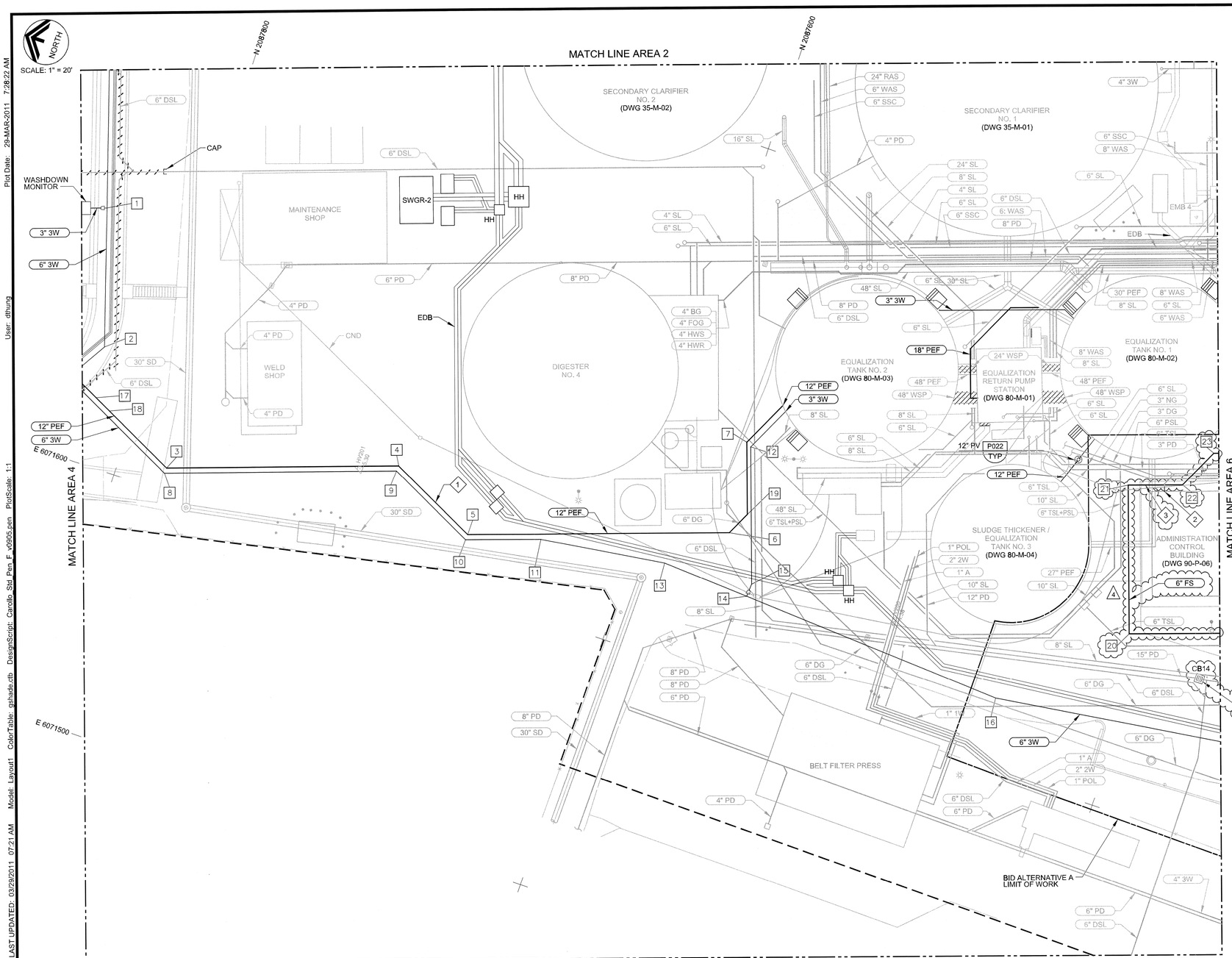

COORDINATE CONTROL DATA

	NORTH	EAST	INV EL	FITTING
1	2087835.66	6071696.91	8.50	6" TEE
2	2087819.28	6071645.63	8.50	6" 45° ELL
3	2087781.51	6071609.01	NOTE 3	12" 45° ELL
4	2087696.47	6071638.33	NOTE 3	12" 45° ELL
5	2087662.64	6071621.67	NOTE 3	12" 45° ELL
6	2087566.77	6071654.72	NOTE 3	12" 45° ELL
7	2087571.53	6071690.01	NOTE 3	12" 22½° ELL
8	2087781.64	6071606.85	-1.00	6" 45° ELL
9	2087696.61	6071636.17	-1.00	6" 45° ELL
10	2087662.77	6071619.51	-1.00	6" 45° ELL
11	2087635.20	6071629.01	-1.00	6" 11¼° ELL
12	2087569.52	6071688.79	1.50	6" 22½° ELL
13	2087586.77	6071635.63	-1.00	6" 11¼° ELL
14	2087552.50	6071633.54	-1.00	6" TEE
15	2087552.07	6071638.99	-1.00	6" 22½° ELL
16	2087448.65	6071627.24	-1.00	6" 11¼° ELL
17	2087816.07	6071626.04	NOTE 3	12" VERT 45° ELL
18	2087809.59	6071622.85	NOTE 3	12" VERT 45° ELL
19	2087562.43	6071663.62	NOTE 3	12" 45° ELL
20	2087407.60	6071667.27	-1.00	6" 90° ELL
21	2087426.35	6071721.64	-1.00	6" 90° ELL
22	2087406.46	6071728.50	-1.00	6" 45° ELL
23	2087398.9 ±	6071398.9 ±	-1.00	6" 45° ELL

GENERAL NOTES:

1. TRENCH IN ACCORDANCE WITH SECTION 02318 AND TYP P002, TYP P003, AND TYP EM001, AS APPLICABLE.
2. FITTING ELEVATIONS REPRESENT INVERT ELEVATIONS, UNLESS NOTED OTHERWISE.
3. INV EL IDENTIFIED ON PROFILE.

KEY NOTES:

1. REFER TO PROFILE N DWG 01-C-28.
2. CONNECT NEW SS LINE SHOWN ON 90-P-06 TO EXIST PD PIPING. FIELD VERIFY EXIST PIPE MATERIAL AND LOCATION.
3. REPLACE EXIST 4" CONC WALKWAY WHERE REMOVED TO INSTALL 6" FS, MATCH EXIST CONSTRUCTION AND FINISH. (4)

DWG 01-C-12A SHALL BE USED IN LIEU OF DWG 01-C-12 FOR BID ALTERNATIVE A.

Plot Date: 29-MAR-2011 7:28:22 AM
User: dthung
Model: Layout1 ColorTable: gshade.ctb DesignScript: Carollo_Std_Pen_F_v0905.pen PlotScale: 1:1
LAST UPDATED: 03/29/2011 07:21 AM
LAST SAVED BY: dthung

JOB NUMBER: 8160A.10
FILENAME: 8160A10-01-C-012A.dgn

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

DESIGNED RAH
DRAWN DST
CHECKED WCL
DATE JANUARY 2011

DISCIPLINE ENGINEER: REGISTERED PROFESSIONAL ENGINEER RYAN A. HOOK No. C 68462 Exp. 9/30/11 CIVIL STATE OF CALIFORNIA — 01/31/11
PROJECT ENGINEER: REGISTERED PROFESSIONAL ENGINEER JAMES WICKSTROM No. C57732 Exp. 12/31/11 CIVIL STATE OF CALIFORNIA — 01/31/11
PROJECT MANAGER: REGISTERED PROFESSIONAL ENGINEER RICK L. CHAN No. C48892 Exp. 9/30/12 CIVIL STATE OF CALIFORNIA — 01/31/11

carollo

CITY OF SAN LEANDRO INCORPORATED 1872

BEFORE YOU DIG, CALL UNDERGROUND SERVICE ALERT 1(800)227-2600
IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE EXISTENCE AND LOCATION OF ALL UNDERGROUND UTILITIES. THOSE SHOWN REPRESENT THE BEST INFORMATION AVAILABLE TO THE CITY OF SAN LEANDRO AT THE TIME OF PREPARATION OF THESE PLANS. NO GUARANTEE IS MADE AS TO THE ACCURACY OF THIS INFORMATION.

NO.	DATE	REVISION
4	03/11	ADDENDUM NO. 4

CITY OF SAN LEANDRO

PROJECT MGR. KC DATE 3/29/11
TRANS ADMIN. ____ DATE ____
SENIOR ENGR. AEO DATE 3/29/11
APPROVED BY: ____ DATE 3/29/11
CITY ENGINEER, R.C.E. No. 34870

WPCP REHABILITATION PROJECT
CIVIL
YARD PIPING PLAN
AREA 5

CONTRACT DWG. 01-C-12A
SHEET 129 OF 557
JOB NO. 08-593-52-239
SCALE AS NOTED
DWG. 1322 CASE 604

LAST SAVED BY: dthung
LAST UPDATED: 03/24/2011 11:12 AM Model: Layout1 ColorTable: gshade.ctb DesignScript: Carollo_Std_Pen_F_v0905.pen PlotScale: 1:1
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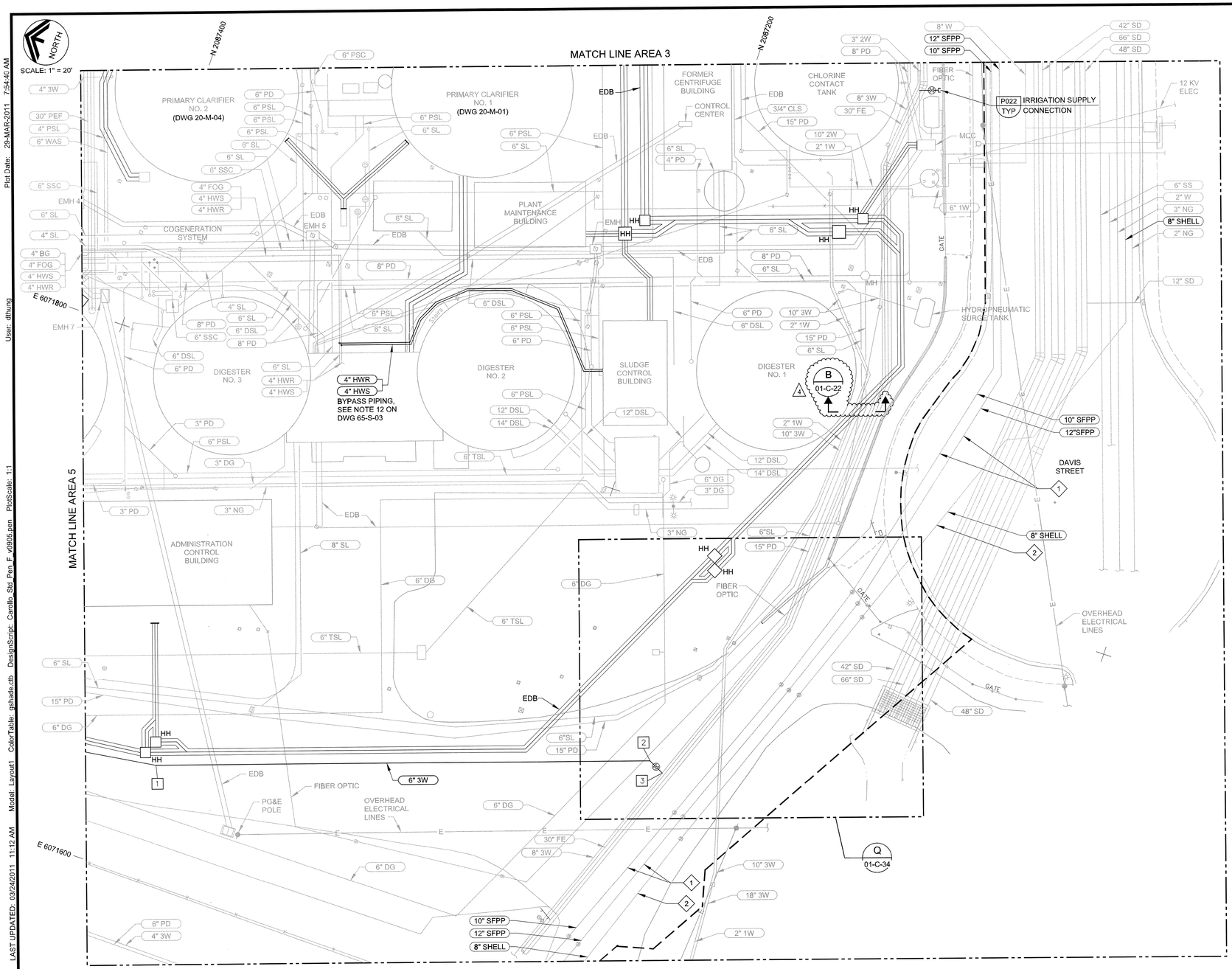

COORDINATE CONTROL DATA

	NORTH	EAST	INV EL	FITTING
1	2087333.41	6071642.97	0.00	6" 11¼° ELL
2	2087152.90	6071705.21	0.00	6" 45° ELL
3	2087146.93	6071702.30	MATCH EXIST	8" x 6" TAPPING SLEEVE AND VALVE

GENERAL NOTES:

1. SEE GENERAL NOTES ON DWG 01-C-01.
2. FITTING ELEVATIONS REPRESENT INVERT ELEVATIONS.

KEY NOTES:

1. KINDER MORGAN FUEL PIPELINES. FIELD VERIFY ALIGNMENT AND ELEVATION PRIOR TO BEGINNING CONSTRUCTION. COORDINATE ALL WORK CONDUCTED WITHIN 10 FEET OF THE PIPELINE WITH PIPELINE OWNER.
2. SHELL OIL FUEL PIPELINE. COORDINATE ALL WORK CONDUCTED WITHIN 10 FEET OF THE PIPELINE WITH PIPELINE OWNER.

DWG 01-C-13 SHALL BE USED FOR THE BASE BID.

JOB NUMBER: 8160A.10
FILENAME: 8160A10-01-C-013.dgn

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

DESIGNED RAH
DRAWN DST
CHECKED WCL
DATE JANUARY 2011

DISCIPLINE ENGINEER: REGISTERED PROFESSIONAL ENGINEER RYAN A. HOOK No. C 68462 Exp. 9/30/11 CIVIL STATE OF CALIFORNIA — 01/31/11
PROJECT ENGINEER: REGISTERED PROFESSIONAL ENGINEER JAMES WICKSTROM No. C57732 Exp. 12/31/11 CIVIL STATE OF CALIFORNIA — 01/31/11
PROJECT MANAGER: REGISTERED PROFESSIONAL ENGINEER RICK L. CHAN No. C48892 Exp. 9/30/12 CIVIL STATE OF CALIFORNIA — 01/31/11

carollo

CITY OF SAN LEANDRO INCORPORATED 1872

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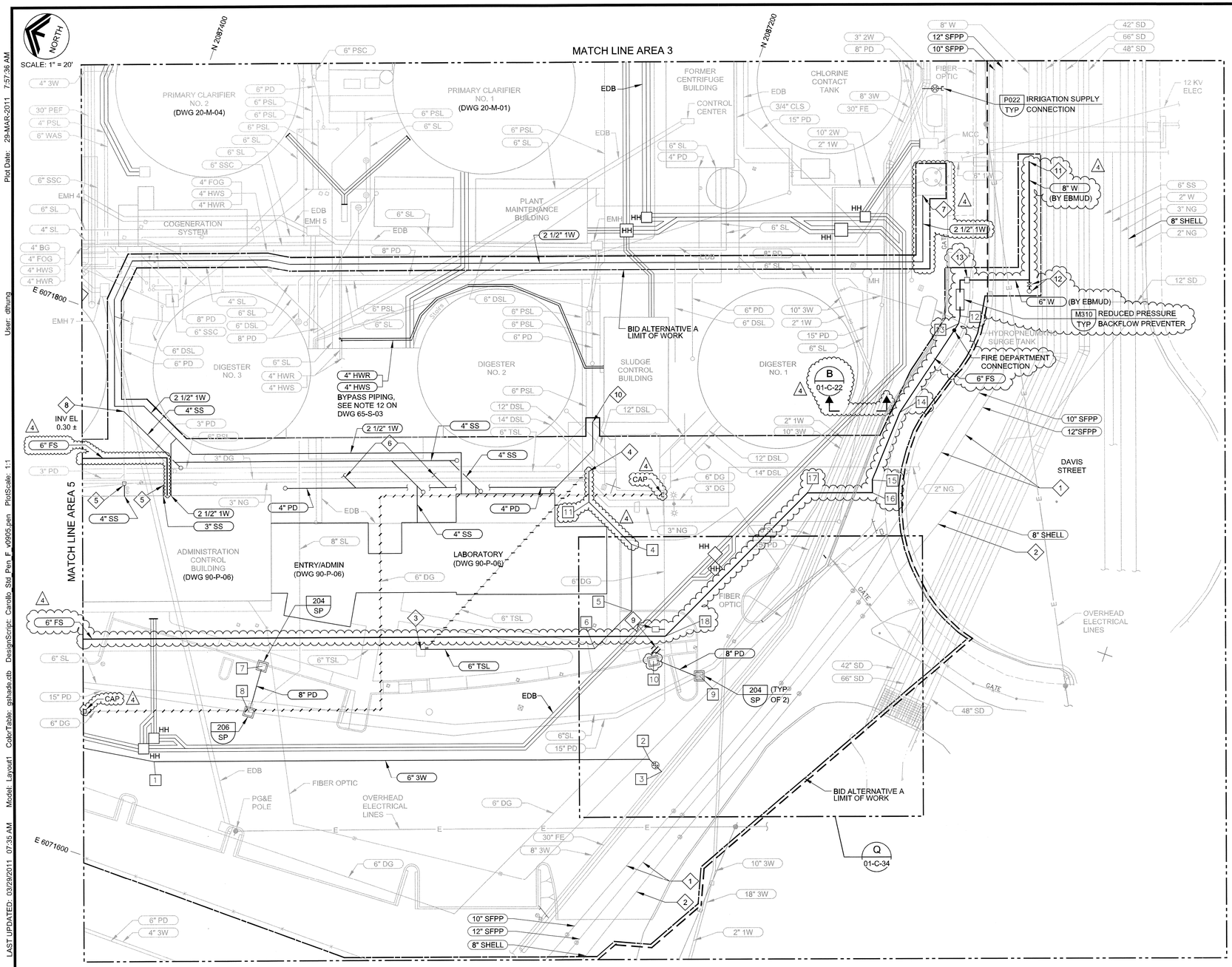
NO.	DATE	REVISION
4	03/11	ADDENDUM NO. 4

CITY OF SAN LEANDRO

PROJECT MGR. KC DATE 5/29/11
TRANS ADMIN. DATE
SENIOR ENGR. AED DATE 3/29/11
APPROVED BY: DATE 3/30/11
CITY ENGINEER, R.C.E. No. 34870

WPCP REHABILITATION PROJECT
CIVIL
YARD PIPING PLAN AREA 6

CONTRACT DWG 01-C-13
SHEET 130 OF 557
JOB NO. 08-593-52-239
SCALE AS NOTED
DWG. 1323 CASE 604



COORDINATE CONTROL DATA

	NORTH	EAST	INV EL	FITTING
1	2087333.41	6071642.97	0.00	6" 11¼° ELL
2	2087152.90	6071705.21	0.00	6" 45° ELL
3	2087146.93	6071702.30	MATCH EXIST	8" x 6" TAPPING SLEEVE AND VALVE
4	2087186.08	6071781.11	0.00	6" 30° ELL
5	2087177.70	6071756.81	-0.15	6" 45° ELL
6	2087186.59	6071738.55	-0.15	6" 45° ELL
7	2087305.68	6071690.99	0.95	CB16
8	2087304.83	6071672.66	0.90, 8" PD MATCH EXIST 15" PD	CB15
9	2087145.02	6071741.62	0.50, 8" PD MATCH EXIST 15" PD	CB18
10	2087163.60	6071741.34	0.75	CB17

4

	NORTH	EAST	INV EL	FITTING
11	2087206.81	6071791.21	0.00	6" 45° ELL
12	2087094.62	6071904.96	0.75	6" 11¼° ELL
13	2087094.22	6071901.99	0.75	6" 22.5° ELL
14	2087104.63	6071862.38	0.75	6" 11¼° ELL
15	2087106.32	6071834.55	0.75	6" 22.5° ELL
16	2087104.69	6071829.83	-5.00	2 X 6" 90° ELL
17	2087128.34	6071821.67	-5.00	6" 45° ELL
18	2087162.33	6071751.84	-2.00	6" 45° ELL

GENERAL NOTES:

1. SEE GENERAL NOTES ON DWG 01-C-01.
2. FITTING ELEVATIONS REPRESENT INVERT ELEVATIONS.

KEY NOTES:

1. KINDER MORGAN FUEL PIPELINES. FIELD VERIFY ALIGNMENT AND ELEVATION PRIOR TO BEGINNING CONSTRUCTION. COORDINATE ALL WORK CONDUCTED WITHIN 10 FEET OF THE PIPELINE WITH PIPELINE OWNER.
2. SHELL OIL FUEL PIPELINE. COORDINATE ALL WORK CONDUCTED WITHIN 10 FEET OF THE PIPELINE WITH PIPELINE OWNER.
3. CONNECT 6" TSL TO EXISTING 6" DIP AT BOX, INV EL -0.50 ± FIELD VERIFY EL AND PIPE MATERIAL.
4. CONNECT 6" TSL TO EXISTING ABOVE GROUND PIPING MANIFOLD.
5. CONNECT NEW SS LINE SHOWN ON 90-P-06 TO EXIST PD PIPING. FIELD VERIFY EXIST PIPE MATERIAL AND LOCATION.
6. CONNECT TO AREA FLOOR DRAINS SHOWN ON AREA 90 DRAWINGS.
7. CONNECT NEW 2 1/2" 1W LINE TO EXIST 1W SUPPLY. AT 1W STATION, DEMOLISH EXISTING 2" 1W SUPPLY PIPING AND REPLACE WITH NEW 3" 1W SUPPLY PIPING AND APPURTENANCES. PROVIDE 20 FEET OF NEW 3" 1W PIPING; 1-3" BACKFLOW PREVENTER ASSEMBLY; 1-3" ISOLATION GV; 1-3" PRV (SET AT 65 PSIG); AND TEES, RDCRS AND ISOLATION BV'S FOR CONNECTION OF 2 EXIST 2", 1 EXIST 1" AND NEW 2 1/2" SUPPLY LINES. PROVIDE UNIONS AND ELBOWS AS REQUIRED TO CONNECT TO EXIST LINES. PROVIDE 2 NEW PG (0-160 PSIG) UPSTREAM AND DOWNSTREAM OF PRV PER TYPS M294 & NP104. SUPPORT NEW PIPING AT 3'-0" ABOVE EXIST SLAB, 5' OC, PER TYP P624. SUBMIT PIPING LAYOUT DRAWING FOR ENGINEER AND PLANT STAFF APPROVAL PRIOR TO INSTALLATION. (4)
8. PRIOR TO BEGINNING CONSTRUCTION OF NEW ADMIN BLDG EXPANSION, FIELD VERIFY EXIST PIPE ELEV AND MATERIAL AT CONNECTION POINT. IF PIPE INVERT IS HIGHER THAN INDICATED, NOTIFY ENGINEER.
9. RELOCATE EXIST DRIP TRAP.
10. CONNECT NEW 4" PD TO EXIST 4" PVC PD PIPING, FIELD VERIFY ELEV AND PIPE MATERIAL PRIOR TO CONSTRUCTION.
11. REMOVE EXIST GATE VALVE AND BLOWOFF (BY EBMUD). (4)
12. NEW GATE VALVE AND BLOWOFF (BY EBMUD).
13. NEW METER AND CHECK VALVE (BY EBMUD). WORK BEYOND THIS POINT BY CONTRACTOR.

DWG 01-C-13A SHALL BE USED IN LIEU OF DWG 01-C-13 FOR BID ALTERNATIVE A.

LAST SAVED BY: kmarshall
LAST UPDATED: 03/29/2011 07:35 AM Model: Layout1 ColorTable: gstbate.ctb DesignScript: Carollo_Std_Pen_F_w0905.pen PlotScale: 1:1
Plot Date: 29-MAR-2011 7:57:36 AM User: dthung

JOB NUMBER: 8160A.10
FILENAME: 8160A10-01-C-013A.dgn

VERIFY SCALES
BAR IS ONE INCH ON ORIGINAL DRAWING
0 1"
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DESIGNED RAH
DRAWN DST
CHECKED WCL
DATE JANUARY 2011

DISCIPLINE ENGINEER — REGISTERED PROFESSIONAL ENGINEER — RYAN A. HOOK — No. C 68462 — Exp. 9/30/11 — CIVIL — STATE OF CALIFORNIA — 01/31/11
PROJECT ENGINEER — REGISTERED PROFESSIONAL ENGINEER — JAMES WICKSTROM — No. C57732 — Exp. 12/31/11 — CIVIL — STATE OF CALIFORNIA — 01/31/11
PROJECT MANAGER — REGISTERED PROFESSIONAL ENGINEER — RICK L. CHAN — No. C48892 — Exp. 8/30/12 — CIVIL — STATE OF CALIFORNIA — 01/31/11

carollo

CITY OF SAN LEANDRO — INCORPORATED 1872

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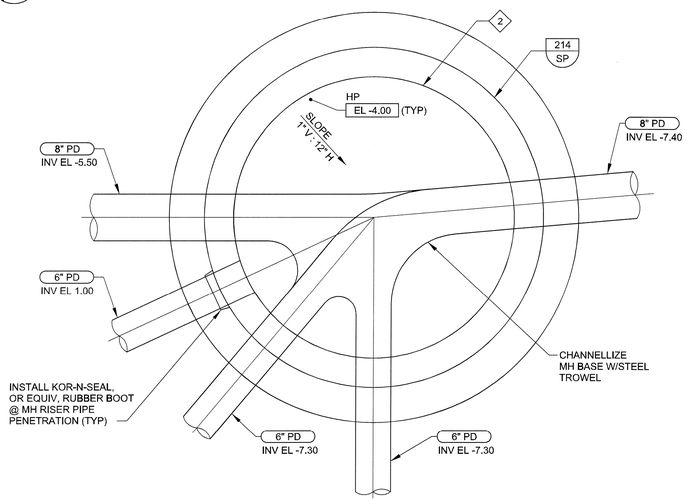
NO.	DATE	REVISION
4	03/11	ADDENDUM NO. 4

CITY OF SAN LEANDRO

PROJECT MGR. KC DATE 3/29/11
TRANS. ADMIN. ____ DATE ____
SENIOR ENGR. AEO DATE 3/29/11
APPROVED BY: ____ DATE 3/30/11
CITY ENGINEER, R.C.E. No. 34870

WPCP REHABILITATION PROJECT
CIVIL
YARD PIPING PLAN AREA 6

CONTRACT DWG 01-C-13A
SHEET 131 OF 557
JOB NO. 08-593-52-239
SCALE AS NOTED
DWG. 1324 CASE 604

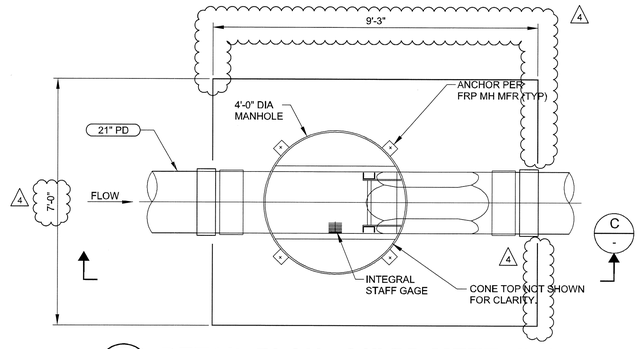


A DETAIL PLAN - MH17

01-C-10

SCALE: 1" = 1'-0"

FILE: 8160A10-01-010-113

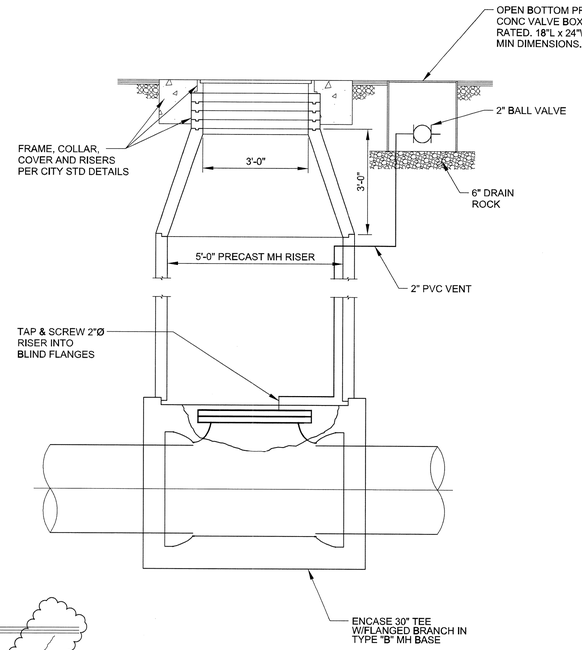


B DETAIL PLAN - 21" PD METERING MH

01-C-10

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

FILE: 8160A10-01-010-114

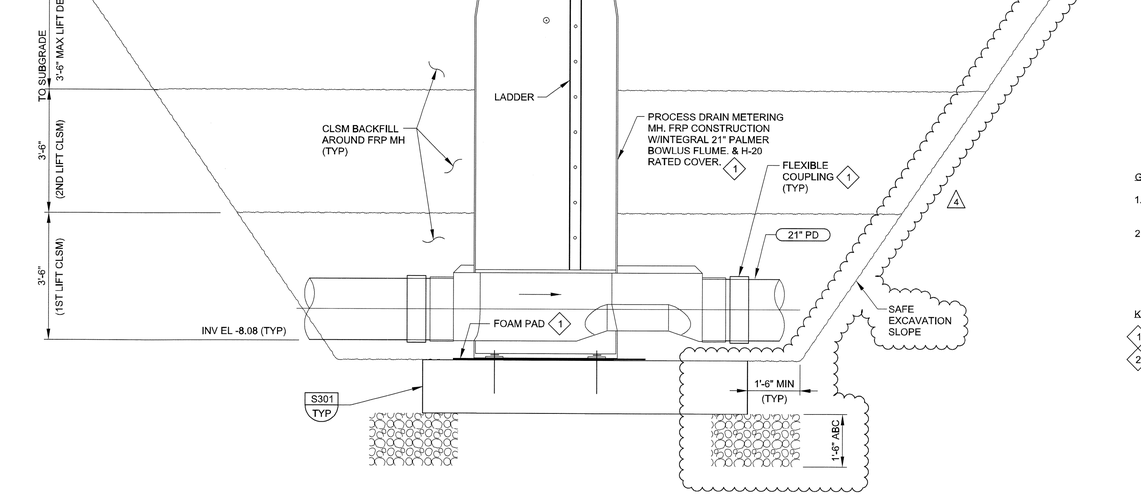


D ACCESS MH40

01-C-09

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

FILE: 8160A10-01-010-363



C SECTION

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

FILE: 8160A10-01-010-114

GENERAL NOTES:

1. MH RIM ELEVATIONS SHOWN ARE APPROXIMATE. SLOPE THE MH COVER TO BE FLUSH WITH FINAL GRADES OF PAVED AREAS.
2. CONSTRUCT TRENCH IN ACCORANCE WITH SECTION 02318, TYP P002, AND TYP P003.

KEY NOTES:

1. SUPPLIED BY FRP MH MFR.
2. LINE PD MHS WITH PVC LINER PER TYP S270 AND SPEC SECTION 15058.

LAST UPDATED: 03/25/2011 10:45 AM Model: Layout1 ColorTable: gshade.ctb DesignScript: Carollo_Std_Pen_F_v0905.pen PlotScale: 1:1

LAST SAVED BY: dthung

JOB NUMBER: 8160A.10
FILENAME: 8160A10-01-C-029.dgn

VERIFY SCALES
BAR IS ONE INCH ON ORIGINAL DRAWING
0 1"
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DESIGNED RAH
DRAWN JHL
CHECKED WCL
DATE JANUARY 2011

DISCIPLINE ENGINEER: REGISTERED PROFESSIONAL ENGINEER RYAN A. HOOVER No. C 68462 Exp. 9/30/11 CIVIL STATE OF CALIFORNIA — 01/31/11

PROJECT ENGINEER: REGISTERED PROFESSIONAL ENGINEER JAMES WICKSTROM No. C57732 Exp. 12/31/11 CIVIL STATE OF CALIFORNIA — 01/31/11

PROJECT MANAGER: REGISTERED PROFESSIONAL ENGINEER RICK L. CHAN No. C48892 Exp. 9/30/12 CIVIL STATE OF CALIFORNIA — 01/31/11

carollo

CITY OF SAN LEANDRO INCORPORATED 1872

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NO.	DATE	REVISION
4	03/11	ADDENDUM NO. 4

CITY OF SAN LEANDRO

PROJECT MGR. KC DATE 3/29/11
TRANS ADMIN. _____ DATE _____
SENIOR ENGR. AEO DATE 3/28/11
APPROVED BY _____ DATE 3/29/11
CITY ENGINEER, P.E. No. 34870

WPCP REHABILITATION PROJECT

CIVIL

YARD PIPING
MANHOLE SECTIONS AND DETAILS

CONTRACT DWG 01-C-29
SHEET 147 OF 557
JOB NO. 08-593-52-239
SCALE AS NOTED
DWG. 1340 CASE 604

STRUCTURAL DESIGN CRITERIA :

CODES: 2007 CALIFORNIA BUILDING CODE (CBC)
CODE REQUIREMENTS FOR ENVIRONMENTAL ENGINEERING CONCRETE STRUCTURES (ACI 350-06) AND COMMENTARY (ACI 350R-06)

SEE DRAWINGS OF INDIVIDUAL STRUCTURES FOR ADDITIONAL LOADING AND DESIGN AND LOADING INFORMATION

DEAD LOADS:
CALCULATED FOR STRUCTURE SELF WEIGHT

LIVE LOADS:
FLOOR LIVE LOAD: (SEE DRAWINGS)
GRATING AND CHECKERED PLATE: 100 PSF (UNO)
ROOF LIVE LOAD: 20 PSF (MINIMUM)
SEE DRAWINGS FOR CONCENTRATED AND IMPACT LOADS

WIND DESIGN REQUIREMENTS:
SEE SPECIFICATION SECTION 01614

BASIC WIND SPEED		=	85
EXPOSURE CATEGORY		=	D
IMPORTANCE FACTOR		=	1.15

SEISMIC DESIGN REQUIREMENTS:
SEE SPECIFICATION SECTION 01612

SEISMIC COEFFICIENTS	S_{DS}	=	1.004
	S_{D1}	=	0.6
SITE CLASS		=	D
OCCUPANCY CATEGORY		=	III
IMPORTANCE FACTOR		=	1.25
SEISMIC DESIGN CATEGORY		=	D

NON BUILDING STRUCTURE:

IMPORTANCE FACTOR	I	=	1.25
SEISMIC COEFFICIENT	R	=	TABLE 15.4-1 & 15.4-2 (ASCE 7)

STRUCTURES HAVE BEEN DESIGNED FOR OPERATING LOADS ON COMPLETED STRUCTURES. DURING CONSTRUCTION, PROTECT STRUCTURES AS REQUIRED BY BRACING AND BALANCING.

SEE DWG 00-G-10 FOR DEFERRED DESIGN SUBMITTAL REQUIREMENTS.

GEOTECHNICAL REPORT :

FOR GEOTECHNICAL DATA, REFER TO:
"GEOTECHNICAL STUDY, WATER POLLUTION CONTROL PLANT REHABILITATION PROJECT, SAN LEANDRO, CALIFORNIA"
DECEMBER 2010.
PREPARED BY FUGRO WEST, INC.
1000 BROADWAY, SUITE 200
OAKLAND, CA 94607
510-268-0461

FOUNDATION NOTES :

1. FOUNDATION DESIGN IS BASED ON THE RECOMMENDATIONS OF THE GEOTECHNICAL REPORT LISTED.

DESIGN REQUIREMENTS FOR EQUIPMENT ANCHORAGE:

SEE SPECIFICATION 01612 FOR ADDITIONAL REQUIREMENTS

SEISMIC DESIGN REQUIREMENT:

1. DESIGN IN ACCORDANCE WITH THE REQUIREMENTS OF THE BUILDING CODE AS SPECIFIED IN SECTION 01410:
   a. DESIGN SPECTRAL ACCELERATION AT SHORT PERIOD, S_{DS}: 1.004.
   b. COMPONENT AMPLIFICATION FACTOR, ap: IN ACCORDANCE WITH ASCE 7-05, TABLES 13.5-1 AND 13.6-1.
   c. COMPONENT AMPLIFICATION FACTOR, ap: IN ACCORDANCE WITH ASCE 7-05, TABLES 13.5-1 AND 13.6-1.
   d. COMPONENT RESPONSE MODIFICATION FACTOR, Rp: IN ACCORDANCE WITH ASCE 7-05, TABLES 13.5-1 AND 13.6-1.
   e. COMPONENT IMPORTANCE FACTOR, Ip:
      1) 1.50 FOR COMPONENETS OR STRUCTURES CONTAINING HAZARDOUS MATERIALS.
      2) 1.0 FOR ALL OTHER COMPONENTS AND STRUCTURES.
2. DO NOT USE FRICTION TO RESIST SLIDING DUE TO SEISMIC FORCES.
3. DO NOT USE MORE THAN 60 PERCENT OF THE WEIGHT OF THE MECHANICAL AND ELECTRICAL EQUIPMENT FOR DESIGNING ANCHORS FOR RESISTING OVERTURNING DUETO SEISMIC FORCES.
4. DO NOT USE MORE THAN 60 PERCENT OF THE WEIGHT OF THE TANK FOR RESISTING OVERTURNING DUE TO SEISMIC FORCES.
5. USE ANCHOR BOLTS, BOLTS, OR WELDED STUDS FOR ANCHORS FOR RESISTING SEISMIC FORCES. ANCHOR BOLTS USED TO RESIST SEISMIC FORCES SHALL HAVE A STANDARD HEX BOLT HEAD. DO NOT USE ANCHOR BOLTS FABRICATED FROM ROD STOCK WITH AN L OR J-SHAPE.
6. DO NOT USE CHEMICAL ANCHORS, CONCRETE ANCHORS, FLUSH SHELLS, POWDER ACTUATED FASTENERS, SLEEVE ANCHORS, OR OTHER TYPES OF ANCHORS UNLESS INDICATED ON THE DRAWINGS OR ACCEPTED IN WRITING BY THE ENGINEER.
7. SEISMIC FORCES MUST BE RESISTED BY DIRECT BEARING ON THE FASTENERS USED TO RESIST SEISMIC FORCES. DO NOT USE CONNECTIONS THAT USE FRICTION TO RESIST SEISMIC FORCES.

TYPICAL STRUCTURAL MATERIALS :

SEE PROJECT SPECIFICATIONS AND NOTES ON DRAWINGS FOR INDIVIDUAL STRUCTURES FOR DETAILED OR SPECIAL REQUIREMENTS

CAST-IN-PLACE CONCRETE

MINIMUM SPECIFIED COMPRESSIVE STRENGTH AT 28-DAYS, f'c:
FILL, THRUST BLOCKS, ENCASEMENT, BEDDING: "CLASS C", f'c = 2500 PSI
CONCRETE ELECTRICAL DUCT ENCASEMENT: "CLASS CE", f'c = 2500 PSI
CONCRETE FOR STRUCTURES: "CLASS A OR B", f'c = 4000 PSI

REINFORCING STEEL:

DEFORMED BARS: ASTM A615, GRADE 60
WELDED WIRE FABRIC: ASTM A185

MASONRY:

CONCRETE MASONRY UNITS (CMU): ASTM C90, CLASS 3,
CMU: NET AREA MINIMUM COMPRESSIVE STENGTH = 1900 PSI
MORTAR: ASTM C270, MINIMUM COMPRESSIVE STRENGTH = 1800 PSI
GROUT: ASTM C476, MINIMUM COMPRESSIVE STRENGTH = 2000 PSI

MINIMUM SPECIFIED COMPRESSIVE STRENGTH, f'm:
SOLID-GROUTED MASONRY: 1500 PSI

SPECIAL INSPECTION REQUIRED. SEE SPECIFICATION SECTION 01455.

STRUCTURAL STEEL:

SHAPES - W, T: ASTM A992 (Fy = 50 KSI)
SHAPES - S, M, HP, C, MC, L, PLATE AND BAR: ASTM A36 (Fy = 36 KSI)
PIPE: ASTM A53, GRADE B (Fy = 35 KSI)
HOLLOW STRUCTURAL SECTIONS:
ROUND: ASTM A500, GRADE B (Fy = 42 KSI)
SQUARE AND RECTANGULAR: ASTM A500, GRADE B (Fy = 46 KSI)
ASSEMBLY BOLTS (UNLESS NOTED): HIGH STRENGTH, ASTM A325
ANCHOR RODS (UNLESS NOTED):
CAST-IN (CONCRETE OR MASONRY): ASTM F1554, GRADE 36
POST-INSTALLED: SEE SPECIFICATIONS
ANCHOR BOLTS, NUTS, AND WASHERS SHALL BE TYPE 316 SST OR HOT-DIP GALVANIZED CONFORMING TO ASTM A 307 OR A36, AS SPECIFIED OR INDICATED ON THE DRAWINGS.

WELDING: E-70XX ELECTRODES UNLESS OTHERWISE NOTED

STRUCTURAL STAINLESS STEEL:

SHAPES AND BARS: ASTM A276, TYPE AS INDICATED.
BOLTS: ASTM A193

WELDING (UNLESS NOTED):
E304L-15 ELECTRODES FOR TYPE 304L
E316L-15 ELECTRODES FOR TYPE 316L

STRUCTURAL ALUMINUM:

SHAPES: ASTM B308, ALLOY 6061-T6
SHEET: ASTM B209, ALLOY 6061-T6
ASSEMBLY BOLTS (UNLESS NOTED): STAINLESS STEEL
ANCHOR BOLTS (UNLESS NOTED): STAINLESS STEEL

WELDING: ER4043 ELECTRODES UNLESS OTHERWISE NOTED.

CONSTRUCTION:

EXCAVATION AND BACKFILLING:

1. EXPOSE AND PREPARE SUBGRADE AS SHOWN ON THE DRAWINGS AND SPECIFIED. OBTAIN ENGINEER'S OBSERVATION OF SUBGRADE SURFACES BEFORE PROCEEDING WITH FOUNDATION CONSTRUCTION.
2. UNLESS OTHERWISE NOTED, DO NOT PLACE BACKFILL AGAINST WALLS UNTIL STRUCTURES SUPPORTING THE TOP OF THE WALL ARE IN PLACE, COMPLETE, AND (IN THE CASE OF CONCRETE) HAVE CURED TO THEIR MINIMUM SPECIFIED 28-DAY COMPRESSIVE STRENGTH.

CONCRETE:

1. LOCATION OF CONSTRUCTION JOINTS NOT SHOWN ON THE DRAWINGS SHALL BE APPROVED BY THE ENGINEER.
2. PROVIDE CHAMFER AT ALL EXPOSED EDGES OF CAST-IN-PLACE CONCRETE UNLESS OTHERWISE SHOWN ON DRAWINGS OR SPECIFIED SEE SPECIFICATION.
3. FINISH CONCRETE IN ACCORDANCE WITH SPECIFICATION 03366 UNLESS OTHERWISE NOTED.
4. SEE TYP DET S101 FOR ADDITIONAL CONCRETE NOTES, INCLUDING COVER REQUIREMENTS.
5. REINFORCEMENT:
   A. REINFORCEMENT SPLICES SHALL BE LAP SPLICES PER TYP DET S101 UNLESS OTHERWISE NOTED.
   B. MAINTAIN MINIMUM 2-INCHES CLEAR COVER BETWEEN REINFORCING STEEL AND CONCRETE EMBEDMENTS, UNLESS OTHERWISE NOTED.
   C. NO WELDING OF REINFORCEMENT BARS WILL BE PERMITTED UNLESS PRIOR APPROVAL IS OBTAINED FROM THE ENGINEER.

MASONRY:

1. WALLS TO BE FULLY GROUTED
2. GROUT ALL MASONRY CELLS WITHIN 6 INCHES OF ANCHORS DRILLED OR CAST INTO THE MASONRY. SEE TYP DET S440.

METAL FABRICATIONS:

1. LADDERS:
   A. ALUMINUM (UNLESS OTHERWISE NOTED).
   B. CONFORM TO OSHA REQUIREMENTS.
2. STAIRS:
   A. ALUMINUM (UNLESS OTHERWISE NOTED).
   B. CONFORM TO CBC 2007 REQUIREMENTS.
3. HANDRAILS AND GUARDRAILS:
   A. ALUMINUM (UNLESS OTHERWISE NOTED).
   B. CONFORM TO CBC 2007 REQUIREMENTS.
4. GRATING
   A. GRATING AND SEATS OR SUPPORTS SHALL BE OF SAME MATERIAL. PROVIDE ALUMINUM CONSTRUCTION WITH TYPE 316 STAINLESS STEEL FASTENERS (UNLESS OTHERWISE NOTED).
   B. UNLESS GRATING IS INDICATED TO BE REMOVABLE, SECURELY FASTEN GRATING TO SUPPORTS.
   C. FIELD VERIFY GRATING SUPPORT LOCATIONS BEFORE FABRICATING GRATING. PLACE SUPPORTS WITH CARE TO MAINTAIN TOLERANCES SHOWN OR SPECIFIED.
5. COVER PLATES
   A. ALUMINUM FASTENED TO ALUMINUM SUPPORTS WITH STAINLESS STEEL MACHINE SCREWS UNLESS OTHERWISE NOTED.

ANCHOR BOLTS AND CONCRETE ANCHORS

1. SEE SPECIFICATION 05091 FOR ADDITIONAL REQUIREMENTS.
2. UNLESS INDICATED OTHERWISE ON THE DRAWINGS THE FOLLOWING MINIMUM EMBEDMENT LENGTHS APPLY.

MINIMUM EMBEDMENT LENGTHS FOR ANCHOR BOLTS IN CONCRETE	
DIAMETER (INCHES)	EMBEDMENT LENGTH (INCHES)
1/4	2 1/2
3/8	3 3/4
1/2	5
5/8	6 1/4
3/4	7 1/2

MINIMUM EMBEDMENT LENGTHS FOR CONCRETE ANCHORS	
DIAMETER (INCHES)	EMBEDMENT LENGTH (INCHES)
1/4	2
3/8	2 1/2
1/2	4 1/8
5/8	4 1/2
3/4	6 1/2

EARTHQUAKE DESIGN DATA FOR BUILDINGS
CBC SECT. 1603
(NOTE: SEE SPEC SECT. 01612 FOR ADDITIONAL CRITIERIA)

PROCESS AREA	STRUCTURE	RESPONSE MODIFICATION COEFFICIENT	SYSTEM OVERSTRENGTH FACTOR	DEFLECTION AMPLIFICATION FACTOR	LATERAL FORCE RESISTING SYSTEM	ANALYSIS PROCEDURE	STRUCTURAL OBSERVATION DETAILS
		ASCE 7-05 TABLE 12.2.1					CBC SECT 1709
95	MAIN ELECTRICAL BUILDING	5.0	2 1/2	3 1/2	SPECIAL REINF CMU SHEAR WALLS	EQUIVALENT LATERAL FORCE	7 / 95-S-04

GENERAL NOTES :

1. UNLESS DETAILED, SPECIFIED, OR INDICATED OTHERWISE, CONSTRUCTION SHALL BE AS INDICATED IN THE GENERAL NOTES AND APPLICABLE TYPICAL DETAILS. TYPICAL DETAILS ARE INTENDED TO APPLY EVEN WHEN NOT REFERENCED AT SPECIFIC LOCATIONS ON THE DRAWINGS.
2. SEE ARCHITECTURAL, MECHANICAL, ELECTRICAL, INSTRUMENTATION AND OTHER DRAWINGS OF THESE CONTRACT DOCUMENTS FOR ANCHORS, PIPE SLEEVES, CONDUITS AND OTHER ITEMS TO BE EMBEDDED IN OR PASS THROUGH STRUCTURES. CONFIRM SIZE AND LOCATION FOR ITEMS AND EQUIPMENT FURNISHED. IN GENERAL, EMBEDMENTS AND PENETRATIONS LESS THAN 12 INCHES IN DIAMETER ARE NOT SHOWN ON THE STRUCTURAL DRAWINGS.
3. SEE MECHANICAL DRAWINGS FOR DETAILS OF PIPE PENETRATIONS & ASSOCIATED STRUCTURAL REQUIREMENTS.
4. VERIFY ALL EXISTING DIMENSIONS AND CONDITIONS BEFORE BEGINNING WORK. IMMEDIATELY REPORT TO ENGINEER ANY DISCREPANCIES BETWEEN EXISTING CONDITIONS AND INFORMATION SHOWN ON THESE DRAWINGS.
5. PRESENTATION COMMENTS FOR STRUCTURAL DRAWINGS:
   A. SCREENED LINEWORK AND TEXT INDICATES EXISTING CONDITIONS.
   B. PLANS ARE TREATED AS HORIZONTAL SECTIONS (I.E.: "PLAN AT ELEVATION 110" SHOWS ITEMS BELOW ELEVATION 110.)
   C. WRITTEN DIMENSIONS TAKE PRECEDENCE OVER SCALED SIZES.
   D. IN STRUCTURAL TYPICAL DETAILS, ORIENTATION OF BARS IN EACH MAT OF REINFORCEMENT (WHETHER "LINES" OR "DOTS" ARE CLOSEST TO FACE) IS GENERALLY ARBITRARY. SEE DRAWINGS OF EACH STRUCTURE FOR ORIENTATION REQUIRED AT THAT STRUCTURE.
6. CONTRACTOR SHALL SUBMIT WELDING PROCEDURE SPECIFICATION (WPS) TO THE SPECIAL INSPECTION AGENCY FOR APPROVAL PRIOR TO STARTING CONSTRUCTION.
7. ALL WELDING SHALL BE PERFORMED IN ACCORDANCE WITH THE APPROVED WELDING PROCEDURES AND SHALL BE VERIFIED BY THE SPECIAL INSPECTOR. A COPY OF THE APPROVED WPS SHALL BE AVAILABLE AT THE JOB SITE FOR REFERENCE. WITH APPROVAL FROM THE ENGINEER OF RECORD, SINGLE - PASS FILLET WELDS MAY BE EXEMPTED FROM THIS REQUIREMENT PROVIDED IT IS NOT WELDING ON REINFORCING BARS.
8. PRIOR TO REQUESTING A FOUNDATION INSPECTION BY THE CITY OF SAN LEANDRO, THE GEOTECHNICAL ENGINEER WHO PREPARED THE SOIL INVESTIGATION SHALL PROVIDE A WRITTEN FIELD REPORT WHICH SHALL STATE THE FOLLOWING:
   A. THE BUILDING PAD WAS PREPARED AND COMPACTED IN ACCORDANCE WITH THE SOIL REPORT AND SPECIFICATIONS.
   B. THE FOUNDATION AND / OR PIER EXCAVATION, DEPTH AND BACKFILL MATERIALS, AND DRAINAGE (IF APPLICABLE) SUBSTANTIALLY CONFORM WITH THE SOIL REPORT AND APPROVED PLANS.
9. PRIOR TO FINAL INSPECTION FOR ANY BUILDING OR STRUCTURE, THE GEOTECHNICAL ENGINEER WHO PREPARED THE SOIL INVESTIGATION SHALL ISSUE A FINAL REPORT STATING THE COMPLETED PAD, FOUNDATION, FINISH GRADING, AND ASSOCIATED SITE WORK SUBSTANTIALLY CONFORM TO THE APPROVED PLANS, SPECIFICATIONS, AND INVESTIGATION.

JOB NUMBER: 8160A.10
FILENAME: 8160A10-00-S-001.dgn

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

DESIGNED	WTT
DRAWN	KB
CHECKED	CAG
DATE	JANUARY 2011

DISCIPLINE ENGINEER — REGISTERED PROFESSIONAL ENGINEER — WEI-THANG TZENG — No. C35597 — Exp. 8/30/11 — CIVIL — STATE OF CALIFORNIA — 01/31/11
PROJECT ENGINEER — REGISTERED PROFESSIONAL ENGINEER — JAMES WICKSTROM — No. C57732 — Exp. 12/31/11 — CIVIL — STATE OF CALIFORNIA — 01/31/11
PROJECT MANAGER — REGISTERED PROFESSIONAL ENGINEER — RICK L CHAN — No. C48892 — Exp. 8/30/12 — CIVIL — STATE OF CALIFORNIA — 01/31/11

carollo

CITY OF SAN LEANDRO — INCORPORATED 1872

BEFORE YOU DIG, CALL UNDERGROUND SERVICE ALERT 1(800)227-2600
IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE EXISTENCE AND LOCATION OF ALL UNDERGROUND UTILITIES. THOSE SHOWN REPRESENT THE BEST INFORMATION AVAILABLE TO THE CITY OF SAN LEANDRO AT THE TIME OF PREPARATION OF THESE PLANS. NO GUARANTEE IS MADE AS TO THE ACCURACY OF THIS INFORMATION.

NO.	DATE	REVISION
4	03/11	ADDENDUM NO. 4

CITY OF SAN LEANDRO

PROJECT MGR.	KC	DATE 3/29/11
TRANS ADMIN.		DATE
SENIOR ENGR.	AGO	DATE 3/29/11
APPROVED BY		DATE 3/30/11
CITY ENGINEER, RCE No. 34870		

WPCP REHABILITATION PROJECT
STRUCTURAL
GENERAL STRUCTURAL NOTES

CONTRACT DWG 00-S-01
SHEET 172 OF 557
JOB NO. 08-593-52-239
SCALE AS NOTED
DWG. 1365 CASE 604

TABLE 01455 C1a: SPECIAL INSPECTIONS
Steel Construction – Materials (CBC 1704.3)

Requirements: C = Continuous Special Inspection P = Periodic Special Inspection N/A = Not Applicable	CBC Reference	All areas of work
MATERIALS:		
High Strength Bolting Materials		
Confirm ASTM identification markings	T1704.3-1a	P
Submit manufacturer's certificate of compliance	T1704.3-1b	P
Weld Filler Material		
Confirm AWS identification markings	T1704.3-4a	P
Submit manufacturer's certificate of compliance	T1704.3-4b	P
Steel Members		
Other steel: Confirm identification marks conform to ASTM standards specified.	T1704.3-3a	P
Submit manufacturer's certified mill test reports.	T1704.3-3b	P

TABLE 01455 C1b: SPECIAL INSPECTIONS
Steel Construction – Assemblies and Workmanship (CBC 1704.3)

Requirements: C = Continuous Special Inspection P = Periodic Special Inspection N/A = Not Applicable	CBC Reference	All areas of work
ASSEMBLIES AND WORKMANSHIP		
High Strength Bolting		
Bearing type connections	T1704.3-2a	P
Pre-tensioned and slip critical connections using: turn of nut with match-marking; twist-off bolts; or direct tension indicator methods of installation	T1704.3-2b	P
Pre-tensioned and slip critical connections using turn of nut without match-marking; or calibrated wrench methods of installation.	T1704.3-2b	C
Welding		
Complete & partial penetration groove welds	T1704.3-5a1	C
Multi-pass fillet welds	T1704.3-5a2	C
Single pass fillet welds > 5/16"	T1704.3-5a3	C
Single pass fillet welds < 5/16"	T1704.3-5a5	P
Floor and roof deck welds	T1704.3-5	P
Weld ability of reinforcing steel other than ASTM A706	T1704.3-5a1	P
Bounding elements of special reinforced concrete shear walls & shear reinforcement	T1704.3-5a2	C
Shear reinforcement	T1704.3-5a3	C
Other reinforcing steel	T1704.3-5a4	P
Detailing		
Details such as bracing and stiffening.	T704.3-6a	P
Member locations	T1704.3-6b	P
Application of joint details at each connection	T1704.3-6c	P

TABLE 01455-C2: SPECIAL INSPECTIONS
Concrete Construction – (CBC 1704.4)

Requirements: C = Continuous Special Inspection P = Periodic Special Inspection N/A = Not Applicable	CBC Reference	All Areas of Work
Formwork		
Shape, location, and dimensions of member	T1704.4-11	P
Reinforcement		
Materials grade and size	T1704.4-1	P
Weldability of reinforcing steel	T1704.3-5a1	P
Anchor Bolts		
Inspect bolts to be installed in concrete prior to and during placement of concrete.	T1704.4-3	C
Inspect anchors installed in hardened concrete		P
Concrete Mix		
Tests: Slump, air content, temperature	T1704.4-5	C
Tests: Laboratory compression strength	T1704.4-5	C
Verify use of required design mix	T1704.4-4	P
Inspection for maintenance of specified curing temperature and techniques	T1704.4-7	P

Notes:
1. Includes anchor bolts for process equipment.

SPECIAL INSPECTION NOTES:

PROVIDE SPECIAL INSPECTION IN ACCORDANCE WITH THE CALIFORNIA BUILDING CODE CHAPTER 17 AND THE PROJECT SPECIFICATIONS FOR THE FOLLOWING ITEMS:

1. STEEL CONSTRUCTION
2. CONCRETE CONSTRUCTION
3. MASONRY CONSTRUCTION
4. SOILS
5. POST INSTALLED ANCHORS IN CONCRETE AND MASONRY
6. COATINGS

SEE SPECIFICATION 01455 FOR REQUIREMENTS FOR SPECIAL INSPECTION, STRUCTURAL TESTING AND STRUCTURAL OBSERVATION.

TABLE 01455-C3a: SPECIAL INSPECTIONS
Masonry Construction – Materials (CBC 1704.5.1)

Requirements: C = Continuous Special Inspection P = Periodic Special Inspection N/A = Not Applicable	CBC Reference	All areas of work
Compliance with required inspection provision of the construction documents and the approved submittals shall be verified.	T1704.5.1-6	P
Verification of f'm prior to construction.	T1704.5.1-2	P
Proportions of site-prepared mortar	T1704.5.1-1a	P
Specified size, grade and type of reinforcement, anchor bolts.	T1704.5.1-2c	P
Proportions of site-prepared grout.	T1704.5.1-2c	P

TABLE 01455-C3b: SPECIAL INSPECTIONS
Masonry Construction – Assemblies and Workmanship (CBC 1704.5.1)

Requirements: C = Continuous Special Inspection P = Periodic Special Inspection N/A = Not Applicable	CBC Reference	All areas of work
Construction of mortar joints	Table 1704.5.1-1b	P
Location of reinforcement and connectors.	Table 1704.5.1-1c	P
Size and location of structural elements	Table 1704.5.1-2a	P
Type, size, and location of anchors, including other details of anchorage of masonry to structural members, frames or other construction	Table 1704.5.1-2b	P
Welding of reinforcing bars	Table 1704.5.1-2d	C
Preparation, construction and protection of masonry during cold weather (temperature below 40 degrees F) or hot weather (temperature above 90 degrees F)	Table 1704.5.1-2e	P
Grout space is clean	Table 1704.5.1-3a	P
Placement of reinforcement and connectors.	Table 1704.5.1-3b	P
Construction of mortar joints	Table 1704.5.1-3d	P
Grout placement shall be verified to ensure compliance	Table 1704.5.1-4	C
Preparation of any required grout specimens, mortar specimens and/or prisms shall be observed	Table 1704.5.1-5	P

TABLE 01455-C4: SPECIAL INSPECTIONS
Soils – Materials and Workmanship (CBC 1704.7)

Requirements: C = Continuous Special Inspection P = Periodic Special Inspection	CBC Reference Table 1704.7	All Areas of Work
Fill and backfill materials: Classify and test materials to be provided and materials used.	T1704.7 Item 3.	P
Excavations: Confirm that excavations extend to specified depths and to specified bearing materials.	T1704.7 Item 2.	P
Excavations: Confirm that materials below foundations are as specified and are adequate to provide required bearing capacity	T1704.7 Item 1	P
Subgrade preparation: Before placement of fill and backfill, verify that preparation conforms to Specifications.	T1704.7 Item 5	P
Filling / backfilling and compaction: Verify use of specified materials and lift thicknesses. Verify compaction to specified densities.	T1704.7 Item 4	C

DISCIPLINE ENGINEER: REGISTERED PROFESSIONAL ENGINEER WEI-THANG TENG No. C35597 Exp. 9/30/11 CIVIL STATE OF CALIFORNIA — 03/26/11
PROJECT ENGINEER: REGISTERED PROFESSIONAL ENGINEER JAMES WICKSTROM No. C57732 Exp. 12/31/11 CIVIL STATE OF CALIFORNIA — 03/26/11
PROJECT MANAGER: REGISTERED PROFESSIONAL ENGINEER RICK L. CHAN No. C48892 Exp. 9/30/12 CIVIL STATE OF CALIFORNIA — 03/26/11

carollo

CITY OF SAN LEANDRO INCORPORATED 1872

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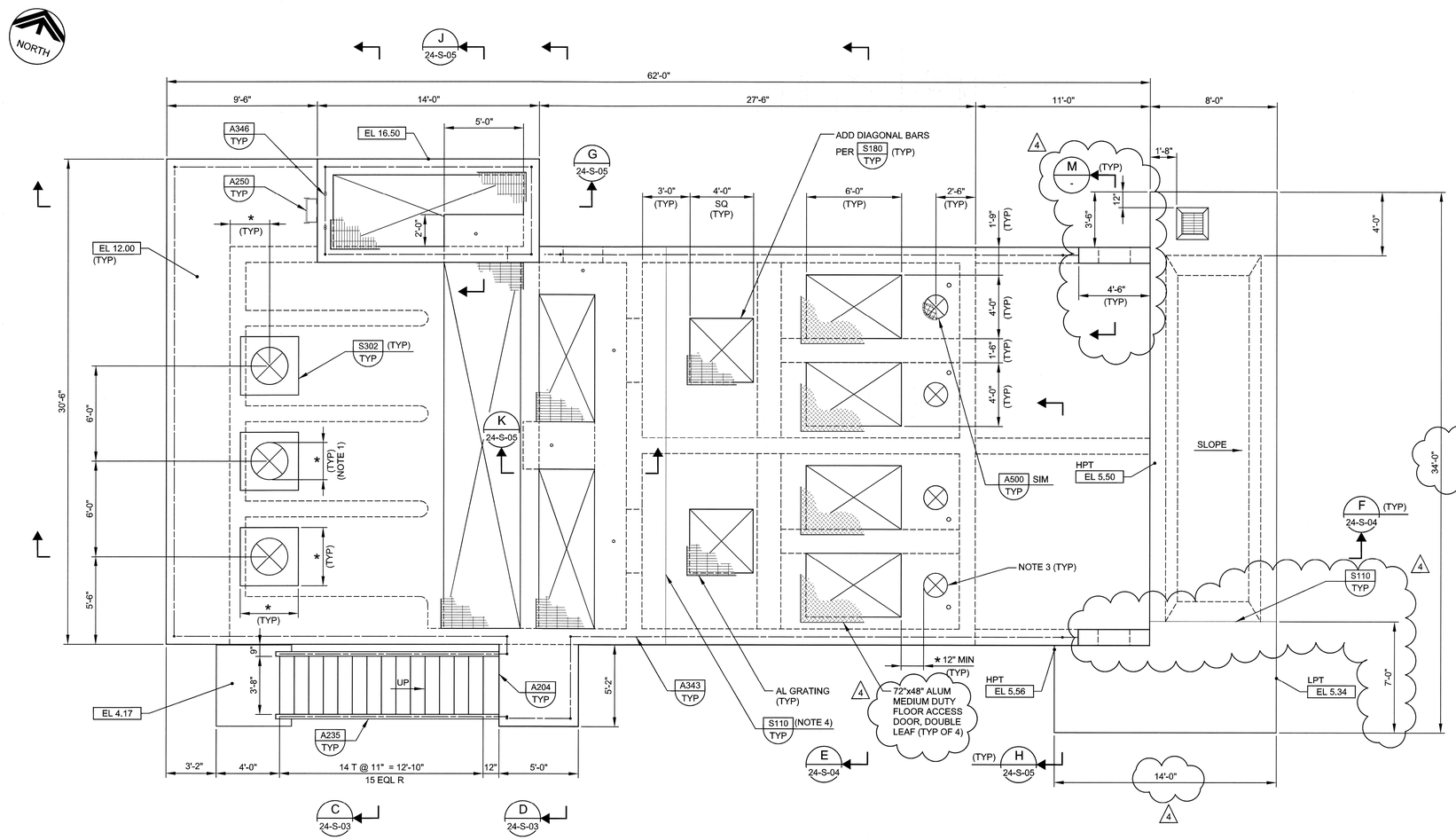
NO.	DATE	REVISION
4	03/11	ADDENDUM NO. 4

CITY OF SAN LEANDRO

PROJECT MGR. KC DATE 3/29/11
TRANS ADMIN. ____ DATE ____
SENIOR ENGR. AED DATE 3/29/11
APPROVED BY: DATE 3/30/11
CITY ENGINEER R.C.E. No. 34870

WPCP REHABILITATION PROJECT
STRUCTURAL
SPECIAL INSPECTION NOTES AND TABLES

CONTRACT DWG. 00-S-02
SHEET 172.01 OF 557
JOB NO. 08-593-52-239
SCALE AS NOTED
DWG. 1365.01 CASE 604



B - TOP PLAN
SCALE: 1/4" = 1'-0"
FILE: 8160A10-24-040-101

M - SECTION
SCALE: 1/2" = 1'-0"
FILE: 8160A10-24-040-309

NOTES:

1. ★ = COORDINATE DIMENSION WITH EQUIPMENT MANUFACTURER.
2. DESIGN LIVE LOAD = 100 PSF.
3. SEE MECH DWGS FOR LOCATION OF EQUIPMENT ANCHORS, PIPES, HVAC DUCTS, AND PIPE SUPPORTS. SEE ELEC DWGS FOR LOCATION OF ELEC CONDUITS.
4. FOR CJ LOCATION, SEE BOTTOM PLAN.

LAST SAVED BY: kmarshall LAST UPDATED: 03/29/2011 07:45 AM Model: Layout1 ColorTable: gshade.ctb DesignScript: Carollo_Std_Pen_F_v0905.pen PlotScale: 1:1 Plot Date: 29-MAR-2011 10:27:17 AM User: kmarshall

JOB NUMBER: 8160A.10
FILENAME: 8160A10-24-S-002.dgn

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DESIGNED	WTT
DRAWN	DST
CHECKED	CAG
DATE	JANUARY 2011

DISCIPLINE ENGINEER — REGISTERED PROFESSIONAL ENGINEER — WEI-THANG TZENG — No. C35597 — Exp. 9/30/11 — CIVIL — STATE OF CALIFORNIA — 01/31/11

PROJECT ENGINEER — REGISTERED PROFESSIONAL ENGINEER — JAMES WICKSTROM — No. C57732 — Exp. 12/31/11 — STATE OF CALIFORNIA — 01/31/11

PROJECT MANAGER — REGISTERED PROFESSIONAL ENGINEER — RICK L. CHAN — No. C48892 — Exp. 6/30/12 — CIVIL — STATE OF CALIFORNIA — 01/31/11

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CITY OF SAN LEANDRO — INCORPORATED 1872

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4	03/11	ADDENDUM NO. 4

CITY OF SAN LEANDRO

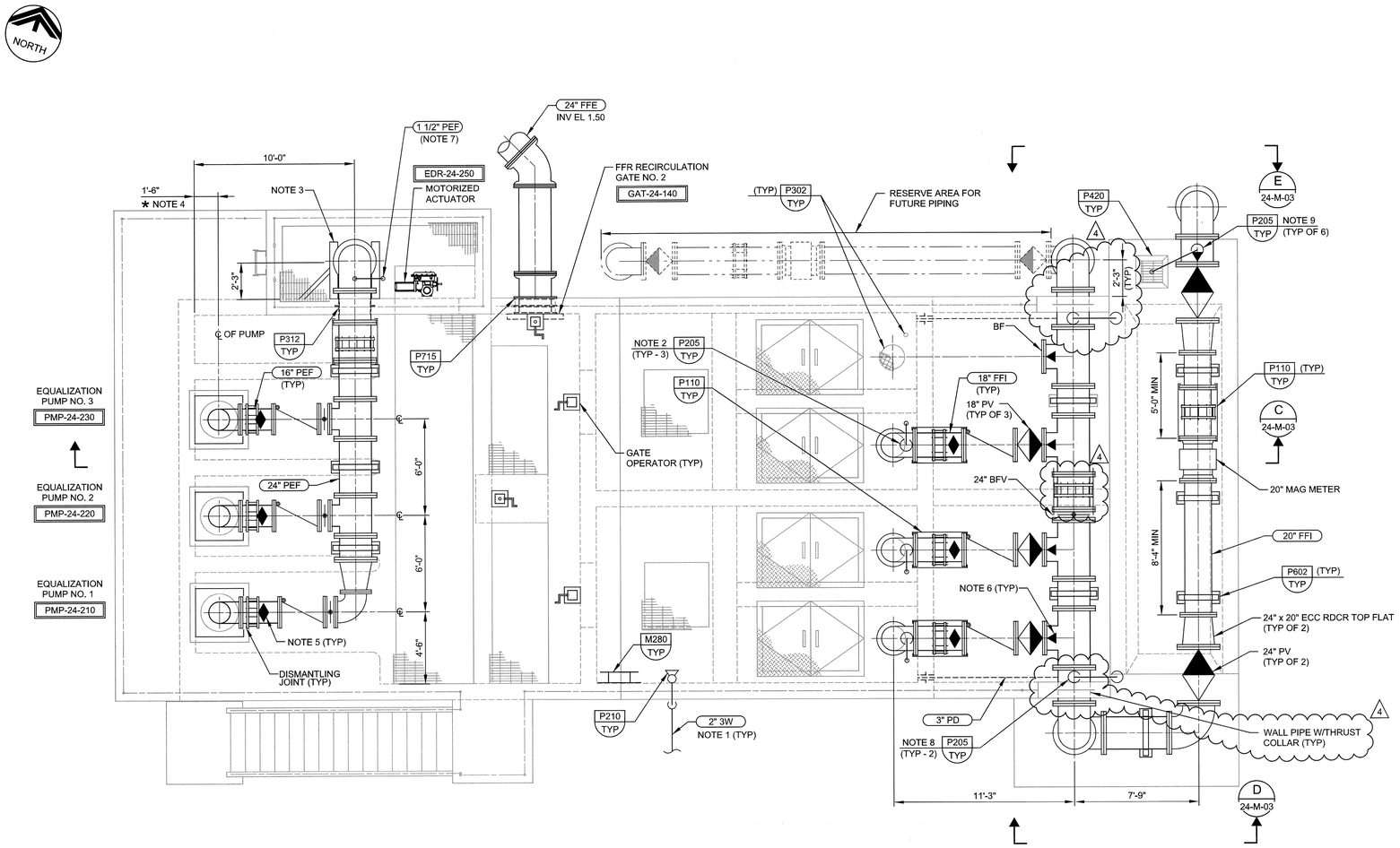
PROJECT MGR. KC DATE 3/29/11
TRANS ADMIN. ____ DATE ____
SENIOR ENGR. ABO DATE 3/29/11
APPROVED BY: ____ DATE 3/29/11
CITY ENGINEER, R.C.E. No. 34870

WPCP REHABILITATION PROJECT

STRUCTURAL

FIXED FILM REACTOR LIFT STATION
TOP PLAN

CONTRACT DWG. 24-S-02
SHEET 202 OF 557
JOB NO. 08-593-52-239
SCALE AS NOTED
DWG. 1395 CASE 604



B TOP PLAN

SCALE: 1/4" = 1'-0"
FILE: 8160A10-24-050-101

NOTES:

1. SEE DWG 01-C-10 FOR PIPING CONTINUATION.
2. 2" SEWAGE COMBINATION AIR VALVE. ROUTE 2" DRAIN LINE TO WET WELL. SUPPORT PER TYP P662.
3. SUPPORT ELBOW PER TYP P656.
4. * DENOTES DIMENSION TO BE CONFIRMED BY PUMP SUPPLIER.
5. ⧫ DENOTES SUPPORT PER TYP P624.
6. ▲ DENOTES SUPPORT PER TYP P627.
7. TAP DISCHARGE EL AT HIGH POINT TO PROVIDE AIR VENT. ROUTE 1 1/2" PEF BELOW GRATING AND TURN DOWN TO DISCHARGE AT EL 15.00. SUPPORT PER TYP P662 FROM SIDE OF CORBEL.
8. 3" SEWAGE COMBINATION AIR VALVE. ROUTE 3" DRAIN LINE BELOW DECK AND PENETRATE WET WELL WALL THROUGH SLEEVE PER TYP P304. SUPPORT 3" DRAIN PIPE PER TYP P660 @ 5'-0" OC, MAX, SPACING.
9. 3" SEWAGE COMBINATION AIR VALVE. ROUTE 3" DRAIN TO FLOOR SINK.

LAST SAVED BY: kmarshall
LAST UPDATED: 03/29/2011 08:54 AM
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User: kmarshall Plot Date: 29-MAR-2011 10:44:32 AM

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DATE JANUARY 2011
DISCIPLINE ENGINEER
PROJECT ENGINEER: REGISTERED PROFESSIONAL ENGINEER JAMES WICKSTROM No. C57732 Exp. 12/31/11 STATE OF CALIFORNIA 01/31/11
PROJECT MANAGER: REGISTERED PROFESSIONAL ENGINEER RICK L. CHAN No. C48882 Exp. 3/30/12 CIVIL STATE OF CALIFORNIA 01/31/11
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NO.	DATE	REVISION
4	03/11	ADDENDUM NO. 4

CITY OF SAN LEANDRO

PROJECT MGR. KC DATE 3/29/11
TRANS ADMIN. ____ DATE ____
SENIOR ENGR. AEO DATE 3/29/11
APPROVED BY: DATE 3/29/11
CITY ENGINEER, R.C.E. No. 34870

WPCP REHABILITATION PROJECT

MECHANICAL

FIXED FILM REACTOR LIFT STATION
TOP PLAN

CONTRACT DWG. 24-M-02
SHEET 251 OF 557
JOB NO. 08-593-52-239
SCALE AS NOTED
DWG. 1444 CASE 604

GENERAL NOTES:

1. EXISTING WORKSTATIONS WS-01 AND WS-02 HAVE INSTALLED LICENSES FOR THE FOLLOWING SOFTWARE:
   - CITECT SERVER/CLIENT V7.2 (1500 POINTS)
   - CITECT HISTORIAN V4.2
   - WONDERWARE SCADALARM 6.0
   - WINDOWS XP
2. EXISTING WORKSTATIONS WS-01 AND WS-02 ARE CONFIGURED FOR REDUNDANCY WITH AUTOMATIC FAILOVER.

KEY NOTES:

1. REMOVE EXISTING 900MHZ RADIO HARDWARE. PROVIDE NEW MODBUS TCP/IP RJ-45 ETHERNET CARD IN EXISTING PLC RACK. CONFIGURE NEW HARD-WIRED NETWORK CONNECTION TO PROVIDE ALL THE SAME FUNCTIONALITY AT SCADA AS THE PREVIOUS RADIO CONNECTION.
2. PROVIDE NEW ETHERNET SWITCH IN EXISTING PLC CABINET. MODIFY EXISTING CABINET AS REQUIRED TO MOUNT ETHERNET SWITCH AND CONNECT TO ASSOCIATED POWER SUPPLIES.
3. PROVIDE NEW I/O MODULES IN SPARE BASE SLOTS FOR ADDITIONAL I/O POINTS REQUIRED.
4. CONNECT THE SWGR-MAIN AND SWBD-CG REMOTE I/O TO EACH OTHER VIA 2 SEPARATE STRANDS OF FIBER IN THE 12/FO FIBER LOOP CABLES. THEY DO NOT INTERACT WITH THE PLANT SCADA SYSTEM. REFER TO DRAWINGS 00-E-11 AND 00-E-30.
5. REFER TO DRAWING 95-N-01 FOR ADDITIONAL DETAILS.

2/FO PATCH CABLE
SWGR-MAIN REMOTE I/O
SWGR-MAIN METERING
SWGR-01 METERING
CATEGORY 5E 10/100 BASE TX
ENGINE GENERATOR CONTROL PANEL (DWG. 95-N-03)
MB
HYPOCHLORITE FEED PANEL
HMI-47 AUTOMATION DIRECT
PLC-47 DIRECTLOGIC 205
ES-47 ETHERNET SWITCH (MANAGED)
FPP-47 FIBER PATCH PANEL
PCM-25 (FFR AREA)
PLC-25
ES-25 ETHERNET SWITCH (MANAGED)
FPP-25 FIBER PATCH PANEL
PCM-10 (MAIN ELECTRICAL BLDG.)
PLC-10
ES-10 ETHERNET SWITCH (MANAGED)
FPP-10 FIBER PATCH PANEL
"FO-C" 12/FO 100 BASE FX
"FO-D" 12/FO 100 BASE FX
RAD-BFP X STREAM PKG RADIO
PLC-BFP ALLEN-BRADLEY SLC-504
BELT FILTER PRESS
PCM-80 (FLOW EQ RETURN PS)
PLC-80
CATEGORY 5E 10/100 BASE TX
"FO-B" 12/FO 100 BASE FX
CONTROL BUILDING
MCC-P (EFFLUENT PUMP STATION)
HMI-45 AUTOMATION DIRECT
PLC-45 DIRECTLOGIC 205
CATEGORY 5E 10/100 BASE TX
"FO-E" 12/FO 100 BASE FX
MCC-K (AERATION BASINS)
HMI-30 AUTOMATION DIRECT
PLC-30 DIRECTLOGIC 205
ES-30 ETHERNET SWITCH (MANAGED)
FPP-30 FIBER PATCH PANEL
RTU-H2 (SLUDGE THICKENER)
HMI-H2 AUTOMATION DIRECT
PLC-H2 DIRECTLOGIC 205
ES-H2 ETHERNET SWITCH (MANAGED)
FPP-H2 FIBER PATCH PANEL
WS-01 OPERATOR WORKSTATION NO. 1
WS-02 OPERATOR WORKSTATION NO. 2
MASTER RADIO
TO TELEPHONE SYSTEM
MODBUS RTU RS-232
ALARM PRINTER
ES-90 ENTERPRISE ETHERNET SWITCH (MANAGED)
ROUTER TO BUSINESS LAN (FUTURE)
FPP-90 FIBER PATCH PANEL
MCC-E (PRIMARY CLARIFIERS)
HMI-20 AUTOMATION DIRECT
PLC-20 DIRECTLOGIC 205
CATEGORY 5E 10/100 BASE TX
FORMER CENTRIFUGE BUILDING
SWGR-03 METERING
ES-03 ETHERNET SWITCH (MANAGED)
FPP-03 FIBER PATCH PANEL
PCM-35 (MCC-35 ENCLOSURE)
PLC-35
ES-35 ETHERNET SWITCH (MANAGED)
FPP-35 FIBER PATCH PANEL
SWBD-CG REMOTE I/O
SWGR-02 ENCLOSURE
SWGR-02 METERING
ES-02 ETHERNET SWITCH (MANAGED)
FPP-02 FIBER PATCH PANEL
"FO-J" 12/FO 100 BASE FX
"FO-G" 12/FO
"FO-K" 12/FO 100 BASE FX
"FO-H" 12/FO 100 BASE FX
"FO-A" 12/FO 100 BASE FX
"FO-F" 12/FO 100 BASE FX

LAST SAVED BY: mpagendam
LAST UPDATED: 03/28/2011 05:11 PM

JOB NUMBER: 8160A.10
FILENAME: 8160A10-00-N-007.dwg

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

DESIGNED PCK/EV
DRAWN EV
CHECKED ALO
DATE JANUARY 2011

DISCIPLINE ENGINEER — REGISTERED PROFESSIONAL ENGINEER — PAUL C. KWONG — No. C57287 — Exp. 06/30/12 — STATE OF CALIFORNIA — 01/31/11
PROJECT ENGINEER — REGISTERED PROFESSIONAL ENGINEER — JAMES WICKSTROM — No. C57737 — Exp. 12/31/11 — STATE OF CALIFORNIA — 01/31/11
PROJECT MANAGER — REGISTERED PROFESSIONAL ENGINEER — RICK L. CHAN — No. C48892 — Exp. 9/30/12 — STATE OF CALIFORNIA — 01/31/11

carollo

CITY OF SAN LEANDRO INCORPORATED 1872

BEFORE YOU DIG, CALL UNDERGROUND SERVICE ALERT 1(800)227-2600
IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE EXISTENCE AND LOCATION OF ALL UNDERGROUND UTILITIES. THOSE SHOWN REPRESENT THE BEST INFORMATION AVAILABLE TO THE CITY OF SAN LEANDRO AT THE TIME OF PREPARATION OF THESE PLANS. NO GUARANTEE IS MADE AS TO THE ACCURACY OF THIS INFORMATION.

NO.	DATE	REVISION
4	03/11	ADDENDUM NO. 4

CITY OF SAN LEANDRO

PROJECT MGR. KC DATE 3/29/11
TRANS ADMIN. DATE
SENIOR ENGR. ACO DATE 3/29/11
APPROVED BY: DATE 3/30/11
CITY ENGINEER, R.C.E. No. 34870

WPCP REHABILITATION PROJECT

INSTRUMENTATION

SCADA SYSTEM BLOCK DIAGRAM

CONTRACT DWG. 00-N-07
SHEET 363 OF 557
JOB NO. 08-593-52-239
SCALE AS NOTED
DWG. 1556 CASE 604