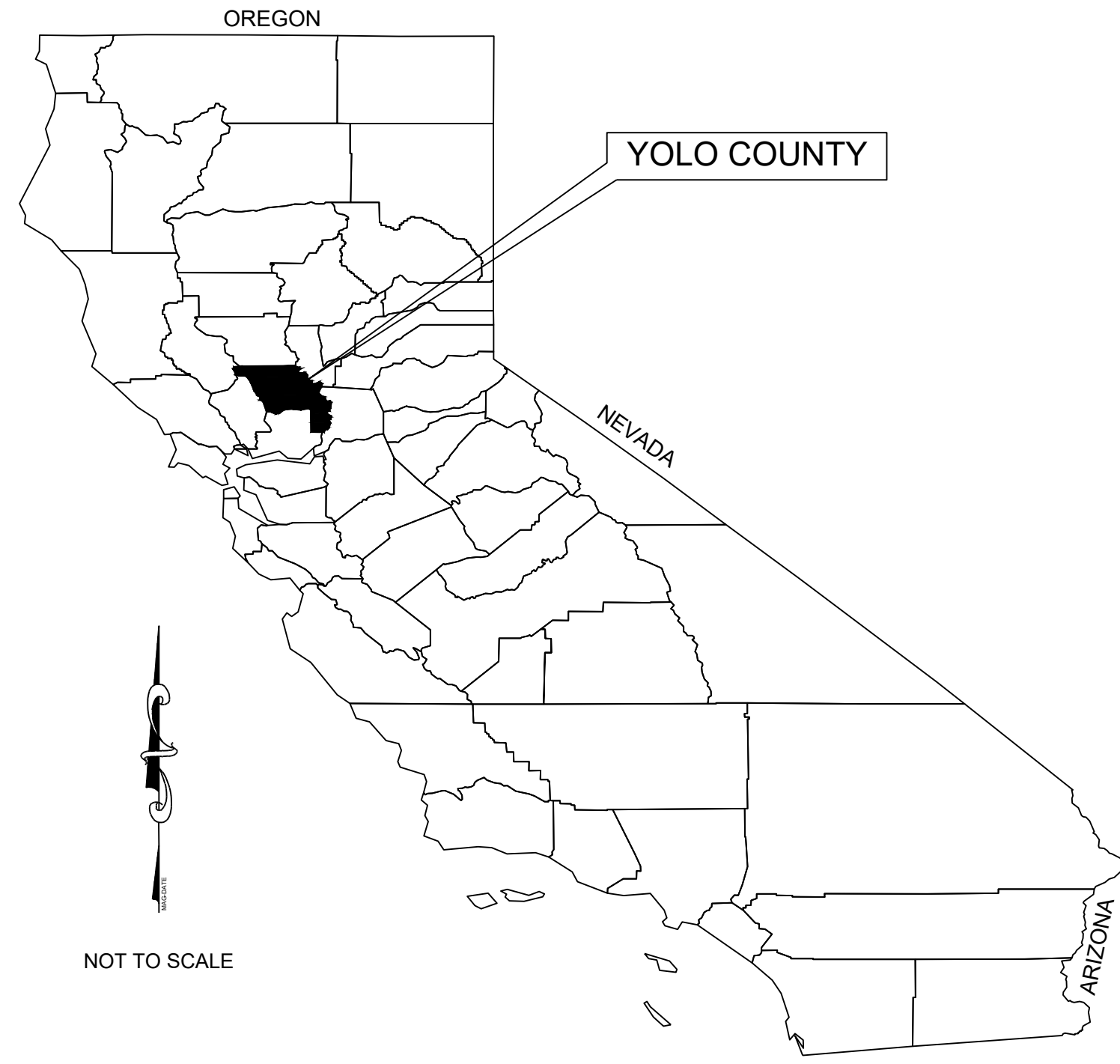


Attachment A

PART 5 – CONSTRUCTION PLANS

YOLO COUNTY CENTRAL LANDFILL CONSTRUCTION DRAWINGS 2023 GROUNDWATER EXTRACTION WELL EXPANSION

SHEET NUMBER	TOTAL SHEETS
1	17

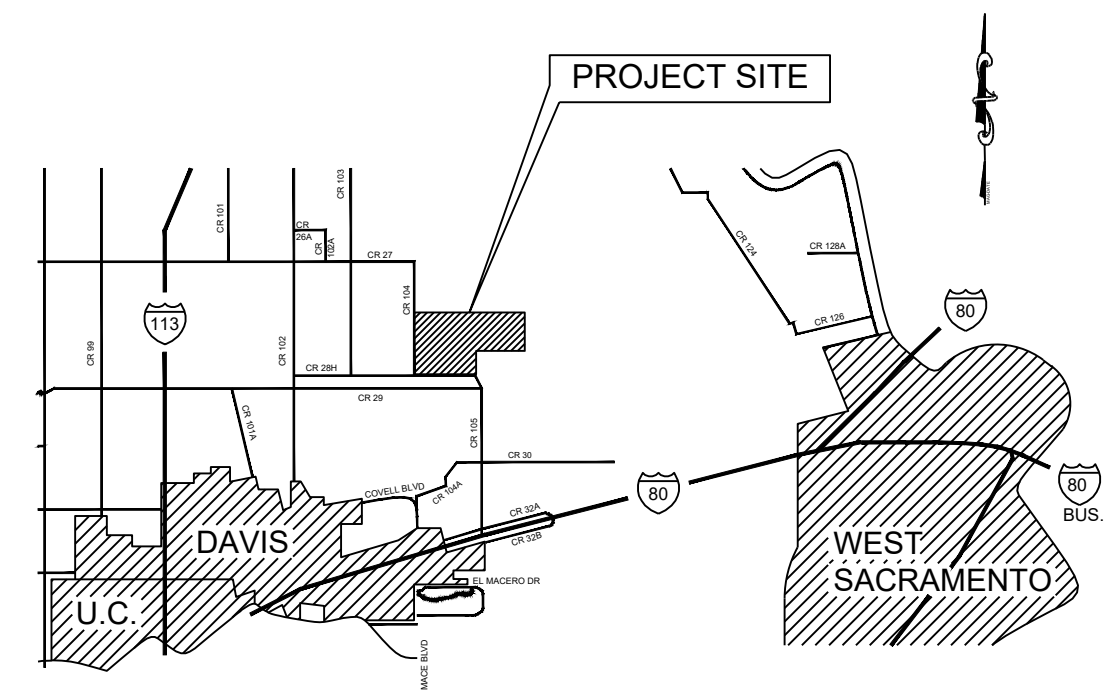


STATE OF CALIFORNIA

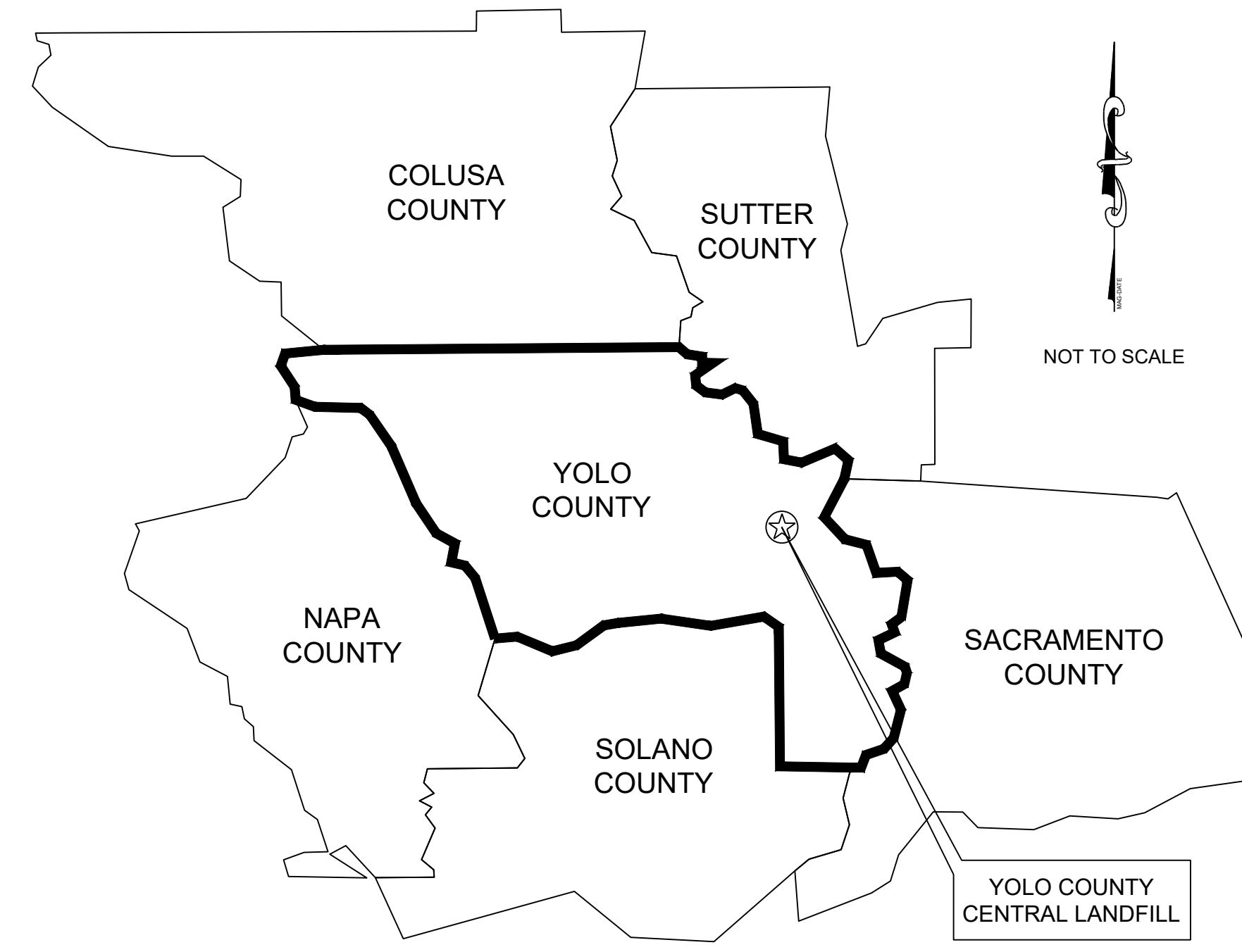
BY



SACRAMENTO OFFICE
1000 ENTERPRISE WAY, SUITE 190
ROSEVILLE, CA 95678
(916) 786-2424



VICINITY MAP
NOT TO SCALE



REGIONAL MAP

BASIS OF BEARINGS:

THE BEARINGS SHOWN HEREON ARE IN TERMS OF THE NORTH AMERICAN DATUM OF 1983 (NAD83), EPOCH 1999.50 PER THE YOLO COUNTY SUBSIDENCE NETWORK, BASED LOCALLY UPON GPS OBSERVATIONS TO STATIONS "COY-1" AND "UCD1". THE COORDINATES WERE SCALED BY AN AVERAGE COMBINATION FACTOR OF 1.00004588 TO OBTAIN GROUND COORDINATES AND DISTANCES. COORDINATES ARE EXPRESSED IN U.S. SURVEY FEET.



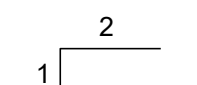
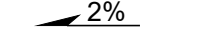
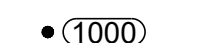
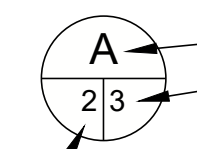
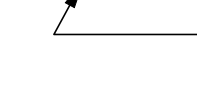

BASIS OF ELEVATION:

THE ELEVATIONS SHOWN HEREON ARE IN TERMS OF THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88) PER THE YOLO COUNTY SUBSIDENCE NETWORK, EPOCH 1999.50, BASED LOCALLY UPON GPS OBSERVATIONS TO STATION "COY-1", ELEVATION=28.08'.

GENERAL NOTES:

- CONTRACTOR RESPONSIBLE TO USA ALL UNDERGROUND UTILITIES BEFORE START OF CONSTRUCTION.
- CONTRACTOR SHALL PROTECT ALL EXISTING STRUCTURES (MONITORING WELLS, GAS LINES, ETC.) ALONG THE HAUL ROUTE. AT THE CONCLUSION OF CONSTRUCTION, CONTRACTOR SHALL REMOVE ALL ACCUMULATED SOIL FROM THE HAUL ROUTE PERMANENT ROADS, AND EXISTING DRAINAGE CHANNELS DUE TO SPILLAGE, PLACEMENT OF TEMPORARY RAMPS, OR OTHER CONSTRUCTION ACTIVITIES. ALL CHANNELS AND ROADS SHALL BE RESTORED TO THEIR ORIGINAL CONDITION.
- EXCAVATION IN THE BORROW AREA WILL BE RESTRICTED TO BETWEEN THE HOURS OF 4AM TO 11PM.
- CONTRACTOR SHALL BE AWARE THAT THERE IS THE POSSIBILITY OF EXPOSING BURIED CULTURAL RESOURCES INCLUDING NATIVE AMERICAN BURIALS. BRIEFINGS WILL BE PROVIDED TO CONTRACTOR'S SUPERVISORY PERSONNEL TO ALERT THEM TO THE NEED TO STOP EXCAVATION AT THE DISCOVERY AND THE PROCEDURES TO FOLLOW REGARDING PROTECTION AND NOTIFICATION OF THE COUNTY AND ARCHAEOLOGIST.

DETAIL IDENTIFICATION LEGEND

-  PROPERTY BOUNDARY
-  APPROXIMATE EXISTING MODULE LIMIT
-  SLOPE INDICATOR
-  GRADE INDICATOR
-  SURVEY CONTROL POINT
-  DETAIL/SECTION DESIGNATION
-  DRAWING WHERE SECTION/DETAIL IS LOCATED
-  DRAWING WHERE SECTION/DETAIL IS REFERENCED

INDEX OF DRAWINGS:

Sheet Number	Sheet Title	Revision
1	TITLE SHEET	0
2	CONSTRUCTION NOTES	0
3	SITE PLAN	0
4	GROUNDWATER EXTRACTION WELL LOCATION PLAN	0
5	GROUNDWATER EXTRACTION WELL DETAILS (1 OF 2)	0
6	GROUNDWATER EXTRACTION WELL DETAILS (2 OF 2)	0
E01	ELECTRICAL SYMBOLS	0
E02	ELECTRICAL NOTES (1 OF 2)	0
E03	ELECTRICAL NOTES (2 OF 2)	0
E04	ELECTRICAL ONE-LINE	0
E05	ELECTRICAL OVERALL PLAN	0
E06	ELECTRICAL PLAN	0
E07	ELECTRICAL - GENERATOR, UTILITY & DISTRIBUTION PLAN	0
E08	ELECTRICAL SECTIONS & DETAILS (1 OF 2)	0
E09	ELECTRICAL SECTIONS & DETAILS (2 OF 2)	0
E10	ELECTRICAL TYPICAL DETAILS (1 OF 2)	0
E11	ELECTRICAL TYPICAL DETAILS (2 OF 2)	0

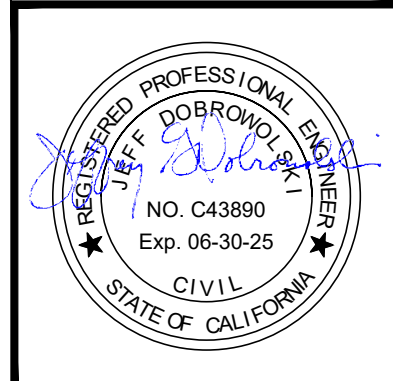
DESIGN BY	JDR	2023-10-17
DRAWN BY	JDR	2023-10-17
CHECK BY	JGD	2023-10-17
ISSUED FOR CONSTRUCTION BIDDING	0	2023-10-17
REVISIONS		
APP		

YOLO COUNTY
DEPARTMENT OF COMMUNITY SERVICES
DIVISION OF INTEGRATED WASTE MANAGEMENT
44090 County Road 28th, Woodland, CA 95776-9101
DIRECTOR

APPROVED
PRINCIPAL ENGINEER

YOLO COUNTY CENTRAL LANDFILL
2023 GROUNDWATER EXTRACTION WELL EXPANSION
TITLE SHEET

SHEET NUMBER
1



M:\Sites\Yolo Central LF\01\01_3D\2023 LF EXTRACTION WELL SYSTEM\2023 LF EXTRACTION WELL_Tile.dwg 10-17-23 11:50:14 AM JReid

SUMMARY OF WORK

THIS SUMMARY OF WORK PROVIDES A GENERAL OVERVIEW OF THE CONSTRUCTION AND ENVISIONED SEQUENCE OF TASKS. IT IS NOT INTENDED TO BE A COMPREHENSIVE DESCRIPTION OF ALL ASPECTS OF THE WORK. IT IS RECOGNIZED THAT SOME OF THE TASKS MAY BE PERFORMED IN A DIFFERENT SEQUENCE THAN PRESENTED BELOW AND THAT ACTIVITIES MAY BE PERFORMED CONCURRENTLY.

- 1. PERFORM EXISTING UTILITY SURVEY INCLUDING PROTECTION OF NEWLY-CONSTRUCTED WATER SUPPLY LINE.
2. INSTALL TEMPORARY EROSION CONTROL MEASURES.
3. PROTECT EXISTING GROUNDWATER MONITORING WELLS.
4. CONSTRUCTION SURVEYING AND AS-BUILT/RECORD DRAWING(S) DOCUMENTATION AFTER COMPLETION AT VARIOUS STAGES OF CONSTRUCTION.
5. CONSTRUCT NEW STORMWATER DITCH CROSSINGS AND INSTALL NEW STORMWATER DRAINAGE CULVERT PIPES.
6. REPLACE ASPHALT PAVEMENT FOR NEW UTILITY TRENCH ACROSS PARKING LOT.
7. INSTALL NEW GROUNDWATER EXTRACTION WELLS AND APPURTENANCES.
8. INSTALL NEW GROUNDWATER TRENCH AND DISCHARGE PIPE; BACKFILL TRENCH PER PLANS.
9. PROVIDE ELECTRICAL SERVICE TO NEW GROUNDWATER EXTRACTION WELLS PER PLANS.

GENERAL NOTES:

- 1. ALL WORK SHALL BE IN ACCORDANCE WITH THE COUNTY OF YOLO IMPROVEMENT STANDARDS AND CALTRANS STANDARD SPECIFICATIONS, MOST CURRENT EDITION.
2. SHOWN WORK TO BE RESTRICTED TO LIMITS OF DEPARTMENT'S PROPERTY, TEMPORARY CONSTRUCTION EASEMENTS, PERMANENT EASEMENTS, AND RIGHTS-OF-WAYS.
3. PORTIONS OF PROJECT ARE PART OF OR ADJACENT TO AN ACTIVE WASTE DISPOSAL AND RECYCLING FACILITY. TRUCK STAGING/QUEUING MAY BE REQUIRED. CONTRACTOR TO SUBMIT TRAFFIC CONTROL PLAN TO THE DEPARTMENT BEFORE MOBILIZATION FOR APPROVAL BY THE DEPARTMENT.
4. ACCESS MUST BE MAINTAINED TO EXISTING FACILITIES/STRUCTURES AT ALL TIMES.
5. CONTRACTOR OFFICE, CONSTRUCTION STAGING AND STOCKPILE LOCATIONS TO BE APPROVED BY THE DEPARTMENT PRIOR TO MOBILIZATION.
6. KEEP WORK AREAS CLEAR FOR TRAFFIC IN/OUT OF AREA.
7. PARKING WITHIN THE AREA AND CONTROLLED ACCESS TO BE COORDINATED WITH THE DEPARTMENT.
8. CONTRACTOR SHALL FAMILIARIZE HIMSELF WITH THE STATE OF CALIFORNIA BEST MANAGEMENT PRACTICES HANDBOOK FOR APPLICABLE EROSION CONTROL MEASURES AND EMPLOY ITS PROVISIONS THROUGHOUT ALL CONSTRUCTION.
9. ALL CONSTRUCTION MATERIALS, EQUIPMENT, STORAGE, STOCKPILING AND STAGING MUST BE DONE ON-SITE AND THE PUBLIC RIGHT-OF-WAY/STREET MUST BE KEPT CLEAR AND FREE OF DEBRIS.
10. AREAS OF PROJECT ARE WITHIN OR ADJACENT TO AN EXISTING LANDFILL. CONTRACTOR AND PERSONNEL WORKING ON THE PROJECT SHALL FOLLOW ALL APPROPRIATE FEDERAL AND STATE HEALTH AND SAFETY PROCEDURES (FOR EXAMPLE: NO SMOKING, MONITORING METHANE LEVELS WHEN WORKING ONSITE, ETC.).
11. COMPLY WITH ALL FEDERAL, STATE, AND COUNTY LAWS AND ORDINANCES RELATING TO SAFETY AND CHARACTER OF WORK. EQUIPMENT, AND LABOR PERSONNEL. THIS SHALL INCLUDE BUT IS NOT LIMITED TO, SHORING OF TRENCHES, VENTILATION OF CONFINED SPACES, CONFORMANCE TO TRAFFIC CONTROL REQUIREMENTS, INCLUDING PROVISIONS AND MAINTENANCE OF BARRICADES AND PREPARATION AND IMPLEMENTATION OF TRAFFIC CONTROL PLANS AS REQUIRED.
12. CONTRACTOR SHALL CONTACT UNDERGROUND SERVICE ALERT (USA) NORTH 811 AT LEAST 48 HOURS PRIOR TO STARTING WORK.
13. ALL UNDERGROUND SERVICE ALERT (USA) MARKINGS ON CONCRETE AND ASPHALTIC PAVEMENT OR OTHER STRUCTURES SHALL BE REMOVED WHEN THEY ARE NO LONGER REQUIRED.
14. IT IS THE CONTRACTOR'S RESPONSIBILITY TO POTHOLE AND/OR UNCOVER AND EXPOSE EXISTING UTILITIES AT WORK LOCATIONS. CONTRACTOR TO PROTECT ALL EXISTING UTILITIES FROM DAMAGE DUE TO CONTRACTOR'S OPERATIONS. ANY AND ALL UTILITIES THAT ARE DAMAGED DURING CONSTRUCTION SHALL BE REPLACED TO THE SATISFACTION OF THE DEPARTMENT.
15. IT IS THE CONTRACTOR'S RESPONSIBILITY TO VERIFY THE LOCATION OF ALL EXISTING UTILITIES WITH THE APPROPRIATE AGENCIES.
16. SELECT CONSTRUCTION EQUIPMENT TO MINIMIZE DAMAGE TO EXISTING PAVEMENT AND ROADWAYS AT PROJECT SITE AND AT ALL ROADS USED TO MOVE MATERIAL AND EQUIPMENT TO AND FROM PROJECT. CONTRACTOR SHALL REPLACE DAMAGED AREAS AT THEIR OWN COST.
17. CURRENT CONDITIONS SHOWN ON DRAWINGS REPRESENT INFORMATION FOR THE EXISTING FEATURES AT THE PROJECT SITE AND MAY NOT ACCURATELY REPRESENT THE ACTUAL SITE FEATURES. THE CONTRACTOR SHALL NOTIFY THE DEPARTMENT OF ANY MAJOR DIFFERENCES BETWEEN THE INFORMATION PROVIDED IN THE CONTRACT DRAWINGS AND ACTUAL SITE CONDITIONS BEFORE BEGINNING ANY WORK CONSIDERED TO BE OUTSIDE THE PROJECT SCOPE.
18. A REASONABLE EFFORT HAS BEEN MADE TO LOCATE AND DELINEATE EXISTING FACILITIES. HOWEVER, DEPARTMENT AND ENGINEER CAN ASSUME NO RESPONSIBILITY FOR COMPLETENESS OR ACCURACY OF DELINEATION OF SUCH FACILITIES, NOR FOR EXISTENCE OF OTHER BURIED OBJECTS OR FACILITIES WHICH ARE ENCOUNTERED BUT WHICH ARE NOT SHOWN ON THESE PLANS. CONTRACTOR IS RESPONSIBLE FOR DETERMINING EXACT LOCATION OF THOSE FACILITIES SHOWN AND ANY WHICH MAY EXIST AND ARE NOT SHOWN PRIOR TO COMMENCEMENT OF ANY WORK. CONTRACTOR SHALL EXPOSE ALL UNDERGROUND FACILITIES THAT ARE TO BE CONNECTED TO OR THAT ARE IN THE PATH OF PROPOSED IMPROVEMENTS FOR VERIFICATION OF LOCATION AND ELEVATION. CONTRACTOR SHALL DETERMINE LOCATION OF CONFLICTS, IF ANY, PRIOR TO COMMENCING CONSTRUCTION OF THAT PORTION OF WORK THAT WOULD BE AFFECTED BY A CONFLICT WITH EXISTING FACILITIES. MINOR CHANGES (<5 FT HORIZONTAL, <1 FT VERTICAL), IN ACTUAL LOCATION, DEPTH, AND CONFIGURATION OF EXISTING PIPING SYSTEMS DOES NOT CONSTITUTE A CHANGED SITE CONDITION AND THEREFORE NO EXTRA PAYMENT WILL BE ALLOWED.
19. WHEN EXCAVATION IS REQUIRED AROUND EXISTING IMPROVEMENTS, THOSE IMPROVEMENTS SHALL BE SUPPORTED AS NEEDED BY THE CONTRACTOR AT THEIR EXPENSE USING SUITABLE SUPPORTS.
20. COORDINATE ALL WORK WITH EXISTING SITE ELECTRICAL WORK. DO NOT START WORK UNTIL ELECTRICAL CONDUITS AND DUCT BANKS ARE LOCATED.
21. ALL PAVING, LANDSCAPING, PIPING AND OTHER EXISTING FACILITIES NOT DESIGNATED FOR REMOVAL/DEMOLITION DURING CONSTRUCTION OF NEW FACILITIES TO BE PROTECTED IN PLACE OR REPLACED IN KIND.
22. CONTRACTOR SHALL VERIFY ALL CONTROLLING FIELD DIMENSIONS BEFORE ORDERING OR FABRICATING MATERIAL.
23. CONTRACTOR SHALL ARRANGE FOR ALL REQUIRED INSPECTION. PRESENCE OR ABSENCE OF AN INSPECTOR WILL NOT RELIEVE CONTRACTOR OF FULL RESPONSIBILITY FOR PROPER PERFORMANCE OF WORK.
24. CONTRACTOR SHALL KEEP UP TO DATE A COMPLETE RECORD SET OF PRINTS OF THE CONTRACT

DRAWINGS SHOWING EVERY CHANGE FROM THE ORIGINAL DRAWINGS MADE DURING THE COURSE OF CONSTRUCTION INCLUDING EXACT LOCATION, SIZES, MATERIALS AND EQUIPMENT. A COMPLETE SET OF CORRECTED AND COMPLETED RECORD DRAWING PRINTS SHALL BE SUBMITTED TO THE DEPARTMENT PRIOR TO FINAL ACCEPTANCE FOR REVIEW AND APPROVAL BY THE DEPARTMENT.

- 25. ALL INFORMATION AND SUBMITTALS BY THE CONTRACTOR SHALL BE PROVIDED TO THE DEPARTMENT IN HARD COPY AND ELECTRONIC (FOR EXAMPLE, .PDF, .DXF, AND .DWG) FORMAT.
26. REFERENCES TO CALTRANS REFER TO THE STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION (CALTRANS) STANDARD SPECIFICATIONS AND STANDARD PLANS (MOST CURRENT EDITION) WHICH ARE INCORPORATED BY REFERENCE UNLESS SPECIFIED OTHERWISE.
27. COMPACTION TESTING OF SOILS (FOR EXAMPLE, AGGREGATE BASE, ENGINEERED FILL, ETC.) SHALL BE PERFORMED IN ACCORDANCE WITH ASTM D1557.
28. SURVEYING:
28.1 SHALL BE CONDUCTED UNDER THE DIRECT SUPERVISION OF THE CONTRACTOR'S LICENSED LAND SURVEYOR.
28.2 THE LICENSED SURVEYOR IS REQUIRED TO SIGN AND STAMP EACH AS-BUILT DRAWING AND PROVIDE A LETTER OF CERTIFICATION CERTIFYING THAT THE WORK WAS PERFORMED WITHIN THE TOLERANCES LISTED IN THE SPECIFICATIONS.
28.3 PRIOR TO CONSTRUCTION, THE CONTRACTOR'S SURVEYOR SHALL VERIFY WITH THE DEPARTMENT THE LOCATIONS OF SITE REFERENCE POINTS AND SURVEY CONTROL POINTS. PRIOR TO CONSTRUCTION, THE CONTRACTOR'S SURVEYOR SHALL INSPECT EACH EXISTING SITE REFERENCE POINT AND ASSESS ITS CONDITION AND RELIABILITY AND PROMPTLY NOTIFY THE DEPARTMENT IF THE POINTS ARE DAMAGED, MISS-MARKED, OR OTHERWISE UNUSABLE UPON INSPECTION.
28.4 PERFORM SURVEYS FOR LAYOUT AND PERFORMANCE OF THE SCOPE OF WORK, REDUCE THE FIELD NOTES, MAKE NECESSARY CALCULATIONS, AND PREPARE DRAWINGS NECESSARY TO CARRY OUT SUCH WORK.
28.5 SURVEYOR SHALL SUBMIT CERTIFIED BASE GRADES OF EXCAVATION AND FILL WITHIN 3 DAYS OF CONTRACTOR CONSTRUCTING FINAL GRADING.
28.6 SURVEYOR SHALL SUBMIT ELECTRONIC (.PDF, .XLS, .TXT/ASCII, AND .DXF/DWG) FILES.
28.7 SURVEYOR SHALL PROVIDE THE FOLLOWING INFORMATION:
- CONDUIT AND PIPING END POINTS.
- WELL CASING ELEVATIONS AND LOCATIONS.
- INLET AND OUTLET INVERT ELEVATIONS OF ALL CULVERT PIPES.
- OWNER-PROVIDED REFERENCE POINTS.
28.8 SURVEYING ACCURACY:

Table with 3 columns: TABLE OF MARK, HORIZONTAL POSITION, ELEVATION. Rows include PERMANENT REFERENCE POINTS, GENERAL EXCAVATION, ASPHALT CONCRETE, and REINFORCED CONCRETE.

- 29. THE GRADES SHOWN ON THE DRAWINGS ARE INTENDED TO SHOW SLOPES THAT NEED TO BE MET TO DRAIN. PRIOR TO SETTING FORMS, POURING CONCRETE, CONSTRUCTING PAVEMENT, ETC. THE CONTRACTOR SHALL CONFIRM THAT GRADES WILL RESULT IN SLOPES AND DRAINAGE PATTERNS THAT MEET THE INTENT OF THE DRAWINGS. IF DISCREPANCIES EXIST, THE CONTRACTOR SHALL ADJUST THE GRADES TO CONFORM TO THE FLOW DIRECTIONS SHOWN ON THE DRAWINGS AND SHALL INFORM THE DEPARTMENT OF SUCH CHANGES.

CONSTRUCTION NOTES:

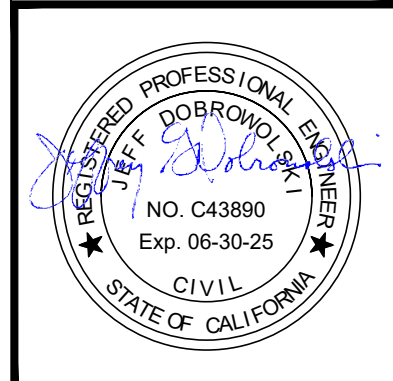
- 1. CONTRACTOR IS MADE AWARE THAT CONSTRUCTION WILL TAKE PLACE IN A LANDFILL WHERE LANDFILL GAS AND OTHER CHEMICALS AND/OR LIQUID MAY BE PRESENT. CONTRACTOR SHALL FOLLOW ALL STATE AND FEDERAL HEALTH AND SAFETY MONITORING AND PROTECTION REQUIREMENTS TO PROTECT ALL WORKERS, VISITORS, PEDESTRIANS, AND THE PUBLIC FROM EXCAVATIONS, CONSTRUCTION EQUIPMENT, TRAFFIC, CONSTRUCTION OPERATIONS, AND OTHER DANGEROUS ITEMS (FOR EXAMPLE, LANDFILL GAS). A HEALTH AND SAFETY PLAN IS REQUIRED AS PART OF THE WORK.
2. A MINIMUM THREE DAYS BEFORE START OF CONSTRUCTION, CONTRACTOR SHALL MARK/ IDENTIFY THE LOCATION OF EXISTING UTILITIES AND/OR FACILITIES WHICH MAY BE OVERHEAD, ABOVE-GROUND, OR BURIED. ITEMS THAT NEED TO BE PROTECTED/ DECOMMISSIONED/ RELOCATED SHALL BE CONFIRMED BY THE DEPARTMENT. COORDINATION WITH UTILITIES AND/ OR PRIVATE UTILITY LOCATION SERVICE MAY BE REQUIRED.
3. PRIOR TO CONSTRUCTION, CONTRACTOR TO VERIFY EXISTING UTILITIES IN THE PROJECT AREA WITH RESPECT TO PROPOSED IMPROVEMENTS AND NOTIFY THE DEPARTMENT OF ANY DISCREPANCY WITH INFORMATION SHOWN ON THE DRAWINGS BEFORE START OF CONSTRUCTION OF PROPOSED IMPROVEMENTS SO, IF NEEDED, LAYOUT OF PROPOSED IMPROVEMENTS CAN BE MODIFIED BEFORE CONSTRUCTION.
4. AS PART OF DEMOLITION, CONTRACTOR SHALL REMOVE ALL EXISTING BURIED AND ABOVE GROUND UTILITIES THAT HAVE NOT BEEN MARKED AS TO REMAIN/TO PROTECT AND ALL OBSTRUCTIONS PRESENT AT THE LOCATIONS OF THE IMPROVEMENTS. SIGNAGE SHALL BE REMOVED AND SALVAGED AS DIRECTED BY THE DEPARTMENT. OBSTRUCTIONS AND REMOVED UTILITIES OR SIGNAGE SHALL BE BACKFILLED WITH ENGINEERED FILL.
5. CONTRACTOR TO CONTROL SURFACE WATER AND GROUNDWATER AS NEEDED TO COMPLETE WORK.
6. ALTHOUGH NOT EXPECTED, IF MUNICIPAL SOLID WASTE IS ENCOUNTERED DURING DRILLING, NOTIFY DEPARTMENT IMMEDIATELY. AS DIRECTED BY DEPARTMENT, EXCAVATE, LOAD, AND HAUL TO THE ACTIVE DISPOSAL AREA. VOLUMES OF ALL WASTE TRANSPORTED AND DISPOSED SHALL BE CLOSELY TRACKED AND REPORTED DAILY TO THE DEPARTMENT.
7. IF WASTE IS EXPOSED AS PART OF THE WORK, COVER WITH 6 INCHES OF SOIL OR TARP OVERNIGHT, OVER THE WEEKEND, WHEN THE CONTRACTOR DOES NOT PLAN TO WORK IN THE AREA, AND/OR WHEN RAIN IS FORECAST.
8. CONTRACTOR SHALL FOLLOW DIRECTIONS FROM THE DEPARTMENT ON REQUIREMENTS FOR PERMANENT PLACEMENT OF PERMANENT MATERIALS ABOVE EXPOSED WASTE (FOR EXAMPLE, THICKNESS, MATERIAL CHARACTERISTICS, COMPACTION) AND SHALL MEET REGULATORY REQUIREMENTS. PERMANENT THICKNESS OF MATERIAL ABOVE WASTE SHALL INCLUDE GRADING CONSIDERATIONS SO THAT AFTER PROJECT COMPLETION, AREA GRADES TO DRAIN AND NO HIGH OR LOW AREAS WHERE PONDING MAY RESULT ARE NOT PRESENT. SOIL PLACED ABOVE EXPOSED MUNICIPAL SOLID WASTE SHALL MEET THE REQUIREMENTS FOR ENGINEERED FILL.
9. IMPROVEMENTS SHALL BE CONSTRUCTED OVER COMPETENT SUBGRADE. COMPETENT SUBGRADE IS DEFINED AS FIRM, NON-YIELDING. TO VERIFY COMPETENT SUBGRADE, THE DEPARTMENT SHALL OBSERVE THE CONTRACTOR DRIVE A LOADED WATER TRUCK OVER THE

AREA.
10. ENGINEERED FILL SHALL CONSIST OF MINERAL SOIL FREE FROM ORGANIC MATERIALS, LOAM, WOOD, TRASH, AND OTHER OBJECTIONABLE MATERIALS, WHICH MAY BE COMPRESSIBLE OR WHICH CANNOT BE PROPERLY COMPACTED. IT SHALL ALSO HAVE PHYSICAL PROPERTIES THAT ALLOW IT TO BE READILY SPREAD AND COMPACTED DURING FILLING.
11. ENGINEERED FILL SHALL NOT CONTAIN STONES LARGER THAN 3 INCHES IN LARGEST DIMENSION.
12. ENGINEERED FILL SHALL NOT CONTAIN BLOCKS, BROKEN CONCRETE, MASONRY RUBBLE OR OTHER SIMILAR MATERIALS.
13. ENGINEERED FILL, AGGREGATE BASE, OR ANY MATERIAL OR IMPROVEMENT SHALL NOT BE PLACED OVER UNSUITABLE OR UNSTABLE FOUNDATION (WET OR SPONGY). SOFT MATERIAL SHALL BE REMOVED AND REPLACED BY ENGINEERED FILL.

PLACE AND COMPACT FILL TO THE LINES, GRADES, CROSS SECTIONAL REQUIREMENTS, AND DIMENSIONS SHOWN IN THE DRAWINGS.
BEFORE PLACING ENGINEERED FILL OR AGGREGATE BASE OVER NATIVE SUBGRADE, SCARIFY NATIVE SUBGRADE TO A DEPTH OF 8 INCHES, MOISTURE CONDITION, AND COMPACT TO AT LEAST 90 PERCENT RELATIVE COMPACTION AND OPTIMUM MOISTURE CONTENT BETWEEN PLUS 2 PERCENT AND PLUS 5 PERCENT.
DO NOT PLACE ENGINEERED FILL OR AGGREGATE BASE UNDER WATER.
IF SUBGRADE HAS FREE WATER, BEFORE PLACEMENT OF ENGINEERED FILL OR AGGREGATE BASE, WATER SHALL BE PUMPED AND DISPOSED IN ACCORDANCE WITH THE CALIFORNIA REGULATIONS.
A GEOTEXTILE MAY BE USED TO STABILIZE THE NATIVE SUBGRADE BEFORE PLACEMENT OF ENGINEERED FILL OR AGGREGATE BASE.
PLACE ENGINEERED FILL AND AGGREGATE BASE IN LOOSE LIFT THICKNESSES NOT EXCEEDING 8 INCHES.
ENGINEERED FILL SHALL BE COMPACTED TO AT LEAST 90 PERCENT RELATIVE COMPACTION AND OPTIMUM MOISTURE CONTENT BETWEEN PLUS 2 PERCENT AND PLUS 5 PERCENT.
REPAIR ALL DESICCATED, RUTTED, GOUGED, ERODED, OR DAMAGED AREAS BEFORE PLACING SUBSEQUENT LIFTS.
COMPACT ANY ENGINEERED FILL INACCESSIBLE TO LARGE EQUIPMENT BY COMPACTING WITH SMALL MECHANICAL COMPACTORS.
PLACE AND COMPACT ENGINEERED FILL TO THE LINES, GRADES, CROSS SECTIONAL REQUIREMENTS, AND DIMENSIONS SHOWN ON THE CONSTRUCTION DRAWINGS.
GRADE FINAL ENGINEERED SURFACES TO REMOVE RUTS AND GOUGES.

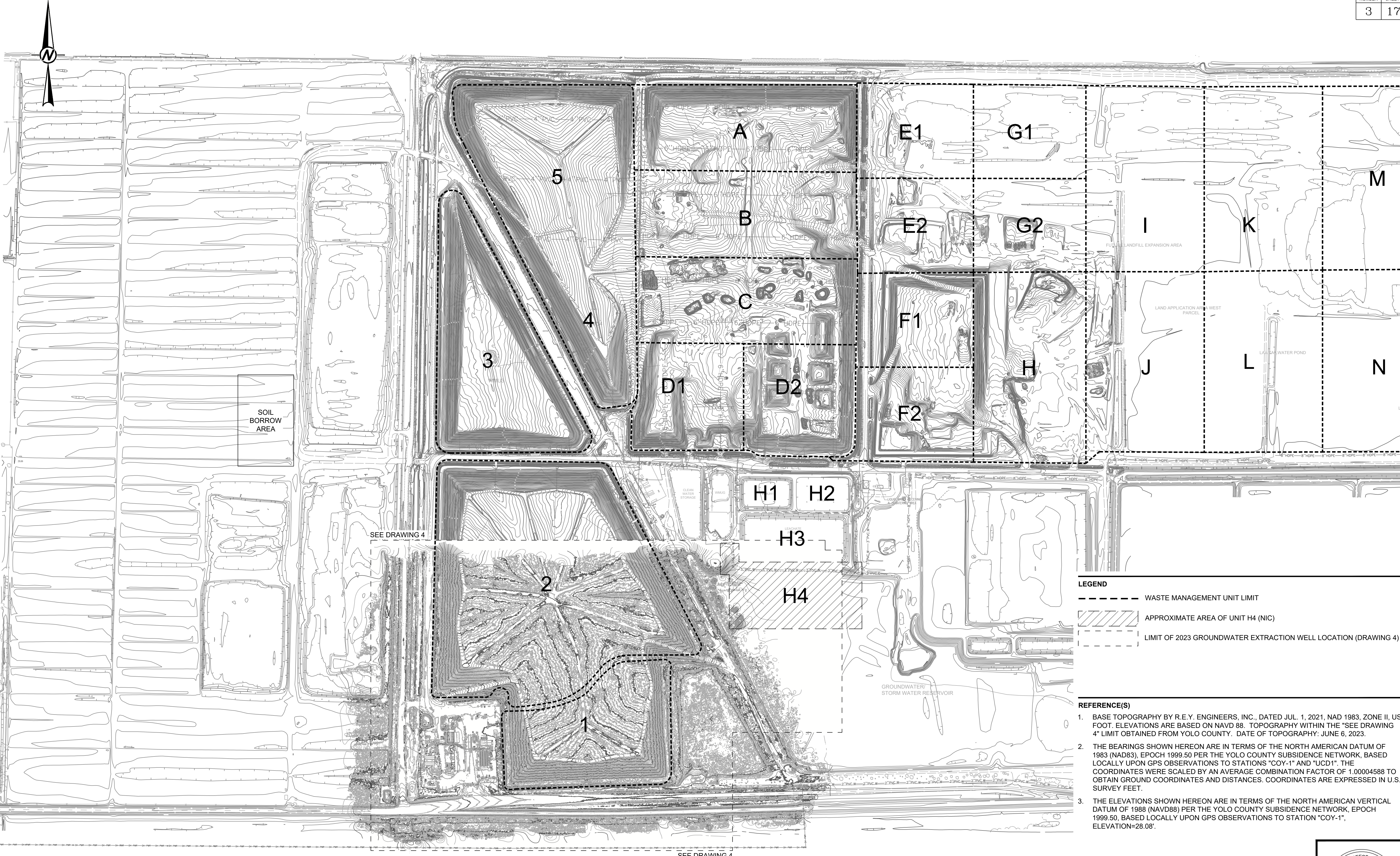
17. AGGREGATE BASE SHALL MEET THE REQUIREMENTS IN SECTION 26 OF THE 2018 CALTRANS SPECIFICATIONS FOR 0.75-INCH MAXIMUM CLASS 2 AGGREGATE BASE.
AGGREGATE BASE SHALL BE COMPACTED TO AT LEAST 95 PERCENT RELATIVE COMPACTION AND AT MOISTURE CONTENTS WITHIN 3 PERCENT OF THE OPTIMUM MOISTURE CONTENT.
18. ASPHALT CONCRETE PAVING SHALL BE CONSTRUCTED TO THE GRADES AND ELEVATIONS SHOWN ON THESE DRAWINGS.
ASPHALT CONCRETE PAVING SHALL BE CONSTRUCTED AFTER OTHER CONSTRUCTION (FOR EXAMPLE, UTILITIES, PIPING, ETC.) HAVE BEEN CONSTRUCTED AND APPROVED BY THE DEPARTMENT.
19. CULVERT PIPE SHALL BE 16-GAUGE CORRUGATED METAL PIPE WITH WATERTIGHT JOINTS OR EQUAL APPROVED BY THE DEPARTMENT.
PIPE BEDDING AND BACKFILL SHALL BE NATIVE MATERIAL EXCAVATED AS PART OF THIS PROJECT OR OBTAINED FROM THE SOIL BORROW AREA.
CONTRACTOR SHALL DEMONSTRATE TO THE DEPARTMENT THAT THE PIPE INSTALLATION IS FREE OF OBSTRUCTIONS AND DEBRIS PRIOR TO CONNECTING PIPE SEGMENTS AND TRENCH FILL.
20. NEWLY CONSTRUCTED STORMWATER IMPROVEMENTS SHALL BE PROTECTED BY THE CONTRACTOR FROM DAMAGE (INCLUDING CONSTRUCTION LOADS) UNTIL ACCEPTED BY THE DEPARTMENT.
21. PERIODIC MONITORING AND MAINTENANCE OF STORMWATER IMPROVEMENTS BEFORE AND AFTER STORMS SHALL BE PERFORMED BY THE DEPARTMENT AS PART OF OPERATIONS.
22. CONSTRUCTION QUALITY ASSURANCE TESTING OF SUBGRADES, AGGREGATE BASES, ASPHALT CONCRETE, AND CONCRETE SHALL BE IN ACCORDANCE WITH SECTION 2-20 IN YOLO COUNTY IMPROVEMENT STANDARDS (AUGUST 5, 2008 INCLUDING THE LATEST ADDENDA).
23. CONTRACTOR SHALL SUBMIT TO THE DEPARTMENT FOR REVIEW AND APPROVAL ALL SHOP DRAWINGS, SAMPLES, PRODUCT DATA, CATALOGUE CUTS, MANUFACTURER'S PUBLISHED RECOMMENDATIONS, CHARTS, ILLUSTRATIONS ETC. THAT ARE SPECIFICALLY PREPARED TO ILLUSTRATE INSTALLATION OF THE CONCRETE GRATE INLET, INSERT FILTER, PLASTIC PIPE AND ALL FITTINGS AND APPURTENANCES REQUIRED TO CONSTRUCT THE DETAILS SHOWN ON THE CONSTRUCTION DRAWINGS.

Vertical sidebar containing project title 'YOLO COUNTY CENTRAL LANDFILL GROUNDWATER EXTRACTION WELL EXPANSION CONSTRUCTION NOTES', sheet number '2', and various approval stamps and signatures.



REVISIONS	
DESIGN BY	JDR 2023-10-17
DRAWN BY	JDR 2023-10-17
CHECK BY	JGD 2023-10-17
ISSUED FOR CONSTRUCTION BIDDING	0 2023-10-17

YOLO COUNTY
 DEPARTMENT OF COMMUNITY SERVICES
 DIVISION OF INTEGRATED WASTE MANAGEMENT
 44090 County Road 28H, Woodland, CA 95776-9101
 DIRECTOR



SOIL BORROW AREA

SEE DRAWING 4

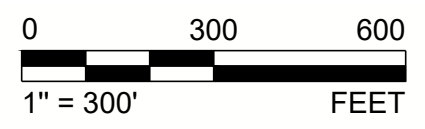
SEE DRAWING 4

LEGEND

- WASTE MANAGEMENT UNIT LIMIT
- /// APPROXIMATE AREA OF UNIT H4 (NIC)
- - - - - LIMIT OF 2023 GROUNDWATER EXTRACTION WELL LOCATION (DRAWING 4)

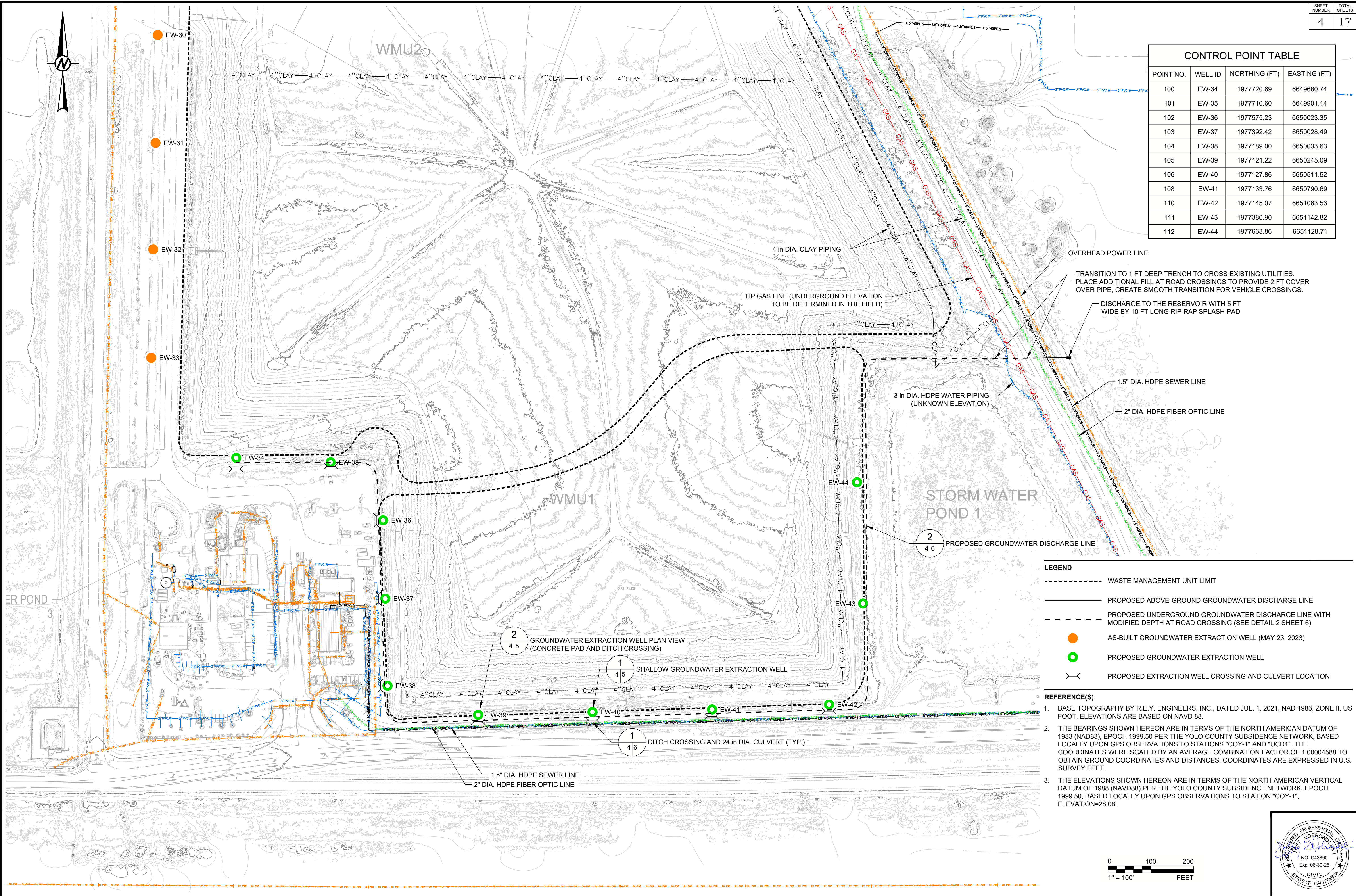
REFERENCE(S)

1. BASE TOPOGRAPHY BY R.E.Y. ENGINEERS, INC., DATED JUL. 1, 2021, NAD 1983, ZONE II, US FOOT. ELEVATIONS ARE BASED ON NAVD 88. TOPOGRAPHY WITHIN THE "SEE DRAWING 4" LIMIT OBTAINED FROM YOLO COUNTY. DATE OF TOPOGRAPHY: JUNE 6, 2023.
2. THE BEARINGS SHOWN HEREON ARE IN TERMS OF THE NORTH AMERICAN DATUM OF 1983 (NAD83), EPOCH 1999.50 PER THE YOLO COUNTY SUBSIDIANCE NETWORK, BASED LOCALLY UPON GPS OBSERVATIONS TO STATIONS "COY-1" AND "UCD1". THE COORDINATES WERE SCALED BY AN AVERAGE COMBINATION FACTOR OF 1.00004588 TO OBTAIN GROUND COORDINATES AND DISTANCES. COORDINATES ARE EXPRESSED IN U.S. SURVEY FEET.
3. THE ELEVATIONS SHOWN HEREON ARE IN TERMS OF THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88) PER THE YOLO COUNTY SUBSIDIANCE NETWORK, EPOCH 1999.50, BASED LOCALLY UPON GPS OBSERVATIONS TO STATION "COY-1", ELEVATION=28.08'.



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CONTROL POINT TABLE			
POINT NO.	WELL ID	NORTHING (FT)	EASTING (FT)
100	EW-34	1977720.69	6649680.74
101	EW-35	1977710.60	6649901.14
102	EW-36	1977575.23	6650023.35
103	EW-37	1977392.42	6650028.49
104	EW-38	1977189.00	6650035.63
105	EW-39	1977121.22	6650245.09
106	EW-40	1977127.86	6650511.52
108	EW-41	1977133.76	6650790.69
110	EW-42	1977145.07	6651063.53
111	EW-43	1977380.90	6651142.82
112	EW-44	1977663.86	6651128.71

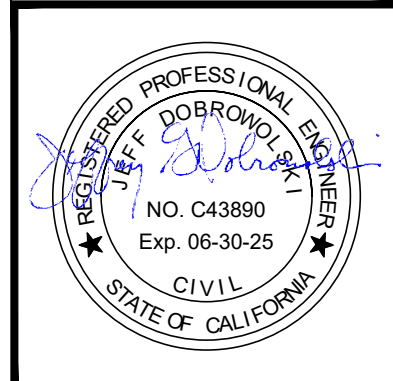
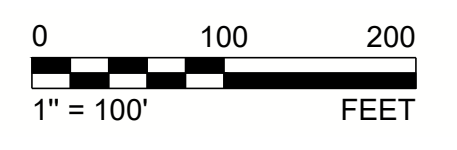


LEGEND

- WASTE MANAGEMENT UNIT LIMIT
- PROPOSED ABOVE-GROUND GROUNDWATER DISCHARGE LINE
- - - PROPOSED UNDERGROUND GROUNDWATER DISCHARGE LINE WITH MODIFIED DEPTH AT ROAD CROSSING (SEE DETAIL 2 SHEET 6)
- AS-BUILT GROUNDWATER EXTRACTION WELL (MAY 23, 2023)
- PROPOSED GROUNDWATER EXTRACTION WELL
- ⋈ PROPOSED EXTRACTION WELL CROSSING AND CULVERT LOCATION

REFERENCE(S)

- BASE TOPOGRAPHY BY R.E.Y. ENGINEERS, INC., DATED JUL. 1, 2021, NAD 1983, ZONE II, US FOOT. ELEVATIONS ARE BASED ON NAVD 88.
- THE BEARINGS SHOWN HEREON ARE IN TERMS OF THE NORTH AMERICAN DATUM OF 1983 (NAD83), EPOCH 1999.50 PER THE YOLO COUNTY SUBSIDENCE NETWORK, BASED LOCALLY UPON GPS OBSERVATIONS TO STATIONS "COY-1" AND "UCD1". THE COORDINATES WERE SCALED BY AN AVERAGE COMBINATION FACTOR OF 1.00004588 TO OBTAIN GROUND COORDINATES AND DISTANCES. COORDINATES ARE EXPRESSED IN U.S. SURVEY FEET.
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YOLO COUNTY
DEPARTMENT OF COMMUNITY SERVICES
DIVISION OF INTEGRATED WASTE MANAGEMENT
44090 County Road 28th, Woodland, CA 95776-9101
DIRECTOR

DESIGN BY JDR 2023-10-17
DRAWN BY JDR 2023-10-17
CHECK BY JGD 2023-10-17

REVISIONS
0 2023-10-17 ISSUED FOR CONSTRUCTION BIDDING

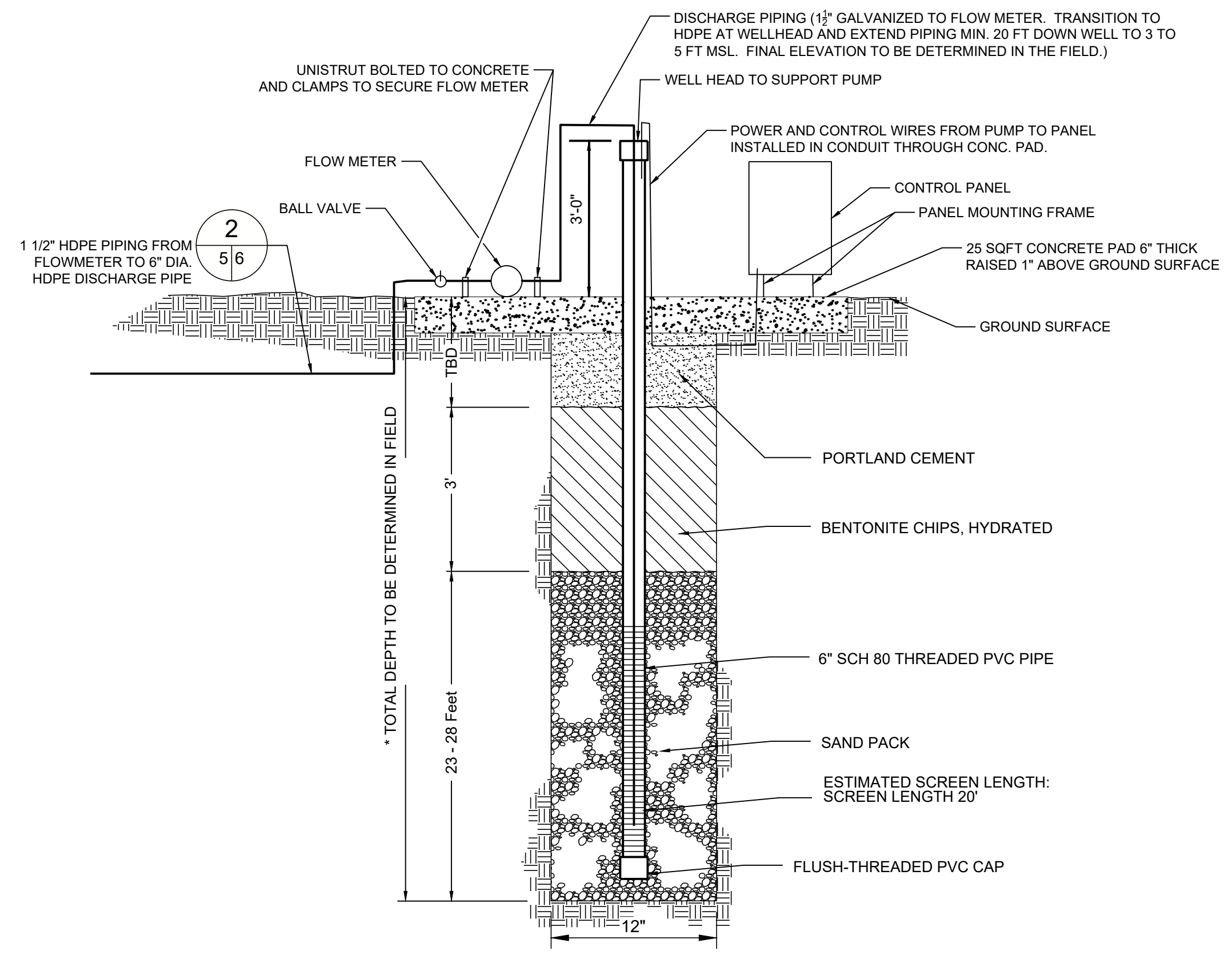
SCALE: SHOWN

APPROVED
PRINCIPAL ENGINEER

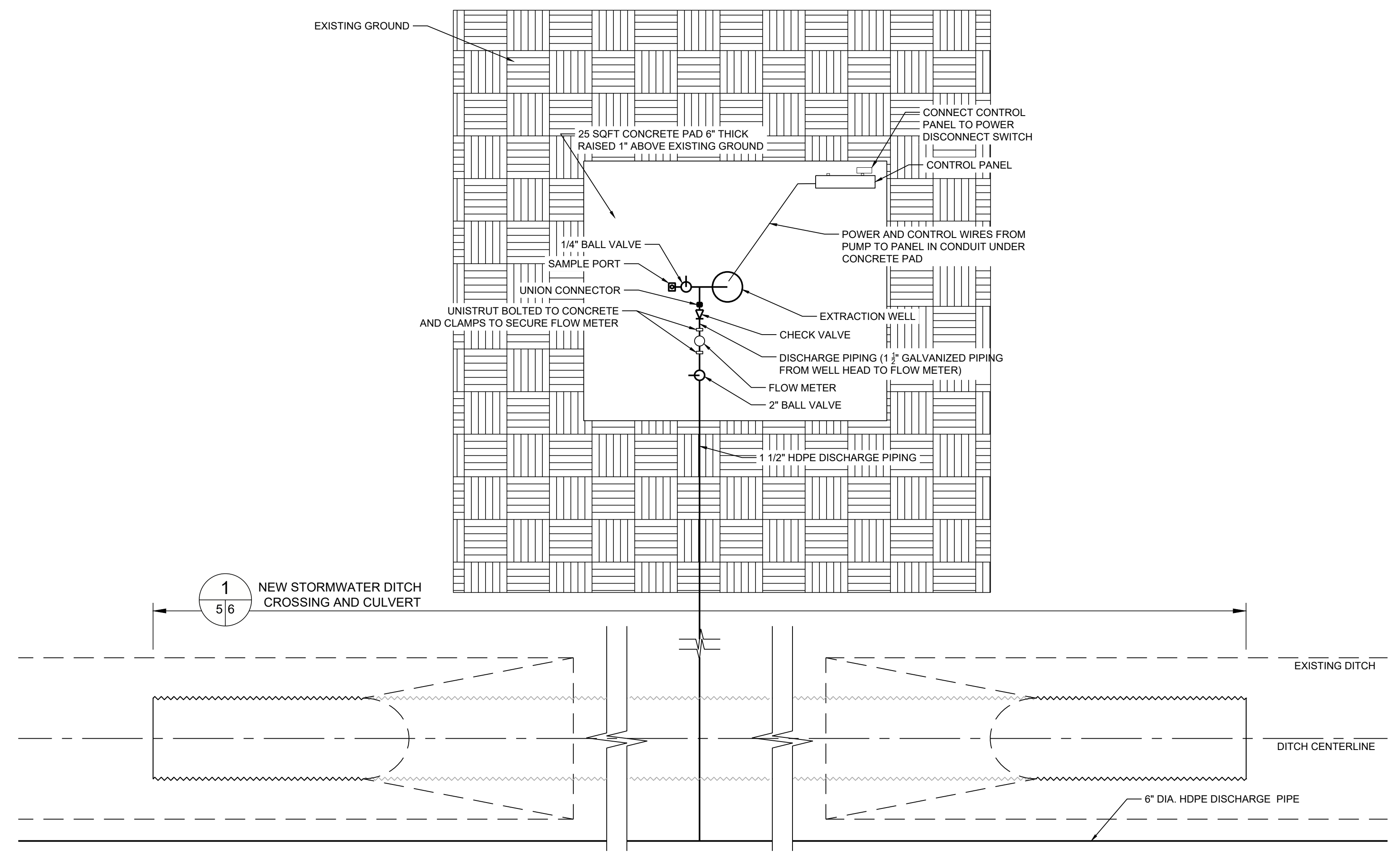
YOLO COUNTY CENTRAL LANDFILL
2023 GROUNDWATER EXTRACTION WELL EXPANSION
GROUNDWATER EXTRACTION WELL
LOCATION PLAN

SHEET NUMBER 4

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NTS 1 SHALLOW GROUNDWATER EXTRACTION WELL
4/5



NTS 2 GROUNDWATER EXTRACTION WELL PLAN VIEW
4/5 NOTE: SEE DETAIL 3, SHEET 6 FOR DETAILED WELL CONNECTION

NOTE(S)
TASK 1: INSTALL EXTRACTION WELLS.
CONSTRUCT 11 EXTRACTION WELLS.

- OBTAIN WELL INSTALLATION PERMITS FROM THE YOLO COUNTY DIVISION OF ENVIRONMENTAL HEALTH. PER THE WORK APPROVED PLAN. A COPY OF THE APPROVED WORK PLAN IS INCLUDED WITH THE PROJECT SPECIFICATIONS.
- DRILL AND CONSTRUCT ELEVEN (11) SIX-INCH DIAMETER GROUNDWATER EXTRACTION WELLS TO A DEPTH OF APPROXIMATELY 40 FEET BELOW GROUND SURFACE (BGS). THE BORING DIAMETER SHOULD BE AT LEAST 12 INCHES. THE LOCATIONS WILL BE FIELD MARKED AND ARE SHOWN ON SHEET 4.
- WELLS SHOULD BE CONSTRUCTED WITH 20 FEET OF SCREEN/PERFORATED CASING FROM THE TOTAL DEPTH.
- THE TOTAL DEPTH WILL BE DEPENDENT UPON FIELD CONDITIONS AND DIRECTED BY YCCL STAFF/COUNTY ENGINEER.
- SOIL CUTTINGS CAN BE PLACED ON AND COVERED WITH PLASTIC SHEETING AT THE WELL LOCATIONS AND WILL BE DISPOSED OF BY YCCL.
- COORDINATE ACCESS WITH COUNTY.
- PROVIDE ALL LABOR, EQUIPMENT, AND SUPPLIES TO CONDUCT THE WORK.

TASK 2: WELL DEVELOPMENT
PROVIDE ALL LABOR, EQUIPMENT, AND SUPPLIES TO PROPERLY DEVELOP THE WELLS.

- FOLLOWING DRILLING AND INSTALLATION OF THE EXTRACTION WELLS BY NOT LESS THAN 48 HOURS AND NOT MORE THAN ONE WEEK, THE CONTRACTOR SHALL DEVELOP THE WELLS USING ACCEPTABLE PRACTICES INCLUDING MECHANICAL TWO-WAY AGITATION OF FILTER PACK (E.G., LOWERING AND RAISING A PRE-CLEANED VENTED SURGE BLOCK), BAILING TO REMOVE SILT ACCUMULATED WITHIN THE WELL, AND PUMPING. THE CONTRACTOR SHALL FURNISH ALL PUMPS AND POWER NEEDED TO PERFORM THE WELL DEVELOPMENT. NO DETERGENT, SOAPS, ACIDS, BLEACH OR OTHER ADDITIVES SHALL BE USED TO DEVELOP THE WELLS.
- ALTERNATIVE CYCLES OF SURGING, BAILING, AND PUMPING WILL BE CONDUCTED UNTIL SEDIMENT PRODUCTION IS REDUCED AND THE EXTRACTED GROUNDWATER IS CLEAR OF SEDIMENT (LESS THAN 20 NTU AS MEASURED BY THE COUNTY USING A PORTABLE TURBIDITY METER). THE WELL WILL BE CONSIDERED DEVELOPED WHEN CONSECUTIVE READINGS FOR TEMPERATURE, PH AND SPECIFIC CONDUCTANCE ARE WITHIN TEN PERCENT OF EACH OTHER.
- THE TOTAL VOLUME OF WATER REMOVED SHALL BE COMMUNICATED TO THE COUNTY

ENGINEER AND RECORDED.

TASK 3: INSTALL PUMPS AND PUMP CONTROLS.

- PROVIDE AND INSTALL A 35S15 GRUNDFOS 35 GPM 1 1/2 HP PUMP END, 1 1/2 HP 480 GRUNDFOS MOTOR OR EQUIVALENT INTO EACH EXTRACTION WELL.
- PROVIDE ELECTRICAL SUPPLY WIRE DESIGNED FOR WATER WELL PUMPS, PIPING (TO CONNECT FROM THE PUMP THROUGH THE WELL HEAD TO A FLOW METER/DISCHARGE PIPE), WIRE AND PROBES FOR LEVEL CONTROLS FOR EACH EXTRACTION WELL.
- PROVIDE AND INSTALL A FLOW METER (1.5-INCH SENSUS OMNI OR EQUIVALENT).
- PROVIDE AND INSTALL A WELL HEAD TO SUPPORT PUMP, PIPING, POWER WIRES, LEVEL CONTROL WIRES, AND SECURE THE TOP OF THE WELL AT EACH EXTRACTION WELL.
- PROVIDE AND INSTALL DEPTH LEVEL CONTROLS (RELAYS) AND WEATHER PANEL BOX FOR EACH EXTRACTION WELL. SUCH AS 16MB1A0 WARRICK CONTROLLER (OR EQUIVALENT), SIZE 1 SIEMENS PUMP PANEL (OR EQUIVALENT), AND ASSOCIATED FUSES, TRANSFORMERS, AND CONNECTIONS.
- ABOVE GROUND PIPING SHALL RECEIVE PIPE WRAP TAPE AND FOAM INSULATION.
- PROVIDE ALL LABOR, EQUIPMENT, AND SUPPLIES TO CONDUCT THE WORK.

GENERAL WELL CONSTRUCTION DETAILS.

- CASING AND WELL SCREEN MATERIALS SHOULD BE 6-INCH SCHEDULE 80 PVC THREADED PIPE SPECIFICALLY MANUFACTURED FOR USE IN WELL CONSTRUCTION OR APPROVED EQUAL. SLOT SCREEN SIZE SHALL BE 0.020 INCHES.
- BORING DIAMETER SHOULD BE A MINIMUM OF 12-INCHES.
- BASED ON PREVIOUS FIELD CONDITIONS IT IS ESTIMATED THAT SAND PACKING WILL BE 20/40 LONESTAR SILICA SAND OR EQUAL.
- THE BENTONITE SEAL SHALL BE A HIGH QUALITY PELLET OR GRANULAR BENTONITE SPECIFICALLY MANUFACTURED FOR USE IN WELL CONSTRUCTION.
- SURFACE SEAL MATERIALS SHOULD BE PORTLAND CEMENT, WITH CONCRETE USED ONLY TO SECURE THE PROTECTIVE MONUMENT.
- THE PROTECTIVE MONUMENT SHALL BE SECURED WITH A CONCRETE PAD AT LEAST 6-INCHES THICK AND AT LEAST 25 SQUARE FEET. SEE DETAIL 2.

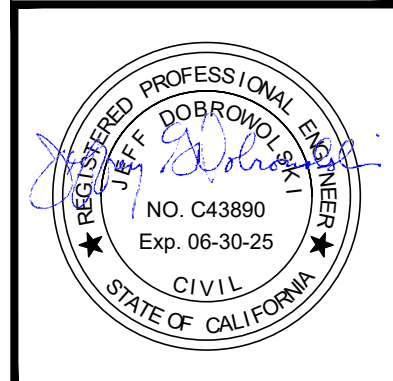
7. DETAIL 1 IS A DETAIL OF THE WELL COMPLETION.

CONSTRUCTION NOTES

- ENGINEERED FILL SHALL CONSIST OF MINERAL SOIL FREE FROM ORGANIC MATERIALS, LOAM, WOOD, TRASH, AND OTHER OBJECTIONABLE MATERIALS, WHICH MAY BE COMPRESSIBLE OR WHICH CANNOT BE PROPERLY COMPACTED. IT SHALL ALSO HAVE PHYSICAL PROPERTIES THAT ALLOW IT TO BE READILY SPREAD AND COMPACTED DURING FILLING.
 - ENGINEERED FILL SHALL NOT CONTAIN STONES LARGER THAN 3 INCHES IN LARGEST DIMENSION.
 - ENGINEERED FILL SHALL NOT CONTAIN BLOCKS, BROKEN CONCRETE, MASONRY RUBBLE OR OTHER SIMILAR MATERIALS.
 - ENGINEERED FILL, AGGREGATE BASE, OR ANY MATERIAL OR IMPROVEMENT SHALL NOT BE PLACED OVER UNSUITABLE OR UNSTABLE FOUNDATION (WET OR SPONGY). SOFT MATERIAL SHALL BE REMOVED AND REPLACED BY ENGINEERED FILL.
- PLACE AND COMPACT FILL TO THE LINES, GRADES, CROSS SECTIONAL REQUIREMENTS, AND DIMENSIONS SHOWN IN THE DRAWINGS.
- BEFORE PLACING ENGINEERED FILL OR AGGREGATE BASE OVER NATIVE SUBGRADE, SCARIFY NATIVE SUBGRADE TO A DEPTH OF 8 INCHES.
- MOISTURE CONDITION, AND COMPACT TO AT LEAST 90 PERCENT RELATIVE COMPACTION AND OPTIMUM MOISTURE CONTENT BETWEEN PLUS 2 PERCENT AND PLUS 5 PERCENT.
- DO NOT PLACE ENGINEERED FILL OR AGGREGATE BASE UNDER WATER.
- IF SUBGRADE HAS FREE WATER, BEFORE PLACEMENT OF ENGINEERED FILL OR AGGREGATE BASE, WATER SHALL BE PUMPED AND DISPOSED IN ACCORDANCE WITH THE CALIFORNIA REGULATIONS.
- A GEOTEXTILE MAY BE USED TO STABILIZE THE NATIVE SUBGRADE BEFORE PLACEMENT OF ENGINEERED FILL OR AGGREGATE BASE.
- PLACE ENGINEERED FILL AND AGGREGATE BASE IN LOOSE LIFT THICKNESSES NOT EXCEEDING 8 INCHES.
- ENGINEERED FILL SHALL BE COMPACTED TO AT LEAST 90 PERCENT RELATIVE COMPACTION AND OPTIMUM MOISTURE CONTENT BETWEEN PLUS 2 PERCENT AND PLUS 5 PERCENT.

REPAIR ALL DESICCATED, RUTTED, GOUGED, ERODED, OR DAMAGED AREAS BEFORE PLACING SUBSEQUENT LIFTS.

- COMPACT ANY ENGINEERED FILL INACCESSIBLE TO LARGE EQUIPMENT BY COMPACTING WITH SMALL MECHANICAL COMPACTORS.
- PLACE AND COMPACT ENGINEERED FILL TO THE LINES, GRADES, CROSS SECTIONAL REQUIREMENTS, AND DIMENSIONS SHOWN ON THE CONSTRUCTION DRAWINGS.
- GRADE FINAL ENGINEERED SURFACES TO REMOVE RUTS AND GOUGES.
- AGGREGATE BASE SHALL MEET THE REQUIREMENTS IN SECTION 26 OF THE 2018 CALTRANS SPECIFICATIONS FOR 0.75-INCH MAXIMUM CLASS 2 AGGREGATE BASE.
- AGGREGATE BASE SHALL BE COMPACTED TO AT LEAST 95 PERCENT RELATIVE COMPACTION AND AT MOISTURE CONTENTS WITHIN 3 PERCENT OF THE OPTIMUM MOISTURE CONTENT.
- ASPHALT CONCRETE PAVING SHALL BE CONSTRUCTED TO THE GRADES AND ELEVATIONS SHOWN ON THESE DRAWINGS.
- ASPHALT CONCRETE PAVING SHALL BE CONSTRUCTED AFTER OTHER CONSTRUCTION (FOR EXAMPLE, UTILITIES, PIPING, ETC.) HAVE BEEN CONSTRUCTED AND APPROVED BY THE DEPARTMENT.
- CULVERT PIPE SHALL BE 16-GAUGE CORRUGATED METAL PIPE WITH WATERTIGHT JOINTS OR EQUAL APPROVED BY THE DEPARTMENT.
- PIPE BEDDING AND BACKFILL SHALL BE NATIVE MATERIAL EXCAVATED AS PART OF THIS PROJECT OR OBTAINED FROM THE SOIL BORROW AREA.
- CONTRACTOR SHALL DEMONSTRATE TO THE DEPARTMENT THAT THE PIPE INSTALLATION IS FREE OF OBSTRUCTIONS AND DEBRIS PRIOR TO CONNECTING PIPE SEGMENTS AND TRENCH FILL.
- NEWLY CONSTRUCTED STORMWATER IMPROVEMENTS SHALL BE PROTECTED BY THE CONTRACTOR FROM DAMAGE (INCLUDING CONSTRUCTION LOADS) UNTIL ACCEPTED BY THE DEPARTMENT.
- PERIODIC MONITORING AND MAINTENANCE OF STORMWATER IMPROVEMENTS BEFORE AND AFTER STORMS SHALL BE PERFORMED BY THE DEPARTMENT AS PART OF OPERATIONS.



YOLO COUNTY
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44090 County Road 28th, Woodland, CA 95776-9101
DIRECTOR

DESIGN BY JDR 2023-10-17
DRAWN BY JDR 2023-10-17
CHECK BY JGD 2023-10-17

ISSUED FOR CONSTRUCTION BIDDING 0 2023-10-17

REVISIONS

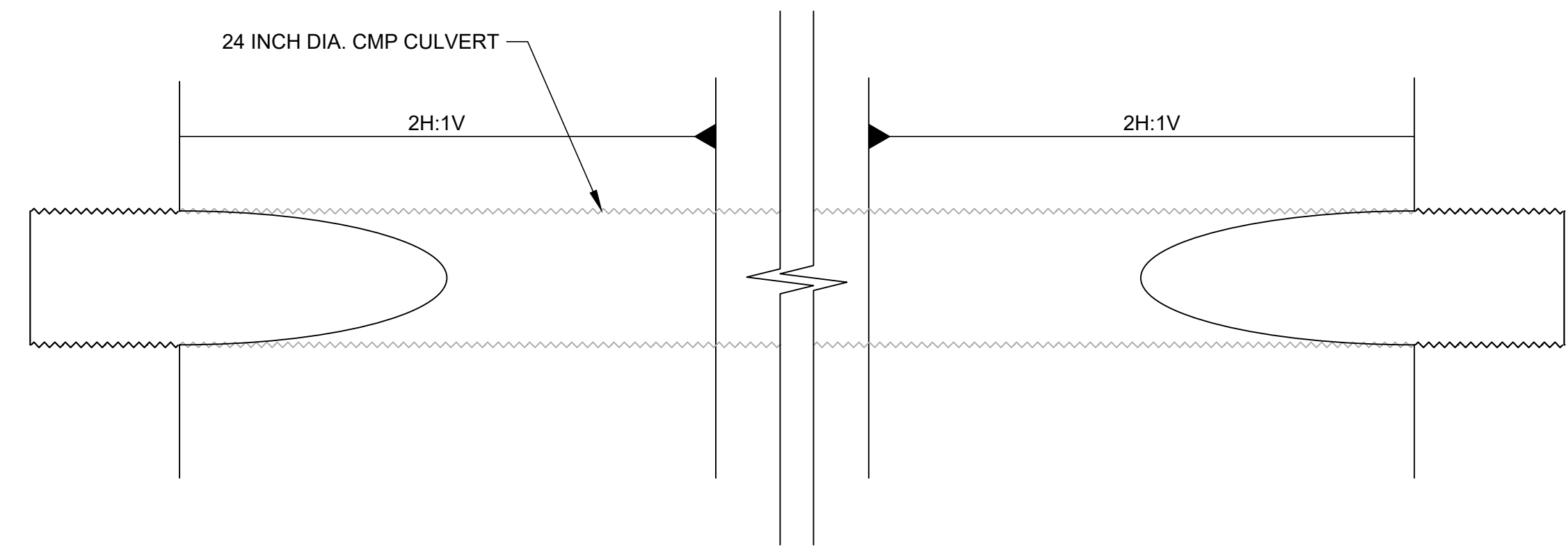
SCALE: SHOWN

APPROVED
PRINCIPAL ENGINEER

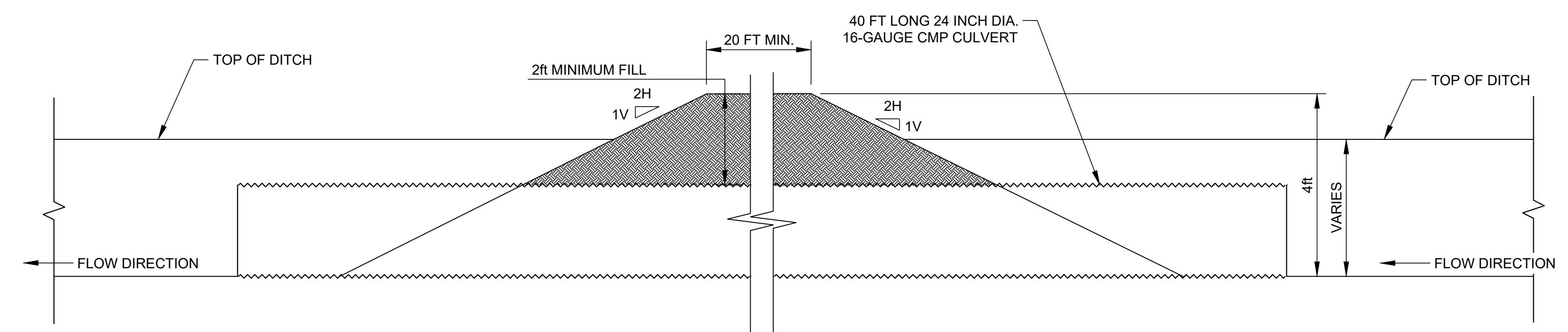
YOLO COUNTY CENTRAL LANDFILL
2023 GROUNDWATER EXTRACTION WELL EXPANSION
GROUNDWATER EXTRACTION WELL
DETAILS (1 OF 2)

SHEET NUMBER 5

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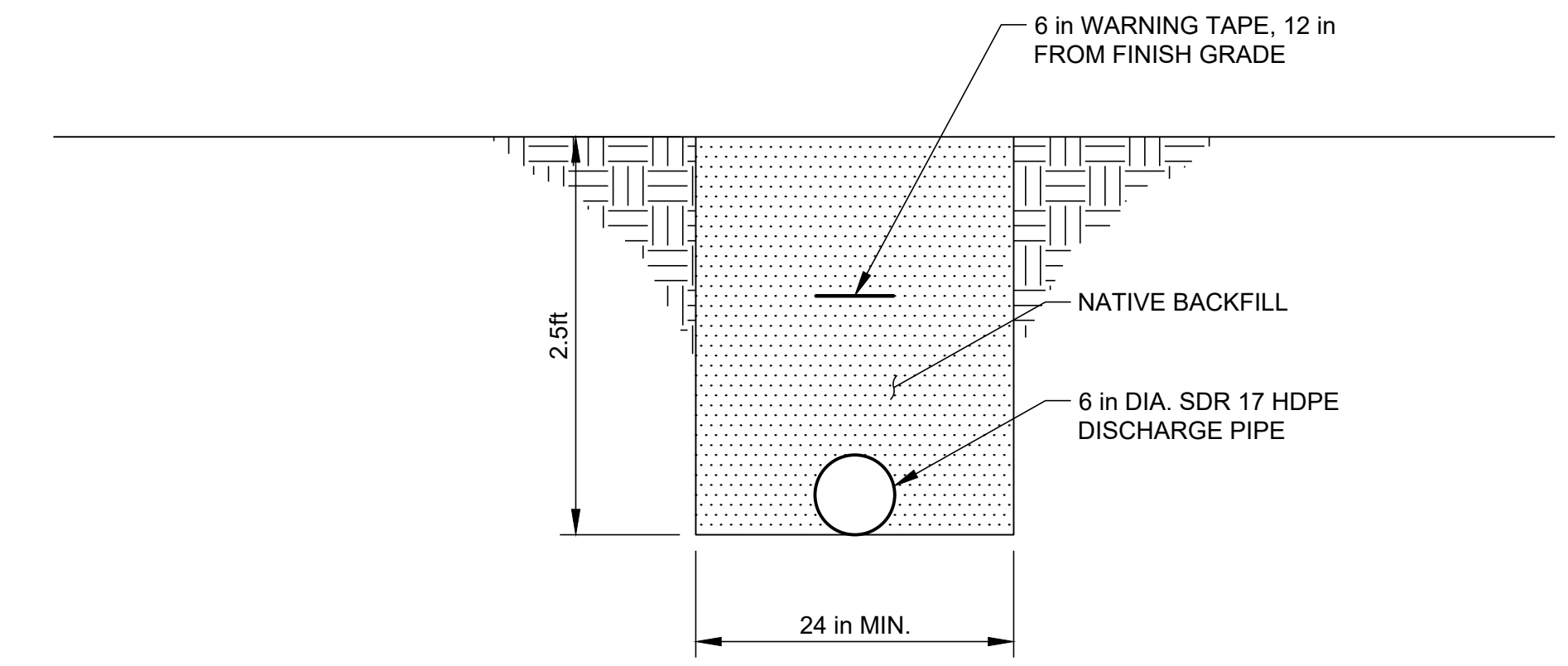


PLAN VIEW

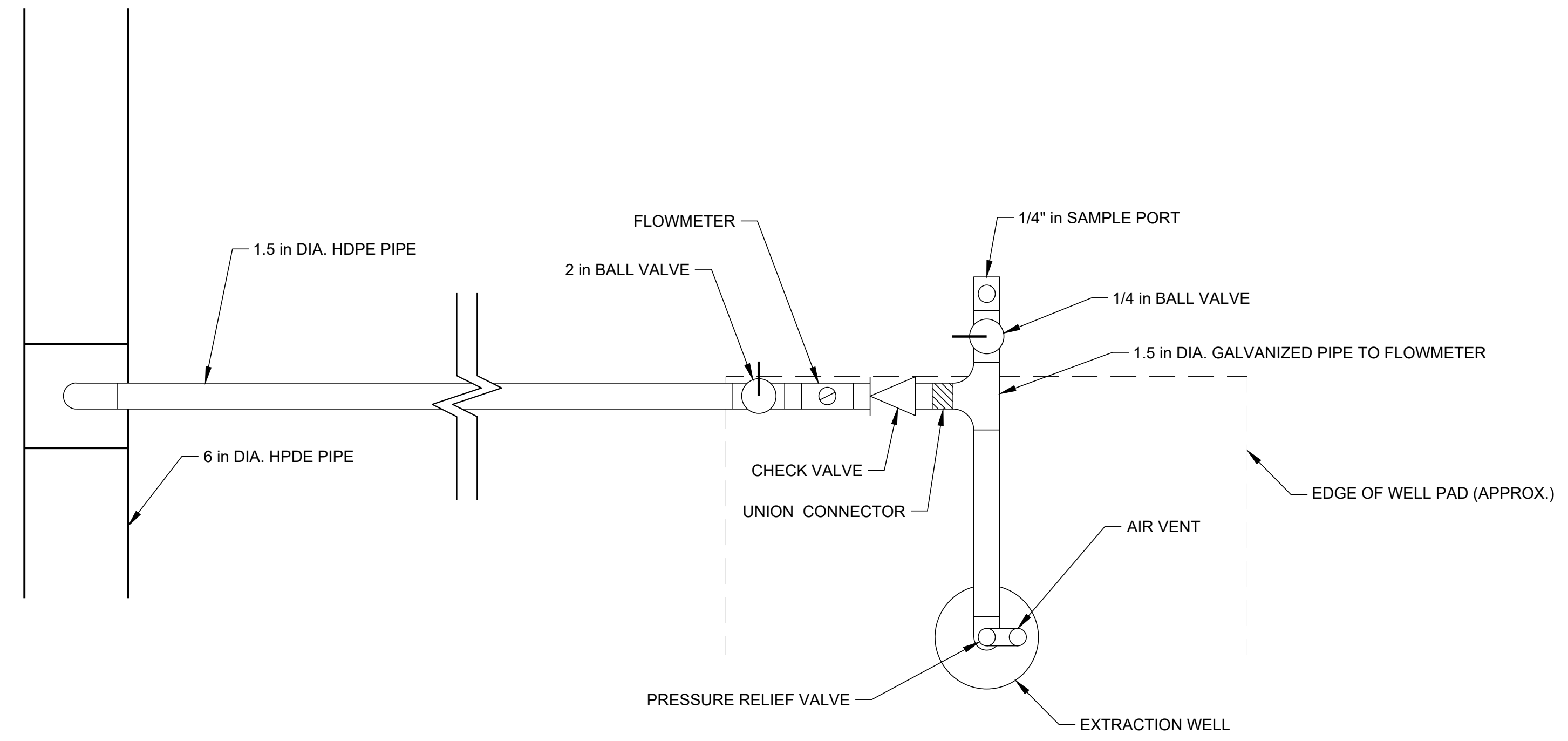


STORMWATER DITCH CROSSING AND 24 in DIA. CULVERT SECTION (TYP.)

SCALE 1" = 2' $\frac{1}{4}$ $\frac{1}{5}$



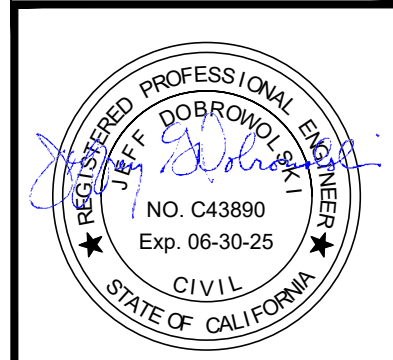
SCALE 1" = 1' $\frac{2}{4}$ $\frac{2}{5}$ DISCHARGE PIPE TRENCH DETAIL



SCALE N.T.S. $\frac{3}{6}$ WELL CONNECTION DETAIL

REVISIONS	DATE	BY	APP
0	2023-10-17	JDR	ISSUED FOR CONSTRUCTION BIDDING
DESIGN BY JDR 2023-10-17			
DRAWN BY JDR 2023-10-17			
CHECK BY JGD 2023-10-17			
SCALE: SHOWN			
YOLO COUNTY DEPARTMENT OF COMMUNITY SERVICES DIVISION OF INTEGRATED WASTE MANAGEMENT 44090 County Road 28th, Woodland, CA 95776-9101 DIRECTOR			
APPROVED: _____ PRINCIPAL ENGINEER			

YOLO COUNTY CENTRAL LANDFILL
2023 GROUNDWATER EXTRACTION WELL EXPANSION
GROUNDWATER EXTRACTION WELL
DETAILS (2 OF 2)



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ABBREVIATIONS		ABBREVIATIONS		ELEMENTARY SYMBOLS		SINGLE LINE SYMBOLS		SINGLE LINE SYMBOLS		DEVICE FUNCTION NUMBERS	
A	AMPERES	NO	NORMALLY OPEN		FLOW SWITCH, CLOSSES ON HIGH FLOW		FUSED DISCONNECT SWITCH		AUTOMATIC TRANSFER SWITCH	24	BUS-TIE CIRCUIT BREAKER
AC	ALTERNATING CURRENT	NTS	NOT TO SCALE		FLOW SWITCH, CLOSSES ON LOW FLOW		LOAD DISCONNECT SWITCH		MOTOR OPERATED VALVE	27	UNDERVOLTAGE RELAY
AF	AMPERE FRAME (RATING)	OC	OPENING COIL		LEVEL SWITCH, CLOSSES ON HIGH LEVEL		CIRCUIT BREAKER		WELDING RECEPTACLE	42	RUNNING CONTACTOR
AM	AMMETER	OL	OVERLOAD		LEVEL SWITCH, CLOSSES ON LOW LEVEL		POWER TRANSFORMER		DCS/PLC	47	PHASE SEQUENCE VOLTAGE RELAY
AS	AMMETER SWITCH	P	PRESSURE		POSITION/LIMIT		POWER TRANSFORMER WITH ELECTROSTATIC SHIELD		LOCAL CONTROL SWITCH	49	THERMAL (OVERLOAD) RELAY
AT	AMPERE TRIP (RATING)	PAH/L	PRESSURE ALARM HIGH/LOW		PRESSURE SWITCH, CLOSSES ON HIGH PRESSURE		POTENTIAL TRANSFORMER		OVERLOAD RELAY	50	INSTANTANEOUS OVERCURRENT RELAY
BOD	BOTTOM OF DUCT	PB	PUSHBUTTON/PULLBOX		PRESSURE SWITCH, CLOSSES ON LOW PRESSURE		CURRENT TRANSFORMER			51	AC TIME OVERCURRENT RELAY
BOP	BOTTOM OF PIPE	PLC	PROGRAMMABLE LOGIC CONTROLLER		TEMPERATURE SWITCH, CLOSSES ON HIGH TEMPERATURE		FULL WAVE BRIDGE RECTIFIER			52	AC CIRCUIT BREAKER
BPS	BYPASS SWITCH	PH	PHASE		TEMPERATURE SWITCH, CLOSSES ON LOW TEMPERATURE		SPACE HEATER			57	SHORT CIRCUITING OR GROUNDING DEVICE
C	CONDUIT	PI	PRESSURE INDICATOR		FUSE		RELAY CONTACT (N.O.)			59	OVERVOLTAGE RELAY
CB	CIRCUIT BREAKER	PSH/L	PRESSURE SWITCH HIGH/LOW		CONTACT OR P.C. OUTPUT, NORMALLY OPEN		RELAY CONTACT (N.C.)			60	VOLTAGE OR CURRENT BALANCE RELAY
CC	CLOSING COIL	PT	POTENTIAL TRANSFORMER/PRESSURE TRANSMITTER		CONTACT OR P.C. OUTPUT, NORMALLY CLOSED		AC ELECTRIC MOTOR			62	TIME DELAY RELAY
CKT	CIRCUIT	PVC	POLYVINYL CHLORIDE		RELAY COIL		DC ELECTRIC MOTOR			63	PRESSURE SWITCH RELAY
CLF	CURRENT LIMITING FUSE	QS	SPHERE SWITCH/SCRAPPER SWITCH		DIODE		PILOT INDICATING LIGHT			64	GROUND PROTECTIVE RELAY
COM	COMMON	RST	RESET		HEATER		HAND SWITCH			72	DC CIRCUIT BREAKER
CPT	CONTROL POWER TRANSFORMER	RTD	RESISTANCE TEMPERATURE DETECTOR		INDICATING LIGHT		METER OR RELAY			74	ALARM RELAY
CP	CONTROL PANEL	RTU	REMOTE TERMINAL UNIT		RESISTOR		LIGHTNING ARRESTOR			81	FREQUENCY RELAY
CR	CONTROL RELAY	SC	SURGE CAPACITOR		PUSH BUTTON, NORMALLY OPEN		CAPACITOR			86	LOCKOUT RELAY
CT	CURRENT TRANSFORMER	SF	SERVICE FACTOR		PUSH BUTTON, NORMALLY CLOSED		DC VOLTAGE REGULATOR/ BATTERY CHARGER			95	CIRCUIT BREAKER STATUS RELAY
CU	COPPER	SG	SWITCHGEAR		GROUND		DC TO AC INVERTER				
CUB	CUBICLE	SLO	STATION LOCKOUT		INSTRUMENT PAIR WITH SHIELD		VARIABLE FREQUENCY DRIVE (VFD)				
CS	CONTROL SWITCH	SOV	SOLENOID OPERATED VALVE				CATHODIC PROTECTION RECTIFIER				
DC	DIRECT CURRENT	SP	SPEED CONTROL								
DF	DEMAND FACTOR	SPD	SURGE PROTECTION DEVICE								
DPDT	DOUBLE POLE - DOUBLE THROW	SPDT	SINGLE POLE DOUBLE THROW								
DT	DOUBLE THROW	SPST	SINGLE POLE SINGLE THROW								
EMERG/EM	EMERGENCY	SS	START-STOP								
ES	EMERGENCY STOP	SWGR	SWITCHGEAR								
ESC	ELECTRONIC SPEED CONTROL	TAH/L	TEMPERATURE ALARM HIGH/LOW								
ESD	EMERGENCY SHUTDOWN	TB	TERMINAL BLOCK/TERMINAL BOX								
FAH/L	FLOW ALARM HIGH/LOW	TC	THERMOCOUPLE/TRIP COIL								
FLC	FULL LOAD CURRENT	TD	TIME DELAY								
FRC	FLOW RECORDER CONTROLLER	TDC	TIME DELAY CLOSE								
FSH/L	FLOW SWITCH HIGH/LOW	TDDE	TIME DELAY DEENERGIZE								
FT	FLOW TRANSMITTER	TDE	TIME DELAY ENERGIZE								
FU	FUSE	TDO	TIME DELAY OPEN								
FVNR	FULL VOLTAGE NON-REVERSING	TE	TEMPERATURE ELEMENT								
FVR	FULL VOLTAGE REVERSING	TI	TEMPERATURE INDICATOR								
GND	GROUND	TOD	TOP OF DUCT								
GRC	GALVANIZED RIGED CONDUIT	TOP	TOP OF PIPE								
HOA	HAND-OFF-AUTOMATIC	TSH/L	TEMPERATURE SWITCH HIGH/LOW								
HS	HAND OPERATED SWITCH	TT	TEMPERATURE TRANSMITTER								
HTR	HEATER	TTB	TOP TO BOTTOM								
HZ	HERTZ	UPS	UNINTERRUPTABLE POWER SUPPLY								
I/O	INPUT/OUTPUT	US	UNIT SUBSTATION								
JB	JUNCTION BOX	V	VOLTS								
KVA	KILO VOLT-AMPERES	VA	VOLT-AMPERES								
KW	KILOWATT	VM	VIBRATION MONITOR/VOLT METER								
KWH	KILOWATT HOUR	VS	VIBRATION SWITCH/VOLT METER SWITCH								
LA	LIGHTNING ARRESTOR	VT	VIBRATION TRANSMITTER								
LAH/L	LEVEL ALARM HIGH/LOW	XFMR	TRANSFORMER								
LI	LEVEL INDICATOR	XMTR	TRANSMITTER								
LP	LIGHTING PANEL	Z	IMPEDANCE								
LSH/L	LEVEL SWITCH HIGH/LOW	ZS	POSITION/LIMIT SWITCH								
LT	LEVEL TRANSMITTER										
LTR	LEVEL TO RIGHT										
MCC	MOTOR CONTROL CENTER										
MCP	MOTOR CIRCUIT PROTECTOR										
MOV	MOTOR OPERATED VALVE										
MVA	MEGAVOLT AMPERE										
NC	NORMALLY CLOSED										

LAYOUT/LOCATION SYMBOLS

	CONDUIT EXPOSED
	CONDUIT UNDERGROUND OR EMBEDDED
	CABLE TRAY (SMALL SCALE)
	CABLE TRAY (LARGE SCALE)
	NON-INSULATED GROUNDING CONDUCTOR
	GROUND (EARTH) ELECTRODE
	CONDUIT/TRAY TAG
A ---	A = POWER 6 kV B = POWER 600 V & BELOW C = CONTROL I = INSTRUMENTATION

SCADA & CONTROL SYMBOLS

	PLC I/O MODULE TERMINAL
	TERMINAL IN PLC OR I/O PANEL
	TERMINAL IN PLC PANEL, FUSED
	TERMINAL IN PLC PANEL, DISCONNECT
	TERMINAL IN PLC PANEL, GROUNDING
	VALVE ACTUATOR TERMINAL
	VENDOR CONTROL PANEL TERMINAL
	VFD ENCLOSURE TERMINAL
	MCC TERMINAL
	DEVICE TERMINAL
	CABLE DISCONNECT
	CONDUCTOR IN CONTROL PANEL
	FIELD CONDUCTOR

COLOR CODES: BK=BLACK, BU=BLUE, BN=BROWN, GN=GREEN, GY=GREY, OR=ORANGE, RD=RED, VI=VIOLET, WH=WHITE, YL=YELLOW

YOLO COUNTY
DEPARTMENT OF COMMUNITY SERVICES
DIVISION OF INTEGRATED WASTE MANAGEMENT
44090 County Road 28th, Woodland, CA 95776-9101

DESIGN BY: JDR, DRAWN BY: JDR, CHECK BY: JGD, SCALE: SHOWN

2023 GROUNDWATER EXTRACTION WELL EXPANSION
ELECTRICAL SYMBOLS

REGISTERED PROFESSIONAL ENGINEER
JAMES W. RAMSEY, E 17881
EXP 12/31/24
ELECTRICAL
STATE OF CALIFORNIA

SHEET NUMBER: E01

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ABOVE GRADE CONDUITS:

CONDUIT SHALL BE GALVANIZED RIGID STEEL. MINIMUM CONDUIT SIZE ABOVE GRADE SHALL BE 3/4". MINIMUM CONDUIT SIZE BEHIND GAGE BOARDS SHALL BE 1/2" . FOR CONDUIT INSTALLATIONS, C-H, APPLETON OR T&B THREAD LUBRICANT IS ACCEPTABLE. USE "CROUSE-HINDS" HTL OR EQUAL THREAD LUBRICANT FOR LIGHTING FIXTURE THREADED JOINTS OR ANY HEAT PRODUCING APPARATUS. ALL VERTICAL CONDUIT RUNS SHALL HAVE A DRAIN FITTING AT LOWEST POINT.

CONDUIT SUPPORTS:

CONDUIT SUPPORTS SHALL BE ARRANGED SO AS NOT TO INTERFERE WITH THE MAIN PIPE RACK AND SHALL NOT OBSTRUCT THE TRANSITION OF PIPING TO AND FROM THE PIPE RACK. CONDUIT SUPPORTS WILL BE PROVIDED PER NEC. CONDUIT SHALL BE FASTENED WITHIN 3'-0" OF EACH OUTLET BOX OR 90-DEGREE BEND. USE CLAMPS, U-BOLTS, OR PIPE HANGERS TO SUPPORT SINGLE CONDUITS. USE P-1000 SERIES "UNISTRUT" CHANNEL (OR EQUAL) WITH "UNISTRUT" PIPE CLAMPS FOR MULTIPLE CONDUIT RUNS. ALL SUPPORTS AND HARDWARE SHALL BE ALUMINUM, STAINLESS STEEL, OR HOT DIP GALVANIZED STEEL.

CONDUIT FITTINGS:

USE "FORM 7" CROUSE-HINDS OR APPLETON CONDULETS WITH WEDGE NUT COVER IN CLASS 1, DIVISION 2 HAZARDOUS (CLASSIFIED) AREAS AND IN NON-HAZARDOUS (UNCLASSIFIED) AREAS. USE "CROUSE-HINDS" OR "APPLETON" EXPLOSION- PROOF CONDULETS IN CLASS 1, DIVISION 1 AREAS OR AS NOTED ON PLAN DRAWINGS. IN OVERHEAD STRAIGHT RUNS OF 300'-0" OR MORE EXPANSION FITTINGS SHALL BE INSTALLED AT A MAXIMUM SPACING OF 200'-0" CENTER TO CENTER AND ALLOW A MINIMUM TOTAL OF 0'-8" CONDUIT MOVEMENT. PULL BOXES SHALL BE INSTALLED IN STRAIGHT RUNS OF 300'-0" OR MORE, AND IN RUNS HAVING MORE THAN FOUR UNDERGROUND 90 DEGREE BENDS. PULL BOXES SHALL HAVE A MAXIMUM SPACING OF 250'-0" BETWEEN BOXES. USE T&B BULLET HUBS FOR CONDUIT ENTRANCES INTO ALL NEMA TYPE TERMINAL BOXES, RELAY CABINETS, OUTDOOR PANELBOARDS, AND 4.16KV THRU 480V MOTOR CONTROL CENTERS. THIS EQUIPMENT DOES NOT APPLY TO DEVICES WHERE INTEGRAL HUBS ARE SUPPLIED WITH ENCLOSURE.

CONDUIT SEALS:

IN CLASS 1, DIVISION 1 AND 2 HAZARDOUS (CLASSIFIED) AREAS, C-H FERALOY OR APPLETON GRAYLOY TYPE "EYS" OR "EYD" CONDUIT SEALS SHALL BE FITTED PER THE NEC, INCLUDING THE FOLLOWING:

- WITHIN 18" OF ALL ARCING DEVICES, EXCEPT ALL FACTORY SEALED ELECTRICAL DEVICES IN A GROUP "C" OR "D" AREA.
- WITHIN 18" (UNLESS OTHERWISE REQUIRED BY MANUFACTURER'S SPECIFIC DEVICE) OF ALL ARCING DEVICES, INCLUDING ALL FACTORY SEALED ELECTRICAL DEVICES IN A GROUP "B" AREA.
- IN ALL CONDUITS, 2" DIAMETER OR LARGER, ENTERING AN ENCLOSURE HOUSING SPLICES, TAPS, OR TERMINALS AND WITHIN 18" OF ENCLOSURES.
- IN ALL CONDUIT RUNS OF AN AREA CLASSIFICATION BOUNDARY CROSSING.
- ALL OVERHEAD CONDUITS PASSING THROUGH BUILDING WALLS SHALL BE SEALED AND DRAINED AT FIRST CONDUIT JOINT OUTSIDE WALL.
- IN ALL CONDUIT RUNS AT LAST FITTING OR COUPLING BEFORE LEAVING HAZARDOUS (CLASSIFIED) AREAS.
- SEALS SHALL NOT EXCEED 25% WIRE FILL PER UL LISTING UNLESS YOU ARE USING EXPANDED FILL CONDUIT SEALS.

UNDERGROUND CONDUIT:

UNDERGROUND CONDUIT SHALL BE PVC OR PVC COATED RGS, PER DWGS. GALVANIZED STEEL CONDUIT SHALL BE USED FOR BENDS AND OFFSETS OF ANY DEGREE. 2" SHALL BE THE MINIMUM SIZE FOR PLASTIC CONDUIT. MIN DEPTH OF CONDUIT SHALL BE 2'-0". MIN DEPTH UNDER ROADS 4'-0"

UNDERGROUND DUCT BANKS:

ALL UNDERGROUND CONDUIT DUCT BANKS SHALL BE ENCASED IN RED CONCRETE WITH A MINIMUM OF 3" COVER AND 3" SPACING BETWEEN CONDUITS. CONDUIT DUCT BANKS SHALL BE DESIGNED WITH HORIZONTAL AND VERTICAL SUPPORTS MADE UP OF #4 REBAR, SPACED 5'-0" APART. IN ADDITION, FOR PVC CONDUIT DUCT BANKS, LONGITUDINAL SUPPORT OF #4 REBAR SHALL BE PROVIDED ON BOTH SIDES OF CONDUIT DUCT BANK. TOP OF CONCRETE SHALL BE A MINIMUM OF 2'-0" BELOW FINISHED GRADE. ANY ONE CONDUIT RUN SHALL HAVE NO MORE THAN THREE 90 DEGREE BENDS.

CABLE TRAYS:

ALL WIRING RUN IN CABLE TRAYS SHALL BE TRAY CABLE. CABLE TRAYS SHALL BE COPPER-FREE ALUMINUM, LADDER TYPE WITH 6" HIGH SIDE RAILS AND TRANSVERSE RUNGS ON 9" CENTERS. CABLE TRAYS SHALL BE IN STANDARD WIDTHS (6", 12", 24", 30", AND 36") AND INSTALLED AS A COMPLETE SYSTEM. INSTALLATION SHALL CONFORM TO N.E.C. ARTICLE 392. TRAYS SHALL BE SECURED WITH EXPANSION GUIDES AND EQUIPPED WITH EXPANSION JOINTS AT LEAST EVERY 80'-0". CABLE TRAYS SHALL BE SUPPORTED AT 20'-0" (MAXIMUM) INTERVALS. CABLE TRAY JOINTS SHALL BE SUPPORTED WITHIN 1/4" OF TRAY SPAN AND CONNECTED TO GROUNDING CONDUCTORS AT 100'-0" INTERVALS. OR CARRY GROUND CONDUCTOR. IN GENERAL, CABLE TRAY SYSTEM SHALL BE CONTINUOUS AND SHALL USE FITTINGS WHERE CHANGES IN ELEVATION OR DIRECTION ARE MADE, UNLESS OTHERWISE NOTED. ALL TRAY SYSTEMS SHALL BE BONDED TOGETHER ACROSS SPLICE PLATES BY GROUNDING JUMPERS TO ENSURE ELECTRICAL CONTINUITY. CABLES SHALL BE INSTALLED AS INDICATED ON THE CABLE AND RACEWAY SCHEDULES.

CONDUIT TAGS:

CONDUIT TAGS WILL BE STAINLESS STEEL WITH STAINLESS STEEL WIRE.

CABLE NUMBERS:

POWER AND CONTROL CABLES SHALL BE LABELED AT CABLE ENDS. LABELS SHALL BE T & B TY-RAP CABLE MARKERS OR EQUAL. USE PREFIX "P" FOR POWER, "F" FOR FEEDER, "C" FOR CONTROL, AND MOTOR NUMBER AS A COMPLETE NUMBER. ADD SUFFIX -1, -2, ETC. TO CABLE NUMBERS FOR ITEM WITH MORE THAN ONE CABLE.

GENERAL CABLE NOTES:

STANDARD WIRE INSULATION TYPE WILL BE "THHW/THHN" UNLESS NOTED OTHERWISE NO POWER FEEDER WIRE SMALLER THAN #12 AWG. DO NOT EXCEED 3% VOLTAGE DROP IN MOTOR LOADS.

480V POWER AND CONTROL CABLE:

SEPARATE CABLE SHALL BE USED FOR POWER AND CONTROL ON ALL MOTORS (UNLESS NOTED ON MOTOR INSTALLATION DRAWINGS)

CONTROL WIRING:

ALL CONTROL WIRING SHALL BE MARKED WITH WIRE NUMBERS AS SHOWN ON SCHEMATIC DIAGRAMS, ALSO SEE EACH SCHEMATIC DIAGRAM FOR COLOR CODING.

GROUNDING CABLE:

GROUNDING CABLE CONNECTING GROUNDING RODS AND MAIN GROUNDING LOOPS SHALL BE (AS NOTED): #4/0 OR 2/0 AWG BARE STRANDED COPPER WIRE. GROUNDING CABLE TO INDIVIDUAL MOTOR SHALL BE #2 AWG BARE STRANDED COPPER WIRE. GROUNDING CABLE TO INDIVIDUAL STRUCTURES AND EQUIPMENT SHALL BE #2 AWG BARE STRANDED COPPER WIRE (UNLESS NOTED OTHERWISE). GROUND WIRES EXTENDING ABOVE GRADE TO EQUIPMENT SHALL BE RUN EXPOSED WITHOUT ANY CONDUIT PROTECTION.

PRESENTATION:

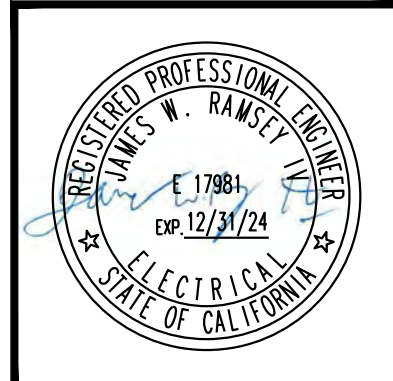
SWITCHES AND CONTACTS ARE SHOWN IN THE SHELF POSITION.

DESIGN BY	JDR	2023-10-17	REVISIONS	
DRAWN BY	JDR	2023-10-17	ISSUED FOR CONSTRUCTION BIDDING	
CHECK BY	JGD	2023-10-17		
			SCALE: SHOWN	

YOLO COUNTY
 DEPARTMENT OF COMMUNITY SERVICES
 DIVISION OF INTEGRATED WASTE MANAGEMENT
 44090 County Road 28th, Woodland, CA 95776-9101
 DIRECTOR

APPROVED: _____
 PRINCIPAL ENGINEER

YOLO COUNTY CENTRAL LANDFILL
 2023 GROUNDWATER EXTRACTION WELL EXPANSION
 ELECTRICAL NOTES (1 OF 2)



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ELECTRICAL & ELECTRICAL INSTRUMENTATION NOTES:

- ALL CONDUIT SHALL BE RIGID GALVANIZED STEEL AND SUPPORTED PER NEC.
- CONDUIT FITTINGS SHALL BE "FORM 7" CROUSE-HINDS OR APPLETON, WITH WEDGE NUT COVER, UNLESS NOTED.
- ALL VERTICAL CONDUIT UNIONS SHALL BE INSTALLED WITH TIGHTENING RING ON TOP.
- ALL ENTRANCES TO MOTOR TERMINAL BOXES SHALL BE BY MEANS OF THREADED OPENING OR T&B BULLET HUBS.
- ALL WIRES SHALL BE CLEARLY MARKED WITH RAYCHEM "TMS" OR BRADY SLEEVE MARKERS AT TERMINATIONS USING DESIGNATIONS SHOWN. (CONTRACTOR SHALL SUPPLY TYPED AND PERMATIZED MARKERS.)
- ALL CONTROL WIRE TERMINATIONS SHALL USE INSULATED "SNAP-SPADE" TYPE COMPRESSION LUGS, EXCEPT WHEN USING COMPRESSION TYPE TERMINALS.
- USE LIQUID-TITE FLEXIBLE METALLIC CONDUIT, (INSTALL PER DETAILS) AS FOLLOWS:

CONDUIT SIZE	MINIMUM LENGTH	MAXIMUM LENGTH	CONDUIT SIZE	MINIMUM LENGTH	MAXIMUM LENGTH
1/2"	15"	18"	2"	15"	24"
3/4"	15"	18"	2 1/2"	15"	30"
1"	15"	18"	3"	18"	36"
1 1/4"	15"	18"	3 1/2"	21"	42"
1 1/2"	15"	18"	4"	24"	48"

- TAPE, MARK, AND COIL ALL SPARE WIRES.
- ALL CONDUIT CONTAINING "TC" CABLE (#4) AND LARGER OR SINGLE CONDUCTORS (#4/0 AWG) AND LARGER SHALL USE "LBD" FITTINGS OR FACTORY BENDS FOR ALL TURNS.
- ALL SPLICING FOR 120VAC LIGHTING, POWER & CONTROL SHALL BE MADE USING BUCHANAN #2006S SPLICE CAPS SECURELY TAPED TO EXCLUDE MOISTURE. ONLY BUCHANAN CRIMPING TOOLS SHALL BE USED. SPLICING SHALL BE MADE IN CROUSE-HINDS OR APPLETON "GUA" FITTINGS.
- ALL WELDS SHALL BE PAINTED USING A BRUSH-ON, COLD GALVANIZING PAINT. (SPRAY-ON NOT ALLOWED.)
- TERMINATE WIRES IN ALL MOTOR MAIN TERMINAL BOX AS SPECIFIED IN COMPANY ELECTRICAL INSTALLATION SPECIFICATION, SECTION 12.30.
- THE CONTRACTOR SHALL SUPPLY ALL MATERIAL AND EQUIPMENT NECESSARY TO COMPLETE THE ELECTRICAL INSTALLATION IN ACCORDANCE WITH THE CONSTRUCTION SPECIFICATIONS, MATERIAL SPECIFICATIONS, STANDARD SPECIFICATIONS, AND ALL PROJECT DRAWINGS, UNLESS NOTED.
- ALL INSTRUMENTS SHOWN ON INSTALLATION DETAILS AND OTHER INSTRUMENT DRAWINGS ARE SHOWN SYMBOLICALLY. FOR TRUE PICTURE AND LOCATION OF CONNECTIONS, REFER TO VENDOR'S DRAWINGS.
- THE CONTRACTOR SHALL RELIEVE ALL CONNECTIONS OF ANY STRAIN AND PROVIDE ALL MATERIAL REQUIRED TO PROPERLY SUPPORT LEADS, CONDUIT, INSTRUMENTS, TUBING, WIREWAY, BUSWAY, PIPING, TRAY, JUNCTION BOXES, ETC.
- ELEVATIONS SHOWN ON DRAWINGS ARE APPROXIMATE AND SHOWN FOR THE CONTRACTOR'S CONVENIENCE.
- CONDUIT RUNS ARE SHOWN DIAGRAMMATICALLY. EXACT LOCATIONS TO BE DETERMINED IN THE FIELD.
- ALL ELECTRICAL INSTALLATIONS SHALL SATISFY THE LATEST PROVISIONS, REGULATIONS, AND REQUIREMENTS OF THE NEC, NEMA, & OSHA. REQUIREMENTS SHOWN ON DRAWINGS OR IN ELECTRICAL INSTALLATION SPECIFICATIONS TAKE PRECEDENCE.
- CONTRACTOR TO REPAIR ANY NICKS, SCRAPES, OR DAMAGE TO CONDUITS OR JUNCTION BOX OUTER COATINGS AND TREAT WITH A GALVANIZED PRIMER.
- ALL WIRING TERMINATIONS ON INSTRUMENTS AND IN JUNCTION BOXES TO BE PER WIRING DRAWINGS. THE SHIELD END OF INSTRUMENT CABLES AND DRAIN WIRES ARE TO BE HEAT SHRINK SLEEVE.

- CONDUITS SHALL ENTER ONLY THROUGH THE BOTTOM OF ALL FIELD JUNCTION BOXES, UNLESS NOTED OTHERWISE.
- ALL CONDUIT CONNECTIONS TO INSTRUMENTS SHALL BE MADE IN SUCH A MANNER TO ENSURE A DOWNWARD SLOPE AWAY FROM THE INSTRUMENT TO PREVENT MOISTURE BUILD-UP.
- INSTALLATIONS AT INSTRUMENTS AND THERMOCOUPLES TO BE MADE WITH .50" FLEXIBLE CONDUIT UNLESS SHOWN OTHERWISE. MAXIMUM LENGTH 18", PREFER 15".
- ALL FIELD CONDUIT TO BE TYPE "RGS". CONTROL ROOM & 120VAC LIGHTING IN SUBSTATIONS CONDUIT TO BE TYPE "EMT". (UNLESS NOTED OTHERWISE).
- INSTRUMENT AND CONDUIT INSTALLATIONS ARE TO MEET AS A MINIMUM CLASS I, GROUP C AND D, DIVISION 2 CODE REQUIREMENTS EXCEPT FOR THE CONTROL ROOM, OR NOTED OTHERWISE.
- ALL ELECTRICAL MATERIALS SHALL BEAR THE LABEL OF "UNDERWRITER LABORATORIES, INC."
- CONTRACTOR SHALL INSTALL ENGRAVED NAMEPLATES ON ALL EQUIPMENT. CONTRACTOR SHALL APPLY RTV SEALANT TO BACKSIDE OF NAMEPLATES AND PRESS NAMEPLATES ON EQUIPMENT. NAMEPLATES SHALL BE LOCATED AS INDICATED ON DRAWINGS.
- SWITCHES AND CONTACTS ARE SHOWN IN THE SHELF POSITION. VALVE LIMIT SWITCHES SHOWN WITH VALVE IN CLOSED POSITION.

POWER AND CONTROL CABLE MINIMUM BENDING RADIUS NOTES

600-VOLT BUILDING WIRE (THHN/THWN, ETC.)					
THICKNESS OF CONDUCTOR INSULATION IN INCHES	OVERALL DIAMETER OF CABLE, INCHES				
	UP TO 1.000		1.001 TO 2.000		OVER 2.000
.155 AND LESS	4X	OUTSIDE DIAMETER	5X	OUTSIDE DIAMETER	6X OUTSIDE DIAMETER
.170 TO .310	5X	OUTSIDE DIAMETER	6X	OUTSIDE DIAMETER	7X OUTSIDE DIAMETER
.325 AND OVER	N/A		7X	OUTSIDE DIAMETER	8X OUTSIDE DIAMETER

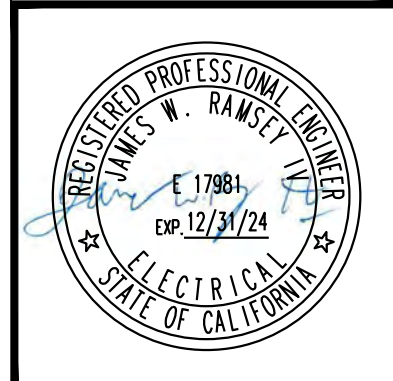
TYPE	MINIMUM RADIUS	NEC REF.
OVER 600-VOLT, SHIELDED	12X OUTSIDE DIAMETER	ART. 300-34
OVER 600-VOLT, NON-SHIELDED	8X OUTSIDE DIAMETER	ART. 300-34
METAL-CLAD CABLE W/INTERLOCKED ARMOR OR CORRUGATED SHEATH - NON SHIELDED CONDUCTORS	7X OUTSIDE DIAMETER	ART. 330-24
METAL-CLAD CABLE W/SHIELDED CONDUCTORS	12X OUTSIDE DIAMETER	ART. 330-24
600-VOLT TC CABLE	8X OUTSIDE DIAMETER	ART. 330-24

TWISTED PAIR INSTRUMENTATION CABLE	
TYPE	MINIMUM RADIUS
ARMORED, WIRE TYPE OR CORRUGATED SHEATH OR INTERLOCKED TYPE	7X OUTSIDE DIAMETER (8X W/SHIELDED CONDUCTORS)
NON-ARMORED, WITHOUT SHIELDED CONDUCTORS	6X OUTSIDE DIAMETER
NON-ARMORED, METALLIZED- POLYESTER OR BRAIDED SHIELD	7X OUTSIDE DIAMETER
NON-ARMORED, FLAT OR CORRUGATED TAPE SHIELDED	12X OUTSIDE DIAMETER (15X FOR LONGITUDINALLY APPLIED CORRUGATED SHIELD W/PVC JACKET)

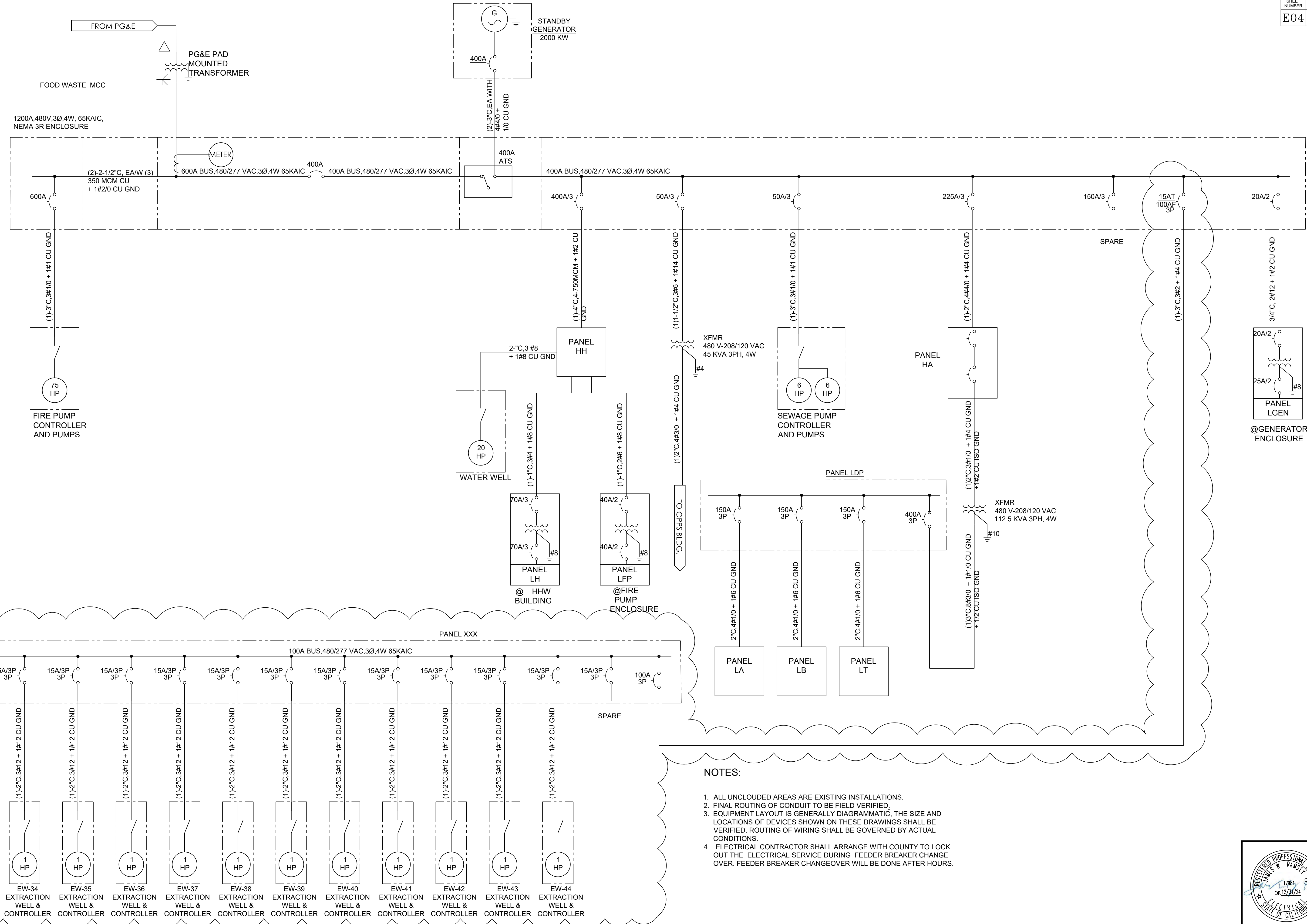
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 DESIGN BY: JDR DRAWN BY: JDR CHECK BY: JGD
 SCALE: SHOWN
 YOLO COUNTY DEPARTMENT OF COMMUNITY SERVICES DIVISION OF INTEGRATED WASTE MANAGEMENT 44090 County Road 28th, Woodland, CA 95776-9101
 DIRECTOR: APPROVED: PRINCIPAL ENGINEER:

YOLO COUNTY CENTRAL LANDFILL
 2023 GROUNDWATER EXTRACTION WELL EXPANSION
 ELECTRICAL NOTES (2 OF 2)

SHEET NUMBER: E03



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- NOTES:**
1. ALL UNCLOSED AREAS ARE EXISTING INSTALLATIONS.
 2. FINAL ROUTING OF CONDUIT TO BE FIELD VERIFIED.
 3. EQUIPMENT LAYOUT IS GENERALLY DIAGRAMMATIC, THE SIZE AND LOCATIONS OF DEVICES SHOWN ON THESE DRAWINGS SHALL BE VERIFIED. ROUTING OF WIRING SHALL BE GOVERNED BY ACTUAL CONDITIONS.
 4. ELECTRICAL CONTRACTOR SHALL ARRANGE WITH COUNTY TO LOCK OUT THE ELECTRICAL SERVICE DURING FEEDER BREAKER CHANGE OVER. FEEDER BREAKER CHANGEOVER WILL BE DONE AFTER HOURS.

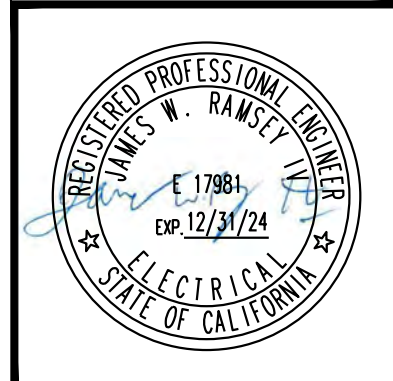
REVISIONS	DATE	BY	APP
ISSUED FOR CONSTRUCTION BIDDING	2023-10-17	JDR	JDR
CHECK BY	2023-10-17	JGD	JGD

SCALE: SHOWN

DESIGN BY: JDR
DRAWN BY: JDR
CHECK BY: JGD

APPROVED: [Signature]
PRINCIPAL ENGINEER

YOLO COUNTY
DEPARTMENT OF COMMUNITY SERVICES
DIVISION OF INTEGRATED WASTE MANAGEMENT
44090 County Road 28th, Woodland, CA 95776-9101
DIRECTOR



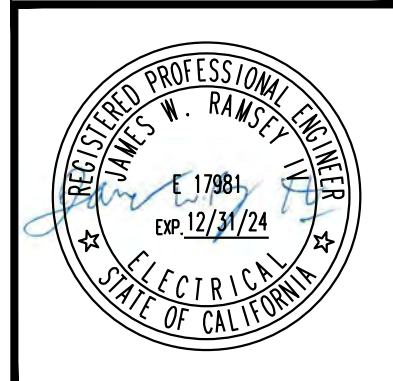
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LEGEND

- WASTE MANAGEMENT UNIT LIMIT
- PROPOSED GROUNDWATER DISCHARGE LINE
- - - - - PROPOSED UNDERGROUND GROUNDWATER DISCHARGE LINE
- PROPOSED UNDERGROUND CONDUIT LINE

- REFERENCE(S)**
1. BASE TOPOGRAPHY BY R.E.Y. ENGINEERS, INC., DATED JUL. 1, 2021, NAD 1983, ZONE II, US FOOT. ELEVATIONS ARE BASED ON NAVD 88.
 2. THE BEARINGS SHOWN HEREON ARE IN TERMS OF THE NORTH AMERICAN DATUM OF 1983 (NAD83), EPOCH 1999.50 PER THE YOLO COUNTY SUBSIDENCE NETWORK, BASED LOCALLY UPON GPS OBSERVATIONS TO STATIONS "COY-1" AND "UCD1". THE COORDINATES WERE SCALED BY AN AVERAGE COMBINATION FACTOR OF 1.00004588 TO OBTAIN GROUND COORDINATES AND DISTANCES. COORDINATES ARE EXPRESSED IN U.S. SURVEY FEET.
 3. THE ELEVATIONS SHOWN HEREON ARE IN TERMS OF THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88) PER THE YOLO COUNTY SUBSIDENCE NETWORK, EPOCH 1999.50, BASED LOCALLY UPON GPS OBSERVATIONS TO STATION "COY-1", ELEVATION=28.08'.



YOLO COUNTY
 DEPARTMENT OF COMMUNITY SERVICES
 DIVISION OF INTEGRATED WASTE MANAGEMENT
 44090 County Road 28th, Woodland, CA 95776-9101
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DESIGN BY: JDR 2023-10-17
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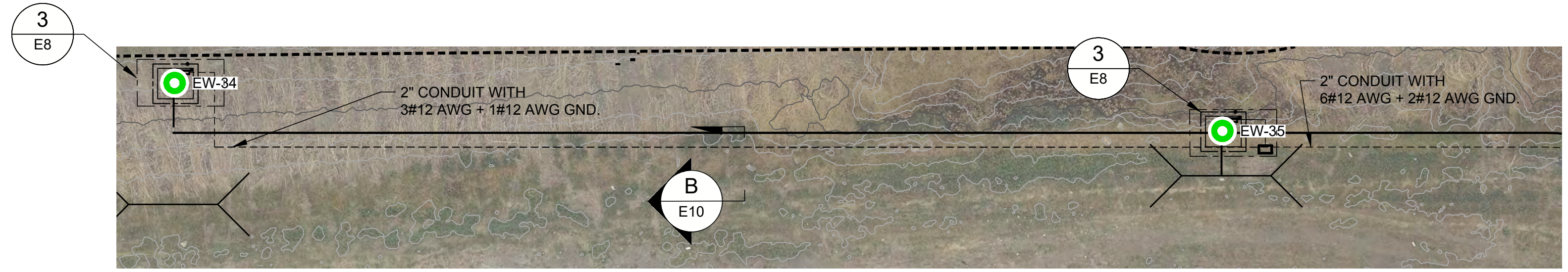
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 PRINCIPAL ENGINEER

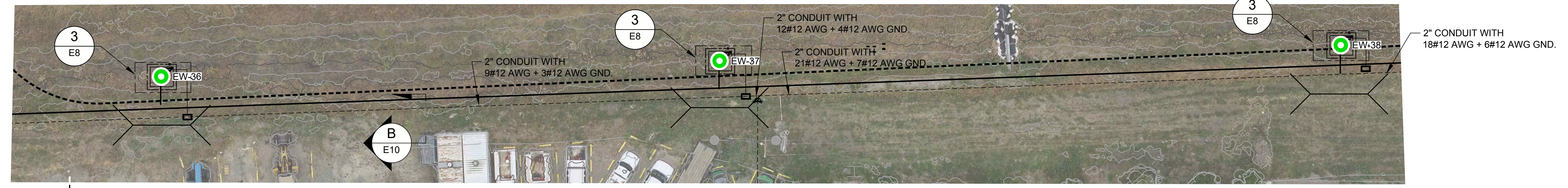
YOLO COUNTY CENTRAL LANDFILL
 2023 GROUNDWATER EXTRACTION WELL EXPANSION
 ELECTRICAL OVERALL PLAN

SHEET NUMBER
E05

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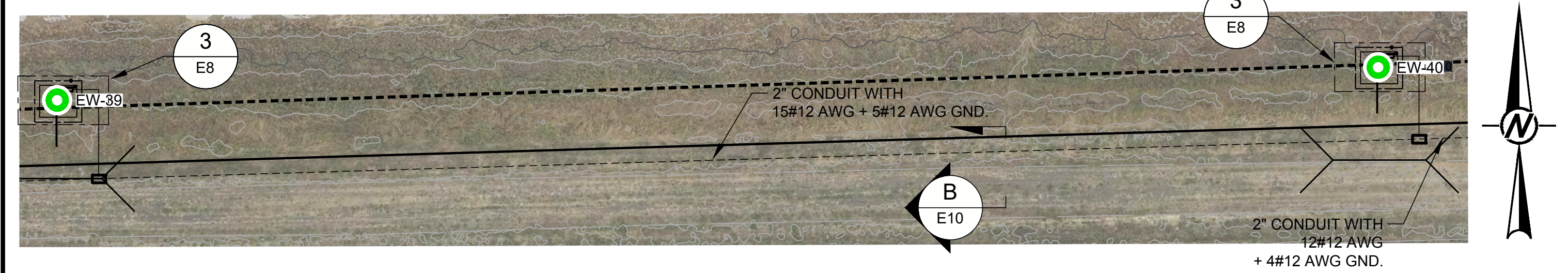
1"=20' 1 GROUNDWATER EXTRACTION WELL (EW34 & E35) & CONDUIT PATH PLAN VIEW



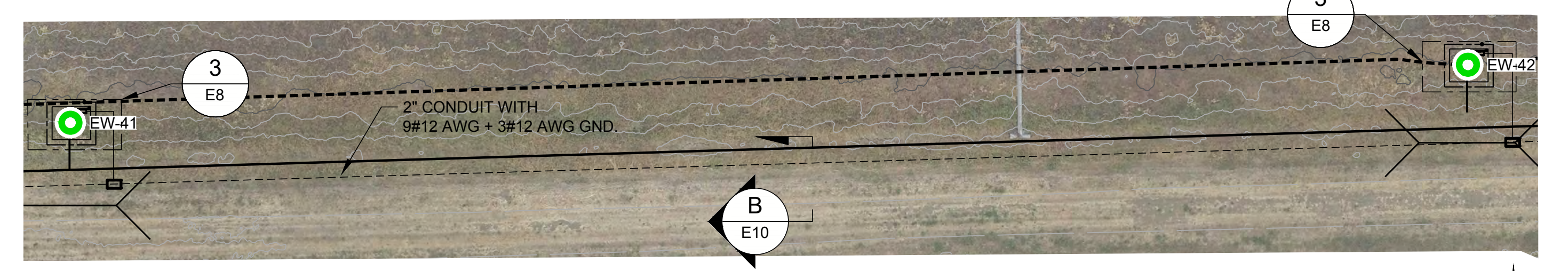
1"=20' 2 GROUNDWATER EXTRACTION WELL (EW-36,E-37 & E-38) & CONDUIT PATH PLAN VIEW



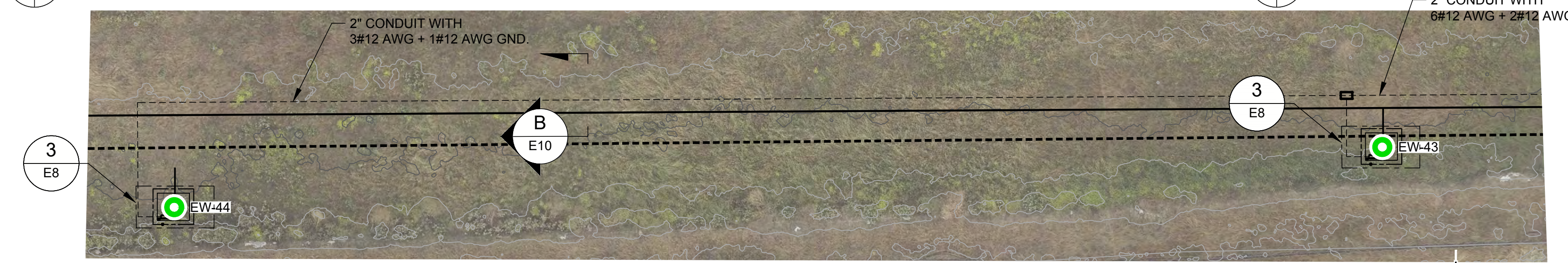
1"=2" 3 CONDUIT PATH DISTRIBUTION PANEL TO WELL DISTRIBUTION PANEL PLAN VIEW



1"=20' 4 GROUNDWATER EXTRACTION WELL & CONDUIT PATH PLAN VIEW



1"=20' 5 GROUNDWATER EXTRACTION WELL & CONDUIT PATH PLAN VIEW



1"=20' 6 GROUNDWATER EXTRACTION WELL & CONDUIT PATH PLAN VIEW

NOTES:
 1. FINAL ROUTING OF CONDUIT TO BE FIELD VERIFIED.
 2. EQUIPMENT LAYOUT IS GENERALLY DIAGRAMMATIC, THE SIZE AND LOCATIONS OF DEVICES SHOWN ON THESE DRAWINGS SHALL BE VERIFIED. ROUTING OF WIRING SHALL BE GOVERNED BY ACTUAL WAER LINE AND ASSURE AT LEAST A 6" SEPARATION FROM NEW CONDUIT TO EXISTING 2" PVC WATER LINE.

LEGEND
 ——— PROPOSED GROUNDWATER DISCHARGE LINE
 - - - - - PROPOSED UNDERGROUND GROUNDWATER DISCHARGE LINE
 - - - - - PROPOSED UNDERGROUND CONDUIT LINE

REVISIONS	DATE	BY	APP
ISSUED FOR CONSTRUCTION BIDDING	2023-10-17	JDR	JDR
	2023-10-17	JGD	JGD

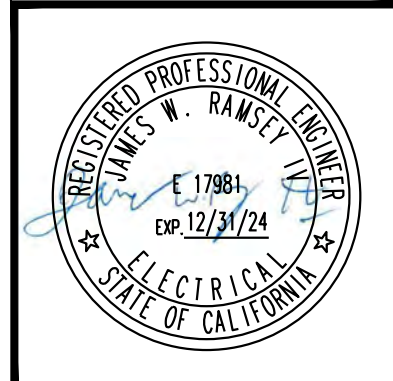
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YOLO COUNTY
 DEPARTMENT OF COMMUNITY SERVICES
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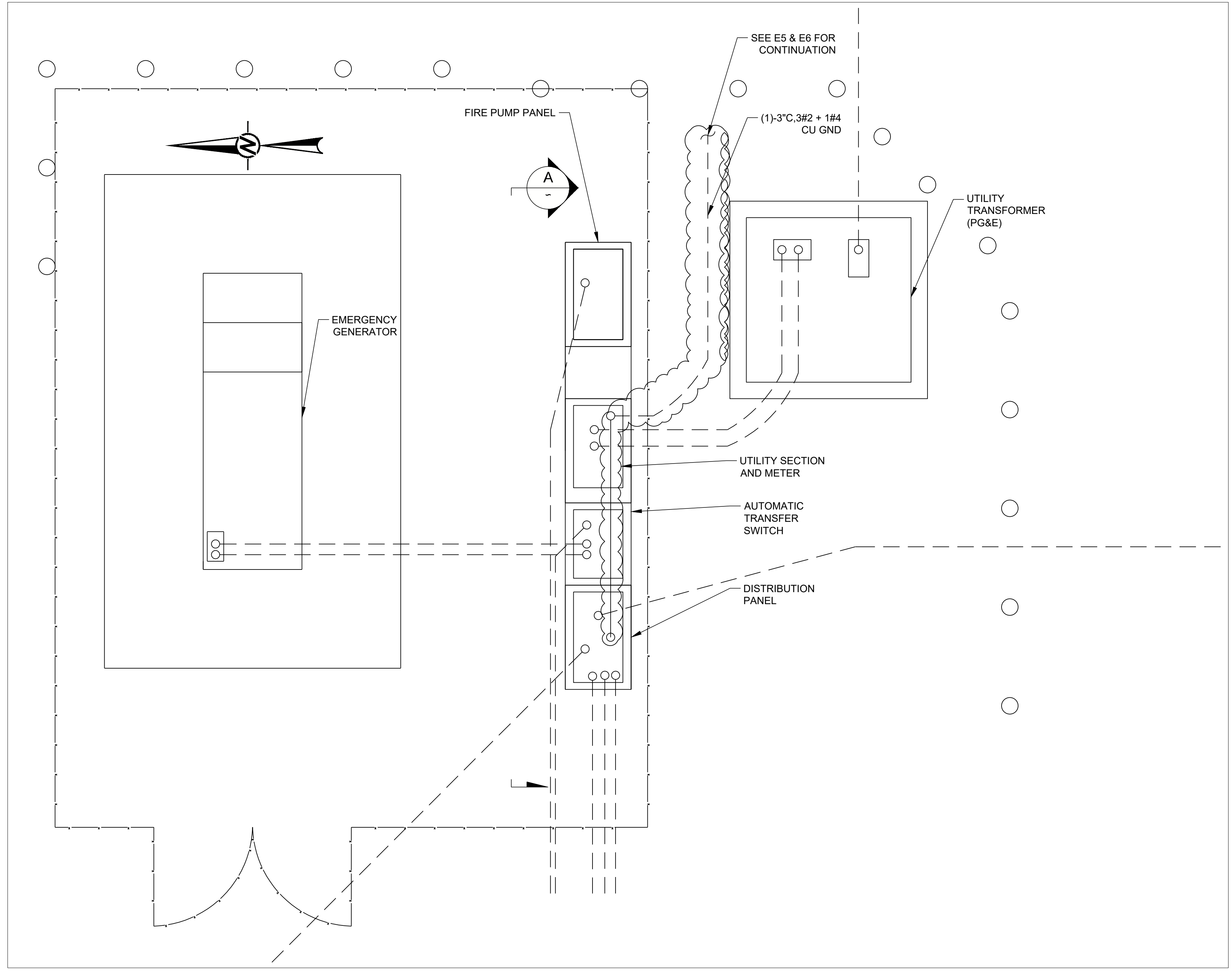
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 PRINCIPAL ENGINEER

YOLO COUNTY CENTRAL LANDFILL
 2023 GROUNDWATER EXTRACTION WELL EXPANSION
 ELECTRICAL PLAN

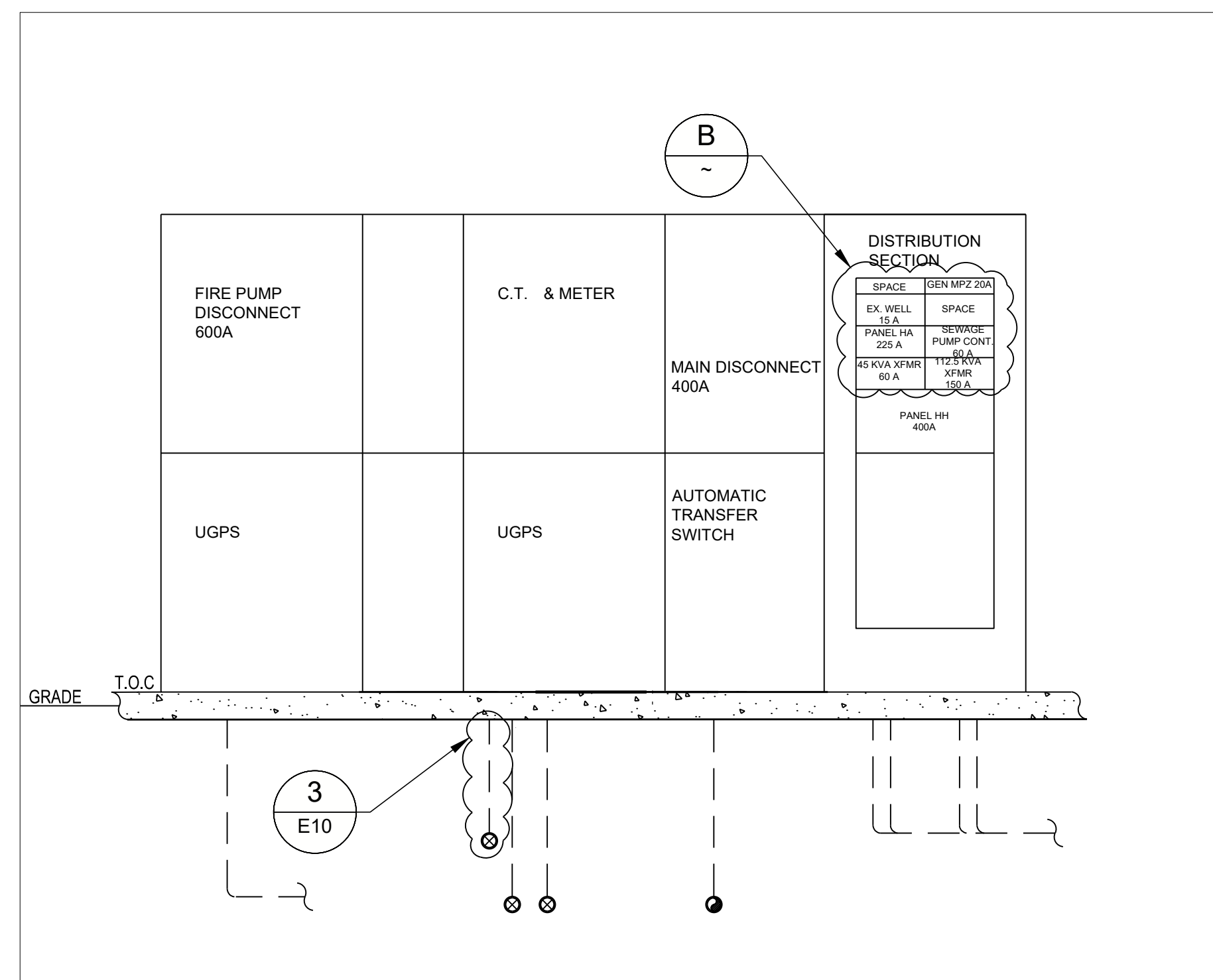
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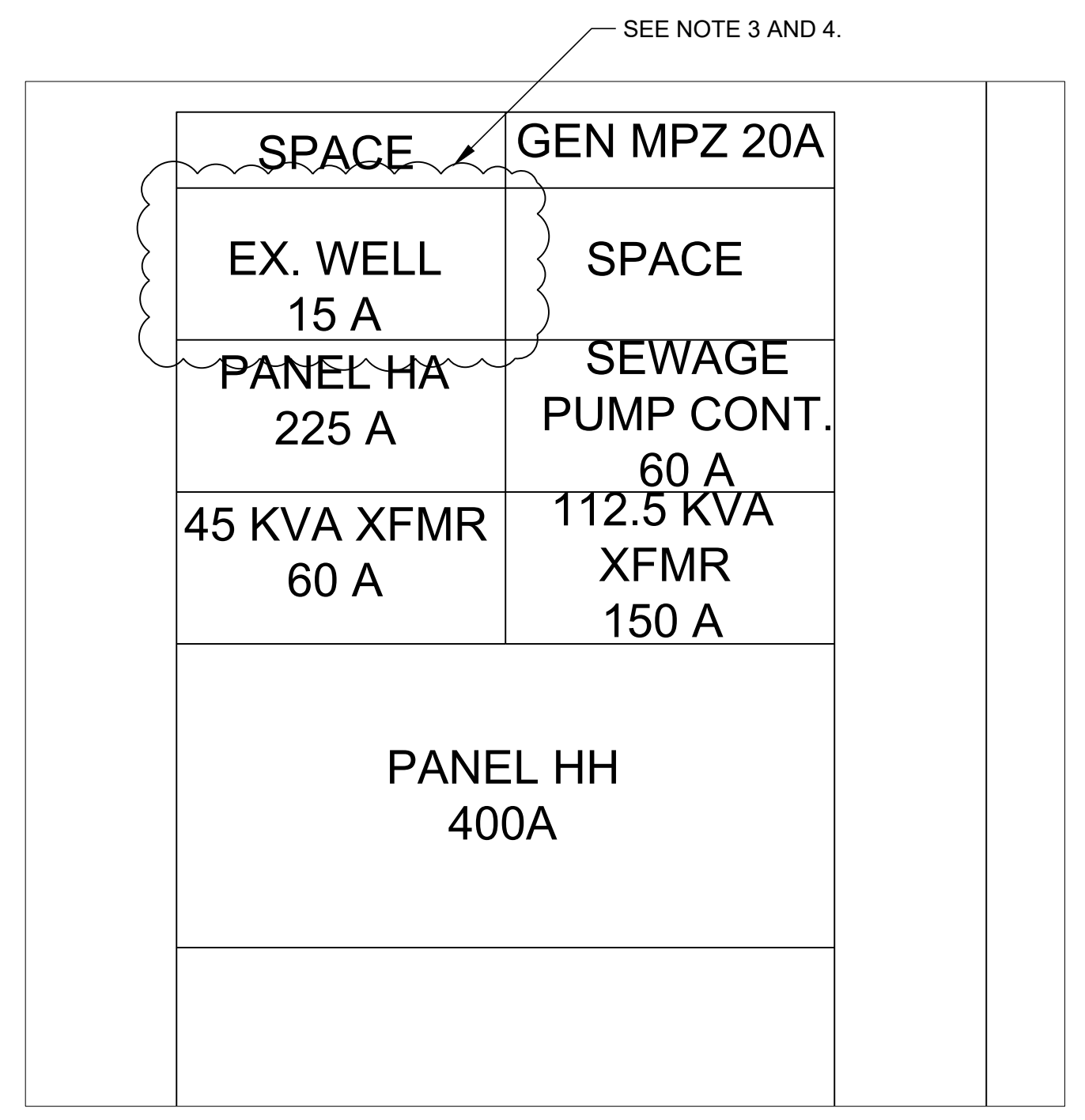
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1"=1' 1 GENERATOR, UTILITY TRANSFORMER & DISTRIBUTION DETAIL
E5 E7



1"=1' A DISTRIBUTION SWITCHBOARD



1"=1' B PANEL BOARD LAYOUT

- NOTES:
1. FINAL ROUTING OF CONDUIT TO BE FIELD VERIFIED.
 2. EQUIPMENT LAYOUT IS GENERALLY DIAGRAMMATIC. THE SIZE AND LOCATIONS OF DEVICES SHOWN ON THESE DRAWINGS SHALL BE VERIFIED. ROUTING OF WIRING SHALL BE GOVERNED BY ACTUAL CONDITIONS.
 3. ELECTRICAL CONTRACTOR TO PROVIDE AND INSTALL NEW 15 A THREE POLE BREAKER MAKE EATON TYPE HFD.
 4. ELECTRICAL CONTRACTOR SHALL ARRANGE WITH SITE TO LOCK OUT THE INCOMING ELECTRICAL SERVICE DURING NEW BREAKER INSTALLATION.
 5. ROUTE NEW 4 -#8 AWG CONDUCTORS FOR WELL SYSTEM FROM DISTRIBUTION PANEL SECTION TO UTILITY SECTION.
 6. CONNECT GROUND CABLE TO EXISTING GROUND GRID. A COMMON GROUNDING SYSTEM IS REQUIRED. UTILIZE [E]GROUND RODS, REPLACE ANY GROUND CABLE OR GROUND CONNECTORS THAT ARE LOOSE OR WORN, AS REQUIRED. TEST GROUND RESISTANCE. THE SYSTEM SHALL NOT EXCEED 25 OHMS.

REVISIONS

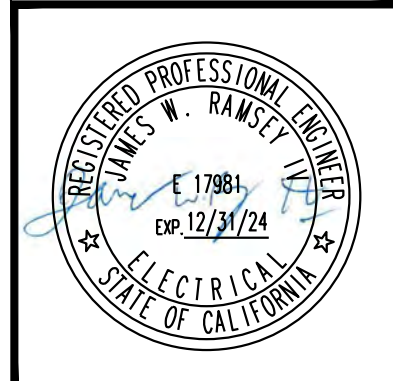
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0	2023-10-17	JDR	ISSUED FOR CONSTRUCTION BIDDING
1	2023-10-17	JDR	
2	2023-10-17	JGD	

SCALE: SHOWN

YOLO COUNTY
DEPARTMENT OF COMMUNITY SERVICES
DIVISION OF INTEGRATED WASTE MANAGEMENT
44090 County Road 28th, Woodland, CA 95776-9101
DIRECTOR

APPROVED: _____
PRINCIPAL ENGINEER

YOLO COUNTY CENTRAL LANDFILL
2023 GROUNDWATER EXTRACTION WELL EXPANSION
ELECTRICAL - GENERATOR, UTILITY & DISTRIBUTION PLAN



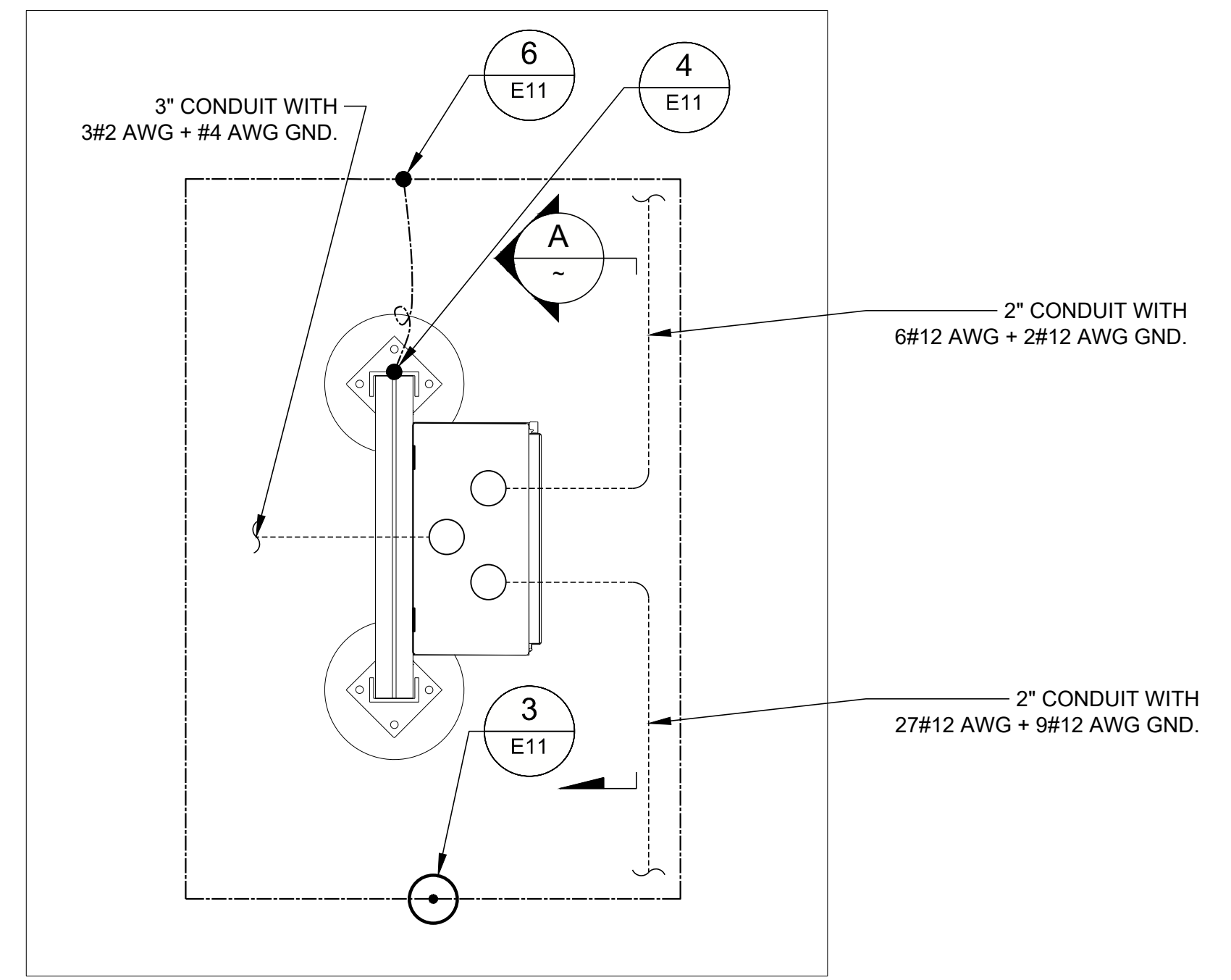
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APP	REVISIONS	DESIGN BY	JDR	2023-10-17	0	2023-10-17	ISSUED FOR CONSTRUCTION BIDDING
		DRAWN BY	JDR	2023-10-17			
		CHECK BY	JGD	2023-10-17			
							SCALE: SHOWN
							APPROVED
							APPROVED

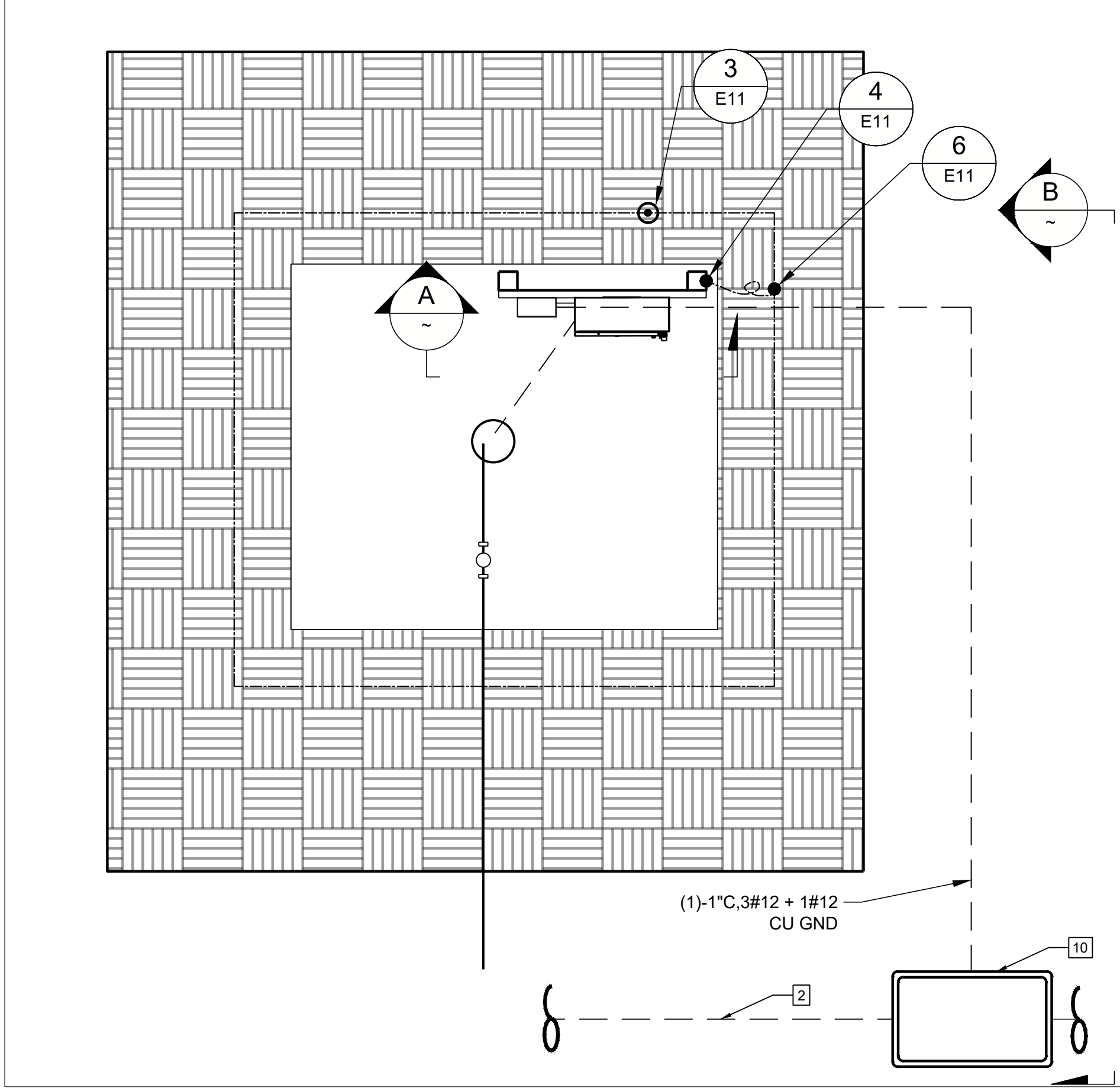
YOLO COUNTY
 DEPARTMENT OF COMMUNITY SERVICES
 DIVISION OF INTEGRATED WASTE MANAGEMENT
 44090 County Road 28th, Woodland, CA 95776-9101
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YOLO COUNTY CENTRAL LANDFILL
 2023 GROUNDWATER EXTRACTION WELL EXPANSION
 ELECTRICAL SECTIONS & DETAILS
 (1 OF 2)

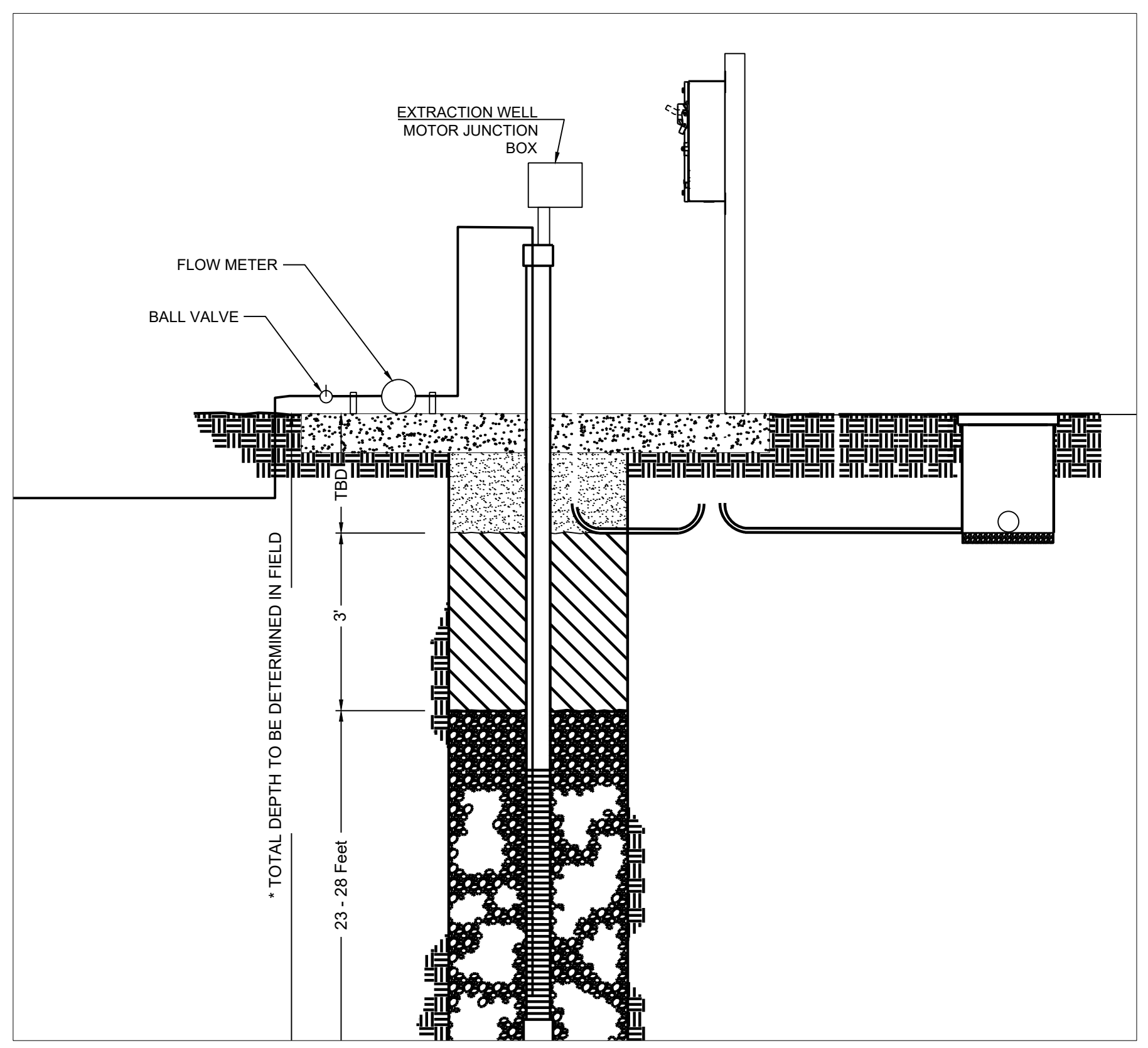
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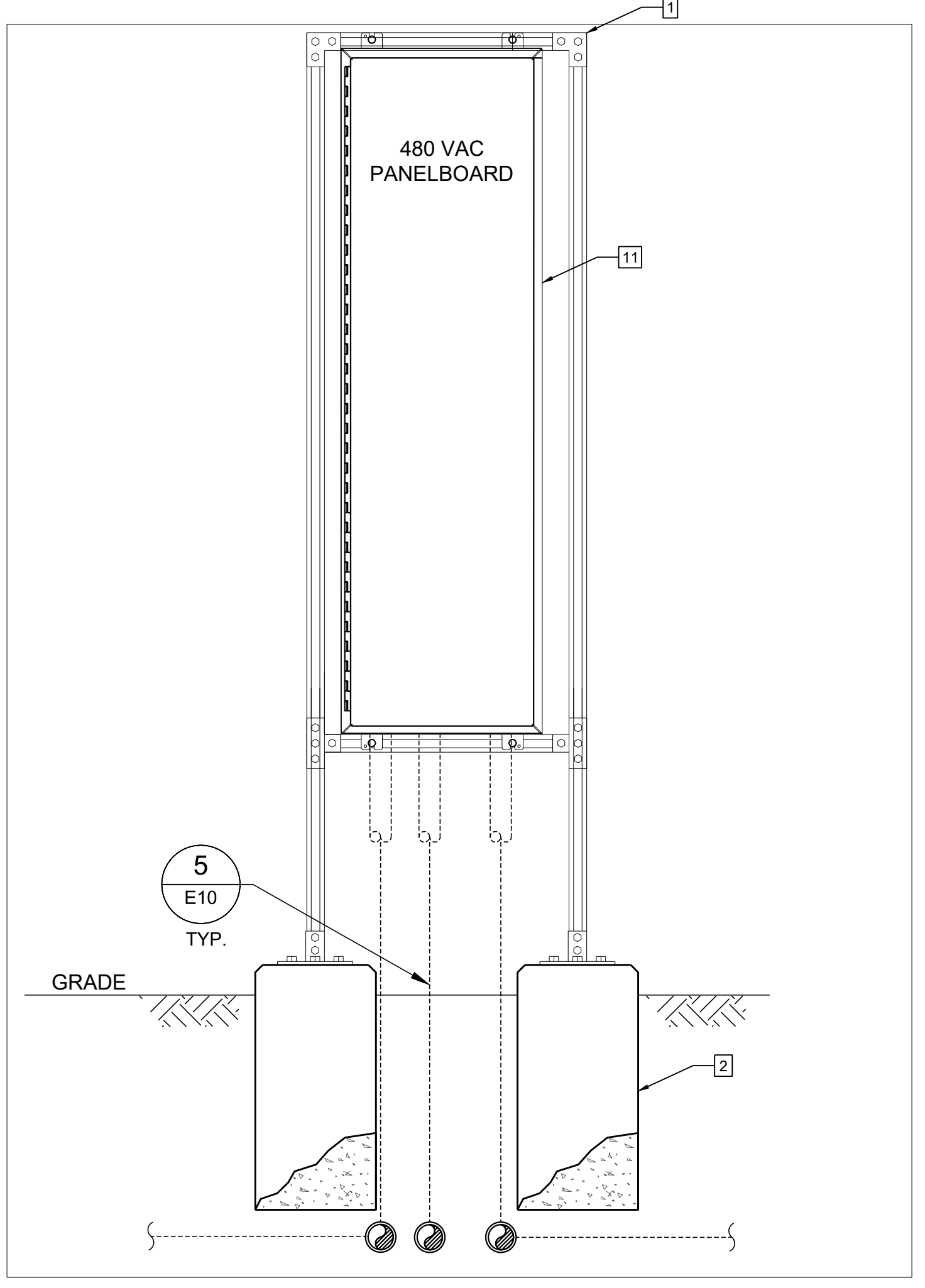
1"=1' 2 EXTRAC. WELL DISTRIBUTION PANEL - PLAN VIEW
 E6 E8



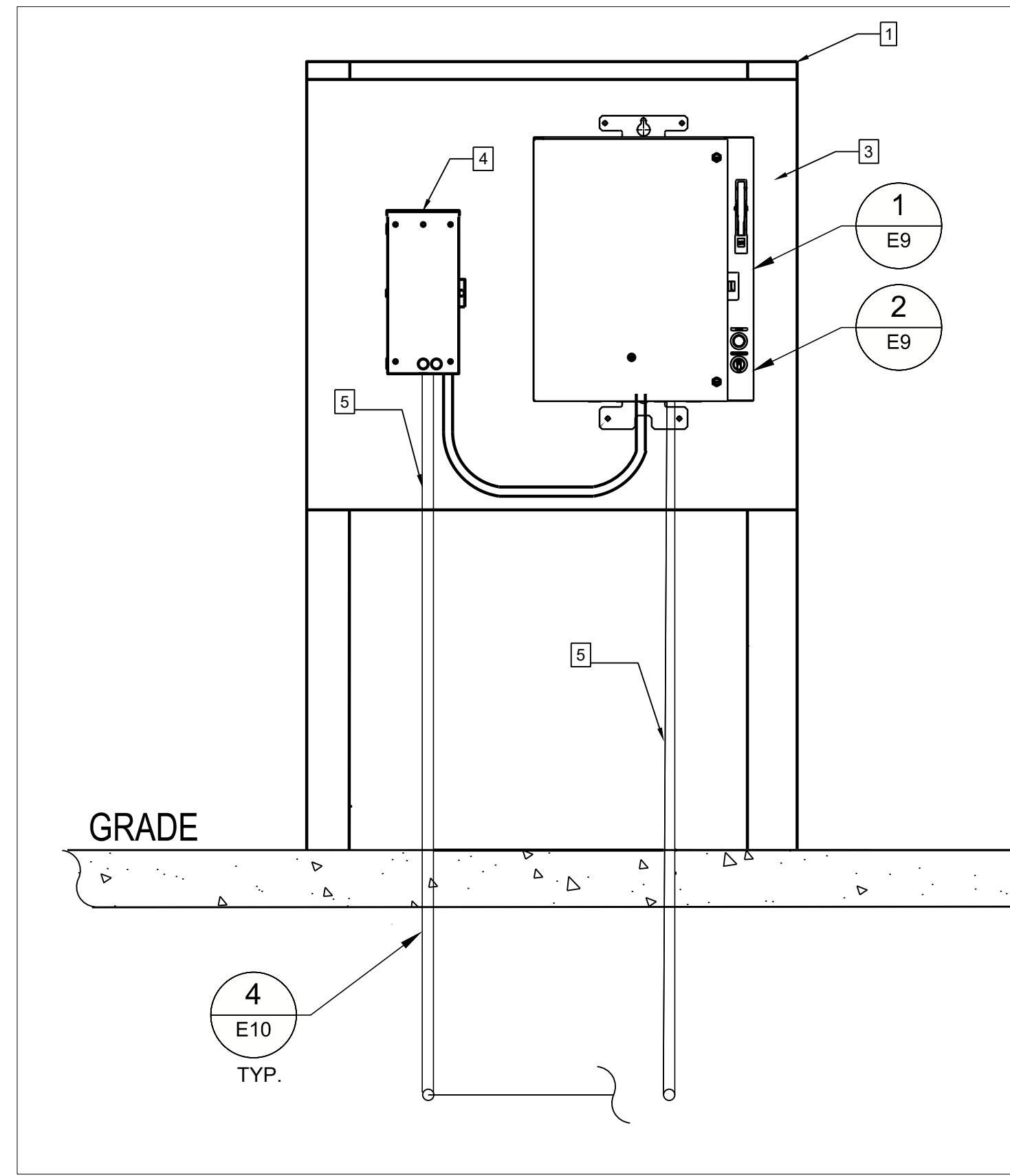
1"=2' 3 GROUNDWATER MONITORING WELL - ELECTRICAL (SEE NOTE 1.)
 E6 E8



NTS B DEEP GROUNDWATER MONITORING WELL - SECTION
 E8



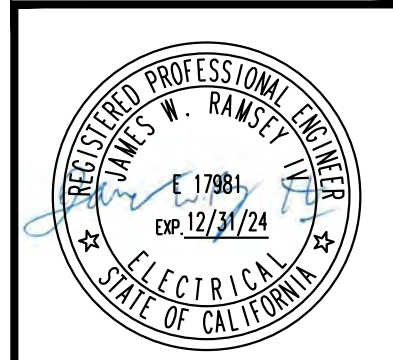
1"=1' A EXTRAC. WELLS DISTRIBUTION PANEL - ELEVATION



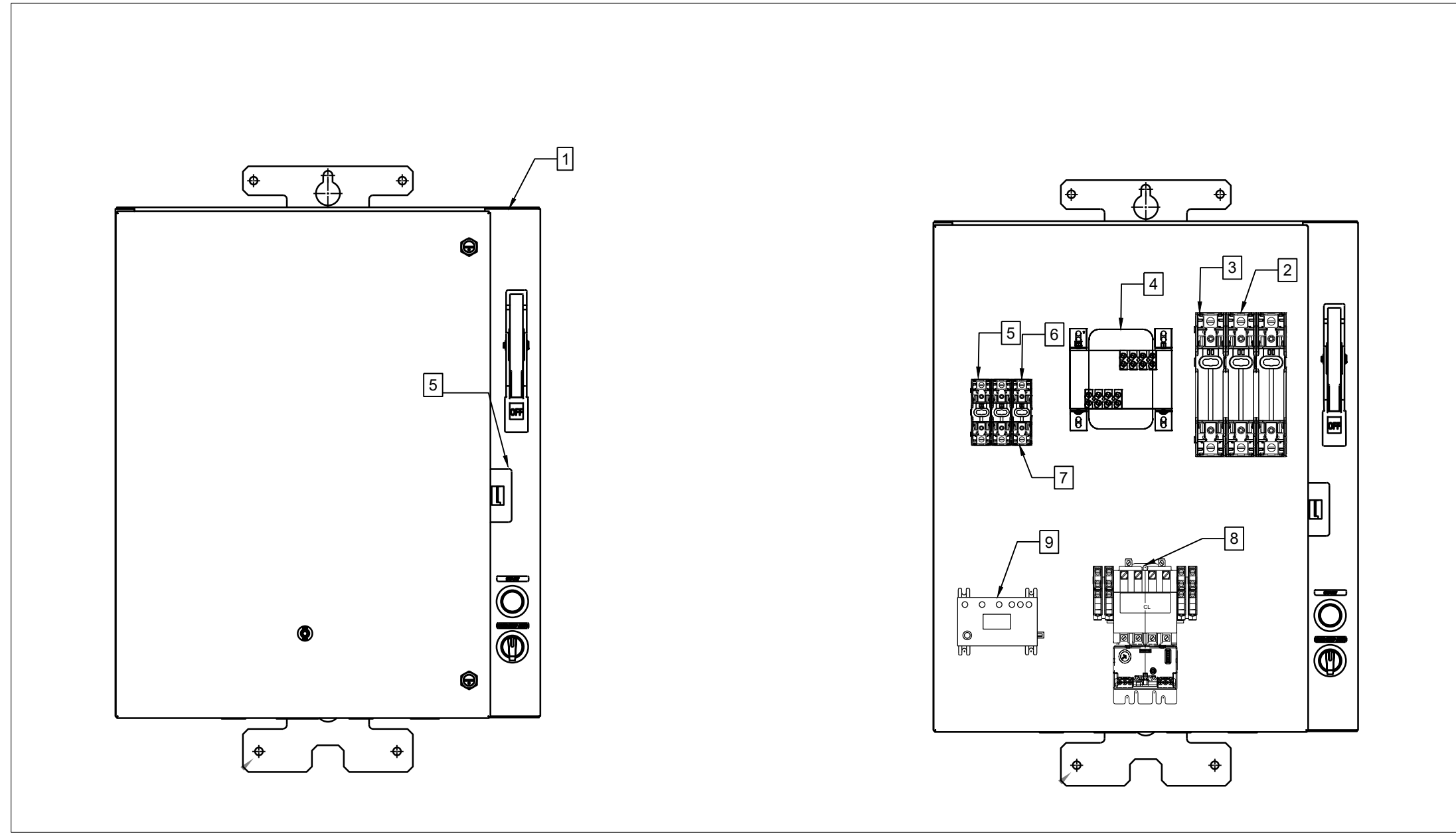
1"=1' A DEEP GROUNDWATER MONITORING WELL
 E8

- NOTES:**
- SEE PLAN DRAWINGS E5 & E6 FOR SPECIFIC EXTRACTION WELL CONDUIT AND PULL BOX ORIENTATIONS.
 - FINAL ROUTING OF CONDUIT AND ANY INTERFERENCES TO BE FIELD VERIFIED.
 - EQUIPMENT LAYOUT IS GENERALLY DIAGRAMMATIC. THE SIZE AND LOCATIONS OF DEVICES SHOWN ON THESE DRAWINGS SHALL BE VERIFIED. ROUTING OF WIRING SHALL BE GOVERNED BY ACTUAL CONDITIONS.
 - TYPICAL WELL PUMP EQUIPMENT MOUNTING PLATFORM LAYOUT. FIELD COORDINATE PLATFORM ORIENTATION WITH EACH WELL PUMP LOCATION.
- KEY NOTES**
- MOUNTING FRAME WELDED C4 x 5.4 CHANNEL WITH UNISTRUT WELDED TO FRAME AS REQUIRED TO SUPPORT EQUIPMENT.
 - CONCRETE SONOTUBE, 24" DEEP x 12" DIAMETER.
 - PUMP CONTROL PANEL.
 - 30A DISCONNECT SWITCH.
 - 1" SCHEDULE 40 PVC CONDUIT.
 - 2" SCHEDULE 40 PVC CONDUIT
 - MAGNETIC FLOW METER.
 - #2 BARE COPPER GROUND CADWELD TO WELL HEAD.
 - WELL MOTOR CONDUCTORS.
 - 24" X 18" PULL BOX.
 - 42 CIRCUIT 100 A, 480 VAC RATED DISTRIBUTION BOARD.

- LEGEND**
- NEW CONDUIT UNDERGROUND
 - NEW CONDUIT ABOVE GROUND
 - PRIMARY U/G GROUND CABLE, #2/0 STRANDED BARE COPPER 18" BELOW GRADE.
 - BRANCH GROUND CABLE TAP, #2 STRANDED BARE COPPER
 - GROUND CONNECTION OR BOND
 - ⊙ GROUND ROD - 3/4" x 8' COPPER-CLAD

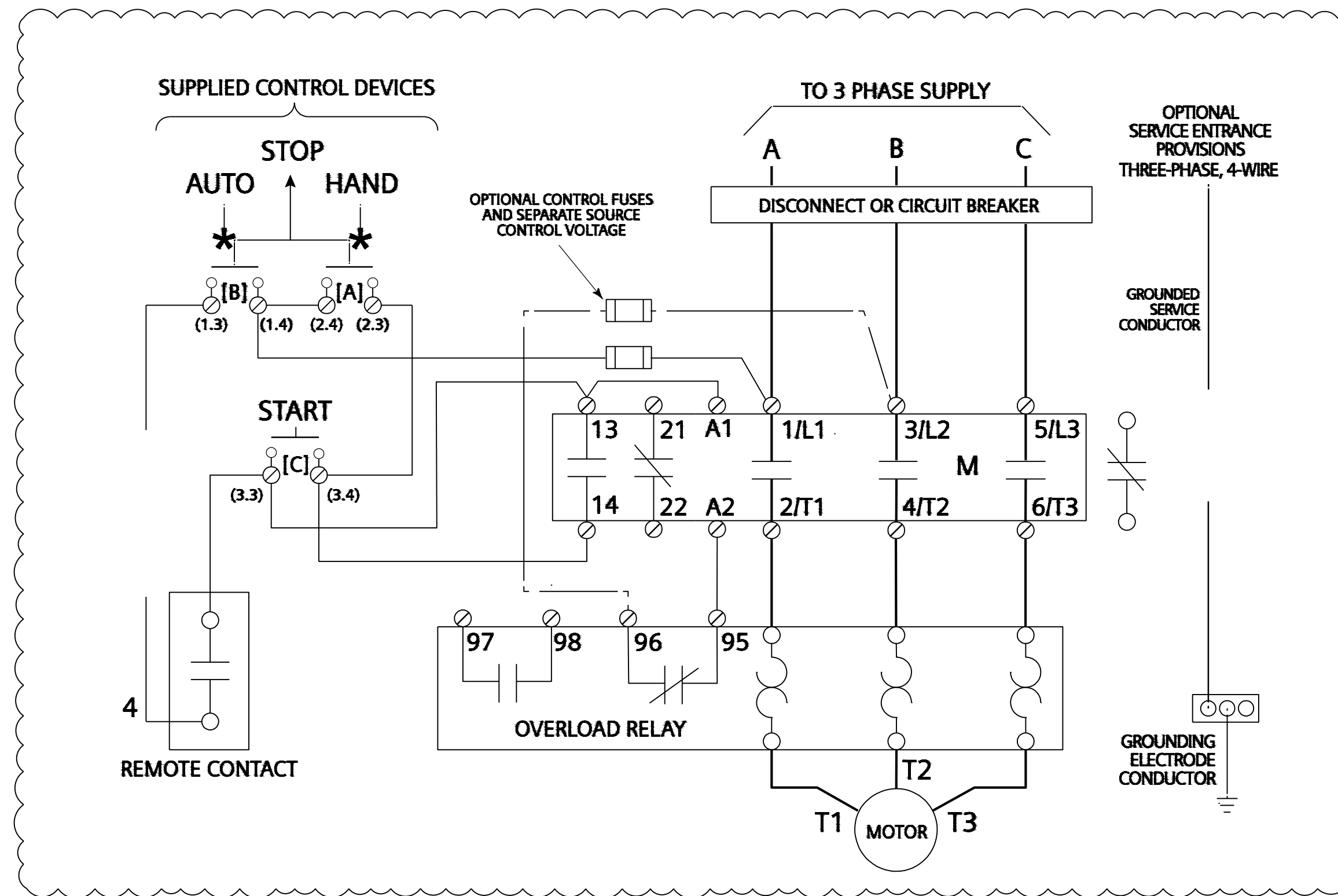


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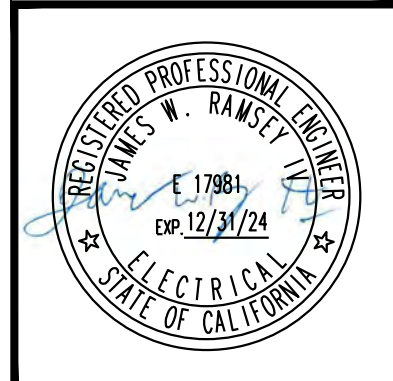
BILL OF MATERIALS		
ITEM	QTY	DESCRIPTION
1	1	PUMP CONTROL PANEL, SIZE 1, 3 PH, SOLID STATE RELY, 600 VAC & 30 A RATED NEMA 3R H.O.A. NEMA 3R, 29" H X 20" W X 8" D, MAKE: SIEMENS, MODEL: 87DUB6FC
2	1	3 POLE FUSE HOLDER, 30A, 600 V RATED CLASS RK5, MAKE: EATON, MODEL: HM60030-3CR
3	3	10 A ISDR FUSE, 600 VAC RATED, MAKE: LITTLEFUSE, MODEL: IDSR010
4	1	CONTROL TRANSFORMER, 480 VAC-120 VAC, 1PH 500 VA, MAKE: EMERSON, MODEL: E500
5	1	3 POLE FUSE HOLDER, 30A, 600 V RATED CLASS CC, MAKE: LITTLEFUSE, MODEL: L60030M3C
6	2	5A FLM FUSE, 250 VAC RATED, MAKE: LITTLEFUSE, MODEL: FLM005
7	1	2A FLM FUSE, 250 VAC RATED, MAKE: LITTLEFUSE, MODEL: FLM002
8	1	NEMA MAGNETIC MOTAR START, 3PH 480 VAC, 10 HP RATED, MAKE: SIEMENS, MODEL: 14DU+32A
9	1	THREE PHASE MOTOR AND PUMP PROTECTION RELAY, 480 VAC RATED MAKE: LITTLEFUSE, MODEL: 777-ACCUPOWER

NTS 1 CONTROL PANEL DETAIL & BILL OF MATERIALS



NTS 2 CONTROL PANEL WIRING SCHEMATIC (SEE NOTE: 1)

NOTES:
1. HOLD - FINAL WIRING SCHEMATIC TO BE VERIFIED BY VENDOR.



YOLO COUNTY
DEPARTMENT OF COMMUNITY SERVICES
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44090 County Road 28th, Woodland, CA 95776-9101
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2023 GROUNDWATER EXTRACTION WELL EXPANSION
ELECTRICAL SECTIONS & DETAILS
(2 OF 2)

DESIGN BY: JDR 2023-10-17
DRAWN BY: JDR 2023-10-17
CHECK BY: JGD 2023-10-17

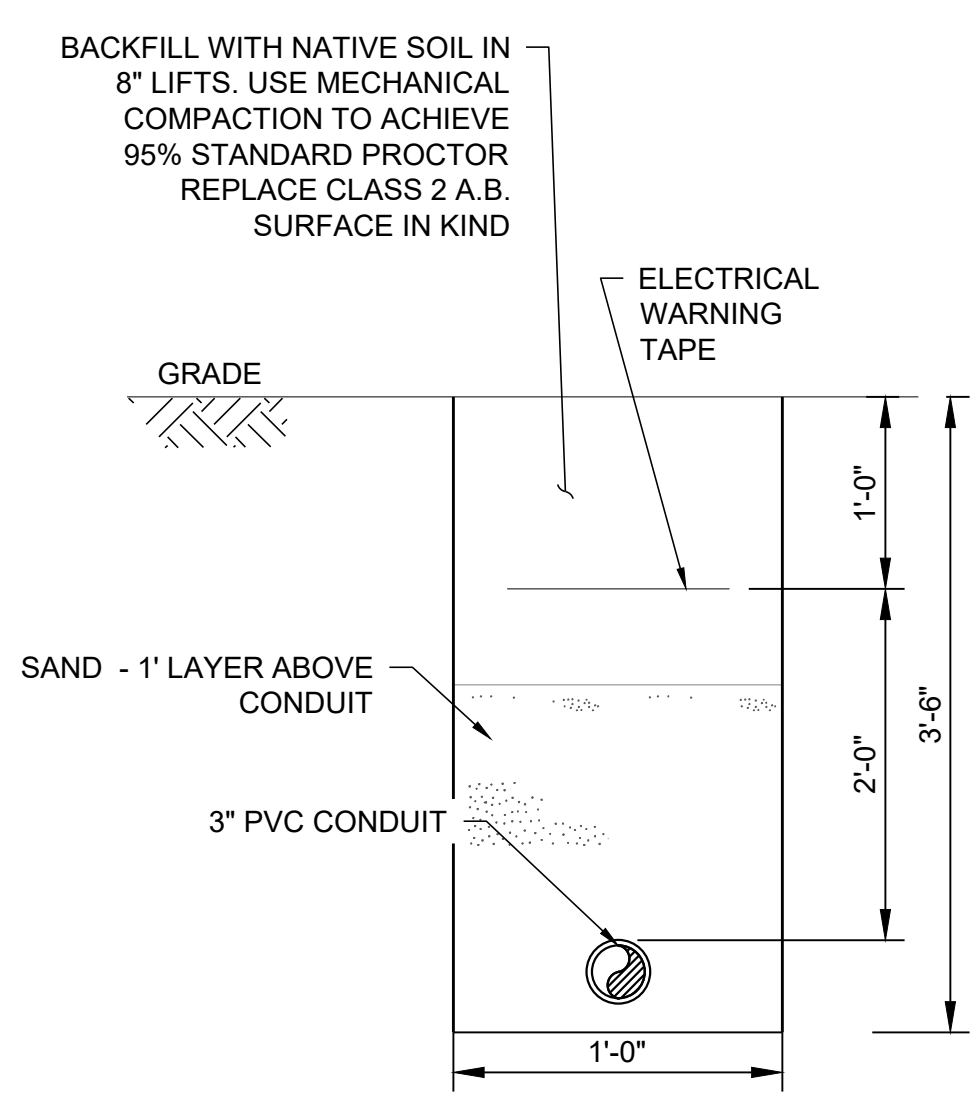
REVISIONS
0 2023-10-17 ISSUED FOR CONSTRUCTION BIDDING

SCALE: SHOWN

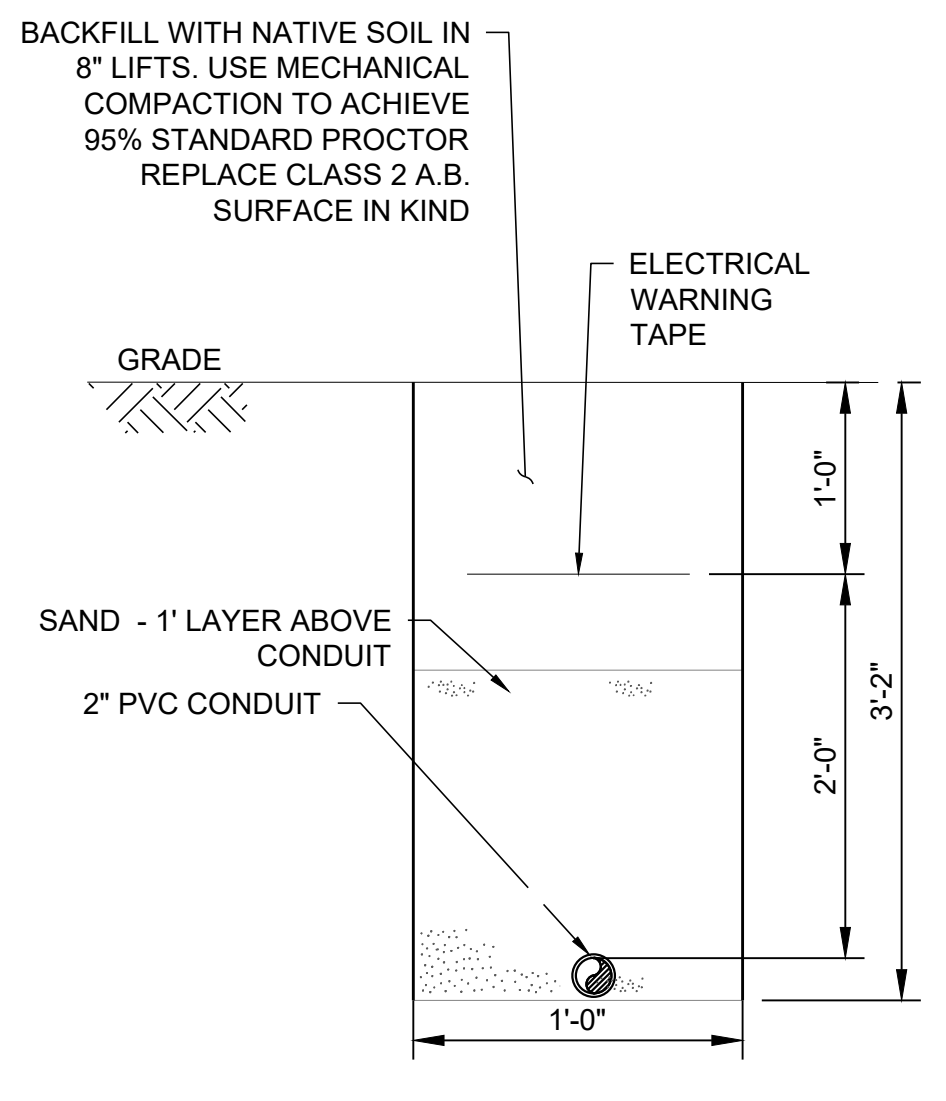
PRINCIPAL ENGINEER

SHEET NUMBER: E09

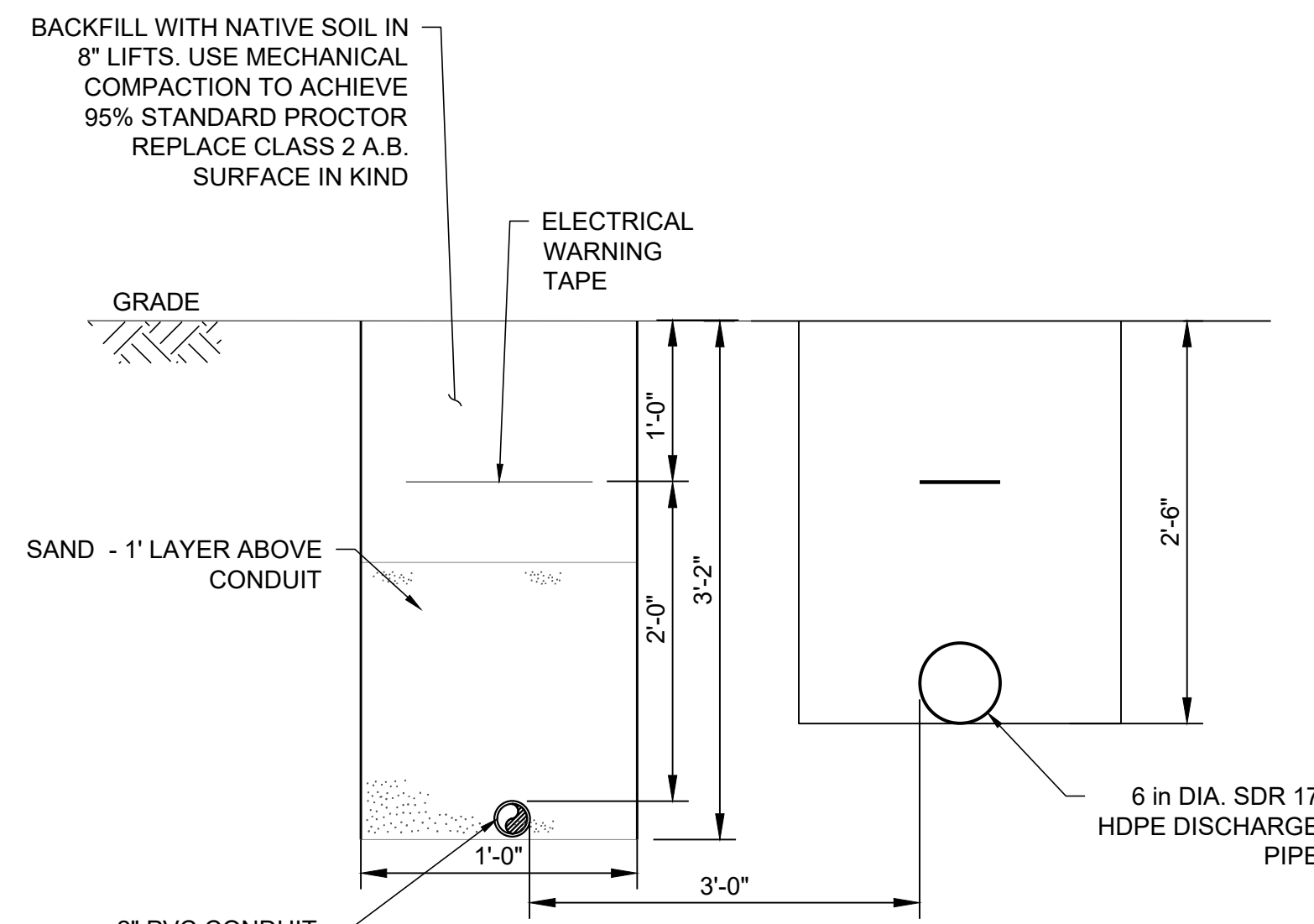
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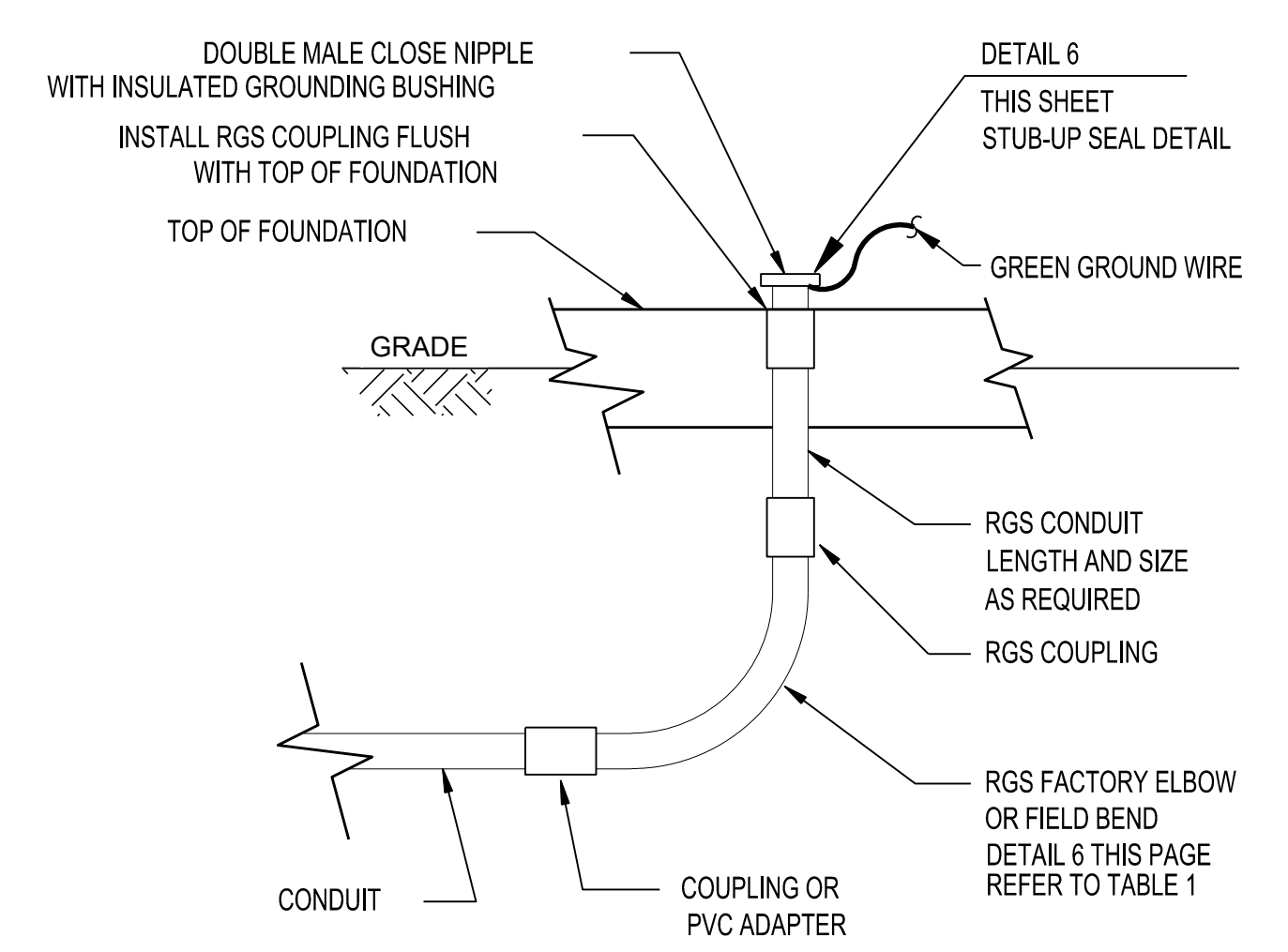
SCALE: NTS SECTION - CABLE TRENCH



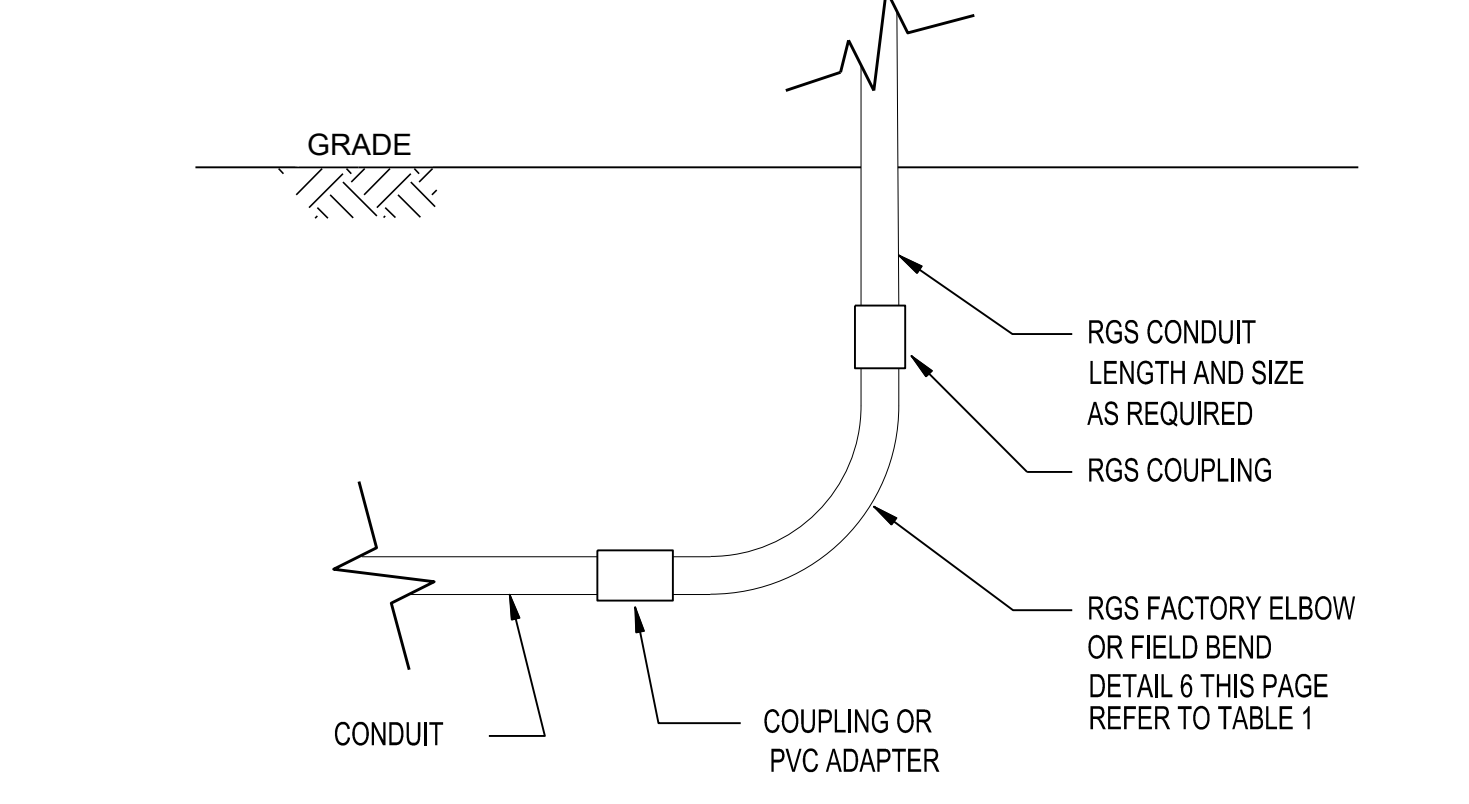
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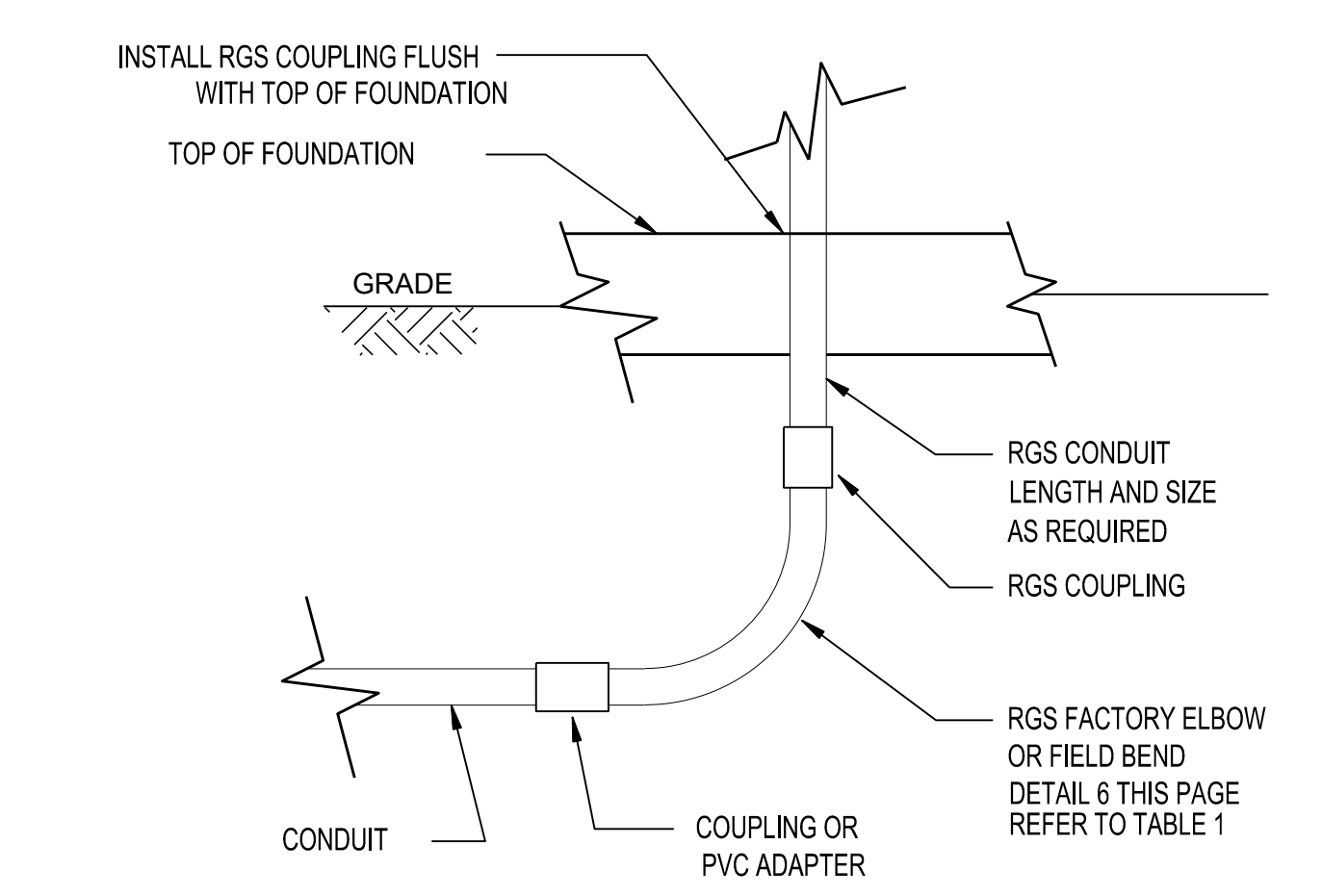
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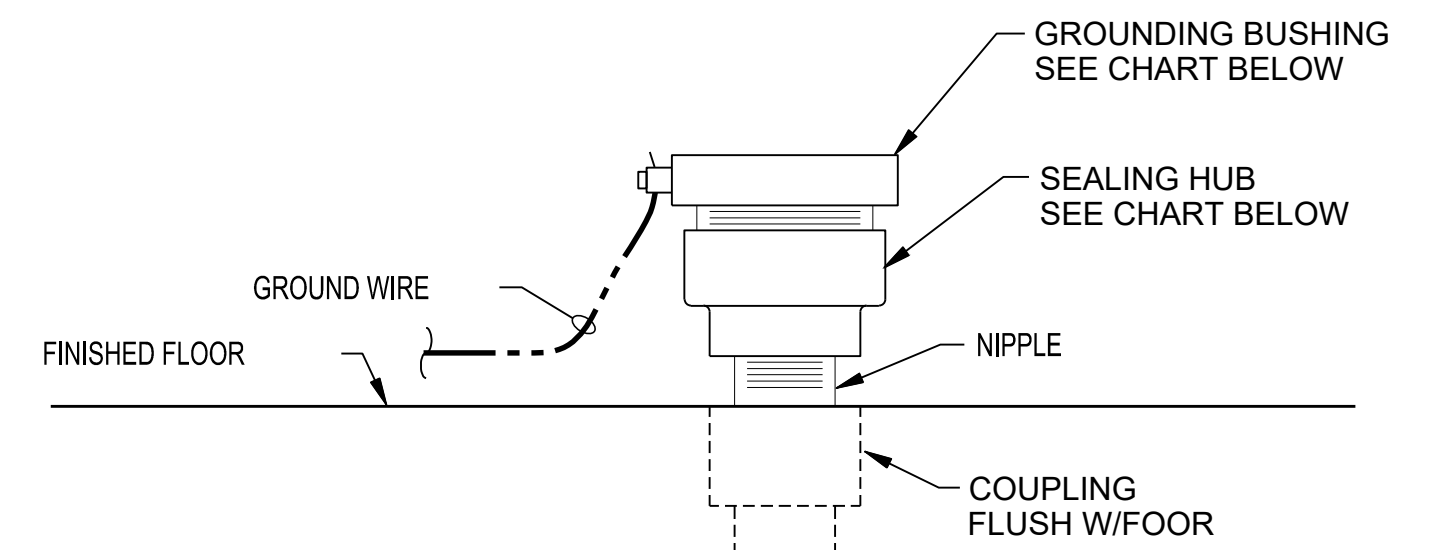
SCALE: NTS 3 DETAIL - CONDUIT STUB-UP - INSIDE LOCATION



SCALE: NTS 5 DETAIL - CONDUIT STUB-UP - OUTSIDE LOCATION



SCALE: NTS 4 DETAIL - CONDUIT STUB-UP - OUTSIDE LOCATION CONCRETE PAD STUB-UP



SEALING HUB SIZE CHART

BOM NO.	CROUSE-HINDS #	FEMALE HUB SIZE
201	ES31	1/2"
202	ES32	3/4"
203	ES53	1"
204	ES65	1 1/2"
205	ES76	2"
206	ES108	3"
207	ES01210	4"
208	ES014012	5"

GND BUSHING SIZE CHART

BOM NO.	CROUSE-HINDS #	BUSHING SIZE
346	GLL-1	1/2"
347	GLL-2	3/4"
348	GLL-3	1"
358	GLL-4	1 1/4"
349	GLL-5	1 1/2"
351	GLL-6	2"
353	GLL-8	3"
356	GLL-10	4"
1284	GLL-11	5"
1285	GLL-12	6"

FOR CONDUITS STUBBING UP INSIDE A BUILDING/EQUIPMENT

CONDUIT SIZE	1"	1 1/2"	2"	3"	4"	5"	6"
MIN RADIUS	24"	24"	24"	36"	36"	48"	48"

TABLE 1

SCALE: NTS 6 DETAIL - STANDARD ELECTRICAL INSTALLATION CONDUIT STUB-UP SEAL DETAIL

NOTES:
1. INSTALLATION INSTRUCTIONS:

YOLO COUNTY
DEPARTMENT OF COMMUNITY SERVICES
DIVISION OF INTEGRATED WASTE MANAGEMENT
44090 County Road 28th, Woodland, CA 95776-9101
DIRECTOR

DESIGN BY: JDR
DRAWN BY: JDR
CHECK BY: JGD

REVISIONS
0 2023-10-17 ISSUED FOR CONSTRUCTION BIDDING
2023-10-17
2023-10-17

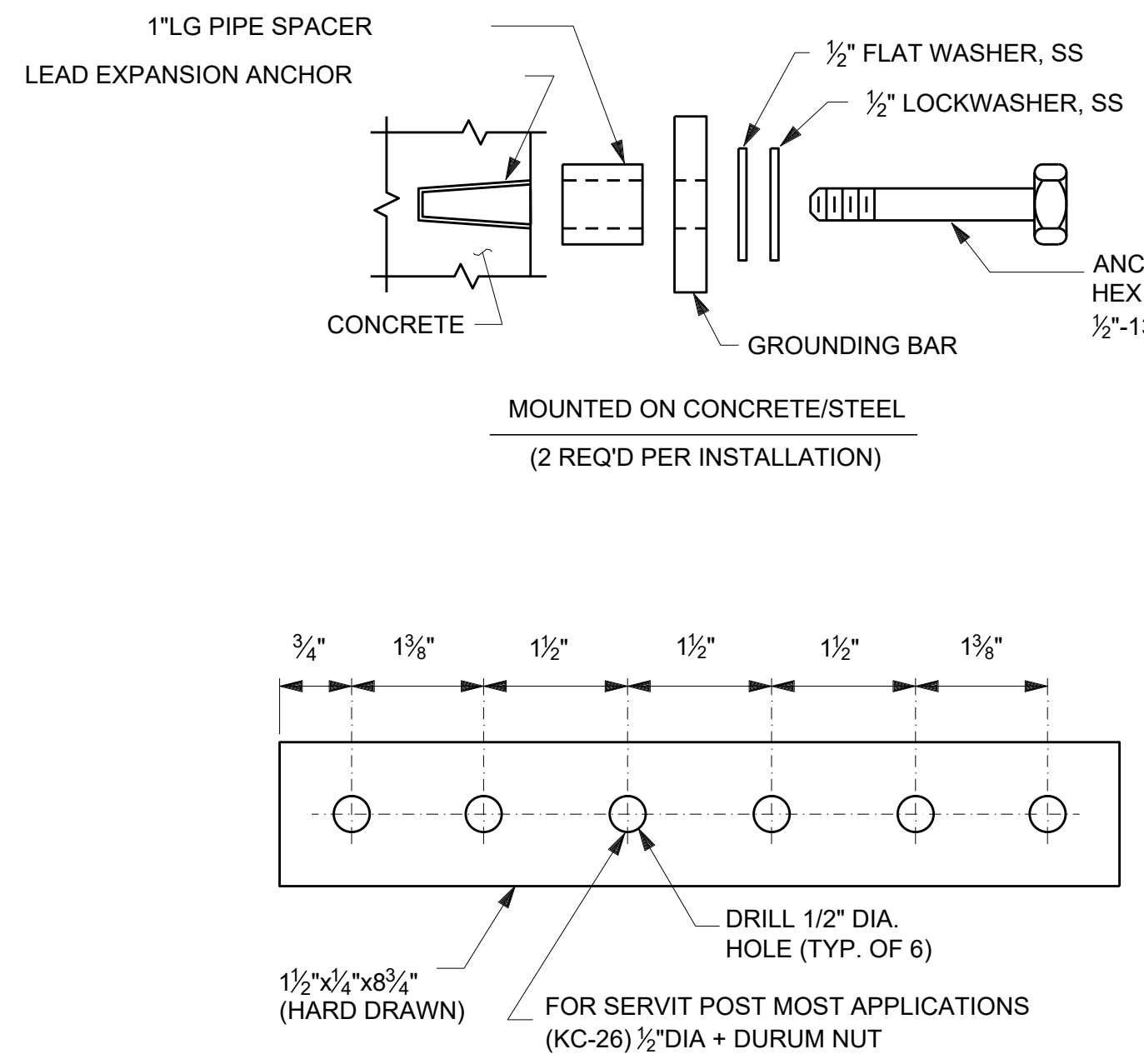
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YOLO COUNTY CENTRAL LANDFILL
2023 GROUNDWATER EXTRACTION WELL EXPANSION
ELECTRICAL TYPICAL DETAILS
(1 OF 2)

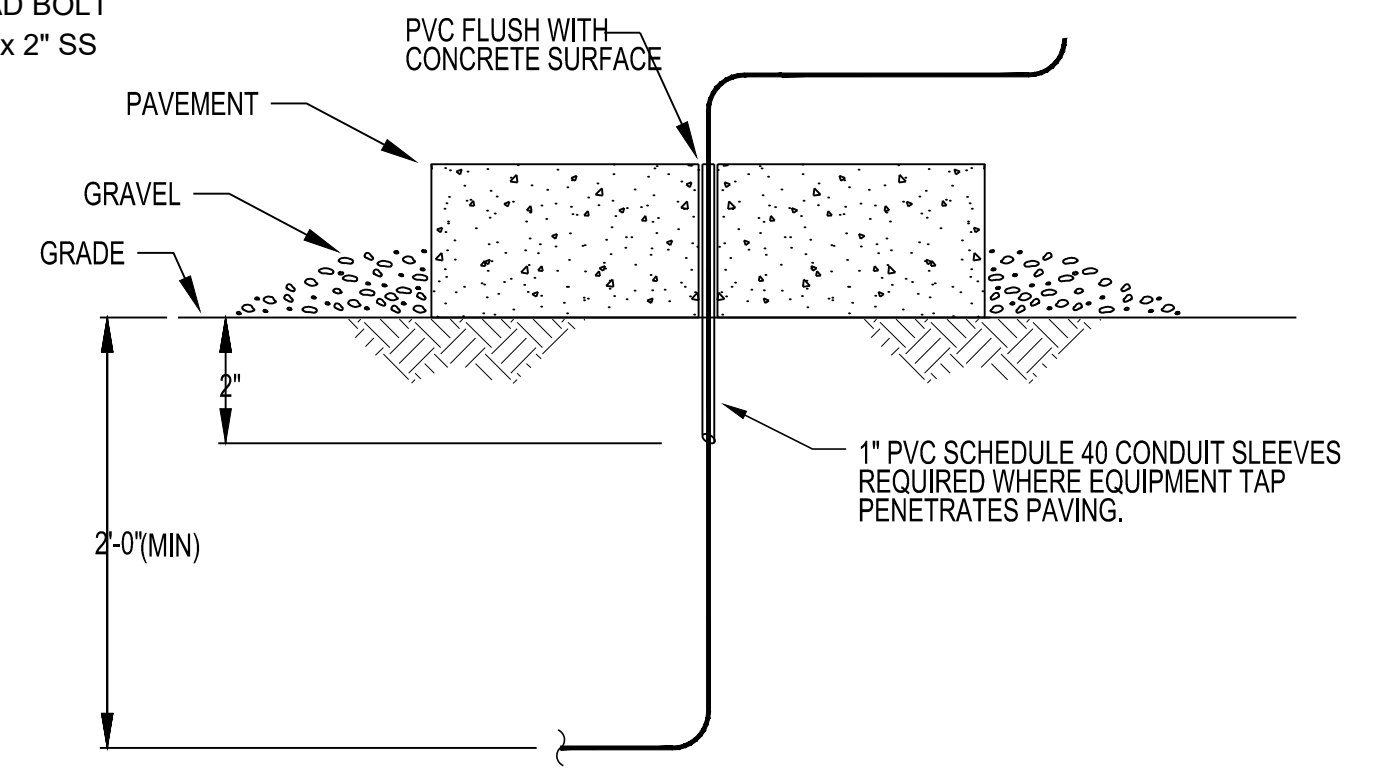
REGISTERED PROFESSIONAL ENGINEER
JAMES W. RAMSEY
E 17881
EXP 12/31/24
ELECTRICAL
STATE OF CALIFORNIA

SHEET NUMBER
E10

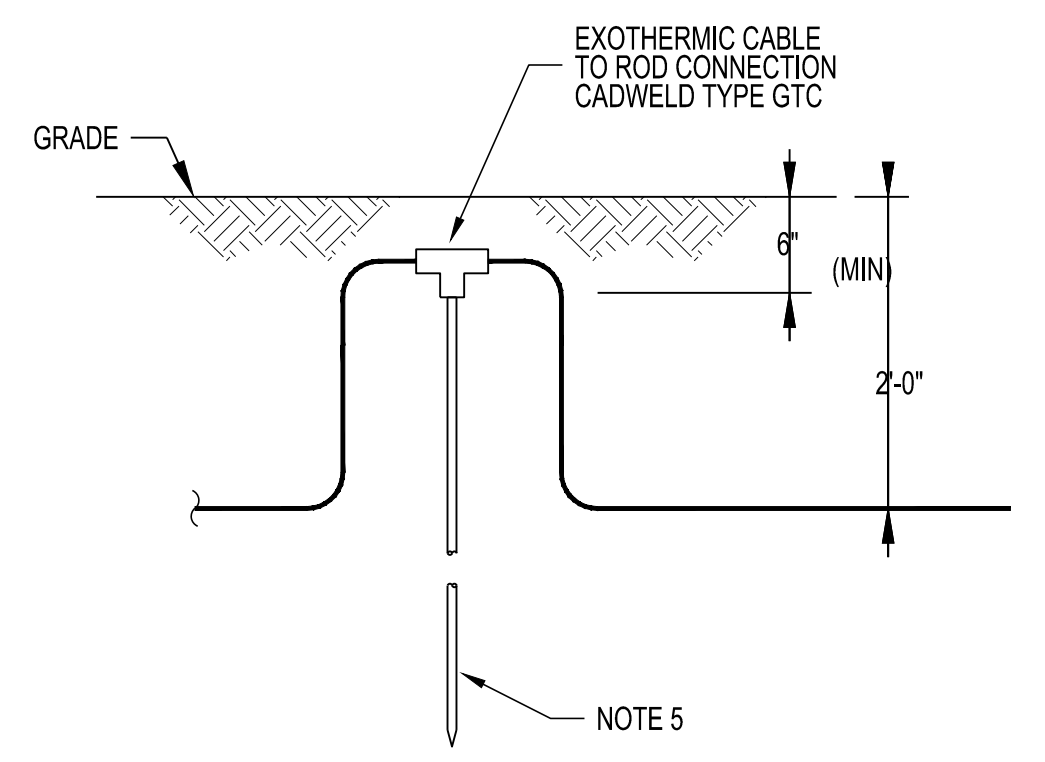
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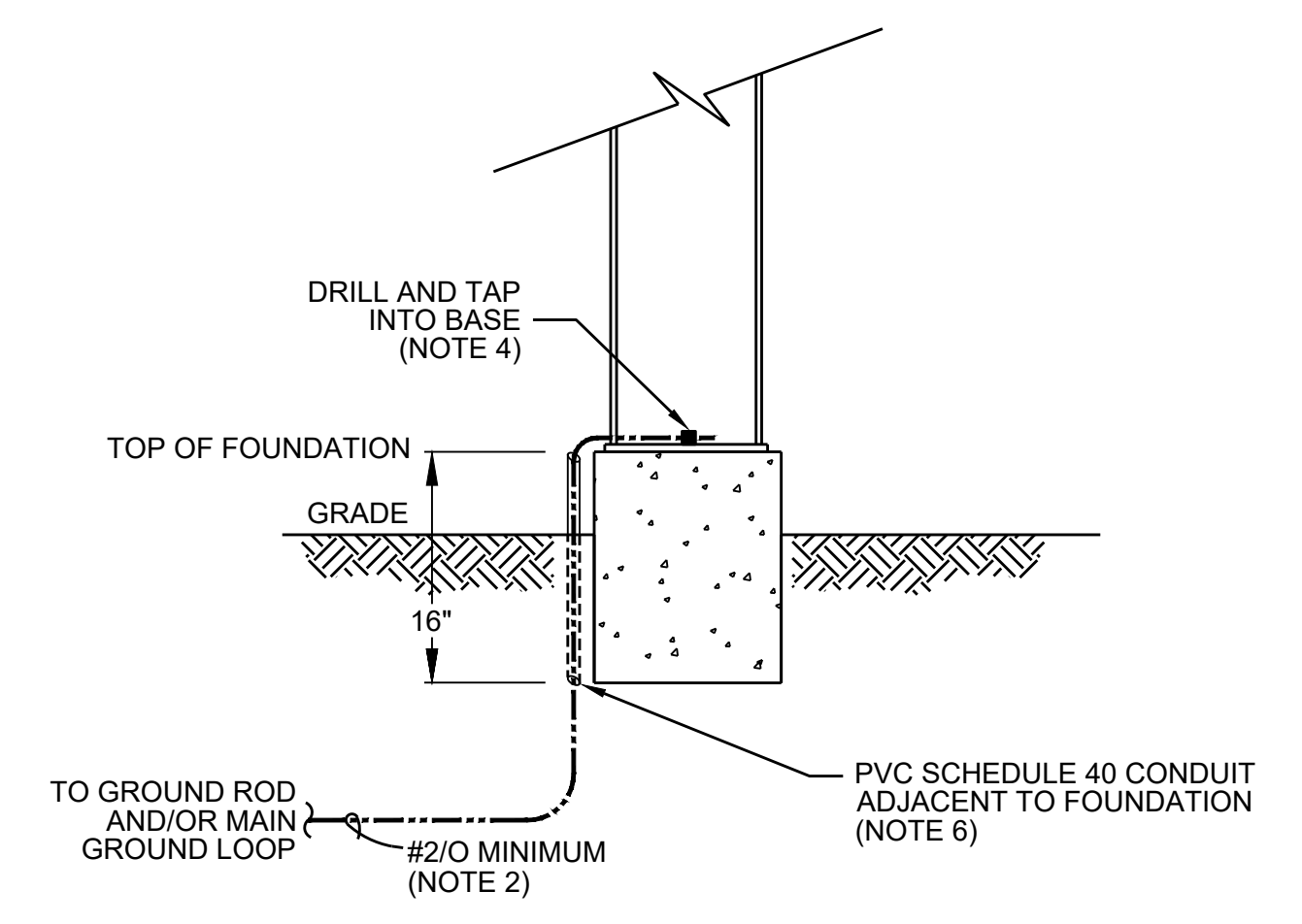
SCALE: NTS **1** DETAIL - GROUNDING BAR FOR CONCRETE/STEEL



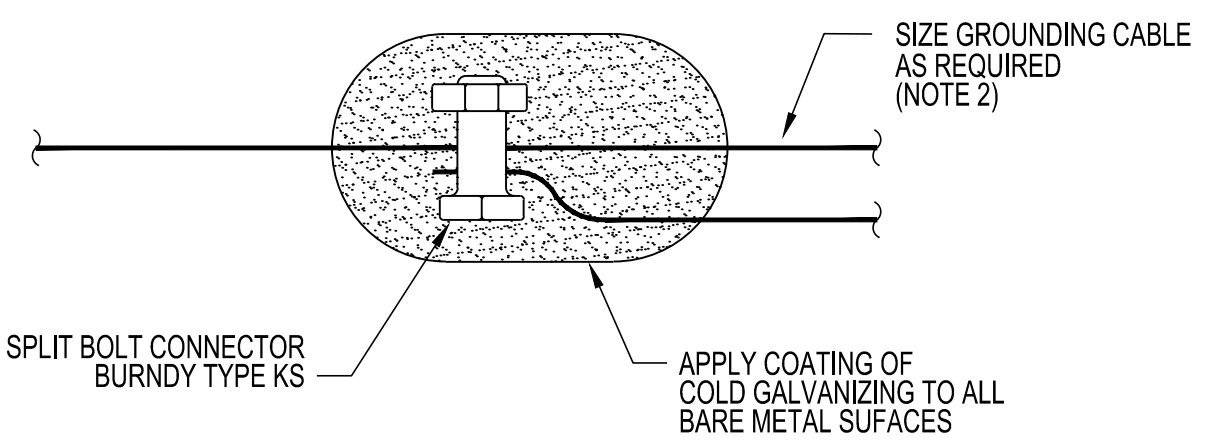
SCALE: NTS **2** DETAIL - GROUND WIRE PAVEMENT PENETRATION



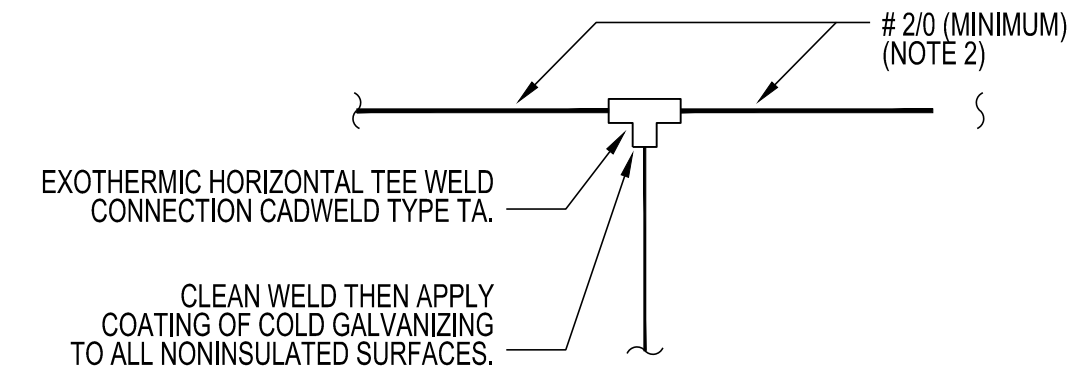
SCALE: NTS **3** DETAIL - GROUND ROD



SCALE: NTS **4** DETAIL - MISC. STRUCTURAL STEEL



SCALE: NTS **5** DETAIL - GROUNDING MECHANICAL CABLE TAP



SCALE: NTS **6** DETAIL - GROUNDING UNDERGROUND TAP

- NOTES:
- CABLE TERMINALS TO BE EQUAL TO BURNDY "EA."
 - ALL GROUND WIRE TO BE STRANDED COPPER WITH GREEN 600V XHHW OR THW INSULATION.
 - MOTOR CONTROL CENTERS AND SWITCH GEAR SHALL HAVE A MINIMUM OF TWO "MAIN GROUND LOOP" SIZED GROUND CONNECTIONS FROM THE EQUIPMENT GROUND BUS DIRECTLY TO THE MAIN GROUND LOOP.
 - SERVIT POST SHALL BE EQUAL TO BURNDY "KC"
 - GROUND ROD TO BE 3/4" x 10' GALVANIZED STEEL. FOR EFFECTIVE USE OF GROUND ROD, RODS SHALL BE SPACED A MINIMUM OF 20' APART. REMOVE ROD GALVANIZING TO BARE STEEL BEFORE MAKING EXOTHERMIC (CADWELD) CONNECTION. THEN APPLY COATING OF COLD GALVANIZING TO ALL BARE METAL NON-GALVANIZED SURFACES.
 - SECURE PVC CONDUIT TO CONCRETE AT TWO LOCATIONS WITH CONDUIT CLAMPS.
 - VERTICAL TANKS SHALL BE DESIGNED WITH SUPPLEMENTAL GROUNDING TO EARTH IN ACCORDANCE WITH NFPA 780.
 - MAIN GROUND LOOP TO BE DESIGNED ACCORDING TO FACILITY REQUIREMENTS BUT NOT SMALLER THAN #2/0.

REVISIONS	DATE	BY	APP
0	2023-10-17	JDR	ISSUED FOR CONSTRUCTION BIDDING
1	2023-10-17	JDR	
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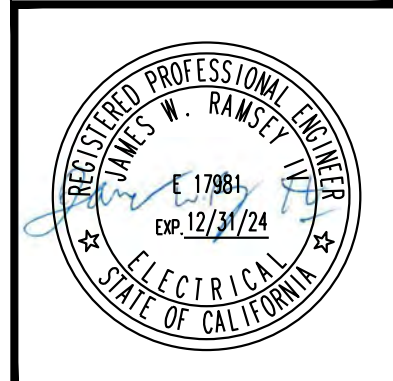
SCALE: SHOWN

Yolo County
 DEPARTMENT OF COMMUNITY SERVICES
 DIVISION OF INTEGRATED WASTE MANAGEMENT
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 DIRECTOR

APPROVED: [Signature]
 PRINCIPAL ENGINEER

Yolo County Landfill
 2023 Groundwater Extraction Well Expansion
 ELECTRICAL TYPICAL DETAILS
 (2 OF 2)

SHEET NUMBER: E11



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