DOCKETED	
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Project Title:	Enterprise Emergency Peaker Project - Compliance
TN #:	269910
Document Title:	CEC Data Response - Enterprise Biological Resources
Description:	Response to Data Request for Enterprise Emergency Peaker Project, Docketed Date 3/12/2026
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Organization:	Rincon Consultants, Inc.
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Enterprise Emergency Peaker (01-EP-10C)
Enterprise BESS Project

CEC Biological Resources Data Request Response No. 3

prepared for

Enterprise BESS LLC
201 Enterprise Street
Escondido, California 92029

prepared by

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Carlsbad, California 92008

May 2026

RINCON CONSULTANTS

Table of Contents

Attachments

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1 Introduction

On March 12, 2026, Enterprise BESS LLC (Applicant) received a third Data Request (Data Request No.3) from the California Energy Commission (CEC) for the Enterprise Emergency Peaker Project (01-EP-10C) in response to the Applicant's petition to amend (TN 255290, March 18, 2025) for the Enterprise Battery Energy Storage System (BESS) Project. The following document provides the Applicant's responses to the Data Request received from the CEC.

The responses are grouped by individual discipline or topic area and are presented in the same order and with the same numbering provided by the CEC. The responses included in this document are considered complete responses to the corresponding Data Requests.

2 Biological Resources

2.1 Data Request-1 through -14

Data Request-1 through -4

As stated in the application, the vegetation type classified as disturbed Diegan coastal sage scrub does not occur within the Project Area, but 0.12 acre is located within the Survey Buffer. Less than 1 acre (0.97 acre) of Diegan coastal sage scrub also occurs off-site. These vegetation types may support the coastal California gnatcatcher (*Polioptila californica californica*).

The application (TN 262238, page 7) states that United States Fish and Wildlife Service (USFWS) protocol breeding surveys for coastal California gnatcatcher were conducted in suitable habitat from April 19, 2023, through May 24, 2023, and survey findings were negative. A formal survey report was submitted to USFWS on July 7, 2023. Additionally, USFWS protocol non-breeding coastal California gnatcatcher surveys were conducted between October 17, 2023, and February 13, 2024. The survey results for all nine protocol non-breeding surveys were negative. The second and final coastal California gnatcatcher survey was submitted to USFWS in March 2024.

Staff estimates the proposed activities would occur as close as 240 feet north of disturbed Diegan coastal sage scrub and approximately 50 feet east of Diegan coastal sage scrub, based on Figure 5 (TN 262238). Both habitats may be suitable for coastal California gnatcatcher, which could be adversely affected by project activities.

- **DR-1:** Please describe the potential for off-site noise, vibration, or other construction impacts to disrupt coastal California gnatcatcher behavior, particularly during sensitive periods, such as nesting or foraging.

  Response: As stated in the Project's Biological Resources Technical Report (BRTR) (Rincon 2024), the proposed Project Area does not contain suitable habitat for the coastal California gnatcatcher and previous protocol surveys (2023–2024) confirmed the species' absence within the adjacent habitat. Impact-2 in BRTR identifies indirect impacts to nesting birds that could occur within or adjacent to the project site. During Project activities that involve noise, vibration, or other potential impacts from construction, this species may experience temporary disturbance should the species occur within the adjacent habitat prior to construction.

  A Noise and Vibration Study was prepared for the proposed Project and evaluates construction related noise and vibration impacts. Noise impacts were assessed from the approximate center of the Project Area. The greatest vibratory and noise sources during construction in the vicinity of the BESS site would be pile driving along the eastern, southern, and western Project Area boundaries during construction of the retaining wall. Per Table 8, Estimated Construction Noise Levels at Sensitive Receptors by Phase, two areas were identified as exceeding the typical noise ranges for nesting birds. Those areas include Adjacent Industrial Use to the East and Nearest Industrial Use to the North, neither of which is adjacent to potential suitable coastal California gnatcatcher habitat.

  Since the proposed Project Area exists within an area that is mostly developed with industrial and commercial uses, substations, and active roadways, and the greatest noise and vibration impacts occur away from potential suitable coastal California gnatcatcher habitat, construction-related noise and vibration impacts on this species are not expected.

  Regardless, the 2021 Enterprise Emergency Peaker Project (01-EP-10C) Conditions of Certification (CoC) BIO-8 requires a focused nesting bird and raptor survey during the breeding season (March 15–August 15), CoC BIO-5 allows the Project biologist to enter the site at any time and to temporarily halt construction if needed to protect resources. A Worker Environmental Awareness Program (WEAP) is recommended to be implemented for the Project as described in Recommended Measure BIO-12,

and part of the WEAP would be the discussion of nesting birds and defining a "no-work" buffer for all nesting birds, including coastal California gnatcatcher, that would be established for any active nests that are within or near the Project. With the implementation of these CoC, impacts to coastal California gnatcatcher are not expected.

- **DR-2:** Please describe the planned approach for implementing BIO-7, which requires performance of protocol surveys for coastal California gnatcatcher. Staff notes that survey results are considered valid for a period of one year from the date the survey was completed (USFWS 2019). Specifically, describe how surveys would be coordinated with site mobilization activities.

  Response: Due to previous changes in the Enterprise BESS Project's footprint, the proposed Project is no longer within suitable coastal California gnatcatcher habitat and non-native grassland, and the Project will no longer impact Diegan coastal sage scrub, previously included as part of the Enterprise Emergency Peaker Plant's CoC BIO-7. Although breeding and non-breeding protocol surveys conducted in 2023–2024 are no longer valid, suitable habitat for this species is absent from the proposed Project Area, and therefore, CoC BIO-7 no longer applies. However, CoC BIO-8 requires a focused nesting bird and raptor survey during the breeding season (March 15–August 15) within and adjacent to the proposed Project.

- **DR-3:** Please describe if surveys on the planned construction laydown area would also be necessary and describe/map any potential on- or off-site coastal California gnatcatcher habitat. The Project owner's proposed measure, BIO-7, mentions surveys would be performed on the construction laydown area (refer also to Data Requests 7 and 8).

  Response: Suitable coastal California gnatcatcher habitat is not present within the proposed Project Area. No further protocol surveys are planned for this Project as previous surveys concluded the absence of this species from the site, and the Project and construction laydown area is no longer proposed within suitable habitat; therefore, CoC BIO-7 is no longer applicable. Off-site laydown areas will be confined to an existing warehouse approximately 1 mile from the proposed Project Area. No suitable coastal California gnatcatcher habitat is present on or around the off-site laydown area, which occurs within a developed industrial zone. However, CoC BIO-8 requires a focused nesting bird and raptor survey during the breeding season (March 15–August 15) within and adjacent to the proposed Project.

- **DR-4:** Please describe avoidance buffers or other protective measures to be implemented should nesting coastal California gnatcatchers be detected. Please identify the appropriate USFWS personnel who were contacted regarding coordination of this effort. Include the name, title, and contact information, as well as records of any communications (such as emails, meeting notes, phone call summaries, etc.).

  Response: CoC BIO-8 requires a focused nesting bird and raptor survey during the breeding season (March 15–August 15) within and adjacent to the proposed Project. The BRTR includes recommended MM BIO-12, WEAP training, which will be provided to all construction personnel that will be working on the Project. As part of the WEAP training, a discussion of nesting birds and associated "no-work buffers" would be provided and implemented as needed by the Project biologist during construction activities. Should coastal California gnatcatcher nests be observed, the monitoring biologist will notify USFWS. To date, there has not been any communication with USFWS regarding the proposed Project outside the required notification and reporting for coastal California gnatcatcher protocol surveys in 2023. The contact information for the USFWS is provided below.

  USFWS Contact:

  Stacey Love
  USFWS, Carlsbad Office
  2177 Salk Avenue, Suite 250
  Carlsbad, California 92008
  Stacey.Love@fws.gov

Data Request-5 and -6

Staff requests clarification on the definition and extent of the "Study Area" as referenced in the petition. As first mentioned (page A-12, TN 262237), "The Study Area for biological resources, including the area to the west of the Project site and its surroundings provides habitat for wildlife species that commonly occur in urbanized and disturbed habitats within San Diego County." However, this definition is unclear when reviewing the coastal special-status avian species accounts. Specifically, does the Project owner anticipate this species has the potential to occur on the site? Or within the broader "Study Area?" The petition (TN 262238) alternately uses the term "survey area" and "Study Area."

- **DR-5:** Please clarify the term "Study Area." Define all areas included within this designation and provide a figure, as necessary, to show the boundary.

  Response: The Study Area is defined as the approximately 1.98-acre proposed Project Area and a 300-foot survey buffer. The BRTR uses the terms Study Area and Survey Area interchangeably throughout the report. A map of the Study Area, as shown in the BRTR, is provided as Attachment A.

- **DR-6:** Please clarify the species accounts for coastal California gnatcatcher and Cooper's hawk (*Accipiter cooperii*), including whether these species are expected to occur within the Project site, the broader Study Area, or both.

  Response:

  Cooper's Hawk (Present, Project Area): A Cooper's hawk was observed emerging from a Canary Island pine tree (*Pinus canariensis*) and perching along the southern fence of the proposed Project Area during the reconnaissance-level biological field surveys. This detection implies that this species is present on-site. Potential nesting trees exist within the ornamental habitat within the proposed Project Area and surrounding woodland. Furthermore, there is a suitable prey base of songbirds present for this species throughout the Study Area. As such, the Study Area contains marginal quality, but suitable habitat for Cooper's hawk to forage and nest within the entire Study Area, including the proposed Project Area.

  Coastal California Gnatcatcher (No Potential, Project Area; Low Potential, Study Area): Coastal California gnatcatcher has low potential to occur within the survey buffer and is not expected to occur within the Project Area. There are minimal to marginally suitable habitat, including Diegan coastal sage scrub and California brittlebush (*Encelia californica*) present outside the proposed Project Area, within the 300-foot survey buffer. No observations have been recorded incidentally or during protocol surveys (Rincon 2023, 2024). As such, this species has potential to forage and nest within the survey buffer but is not expected to occur in the proposed Project Area. However, negative survey protocol results for both the breeding and non-breeding season indicate that this species does not occur within the entire Study Area.

Data Request-7 and -8

The petition states a construction laydown area has not been identified for the project (page A-16, TN 262237).

- **DR-7:** Please clarify if a temporary laydown area would be necessary for the proposed activities.

  Response: All equipment and necessary Project construction components will be stored at an off-site warehouse located within an industrial center. No areas outside the identified proposed Project Area will be utilized for project construction.

- **DR-8:** If a laydown area is necessary, please provide a full description, including the exact location and size. Include maps and baseline biological information. Include any associated access roads for the off-site laydown area.

  Response: See response for DR-7.

Data Request-9 and -10

The petition notes that up to five mature Canary Island pine trees may need to be removed to install the gen-tie cable tray (page 8, TN 262237). Furthermore, page A-16 (TN 262237) states "It is expected that impacts associated with the potential removal of Canary Island pine trees associated with installation of the gen-tie cable tray will be mitigated via onsite replacement in accordance with a forthcoming landscape plan and/or via purchase of mitigation credits at an offsite bank such as the City of Escondido's Daley Ranch Conservation Bank." Staff requests additional information regarding these proposed mitigation options.

- **DR-9:** For mitigation proposed through an on-site landscape plan, please prepare and submit a Landscape Plan that includes the following:
  a) A map and coordinates of the proposed planting area;
  b) The proposed mitigation ratios for tree replacement and species to be planted;
  c) Information on soil type;
  d) A description of the management regime (i.e., tree maintenance and watering schedule, if any);
  e) Include a replacement plan in case of tree loss due to decline or failure; and
  f) Written confirmation from the City of Escondido that this approach would be acceptable mitigation for loss of trees.

  Response: An updated landscape plan is attached (Attachment B). The proposed Project includes the removal of three queen palms (*Syagrus romanzoffiana*), up to five Canary Island pines (*Pinus canariensis*), and one dead Aleppo pine (*Pinus halepensis*). The trees are proposed to be replaced at a 1:1 mitigation ratio, specifically planting three southern magnolia trees (*Magnolia grandiflora*) and six canary island pines as replacement for the removal of the nine mature trees. . Soil within the proposed mitigation area for the six replacement pines is comprised of Vista coarse sandy loam, 5 to 9 percent slopes. A description of the management regime is included in the landscape plan. In addition, please see the attached written communication with the City of Escondido (Attachment C).

- **DR-10:** Alternatively, for mitigation involving purchase of credits from an approved mitigation bank, please provide the following:
  a) Records of conversation with the conservation bank (e.g., transcripts of meetings, emails) confirming availability of mitigation credits for tree replacement; and
  b) Written confirmation from the City of Escondido that this approach would be acceptable as mitigation.

  Response: Per DR-9, trees will be planted within the Project Area. If the Project site does not have the required space to accommodate the required number of trees, the Project applicant will discuss off-site options with the City of Escondido.

Data Request-11

According to Table 3 of TN 262238, (PDF page 71), mature trees numbered 110 through 112 are queen palms (*Syagrus romanzoffiana*) marked for removal. Also marked for removal are five mature Canary Island pine trees (trees 31, 32, 78, 81, and 82). Based on a mitigation ratio of 1:1, as prescribed within the City of Escondido's Grading Ordinance Section 33-1068, a total of eight replacement trees would be required to be planted (TN 262238 page 76).

However, TN 262237 (PDF page 48) indicates only that "impacts associated with the potential removal of Canary Island pine trees associated with installation of the gen-tie cable tray will be mitigated". Staff requests additional information regarding the proposed tree mitigation measures.

- **DR-11:** Please clarify the number and species of trees that would be mitigated and specify the species proposed for replacement. See also Data Requests 9 and 10.

Response: The Project's site plan indicates that eight mature trees would need to be removed to accommodate the necessary space to construct the Project. Five of those trees would be removed for the aboveground, gen-tie cable tray installation on the northern portion of the Enterprise Emergency Peaker Project, and three would be removed in the Electrical Equipment Pad yard south of Auto Park Way. The eight trees planned for removal include three Queen palm trees associated with the electrical equipment pad, and five Canary Island pine associated with the cable tray. In addition, one dead Aleppo pine tree would be removed and replaced as shown on the landscape plan. Pursuant to the Grading Ordinance, removal of any mature tree shall be replaced at a 1:1 ratio and the removal of any protected tree shall be mitigated at a 2:1 ratio.

For the proposed removal of the eight live trees, if on-site replanting is proven to not be possible, planting off-site is another feasible alternative along with the purchasing of credit into an off-site mitigation bank, such as the Daley Ranch Conservation Bank in the city or the donation of funds into a local agency, such as the Resource Conservation District of Greater San Diego County that plants and maintains native trees.

Data Request-12 through -14

Section 5.14.3 of the PTA, Mitigation Measures, states that impacts related to public services and wildfire hazards are expected to be less than significant and, therefore, will not require additional mitigation measures. However, it is possible that the BESS system could be subject to thermal runaway and result in a battery fire. Fires at battery storage facilities can be difficult to extinguish and can result in the discharge of hydrogen fluoride, heavy metals, such as lithium, cobalt, nickel and copper, and semi-volatile organic compounds (TEEX 2024). Potential impacts from a BESS fire on special-status plant and wildlife species could occur from smoke and fine particles contaminating habitat and water sources (Claassen et al. 2024). Impacts could include risks from chemical exposure, smoke inhalation, soil and water contamination, mortality, and habitat degradation. A BESS fire would be expected to pose a high risk to special-status species if the smoke plume deposits chemicals in the Project Area for species with limited ranges, breeding species, and species that forage on plants that would contain harmful chemicals, and species that rely on ephemeral water sources that could concentrate harmful chemicals should a fire occur.

Chemicals from firefighting runoff can contaminate forage and water, while noise and human activity may disrupt critical behaviors for special-status species, such as foraging and burrow use. Soil contamination and habitat degradation in adjacent areas may also persist long after the fire event. Post fire cleanup or soil sampling could result in disturbance to burrows and animals in adjacent habitat and contaminated spoils could transport dust far from the initial source of the fire.

- **DR-12:** Describe potential impacts caused by a BESS fire, including but not limited to:
  a) direct mortality of special status species caused by fire;
  b) airborne deposition of heavy metals, semi-volatile compounds, and other chemicals released by fire on species status habitats, and
  c) impacts associated with fire control activity such as use of fire retardant.

  Response: A Hazard Consequence Analysis (HCA) was developed by Coffman Engineers, Inc. using the PHAST model. Based on the modeling, the HCA determined that based on the battery type and configuration, a large-scale fire which goes beyond the battery storage facility is unlikely to occur. The proposed Project includes containerized battery systems with internal heating ventilation and air conditioning and internal fire detection and fire suppression systems in each container. UL 9540A testing has demonstrated that the failure and thermal runaway of one module is likely to be contained within the container. UL 9540A testing demonstrates that thermal runaway events are self-limiting, confined to a single module, and do not generate sufficient heat flux or flame to ignite adjacent equipment. No propagation, explosion, or enclosure-to-enclosure fire spread was observed. Accordingly, the likelihood of a large-scale fire involving multiple modules or enclosures at the BESS site is considered unlikely. In addition, each containerized battery system will be equipped with internal

heating ventilation and air conditioning and internal fire detection and fire suppression systems. Therefore, any fire that may occur would likely be contained within the Project Area and would not spread to the surrounding undeveloped areas.

The area immediately surrounding the Project site is primarily comprised of disturbed habitat, developed lands and ornamental plantings which do not support habitat for special-status species. As applicable over time, combustible vegetation on and around the Enterprise BESS Project boundaries would continue to be actively managed to minimize fire risk. Additionally, the Enterprise BESS Project would comply with all applicable City of Escondido fire standards. However, should fire extend into the vegetated areas typical firefighting measures would be enacted, preventing the spread of fire to coastal sage scrub. Direct mortality of special status species caused by fire is not expected to occur.

The potential for airborne deposition of heavy metals, semi-volatile compounds, and other chemicals released by fire to reach adjacent habitat, and the potential to effect on associated plant and wildlife species, was analyzed in the context of the findings presented in the SFPE Foundation report, *Environmental and Health Impacts of Thermal Runaway Events in Outdoor Lithium-Ion Battery Energy Storage System Installations* (June 2025). This report identified potential toxic and asphyxiant gases produced during Li-ion thermal runway, including, but not limited to, benzene, carbon monoxide (CO), carbon dioxide (CO_2), hydrogen bromide (HBr), hydrogen chloride (HCl), hydrogen cyanide (HCN), hydrogen fluoride (HF), ammonia (NH_3), nitrogen dioxide (NO_2), and sulfur dioxide (SO_2). The literature review conducted in support of the report identified that the following metals have the potential to be emitted into the air during Li-ion thermal runaway: lithium (Li), nickel (Ni), manganese (Mn), cobalt (Co), aluminum (Al), copper (Cu) (considered a heavy metal), chromium (Cr) (considered a heavy metal), and zinc (Zn). Deposition of gases and metals on habitats depends on the type of thermal runaway (flaming or non-flaming).

Flaming Thermal Runaway: *Thermal runaway conditions in which off-gasses from the cells are ignited, via auto-ignition due to sufficient internal temperatures or via an external ignition source, and sustained combustion subsequently takes place. This condition is identified by the presence of visible flames.*

Non-flaming Thermal Runaway: *Thermal runaway conditions in which cells off-gas due to thermal decomposition but gases are not ignited, and no combustion occurs.*

The modeling conducted during the SFPE research shows shorter near-field exposure/distances for flaming cases, despite higher emission rates. Non-flaming scenarios can result in greater near-surface deposition because cooler, denser plumes travel closer to ground level. Modeled concentrations of metals in soil and surface water decline rapidly with distance and, for baseline scenarios, were generally below acute ecotoxicity thresholds at distances on the order of ~1 km. However, localized enrichment nearer the source and in depositional “hot spots” remains possible, especially for habitats immediately adjacent to the BESS footprint.

Firefighting activities associated with a BESS fire are expected to focus primarily on defensive actions, such as maintaining safe separation and cooling adjacent structures or equipment. Direct application of water or chemical fire retardants to a BESS enclosure during a flaming lithium-ion battery thermal runaway event is generally not recommended, as such actions have limited effectiveness and may exacerbate secondary hazards.

As a result, the generation of contaminated firewater runoff and the use of long-term fire retardants are not anticipated under normal response protocols. In the unlikely event that water is applied to protect adjacent habitat or structures, or defensive cooling, available analyses by the SFPE indicate that contaminated firewater generated during lithium-ion battery thermal runaway events is not expected to result in significant environmental impacts. While concentrations of metals, fluoride, or chloride in suppression water may be elevated relative to background conditions, these constituents are expected to be substantially diluted due to the large volumes of water typically used, thereby reducing potential toxicity. Based on comparisons with applicable acute ecotoxicological benchmarks, adverse short-term impacts to water-based biological resources are not anticipated.

Similarly, although fire retardant use is not expected, or recommended, for direct BESS fire suppression, limited application on surrounding fuels or structures could result in temporary surface residue or localized soil nutrient loading if used. Such impacts would be spatially limited, short-term in duration, and not expected to result in lasting adverse effects to soil, vegetation, or water resources with post-incident cleanup.

- **DR-13:** Describe the potential effects that the impacts above may have upon biological resources, including but not limited to:
  - Effects on wildlife and vegetation, including soil microbiota;
  - Effects on changes in habitat type; and
  - Effects related to soil contamination.

  Response: Refer to DR-12.

- **DR-14:** Describe any potential mitigation for the above impacts (DR 12) and effects (DR 13) if they are considered significant.

  Response: No additional mitigation recommended, refer to DR-12.

Attachment A

Study Area Figure

Figure 3 Project and Survey Areas

Imagery provided by Microsoft Bing and its licensors © 2025.

24-16971 Bio
Fig X Survey Area

Attachment B

Landscape Plan

90% LANDSCAPE PLANS

FOR

ENTERPRISE BESS

2357 AUTO PARK WAY,
ESCONDIDO, CA 92029

VICINITY MAP
SCALE: NTS

NORTH

GENERAL LANDSCAPE NOTES

1. THE WORK SHALL BE DONE IN ACCORDANCE WITH THE PLANS AND THE MOST CURRENT EDITION OF THE APPLICABLE CITY AND/OR REGIONAL STANDARDS. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO OBTAIN COPIES OF THESE STANDARDS, SPECIFICATIONS AND DRAWINGS, AS WELL AS ALL OTHER STANDARDS AND SPECIFICATIONS WHICH MAY BE NECESSARY TO COMPLETE AND ACCURATELY INTERPRET THESE PLANS.
2. ALL QUANTITIES LISTED IN THE LANDSCAPE SCHEDULE ARE FOR THE CONVENIENCE OF THE CONTRACTOR. IN THE CASE OF ANY DISCREPANCIES, PLANS SHALL OVERRIDE THE LANDSCAPE AND BID SCHEDULE QUANTITIES. CONTRACTOR SHALL VERIFY QUANTITIES SHOWN ON THE PLANS AND BASE THEIR BID ACCORDINGLY.
3. RESPONSIBILITY FOR ESTABLISHING SUBGRADES IS NOT INCLUDED IN THIS WORK. INSPECT SUBGRADES PRIOR TO COMMENCING WORK TO CONFIRM SUBGRADE DEPTHS AND GRADES. ADVISE LANDSCAPE ARCHITECT OF DISCREPANCIES WITH DRAWINGS OR SPECIFICATIONS. ALL PLANTING AREAS SHALL BE LEFT FREE OF CONSTRUCTION DEBRIS AND/OR TOXIC MATERIAL AND GRADED TO A LEVEL TO PERMIT LANDSCAPE CONSTRUCTION. TRENCHES OR OTHER FILLED EXCAVATIONS SHALL BE COMPACTED PRIOR TO LANDSCAPE INSTALLATION.
4. SITE GRADING NECESSITATED BY THE WORK AS IT PROGRESSES AND NOT SPECIFICALLY CALLED OUT ON THE PLANS WILL BE CONSIDERED INCIDENTAL WORK.
5. ALL LANDSCAPE AREAS SHALL BE UNIFORMLY GRADED SO THAT FINISHED SURFACES CONFORM TO THE TYPICAL SECTIONS AND PROPOSED GRADES SHOWN. FINISHED SURFACES SHALL BE REASONABLY SMOOTH, COMPACTED, AND FREE FROM IRREGULAR SURFACE DRAINAGE. THE LANDSCAPE CONTRACTOR SHALL BE RESPONSIBLE FOR ESTABLISHING THE FINISH GRADE AND SHALL BEAR FINAL RESPONSIBILITY FOR PROPER SURFACE DRAINAGE OF PLANTED AREAS.
6. AFTER ROUGH GRADING HAS OCCURRED, CONTRACTOR SHALL OBTAIN AN AGRONOMIC SOILS REPORT AND SUBMIT TO LANDSCAPE ARCHITECT FOR APPROVAL PRIOR TO AMENDMENTS AND/OR PLANTING. CONTRACTOR SHALL APPLY RECOMMENDATIONS UNLESS OTHERWISE NOTED BY LANDSCAPE ARCHITECT.
7. BACKFILL MIX SHALL BE PLACED IN 6" LIFTS AND TAMPED INTO PLACE AROUND THE PLANT. NO TRANSPLANTING SHALL BE DONE WHEN SOIL IS EXCESSIVELY WET. DO NOT COUNTERSINK AROUND CACTI OR SUCCULENTS. PROVIDE POSITIVE DRAINAGE AWAY FROM PLANT.
8. ALL TREES SHALL BE PLANTED A MINIMUM OF 5 FEET, ALL SHRUBS AND ACCENTS A MINIMUM OF 24", AND ALL GROUNDCOVERS 18" FROM EDGE OF CURBS, WALKS, WALLS, PADS, ETC., UNLESS DIRECTED OTHERWISE BY THE LANDSCAPE ARCHITECT.
9. EXCAVATE PITS, AS SHOWN ON DRAWINGS AND DETAILS. LOOSEN HARD SUBSOIL IN BOTTOM OF PIT. TEST DRAINAGE OF TREE, SHRUB AND PLANT PITS BY FILLING WITH WATER TWICE IN SUCCESSION. THE RETENTION OF WATER IN PLANTING PITS FOR MORE THAN TWENTY-FOUR (24) HOURS SHALL BE BROUGHT TO THE ATTENTION OF THE OWNER'S REPRESENTATIVE. SUBMIT IN WRITING A PROPOSAL FOR THE CORRECTION TO THE OWNER'S REPRESENTATIVE FOR APPROVAL BEFORE PROCEEDING WITH WORK.
10. IF ROCK, UNDERGROUND CONSTRUCTION, ADVERSE DRAINAGE CONDITIONS, OR OTHER OBSTRUCTIONS ARE ENCOUNTERED IN EXCAVATION FOR PLANTING OF ANY PLANT MATERIAL, NOTIFY THE OWNER'S REPRESENTATIVE. NEW LOCATIONS MAY BE SELECTED BY THE OWNER'S REPRESENTATIVE, OR INSTRUCTIONS MAY BE ISSUED TO DIRECT REMOVAL OF OBSTRUCTION. PROCEED WITH WORK ONLY AFTER APPROVAL OF THE OWNER'S REPRESENTATIVE.
11. DO NOT MAKE SUBSTITUTIONS. IF SPECIFIED LANDSCAPE MATERIAL IS NOT OBTAINABLE, SUBMIT PROOF OF NON-AVAILABILITY FROM AT LEAST FIVE SOURCES TO THE OWNER'S REPRESENTATIVE, TOGETHER WITH PROPOSAL FOR USE OF EQUIVALENT MATERIAL FOR FINAL APPROVAL.
12. ALL PLANT MATERIAL AND SPECIFICATIONS TO CONFORM TO THE AMERICAN STANDARD FOR NURSERY STOCK STANDARDS UNLESS OTHERWISE NOTED.
13. LAY OUT INDIVIDUAL TREE AND PLANT LOCATIONS AND AREAS FOR MULTIPLE PLANTINGS, STAKE LOCATIONS AND OUTLINE AREAS AND SECURE THE OWNER'S REPRESENTATIVE'S ACCEPTANCE BEFORE START OF PLANTING WORK. MAKE MINOR ADJUSTMENTS AS DIRECTED.
14. ALL SHRUBS SHALL HAVE A FULL HEAD THAT COVERS THE CAN DIAMETER (CAN FULL) AND A MINIMUM OF THREE STEMS/BRANCHES.
15. FINISH GRADE FOR PLANTED AREAS SHALL BE 1" BELOW ALL CURBS, WALKS AND PAVING WITH SMOOTH EVEN LINES AT EDGES OF STRUCTURES.
16. FINISH LANDSCAPE GRADES SHALL SLOPE AT A 2% GRADE AWAY FROM CURBS, WALKS, AND WALLS.
17. ALL LANDSCAPE AREAS SHALL RECEIVE A 3" DEPTH OF MULCH, UNLESS OTHERWISE NOTED ON THESE PLANS. TREES TO HAVE A 6' DIAMETER RING AROUND TRUNK FREE OF MULCH. MULCH SHALL EXTEND UNDER ALL SHRUBS AND PLANTS. APPLY PRE-EMERGENT HERBICIDE PRIOR TO AND AFTER MULCH INSTALLATION.
18. PROVIDE SAMPLES OF PROPOSED MULCH SHOWING COLOR, GRADATION SIZE RANGE AND TEXTURE INCLUDING PROPOSED SOURCE. PROVIDE 1/2 CUBIC FOOT SAMPLE OF EACH.
19. ANY ROCK MULCH OR DECOMPOSED GRANITE SHALL NOT CONTAIN LUMPS OR BALLS OF CLAY, CALICHE, ORGANIC MATTER OR CALCAREOUS COATING. PROVIDE WEED BARRIER UNDER ALL DG AND/OR ROCK MULCH. THE CONTRACTOR SHALL ENSURE THAT SUFFICIENT QUANTITY IS AVAILABLE FROM A SINGLE SOURCE TO COMPLETE THE PROJECT. THE OWNER'S REPRESENTATIVE SHALL APPROVE SAMPLES PRIOR TO ORDERING.
20. NO JOB WILL BE CONSIDERED COMPLETE UNTIL ALL CURBS, PAVEMENT AND SIDEWALKS HAVE BEEN SWEPT CLEAN OF ALL DIRT AND DEBRIS ACCORDING TO PLANS.
21. IT IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO OBTAIN ANY PERMITS REQUIRED. (SEE THE CITY GENERAL CONDITIONS)
22. ALL CONSTRUCTION ROADS AND COMPACTED AREAS DEVELOPED THROUGH CONSTRUCTION THAT ARE WITHIN THE LANDSCAPE AREAS SHALL BE SCARIFIED AND LOOSENED TO A DEPTH OF 12" PRIOR TO LANDSCAPE AND IRRIGATION WORK BEGINNING
23. PLANTINGS WITHIN THE SIGHT VISIBILITY TRIANGLE LINE SHALL BE MAINTAINED SO THAT NO LIMBS HANG LOWER THAN SEVEN (7) FEET AND SHRUBS OR OTHER PLANTS PLANTED WITHIN THE SIGHT VISIBILITY TRIANGLE LINE SHALL BE NO TALLER THAN TWO (2) FEET AT FULL GROWTH.

SITE INFORMATION

SITE ADDRESS:	2357 AUTO PARK WAY, ESCONDIDO, CA 92029
APN:	PROPOSED BESS YARDS: 232-41-19-00, 232-41-20-00, AND 232-410-21-00
TOTAL SITE AREA:	MW 0.8 AC LEASE AREA
ZONING CLASSIFICATION:	ML - LIGHT INDUSTRIAL
EXISTING USE:	LIGHT INDUSTRIAL
PROPOSED USE:	ENERGY STORAGE FACILITY
SETBACK REQUIREMENTS:	
FRONT:	10'
SIDE/REAR:	0'

PROJECT TEAM

DEVELOPER
CHUCK ENCARNACION
MIDDLE RIVER POWER
200 W MADISON ST STE 3810,
CHICAGO, IL 60606

SURVEYOR
JEFF LENHERR
KIMLEY-HORN AND ASSOCIATES, INC.
110 W TOWN AND COUNTRY ROAD, SUITE 700
ORANGE, CA 92868

CIVIL ENGINEER
MIKE DIORIO, PE
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401 B ST, SUITE 600
SAN DIEGO, CA 92101

LANDSCAPE ARCHITECT
LUKE D. DAVIES, PLA
KIMLEY-HORN AND ASSOCIATES, INC.
500 LA TERRAZA BLVD, SUITE 300
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SOILS ENGINEERING, INC.
4400 YEAGER WAY
BAKERSFIELD, CA 93313

ELECTRICAL ENGINEER
JONATHAN JAMES
RAVENVOLT
2715 RONALD REAGAN BLVD, SUITE 100
CUMMING, GA 30041

STRUCTURAL ENGINEER
BRANDON CARSON, P.E.
KIMLEY-HORN AND ASSOCIATES, INC
4637 CHABOT DRIVE, SUITE 300
PLEASANTON, CA 94588

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NO.	REVISIONS	DATE	BY

Kimley»Horn
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500 LA TERRAZA BLVD., SUITE 300,
ESCONDIDO, CA 92025
PHONE: 760-266-6682
WWW.KIMLEY-HORN.COM

LICENSED LANDSCAPE ARCHITECT
LUKE D. DAVIES
License No. 6574
9/30/2027
Date
STATE OF CALIFORNIA

KHA PROJECT
PROJ 195582002

DATE
4/30/26

SCALE: AS SHOWN

DESIGNED BY: PF
DRAWN BY: PF
CHECKED BY: MD

LANDSCAPE COVER

ENTERPRISE BESS
PREPARED FOR
RAVEN VOLT
2361 AUTO PARK WAY,
ESCONDIDO, CA 92029

SHEET NUMBER
L0.0

811
Know what's below.
Call 811 before you dig.

GENERAL LANDSCAPE NOTES

1. THE WORK SHALL BE DONE IN ACCORDANCE WITH THE PLANS AND THE MOST CURRENT EDITION OF THE APPLICABLE CITY AND/OR REGIONAL STANDARDS. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO OBTAIN COPIES OF THESE STANDARDS, SPECIFICATIONS AND DRAWINGS, AS WELL AS ALL OTHER STANDARDS AND SPECIFICATIONS WHICH MAY BE NECESSARY TO COMPLETE AND ACCURATELY INTERPRET THESE PLANS.
2. ALL QUANTITIES LISTED IN THE LANDSCAPE SCHEDULE ARE FOR THE CONVENIENCE OF THE CONTRACTOR. IN THE CASE OF ANY DISCREPANCIES, PLANS SHALL OVERRIDE THE LANDSCAPE AND BID SCHEDULE QUANTITIES. CONTRACTOR SHALL VERIFY QUANTITIES SHOWN ON THE PLANS AND BASE THEIR BID ACCORDINGLY.
3. RESPONSIBILITY FOR ESTABLISHING SUBGRADES IS NOT INCLUDED IN THIS WORK. INSPECT SUBGRADES PRIOR TO COMMENCING WORK TO CONFIRM SUBGRADE DEPTHS AND GRADES. ADVISE LANDSCAPE ARCHITECT OF DISCREPANCIES WITH DRAWINGS OR SPECIFICATIONS IN WRITING IMMEDIATELY BEFORE PROCEEDING WITH WORK. ALL PLANTING AREAS SHALL BE LEFT FREE OF CONSTRUCTION DEBRIS AND/OR TOXIC MATERIAL AND GRADED TO A LEVEL TO PERMIT LANDSCAPE CONSTRUCTION. TRENCHES OR OTHER FILLED EXCAVATIONS SHALL BE COMPACTED PRIOR TO LANDSCAPE INSTALLATION.
4. SITE GRADING NECESSITATED BY THE WORK AS IT PROGRESSES AND NOT SPECIFICALLY CALLED OUT ON THE PLANS WILL BE CONSIDERED INCIDENTAL WORK.
5. ALL LANDSCAPE AREAS SHALL BE UNIFORMLY GRADED SO THAT FINISHED SURFACES CONFORM TO THE TYPICAL SECTIONS AND PROPOSED GRADES SHOWN. FINISHED SURFACES SHALL BE REASONABLY SMOOTH, COMPACTED, AND FREE FROM IRREGULAR SURFACE DRAINAGE. THE LANDSCAPE CONTRACTOR SHALL BE RESPONSIBLE FOR ESTABLISHING THE FINISH GRADE AND SHALL BEAR FINAL RESPONSIBILITY FOR PROPER SURFACE DRAINAGE OF PLANTED AREAS. REFER TO SEPARATE CIVIL GRADING PLANS AS NECESSARY.
6. AFTER ROUGH GRADING HAS OCCURRED, CONTRACTOR SHALL OBTAIN AN AGRONOMIC SOILS REPORT AND SUBMIT TO LANDSCAPE ARCHITECT FOR APPROVAL PRIOR TO AMENDMENTS AND/OR PLANTING. CONTRACTOR SHALL APPLY RECOMMENDATIONS UNLESS OTHERWISE NOTED BY LANDSCAPE ARCHITECT.
7. BACKFILL MIX SHALL BE PLACED IN 6" LIFTS AND TAMPED INTO PLACE AROUND THE PLANT. NO TRANSPLANTING SHALL BE DONE WHEN SOIL IS EXCESSIVELY WET. DO NOT COUNTERSINK AROUND CACTI OR SUCCULENTS. PROVIDE POSITIVE DRAINAGE AWAY FROM PLANT.
8. ALL TREES SHALL BE PLANTED A MINIMUM OF 5 FEET, ALL SHRUBS AND ACCENTS A MINIMUM OF 24", AND ALL GROUNDCOVERS 18" FROM EDGE OF CURBS, WALKS, WALLS, PADS, ETC., UNLESS DIRECTED OTHERWISE BY THE LANDSCAPE ARCHITECT.
9. EXCAVATE PITS, AS SHOWN ON DRAWINGS AND DETAILS. LOOSEN HARD SUBSOIL IN BOTTOM OF PIT. TEST DRAINAGE OF TREE, SHRUB AND PLANT PITS BY FILLING WITH WATER TWICE IN SUCCESSION. THE RETENTION OF WATER IN PLANTING PITS FOR MORE THAN TWENTY-FOUR (24) HOURS SHALL BE BROUGHT TO THE ATTENTION OF THE OWNER'S REPRESENTATIVE. SUBMIT IN WRITING A PROPOSAL FOR THE CORRECTION TO THE OWNER'S REPRESENTATIVE FOR APPROVAL BEFORE PROCEEDING WITH WORK.
10. IF ROCK, UNDERGROUND CONSTRUCTION, ADVERSE DRAINAGE CONDITIONS, OR OTHER OBSTRUCTIONS ARE ENCOUNTERED IN EXCAVATION FOR PLANTING OF ANY PLANT MATERIAL, NOTIFY THE OWNER'S REPRESENTATIVE. NEW LOCATIONS MAY BE SELECTED BY THE OWNER'S REPRESENTATIVE, OR INSTRUCTIONS MAY BE ISSUED TO DIRECT REMOVAL OF OBSTRUCTION. PROCEED WITH WORK ONLY AFTER APPROVAL OF THE OWNER'S REPRESENTATIVE.
11. DO NOT MAKE SUBSTITUTIONS. IF SPECIFIED LANDSCAPE MATERIAL IS NOT OBTAINABLE, SUBMIT PROOF OF NON-AVAILABILITY FROM AT LEAST FIVE SOURCES TO THE OWNER'S REPRESENTATIVE, TOGETHER WITH PROPOSAL FOR USE OF EQUIVALENT MATERIAL FOR FINAL APPROVAL.
12. ALL PLANT MATERIAL AND SPECIFICATIONS TO CONFORM TO THE AMERICAN STANDARD FOR NURSERY STOCK STANDARDS UNLESS OTHERWISE NOTED.
13. LAY OUT INDIVIDUAL TREE AND PLANT LOCATIONS AND AREAS FOR MULTIPLE PLANTINGS, STAKE LOCATIONS AND OUTLINE AREAS AND SECURE THE OWNER'S REPRESENTATIVE'S ACCEPTANCE BEFORE START OF PLANTING WORK. MAKE MINOR ADJUSTMENTS AS DIRECTED.
14. ALL SHRUBS SHALL HAVE A FULL HEAD THAT COVERS THE CAN DIAMETER (CAN FULL) AND A MINIMUM OF THREE STEMS/BRANCHES.
15. FINISH GRADE FOR PLANTED AREAS SHALL BE 1" BELOW ALL CURBS, WALKS AND PAVING WITH SMOOTH EVEN LINES AT EDGES OF STRUCTURES.
16. FINISH LANDSCAPE GRADES SHALL SLOPE AT A 2% GRADE AWAY FROM CURBS, WALKS, AND WALLS.
17. ALL LANDSCAPE AREAS SHALL RECEIVE A 3" DEPTH OF MULCH, UNLESS OTHERWISE NOTED ON THESE PLANS. TREES TO HAVE A 6' DIAMETER RING AROUND TRUNK FREE OF MULCH. MULCH SHALL EXTEND UNDER ALL SHRUBS AND PLANTS. APPLY PRE-EMERGENT HERBICIDE PRIOR TO AND AFTER MULCH INSTALLATION.
18. PROVIDE SAMPLES OF PROPOSED MULCH SHOWING COLOR, GRADATION SIZE RANGE AND TEXTURE INCLUDING PROPOSED SOURCE. PROVIDE 1/2 CUBIC FOOT SAMPLE OF EACH.
19. ANY ROCK MULCH OR DECOMPOSED GRANITE SHALL NOT CONTAIN LUMPS OR BALLS OF CLAY, CALICHE, ORGANIC MATTER OR CALCAREOUS COATING. PROVIDE WEED BARRIER UNDER ALL DG AND/OR ROCK MULCH. THE CONTRACTOR SHALL ENSURE THAT SUFFICIENT QUANTITY IS AVAILABLE FROM A SINGLE SOURCE TO COMPLETE THE PROJECT. THE OWNER'S REPRESENTATIVE SHALL APPROVE SAMPLES PRIOR TO ORDERING.
20. NO JOB WILL BE CONSIDERED COMPLETE UNTIL ALL CURBS, PAVEMENT AND SIDEWALKS HAVE BEEN SWEPT CLEAN OF ALL DIRT AND DEBRIS ACCORDING TO PLANS.
21. IT IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO OBTAIN ANY PERMITS REQUIRED. (CONTRACTOR SHALL REVIEW THE CITY GENERAL CONDITIONS AND ALL APPLICABLE CODE STANDARDS)
22. ALL CONSTRUCTION ROADS AND COMPACTED AREAS DEVELOPED THROUGH CONSTRUCTION THAT ARE WITHIN THE LANDSCAPE AREAS SHALL BE SCARIFIED AND LOOSENED TO A DEPTH OF 12" PRIOR TO LANDSCAPE AND IRRIGATION WORK BEGINNING
23. PLANTINGS WITHIN THE SIGHT VISIBILITY TRIANGLE LINE SHALL BE MAINTAINED SO THAT NO LIMBS HANG LOWER THAN SEVEN (7) FEET AND SHRUBS OR OTHER PLANTS PLANTED WITHIN THE SIGHT VISIBILITY TRIANGLE LINE SHALL BE NO TALLER THAN TWO (2) FEET AT FULL GROWTH.

LANDSCAPE ARCHITECT NOTES

1. THE TERM "LANDSCAPE ARCHITECT" USED HEREIN SHALL MEAN THE LANDSCAPE ARCHITECT WHO HAS SIGNED AND SEALED THESE PLANS AND IS IN RESPONSIBLE CHARGE OF THE LANDSCAPE ARCHITECTURE DESIGN. THE TERM "CONTRACTOR" USED HEREIN SHALL MEAN ANY GENERAL CONTRACTOR OR SUBCONTRACTOR USING THESE PLANS. ANY AGENCY SIGNATURE OR APPROVAL ON THESE PLANS DOES NOT CONSTITUTE APPROVAL OF ANY OF THESE NOTES.
2. THE LANDSCAPE ARCHITECT WILL NOT PROVIDE, OBSERVE, COMMENT ON NOR ENFORCE ANY SAFETY MEASURES OR REGULATIONS. THE CONTRACTOR SHALL DESIGN, CONSTRUCT, AND MAINTAIN ALL SAFETY MEASURES AND SHALL BE SOLELY RESPONSIBLE FOR SAME AND COMPLYING WITH ALL LOCAL, STATE AND FEDERAL SAFETY AND HEALTH STANDARDS, LAWS, AND REGULATIONS. THE CONTRACTOR AGREES THAT SHE/HE SHALL ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOBSITE CONDITIONS AND SAFETY OF ALL PERSONS AND PROPERTY DURING THE COURSE OF CONSTRUCTION OF THIS PROJECT. THIS REQUIREMENT SHALL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS.
3. THE LANDSCAPE ARCHITECT SHALL HAVE NO RESPONSIBILITY FOR ANY OF THE CONTRACTOR'S MEANS AND METHODS OF CONSTRUCTION, TECHNIQUES, EQUIPMENT CHOICE AND USAGE, SEQUENCE, SCHEDULE, SAFETY PROGRAMS, OR SAFETY PRACTICES, NOR SHALL THE LANDSCAPE ARCHITECT HAVE ANY AUTHORITY OR RESPONSIBILITY TO STOP OR DIRECT THE WORK OF ANY CONTRACTOR.
4. THE CONTRACTOR SHALL DEFEND, INDEMNIFY, AND HOLD THE LANDSCAPE ARCHITECT AND OWNER, THEIR AGENTS AND EMPLOYEES, HARMLESS FROM ANY AND ALL CLAIMS, DEMANDS, JUDGMENTS, LOSS, DAMAGES, COSTS, EXPENSES, FEES OR LIABILITY WHATSOEVER, REAL OR ALLEGED, IN CONNECTION WITH, IN WHOLE OR IN PART, DIRECTLY OR INDIRECTLY, THE PERFORMANCE OF WORK ON THIS PROJECT, EXCEPTING LIABILITY ARISING FROM THE SOLE NEGLIGENCE OF THE OWNER OR THE LANDSCAPE ARCHITECT.
5. IF THERE ARE ANY QUESTIONS REGARDING THESE PLANS, THE CONTRACTOR SHALL REQUEST IN WRITING FROM THE LANDSCAPE ARCHITECT AND THE OWNER, AN INTERPRETATION BEFORE DOING ANY RELATED OR IMPACTED WORK.
6. THE CONTRACTOR SHALL TAKE THE NECESSARY STEPS TO PROTECT THE PROPERTY FROM ANY EROSION AND SILTATION THAT RESULT FROM CONTRACTOR OPERATIONS BY APPROPRIATE MEANS UNTIL SUCH TIME THAT THE PROJECT IS COMPLETED AND ACCEPTED FOR MAINTENANCE BY WHOMEVER IS TO BE ULTIMATELY RESPONSIBLE FOR MAINTENANCE.
7. THE CONTRACTOR SHALL NOTIFY ALL UTILITY COMPANIES PRIOR TO STARTING WORK NEAR THEIR FACILITIES AND SHALL COORDINATE WORK WITH UTILITY COMPANY REPRESENTATIVES.
8. THE EXISTENCE AND LOCATION OF UNDERGROUND UTILITIES OR STRUCTURES SHOWN ON THESE PLANS WERE OBTAINED FROM A SEARCH OF READILY AVAILABLE RECORDS. NO REPRESENTATION IS MADE AS TO THE ACCURACY OR COMPLETENESS OF SAID UTILITY INFORMATION. THE CONTRACTOR IS REQUIRED TO TAKE PRECAUTIONARY MEASURES TO PROTECT THE UTILITY LINES SHOWN HEREON AND ANY OTHERS NOT OF RECORD OR NOT SHOWN ON THESE PLANS. ALL DAMAGES THERETO CAUSED BY THE CONTRACTOR SHALL BE REPAIRED TO THE APPROPRIATE SPECIFICATIONS AND STANDARDS AT THE SOLE EXPENSE OF THE CONTRACTOR.
9. THE LOCATION, ELEVATIONS, SIZE, TYPE AND CONDITION OF EXISTING IMPROVEMENTS ADJACENT TO THE PROPOSED WORK INDICATED ON THESE PLANS SHALL BE CONFIRMED BY THE CONTRACTOR BY FIELD MEASUREMENTS AND OBSERVATIONS PRIOR TO CONSTRUCTION OF NEW WORK. THE CONTRACTOR WILL IMMEDIATELY INFORM THE LANDSCAPE ARCHITECT IN WRITING IF ANY DISCREPANCIES OR CONFLICTING INFORMATION IS FOUND.
10. THE CONTRACTOR SHALL MAKE EXPLORATORY EXCAVATIONS AND LOCATE EXISTING UNDERGROUND FACILITIES AS NEEDED, SUFFICIENTLY AHEAD OF CONSTRUCTION TO PERMIT REVISIONS TO PLANS IF REVISIONS ARE NECESSARY DUE TO THE ACTUAL LOCATION, SIZE, TYPE, OR CONDITION OF EXISTING FACILITIES DIFFERING FROM WHAT IS SHOWN ON THESE PLANS.
11. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVAL OF ANY DAMAGE TO THE EXISTING IMPROVEMENTS AND REPLACEMENT TO THE SATISFACTION OF THE OWNER.
12. SHOULD CONFLICTING INFORMATION BE FOUND ON THE PLANS THE CONTRACTOR SHALL NOTIFY THE LANDSCAPE ARCHITECT IN WRITING IMMEDIATELY BEFORE PROCEEDING WITH THE WORK IN QUESTION.
13. ANYTHING MENTIONED IN THE SPECIFICATIONS, IF ANY, AND NOT SHOWN ON THE DRAWINGS, OR SHOWN ON THE DRAWINGS AND NOT MENTIONED IN THE SPECIFICATIONS, SHALL BE OF LIKE EFFECT AS IF SHOWN OR MENTIONED IN BOTH.

I HAVE COMPLIED WITH THE CRITERIA OF THE ORDINANCE AB-1881 AND APPLIED THEM FOR THE EFFICIENT USE OF WATER IN THE LANDSCAPE DESIGN PLAN.

I AM FAMILIAR WITH THE REQUIREMENT FOR LANDSCAPE AND IRRIGATION PLANS CONTAINED IN THE ESCONDIDO WATER EFFICIENT LANDSCAPE REGULATIONS. I HAVE PREPARED THIS PLAN IN COMPLIANCE WITH THOSE REGULATIONS AND THE LANDSCAPE DESIGN MANUAL. I CERTIFY THAT THE PLAN IMPLEMENTS THOSE REGULATIONS TO PROVIDE EFFICIENT USE OF WATER.

Luke Davies

LUKE D. DAVIES, LLA 7145

PLANT SCHEDULE

SYMBOL	QTY	BOTANICAL / COMMON NAME	CONT	HEIGHT/SPREAD	CAL.	WUCOLS
TREES						
	2	CHILOPSIS LINEARIS / DESERT WILLOW	24" BOX	3-4' HT. X 3-4' SPR.	0.5" CAL.	LOW
	9	EXISTING TREE / TO BE REMOVED	-	-	-	-
	4	MAGNOLIA GRANDIFLORA `MONLIA` / MAJESTIC BEAUTY® SOUTHERN MAGNOLIA	24" BOX	9`-11` HT. X 4`-5` SPR.	1" CAL.	MODERATE
	6	PINUS CANARIENSIS / CANARY ISLAND PINE	24" BOX	9`-11` HT. X 4`-5` SPR.	1" CAL.	MODERATE

SYMBOL	QTY	BOTANICAL / COMMON NAME	CONT.	SPACING	WUCOLS
SHRUBS					
	13	FRANGULA CALIFORNICA 'LITTLE SUR' / LITTLE SUR COFFEEBERRY	5 GAL.	6` O.C.	LOW
	28	PERITOMA ARBOREA / BLADDERPOD	5 GAL.	6` O.C.	LOW
BIO-RETENTION					
	33	FESTUCA CALIFORNICA / CALIFORNIA FESCUE	5 GAL.	3` O.C.	LOW
	19	MUHLENBERGIA RIGENS / DEER GRASS	5 GAL.	4` O.C.	MODERATE
INERTS					
	14,440 SF	ROCK MULCH 6" DEPTH MIN. OF APACHE SUNSET CRUSHED 2"-4" DIAMETER ROCK OVER COMMERCIAL-GRADE WEED BARRIER FABRIC. CONTRACTOR TO SUBMIT SAMPLE TO LANDSCAPE ARCHITECT FOR APPROVAL PRIOR TO PROCUREMENT.	-	-	-
	1,555 SF	3" DEPTH WOOD BARK MULCH			
	230 LF	ROOT CONTROL BARRIER			

STREET TREE REQUIREMENTS

STREET FRONTAGE

1 TREE FOR EVERY 30 LF OF FRONTAGE REQUIRED	
180 LF OF STREET FRONTAGE / 30 FEET PER TREE =	6 TREES
PROVIDED =	6 TREES

TREE MITIGATION REQUIREMENTS

TREE MITIGATION

1 TREE REQUIRED FOR EACH TREE REMOVED	
9 TREES TO BE REMOVED =	9 REPLACEMENT TREES REQUIRED
PROVIDED =	9 REPLACEMENT TREES

NO.	REVISIONS	DATE	BY

Kimley»Horn

500 LA TERRAZA BLVD., SUITE 300,
ESCONDIDO, CA 92025
PHONE: 760-266-6682
WWW.KIMLEY-HORN.COM

LICENSED LANDSCAPE ARCHITECT
Luke D. Davies License No. 7145
Signature
9/30/2027
Renewal Date
4/30/2026
Date
STATE OF CALIFORNIA

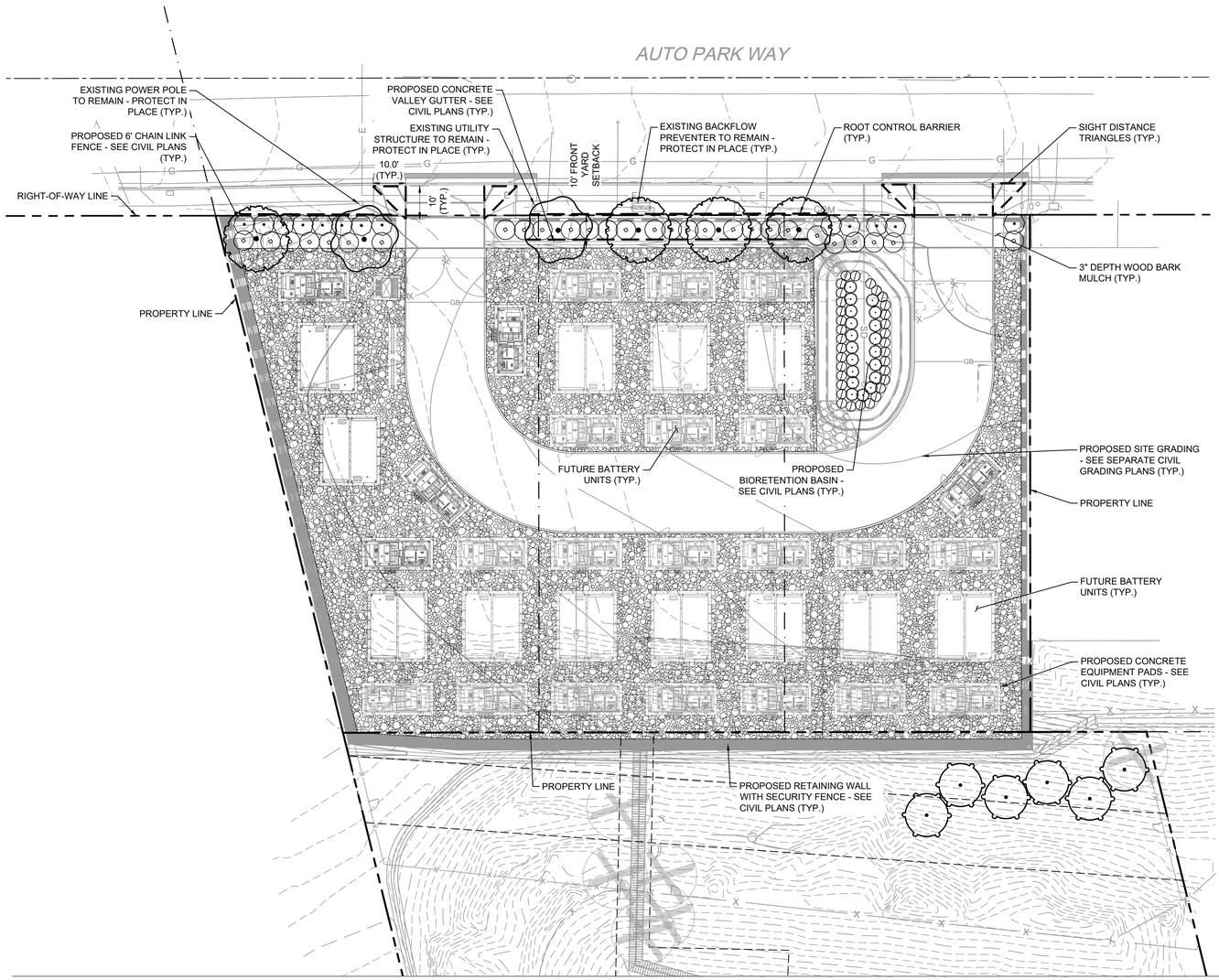
KHA PROJECT PROJ 195582002
DATE 4/30/26
SCALE: AS SHOWN
DESIGNED BY: PF
DRAWN BY: PF
CHECKED BY: MD

LANDSCAPE NOTES

ENTERPRISE BESS
PREPARED FOR
RAVEN VOLT
2361 AUTO PARK WAY,
ESCONDIDO, CA 92029

Know what's below. Call 811 before you dig.

SHEET NUMBER
L1.0



PLANT SCHEDULE

SYMBOL	QTY	BOTANICAL / COMMON NAME	CONT	HEIGHT/SPREAD	CAL.	WUCOLS
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	2	CHILOPSIS LINEARIS / DESERT WILLOW	24" BOX	3-4' HT. X 3-4' SPR.	0.5" CAL.	LOW
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	1,555 SF	3" DEPTH WOOD BARK MULCH			
	230 LF	ROOT CONTROL BARRIER			

GRAPHIC SCALE IN FEET
0 10 20 40

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LICENSED LANDSCAPE ARCHITECT
Cindy Irvine License #6784
9/30/2027
Renewal Date
Date
STATE OF CALIFORNIA

KHA PROJECT
PROJ 195582002

DATE
4/30/26

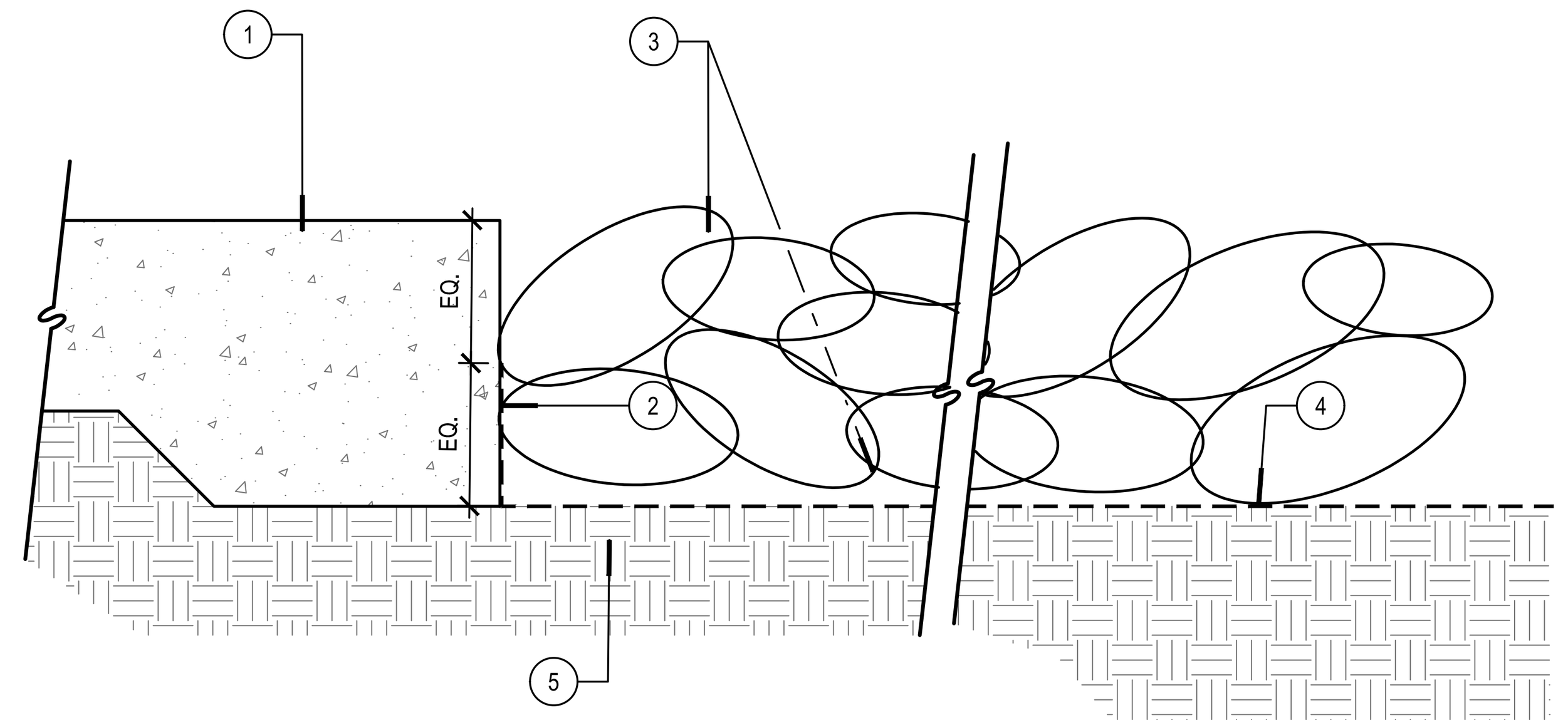
SCALE: AS SHOWN
DESIGNED BY: PF
DRAWN BY: PF
CHECKED BY: MD

LANDSCAPE PLAN

ENTERPRISE BESS
PREPARED FOR
RAVEN VOLT

2361 AUTO PARK WAY,
ESCONDIDO, CA 92029

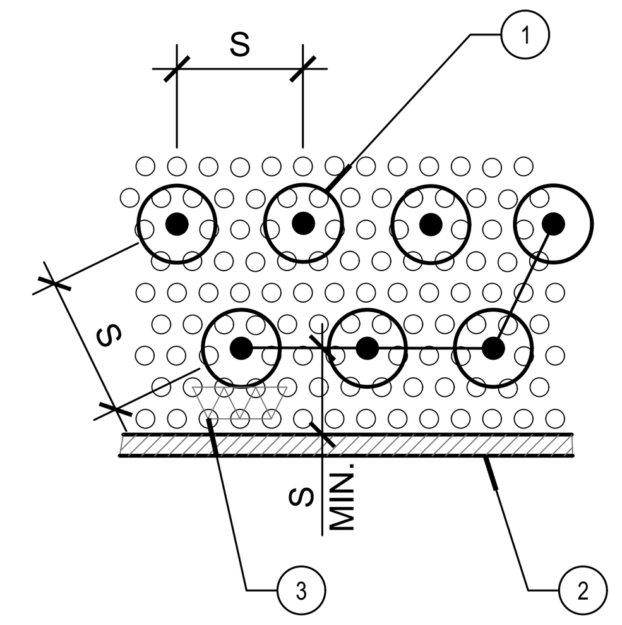
SHEET NUMBER
L1.1



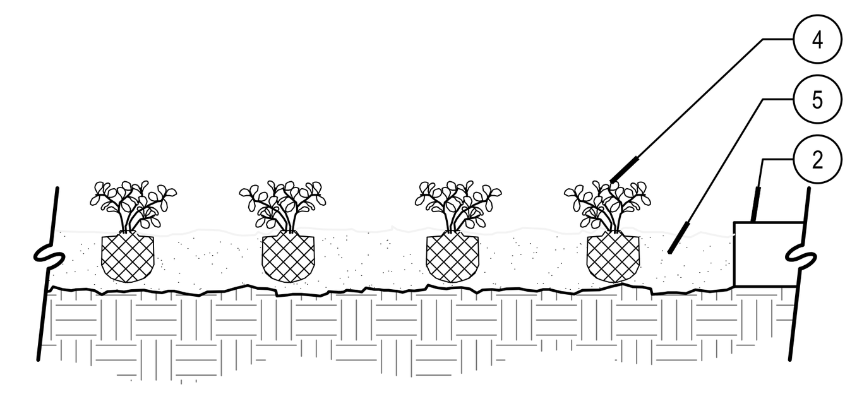
LEGEND

1. ADJACENT PAVING MATERIAL (SEE PLANS)
2. WRAP WEED BARRIER UP SIDE OF PAVING - ADHERE WITH CONSTRUCTION ADHESIVE CONT.
3. CRUSHED ROCK, SIZE PER PLANS
4. PERMEABLE WEED BARRIER - APPLY (2) ROUNDS PRE-EMERGENT HERBICIDE PRIOR TO PLACEMENT
5. COMPACT SUBGRADE PER SOIL'S REPORT

A CRUSHED ROCK
SCALE: 3" = 1'-0"



TRIANGULAR SPACING NTS



SECTION NTS

LEGEND

1. TRIANGULATED ROWS OF SHRUBS.
2. HARDSCAPE ELEMENT
3. TRIANGULATED ROWS OF GROUNDCOVER CONTINUE UP TO SHRUB WATERING BASING. SEE PLANT LEGEND FOR SPACING.
4. GROUND COVER TO BE PLANTED IN FLATS. CUTTING, LINERS OF 1 GAL. CONTAINERS PER PLANS.
5. SOIL PREP REFER TO PLANTING SPECS AND NOTES.

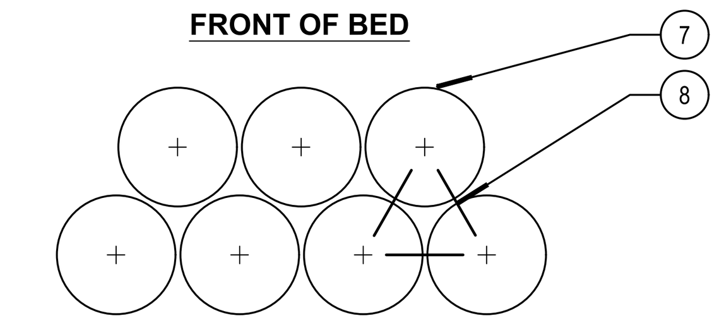
NOTES

A. S = FOR O.C. SPACING REFER TO SHEET L4.000, PLANTING LEGEND.

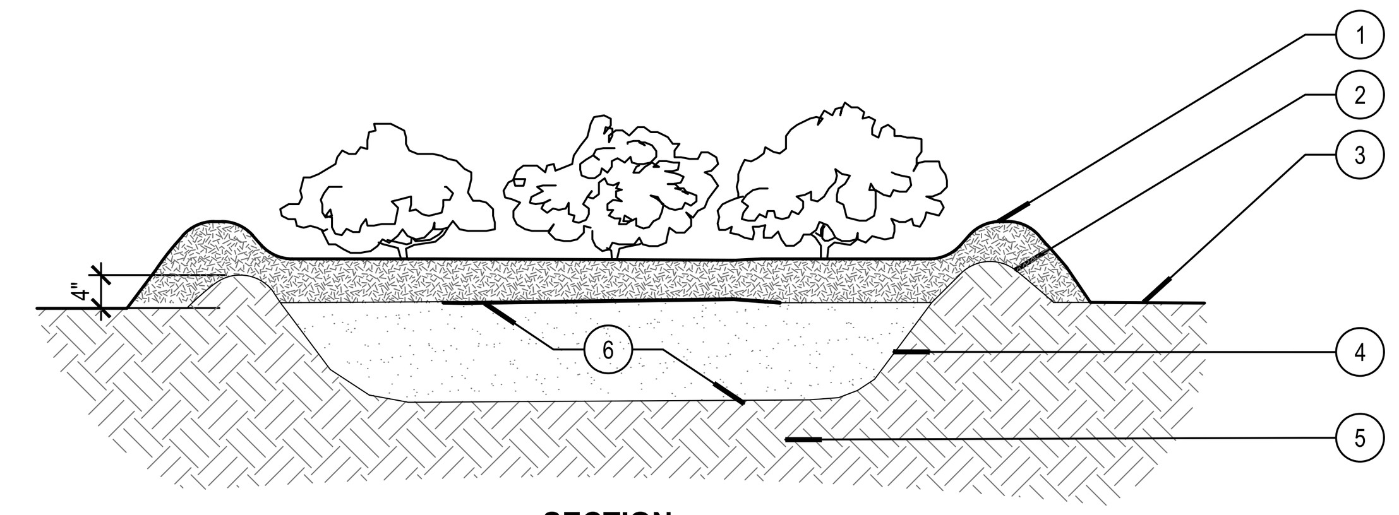
B. IN AREAS WITH GROUNDCOVER PLANTED FROM FLATS, THE MULCH DEPTH SHALL BE NO LESS THAN ONE AND ONE-HALF INCHES.

B GROUND COVER SPACING
SCALE: 1" = 1'-0"

FRONT OF BED



PLAN VIEW



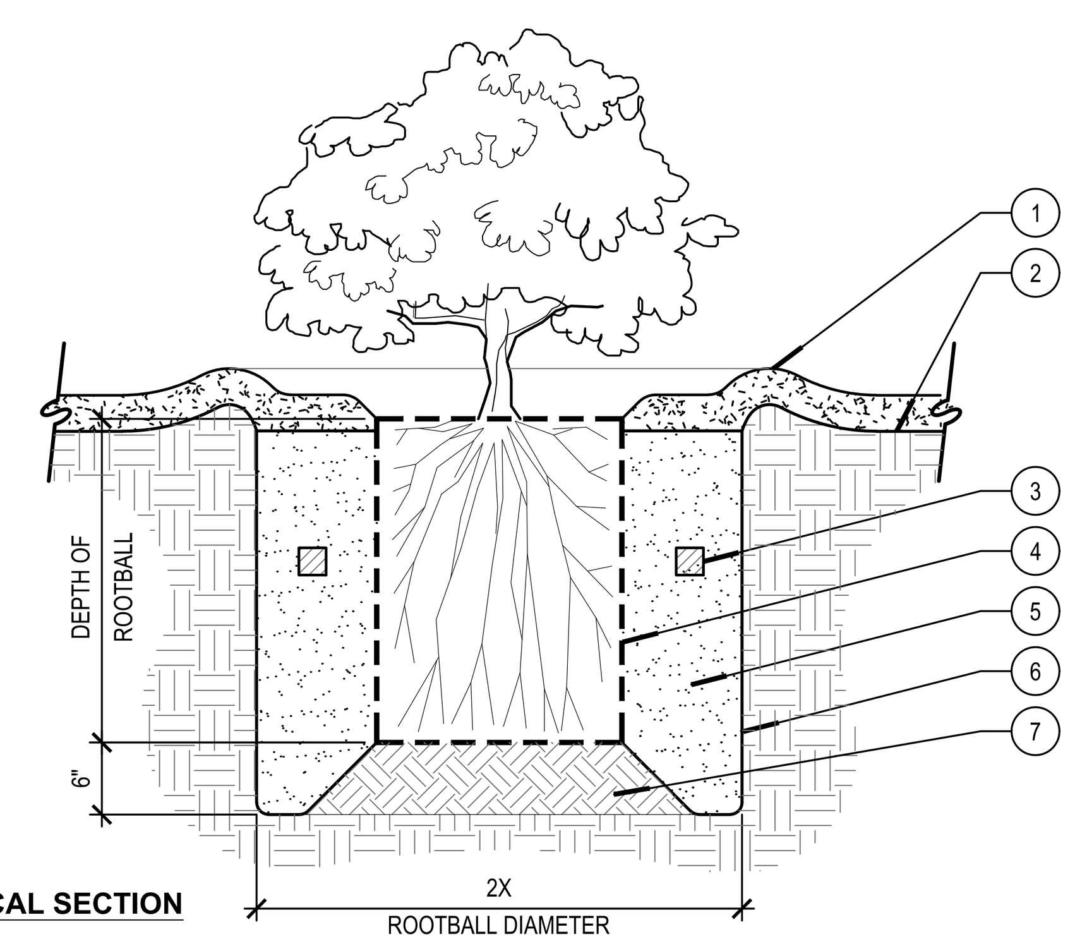
SECTION

LEGEND

1. 3" DEPTH MULCH LAYER
2. 4" HIGH BERM FIRMLY COMPACTED
3. FINISH GRADE
4. SCARIFY BOTTOM AND SIDES OF PLANTING PIT
5. UNDISTURBED SUB SOIL
6. PREPARED PLANTING SOIL AMEND ENTIRE BED FOR GROUNDCOVER BED
7. BEST FACE OF PLANT TO FACE FRONT OF PLANTING
8. REFER TO PLANT SCHEDULE AND PLANS FOR SPACING/ LAYOUT

NOTES:
1. REFERENCE PLANTING SPECIFICATIONS FOR ADDITIONAL INFORMATION.

C TYPICAL GROUNDCOVER PLANTING
SCALE: 1/2" = 1'-0"



TYPICAL SECTION N.T.S.

LEGEND

1. 3" HIGH WATER RETENTION BASIN, FORMED FROM PLANT PIT SPOILS/MULCH; MAINTAIN 2" MIN. MULCH ATOP ROOTBALL.
2. FINISH GRADE WITH APPROVED MULCH. REFER TO NOTES.
3. PLANTING TABLETS. REFER TO NOTES.
4. ROOTBALL. INSTALL CROWN 1" MINIMUM ABOVE FINISHED GRADE.
5. PREPARED BACKFILL/NATIVE SOIL MIX; GRADUALLY ADD SOIL AND COMPACT LIGHTLY WHEN BACKFILLING; WATER HALFWAY AND ALLOW TO DRAIN PRIOR TO ADDING MORE SOIL.
6. SCARIFY SIDES OF PLANT PIT; BREAK UP HARD/COMPACTED SOIL AND LOOSEN SOIL.
7. 6" ZONE OF OVER-EXCAVATED AND RECOMMENDED BACKFILL SOIL.

NOTES

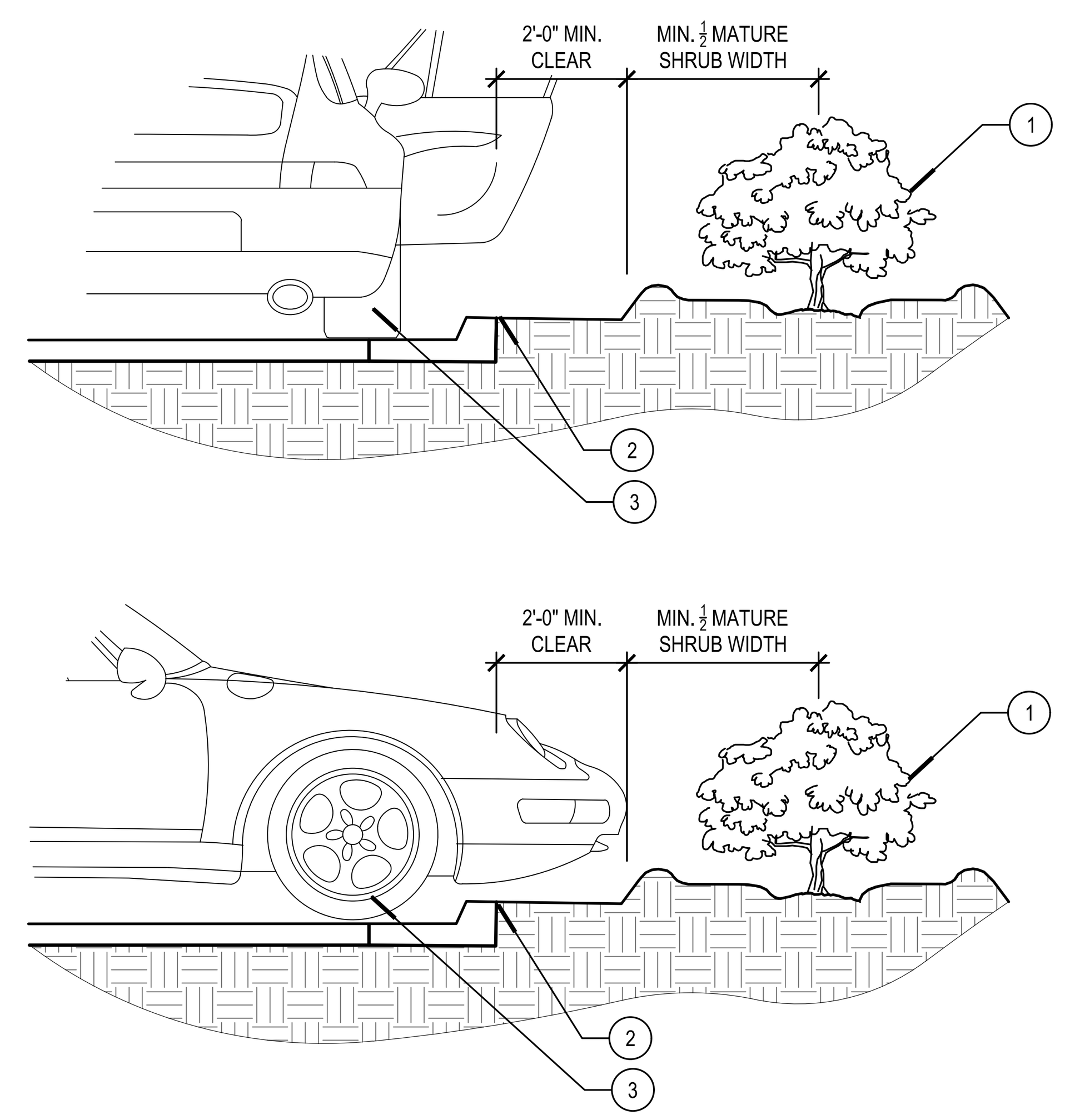
A. ALL PLANTING AREAS SHALL HAVE A 3" LAYER OF APPROVED NITROLIZED ORGANIC LANDSCAPE MULCH.

B. REFER TO THE PROJECT HORTICULTURAL SOILS REPORT FOR ALL BACKFILL SOIL AMENDMENTS REQUIRED.

C. AVOID PLANT INSTALLATION DIRECTLY IN FRONT OF IRRIGATION SPRAY AND RAKE OUT ALL SOIL EXCAVATION AS REQUIRED.

D. PLANT TABS TO BE "SCOTTS-AGRIFORM" OR APPROVED EQUAL. QUANTITY AS RECOMMENDED BY MANUFACTURER SIZE TABLET CHART.

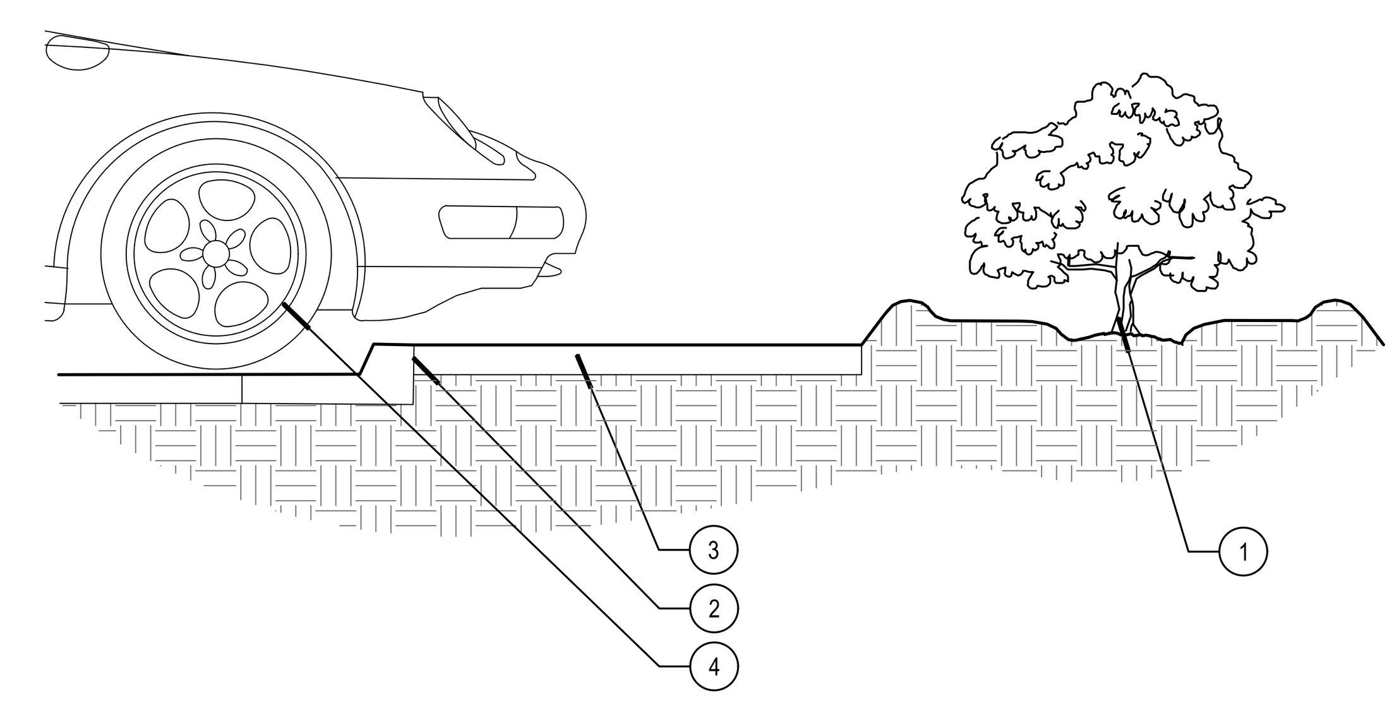
D SHRUB PLANTING
NOT TO SCALE



LEGEND

1. SHRUB PLANTING
2. BACK OF CURB
3. CAR

E SHRUB PLATING AT CURB
SCALE: 3/8" = 1'-0"



LEGEND

1. SHRUB PLANTING
2. BACK OF CURB
3. SIDEWALK
4. CAR

F SHRUB PLANTING AT SIDEWALK
SCALE: 1" = 1'-0"

NO.	REVISIONS	DATE	BY

Kimley»Horn

500 LA TERRAZA BLVD., SUITE 300,
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LICENSED LANDSCAPE ARCHITECT
Luke D. Davies License No. 7145
Signature
9/30/2027
Renewal Date
4/30/2026
Date
STATE OF CALIFORNIA

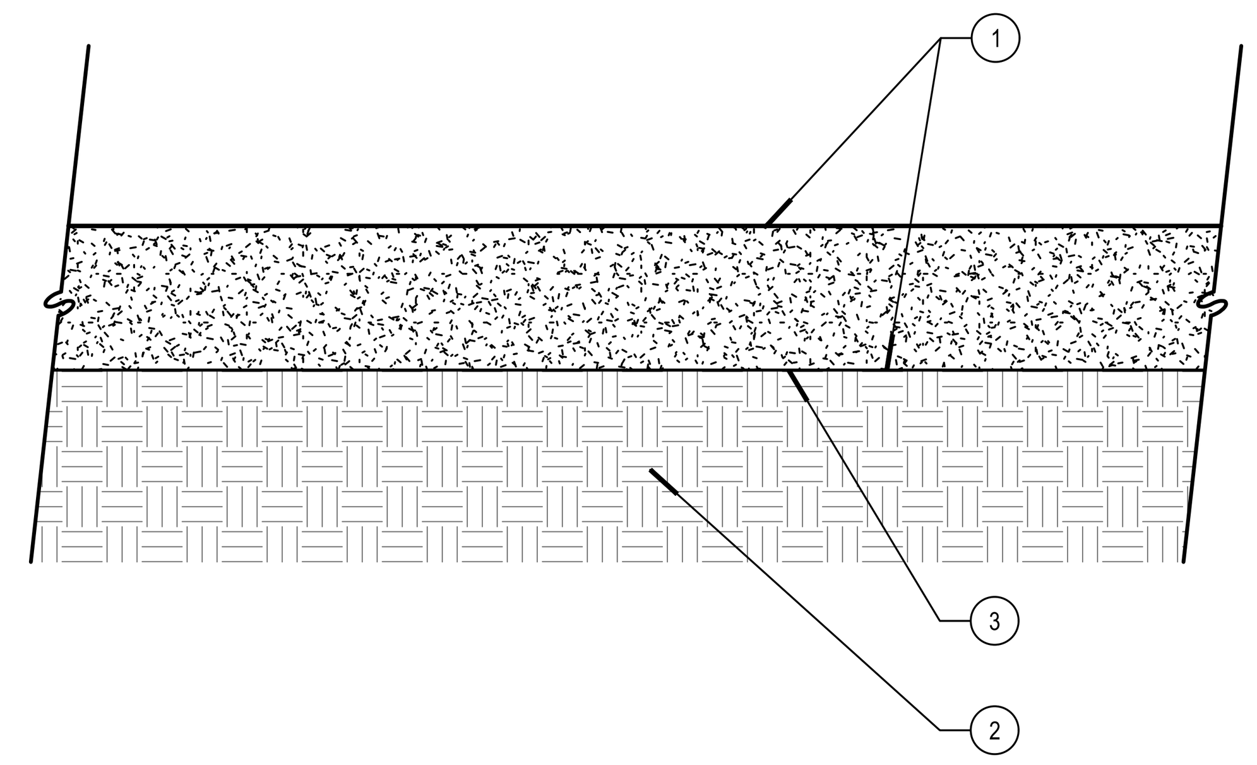
KHA PROJECT PROJ 195582002
DATE 4/30/26
SCALE: AS SHOWN
DESIGNED BY: PF
DRAWN BY: PF
CHECKED BY: MD

LANDSCAPE DETAILS

ENTERPRISE BESS
PREPARED FOR
RAVEN VOLT
2361 AUTO PARK WAY, ESCONDIDO, CA 92029

811 Know what's below. Call 811 before you dig.

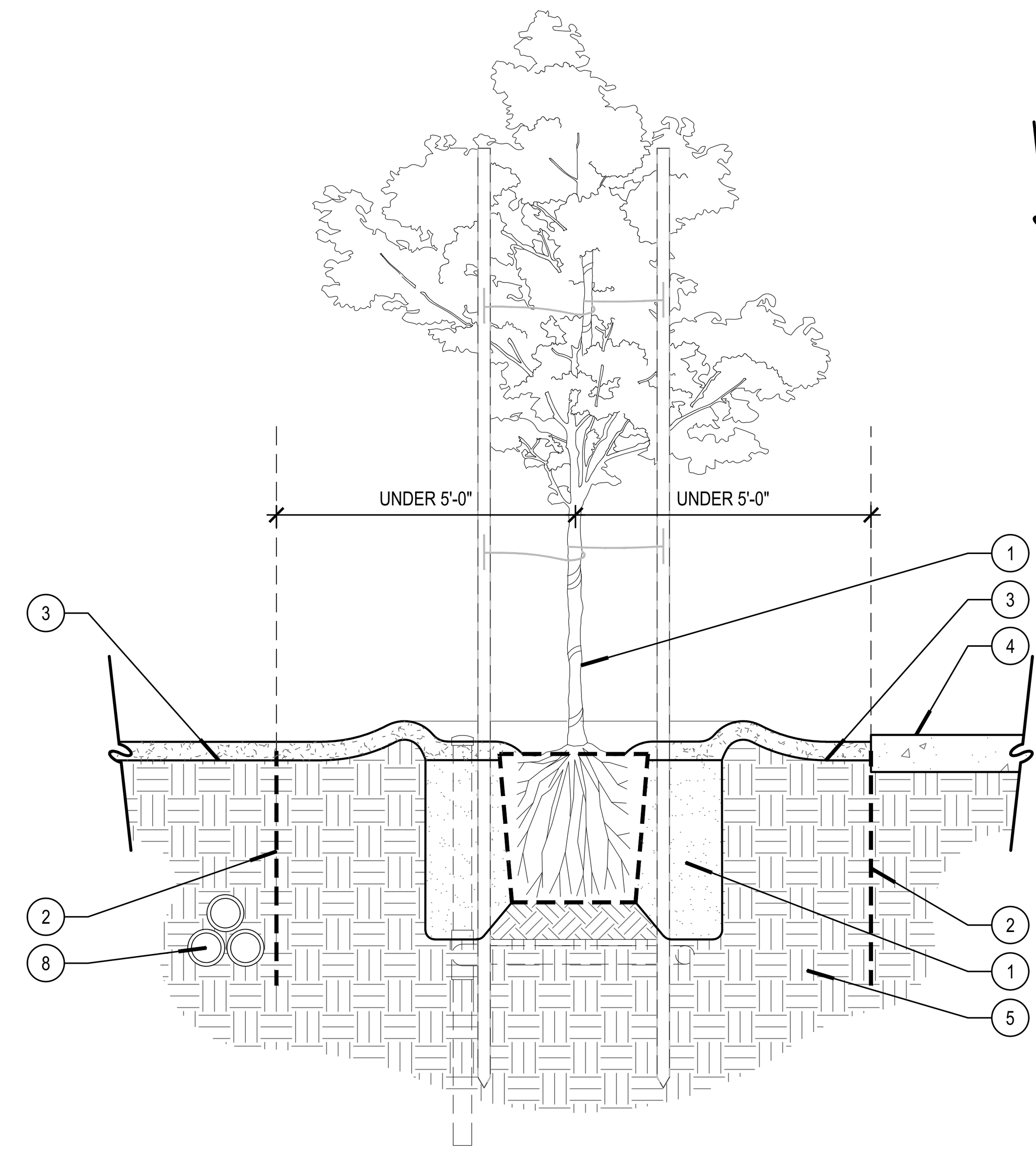
SHEET NUMBER
L1.2



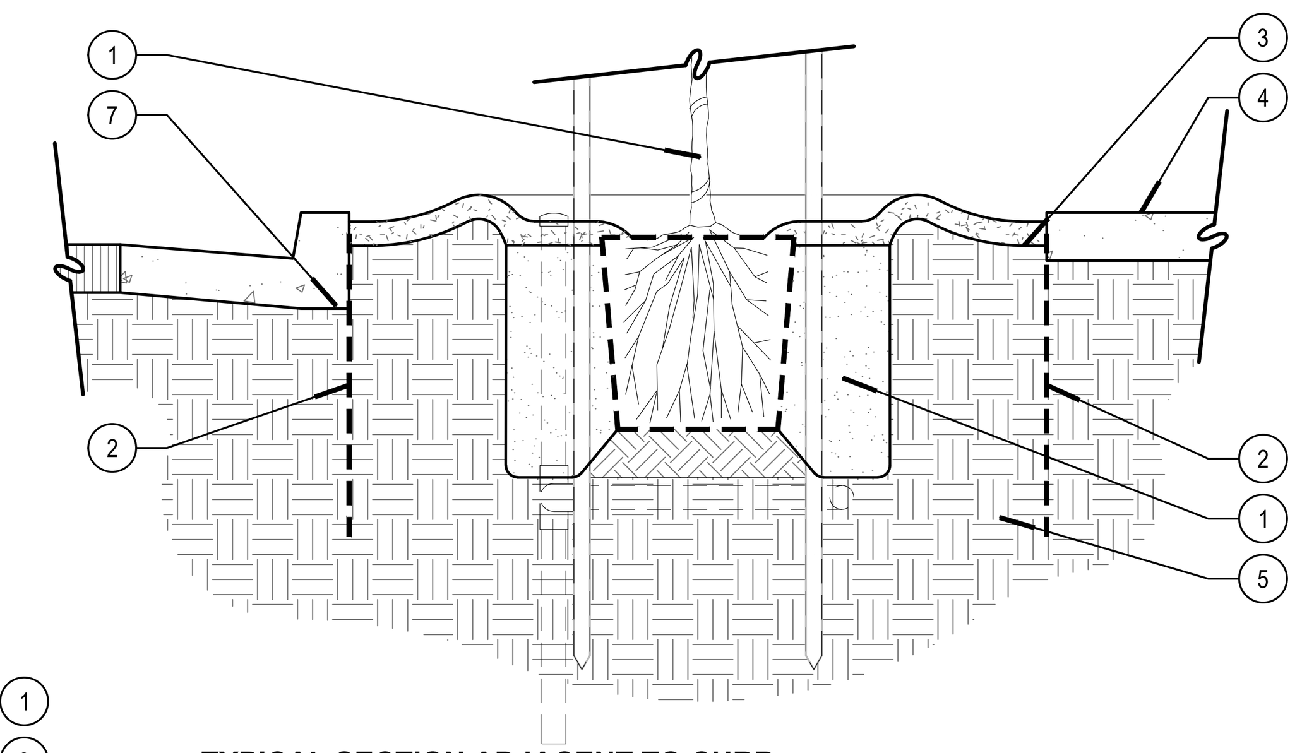
LEGEND

1. 3" MULCH LAYER. REFER TO SPECIFICATION FOR ADDITIONAL INFORMATION
2. PREPARED PLANTING SOIL PER SPECIFICATIONS.
3. (2) ROUNDS PRE-EMERGENT HERBICIDE TO BE APPLIED PRIOR TO LAYING MULCH

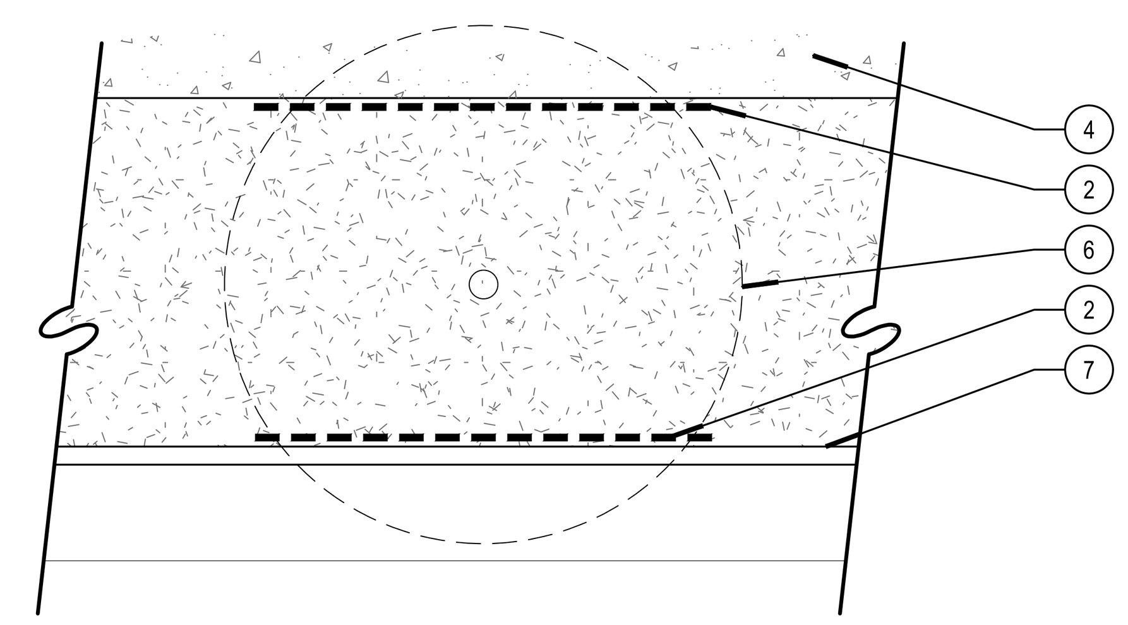
G WOOD BARK MULCH
SCALE: 3" = 1'-0"



TYPICAL SECTION
N.T.S.



TYPICAL SECTION ADJACENT TO CURB
N.T.S.



PLAN VIEW - ADJACENT TO CURB
N.T.S.

LEGEND

1. PROPOSED TREE/ROOTBALL WITH STAKES AND TIES; REFER TO TREE PLANTING DETAIL
2. ROOT BARRIER AS REQUIRED. 5' MIN CLEARANCE FROM TREE TRUNK TO ADJACENT HARDSCAPE. PROVIDE A 2'-0" MIN. DEEP HIGH DENSITY POLYETHYLENE BLACK LINEAR BARRIER.
3. FINISH GRADE WITH APPROVED MULCH. REFER TO NOTES
4. ADJACENT HARDSCAPE. REFER TO CONSTRUCTION PLANS FOR ADDITIONAL INFORMATION
5. NATIVE SOIL BACKFILLED FIRMLY ALONG ROOT BARRIER
6. TREE DRIP LINE
7. CONCRETE CURB AND GUTTER, WHERE APPLICABLE
8. ADJACENT UTILITY LINES, WHERE APPLICABLE

NOTES

A. ROOT BARRIER TO BE AVAILABLE AT VIT PRODUCTS OR APPROVED EQUAL. PROVIDE MATERIAL SUBMITTALS FOR REVIEW/ APPROVALS.

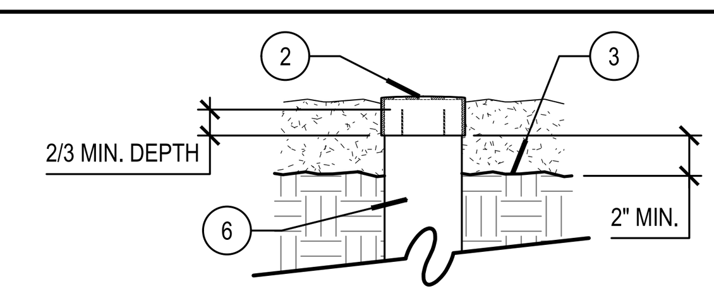
B. TOP OF BARRIER SHALL BE 1" ABOVE FINISHED GRADE. DO NOT ENCIRCLE ROOTBALL

C. PROVIDE MATERIAL SUBMITTALS FOR REVIEW AND APPROVAL PRIOR TO INSTALLATION.

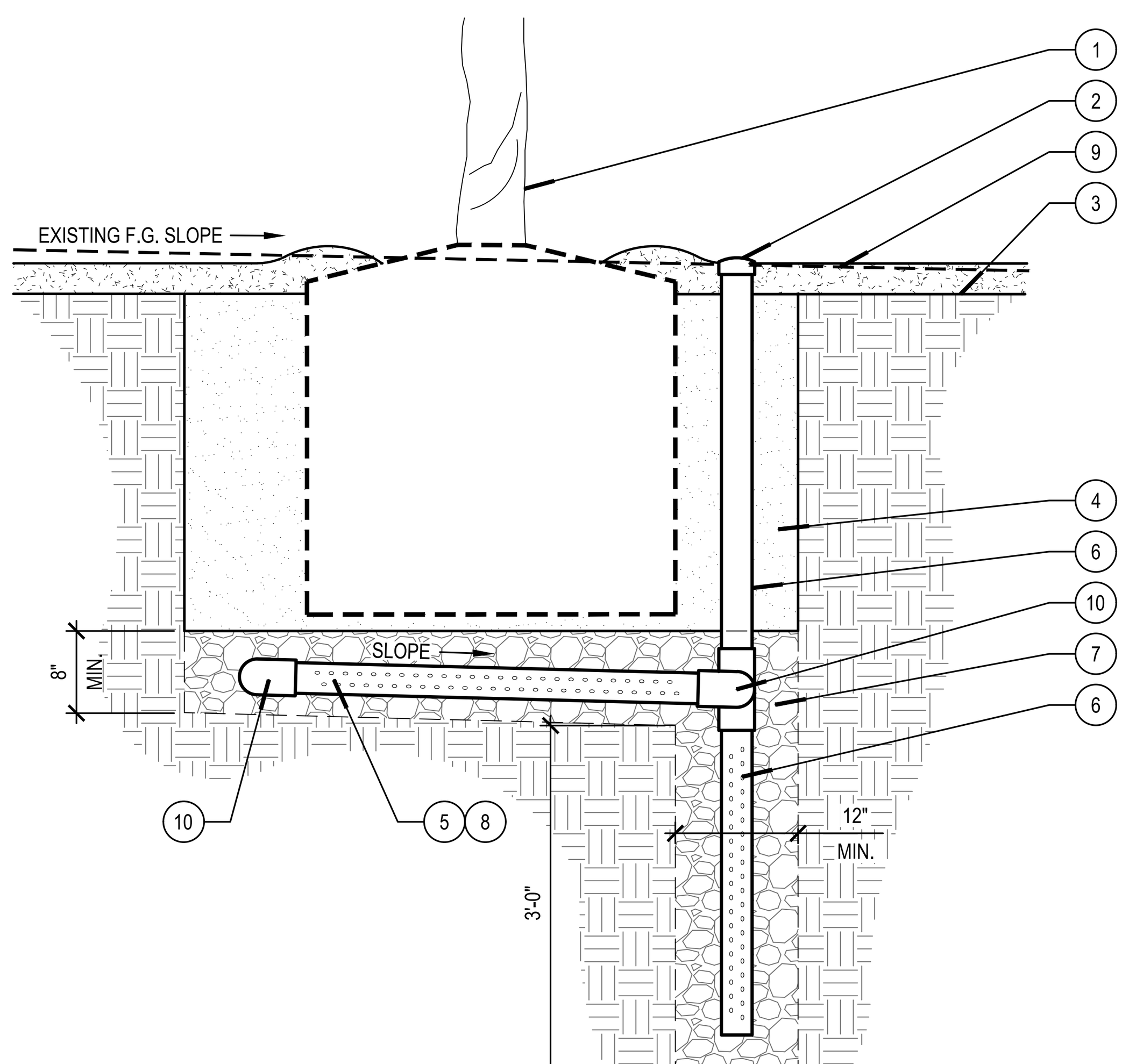
D. LENGTH OF ROOT BARRIER SHALL BE A MINIMUM OF 12' OR EQUAL TO THE DRIP LINE OF THE TREE AT MATURITY, WHICHEVER IS GREATER.

E. ADDITIONAL LOCATIONS FOR ROOT BARRIERS PER THE DIRECTION OF THE LANDSCAPE ARCHITECT,

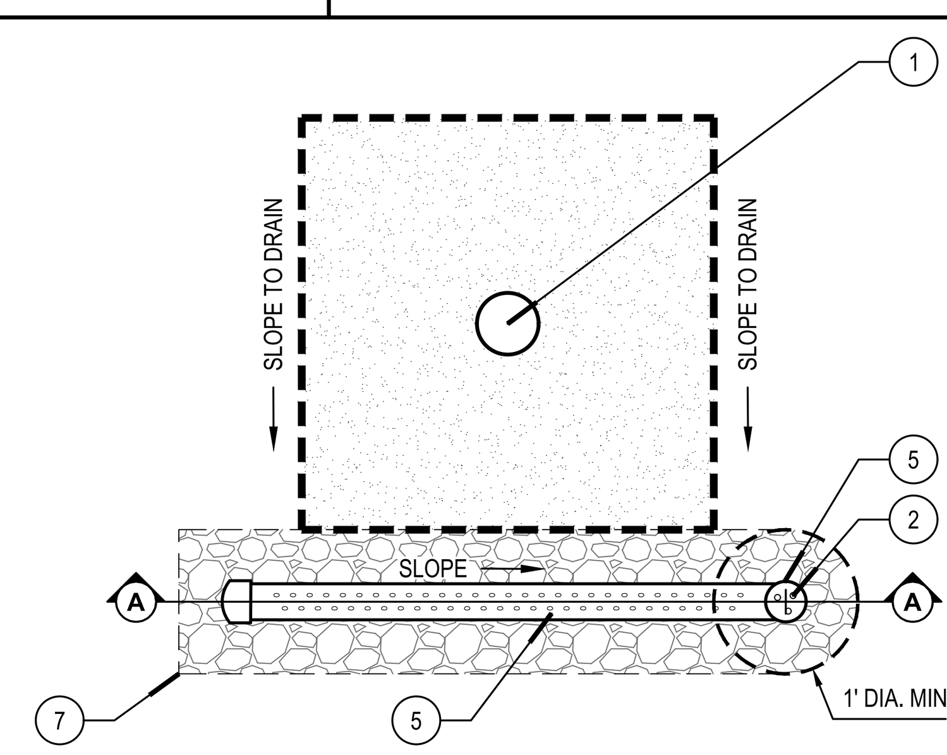
H ROOT BARRIER INSTALL
NOT TO SCALE



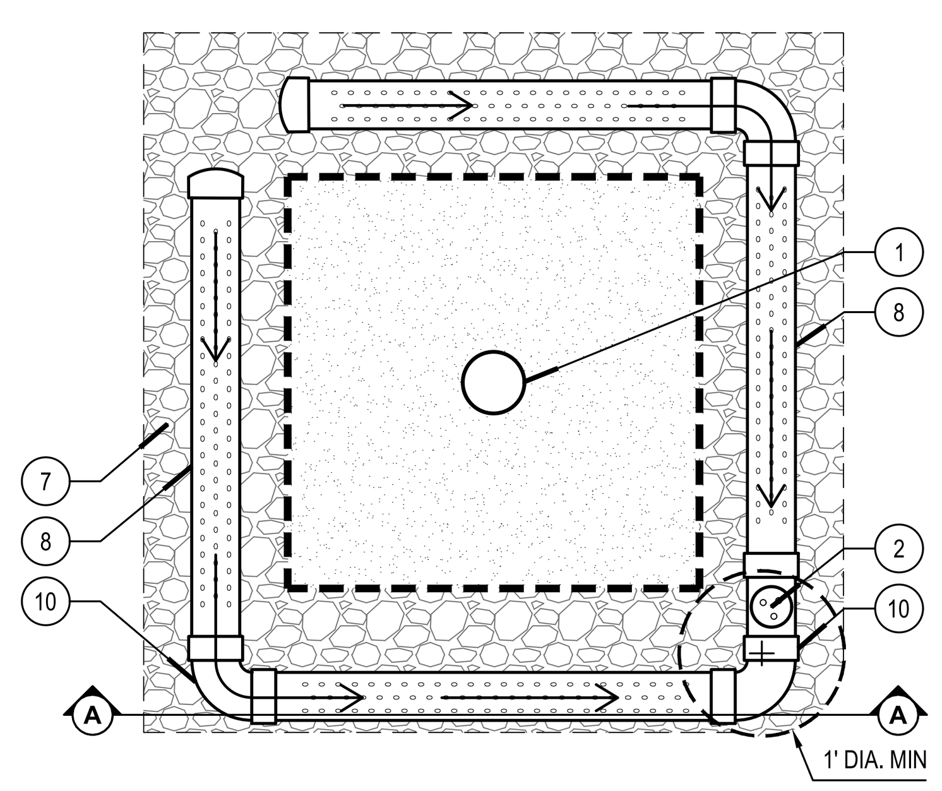
PIPE RISER/CAP ENLARGEMENT



TYPICAL SECTION
N.T.S.



PIPE LAYOUT 36" BOX OR SMALLER
PLAN VIEW



PIPE LAYOUT 48" BOX OR LARGER
PLAN VIEW **N.T.S.**

LEGEND

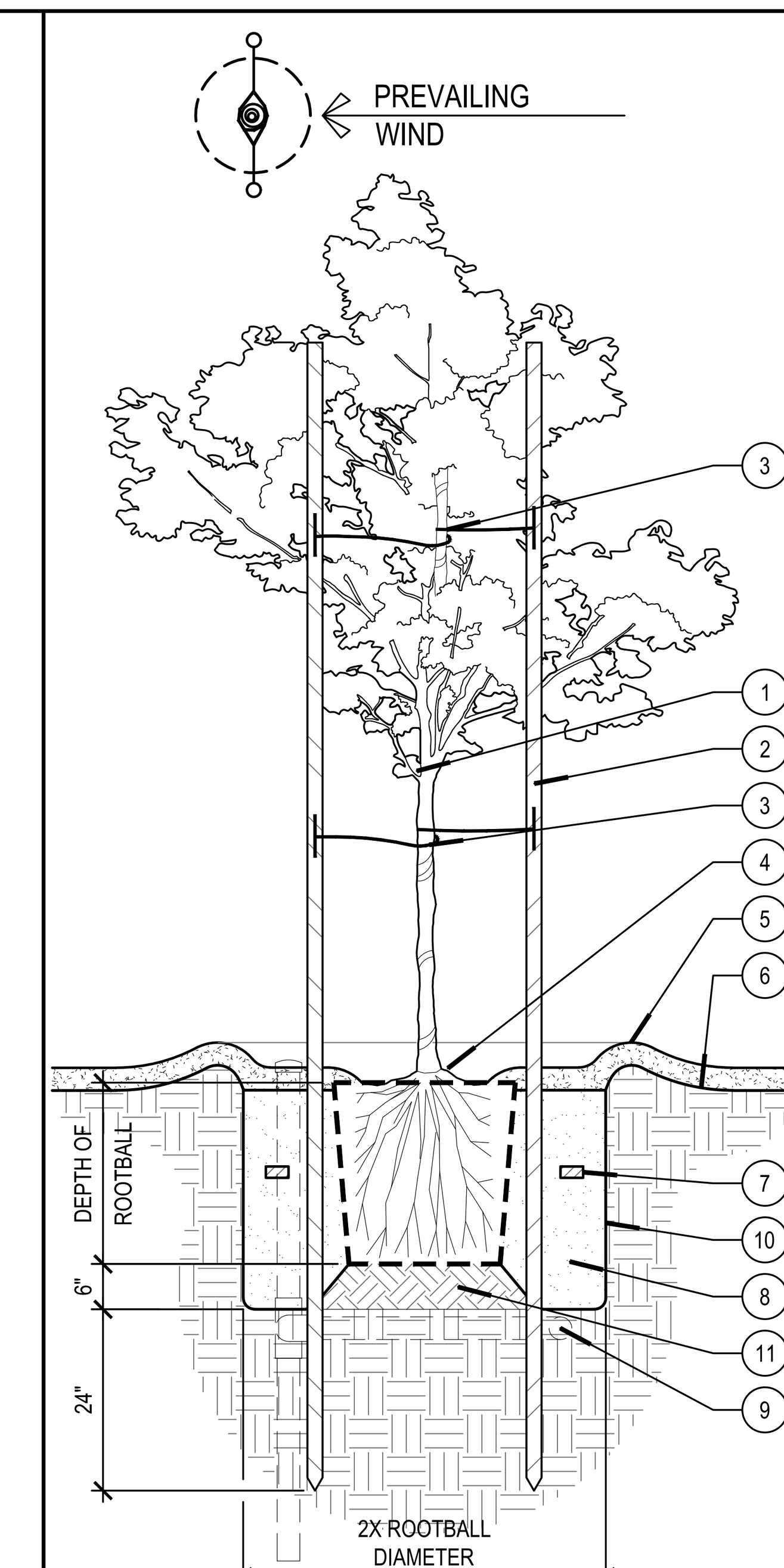
1. PROPOSED TREE.
2. PVC DRAIN GRATE OR END CAP. DRILL THREE (3) 1/2" HOLES INTO CAP AS SHOWN INSTALL CAP 2" ABOVE FINISH GRADE. CUT BOTTOM OF CAP 2/3 DEPTH TO ALLOW FOR EASY REMOVAL.
3. FINISH GRADE.
4. AMENDED OR NATIVE BACKFILL PER SPECS.
5. 3" DIAMETER PERFORATED PVC DRAIN AT LOW SIDE OF ROOTBALL PIT FOR 36" BOX TREE OR SMALLER. WRAP DRAIN LINE WITH NON WOVEN FILTER FABRIC SOCK/ WRAP. SLOPE DRAIN LINE AROUND ROOTBALL INTO AUGERED SUMP.
6. 3" DIAMETER PVC VERTICAL RISER; TRANSITION TO SLOPED PERFORATED PVC SUMP DRAIN LINE BELOW AS SHOWN. INSTALL ON THE ROOTBALL'S LOWEST SIDE.
7. 8"-12" DEEP (FROM BOTTOM OF ROOTBALL) SUMP PIT WITH A PERFORATED DRAIN LINE WRAPPED IN NON WOVEN FABRIC SOCK AND 3/4" CRUSHED, LOOSE GRAVEL FILL AS SHOWN.
8. 3" DIAMETER (FOR 48 "- 72" BOX SIZE AND PALMS) AND 4" DIAMETER (FOR 84" BOX AND LARGER) PERFORATED PVC DRAIN WRAPPED AROUND ROOTBALL. WRAP DRAIN LINE WITH NON WOVEN FILTER FABRIC SOCK/ WRAP. SLOPE DRAIN LINE AROUND ROOTBALL INTO VERTICAL RISER AUGERED SUMP AS SHOWN.
9. INSTALL TRENCH AND PERORATED PIPE / AUGURED SUMP AT LOW SIDE OF ROOTBALL.
10. 4" SCH. 40 (SxSxSxS) PVC FITTING, CONNECT TO PVC ELBOW, PERFORATED DRAIN LINE AND VERTICAL RISER WITH CAP.

NOTES

A. REFER TO GEOTECHNICAL REPORT FOR ADDITIONAL PERCOLATION RATE/ SOIL DRAINAGE REQUIREMENTS.

B. REFER TO PLANTING PLAN FOR TREE LOCATIONS AND SEPARATE TREE PLANTING DETAIL ON THIS SHEET.

I TREE ROOTBALL DRAINAGE & AERATION
NOT TO SCALE



LEGEND

1. PROPOSED TREE
2. LODGE POLE PINE STAKES. ONE (1) - 2" DIA. x 8' LONG STAKE FOR 5 GALLON. TWO (2) - 2" DIA. x 10' LONG STAKES FOR 15 GALLON AND 24" BOX TREES. TWO (2) - 3" DIA. x 12' LONG DIAMETER STAKES FOR 36" BOX AND LARGER.
3. TREE TIE, LOOP TREE TIE AROUND TREE BRANCH, TWIST TIE, THEN LOOP AROUND STAKE & DRIVE NAIL THROUGH THE TIE AT THE BACK OF STAKE. PROVIDE TWO (2) TIES FOR 5 GAL. & THREE (3) TIES 15 GAL. & LARGER TREES.
4. TREE ROOTBALL; INSTALL 5 GAL. & 15 GAL., 1" ABOVE GRADE. 24" BOX & LARGER, 3" ABOVE GRADE. TAPER ROOTBALL EDGE TO GRADE.
5. 4" HIGH WATER RETENTION BASIN. FORM FROM PLANT PIT EXCAVATION. BASIN NO LARGER THAN ROOTBALL.
6. FINISHED GRADE WITH APPROVED MULCH; REFER TO NOTES.
7. PLANTING TABLETS; REFER TO NOTES.
8. PREPARED BACKFILL/NATIVE SOIL MIX; GRADUALLY ADD SOIL AND COMPACT LIGHTLY WHEN BACKFILLING; WATER HALFWAY AND ALLOW TO DRAIN PRIOR TO ADDING MORE SOIL
9. SEE SEPARATE ROOTBALL DRAINAGE AND AERATION DETAIL
10. UNDISTURBED SOIL. SCARIFY SIDES OF PLANT PIT. BREAK UP HARD/COMPACTED SOIL AND LOOSEN SOIL.
11. 6" ZONE OF OVER-EXCAVATED AND RECOMMENDED BACKFILL SOIL

NOTES

A. ALL PLANT AREAS SHALL HAVE A 3" LAYER OF NITROLIZED ORGANIC LANDSCAPE MULCH, TYP. PLACED IN WATER RETENTION BASIN.

B. LIBERALLY DUST SIDES AND BOTTOM OF PITS W/ FINELY GROUND AGRICULTURAL GYPSUM.

C. TREE TIES TO BE "CINCH TIE" BY V.I.T. PRODUCTS OR APPROVED EQUAL.

D. FOR AGENCY MAINTAINED TREES, REFER TO THE GOVERNING AGENCY STANDARD DETAIL FOR TREE TIE REQUIREMENTS.

E. REFER TO THE PROJECT HORTICULTURAL SOILS REPORT FOR ALL REQUIRED BACKFILL SOIL AMENDMENTS.

F. PLANT TABS TO BE "SCOTTS-AGRIFORM" OR APPROVED EQUAL AS RECOMMENDED BY THE MANUFACTURER PLANT SIZE TABLET CHART.

G. REFER TO SINGLE STAKE TREE DETAIL FOR LOPHOSTEMON CONFERTUS, CUPRESSUS SEMPERVIRENS AND COLUMNAR TREES.

H. MAINTAIN A MINIMUM 3'-0" RADIUS CLEAR EARTH AREA AROUND TREE TRUNK WHEN PLANTED IN TURF AREAS.

J TREE PLANTING
NOT TO SCALE

NO.	REVISIONS	DATE	BY

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LICENSED LANDSCAPE ARCHITECT — Luke D. Davies License No. 7145 — Signature — 9/30/2027 Renewal Date — 4/30/2026 Date — STATE OF CALIFORNIA

KHA PROJECT PROJ 195582002
DATE 4/30/26
SCALE: AS SHOWN
DESIGNED BY: PF
DRAWN BY: PF
CHECKED BY: MD

LANDSCAPE DETAILS

ENTERPRISE BESS
PREPARED FOR
RAVEN VOLT
2361 AUTO PARK WAY, ESCONDIDO, CA 92029

Know what's below. Call 811 before you dig.

SHEET NUMBER
L1.3

IRRIGATION SCHEDULE

SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	QTY	PSI
1000	HUNTER MP1000 PROS-06-PRS30-CV SHRUB ROTATOR, 6IN. POP-UP WITH CHECK VALVE, PRESSURE REGULATED TO 30 PSI, MP ROTATOR NOZZLE ON PRS30 BODY. M=MAROON ADJ ARC 90 TO 210, L=LIGHT BLUE 210 TO 270 ARC, O=OLIVE 360 ARC.	1	30
2000	HUNTER MP2000 PROS-06-PRS30-CV SHRUB ROTATOR, 6IN. POP-UP WITH FACTORY INSTALLED CHECK VALVE, PRESSURE REGULATED TO 30 PSI, MP ROTATOR NOZZLE ON PRS30 BODY. K=BLACK ADJ ARC 90-210, G=GREEN ADJ ARC 210-270, R=RED 360 ARC.	4	30
3000	HUNTER MP3000 PROS-06-PRS30-CV SHRUB ROTATOR, 6IN. POP-UP WITH FACTORY INSTALLED CHECK VALVE, PRESSURE REGULATED TO 30 PSI, MP ROTATOR NOZZLE ON PRS30 BODY. B=BLUE ADJ ARC 90-210, Y=YELLOW ADJ ARC 210-270, A=GRAY 360 ARC.	4	30
25 50 10 20	HUNTER PROS-PRS30-06-CV-PCN FLOOD BUBBLER, 6IN. POP-UP, FACTORY INSTALLED DRAIN CHECK VALVE.	24	15

SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	QTY
	DIG P55-100 1" DRIP ZONE ASSEMBLY WITH 24 VAC AND 30 PSI PRESET PRESSURE REGULATOR	1
A	HUNTER PLD-AVR PLD-AVR ALLOWS FOR AIR TO ESCAPE A RESIDENTIAL DRIP IRRIGATION SYSTEM TO PREVENT BLOCKAGE AND WATER HAMMERING. 1/2IN. MPT CONNECTION WITH 80 PSI MAXIMUM RATING.	1
DI	HUNTER ECO-ID ECO-ID: 1/2IN. FPT CONNECTION WITH 12 PSI-70 PSI OPERATING PRESSURE. SPECIFY WITH HUNTER SJ SWING JOINT.	1
	AREA TO RECEIVE DRIPLINE NETAFIM TLCV-06-18 TECHLINE PRESSURE COMPENSATING LANDSCAPE DRIPLINE WITH CHECK VALVE. 0.6 GPH EMITTERS AT 18" O.C. DRIPLINE LATERALS SPACED AT 18" APART, WITH EMITTERS OFFSET FOR TRIANGULAR PATTERN. 17MM.	1,555 SF

SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	QTY
	DIG CORPORATION 160HE-100 1IN. PLASTIC REMOTE CONTROL VALVE TO OPERATE WITH THE LEIT SYSTEM	3
	HUNTER HQ-44LRC QUICK COUPLER VALVE, YELLOW RUBBER LOCKING COVER, RED BRASS AND STAINLESS STEEL, WITH 1IN. NPT INLET, 2-PIECE BODY.	1
	HAYWARD TRUE UNION SIZE TO MATCH MAINLINE DIAMETER	3
MV	HUNTER IBV 1" 1IN., 1-1/2IN., 2IN., AND 3IN. BRASS ELECTRIC MASTER VALVE, GLOBE CONFIGURATION, WITH NPT THREADED INLET/OUTLET, FOR COMMERCIAL/MUNICIPAL USE.	1
BF	FEBCO 825Y 1" REDUCED PRESSURE BACKFLOW PREVENTER	1
C	DIG LEIT 400 AMBIENT LIGHT CONTROLLER (4-STATION) POLE-MOUNTED USE RKIT-8810S RELAY INTERFACE KIT FOR PUMP OPERATION	1
WS	HUNTER MINI-CLIK RAIN SENSOR, MOUNT AS NOTED	1
FS	HUNTER HFS-100 FLOW SENSOR FOR USE WITH ACC CONTROLLER, 1IN. SCHEDULE 40 SENSOR BODY, 24 VAC, 2 AMP.	1
POC	POINT OF CONNECTION 2" EXISTING WATER METER	1
	IRRIGATION LATERAL LINE: PVC SCHEDULE 40	857.1 LF
	IRRIGATION MAINLINE: PVC SCHEDULE 40	286.1 LF
	PIPE SLEEVE: PVC SCHEDULE 40	106.1 LF

Valve Callout
#"
Valve Number
Valve Flow
Valve Size

IRRIGATION NOTES

1. THE SYSTEM HAS BEEN DESIGNED TO PROVIDE 100% COVERAGE. ANY CHANGES MADE IN THE LAYOUT DUE TO FIELD CONDITIONS SHALL BE IN ACCORDANCE WITH THESE STANDARDS. QUANTITIES IN SCHEDULE ARE ESTIMATED. PLAN SHALL TAKE PRECEDENCE.
2. ALL IRRIGATION LINES AND VALVES ARE SHOWN DIAGRAMMATICALLY. ALL LINES AND VALVES TO BE INSTALLED IN PLANTING AREAS WHERE POSSIBLE.
3. CONTRACTOR TO FIELD LOCATE ALL PROPOSED IRRIGATION WATER MAIN LINE LOCATIONS. CONTACT LANDSCAPE ARCHITECT PRIOR TO START OF WORK IF DISCREPANCIES BETWEEN THIS PLAN AND EXISTING CONDITIONS ARE FOUND.
4. LOCATE ALL VALVES INSIDE LANDSCAPE AREAS, ALLOWING ACCESS FOR MAINTENANCE PURPOSES, BUT HIDING THEM FROM PUBLIC VIEW WHENEVER POSSIBLE.
5. ALL PRESSURE MAINLINES UNDER ASPHALT PAVEMENT SHALL BE PLACED WITHIN SLEEVES AS NOTED. WHERE ELECTRIC VALVE CONTROL LINES PASS THROUGH A SLEEVE WITH OTHER MAIN OR LATERAL LINES THEY SHALL BE CONTAINED WITHIN A SEPARATE, SMALLER CONDUIT.
6. CONTRACTOR SHALL PROVIDE "AS-BUILT" DRAWINGS OF THE FINAL INSTALLATION TO OWNER AT SUBSTANTIAL COMPLETION BEFORE RECEIVING FINAL PAYMENT.
7. ALL SLEEVES UTILIZED BY THE IRRIGATION CONTRACTOR, WHETHER INSTALLED BY HIM OR NOT, SHALL BE LOCATED ON THE "AS-BUILT" DRAWINGS. THE DEPTH BELOW FINISH GRADE, TO THE NEAREST FOOT OF EACH END OF EACH SLEEVE SHALL BE NOTED AT EACH SLEEVE LOCATION ON THE "AS-BUILT" DRAWINGS. ALL SLEEVES SHALL BE SIZED TWO PIPE SIZES GREATER THAN PIPE IT CARRIES.
8. ALL DRIP ZONES SHALL BE INSTALLED WITH A SELF-FLUSHING DISC FILTER, OR APPROVED EQUAL
9. IRRIGATION CONTRACTOR SHALL SECURE ANY AND ALL NECESSARY PERMITS FOR THE WORK PRIOR TO COMMENCEMENT OF HIS OPERATIONS ON-SITE. COPIES OF THE PERMITS SHALL BE SENT TO THE OWNER/GENERAL CONTRACTOR. WORK IN THE R.O.W. SHALL CONFORM TO THE STANDARDS AND SPECIFICATIONS OF LOCAL AND/OR STATE HIGHWAY JURISDICTION.
10. VERIFY CONTROLLER AND RAIN SENSOR LOCATION AND MAINLINE POINT OF CONNECTION AT PROJECT SITE WITH OWNER.
11. ELECTRIC SERVICE TO CONTROLLER SHALL BE PROVIDED BY THE GENERAL CONTRACTOR.
12. ALL 24 VAC WIRING SHALL BE OF DIRECT BURIAL COPPER WIRE AS FOLLOWS:
    - CONTROL WIRES - #14
    - COMMON WIRES - #12
13. INSTALLATION OF WORK SHALL BE COORDINATED WITH OTHER CONTRACTORS IN SUCH A MANNER AS TO ALLOW FOR A SPEEDY AND ORDERLY COMPLETION OF ALL WORK ON THE SITE.
14. COORDINATE WITH PLANTING PLAN FOR PLANTER BED LOCATIONS AND TREE LOCATIONS.
15. PRIOR TO THE START OF CONSTRUCTION, CONTRACTOR SHALL COORDINATE WITH DEVELOPER FOR OPERATING PARAMETERS OF MASTER SYSTEM. THIS DESIGN REQUIRES 65 PSI TO OPERATE. IF THE MASTER SYSTEM CANNOT PROVIDE THESE PARAMETERS, CONTRACTOR SHALL MAKE ADJUSTMENTS TO THE DESIGN BY ADDING CONTROL VALVES, A BOOSTER PUMP, PRESSURE REDUCING VALVE, OR OTHER EQUIPMENT, AS NECESSARY. CONTRACTOR SHALL SUBMIT DESIGN REVISIONS TO OWNER'S REPRESENTATIVE FOR APPROVAL PRIOR TO SUBMITTING BID.
16. A FINAL REPORT FOR THE TESTING AND ADJUSTING OF ALL NEW SYSTEMS SHALL BE COMPLETED PRIOR TO FINAL APPROVAL BY THE FIELD INSPECTOR. THIS REPORT SHALL BE SIGNED BY THE INDIVIDUAL RESPONSIBLE FOR PERFORMING THESES SERVICES.
17. A LAMINATED DIAGRAM OF THE IRRIGATION PLAN SHOWING HYDROZONES SHALL BE KEPT WITH THE IRRIGATION CONTROLLER FOR SUBSEQUENT MANAGEMENT PURPOSES.
18. A CERTIFICATE OF COMPLETION SHALL BE FILLED OUT AND CERTIFIED BY EITHER THE SIGNER OF THE LANDSCAPE PLANS, THE SIGNER OF THE IRRIGATION PLANS, OR THE LICENSED LANDSCAPE CONTRACTOR FOR THE PROJECT.
19. AN IRRIGATION AUDIT REPORT SHALL BE COMPLETED AT THE TIME OF FINAL INSPECTION.

I HAVE COMPLIED WITH THE CRITERIA OF THE ORDINANCE AB-1881 AND APPLIED THEM FOR THE EFFICIENT USE OF WATER IN THE LANDSCAPE DESIGN PLAN.

I AM FAMILIAR WITH THE REQUIREMENT FOR LANDSCAPE AND IRRIGATION PLANS CONTAINED IN THE ESCONDIDO WATER EFFICIENT LANDSCAPE REGULATIONS. I HAVE PREPARED THIS PLAN IN COMPLIANCE WITH THOSE REGULATIONS AND THE LANDSCAPE DESIGN MANUAL. I CERTIFY THAT THE PLAN IMPLEMENTS THOSE REGULATIONS TO PROVIDE EFFICIENT USE OF WATER.

Luke Davies

LUKE D. DAVIES, LLA 7145

MAINTENANCE:

1. LOW-FLOW BUBBLER ZONES WILL BE DRAINED IN COLD WEATHER SITUATIONS USING THE MANUAL FLUSH VALVES.
2. FILTER CLEANING AND REPLACEMENT ON A REGULAR BASIS.
3. CHECKING FOR LEAKS AT EACH VALVE AND INSPECTION OF EACH ZONE ON A MONTHLY BASIS.
4. HAVE THE CONTRACTOR WALK EACH SECTION OF LOW-FLOW BUBBLERS TO CHECK FOR CLOGGING OR PROBLEMS.
5. IF AN ON-SITE WEATHER STATION IS SPECIFIED, IT NEEDS TO BE CALIBRATED REGULARLY TO PROVIDE ACCURATE DATA. BECAUSE OF THE COST OF MAINTAINING AN ON-SITE WEATHER STATION, IT IS RECOMMENDED TO USE A CONTROL SYSTEM WHICH UTILIZES A NETWORK OF ET DATA THAT CAN ASSURE ACCURACY TO WITHIN ONE KILOMETER OF THE SITE.

VALVE SCHEDULE

NUMBER	MODEL	SIZE	TYPE	GPM	PSI	PSI @ POC	PRECIP
1	DIG P55-100	1"	AREA FOR DRIPLINE	6.91	21.9	37.1	0.43 in/h
2	DIG CORPORATION 160HE-100	1"	BUBBLER	6	17.8	32.7	1.71 in/h
3	DIG CORPORATION 160HE-100	1"	SHRUB ROTARY	8.82	34.8	50.6	0.55 in/h
4	DIG CORPORATION 160HE-100	1"	BUBBLER	6	18.6	33.3	1.75 in/h

IRRIGATION MAINTENANCE SCHEDULE:

THE IRRIGATION MAINTENANCE SCHEDULE TASKS LISTED BELOW ARE INTENDED AS MINIMUM STANDARDS AND MORE FREQUENT ATTENTION MAY BE REQUIRED DEPENDING ON THE PARTICULAR SITE CONDITIONS. MAINTENANCE SHALL BE DONE TO ENSURE WATER EFFICIENCY. REPAIR OF IRRIGATION EQUIPMENT SHALL BE DONE WITH THE ORIGINALLY SPECIFIED MATERIALS OR APPROVED EQUIVALENTS.

FREQUENCY - QUARTERLY

TASK - CONTROLLER CABINET : OPEN CABINET AND CLEAN OUT DEBRIS AND REPLACE BATTERY AS NECESSARY.CHECK WIRING AND REPAIR AS NEEDED AND CHECK CLOCK AND RESET IF NECESSARY.

FREQUENCY - MONTHLY

TASK - IRRIGATION SCHEDULE: ADJUST SCHEDULE FOR SEASONAL VARIATIONS AND OTHER CONDITIONS WHICH MAY AFFECT THE AMOUNT OF WATER NEEDED TO MAINTAIN PLANT HEALTH. ADJUST AS NECESSARY.

FREQUENCY - QUARTERLY

TASK - POC: VISUALLY INSPECT COMPONENTS FOR LEAKS, PRESSURE SETTINGS, SETTLEMENT OR OTHER DAMAGE AFFECTING THE OPERATION OF A COMPONENT. REPAIR AS NEEDED.

FREQUENCY - QUARTERLY

TASK - REMOTE CONTROL VALVES : ISOLATION VALVES AND QUICK COUPLER VALVES: VISUALLY INSPECT FOR LEAKS, SETTLEMENTS, WIRE CONNECTIONS AND PRESSURE SETTINGS. REPAIR AS NEEDED.

FREQUENCY - QUARTERLY

TASK - MAINLINE AND LATERALS: VISUALLY INSPECT FOR LEAKS OR SETTLEMENTS OF TRENCH.

FREQUENCY - WEEKLY

TASK - FILTERS AND STRAINERS - VISUALLY CHECK FOR ANY BROKEN MALIGNED OR CLOGGED HEADS, HEADS WITH INCORRECT ARC, INADEQUATE COVERAGE OR OVERSPRAY AND LOW HEAD DRAINAGE. REPAIR AS NEEDED.

FREQUENCY - MONTHLY

TASK - FILTERS AND STRAINERS: VISUALLY CHECK FOR LEAKS, BROKEN FITTINGS. CLEAN AND FLUSH SCREENS.

STATE OF CALIFORNIA ESTIMATED WATER USE

TOTAL WATER USE IS CALCULATED BY SUMMING THE AMOUNT OF WATER ESTIMATED FOR EACH HYDROZONE. WATER USE FOR EACH HYDROZONE IS ESTIMATED WITH THE FOLLOWING FORMULA:

EWU (HYDROZONE) = ESTIMATED WATER USE (GAL / YEAR)
ETO = REFERENCE EVAPOTRANSPIRATION (INCHES / YEAR)
PF = PLANT ETO ADJUSTMENT FACTOR
HA = HYDROZONE AREA (S.F.)
.62 = CONVERSION FACTOR
IE = IRRIGATION EFFICIENCY
SLA = SPECIAL LANDSCAPE AREA (S.F.)

EWU (HYDROZONE) = (ETO * PF * HA * .62) / (IE)

HYDROZONE A (DRIP)

ETO	PF	HA	IE	CONVERSION FACTOR	EWU GAL/YEAR
54.1	0.3	1555	.81	.62	19318

HYDROZONE B (BUBBLER)

ETO	PF	HA	IE	CONVERSION FACTOR	EWU GAL/YEAR
54.1	0.3	384	.75	.62	5152

HYDROZONE C (ROTATOR)

ETO	PF	HA	IE	CONVERSION FACTOR	EWU GAL/YEAR
54.1	0.3	1676	.75	.62	22487
ESTIMATED TOTAL WATER USE (ETWU)					24470

MAWA (MAXIMUM APPLIED WATER ALLOWANCE)

ETO	ET ADJUSTMENT FACTOR	TOTAL HA	CONVERSION FACTOR	MAWA
54.1	.45	1939	.62	29267
ESTIMATED ANNUAL WATER USE (% OF MAWA)				84

WATERING TIME ADJUSTMENT (HYDROZONE 'A' LOW DRIP)

MONTH	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
MAXIMUM MINUTES PER START TIME	16	16	16	16	16	16	16	16	16	16	16	16
START TIMES PER WEEK	3	4	6	7	8	9	10	10	7	6	3	3
TOTAL MINUTES PER WEEK	48	64	96	112	128	144	160	160	112	96	48	48

WATERING TIME ADJUSTMENT (HYDROZONE 'B' MOD WATER BUBBLER)

MONTH	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
MAXIMUM MINUTES PER START TIME	1	1	1	1	1	1	1	1	1	1	1	1
START TIMES PER WEEK	4	6	8	11	12	14	15	15	11	8	5	4
TOTAL MINUTES PER WEEK	4	6	8	11	12	14	15	15	11	8	5	4

WATERING TIME ADJUSTMENT (HYDROZONE 'C' MOD WATER ROTATOR)

MONTH	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
MAXIMUM MINUTES PER START TIME	4	4	4	4	4	4	4	4	4	4	4	4
START TIMES PER WEEK	3	3	5	6	7	8	9	9	6	5	3	3
TOTAL MINUTES PER WEEK	12	12	20	24	28	32	36	36	24	20	12	12

NOTES:

1. WATERING REQUIREMENTS ARE APPROXIMATE PER SEASON AND SHOULD BE ADJUSTED TO REFLECT SEASONAL FLUCTUATIONS IN AVERAGE PRECIPITATION.
2. "IRRIGATION SCHEDULING INFORMATION" IS TO BE USED FOR WATERING TIME/DURATION/FREQUENCY FOR THE FIRST THREE YEARS, HOWEVER THE SYSTEM SHOULD BE MONITORED FREQUENTLY AND ADJUSTED TO MEET THE NEEDS OF THE PLANT MATERIAL AS MATURE ROOT SYSTEMS DEVELOP.
3. ALL PLANTS TO RECEIVE APPROPRIATE ADDITIONAL 15% HIGHER WATERING DURING INSTALLATION PERIOD IN ORDER TO ESTABLISH HEALTHY AND DEEP ROOT GROWTH.

CRITICAL ANALYSIS

Generated:	2026-04-30 10:04
P.O.C. NUMBER: 01	
Water Source Information:	Existing Water Meter
FLOW AVAILABLE	
Water Meter Size:	1"
Flow Available	19.62 GPM
PRESSURE AVAILABLE	
Static Pressure at POC:	65 PSI
Elevation Change:	5.00 ft
Service Line Size:	1"
Length of Service Line:	20 ft
Pressure Available:	61 PSI
DESIGN ANALYSIS	
Maximum Station Flow:	8.82 GPM
Flow Available at POC:	19.62 GPM
Residual Flow Available:	10.8 GPM
Critical Station:	3
Design Pressure:	30 PSI
Friction Loss:	1.7 PSI
Fittings Loss:	0.17 PSI
Elevation Loss:	0 PSI
Loss through Valve:	2.88 PSI
Pressure Req. at Critical Station:	34.8 PSI
Loss for Fittings:	0.06 PSI
Loss for Main Line:	0.63 PSI
Loss for POC to Valve Elevation:	0 PSI
Loss for Backflow:	12.3 PSI
Loss for Master Valve:	2.88 PSI
Critical Station Pressure at POC:	50.6 PSI
Pressure Available:	61 PSI
Residual Pressure Available:	10.4 PSI

NO. REVISIONS DATE BY

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LICENSED LANDSCAPE ARCHITECT
Luke D. Davies License No. 7145
Signature
9/30/2027
Renewal Date
4/30/2026
Date
STATE OF CALIFORNIA

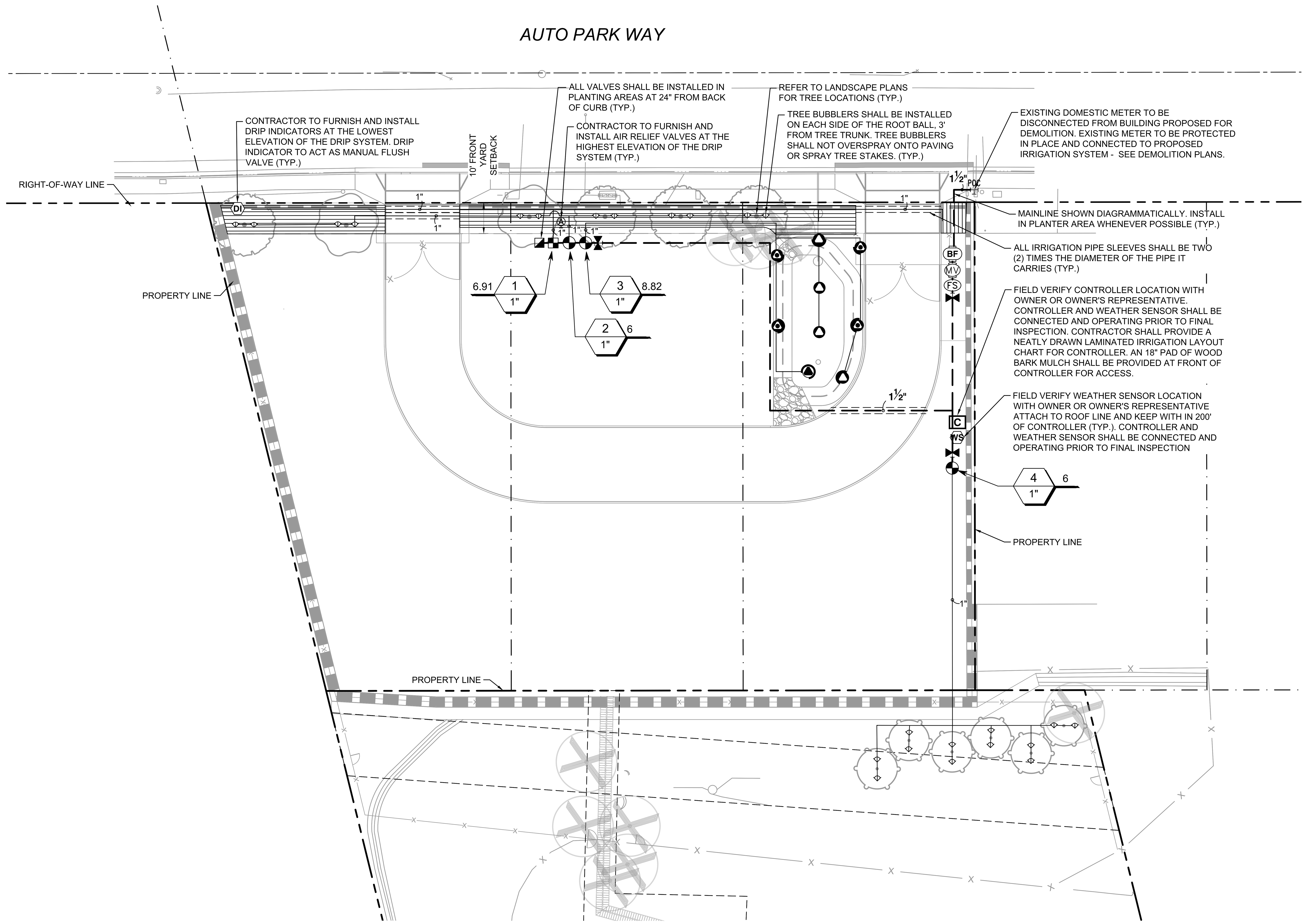
KHA PROJECT PROJ 195582002
DATE 4/30/26
SCALE: AS SHOWN
DESIGNED BY: PF
DRAWN BY: PF
CHECKED BY: MD

IRRIGATION NOTES

ENTERPRISE BESS
PREPARED FOR
RAVEN VOLT
2361 AUTO PARK WAY,
ESCONDIDO, CA 92029

811 Know what's below. Call 811 before you dig.

SHEET NUMBER
L2.0



IRRIGATION SCHEDULE

SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	QTY	PSI
1000	HUNTER MP1000 PROS-06-PRS30-CV SHRUB ROTATOR, 6IN. POP-UP WITH CHECK VALVE, PRESSURE REGULATED TO 30 PSI, MP ROTATOR NOZZLE ON PRS30 BODY. M=MAROON ADJ ARC 90 TO 210, L=LIGHT BLUE 210 TO 270 ARC, O=OLIVE 360 ARC.	1	30
2000	HUNTER MP2000 PROS-06-PRS30-CV SHRUB ROTATOR, 6IN. POP-UP WITH FACTORY INSTALLED CHECK VALVE, PRESSURE REGULATED TO 30 PSI, MP ROTATOR NOZZLE ON PRS30 BODY. K=BLACK ADJ ARC 90-210, G=GREEN ADJ ARC 210-270, R=RED 360 ARC.	4	30
3000	HUNTER MP3000 PROS-06-PRS30-CV SHRUB ROTATOR, 6IN. POP-UP WITH FACTORY INSTALLED CHECK VALVE, PRESSURE REGULATED TO 30 PSI, MP ROTATOR NOZZLE ON PRS30 BODY. B=BLUE ADJ ARC 90-210, Y=YELLOW ADJ ARC 210-270, A=GRAY 360 ARC.	4	30
25 50 10 20	HUNTER PROS-PRS30-06-CV-PCN FLOOD BUBBLER, 6IN. POP-UP, FACTORY INSTALLED DRAIN CHECK VALVE.	24	15

SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	QTY
	DIG P55-100 1" DRIP ZONE ASSEMBLY WITH 24 VAC AND 30 PSI PRESET PRESSURE REGULATOR	1
A	HUNTER PLD-AVR PLD-AVR ALLOWS FOR AIR TO ESCAPE A RESIDENTIAL DRIP IRRIGATION SYSTEM TO PREVENT BLOCKAGE AND WATER HAMMERING. 1/2IN. MPT CONNECTION WITH 80 PSI MAXIMUM RATING.	1
DI	HUNTER ECO-ID ECO-ID: 1/2IN. FPT CONNECTION WITH 12 PSI-70 PSI OPERATING PRESSURE. SPECIFY WITH HUNTER SJ SWING JOINT.	1
	AREA TO RECEIVE DRIPLINE NETAFIM TLCV-06-18 TECHLINE PRESSURE COMPENSATING LANDSCAPE DRIPLINE WITH CHECK VALVE. 0.6 GPH EMITTERS AT 18" O.C. DRIPLINE LATERALS SPACED AT 18" APART, WITH EMITTERS OFFSET FOR TRIANGULAR PATTERN. 17MM.	1,555 SF

SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	QTY
	DIG CORPORATION 160HE-100 1IN. PLASTIC REMOTE CONTROL VALVE TO OPERATE WITH THE LEIT SYSTEM	3
	HUNTER HQ-44LRC QUICK COUPLER VALVE, YELLOW RUBBER LOCKING COVER, RED BRASS AND STAINLESS STEEL, WITH 1IN. NPT INLET, 2-PIECE BODY.	1
	HAYWARD TRUE UNION SIZE TO MATCH MAINLINE DIAMETER	3
MV	HUNTER IBV 1" 1IN., 1-1/2IN., 2IN., AND 3IN. BRASS ELECTRIC MASTER VALVE, GLOBE CONFIGURATION, WITH NPT THREADED INLET/OUTLET, FOR COMMERCIAL/MUNICIPAL USE.	1
BF	FEBCO 825Y 1" REDUCED PRESSURE BACKFLOW PREVENTER	1
C	DIG LEIT 400 AMBIENT LIGHT CONTROLLER (4-STATION) POLE-MOUNTED USE RKIT-8810S RELAY INTERFACE KIT FOR PUMP OPERATION	1
WS	HUNTER MINI-CLIK RAIN SENSOR, MOUNT AS NOTED	1
FS	HUNTER HFS-100 FLOW SENSOR FOR USE WITH ACC CONTROLLER, 1IN. SCHEDULE 40 SENSOR BODY, 24 VAC, 2 AMP.	1
POC	POINT OF CONNECTION 2" EXISTING WATER METER	1
	IRRIGATION LATERAL LINE: PVC SCHEDULE 40	857.1 LF
	IRRIGATION MAINLINE: PVC SCHEDULE 40	286.1 LF
	PIPE SLEEVE: PVC SCHEDULE 40	106.1 LF

Valve Callout
- Valve Number
- Valve Flow
- Valve Size

NORTH

GRAPHIC SCALE IN FEET
0 10 20 40

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IRRIGATION PLAN

ENTERPRISE BESS

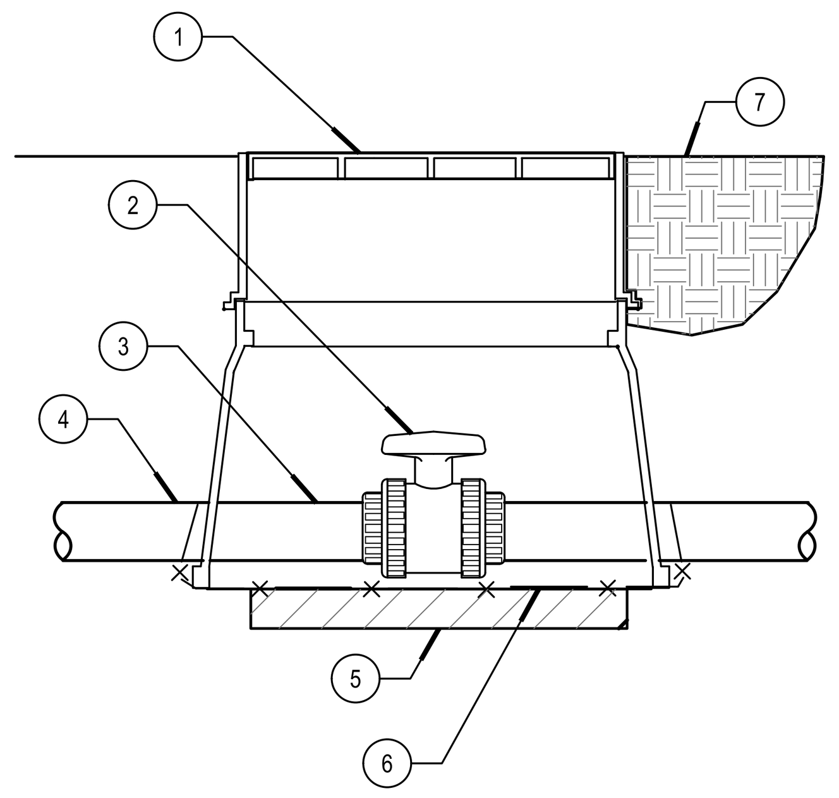
PREPARED FOR

RAVEN VOLT

2361 AUTO PARK WAY, ESCONDIDO, CA 92029

SHEET NUMBER

L2.1

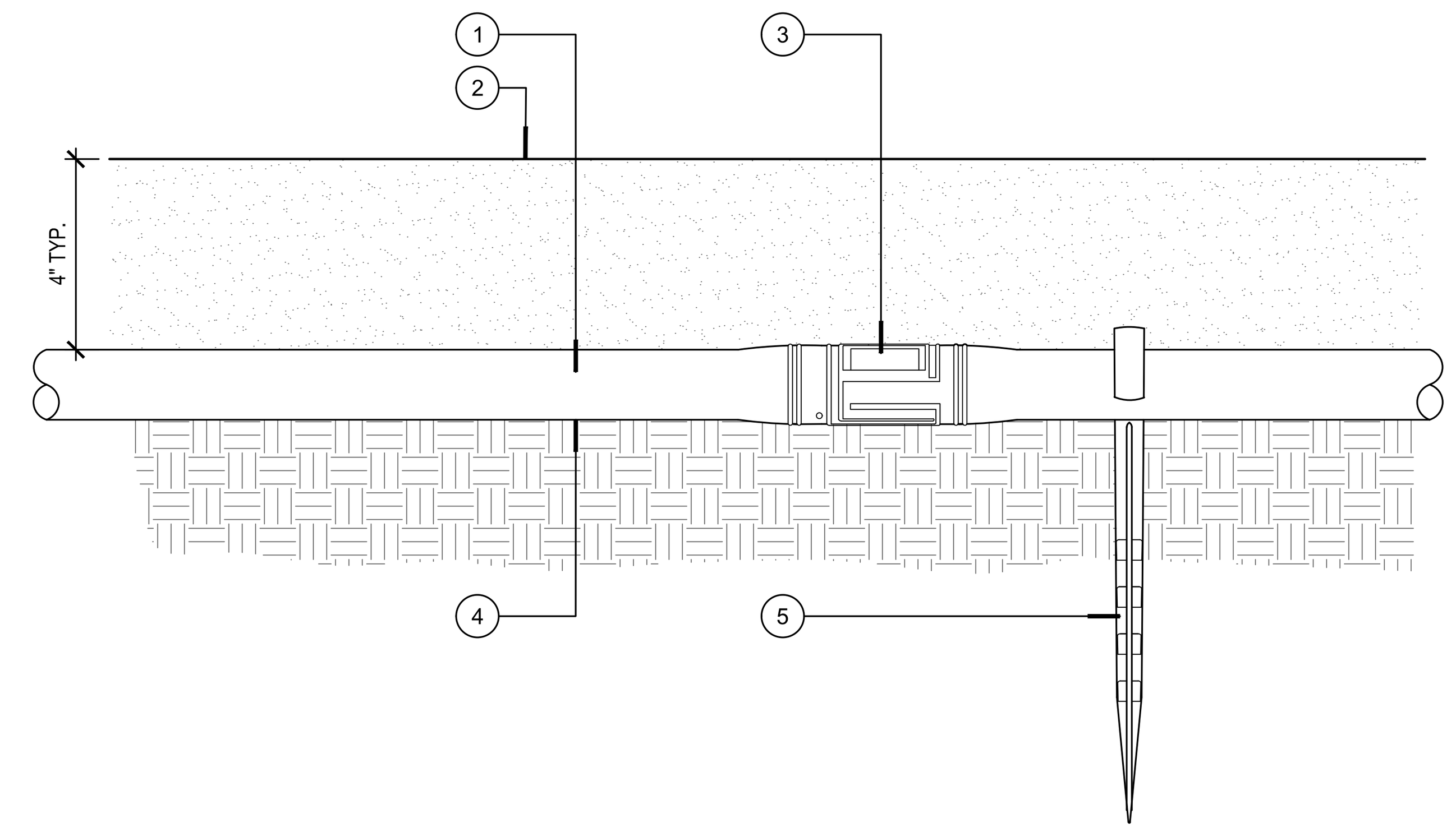


LEGEND

1. 10"X15" RECTANGULAR BOX WITH 6" EXTENSION
2. ISOLATION BALL VALVE AS SPECIFIED, SAME SIZE AS MAIN LINE.
3. SCHEDULE 80 THREADED NIPPLE AS REQUIRED
4. ADAPTER PVC MAIN LINE
5. TWO 6X2X16 CONCRETE BLOCK CAPS, ONE ON EACH SIDE OF BOX.
6. ½" WIRE CLOTH GOPHER SCREEN, WRAP UP SIDES
7. SET BOX FLUSH TO GRADE

A BALL VALVE

SCALE: 1" = 1" NTS

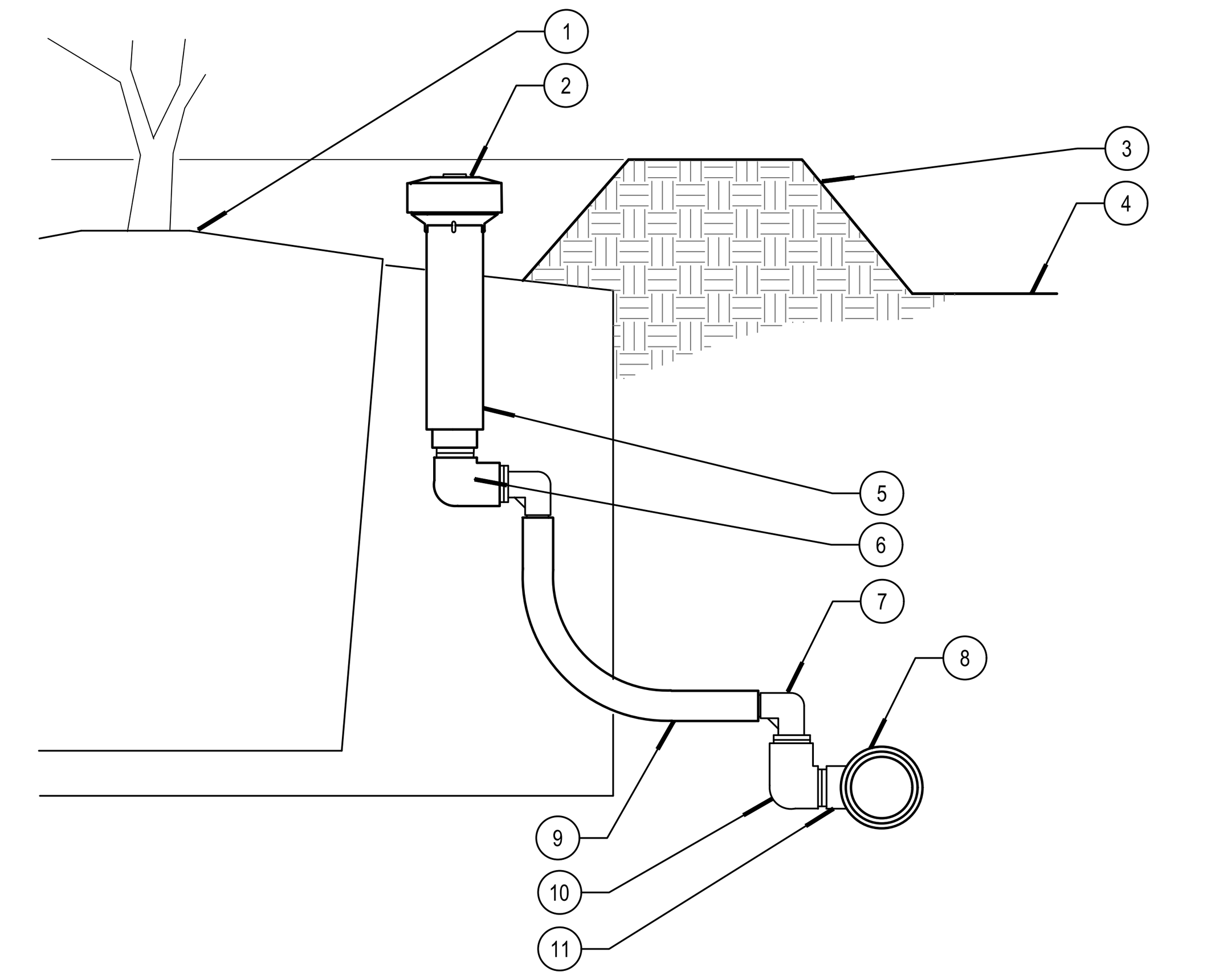


LEGEND

1. LANDSCAPE DRIPLINE PER IRRIGATION LEGEND
2. FINISH GRADE
3. PRESSURE-COMPENSATING IN-LINE EMITTER TUBING PER IRRIGATION LEGEND
4. SUBGRADE
5. TIE DOWN STAKE PER MANUFACTURER'S RECOMMENDATION

B BELOW GRADE DRIP TUBING

SCALE: 1" = 1'-0"

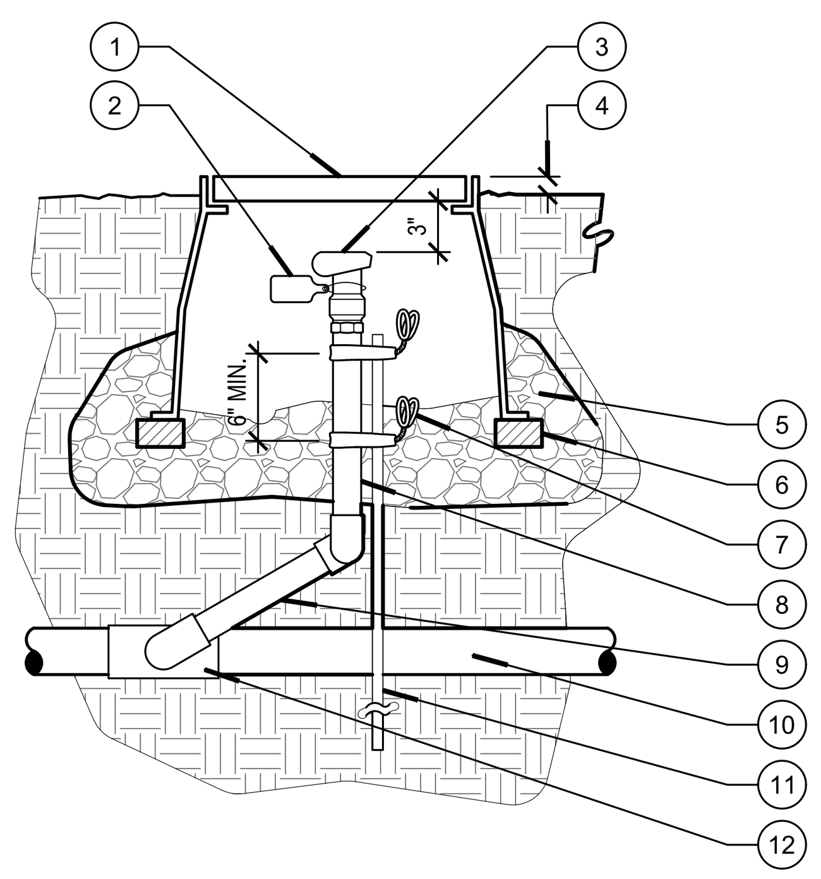


LEGEND

1. PLANT ROOTBALL, SEE PLANTING DETAIL
2. SET HEAD 2" ABOVE GRADE AND INSIDE WATER WELL
3. WATER WELL, SEE PLANTING DETAIL
4. FINISHED GRADE
5. POPUP AS SPECIFIED
6. 1/2" MARLEX STREET ELL.
7. BARB ELL X MIPT
8. LATERAL LINES
9. 1/2" POLYETHYLENE FLEXIBLE TUBING, LENGTH AS REQUIRED
10. 1/2" MARLEX STREET ELL
11. PVC TEE (SXSXT) OR ELL

C POPUP BUBBLER AT PLANT PIT

SCALE: 1" = 1" NTS



LEGEND

1. GREEN PLASTIC, 10" ROUND VALVE BOX WITH BOLT DOWN COVER, HEAT BRANDED "QCV"
2. ID TAG
3. QUICK COUPLER VALVE - REFER TO IRRIGATION LEGEND
4. FINISH GRADE:
   - 1" BELOW BOX LID IN TURF AREAS
   - 2" BELOW BOX LID IN SHRUB / GC AREAS
5. ONE (1) CU. FT. (MIN.) OF 3/4" CRUSHED ROCK AT BASE OF VALVE BOX
6. SUPPORT - COMMON RED BRICK (4 TOTAL)
7. V.I.T. STAINLESS STEEL TIES - TYPICAL
8. SCH. 80 PVC NIPPLE - LENGTH AS REQUIRED
9. 1" DIAMETER SCH. 80 PVC SWING JOINT - PREASSEMBLED BY SPEARS
10. PVC MAINLINE
11. 1/2" DIA. X 24" LENGTH GALVANIZED PIPE STAKE
12. SCH. 80 PVC TEE FITTING

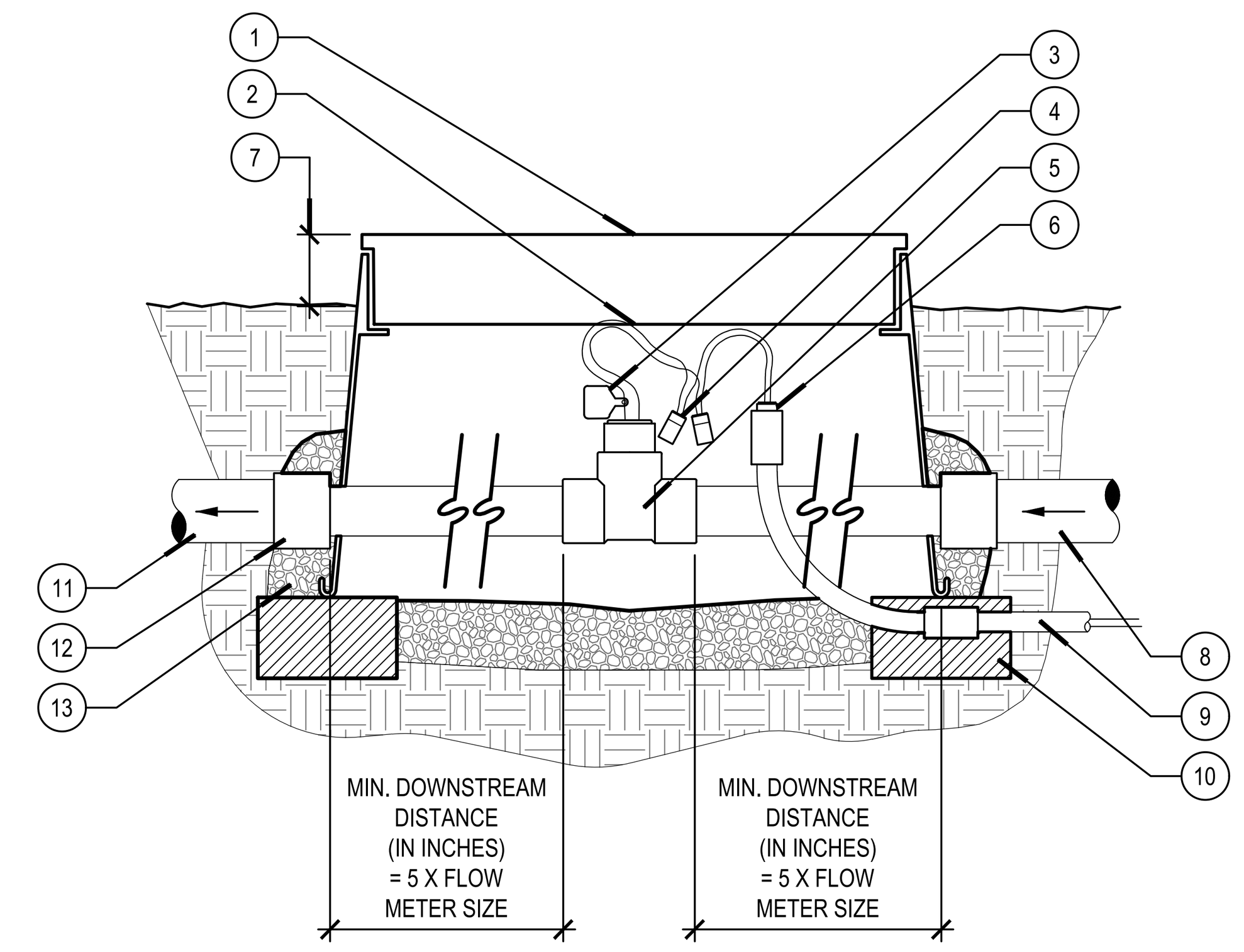
NOTES

A. ALL THREADS SHALL BE WRAPPED WITH TEFLON TAPE

B. 12" MIN. CLEAR SPACE SHALL BE MAINTAINED BETWEEN THE QUICK COUPLER VALVE BOX AND ANY ADJACENT HARDSCAPE - WHERE OCCURS

D QUICK COUPLER

SCALE: 3/4" = 1'-0"

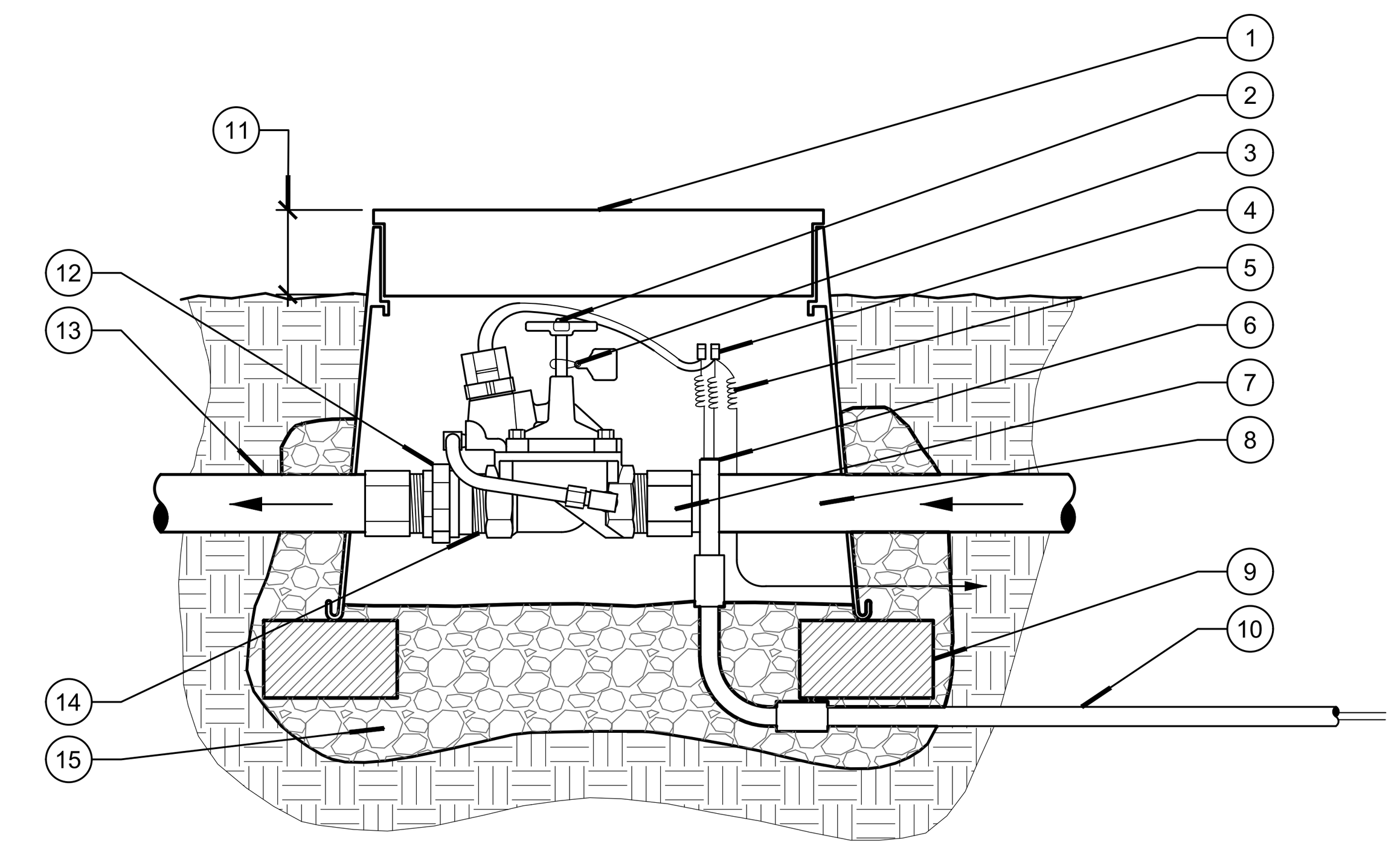


LEGEND

1. GREEN PLASTIC RECTANGULAR VALVE BOX WITH BOLT DOWN COVER
2. REFER TO CONSTRUCTION NOTES FOR TYPE OF CABLE FROM FLOW SENSOR TO CONTROLLER
3. ID TAG
4. WATERPROOF CONNECTOR - REFER TO IRRIGATION SPECIFICATIONS
5. FLOW SENSOR
6. CONDUIT BUSHING
7. FINISH GRADE
   - 1" BELOW BOX LID IN TURF AREAS
   - 2" BELOW BOX LID IN SHRUB / GC AREAS
8. IRRIGATION MAINLINE FROM MASTER VALVE
9. ELECTRICAL CONDUIT AND SWEEP ELBOW BACK TO CONTROLLER
10. SUPPORT - COMMON RED BRICK (4 TOTAL)
11. MAINLINE TO REMOTE CONTROL VALVES
12. SCH. 40 PVC COUPLER
13. 3/4" CRUSHED ROCK, (2) CUBIC FEET MINIMUM

E FLOW SENSOR

SCALE: 3" = 1'-0"



LEGEND

1. GREEN PLASTIC, RECTANGULAR VALVE BOX WITH BOLT DOWN COVER
2. MASTER VALVE PER LEGEND
3. WATER ID TAG
4. WATERPROOF CONNECTOR - REFER TO IRRIGATION SPECIFICATIONS
5. CONTROL AND MASTER VALVE WIRES WITH EXPANSION LOOP
6. CONDUIT BUSHING
7. SCH. 80 PVC MALE ADAPTER - TYPICAL
8. PVC IRRIGATION MAINLINE FROM BACKFLOW PREVENTER
9. SUPPORT - COMMON RED BRICK (4 TOTAL)
10. ELECTRICAL CONDUIT BACK TO CONTROLLER AND SWEEP ELBOW
11. FINISH GRADE:
    1" IN TURF AREAS / 2" IN SHRUB AREAS
12. SPEARS SCH. 80 PVC UNION (SR-FIPT X SR-FIPT)
13. PVC IRRIGATION MAINLINE TO FLOW SENSOR PER PLAN
14. SCH. 80 PVC NIPPLE
15. 3/4" CRUSHED ROCK - (4) CUBIC FEET, MIN.

F MASTER VALVE

SCALE: 3" = 1'-0"

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IRRIGATION DETAILS

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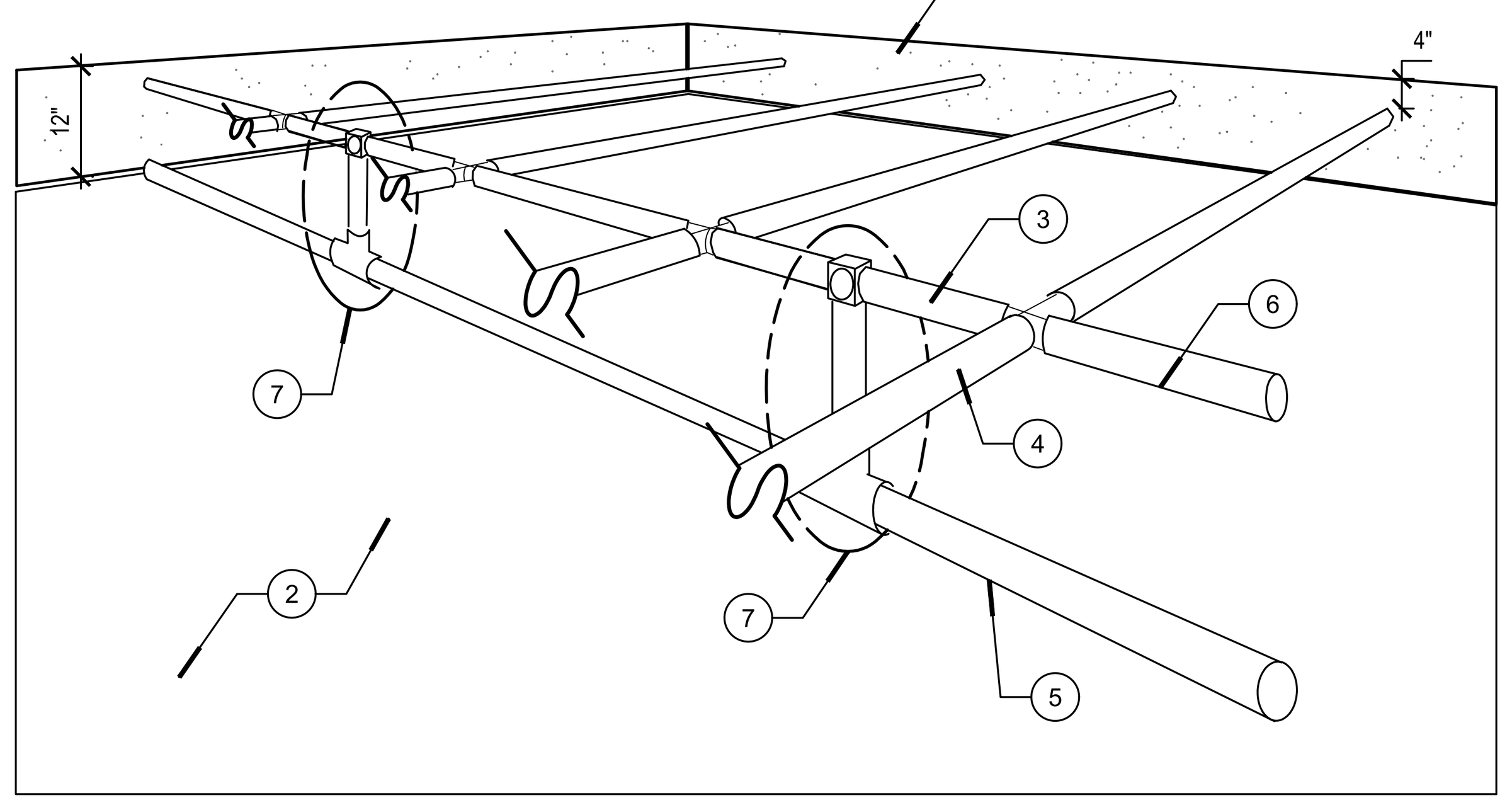


LEGEND

1. FINISH GRADE
1. COMPACT SUBGRADE 95%
1. LANDSCAPE DRIPLINE WITH 4" COVER
1. LANDSCAPE DRIP TUBING PER LEGEND
1. PVC HEADER WITH 12" COVER
1. INSERT TEE OR CROSS,TYP.
1. START CONNECTION, TYP (REFER TO MANUF. INSTALLATION INSTRUCTIONS)

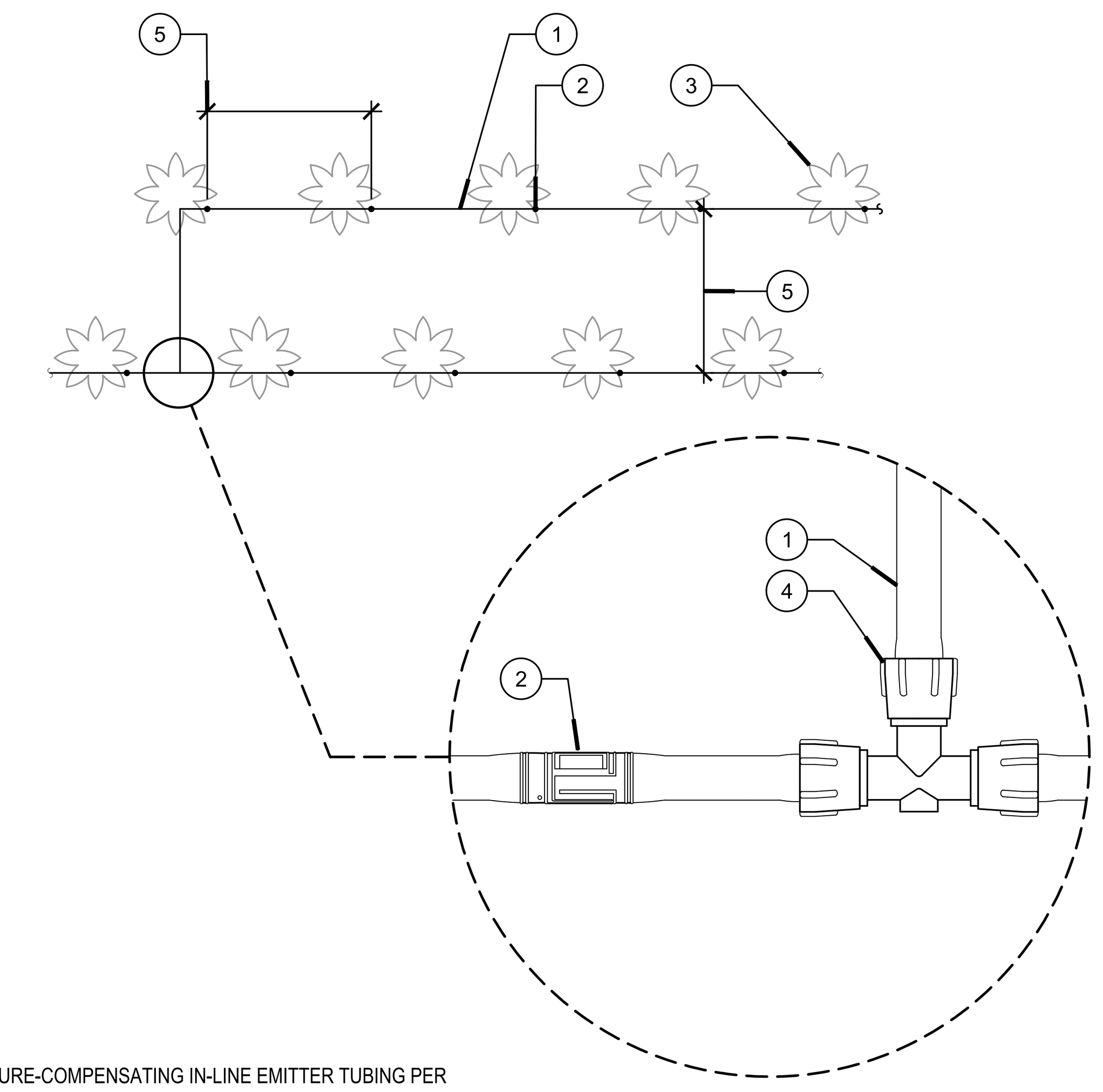
NOTES

A. SEE PLANS AND LEGEND FOR ALL DIMENSIONS AND DRIPLINE SPACING.

B. RATIO OF LATERALS TO START CONNECTIONS IS SHOWN AT 2:1, BUT MAY VARY PER HYDRAULIC DEMAND ON START CONNECTION (MAXIMUM RATIO 5:1)

G — DRIP INSTALL - SUBHEADER

SCALE: N.T.S.

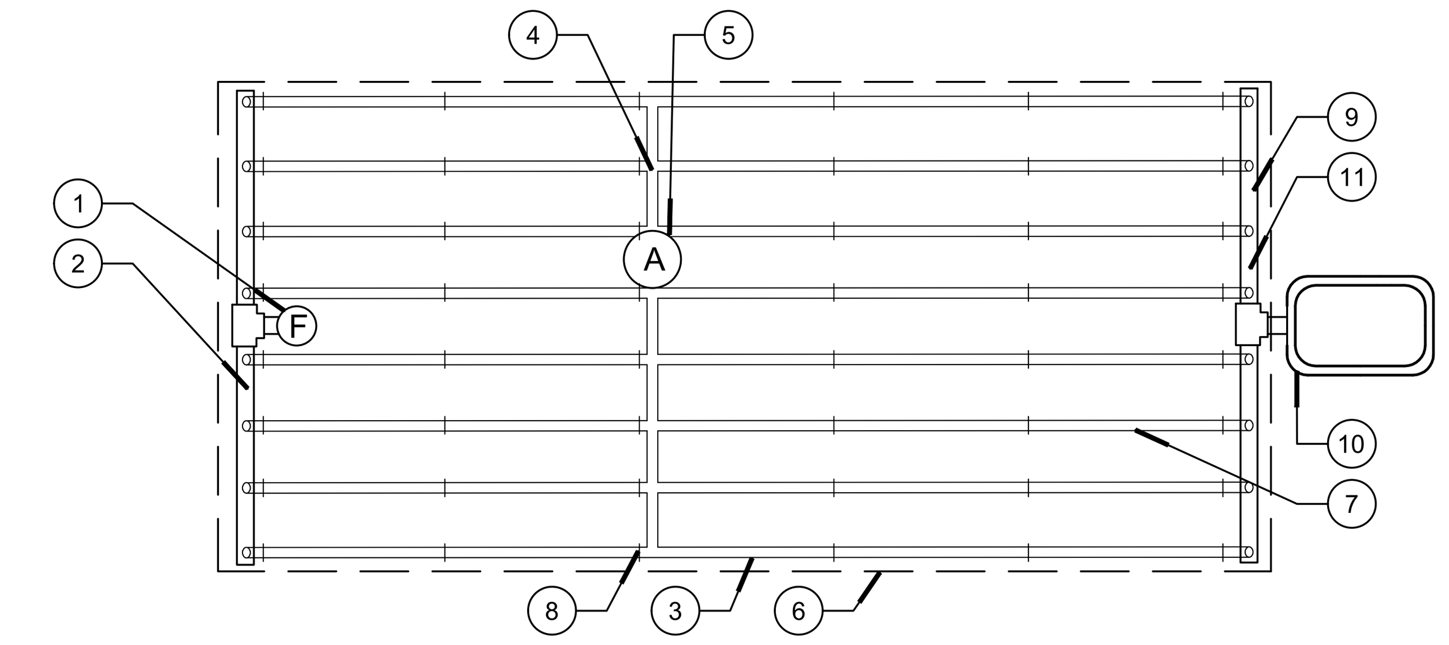


LEGEND

1. PRESSURE-COMPENSATING IN-LINE EMITTER TUBING PER LEGEND
2. EMITTER PRE-INSTALLED IN TUBING
3. PLANT MATERIAL - SEE PLANS FOR SPACING
4. LOCKING INSERT FITTING
5. SPACING PER LEGEND

H — DRIP TUBING CONNECTION

SCALE: 1" = 1'-0"



LEGEND

1. FLUSH VALVE PLUMBED TO PVC OR POLY EXHAUST MANIFOLD
2. PVC OR POLY EXHAUST MANIFOLD
3. PERIMETER LATERALS 2" TO 4" MIN., $\frac{1}{2}$ LATERAL SPACING MAX FROM EDGE
4. BLANK TUBING MANIFOLD FOR AIR VAC RELIEF (CENTERED ON MOUND OR BERM)
5. AIR/VACUUM RELIEF VALVE (INSTALL AT HIGHEST LOCAL ELEVATION)
6. AREA PERIMETER/EDGE OF PLANTER
7. DRIP TUBING LATERAL LINE
8. SECURE SIP LINES WITH JUTE NET STAPLED, OR EQUAL 5" O.C.
9. PVC OR POLY SUPPLY MANIFOLD
10. REMOTE CONTROL VALVE WITH DISC, FILTER AND PRV
11. START CONNECTION AS APPROPRIATE (SEE OTHER DETAILS)

NOTES

A. DRIP LINES TO BE EQUALLY AND UNIFORMLY SPACED FOR ENTIRE LENGTH OR RUN

B. SPACE LINES AS SHOWN AND/OR NOTED ON DRAWINGS AND SPECS

C. SEE MANUFACTURER'S INSTALLATION INSTRUCTIONS FOR ADDITIONAL INFORMATION

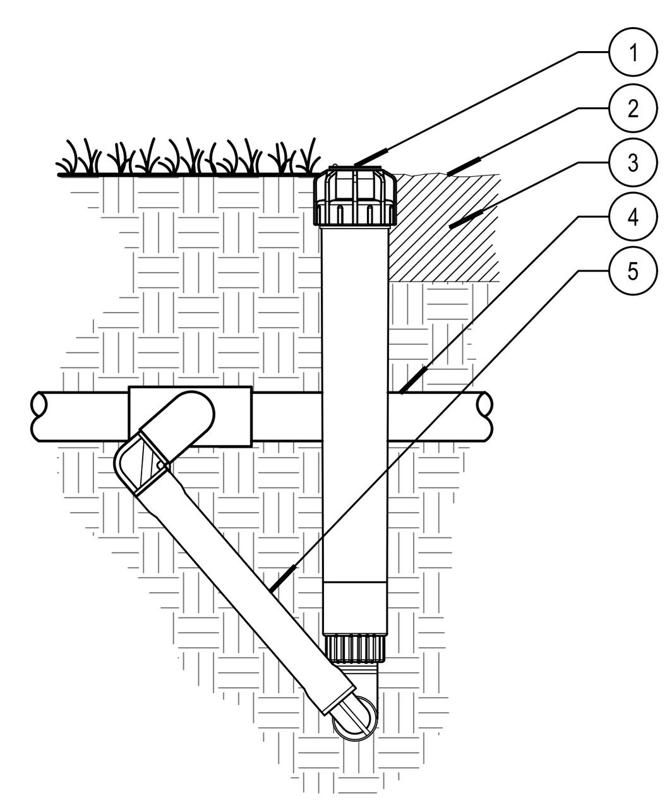
D. DRIP LINES TO BE LAID FLAT AND SECURED TO SUBGRADE WITH STAPLES AT 5' CENTERS PRIOR TO BACKFILL

E. USE CAUTION WHEN SECURING DRIP LINE WITH STAPLES. DRIP LINE SHALL NOT BE OBSTRUCTED, KINKED, OR PUNCTURED.

F. DRIP LINE TO BE EQUALLY SPACED THROUGHOUT. SEE NOTES AND LEGEND FOR SPACING.

I — DRIP TUBING LAYOUT

N.T.S.

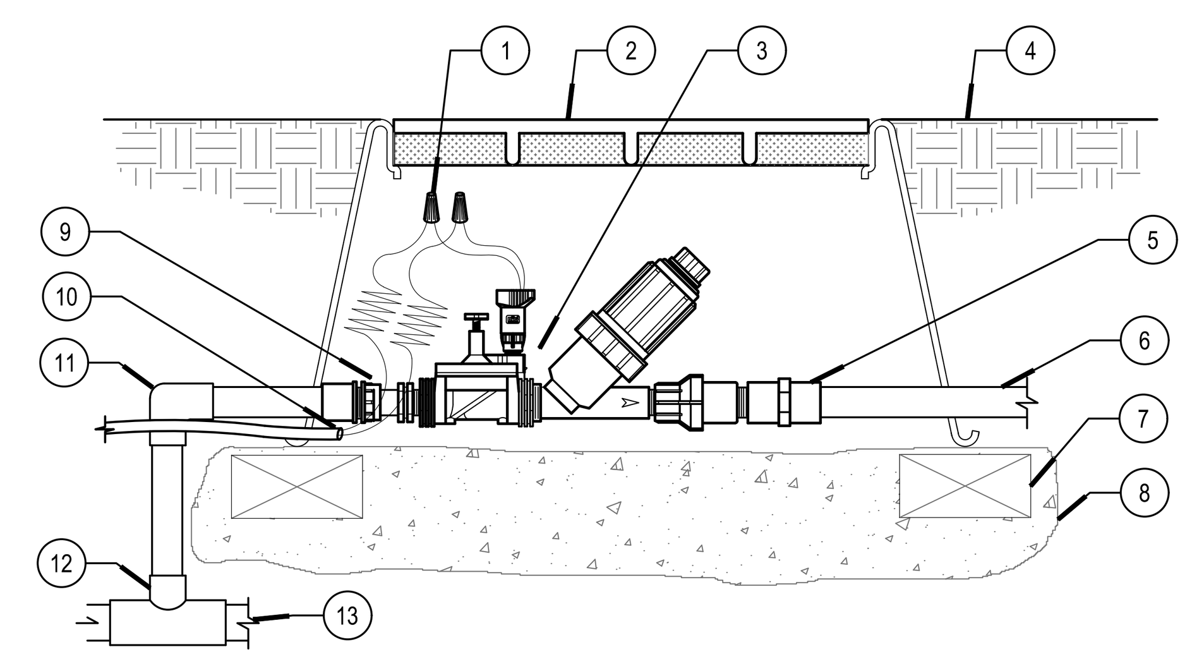


LEGEND

1. ECO-INDICATOR
2. FINISHED GRADE
3. ADJACENT MULCH
4. PVC LATERAL PIPE
5. SWING JOINT

J — DRIP INDICATOR ON SWING JOINT

SCALE: 1" = 1" NTS

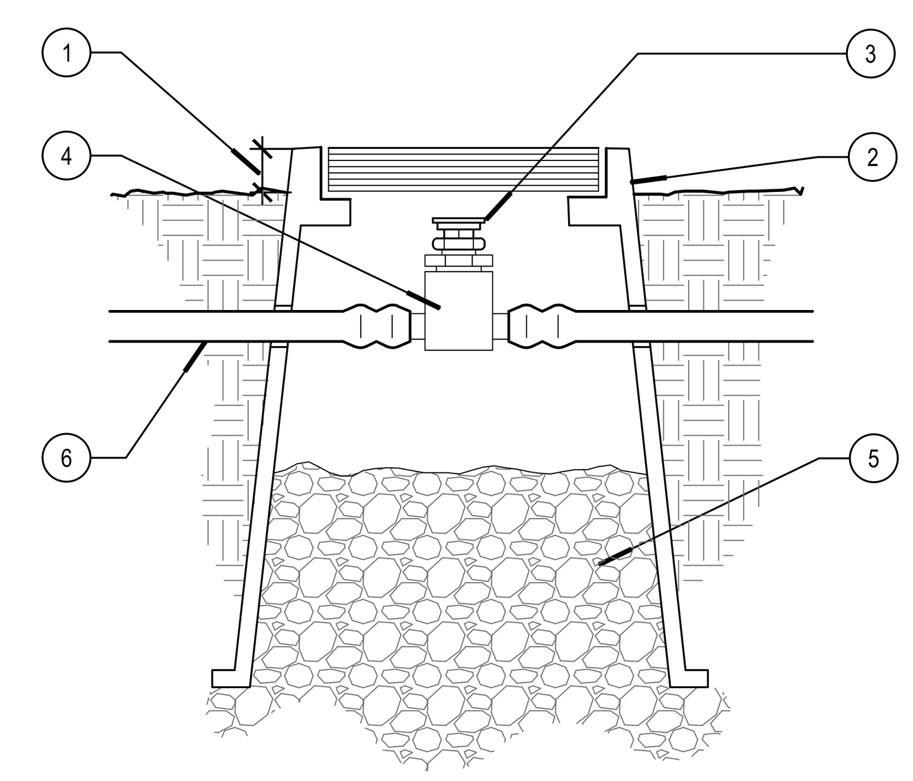


LEGEND

1. WIRE CONNECTORS
2. VALVE BOX WITH COVER - 12" SIZE
3. CONTROL VALVE ASSEMBLY; MODEL P39-075
4. FINISH GRADE TOP
5. $\frac{3}{4}$" FEMALE NPT COUPLING X SLIP
6. PVC LATERAL LINE
7. BRICK SUPPORT AT EACH CORNER
8. PEA GRAVEL SUMP; MINIMUM 3"
9. SWIVEL FITTING DIG MODEL 23-004 1" F X $\frac{3}{4}$"
10. CONTROL WIRE TO OTHER VALVE
11. PVC SCHEDULE 40 90 DEREE
12. SCH 40 TEE
13. MAIN SUPPLY LINE

K — SOLAR CONTROLLER COMPATIBLE DRIP VALVE

SCALE: 1 1/2" = 1'-0"



LEGEND

1. FINISH GRADE, 2" TYP.
2. 6" ROUND PLASTIC VALVE BOX.
3. AIR RELIEF VALVE- REFER TO IRRIGATION LEGEND.
4. DRIPLINE ADAPTER TEE PER MANUF.
5. PEA GRAVEL- 12" DEPTH.
6. DRIPLINE TUBING - REFER TO IRRIGATION LEGEND.

L — AIR RELIEF VALVE

SCALE: NTS

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DESIGNED BY: PF
DRAWN BY: PF
CHECKED BY: MD

IRRIGATION DETAILS

ENTERPRISE BESS

PREPARED FOR

RAVEN VOLT

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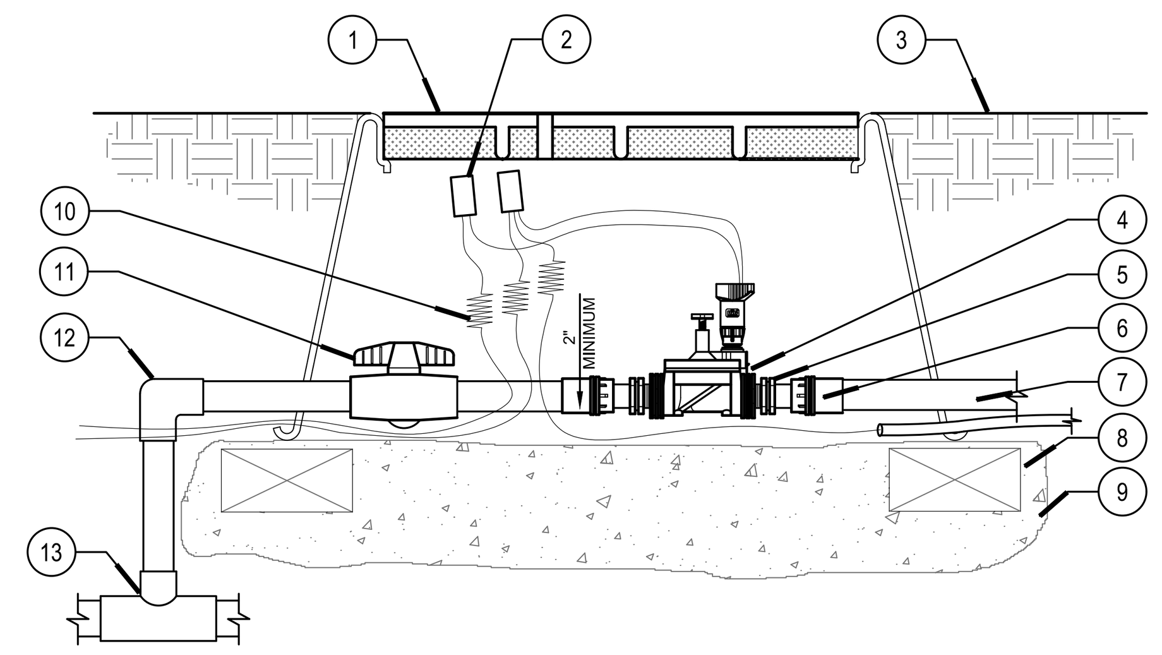
M — DIG LEIT REMOTE CONTROL VALVE

SCALE: 1 1/2" = 1'-0"

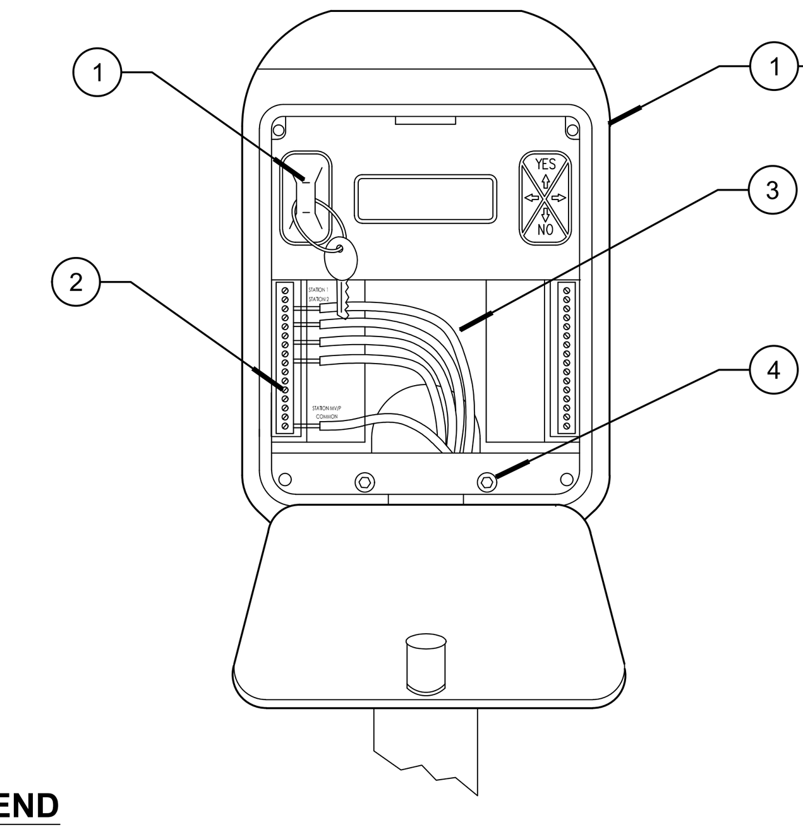


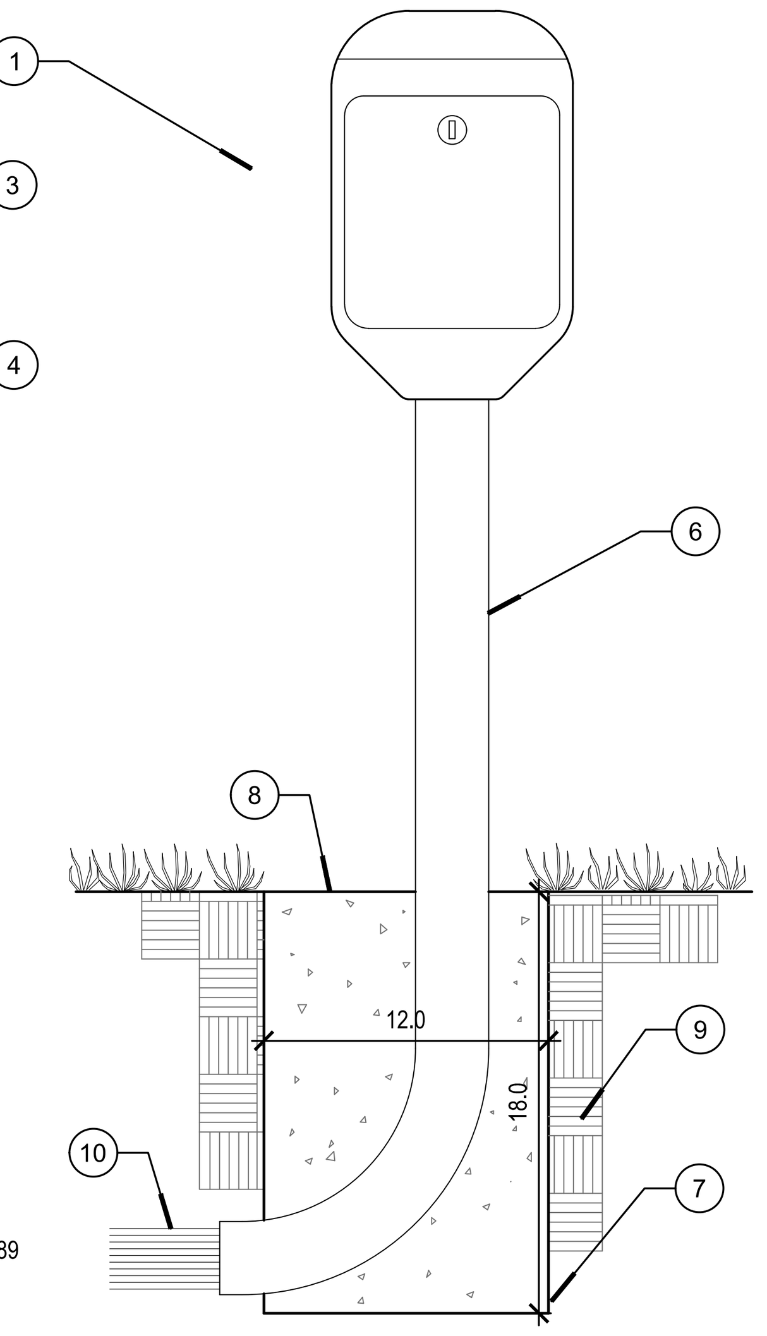
LEGEND

1. VALVE BOX WITH COVER 18" SIZE
2. DRY SPLICE CONNECTORS
3. FINISH GRADE TOP
4. DIG VALVE MODEL; 3/4" 160 HE - 075; 1" 160 HE - 100
5. SWIVEL FITTING DIG MODEL
6. 3/4" 23-004, 1" 23-003
7. PVC SCH 40 MALE ADAPTER
8. PVC LATERAL LINE
9. BRICK SUPPORT AT EACH CORNER
10. PEA GRAVEL SUMP - MINIMUM 3"
11. 12 OR 14 GAUGE WIRE
12. BACK-UP NPT PVC BALL VALVE
13. PVC SCHEDULE 40 90 DEGREE ELL, SCH 40 TEE

N — DIG LEIT AMBIENT LIGHT POLE-MOUNTED CONTROLLER

N.T.S.



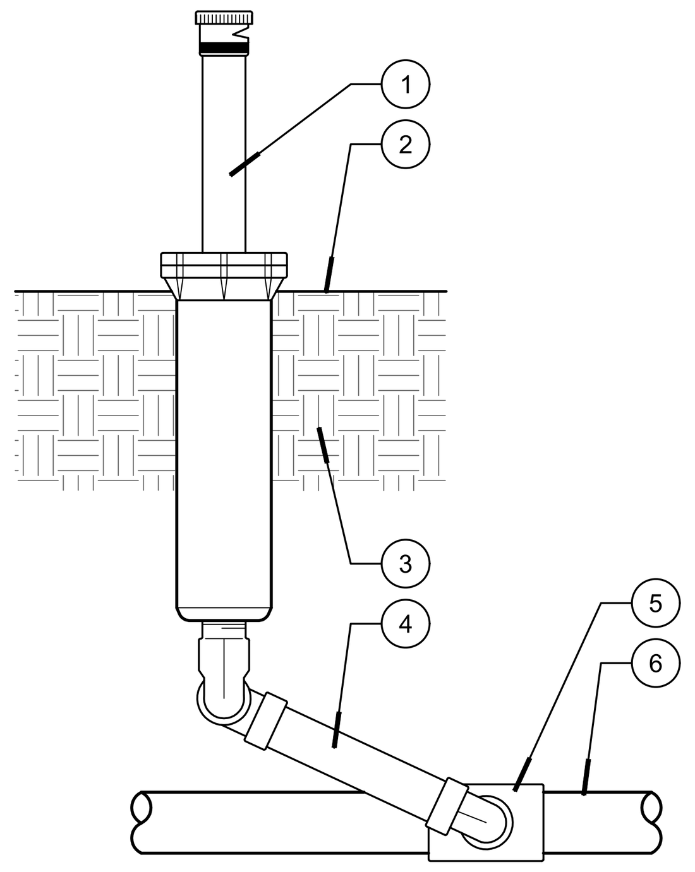


LEGEND

1. AMBIENT LIGHT POWERED CONTROLLER PER PLAN
2. TERMINAL STRIP
3. 12 OR 14 GAUGE WIRE
4. CLAMPS, SPACER AND SCREWS INCLUDED WITH MOUNTING COLUMN
5. PROGRAMMING KEY MODEL LEIT KEY
6. GALVANIZED STEEL MOUNTING COLUMN; A. MODEL MCOLX 35" (89 CM) SHORT; B. MODEL MCOLXL 51" (129 CM) LONG
7. 12" X 18" POURED CONCRETE BASE USING 90 LB (40 KG) BAG OF CONCRETE. INSTALL PER MANUFACTURER'S INSTALLATION GUIDE
8. FINISH GRADE
9. BACKFILL SOIL
10. DIRECT BURIAL CONTROL WIRES TO CONTROL VALVES

O — POP-UP ROTARY HEAD

SCALE: N.T.S.



LEGEND

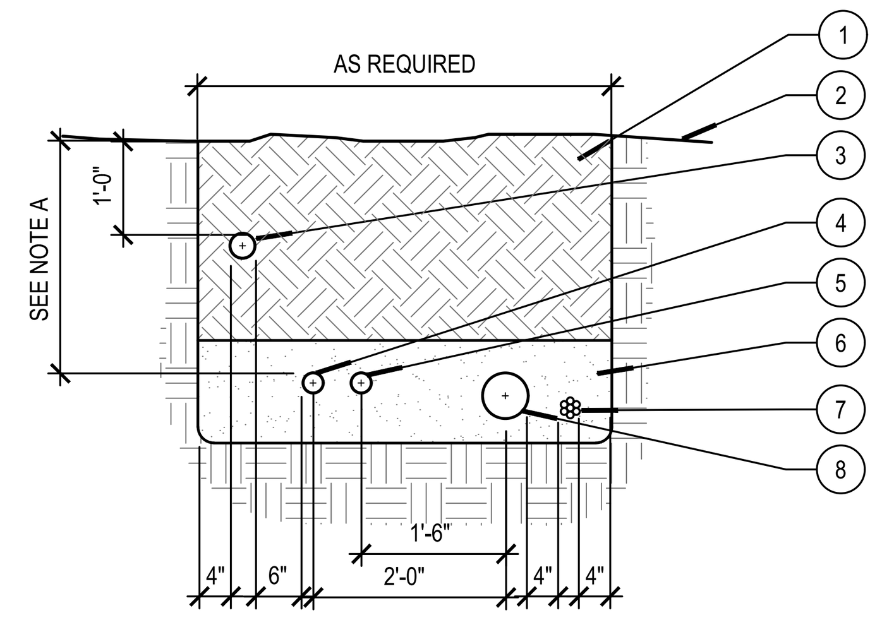
1. INSTALL POP-UP HEAD - SEE IRRIGATION LEGEND FOR SPECIFICATION
2. FINISH GRADE - SET 1" BELOW TOP OF HEAD TYP.
3. UNDISTURBED SOIL
4. TRIPLE SWING JOINT ASSEMBLY
5. SCH 40 PVC SxSxT TEE FITTING LATERAL X SPRINKLER INLET SIZE
6. LATERAL LINE, SEE LENGEND AND DETAILS FOR TYPE AND DEPTH REQUIRED

NOTES

A. INSTALL SPRINKLER HEADS 8" FROM PAVING EDGE IN SHRUB AND GROUNDCOVER AREAS
B. INSTALL SPRINKLER HEADS 4" FROM PAVING EDGE IN TURF AREAS
C. ADJUST SPRAYS OR NOZZLE STREAM SO THERE IS NO OVERSPRAY ONTO ADJACENT HARDSCAPE AND/OR BUILDINGS
D. ALL THREADED CONNECTIONS SHALL HAVE TEFLON TAPE OR PASTE

P — TRENCHING

SCALE: 1/2" = 1'-0"



LEGEND

1. REFER TO IRRIGATION SPECS FOR BACKFILL AND COMPACTION REQUIREMENTS
2. FINISH GRADE
3. NON-PRESSURIZED LATERAL LINE PIPING
4. COMMUNICATION CABLE CONDUIT (WHERE REQUIRED)
5. FLOW SENSOR AND CABLE CONDUIT
6. APPROVED BACKFILL OR SAND- PROVDE 3" UNDER PIPE AND 4" AROUND PIPE
7. CONTROL WIRE BUNDLES AND TAPED AT 10'-0" INTERVALS. INSTALL ADJACENT TO MAINLINE.
8. PRESSURIZED MAINLINE PIPING

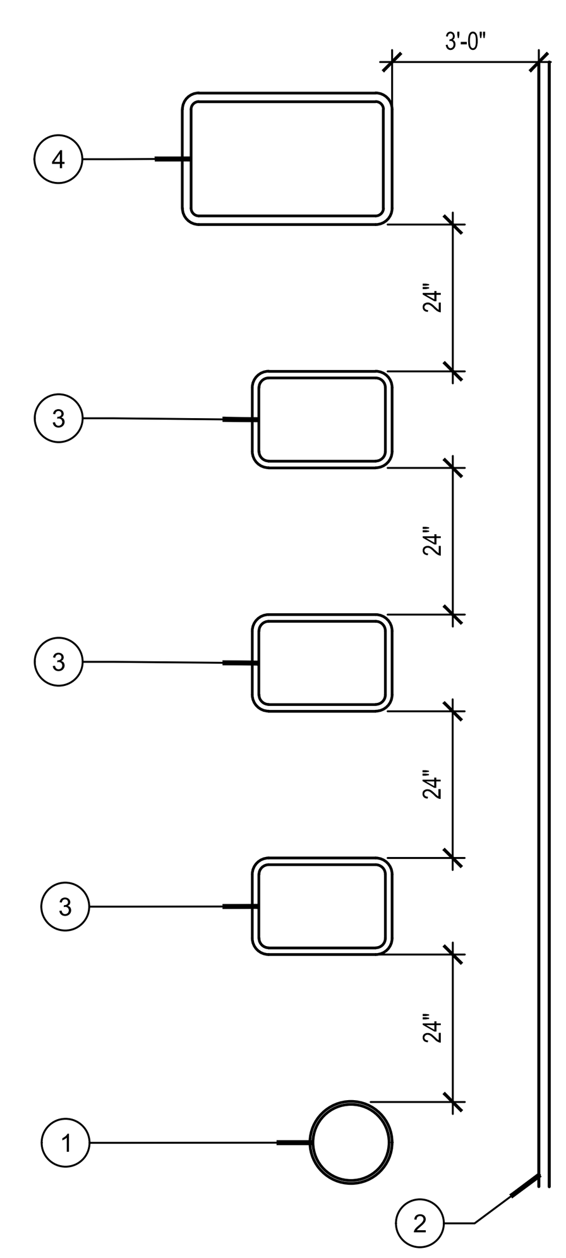
LINETYPE	DEPTH
PRESSURIZED MAINLINE 2 1/2" AND SMALLER	18"
PRESSURIZED MAINLINE 3" AND LARGER	24"
LATERAL LINES	12"

NOTES

A. ALL PLASTIC PIPING SHALL BE SNAKED IN TRENCHES
B. TIE LOOSE 20" LOOP IN WIRING AT ANY CHANGE IN DIRECTION GREATER THAN 30' - UNTIE ANY LOOPS AFTER ALL CONNECTIONS HAVE BEEN MADE.
C. ALL MAINLINE, LATERAL LINES, AND CONTROL WIRES SHALL BE SLEEVED BELOW ALL HARDSCAPE ELEMENTS. SEE SLEEVE DETAIL
D. ALL MAINLINE PIPING TO BE INSTALLED IN ACCORDANCE WITH MANUFACTURER INSTALLATION SPECIFICATIONS.

Q — VALVE BOX LAYOUT

SCALE: N.T.S.



LEGEND

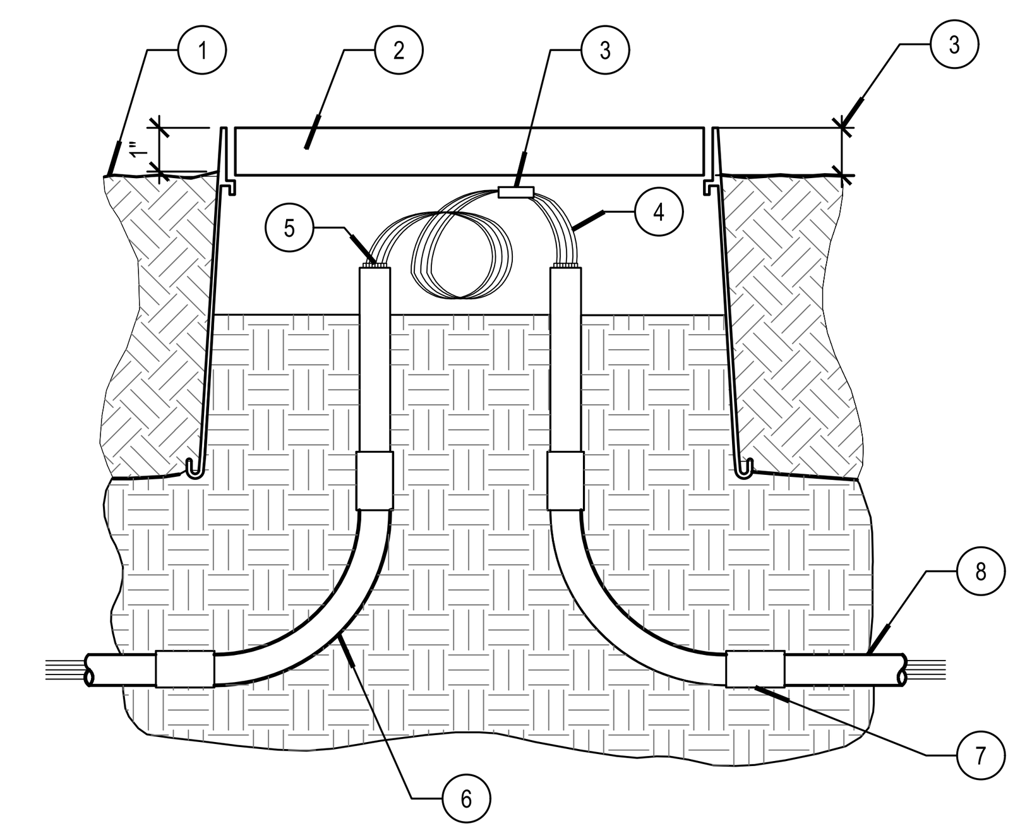
1. 10" DIAMETER CIRCULAR VALVE BOX (QCV)
1. EDGE OF LAWN, WALK, CURB, FENCE, ETC
1. 12" X 18" RECTANGULAR VALVE BOX (RCV)
1. 20" X 30" RECTANGULAR VALVE BOX(DRIP RCV)

NOTES

A. CENTER VALVE BOX OVER VALVE TO FACILITATE SERVICING OF VALVE.
B. SET VALVE BOXES 2" MAXIMUM ABOVE GRADE IN MULCH COVER OR GROUNDCOVER/SHRUB AREAS - SET 1" ABOVE FINISH GRADE IN TURF AREAS.
C. SET VALVE BOX AND VALVE ASSEMBLY IN GROUNDCOVER/SHRUB AREAS WHERE POSSIBLE - INSTALL IN TURF ONLY IF THERE IS NO ADJACENT GROUNDCOVER.
D. SET VALVE BOXES PARALLEL TO ONE ANOTHER AND PERPENDICULAR TO EDGE.
E. AVOID HEAVY COMPACTION OF SOIL AROUND VALVE BOXES TO PREVENT THEIR DEFORMATION/COLLAPSE.

R — WIRE PULL BOX

SCALE: 3" = 1'-0"



LEGEND

1. FINISH GRADE: -1" IN TURF AREAS / 2" IN SHRUB AREAS
2. RECTANGULAR VALVE BOX, REFER TO SPECIFICATIONS
3. PERMANENT I.D. BAND (ONE FOR EACH WIRE)
4. CONTROL WIRE, REFER TO SPECIFICATIONS.
5. CONDUIT BUSHING.
6. U.L. LISTED PVC SCH. 40 90° SWEEP ELL.
7. U.L. LISTED PVC SCH. 40 SxX COUPLING.
8. U.L. LISTED PVC SCH. 40 CONDUIT

NOTES

A. REFER TO GENERAL NOTES FOR CONDUIT SIZE, PROVIDE SEPARATE 3/4" CONDUIT FOR FLOW SENSORS AND MASTER VALVES.

NO.	REVISIONS	DATE	BY

Kimley»Horn

500 LA TERRAZA BLVD., SUITE 300,
ESCONDIDO, CA 92025
PHONE: 760-266-6682
WWW.KIMLEY-HORN.COM

KHA PROJECT
PROJ 195582002
DATE
4/30/26
SCALE: AS SHOWN
DESIGNED BY: PF
DRAWN BY: PF
CHECKED BY: MD

IRRIGATION DETAILS

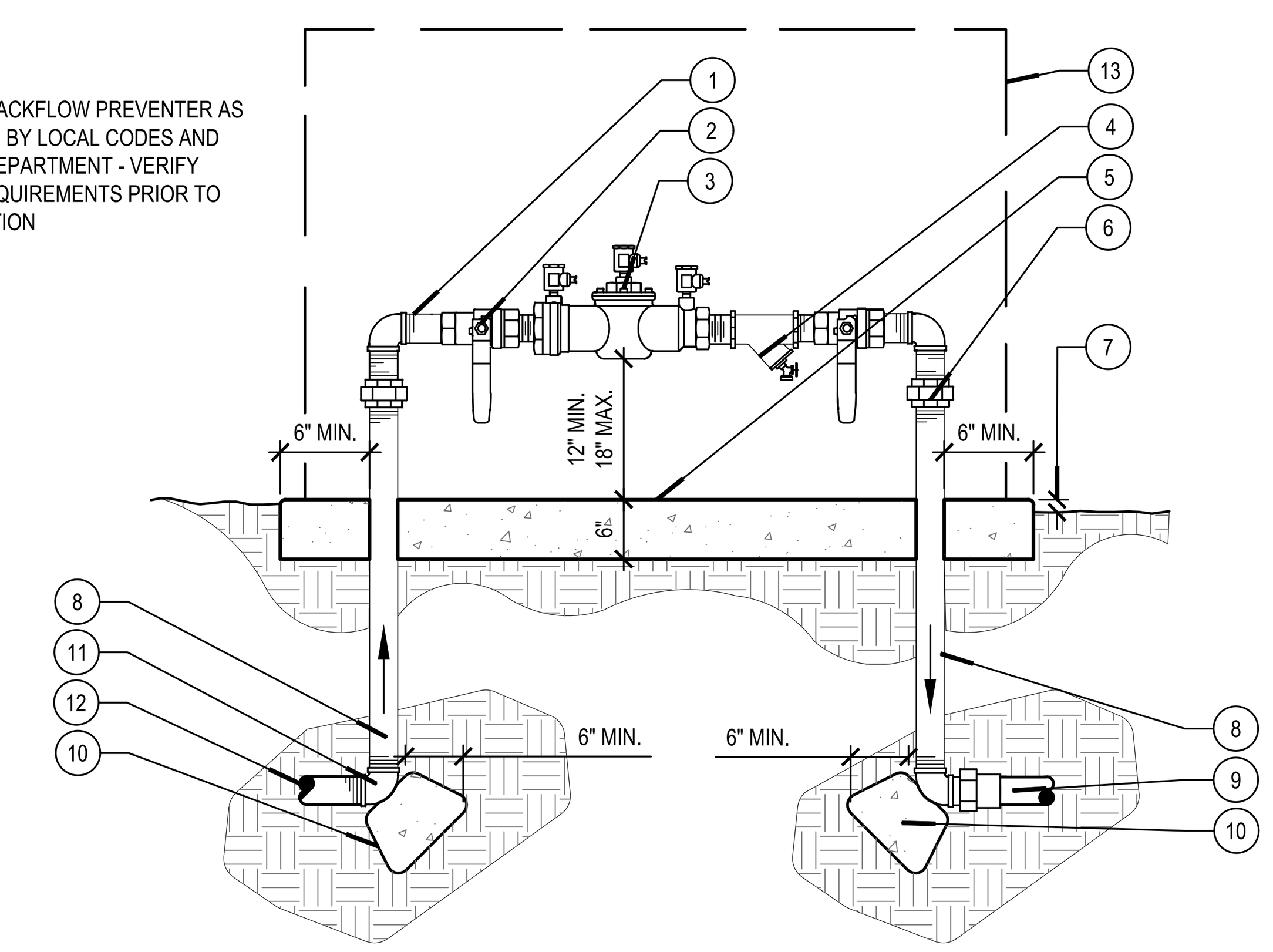
ENTERPRISE BESS
PREPARED FOR
RAVEN VOLT
2361 AUTO PARK WAY,
ESCONDIDO, CA 92029

Know what's below. Call 811 before you dig.

SHEET NUMBER
L2.4

NOTES

A. INSTALL BACKFLOW PREVENTER AS REQUIRED BY LOCAL CODES AND HEALTH DEPARTMENT - VERIFY LOCAL REQUIREMENTS PRIOR TO INSTALLATION

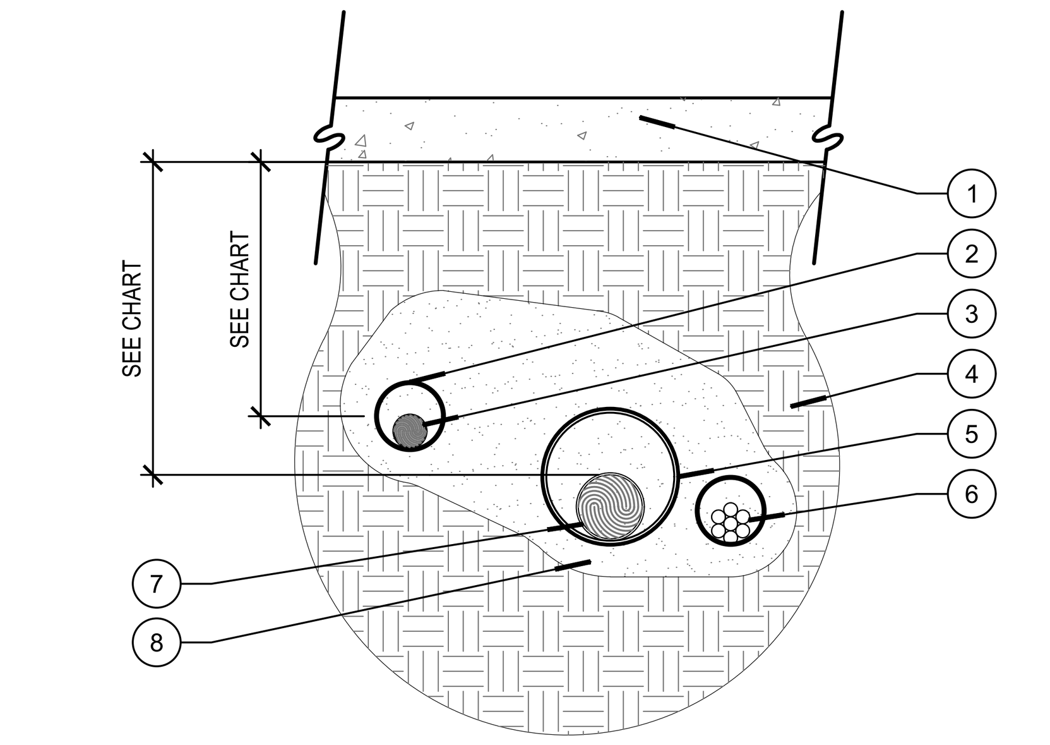


LEGEND

1. BRASS NIPPLE, 4" LENGTH, MIN (TYP.)
2. BALL VALVE, TYPICAL FOR TWO (2)
3. REDUCED PRESSURE TYPE BACKFLOW PREVENTER
4. BRASS WYE STRAINER WITH 40 MESH MONEL SCREEN AND HOSE BIB
5. NATURAL GRAY CONCRETE BASE WITH HAND TROWELED FINISH AND ¼" TOOLED RADIUS EDGES
6. BRASS UNION (2)
7. FINISH GRADE:
   - 1" IN TURF AREAS
   - 2" IN SHRUB AREAS
8. BRASS RISER
9. PIPE OUT TO IRRIGATION SYSTEM - ADAPT AS REQUIRED
10. CONCRETE THRUST BLOCK
11. BRASS 90 DEGREE ELL, TYPICAL FOR (4)
12. PIPE IN FROM POINT OF CONNECTION - ADAPT AS REQUIRED
13. SECURE ENCLOSURE - SUBMIT CUT-SHEET FOR REVIEW AND APPROVAL.

S BACKFLOW PREVENTER

SCALE: 3/4" = 1'-0"



LEGEND

1. HARDSCAPE PAVING
2. LATERAL LINE SLEEVING SHALL BE SCH. 40 PVC - SLEEVE DIA. SHALL BE 2x LATERAL DIA.
3. LATERAL LINE - REFER TO IRRIGATION LEGEND FOR SPECIFICATIONS
4. BACKFILL - 90% RELATIVE COMPACTION, MINIMUM - REFER TO GEOTECHNICAL REPORT
5. CONTROL WIRE BUNDLE SLEEVING SHALL BE SCH. 40 PVC PIPE
6. MAINLINE SLEEVING SHALL BE SCH. 40 PVC PIPE - SLEEVE DIA. SHALL BE 2x MAINLINE DIA.
7. MAINLINE - REFER TO IRRIGATION LEGEND FOR SPECIFICATIONS
8. SAND BACKFILL 2" BASE & 6" OF COVER, MIN.

NOTES

A. ALL IRRIGATION WIRES, LATERALS AND MAINLINE SHALL BE PLACED IN SLEEVES

B. IRRIGATION CONTRACTOR SHALL COORDINATE ALL SLEEVING LOCATIONS & SIZES WITH HARDSCAPE CONTRACTOR PRIOR TO BEGINNING CONSTRUCTION

C. ALL SLEEVES SHALL EXTEND A MINIMUM OF 12" BEYOND THE EDGE OF THE 12" BEYOND THE EDGE OF THE HARDSCAPE SURFACE

LINE TYPE	LOCATION	DEPTH
PRESSURIZED MAINLINE	IN LANDSCAPE	24"
	UNDER VEH. PAVING	36"
LATERAL LINES	IN LANDSCAPE	18"
	UNDER VEH. PAVING	30"

T IRRIGATION SLEEVING

SCALE: 1" = 1'-0"

NO.	REVISIONS	DATE	BY

Kimley»Horn

500 LA TERRAZA BLVD., SUITE 300,
ESCONDIDO, CA 92025
PHONE: 760-266-6682
WWW.KIMLEY-HORN.COM

LICENSED LANDSCAPE ARCHITECT
Luke D. Davies License No. 7145
Signature
9/30/2027
Renewal Date
4/30/2026
Date
STATE OF CALIFORNIA

KHA PROJECT
PROJ 195582002

DATE
4/30/26

SCALE: AS SHOWN
DESIGNED BY: PF
DRAWN BY: PF
CHECKED BY: MD

IRRIGATION DETAILS

ENTERPRISE BESS

PREPARED FOR

RAVEN VOLT

2361 AUTO PARK WAY,
ESCONDIDO, CA 92029

811 Know what's below. Call 811 before you dig.

SHEET NUMBER
L2.5

SECTION 328400
PLANTING IRRIGATION

PART 1 - GENERAL

1.1 DESCRIPTION

A. The work in this section consists of furnishing, layout and installing an irrigation system complete, including certification of irrigation system installation as required by the State of California Model Water Ordinance described herein.

1.2 CITY REQUIREMENTS

A. CONTRACTOR shall be familiar with and follow the City or Municipality's Efficient Water Landscape Ordinance Requirements.

B. Coordination with City's Public Works Department

1. A minimum of 11 weeks prior to need for service connection, CONTRACTOR shall contact the City's Public Works Department to establish a start date to install the new water service lateral and the irrigation water meter.

2. The City will install service lateral from the water main in the street to the location shown on the plans, including the meter box. City will supply and install the irrigation meter.

3. It is the responsibility of the Contractor to furnish and install an approved Reduced Pressure Principle (RPP) type backflow prevention assembly on General Metered Service. This assembly must be installed above ground immediately following the service connections. Any deviation from the locations indicated must be approved in advance by the City Public Works Department. City requires all backflow devices to be lead free and the backflow model is to be as specified on the plans, or approved equal.

4. The RPP assembly must be installed and tested by the City before allowing water use through its services. 24 hours prior to initiating service you must contact the City Public Works Department and they will perform a field inspection and test.

1.3 QUALITY ASSURANCE

A. Manufacturer's Specifications: Follow manufacturer's current printed specifications and drawings in all cases where the manufacturers of articles used in the Contract furnish directions covering points not specified or shown in the drawings.

B. Ordinances and Regulations: All local, municipal and state laws, codes and regulations governing or relating to all portions of this work are hereby incorporated into and made a part of these Specifications. Anything contained in these Specifications shall not be construed to conflict with any of the above codes, regulations or requirements of the same. However, when these Specifications and Drawings call for or describe materials, workmanship or construction of a better quality, higher standard, or larger size than is required by the above codes and regulations, the provisions of these Specifications and Drawings shall take precedence. Furnish without extra charge additional materials and labor required to comply with above rules and regulations.

C. References, Codes and Standards:

1. City Municipal Codes
2. California Environmental Quality Act (CEQA)
3. Water Use Classification of Landscape Species (WUCOLS).
4. American Society of Irrigation Consultants (ASIC) Design Guidelines.
5. California Landscape Standards, California Landscape Contractors Association, (CLCA) Sacramento, California.
6. CAL-OSHA, title 8, Subchapter 4-Construction Safety Orders and Subchapter 7-General Industry Safety Orders.
7. California Electric Code.
8. California Plumbing Code (UPC) published by the Association of Western Plumbing Officials.
9. NFPA 24, Section 10.4, Depth of Cover.
10. Underwriters Laboratories (UL): Electrical wiring, controls, motors and devices, UL listed and so labeled.
11. American Society of Testing Materials (ASTM).

D. Furnish without extra charge any additional material and labor when required by the compliance with all above mentioned codes and regulations, though the work be not mentioned in these specifications or shown on the drawings.

E. Experience: Assign a full-time employee to the job as supervisor for the duration of the Contract with a certified landscape technician, irrigation certification through CLCA or minimum of four (4) years experience in landscape irrigation installation.

F. Labor Force: Provide a landscape installation and maintenance force thoroughly familiar with, and trained in, the work to be accomplished to perform the task in a competent, efficient manner acceptable to the Owner's Representative.

G. Explanation of Drawings:

1. Due to the scale of the Drawings, it is not possible to indicate all piping offsets, fittings, sleeves, etc., which may be required. Carefully investigate the conditions affected all of the work and plan accordingly and furnish all required fittings. Install system in such a manner to avoid conflicts with planting, utilities and architectural features.

2. Do not install the irrigation system as shown on the Drawings when it is obvious in the field that obstructions, grade differences or discrepancies in arc dimensions exist that might not have been considered in engineering. Bring such obstruction or differences to the attention of the Owner's Representative. In the event this notification is not given, the CONTRACTOR shall assume full responsibility for any revision necessary.

H. Trench Interference with Tree Root Systems:

1. Prior to trenching, layout main and lateral line locations within Drip Line of trees and review locations with ENGINEER. Relocate any lines that may interfere with existing root systems to avoid or reduce damage to root systems as accepted by Owner's Representative.

Mechanical Trenching is not allowed within dripline of existing trees to be protected except as approved by Owner's Representative

I. Coordinate plant locations with emitter locations.

1. Adjust plant locations in relation to the subsurface emitters as required to ensure that the plant roots receive the proper amount of water in order for it to thrive.

2. Coordinate planting and irrigation and provide hand watering of emitter irrigated and drip irrigated areas as required to maintain moist root zones until end of plant establishment period.

1.4 PROTECTION OF EXISTING STRUCTURES AND UTILITIES

A. The Drawings show, if applicable, existing above and below grade structures and utilities that are known to the OWNER. Locate known existing installations before proceeding with construction operations that may cause damage to such installations. Existing installations shall be kept in service where possible and damage to them shall be repaired with no adjustment of Contract Sum.

B. If other structures or utilities are encountered, request Owner's Representative to provide direction on how to proceed with the Work. If a structure or utility is damaged, take appropriate action to ensure the safety of persons and property.

C. CONTRACTOR to ensure that existing irrigation systems mainline water sources are protected. Maintain water to existing plants served by the existing irrigation system(s). Maintain electrical low voltage conductor connections from the existing irrigation controllers to remote control valves serving existing irrigation systems within and beyond the project limits. CONTRACTOR shall be fully responsible for all repairs to existing irrigation system(s) if a list of deficiencies is not done prior to the start of construction operations and submitted to the Owner's Representative.

1.5 SUBMITTALS

A. Materials List:

1. Submit required copies of the cut sheets and a complete list of materials proposed for installation, along with any proposed substitutions clearly identified and obtain the Owner's Representative's written approval thereof before proceeding. Use only accepted materials and items of equipment.

2. List all materials by manufacturer's name and model number.

B. Substitutions:

1. If the CONTRACTOR desires to substitute a product, he shall list each item and note it as a "substitution" and provide the following information:
   a. Descriptive information describing its similarities to the specified product.

2. If the product is approved and, in the opinion of the Owner's Representative, the substituted product does not perform as well as the specified product, the CONTRACTOR shall replace it with the specified product at no additional cost to the OWNER.

C. Operations and Maintenance Manuals:

1. Prior to the final acceptance of the irrigation system, furnish three (3) individually bound Operation and Maintenance Manuals to the Owner's Representative for use by the OWNER. The manuals shall contain complete enlarged drawings, diagrams and spare parts lists of all equipment installed showing manufacturer's name and address. In addition, each Service Manual shall contain the following:
   a. Index sheet indicating the CONTRACTOR's name, address and phone number.
   b. Copy of the Landscape Irrigation Audit
   c. Copy of the 12-month irrigation schedule and estimate of annual water consumption
   d. Copies of equipment warranties and certificates.
   e. List of equipment with names, addresses and telephone numbers of all local manufacturer representatives.
   f. Complete operating and maintenance instructions in sufficient detail to permit operating personnel to understand, operate and maintain all equipment.
   g. Parts list of all equipment such as controllers, valves, solenoids and heads.

D. Record Drawings:

1. Dimension the location of the following items from two (2) permanent points of reference such as building corners, sidewalks, road intersections, etc.:
   a. Connection to existing water lines/meter.
   b. Connection to electrical power.
   c. Gate valves.
   d. Routing of sprinkler pressure lines (a dimension at least every 100 feet and as required to identify all changes in direction and location).
   e. Remote control valves.
   f. Routing of control valves.
   g. Quick coupling valves.
   h. All sleeve locations.
   i. Routing of all control wiring.
   j. Include all invert elevations below 12".

2. Deliver a reproducible record drawing to the Owner's Representative within seven (7) working days before the date of final review. Delivery of the record drawings shall not relieve the CONTRACTOR of the responsibility of furnishing required information in the future.

E. Controller Plan:

1. Provide one Irrigation Diagram plan in each controller housing. The plan shall show the area controlled by each valve in different colors and for orientation, any major permanent structure such as buildings and roads.

2. Charts to be waterproof and hermetically sealed between two pieces of transparent 10 mil thick plastic and installed in each controller on the door as accepted by the Owner's Representative no later than the time of the coverage test of the irrigation system.

F. Maintenance Material - supply the following tools to the OWNER:

1. Three (3) sets of specialized tools required for removing, disassembling and adjusting each type of sprinkler, valve or other equipment supplied on this project.
2. Two (2) keys for each type of equipment enclosure.
3. Two (2) keys for each type of automatic controller.
4. Two (2) keys for each type of valve (including square type key for valves larger than 2")
5. Two (2) quick-coupler keys and matching hose swivels for each type of quick-coupling valve installed.
6. All lock keys shall be keyed alike.

F. Irrigation Inspection Checklist - supply the attached checklist to the OWNER upon completion:

1.6 PRODUCT DELIVERY, STORAGE AND HANDLING

A. Furnish and deliver materials in manufacturer's packaging, bearing original legible labeling.

B. The CONTRACTOR is cautioned to exercise care in handling, loading, unloading, and storing PVC pipe and fittings. All PVC pipe shall be transported in a vehicle which allows the length of the pipe to lie flat so as not to subject it to undue bending or concentrated external load at any point. Any section of pipe that has been dented, cracked, or otherwise damaged shall be discarded and, if installed, shall be replaced with new piping.

1.7 TRENCH INTERFERENCE WITH TREE ROOT SYSTEMS

A. Prior to trenching, layout main and lateral line locations within Drip Line of trees and review locations with ENGINEER. Relocate any lines that may interfere with existing root systems to avoid or reduce damage to root systems as accepted by Owner's Representative.

1.8 SEQUENCING AND SCHEDULING

A. Acceptance: Do not install main line trenching prior to acceptance by Owner's Representative of rough grades completed under another Section.

B. Coordination: Coordinate with the work of other sections to insure the following sequence of events:

1. Sleeves and Conduits: Installation of all sleeves and conduits to be located under paving and through walls prior to placement of those materials.
2. Stream Bubbler Heads: Install after placement of tree, but prior to backfill with planter soil mix.
3. Coordinate work schedule with Owner's Representative to avoid disruption of landscape maintenance of existing landscaping.
4. Install piping prior to soil preparation (planting soil amendment installation).

1.9 WARRANTY

A. In addition to manufacturer's guarantees and warranties, work shall be warranted for one (1) year from date of final acceptance against defects in material, equipment and workmanship. Warranty shall also cover repair of damage to any part of the premises resulting from leaks or other defects in materials, equipment and workmanship to the satisfaction of the Owner's Representative.

B. Include a copy of the warranty form in the Operation and Maintenance Manual.

1.10 OPERATION

A. Routine: Inspect and adjust all spray heads and control valves including raising or lowering of spray head heights to accommodate plant growth and weather conditions.

B. Controller: Inspect regularly for power interruption and reset clock as required. Adjust station timing to accommodate changes in plant growth and weather conditions.

C. System Failure: Perform all repairs within one (1) operating period. Replacements to match removed products and materials in all respects. Report promptly all damage not resulting from CONTRACTOR's operations. Repair all damage caused by CONTRACTOR at no expense to OWNER.

D. Climate Change: Set and program automatic controllers in response to seasonal requirements and requirements of newly planted materials.

PART 2 - PRODUCTS

2.1 PIPE

A. Pressure Main Line Pipe and Fittings: All PVC fittings shall bear the manufacturer's trademark name, material designation, size, applicable I.P.S. schedule and NSF seal of approval.

B. All main line pipe shall be solvent welded and shall be schedule 40 unless shown otherwise on the Drawings.

1. PVC Pressure Rated Pipe: ASTM D2241 NSF approved Type I, Grade I, solvent welded PVC with an appropriate standard dimension ratio (S.D.R.).
2. PVC Scheduled Pipe: ASTM D1785 NSF approved, Type I,
3. Grade I, solvent welded PVC.
4. PVC Solvent-weld Fittings: ASTM D2466 Schedule 40, 1-2, II-I NSF approved.
5. Solvent Cement and Primer for PVC solvent-weld pipe and fittings: Type and installation methods prescribed by the manufacturer.
6. Connections between Main Lines and RCVs: Schedule 80 PVC (threaded both ends) nipples and fittings unless required otherwise by local jurisdiction
7. Valves 2-inch and larger shall be flanged only.
8. Copper pipe shall be Type K or Red Brass where threaded joints are required and Type L otherwise.

C. All lateral line pipe shall be solvent welded and shall be schedule 40 unless shown otherwise on the Drawings.

2.2 CONTROLLER ENCLOSURES

A. Type: As shown on plans (or approved equal)

2.3 REMOTE CONTROL VALVE: As shown on Drawings and with the following minimum requirements:

A. Remote control valves shall be those normally manufactured for irrigation systems and shall have a slow, consistent speed of closure through entire closing operation, including last portion. To ensure this, the effective diaphragm working area/valve seating opening ratio must be a minimum 3 to 1.

B. Shall be mechanically self-cleaning to help prevent diaphragm or solenoid port plugging. To ensure this, the flush rod should be tapered to vary the size of the port opening as the diaphragm raises and lowers, thus allowing trapped material to escape. Rod is to be finished with a serrated surface to help scrub trapped material out. Screens not acceptable.

C. Shall have removable valve seat so valve can be repaired without removal from irrigation line.

D. Shall have ability to operate manually without the use of wrenches or special keys.

E. Shall have one-piece solenoid that attaches directly to valve without shunts or clips that can be lost.

F. Shall have cross top handle to adjust maximum travel of diaphragm to allow "tuning" of valve and closure.

2.4 BOX FOR REMOTE CONTROL VALVE

A. Valve boxes shall be rated for an h-20 traffic Loading or conform to astm d-638, tensile strength 3400 psi and impact Strength of 1.5 pounds per inch. Valve box extensions shall be of the Same type as the valve box and all covers shall be lockable and be Minimum overall size of 13" x 24" and minimum depth of 24".

2.5 CONTROLLER GROUND

A. Provide each pedestal controller with its own ground rod. Separate the ground rods by a minimum of eight feet. The ground rod shall be an eight foot long by 5/8" diameter U.L. approved copper clad rod or as recommended by controller manufacturer. Install no more than 6" of the ground rod above finish grade. Connect #8 gauge wire with a U.L. approved ground rod clamp to rod and back to ground screw at base of controller with appropriate connector. Make this wire as short as possible, avoiding any kinks or bending. Install within pedestal housing base unless otherwise noted.

B. Provide each irrigation controller with its own independent low voltage common ground wire.

2.6 GENERAL REQUIREMENTS FOR AUTOMATIC CONTROLLERS & CENTRAL:

A. Satellite Controllers: Capable of operating with manufacturer's Central Control System software.

B. Flow Sensors: Compatible with Central Control System and as recommended by Control System manufacturer.

C. Flow Monitors: Compatible with Central Control System and as recommended by manufacturer.

D. Hand Held Remote Control: Portable device as manufactured by Control System manufacturer capable of operating all control valves.

E. Master Control Valve: Master control valve shall be a 24 VAC, industrial type, solenoid control valve, Griswold 2000 series or equal. Valve shall be equipped with spring loaded packless diaphragm, cast iron body and bronze trim. The valve shall be of the normally closed type and shall be equipped with four-prong (cross) flow control. Valve shall be slow closing without chatter settings or adjustment. Valve shall have a mechanical self-purging internal control system with tapered, serrated, scrubbing rod through diaphragm for positive, variable port opening and cleaning. No solenoid port screens. Valve solenoid shall be corrosion-proof, molded in epoxy to form one integral unit with no connection shunts and shall be 24 VAC, 3 watt maximum.

F. Controller Ground:

1. Provide each pedestal controller with its own ground rod set remote from controller as recommended by controller manufacturer. Separate the ground rod by a minimum of eight feet. The ground rod shall be an eight foot long by 5/8" diameter U.L. approved copper clad rod or as recommended by controller manufacturer. Install no more than 6" of the ground rod above finish grade. Connect #8 gauge wire with a U.L. approved ground rod clamp to rod and back to ground screw at base of controller with appropriate connector. Make this wire as short as possible, avoiding any kinks or bending. Install within pedestal housing base unless otherwise noted.

2. Provide each irrigation controller with its own independent low voltage common ground wire.

2.7 CONTROL WIRES

A. Connections between automatic controllers and the solenoid-operated electric control valves shall be made with direct burial copper wire 14- AWG-UF 600 volt (minimum size). Pilot wires shall be a color other than white, and shall be a different color for each automatic controller with wires sharing a common trench. Common wires shall be white in color, with a different color stripe for each controller with wiring sharing the same common trench. No stripe is required if multiple controller wiring is not present.

B. Size of wire shall conform to the remote control valve manufacturer's specification for control wire sizes, but in no case shall the control wire be smaller than #14. Runs over 2,000 lineal feet shall be #12- AWG-UF 600 volt copper wire.

C. All wire splices are to be made within a valve box, with a copper crimp-type connector, and a "3-M" #DBY splice kit or Rain Bird "DBTWC25".

D. Use continuous control wiring between controllers and remote control valves (no splices).

E. Provide polyurethane tag at valve solenoid control wire that shows the controller number and station number. Also refer to valve box lid identification.

F. Provide a spare control wire in each RCV box for future.

2.8 SHRUB POP UP SPRAY HEAD

A. As shown on drawings (or approved equal)

2.9 QUICK COUPLER VALVES:

A. Quick coupler valves shall be as listed on the Drawings with 10" diameter box and lid similar to isolation valve box described below.

2.10 ISOLATION VALVE:

A. Valves 3 inches and smaller: 125 lb. WSP bronze gate valve with screw-in bonnet, non-rising stem and solid wedge disc, NIBCO T-580-A (or approved equal). Valves shall be line size.

2.11 BOX FOR ISOLATION VALVE

A. 10" diameter plastic, Ametek, Brooks, Christy, Rain Bird with bolt down lid marked "irrigation," or accepted equal. Avoid locating valve in paved areas. Provide H/20 Loading concrete box with bolt-down concrete lid if valve is located in paved area. Obtain location approval by Owner's Representative.

2.12 SWING JOINTS

A. Sprinklers and Bubblers: Use Dura, Lasco, Rain Bird or equal pre-assembled swing joints with O-rings.

B. Quick Coupling Valve: Dura 1-inch 1-A2-1-11-18 pre-assembled swing joint with O-rings and Dura quick lock to receive stabilizing rod.

2.13 BACKFLOW PREVENTION DEVICE

A. As required by Code and as shown on Drawings. Provide an Anti-freeze Jacket.

B. Riser assemblies from main line burial depth to backflow preventers shall be Schedule 40 brass pipe.

C. All metallic pipe and fittings installed below grade shall be painted with two coats of Koppers #50 Bitumastic, or approved equal. Pipes may be wrapped with an approved asphaltic tape in lieu of the liquid-applied coating.

D. Backflow preventer shall receive a minimum 6 inch thick concrete coordinated to fit backflow preventer enclosure as shown and as accepted by the Owner's Representative.

2.14 BACKFLOW PREVENTION DEVICE ENCLOSURE - As shown on the drawings

2.15 CONDUIT/SLEEVES

A. Sleeving shall be Schedule 40 PVC pipe sleeves and a minimum of two times the aggregate diameter of all pipes contained within the sleeve. Provide vertical sweep for all electrical conduit on each side of hardscape and terminate ends at 12" minimum depth and 12" from hardscape surface.

2.16 RCV IDENTIFICATION TAGS: Plastic or brass tags with valve number, approximately 2" by 2" with number imprinted, as accepted by Owner's Representative.

2.17 MISCELLANEOUS INSTALLATION MATERIALS

A. Solvent Cement and Primers for Solvent-weld Joints: Make and type approved by manufacturer(s) of pipe and fittings. Maintain cement proper consistency throughout use.

B. Pipe and Joint Compound: Permatex: Do not use on sprinkler inlet port.

2.18 MISCELLANEOUS EQUIPMENT/ACCESSORIES

A. Concrete for equipment pads: Poured-in-place Class A concrete per Section 90 of the Caltrans Standard Specifications.

B. Sleeves and Conduits: See Drawings.

C. Key(s) for Quick-Coupling Valves:

1. Type: Same manufacturer as Quick-Coupling Valve.

2.26 OTHER EQUIPMENT: As shown on Drawings and required for a fully functional irrigation system.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Sleeves and Conduits: Verify that all installed sleeving and conduits are undisturbed and are free of defects or errors introduced by the work of other sections.

B. Water Meter/Water Pressure: Test and verify that existing water pressure is the minimum pressure at maximum system g.p.m. to operate the irrigation system as indicated on the drawings.

C. Stub-outs: Verify that all stub-outs to be provided under another contract are correctly sized, located and installed as noted on Drawings.

D. Notification: Submit written notification to ENGINEER within ten (10) working days of above inspections describing all acceptable and non-acceptable site conditions. Technical Specifications Invitation for Bids No. PW13-11

3.2 TRENCH INTERFERENCE WITH TREE ROOT SYSTEMS:

A. Prior to trenching, layout main and lateral line locations within Drip Line of trees and review locations with ENGINEER. Relocate any lines that may interfere with existing root systems to avoid or reduce damage to root systems as accepted by ENGINEER.

3.3 CONNECTIONS TO SERVICES

A. Provide and coordinate connection to water meter.

B. Provide and coordinate connection of irrigation controller to electrical power source.

3.4 INSTALLATION

A. Install irrigation system components in accordance with this Section, with the Drawings, with the manufacturer's recommendations, and with established industry standards. The CONTRACTOR shall do nothing that may jeopardize any manufacturer warranty.

B. Conduits and Sleeves:

1. Coordination: Provide conduits and sleeves and coordinate installation with other trades.
2. Extent: Install conduits and sleeves where control wires and pipes pass under paving or through walls as shown on Drawings. Extend twelve inches (12") beyond edges of paving and walls and cap ends until ready for use.

C. Excavating and Trenching:

1. Pipe Layout: Layout pipe lines within Spread of Tree Branches as described above in Section 1.7, TRENCH INTERFERENCE WITH TREE ROOT SYSTEMS.
2. Dig trenches wide enough to allow a minimum of three inches (3") between parallel pipe lines. Provide a minimum cover from finish grade as follows:

D. Pipeline Assembly:

1. Install pipe and fittings in accordance with manufacturer's current printed Specifications.
2. Clean all pipes and fittings of dirt, scale and moisture before assembly.
3. Solvent-welded Joints for PVC Pipes:
   a. Solvents: Use solvents and methods specified by pipe manufacturer.
   b. Curing Period: Minimum of one (1) hour before applying any external stress on the piping and at least 24 hours before placing the joint under water pressure.
4. Threaded Joints for Plastic Pipes:
   a. Use Permatex on all threaded PVC fittings except sprinkler heads and quick coupler valve ACME threads.
   b. Joining: Use strap-type friction wrench only. Do not use metal-jawed wrench. Assemble finger tight plus one or two turns.
5. Laying of Pipe:
   a. Bedding On-grade: Remove from trench all rocks or clods. Bed pipe in at least 2 inches of soil excavated from trench. Backfill on all sides of piping to provide a uniform bearing.
   b. Snaking: Snake pipe from side to side of trench bottom to allow for expansion and contraction. Minimum allowance for snaking is one (1) additional foot per 100 ft. of pipe.
   c. Moisture Restrictions: Do not lay PVC pipe when there is water in the trench. Do not assemble PVC pipe unless the pipe is dry.

E. Control Valves:

1. Install in valve boxes where shown on Drawings and group together where practical. Install box flush with finish grade, not necessarily level. If valve occurs in drainage swale, relocate out of drainage swale as approved by Owner's Representative.
2. Where two or more valves are installed adjacent to each other, provide at least six inches (6") separation. Align boxes in a row, perpendicular with pavement edge.
3. Permanently mark valve box lid with 2" black valve number and controller letter or with numbered metal tag inside box as approved by Owner's Representative.
4. Refer to control wiring for required spare wire in each valve box.

F. Sprinkler Head Installation:

1. Stream Bubblers:
   1.1. Coordinate installation with planting CONTRACTOR to insure timely and proper placement of heads at new planting.

G. Automatic Controller:

1. General: Install with lock box cutoff switch per local code and manufacturer's current printed specifications.
2. Connection to Valves: Connect remote control valves to controller in clockwise sequence to correspond with station setting beginning with Stations 1, 2, 3, etc.
3. Labeling: Affix controller letter (i.e., "A") on inside of controller cabinet door with minimum of one-inch (1") high permanent letter.
4. Irrigation Diagram: Affix a non-fading, waterproof copy of irrigation diagram to cabinet door below controller name. Irrigation diagram to be sealed between two plastic sheets, 20 mil. minimum thickness. Use a legible reduced copy of the Record Drawing for the irrigation diagram clearly showing all valves operated by the controller, station, number, valve size, and type of planting irrigated. Color code area operated by each valve.

H. Control Wiring:

1. General: Install control wires in common trenches with sprinkler mains and laterals wherever possible. Lay to the bottom side of pipe line. Provide looped slack at valves. Snake wires in trench to allow for contraction of wires. Tie wires in bundles at 10 ft. intervals.
2. Extra Length: Provide 30 inches (30") extra control wire at each remote control valve splice to facilitate the removal of the remote control bonnet to finish grade without cutting wires.
3. Spare: Install one unconnected spare control wire running from the controller through each intermediate control valve box.
4. Size: Minimum size of wire is to be determined strictly by the manufacturer's current printed specifications for remote control valves, but not smaller than #14.
5. Detection Wire: Install a bare #12 copper wire or greater on top of the PVC supply line for the purpose of possible future mine detection search. Install the control wires on the bottom of the PVC supply line with electrical tape every ten feet (10').
6. Splicing: Crimp control wire splices at remote control valves. Seal with specified splicing materials. In-line splices will be allowed only on runs exceeding 2500 feet and only in junction boxes.

I. Closing of Pipe and Flushing of Lines:

1. Capping: Cap or plug all openings as soon as lines have been installed to prevent entrance of materials that would obstruct the pipe. Leave in place until removal is necessary for completion of installation.

J. Detection Wire and Warning Tape:

1. Install a bare # 12 copper wire or greater on top of the PVC supply line for the purpose of possible future mine detection search.
2. Install a continuous PVC irrigation mainline warning tape 12" above the supply line.

K. RCV IDENTIFICATION TAGS: Install in remote control valve box as recommended by manufacturer and as accepted by Owner's Representative.

3.5 MISCELLANEOUS EQUIPMENT

A. Install miscellaneous equipment with concrete footings, brackets, etc., as required and as recommended by manufacturer.

3.6 FIELD QUALITY CONTROL

A. Testing of Irrigation System:

1. Make hydrostatic tests with risers capped when welded PVC joints have cured at least 24 hours. Center load piping with backfill to prevent pipe from moving under pressure. Keep all couplings and fittings exposed.
2. Install two (2) pressure gauges at opposite ends of main line system. Pump system up to a minimum of 125 psi the day preceding the scheduled test and verify that pressure is holding. Inspect system early following day and immediately notify Owner's Representative if the test confirmation must be postponed.
3. Apply continuous static water pressure of 125 psi in accordance with Caltrans Standard Specifications Section 20-3.03N, except after a drop in pressure (5 psi maximum), then the pressure must stabilize and remain stable for a one (1) hour minimum period before acceptance of the test.
4. Leaks detected during tests shall be repaired and test repeated until system passes tests at no additional cost to OWNER.

B. Adjustment of the System:

1. Flush and adjust all sprinkler heads for optimum performance and to prevent overspray onto walks, roadways and buildings. Adjust the arc and radius as applicable.
2. Include as a part of the work any nozzle changes or arc adjustments necessary due to daytime windy conditions during grass establishment period. After grass has been established and watering can be performed during calm early morning or evening hours, make any required adjustments to nozzles and arcs.
3. Set all sprinkler heads perpendicular to finished grades unless otherwise noted on the drawings.
4. When the landscape sprinkler system is completed and before planting, perform a coverage test in the presence of the Owner's Representative to determine if the water coverage for planting areas is adequate.
5. Test controllers individually in the presence of the Owner's Representative. Demonstrate that all control valves operate electronically. Provide vehicles and radio equipment as necessary to expedite this process.
6. Demonstrate to Owner's Representative that irrigation scheduling programmed into controller is adequate for plant requirements without causing runoff, and that scheduling capacities of controller are utilized.

3.7 IRRIGATION SCHEDULING AND CONTROLLER PROGRAMMING

A. All irrigation schedules and programs shall be developed, managed and evaluated to utilize the minimum amount of water required to maintain plant health.

3.8 BACKFILL AND COMPACTING

A. General: After system is operating and required tests and reviews have been made, backfill excavations and trenches with clean soil, free of debris.

B. Backfill for All Trenches: Regardless of the type of pipe covered, compact to minimum 95% density under pavements and 85% under planted areas.

C. Finishing: Dress off areas to finish grades. Re-dress any areas which subsequently settle.

D. OWNER's testing agency will test backfill compaction in areas under paving.

3.9 MAINTENANCE

A. The entire sprinkler irrigation system shall be under full automatic operation for a period of 2 days prior to any planting.

B. The Owner's Representative reserves the right to waive or shorten the operation period.

C. Maintain/repair system for full duration of plant maintenance period.

3.10 REVIEWS PRIOR TO ACCEPTANCE

A. Notify the Owner's Representative in advance for the following reviews, according to the time indicated:

1. Supply line pressure test and control wire installation - 72 hours.
2. Coverage and controller test - 72 hours.
3. Final review - 7 days.

B. No reviews will commence without record drawings, without completing previously noted corrections, or without preparing the system for review.

3.11 FINAL REVIEW AND CLEANUP

A. Operate each system in its entirety for the Owner's Representative at time of final review. Any items deemed not acceptable by the Owner's Representative shall be reworked to the complete satisfaction of the Owner's Representative.

B. Provide evidence to the Owner's Representative that the OWNER has received all accessories and equipment as required before final review can occur.

C. Final acceptance and start of warranty period will occur no earlier than the end of the plant maintenance period.

D. For time of final review, CONTRACTOR shall arrange a meeting with the OWNER's maintenance personnel to demonstrate the operation of the irrigation systems automatically in order to verify acceptance and to familiarize the maintenance personnel with the system and recommended programming.

END OF SECTION 32 84 00

NO.	REVISIONS	DATE	BY

Kimley»Horn
500 LA TERRAZA BLVD., SUITE 300,
ESCONDIDO, CA 92025
PHONE: 760-266-6682
WWW.KIMLEY-HORN.COM

KHA PROJECT	195582002
DATE	4/30/26
SCALE:	AS SHOWN
DESIGNED BY:	PF
DRAWN BY:	PF
CHECKED BY:	MD

IRRIGATION SPECIFICATIONS

ENTERPRISE BESS
PREPARED FOR
RAVEN VOLT
2361 AUTO PARK WAY,
ESCONDIDO, CA 92029

SHEET NUMBER
L3.0

SECTION 329300
PLANTS

PART 1 - GENERAL

1.1 DESCRIPTION

A. Provide planting work and planting maintenance complete as shown on the drawings and as specified including staking and layout of the landscaping,

1.2 QUALITY ASSURANCE

A. Reference Standards:

1. Ordinances and Regulations: All local, municipal and state laws, codes and regulations governing or relating to all portions of this work are hereby incorporated into and made a part of these Specifications. Anything contained in these Specifications shall not be construed to conflict with any of the above codes, regulations or requirements of the same. However, when these Specifications and Drawings call for or describe materials, workmanship or construction of a better quality, higher standard than is required by the above mentioned codes and regulations, the provisions of these Specifications and Drawings shall take precedence. Furnish without extra charge additional materials and labor required to comply with above rules and regulations.

2. CONTRACTOR shall be familiar with and follow the State of California Model Water Ordinance, California Code of Regulations, Title 23 Waters, Division 2, Department of Water Resources, Chapter 2.7. Also, the CONTRACTOR is responsible to follow all local water ordinances and the Soil Management/Analysis Report with verifying implementation.

3. "Sunset Western Garden Book," Lane Publishing Co., Menlo Park, California; current edition.

4. "American Standards for Nursery Stock," American Association of Nurseryman, 230 Southern Building, Washington, D.C. 20005.

5. US Composting Council Compost analysis Program (CAP)

6. Test Methods for the Evaluation of Composting and Compost (TMECC)

7. International Society of Arboriculture, Guide for Plant Appraisal, latest version.

8. United States Composting Council (USCC) Seal of Testing Assurance (STA) program.

9. TMECC: Refers to "Test Methods for the Examination of Composting and Compost," published by the United States Department of Agriculture and the United States Compost Council (USCC).

10. Manufacturer's recommendations.

B. Qualifications:

1. Experience: Assign a full-time employee to the job as foreman for the duration of the Contract who is certified landscape technician, certification through CLCA or minimum of four (4) years experience in landscape installation and maintenance supervision, with experience or training in turf management, entomology, pest control, soils, fertilizers and plant identification.

2. Labor Force: Provide a landscape installation and maintenance force thoroughly familiar with, and trained in, the work to be accomplished to perform the task in a competent, efficient manner acceptable to the OWNER.

C. Requirements:

1. Supervision: The foreman shall directly supervise the work force at all times and be present during the entire installation. Notify Owner's Representative of all changes in supervision.

2. Identification: Provide proper identification at all times for landscape maintenance firm's vehicles and a labor force uniformly dressed in a manner satisfactory to Owner's Representative.

3. Planting soils and organic amendments shall meet the AACWP requirement for the stormwater treatment measures used with this project work.

D. Plant Material Standards

1. Quality and Size of Plants: Conform to the State of California Grading Code of Nursery Stock, No. 1 grade and American Standards for Nursery Stock," American Association of Nurseryman. Use only nursery-grown stock which is free from insect pests and diseases.

2. Comply with federal and state laws requiring inspection for plant diseases and infestations. Submit inspection certificates required by law with each shipment of plants, and deliver certificates to the OWNER. Obtain clearance from the County Agricultural Commissioner as required by law, before planting plants delivered from outside the County in which planted.

E. Testing Agency/ Soils Report: See Section 329113 SOIL PREPARATION

F. Testing Agency/ Composted Organic Amendment: See Section 329113 SOIL PREPARATION

1.3 SUBMITTALS

A. Product Data: Manufacturer's current catalog cuts and specifications of the following:

1. Fertilizers
2. Tree Tie and Stake
3. Root Barrier
4. Iron Sulfate
5. Filter Fabric
6. 4" Perforated Pipe

B. Samples: Submit following samples along with certificates of compliance / analytical data from approved laboratory for degree of compliance:

1. Plants: Submit typical sample of each variety or entire quantity to site for approval by ENGINEER.

2. Organic Mulch: Submit 1-pint sample with list of ingredients.

3. Organic (Soil) Amendment: Submit 1/2-pint sample with Technical Data Sheet and STA certification.

4. Permeable Backfill or Drain Rock: Submit 1-pint sample.

5. Imported Planting Soil: Submit 1-pint sample

C. Delivery Receipts

1. Provide delivery receipts for quantities of organic soil amendments delivered to the site.

D. Topsoil Analysis (Soil Management) Report

1. After approval of rough grading and topsoil placement, obtain minimum of two representative one quart samples of topsoil taken from accepted site locations at depth of 4" to 6" below finish grade and submit to an accredited Soils Laboratory for evaluation of physical and chemical properties of soil including all major nutrients; pH, salinity, boron, sodium, micronutrients, copper, zinc, manganese and iron; and infiltration rate, soil texture and organic content, along with a summary describing the degree of compliance with the specified requirements. The report shall also include recommendations for modification of the soil for agricultural suitability.

2. Upon request by Owner's Representative, submit documentation verifying implementation of soil analysis report recommendations to the local agency with Certificate of Completion as required by the State of California Model Water Ordinance

E. Subsoil Analysis

1. Besides the above required soil samples, take one representative sample of any subgrade soil that is to receive a layer of imported planting soil over it. The laboratory report shall include the subgrade soil's total combined silt and clay content for determining the total desirable combined silt and clay content of the final imported planting soil cover specified herein.

F. Imported Planting Soil Analysis

1. See Imported Planting Soil Analysis requirements elsewhere in this specification for comparison to existing soil analysis.

G. Approval of Laboratory Report

1. Upon approval of the Laboratory's report by the Owner's Representative, the recommendations in the report shall become a part of the Specifications and the quantities of soil amendment, fertilizer and other additives shall be adjusted to conform with the report at no additional cost to the OWNER. Request Testing Laboratory to send one copy of test results directly to ENGINEER. Note that there is a minimum quantity of organic amendment specified elsewhere in this specification section.

1.4 PROJECT/SITE CONDITIONS

A. Site Visit: At beginning of work, visit and walk the site with the ENGINEER to clarify scope of work and understand existing project/site conditions.

1.5 WARRANTY AND REPLACEMENT

A. Pre-Emergence Weed Killer: Warrant the work against weed growth for a period of four (4) months after application.

B. Warrant all plants and planting to be in a healthy, thriving condition until the end of the maintenance period, and deciduous trees beyond that time until active growth is evident.

C. Replace all dead plants and plants not in a vigorous condition immediately upon discovery
and as directed by the Owner's Representative at CONTRACTOR's expense. Install replacement plants before the final acceptance at the size specified.

D. Warrant all plant material for a period of one year after final acceptance of the maintenance period against plant materials with defects at the time of installation.

E. Warrant plant installation and maintenance by CONTRACTOR against defects for a period of one year.

PART 2 - PRODUCTS

2.1 PLANTS

A. Plant the variety, quantity and size indicated. The total quantity tabulated on the drawings are considered approximate and furnished for convenience only. CONTRACTOR shall perform his/her own plant quantity calculations and shall provide all plants shown on the Drawings.

B. Tag plants of the type or name indicated and in accordance with the standard practice recommended by the American Association of Nurserymen.

C. Install healthy, shapely and well rooted plants with no evidence of having been root-bound, restricted or deformed.

D. Take precautions to ensure that the plants will arrive at the site in proper condition for successful growth. Protect plants in transit from windburn and sunburn. Protect and maintain plants on site by proper storage and watering.

E. Substitutions will not be permitted, except as follows:

1. If proof is submitted to the Owner's Representative that any plant specified is not obtainable, a proposal will be considered for use of nearest equivalent size or variety with an equitable adjustment of contract price.

2. Substantiate and submit proof of plant availability in writing to the Owner's Representative within 10 days after the effective date of Notice to Proceed.

F. Tree Form: Trees shall have a symmetrical form as typical for the species/cultivar and growth form.

1. Central Leader for Single Trunk Trees: Trees shall have a single, relatively straight central leader and tapered trunk, free of co dominant stems and vigorous, upright branches that compete with the central leader. Preferably, the central leader should not have been headed; however, in cases where the original leader has been remove, an upright branch at least ½ the diameter of the original leader just below the pruning point shall be present.

2. Potential Main Branches: Branches shall be evenly distributed radially around and appropriately spaced vertically along the trunk, forming a generally symmetrical crown typical for the species.

3. Headed temporary branches should be distributed around and along the trunk as noted above and shall be no greater than 3/8" diameter, and no greater than ½ diameter of the trunk at point of attachment.

G. Tree Trunk

1. Trunk diameter and taper shall be sufficient so that the tree will remain vertical without the support of a nursery stake.

2. Trunk shall be free of wounds (except properly-made pruning cuts), sunburned areas, conks (fungal fruiting-bodies), wood cracks, bleeding areas, signs of boring insects, galls, cankers and/or lesions.

3. Tree trunk diameter at 6" above the soil surface shall be within the diameter range shown for each container size below, except where shown otherwise:

Container	Trunk Diameter	Soil level from Container Top
24 inch Box	2.0" or larger	1.75 to 2.75"

4. Tree trunks shall be undamaged and uncut with all old abrasions and cuts completely callused over. Do not prune plants prior to delivery.

H. Tree Roots

1. Trunk root collar (root crown) and large roots shall be free of circling and/or kinked roots. CONTRACTOR may be required to remove soil near the root collar in order to verify that circling and/or kinked roots are not present.

2. The tree shall be well rooted in the container. When the trunk is lifted the trunk and root system shall move as one and the rootball shall remain intact.

3. The top-most roots or root collar shall be within 1" above or below the soil surface. The soil level in the container shall be within the limits shown in above table.
4. The rootball periphery shall be free of large circling and bottom-matted roots.
5. On grafted or budded trees, there shall be no suckers from the root stock.

I. Measure trees and shrubs with branches in normal position. Height and spread dimensions indicated refer to the main body of the plant, and not from branch tip to tip.

2.2 FERTILIZERS

A. Commercial fertilizer, pelleted or granular form, conform to the requirements of Chapter 7, Article 2, of the Agricultural Code of the State of California for fertilizing materials as follows:

1. 21 gram planting tablets 20% Nitrogen, 10% Phosphoric Acid and 5% Potash (20-10-5) available from Agriform or 10gm BestPacks packets 20% Nitrogen, 10% Phosphoric Acid and 5% Potash (20-10-5) available from Best Fertilizer Co.

2.3 ORGANIC AMENDMENT FOR IN SITU SOILS (ON-GRADE):

A. Ground Redwood or Ground Fir Bark with the following properties:

1. Percent Passing / Sieve Designation

Percent Passing	Sieve Designation	
100	9.51 mm	3/8"
50-60	6.35 mm	1/4"
20-40	4.76 mm	No. 4
0-20	2.38 mm	No. 8 8 mesh

Redwood Sawdust
Dry bulk density, lbs. per cu. yd., 260-280
Nitrogen stabilized - dry weight basis, min. 0.4%
Salinity (ECe): 4.0 maximum
Organic Content: 90% minimum
Reaction (pH): 4.0 minimum

Ground Fir and/or Pine Bark
Dry bulk density, lbs. per cu. yd., Min. 350
Nitrogen stabilized - dry weight basis, min. 0.5%
Salinity (ECe): 4.0 maximum
Organic Content: 90% minimum
Reaction (pH): 4.0 minimum

B. Submit sample along with analytical data from an approved laboratory for degree of compliance to the Owner's Representative within two weeks after award of Contract.

C. The above Ground Redwood or Ground Fir Bark or Ground Pine Bark (ORGANIC AMENDMENT FOR IN SITU SOILS) is the specified organic amendment material required. Acceptance of Composted Yard Waste Amendment in lieu of the above specified ORGANIC AMENDMENT FOR IN SITU SOILS (ON-GRADE) material will be considered if the in situ planting soil salinity and soil structure is favorable for the inclusion of recycled yard waste organic matter, as approved by the Owner's Representative. It is the CONTRACTOR's responsibility to secure test samples of both the planting soil and the proposed composted yard waste amendment (2 quart samples) and submit to Soils and Plant Laboratory for evaluation and recommendations. The composted yard waste amendment sample shall be a grab sample from the currently available material that has been tested within the last 30 days and shall include the composter's Compost Technical Data Sheet that includes lab analytical test results and directions for product use along with list of ingredients. The composted yard waste amendment shall be a mixture of feedstock materials including green material consisting of chipped, shredded, or ground vegetation and mixed food waste, or clean processed recycled wood products. Single source, Biosolids (sewage waste) compost will not be acceptable.

D. Based on the Soils and Plant Laboratory evaluation, the addition of composted yard waste amendment shall not be acceptable if it creates a leaching requirement.

E. The addition of the compost shall result in a final ECe of the amended soil of less than 4.0 dS/m @ 25 degrees C. as determined in a saturation extract. Use the following table to determine the maximum allowable Ece (dS/m of saturation extract) of compost at desired use rate and allowable Ece increase.

DESIRED USE RATE		MAXIMUM ALLOWABLE ECe INCREASE FROM AMENDMENT		
Cu. Yds. Amendment Per 1000 Sq. Ft. for Incorporation to 6" depth	Volume percentage of amendment	1 dS/m	2 dS/m	3 dS/m
		Maximum ECe of Compost		
1	5	14	28	42
2	11	7	14	21
3	16	5	9.5	14
4	22	3.5	7.0	10.5
5	27	3.0	5.5	8.5
6	32	2.5	4.5	7.0

1. Example: Specification calls for 6 cu. Yds. Compost per 1000 sq. ft. for incorporation to 6" depth, and site soil has an ECe of 2.0. In order to avoid exceeding ECe of 4 in final blend, compost ECe shall be less than 4.5 dS/m.

F. Composted Yard Waste Soil Amendment Properties as follows:

1. Gradation:

Percent Passing by Weight	Sieve Designation
90	1/2"
85-100	9.51 mm 3/8"
50-80 2.38 mm	No. 8 8 mesh
0-40 500 micron	No. 35 32 meshes

Maximum length 4 inches

2. Organic Content: Minimum 45% based on dry weight and determined by ash method.

3. Carbon to nitrogen ratio: Maximum 35:1 if material is claimed to be nitrogen stabilized.

4. pH: 5.5 – 8.0 as determined in saturated paste.

5. Soluble Salts: See above.

6. Moisture Content: 35-60%.

7. Physical Contaminants:
 a) The compost shall be free of contaminants such as glass, metal and visible plastic per Man Made Inert Removal and Classification: TMECC 02.02, %> 4mm fraction. Combined total less than 1.0.
 b) Man Made Inert Removal and Classification: Sharps % > 4mm fraction. (sewing needles, hypodermic needles) Non Detected.

8. Pathogens: TMECC 07.01-B Fecal Coliform Bacteria <1000 MPN/gram dry wt. <1000 (Pass)

A. General
1. Soil in all planting areas shall be moist, but not so moist that it sticks to a hand shovel, and loose and friable to a minimum depth of 12 inches with a relative maximum compaction of 85%. Rip and scarify and dry any areas that do not meet this requirement.

B. Before proceeding with the work: Carefully inspect all areas and verify all dimensions and quantities. Immediately inform the Owner's Representative of any discrepancy between the drawings and specifications and actual conditions and secure approval to proceed.

C. Planting Soil Placement Adjacent to Pavement Areas:

1. All debris shall be removed from the tree wells prior to soil backfill and proposed tree planting. Tree wells and structural soil excavations shall not be contained concrete spoils from concrete installation. Concrete deliver trucks cleaning shall be captured in CONTRACTOR furnished containers for such purposes.

2. Provide planting soil as a final lift in all planting areas within and adjacent to paved areas and other construction where native site soil has been covered by Owner's Representative fill and/or base rock. Remove all engineered fill, base rock and compacted subgrade full depth of compaction and replace with approved planting soil, a minimum lift of 12".

D. Backfill soil for tree wells shall be amended soil equal to the native soil and clean from stones greater than 3" and all construction debris.

E. All planting areas soil shall be loose and friable prior to planting. Rip any overly compacted and re-compacted planting areas in two directions full depth of compacted soil prior to planting.

F. Planting operations shall be performed only during periods when beneficial results can be obtained. When excessive moisture or other unsatisfactory conditions prevail, the work shall be stopped until conditions are satisfactory.

G. Thoroughly wet down the planting areas to settle the soil and confirm irrigation coverage and operation. Allow soil to dry so as to be workable as described herein.

H. Drag to a smooth, even surface. Grade to form all swales. Pitch grade with uniform slope to catch basins, streets, curb, etc., to ensure uniform surface drainage. Areas requiring grading include adjacent transition areas that shall be uniformly sloped between finish elevations. Slope surface away from walls so water will not stand against walls or buildings. Control surface water to avoid damage to adjoining properties or to finished work on the site. Take required remedial measures to prevent erosion of freshly graded areas and until such time as permanent drainage and erosion control features have been installed.

I. Finish Grade: Hold finish grade and/or mulch surface in planting areas 1/2-inch below adjacent pavement surfaces, tops of curbs, manholes, etc. The subgrade of the mulch in mulched planting areas shall be a minus 2 inches for a distance of 12 to 18 inch from the edge of pavement. The remainder of the planting area shall be graded to receive the required 3 inch layer of mulch.

3.2 TREE PLANTING

A. Mark tree and shrub locations on site using stakes, gypsum or similar approved means and secure location approval by the Owner's Representative before plant holes are dug. Review location of plants in relationship to irrigation heads and adjust location(s) that interfere with the function of the spray heads as accepted by the ENGINEER prior to planting.

B. Test drainage of plant beds and pits by filling with water (minimum 6"). The retention of water in planting beds and plant pits for more than two (2) hours shall be brought to the attention of the Owner's Representative. If rock, underground construction work, tree roots, poor drainage, or other obstructions are encountered in the excavation of plant pits, alternate locations may be selected by Owner's Representative.

C. Excavate tree and shrub pits as follows (Note square Tree Pit pattern required below):

1. Excavation for	Width	Depth
Boxed Trees	Box + 18"	Box depth
Container Trees (15 gc)	Can +12"	Can depth

D. Square Tree Pits

1. Tree pits shall be dug in a square pattern with pit walls scarified to promote root penetration into surrounding soil. Drilled tree pits shall be modified to a square shape.

E. Break and loosen the sides and bottom of the pit to ensure root penetration and water test hole for drainage as required above.

F. Backfill plant holes with mix as specified, free from rocks, clods or lumpy material. Backfill native soil free of soil amendments under rootball and foot tamp to prevent settlement. Backfill remainder of the hole with soil mix and place plant tablets or packets fertilizer 3 inches below finish grade and 1/2-inch from roots at the following rates:

1. Size		Rate
24" Box	-	6 tablets or packet

G. Carefully remove and set plants without damaging the rootball. Superficially cut edge roots vertically on three sides. Remove bottom of plant boxes before planting. Remove sides of boxes after positioning the plant and partially backfilling.

H. Set plants in backfill with top of the rootball 2 inches above finished grade. Backfill remainder of hole and soak thoroughly by jetting with a hose and pipe section. Water backfill until saturated the full depth of the hole.

I. Stake and/or guy trees as detailed and noted herein. Drive stake(s) until solid (at least 12" beyond bottom of rootball) and remove excess stake protruding above top tree tie to prevent rubbing against branches. Avoid driving stakes through rootball. If subgrade does not accept stakes to a stable degree, delete stakes and guy the trees as specified herein and as detailed. Locate tree ties to avoid contact with tree branches. Locate top tie at tree flex point.

J. Remove any soil from top of plant rootballs and secure Owner's Representative's approval of rootball height prior to mulching.

K. After approval of rootball height, install mulch as required below.

3.3 MULCH

A. Install a 3-inch layer of bark mulch per plans in planted areas (as called out on the drawings) up to edges of pavement, curbs, headers, and project limits. Keep mulch eight (8) inches away from tree trunks.
B. Install sheet mulching underneath all areas to receive mulch with 100% complete coverage. Overlap sheets 6-8 inches.

3.4 ROOT BARRIER

A. Install in linear fashion along and adjacent to the edges of the planting area as detailed or, if not shown, in accordance with manufacturer's recommendations. Set top of barrier at finished decomposed granite surface, as accepted by Owner's Representative.

3.6 WATERING

A. Water all trees, shrubs and ground cover immediately after planting. Apply water to all plants as often and in sufficient amount as conditions may require to keep the plants in a healthy vigorous growing condition until completion of the Contract. Do supplemental hand watering of trees and shrubs during the first 3 weeks of plant establishment.

3.7 PRE-MAINTENANCE PERIOD REVIEW AND APPROVAL OF PLANTING

A. Maintain plants from time of delivery to site until final acceptance of landscape installation.

B. Receive approval of the installed planting prior to commencement of planting establishment maintenance period. Notify the Owner's Representative a minimum of seven (7) days prior to requested review. Before the review, complete the following:
1. Complete all construction work.
2. Present all planted areas neat and clean with all weeds removed and all plants installed and appearing healthy.
3. Plumb all tree stakes.
4. No partial approvals will be given.

3.8 PLANTING ESTABLISHMENT MAINTENANCE

A. General Requirements:
Maintenance Period: The planting establishment maintenance period required shall be 120 calendar days after all planting is complete, or if the plant material is not acceptably maintained during the maintenance period. The maintenance period may be suspended at any time upon written notice to the CONTRACTOR that the landscaping is not being acceptably maintained, and the day count suspended until the landscape is brought up to acceptable standards as determined by the Owner's Representative.

5. Planting establishment maintenance immediately follows, coincides with, and is continuous with the planting operations, and continues through turf installation, and after all planting is complete and accepted; or longer where necessary to establish acceptable stands of thriving plants.

6. Keep all walks and paved areas clean. Keep the site clear of debris resulting from landscape work and maintenance operations.

7. Check sprinkler systems at each watering; adjust coverage and clean and repair nonfunctioning heads immediately. Adjust timing of sprinkler controller to prevent runoff and flooding.

8. Maintain adequate moisture depth in soil to ensure vigorous growth, without over-watering. Check rootball of trees and shrubs independent of surrounding soils and hand water as required.

9. Keep Contract areas free from weeds by cultivating, hoeing or hand pulling. Use of chemical weed killers will not relieve the CONTRACTOR of the responsibility of keeping areas free of weeds over 1-inch high at all times.

10. One (1) Year Guarantee: Following the plant establishment period, the Contractor shall provide a warranty which guarantees all trees for one (1) year from date of final acceptance of the contract. The Contractor shall replace any tree which has died, and the tree replacement shall be the same size container as originally designated on the plans.

11. Should the Contractor fail, be neglectful, or be negligent in furnishing the required maintenance and/or maintaining the project site, the Owner may maintain these facilities. The Owner shall charge the Contractor the cost for providing the required maintenance by deducting this cost from the periodic progress payments due the Contractor as these costs are incurred by the Owner.

B. Plant Protection and Replacement
1. Protect all areas against damage, including erosion, trespass, insects, rodents, deer, disease, etc. and provide proper safeguards, including trapping of rodent and applying protective sprays and fencing to discourage deer browsing. Maintain and keep all temporary barriers erected to prevent trespass.

2. Repair all damaged planted areas. Replace plants immediately upon discovery of damage or loss.

3. Any plant material replaced within the last thirty (30) days of the plant establishment period must be maintained by the Contractor for thirty (30) days from the date of replacement

C. Tree Maintenance:

1. Maintain during the entire establishment period by regular watering, cultivating, weeding, repair of stakes and ties, and spraying for insect pests. Prune when requested by the Owner's Representative.

2. Keep watering basins in good condition and weed-free at all times.

3. Replace all damaged, unhealthy or dead trees, with new stock immediately; size as indicated on the drawings.

D. Fertilizing:
1. Observe plant's color, and if a soil pH imbalance is suspected, take soil samples and obtain laboratory analysis for confirmation. Take necessary action recommended in
laboratory analysis such as top dressing with soil sulfur, leaching soil, etc.

3.9 FINAL PLANTING REVIEW AND ACCEPTANCE

A. At the conclusion of the Maintenance Period, schedule a final review with the Owner's Representative, the Owner's maintenance person, and the ENGINEER. On such date, all project improvements and all corrective work shall have been completed. If all project improvements and corrective work are not completed, continue the planting establishment, at no additional cost to the OWNER, until all work has been completed. This condition will be waived by the OWNER under such circumstances wherein the OWNER has granted an extension of time to permit the completion of a particular portion of the work beyond the time of completion set forth in the Agreement.

B. Submit written notice requesting review at least 10 days before the anticipated review.

C. Prior to review, weed and rake all planted areas, repair plant basins, plumb tree stakes, clear the site of all debris and present in a neat, orderly manner

END OF SECTION 32 93 00

SECTION 329302
DECORATIVE ROCK

PART 1 – GENERAL

1.1 DESCRIPTION

Provide decorative rock as indicated on the drawings as Crushed Rock, Rock Mulch, and Pea Gravel as specified herein.

1.2 QUALITY ASSURANCE

A. Reference Standards

1. Perform all work in accordance with all applicable laws, codes and regulations required by City.

B. Stipulations: At no point shall surface fail to drain.

C. SUBMITTALS: In accordance with Division One.

1. Decorative rock: (1) One gallon bucket(s) filled ¾ full with each type of inert groundcover to be used.

PART 2 - MATERIALS

A. Chemical herbicide shall be Dachtol or Surflan pre-emergent or equal.

PART 3 -– EXECUTION

3.1 PREPARATION

A. Planting and irrigation installation complete.

B. Contractor shall examine the subgrade, verify the elevations, and observe the conditions under which the work is to be performed. The existing grade shall be fine graded and raked free of organic matter and other debris one-inch diameter and larger. Contractor shall apply one application of pre-emergent herbicide as per manufacturer''s directions prior to installing granite and one application after granite has been installed, compacted and raked level. The Owner's representative is to be notified prior to pre-emergent applications

3.2 INSTALLATION

A. Top with layer of decorative rock material compacted to 85% relative compaction to achieve a smooth uniform surface.

B. Redress surface areas with material as necessary to correct any settlement or lack of crown which develops after initial placement.

C. Installed rock shall be raked to remove any irregularities. Installation shall provide depth of decorative rock after compacting as specified on plans. Unless otherwise specified in the drawings, granite finish grade shall be one and one-half inches below top of curb or sidewalk surfaces.

D. Install decorative rock as shown on plans

3.3 CLEANUP

A. Fill low areas and fine grade as required and accepted by the Owner's Representative.

B. Contractor shall at all times maintain his operations in a neat and safe manner free of debris and blowing trash. Any direction given by the Owner's Representative regarding the removal of debris or correction of hazardous situations shall be immediately followed

C. After placing, spreading, compacting and grading the decorative rock the CONTRACTOR shall water settle the total thickness of the decorative rock to remove the fine material from the surface. The water settling operation, noted above, shall be completed by applying water at minimum depth of one-half inch over the decorative rock areas placed or as approved by the Owner's Representative. This water settling technique can be used to water-in the second application of pre-emergent in compliance with pre-emergent Manufacturer recommendations and as approved by the Owner's Representative.

D. Unless otherwise specified in the drawings, granite finish grade shall be one inch (1") below top of curb or adjacent sidewalk surfaces.

END OF SECTION 32 93 03

NO.	REVISIONS	DATE	BY

Kimley»Horn
© 2025 KIMLEY-HORN AND ASSOCIATES, INC.
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PHONE: 760-266-6682
WWW.KIMLEY-HORN.COM

LICENSED LANDSCAPE ARCHITECT — STATE OF CALIFORNIA

KHA PROJECT	195582002
DATE	4/30/26
SCALE:	AS SHOWN
DESIGNED BY:	PF
DRAWN BY:	PF
CHECKED BY:	MD

PLANTING SPECIFICATIONS

ENTERPRISE BESS
PREPARED FOR
RAVEN VOLT
2361 AUTO PARK WAY,
ESCONDIDO, CA 92029

811 Know what's below. Call 811 before you dig.

SHEET NUMBER
L3.1

Attachment C

Communication with City of Escondido

From: Jon Boyer
To: Robert Ray
Subject: FW: MRP Enterprise BESS Land Use Coordination (PL26-0099)
Date: Wednesday, May 6, 2026 5:08:28 PM
Attachments: 2026.04.30 - Enterprise BESS Landscape Plans.pdf

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See attached.

Jon Boyer I Director of Environmental, Health, and Safety I Middle River Power I C: 760.912.3007

From: Jon Boyer
Sent: Monday, May 4, 2026 9:59 AM
To: 'Alex Rangel' <Alex.Rangel@escondido.gov>
Subject: RE: MRP Enterprise BESS Land Use Coordination (PL26-0099)

Received an update and approval for the Landscape plan last week, earlier than expected. Please let me know the naming requirements. Has 13 pages.

Jon Boyer I Director of Environmental, Health, and Safety I Middle River Power I C: 760.912.3007

From: Jon Boyer
Sent: Thursday, April 30, 2026 7:09 PM
To: 'Alex Rangel' Alex.Rangel@escondido.gov
Subject: RE: MRP Enterprise BESS Land Use Coordination (PL26-0099)

Also, attached is a draft of the Landscape Plan, related to question 3 that we present. I was not able to include this in the naming convention, potentially due to the number of pages. If you advise, I can correct.

Jon Boyer I Director of Environmental, Health, and Safety I Middle River Power I C: 760.912.3007

From: Alex Rangel <Alex.Rangel@escondido.gov>
Sent: Thursday, April 30, 2026 12:57 PM
To: Jon Boyer <jboyer@mrpgenco.com>
Subject: RE: MRP Enterprise BESS Land Use Coordination (PL26-0099)

before you open or click on anything.

Thanks, Jon.

Pleasure to hear from you and happy to hear that this is still moving forward. As this item will be a “Conceptual” Project Review only, the full scope of detail for a formal plan submittal would not be required – if this is being provided to the City at this time.

Please keep me informed as this project moves forward – we are happy and excited to provide as much assistance as we can to all agencies involved.

Regards,

Alex Rangel
Associate Planner | Planning Services
Development Services | City of Escondido
760-839-4542
www.escondido.gov

From: Jon Boyer <jboyer@mrpgenco.com>
Sent: Thursday, April 30, 2026 9:51 AM
To: Alex Rangel <Alex.Rangel@escondido.gov>
Subject: RE: MRP Enterprise BESS Land Use Coordination (PL26-0099)

Alex,

Just to give you an update, should be submitting the high level questions soon with the separated drawings soon. I have added a Landscape Plan to the drawings, but it is being revised.

Jon Boyer I Director of Environmental, Health, and Safety I Middle River Power I C: 760.912.3007

From: Alex Rangel <Alex.Rangel@escondido.gov>
Sent: Monday, April 13, 2026 12:14 PM
To: Jon Boyer <jboyer@mrpgenco.com>
Cc: Douglas, Joseph@Energy <Joseph.Douglas@energy.ca.gov>; Dan Harmon <dharmon@mrpgenco.com>; Robert Ray <rray@patchservices.com>; Joshua Ihm <jihm@mrpgenco.com>; Veronica Morones <Veronica.Morones@escondido.gov>
Subject: RE: MRP Enterprise BESS Land Use Coordination (PL26-0099)

> or open attachments unless you recognize the sender and know the contents are safe. If you have ANY reason to doubt the authenticity of this message, contact IT before you open or click on anything.

Good afternoon,

I'm following up on the submittal of a Conceptual Project Review for the Enterprise BESS project, Case No. PL26-0099. Planning Services provided initial corrective actions to be addressed as part of our "Pre-screen" review for projects, prior to distribution on March 27, 2026. These comments are attached for your review.

An email was sent from our automated system to jboyer@mrpgenco.com on March 27, 2026, April 8, 2026, and April 13, 2026 requesting a response to these actions and none have been provided at this time. Please provide a response and the requested corrective actions for the conceptual project review, so that we may follow-up with the CPR inquiry.

Please feel free to reach out to me directly if you have any questions, comments, or concerns at this time.

Regards,

Alex Rangel
Associate Planner | Planning Services
Development Services | City of Escondido
760-839-4542
www.escondido.gov

From: Alex Rangel
Sent: Friday, March 27, 2026 9:20 AM
To: 'Jon Boyer' <jboyer@mrpgenco.com>
Cc: Douglas, Joseph@Energy <Joseph.Douglas@energy.ca.gov>; Dan Harmon <dharmon@mrpgenco.com>; Robert Ray <rray@patchservices.com>; Joshua Ihm <jihm@mrpgenco.com>; Veronica Morones <Veronica.Morones@escondido.gov>
Subject: RE: MRP Enterprise BESS Land Use Coordination (PL26-0099)

Good morning, Jon,

Thank you for the email notification. Correct – the City of Escondido requested to the California Energy Commission that the project go through the City's "Conceptual Project Review," to provide comments and considerations for the proposed project. Thank you for creating the case file – I will take a look at the submittal documents, and comment on items that might need addressing through our City's ProjectDox portal if any edits or considerations need to be made to the items provided.

I can also see you created a case number PL25-0098 for this same project – as this is a duplicate

item, I will have this case file voided in our system, and no further action will be required.

Let me know if I can provide any further assistance at this time.

Regards,

Alex Rangel
Associate Planner | Planning Services
Development Services | City of Escondido
760-839-4542
www.escondido.gov

From: Jon Boyer <jboyer@mrpgenco.com>
Sent: Thursday, March 26, 2026 4:45 PM
To: Alex Rangel <Alex.Rangel@escondido.gov>
Cc: Douglas, Joseph@Energy <Joseph.Douglas@energy.ca.gov>; Dan Harmon <dharmon@mrpgenco.com>; Robert Ray <rray@patchservices.com>; Joshua Ihm <jihm@mrpgenco.com>
Subject: MRP Enterprise BESS Land Use Coordination (PL26-0099)

Alex,

Hope you are doing well. My understanding is that the California Energy Commission has had some preliminary discussions with City of Escondido Planning Staff as part of their permitting review for the Enterprise BESS project subject to their review. They have asked us to consult with City staff directly with some land use questions as part of a data request from the CEC. Per CEC guidance, we have submitted a pre-application consultation request through the City's online portal (Case #25PL-0099). Attached is the submitted documents, including a preliminary site plan. As part of our consultation request, we have provided information on the project related to the questions raised in the CEC's Land Use Data request. Please review the attached, and let us know if you have any questions

Kind regards,

Jon Boyer
Director of Environmental, Health, and Safety I Middle River Power
C: 760-912-3007
jboyer@mrpgenco.com
www.middleriverpower.com