE

APPROVED
NOV 21 2024
Humboldt County
PLANNING

GENERAL NOTES

1. UNLESS NOTED OTHERWISE (UNO), ALL CONSTRUCTION SHALL CONFORM TO THE PROJECT MANUAL, THE 2018 EDITION OF STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION OR "GREEN BOOK", AND CALTRANS STANDARD PLANS AND SPECIFICATIONS 2018 EDITION.

2. PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL CONTACT UNDERGROUND SERVICE ALERT AT 811 AND ALL UTILITY COMPANIES ONE (1) WEEK BEFORE ANY TRENCHING TO DETERMINE THE LOCATION OF ALL UNDERGROUND FACILITIES WHETHER SHOWN OR NOT SHOWN ON THESE PLANS. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO PROTECT ALL EXISTING FACILITIES FROM DAMAGE DURING CONSTRUCTION. CONTRACTOR SHALL FIELD LOCATE (POTHOLE) ALL UTILITY CROSSINGS A MINIMUM OF THREE (3) DAYS PRIOR TO CONSTRUCTION.

3. ALL PROPERTY LINES AND UTILITIES SHOWN ON THESE PLANS ARE SCHEMATIC IN NATURE.

4. ALL UTILITY LOCATIONS INCLUDING WATER SERVICE LOCATIONS AND ALIGNMENTS AND DEPTHS, WHERE SHOWN, ARE APPROXIMATE. THE CONTRACTOR SHALL POTHOLE USING NON-DESTRUCTIVE MEANS AND SUBMIT WRITTEN FIELD OBSERVATION DRAWINGS OF THE PROPOSED AND EXISTING PIPE ALIGNMENTS AT LEAST FIVE (5) WORKING DAYS AHEAD OF THE PIPE INSTALLATION CREW. REFER TO THE PROJECT MANUAL.

5. THE CONTRACTOR SHALL BE HELD RESPONSIBLE FOR ANY FIELD CHANGES MADE WITHOUT PRIOR WRITTEN AUTHORIZATION FROM THE UNDERSIGNED ENGINEER AND OWNER.

6. THE CONTRACTOR AGREES THAT THEY SHALL ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THIS PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY; THAT THIS REQUIREMENT SHALL APPLY CONTINUALLY AND NOT BE LIMITED TO NORMAL WORKING HOURS.

7. THE CONTRACTOR IS RESPONSIBLE FOR PROTECTING ALL SURVEY MONUMENTS. ANY MONUMENTS DISCOVERED ARE TO BE REPORTED TO THE OWNER'S REPRESENTATIVE IMMEDIATELY. ANY SURVEY MONUMENTS DISTURBED OUTSIDE THE IMMEDIATE WORK AREA DURING CONSTRUCTION SHALL BE REPLACED BY THE OWNER'S REPRESENTATIVE AT THE CONTRACTOR'S EXPENSE.

8. ALL CONTRACTOR'S REPRESENTATIVES, INCLUDING SUBCONTRACTORS, SHALL HAVE WRITTEN PERMISSION TO ENTER ANY PORTION OF PRIVATE PROPERTY. ALL RESIDENCES SHALL BE GIVEN A MINIMUM OF 24 HOURS, BUT NO MORE THEN 72 HOURS NOTICE, PRIOR TO ENTRY/WORK ON PRIVATE PROPERTY.

9. CONTRACTOR SHALL SUBMIT COMPLETE AND ACCURATE AS-BUILT DRAWINGS.

10. SEPARATION OF WATER AND SEWER FACILITIES SHALL CONFORM TO THE RULES AND REGULATIONS OF THE UNIFORM PLUMBING CODE AND STATE OF CALIFORNIA STATE WATER RESOURCES CONTROL BOARD.

11. ALL NEW WATER MAIN INSTALLATION SHALL BE OPEN CUT UNLESS ALTERNATIVE METHOD IS APPROVED BY ENGINEER, OR NOTED OTHERWISE.

12. CONTRACTOR SHALL INSTALL A PROJECT SIGN AT LEAST FOUR FEET TALL BY EIGHT FEET WIDE MADE OF ¾ INCH THICK EXTERIOR GRADE PLYWOOD OR OTHER APPROVED MATERIAL AND SHALL MAINTAIN THE SIGN IN GOOD CONDITION FOR THE DURATION OF THE CONSTRUCTION PERIOD, REFER TO PROJECT MANUAL.

13. ALL TUNNELING UNDER (E) CONC CURB, GUTTER, OR SIDEWALK SHALL BE BACKFILLED WITH SLURRY BACKFILL OR CONC.

14. PER THE REQUIREMENTS OF PUBLIC RESOURCES CODE SECTION 4442, INTERNAL COMBUSTION ENGINES SHALL BE EQUIPPED WITH AN OPERATIONAL SPARK ARRESTOR, OR THE ENGINE MUST BE EQUIPPED FOR THE PREVENTION OF FIRE.

15. PIPES TO BE ABANDONED SHALL NOT TAKE PLACE UNTIL (N) WATER MAIN AND SERVICES HAVE BEEN FULLY TESTED, APPROVED FOR SERVICE AND CONNECTED.

90% DRAFT

BAR IS ONE INCH ON ORIGINAL DRAWING
0" 1"
IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY.

REVISIONS

NO	DATE	DESCRIPTION

PACE ENGINEERING

DES TJ CKD TW JOB NO.
DRN RT DATE 12/28/2022 2973.02

SIGNED

WESTHAVEN COMMUNITY SERVICE DISTRICT
WESTHAVEN WELL AND PIPELINE REPLACEMENT PROJECT
SCHEDULE A

LEGEND AND NOTES

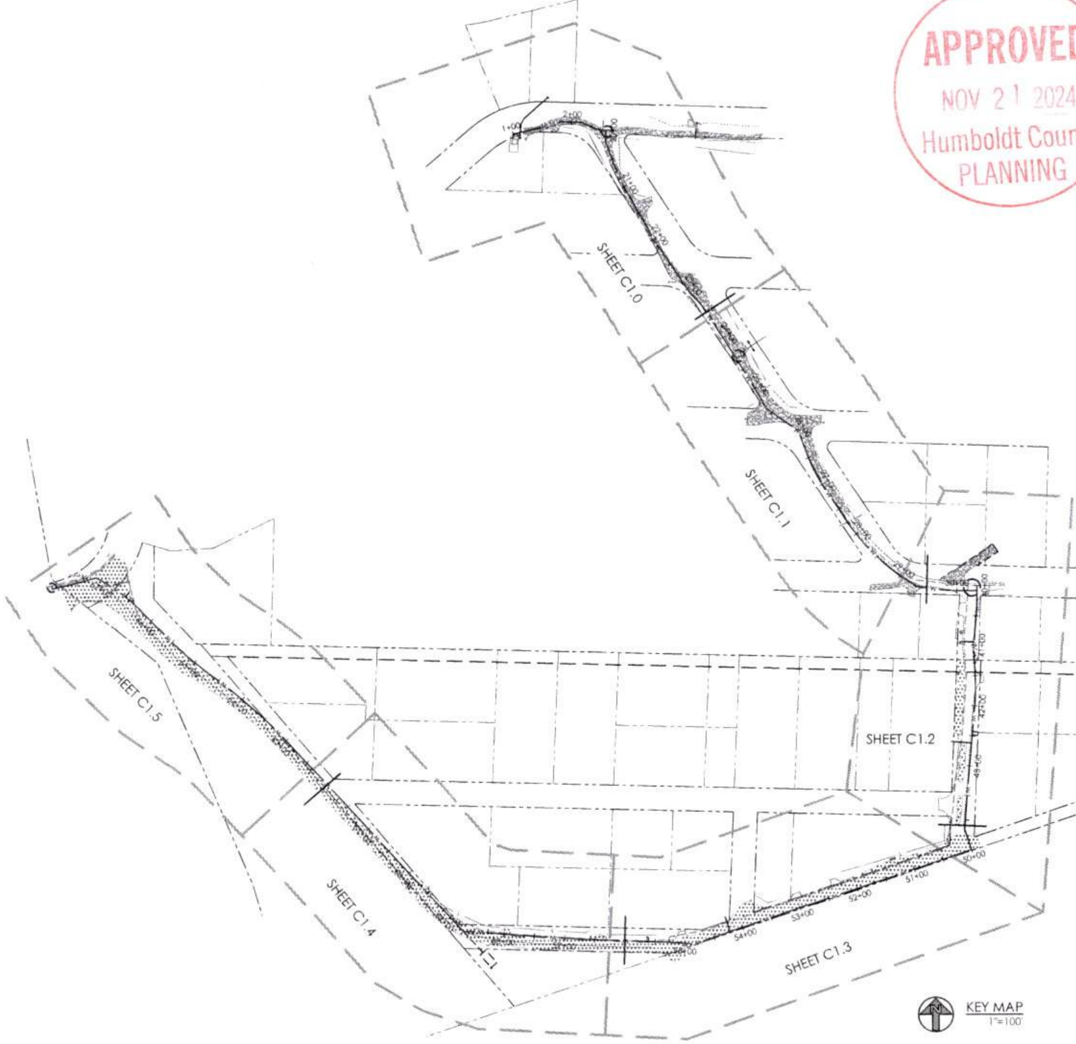
SHEET
G1.1

NOTES

1. THIS SURVEY WAS CONDUCTED ON 9/28/2020 - 10/2/2020 AND 3/21/2022 - 3/23/2022.
2. HORIZONTAL PROJECTION: CCS83, ZONE 1, (2017.5 EPOCH).
3. VERTICAL DATUM: NAVD 88 (GEOID 18)
4. UNITS OF MEASUREMENT SHOWN HEREON ARE IN TERMS OF THE U.S. SURVEY FOOT.
5. CONTOUR INTERVAL: 1 FOOT
6. TREE DIMENSIONS SHOWN HEREON ARE DIAMETER AT BREAST HEIGHT. TREE CLASSIFICATION IS BASED UPON SURVEYOR'S BEST ESTIMATION; A CERTIFIED ARBORIST SHOULD BE CONSULTED TO VERIFY WHERE PERTINENT.
7. UTILITIES/FEATURES SHOWN HEREON ARE BASED UPON ABOVE-GROUND, OBSERVED EVIDENCE ONLY. NO OTHER SOURCE INFORMATION SUCH AS AS-BUILT PLANS OR UTILITY MARKINGS WERE AVAILABLE TO DEVELOP A COMPLETE VIEW OF THE UNDERGROUND UTILITIES. LACKING EXCAVATION, THE EXACT LOCATION OF UNDERGROUND FEATURES CANNOT BE ACCURATELY, COMPLETELY, AND RELIABLY DEPICTED.
8. PROPERTY LINES DEPICTED HEREIN ARE APPROXIMATE AND ARE FOR GRAPHICAL PURPOSES ONLY.

CONTROL POINT TABLE

POINT #	NORTHING	EASTING	ELEVATION	DESCRIPTION
29	2267100.90	5980824.88	321.63	8" MAG NAIL
30	2267116.89	5980591.64	318.97	8" MAG NAIL
31	2267137.03	5980508.28	317.73	8" MAG NAIL
32	2266940.49	5980666.94	327.11	8" MAG NAIL
33	2267097.28	5980426.67	311.11	8" MAG NAIL
34	2266810.30	5980781.21	330.71	8" MAG NAIL
35	2266652.70	5980868.39	331.08	CP_MAGNAIL
36	2266616.53	5980910.80	329.86	8" MAG NAIL
37	2266624.14	5980936.72	330.81	8" MAG NAIL
38	2266471.76	5980990.91	314.92	8" MAG NAIL
39	2266356.73	5981113.58	327.60	8" MAG NAIL
40	2266373.55	5981211.08	337.61	8" MAG NAIL
41	2266096.70	5981177.90	335.70	CP_MAGNAIL
51	2267178.20	5980498.59	312.04	8" MAG NAIL
52	2266359.19	5981204.65	337.24	CP_GIN
66	2265909.47	5981166.38	331.80	CP_MAGNAIL & WSHR
67	2265749.65	5980682.36	318.60	CP_MAGNAIL
68	2265784.52	5980336.64	299.91	#3B&PC
69	2265938.20	5980185.35	290.41	#3B&PC
70	2265783.32	5980347.29	300.42	CP_MAGNAIL& SHINER FND
71	2266187.64	5979938.26	234.24	#3B&PC
72	2266326.09	5979763.67	198.52	#3B&PC



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NOV 21 2024
Humboldt County
PLANNING

90% DRAFT

BAR IS ONE INCH ON ORIGINAL DRAWING
0" 1"
IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY

REVISIONS

NO	DATE	DESCRIPTION

PACE ENGINEERING

DES TJ CKD TW JOB NO.
DRN RT DATE 12/28/2022 2973.02

SIGNED

WESTHAVEN COMMUNITY SERVICE DISTRICT
WESTHAVEN WELL AND PIPELINE REPLACEMENT PROJECT
SCHEDULE A

SHEET INDEX MAP

SHEET
G2.0

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NOV 21 2024
Humboldt County
PLANNING

KEY MAP
1"=40'

CONTROL POINT TABLE

POINT #	NORTHING	EASTING	ELEVATION	DESCRIPTION
55	2267607.44	5979749.81	329.88	CP_MAGNAIL
56	2267614.03	5980358.51	329.78	8" MAG NAIL
57	2267630.16	5979941.43	329.44	CP_MAGNAIL
58	2267877.88	5979929.17	327.47	8" MAG NAIL
59	2268095.13	5979986.00	308.25	8" MAG NAIL
60	2267888.31	5979726.50	330.96	8" MAG NAIL
61	2267625.70	5979399.53	327.69	8" MAG NAIL
62	2267892.06	5979538.37	332.00	8" MAG NAIL
63	2267675.65	5979175.73	312.54	8" MAG NAIL
64	2268020.27	5979216.70	315.28	CP_MAGNAIL
65	2268011.99	5979516.16	330.34	CP_MAGNAIL

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REVISIONS

NO	DATE	DESCRIPTION

PACE ENGINEERING

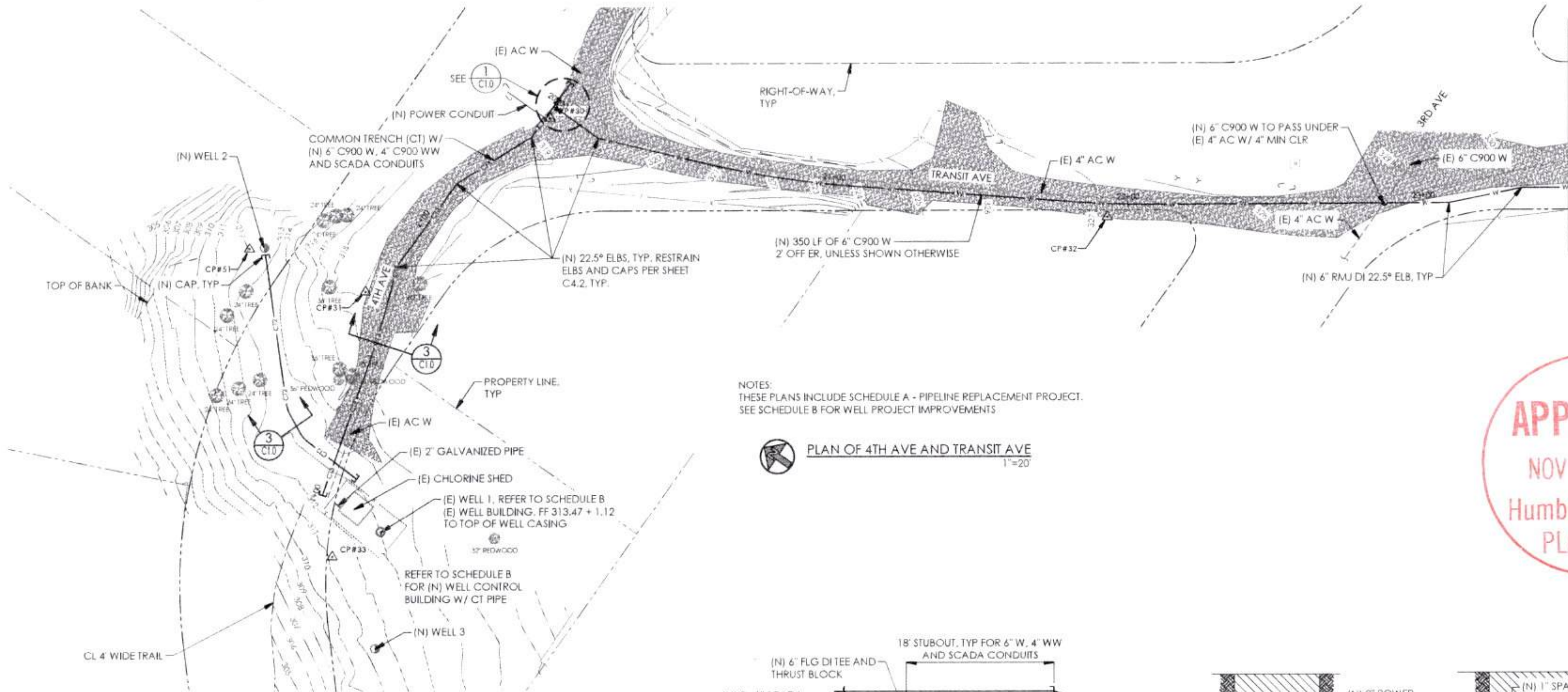
DES TJ CKD TW JOB NO.
DRN RT DATE 12/28/2022 2973.02

SIGNED

WESTHAVEN COMMUNITY SERVICE DISTRICT
WESTHAVEN WELL AND PIPELINE REPLACEMENT PROJECT
SCHEDULE A

SHEET INDEX MAP

SHEET
G2.1
PG 4 OF 18



NOTES:
THESE PLANS INCLUDE SCHEDULE A - PIPELINE REPLACEMENT PROJECT.
SEE SCHEDULE B FOR WELL PROJECT IMPROVEMENTS

PLAN OF 4TH AVE AND TRANSIT AVE
1"=20'

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Humboldt County
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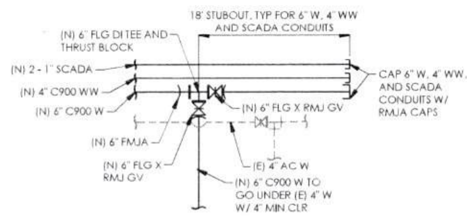
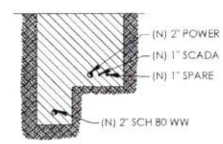
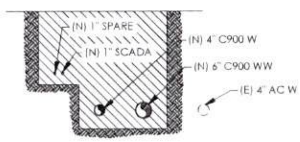


NOTE:
1. CONTRACTOR SHALL RESTRAIN PIPE PER TABLES 3 & 4 AS SHOWN ON SHEET C4.2.

CONNECTION DETAIL 1 C1.0
NTS



COMMON TRENCH DETAIL 2 C1.0
NTS



NOTE:
1. REFER TO 5 C4.1 FOR GENERAL CLEARANCE DIMENSIONS, TYP.

COMMON TRENCH DETAIL 3 C1.0
NTS

90% DRAFT

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IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY

REVISIONS		
NO	DATE	DESCRIPTION

PACE ENGINEERING

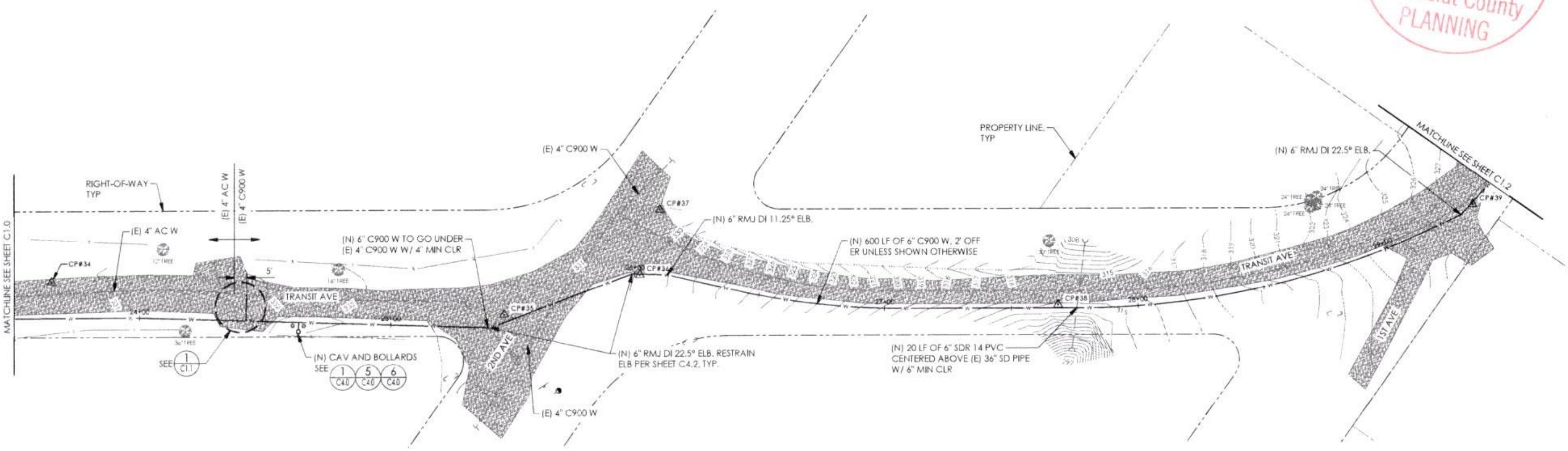
DES TJ | CKD TW | JOB NO. 2973.02
DRN RT | DATE 12/28/2022

SIGNED

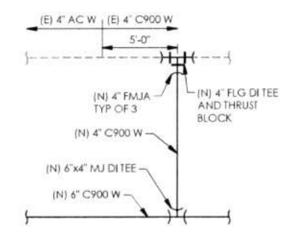
WESTHAVEN COMMUNITY SERVICE DISTRICT
WESTHAVEN WELL AND PIPELINE REPLACEMENT PROJECT
SCHEDULE A
4TH AVE STA 1+00-2+64
TRANSIT AVE STA 20+00-23+50

SHEET
C1.0

APPROVED
NOV 21 2024
Humboldt County
PLANNING



PLAN OF TRANSIT AVE AND 1ST AVE
1"=20'



NOTE:
1. CONTRACTOR SHALL RESTRAIN PIPE PER TABLES 3 & 4 AS SHOWN ON SHEET C4.2.

CONNECTION DETAIL 1 C1.1
NTS

90% DRAFT

BARS ONE INCH ON ORIGINAL DRAWING
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REVISIONS		
NO	DATE	DESCRIPTION

PACE ENGINEERING

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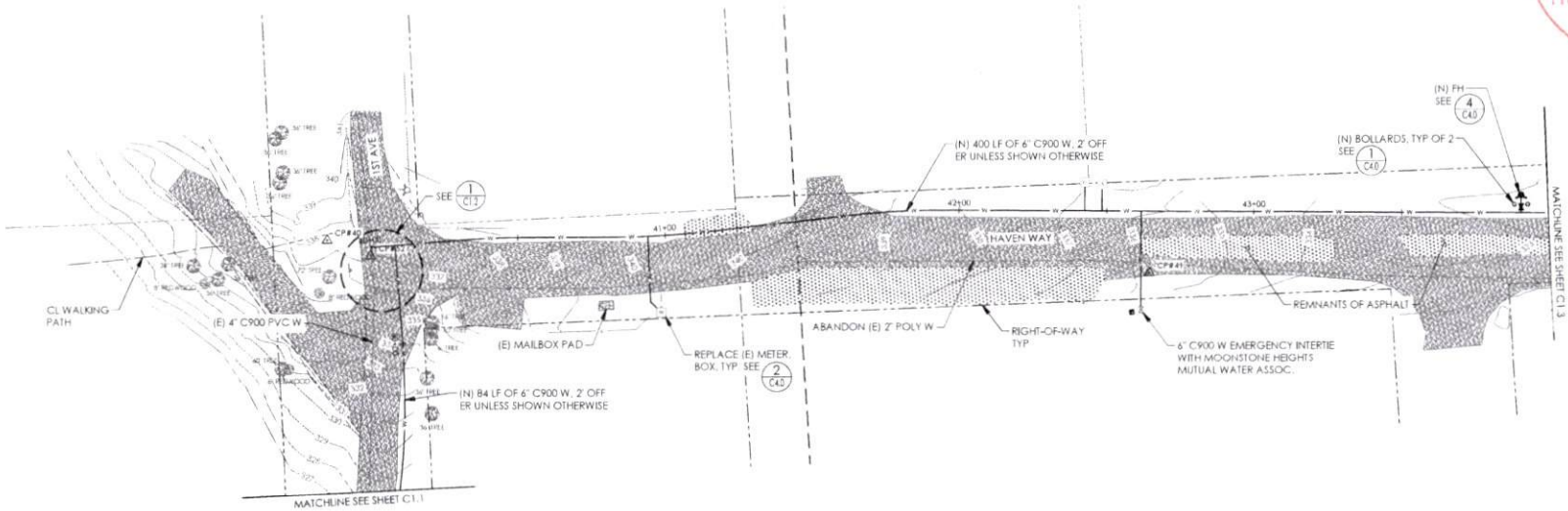
DRN RT | DATE 12/28/2022

SIGNED

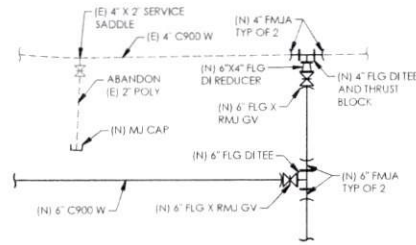
WESTHAVEN COMMUNITY SERVICE DISTRICT
WESTHAVEN WELL AND PIPELINE REPLACEMENT PROJECT
SCHEDULE A

TRANSIT AVE AND 1ST AVE STA 23+50-29+50

SHEET
C1.1
PG 6 OF 18



PLAN OF 1ST AVE AND HAVEN WAY
1"=20'



NOTE:
1. CONTRACTOR SHALL RESTRAIN PIPE PER TABLES 3 & 4 AS SHOWN ON SHEET C4.2.

CONNECTION DETAIL 1/C1.2
NTS

90% DRAFT

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REVISIONS		
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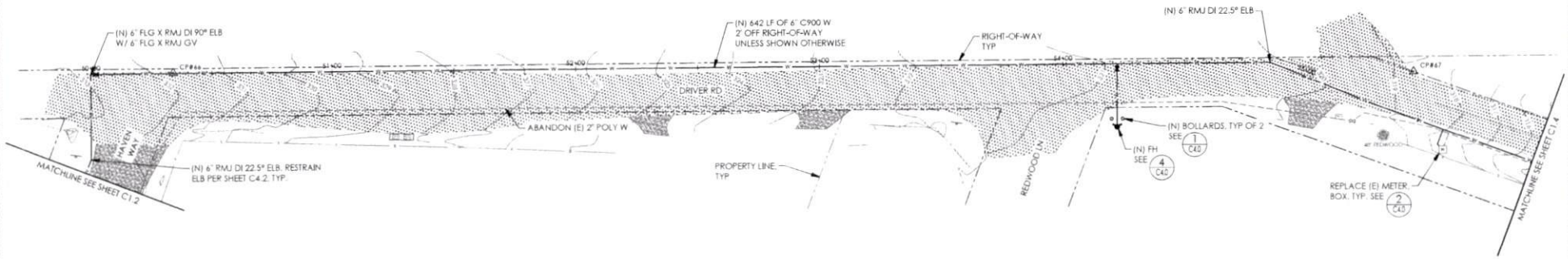
DRN. RT | DATE 12/28/2022

SIGNED

WESTHAVEN COMMUNITY SERVICE DISTRICT
WESTHAVEN WELL AND PIPELINE REPLACEMENT PROJECT
SCHEDULE A
1ST AVE STA 29+50-30+34
HAVEN WAY STA 40+00-44+00

SHEET
C1.2
PG 2 OF 18



PLAN OF HAVEN WAY AND DRIVER RD
1"=20'

APPROVED
NOV 21 2024
Humboldt County
PLANNING

90% DRAFT

BAR IS ONE INCH ON ORIGINAL DRAWING. IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY

REVISIONS		
NO.	DATE	DESCRIPTION

PACE ENGINEERING

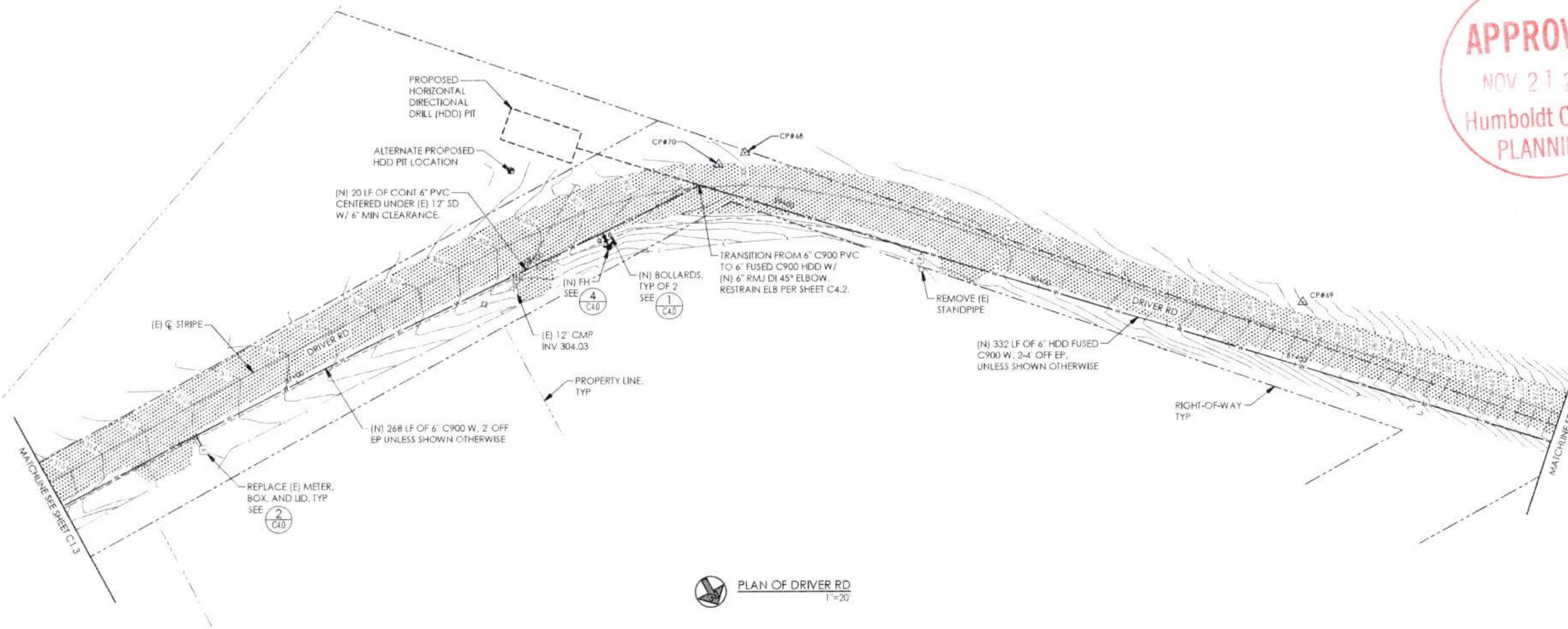
DES. JJ CKD. TW
DRN. RT DATE 12/28/2022
JOB NO. 197339

SIGNED

WESTHAVEN COMMUNITY SERVICE DISTRICT
WESTHAVEN WELL AND PIPELINE REPLACEMENT PROJECT
SCHEDULE A
HAVEN WAY STA 44+00-44+42
DRIVER RD 50+00-56+00

SHEET
C1.3
PG 8 OF 18

APPROVED
NOV 21 2024
Humboldt County
PLANNING



PLAN OF DRIVER RD
1"=20'

90% DRAFT

BAR IS ONE INCH ON ORIGINAL DRAWING
IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY

REVISIONS		
NO	DATE	DESCRIPTION

PACE ENGINEERING

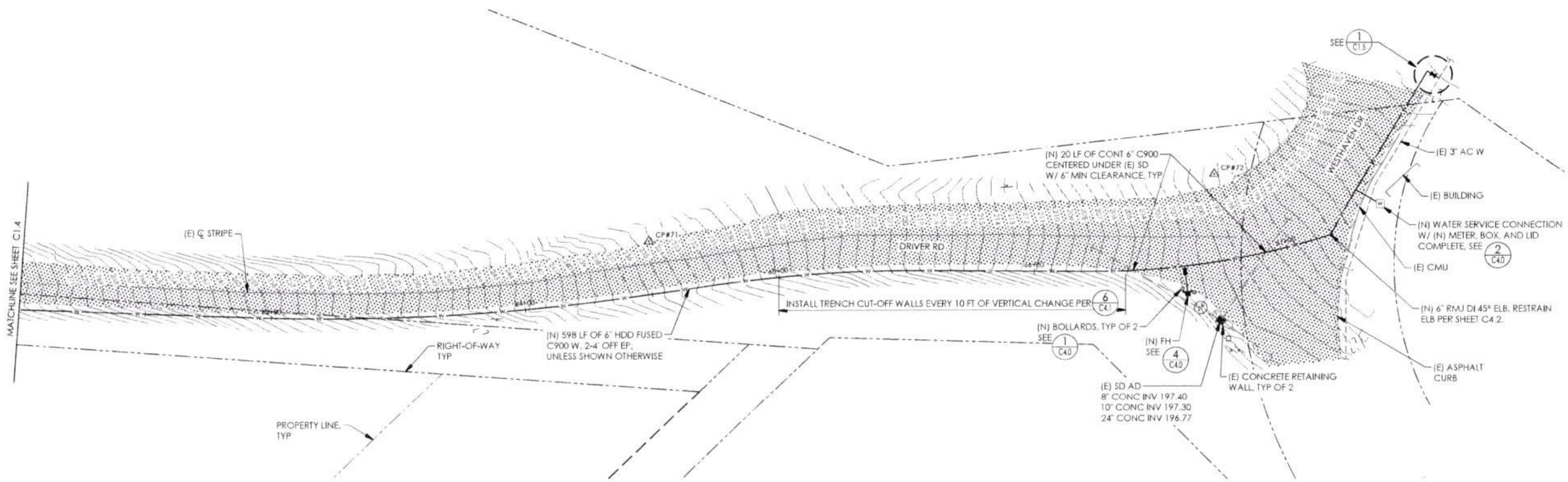
DES	TJ	CKD	TW	JOB NO.
DRN	RT	DATE	12/28/2022	2973.02

SIGNED

WESTHAVEN COMMUNITY SERVICE DISTRICT
WESTHAVEN WELL AND PIPELINE REPLACEMENT PROJECT
SCHEDULE A

DRIVER RD STA 56+00-62+00

SHEET
C1.4
PG 9 OF 18



PLAN OF DRIVER RD AND WESTHAVEN DR
1"=20'

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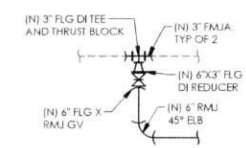
NOV 21 2024
Humboldt County
PLANNING



NOTE:
1. CONTRACTOR SHALL RESTRAIN PIPE PER TABLES 3 & 4 AS SHOWN ON SHEET C4.2
2. CONTRACTOR IS CAUTIONED REGARDING THE REQUIREMENT TO SUBMIT AN APPROPRIATE TRAFFIC CONTROL PLAN ALONG WITH AN ENCROACHMENT PERMIT.

CONNECTION DETAIL 1/C1.5
NTS

90% DRAFT

BAR IS ONE INCH ON ORIGINAL DRAWING
IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY

REVISIONS

NO	DATE	DESCRIPTION

PACE ENGINEERING

DES TJ | CKD TW | JOB NO.
DRN RT | DATE 12/28/2022 | 2973.02

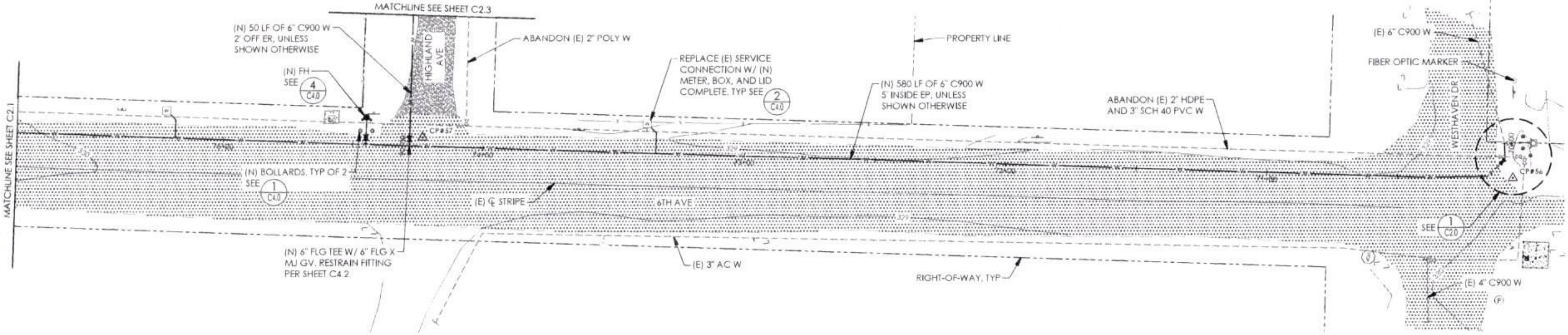
SIGNED

WESTHAVEN COMMUNITY SERVICE DISTRICT
WESTHAVEN WELL AND PIPELINE REPLACEMENT PROJECT
SCHEDULE A

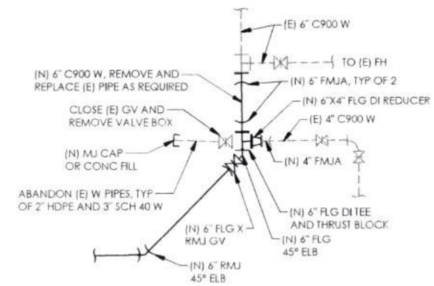
DRIVER RD AND WESTHAVEN DR STA 62+00-67+98

SHEET
C1.5

APPROVED
NOV 21 2024
Humboldt County
PLANNING



PLAN OF 6TH AVE AND HIGHLAND AVE
1"=20



NOTE:
1. CONTRACTOR SHALL RESTRAIN PIPE PER TABLES 3 & 4 AS SHOWN ON SHEET C4.2.

CONNECTION DETAIL (1/C2.0)
NTS

90% DRAFT

BAR IS ONE INCH ON ORIGINAL DRAWING. IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY.

REVISIONS		
NO	DATE	DESCRIPTION

PACE ENGINEERING

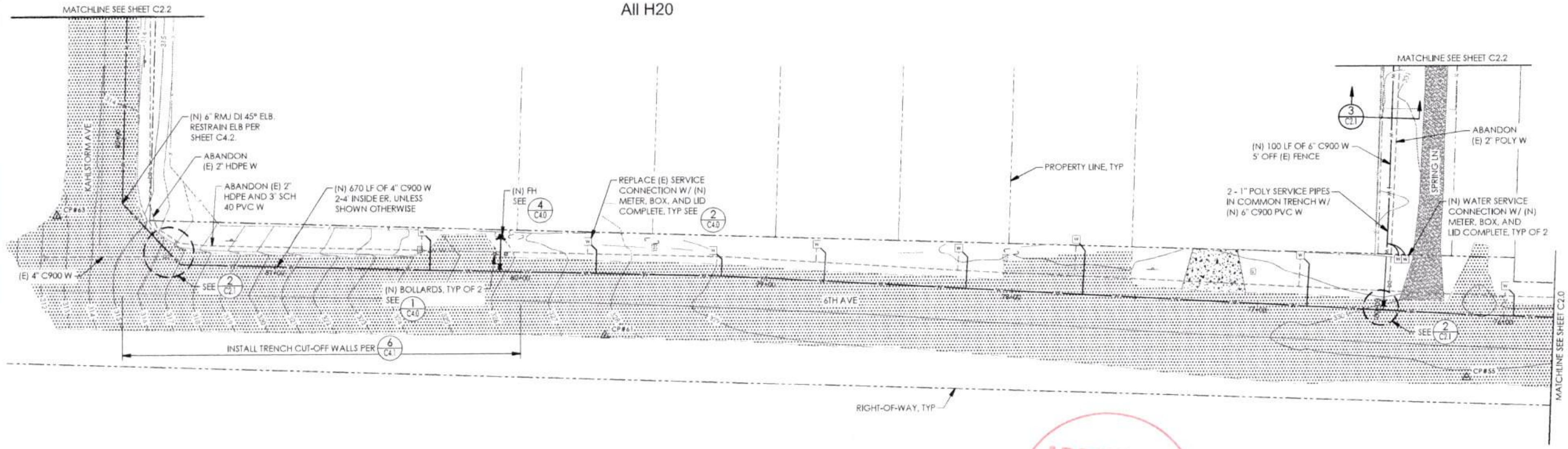
DES TJ | CKD TW | JOB NO. 2973.02
DRN RT | DATE 12/28/2022

SIGNED

WESTHAVEN COMMUNITY SERVICE DISTRICT
WESTHAVEN WELL AND PIPELINE REPLACEMENT PROJECT
SCHEDULE A
6TH AVE STA 70+00-75+80
HIGHLAND AVE STA 90+00-90+50

SHEET
C2.0

All H20



PLAN OF 6TH AVE, SPRING LN, AND KAHLSTORM AVE
1"=20'

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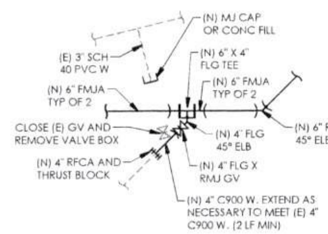
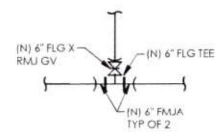
Humboldt County
PLANNING

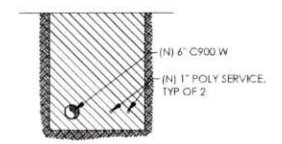


NOTE:
1. CONTRACTOR SHALL RESTRAIN PIPE PER TABLES 3 & 4 AS SHOWN ON SHEET C4.2, TYP.

CONNECTION DETAIL 1 C2.1
NTS



CONNECTION DETAIL 2 C2.1
NTS



NOTE:
1. REFER TO 5 C4.1 FOR GENERAL CLEARANCE DIMENSIONS, TYP.

COMMON TRENCH DETAIL 3 C2.1
NTS

90% DRAFT

BAR IS ONE INCH ON ORIGINAL DRAWING
IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY

REVISIONS		
NO	DATE	DESCRIPTION

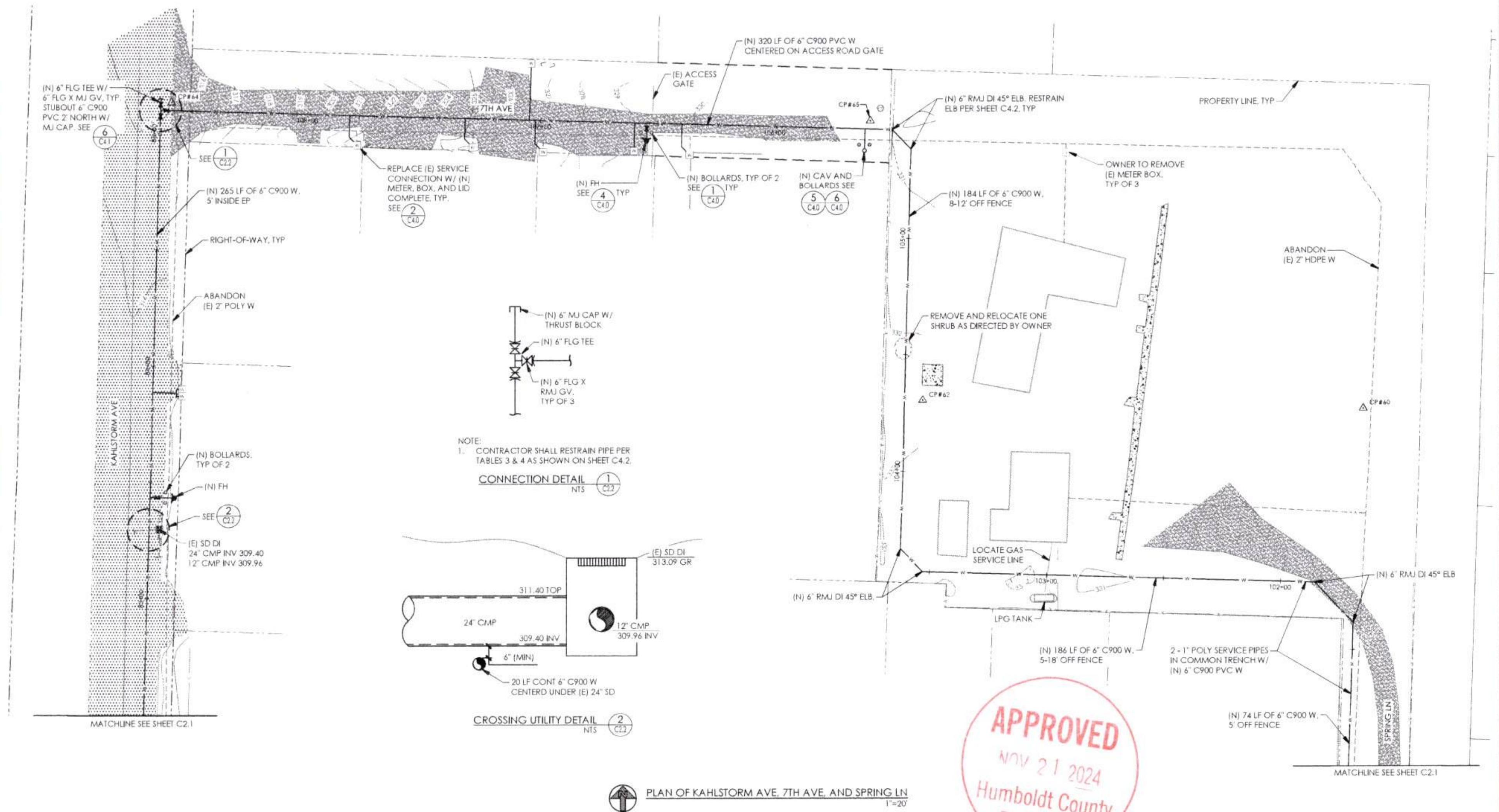
PACE ENGINEERING

DES TJ CKD TW JOB NO.
DRN RT DATE 12/28/2022 2973.02

SIGNED

WESTHAVEN COMMUNITY SERVICE DISTRICT
WESTHAVEN WELL AND PIPELINE REPLACEMENT PROJECT
SCHEDULE A
6TH AVE AND KAHLSTORM AVE STA 75+80-82+50
SPRING LN STA 100+00-101+00

SHEET
C2.1
PG 12 OF 18



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Humboldt County
PLANNING

90% DRAFT

BAR IS ONE INCH ON ORIGINAL DRAWING
IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY

REVISIONS		
NO	DATE	DESCRIPTION

PACE ENGINEERING

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DRN KT | DATE 12/28/2022 | 2973.02

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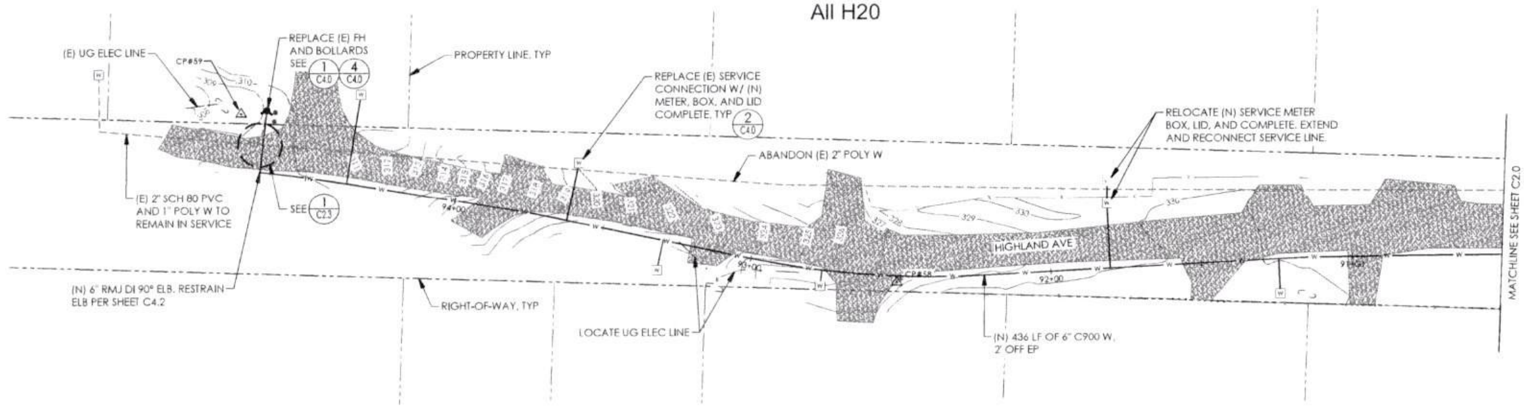
WESTHAVEN COMMUNITY SERVICE DISTRICT
WESTHAVEN WELL AND PIPELINE REPLACEMENT PROJECT
SCHEDULE A
KAHLSTORM AVE STA 82+50-85+15
SPRING LN AND 7TH AVE STA 101+00-108+64

SHEET
C2.2

All H20



PLAN OF HIGHLAND AVE
1"=20'

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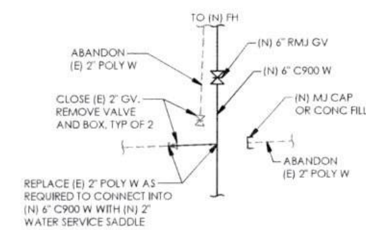
Humboldt County
PLANNING



CONNECTION DETAIL 1 C2.3
NTS

90% DRAFT

BAR IS ONE INCH ON ORIGINAL DRAWING
IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY

REVISIONS		
NO	DATE	DESCRIPTION

PACE ENGINEERING

DES TJ | CKD TW | JOB NO.
DRN RT | DATE 12/28/2022 | 2973.02

SIGNED

WESTHAVEN COMMUNITY SERVICE DISTRICT
WESTHAVEN WELL AND PIPELINE REPLACEMENT PROJECT
SCHEDULE A

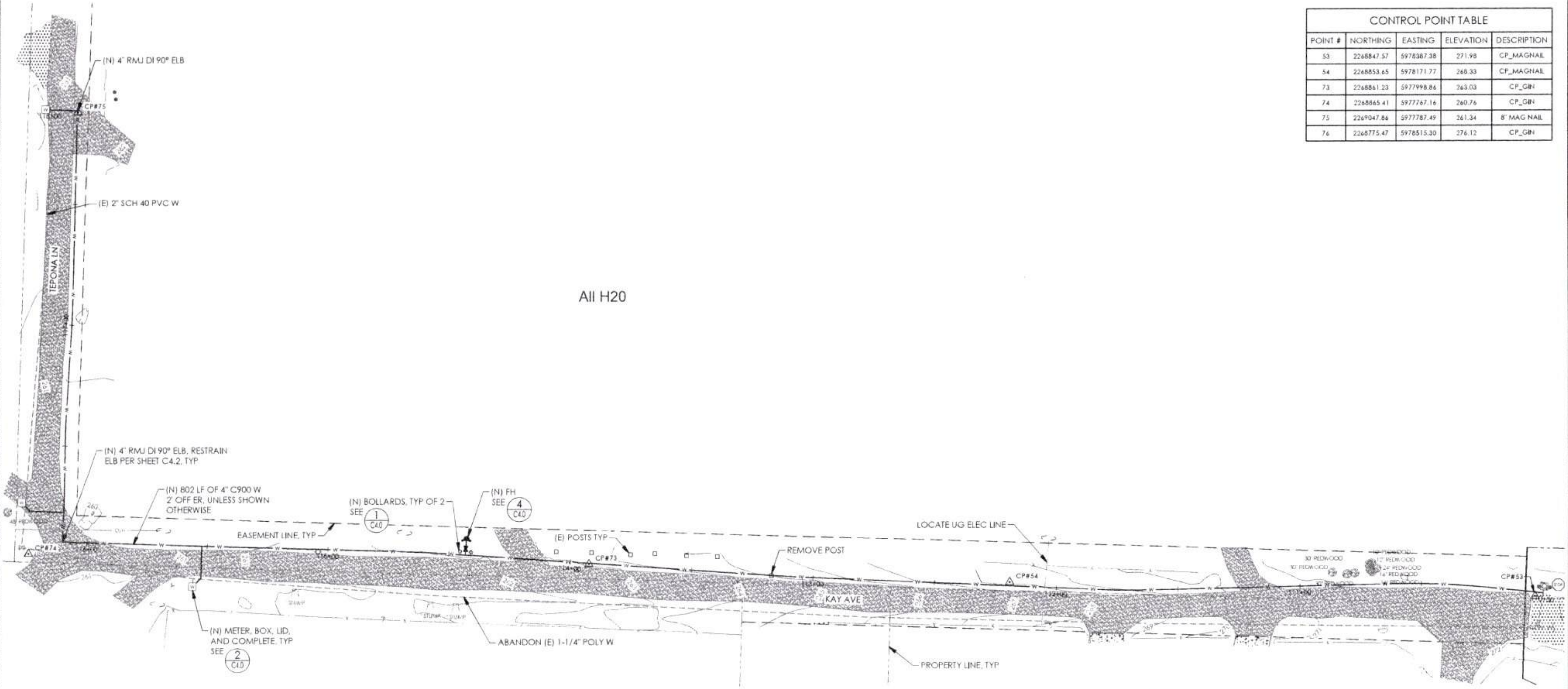
HIGHLAND AVE STA 90+50-94+86

SHEET
C2.3

CONTROL POINT TABLE

POINT #	NORTHING	EASTING	ELEVATION	DESCRIPTION
53	2268847.57	5978387.38	271.98	CP_MAGNAIL
54	2268853.65	5978171.77	268.33	CP_MAGNAIL
73	2268861.23	5977998.86	263.03	CP_GIN
74	2268865.41	5977767.16	260.76	CP_GIN
75	2269047.86	5977787.49	261.34	8" MAG NAIL
76	2268775.47	5978515.30	276.12	CP_GIN

All H20



PLAN OF KAY AVE AND TEPONA LN
1"=20'

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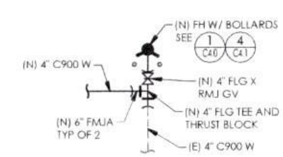
Humboldt County
PLANNING



CONNECTION DETAIL 1 C3.0
NTS

90% DRAFT

BAR IS ONE INCH ON ORIGINAL DRAWING
IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY

REVISIONS

NO	DATE	DESCRIPTION

PACE ENGINEERING

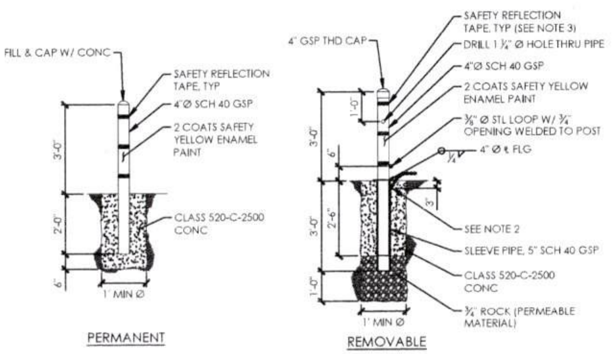
DES TJ CKD TW JOB NO. 2973.02
DRN RI DATE 12/28/2022

SIGNED

WESTHAVEN COMMUNITY SERVICE DISTRICT
WESTHAVEN WELL AND PIPELINE REPLACEMENT PROJECT
SCHEDULE A

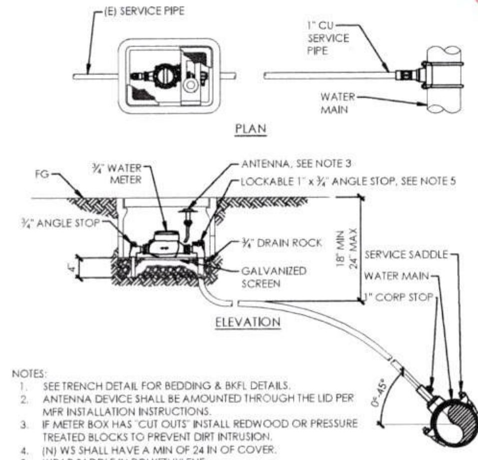
KAY AVE AND TEPONA LN STA 110+00-118+02

SHEET
C3.0
PG 15 OF 18



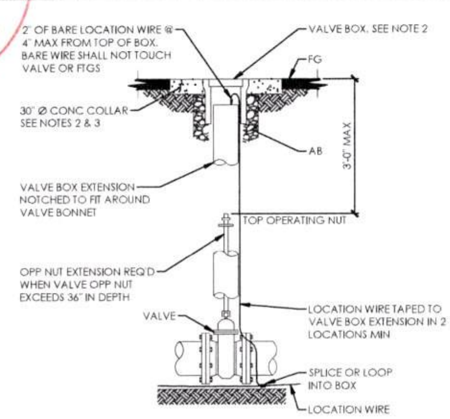
NOTES:
1. PERMANENT BOLLARDS SHALL BE INSTALLED, UNO.
2. HARD-TEMPERED ZINC PLATED STL CHAIN, 12 IN LENGTH, 3/8 IN Ø W/ 1 1/2 IN OPENING, 3 IN TO BE PARTIALLY CAST IN CONCRETE & WELDED TO SLEEVE.
3. 1" WIDE SAFETY REFLECTION TAPE SHALL BE OUTDOOR RATED, VISABLE IN ALL LIGHTING CONDITIONS, AND ABLE TO WITHSTAND CHEMICALS, ABRASIONS, AND WET CONDITIONS.

BOLLARD DETAIL (1 / C4.0)
NTS



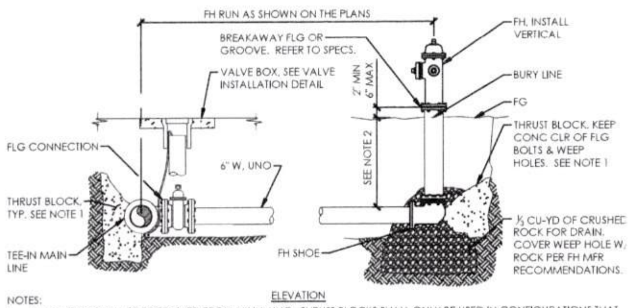
NOTES:
1. SEE TRENCH DETAIL FOR BEDDING & BKFL DETAILS.
2. ANTENNA DEVICE SHALL BE AMOUNTED THROUGH THE LID PER MFR INSTALLATION INSTRUCTIONS.
3. IF METER BOX HAS "CUT OUTS" INSTALL REDWOOD OR PRESSURE TREATED BLOCKS TO PREVENT DIRT INTRUSION.
4. (N) WS SHALL HAVE A MIN OF 24 IN OF COVER.
5. WRAP SADDLE IN POLYETHYLENE.

TYPICAL WATER SERVICE (2 / C4.0)
NTS



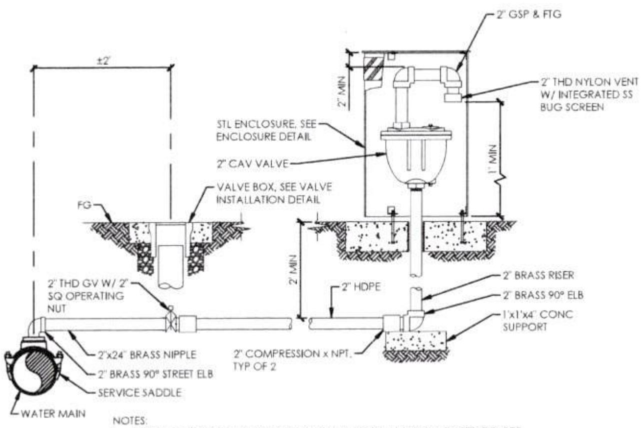
NOTES:
1. SEE THRUST BLOCK DETAILS FOR VALVES 8 IN & LARGER.
2. SET VALVE BOX & COLLAR 1/2 IN BELOW GRADE IN PAVED AREAS & 2 IN ABOVE GRADE IN ALL OTHER LOCATIONS.
3. CONC COLLAR SHALL BE 12 IN THICK WHERE ANY VEHICULAR TRAFFIC IS EXPECTED & 4 IN THICK IN ALL OTHER LOCATIONS.

TYPICAL WATER VALVE INSTALLATION (3 / C4.0)
NTS



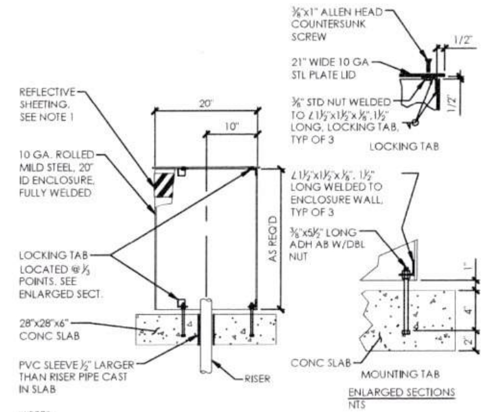
NOTES:
1. ALL FH RUNS SHALL BE RESTRAINED FROM MAIN, UNO. THRUST BLOCKS SHALL ONLY BE USED IN CONFIGURATIONS THAT DO NOT ALLOW RESTRAINED FITTINGS. REFER TO THRUST BLOCK DETAILS.
2. FH BURY DEPTHS VARY DEPENDING ON TOPOGRAPHY FEATURES & (E) UTILITIES. CONTRACTOR SHALL DETERMINE BURY DEPTH OF EACH FH PRIOR TO PROCUREMENT. CONTRACTOR SHALL EXCHANGE FH BARRELS W/ NON-CONFORMING DEPTHS TO OBTAIN THE REQ'D BREAKAWAY CLEARANCE AT NO COST TO OWNER.
3. **CONTACT LOCAL FIRE AUTHORITY AND OWNER OF RIGHT-OF-WAY (COUNTY, CALTRANS, ETC) TO CONFIRM SPECIFIC LOCATION REQUIREMENTS.** INSTALL BOLLARDS WHERE SPECIFIED ON PLANS. WHERE TWO BOLLARDS ARE REQ'D, INSTALL BOLLARDS BETWEEN FH & TRAVELED WAY, 3' APART W/ 3' CLEARANCE MIN TO FH.
4. TYPE DB TWO-WAY BLUE REFLECTOR SHALL BE PLACED 4" OFF C/L OR INLINE WHEN (E) REFLECTORS ARE PRESENT. REFLECTOR SHALL BE LOCATED ON SAME SIDE AS FH, ANCHORED W/ RAPID SET EPOXY, & RECESSED AT ELEV. ABOVE 500'.
5. MAINTAIN 3' MIN CLEARANCE ALL AROUND HYDRANT.

TYPICAL FIRE HYDRANT INSTALLATION (4 / C4.0)
NTS



NOTES:
1. PIPELINE FROM SERVICE SADDLE TO AIR VALVE SHALL HAVE A POSITIVE SLOPE.
2. INSTALL A MINIMUM OF 2 BOLLARDS AROUND EVERY CAV, UNO. SEE DETAIL 1 ON SHEET C4.0.

CAV DETAIL (5 / C4.0)
NTS



NOTES:
1. REFLECTIVE SHEETING SHALL BE INSTALLED @ TOP OF EXTERIOR SIDEWALL, WRAP SHEETING 360° AROUND ENCLOSURE.
2. ALL ABOVE GRADE PIPING SHALL BE INSULATED.
3. CAV SHALL BE INSULATED WITH A FLEXIBLE INSULATION COVER.
4. ALL HARDWARE SHALL BE GALVANIZED.
5. ALL METAL SURFACES NOT GALVANIZED SHALL BE POWDERCOATED OLIVE GREEN.
6. EACH VALVE SHALL INCLUDE TWO BOLLARDS COMPLETE, UNO.

ENCLOSURE DETAIL (6 / C4.0)
NTS

90% DRAFT

BAR IS ONE INCH ON ORIGINAL DRAWING
IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY

REVISIONS		
NO	DATE	DESCRIPTION

PACE ENGINEERING

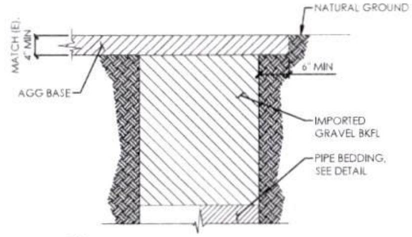
DES TJ | CKD TW | JOB NO. 2973.02
DRN RI | DATE 12/28/2022

SIGNED

WESTHAVEN COMMUNITY SERVICE DISTRICT
WESTHAVEN WELL AND PIPELINE REPLACEMENT PROJECT
SCHEDULE A

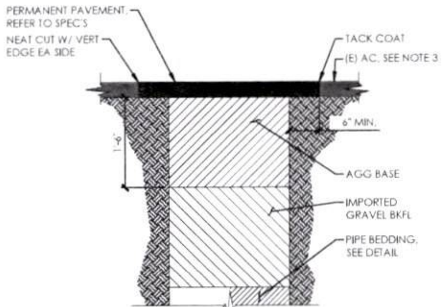
DETAILS

SHEET
C4.0



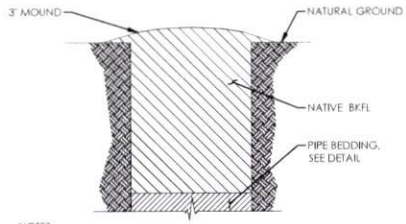
NOTES:
1. CLASS "A1" SHALL BE USED IN GRAVELED SHOULDERS, ALLEYS, UNDER CONC. UNPAVED DRIVEWAYS, & AT OTHER LOCATIONS DESIGNATED BY THE ENGR.

CLASS "A1" BACKFILL DETAIL (1/C4.1)
NTS



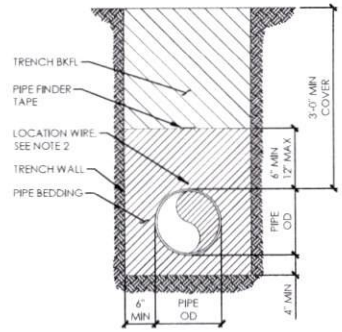
NOTES:
1. WHERE REMAINING PAVING IS LESS THAN 2 FT WIDE AFTER TRENCHING, REMOVE & REPLACE PAVEMENT TO EDGE OF (E) PAVING AT FULL THICKNESS.
2. CLASS "A3" BKFL SHALL BE USED IN ALL PAVED AREAS.
3. FOR UNDERMINED OR DAMAGE TO ADJACENT PAVEMENT, REFER TO SPEC'S.

CLASS "A3" BACKFILL DETAIL (2/C4.1)
NTS



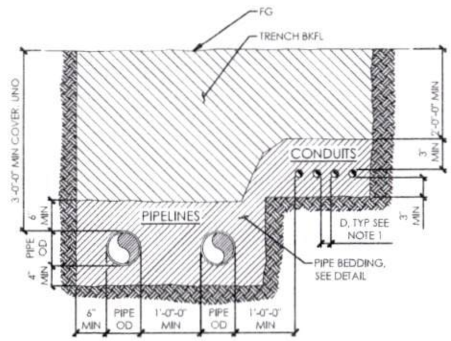
NOTES:
1. WHEN IN CULTIVATED OR LANDSCAPED AREAS THE TOP 1' OF SOIL SHALL BE REPLACED W/ (E) OR IMPORTED TOPSOIL. THE SURFACE SHALL BE RE-LEVELED FOLLOWING INUNDATION & TRENCH SETTLEMENT. LAWNS OR OTHER LANDSCAPING SHALL THEN BE REPLACED.
2. CLASS "C" BKFL SHALL BE USED IN AREAS WHERE VEHICLE TRAFFIC IS NOT EXPECTED & @ LOCATIONS DESIGNATED BY THE ENGR.

CLASS "C" BACKFILL DETAIL (3/C4.1)
NTS

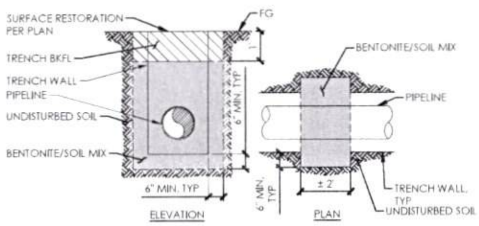


NOTES:
1. FOR 2 PIPES IN COMMON TRENCH, MAINTAIN 12 IN CLEARANCE BETWEEN PIPES & 6 IN MIN BETWEEN PIPES & TRENCH WALL.
2. REFER TO SPEC'S FOR LOCATION OF WIRE. WIRE REQ'D FOR WATER PIPING & PRESSURE SEWERS ONLY. ALL LOCATION WIRE SPLICES SHALL BE PERFORMED W/ WATER PROOF CONNECTORS, REFER TO SPEC'S.

PIPE BEDDING DETAIL (4/C4.1)
NTS

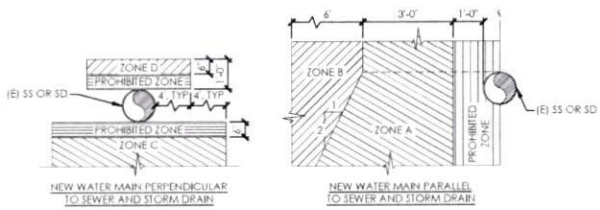


MULTIPLE PIPE TRENCH DETAIL (5/C4.1)
NTS



NOTES:
1. INSTALL TRENCH CUTOFFS WHERE SLOPES EXCEED 3%.
2. TRENCH CUTOFFS SHALL BE INSTALLED AT EVERY 4 FEET OF VERTICAL DROP IN ELEVATION ALONG THE SURFACE GRADE OF THE TRENCH, UNO.
3. TRENCH CUTOFFS SHALL BE OF BENTONITE/SOIL MIXTURE. BENTONITE/SOIL MIXTURE SHALL CONSIST OF 8 PERCENT (BY WEIGHT) POWDERED BENTONITE MIXED WITH NATIVE SOIL PER THE BENTONITE MANUFACTURER'S RECOMMENDATIONS. BENTONITE/SOIL MIXTURE SHALL BE COMPACTED IN PLACE TO 90 PERCENT MINIMUM RELATIVE COMPACTION.

TRENCH CUTOFF DETAIL (6/C4.1)
NTS



ZONE	REQUIREMENTS
PROHIBITED	(N) CONSTRUCTION IS PROHIBITED W/IN THIS AREA
A	(N) CONSTRUCTION W/IN THIS AREA SHALL HAVE PRIOR WRITTEN APPROVAL FROM BOTH DDW & THE ENGR
B	(N) CONSTRUCTION W/IN THIS AREA SHALL BE DIP W/ COMPRESSION JTS OR PVC W/ RUBBER RING JTS (ASTM D3034)
C	(N) CONSTRUCTION SHALL BE DIP, DR 14 PVC, OR HDPE (C906-99) & HAVE NO JTS W/IN 10 FT FROM EITHER SIDE OF SEWER MAIN
D	(N) CONSTRUCTION SHALL BE DIP, DR 14 PVC, OR HDPE (C906-99) & HAVE NO JTS W/IN 4 FT FROM EITHER SIDE OF SEWER MAIN

NOTE:
1) CONTRACTOR SHALL REPORT AREAS NOT SHOWN ON PLANS THAT REQUIRE WATER PLACEMENT WITHIN ZONES A, B, C, OR D TO THE ENGINEER. THESE NEWLY IDENTIFIED AREAS REQUIRE STATE WATER RESOURCES CONTROL BOARD, DIVISION OF DRINKING WATER APPROVAL PRIOR TO INSTALLATION.

SEPARATION OF WATER MAIN FROM SEWER AND STORM DRAIN PIPELINES (7/C4.1)
NTS

90% DRAFT

BAR IS ONE INCH ON ORIGINAL DRAWING
IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY

REVISIONS		
NO	DATE	DESCRIPTION

PACE ENGINEERING

DES TJ	CKD TW	JOB NO.
DRN KI	DATE 12/28/2022	2973.03

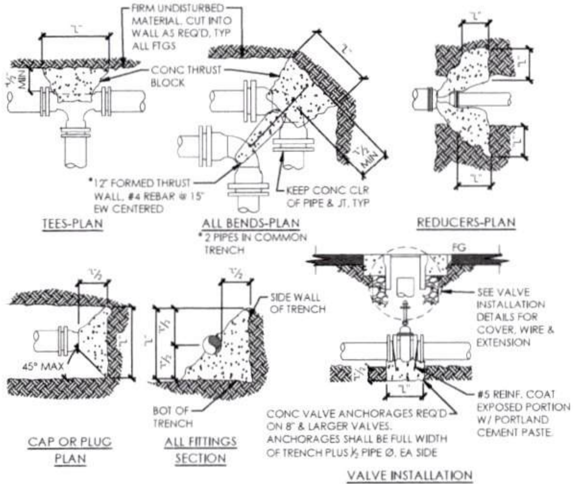
SIGNED

WESTHAVEN COMMUNITY SERVICE DISTRICT
WESTHAVEN WELL AND PIPELINE REPLACEMENT PROJECT
SCHEDULE A

DETAILS

SHEET
C4.1

APPROVED
NOV 21 2024
Humboldt County
PLANNING



NOTES:

1. IN THE CASE WHERE THERE IS NOT 5 FT OF CLEARANCE TO UNDISTURBED EARTH OR (E) UTILITIES IN SERVICE, THE CONTRACTOR SHALL USE MECHANICAL RESTRAINT SYSTEMS ON (N) FITTINGS. EARTH IS DEEMED DISTURBED IF IT CONTAINS ANY (E) UTILITIES AND/OR IS RECOGNIZED AS A FILL AREA.
2. USE OF A MECHANICALLY RESTRAINED FTG IN LIEU OF A THRUST BLOCK TYPICALLY REQUIRES A NUMBER OF PIPE JTS TO BE RESTRAINED UP & DOWNSTREAM OF THE FTG. REFER TO TABLE 3. WHERE RESTRAINED FTGS ARE SHOWN ON THE PLANS, OR WHERE A CONTR PROPOSES TO USE A RESTRAINED FTG IN LIEU OF A THRUST BLOCK BECAUSE OF SITE CONDITIONS, THE CONTR SHALL DETERMINE THE NUMBER OF PIPE JTS TO BE RESTRAINED & SUBMIT THIS INFORMATION TO THE ENGR FOR REVIEW. PAYMENT FOR RESTRAINED JTS SHALL BE INCLUDED IN THE MOST APPLICABLE BID ITEM.
3. THRUST BLOCKS SHALL BE PROVIDED @ ALL BURIED PIPE FTGS OF 4 IN Ø OR LARGER. THRUST BLOCK SIZE IS BASED ON PIPE SIZE, 150 PSI TEST PRESSURE, & SOIL BEARING OF 1200 LB/FT². DIM "L" IS SHOWN IN TABLE 2 & IS BOTH A VERT & HORIZ DIM, UNO. IF PIPE COVER HAS BEEN APPROVED TO BE LESS THAN 30 IN, INCREASE HORIZ THRUST BLOCKS IN PROPORTION TO 30 IN DIVIDED BY THE ACTUAL COVER. IF TEST PRESSURE IS LESS THAN 150 PSI, THRUST BLOCK AREAS OR VOLUMES MAY BE PROPORTIONATELY SMALLER. KEEP CONC FREE OF ALL JTS, BOLTS & NUTS.

THRUST BLOCK DETAILS 6/C4.2
NTS

TABLE 1

STD THRUST BLOCK MIN DIM "L" IN INCHES

NOMINAL PIPE Ø INCHES	FTGS						
	TEE, WYE, OR PLUG	90° BEND	45° BEND	22 ½° BEND	11 ¼° BEND	REDUCER (BASED ON LARGEST Ø)	VALVE
4"	18	22	16	15	15	–	–
6"	26	31	23	17	15	–	–
8"	34	40	30	21	15	17	12
10"	41	49	36	26	18	21	12
12"	49	59	44	31	22	25	16
14"	58	68	50	36	26	30	16
16"	66	77	57	41	28	33	18
18"	74	88	65	45	32	37	REQUIRES
20"	81	97	71	50	36	41	SPECIAL
24"	97	115	85	61	43	49	DESIGN

NOTES:

1. INCREASE ALL DIMS IN TABLE 1 BY 10% TO ALLOW FOR INCREASE IN PRESSURE TO 175 PSI.

TABLE 2

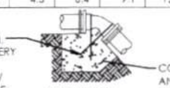
VERT FTG THRUST BLOCKS

WHERE VERT BENDS ARE DIRECTED W/ THRUST TOWARD BOT OF THE TRENCH, BENDS SHALL HAVE THRUST BLOCKS PER HORIZ BENDS EXCEPT CONC SHALL BEAR AGAINST TRENCH BOT.

WHERE VERT BENDS ARE DIRECTED W/ THRUST TOWARD TOP OF TRENCH, BENDS SHALL BE INSTALLED PER THE FOLLOWING DETAIL. MIN ROD EMBED SHALL BE 30" FOR 12" & SMALLER PIPE & 36" FOR 14" & LARGER PIPE.

CY CONC FOR VERT FTGS (SEE DETAIL BELOW)

BEND ANGLE	PIPE Ø						
	4"	6"	8"	10"	12"	14"	16" & OVER
11 ¼°	0	0.4	0.7	0.9	1.3	1.8	REQUIRES SPECIAL DESIGN
22 ½°	0.4	0.8	1.3	1.8	2.5	3.4	
45°	0.7	1.4	2.4	3.5	4.9	6.6	
90°	1.3	2.5	4.3	6.4	9.1	12.2	



ELEVATION

THRUST BLOCK TABLES 6/C4.2
NTS

TABLE 3		
SIZE	PIPE FITTING	MIN. RESTRAINED PIPE LENGTH (FT)
10"	TEE	6
10"	90° ELB	30
10"	45° ELB	13
10"	11.25° ELB	5
10"x6"	TEE	5
8"	TEE	5
8"	90° ELB	25
8"	45° ELB	11
8"	11.25° ELB	5
8"	CAP	80
8"x6"	TEE	5
8"x4"	TEE	5
6"	TEE	5
6"	90° ELB	19
6"	45° ELB	8
6"	11.25° ELB	5
6"	CAP	60
6"x4"	TEE	5
4"	TEE	5
4"	90° ELB	14
4"	45° ELB	6
4"	11.25° ELB	5
4"	CAP	45

NOTE:

1. TEST PRESSURE = 150 PSI.
2. DEPTH OF BURY = 3 FT.
3. TEE RESTRAINT LENGTH VALUES REFLECT THE LENGTH OF PIPE ALONG THE BRANCH WHERE ALL FITTINGS AND JOINTS SHALL BE RESTRAINED. THE RESTRAINT LENGTH ALONG THE BRANCH WAS CALCULATED ASSUMING 10 LF OF RESTRAINED JOINTS EACH WAY ALONG THE PIPE RUN, UNO. RESTRAINED PIPE LENGTH ALONG THE BRANCH WILL CHANGE AS RESTRAINED LENGTH ALONG THE PIPE RUN CHANGES. CONTRACTOR SHALL SUBMIT CALCULATIONS TO ENGINEER FOR APPROVAL IF RESTRAINED PIPE LENGTH ALONG THE RUN IS GREATER THAN OR LESS THAN 10 LF.

RESTRAINT LENGTH TABLES FOR PIPE JOINTS AND FITTINGS 1/C4.2
NTS

TABLE 4		
SIZE	MINIMUM BEND RADIUS, R (FT)	MAXIMUM END OFFSET, Z (FT)
4"	150	1.3
6"	215	0.9
8"	285	0.6
10"	350	0.5

PVC ALLOWABLE BENDING RADIUS 20' LENGTHS 6/C4.2
NTS

90% DRAFT

BAR IS ONE INCH ON ORIGINAL DRAWING
0" 1"
IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY

REVISIONS		
NO	DATE	DESCRIPTION

PACE ENGINEERING

DES TJ | CKD TW | JOB NO. 2973.02
DRN RT | DATE 12/28/2022

SIGNED

WESTHAVEN COMMUNITY SERVICE DISTRICT
WESTHAVEN WELL AND PIPELINE REPLACEMENT PROJECT
SCHEDULE A

DETAILS

SHEET
C4.2
PG 18 OF 18

WESTHAVEN COMMUNITY SERVICES DISTRICT

TRINIDAD-WESTHAVEN EMERGENCY INTERTIE PROJECT

FUNDING AGREEMENT BETWEEN
THE STATE OF CALIFORNIA (DEPARTMENT OF WATER RESOURCES) AND
CITY OF TRINIDAD
AGREEMENT NO. 4600014620
URBAN & MULTIBENEFIT DROUGHT RELIEF GRANT

APPROVED
NOV 21 2024
Humboldt County
PLANNING

CITY OF TRINIDAD CITY COUNCIL

CHERYL KELLY	MAYOR
STEVE LADWIG	MAYOR PRO-TEM
JACK WEST	COUNCIL MEMBER
KATI BRECKENRIDGE	COUNCIL MEMBER
JACK TUTTLE	COUNCIL MEMBER

WESTHAVEN COMMUNITY SERVICES DISTRICT BOARD

BILL VERICK	PRESIDENT
BARBARA CLINE	VICE PRESIDENT
DAVID HANKIN	FINANCE
RICHARD SWISHER	SAFETY OFFICER
ANTONIO LLANOS	MEMBER

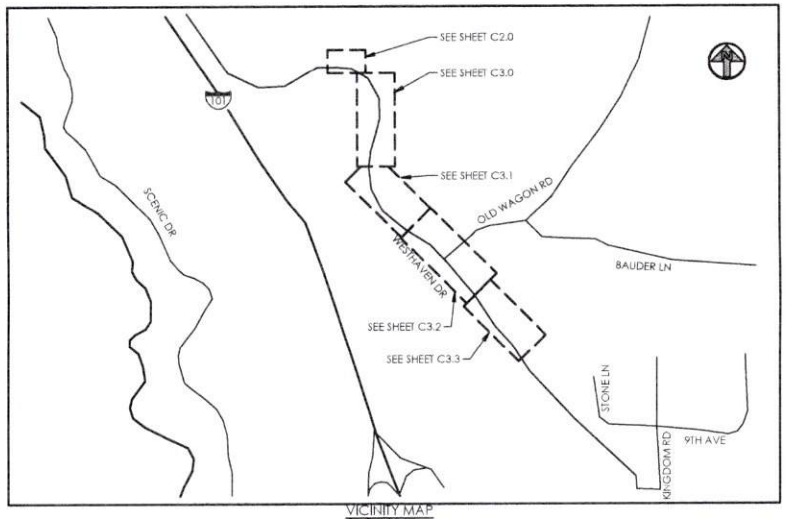
WESTHAVEN COMMUNITY SERVICES DISTRICT STAFF

PAUL M. ROSENBLATT	GENERAL MANAGER / CHEIF PLANT OPERATOR T2-34384/D2-42549
KATRINA MARTIN	LEAD OPERATOR T2-44809/D1-55736
MADISON HEWITT	OPERATOR T2-46094/EIT
ROXANNE LEVANG	SECRETARY / BOOKKEEPER

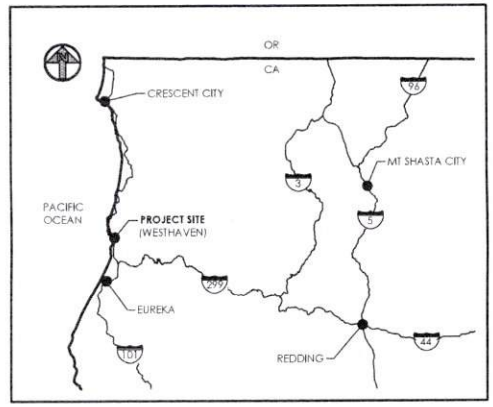
SHEET INDEX

NO	DESCRIPTION	SHEET NAME
1	G1.0	TITLE
2	G1.1	LEGEND & NOTES
3	G1.2	SITE SURVEY CONTROL
4	C1.0	DETAILS
5	C1.1	DETAILS
6	C1.2	DETAILS
7	C2.0	SITE PLAN
8	C3.0	WESTHAVEN DR STA 3+50 TO STA 12+00
9	C3.1	WESTHAVEN DR STA 12+00 TO STA 18+80
10	C3.2	WESTHAVEN DR STA 18+80 TO 26+40
11	C3.3	WESTHAVEN DR STA 26+40 TO STA 32+00
12	M1.0	PITLESS BOOSTER PUMP MECHANICAL
13	M1.1	PITLESS BOOSTER PUMP DETAIL
14	E1.0	ELECTRICAL SYMBOLS AND ABBREVIATIONS
15	E1.1	ONE-LINE DIAGRAM
16	E2.0	ELECTRICAL SITE PLAN
17	E2.1	OFFICE POWER PLAN
18	E2.2	BOOSTER PUMP - ELECTRICAL PLAN
19	E3.0	ELECTRICAL DETAILS
20	I1.0	INSTRUMENTATION SYMBOLS AND ABBREVIATIONS
21	I2.0	BOOSTER PUMP STARTER PANEL CONTROL DIAGRAM

90% DRAFT



VICINITY MAP
NOT TO SCALE

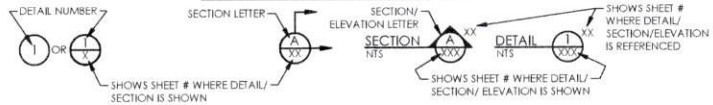


LOCATION MAP
NOT TO SCALE

PACE ENGINEERING DESIGN TEAM

TOM WARNOCK	PROJECT MANAGER
JESSICA CHANDLER	PROJECT ENGINEER
BRYAN GENTLES	ELECTRICAL ENGINEER
GREG FAY	STAFF ENGINEER

GENERAL INFORMATION



DETAIL CALLOUT | SECTION MARKERS | DETAIL/SECTION/ELEVATION TITLE WHERE SHOWN

PRELIMINARY NOT FOR CONSTRUCTION

PACE ENGINEERING

12/4/23 | 2973.03

SHEET
G1.0
PG 1 OF 21

ABBREVIATIONS - WATER/MECHANICAL

@	AT
Ø	DIAMETER
℄ or PL	PLATE OR PROPERTY LINE
AB	ANCHOR BOLT, AGGREGATE BASE
AC	ASBESTOS CEMENT PIPE or ASPHALT CONCRETE
ADDN'L	ADDITIONAL
ADH AB	ADHESIVE ANCHOR BOLT
AFF	ABOVE FINISH FLOOR
AGG or AGGR	AGGREGATE
AGS	ABOVE GROUND SURFACE
APPROX	APPROXIMATELY
ARV	AIR RELEASE VALVE
ASTM	AMERICAN SOCIETY FOR TESTING OF MATERIALS
B&S	BELL & SPIGOT
BDRY	BOUNDARY
BGS	BELOW GROUND SURFACE
BKFL	BACKFILL
BLDG	BUILDING
BLK	BLOCK
BLKG	BLOCKING
BM	BENCH MARK OR BEAM
BO	BLOW OFF or BLOCK-OUT
BOT or BOTT	BOTTOM
BUSH	BUSHING
BV	BALL VALVE
BVCE	BEGIN VERTICAL CURVE ELEVATION
BVCS	BEGIN VERTICAL CURVE STATION
C or C/L or ℄	CENTERLINE
C or COND	CONDUIT
CAV	COMBINATION AIR RELEASE VALVE
CHEM	CHEMICAL
CI	CAST IRON PIPE
CIP	CAST IN PLACE
CISP	CAST IRON SOIL PIPE
CJ	CONTROL JOINT or CEILING JOIST
CL or CLR	CLEAR
CLG	CEILING
CMP	CORRUGATED METAL PIPE
CMU	CONCRETE MASONRY UNIT
COL	COLUMN
COMB	COMBINATION
COMP	COMPACTED or COMPOSITION SHINGLES
CONC	CONCRETE
CONST	CONSTRUCTION
CONT	CONTINUOUS
CONTR	CONTRACTOR
CORP	CORPORATION
CP	CONTROL PANEL OR CONTROL POINT
CTR	CENTER
CU	COPPER
CV	CHECK VALVE
CY	CUBIC YARD
D	DRAIN
DB	DIRECT BURIAL
DBL	DOUBLE
DET	DETAIL
DIP	DUCTILE IRON PIPE
DIA	DIAMETER
DIM	DIMENSION
DN	DOWN
DWG	DRAWING
D/W	DRIVEWAY
E	ELECTRICAL CONDUIT
(E) or EXIST	EXISTING
EA	EACH
EG	EXISTING GRADE
EL or ELEV	ELEVATION
ELEC	ELECTRICAL
ELB	ELBOW
EMBED	EMBED or EMBEDMENT
EN	EDGE NAILING
ENGR	ENGINEER
EP	EDGE OF PAVEMENT
EQ	EQUAL
ER	EDGE OF ROAD
ESMT	EASEMENT
EVCE	END VERTICAL CURVE ELEVATION
EVCS	END VERTICAL CURVE STATION
EW	EACH WAY
EXP AB	EXPANSIVE ANCHOR BOLT
EXP JT	EXPANSION JOINT(S)
F	FEMALE
FC	FLEXIBLE COUPLING
FCA	FLANGED COUPLING ADAPTOR
FD	FRENCH DRAIN OR FLOOR DRAIN
FEP	FLUORINATED ETHYLENE-PROPYLENE
FF	FINISHED FLOOR or FAR FACE
FG	FINISH GRADE
FH	FIRE HYDRANT
FIN	FINISH
FLEX	FLEXIBLE
FLG	FLANGE
FM	FLOW METER
FMJA	FLANGE x MJ ADAPTER
FND	FOUNDATION
FRP	FIBER REINFORCED POLYETHYLENE
FTG	FOOTING or FITTING
FTGS	FITTINGS
GA	GAGE
GAL	GALLON
GALV	GALVANIZED
GC	GROOVED COUPLING
GSP	GALVANIZED STEEL PIPE
GV	GATE VALVE
HC	HALF COUPLING
HD	HOLDOWN or HOT DIPPED
HMA	HOT MIX ASPHALT
HORIZ	HORIZONTAL
HP	HORSE POWER
HT	HEIGHT
HVAC	HEATING, VENTILATION, AND AIR CONDITIONING
I	INSTRUMENTATION
ID	INSIDE DIAMETER
IN	INCHES
INSUL	INSULATION
INT	INTERIOR or INTERMEDIATE
INV	INVERT
IRRIG	IRRIGATION
JT	JOINT
L	STEEL ANGLE
LF	LINEAL FOOT
LG	LIP OF GUTTER
M	MECHANICAL
MECH	MECHANICAL
MAX	MAXIMUM
MFR	MANUFACTURER
MIN	MINIMUM
MISC	MISCELLANEOUS
MJ	MECHANICAL JOINT
MRS	MECHANICAL RUBBER SEAL
MTL	METAL
(N)	NEW
NB&G	NUTS, BOLTS, & GASKETS
NF	NEAR FACE
NIC	NOT IN CONTRACT
No.	NUMBER
NPT	NATIONAL PIPE THREAD
NTS	NOT TO SCALE
O/	OVER
OC	ON CENTER
OD	OUTSIDE DIAMETER
OF	OUTSIDE FACE
OG	ORIGINAL GROUND
OH	OVERHEAD
OPG or OPNG	OPENING
OPP	OPPOSITE or OPERATING
P&ID or PID	PROCESS INSTRUMENTATION DIAGRAM
PE	PLAIN END
PER	PERIMETER
PNL	PANEL
PNT	PAINT
#	POUND
PP	POWER POLE
PR	PAIR
PREFAB	PREFABRICATED
PROJ	PROJECT
PRV	PRESSURE RELIEF VALVE
PS	PIPE SUPPORT
PSI	POUNDS PER SQUARE INCH
PVC	POLYVINYL CHLORIDE PIPE
PVI	POINT OF VERTICAL INTERSECTION
PW	POTABLE WATER
R	RADIUS
RDW OR RDWD	REDWOOD
RED	REDUCER
REINF	REINFORCEMENT STEEL, REBAR
REQ'D	REQUIRED
REST	RESTRAINED
RFCA	RESTRAINED FLANGED COUPLING ADAPTER
RFMJA	RESTRAINED FLANGED MECHANICAL JOINT ADAPTER
RFG	ROOFING
RMJ	RESTRAINED MECHANICAL JOINT
RO	ROUGH OPENING
ROW or R/W	RIGHT OF WAY
S	SLOPE
SCH or SCHED	SCHEDULE
SD	STORM DRAIN
SECT	SECTION
SGL	SINGLE
SH or SHT	SHEET
SHTG	SHEATHING, SHEETING
SIM	SIMILAR
SMS	SHEET METAL SCREW
SP	SPACE or SPACES
SPEC'S	SPECIFICATIONS
SQ	SQUARE
SS	SANITARY SEWER or STAINLESS STEEL
STA	STATION
STD	STANDARD
STL	STEEL
STRUCT	STRUCTURAL
SYM	SYMMETRICAL
T	TELEPHONE CONDUIT or TOP
T&B	TOP AND BOTTOM
TBC	TOP BACK OF CURVE
TBM	TEMPORARY BENCH MARK
TC	TOP OF CONCRETE
TELE	TELEPHONE
THD	THREADED
THK	THICK or THICKNESS
TL	TRAFFIC LID
TN	TOE NAIL
TOW	TOP OF WALL
TR	THRUST RESTRAINT
TUBE	TUBING
TYP	TYPICAL
UG	UNDER GROUND
UNO	UNLESS NOTED OTHERWISE
V	VENT
VC	VERTICAL CURVE
VERT	VERTICAL
W	WATER
W/	WITH
W/O	WITHOUT
WTP	WATER TREATMENT PLANT
WV	WATER VALVE

SYMBOL LEGEND

- AREA DRAIN
- BOLLARD
- CENTERLINE
- CONTROL POINT
- CULVERT
- DRAINAGE DIRECTION ARROW
- ELECTRICAL PANEL / BOX
- FOUND MONUMENT AS NOTED
- (E) FIRE HYDRANT
- (N) FIRE HYDRANT
- GUY ANCHOR
- GRID TICK
- HOSE BIB
- LIGHT POLE
- POLE- JOINT UTILITY
- POLE- POWER
- SIGN
- STORM DRAIN CATCH BASIN
- TREE/SHRUB
- WATER BLOWOFF OR AIR RELEASE VALVE
- WATER METER/BOX
- (E) WATER VALVE
- (N) WATER VALVE
- FIBER OPTIC MARKER

LINE LEGEND

- (E) EP
- (N) EP
- (E) CONC
- (N) CONC
- PROPERTY LINE
- FLOWLINE
- (E) WATER MAIN
- (N) WATER MAIN
- (E) STORM DRAIN
- (N) STORM DRAIN
- (E) GAS LINE
- (N) GAS LINE
- ROW
- OH
- TELEPHONE
- FIBER OPTIC
- CHAIN LINK FENCE

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GENERAL NOTES

1. UNLESS NOTED OTHERWISE (UNO), ALL CONSTRUCTION SHALL CONFORM TO THE PROJECT MANUAL, THE 2021 EDITION OF STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION OR "GREEN BOOK", AND CALTRANS STANDARD PLANS AND SPECIFICATIONS 2022 EDITION.
2. PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL CONTACT UNDERGROUND SERVICE ALERT AT 811 AND ALL UTILITY COMPANIES ONE (1) WEEK BEFORE ANY TRENCHING TO DETERMINE THE LOCATION OF ALL UNDERGROUND FACILITIES WHETHER SHOWN OR NOT SHOWN ON THESE PLANS. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO PROTECT ALL EXISTING FACILITIES FROM DAMAGE DURING CONSTRUCTION. CONTRACTOR SHALL FIELD LOCATE (POTHOLE) ALL UTILITY CROSSINGS A MINIMUM OF THREE (3) DAYS PRIOR TO CONSTRUCTION.
3. ALL PROPERTY LINES AND UTILITIES SHOWN ON THESE PLANS ARE SCHEMATIC IN NATURE.
4. ALL UTILITY LOCATIONS INCLUDING WATER SERVICE LOCATIONS AND ALIGNMENTS AND DEPTHS, WHERE SHOWN, ARE APPROXIMATE. THE CONTRACTOR SHALL POTHOLE USING NON-DESTRUCTIVE MEANS AND SUBMIT WRITTEN FIELD OBSERVATION DRAWINGS OF THE PROPOSED AND EXISTING PIPE ALIGNMENTS AT LEAST FIVE (5) WORKING DAYS AHEAD OF THE PIPE INSTALLATION CREW. REFER TO THE PROJECT MANUAL.
5. THE CONTRACTOR SHALL BE HELD RESPONSIBLE FOR ANY FIELD CHANGES MADE WITHOUT PRIOR WRITTEN AUTHORIZATION FROM THE UNDERSIGNED ENGINEER AND OWNER.
6. THE CONTRACTOR AGREES THAT THEY SHALL ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THIS PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY AND THAT THIS REQUIREMENT SHALL APPLY CONTINUALLY AND NOT BE LIMITED TO NORMAL WORKING HOURS.
7. THE CONTRACTOR IS RESPONSIBLE FOR PROTECTING ALL SURVEY MONUMENTS. ANY MONUMENTS DISCOVERED ARE TO BE REPORTED TO THE OWNER'S REPRESENTATIVE IMMEDIATELY. ANY SURVEY MONUMENTS DISTURBED OUTSIDE THE IMMEDIATE WORK AREA DURING CONSTRUCTION SHALL BE REPLACED BY THE OWNER'S REPRESENTATIVE AT THE CONTRACTOR'S EXPENSE.
8. ALL CONTRACTOR'S REPRESENTATIVES, INCLUDING SUBCONTRACTORS, SHALL HAVE WRITTEN PERMISSION TO ENTER ANY PORTION OF PRIVATE PROPERTY. ALL RESIDENCES SHALL BE GIVEN A MINIMUM OF 24 HOURS, BUT NO MORE THEN 72 HOURS NOTICE, PRIOR TO ENTRY/WORK ON PRIVATE PROPERTY.
9. CONTRACTOR SHALL SUBMIT COMPLETE AND ACCURATE AS-BUILT DRAWINGS.
10. SEPARATION OF WATER AND STORM DRAIN FACILITIES SHALL CONFORM TO THE RULES AND REGULATIONS OF THE UNIFORM PLUMBING CODE AND STATE OF CALIFORNIA STATE WATER RESOURCES CONTROL BOARD.
11. ALL NEW WATER MAIN INSTALLATION SHALL BE OPEN CUT UNLESS ALTERNATIVE METHOD IS APPROVED BY ENGINEER, OR NOTED OTHERWISE.
12. CONTRACTOR SHALL INSTALL A PROJECT SIGN AT LEAST FOUR FEET TALL BY EIGHT FEET WIDE MADE OF 3/4 INCH THICK EXTERIOR GRADE PLYWOOD OR OTHER APPROVED MATERIAL AND SHALL MAINTAIN THE SIGN IN GOOD CONDITION FOR THE DURATION OF THE CONSTRUCTION PERIOD, REFER TO PROJECT MANUAL.
13. ALL TUNNELING UNDER (E) CONC CURB, GUTTER, OR SIDEWALK SHALL BE BACKFILLED WITH SLURRY BACKFILL OR CONC.
14. PER THE REQUIREMENTS OF PUBLIC RESOURCES CODE SECTION 4442, CONTRACTOR'S INTERNAL COMBUSTION ENGINES SHALL BE EQUIPPED WITH AN OPERATIONAL SPARK ARRESTOR, OR THE ENGINE MUST BE EQUIPPED FOR THE PREVENTION OF FIRE.
15. PIPES TO BE ABANDONED SHALL NOT TAKE PLACE UNTIL (N) WATER MAIN AND SERVICES HAVE BEEN FULLY TESTED, APPROVED FOR SERVICE AND CONNECTED.

90% DRAFT

BAR IS ONE INCH ON ORIGINAL DRAWING
IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY

REVISIONS

NO	DATE	DESCRIPTION

PACE ENGINEERING

DES	JLC	CKD	TWW	JOB NO.
DRN	GAF	DATE	12/4/23	2973.03

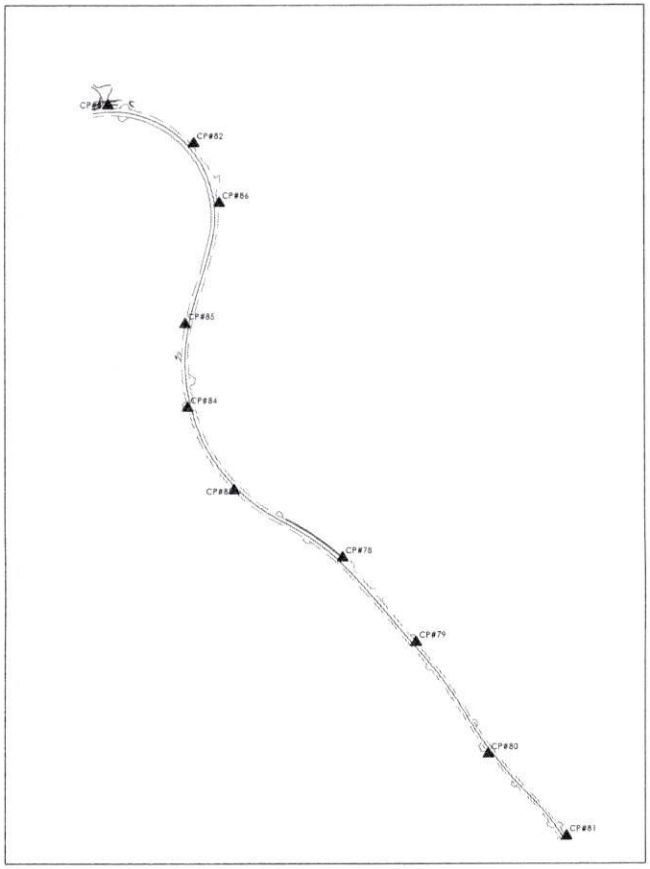
SIGNED

PRELIMINARY NOT FOR CONSTRUCTION

WESTHAVEN COMMUNITY SERVICES DISTRICT
TRINIDAD-WESTHAVEN EMERGENCY INTERTIE PROJECT

LEGEND & NOTES

SHEET
G1.1
PG 2 OF 21



SITE CONTROL
1"=200'

REFER TO SHEETS C2.0 THROUGH C3.3 FOR CONTROL POINT (CP) LOCATIONS.

Point Number	Easting	Northing	Elevation	Raw Desription
78	5979103.48	2270382.39	343.60	CP_MAGNAIL
79	5979350.38	2270101.36	345.6000	CP_MAGNAIL
80	5979589.86	2269729.37	331.9400	CP_MAG8
81	5979849.21	2269454.72	341.1000	CP_MAG8
82	5978608.00	2271762.64	202.0200	CP_3B&PC
83	5978742.21	2270608.60	306.5400	CP_MAG8
84	5978586.64	2270882.22	274.8100	CP_MAGNAIL
85	5978578.62	2271161.70	247.2300	CP_MAG&W
86	5978693.60	2271565.39	209.0400	CP_MAGNAIL
87	5978320.21	2271888.35	209.2900	CP_MAGNAIL

NOTES:
1. A SURVEY WAS CONDUCTED BY PACE ENGINEERING IN JUNE 2023.
2. COORDINATE VALUES SHOWN HEREON ARE BASED ON THE CALIFORNIA COORDINATE SYSTEM OF 1983 (CCS83), ZONE 1, (EPOCH 2017.5).
3. ELEVATIONS SHOWN HEREON ARE BASED ON THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88), (GEOID 12B)

CONTROL POINT INFORMATION

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90% DRAFT

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0 1
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REVISIONS

NO	DATE	DESCRIPTION

PACE ENGINEERING

DES JLC CKD TWW JOB NO. 2973.03
DRN GAF DATE 12/4/23

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WESTHAVEN COMMUNITY SERVICES DISTRICT
TRINIDAD-WESTHAVEN EMERGENCY INTERTIE PROJECT

SITE SURVEY CONTROL

SHEET
G1.2
PG 3 OF 21

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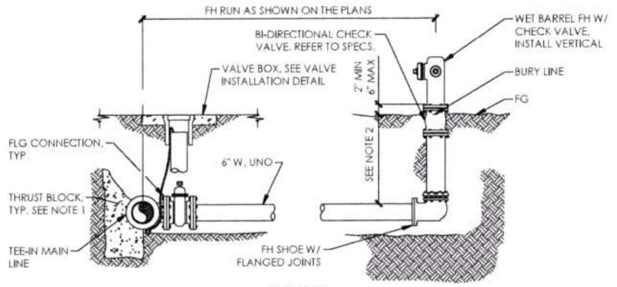
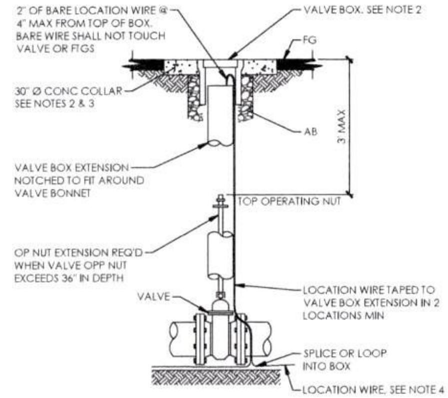
Humboldt County
PLANNING



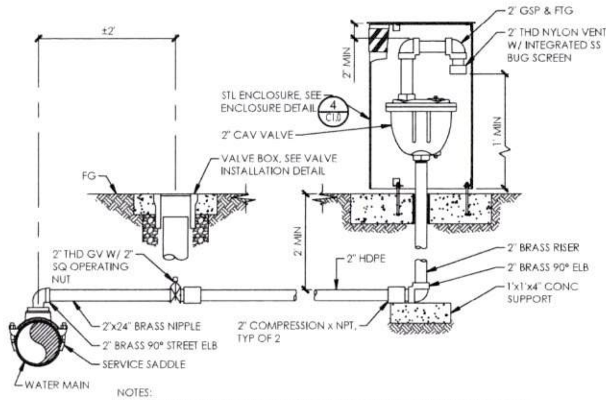
NOTES:
1. ALL FH RUNS SHALL BE RESTRAINED FROM MAIN, UNO. THRUST BLOCKS SHALL ONLY BE USED IN CONFIGURATIONS THAT DO NOT ALLOW RESTRAINED FITTINGS. REFER TO THRUST BLOCK DETAILS.
2. FH BURY DEPTHS VARY DEPENDING ON TOPOGRAPHY FEATURES & (E) UTILITIES. CONTRACTOR SHALL DETERMINE BURY DEPTH OF EACH FH PRIOR TO PROCUREMENT. CONTRACTOR SHALL EXCHANGE FH BARRELS W/ NON-CONFORMING DEPTHS TO OBTAIN THE REQ'D BREAKAWAY CLEARANCE AT NO COST TO OWNER.
3. TWO-WAY BLUE REFLECTOR SHALL BE PLACED 1' OFF C/L OR INLINE WHEN (E) REFLECTORS ARE PRESENT. REFLECTOR SHALL BE LOCATED ON SAME SIDE AS FH, ANCHORED W/ RAPID SET EPOXY & RECESSED AT ELEV ABOVE 500'.
4. MAINTAIN 3' MIN CLEARANCE ALL AROUND HYDRANT.

TYPICAL WET BARREL FLUSHING HYDRANT INSTALLATION (1 / C1.0)
NTS



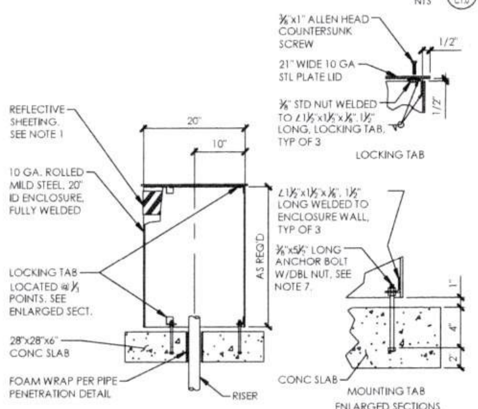
NOTES:
1. SEE THRUST BLOCK DETAILS FOR VALVES 8 IN & LARGER.
2. SET VALVE BOX & COLLAR ½ IN BELOW GRADE IN PAVED AREAS & 2 IN ABOVE GRADE IN ALL OTHER LOCATIONS.
3. CONC COLLAR SHALL BE 12 IN THICK WHERE ANY VEHICULAR TRAFFIC IS EXPECTED & 4 IN THICK IN ALL OTHER LOCATIONS.
4. REFER TO SPEC'S FOR LOCATION OF WIRE.

TYPICAL WATER VALVE INSTALLATION (2 / C1.0)
NTS



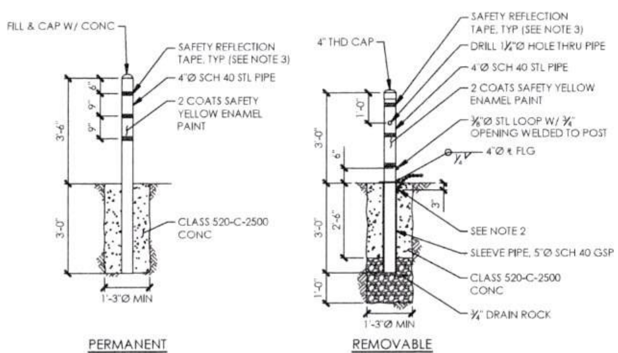
NOTES:
1. PIPELINE FROM SERVICE SADDLE TO AIR VALVE SHALL HAVE A POSITIVE SLOPE.
2. INSTALL A MINIMUM OF 2 BOLLARDS AROUND EVERY CAV, UNO.

CAV DETAIL (3 / C1.0)
NTS



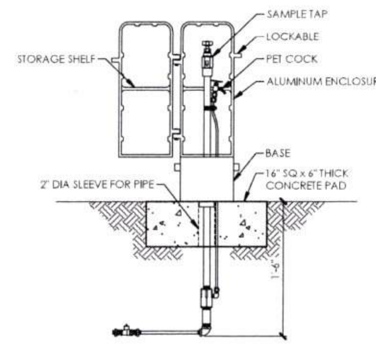
NOTES:
1. REFLECTIVE SHEETING SHALL BE INSTALLED @ TOP OF EXTERIOR SIDEWALL. WRAP SHEETING 360° AROUND ENCLOSURE.
2. ALL ABOVE GRADE PIPING SHALL BE INSULATED.
3. CAV SHALL BE INSULATED WITH A FLEXIBLE INSULATION COVER.
4. ALL HARDWARE SHALL BE GALVANIZED.
5. ALL METAL SURFACES NOT GALVANIZED SHALL BE POWDERCOATED OLIVE GREEN.
6. BOLTS SHALL BE CAST-IN PLACE OR POST INSTALLED IN SIMPSON SET 36 (ICC REPORT 4057) OR HILTI H4-200 (ICC REPORT 3187) ADHESIVE.

ENCLOSURE DETAIL (4 / C1.0)
NTS



NOTES:
1. PERMANENT BOLLARDS SHALL BE INSTALLED, UNO.
2. HARD-TEMPERED ZINC PLATED STL CHAIN. 12" LENGTH, ⅜"Ø W/ 1½" OPENING, 3" TO BE PARTIALLY CAST IN CONCRETE & WELDED TO SLEEVE.
3. 3" WIDE BLUE REFLECTOR TAPE SHALL BE USED FOR FIRE PROTECTION DEVICES. 1" WIDE SAFETY REFLECTION TAPE SHALL BE USED AT ALL OTHER LOCATIONS. TAPE SHALL BE SUITABLE FOR ALL WEATHER, & CHEMICAL & ABRASION RESISTANT.

BOLLARD (5 / C1.0)
NTS



NOTES:
1. FIXED BACTERIOLOGICAL SAMPLING STATIONS ARE REQUIRED BY "CALIFORNIA WATERWORKS STANDARDS, TITLE 22". THE ESTABLISHMENT OF REPRESENTATIVE SAMPLE POINTS IS ESSENTIAL TO ASSURE THAT THE SAMPLING REULTS FOUND ARE GIVING A TRUE INDICATION OF THE BACTERIOLOGICAL QUALITY OF THE WATER SUPPLIED THROUGHOUT THE DISTRIBUTION SYSTEM.

SAMPLE STATION (6 / C1.0)
NTS

90% DRAFT

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REVISIONS		
NO	DATE	DESCRIPTION

PACE ENGINEERING

DES JLC	CKD TWW	JOB NO. 2973.03
DRN GAF	DATE 12/4/23	

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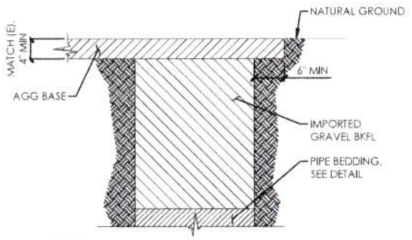
PRELIMINARY NOT FOR CONSTRUCTION

WESTHAVEN COMMUNITY SERVICES DISTRICT
TRINIDAD-WESTHAVEN EMERGENCY INTERTIE PROJECT

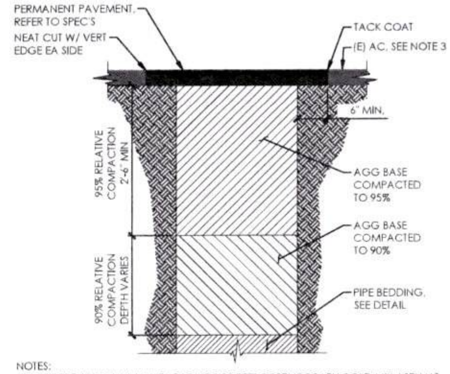
DETAILS

SHEET
C1.0



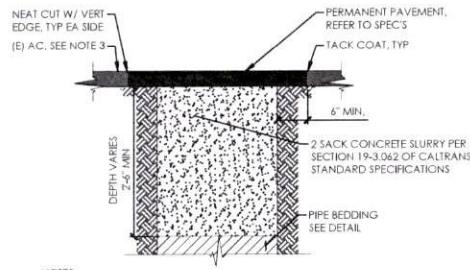
NOTES:
1. CLASS "A1" SHALL BE USED IN GRAVELED SHOULDERS, ALLEYS, UNDER CONC. UNPAVED DRIVEWAYS, & AT OTHER LOCATIONS DESIGNATED BY THE ENGR.

CLASS "A1" BACKFILL DETAIL (1 / C1.1)
NTS



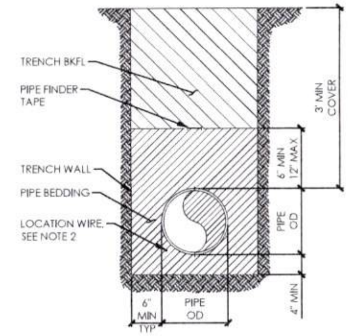
NOTES:
1. THE TRENCH SHALL HAVE AT LEAST 0.25 FEET OF TEMPORARY COLD MIX ASPHALT BEFORE OPENING ROAD TO TRAFFIC.
2. FOR ITEMS NOT SHOWN, SEE ISSUED HUMBOLDT COUNTY ENCROACHMENT PERMIT.
3. ALL MATERIALS SHALL COMPLY WITH CALTRANS STANDARD SPECIFICATIONS, CURRENT EDITION.
4. IF GROUNDWATER IS ENCOUNTERED DURING TRENCH ESCAVATION, ENGINEER AND THE COUNTY DEPARTMENT OF PUBLIC WORKS SHALL BE CONSULTED FOR SITE SPECIFIC CORRECTIVE MEASURES.
5. WHERE REMAINING UNDAMAGED PAVING IS LESS THAN 2 FT WIDE AFTER TRENCHING, REMOVE & REPLACE PAVEMENT TO EDGE OF (E) PAVING AT FULL THICKNESS.
6. TYPE I BKFL SHALL BE USED IN ALL PAVED AREAS, UNO.
7. FOR UNDERMINED OR DAMAGE TO ADJACENT PAVEMENT, REFER TO SPEC'S.

HUMBOLDT COUNTY TYPE I BACKFILL (2 / C1.1)
NTS



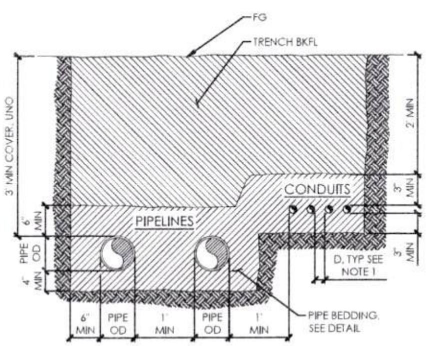
NOTES:
1. THE TRENCH SHALL HAVE AT LEAST 0.25 FEET OF TEMPORARY COLD MIX ASPHALT BEFORE OPENING ROAD TO TRAFFIC.
2. FOR ITEMS NOT SHOWN, SEE ISSUED HUMBOLDT COUNTY ENCROACHMENT PERMIT.
3. ALL MATERIALS SHALL COMPLY WITH CALTRANS STANDARD SPECIFICATIONS, CURRENT EDITION.
4. IF GROUNDWATER IS ENCOUNTERED DURING TRENCH EXCAVATION, ENGINEER AND THE COUNTY DEPARTMENT OF PUBLIC WORKS SHALL BE CONSULTED FOR SITE SPECIFIC CORRECTIVE MEASURES.
5. HUMBOLDT COUNTY TYPE II BKFL SHALL BE USED IN MAJOR ROADS WHERE PIPELINE IS PERPENDICULAR TO THE ROAD OR WHERE DESIGNATED ON THE PLAN. TYPE II BKFL MAY BE USED WITH ENGINEER APPROVAL AT OTHER LOCATIONS IN LIEU OF TYPE I BKFL.
6. INSTALL SLURRY MIX BKFL TO SURFACE. AFTER SLURRY MIX HAS SET SCALP OFF AS REQ'D TO INSTALL PERMANENT PAVEMENT.
7. FOR UNDERMINED OR DAMAGE TO ADJACENT PAVEMENT, REFER TO SPECS

HUMBOLDT COUNTY TYPE II BACKFILL (3 / C1.1)
NTS



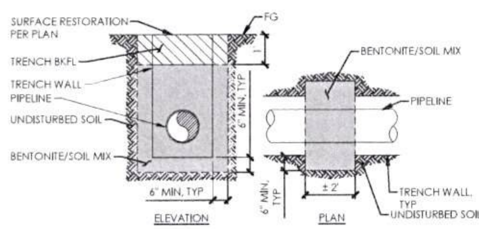
NOTES:
1. FOR 2 PIPES IN COMMON TRENCH, MAINTAIN 12 IN CLEARANCE BETWEEN PIPES & 6 IN MIN BETWEEN PIPES & TRENCH WALL.
2. REFER TO SPEC'S FOR LOCATION OF WIRE. WIRE REQ'D FOR WATER PIPING & PRESSURE SEWERS ONLY. ALL LOCATION WIRE SPLICES SHALL BE PERFORMED W/ WATER PROOF CONNECTORS, REFER TO SPEC'S.

PIPE BEDDING DETAIL (4 / C1.1)
NTS



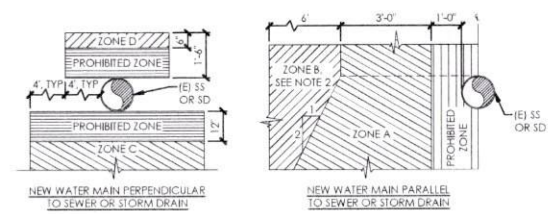
NOTES:
1. D = 3" MIN FOR 2" & LARGER CONDUIT, D = 2" MIN FOR 1 1/2" & SMALLER CONDUIT.

ON SITE MULTIPLE PIPE TRENCH DETAIL (5 / C1.1)
NTS



NOTES:
1. INSTALL TRENCH CUTOFFS WHERE SLOPES EXCEED 3%.
2. TRENCH CUTOFFS SHALL BE INSTALLED AT EVERY 4 FEET OF VERTICAL DROP IN ELEVATION ALONG THE SURFACE GRADE OF THE TRENCH, UNO.
3. TRENCH CUTOFFS SHALL BE OF BENTONITE/SOIL MIXTURE. BENTONITE/SOIL MIXTURE SHALL CONSIST OF 8 PERCENT (BY WEIGHT) POWDERED BENTONITE MIXED WITH SELECT NATIVE SOIL PER THE BENTONITE MANUFACTURER'S RECOMMENDATIONS. BENTONITE/SOIL MIXTURE SHALL BE COMPACTED IN PLACE TO 90 PERCENT MINIMUM RELATIVE COMPACTION.
4. TRENCH CUTOFFS SHALL BE INSTALLED IN PIPE BEDDING ZONE IN BOTH TYPE 1 & 2 BACKFILL.

TRENCH CUTOFF DETAIL (6 / C1.1)
NTS



ZONE	REQUIREMENTS
PROHIBITED	(N) CONSTRUCTION IS PROHIBITED W/IN THIS AREA
A	(N) CONSTRUCTION W/IN THIS AREA SHALL HAVE PRIOR WRITTEN APPROVAL FROM BOTH DDW & THE ENGR
B	(N) CONSTRUCTION W/IN THIS AREA SHALL BE DIP W/ COMPRESSION JTS OR PVC W/ RUBBER RING JTS (ASTM D3034)
C	(N) CONSTRUCTION SHALL BE DIP, DR 14 PVC, OR HDPE (C906-99) & HAVE NO JTS W/IN 8 FT FROM EITHER SIDE OF SEWER MAIN
D	(N) CONSTRUCTION SHALL BE DIP, DR 14 PVC, OR HDPE (C906-99) & HAVE NO JTS W/IN 4 FT FROM EITHER SIDE OF SEWER MAIN

NOTES:
1. CONTRACTOR SHALL REPORT AREAS NOT SHOWN ON PLANS THAT REQUIRE WATER MAIN PLACEMENT W/IN ZONES A, B, C, OR D TO THE ENGR. THESE ZONES REQUIRE STATE WATER RESOURCES CONTROL BOARD, DIVISION OF DRINKING WATER APPROVAL PRIOR TO INSTALLATION.
2. ZONE B REQUIREMENTS DO NOT APPLY WHEN PARALLEL TO (E) STORM DRAIN.

SEPARATION OF WATER MAIN FROM SEWER AND STORM DRAIN PIPELINES (7 / C1.1)
NTS

90% DRAFT

BAR IS ONE INCH ON ORIGINAL DRAWING
IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY

REVISIONS

NO	DATE	DESCRIPTION

PACE ENGINEERING

DES	JLC	CKD	TWW	JOB NO.
DRN	GAF	DATE	12/4/23	29/3.03

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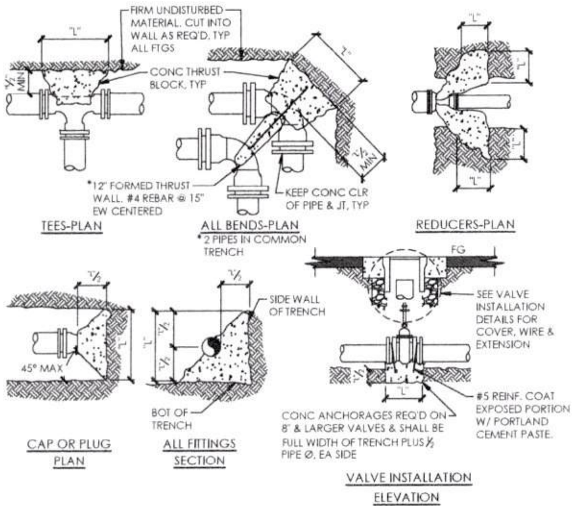
TRINIDAD-WESTHAVEN EMERGENCY INTERTIE PROJECT

DETAILS

SHEET
C1.1



NOTES:

1. THRUST BLOCKS SHALL BE PROVIDED @ ALL BURIED PIPE FTGS OF 4 IN Ø OR LARGER, UNO. THRUST BLOCK SIZE IS BASED ON PIPE SIZE, 150 PSI TEST PRESSURE, & SOIL BEARING OF 1200 LB/FT². DIM "L" IN TABLE 1 IS BOTH A VERT & HORIZ DIM, UNO. IF PIPE COVER IS LESS THAN 30 IN, INCREASE HORIZ "L" PROPORTIONALLY (I.E., INCREASED HORIZ "L" = (30"/DEPTH) x "L").
2. USE OF RESTRAINED FTG IN LIEU OF THRUST BLOCK MAY REQUIRE PIPE JTS TO BE RESTRAINED UP & DOWNSTREAM OF FTG. WHERE CONTR PROPOSES TO USE A RESTRAINED FTG IN LIEU OF A THRUST BLOCK, CONTR SHALL COORDINATE W/ ENGINEER TO DETERMINE NUMBER OF PIPE JTS TO BE RESTRAINED.
3. THRUST BLOCKS SHALL BE INSTALLED IN PRESENCE OF OWNER OR THEIR REPRESENTATIVE.

THRUST BLOCK DETAILS (1 / C1.2)
NTS

TABLE 1

STD THRUST BLOCK MIN DIM "L" IN INCHES

NOMINAL PIPE Ø INCHES	FTGS: TEE, WYE, OR PLUG	90° BEND	45° BEND	22½° BEND	11¼° BEND	REDUCER (BASED ON LARGEST Ø)	VALVE
4"	18	22	16	11	8	–	–
6"	26	31	23	16	12	–	–
8"	34	41	30	21	15	17	12
10"	42	50	37	26	19	21	12
12"	50	59	44	31	22	25	16
14"	58	68	50	36	26	30	16
16"	66	78	57	41	29	33	18
18"	73	87	64	46	33	37	REQUIRES
20"	81	97	71	51	36	41	SPECIAL
24"	97	115	85	61	43	49	DESIGN

NOTES:

1. INCREASE ALL DIMS IN TABLE 1 BY 10% TO ALLOW FOR INCREASE IN PRESSURE TO 175 PSI.

TABLE 2

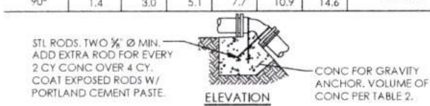
VERT FTG THRUST BLOCKS

WHERE VERT BENDS ARE DIRECTED W/ THRUST TOWARD BOT OF THE TRENCH, BENDS SHALL HAVE THRUST BLOCKS PER HORIZ BENDS EXCEPT CONC SHALL BEAR AGAINST TRENCH BOT.

WHERE VERT BENDS ARE DIRECTED W/ THRUST TOWARD TOP OF TRENCH, BENDS SHALL BE INSTALLED PER THE FOLLOWING DETAIL. MIN ROD EMBED SHALL BE 30" FOR 12" & SMALLER PIPE & 36" FOR 14" & LARGER PIPE.

CY CONC FOR VERT FTGS (SEE DETAIL BELOW)

BEND ANGLE	PIPE Ø: 4"	6"	8"	10"	12"	14"	16" & OVER
11¼°	0.2	0.4	0.7	1.1	1.5	2.0	REQUIRES SPECIAL DESIGN
22½°	0.4	0.8	1.4	2.1	3.0	4.0	
45°	0.8	1.6	2.8	4.2	5.9	7.9	
90°	1.4	3.0	5.1	7.7	10.9	14.6	



ELEVATION

THRUST BLOCK TABLES (2 / C1.2)
NTS

TABLE 3

SIZE	PIPE FITTING	MIN. RESTRAINED PIPE LENGTH (FT)
10"	TEE	6
10"	90° ELB	30
10"	45° ELB	13
10"	11.25° ELB	5
10"x6"	TEE	5
8"	TEE	5
8"	90° ELB	25
8"	45° ELB	11
8"	11.25° ELB	5
8"	CAP	80
8"x6"	TEE	5
8"x4"	TEE	5
6"	TEE	5
6"	90° ELB	19
6"	45° ELB	8
6"	11.25° ELB	5
6"	CAP	60
6"x4"	TEE	5
4"	TEE	5
4"	90° ELB	14
4"	45° ELB	6
4"	11.25° ELB	5
4"	CAP	45

NOTE:

1. TEST PRESSURE = 150 PSI.
2. DEPTH OF BURY = 3 FT.
3. TEE RESTRAINT LENGTH VALUES REFLECT THE LENGTH OF PIPE ALONG THE BRANCH WHERE ALL FITTINGS AND JOINTS SHALL BE RESTRAINED. THE RESTRAINT LENGTH ALONG THE BRANCH WAS CALCULATED ASSUMING 10 LF OF RESTRAINED JOINTS EACH WAY ALONG THE PIPE RUN, UNO. RESTRAINED PIPE LENGTH ALONG THE BRANCH WILL CHANGE AS RESTRAINED LENGTH ALONG THE PIPE RUN CHANGES. CONTRACTOR SHALL SUBMIT CALCULATIONS TO ENGINEER FOR APPROVAL IF RESTRAINED PIPE LENGTH ALONG THE RUN IS GREATER THAN OR LESS THAN 10 LF.

RESTRAINT LENGTH TABLES FOR PIPE JOINTS AND FITTINGS (3 / C1.2)
NTS

TABLE 4

SIZE	MINIMUM BEND RADIUS, R (FT)	MAXIMUM END OFFSET, Z (FT)
4"	150	1.3
6"	215	0.9
8"	285	0.6
10"	350	0.5

PVC ALLOWABLE BENDING RADIUS 20' LENGTHS (4 / C1.2)
NTS

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0 1"
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NO	DATE	DESCRIPTION

PACE ENGINEERING

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DRN GAF | DATE 12/4/23

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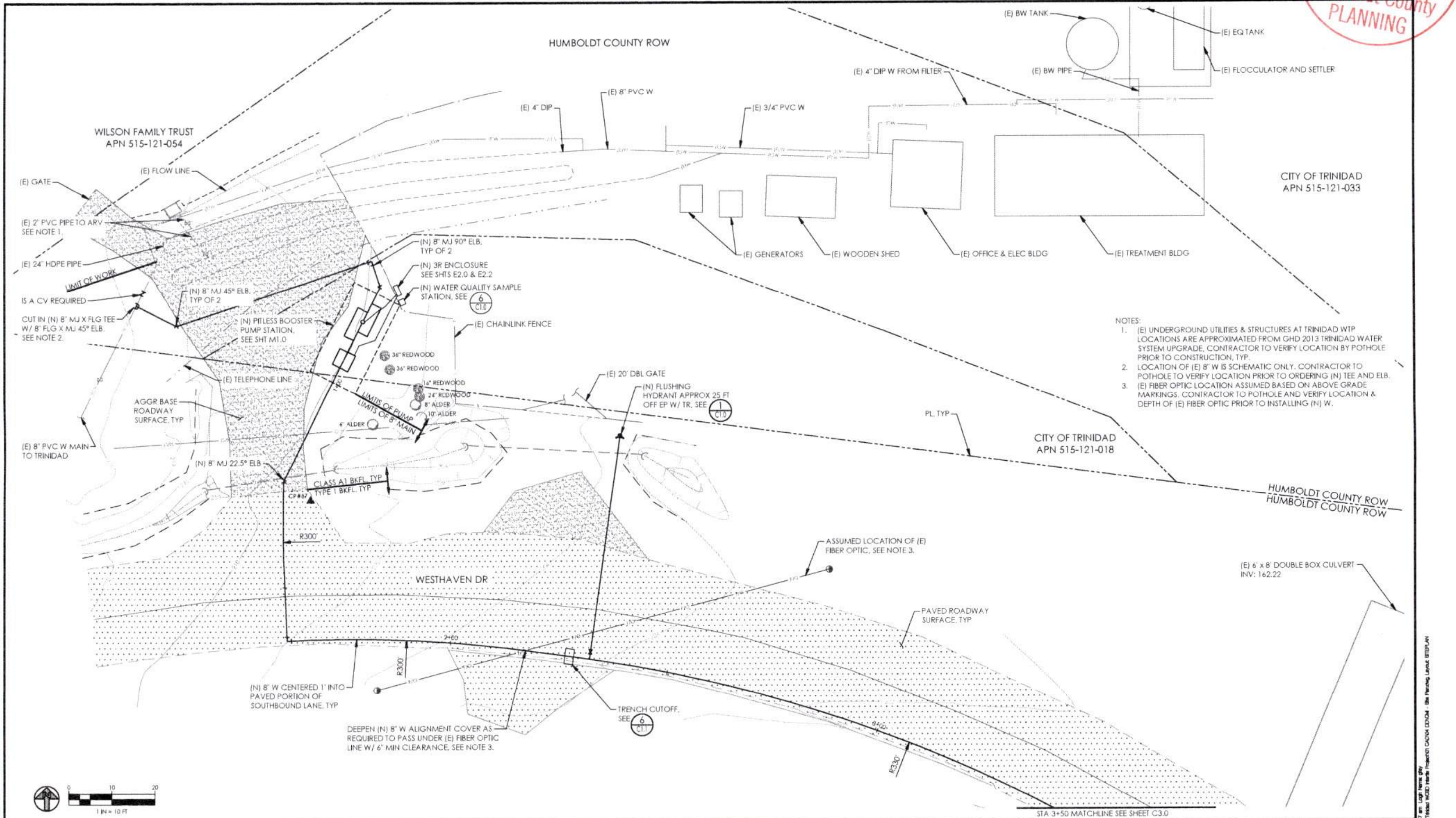
TRINIDAD-WESTHAVEN EMERGENCY INTERTIE PROJECT

DETAILS

SHEET
C1.2



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TRINIDAD-WESTHAVEN EMERGENCY INTERTIE PROJECT

SITE PLAN

SHEET

C2.0

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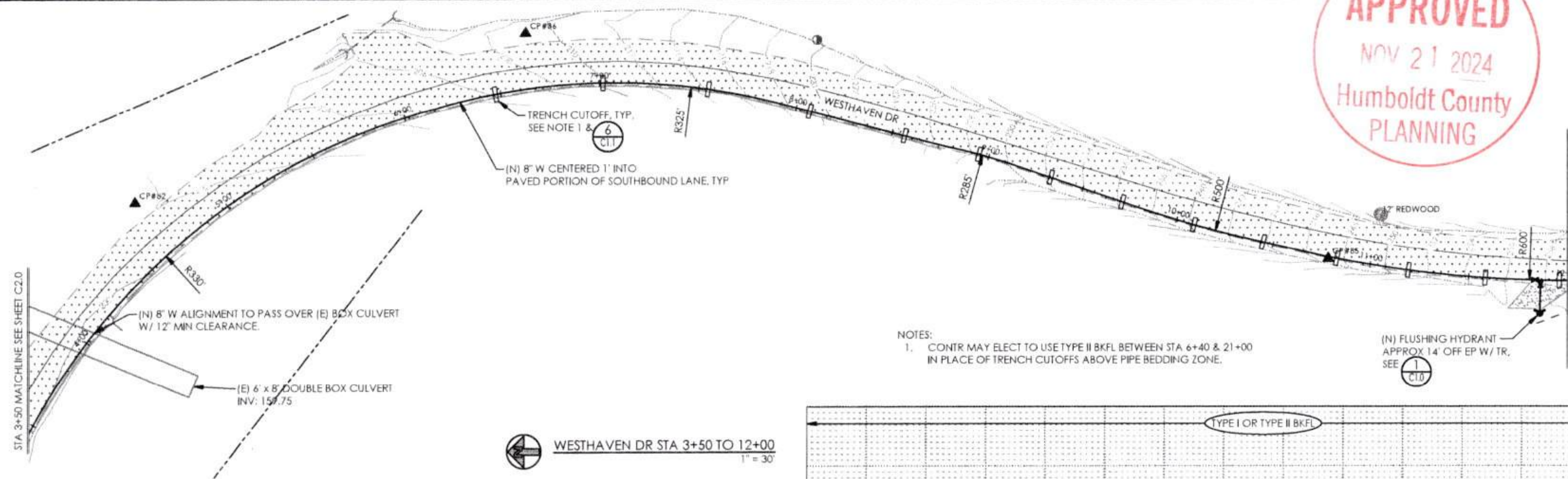
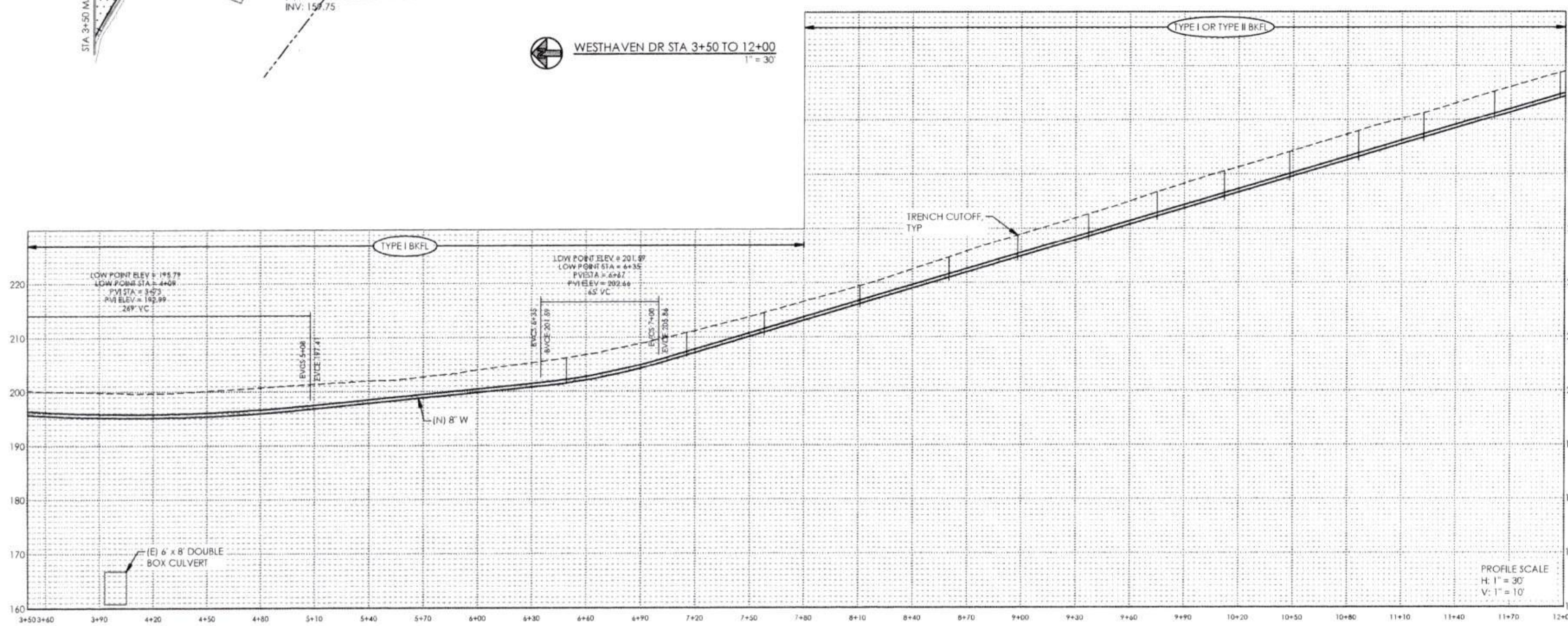


NOTES:

1. CONTR MAY ELECT TO USE TYPE II BKFL BETWEEN STA 6+40 & 21+00 IN PLACE OF TRENCH CUTOFFS ABOVE PIPE BEDDING ZONE.

WESTHAVEN DR STA 3+50 TO 12+00
1" = 30'



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PACE ENGINEERING

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DRN GAF DATE 12/4/23 2973.03

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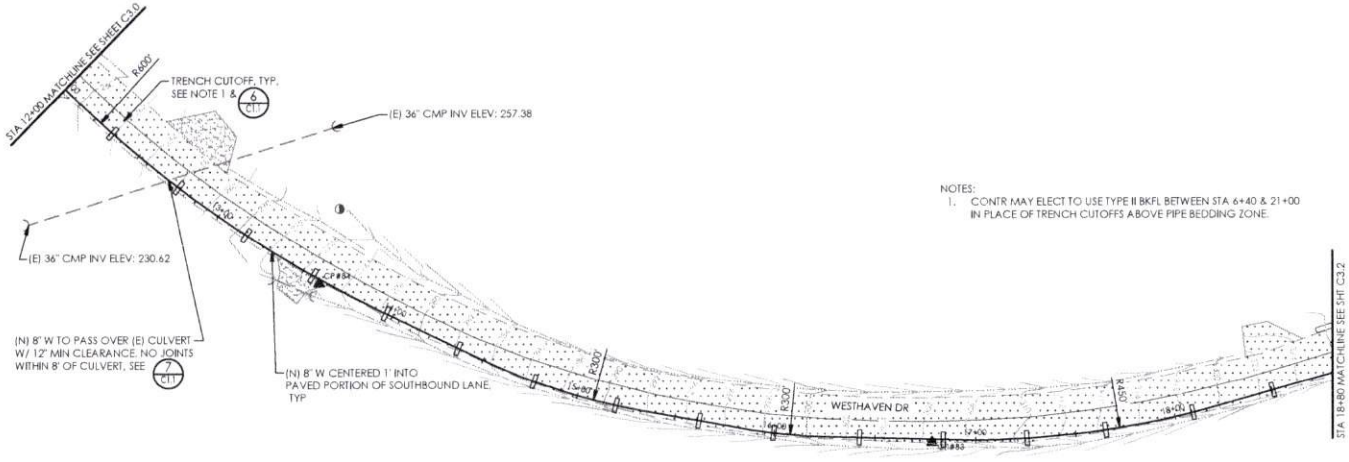
TRINIDAD-WESTHAVEN EMERGENCY INTERTIE PROJECT

WESTHAVEN DR STA 3+50 TO STA 12+00

SHEET
C3.0



NOTES:
1. CONTR MAY ELECT TO USE TYPE II BKFL BETWEEN STA 6+40 & 21+00 IN PLACE OF TRENCH CUTOFFS ABOVE PIPE BEDDING ZONE.

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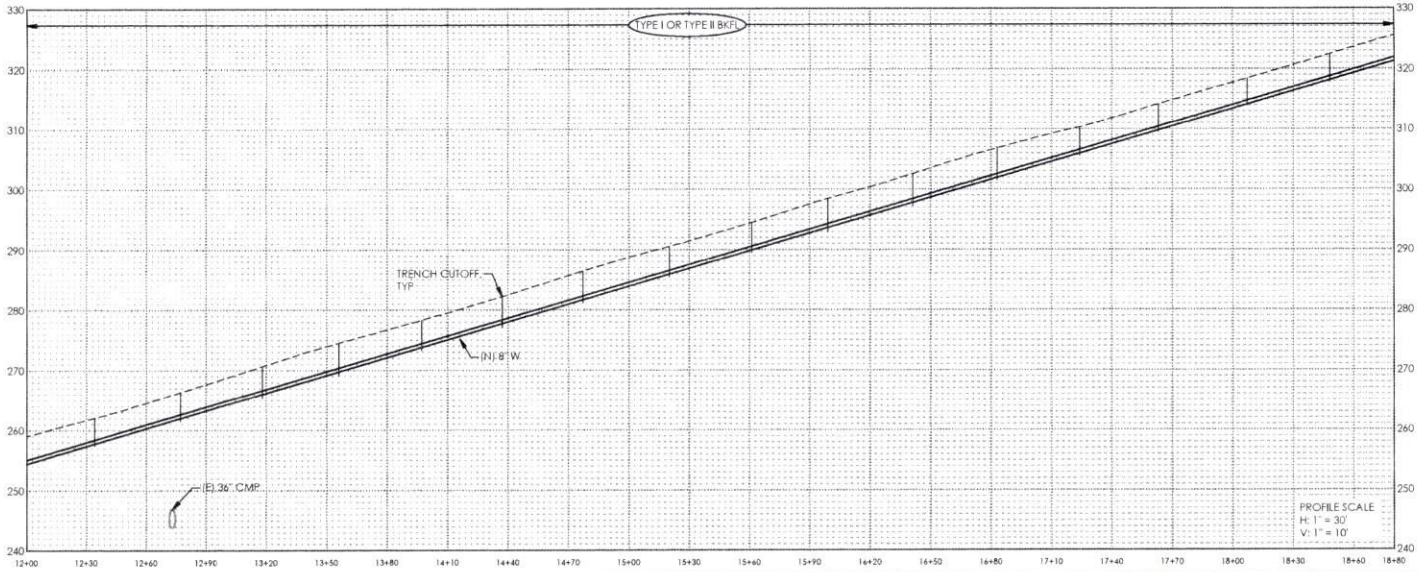
WESTHAVEN DR STA 12+00 TO 18+80
1" = 30'



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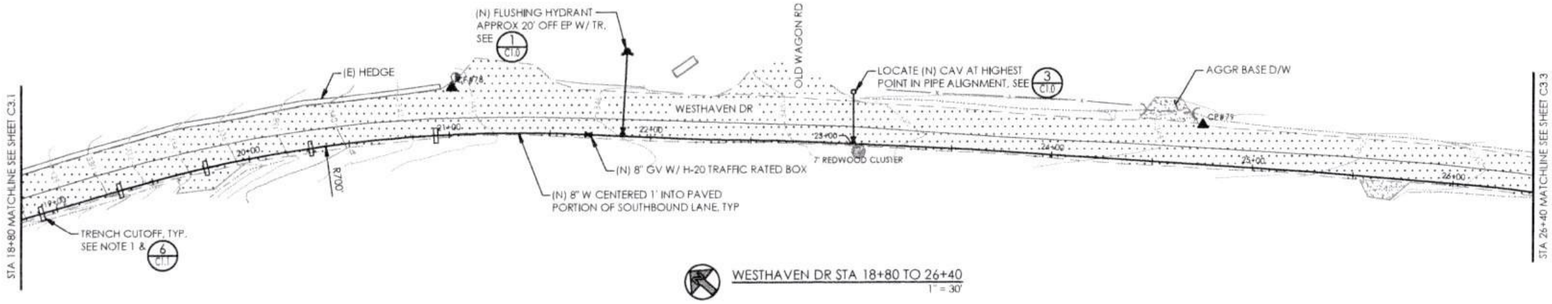
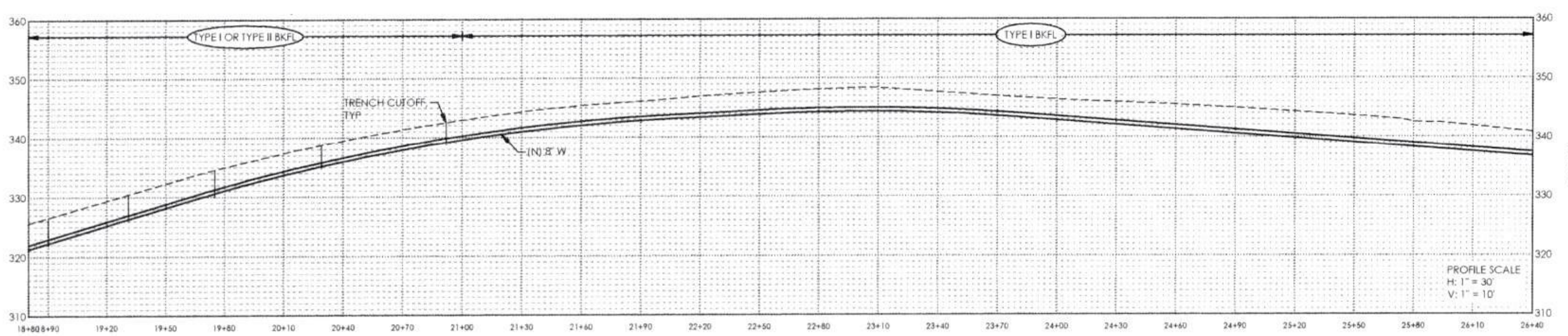
TRINIDAD-WESTHAVEN EMERGENCY INTERTIE PROJECT

WESTHAVEN DR STA 12+00 TO STA 18+80

SHEET
C3.1
PG 9 OF 21



NOTES:
1. CONTR MAY ELECT TO USE SLURRY BACKFILL BETWEEN STA 6+40 & 21+00 IN PLACE OF TRENCH CUTOFFS ABOVE PIPE BEDDING ZONE.



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WESTHAVEN DR STA 18+80 TO 26+40

SHEET C3.2

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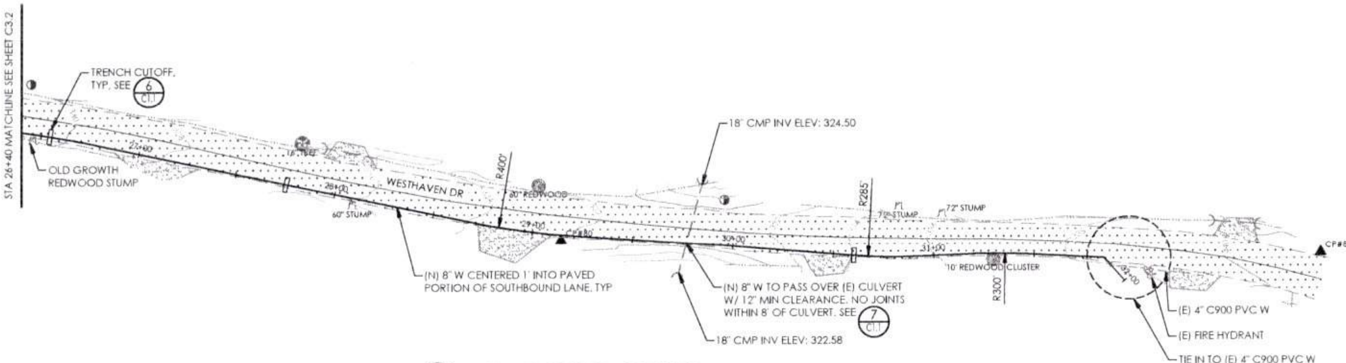
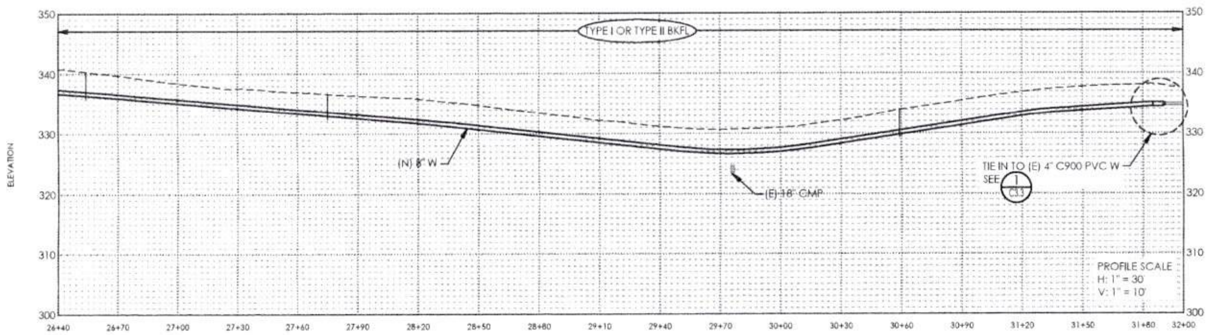
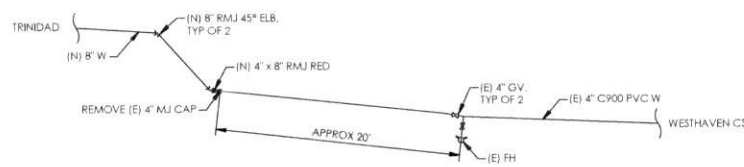


WESTHAVEN DR STA 26+40 TO 32+00
1" = 30'





CONNECTION DETAIL 1/C3.3
NTS

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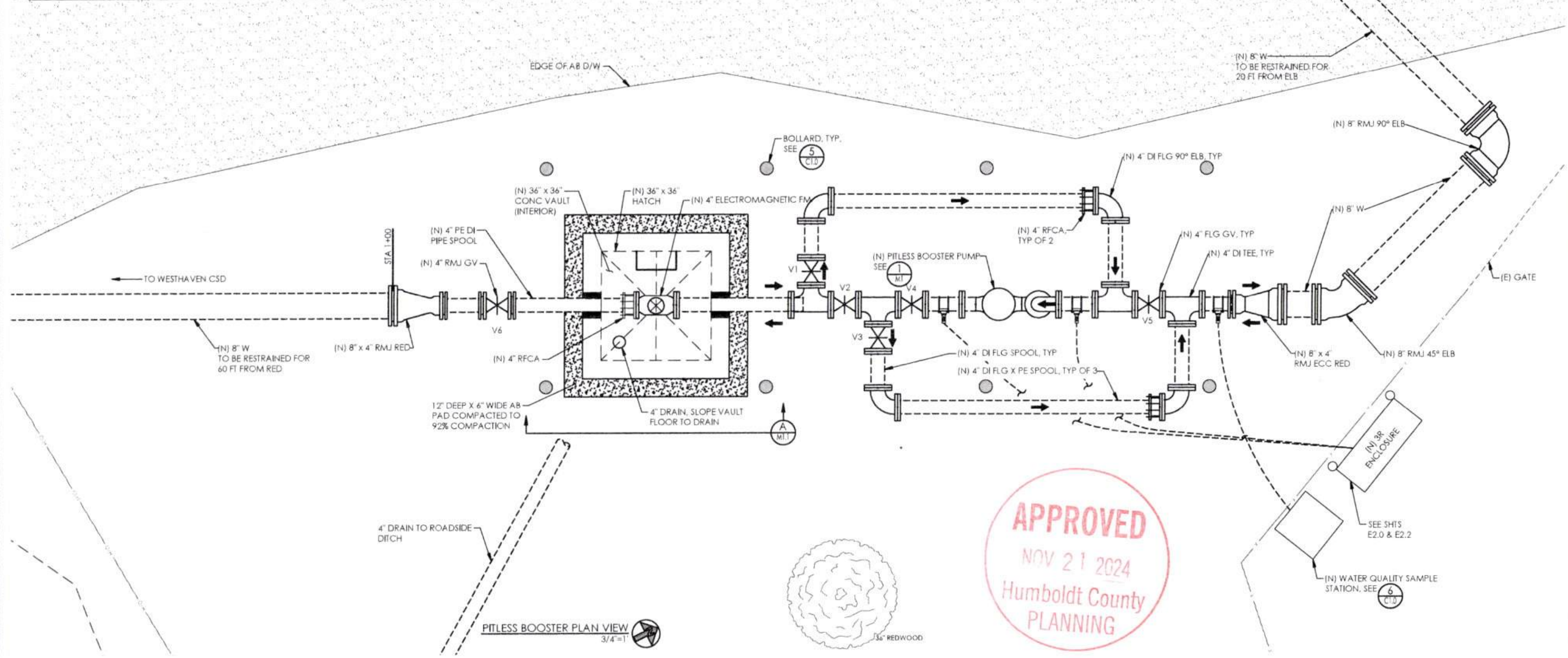
WESTHAVEN DR STA 26+40 TO STA 32+00

SHEET
C3.3
PG 11 OF 21

VALVE	VALVE POSITION WHEN		
	PUMPING TO WCSD	GRAVITY FLOW TO TRINIDAD	PUMPING TO TRINIDAD
1	X	O	O
2	O	O	X
3	X	O	O
4	O	X	O
5	O	O	X
6	O	O	O

NOTES:
X = CLOSED VALVE
O = OPEN VALVE



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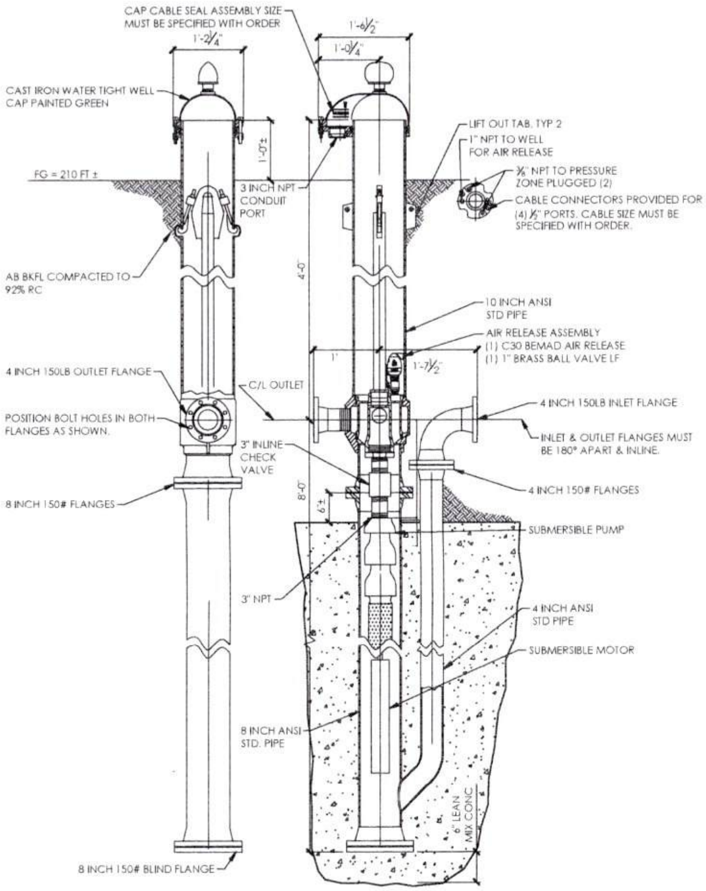
TRINIDAD-WESTHAVEN EMERGENCY INTERTIE PROJECT

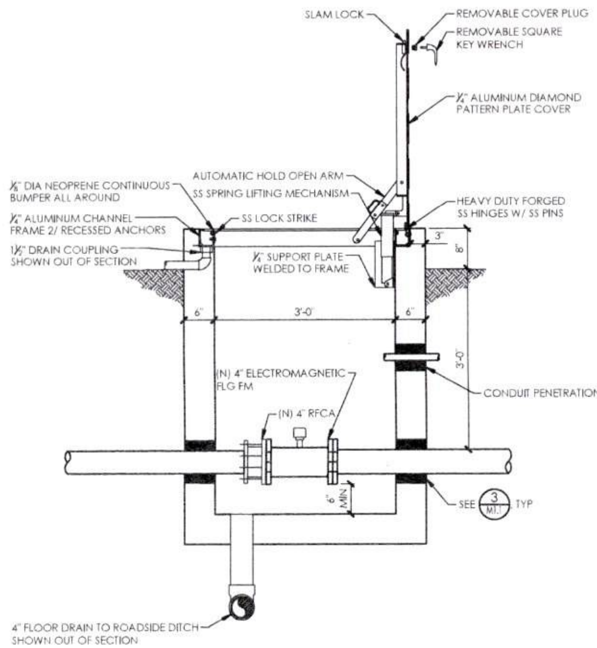
PITLESS BOOSTER PUMP MECHANICAL

SHEET
M1.0

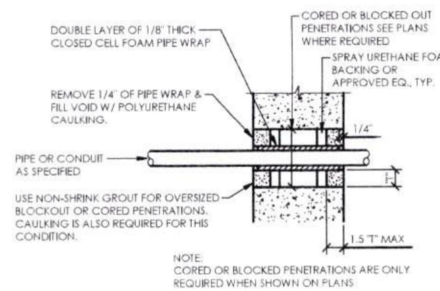


PITLESS BOOSTER (1/M1.1) M1.0
NTS

NOTES:
1. FLANGES ARE PER ANSI B16.5
2. BACKFILL PITLESS BOOSTER STATION WITH LEAN MIX CONCRETE.
3. CONTRACTOR TO VERIFY DIMENSION.



ELECTROMAGNETIC FLOW METER VAULT (2/M1.1) M1.0
NTS



PIPES THROUGH CONCRETE (3/M1.1)
1" = 1'-0"

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TRINIDAD-WESTHAVEN EMERGENCY INTERTIE PROJECT

PITLESS BOOSTER PUMP DETAIL

SHEET
M1.1

ELECTRICAL SYMBOLS

LINE TYPES AND SYMBOLS		CONDUIT EXPOSED			
		CONDUIT CONCEALED or BURIED			
		INDICATES FIRE RATED WALL			
		CONDUIT UP			
		CONDUIT DOWN			
	LA-2	HOME RUN-DESTINATION SHOWN			
TICK MARKS		TICK MARKS W/BARS INDICATES NUMBER OF #10 CONDUCTORS WITH #10 GROUND			
		TICK MARKS WITHOUT BARS INDICATES NUMBER OF #12 CONDUCTORS WITH #12 GROUND			
		"L" INDICATES 0-10V DIMMING CABLE. "SE" INDICATES CAT5E CABLE. "CL" INDICATES 0-10V DIMMING AND COLOR TUNING CABLE.			
DEVICES, BOXES AND TERMINATIONS		JUNCTION BOX			
		CONNECTION POINT (CONTRACTOR SHALL DETERMINE CONNECTION CONFIGURATION)			
		LOW VOLTAGE DEVICE BOX			
		DUPLEX RECEPTACLE			
		QUADRUPLEX RECEPTACLE			
		EMERGENCY RECEPTACLE			
		CONTROLLED SPLIT DUPLEX RECEPTACLE			
		QUADRUPLEX RECEPTACLE: (1) CONTROLLED SPLIT DUPLEX RECEPTACLE, (1) DUPLEX RECEPTACLE			
		SINGLE OR THREE PHASE RECEPTACLE, SEE PLAN SHEETS TYPE PER LOCATION			
	FB	FLOOR BOX			
		HAND HOLE			
		PULLBOX			
		MAGNETIC STARTER W/ NEMA SIZE INDICATED			
EQUIPMENT		FUSED DISCONNECT	XXA/XXF XX	60AS/20F WP	60A DISCONNECT / 20A FUSE NEMA 3R
		NON-FUSED DISCONNECT	XX XX	60AS/20F WP	60A DISCONNECT NEMA 3R
		MAJOR ELECTRICAL COMPONENT OR DEVICE NAME OR IDENTIFYING SYMBOL AS SHOWN			
		SURFACE MOUNT PANELBOARD			
		FLUSH MOUNT PANELBOARD			
		EXOTHERMIC WELD, TERMINATION OR SPLICE POINT			
		GROUND ROD			
		GROUNDING ELECTRODE			
		CIRCUIT BREAKER			
		CURRENT TRANSFORMER, NUMBER INDICATED			
ANNOTATION		KEYNOTE			
	(A : B)	INDICATES INTERCONNECTION OF PATHWAYS AND/OR CONDUCTORS, E.G., 4"C-4#500,1#3G (MSB : PNL A) INDICATES CONDUIT AND CONDUCTORS ROUTED FROM THE MAIN SWITCHBOARD TO PANELBOARD A.			
	26 00 00	SPECIFICATION NUMBER REFERENCE TAG. CONFORMANCE TO PROJECT SPECIFICATIONS IS REQUIRED. WHERE TAGS ARE SHOWN ON THE DRAWINGS, IT IS THE ENGINEER'S INTENT TO RAISE ADDITIONAL AWARENESS TO PRODUCTS OR EXECUTION METHODS THAT ARE CRITICAL, ATYPICAL OR NOT EXPRESSLY DETAILED ON THE DRAWINGS.			

DEVICE BOXES SHALL BE 18" C.O.D. UNLESS OTHERWISE NOTED.

NOTE: THIS IS A SUPPLEMENTAL STANDARD ELECTRICAL LEGEND. SOME SYMBOLS MAY APPEAR ON THIS LEGEND AND NOT ON THE PLANS. SEE LIGHTING CONTROL SHEET FOR LIGHTING LEGEND.

ELECTRICAL ABBREVIATIONS

A	- AMMETER, AMPERE
AC	- ALTERNATING CURRENT
ACH	- ABOVE COUNTER HEIGHT
AFCI	- ARC FAULT CIRCUIT INTERRUPT
AFF	- ABOVE FINISHED FLOOR OR GRADE
AIC	- AMPS INTERRUPTING CAPACITY
AL	- ALUMINUM
ATS	- AUTOMATIC TRANSFER SWITCH
BGES	- BUILDING GROUND ELECTRODE SYSTEM
BRKR	- BREAKER
BOD	- BOTTOM OF DEVICE
C or COND	- CONDUIT
CAB	- CABINET
CEC	- CALIFORNIA ELECTRIC CODE
CKT	- CIRCUIT
COD	- CENTER OF DEVICE
CR	- CONTROLLED RECEPTACLE
CT	- CURRENT TRANSFORMER
DC	- DIRECT CURRENT
(E) or EXIST	- EXISTING
EFB	- EQUIPMENT EMERGENCY BRANCH
EEOR	- ELECTRICAL ENGINEER OF RECORD
EGC	- EQUIPMENT GROUNDING CONDUCTOR
ENC	- ENCLOSURE
(F)	- FUTURE
G	- EQUIPMENT GROUNDING CONDUCTOR
GEC	- GROUNDING ELECTRODE CONDUCTOR
GFCI	- GROUND FAULT CIRCUIT INTERRUPT
GND	- GROUND
J	- JUNCTION BOX
LCP	- LIGHTING CONTROL PANEL
LTG	- LIGHTING
MBJ	- MAIN BONDING JUMPER
MCB	- MAIN CIRCUIT BREAKER
MFR	- MANUFACTURER
MLO	- MAIN LUG ONLY
MOCP	- MAXIMUM OVERCURRENT PROTECTION
MSB	- MAIN SWITCH BOARD
MTS	- MANUAL TRANSFER SWITCH
NEC	- NATIONAL ELECTRIC CODE
NEMA	- NATIONAL ELECTRIC MANUFACTURER'S ASSOCIATION
N	- NEUTRAL
(N)	- NEW
OFCI	- OWNER FURNISHED, CONTRACTOR INSTALLED
OFOI	- OWNER FURNISHED, OWNER INSTALLED
PB	- PULLBOX
PNL	- PANELBOARD
RCPT	- RECEPTACLE
SWBD	- SWITCHBOARD
SBJ	- SYSTEM BONDING JUMPER
SSBJ	- SUPPLY SIDE BONDING JUMPER
SP	- STARTER PANEL
T	- THERMOSTAT OR TELE CONDUIT
TOD	- TOP OF DEVICE
TR	- TAMPER
TYP	- TYPICAL
V	- VOLTMETER, VOLT
W	- WATT
WW	- WIREWAY
WP	- WEATHERPROOF (NEMA 3R)
XFMR	- TRANSFORMER

NOTE: THIS IS A SUPPLEMENTAL STANDARD LEGEND. SOME SYMBOLS OR ABBREVIATIONS MAY APPEAR ON THIS LEGEND AND NOT ON THE PLANS.

COMPLY WITH APPLICABLE CODES

#	CODE

NOTE: USE LATEST EDITION OF LISTED CODES.

1. NFPA 30: FLAMMABLE AND COMBUSTIBLE LIQUIDS.
2. NFPA 37: STATIONARY ENGINES.
3. NFPA 54: FUEL GAS CODE.
4. NFPA 58: LIQUEFIED PETROLEUM GAS.
5. NFPA 72: FIRE ALARM AND SIGNALLING CODE.
6. NFPA 110: EMERGENCY AND STANDBY POWER.
7. NFPA 111: STANDBY POWER SYSTEMS.
8. CALIFORNIA BUILDING CODE.
9. CALIFORNIA ELECTRIC CODE.
10. CALIFORNIA ENERGY CODE.
11. CALIFORNIA FIRE CODE.

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DRN. JMI	DATE 11/16/23		

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Trinidad-Westhaven Emergency Intertie Project

ELECTRICAL SYMBOLS AND ABBREVIATIONS

SHEET

E1.0

PG 14 OF 21

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KEYNOTES

	NOTE
1.	MODIFY EXISTING PANEL AS INDICATED ON SCHEDULE.
2.	PROVIDE AND INSTALL NEW CIRCUIT BREAKER IN EXISTING PANEL SPACES. NEW BREAKER SHALL BE OF THE SAME TYPE AND RATING AS THE EXISTING BREAKERS. RELABEL PANEL SCHEDULE AS SHOWN.

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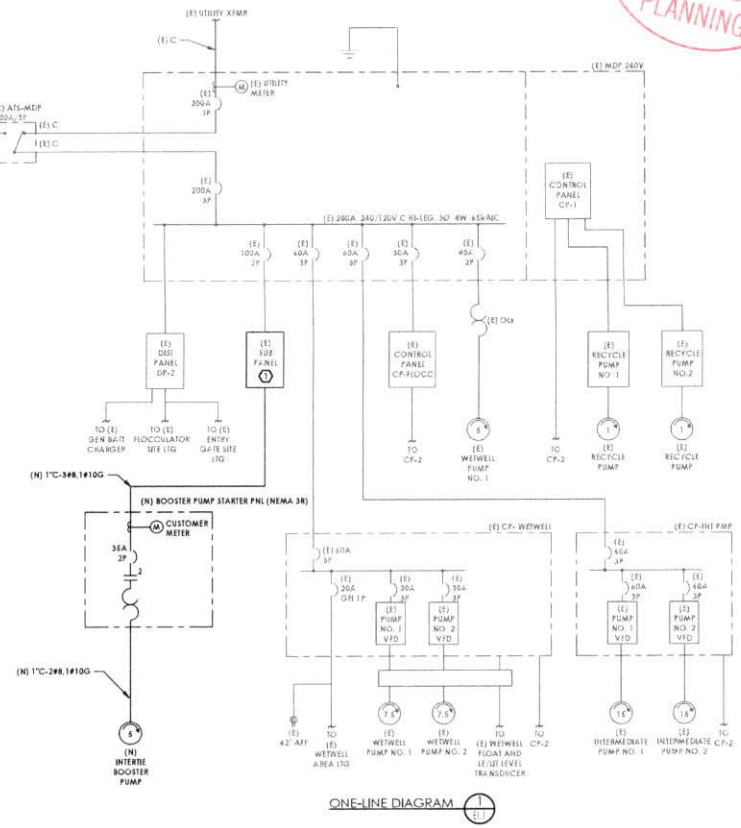
(E) BRANCH PANEL — SUB PANEL

LOCATION	ELEC ROOM	VOLTS	120/240 SINGLE	AIC RATING	10,000
MOUNTING TYPE	SURFACE	WIRES	3	BUS RATING	100 A
ENCLOSURE TYPE	NEMA 1	CIRCUITS	30	MAIN BREAKER	MLO

(LABEL PANELBOARDS ACCORDING TO NAMING CONVENTIONS LISTED IN ELECTRICAL SPECIFICATIONS)

CKT	HOME RUN	LOAD NAME	TRIP	INT TYPE	A	B	A	B	INT TYPE	TRIP	LOAD NAME	HOME RUN	CKT
1	(E)	(E) PLANT RCPTS	20 A	--	500 VA		500 VA		--	20 A	(E) DIALER	(E)	2
3	(E)	(E) OFFICE LIGHTS	20 A	--		500 VA		500 VA	--	20 A	(E) WET WELL LIGHTS	(E)	4
5	(E)	(E) OFFICE RCPTS	20 A	--	500 VA		0 VA			20 A	SPARE		6
7	(E)	(E) OFFICE RCPTS	20 A	--		500 VA		0 VA		20 A	SPARE		8
9	(E)	(E) PLC CONTROLS	20 A	--	500 VA		0 VA			20 A	SPARE		10
11	(E)	(E) BASEBOARD HEATER	20 A	--		250 VA		0 VA		20 A	SPARE		12
13					250 VA		0 VA			20 A	SPARE		14
15	(E)	(E) RECYCLE FLOWMETER & CONTROL	20 A	--		500 VA		0 VA		20 A	SPARE		16
17		SPARE	20 A		0 VA		0 VA			20 A	SPARE		18
19		SPACE	--			--		**3360 VA**		**35 A**	**(N) BOOSTER PUMP STARTER PNL**	**(N) 1"C-3#8, 1#10G**	**20** (2)
21		SPACE	--		--		**3360 VA**		--				**22**
23		SPACE	--			--		--		--	SPACE		24
25		SPACE	--		--		--			--	SPACE		26
27		SPACE	--			--		--		--	SPACE		28
29		SPACE	--		--		--			--	SPACE		30
					PHASE A		PHASE B		Notes:				
		TOTAL LOAD (VA)			**5610 VA**		**5610 VA**						
		TOTAL LOAD (AMPS)			**47**		**47**						



ONE-LINE DIAGRAM (1 / E1.1)

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ONE-LINE DIAGRAM

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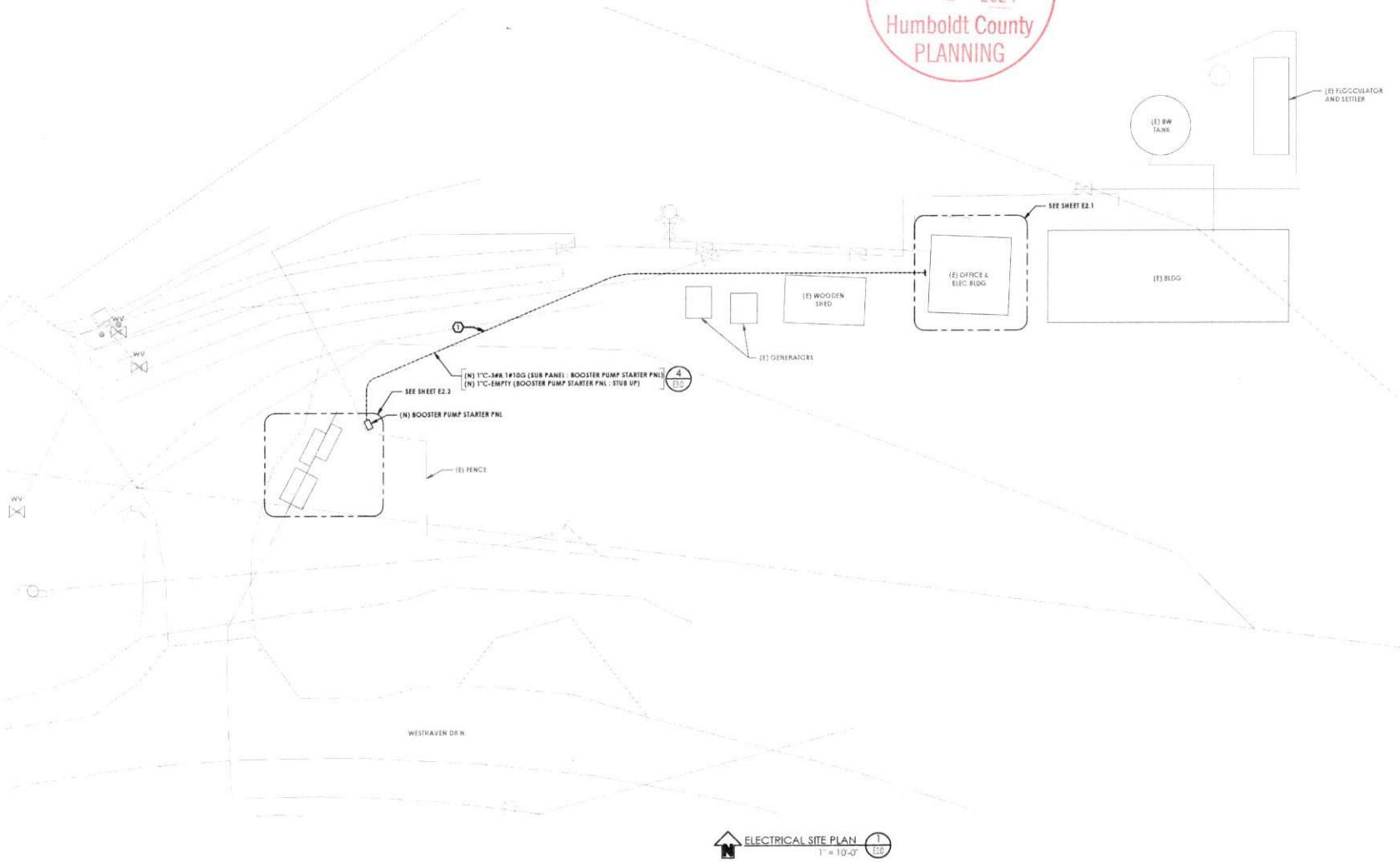
KEYNOTES	
⓪	NOTE
1.	CONTRACTOR SHALL POTHOLE ENTIRE ALIGNMENT TO FIND EXISTING UTILITIES



ELECTRICAL SITE PLAN 1
1" = 10'-0" E2.0

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DRN. JMI	DATE 11/16/23	2973.03

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ELECTRICAL SITE PLAN

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PG 16 OF 21

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KEYNOTES

NOTE
1. STUB CONDUIT 1'-0" ABOVE GRADE ON THE OUTSIDE OF THE BUILDING IN THE LOCATION SHOWN. PROVIDE AND INSTALL GALVANIZED UNISTRUT AND CONDUIT CLAMP AT A MINIMUM OF ONE LOCATION TO SUPPORT CONDUIT. AFTER INSTALLATION, CAP CONDUIT FOR FUTURE USE.
2. PROVIDE AND INSTALL CONDUIT/CONDUCTORS FROM SUB PANEL TO THE LOCATION SHOWN ON THE EXTERIOR OF THE BUILDING. PENETRATE WALL AT MAXIMUM 2' AFF. USING AN LB CONDULET. SUPPORT AT A MINIMUM OF TWO LOCATIONS UTILIZING GALVANIZED UNISTRUT AND CONDUIT CLAMPS. PAINT SURROUNDING WALL TO MATCH EXISTING, AND SEAL PENETRATION WITH APPROVED SEALANT OR CAULK.
3. PROVIDE AND INSTALL APPROVED CONDUIT SEALING BUSHING AT LOCATION SHOWN.

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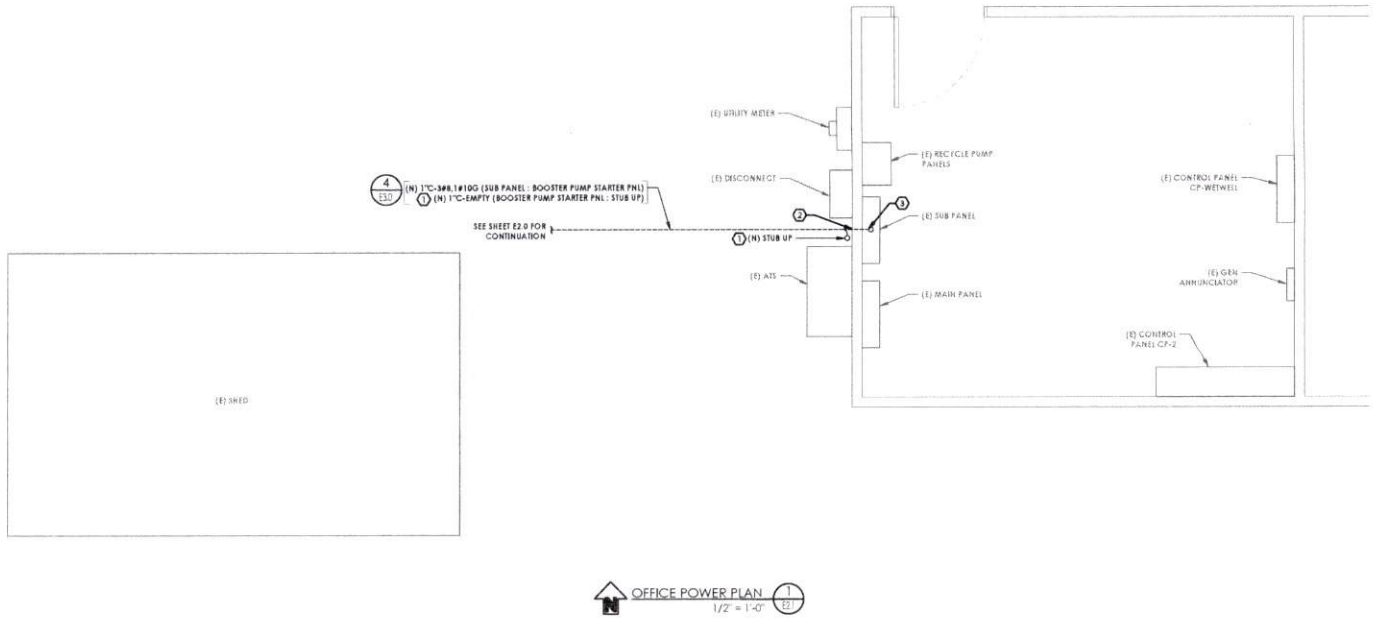

N OFFICE POWER PLAN 1/2" = 1'-0" 1 / E2.1

90% DRAFT

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REVISIONS		
NO.	DATE	DESCRIPTION

PACE ENGINEERING

DES. JMS	CKD. BGe	JOB NO.
DRN. JMS	DATE 11/16/23	2973.03

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Trinidad-Westhaven Emergency Intertie Project

OFFICE POWER PLAN

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E2.1
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KEYNOTES
NOTE
1. PROVIDE AND INSTALL APPROVED CONDUIT SEALING BUSHING AT LOCATION SHOWN.

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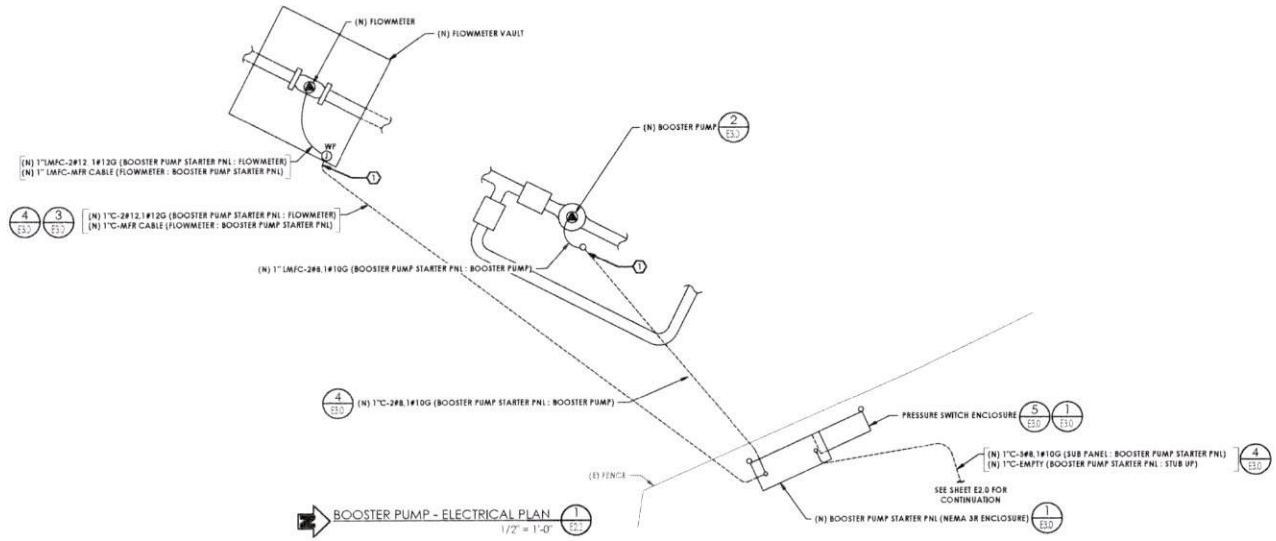

BOOSTER PUMP - ELECTRICAL PLAN 1 E2.1
1/2" = 1'-0"

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REVISIONS		
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PACE ENGINEERING®

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DRN. JMI	DATE 11/16/23	2973.03

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BOOSTER PUMP - ELECTRICAL PLAN

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E2.2
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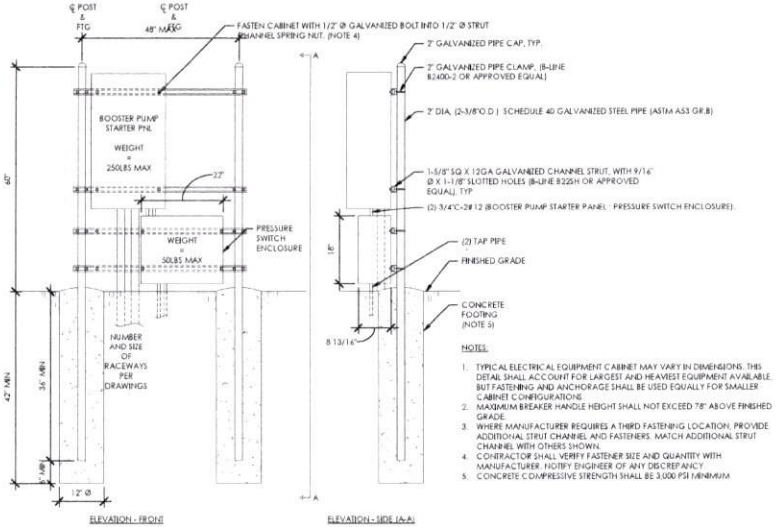
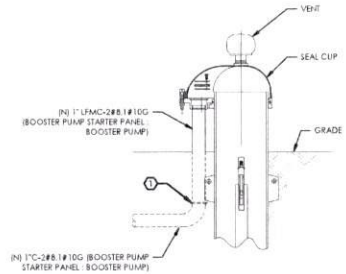
KEYNOTES	
⓪	NOTE
1.	PROVIDE AND INSTALL APPROVED CONDUIT SEALING BUSHING IN PVC CONDUIT. STUB FLEXIBLE CONDUIT ABOVE GRADE FOR CONNECTION TO BOOSTER PUMP SEAL CUP.



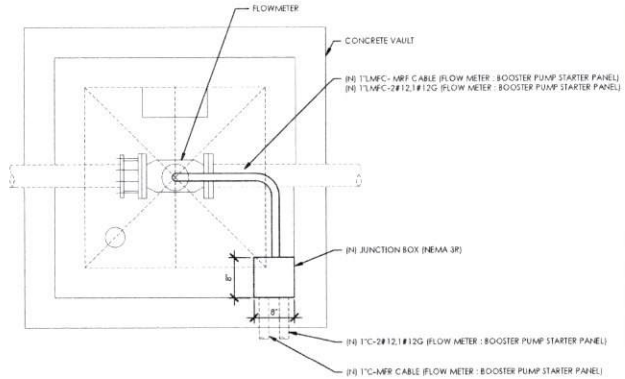
NOTES:

1. TYPICAL ELECTRICAL EQUIPMENT CABINET MAY VARY IN DIMENSIONS. THIS DETAIL SHALL ACCOUNT FOR LARGEST AND HEAVIEST EQUIPMENT AVAILABLE BUT FASTENING AND ANCHORAGE SHALL BE USED EQUALLY FOR SMALLER CABINET CONFIGURATIONS.
2. MAXIMUM BREAKER HANDLE HEIGHT SHALL NOT EXCEED 78" ABOVE FINISHED GRADE.
3. WHERE MANUFACTURER REQUIRES A THIRD FASTENING LOCATION, PROVIDE ADDITIONAL STRUT CHANNEL AND FASTENERS. MATCH ADDITIONAL STRUT CHANNEL WITH OTHERS SHOWN.
4. CONTRACTOR SHALL VERIFY FASTENER SIZE AND QUANTITY WITH MANUFACTURER. NOTIFY ENGINEER OF ANY DISCREPANCY.
5. CONCRETE COMPRESSIVE STRENGTH SHALL BE 3,000 PSI MINIMUM.

PANEL MOUNTING ASSEMBLY 1 E3.0 — NTS

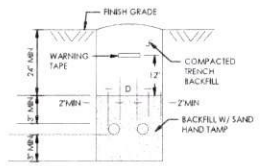


PITLESS BOOSTER PUMP CONNECTION 2 E3.0 — NTS



NOTE:
CONDUIT PENETRATION OF VAULT SHALL BE 24" BELOW GRADE. SEAL PENETRATION WITH APPROVED SEALANT OR CAULK.

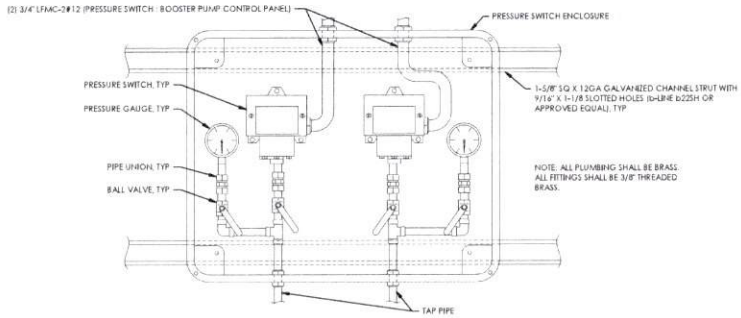
CONDUIT VAULT PENETRATION 3 E3.0 — NTS



NOTES:

1. D=3" MIN FOR 2" AND LARGER CONDUIT.
2. D=2" MIN FOR 1 1/2" AND SMALLER CONDUIT.
3. CONDUIT DETAIL FOR LESS THAN 4 RACEWAYS PER TRENCH.
4. DUCT RUNS WITH 5 OR MORE CONDUITS SHALL EMPLOY DUCT SPACERS.

RACEWAY - UNDERGROUND CONDUIT 4 E3.0 — NTS



PRESSURE SWITCH MOUNTING 5 E3.0 — NTS

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PACE ENGINEERING

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DRN. JME	DATE 11/16/23	2973.03

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Trinidad-Westhaven Emergency Intertie Project

ELECTRICAL DETAILS

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INSTRUMENTATION SYMBOLS

	CONDUIT EXPOSED
	CONDUIT CONCEALED OR BURIED
5 HP	MOTOR, HORSEPOWER INDICATED
	CONVENIENCE RECEPTACLE, DUPLEX UNLESS SPECIFIED OTHERWISE
30	NON-FUSED DISCONNECT, SIZE INDICATED 3-POLE UNLESS INDICATED OTHERWISE
60/40 F	FUSED DISCONNECT, SIZE INDICATED (60/40, 60=SWITCH RATING; 40=FUSE RATING) 3-POLE UNLESS INDICATED OTHERWISE
2	STARTER MAGNETIC, NEMA SIZE INDICATED
2	COMBINATION MAGNETIC STARTER, NEMA SIZE INDICATED
	CONTACT-NORMALLY OPEN W/ NEMA SIZE INDICATED AS APPLICABLE
	CONTACT-NORMALLY CLOSED W/ NEMA SIZE INDICATED AS APPLICABLE
TDOE	TIME DELAY RELAY CONTACT, TIMED TO CLOSE
TDOE	TIME DELAY RELAY CONTACT, TIMED TO OPEN
	REMOTE DEVICE
XX	RELAY COIL: CR=CONTROL RELAY TDR=TIME DELAY RELAY
	OVERLOAD RELAY, E=ELECTRONIC
	MAGNETIC STARTER W/ NEMA SIZE INDICATED
100A	CIRCUIT BREAKER, MAGNETIC TRIP ONLY, FRAME SIZE SHOWN, 3-POLE UNLESS INDICATED OTHERWISE
400	CIRCUIT BREAKER, THERMAL MAGNETIC TRIP SHOWN, 3-POLE UNLESS INDICATED OTHERWISE
100	SWITCH-CURRENT RATING INDICATED, 3-POLE UNLESS INDICATED OTHERWISE
	LIGHTNING ARRESTOR
	FUSE
	GROUNDED SHIELD CONNECTION
	GROUND
120V 240/480V	TRANSFORMER, SECONDARY VOLTAGES, PHASE AND RATING INDICATED AS APPLICABLE
	PUSH BUTTON SWITCH, NORMALLY OPEN
	PUSH BUTTON SWITCH, NORMALLY CLOSED
	PUSH-TO-TEST INDICATING LIGHT / LETTER INDICATES COLOR: A=AMBER, B=BLUE, C=CLEAR, G=GREEN, R=RED, W=WHITE
H O A	SELECTOR SWITCH-MAINTAINED CONTACT: X=CLOSED CONTACT POSITION
	MOTOR SPACE HEATER
	FLOW SWITCH OPENS ON INCREASE IN FLOW
	FLOW SWITCH CLOSES ON INCREASE IN FLOW
	FLOAT SWITCH OPENS ON RISING LEVEL
	FLOAT SWITCH CLOSES ON RISING LEVEL
	PRESSURE OR VACUUM SWITCH OPENS ON RISING PRESSURE
	PRESSURE OR VACUUM SWITCH CLOSES ON RISING PRESSURE
	TEMPERATURE SWITCH OPENS ON RISING TEMPERATURE
	TEMPERATURE SWITCH CLOSES ON RISING TEMPERATURE
	RTU/PLC DISCRETE OUTPUT
	RTU/PLC DISCRETE INPUT
DPM3	ELECTRICALLY OPERATED VALVE S-SOLENOID M-MOTORIZED
DPM3	ELECTRICALLY OPERATED 3-WAY VALVE S-SOLENOID M-MOTORIZED
	MOTOR
	FLOW TRANSMITTER
	LEVEL TRANSMITTER: RANGE INDICATED

NOTE:
1. THIS IS A SUPPLEMENTAL STANDARD INSTRUMENTATION LEGEND. SOME SYMBOLS MAY APPEAR ON THIS LEGEND AND NOT ON THE PLANS.

INSTRUMENTATION ABBREVIATIONS

A	- AMMETER, AMPERE
AC	- ALTERNATING CURRENT
AIC	- ANALYZER INDICATING CONTROLLER
AIR	- AIR OR AIR COMPRESSOR
AIT	- ANALYZER INDICATING TRANSMITTER
B	- BLOWER
BFCV/S	- SOLENOID BUTTERFLY CONTROL VALVE
BFV/M	- MOTORIZED BUTTERFLY CONTROL VALVE
BFV/P	- PNEUMATIC BUTTERFLY CONTROL VALVE
BV	- BALL VALVE
BV/M	- MOTORIZED BALL VALVE
BV/S	- SOLENOID BALL VALVE
BW	- BACKWASH
C	- CONTACTOR/CONDUIT
CB	- CIRCUIT BREAKER
CBL	- CABLE
CKT	- CIRCUIT
COMP	- COMPRESSOR
CON	- CONVEYOR
COND	- CONDUIT
CP	- CONTROL PANEL
CPT	- CONTROL PANEL TRANSFORMER
CR	- CONTROL RELAY
DC	- DIRECT CURRENT
DI	- DIGITAL INPUT
DO	- DISSOLVED OXYGEN OR DIGITAL OUTPUT
DPT	- DIFFERENTIAL PRESSURE TRANSMITTER
DS	- DOOR SWITCH
(E) or EXIST	- EXISTING
EF	- EXHAUST FAN
ENC	- ENCLOSURE
ETM	- ELAPSED TIME METER
F or FAN	- FAN
FIT	- FLOW INDICATING TRANSMITTER
FS	- FLOW SWITCH
FU	- FUSE
G	- GROUND
GFI	- GROUND FAULT CIRCUIT INTERRUPT
H	- HEATER OR HEAT TRACE
HS	- HAND SWITCH
L	- LINE POWER
LA	- LIGHTNING ARRESTOR
LS	- LEVEL SWITCH OR LIMIT SWITCH
LIT	- LEVEL INDICATING TRANSMITTER
M	- MOTOR OR FLOW METER ELEMENT
MCC	- MOTOR CONTROL CENTER
MFR	- MANUFACTURER
N	- NEUTRAL
NA	- NON-AUTOMATIC
NEC	- NATIONAL ELECTRIC CODE
NEMA	- NATIONAL ELECTRIC MANUFACTURER'S ASSOCIATION
OIT	- OPERATOR INTERFACE TERMINAL
OL	- OVERLOAD RELAY
P	- PUMP
PB	- PULL BOX
PIT	- PRESSURE INDICATING TRANSMITTER
PLC	- PROGRAMMABLE LOGIC CONTROLLER
PNL	- PANELBOARD
PS	- PRESSURE SWITCH
PV/M	- MOTORIZED PLUG VALVE
QL	- INDICATING LIGHT
RECEPT	- RECEPTACLE
RTU	- REMOTE TELEMETRY UNIT
RW	- RECYCLE WATER
SPD	- SURGE PROTECTION DEVICE
SV	- SOLENOID VALVE
SW	- SWITCH
T	- TELE CONDUIT OR TURBIDIMETER
TDR	- TIME DELAY RELAY
TS	- THERMOSTAT OR TEMPERATURE SWITCH
TT	- TEMPERATURE INDICATING TRANSMITTER
TYP	- TYPICAL
UH	- UNIT HEATER
UIT	- ULTRAVIOLET TRANSMITTANCE TRANSMITTER
UPS	- UNINTERRUPTIBLE POWER SUPPLY
UV	- ULTRAVIOLET
UVT	- ULTRAVIOLET TRANSMITTANCE
V	- VOLTMETER, VOLT
VFD	- VARIABLE FREQUENCY DRIVE
VIT	- VACUUM INDICATING TRANSMITTER
W	- WATT
WIT	- WEIGHT INDICATING TRANSMITTER
WP	- WEATHERPROOF (NEMA 4)
XFMR	- TRANSFORMER
ZS	- ZERO SPEED SWITCH

NOTE: THIS IS A SUPPLEMENTAL STANDARD LEGEND. SOME SYMBOLS OR ABBREVIATIONS MAY APPEAR ON THIS LEGEND AND NOT ON THE PLANS

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NO	DATE	DESCRIPTION

PACE ENGINEERING

DES. JMS	CKD. BGe	JOB NO.
DRN. JMS	DATE 11/16/23	2973.03

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INSTRUMENTATION SYMBOLS AND ABBREVIATIONS

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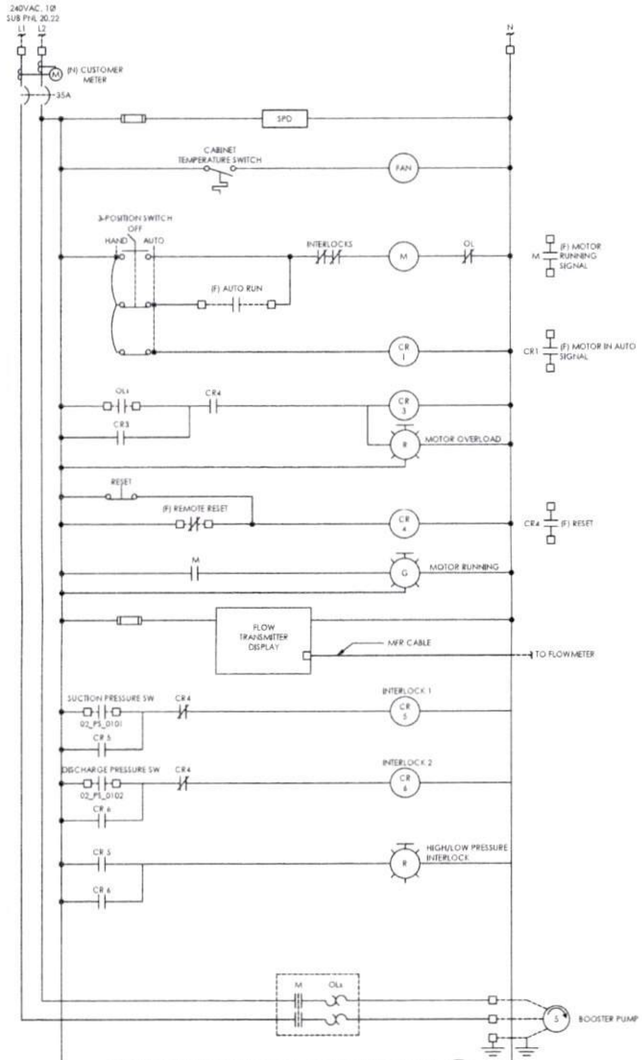
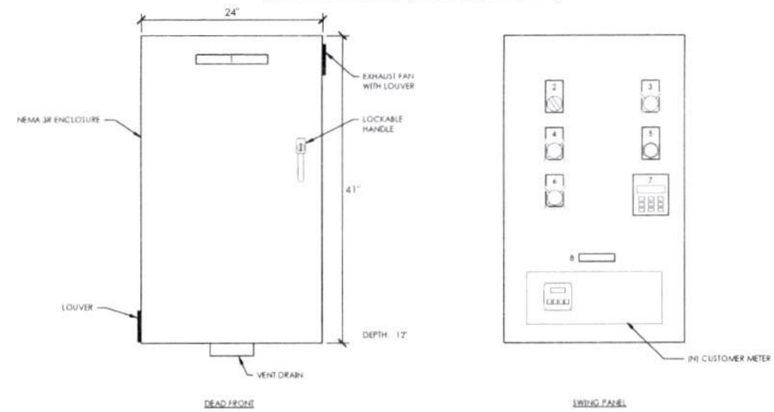


BOOSTER PUMP STARTER PANEL CONTROL DIAGRAM (1/12.0)

NAMEPLATE SCHEDULE		
ITEM	DEVICE	NAMEPLATE/INSCRIPTION
1	NAMEPLATE	BOOSTER PUMP STARTER PNL
2	3 POSITION SWITCH	MOTOR CONTROL HAND - OFF - (F) AUTO
3	INDICATOR LIGHT	MOTOR RUNNING
4	INDICATOR LIGHT	MOTOR OVERLOAD
5	PUSH BUTTON	ALARM RESET
6	INDICATOR LIGHT	HIGH/LOW PRESSURE INTERLOCK
7	REMOTE FLOW TRANSMITTER	INTERTIE FLOW
8	ELECTRICAL POWER METER	INTERTIE POWER METER



BOOSTER PUMP STARTER PANEL ELEVATION (2/12.0)
NTS

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DRN JMI | DATE 11/16/23 | 2973.03

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BOOSTER PUMP STARTER PANEL CONTROL DIAGRAM

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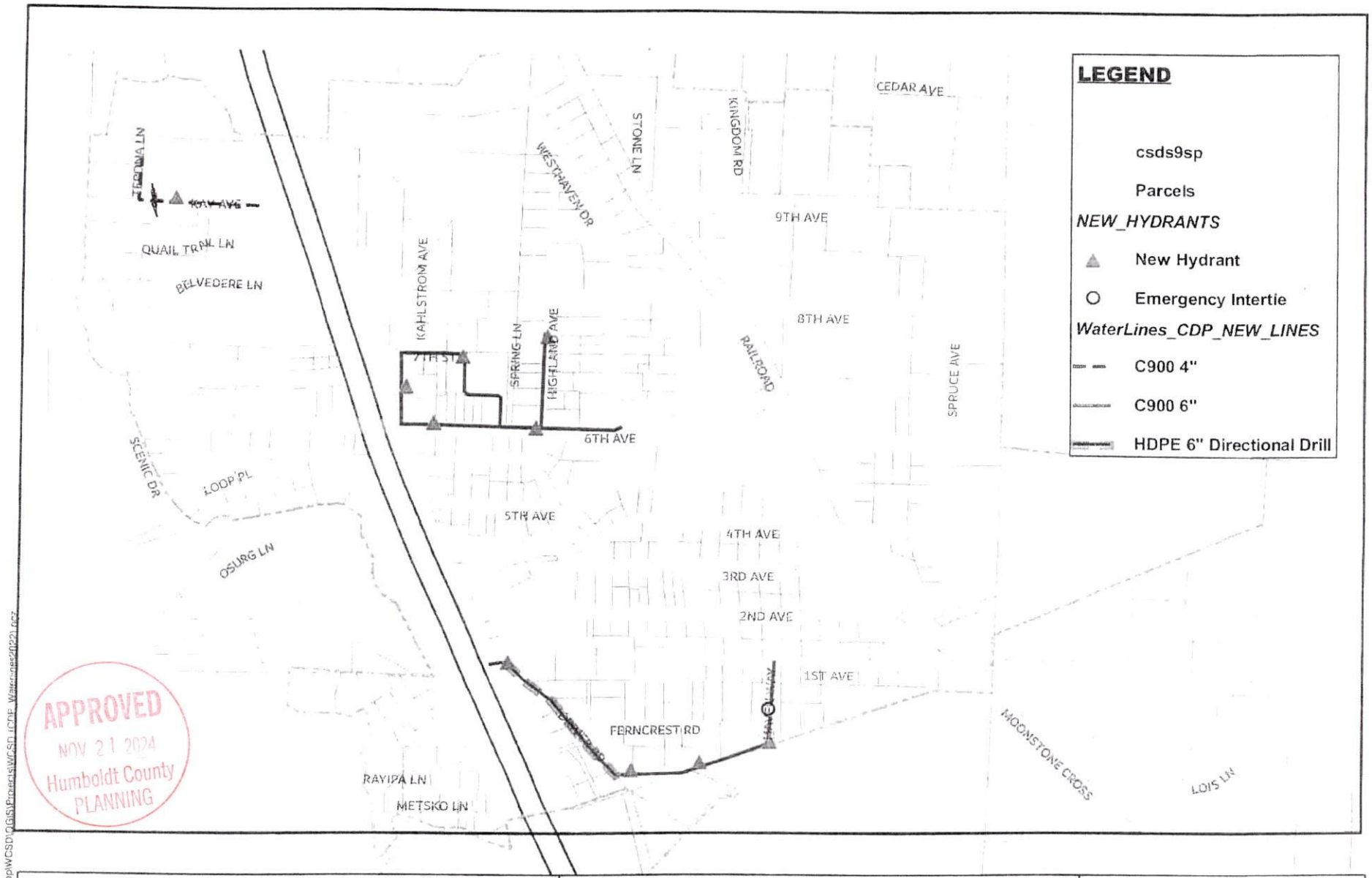

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Water Main Replacement 2023-2024

Proposed Hydrants and Water Main Type and Diameter.
Location approximate, not from survey.

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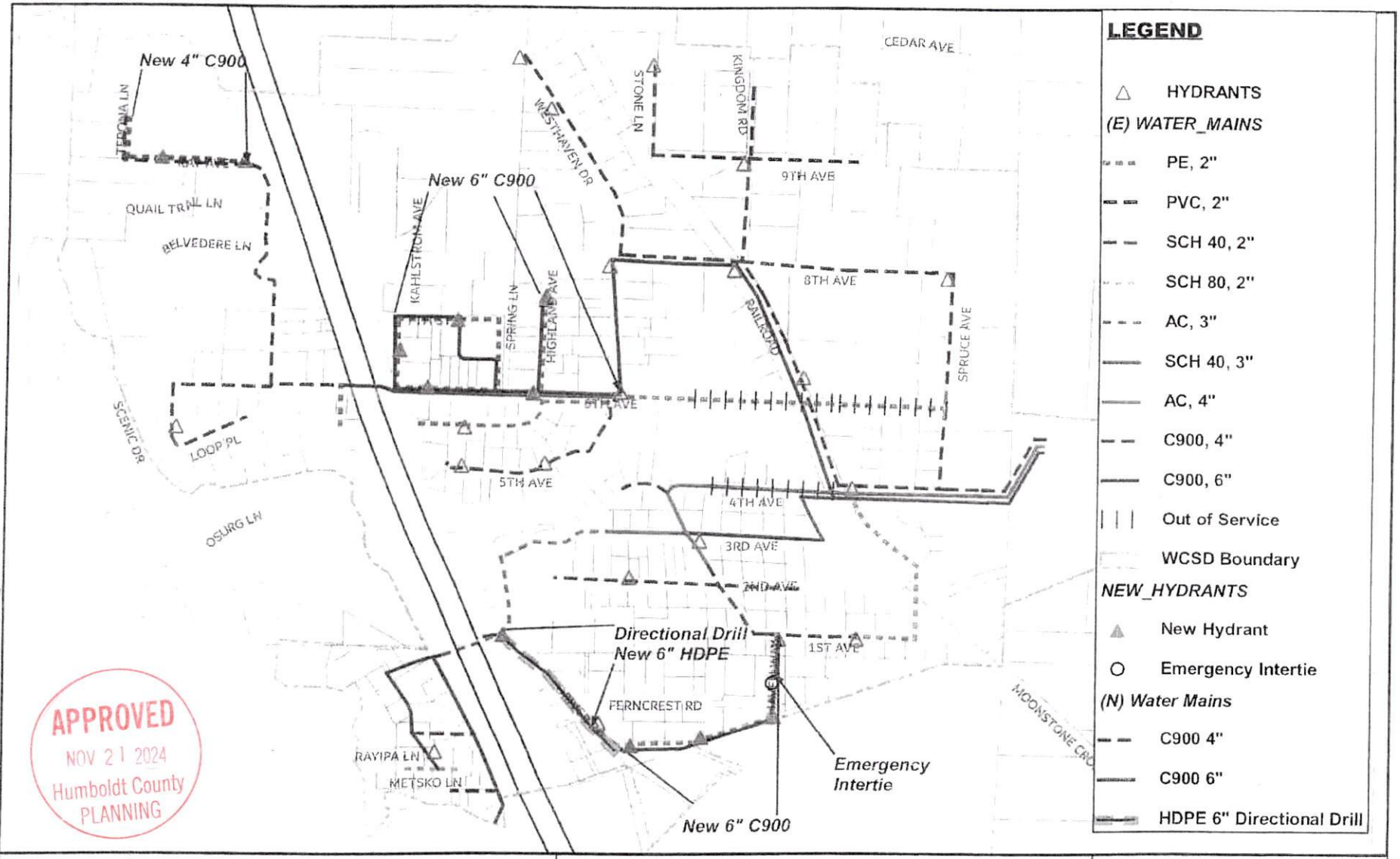

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Westhaven Community Service District

Water Main Replacement 2023-2024

Proposed Hydrants and Water Main Type and Diameter.
Location approximate, not from survey.

0 500 1,000 ft

Parcel Data: Humboldt County GIS