

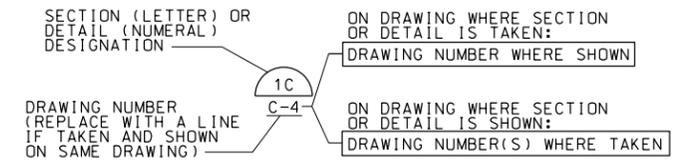
CIVIL NOTES

- GENERAL YARD NOTES APPLY TO ALL CIVIL DRAWINGS.
- ALL DUCTILE IRON, CAST IRON AND PVC, PUSH-ON OR MECHANICAL JOINT PIPE SHALL BE SELF-RESTRAINING. IN ADDITION, CAST AND DUCTILE IRON AND PVC PIPE SHALL BE CONSTRUCTED WITH A FLEXIBLE JOINT WITHIN 3- FEET OF ALL STRUCTURES OR BUILDINGS AND AN ADDITIONAL RESTRAINED JOINT WITHIN 8- FEET.
- THE CONTRACTOR SHALL REPLACE, OR REPAIR EXISTING ITEMS DAMAGED BY THE CONTRACTOR'S ACTIVITIES. NOT ALL THE EXISTING ITEMS ARE SHOWN ON THE DRAWINGS. THE DRAWINGS OF THE EXISTING ITEMS ARE AVAILABLE FROM THE OWNER ON REQUEST. SUBMISSION OF A BID SHALL BE CONSIDERED PROOF THE CONTRACTOR HAS REVIEWED THE DRAWING OF ALL THE EXISTING ITEMS.
- WHEREVER NEW ELECTRICAL CONDUITS ARE SHOWN PARALLELING EXISTING ELECTRICAL CONDUITS, THE NEW CONDUITS SHALL BE PLACED DIRECTLY ADJACENT TO AND AT THE SAME ELEVATION AS THE EXISTING CONDUITS. THE NEW CONCRETE ENCASEMENT SHALL ABOUT THE EXISTING ENCASEMENT. THE SIDES OF THE EXISTING DUCT BANKS MAY NOT BE FLAT.
- AT CONNECTIONS TO EXISTING BURIED PIPING, THE CONTRACTOR SHALL EXPOSE THE EXISTING PIPE, VERIFY LOCATION, INVERT, MATERIALS, DIMENSIONS AND SUBMIT A SHOP DRAWING OF THE PROPOSED CONNECTION FOR REVIEW PRIOR TO FABRICATION OF CONNECTING PIPING. THE CONTRACTOR SHALL FURNISH ALL NECESSARY SLEEVES, FLANGES, NIPPLES, COUPLINGS, FITTINGS, TOOLS, LABOR, ETC. NEEDED TO COMPLETE THE CUTTING-IN OR CONNECTIONS, AT NO ADDITIONAL COST TO THE DISTRICT, WHETHER SPECIFICALLY INDICATED ON THE DRAWINGS OR NOT.
- WHENEVER NEW PIPING OR CONDUIT CROSSES EXISTING PIPING OR CONDUIT, THE CONTRACTOR SHALL EXPOSE THE EXISTING ITEMS, VERIFY LOCATION AND ELEVATION PRIOR TO FABRICATION OF NEW PIPING, AND SUBMIT SHOP DRAWINGS FOR REVIEW BY DISTRICT. SOME OF THE EXISTING PIPING OR CONDUITS AS SHOWN ON THE DRAWINGS ARE LOCATED FROM THE BEST AVAILABLE INFORMATION AND ARE SHOWN FOR THE CONTRACTOR'S CONVENIENCE. NOT ALL THE EXISTING PIPING OR CONDUITS ARE SHOWN ON THE DRAWINGS. SUBMITTALS SHALL BE MADE AT LEAST (4) WEEKS PRIOR TO PLANNED INSTALLATION OF NEW FACILITIES. MINIMUM COVER SHALL BE MAINTAINED PER SPECIFICATIONS AND DRAWINGS.
- ALL EXISTING PIPING AND ELECTRICAL CONDUITS SHALL BE SUPPORTED IN PLACE DURING TRENCHING, OR EXCAVATION WORK BY THE CONTRACTOR. THE CONTRACTOR SHALL NOT DISTURB THE LOCATIONS, ALIGNMENTS AND ELEVATIONS OF THE EXISTING PIPING AND CONCRETE ENCASED ELECTRICAL CONDUITS.
- ALL STATIONING SHOWN IS APPROXIMATE. CONTRACTOR SHALL VERIFY LENGTHS IN FIELD PRIOR TO FABRICATION OF PIPING AND SUBMIT SHOP DRAWINGS FOR REVIEW.
- ALL BURIED VALVES SHALL BE INSTALLED IN VALVE BOXES, SEE (4027-640) AND (4027-641).
- MAINTAIN PIPE CLEARANCES IN COMPLIANCE WITH CALIFORNIA DEPARTMENT OF HEALTH SERVICES REGULATIONS FOR POTABLE WATER AND SEWER LINES.
- THE CONTRACTOR SHALL AT ALL TIMES MAINTAIN ADEQUATE DRAINAGE PATTERNS AT THE PLANT. WATER SHALL NOT BE ALLOWED TO POND OR STAND DUE TO CONTRACTOR'S ACTIVITIES.
- ALL NEW PIPING SHALL BE CONSTRUCTED AT ITS NEW LOCATION THEN INTERCONNECTED WITH EXISTING PIPING. THE NEW PIPING SHALL BE TESTED AND OPERATIONAL PRIOR TO REMOVAL OF ANY PORTION OF THE EXISTING PIPING.
- CONTRACTOR SHALL COORDINATE WITH EMWD THE POTENTIAL INTERRUPTION OF THE OPERATION OF ANY EXISTING SERVICE. CONTRACTOR SHALL NOTIFY EMWD AT LEAST TWO WEEKS PRIOR TO ANY INTERRUPTION. THE DATE, TIME, AND DURATION OF ANY INTERRUPTION SHALL BE APPROVED BY EMWD.
- LOCATOR WIRE SHALL BE PROVIDED IN ACCORDANCE WITH THE SPECIFICATIONS. LOCATOR WIRE SHALL BE PLACED WITH 7'-0" OF COVER MAXIMUM.
- ALL PIPING JOINTS SHALL BE RESTRAINED TYPE JOINTS. THRUST BLOCKS SHALL NOT BE ALLOWED. CONTRACTOR SHALL SUBMIT SHOP DRAWINGS PRIOR TO FABRICATION.
- ALL JOINTS SHALL BE WATERTIGHT. WALL PIPES SHALL BE USED WHEREVER PIPING PASSES FROM A STRUCTURE TO BACKFILL.
- SYMBOLS, LEGENDS, AND PIPE USE IDENTIFICATIONS SHOWN SHALL BE FOLLOWED THROUGHOUT THESE CONSTRUCTION DOCUMENTS, WHEREVER APPLICABLE. NOT ALL OF THE VARIOUS PIPING COMPONENTS ARE USED IN THE PROJECT.
- ALL BURIED PIPING SHALL BE PROVIDED WITH APPROPRIATE THRUST PROTECTION PER THE SPECIFICATIONS AT ALL DIRECTION CHANGES.
- CONTRACTOR SHALL SUPPORT AND PROTECT EXISTING YARD PIPING AS NECESSARY DURING CONSTRUCTION.
- PROVIDE WATER TIGHT SEALED PIPE PENETRATIONS AT NEMA 4X BOXES. NEMA 4X BOXES SHALL BE EPOXY COATED AND POLYURETHANE PAINTED FOR UV PROTECTION.

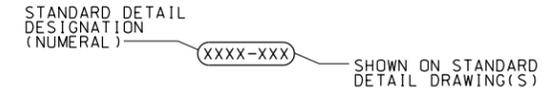
- SOURCE OF TOPOGRAPHY SHOWN ON THE CIVIL PLANS ARE BASE MAPS PROVIDED BY BUSH & ASSOCIATES, INC. ADDITIONAL MAPPING HAS BEEN ADDED FROM AS-BUILT DATA AND SUPPLEMENT SURVEY FROM ROBERT LUNG & ASSOCIATES. EXISTING CONDITIONS MAY VARY FROM THOSE SHOWN ON THESE PLANS. THE CONTRACTOR SHALL VERIFY EXISTING CONDITIONS AND ADJUST WORK PLAN ACCORDINGLY PRIOR TO BEGINNING CONSTRUCTION.
- SURVEY INFORMATION -
 BASIS OF BEARINGS:
 THE BEARINGS SHOWN HEREON ARE BASED ON THE BEARING BETWEEN CALIFORNIA CORs DLVW AND CORs STATION PPBF BEING N27°47'56"W PER RECORDS ON FILE AT THE CALIFORNIA SPATIAL REFERENCE CENTER.
 COORDINATE DATUM:
 COORDINATES SHOWN ARE BASED ON THE CALIFORNIA COORDINATE SYSTEM (CCS83), ZONE VI, 1983 NAD, EPOCH 06-01-2004. ALL COORDINATES SHOWN ARE GROUND COORDINATES. ALL DISTANCES SHOWN ARE GROUND. TO OBTAIN GRID DISTANCES, MULTIPLY GROUND DISTANCES BY 0.99991836. CALCULATED AT HV6 AT COORDINATES N2220087.46 AND E6274321.76.
 BENCHMARK:
 BENCHMARK 1
 ELEVATION 1422.99
 2.5" DIAMETER BRASS DISK SET IN THE SOUTHWEST CORNER OF THE CONCRETE WALL AT PLANT NO. 2 RAS/WAS PUMP STATION STAMPED "BM 1 EL 1422.99."
- EXISTING TOPOGRAPHY, STRUCTURES, AND SITE FEATURES ARE SHOWN SCREENED AND/OR LIGHT-LINED. NEW FINISH GRADE, STRUCTURES, AND SITE FEATURES ARE SHOWN HEAVY-LINED.
- MAINTAIN, RELOCATE, OR REPLACE EXISTING SURVEY MONUMENTS, CONTROL POINTS, AND STAKES WHICH ARE DISTURBED OR DESTROYED. PERFORM THE WORK TO PRODUCE THE SAME LEVEL OF ACCURACY AS THE ORIGINAL MONUMENT(S) IN A TIMELY MANNER, AND AT THE CONTRACTOR'S EXPENSE.
- FOR LOCATION OF CONTROL POINT ON STRUCTURES, SEE STRUCTURAL DRAWINGS.
- COORDINATES AND DIMENSIONS SHOWN FOR ROADWAY IMPROVEMENTS ARE TO FACE OF CURB OR EDGE OF PAVEMENT.
- STAGING AREA SHALL BE FOR CONTRACTOR'S EMPLOYEE PARKING, CONTRACTOR'S TRAILERS AND ON-SITE STORAGE OF MATERIALS.
- PROVIDE TEMPORARY FENCING AS NECESSARY TO MAINTAIN SECURITY AT ALL TIMES.
- ELEVATIONS GIVEN ARE TO FINISH GRADE UNLESS OTHERWISE SHOWN.
- SLOPE UNIFORMLY BETWEEN CONTOURS AND SPOT ELEVATIONS SHOWN.
- UNLESS SHOWN ON THE LANDSCAPING PLANS, ALL DISTURBED AREAS NOT RECEIVING A HARD SURFACE SHALL BE COVERED WITH GRAVEL.
- CONTRACTOR SHALL BE RESPONSIBLE FOR IMPLEMENTING AND MAINTAINING EROSION CONTROL DEVICES DURING CONSTRUCTION.
- CONTRACTOR SHALL TAKE ALL OTHER MEASURES TO POSITIVELY PRECLUDE EROSION MATERIALS FROM LEAVING THE SITE. CONTRACTOR TO SUBMIT EROSION CONTROL PLAN.
- EXISTING UNDERGROUND UTILITIES OBTAINED FROM AS-BUILTS AND FROM FIELD SURVEY. CONTRACTOR SHALL FIELD VERIFY DEPTH AND LOCATION PRIOR TO EXCAVATION. PROTECT ALL EXISTING UTILITIES DURING CONSTRUCTION.
- SEE DRAWINGS FOR PIPING FLOW STREAM IDENTIFICATION.
- EXISTING PIPING AND EQUIPMENT ARE SHOWN SCREENED AND/OR LIGHT-LINED. NEW PIPING AND EQUIPMENT ARE SHOWN HEAVY-LINED.
- UNLESS OTHERWISE SHOWN ALL PIPING SHALL HAVE A MINIMUM OF 3' COVER.
- ALL PIPES SHALL HAVE A CONSTANT SLOPE BETWEEN INVERT ELEVATIONS UNLESS A FITTING IS SHOWN.
- ALL NEW WATER PIPES MUST BE PROPERLY FLUSHED, PRESSURE TESTED, CHLORINATED AND BACTERIOLOGICALLY TESTED, AS SPECIFIED.
- FOR TRENCHING AND BACKFILL, SEE (3123-110).
- FOR SURFACE RESTORATION OF ASPHALT CONCRETE OR GRAVEL ROADS, SEE (3123-115).
- MINIMUM ALLOWABLE CLEARANCE BETWEEN PIPES AT CROSSINGS SHALL BE 3". CONTROLLED DENSITY FILL SUPPORT IS REQUIRED AS SHOWN ON (3123-120).

GENERAL DESIGN SYMBOLS

DETAIL AND SECTION DESIGNATION



STANDARD DETAIL DESIGNATION



NOTE:
 STANDARD DETAIL REFERENCES FOR THE INSTALLATION OF INSTRUMENTATION ARE NOTED IN THE INSTRUMENT LIST IN THE SPECIFICATIONS. SEE STANDARD DETAILS.

PLOT DATE: 2/19/2010 PLOT TIME: 10:51:45 AM

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REVISIONS	DATE	APPROVAL

EASTERN MUNICIPAL WATER DISTRICT
 PERRIS DESALINATION FACILITY
 PERRIS, CALIFORNIA
**CIVIL NOTES AND
 GENERAL DESIGN SYMBOLS**

DESIGNED BY: FEGHALI
 DRAWN BY: A. GORDEN
 CHECKED BY: Q. WANG
 U.S. ARMY ENGINEER DISTRICT
 LOS ANGELES
 CORPS OF ENGINEERS
 ART. JUNG, P.E.
 CHIEF, DESIGN BRANCH
 L.A. DISTRICT FILE NO. XXX-XXXX
 SPEC. NO. : NOT APPLICABLE
 CAD FILE NAME: PDFg005d.dgn

