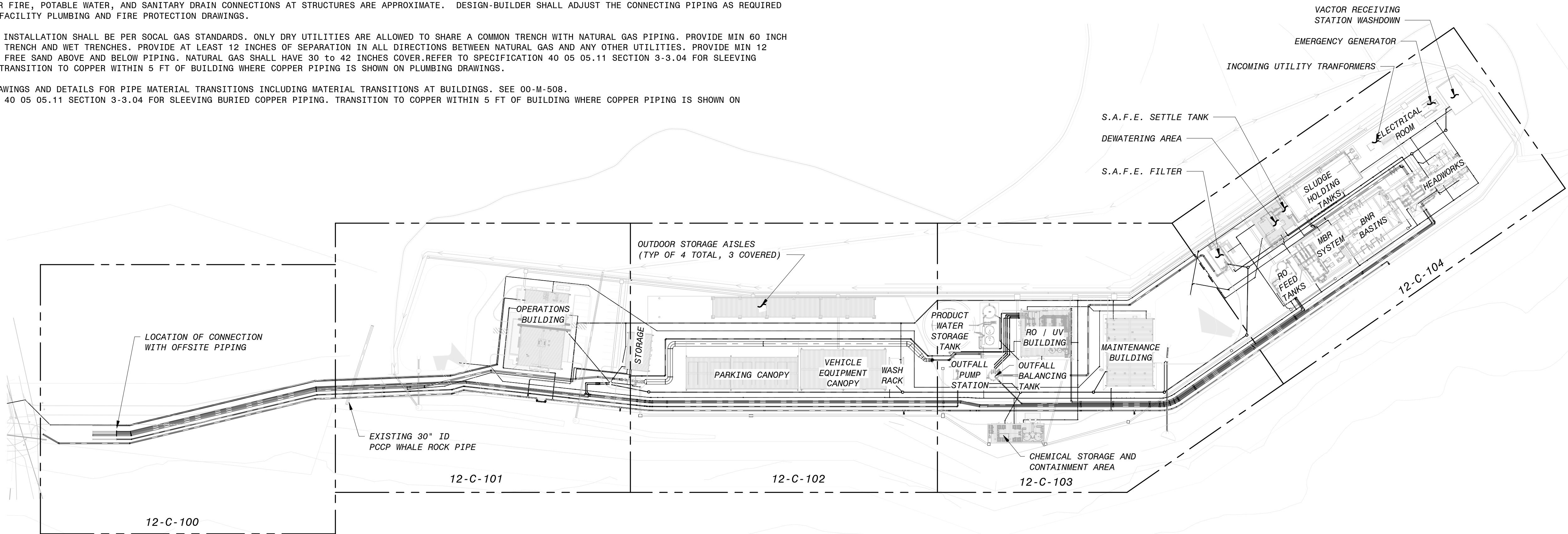


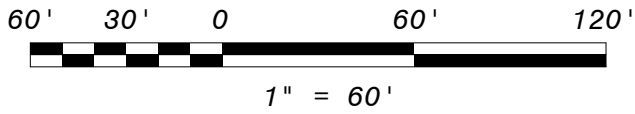
NOTES:

1. ELEVATIONS SHOWN ARE ON THE PROJECT BENCHMARK: NGS PID FV1098 "J 693 RESET" (NAVD88).
2. PIPING SHALL BE CONCRETE ENCASED WHERE UNDER STRUCTURES OR SLABS AND WHERE LESS THAN THE ALLOWABLE COVER IS PROVIDED IN ACCORDANCE WITH DETAILS PROVIDED HEREIN AND AS DIRECTED IN FIELD BY ENGINEER. ADDITIONAL ENCASEMENT SHALL BE PROVIDED WHERE INDICATED IN FIELD BY ENGINEER. IF A DIP OR STEEL LOCKING WEDGE RESTRAINED JOINT IS CAST IN CONCRETE, THE JOINT RESTRAINT SHALL BE ENCLOSED IN A MINIMUM OF 16 MILS OF POLYETHYLENE WRAP TO PREVENT INTRUSION OF THE CEMENT AROUND THE LOCKING WEDGES WHICH COULD RENDER THEM INEFFECTIVE. WHERE NO PIPE ELEVATIONS ARE IDENTIFIED, MIN ALLOWABLE DEPTH OF COVER SHALL BE 3 FT, UNLESS HDPE AND STEEL WHICH REQUIRE MIN 4 FT. NATURAL GAS PIPING SHALL HAVE 30 TO 42 INCHES COVER AND MAINTAIN AT LEAST 12 INCHES CLEARANCE AT ANY PIPE OR DUCTBANK CROSSING.
3. HORIZONTAL AND VERTICAL SEPARATION BETWEEN POTABLE WATER PIPELINES AND NON-POTABLE WATER PIPELINES (AND IPR AND PRW FROM OTHER SERVICES) SHALL MEET THE REQUIREMENTS OF THE SWRCB DIVISION OF DRINKING WATER'S CRITERIA FOR THE SEPARATION OF WATER MAINS AND NON-POTABLE PIPELINES GUIDANCE MEMO UNLESS OTHERWISE APPROVED.
4. ELECTRICAL DUCTBANK OUTLINES SHOWN ON YARD PIPING SHEETS TYPICALLY REPRESENT THE TRENCH SIZES REQUIRED FOR DIRECT BURIED DUCTS. DUCTS ARE CONCRETE ENCASED IN TRAFFIC AREAS ONLY. REFER TO ELECTRICAL SHEETS FOR TRENCH AND DUCTBANK SECTIONS.
5. JOINTS OF ALL BURIED PIPING OTHER THAN SANITARY SEWER AND STORMWATER PIPING ARE TO BE RESTRAINED.
6. BURIED C900 PVC SHALL NOT USE DIP FITTINGS WITHOUT CATHODIC PROTECTION, NEITHER SHALL REIBERLOK TYPE GASKETS OR DIAMOND-LOK FITTINGS BE ALLOWED DUE TO CORROSIVE SOIL CONDITIONS. C900 FITTINGS ARE TO BE CERTA-LOK TYPE (AVAILABLE THROUGH 12" OR 16"). WAX TAPE WRAPPED MEGA-LUG TYPE RESTRAINTS OR FLANGES ARE ACCEPTABLE AT BURIED VALVES.
7. C900 PVC FITTINGS OVER 12" OR 16" SIZE WILL REQUIRE CORROSION PROTECTION FOR DIP AND TAPE-WRAPPED HARNESS RESTRAINTS AT BELL AND SPIGOTS.
8. PIPING DEPTH OF COVER SHALL NOT EXCEED 20 FT.
9. MAX ALLOWABLE COVER FOR BURIED HDPE PIPING SHALL BE: 12 FT FOR DR 11, 14 FT FOR DR 13.5, 12 FT FOR DR 15.5, 15 FT FOR FOR DR 17 AND DR 19, 18 FT FOR DR 21, AND 17 FT FOR DR 26 AND DR 32.5.
10. HDPE DR SHALL NOT DIFFER FROM THE VALUE SHOWN IN PROJECT SPECIFICATIONS WITHOUT ENGINEER APPROVAL. STATED PVC DR SHALL BE UNDERSTOOD TO BE MAXIMUM.
11. AWWA C200 STEEL PIPE IS TO BE EPOXY LINED AND COATED.
12. BURIED DIP PIPING IS TO BE POLYETHYLENE WRAPPED AND ALL DIP SHALL BE DOUBLE THICKNESS CEMENT MORTAR LINED UNLESS OTHERWISE SPECIFIED.
13. C900 PVC SHALL BE DIP SIZE OUTER DIAMETER UNLESS OTHERWISE APPROVED BY ENGINEER.
14. BEAD FROM JOINING HDPE FITTINGS SHALL BE THOROUGHLY REMOVED FROM INSIDE THE PIPING ON ROF AND MFF LINES.
15. ALL ADAPTERS REQUIRED TO CONNECT PIPING OF DIFFERENT MATERIALS MAY NOT BE SHOWN.
16. REQUIREMENTS FOR CATHODIC PROTECTION MAY NOT BE FULLY SHOWN ON YARD PIPING DRAWINGS. REFER TO CATHODIC PROTECTION DETAILS AND SPECIFICATIONS. LOCATIONS OF TEST LEAD STATIONS FOR CATHODIC PROTECTION ARE APPROXIMATE. FINAL LOCATION OF TEST LEAD STATION RELATIVE TO CONNECTED PIPE SHALL BE CONFIRMED IN FIELD BY ENGINEER.
17. INSULATING FLANGES SHALL BE PROVIDED AT ALL BURIED AND EXPOSED CONNECTIONS BETWEEN PIPING, VALVES, ANY OTHER EQUIPMENT OF DISSIMILAR METALS, AND WHERE IDENTIFIED ON THE DRAWINGS. INSULATING FLANGES SHALL ALSO BE PROVIDED AT THE FIRST JOINT BETWEEN ALL BURIED AND EXPOSED METAL PIPING AT INTERNAL AND EXTERNAL LOCATIONS UNLESS BURIED PIPING IS ENTIRELY CONCRETE ENCASED
18. PROVIDE A MINIMUM OF 6" VERTICAL CLEARANCE BETWEEN THE BOTTOM OF ANY ELECTRICAL DUCTBANK OR CHEMICAL TRENCH AND THE TOP OF BURIED PIPING.
19. LOCATIONS INDICATED FOR 4" AND SMALLER YARD PIPING ARE APPROXIMATE. WITH SPECIFIC ENGINEER APPROVAL AND PROVIDED REQUIRED CLEARANCES AND DEPTH ARE MAINTAINED, ACTUAL LOCATIONS FOR 4" AND SMALLER PIPING SHALL BE ADJUSTED AS NECESSARY TO AVOID INTERFERENCE WITH AND MAINTAIN REQUIRED CLEARANCES FROM OTHER PIPING AND UNDERGROUND FACILITIES.
20. FIRE HYDRANTS SHALL BE PER MORRO BAY STANDARD DETAIL, AS MODIFIED HEREIN(E/00-M-513).
21. THE LOCATIONS SHOWN FOR FIRE, POTABLE WATER, AND SANITARY DRAIN CONNECTIONS AT STRUCTURES ARE APPROXIMATE. DESIGN-BUILDER SHALL ADJUST THE CONNECTING PIPING AS REQUIRED IN COORDINATION WITH THE FACILITY PLUMBING AND FIRE PROTECTION DRAWINGS.
22. NATURAL GAS PIPING AND INSTALLATION SHALL BE PER SOCAL GAS STANDARDS. ONLY DRY UTILITIES ARE ALLOWED TO SHARE A COMMON TRENCH WITH NATURAL GAS PIPING. PROVIDE MIN 60 INCH SEPARATION BETWEEN GAS TRENCH AND WET TRENCHES. PROVIDE AT LEAST 12 INCHES OF SEPARATION IN ALL DIRECTIONS BETWEEN NATURAL GAS AND ANY OTHER UTILITIES. PROVIDE MIN 12 INCHES ROCK AND DEBRIS FREE SAND ABOVE AND BELOW PIPING. NATURAL GAS SHALL HAVE 30 to 42 INCHES COVER.REFER TO SPECIFICATION 40 05 05.11 SECTION 3-3.04 FOR SLEEVING BURIED COPPER PIPING. TRANSITION TO COPPER WITHIN 5 FT OF BUILDING WHERE COPPER PIPING IS SHOWN ON PLUMBING DRAWINGS.
23. REFER TO MECHANICAL DRAWINGS AND DETAILS FOR PIPE MATERIAL TRANSITIONS INCLUDING MATERIAL TRANSITIONS AT BUILDINGS. SEE 00-M-508. REFER TO SPECIFICATION 40 05 05.11 SECTION 3-3.04 FOR SLEEVING BURIED COPPER PIPING. TRANSITION TO COPPER WITHIN 5 FT OF BUILDING WHERE COPPER PIPING IS SHOWN ON PLUMBING DRAWINGS.



OVERALL PIPING KEY PLAN

1" = 80' - 0"



90% SUBMITTAL - NOT FOR CONSTRUCTION

**BLACK & VEATCH**

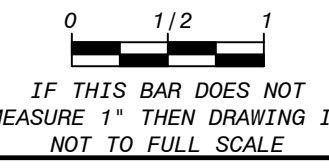
JOINT VENTURE

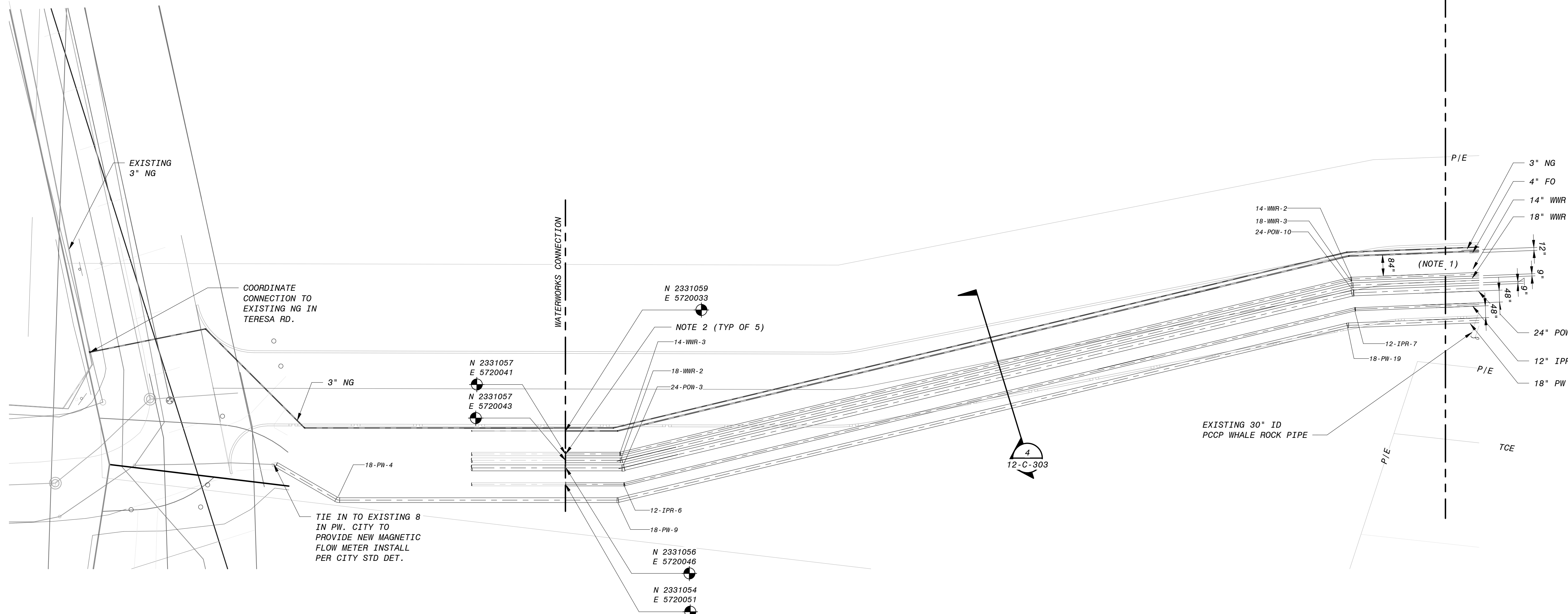
**FILANC**

**BLACK & VEATCH**

CITY OF MORRO BAY
MORRO BAY WRF
RECLAMATION FACILITY (WRF)

SITE - OVERALL
CIVIL
PIPING KEY PLAN

DESIGNED: RBG
DETAILED: SDM, FJC
CHECKED: REB
APPROVED: EVB
DATE: 12/23/2019

PROJECT NO. 400530
12-C-001 SHEET OF



1. PROVIDE MIN SEPARATION AS REQUIRED BY SOCAL GAS STANDARDS. SEE NOTE 22 ON 12-C-001 DESIGN-BUILDER TO CONFIRM SEPARATION BASED ON TRENCH DIMENSIONS.
2. PROVIDE BLIND FLANGED PIPE END FOR CONNECTION BY OTHERS.



JOINT VENTURE



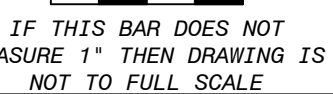
FILANC®

**CITY OF MORRO BAY
MORRO BAY WRF
RECLAMATION FACILITY (WRF)**

SITE - NORTH TERESA ROAD AREA

PIPE INTERCONNECTION

DESIGNED:	RBG
DETAILED:	SDM, FJC
CHECKED:	REB
APPROVED:	EVV
DATE:	12/23/2019



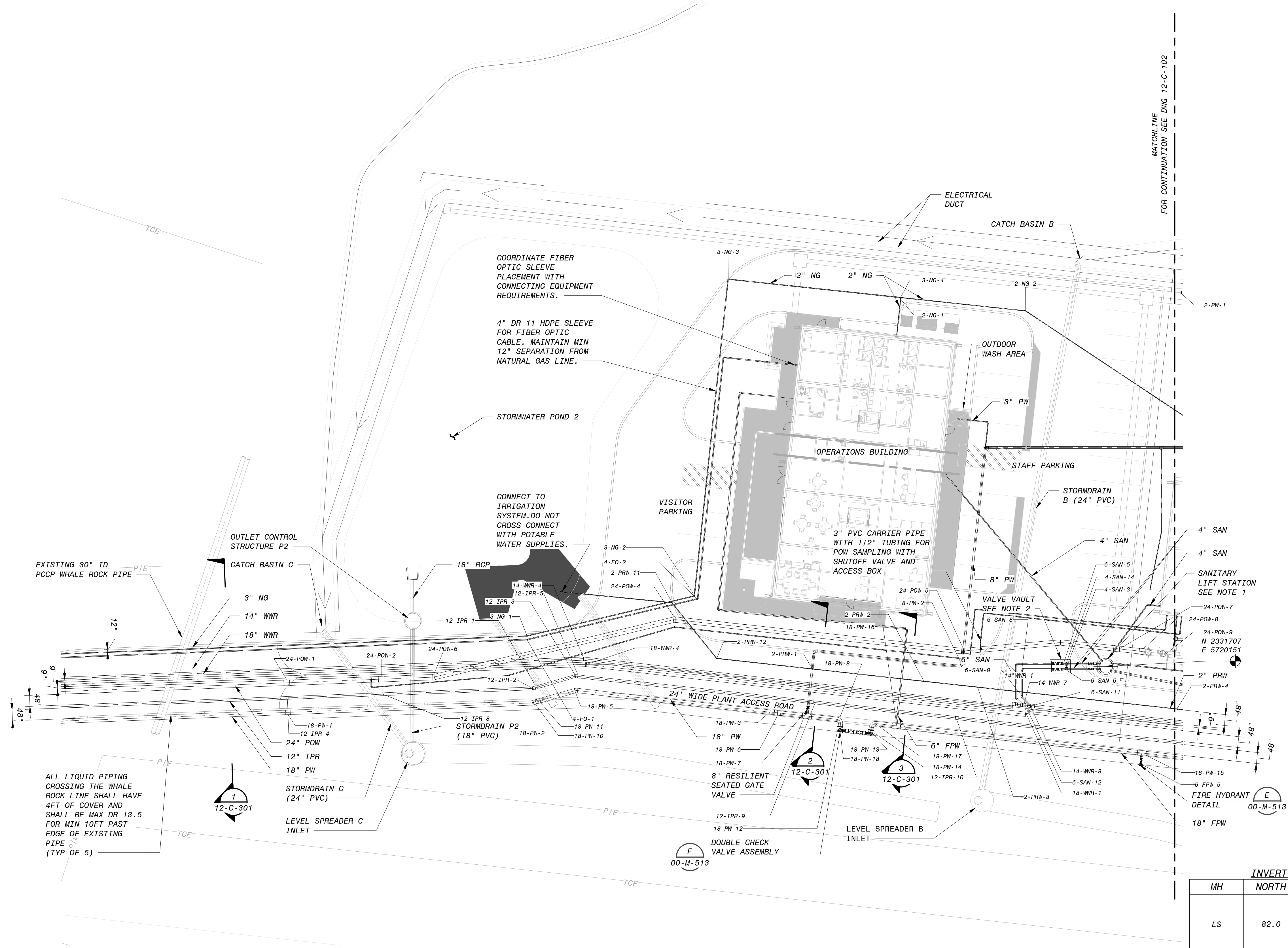
PROJECT NO.
400530

12-C-100
SHEET
OF

PLOTTED: 1/24/2020 4:15:59 PM
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D400530

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NOTES:

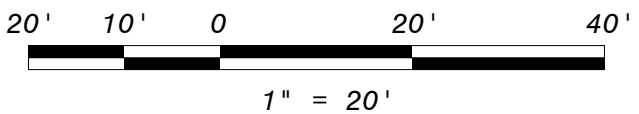
1. PACKAGED LIFT STATION SYSTEM SHALL BE PROVIDED PER SPECIFICATION SECTION 43 25 14. PRELIMINARY LIFT STATION ELEVATIONS ARE PROVIDED IN THE TABLE BELOW. FINAL ELEVATIONS SHALL BE COORDINATED WITH THE ENGINEER AND LIFT STATION SYSTEM SUPPLIER.
2. PRECAST 7'-6" X 5'-0" CONCRETE VALVE VAULT TO BE PROVIDED BY GENERAL CONTRACTOR AND COORDINATED WITH LIFT STATION SYSTEM SUPPLIER. PROVIDE DOUBLE-LEAF METAL, H-20 RATED ACCESS HATCH FOR VAULT ACCESS.
3. PROVIDE MIN SEPARATION AS REQUIRED BY SOCAL GAS STANDARDS. SEE NOTE 22 ON 12-C-001.
4. DESIGN-BUILDER TO CONFIRM SEPARATION BASED ON TRENCH DIMENSIONS.

INVERT ELEVATIONS AT MANHOLES

MH	NORTH	SOUTH	WEST	EAST
LS	82.0	85.5	80.5 4" FROM OPERATIONS 85.0 4" FROM STORAGE BUILDING	N/A

SOUTH OPERATIONS AREA PIPING PLAN

1" = 20'-0"



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REGISTERED PROFESSIONAL ENGINEER
No. C 78836
CIVIL
STATE OF CALIFORNIA

BLACK & VEATCH
JOINT VENTURE
FILANC
BLACK & VEATCH

CITY OF MORRO BAY
MORRO BAY WRF
RECLAMATION FACILITY (WRF)

SITE - SOUTH OPERATIONS AREA
CIVIL
PIPING PLAN

DESIGNED: RGB
DETAILED: SDM, FJC
CHECKED: REB
APPROVED: EVB
DATE: 12/23/2019

0 1/2 1
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO FULL SCALE

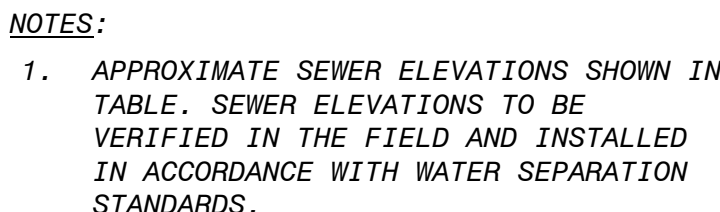
PROJECT NO.
400530

12-C-101
SHEET
OF

60% SUBMITTAL
30% SUBMITTAL
REVIEWS AND RECORD OF USE

7/30/2019
3/5/2019
DATE

NO. BY
A. EVB
B. RGB
C. FJC

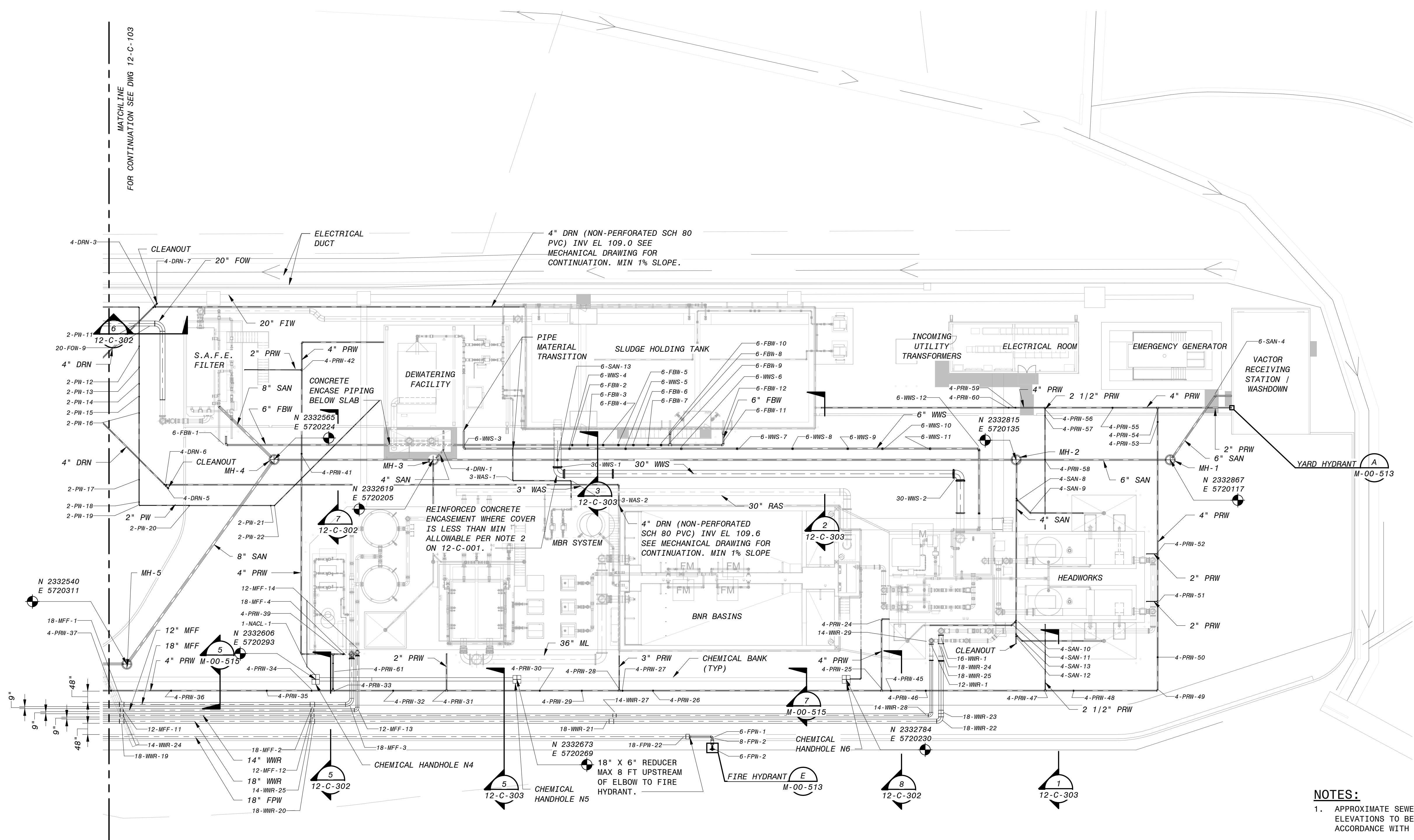


20' 10' 0 20' 40'

1" = 20'

90% SUBMITTAL - NOT FOR CONSTRUCTION

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0400530



NORTH PROCESS AREA PIPING PLAN
1" = 20' - 0"

INVERT ELEVATIONS AT MANHOLES				
MH	NORTH	SOUTH	WEST	EAST
MH-1	123.0	122.5	N/A	N/A
MH-2	120.8	120.3	N/A	122.8
MH-3	111.1	110.6	113.5	113.5
MH-4	108.5		110.9	110.9
MH-5	105.4	104.9	N/A	N/A

010'20'40'

1" = 20'

90% SUBMITTAL - NOT FOR CONSTRUCTION

REGISTERED PROFESSIONAL ENGINEER
CIVIL
No. C 78836
STATE OF CALIFORNIA

BLACK & VEATCH
JOINT VENTURE
FILANC
BLACK & VEATCH

CITY OF MORRO BAY
MORRO BAY WRF
RECLAMATION FACILITY (WRF)
SITE - NORTH PROCESS AREA
CIVIL
PIPING PLAN

DESIGNED: RBG
DETAILED: SDM, FJC
CHECKED: REB
APPROVED: EVB
DATE: 12/23/2019

PROJECT NO.
400530

12-C-104
SHEET
OF

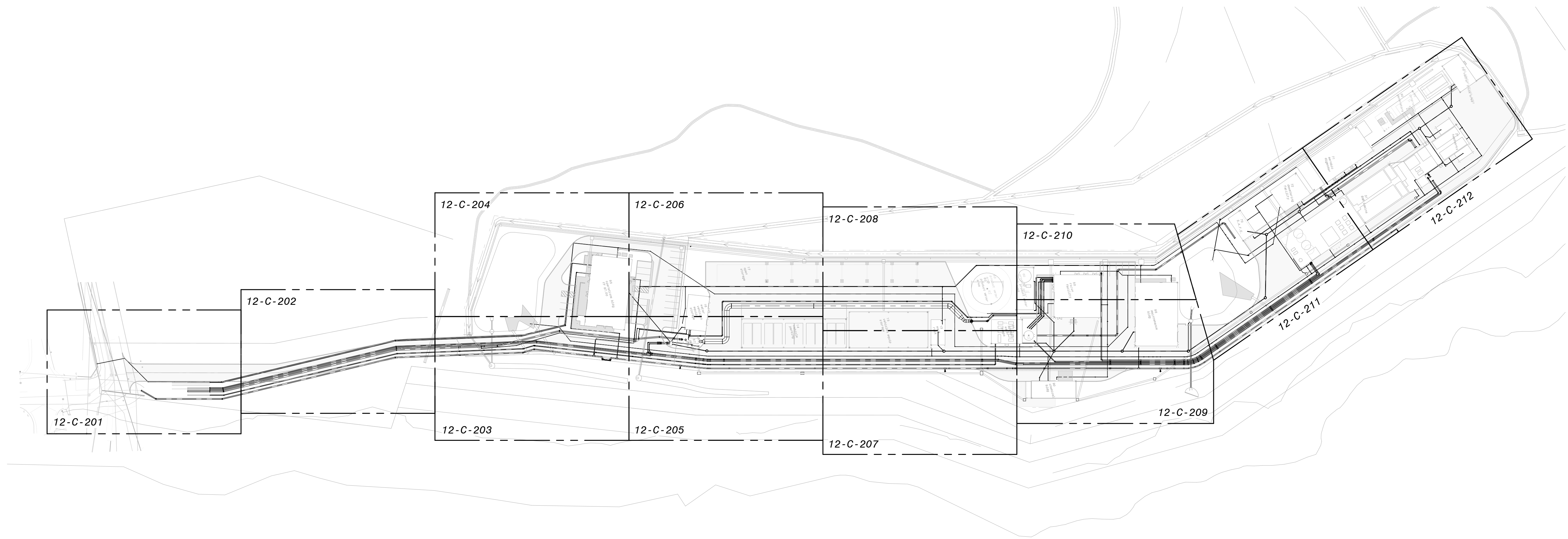
7/30/2019
3/2/2019
DATE

60% SUBMITTAL
30% SUBMITTAL
REVIEWS AND RECORD OF USE

NO. BY

AGS/PWF/EVB
EVB/PWF/EVB
CHK/APP

040530
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OVERALL SECTION KEY PLAN
1" = 80'-0"

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BLACK & VEATCH

JOINT VENTURE

FILANC

BLACK & VEATCH

CITY OF MORRO BAY
MORRO BAY WRF
RECLAMATION FACILITY (WRF)

SITE - OVERALL
CIVIL
SECTION KEY PLAN

DESIGNED: RBG
DETAILED: SDM, FJC
CHECKED: REB
APPROVED: EVB
DATE: 12/23/2019

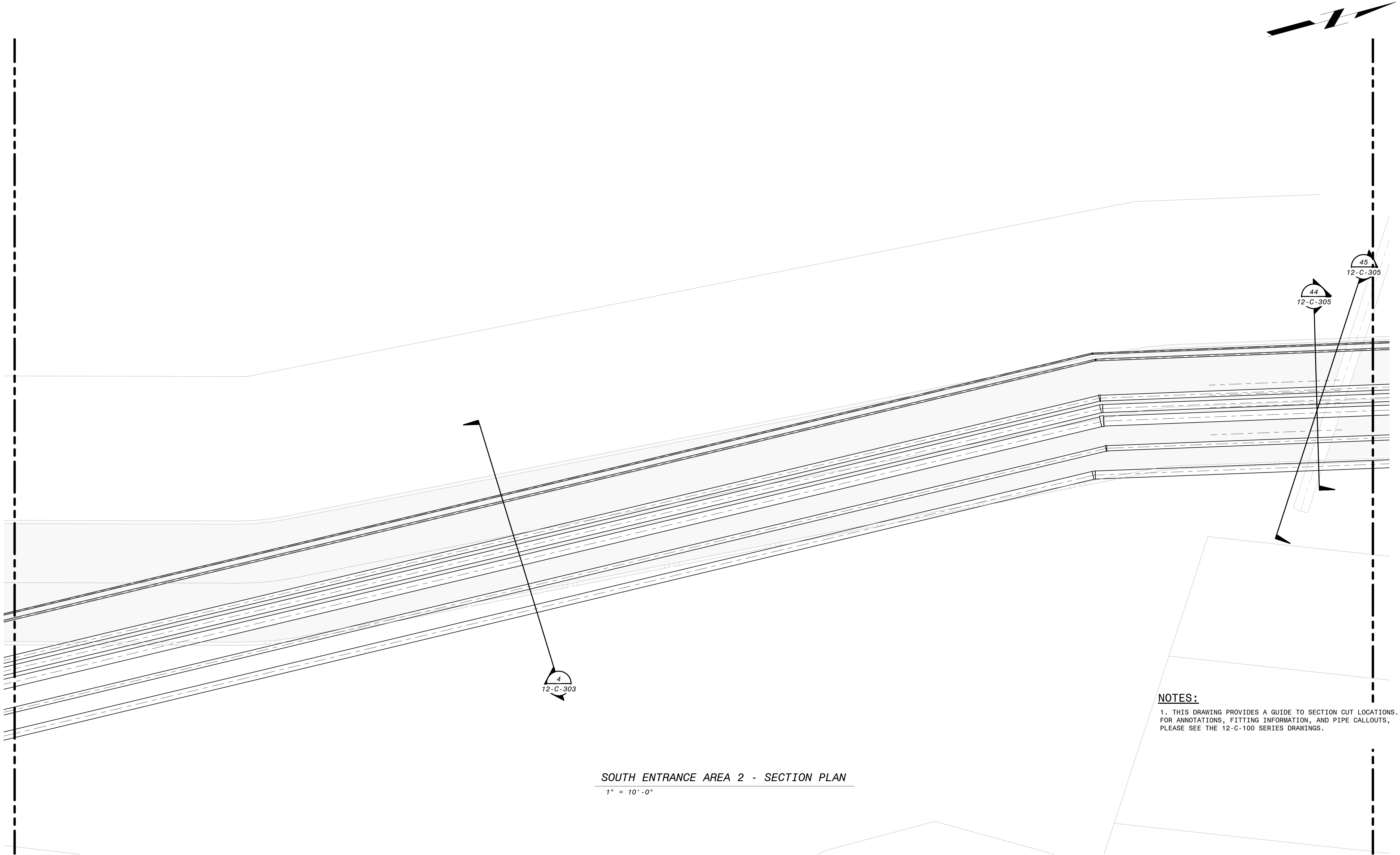
0 1/2 1
IF THIS BAR DOES NOT
MEASURE 1" THEN DRAWING IS
NOT TO FULL SCALE

PROJECT NO.
400530

12-C-200
SHEET
OF

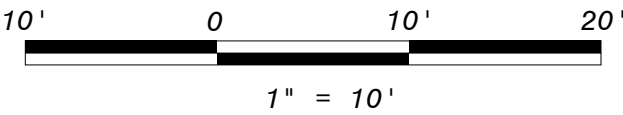
DATE
REVISONS AND RECORD OF USE
NO. BY CHK APP

040530
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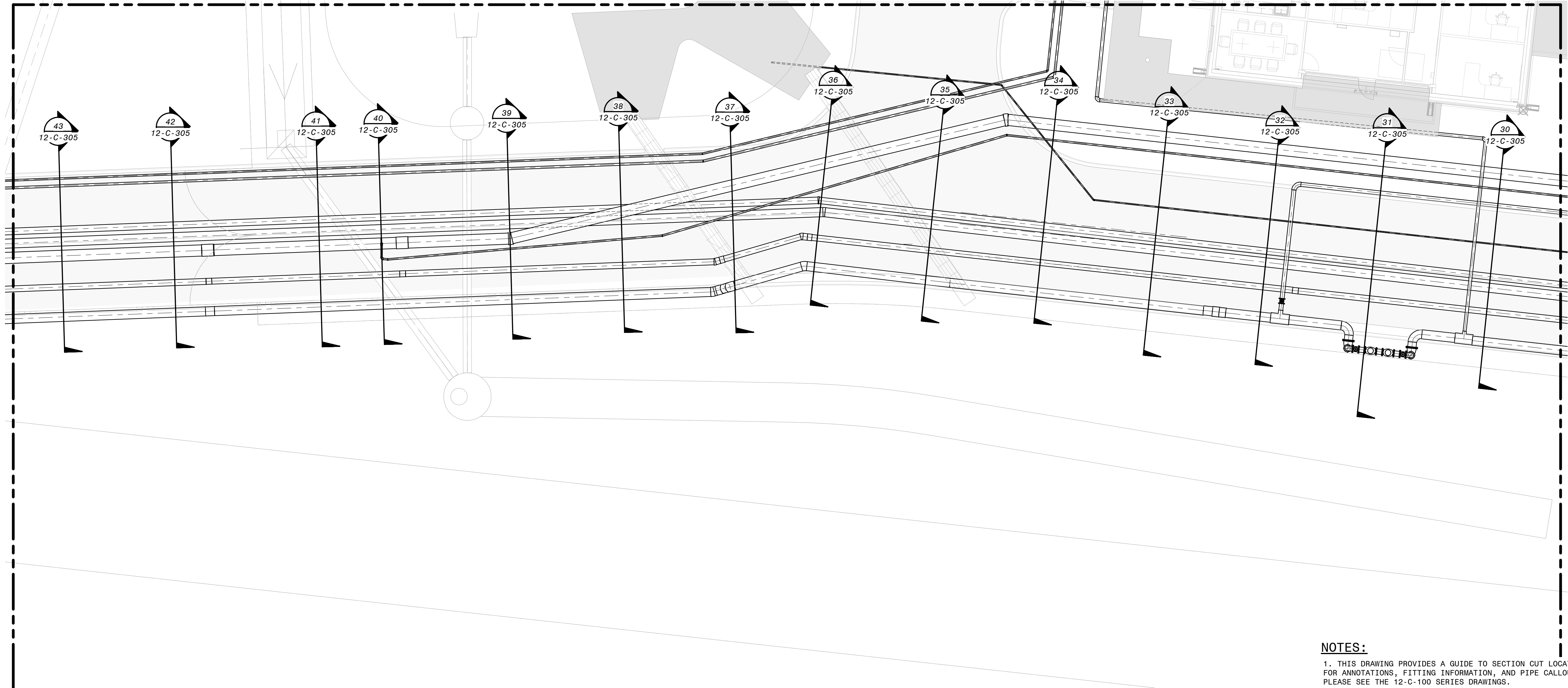
SOUTH ENTRANCE AREA 2 - SECTION PLAN
1" = 10'-0"

NOTES:
1. THIS DRAWING PROVIDES A GUIDE TO SECTION CUT LOCATIONS.
FOR ANNOTATIONS, FITTING INFORMATION, AND PIPE CALLOUTS,
PLEASE SEE THE 12-C-100 SERIES DRAWINGS.



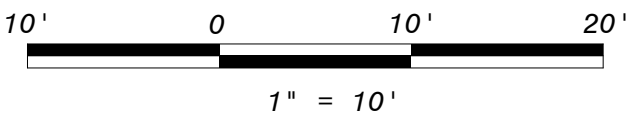
90% SUBMITTAL - NOT FOR CONSTRUCTION

DESIGNED: RBG		CITY OF MORRO BAY MORRO BAY WRF RECLAMATION FACILITY (WRF)	SITE - SOUTH ENTRANCE AREA 2 CIVIL SECTION PLAN	REGISTERED PROFESSIONAL ENGINEER ERIK V. BEVINGTON No. C 78836 CIVIL STATE OF CALIFORNIA	DATE	REVISONS AND RECORD OF USE	NO.	BY	CHK APP
DETAILED: SDM, FJC									
CHECKED: REB									
APPROVED: EVB									
DATE: 12/23/2019									
		PROJECT NO. 400530		12-C-202 SHEET OF					



NOTES:
1. THIS DRAWING PROVIDES A GUIDE TO SECTION CUT LOCATIONS. FOR ANNOTATIONS, FITTING INFORMATION, AND PIPE CALLOUTS, PLEASE SEE THE 12-C-100 SERIES DRAWINGS.

EAST OPERATIONS AREA - SECTION PLAN
1" = 10'-0"



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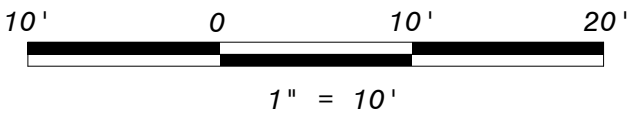
REVISIONS AND RECORD OF USE		NO.	BY	CHK	APP
DATE					
					
 BLACK & VEATCH		JOINT VENTURE			
 FILANC		 BLACK & VEATCH			
CITY OF MORRO BAY MORRO BAY WRF RECLAMATION FACILITY (WRF)		SITE - EAST OPERATIONS AREA CIVIL SECTION PLAN			
DESIGNED: RBG					
DETAILED: SDM, FJC					
CHECKED: REB					
APPROVED: EVB					
DATE: 12/23/2019					
 IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO FULL SCALE					
PROJECT NO. 400530					
12-C-203 SHEET OF					

PLOTTED: 1/24/2020 2:00:40 PM
0400530



NOTES:
1. THIS DRAWING PROVIDES A GUIDE TO SECTION CUT LOCATIONS.
FOR ANNOTATIONS, FITTING INFORMATION, AND PIPE CALLOUTS,
PLEASE SEE THE 12-C-100 SERIES DRAWINGS.

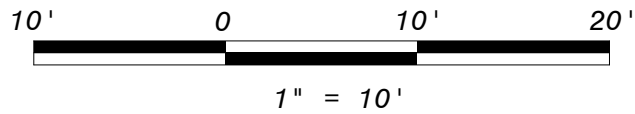
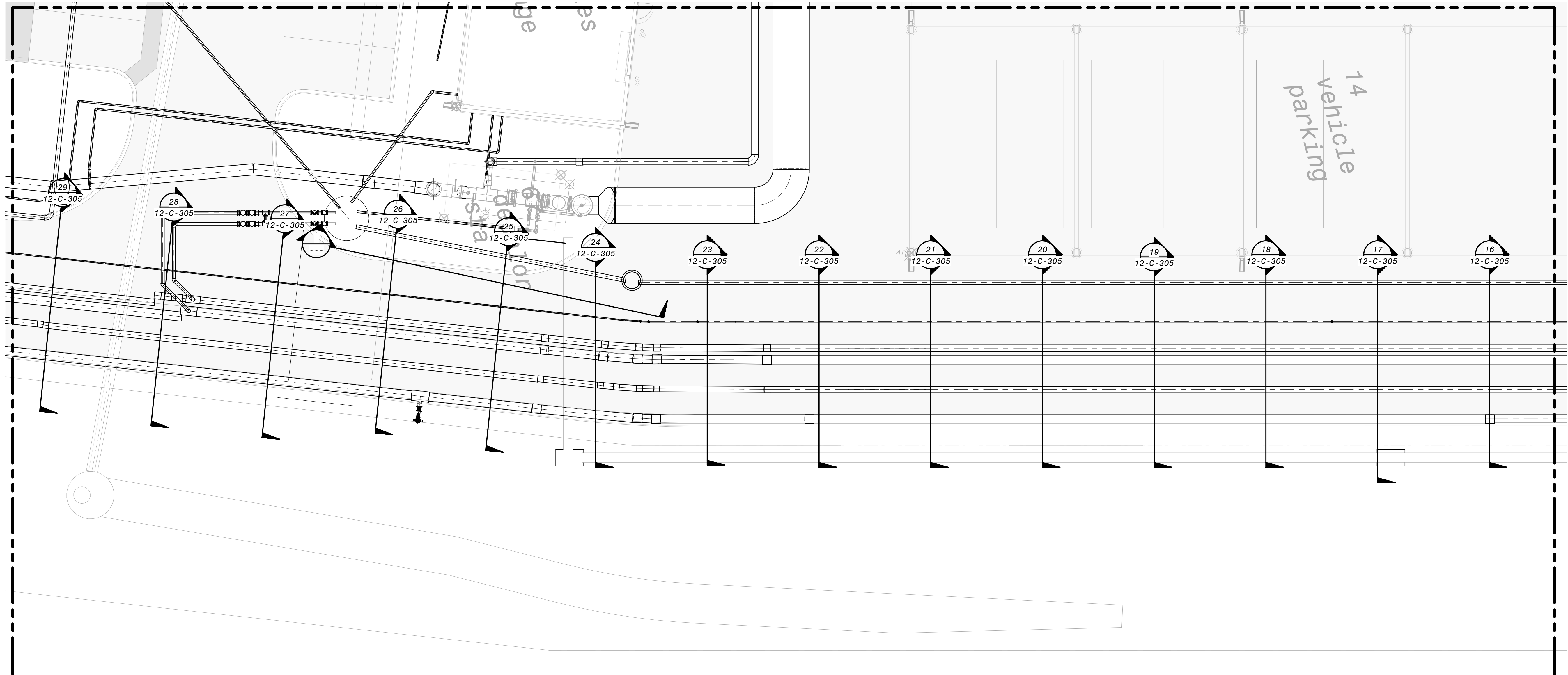
WEST OPERATIONS AREA - SECTION PLAN
1" = 10'-0"



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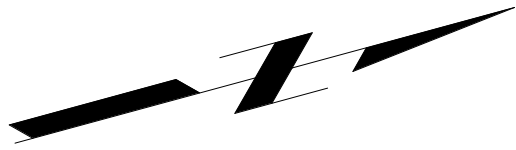
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DETAILED: SDM, FJC						
CHECKED: REB						
APPROVED: EVB						
DATE: 12/23/2019						
PROJECT NO. 400530			JOINT VENTURE	FILANC	BLACK & VEATCH	
CITY OF MORRO BAY MORRO BAY WRF RECLAMATION FACILITY (WRF)						
SITE - WEST OPERATIONS AREA CIVIL SECTION PLAN						
12-C-204 SHEET OF						

PLOTTED: 1/24/2020 2:00:44 PM
 0400530



SOUTHEAST CANOPIES AREA - SECTION PLAN
 1" = 10'-0"

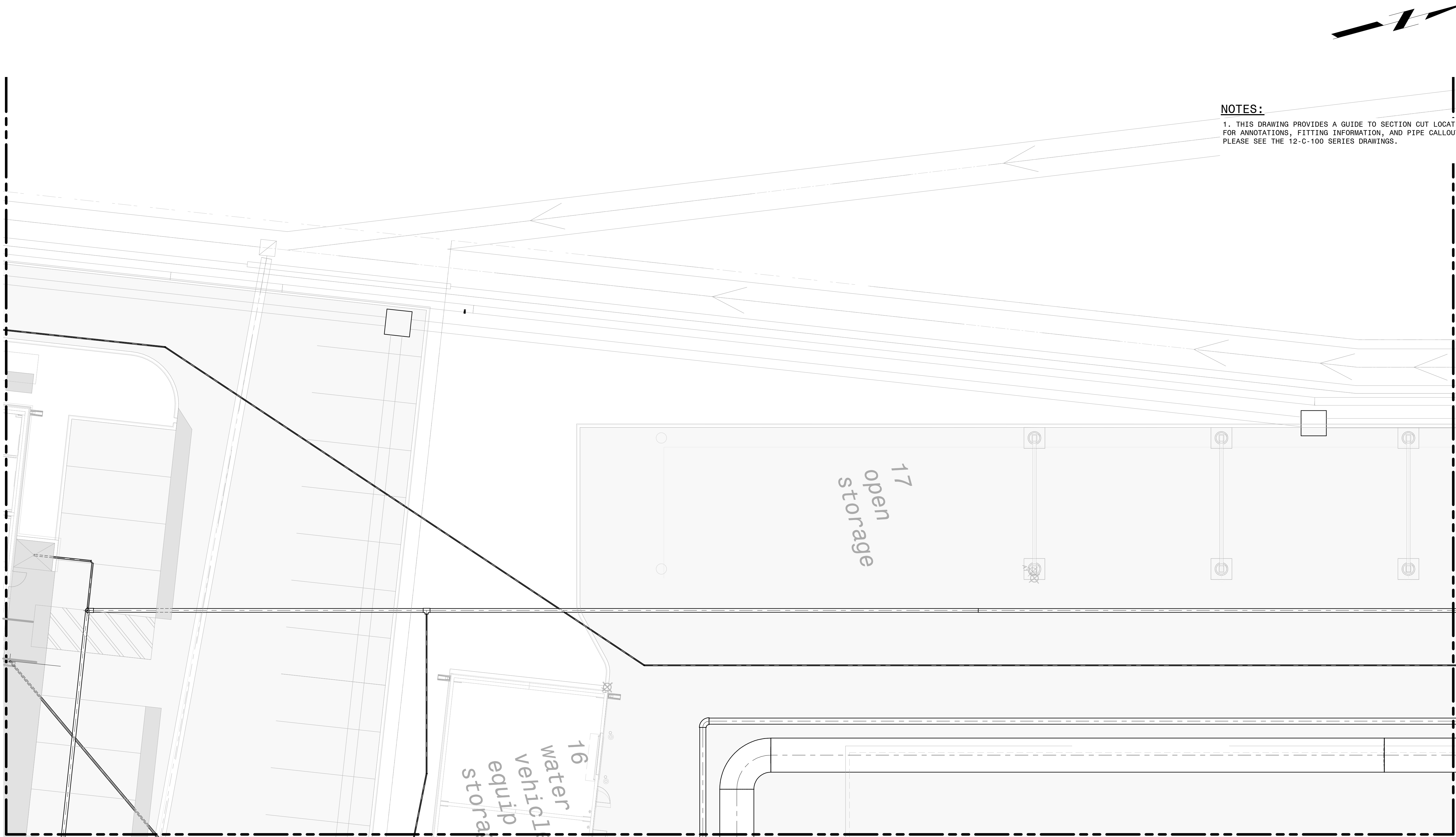
NOTES:
 1. THIS DRAWING PROVIDES A GUIDE TO SECTION CUT LOCATIONS.
 FOR ANNOTATIONS, FITTING INFORMATION, AND PIPE CALLOUTS,
 PLEASE SEE THE 12-C-100 SERIES DRAWINGS.



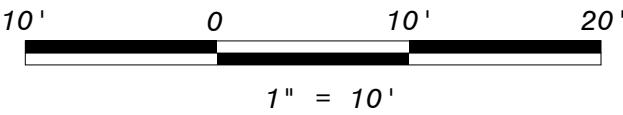
DESIGNED: RBG DETAILED: SDM, FJC CHECKED: REB APPROVED: EVB DATE: 12/23/2019		PROJECT NO. 400530	12-C-205 SHEET OF
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO FULL SCALE			
CITY OF MORRO BAY MORRO BAY WRF RECLAMATION FACILITY (WRF) SITE - SOUTHEAST CANOPIES AREA CIVIL SECTION PLAN		BLACK & VEATCH JOINT VENTURE FILANC BLACK & VEATCH	
REGISTERED PROFESSIONAL ENGINEER ERICK V. BEVINGTON No. C 78836 CIVIL STATE OF CALIFORNIA		REVISIONS AND RECORD OF USE NO. BY DATE	

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0400530



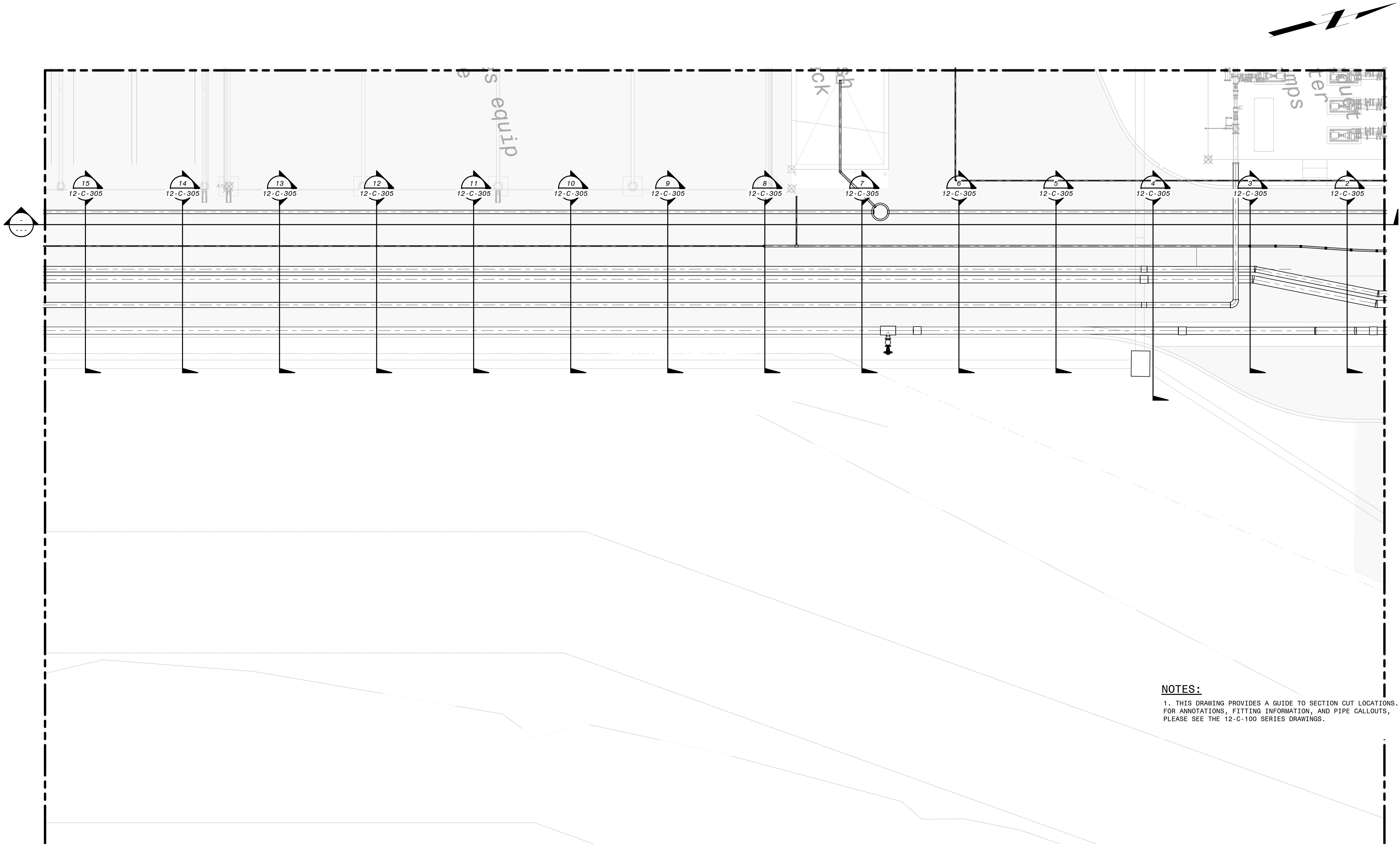
NOTES:
1. THIS DRAWING PROVIDES A GUIDE TO SECTION CUT LOCATIONS.
FOR ANNOTATIONS, FITTING INFORMATION, AND PIPE CALLOUTS,
PLEASE SEE THE 12-C-100 SERIES DRAWINGS.



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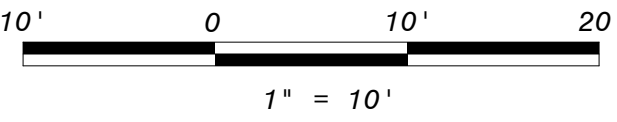
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DETAILED: SDM, FJC									
CHECKED: REB									
APPROVED: EVB									
DATE: 12/23/2019									
		PROJECT NO. 400530		12-C-206 SHEET OF					

400530
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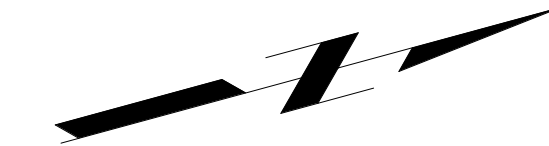


WASHDOWN AREA - SECTION PLAN
1" = 10'-0"

NOTES:
1. THIS DRAWING PROVIDES A GUIDE TO SECTION CUT LOCATIONS.
FOR ANNOTATIONS, FITTING INFORMATION, AND PIPE CALLOUTS,
PLEASE SEE THE 12-C-100 SERIES DRAWINGS.



DESIGNED: RGB	
DETAILED: SDM, FJC	
CHECKED: REB	
APPROVED: EVB	
DATE: 12/23/2019	
0 1/2 1 IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO FULL SCALE	
PROJECT NO. 400530	
12-C-207 SHEET OF	
CITY OF MORRO BAY MORRO BAY WRF RECLAMATION FACILITY (WRF)	
SITE - WASHDOWN AREA CIVIL SECTION PLAN	
BLACK & VEATCH JOINT VENTURE FILANC	
REGISTERED PROFESSIONAL ENGINEER ERIK V. BEVINGTON No. C 78836 CIVIL STATE OF CALIFORNIA	
REVISITONS AND RECORD OF USE	
NO. BY DATE	
CHK APP	



1. THIS DRAWING PROVIDES A GUIDE TO SECTION CUT LOCATIONS. FOR ANNOTATIONS, FITTING INFORMATION, AND PIPE CALLOUTS, PLEASE SEE THE 12-C-100 SERIES DRAWINGS.



JOINT VENTURE

FILANC®

SITE - NORTHWEST CANOPIES AREA
CIVIL
SECTION PLAN

12-C-208
SHEET
OF

$$1'' = 10' - 0''$$

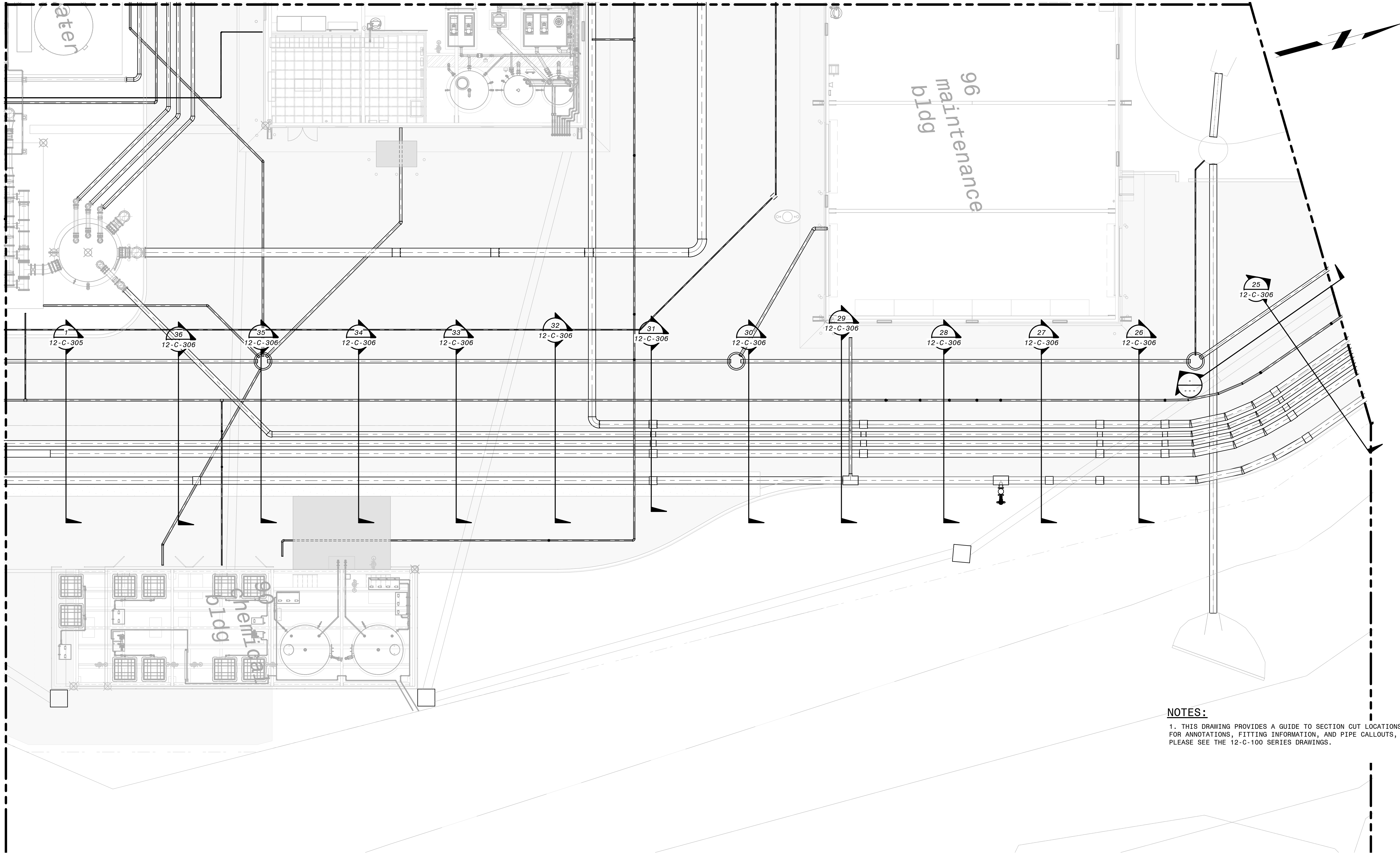
A number line diagram showing a scale from 10^1 to 20 . The midpoint is labeled 0 . The distance from 10^1 to 0 is labeled 10^1 , and the distance from 0 to 10^1 is labeled 10^1 . The total distance from 10^1 to 20 is labeled 10^1 .

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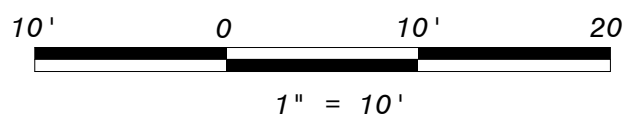
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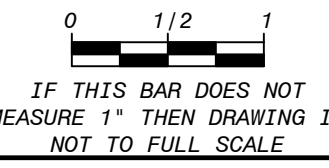


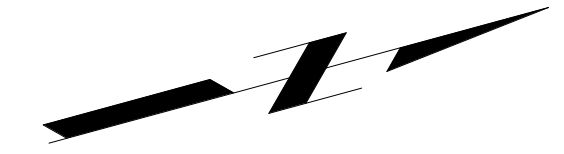
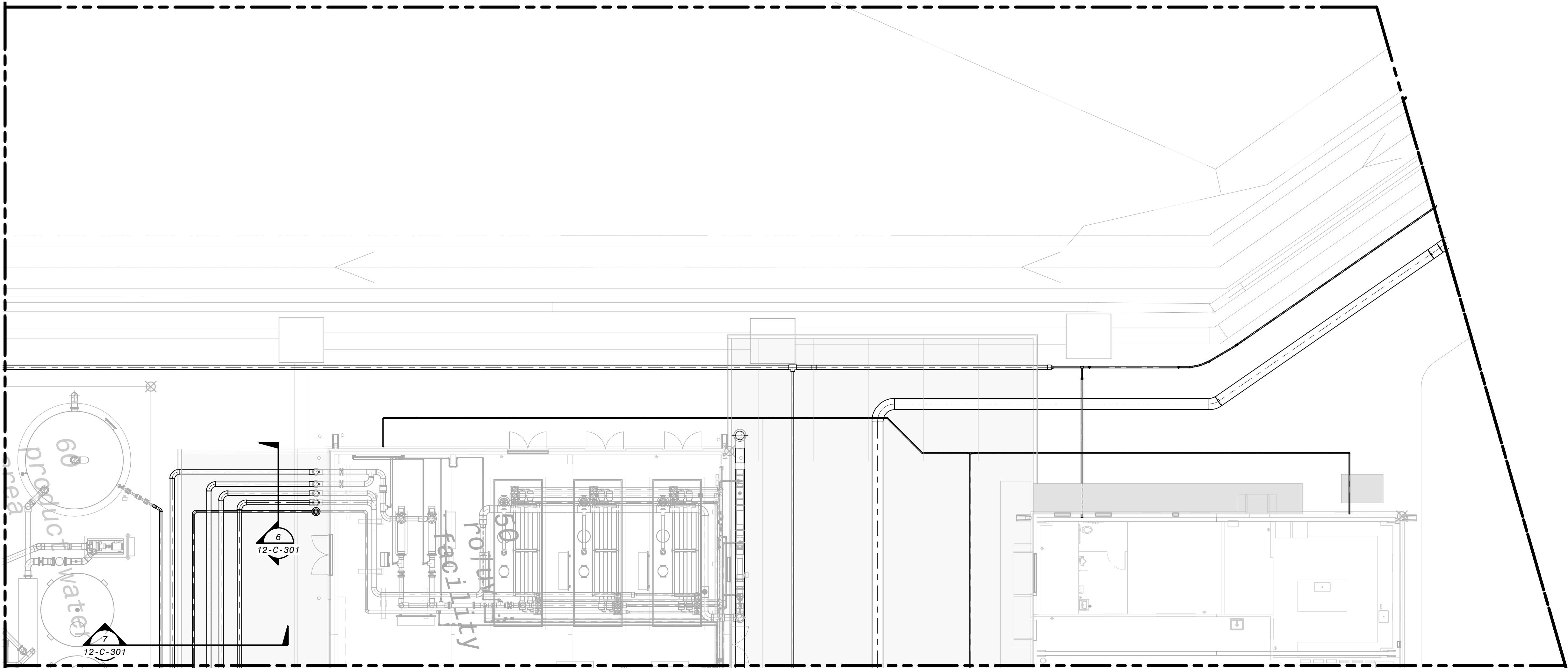
NOTES:
1. THIS DRAWING PROVIDES A GUIDE TO SECTION CUT LOCATIONS.
FOR ANNOTATIONS, FITTING INFORMATION, AND PIPE CALLOUTS,
PLEASE SEE THE 12-C-100 SERIES DRAWINGS.

CHEMICAL AREA - SECTION PLAN
1" = 10'-0"



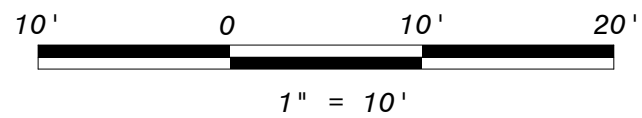
90% SUBMITTAL - NOT FOR CONSTRUCTION

REVISIONS AND RECORD OF USE		NO.	BY	CHK	APP
DATE					
					
BLACK & VEATCH		JOINT VENTURE		FILANC  BLACK & VEATCH	
CITY OF MORRO BAY MORRO BAY WRF RECLAMATION FACILITY (WRF)		SITE - CHEMICAL AREA CIVIL SECTION PLAN			
DESIGNED: RGB DETAILED: SDM, FJC CHECKED: REB APPROVED: EVB DATE: 12/23/2019					
					
PROJECT NO. 400530					
12-C-209 SHEET OF					

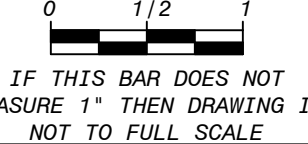


RO FACILITY AREA - SECTION PLAN
1" = 10'-0"

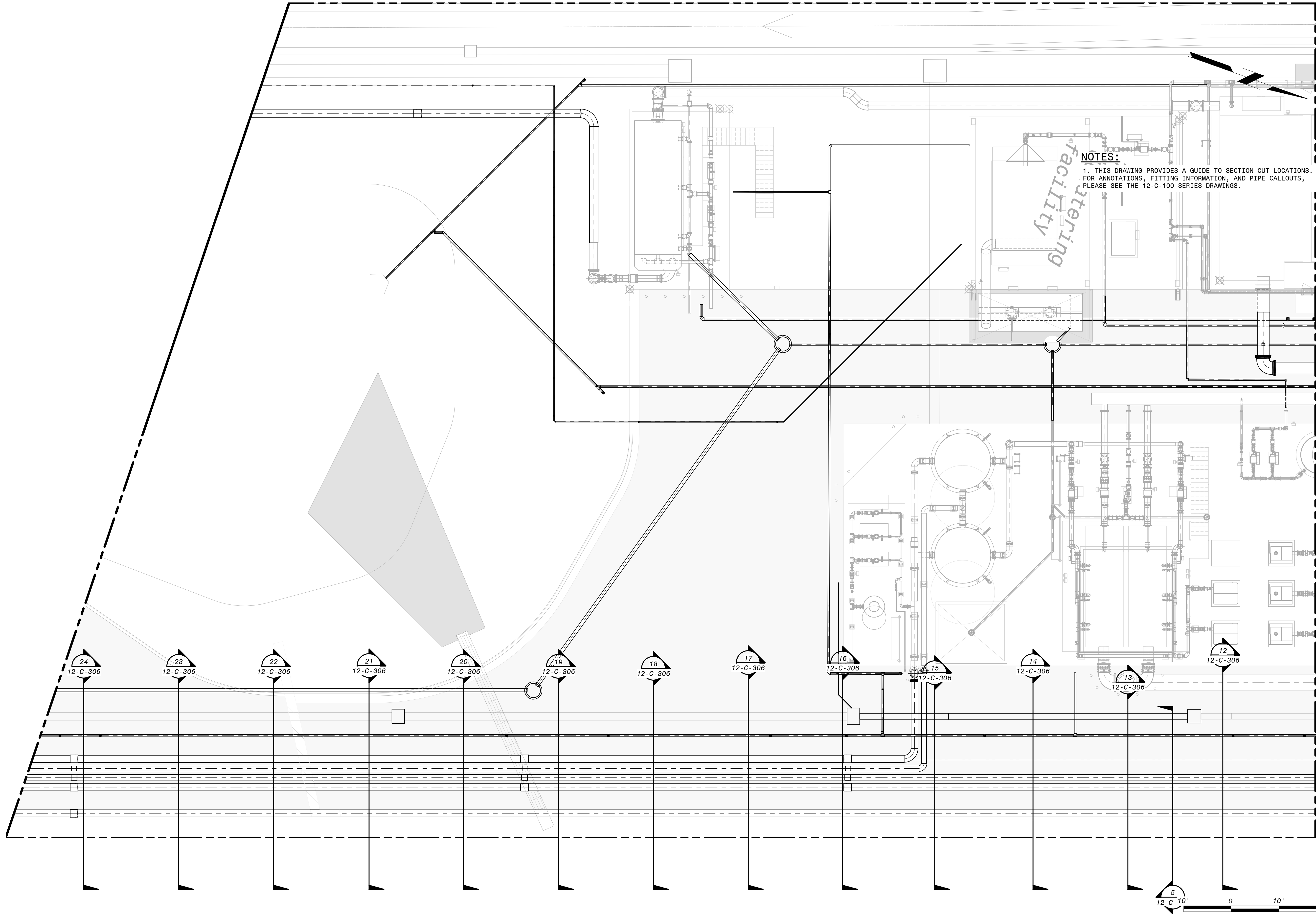
NOTES:
1. THIS DRAWING PROVIDES A GUIDE TO SECTION CUT LOCATIONS.
FOR ANNOTATIONS, FITTING INFORMATION, AND PIPE CALLOUTS,
PLEASE SEE THE 12-C-100 SERIES DRAWINGS.



90% SUBMITTAL - NOT FOR CONSTRUCTION

DESIGNED: RBG		CITY OF MORRO BAY MORRO BAY WRF RECLAMATION FACILITY (WRF)	SITE - RO FACILITY AREA CIVIL SECTION PLAN		REVISONS AND RECORD OF USE	NO.	BY	CHK APP
DETAILED: SDM, FJC								
CHECKED: REB								
APPROVED: EVB								
DATE: 12/23/2019								
		PROJECT NO. 400530		12-C-210 SHEET OF				

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NOTES:

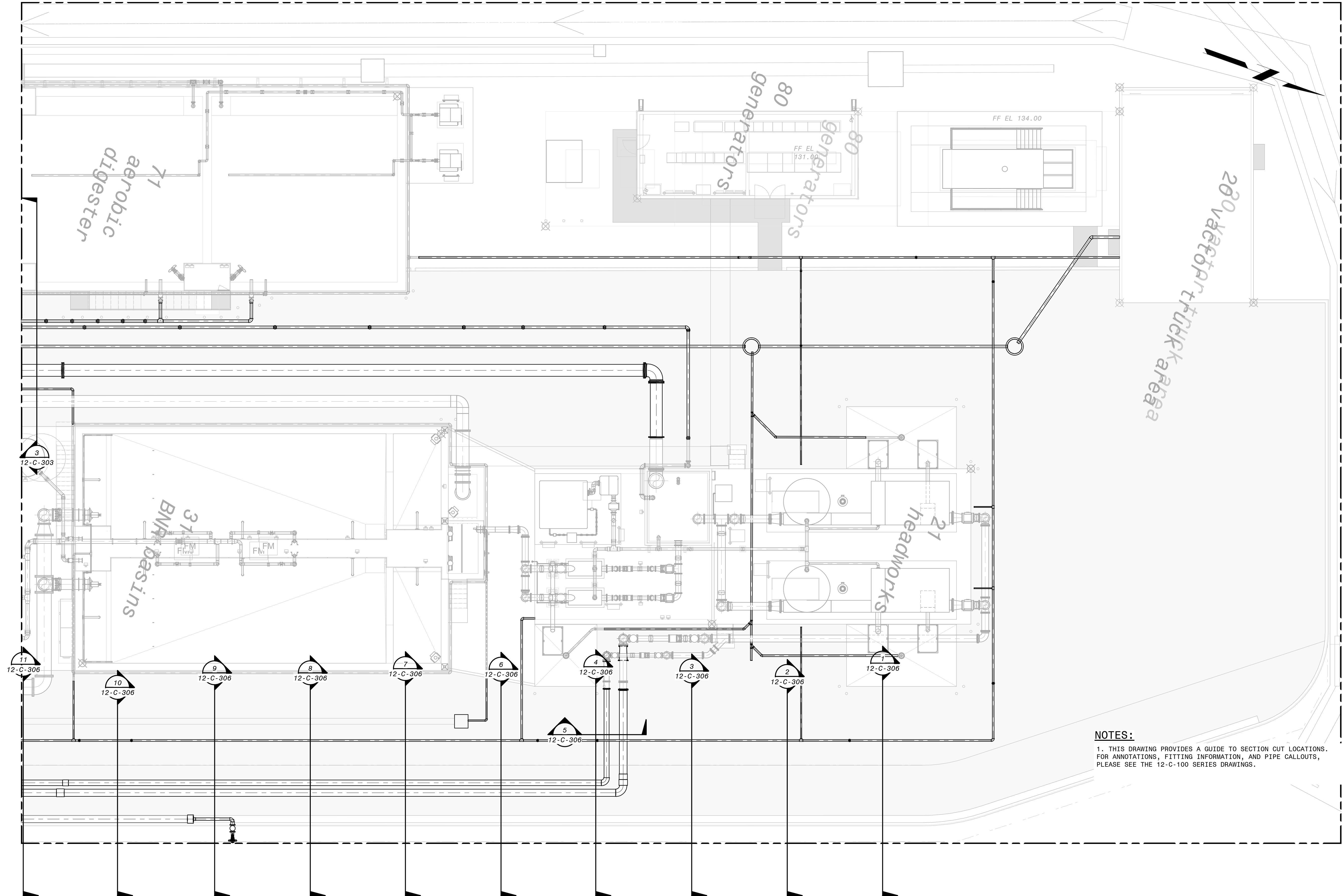
1. THIS DRAWING PROVIDES A GUIDE TO SECTION CUT LOCATIONS.
FOR ANNOTATIONS, FITTING INFORMATION, AND PIPE CALLOUTS,
PLEASE SEE THE 12-C-100 SERIES DRAWINGS.

SOUTH PROCESS AREA - SECTION PLAN
1" = 10'-0"

90% SUBMITTAL - NOT FOR CONSTRUCTION

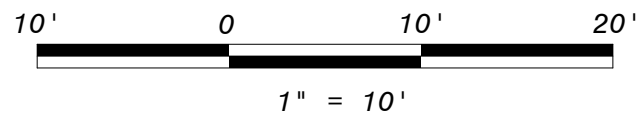
DESIGNED: RBG				
DETAILED: SDM, FJC				
CHECKED: REB				
APPROVED: EVB				
DATE: 12/23/2019				
0 1/2 1 IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO FULL SCALE				
PROJECT NO. 400530				
12-C-211 SHEET OF				
CITY OF MORRO BAY MORRO BAY WRF RECLAMATION FACILITY (WRF)	SITE - SOUTH PROCESS AREA CIVIL SECTION PLAN			
BLACK & VEATCH JOINT VENTURE FILANC	REGISTERED PROFESSIONAL ENGINEER ERIK V. BEVINGTON No. C 78836 CIVIL STATE OF CALIFORNIA			
NO.	BY	DATE	REVISIONS AND RECORD OF USE	CHK APP

400530
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NOTES:
1. THIS DRAWING PROVIDES A GUIDE TO SECTION CUT LOCATIONS. FOR ANNOTATIONS, FITTING INFORMATION, AND PIPE CALLOUTS, PLEASE SEE THE 12-C-100 SERIES DRAWINGS.

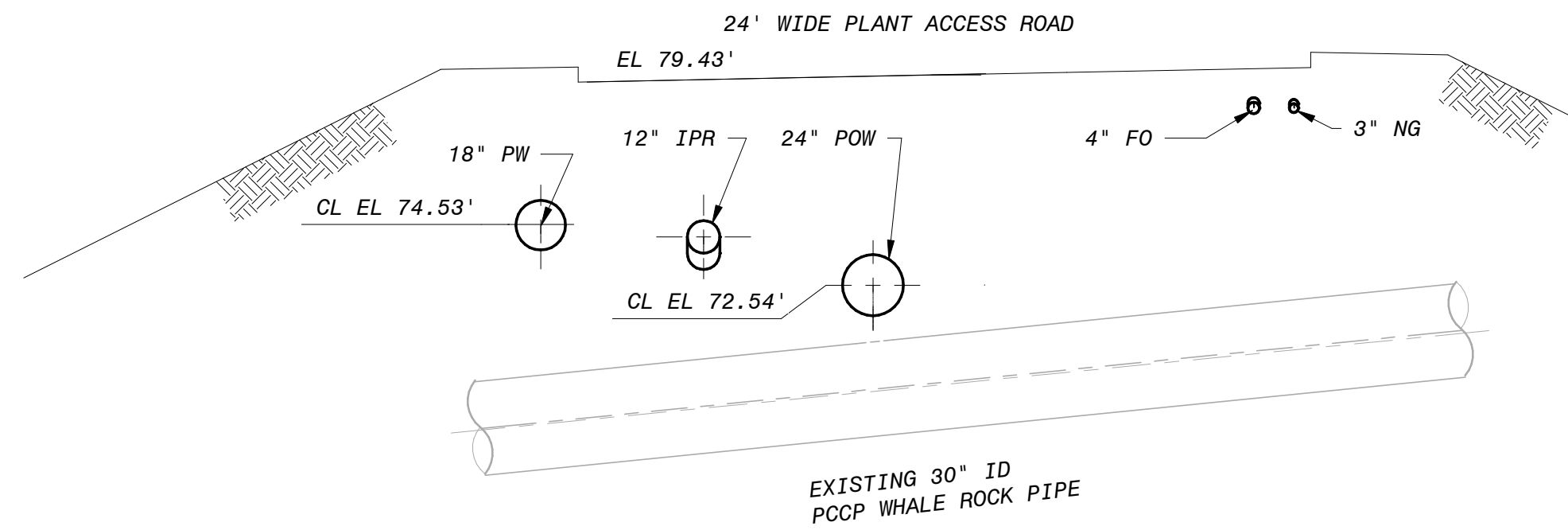
NORTH PROCESS AREA - SECTION PLAN
1" = 10'-0"



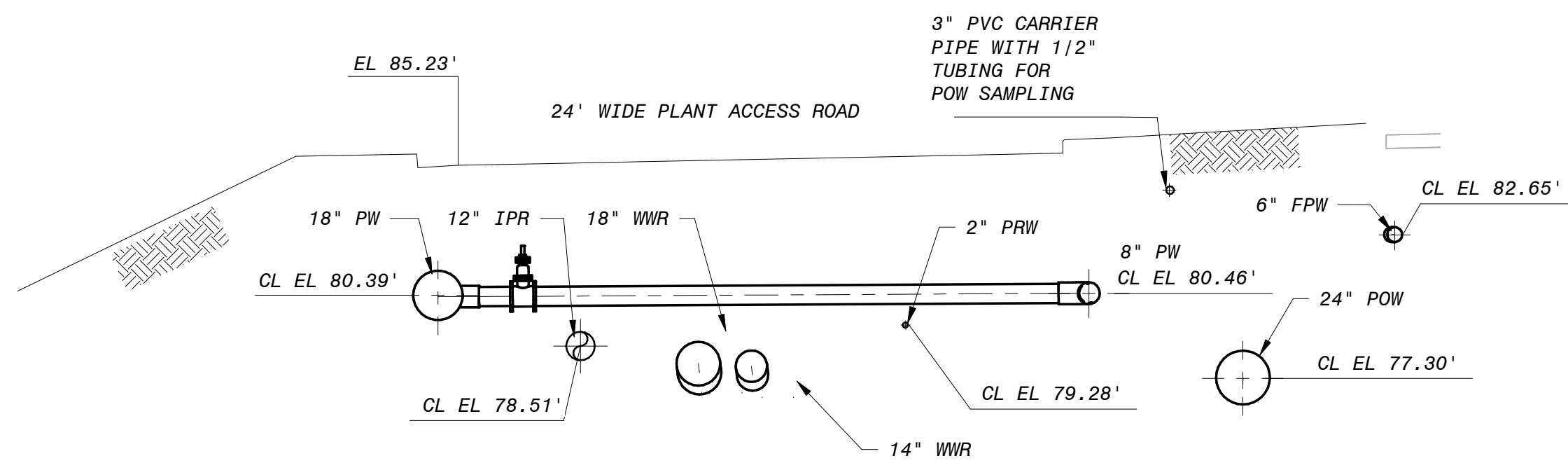
90% SUBMITTAL - NOT FOR CONSTRUCTION

DESIGNED: RBG DETAILED: SDM, FJC CHECKED: REB APPROVED: EVB DATE: 12/23/2019		CITY OF MORRO BAY MORRO BAY WRF RECLAMATION FACILITY (WRF)		SITE - NORTH PROCESS AREA CIVIL SECTION PLAN	
PROJECT NO. 400530		BLACK & VEATCH JOINT VENTURE FILANC		REGISTERED PROFESSIONAL ENGINEER ERIK V. BEVINGTON No. C 78836 CIVIL STATE OF CALIFORNIA	
12-C-212 SHEET OF		REVISONS AND RECORD OF USE		NO. BY DATE	

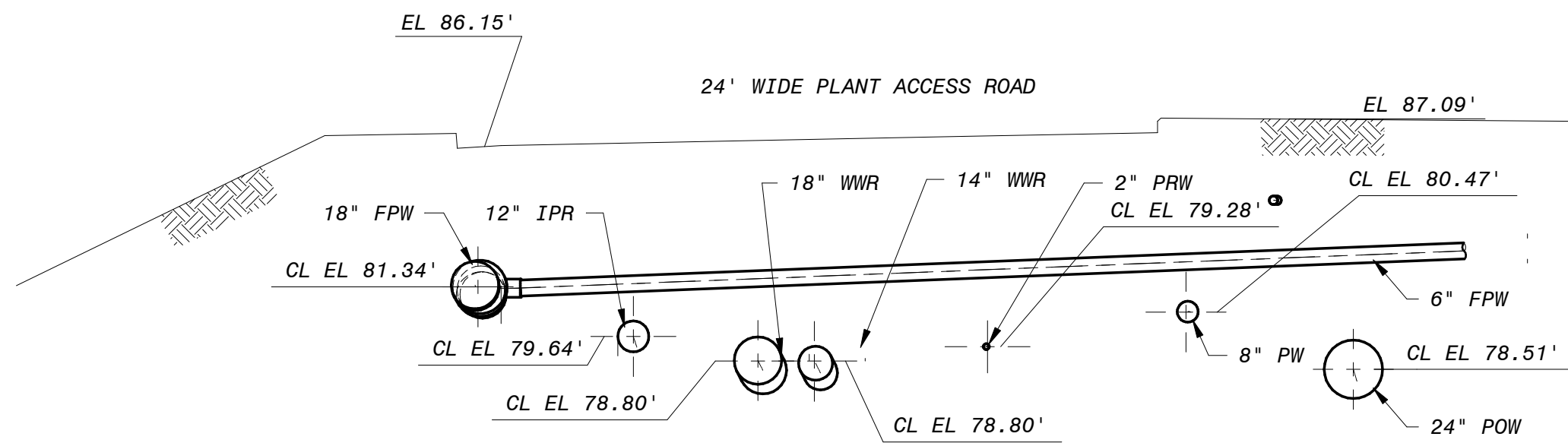
040630
PLOTTED: 1/24/2020 2:02:02 PM



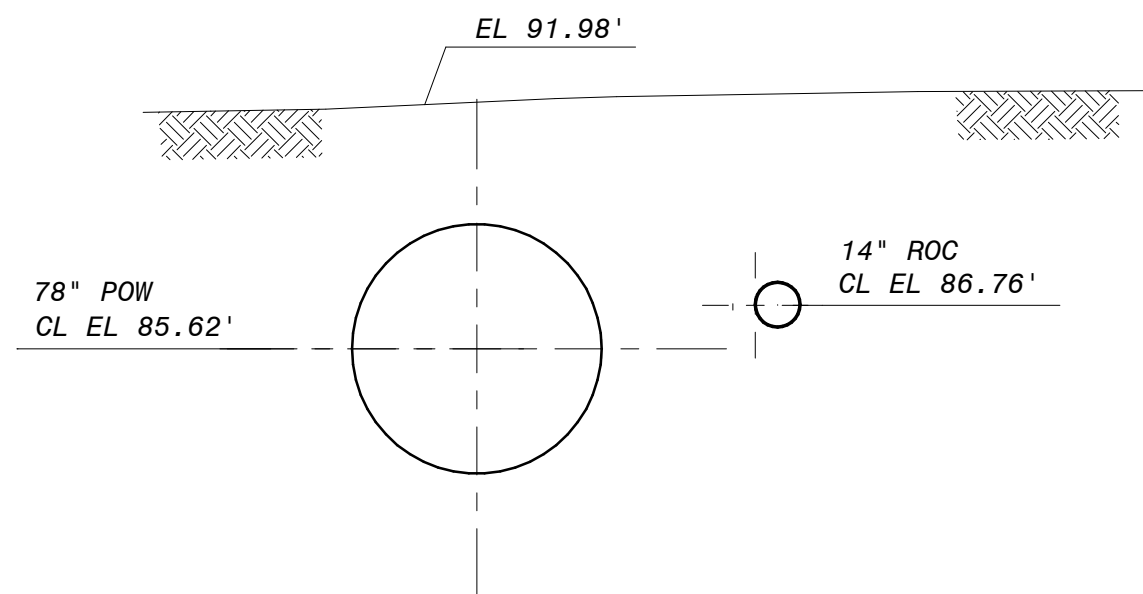
SECTION 1
12-C-101 1" = 5'-0"



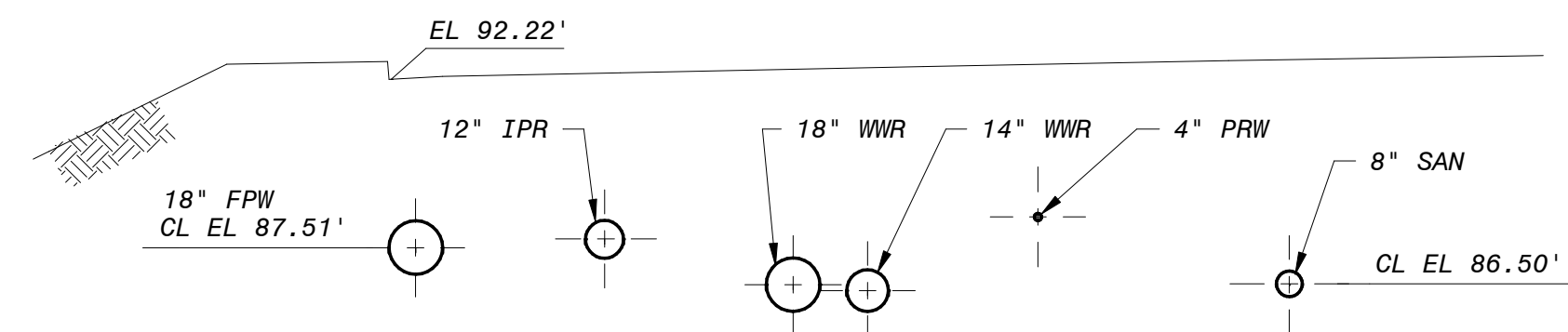
SECTION 2
12-C-101 1" = 5'-0"



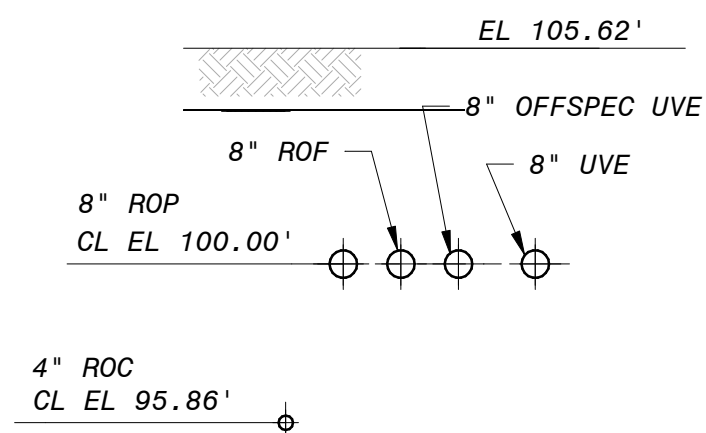
SECTION 3
12-C-101 1" = 5'-0"



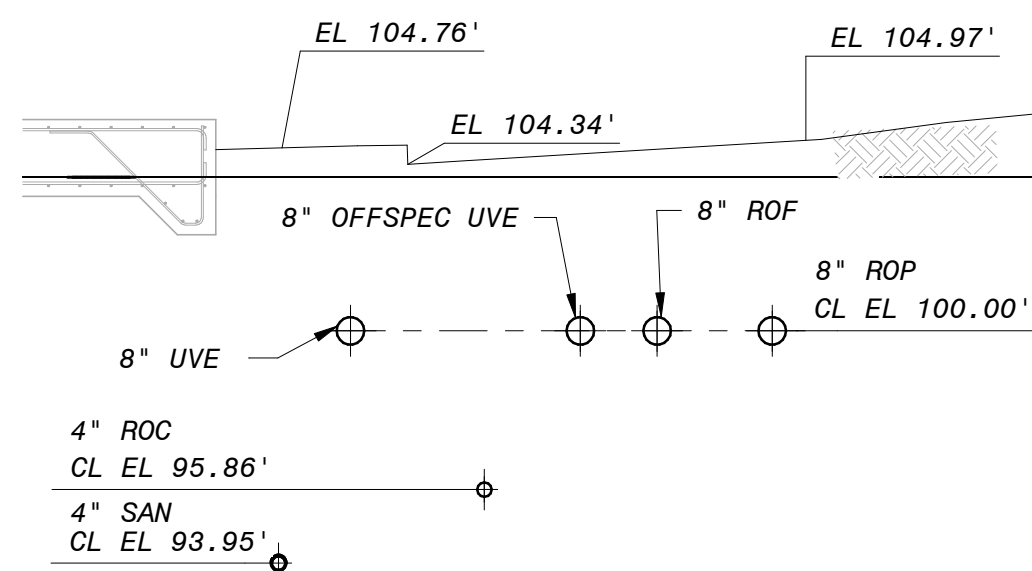
SECTION 4
12-C-102 1" = 5'-0"



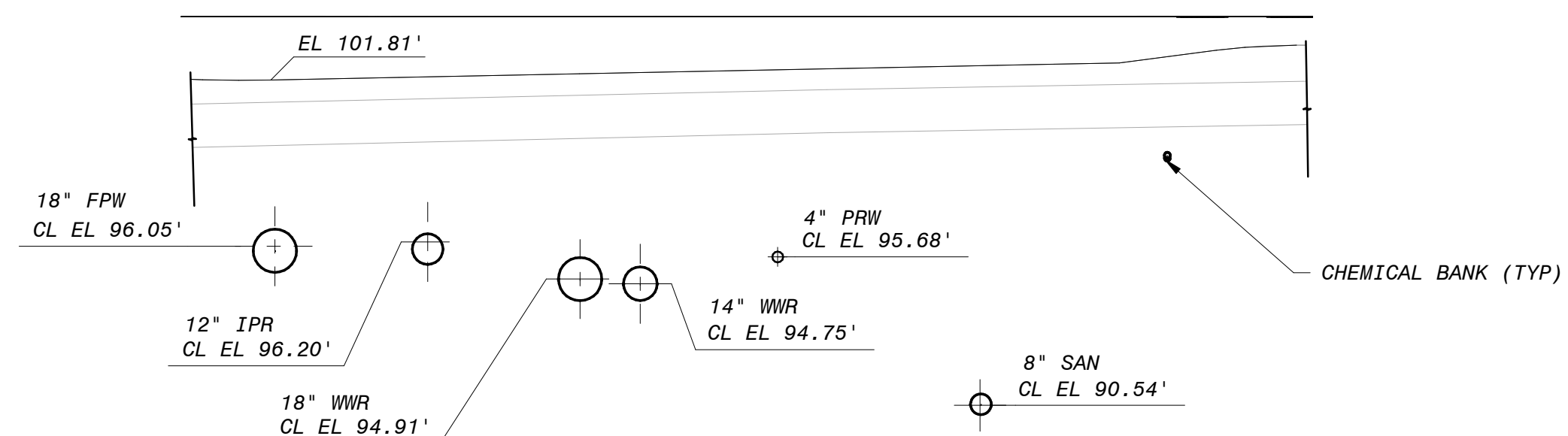
SECTION 5
12-C-102 1" = 5'-0"



SECTION 6
12-C-103 1" = 5'-0"



SECTION 7
12-C-103 1" = 5'-0"



SECTION 8
12-C-103 1" = 5'-0"

90% SUBMITTAL - NOT FOR CONSTRUCTION



BLACK & VEATCH

JOINT VENTURE

FILANC BLACK & VEATCH

CITY OF MORRO BAY
MORRO BAY WRF
RECLAMATION FACILITY (WRF)

SITE - OVERALL
CIVIL
PIPING SECTIONS AND DETAILS 1

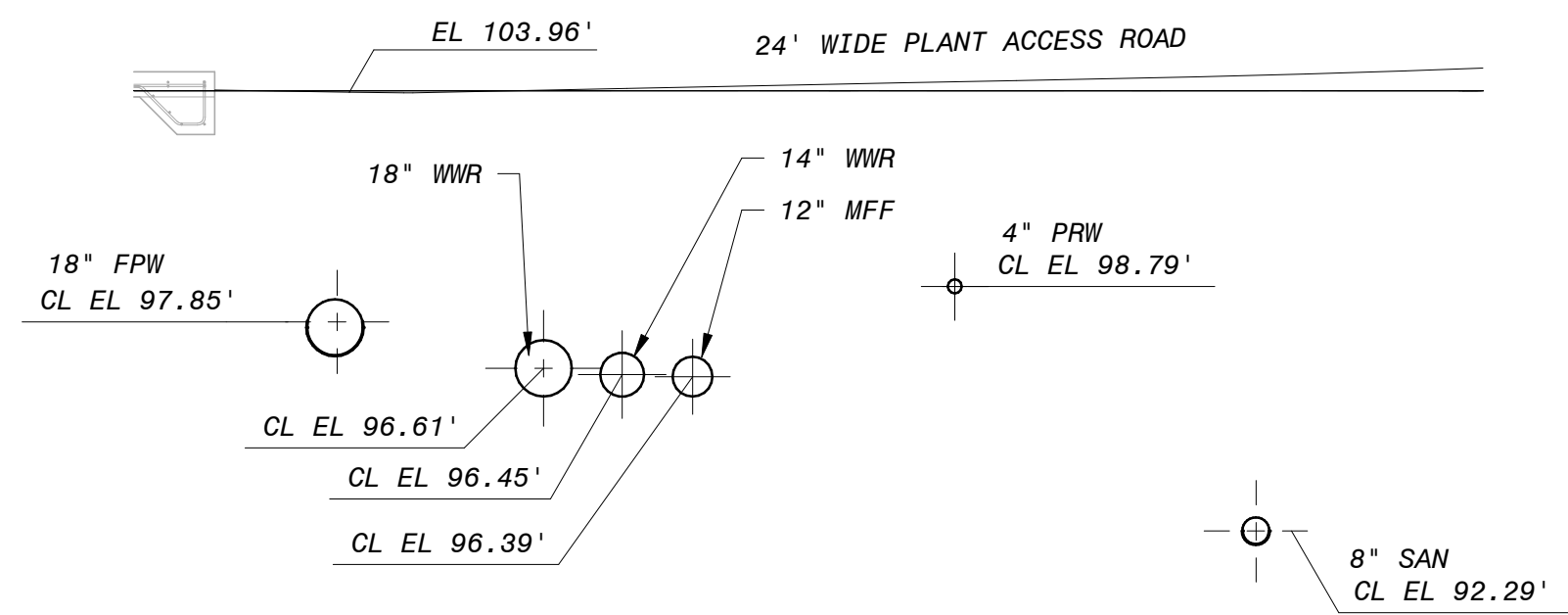
DESIGNED: RBG
DETAILED: SDM
CHECKED: REB
APPROVED: EVB
DATE: 12/23/2019

0 1/2 1
IF THIS BAR DOES NOT
MEASURE 1" THEN DRAWING IS
NOT TO FULL SCALE

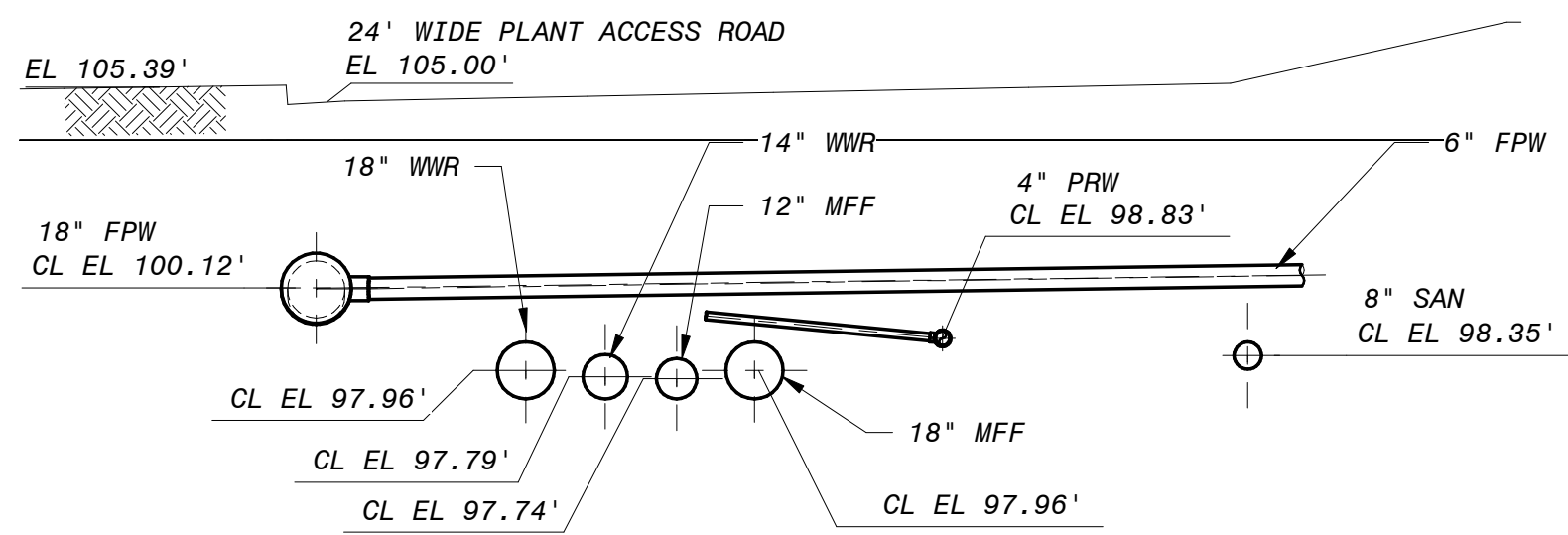
PROJECT NO.
400530

12-C-301
SHEET
OF

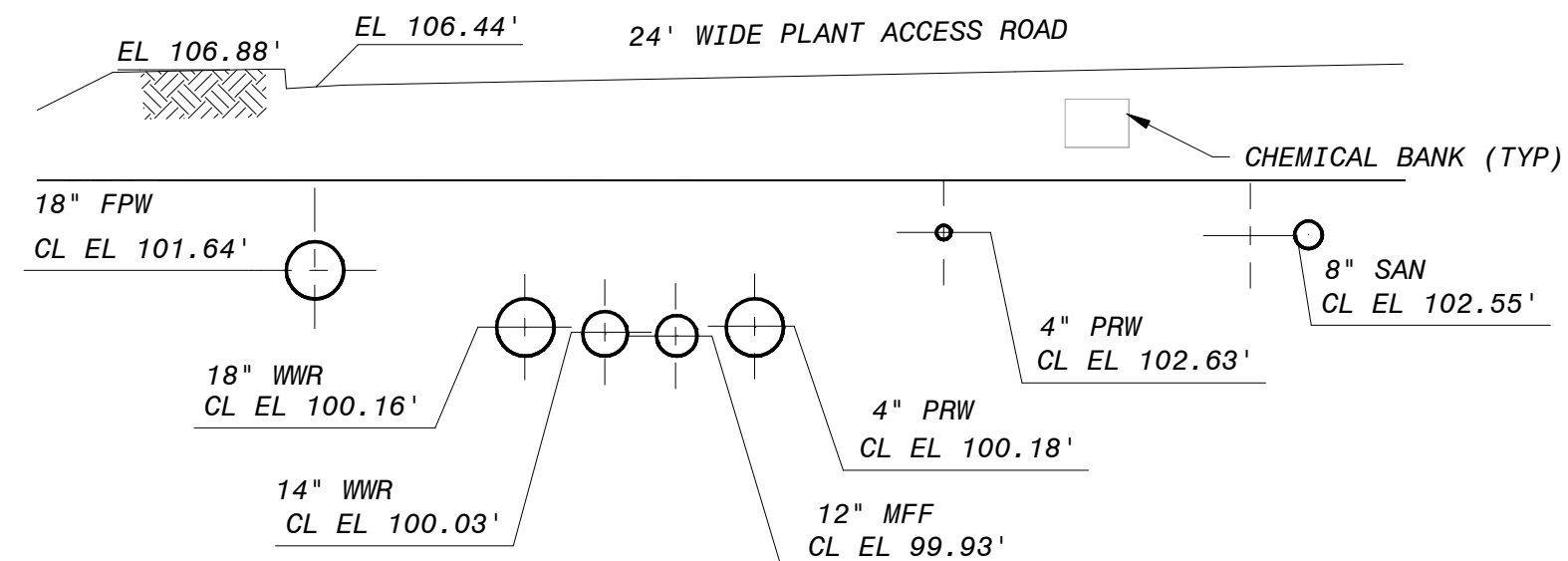
NO. BY DATE REVISIONS AND RECORD OF USE



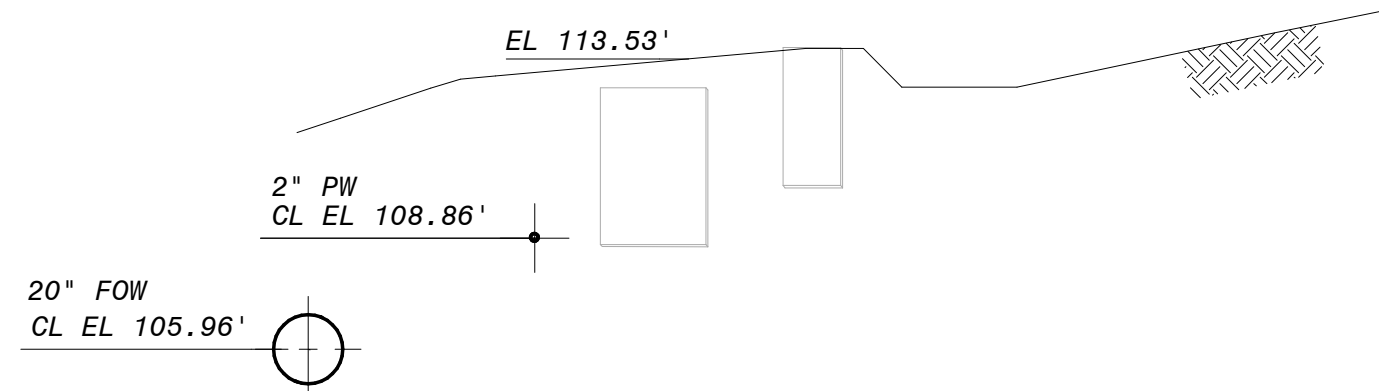
SECTION 1
12-C-103 1" = 5'-0"



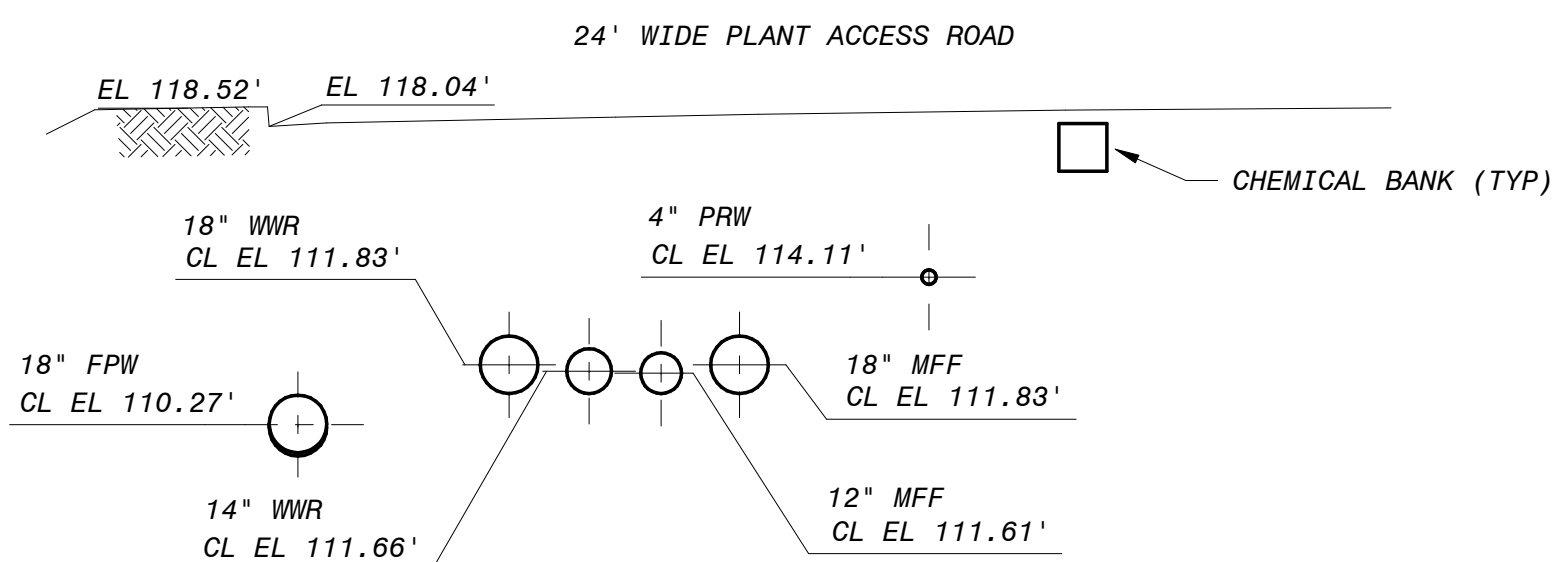
SECTION 2
12-C-103 1" = 5'-0"



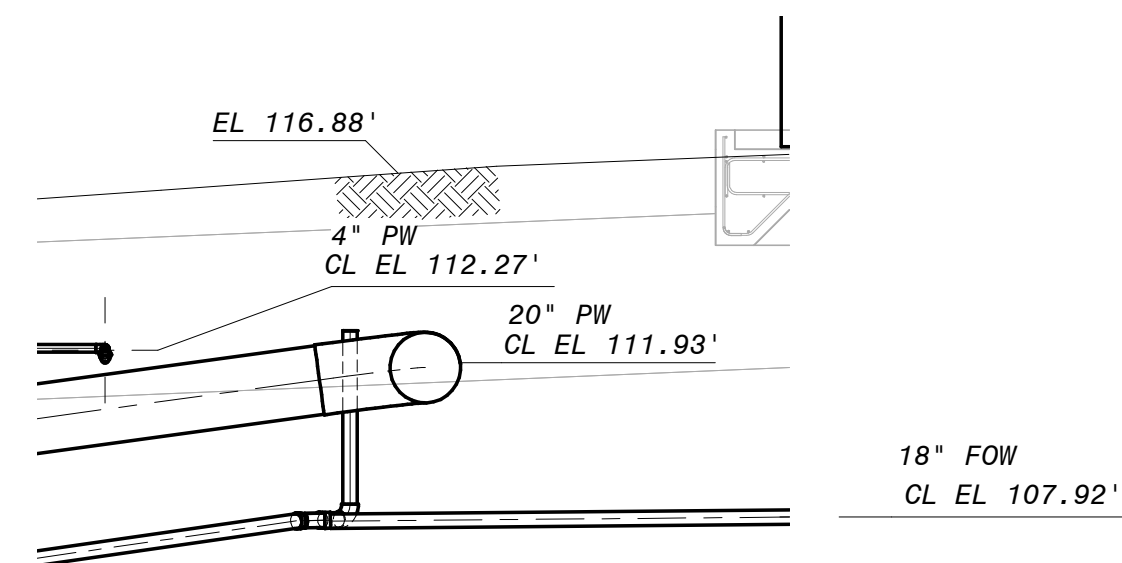
SECTION 3
12-C-103 1" = 5'-0"



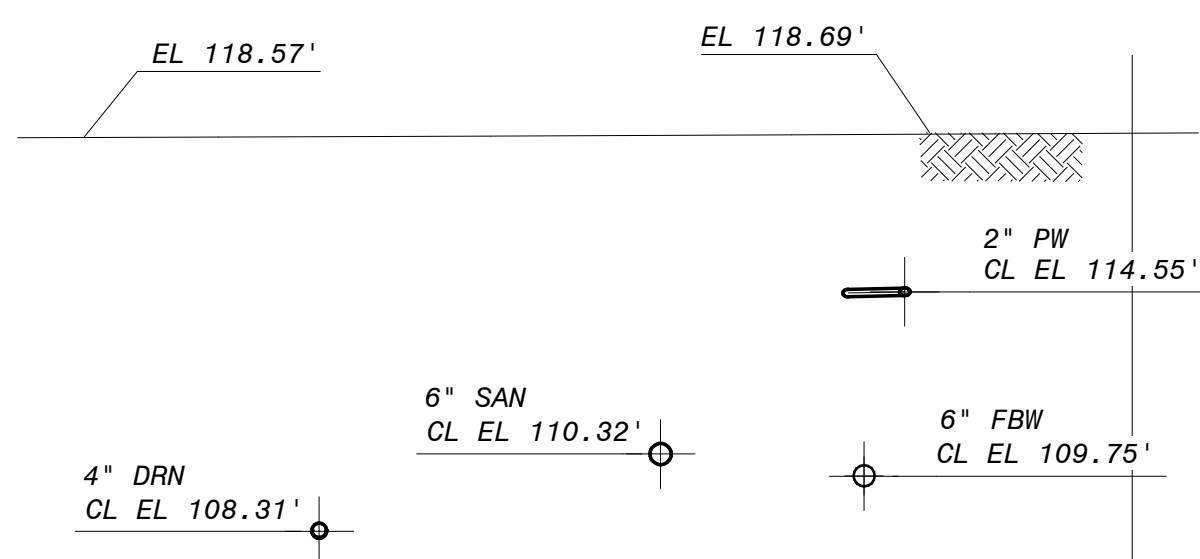
SECTION 4
12-C-103 1" = 5'-0"



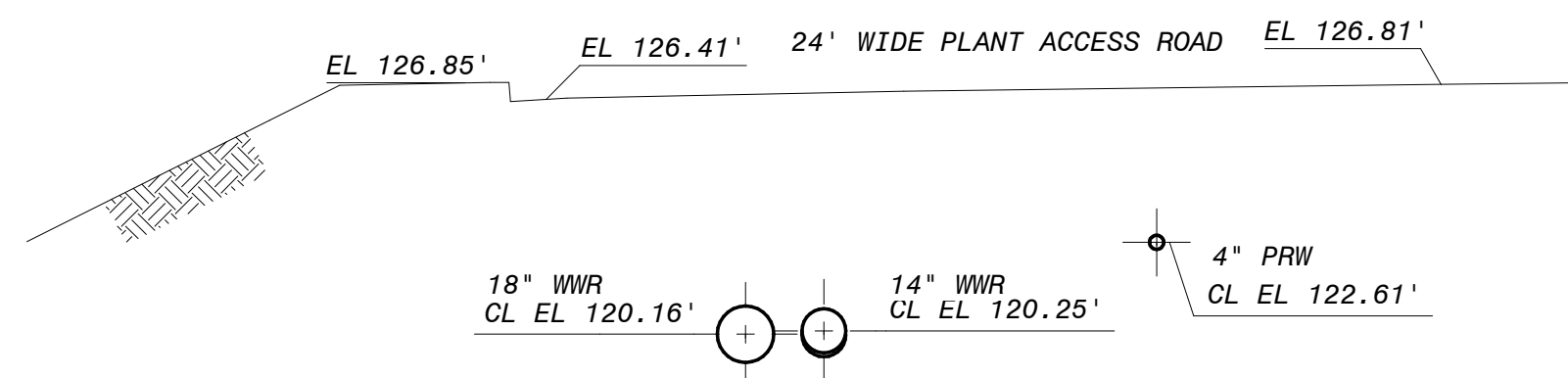
SECTION 5
12-C-104 1" = 5'-0"



SECTION 6
12-C-104 1" = 5'-0"



SECTION 7
12-C-104 1" = 5'-0"



SECTION 8
12-C-104 1" = 5'-0"

NOTES:



BLACK & VEATCH
JOINT VENTURE
FILANC **BLACK & VEATCH**

CITY OF MORRO BAY
MORRO BAY WRF
RECLAMATION FACILITY (WRF)
SITE - OVERALL
CIVIL
PIPING SECTIONS AND DETAILS 2

DESIGNED: RBG
DETAILED: SDM, FJC
CHECKED: REB
APPROVED: EVB
DATE: 12/23/2019

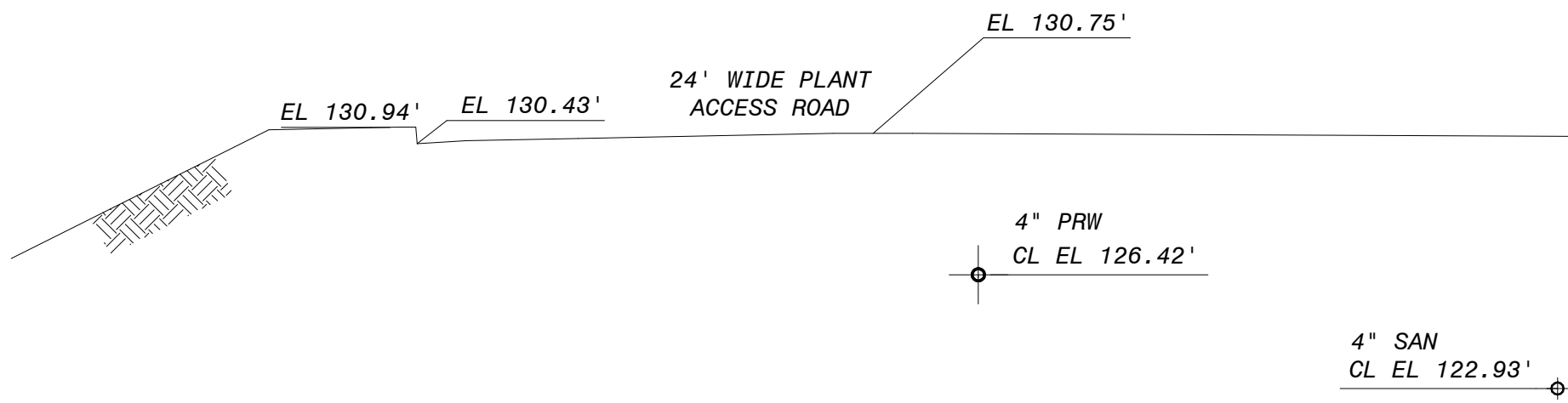
0 1/2 1
IF THIS BAR DOES NOT
MEASURE 1" THEN DRAWING IS
NOT TO FULL SCALE

PROJECT NO.
400530

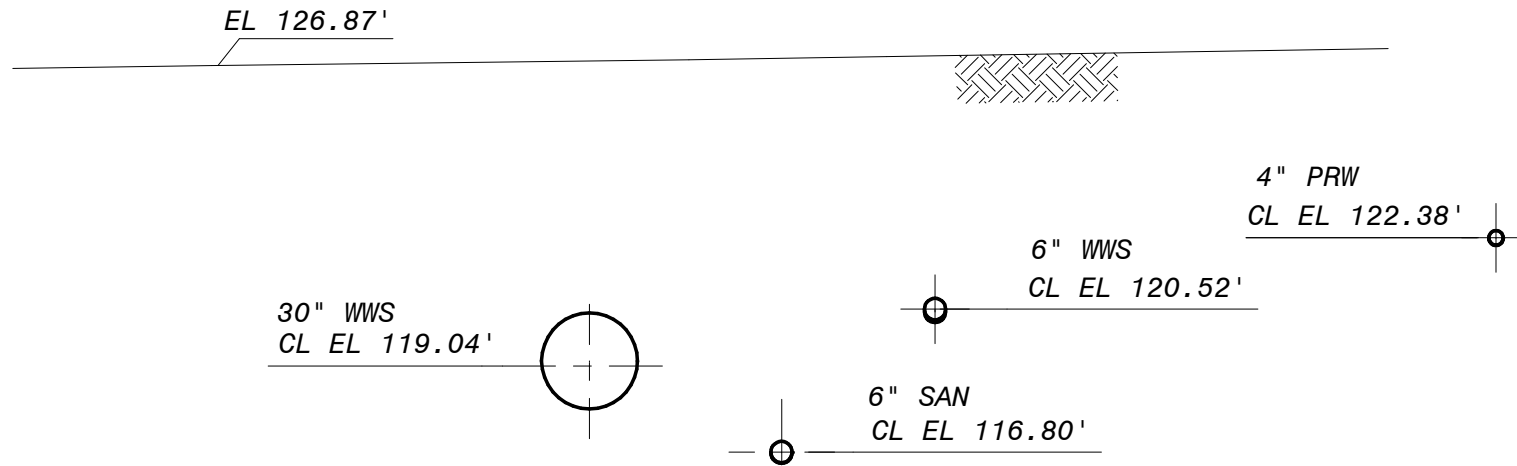
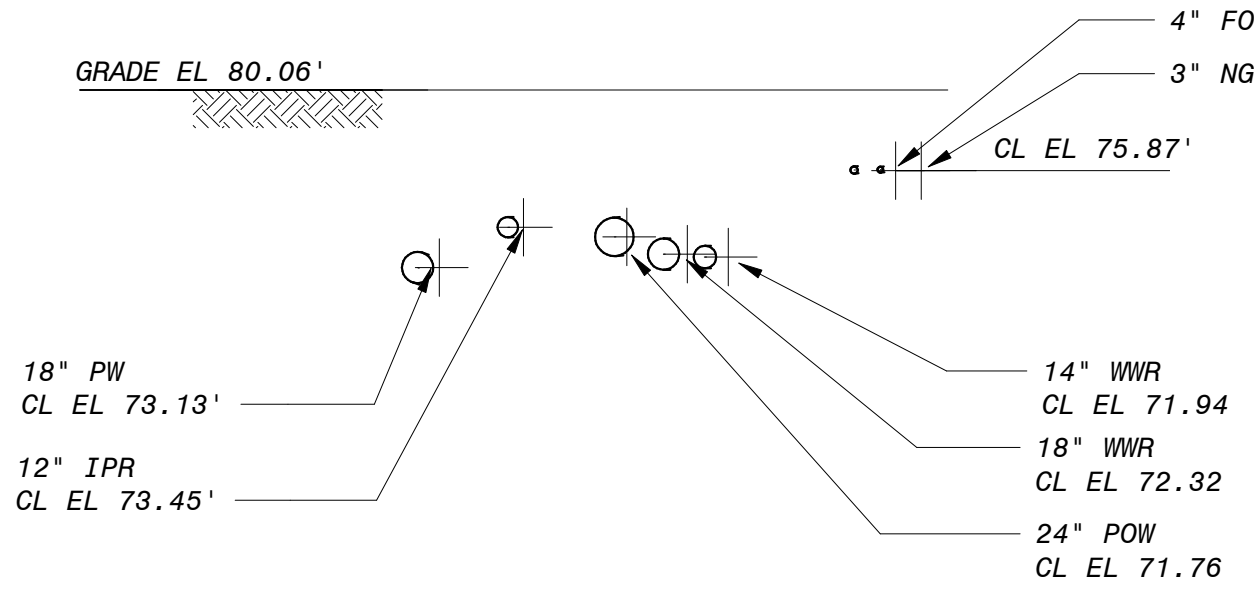
12-C-302
SHEET
OF

90% SUBMITTAL - NOT FOR CONSTRUCTION

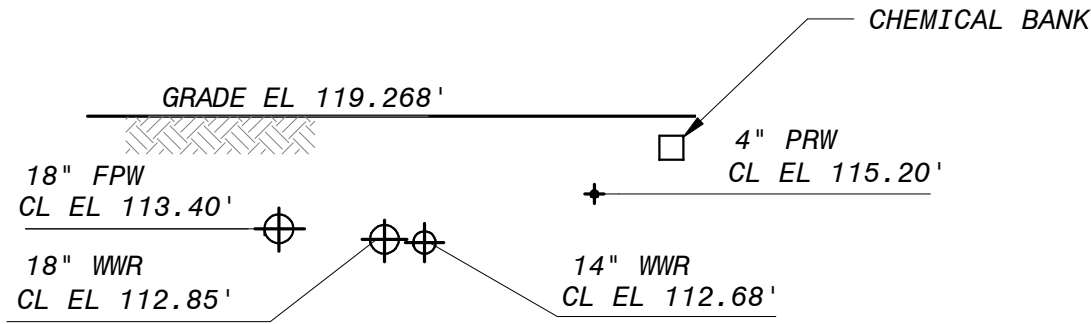
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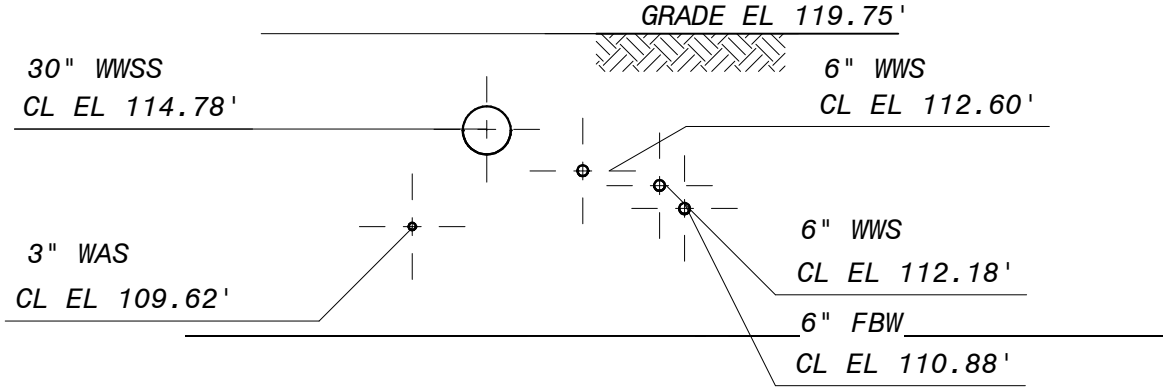
SECTION 1
12-C-104 1" = 5'-0"



SECTION 2
12-C-104 1" = 5'-0"



SECTION 5
12-C-104 1" = 10'-0"



SECTION 3
12-C-104 1" = 10'-0"

NOTES:



BLACK & VEATCH
JOINT VENTURE
FILANC **BLACK & VEATCH**

CITY OF MORRO BAY
MORRO BAY WRF
RECLAMATION FACILITY (WRF)
SITE - OVERALL
CIVIL
PIPING SECTIONS AND DETAILS 3

DESIGNED: RBG
DETAILED: SDM, FJC
CHECKED: REB
APPROVED: EVB
DATE: 12/23/2019

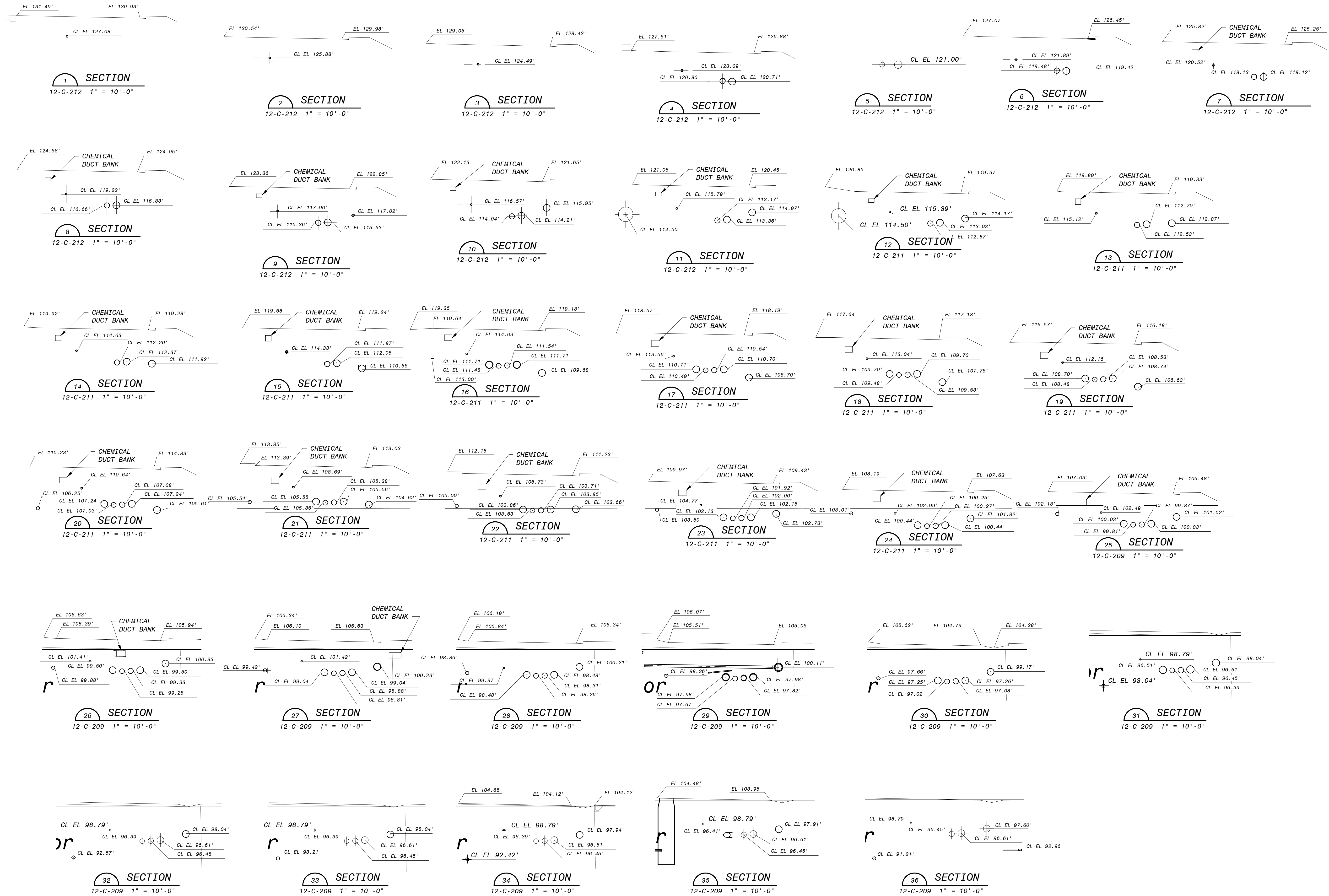
0 1/2 1
IF THIS BAR DOES NOT
MEASURE 1" THEN DRAWING IS
NOT TO FULL SCALE

PROJECT NO.
400530

12-C-303
SHEET
OF

90% SUBMITTAL - NOT FOR CONSTRUCTION

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90% SUBMITTAL - NOT FOR CONSTRUCTION



BLACK & VEATCH
JOINT VENTURE
FILANC
BLACK & VEATCH

CITY OF MORRO BAY
MORRO BAY WRF
RECLAMATION FACILITY (WRF)
SITE - OVERALL
CIVIL
PIPING SECTIONS AND DETAILS

DESIGNED: RGB
DETAILED: SDM, FJC
CHECKED: REB
APPROVED: EVB
DATE: 12/23/2019
PROJECT NO.
400530
12-C-306
SHEET
OF

DRN PIPE FITTING COORDINATES SCHEDULE						
MARK	SIZE	FITTING ANGLE	NORTHING	EASTING	CL EL	REMARKS Standard Angle
2-DRN-1	2"ø-2"ø	45.01°	2332424.87	5720317.15	100.33	45.00°
4-DRN-1	4"ø-4"ø	42.75°	2332621.17	5720200.62	116.75	45.00°
4-DRN-1	4"ø-4"ø-4"ø	45.00°	2332487.79	5720226.60	103.40	45.00°
4-DRN-2	4"ø-4"ø	45.05°	2332490.06	5720225.94	106.47	45.00°
4-DRN-3	4"ø-4"ø-4"ø	45.00°	2332506.57	5720187.11	107.82	45.00°
4-DRN-4	4"ø-4"ø	90.01°	2332684.31	5720191.33	109.81	90.00°
4-DRN-5	4"ø-4"ø	88.81°	2332533.16	5720246.44	107.46	90.00°
4-DRN-6	4"ø-4"ø-4"ø	45.00°	2332531.53	5720245.65	107.42	45.00°
4-DRN-7	4"ø-4"ø	88.81°	2332507.29	5720185.60	107.86	90.00°

FBW PIPE FITTING COORDINATES SCHEDULE						
MARK	SizeSIZE	FITTING ANGLE	NORTHING	EASTING	CL EL	REMARKS
6-FBW-1	6"ø-6"ø	90.00°	2332547.43	5720224.93	109.76	
6-FBW-2	6"ø-6"ø		2332663.85	5720183.55	109.77	
6-FBW-3	6"ø-6"ø		2332669.09	5720181.69	110.15	
6-FBW-4	6"ø-6"ø		2332674.29	5720179.84	110.93	
6-FBW-5	6"ø-6"ø		2332679.43	5720178.02	112.09	
6-FBW-6	6"ø-6"ø		2332684.47	5720176.22	113.62	
6-FBW-7	6"ø-6"ø		2332689.41	5720174.47	115.52	
6-FBW-8	6"ø-6"ø		2332693.81	5720172.90	117.19	
6-FBW-9	6"ø-6"ø-6"ø		2332696.80	5720171.84	117.42	
6-FBW-10	6"ø-6"ø	90.00°	2332695.37	5720167.77	117.42	
6-FBW-11	6"ø-6"ø	90.00°	2332714.72	5720165.47	118.79	
6-FBW-12	6"ø-6"ø	90.00°	2332713.26	5720161.41	118.80	

FOW PIPE FITTING COORDINATES SCHEDULE						
MARK	SIZE	FITTING ANGLE	NORTHING	EASTING	CL EL	REMARKS
20-FOW-1	20"ø-20"ø		2332262.28	5720290.67	97.29	
20-FOW-2	20"ø-20"ø		2332281.82	5720295.97	97.66	
20-FOW-3	20"ø-20"ø		2332300.42	5720301.02	98.68	
20-FOW-4	20"ø-20"ø	89.97°	2332322.80	5720307.10	99.80	
20-FOW-7	20"ø-20"ø		2332441.89	5720216.44	105.80	
20-FOW-8	20"ø-20"ø		2332476.62	5720204.08	106.39	
20-FOW-9	20"ø-20"ø	90.02°	2332511.52	5720191.66	111.87	

FPW PIPE FITTING COORDINATES SCHEDULE						
MARK	SIZE	FITTING ANGLE	NORTHING	EASTING	CL EL	REMARKS
6-FPW-1	6"ø-6"ø	90.00°	2332745.89	5720264.91	117.28	
6-FPW-2	6"ø-6"ø	90.00°	2332747.40	5720269.15	117.26	
6-FPW-3	6"ø-6"ø	90.00°	2332368.49	5720372.60	100.41	
6-FPW-4	6"ø-6"ø	90.00°	2332072.86	5720292.37	95.50	
6-FPW-5	6"ø-6"ø	90.00°	2331709.93	5720189.52	83.88	
8-FPW-1	8"ø-6"ø		2332073.86	5720288.67	95.50	
8-FPW-2	8"ø-6"ø		2332745.94	5720265.05	117.26	
8-FPW-3	8"ø-6"ø		2332369.54	5720368.74	100.41	
18-FPW-1	19"ø-19"ø		2331731.05	5720193.07	84.51	
18-FPW-2	19"ø-19"ø		2331748.04	5720199.42	85.73	
18-FPW-3	19"ø-19"ø		2331751.22	5720200.42	85.95	
18-FPW-4	19"ø-19"ø		2331777.69	5720207.60	87.25	
18-FPW-5	19"ø-19"ø		2331895.24	5720239.50	90.34	
18-FPW-6	20"ø-20"ø-6"ø		2332074.06	5720288.03	95.50	
18-FPW-7	19"ø-19"ø		2332079.86	5720289.61	95.64	
18-FPW-8	19"ø-19"ø		2332132.58	5720303.97	95.94	
18-FPW-9	19"ø-19"ø		2332170.54	5720314.27	97.60	
18-FPW-10	19"ø-19"ø		2332210.49	5720325.11	97.60	
18-FPW-11	19"ø-19"ø		2332300.84	5720349.63	98.05	
18-FPW-12	20"ø-20"ø-6"ø		2332339.91	5720360.18	100.10	
18-FPW-13	20"ø-20"ø-6"ø		2332369.68	5720368.26	100.25	
18-FPW-14	19"ø-19"ø		2332379.25	5720370.85	100.24	
18-FPW-15	19"ø-19"ø		2332389.26	5720373.57	100.67	
18-FPW-16	19"ø-19"ø		2332402.16	5720377.06	101.06	
18-FPW-17	19"ø-19"ø	11.25°	2332408.44	5720378.67	101.13	
18-FPW-18	19"ø-19"ø	11.25°	2332418.00	5720379.25	101.24	
18-FPW-19	19"ø-19"ø	11.25°	2332425.09	5720378.27	101.32	
18-FPW-20	19"ø-19"ø		2332432.61	5720376.25	101.41	
18-FPW-21	19"ø-19"ø		2332457.77	5720367.32	101.77	
18-FPW-22	19"ø-6"ø		2332737.03	5720268.06	116.67	
18-FPW-23	19"ø-19"ø	11.25°	2332159.02	5720311.15	95.94	

IPR PIPE FITTING COORDINATES SCHEDULE						
MARK	SIZE	FITTING ANGLE	NORTHING	EASTING	CL EL	REMARKS
1-IPR-1	1"ø-1"ø	45.00°	2332158.37	5720230.09	101.42	
1-IPR-2	1"ø-1"ø	45.00°	2332158.98	5720229.74	101.42	
1-IPR-3	1"ø-1"ø	90.00°	2332235.89	5720250.61	101.42	
1-IPR-4	1"ø-1"ø	90.00°	2332239.43	5720237.58	101.42	
12-IPR-1	12"ø-12"ø		2331501.84	5720103.89	77.72	
12-IPR-2	12"ø-12"ø	14.14°	2331501.71	5720103.89	77.72	
12-IPR-3	12"ø-12"ø	22.50°	2331517.87	5720103.59	77.98	
12-IPR-4	12"ø-12"ø		2331413.72	5720083.62	75.11	
12-IPR-5	12"ø-12"ø		2331518.06	5720103.67	77.98	
12-IPR-6	12"ø-12"ø	11.25°	2331091.43	5720055.68	71.36	
12-IPR-7	12"ø-12"ø	11.29°	2331322.97	5720062.71	72.91	
12-IPR-8	12"ø-12"ø		2331447.42	5720091.39	76.09	
12-IPR-9	12"ø-12"ø		2331600.32	5720135.99	78.52	
12-IPR-10	12"ø-12"ø		2331649.25	5720155.20	80.24	
12-IPR-11	12"ø-12"ø		2331733.12	5720188.12	84.76	
12-IPR-12	12"ø-12"ø		2331743.14	5720192.01	85.50	
12-IPR-13	12"ø-12"ø		2331745.82	5720193.03	85.70	
12-IPR-14	12"ø-12"ø		2331749.75	5720194.37	85.98	
12-IPR-15	12"ø-12"ø		2331752.74	5720195.26	86.19	
12-IPR-16	12"ø-12"ø		2331771.74	5720200.52	87.32	
12-IPR-17	12"ø-12"ø	90.00°	2331126.87	5720206.75	95.96	
12-IPR-18	12"ø-12"ø	90.00°	2332144.58	5720301.69	97.25	

OFFSPEC UVE PIPE FITTING COORDINATES SCHEDULE						
MARK	SIZE	FITTING ANGLE	NORTHING	EASTING	CL EL	REMARKS
12-MFF-1	12"ø-12"ø	45.00°	2332227.48	5720319.86	96.39	
12-MFF-2	12"ø-12"ø		2332303.33	5720340.45	96.39	
12-MFF-3	12"ø-12"ø		2332344.97	5720351.75	97.79	
12-MFF-4	12"ø-12"ø		2332391.75	5720364.44	99.14	
12-MFF-5	12"ø-12"ø		2332404.64	5720367.92	99.35	
12-MFF-6	12"ø-12"ø	11.25°	2332409.93	5720369.29	99.42	
12-MFF-7	12"ø-12"ø	11.25°	2332417.63	5720369.75	99.54	
12-MFF-8	12"ø-12"ø	11.25°	2332423.91	5720368.89	99.63	
12-MFF-9	12"ø-12"ø		2332429.44	5720367.35	99.70	
12-MFF-10	12"ø-12"ø		2332454.60	5720358.41	100.05	
12-MFF-11	12"ø-12"ø		2332544.04	5720326.62	108.11	
12-MFF-12	12"ø-12"ø		2332608.19	5720303.82	111.51	
12-MFF-13	12"ø-12"ø	90.00°	2332623.33	5720298.43	111.75	
12-MFF-14	12"ø-12"ø	90.00°	2332616.40	5720279.01	111.75	
18-MFF-1	16"ø-16"ø	89.00°	2332324.19	5720215.75	97.53	
18-MFF-1	19"ø-19"ø		2332543.36	5720324.69	108.32	
18-MFF-2	19"ø-19"ø	90.06°	2332291.77	5720335.19	95.39	
18-MFF-2	19"ø-19"ø		2332607.51	5720301.89	111.72	
18-MFF-3	16"ø-16"ø	90.00°	2332620.76	5720297.18	111.92	
18-MFF-3	19"ø-19"ø		2332303.87	5720338.48	96.56	
18-MFF-4	16"ø-16"ø	90.00°	2332614.73	5720280.27	111.92	
18-MFF-4	19"ø-19"ø		2332345.51	5720349.78	98.00	
18-MFF-5	19"ø-19"ø		2332392.29	5720362.47	99.36	
18-MFF-6	19"ø-19"ø		2332405.18	5720365.95	99.56	
18-MFF-7	19"ø-19"ø	11.25°	2332410.26	5720367.26	99.64	
18-MFF-8	19"ø-19"ø	11.25°	2332417.55	5720367.70	99.75	
18-MFF-9	19"ø-19"ø	11.25°	2332423.68	5720366.86	99.85	
18-MFF-10	19"ø-19"ø		2332428.76	5720365.43	99.92	
18-MFF-11	19"ø-19"ø		2332453.91	5720356.48	100.28	

NACL PIPE FITTING COORDINATES SCHEDULE						
MARK	SIZE	FITTING ANGLE	NORTHING	EASTING	CL EL	REMARKS
1-NACL-1	1"ø-1"ø	45.00°	2332601.15	5720289.83	113.00	

NHS PIPE FITTING COORDINATES SCHEDULE						
MARK	SIZE	FITTING ANGLE	NORTHING	EASTING	CL EL	REMARKS
0.5-NHS-1	1"ø-1"ø	90.00°	2331735.04	5720160.71	87.14	
0.5-NHS-2	1"ø-1"ø	90.00°	2331734.47	5720162.16	87.14	

NG PIPE FITTING COORDINATES SCHEDULE						
MARK	SIZE	FITTING ANGLE	NORTHING	EASTING	CL EL	REMARKS
1.5-NG-1	2"ø-2"ø	90.00°	2332419.65	5720244.61	104.25	
1.25-NG-1	2"ø-2"ø	45.00°	2332352.21	5720226.31	103.50	
1.25-NG-2	2"ø-2"ø	45.00°	2332348.20	5720219.31	103.50	
1.25-NG-3	2"ø-2"ø	90.00°	2332268.64	5720197.72	103.50	
2-NG-1	3"ø-2"ø		2331669.76	5720000.89	84.00	
2-NG-2	2"ø-2"ø	27.79°	2331712.92	5720017.39	83.46	
2-NG-3	2"ø-2"ø	33.63°	2331785.21	5720099.92	89.84	
2-NG-4	2"ø-2"ø	89.99°	2332115.18	5720189.46	97.77	
2-NG-5	2"ø-2"ø	89.98°	2332095.54	5720261.83	98.42	
2-NG-6	2"ø-2"ø	45.00°	2332306.39	5720319.05	102.58	
2-NG-7	2"ø-2"ø	45.02°	2332340.49	5720299.56	103.49	
2-NG-8	2"ø-2"ø-2"ø		2332359.81	5720228.37	103.50	
2-NG-9	2"ø-1"ø		2332359.61	5720228.32	105.00	
2-NG-10	2"ø-2"ø		2332360.46	5720228.55	103.50	
3-NG-1	3"ø-3"ø	11.38°	2331504.88	5720083.55	80.45	
3-NG-2	3"ø-3"ø	70.46°	2331568.27	5720085.46	82.06	
3-NG-3	3"ø-3"ø	90.00°	2331610.33	5719977.45	82.22	
3-NG-4	3"ø-3"ø-3"ø		2331669.86	5720000.63	83.99	

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PRW PIPE FITTING COORDINATES SCHEDULE						
MARK	SIZE	FITTING ANGLE	NORTHING	EASTING	CL EL	REMARKS
2-PRW-1	2"ø-2"ø		2331602.66	5720123.87	79.28	
2-PRW-2	2"ø-2"ø	9.75°	2331641.08	5720139.00	79.29	
2-PRW-3	2"ø-2"ø	9.50°	2331659.70	5720146.30	82.72	
2-PRW-4	2"ø-2"ø		2331728.29	5720173.23	85.09	
2-PRW-5	2"ø-2"ø		2331753.04	5720182.84	86.30	
2-PRW-6	2"ø-2"ø		2331754.45	5720183.25	86.43	
2-PRW-7	2"ø-2"ø		2331762.90	5720185.54	87.35	
2-PRW-8	2"ø-2"ø		2331872.47	5720215.28	90.47	
2-PRW-9	2"ø-2"ø		2332218.13	5720316.67	99.40	
2-PRW-10	2"ø-2"ø		2332216.21	5720323.74	99.66	
2-PRW-11	2"ø-2"ø	45.62°	2331559.29	5720086.86	79.28	
2-PRW-12	2"ø-2"ø	45.00°	2331569.81	5720110.98	79.28	
4-PRW-1	4"ø-2"ø		2332054.15	5720264.59	95.68	
4-PRW-2	4"ø-4"ø-2"ø		2332060.41	5720266.28	95.68	
4-PRW-3	4"ø-4"ø		2332150.57	5720290.75	95.69	
4-PRW-4	4"ø-4"ø		2332155.68	5720292.14	96.06	
4-PRW-5	4"ø-4"ø		2332160.70	5720293.58	96.79	
4-PRW-6	4"ø-4"ø		2332165.58	5720295.28	97.87	
4-PRW-7	4"ø-4"ø		2332170.51	5720296.99	98.62	
4-PRW-8	4"ø-4"ø		2332175.55	5720298.54	98.78	
4-PRW-9	4"ø-4"ø-2"ø		2332180.92	5720300.00	98.79	
4-PRW-10	4"ø-4"ø-2"ø		2332344.15	5720344.29	98.79	
4-PRW-11	4"ø-4"ø		2332351.20	5720346.20	99.04	
4-PRW-12	4"ø-4"ø		2332358.00	5720348.05	99.28	
4-PRW-13	4"ø-4"ø		2332363.79	5720349.62	100.12	
4-PRW-14	4"ø-4"ø		2332369.23	5720351.10	100.91	
4-PRW-15	4"ø-4"ø		2332373.93	5720352.37	101.40	
4-PRW-16	4"ø-4"ø		2332406.45	5720361.20	101.42	
4-PRW-17	4"ø-4"ø	11.25°	2332411.07	5720362.36	101.44	
4-PRW-18	4"ø-4"ø	11.25°	2332417.37	5720362.74	101.98	
4-PRW-19	4"ø-4"ø	11.25°	2332422.65	5720362.02	102.28	
4-PRW-20	4"ø-4"ø		2332426.85	5720360.86	102.35	
4-PRW-21	4"ø-4"ø		2332443.48	5720354.95	102.61	
4-PRW-22	4"ø-4"ø		2332449.42	5720352.84	102.72	
4-PRW-23	4"ø-4"ø		2332457.46	5720349.98	103.16	
4-PRW-24	4"ø-4"ø	90.00°	2332788.79	5720205.13	122.17	
4-PRW-25	4"ø-4"ø-4"ø		2332797.33	5720229.18	122.17	
4-PRW-26	4"ø-4"ø		2332720.47	5720256.50	116.82	
4-PRW-27	4"ø-4"ø		2332710.18	5720260.16	116.14	
4-PRW-28	4"ø-4"ø-3"ø		2332709.07	5720260.55	116.10	
4-PRW-29	4"ø-4"ø		2332696.50	5720265.02	115.70	
4-PRW-30	4"ø-4"ø		2332682.35	5720270.05	115.39	
4-PRW-31	4"ø-4"ø-4"ø		2332650.99	5720281.20	114.92	
4-PRW-32	4"ø-4"ø		2332633.02	5720287.58	114.55	
4-PRW-33	4"ø-4"ø-4"ø		2332612.78	5720294.78	114.13	
4-PRW-34	4"ø-4"ø		2332605.56	5720297.34	113.98	
4-PRW-35	4"ø-4"ø		2332590.50	5720302.70	113.68	
4-PRW-36	4"ø-4"ø		2332558.31	5720314.14	112.78	
4-PRW-37	4"ø-4"ø		2332538.12	5720321.31	111.51	
4-PRW-39	4"ø-4"ø	90.00°	2332612.06	5720281.22	112.57	
4-PRW-40	4"ø-4"ø	90.00°	2332597.66	5720286.29	115.57	
4-PRW-41	4"ø-4"ø		2332573.90	5720218.87	115.58	
4-PRW-42	4"ø-4"ø-2"ø		2332563.94	5720190.61	116.63	
4-PRW-45	4"ø-4"ø		2332800.48	5720228.06	122.39	
4-PRW-46	4"ø-4"ø		2332812.22	5720223.89	123.10	
4-PRW-47	4"ø-4"ø-3"ø		2332852.39	5720209.61	126.08	
4-PRW-48	4"ø-4"ø		2332861.92	5720206.22	126.78	
4-PRW-49	4"ø-4"ø	90.01°	2332890.22	5720196.16	127.52	
4-PRW-50	4"ø-4"ø		2332886.22	5720184.91	127.64	
4-PRW-51	4"ø-4"ø-2"ø		2332879.56	5720166.17	127.85	
4-PRW-52	4"ø-4"ø-2"ø		2332873.87	5720150.15	127.80	
4-PRW-53	4"ø-4"ø		2332858.09	5720105.76	127.67	
4-PRW-54	4"ø-4"ø-4"ø		2332856.39	5720100.99	127.66	
4-PRW-55	4"ø-4"ø		2332841.21	5720106.39	127.16	
4-PRW-56	4"ø-4"ø-1"ø		2332818.49	5720114.46	127.31	
4-PRW-57	3"ø-3"ø		2332819.45	5720117.09	127.10	
4-PRW-58	3"ø-3"ø		2332824.69	5720131.86	126.88	
4-PRW-59	4"ø-4"ø	44.91°	2332808.55	5720117.99	126.97	
4-PRW-60	4"ø-4"ø	45.00°	2332806.27	5720118.81	124.39	
4-PRW-61	4"ø-4"ø		2332610.79	5720288.60	110.56	

PW PIPE FITTING COORDINATES SCHEDULE						
MARK	SIZE	FITTING ANGLE	NORTHING	EASTING	CL EL	REMARKS
2-PW-1	2"ø-2"ø		2331769.84	5720025.81	84.16	
2-PW-2	2"ø-2"ø		2332485.50	5720194.66	112.31	
2-PW-3	2"ø-2"ø		2332406.47	5720222.75	104.86	
2-PW-4	2"ø-2"ø	11.25°	2332401.42	5720224.18	104.71	
2-PW-5	2"ø-2"ø	11.25°	2332399.84	5720224.38	104.56	
2-PW-6	2"ø-2"ø	11.25°	2332398.10	5720224.26	104.40	
2-PW-7	2"ø-2"ø		2332396.36	5720223.80	104.23	
2-PW-8	2"ø-2"ø		2332382.27	5720219.98	102.89	
2-PW-9	2"ø-2"ø-2"ø		2332381.09	5720219.66	102.85	
2-PW-10	2"ø-2"ø	90.00°	2332501.70	5720188.90	112.31	
2-PW-11	2"ø-2"ø		2332503.56	5720194.16	112.15	
2-PW-12	2"ø-2"ø		2332506.37	5720202.08	111.89	
2-PW-13	2"ø-2"ø		2332508.88	5720209.12	110.62	
2-PW-14	2"ø-2"ø		2332510.87	5720214.72	109.99	
2-PW-15	2"ø-2"ø		2332512.39	5720219.01	109.67	
2-PW-16	2"ø-2"ø		2332514.34	5720224.53	109.42	
2-PW-17	2"ø-2"ø		2332522.33	5720226.98	109.42	
2-PW-18	2"ø-2"ø		2332525.00	5720254.50	109.46	
2-PW-19	2"ø-2"ø	89.70°	2332525.42	5720255.65	109.48	
2-PW-20	2"ø-2"ø		2332542.21	5720249.72	113.28	
2-PW-21	2"ø-2"ø		2332569.70	5720239.95	114.01	
2-PW-22	2"ø-2"ø	45.03°	2332570.97	5720239.49	114.04	
3-PW-1	3"ø-2"ø		2332380.66	5720221.23	102.84	
3-PW-2	3"ø-3"ø-3"ø		2332320.80	5720261.27	101.62	
3-PW-3	3"ø-3"ø		2332314.57	5720284.22	101.61	
3-PW-4	3"ø-3"ø		2332306.03	5720315.67	101.07	
3-PW-5	3"ø-3"ø		2332303.59	5720324.68	100.79	
3-PW-6	3"ø-3"ø	90.00°	2332293.88	5720360.45	99.99	
3-PW-7	3"ø-3"ø		2332276.97	5720355.86	99.69	
3-PW-8	3"ø-3"ø	90.00°	2332224.23	5720341.55	99.68	
8-PW-1	8"ø-8"ø	89.90°	2331605.17	5720117.54	80.47	
8-PW-2	8"ø-8"ø	90.00°	2331656.03	5720137.40	80.46	
8-PW-3	8"ø-8"ø-2"ø		2332100.87	5720174.73	98.26	
8-PW-4	8"ø-4"ø		2332376.50	5720218.41	102.76	
8-PW-5	8"ø-8"ø		2332338.82	5720208.19	101.71	
8-PW-6	8"ø-8"ø-3"ø		2332335.45	5720207.27	101.62	
18-PW-1	19"ø-19"ø		2331412.52	5720088.83	74.87	
18-PW-2	18"ø-18"ø	13.74°	2331499.90	5720108.96	77.44	
18-PW-3	19"ø-19"ø		2331584.31	5720135.37	79.98	
18-PW-5	18"ø-18"ø	22.50°	2331516.89	5720108.77	78.65	
18-PW-6	19"ø-18"ø		2331585.06	5720135.67	80.00	
18-PW-7	20"ø-20"ø-8"ø		2331596.32	5720140.09	80.35	
18-PW-8	19"ø-19"ø	90.00°	2331608.03	5720144.69	80.66	
18-PW-10	18"ø-18"ø	30.00°	2331501.25	5720108.95	77.44	
18-PW-11	18"ø-18"ø	30.00°	2331503.34	5720108.92	78.65	
18-PW-12	18"ø-10"ø	90.00°	2331606.59	5720148.33	80.66	
18-PW-13	10"ø-10"ø	90.00°	2331617.19	5720152.49	88.82	
18-PW-14	18"ø-10"ø	90.00°	2331617.19	5720152.49	81.07	
18-PW-15	20"ø-20"ø-6"ø		2331711.53	5720185.45	83.88	
18-PW-16	20"ø-20"ø-6"ø		2331627.04	5720152.15	81.29	
18-PW-17	19"ø-19"ø	90.00°	2331618.62	5720148.84	81.07	
18-PW-18	10"ø-10"ø	90.00°	2331606.59	5720148.33	88.82	
18-PW-19	18"ø-18"ø	10.79°	2331323.07	5720068.22	73.13	

ROC PIPE FITTING COORDINATES SCHEDULE						
MARK	SIZE	FITTING ANGLE	NORTHING	EASTING	CL EL	REMARKS
4-ROC-1	8"ø-4"ø		2332130.18	5720227.96	97.85	
4-ROC-2	4"ø-4"ø	90.00°	2332135.95	5720229.53	97.85	
4-ROC-3	4"ø-4"ø	90.00°	2332135.95	5720229.53	106.22	
4-ROC-4	4"ø-4"ø	90.00°	2332143.67	5720231.62	106.22	
4-ROC-5	4"ø-4"ø	89.89°	2332143.67	5720231.62	98.35	
4-ROC-6	4"ø-4"ø	45.00°	2332152.97	5720234.15	98.33	
4-ROC-7	4"ø-4"ø	44.99°	2332158.90	5720230.75	98.35	
4-ROC-8	4"ø-4"ø	90.00°	2332222.83	5720248.10	98.36	
4-ROC-9	4"ø-4"ø	90.00°	2332234.70	5720204.36	98.36	
4-ROC-10	4"ø-4"ø	90.00°	2332254.01	5720209.61	98.36	
6-ROC-1	6"ø-4"ø		2332254.01	5720209.61	100.49	
8-ROC-1	12"ø-8"ø		2332128.02	5720227.38	97.85	
10-ROC-1	10"ø-6"ø		2332254.01	5720209.61	102.66	
14-ROC-1	14"ø-14"ø		2332046.64	5720181.90	94.33	
14-ROC-2	14"ø-14"ø	45.00°	2332108.13	5720198.59	96.16	
14-ROC-3	14"ø-14"ø		2331946.85	5720154.82	92.34	
14-ROC-4	14"ø-14"ø	90.00°	2331793.20	5720113.13	86.94	
14-ROC-5	14"ø-14"ø	90.00°	2331780.32	5720160.58	86.94	
14-ROC-6	14"ø-14"ø		2331750.01	5720152.36	86.56	
14-ROC-7	14"ø-14"ø	90.00°	2331734.57	5720148.17	86.54	
14-ROC-8	14"ø-12"ø		2331734.57	5720148.17	87.75	
14-ROC-9	14"ø-14"ø	45.00°	2332123.87	5720226.26	97.83	

ROF PIPE FITTING COORDINATES SCHEDULE						
MARK	SIZE	FITTING ANGLE	NORTHING	EASTING	CL EL	REMARKS
8-ROF-1	8"ø-8"ø	45.00°	2332226.45	5720251.93	100.00	
8-ROF-2	8"ø-8"ø	90.00°	2332239.83	5720202.65	100.00	
8-ROF-3	8"ø-8"ø	90.00°	2332254.80	5720206.71	100.00	

