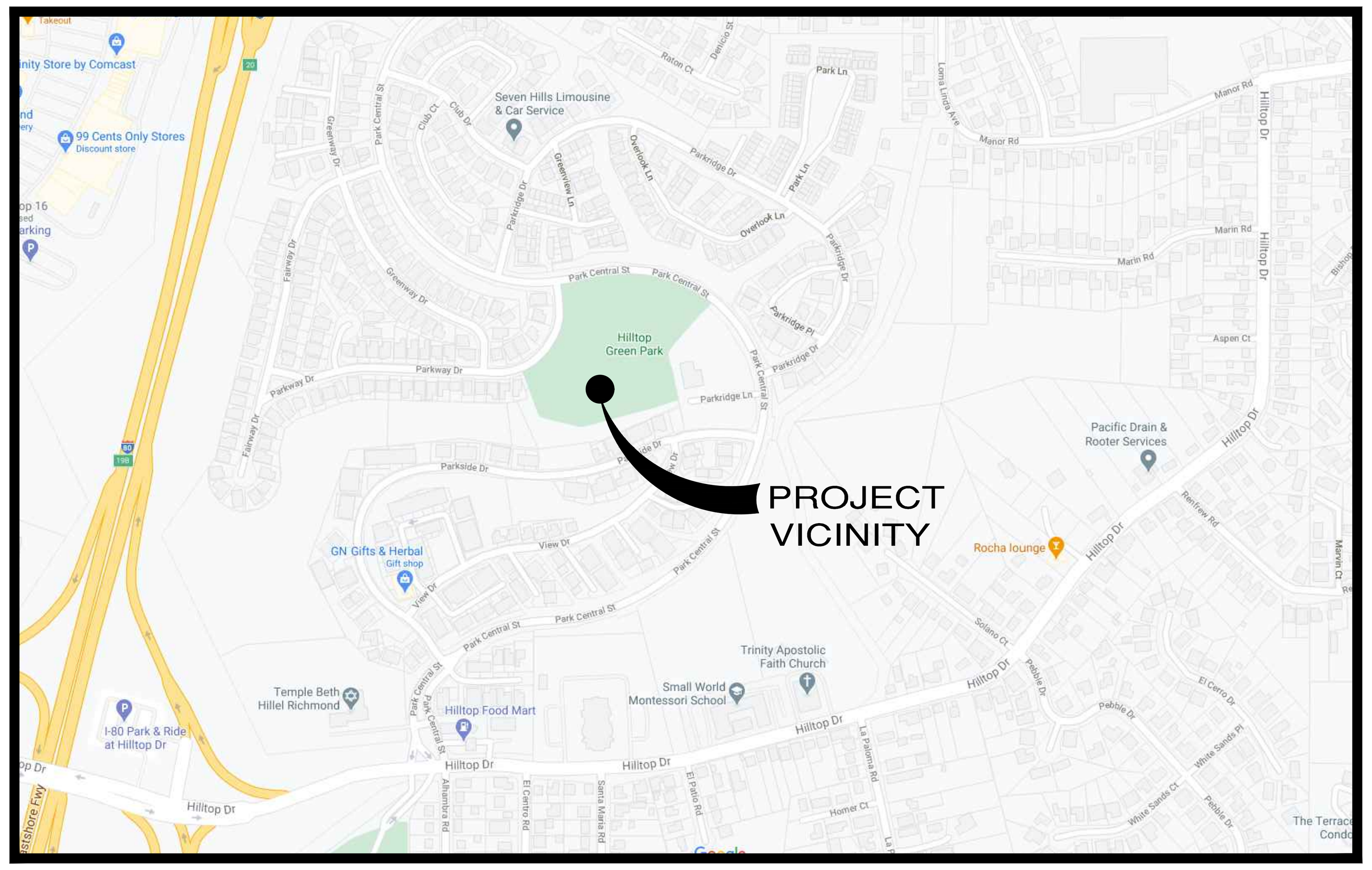
WEST COUNTY WASTEWATER DISTRICT

CONTRA COSTA COUNTY, CALIFORNIA

HILLTOP GREEN FORCE MAIN IMPROVEMENTS



VICINITY MAP

SCALE: NONE

CONTRACT NO. 21LS401

JUNE 2021

BOARD OF DIRECTORS

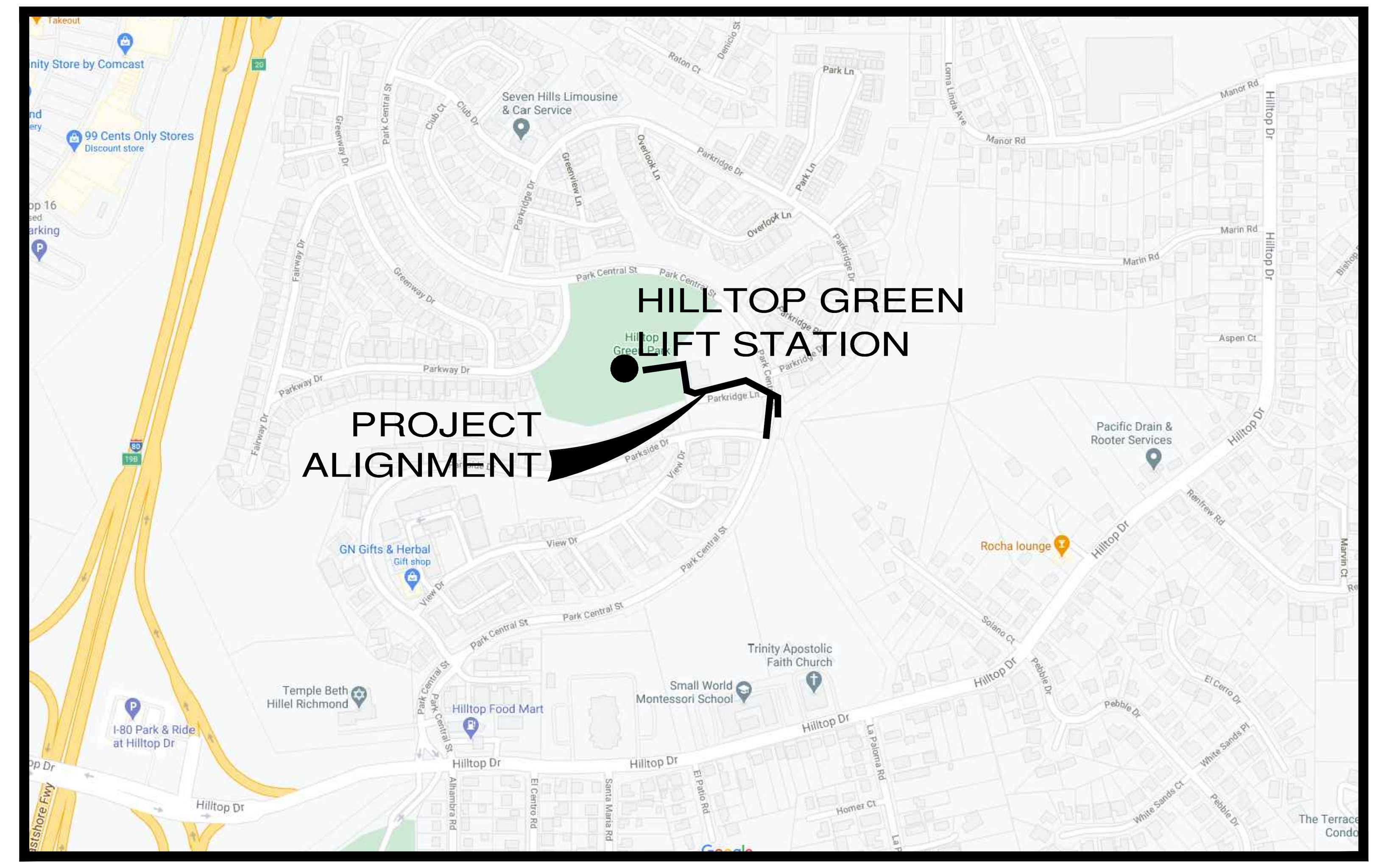
DAVID ALVARADO – PRESIDENT

CHERYL SUDDUTH – VICE PRESIDENT

SHERRY ANN STANLEY

HARRY WIENER

CESAR ZEPEDA



LOCATION MAP

SCALE: NONE

SHEET INDEX

NO.	DWG. NO.	DESCRIPTION
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REVISIONS

NUMBER	DATE	INITIALS	DESCRIPTION

SCALE: AS SHOWN

R. BACHUVALA
DESIGNED: R. BACHUVALA
DRAWN: M. KADIYALA
CHECKED:

811 CALL 811 AT LEAST TWO DAYS BEFORE YOU DIG
Know what's below. Call before you dig.
UNDERGROUND SERVICE ALERT OF SOUTHERN CALIFORNIA

REGISTERED PROFESSIONAL ENGINEER MURTHY KADIYALA No. C73472 CIVIL STATE OF CALIFORNIA

LEE+RO
WATER INFRASTRUCTURE ENGINEERS
1199 S. FULLERTON RD.
CITY OF INDUSTRY, CA 91748
TEL: (626) 912–3391
FAX: (626) 912–2015

WEST COUNTY WASTEWATER

WEST COUNTY WASTEWATER DISTRICT
2910 HILLTOP DRIVE, RICHMOND, CA 94806

WEST COUNTY WASTEWATER DISTRICT
APPROVED FOR CONSTRUCTION:

ENGINEERING DATE

HILLTOP GREEN FORCE MAIN IMPROVEMENTS

TITLE SHEET

DRAWING G–01

SHEET 1 OF 7

GENERAL NOTES

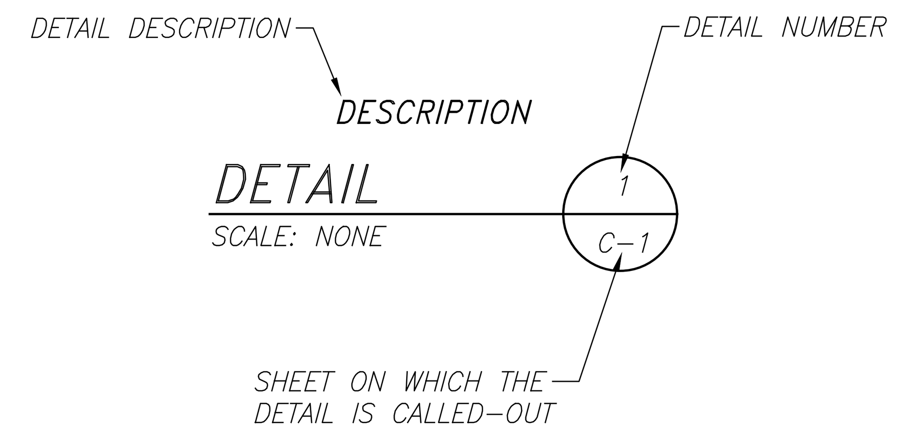
1. CONTRACTOR SHALL RESTORE ALL FACILITIES OUTSIDE LIMITS OF WORK DAMAGED BY CONSTRUCTION OPERATIONS TO EQUAL OR BETTER THAN THEIR ORIGINAL CONDITION AT NO ADDITIONAL COST TO THE DISTRICT.
2. THE PLANS DO NOT SHOW ALL EXISTING UTILITIES. UTILITIES SHOWN ARE BASED ON FACILITY MAPS AND ARE APPROXIMATE. THE CONTRACTOR SHALL VERIFY ALIGNMENT AND ELEVATION OF EXISTING UTILITIES AFFECTING THE WORK PRIOR TO CONSTRUCTION. PRIOR TO ANY DIGGING, CALL U.S.A. AT 811 A MINIMUM OF 48 HOURS IN ADVANCE OF EXCAVATION.
3. EXISTING SANITARY SEWER LINES ARE TO BE PROTECTED IN PLACE DURING CONSTRUCTION. CONTRACTOR SHALL LOCATE LINES PRIOR TO BEGINNING WORK.
4. ALL STREET MARKINGS, STRIPING, AND MARKERS AFFECTED BY CONSTRUCTION SHALL BE REPLACED AT THEIR EXISTING LOCATIONS AT NO ADDITIONAL COST TO THE CITY. THIS INCLUDES DAMAGE OF STREET MARKINGS ON ANY STREET DAMAGED BY CONSTRUCTION OPERATIONS.
5. ALL PAVEMENT SHALL BE SAWCUT TO FULL DEPTH FOR PIPE TRENCH AND FOR PAVEMENT REMOVAL.
6. TRAFFIC CONTROL DURING CONSTRUCTION SHALL BE THE CONTRACTOR'S RESPONSIBILITY AND IN ACCORDANCE WITH THE CONTRACT DOCUMENTS AND CONTRA COSTA COUNTY ENCROACHMENT PERMIT REQUIREMENTS. THE CONTRACTOR SHALL SUBMIT A WRITTEN TRAFFIC CONTROL & SIGNING PLAN (INCLUDING STREET CLOSURE DETAILS) TO THE ENGINEER WITHIN TEN (10) WORKING DAYS AFTER AWARD OF CONTRACT. SEE NOTE 20 BELOW.
7. THE CONTRACTOR SHALL PROVIDE ALL LIGHTS, SIGNS, BARRICADES, FLAG MEN AND OTHER DEVICES TO PROVIDE VEHICULAR AND PEDESTRIAN SAFETY.
8. CONTRACTOR SHALL PROTECT ALL UTILITY STRUCTURES AND SURVEY MONUMENTS WITHIN THE WORK AREAS. THE CONTRACTOR SHALL REVIEW THE WORK SITES PRIOR TO SUBMISSION OF BIDS.
9. THE CONTRACTOR SHALL, IF NECESSARY, BYPASS PUMP ALL SANITARY SEWER FLOW DURING OPEN TRENCH AND RECONNECTION TO EXISTING MANHOLE OPERATIONS.
10. DIMENSIONS SHOWN ON PLANS ARE HORIZONTAL MEASUREMENTS.
11. HORIZONTAL DIMENSIONS PROVIDED ON THE DRAWINGS ARE BASED ON RECORD DRAWING INFORMATION. FIELD MEASUREMENTS MAY VARY FROM THOSE ON THE DRAWINGS. PAYMENT WILL BE BASED ON QUANTITIES INSTALLED.
12. RIGHT OF WAY LINES ARE SHOWN AT APPROXIMATE LOCATIONS.
13. IT SHALL BE CONTRACTOR'S RESPONSIBILITY TO FIELD VERIFY LOCATIONS AND ELEVATIONS OF EXISTING FACILITIES AND TO IMMEDIATELY NOTIFY THE ENGINEER OF ANY FIELD CONFLICTS OR OMISSIONS. LOCATION OF ALL EXISTING UTILITIES SHOWN ON THE PLANS ARE APPROXIMATE. CONTRACTOR TO VERIFY LOCATIONS PRIOR TO DIGGING.
14. ALL STREET SURFACES AFFECTED BY CONSTRUCTION ACTIVITIES SHALL BE WATER TESTED BY THE CONTRACTOR TO ENSURE POSITIVE DRAINAGE AND ELIMINATION OF BIRD BATHS PRIOR TO INITIAL ACCEPTANCE.
15. EXISTING EASEMENTS SHOWN ON THE PLANS BASED ON THE AVAILABLE RECORDS.
16. CONTRACTOR SHALL OBTAIN A CONTRA COSTA COUNTY ENCROACHMENT PERMIT PRIOR TO START WORK.
17. CONTRACTOR SHALL REDUCE DIESEL EMISSIONS BY LIMITING THE USE OF EQUIPMENT, USE-GASOLINE-POWERED EQUIPMENT WHEN FEASIBLE, AND UTILIZING CURRENT DIESEL TECHNOLOGY.
18. THE TRAFFIC CONTROL PLAN AND WATER POLLUTION CONTROL PLAN INCLUDED IN THESE CONSTRUCTION DOCUMENTS SHOW THE MINIMUM REQUIREMENTS. CONTRACTOR SHALL REVIEW AND ADD TO THE PLANS AS NECESSARY TO ACCOMMODATE THEIR CONSTRUCTION REQUIREMENTS. CONTRACTOR SHALL RESUBMIT THE TRAFFIC CONTROL PLAN AND WATER POLLUTION CONTROL PLAN FOR APPROVAL BY THE CITY PRIOR TO STARTING WORK.

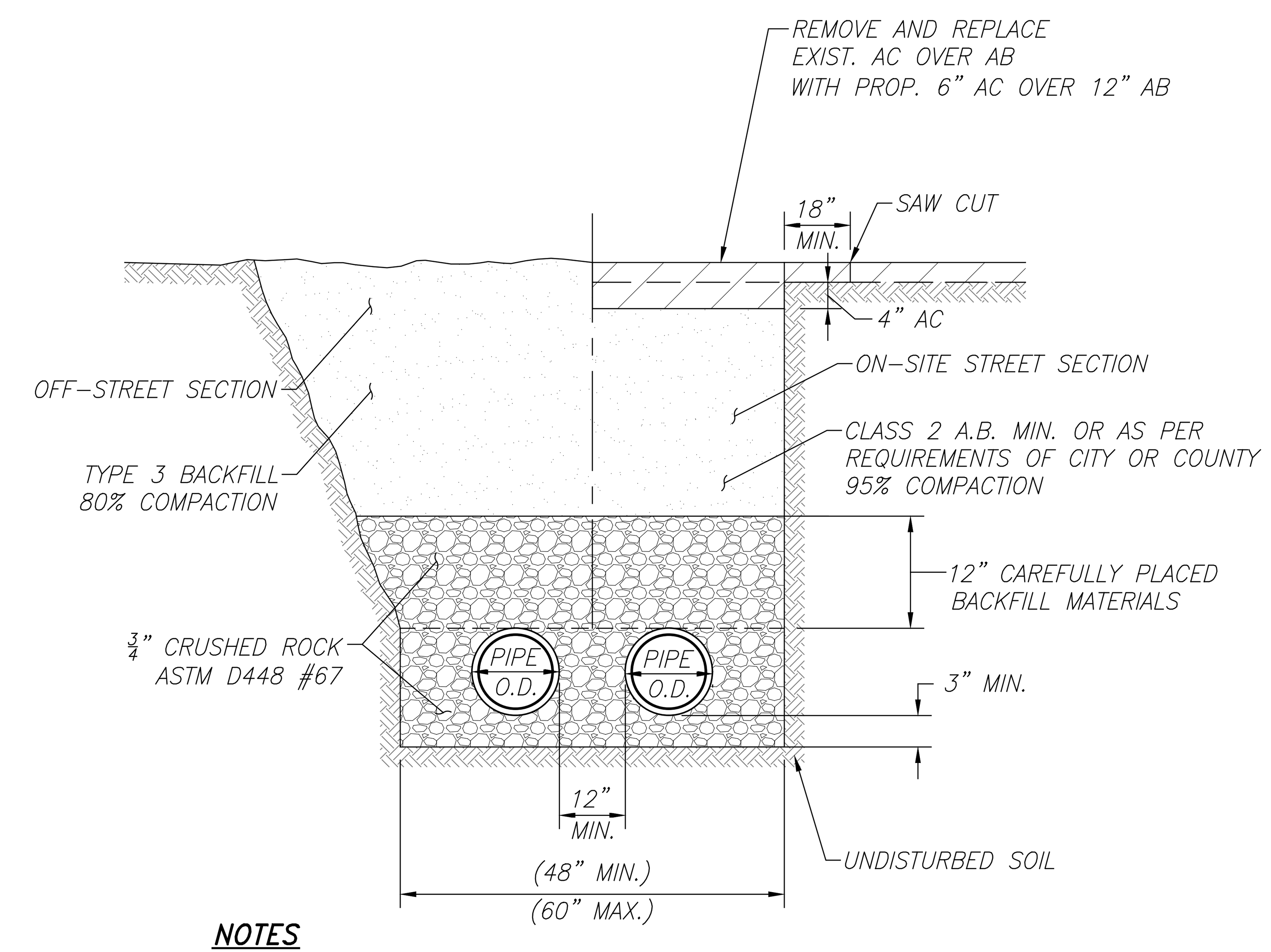
ABBREVIATIONS

ABAND	ABANDONED
AB	AGGREGATE BASE
AC	ASPHALT CONCRETE
ACP	ASBESTOS CEMENT PIPE
AV/AR ASSEMBLY	AIR VALVE/AIR RELEASE
BTM	BOTTOM
BEG	BEGIN
BFP	BACKFLOW PREVENTER
BFV	BUTTERFLY VALVE
CAB	CRUSHED AGGREGATE BASE
CATV	CABLE TELEVISION
C&G	CURB AND GUTTER
CL	CENTERLINE / CLASS
CONC	CONCRETE
CONST.	CONSTRUCT
CTB	CEMENT TREATED BASE
DOM	DOMESTIC SERVICE
DCDA ASSEMBLY	DOUBLE CHECK DETECTOR
DI	DUCTILE IRON
D/S	DOWNSTREAM
DWG	DRAWING
E	EXISTING / EAST
ELEV	ELEVATION
ENG	ENGINEERING
EXIST.	EXISTING
FDC CONNECTION	FIRE DEPARTMENT
FH	FIRE HYDRANT
FIRE	FIRE SERVICE
FL	FLOWLINE
FLG'D	FLANGED
FT.	FEET
FUT.	FUTURE
G	GAS
GB	GRADE BREAK
GV	GATE VALVE
HOR	HORIZONTAL
HP	HIGH PRESSURE
INTER	INTERSECTION
INV	INVERT
IRR	IRRIGATION
LAT	LATERAL
LF	LINEAR FEET
MAX	MAXIMUM
MFT	MANUFACTURER
MH	MANHOLE
MIN	MINIMUM
MOV	MOTOR OPERATED VALVE
MJ	MECHANICAL JOINT
N	NORTH
NO.	NUMBER
NTS	NOT TO SCALE
PB	PULL BOX
PCC	PORTLAND CEMENT CONCRETE
PIV	POST INDICATOR VALVE
P/L	PROPERTY LINE
PRELIM.	PRELIMINARY
PROP.	PROPOSED
PVMT	PAVEMENT
R/W	RIGHT-OF-WAY
REF	REFERENCE
RCA ADAPTER	RESTRAINED (DRESSER) COUPLING
RD	ROAD
RFCA ADAPTER	RESTRAINED FLANGED COUPLING
RJ	RESTRAINED JOINT
RPDA ASSEMBLY	REDUCED PRESSURE DETECTOR
RSGV	RESILIENT SEAT GATE VALVE
RT	RIGHT
S	SEWER / SOUTH
SD	STORM DRAIN
SH	SHEET
SL	STREET LIGHT
SFM	SEWER FORCE MAIN
SST	STAINLESS STEEL
ST	STREET
STA	STATION
STD	STANDARD
STL	STEEL
SW	SIDEWALK
T	TELEPHONE
TB	THRUST BLOCK
TBA	TO BE ABANDONED
TEMP	TEMPORARY
TJ	PUSH ON JOINT
TYP	TYPICAL
ULT	ULTIMATE
U/O	UNKNOWN OBJECT
U/S	UPSTREAM
VAR	VARIES
VER	VERTICAL
W	WATER / WEST
WM	WATER METER
WV	WATER VALVE

LEGEND

	SEWER MANHOLE
	UTILITY MANHOLE
	STORM DRAIN MANHOLE
WV	WATER VALVE
WM	WATER METER
	TRAFFIC SIGN
FH	FIRE HYDRANT
	STREET LIGHT POLE
	TRAFFIC LOOP
	UTILITY POLE
	PULL BOX / RISER
	TRAFFIC SIGNAL
16"W	EXISTING WATER LINE
24"SD	EXISTING STORM DRAIN
8"SS	EXISTING SEWER LINE
4"G	EXISTING GAS LINE
E	EXISTING ELECTRIC LINE
T	EXISTING TELEPHONE LINE
CATV	EXISTING CABLE TV LINE
FO	EXISTING FIBER OPTIC LINE
TS	EXISTING TRAFFIC SIGNAL LINE
OH	EXISTING OVERHEAD LINE
	PROPOSED SEWER MAIN
	BELOW GRADE CONDUIT
	ABOVE GROUND CONDUIT
	HOME RUN
	AIR VALVE
	CLEANOUT



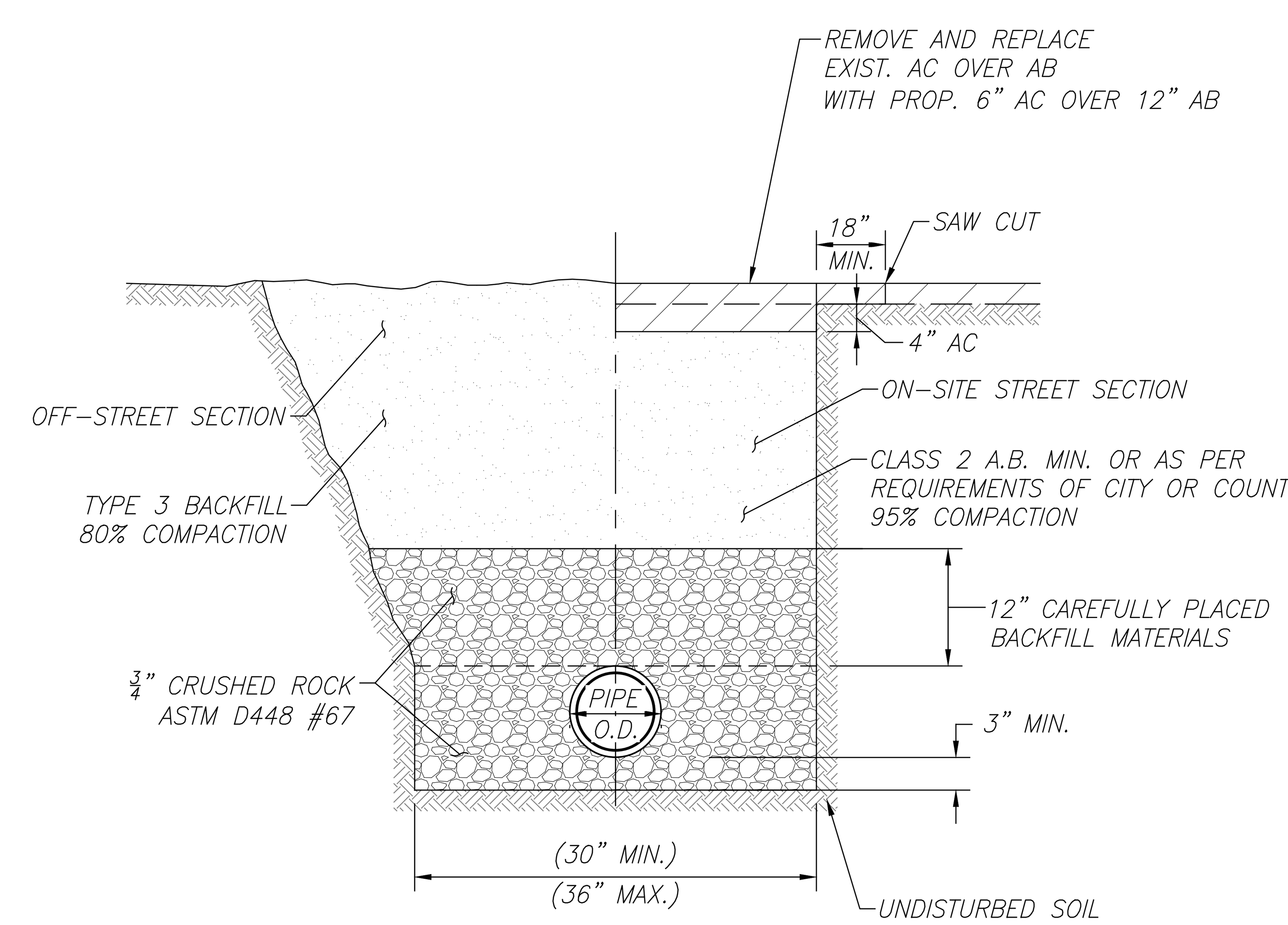


NOTES

1. ENCROACHMENT PERMIT: PROOF OF COUNTY OR CITY STREET CUT ENCROADHMNET PERMIT REQUIRED PRIOR TO WCWD INSPECTION.
2. MATERIALS: TO CONFORM TO CLATRANS STANDARD SPECIFICATIONS DATED JULY 1984.
3. PAVEMENT CUTS: TRIM NEATLY 18" (MIN.) FROM BROKEN EDGE AFTER BACKFILLING, PRIOR TO PAVING.
4. SAFETY: ALL WORK TO MEET THE REQUIREMENTS OF CALOSHA FOR UNDERGROUND SAFETY AND CONFINED SPACES.
5. CONTRACTOR SHALL OBTAIN NECESSARY STREET-CUT PERMIT FROM APPROPRIATE AGENCY, AND VERIFY BACKFILL REQUIREMENTS. CURRENT REQUIREMENTS ARE LISTED ABOVE.

DUAL FM TRENCH AND BACKFILL DETAIL

DETAIL 1/C-01
SCALE: NONE



SINGLE FM TRENCH AND BACKFILL DETAIL

DETAIL 2/C-01
SCALE: NONE

REVISIONS			
NUMBER	DATE	INITIALS	DESCRIPTION

SCALE: AS SHOWN
R. BACHUVALA
DESIGNED: R. BACHUVALA
DRAWN: M. KADIYALA
CHECKED:

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2910 HILLTOP DRIVE, RICHMOND, CA 94806

WEST COUNTY WASTEWATER DISTRICT
APPROVED FOR CONSTRUCTION:
ENGINEERING DATE

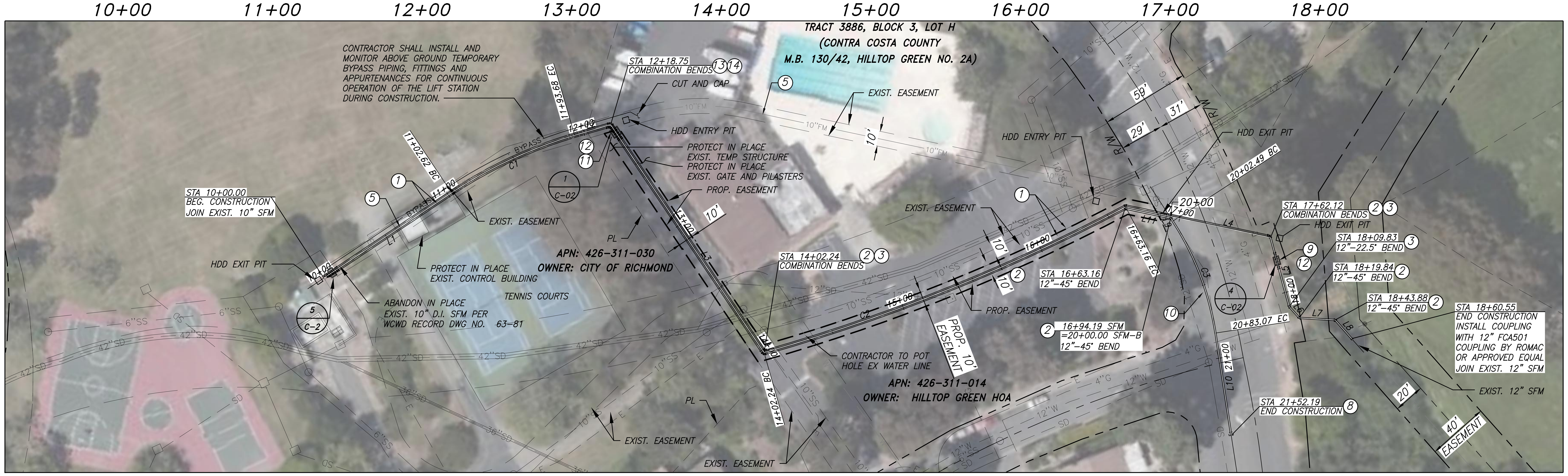
HILLTOP GREEN FORCE MAIN IMPROVEMENTS

GENERAL NOTES AND DETAILS

DRAWING G-02

SHEET 2 OF 7

p:\PROJ\671-WCWD Hilltop Green LS FM Design\4 DWG\Current Submittal\01-GEN\671-G02.dwg Jun 14, 2021 - 4:31pm



PARK CENTRAL ST

CONSTRUCTION NOTES:

1. CONSTRUCT 2-12" NOMINAL DIA (10.29" I.D.) IPS HDPE DR-11 (200 PSI) SEWER PIPE BY OPEN CUT TRENCH PER DETAIL 1 ON DWG G-02. TRACER WIRE AND WARNING TAPE SHALL BE INSTALLED OVER ALL NEW MAIN PIPING. MAINTAIN MIN 48" COVER UNLESS NOTED OTHERWISE.
2. INSTALL 12"-45° HDPE FABRICATED IPS DR11 (200 PSI) ELBOW.
3. INSTALL 12"-22.50° HDPE FABRICATED IPS DR11 (200 PSI) ELBOW.
4. INSTALL 12"-11.25° HDPE FABRICATED IPS DR11 (200 PSI) ELBOW.
5. ABANDON EXISTING 10" SSFM BY FILLING WITH FLOWABLE FILL, REMOVE INTERFERING PORTIONS OF EXISTING SSFM AS NECESSARY FOR CONSTRUCTION.
7. PROTECT IN PLACE EXISTING MANHOLE.
8. INSTALL 12" BLIND FLANGE
9. INSTALL 3'X5' CONCRETE VAULT WITH 12" DIA SUMP KNOCKOUT. INSTALL H20 WHEEL LOADS TRAFFIC RATED ACCESS HATCH PER DETAIL 4 ON DWG C-02.
10. CONSTRUCT 12" NOMINAL DIA (10.29" I.D.) IPS HDPE DR-11 (200 PSI) SEWER PIPE BY OPEN CUT TRENCH PER DETAIL 2 ON DWG G-02. TRACER WIRE AND WARNING TAPE SHALL BE INSTALLED OVER ALL NEW MAIN PIPING. MAINTAIN MIN 48" COVER UNLESS NOTED OTHERWISE.
11. INSTALL 5'X5' CONCRETE VAULT WITH 12" DIA SUMP KNOCKOUT. INSTALL H20 WHEEL LOADS TRAFFIC RATED ACCESS HATCH PER DETAIL 1 ON DWG C-02.
12. INSTALL 2" AV/AR PER DETAIL 3 ON C-02
13. INSTALL 10"-45° HDPE FABRICATED IPS DR11 (200 PSI) ELBOW.
14. INSTALL 10"-22.50° HDPE FABRICATED IPS DR11 (200 PSI) ELBOW.

SEWER FORCE MAIN DATA				
LINE #/CURVE #	LENGTH	RADIUS	BEARING/DELTA	TANGENT
C1	91.06	300.00	17°23'26"	45.88
C2	260.92	1240.00	12°03'22"	130.94
C3	80.58	190.00	24°17'53"	40.90
L1	102.62		N80°56'15"E	
L2	25.07		S81°40'19"E	

SEWER FORCE MAIN DATA				
LINE #/CURVE #	LENGTH	RADIUS	BEARING/DELTA	TANGENT
L3	183.49		S09°19'00"E	
L4	98.95		S53°23'46"E	
L5	47.72		S09°26'38"W	
L6	10.01		S16°54'36"E	
L7	24.04		S61°54'36"E	

SEWER FORCE MAIN DATA				
LINE #/CURVE #	LENGTH	RADIUS	BEARING/DELTA	TANGENT
L8	17.30		S16°54'36"E	
L9	2.49		S08°23'46"E	
L10	69.12		S15°54'07"W	
L11	30.66		S53°23'46"E	

*NOTES:

THE SEWER FORCE MAIN DATA ARE MEASURED ALONG STATION CENTERLINE

40' 0' 40' 80'
SCALE: 1" = 40'

NOTES:

1. UTILITIES SHOWN HEREON ARE PER RECORD MAPS. PRIOR TO CONSTRUCTION, CONTRACTOR SHALL FIELD LOCATE AND/OR POTHOLE TO CONFIRM EXACT LOCATION AND/OR ELEVATION OF UTILITIES.
2. NO TOPOGRAPHIC SURVEY HAS BEEN PERFORMED. PROFILE AND ELEVATIONS ARE BASED ON RECORD MAPS AND CONTOUR DATA RECEIVED FROM CONTRA COSTA COUNTY AND IS APPROXIMATE.
3. EXISTING PIPE DEPTH VARIES, BUT TYPICALLY IS 48" TO TOP OF PIPE.
4. BENDING OF NEW PIPE SHALL BE IN ACCORDANCE WITH AWWA AND PIPE MANUFACTURER'S RECOMMENDATIONS.

REVISIONS			
NUMBER	DATE	INITIALS	DESCRIPTION

SCALE: AS SHOWN
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DESIGNED:
R. BACHUVALA
DRAWN:
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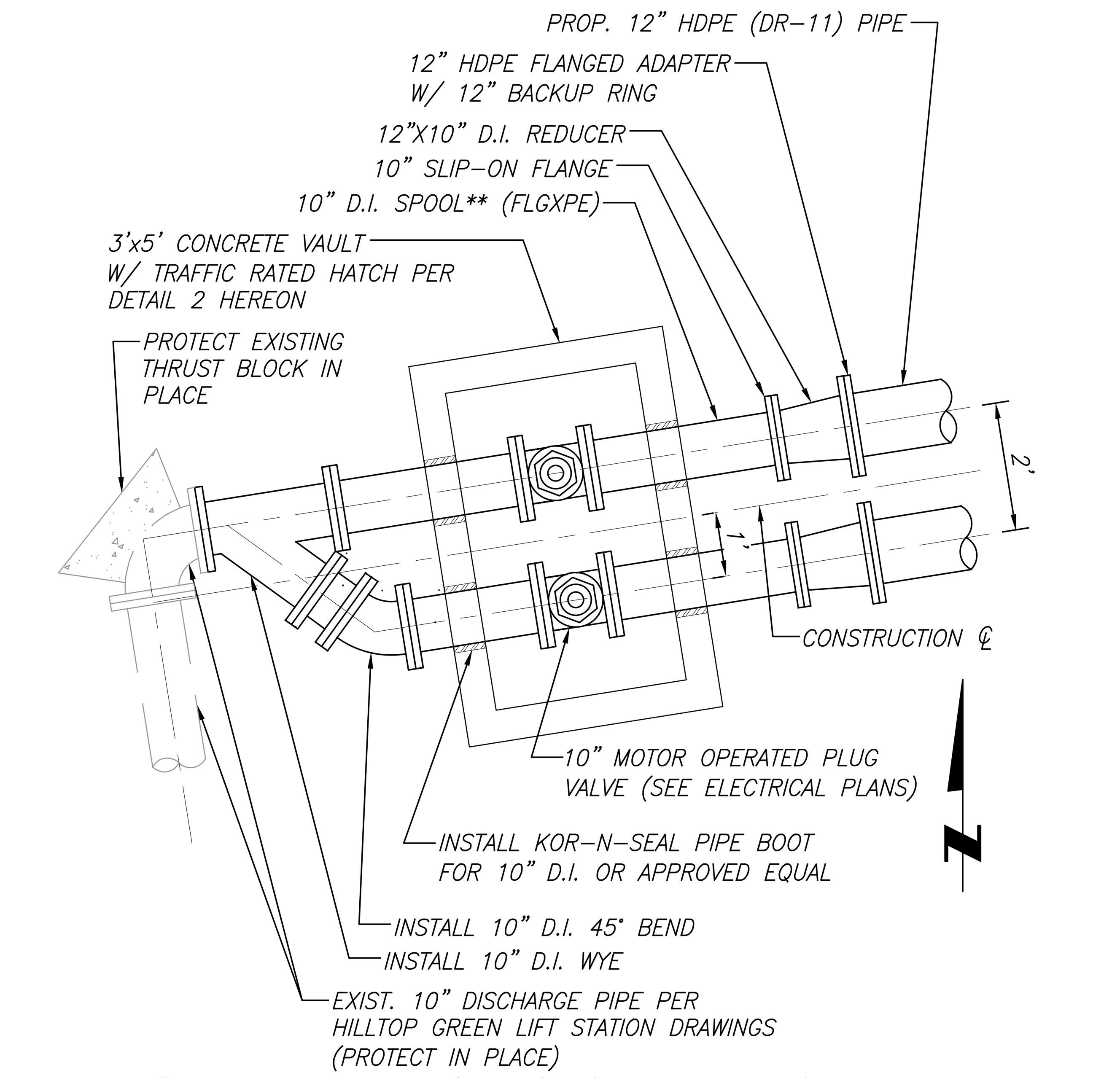
HILLTOP GREEN FORCE MAIN IMPROVEMENTS

PLAN AND PROFILE - STA 10+00 TO 18+61 & STA 20+00 TO 21+52

DRAWING C-01

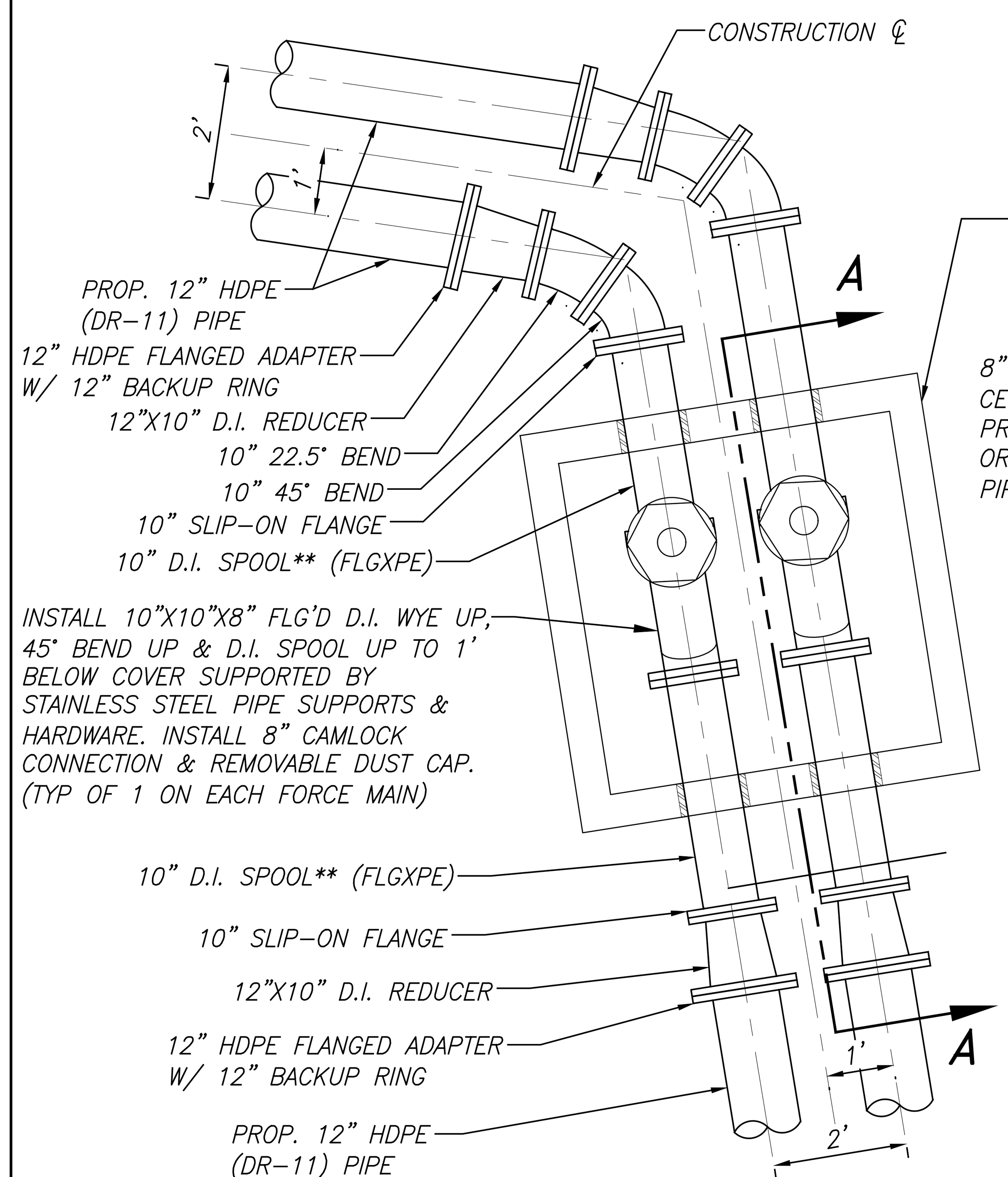
SHEET 3 OF 7



NOTE: ** 10" CLASS 200 D.I. SPOOL (FLGXPE) W/ CEMENT MORTAR/ASPHALT COATING & PROTECTO 401 CERAMIC EPOXY LINING OR APPROVED EQUAL (TYP OF ALL D.I. PIPE & FITTINGS)

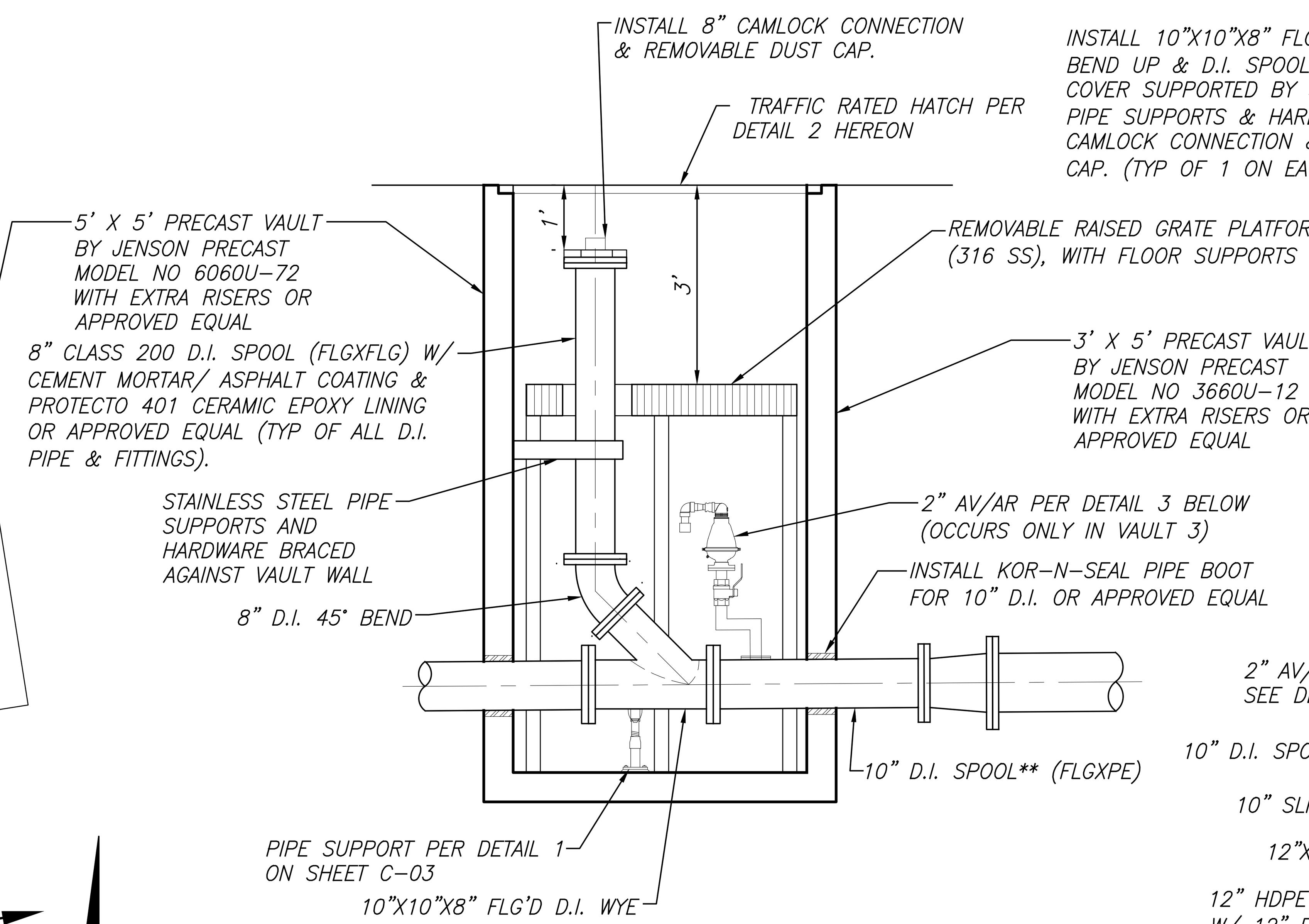
VALVE VAULT #1 AT STA 10+06.54

DETAIL 5 / C-01
SCALE: NTS

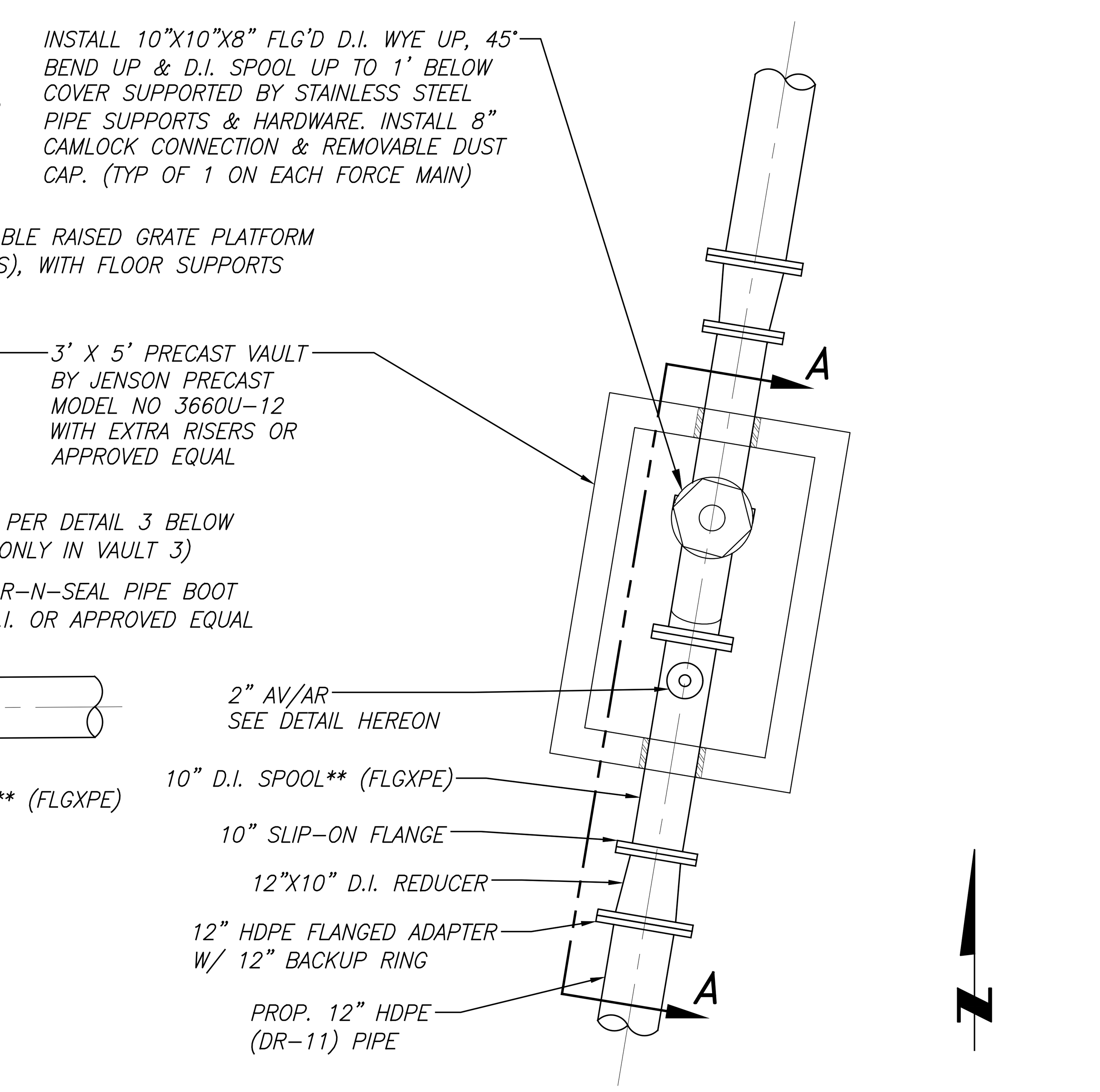


CLEANOUT VAULT #2 AT STA 12+24.84

DETAIL 1 / C-01
SCALE: NTS



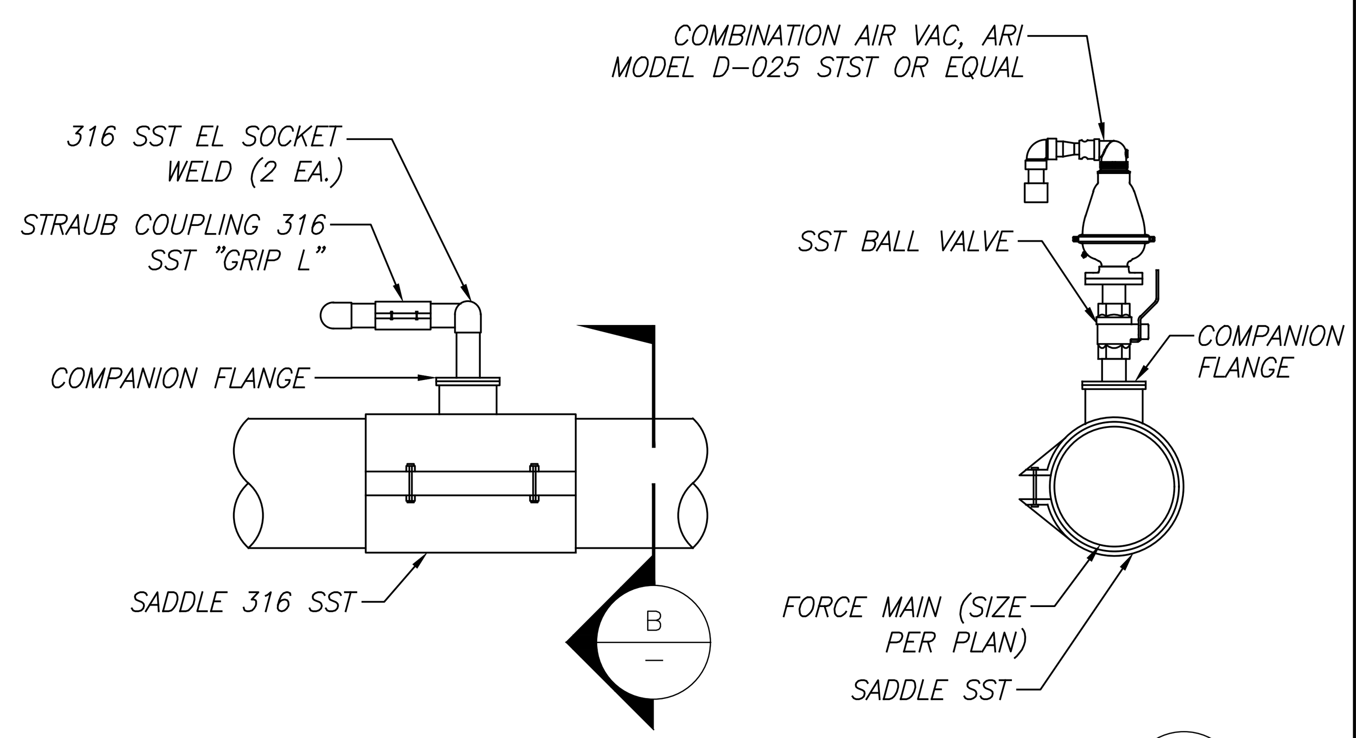
SECTION A / C-01
SCALE: NTS



CLEANOUT VAULT #3 AT STA 17+78.09

DETAIL 4 / C-01
SCALE: NTS

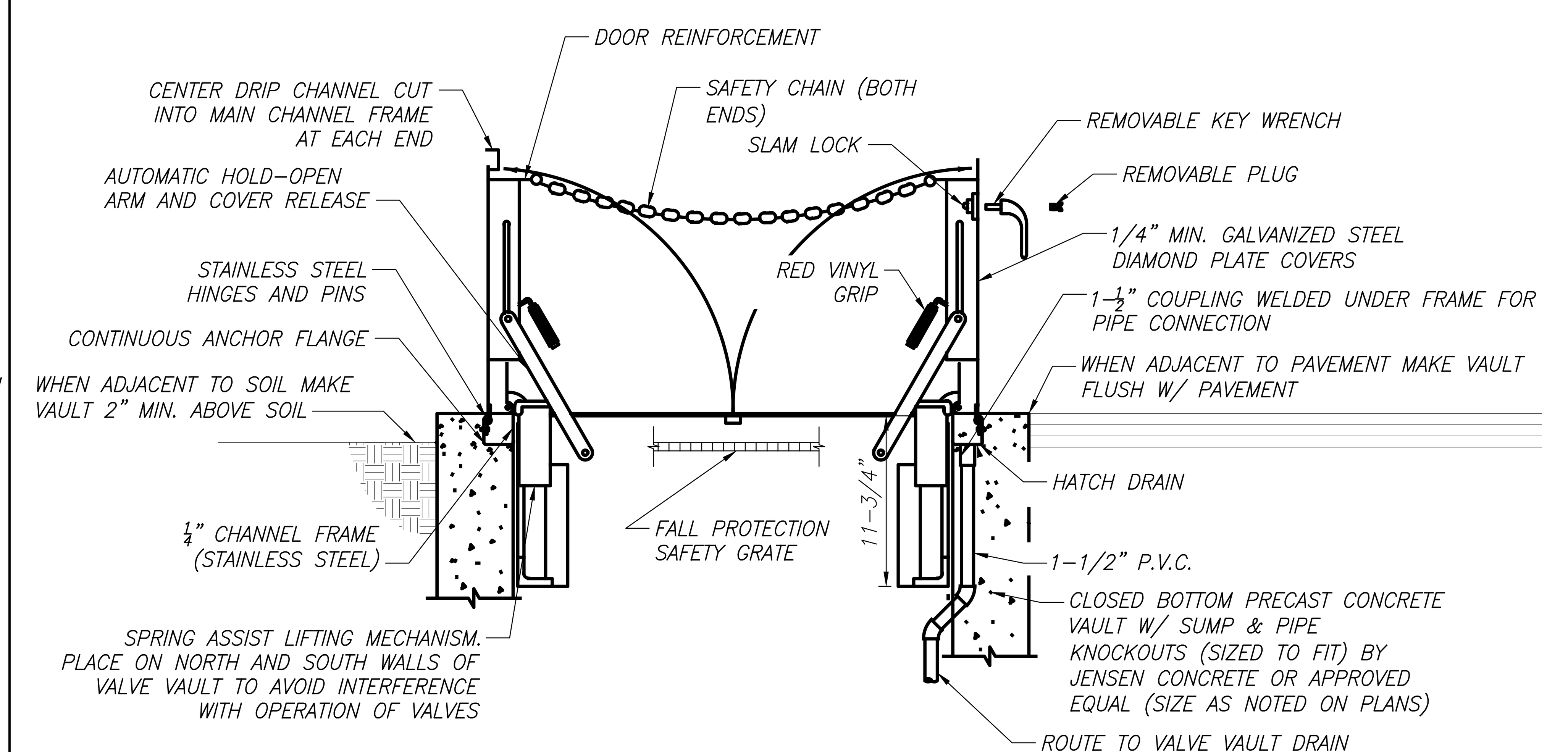
NOTE: ** 10" CLASS 200 D.I. SPOOL (FLGXPE) W/ CEMENT MORTAR/ASPHALT COATING & PROTECTO 401 CERAMIC EPOXY LINING OR APPROVED EQUAL (TYP OF ALL D.I. PIPE & FITTINGS)



SECTION B / –
SCALE: NONE

AIR RELEASE/AIR VACUUM ASSEMBLY

DETAIL 3 / C-01
SCALE: NONE



ACCESS HATCH

DETAIL 2 / C-01
SCALE: NONE

NOTE:

1. HATCH TO BE DESIGNED FOR DIRECT TRAFFIC H20 WHEEL LOAD COVERS.
2. CONTRACTOR TO PROVIDE SHOP DRAWINGS SHOWING CALCULATIONS AND COMPLETE FABRICATION OF HATCH.
3. CONTRACTOR TO PROVIDE PROPOSED SEALANT MATERIALS.
4. HATCH SHALL BE WATERTIGHT AND CHANNEL WATER TO VAULT DRAIN.

REVISIONS

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DRAWN: M. KADIYALA
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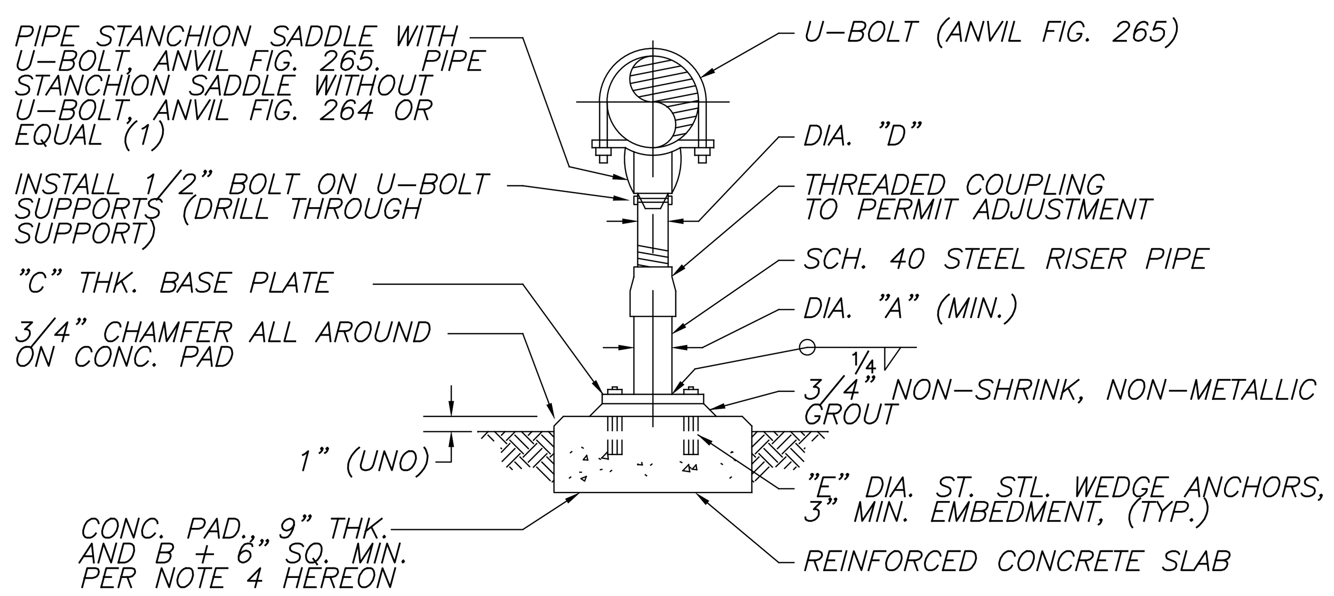
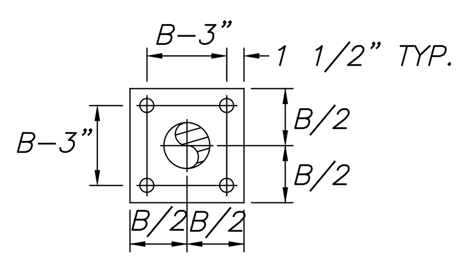
CIVIL DETAILS 1 OF 2

DRAWING C-02

SHEET 4 OF 7





BASE PLATE

TYPE PS1 – WITH U-BOLT

PIPE SIZE	A	B	C	D	E	
2"	1 ½"	8"	⅜"	¾"	⅜"	(2)
3"	2 ½"	9"	⅜"	1 ½"	⅜"	(2)
4",6"	4"	10"	⅜"	3"	⅜"	
8",10",12"	4"	10"	½"	3"	½"	
14",16"	4"	12"	⅝"	3"	½"	
18",20"	6"	14"	¾"	3 ½"	½"	
24",30",36"	6"	14"	¾"	4"	½"	

TYPE PS2 – WITHOUT U-BOLT

PIPE SIZE	A	B	C	D	E	
2"	1 ½"	8"	⅜"	¾"	⅜"	(2)
2 ½",3",3 ½"	2 ½"	9"	⅜"	1 ½"	⅜"	
4",6"	3"	10"	⅜"	2 ½"	⅜"	
8",10",12"	3"	10"	½"	2 ½"	½"	
14",16"	4"	12"	⅝"	3"	½"	
18",20"	6"	14"	¾"	3 ½"	½"	
24",30",36"	6"	14"	¾"	4"	½"	

NOTES:

1. WHERE LOCATED UNDER FLANGE OR VALVE USE PS2 SUPPORT WITH SADDLE RADIUS TO MATCH FLANGE OR VALVE BODY. SADDLE SHALL BE STAINLESS STEEL.
2. PIPE SADDLE WITH U-BOLT SHALL BE COOPER B-LINE FIGURE B3092, OR EQUAL, AND PIPE SADDLE WITHOUT U-BOLT SHALL BE COOPER B-LINE FIGURE B3093, OR EQUAL.
3. UNO, PIPE STANCHIONS AND ACCESSORIES SHALL BE STAINLESS STEEL (316 SS).
4. PROVIDE INDIVIDUAL CONCRETE SUPPORT PAD WITH #4 AT 12" O.C. TOP AND BOTTOM, EACH WAY, FOR PIPE STANCHIONS NOT LOCATED ON CONCRETE SLABS OF 6" MIN. THICKNESS.

NOTES:

1. UNLESS SHOWN OTHERWISE ON THE DRAWINGS, PIPE AND CONDUIT SUPPORT SPACING SHALL BE AS FOLLOWS:

NOMINAL PIPE SIZE (INCHES)	MAXIMUM SPACING (FEET)
2 AND SMALLER	6
3 TO 5	10
6 AND LARGER	12

2. SUPPORTS SHALL BE PROVIDED WITHIN 18" OF PIPE FITTINGS, AT EACH CHANGE IN DIRECTION.
3. PIPE SUPPORTS SHALL BE SPACED NOT OVER 5 FEET APART AT VALVES.

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811 Know what's below. Call before you dig. CALL 811 AT LEAST TWO DAYS BEFORE YOU DIG
UNDERGROUND SERVICE ALERT OF SOUTHERN CALIFORNIA

REGISTERED PROFESSIONAL ENGINEER MURTHY KADIYALA No. C73472 CIVIL STATE OF CALIFORNIA

LEE+RO
WATER INFRASTRUCTURE ENGINEERS
1199 S. FULLERTON RD.
CITY OF INDUSTRY, CA 91748
TEL: (626) 912-3391
FAX: (626) 912-2015

WEST COUNTY WASTEWATER

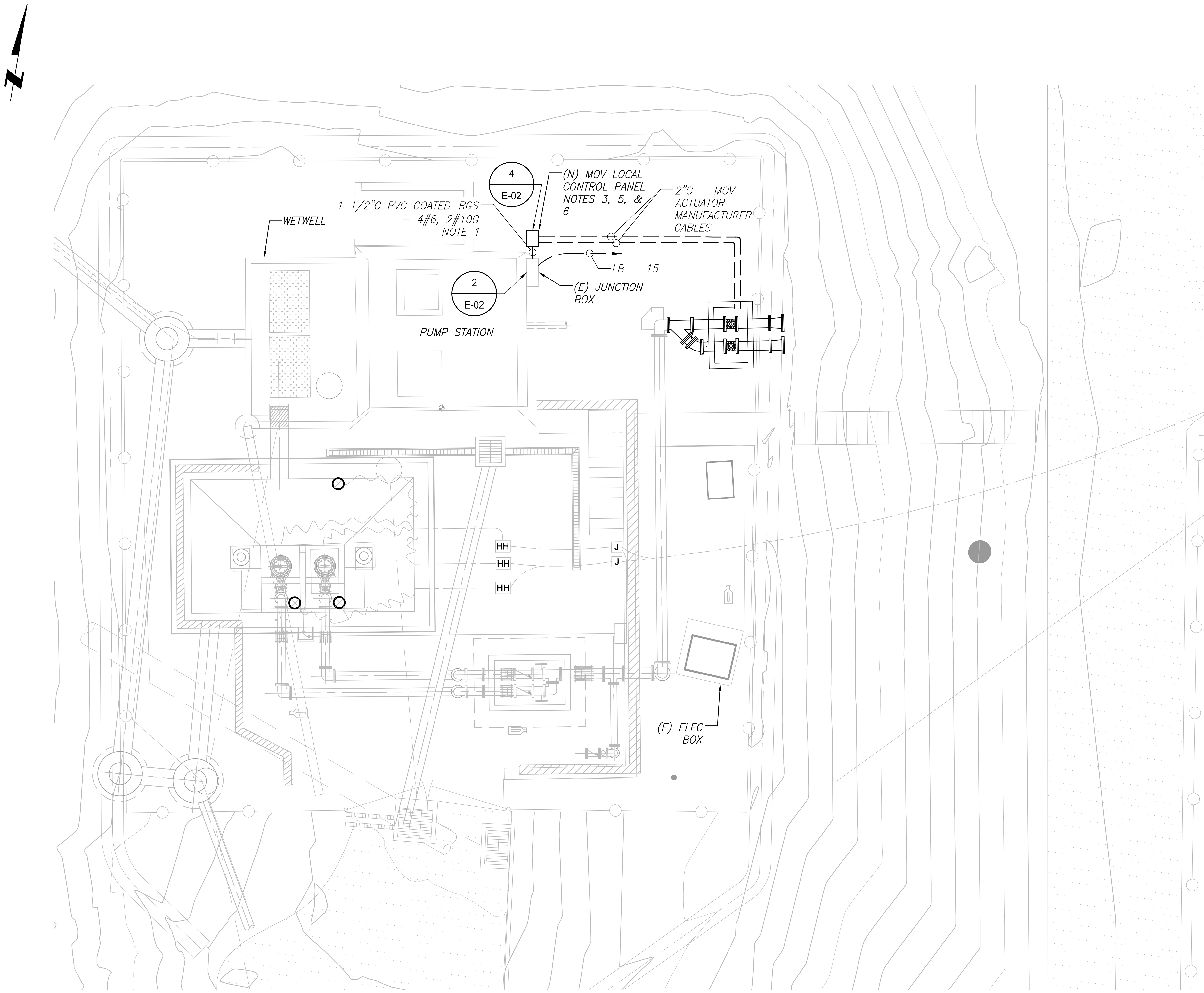
WEST COUNTY WASTEWATER DISTRICT
2910 HILLTOP DRIVE, RICHMOND, CA 94806

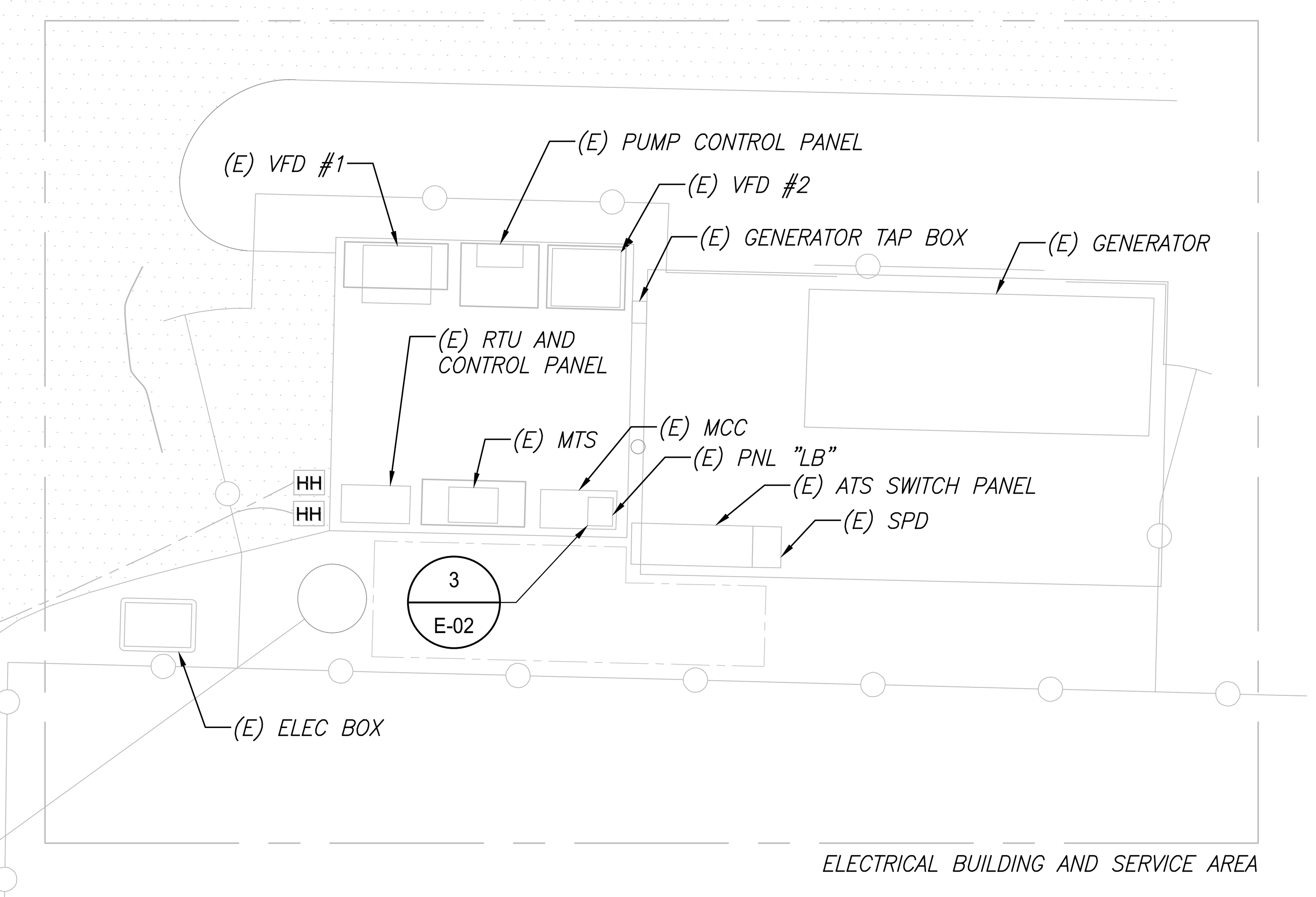
WEST COUNTY WASTEWATER DISTRICT
APPROVED FOR CONSTRUCTION:
ENGINEERING DATE

HILLTOP GREEN FORCE MAIN IMPROVEMENTS

CIVIL DETAILS 2 OF 2

DRAWING C-03





NOTES:

1. POWER CONDUCTORS FOR THE TWO (2) MOTOR OPERATED PLUG VALVE ACTUATORS TO BE WIRED IN PARALLEL SHALL BE TERMINATED IN EXISTING LIGHTING PANEL "PNL LB" INSIDE THE EXISTING ELECTRICAL BUILDING. CONTRACTOR SHALL INSTALL ONE (1) 20A, SINGLE PHASE 120V CIRCUITS TO POWER BOTH MOV ACTUATORS IN ONE OF THE AVAILABLE SPACES WITHIN THE LIGHTING PANEL. POWER CONDUCTS SHALL BE TYPE XHHW-2.
2. CONTROL CONDUCTORS FOR THE TWO (2) PLUG VALVE ACTUATORS SHALL BE TERMINATED IN THE NEW MOV LOCAL CONTROL PANEL OUTSIDE THE EXISTING PUMP STATION, NEXT TO THE EXISTING JUNCTION BOX. CONTROL CONDUCTORS SHALL BE TYPE XHHW-2.
3. THE MOV LOCAL CONTROL PANEL SHALL BE PROVIDED BY THE VENDOR.
4. MOV ACTUATOR SHALL BE SELECTED WITH A "DOUBLE SEAL" OPTION. MOV ACTUATOR SHALL BE A 120V SINGLE PHASE QUARTER TURN ACTUATOR WITH INTEGRAL CONTROLS MANUFACTURED BY AUMA OR APPROVED EQUAL.
5. CONTRACTOR SHALL COORDINATE WITH THE VENDOR TO INCORPORATE THE INTEGRAL CONTROLS FOR THE MOV ACTUATORS. INTEGRAL CONTROLS FOR EACH ACTUATOR SHALL INCLUDE A LOCAL-OFF-REMOTE SELECTOR SWITCH AND PUSH BUTTONS FOR AN OPEN, STOP, AND CLOSE FEATURE FOR LOCAL OPERATION. ADDITIONALLY, THERE SHALL BE 3 INDICATION LIGHTS TO INDICATE THE END POSITION AS OPEN, CLOSED, AND A COLLECTIVE FAULT SIGNAL.
6. SCADA INTEGRATION FOR THE TWO (2) MOV ACTUATOR CONTROLS SHALL BE PERFORMED BY OTHERS.
7. ALL VAULT CONDUIT PENETRATIONS SHALL BE SEALED WATERTIGHT ON BOTH THE POINT OF ENTRY AND POINT OF EXIT.

0 4' 8' 12' 16'
SCALE: 3/16" = 1'-0"

ELECTRICAL PLAN

DETAIL 1
SCALE: 3/16" = 1'-0"

REVISIONS			
NUMBER	DATE	INITIALS	DESCRIPTION

SCALE: AS SHOWN
J. LIM
DESIGNED: J. LIM
DRAWN: M. KADIYALA
CHECKED:

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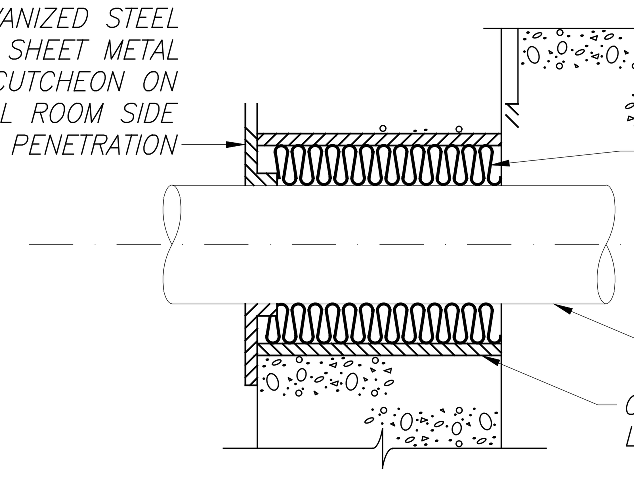
ELECTRICAL PLAN

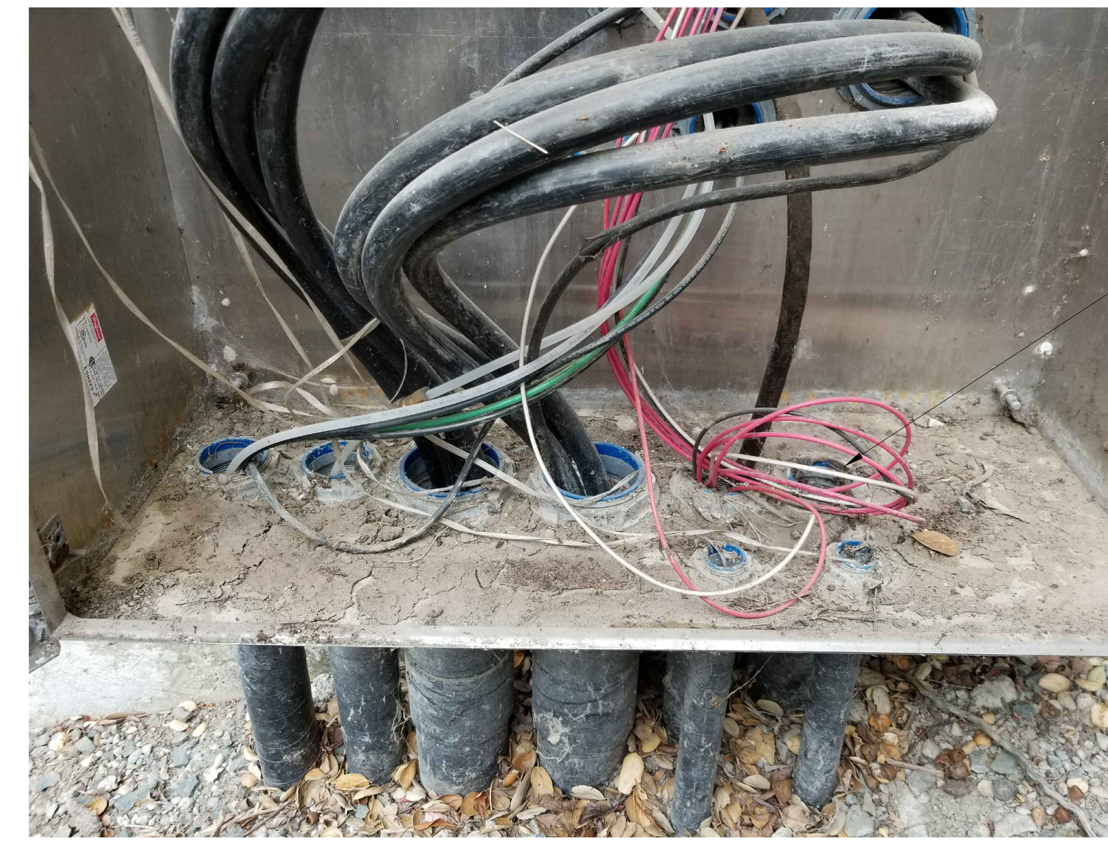
DRAWING E-01

SHEET 6 OF 7



CONDUIT THRU MECH ROOM WALLS AND FLOORS

DETAIL 1 / –
SCALE: NONE



NOTES:

1. CONTRACTOR SHALL UTILIZE AVAILABLE SPARE CONDUITS TO ROUTE POWER CONDUCTORS FOR THE MOTOR OPERATED VALVES TO LIGHTING PANEL "LB" IN THE EXISTING ELECTRICAL BUILDING.

EXISTING JUNCTION BOX

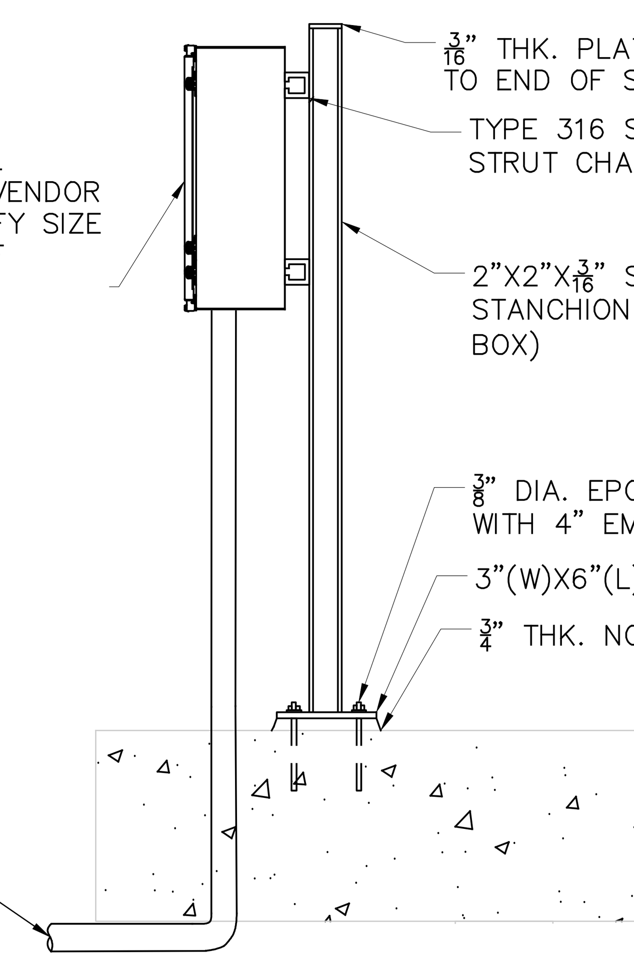
DETAIL 2 / –
SCALE: NONE

NOTES:

1. CONTRACTOR SHALL UTILIZE ONE OF THE SPACES AVAILABLE AND INSTALL A 20A CIRCUIT BREAKER WITHIN LIGHTING PANEL "LB" IN THE EXISTING ELECTRICAL BUILDING. NEW CIRCUIT SHALL BE FOR THE TWO (2) MOTOR OPERATED VALVES TO BE WIRED IN PARALLEL.

LIGHTING PANEL "LB"

DETAIL 3 / –
SCALE: NONE



STANCHION MOUNTED CONTROL PANEL

DETAIL 4 / –
SCALE: NONE

REVISIONS

NUMBER	DATE	INITIALS	DESCRIPTION

SCALE: AS SHOWN
J. LIM
DESIGNED: J. LIM
DRAWN: M. KADIYALA
CHECKED:

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DRAWING E-02

SHEET 7 OF 7