

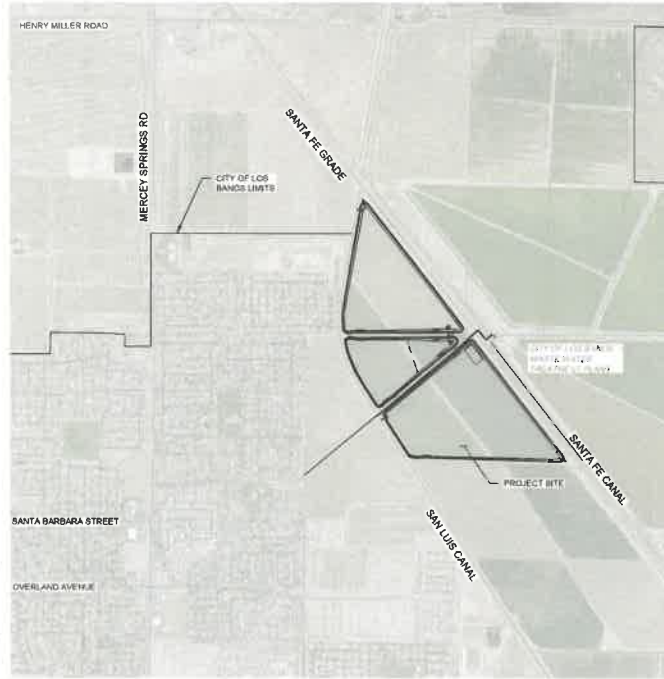
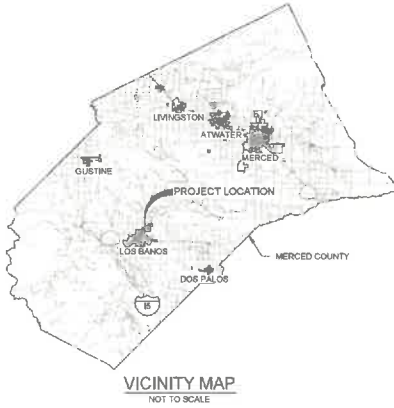


Know what's below.
Call before you dig.



CITY OF LOS BANOS IN MERCED COUNTY

BASINS AND STORMWATER CAPTURE PROJECT



SPECIAL NOTE
WHERE UNDERGROUND AND SURFACE STRUCTURES ARE SHOWN ON THE PLANS, THE LOCATIONS, DEPTH AND DIMENSIONS OF STRUCTURES ARE BELIEVED TO BE REASONABLY CORRECT, BUT ARE NOT GUARANTEED. SUCH STRUCTURES ARE SHOWN FOR THE INFORMATION OF THE CONTRACTOR, BUT INFORMATION SO GIVEN IS NOT TO BE CONSTRUED AS A REPRESENTATION THAT SUCH STRUCTURES WILL, IN ALL CASES, BE FOUND WHERE SHOWN, OR THAT THEY REPRESENT ALL OF THE STRUCTURES WHICH MAY BE ENCOUNTERED.

SITE SAFETY AND PROTECTION NOTES
THE DUTY OF THE ENGINEER, OWNER OR ITS AGENTS TO CONDUCT CONSTRUCTION REVIEW OF THE CONTRACTOR'S PERFORMANCE AND THE UNDERTAKING OF INSPECTIONS OR THE GIVING OF INSTRUCTIONS AS AUTHORIZED HEREIN IS NOT INTENDED TO INCLUDE REVIEW OF THE ADEQUACY OF THE CONTRACTOR'S SAFETY MEASURES IN OR NEAR THE CONSTRUCTION SITE AND SHALL NOT BE CONSTRUED AS SUPERVISION OF THE ACTUAL CONSTRUCTION NOR MAKE THE ENGINEER, OWNER OR ITS AGENTS RESPONSIBLE FOR PROVIDING A SAFE PLACE FOR THE PERFORMANCE OF WORK BY THE CONTRACTOR, SUBCONTRACTORS, OR SUPPLIERS, OR FOR ACCESS, VISITS, USE, WORK, TRAVEL, OR OCCUPANCY BY ANY PERSON.

THE CONTRACTOR SHALL HAVE AT THE WORK SITE, COPIES OR SUITABLE EXTRACTS OF CONSTRUCTION SAFETY ORDERS, ISSUED BY CALIFORNIA, CONTRACTOR SHALL COMPLY WITH PROVISIONS OF THESE AND ALL OTHER APPLICABLE LAWS, ORDINANCES AND REGULATIONS. THE CONTRACTOR MUST COMPLY WITH PROVISIONS OF THE SAFETY AND HEALTH REGULATIONS FOR CONSTRUCTION, PROMULGATED BY THE SECRETARY OF LABOR UNDER SECTION 107 OF THE CONTRACT WORK HOURS AND SAFETY STANDARDS ACT, AS SET FORTH IN TITLE 29 C.F.R.

TO PROTECT THE LIVES AND HEALTH OF CONTRACTOR'S EMPLOYEES UNDER THE CONTRACT, THE CONTRACTOR SHALL COMPLY WITH ALL PERTINENT PROVISIONS OF THE "MANUAL OF ACCIDENT PREVENTION IN CONSTRUCTION" ISSUED BY THE ASSOCIATED GENERAL CONTRACTORS OF AMERICA, INC. AND SHALL MAINTAIN AN ACCURATE RECORD OF ALL CASES OF DEATH, OCCUPATIONAL DISEASE, AND INJURY REQUIRING MEDICAL ATTENTION OR CAUSING LOSS OF TIME FROM WORK, ARISING OUT OF AND IN THE COURSE OF EMPLOYMENT OR WORK UNDER THE CONTRACT.

THE CONTRACTOR ALONE SHALL BE RESPONSIBLE FOR THE SAFETY, EFFICIENCY, AND ADEQUACY OF CONTRACTOR'S FACILITIES, APPLIANCES, AND METHODS AND FOR ANY DAMAGE, WHICH MAY RESULT FROM THEIR FAILURE OR THEIR IMPROPER CONSTRUCTION, MAINTENANCE OR OPERATION.

THE CONTRACTOR AGREES THAT IT SHALL ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THIS PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY. THAT THIS REQUIREMENT SHALL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS, AND THAT THE CONTRACTOR SHALL DEFEND, INDEMNIFY AND HOLD THE OWNER, PROVOST & PRITCHARD CONSULTING GROUP, AND THEIR RESPECTIVE AGENTS HARMLESS FROM ANY AND ALL LIABILITY, REAL OR ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF WORK ON THIS PROJECT, EXCEPTING FOR LIABILITY ARISING FROM THE SOLE NEGLIGENCE OF OWNER, ENGINEER, OR THEIR RESPECTIVE AGENTS.

THE OWNER AND ITS AGENTS' SITE RESPONSIBILITIES ARE LIMITED SOLELY TO THE ACTIVITIES OF THEIR EMPLOYEES ON SITE. THESE RESPONSIBILITIES SHALL NOT BE INFERRED BY ANY PARTY TO MEAN THAT THE OWNER OR ITS AGENTS HAVE RESPONSIBILITY FOR SITE SAFETY, SAFETY IN, ON, OR ABOUT THE SITE IS THE SOLE AND EXCLUSIVE RESPONSIBILITY OF THE CONTRACTOR ALONE. THE CONTRACTOR'S METHODS OF WORK PERFORMANCE, SUPERINTENDENCE AND THE CONTRACTOR'S EMPLOYEES, AND SEQUENCING OF CONSTRUCTION ARE ALSO THE SOLE AND EXCLUSIVE RESPONSIBILITIES OF THE CONTRACTOR ALONE.

TOPOGRAPHY NOTE
TOPOGRAPHY SHOW WAS COLLECTED BY PROVOST & PRITCHARD CONSULTING GROUP DURING A FIELD SURVEY CONDUCTED IN JUNE OF 2023, OCTOBER OF 2023 AND APRIL OF 2024.

BOUNDARY NOTE
THE BOUNDARY EASEMENT INFORMATION SHOWN ON THESE PLANS IS BASED UPON RECORD INFORMATION TIED TO PHYSICAL MONUMENTS, AND WAS PREPARED UNDER THE DIRECTION OF BRYAN W. BOWERS, PLS LICENSE #4949.

SITE MAP
NOT TO SCALE



DATE SHOWN

PROJECT SURVEY PARAMETERS

BASE & MERIDIAN
HORIZONTAL DATUM
COORDINATE TYPE
COORDINATE SYSTEM
BENCH MARK
VERTICAL DATUM
APPLIED GEOD MODEL

N.T.D.A.M.
NAD83
GRID, US SURVEY FT
CCS ZONE 3
POINT #101
NAVD83
G16

CONTROL TABLE CCS ZONE 3 (NAD83) STATE PLANE COORDINATES (USFT)				
POINT #	NORTHING	EASTING	ELEVATION	DESCRIPTION
101	1853180.0111	6470634.8626	104.69	SET MAG NAIL
102	1853741.0502	6488351.3608	99.83	PD CUT
103	1851576.7304	6471008.5216	99.15	SET MAG NAIL
104	1851372.4051	6485646.1799	101.78	PD

GENERAL NOTES

- CITY OF LOS BANOS (CITY) 209-427-7050 SHALL BE CONTACTED AT LEAST 48 HOURS PRIOR TO COMMENCEMENT OF WORK ON OR NEAR EXISTING CITY FACILITIES. GRASSLAND WATER DISTRICT (DISTRICT) 209-626-6188 SHALL BE CONTACTED AT LEAST 48 HOURS PRIOR TO COMMENCEMENT OF WORK ON OR NEAR EXISTING DISTRICT FACILITIES.
- USED MATERIAL, REJECTS, MISFITS, OR SECONDIES, ETC. ARE NOT ACCEPTABLE FOR USE ON CITY OF LOS BANOS FACILITIES.
- ALL CONSTRUCTION SHALL BE IN CONFORMANCE WITH THESE PLANS, PROJECT SPECIFICATIONS AND SPECIFICATIONS.
- CONTRACTOR SHALL FIELD VERIFY THE HORIZONTAL AND VERTICAL LOCATIONS OF ALL EXISTING FACILITIES PRIOR TO COMMENCING WORK. CALL UNDERGROUND SERVICE ALERT (USA) AT 8-1-1. CONTRACTOR SHALL MAKE OWNERS REPRESENTATIVE AWARE OF ANY DISCREPANCIES.
- ALL CAST-IN-PLACE CONCRETE STRUCTURES SHALL BE FORMED INSIDE AND OUT AND CONCRETE VIBRATED SUFFICIENTLY TO PROVIDE FOR SMOOTH SURFACED WALLS, FLOORS WITHOUT VOIDS AND HONEYCOMBS.
- CITY SHALL INSPECT ALL WORK PHASES ON CONCRETE FACILITIES FOR CONFORMANCE TO CITY SPECIFICATIONS. REINFORCING SHALL NOT BE ENCASED IN CONCRETE WITHOUT PRIOR CITY INSPECTIONS. OTHERWISE, CONCRETE SHALL NOT BE COVERED WITH EARTH PRIOR TO CITY INSPECTION.
- CONCRETE DESIGN MIX SHALL BE SUBMITTED TO THE OWNER'S REPRESENTATIVE FOR REVIEW AND APPROVAL. ALL CONCRETE SHALL BE TYPE IV CEMENT AND HAVE A 28-DAY MINIMUM COMPRESSIVE STRENGTH OF 4,000 PSI UNLESS OTHERWISE SPECIFIED.
- ALL STEEL PIPE AND FITTINGS SHALL BE FURNISHED WITH A SHOP APPLIED HIGH SOLIDS EPOXY COATING ON THE INTERIOR AND EXTERIOR. UNLESS OTHERWISE INDICATED, ALL OTHER EXPOSED STEEL SHALL BE PAINTED WITH A PRE-TREATMENT PRIMER, AN UNDERCOAT AND A FINAL COAT OF PAINT IN ACCORDANCE WITH CITY SPECIFICATIONS.
- ALL NUTS, BOLTS, AND WASHERS USED TO SECURE UNDERGROUND FITTINGS SHALL BE STAINLESS STEEL. AFTER INSTALLATION, ALL STEEL HARDWARE SHALL BE COATED WITH A RUST PREVENTATIVE, WRAPPED WITH 4 MIL POLYETHYLENE SHEETING, AND SECURED WITH PVC TAPE.
- THRUST RESTRAINTS TO BE PROVIDED AT ALL PIPELINE BENDS, WHETHER OR NOT SHOWN ON THE PLANS.
- ALL CONSTRUCTION SHALL BE PERFORMED IN ACCORDANCE WITH APPLICABLE HEALTH AND SAFETY LAWS OF THE STATE OF CALIFORNIA AND CALIFORNIA STANDARDS.
- TRENCH BACKFILL AND RESERVOIR EMBANKMENTS SHALL BE COMPACTED IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS, CITY SPECIFICATIONS, AND THE GEOTECHNICAL REPORT CONTAINED IN THE SPECIFICATIONS.
- CONTRACTOR WILL BE RESPONSIBLE FOR THE REPAIR OF ALL PIPELINE CRACKS, WHICH DEVELOP DURING CONSTRUCTION, OF IMPROVEMENTS AFFECTING EXISTING FACILITIES.
- CONCRETE WALLS AND BOXES MAY BE PURCHASED FROM A PRECAST MANUFACTURER OR CONTRACTOR MAY CONSTRUCT THE STRUCTURES IF STRUCTURAL CALCULATIONS AND DESIGN IS APPROVED BY THE OWNER'S REPRESENTATIVE AND THE ENGINEER.
- ALL EXCESS MATERIAL AND/OR DEBRIS SHALL BE REMOVED UPON COMPLETION OF INSTALLATION.
- CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING ADEQUATE DUST CONTROL AT ALL TIMES.
- CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING THE FOUNDATIONS, EXCAVATIONS, AND OTHER PART OF WORK FREE FROM WATER AS SPECIFIED IN SECTION 31.23.15.

SHEET INDEX		
NUMBER	SHEET	DESCRIPTION
GENERAL		
1	G1	COVER
2	G2	LEGEND & ABBREVIATIONS
3	G3	OVERALL SITE PLAN
GRADINGS		
4	GR1	SOUTH CELL GRADING PLAN
5	GR2	CENTER CELL GRADING PLAN
6	GR3	NORTH CELL GRADING PLAN
7	GR4	TYPICAL LEVEE SECTIONS
CIVIL		
8	C1	SAN LUIS CANAL TURNOUT
9	C2	SOUTH TO CENTER INTERBASIN STRUCTURE
10	C3	CENTER TO NORTH INTERBASIN STRUCTURE
11	C4	SAN LUIS CANAL OUTLET
CIVIL DETAILS		
12	CD1	DETAILS
13	CD2	DETAILS
14	CD3	DETAILS
15	CD4	DETAILS
STRUCTURAL		
16	S1	STRUCTURAL NOTES & DETAILS
17	S2	STRUCTURES PLAN & SECTIONS
18	S3	PUMP SUMP PLAN & SECTIONS

APPROVALS

	9/3/25
JOE HUM, ACTING PUBLIC WORKS DIRECTOR CITY OF LOS BANOS	DATE
	September 3, 2025
RIC ORTESON, GENERAL MANAGER GRASSLAND WATER DISTRICT	DATE

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09/03/2025



BASINS AND STORMWATER CAPTURE
PROJECT
CITY OF LOS BANOS
IN MERCED COUNTY
GENERAL
COVER

PROVOST & PRITCHARD
CONSULTING GROUP
CLIMATE & WATER
1000 N. G ST., SUITE 200
FRESNO, CA 93703
TEL: 559-244-2115
WWW.PROVOSTPRITCHARD.COM

DESIGN ENGINEER
ERIC ABRAHAMSON
LICENSE NO.
RCE 52 000

DRAFTED BY
RIC 90

CHECKED BY
ACC

DATE
08/19/2024

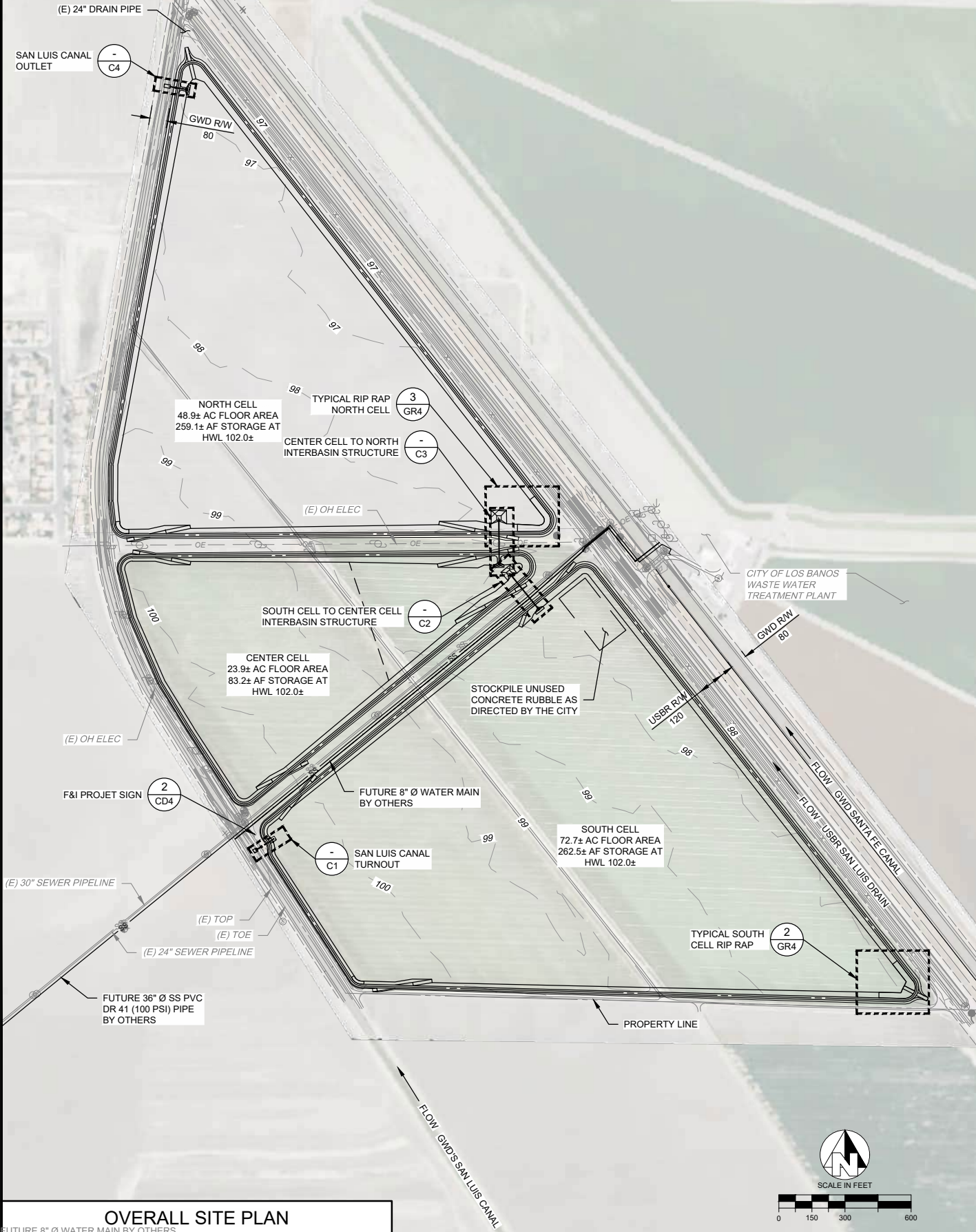
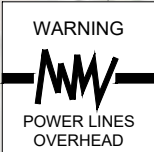
JOB NO
35172907

PROJECT NO
PHASE

ORIGINAL SCALE SHOWN IS ONE
INCH EQUALS SCALE FOR
REDUCED OR ENLARGED PLANS.

SHEET
G1

1 OF 18

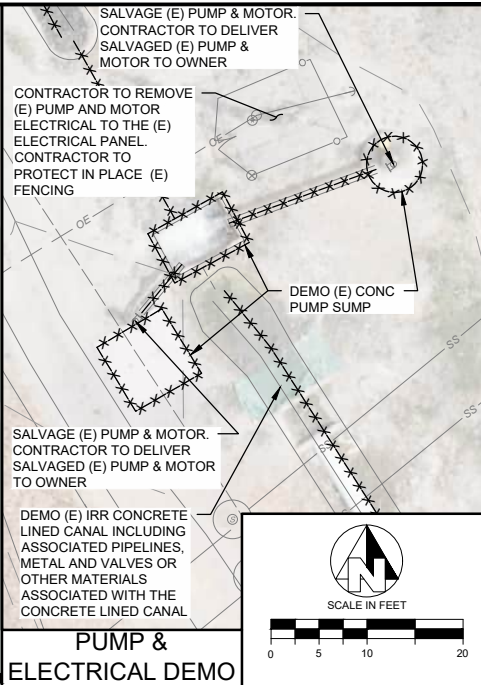


NOTES

1. REMOVAL OF PUMP AND MOTOR SHALL BE LAST ORDER OF WORK BY CONTRACTOR. PUMP MAY BE USED FOR CONSTRUCTION WATER AT CONTRACTOR EFFORT AND EXPENSE.

NOTES

1. CONTRACTOR MAY UTILIZE CONCRETE RUBBLE FROM DEMO OF (E) IRR CONCRETE LINED CANAL AS A SUBSTITUTE FOR RIP RAP INSIDE THE BASINS ONLY. NO CONCRETE RUBBLE MAY BE PLACED IN THE SAN LUIS CANAL. EARTH, STEEL, AND OTHER MATERIALS SHALL BE REMOVED FROM THE RUBBLE PRIOR TO PLACEMENT. CONCRETE LINED CANAL MATERIAL MAY NOT BE USED IF THE MATERIAL PULVERIZES TO POWDER AND SMALL PIECES. STRUCTURE OUTLETS SHALL BE THE FIRST PRIORITY FOR RIP RAP IF THERE IS NOT SUFFICIENT CONCRETE RUBBLE ON SITE, THEN AS DIRECTED BY THE ENGINEER.
2. ONLY CONCRETE RUBBLE NOT USED ON SITE MAY BE STOCKPILED IN THE NORTHERLY CORNER OF THE SOUTHERN BASIN CELL AS DIRECTED BY THE ENGINEER. ANY MATERIAL THAT IS NOT CONCRETE SHALL BE REMOVED FROM THE SITE AND BE DISPOSED OF PROPERLY.
3. AFTER REMOVAL OF PUMP AND MOTOR, CONTRACTOR SHALL WELD A STEEL PLATE OVER TOP OF WELLS AND PROVIDE AN OPENING WITH A THREADED CAP FOR MEASUREMENT OF GROUNDWATER LEVELS.



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09/03/2025



BASINS AND STORMWATER CAPTURE
PROJECT
CITY OF LOS BANOS
IN MERCED COUNTY
GENERAL
OVERALL SITE PLAN

PROVOST & PRITCHARD
1455 WYOMING AVENUE
CLAYTON, CA 94520
PHONE (559) 449-2700
FAX (559) 449-2715
www.provostandpritchard.com

DESIGN ENGINEER:
ERIC ABRAHAMSEN
LICENSE NO:
RCE 52,000
DRAFTED BY: IRC, SG
CHECKED BY: ACC
DATE: 09/03/2025
JOB NO: 350123007
PROJECT NO:
PHASE:
ORIGINAL SCALE SHOWN IS ONE INCH. ADJUST SCALE FOR REDUCED OR ENLARGED PLANS.
SHEET G3



CENTER CELL
24.0± AC FLOOR AREA
82.4± AF STORAGE AT
HWL 102.0±

CENTER TO NORTH
INTERBASIN
STRUCTURE
C3

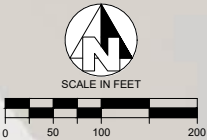
SOUTH TO CENTER
INTERBASIN
STRUCTURE
C2

STOCKPILE UNUSED CONCRETE RUBBLE
AS DIRECTED BY THE CITY

SOUTH CELL
71.7± AC FLOOR AREA
257.0± AF STORAGE AT
HWL 102.0±

- LEGEND**
- PROPOSED TOP OF BANK
 - PROPOSED SIDE SLOPES: 5H:1V
INTERIOR, 2H:1V EXTERIOR, UNLESS
OTHERWISE NOTED

- NOTES**
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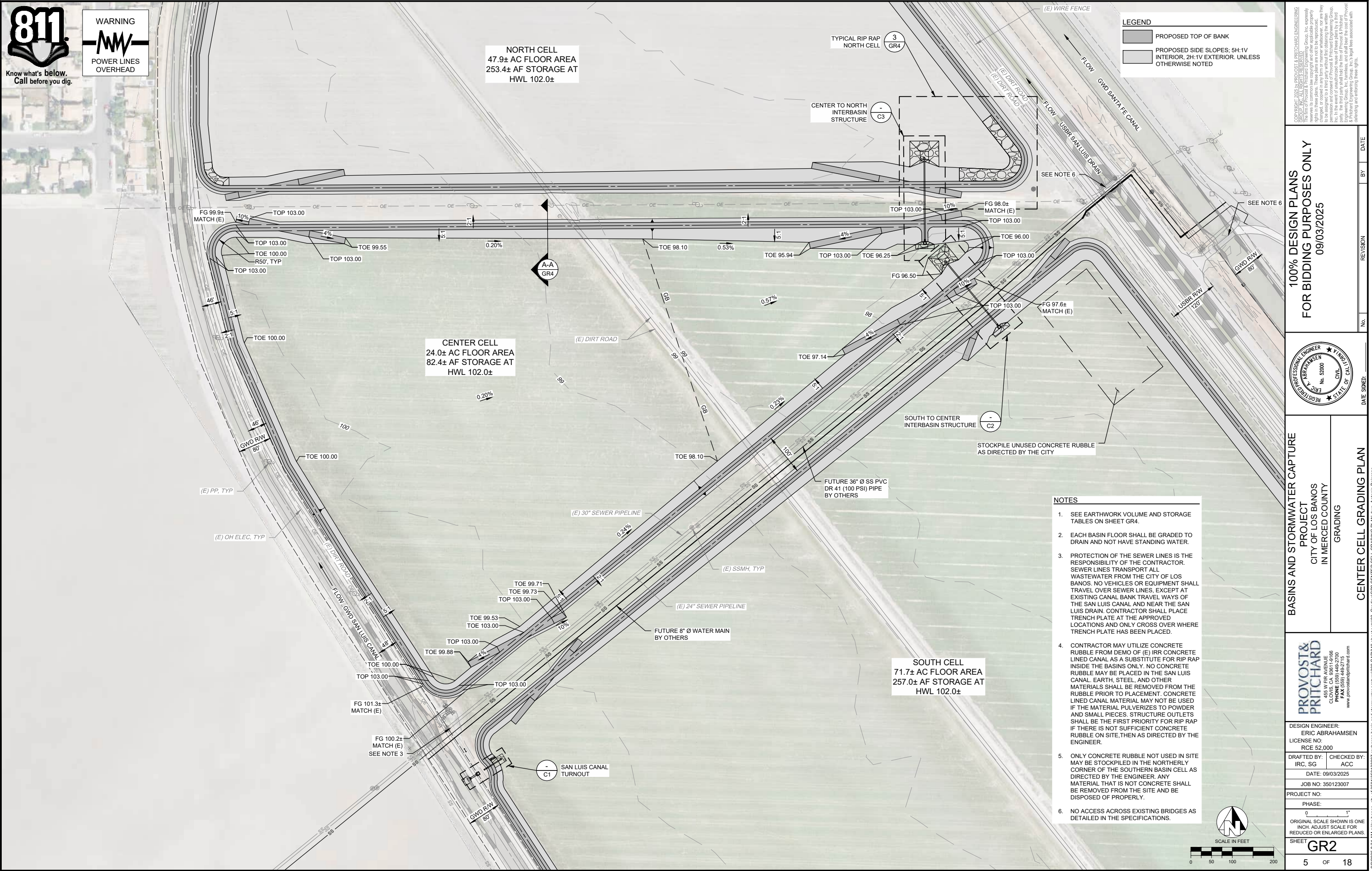
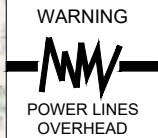
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09/03/2025



BASINS AND STORMWATER CAPTURE
PROJECT
CITY OF LOS BANOS
IN MERCED COUNTY
GRADING
SOUTH CELL GRADING PLAN

PROVOST & PRITCHARD
1655 WYOMING AVENUE
CLAVIS, CA 93816
PHONE (559) 449-2700
FAX (559) 449-2715
www.provostandpritchard.com

DESIGN ENGINEER:
ERIC ABRAHAMSEN
LICENSE NO:
RCE 52,000
DRAFTED BY:
IRC, SG
CHECKED BY:
ACC
DATE: 09/03/2025
JOB NO: 350123007
PROJECT NO:
PHASE:
ORIGINAL SCALE SHOWN IS ONE
INCH, ADJUST SCALE FOR
REDUCED OR ENLARGED PLANS.
SHEET
GR1
4 OF 18

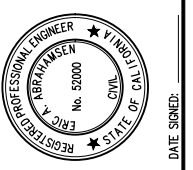


LEGEND

- PROPOSED TOP OF BANK
- PROPOSED SIDE SLOPES: 5H:1V INTERIOR, 2H:1V EXTERIOR, UNLESS OTHERWISE NOTED

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GRADING

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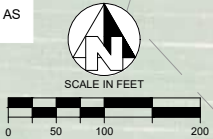
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ORIGINAL SCALE SHOWN IS ONE INCH. ADJUST SCALE FOR REDUCED OR ENLARGED PLANS.

SHEET **GR2**

5 OF 18

- NOTES**
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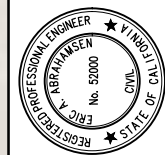
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82.4± AF STORAGE AT
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47.9± AC FLOOR AREA
253.4± AF STORAGE AT
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PROPOSED TOP OF BANK

PROPOSED SIDE SLOPES; 5H:1V
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IN MERCED COUNTY**

NORTH CELL GRADING PLAN

**PROVOST &
PRITCHARD**
455 W FIR AVENUE
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FAX (559) 449-2715
www.provostandpritchard.com

DESIGN ENGINEER:
ERIC ABRAHAMSEN
LICENSE NO:
RCE 52 000

DRAFTED BY: IRC, SG	CHECKED BY: ACC
------------------------	--------------------

DATE: 09/03/2025

JOB NO: 350123007

PROJECT NO:
PHASE:

A horizontal number line with endpoints labeled 0 and 1. There are three tick marks between 0 and 1, dividing the segment into four equal parts.

ORIGINAL SCALE SHOWN IS
INCH. ADJUST SCALE FOR

REDUCED OR ENLARGED P
SHEET

SHEET **GR3**

6 OF 18

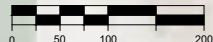
	9	10
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5. ONLY CONCRETE RUBBLE NOT USED IN SITE MAY BE STOCKPILED IN THE NORTHERLY CORNER OF THE SOUTHERN BASIN CELL AS DIRECTED BY THE ENGINEER. ANY MATERIAL THAT IS NOT CONCRETE SHALL BE REMOVED FROM THE SITE AND BE DISPOSED OF PROPERLY.
6. NO ACCESS ACROSS EXISTING BRIDGES AS DETAIL FD IN THE SPECIFICATIONS.



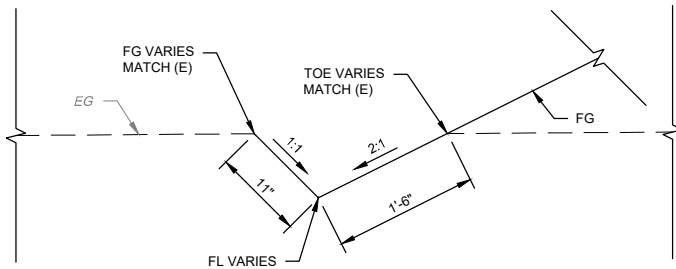
SCALE IN FEE



SCALE IN FEET

0 2.5 5 10

1. CONTRACTOR TO BUILD SWALE ALONG THE OUTSIDE TOE OF THE EMBANKMENTS.
2. CONTRACTOR TO GRADE SWALE TO DRAIN TO EXISTING PIPE AT THE NORTHWEST CONER OF THE PROJECT PROPERTY SITE THAT DRAINS TO THE SAN LUIS CANAL.



NOT TO SCALE

1
GR4

[illegible]

SCALE IN FEET

0 25 50 100

2
GR4

TOE

TOE 97.47

F&I RIP RAP

4
CD2

FG 96.00

FG 91.00

FG 96.00

TOE 97.50

100'

TOP 103.00

TOP 103.00

10%

CROWN

TOP

DAYLIGHT

USBR RW

FG MATCH (E) PROPERTY LINE, TYP

SCALE IN FEET

SCALE IN FEET

0 25 50 100

3
GR4

TYPICAL NORTH CELL RIP RAP DETAIL

(KW) BELOW OVEREXCAVATION, MOISTURE-CONDITION TO AT, OR ABOVE, OPTIMUM MOISTURE CONTENT AND RECOMPACT TO 90% OF THE MAXIMUM DRY DENSITY.

(OE) OVEREXCAVATE 2' BELOW EG, MOISTURE-CONDITION TO AT, OR ABOVE, OPTIMUM MOISTURE CONTENT & RECOMPACT TO 90% OF THE MAXIMUM DRY DENSITY. THE OVER-EXCAVATION MUST EXTEND AT LEAST 5' laterally BEYOND THE OUTSIDE EDGE OF THE PROPOSED AREA TO RECEIVE FILL. IF THERE IS 2' OR MORE OF CUT, OVER EXCAVATION IS NOT NECESSARY.

(PF) PLACE ENGINEERED FILL IN UNIFORM LAYERS NOT EXCEEDING 8 INCHES IN LOOSE THICKNESS AND MOISTURE-CONDITIONED TO AT, OR ABOVE, OPTIMUM MOISTURE CONTENT. COMPACT TO AT LEAST 90% OF THE MAXIMUM DRY DENSITY.

(SR) SCARIFY AND COMPACT AT LEAST 8 INCHES BELOW SUBGRADE ELEVATION. THE SUBGRADE SOIL SHOULD BE UNIFORMLY MOISTURE CONDITIONED TO 2% ABOVE OPTIMUM AND COMPACTED TO AT LEAST 90% OF THE MAXIMUM DRY DENSITY.

1. SOUTH CELL FINISHED FLOOR ELEVATION WERE DETERMINED TO BALANCE EARTHWORK FOR THE SOUTH CELL BY ITSELF. CENTER AND NORTH CELLS FINISHED FLOOR ELEVATION WERE DETERMINED TO BALANCE EARTHWORK FOR CENTER AND NORTH CELL TOGETHER. SEE VOLUME TABLE.
2. CONTRACTOR SHALL CONSTRUCT THE PROJECT IN A MANNER THAT MINIMIZES THE NUMBER OF TIMES CONSTRUCTION EQUIPMENT CROSSES OVER THE CITY (E) SEWER INFRASTRUCTURE.
3. EARTHWORK QUANTITIES SHOWN ARE APPROXIMATE. CONTRACTOR IS RESPONSIBLE FOR CALCULATING THEIR OWN EARTHWORK QUANTITIES.
4. FILL VOLUME SHOWN REPRESENTS AN IN-PLACE COMPACTED FILL.
5. THE BASIN FINISHED FLOOR ELEVATIONS WERE DETERMINED TO BALANCE SITE EARTHWORK ASSUMING 25% CONSOLIDATION AND WASTE FOR THE BASIN AND CANAL LEVEES, OVEREXCAVATION, AND KEYWAY.
6. THE CONTRACTOR SHALL ACCOMMODATE VARIATIONS IN THE ACTUAL CONSOLIDATION AND WASTE OF ENGINEERED FILL BY LOWERING THE BASIN FLOOR.
7. INTERNAL LEVEE TOP OF BANK RADII = 50' UNLESS NOTED OTHERWISE.
8. CONTRACTOR MAY UTILIZE CONCRETE RUBBLE FROM DEMO OF (E) IRR CONCRETE LINED CANAL AS A SUBSTITUTE FOR RIP RAP INSIDE THE BASINS ONLY. NO CONCRETE RUBBLE MAY BE PLACED IN THE SAN LUIS CANAL. EARTH, STEEL, AND OTHER MATERIALS SHALL BE REMOVED FROM THE RUBBLE PRIOR TO PLACEMENT. CONCRETE LINED CANAL MATERIAL MAY NOT BE USED IF THE MATERIAL PULVERIZES TO POWDER AND SMALL PIECES. STRUCTURE OUTLETS SHALL BE THE FIRST PRIORITY FOR RIP RAP IF THERE IS NOT SUFFICIENT CONCRETE RUBBLE ON SITE, THEN AS DIRECTED BY THE ENGINEER.
9. ONLY CONCRETE RUBBLE NOT USED IN SITE MAY BE STOCKPILED IN THE NORTHERLY CORNER OF THE SOUTHERN BASIN CELL AS DIRECTED BY THE ENGINEER. ANY MATERIAL THAT IS NOT CONCRETE SHALL BE REMOVED FROM THE SITE AND BE DISPOSED OF PROPERLY.

DESCRIPTION	CUT (CY)	FILL (CY)	NET VOLUME (CY)
SOUTH	57,800	39,100	18,700 (CUT)
OVEREXCAVATION	31,700	31,700	0
KEYWAY	1,500	1,500	0
CONSOLIDATION & WASTE	-	18,100	18,100 (FILL)
TOTAL	91,000	90,400	600 (CUT)

DESCRIPTION	CUT (CY)	FILL (CY)	NET VOLUME (CY)
CENTER	22,200	20,800	1,400 (CUT)
NORTH	76,400	46,000	30,400 (CUT)
OVEREXCAVATION	50,500	50,500	0
KEYWAY	2,200	2,200	0
CONSOLIDATION & WASTE	-	29,900	29,900 (FILL)
TOTAL	151,300	149,400	1,900 (CUT)

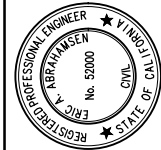
LOCATION	HWL	STORAGE (AF)
SOUTH	102	257.0±
CENTER	102	82.4±
NORTH	102	253.4±
TOTAL	-	592.8±

BASINS AND STORMWATER CAPTURE

PROJECT
CITY OF LOS BANOS
IN MERCED COUNTY

GRADING

TYPICAL LEVEE SECTIONS



ONE
ANS.

BY:

TYPICAL LEVEE SECTION

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BY

REVISION

No.

DATE SIGNED:

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CLOVIS, CA 93611-9166
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www.provostandpritchard.com

DESIGN ENGINEER:
ERIC ABRAHAMSEN
LICENSE NO:
RCE 52,000

DRAFTED BY: IRC, SG	CHECKED BY: ACC
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JOB NO: 350123007

PROJECT NO:

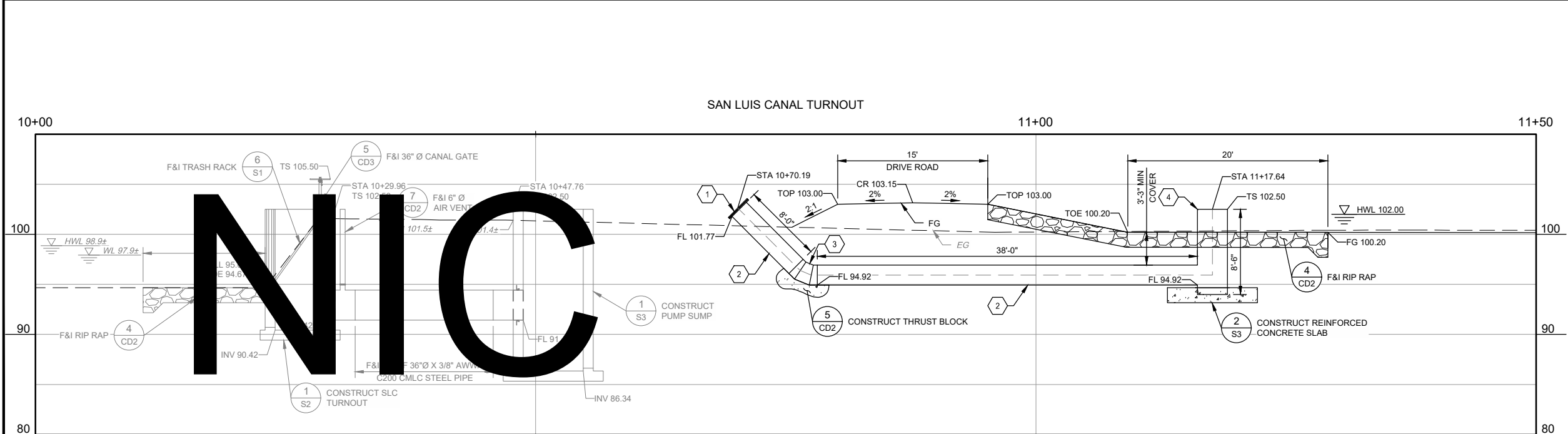
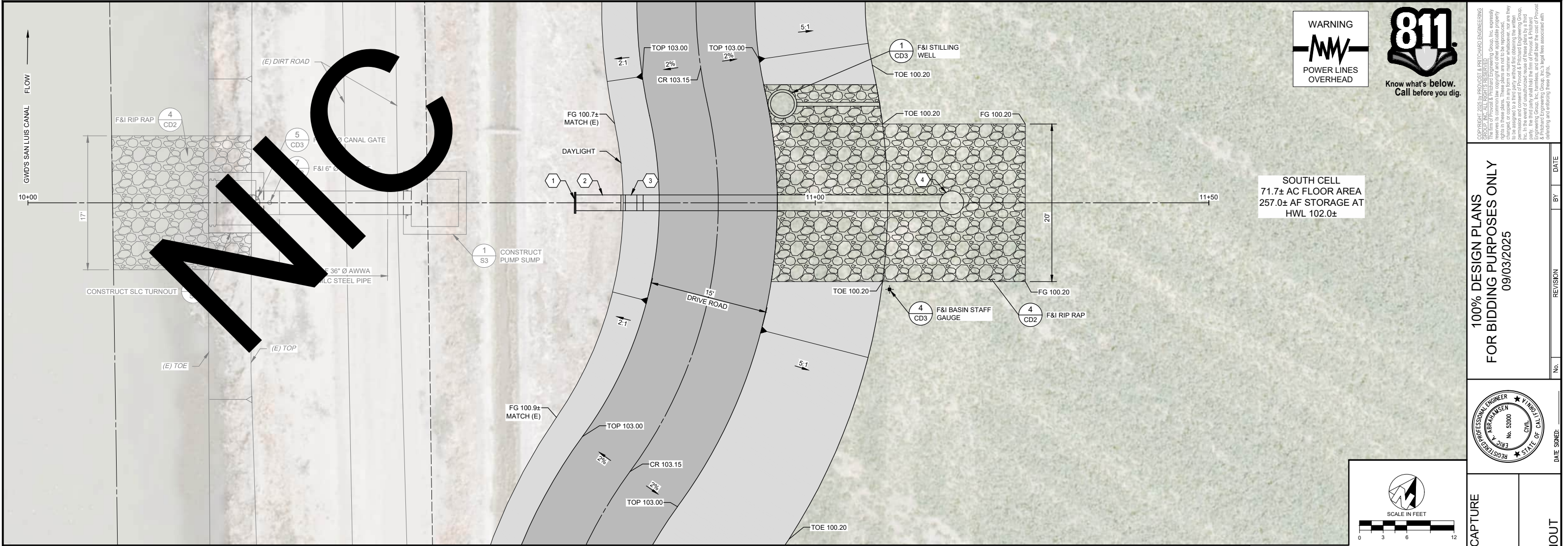
PHASE:

0 1"

ORIGINAL SCALE SHOWN IS ONE
INCH. ADJUST SCALE FOR
REDUCED OR ENLARGED PLANS.

SHEET **GR4**

7 OF 18



CONSTRUCTION LEGEND

- 1 F&I 24" Ø AWWA C207 BLIND FLANGE
- 2 F&I 24" Ø X 3/8" WALL AWWA C200 CMLC STEEL PIPE
- 3 F&I 24" Ø AWWA C208 CMLC FABRICATED 45° 3 PIECE ELBOW (PE X FLG)
- 4 F&I 36" Ø X 3/8" AWWA C200 CMLC STEEL PIPE

LEGEND

- PROPOSED TOP OF BANK
- PROPOSED SIDE SLOPES; 5H:1V INTERIOR, 2H:1V EXTERIOR, UNLESS OTHERWISE NOTED

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LICENSE NO.: RCE 52,000

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DATE: 09/03/2025

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SHEET: C1

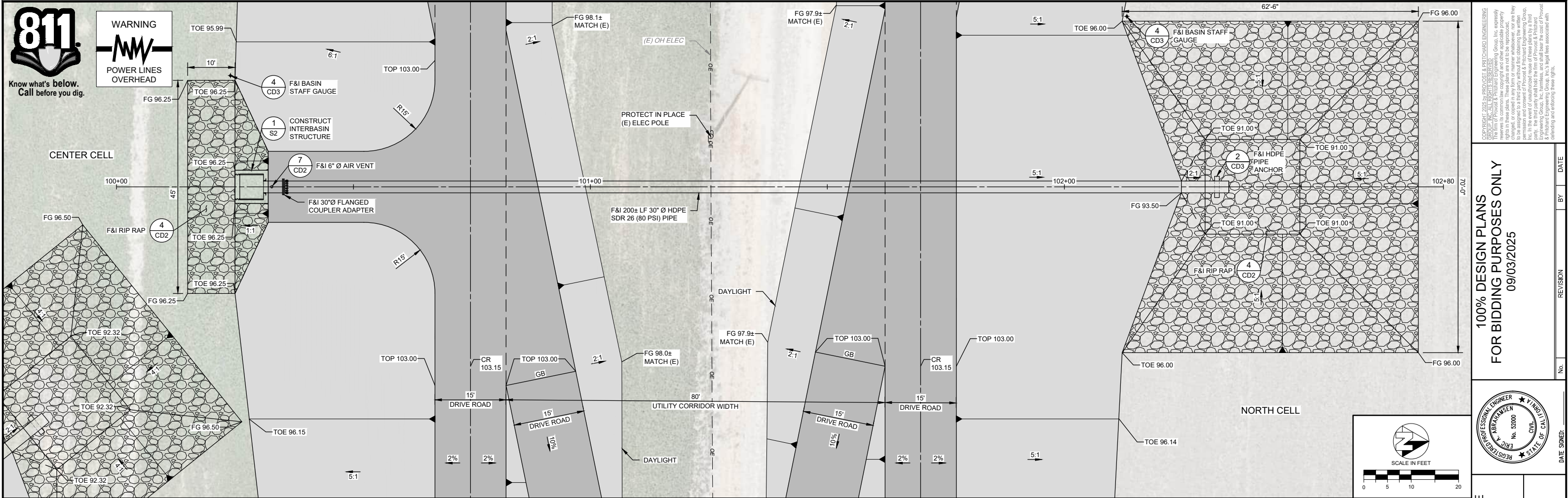
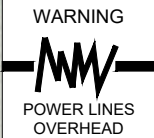
8 OF 18

BASINS AND STORMWATER CAPTURE PROJECT
CITY OF LOS BANOS
IN MERCED COUNTY
CIVIL

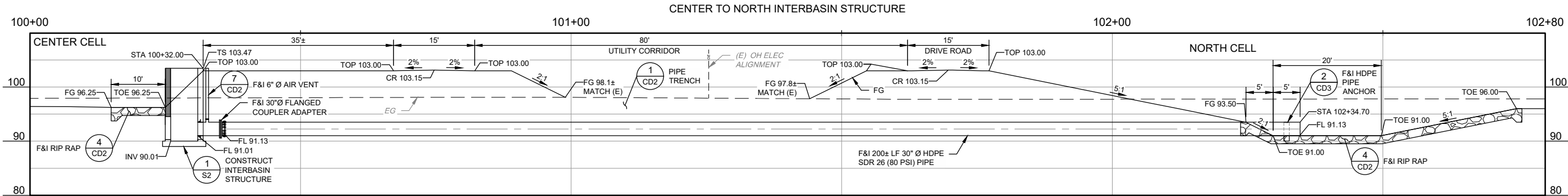
SAN LUIS CANAL TURNOUT

PROVOST & PRITCHARD
1605 W. 1ST AVENUE
CLAVIS, CA 93811-9168
PHONE (559) 449-2700
FAX (559) 449-2715
www.provostandpritchard.com

9/2/2025 8:39 AM g:\los banos_city of 350123007\23007-recharge basin and stormwater capture\3500 CAD\340 sheets\02_Civil\1 SAN LUIS CANAL TURNOUT.dwg -Antonio Beltrano



- LEGEND**
- PROPOSED TOP OF BANK
 - PROPOSED SIDE SLOPES: 5H:1V INTERIOR, 2H:1V EXTERIOR. UNLESS OTHERWISE NOTED



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PROFESSIONAL ENGINEER
ERIC ABRAHAMSEN
No. 52000
CIVIL
STATE OF CALIFORNIA

DATE SIGNED: _____

BASINS AND STORMWATER CAPTURE
PROJECT
CITY OF LOS BANOS
IN MERCED COUNTY
CIVIL
CENTER TO NORTH INTERBASIN
STRUCTURE

DESIGN ENGINEER:
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DATE: 09/03/2025

JOB NO: 350123007

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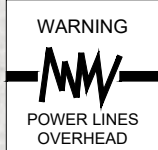
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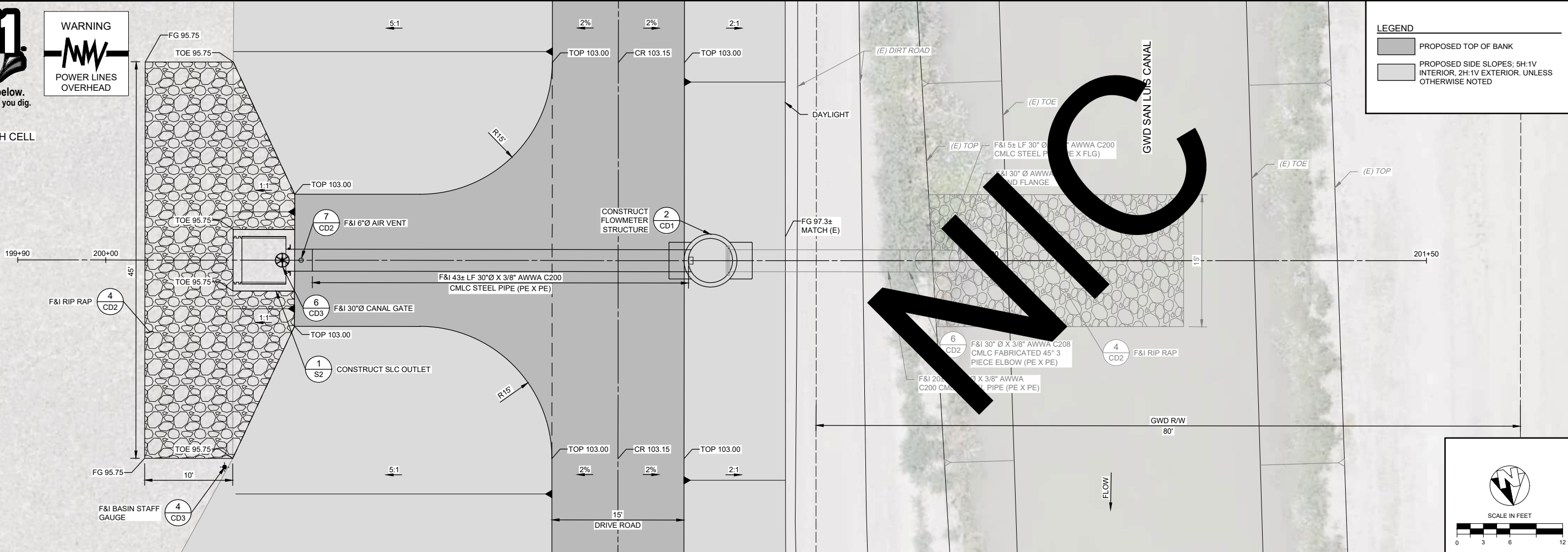
SHEET
C3

10 OF 18

9/2/2025 8:37 AM g:\los banos_city of 350123007-recharge basin and stormwater capture\300 CAD\340 sheet set\02_Civil\IC3 CENTER TO NORTH INTERBASIN STRUCTURE.dwg Antonio Belamano

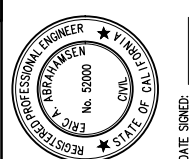


NORTH CELL



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SHEET
C4

11 OF 18

1. CROSSING SHALL BE BY HORIZONTAL AUGER BORING. CASING PIPE SHALL BE INSTALLED LEVEL.
2. BORE PITS SHALL COMPLY WITH CAL-OSHA CONSTRUCTION SAFETY REQUIREMENTS. BORE PITS AND RECEIVING PITS SHALL BE SECURELY FENCED DURING NON-WORKING HOURS.
3. ONCE THE BORING OPERATION HAS COMMENCED, IT SHALL BE CONTINUED, UN-INTERRUPTED, AROUND THE CLOCK, UNTIL THE CASING PIPE HAS BEEN INSTALLED TO THE SPECIFIED LIMITS.
4. THE INSIDE DIAMETER OF THE CASING PIPES SHALL BE AS LARGE AS NECESSARY FOR THE INSTALLATION OF THE CARRIER PIPE AND SKIDS. IN NO CASE SHALL IT BE LESS THAN 2 INCHES LARGER THAN THE LARGEST OUTSIDE DIAMETER OF THE CARRIER PIPE. CASING PIPES SHALL CONFORM TO THE TABLE BELOW AND SHALL BE SEAMLESS OR WELDED SEAM PIPE AND SHALL BE COATED INSIDE WITH A BITUMINOUS COATING. IF A BITUMINOUS COATING CANNOT BE USED ON THE INSIDE OF THE CASING PIPE, THE CASING PIPE MINIMUM THICKNESS SHALL BE INCREASED 1/16 INCH.

<u>CASING ID</u>	<u>MINIMUM THICKNESS</u>
42"	1/2"

- STEEL BAND
STAINLESS STEEL BANDING; MIN. 2 BANDS PER SEAL; T304 STAINLESS STEEL WITH 100%
NON-MAGNETIC WORM GEAR, 1/2" MIN. WIDTH.



NOT TO SCALE

$$\frac{1}{CD1}$$

CD1

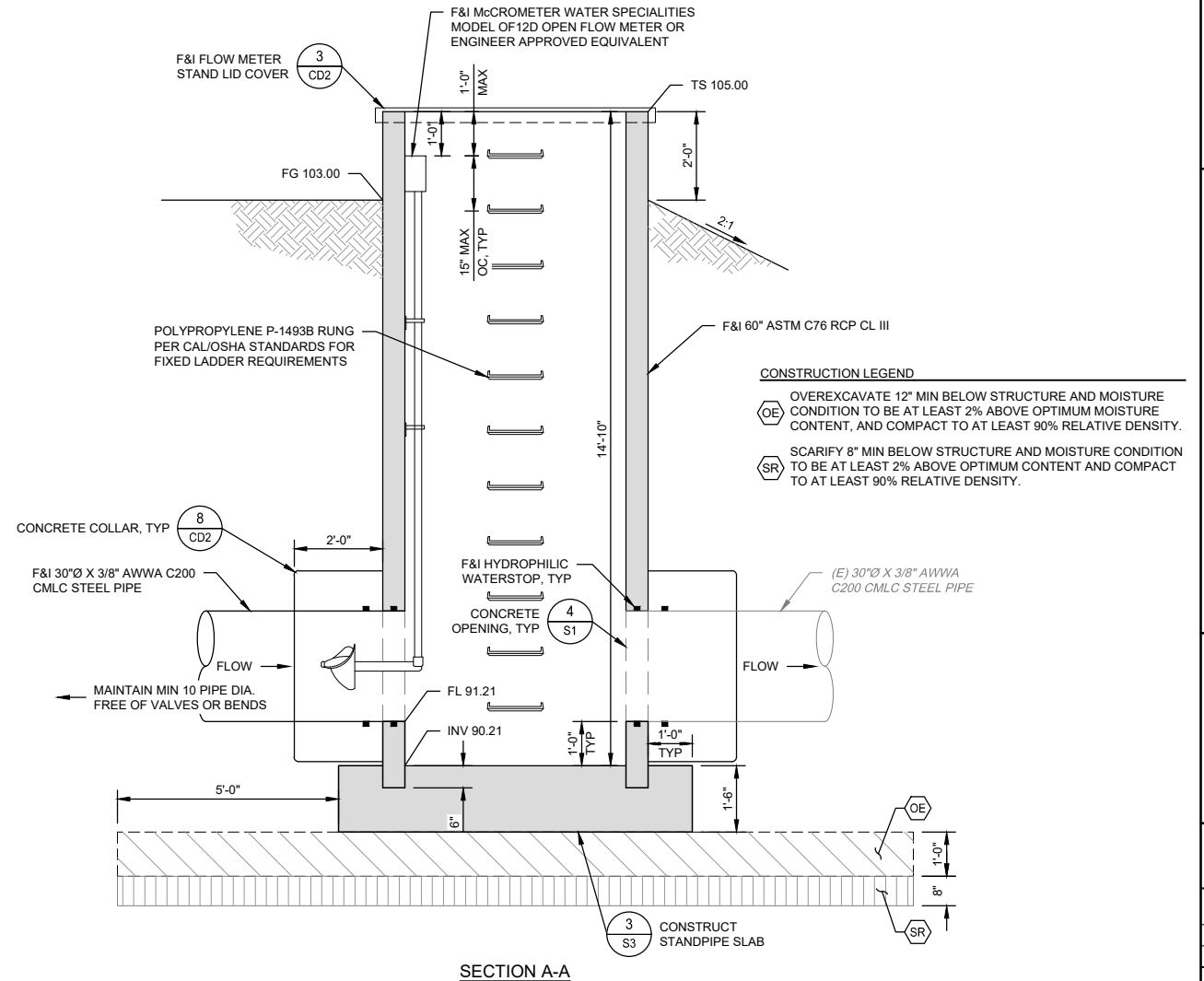
FEET



0 1

$$\frac{2}{CD1}$$

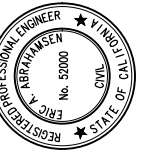
CD1



STANDPIPE W/ FLOWMETER

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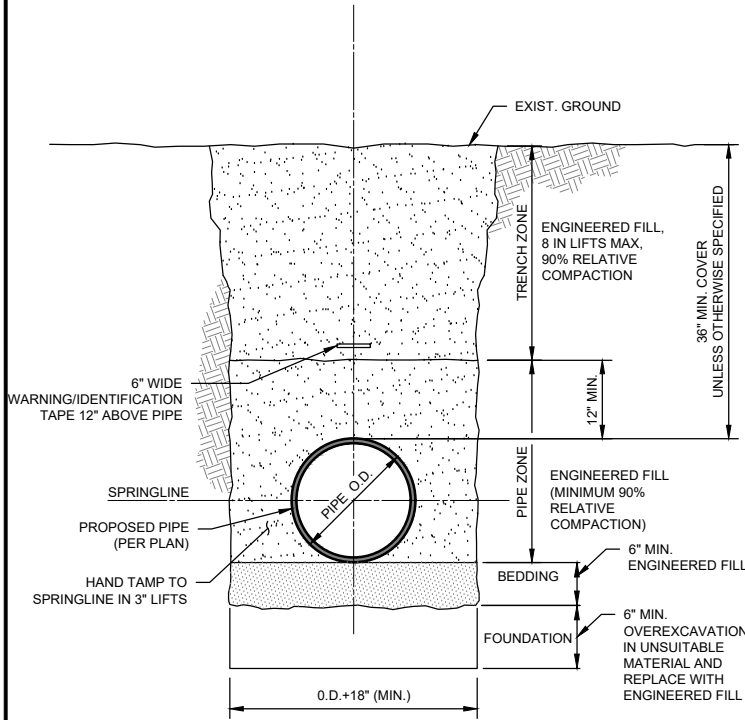
ORIGINAL SCALE SHOWN IS ONE
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SHEET **CD1**

12 OF 18

TRENCH NOTES

- BEDDING MATERIAL AND ENGINEERED FILL SHALL BE IN ACCORDANCE WITH THE SPECIFICATIONS AND GEOTECHNICAL REPORT.
- BACKFILL MOISTURE CONDITION TO BE MAINTAINED AT 1 TO 3 PERCENT ABOVE OPTIMUM MOISTURE CONTENT.
- PIPE INSTALLATIONS ARE TO EMPLOY TRENCH SHORING AND/OR SLOPING IN ACCORDANCE WITH ALL APPLICABLE SAFETY STANDARDS. TYPICAL INSTALLATIONS SHOWN DO NOT NECESSARILY DEPICT COMPLIANCE WITH SAID STANDARDS AS SPECIAL CONSTRUCTION METHODS (SUCH AS SHIELDS, TRENCH BOXES, ETC.) MIGHT BE EMPLOYED BY THE CONTRACTOR IN ACCORDANCE WITH SAID STANDARDS.



NOT TO SCALE

1

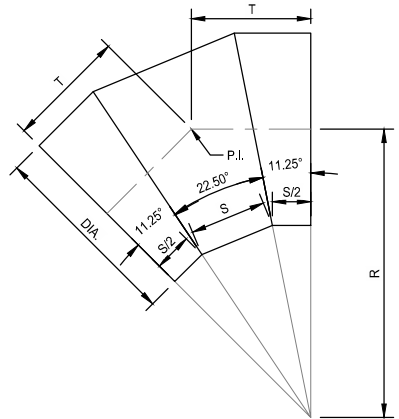
CD2

PIPE INSTALLATION TRENCH SECTION

NOTES

- 3-PIECE ELBOW TO BE FABRICATED IN ACCORDANCE WITH AWWA C208 WITH 1.5 DIAMETERS

DIMENSION TABLE			
DIA.	R	S	T
24"	36"	9.44"	14.91"

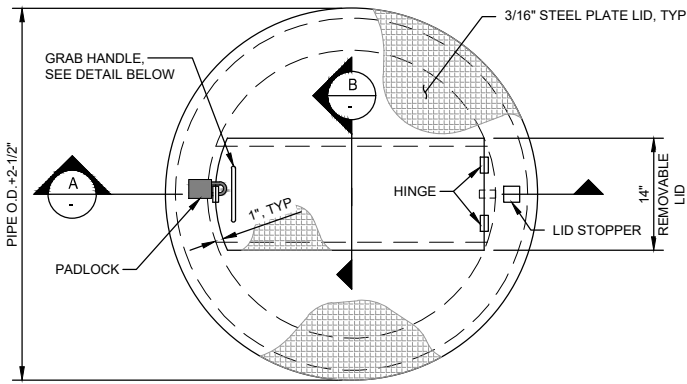


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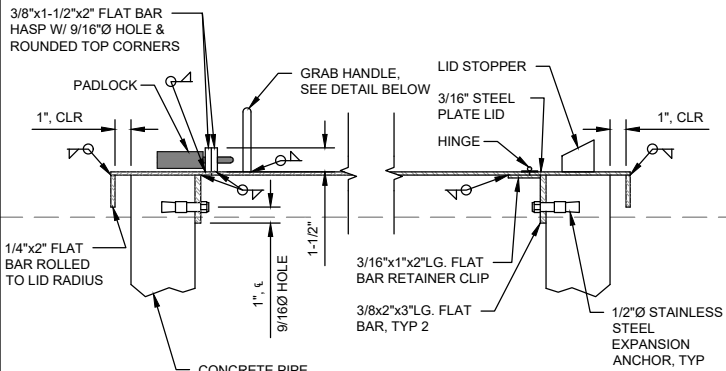
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CD2

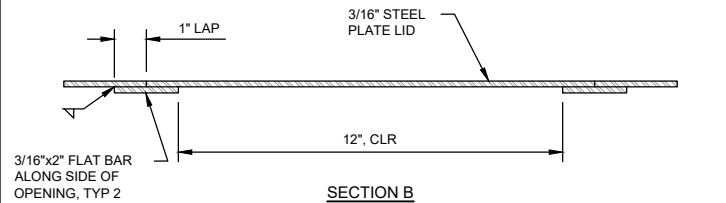
FABRICATED 45° 3-PIECE ELBOW



PLAN



SECTION A



SECTION B

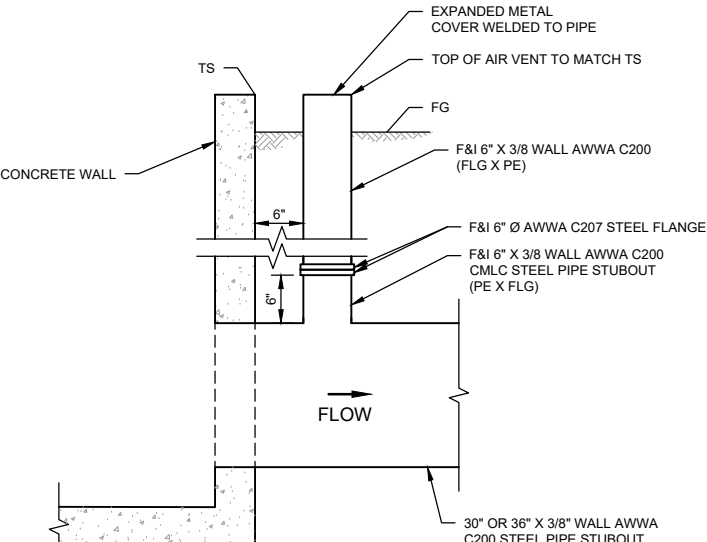
GRAB HANDLE

NOT TO SCALE

2

CD2

STILLING WELL LID

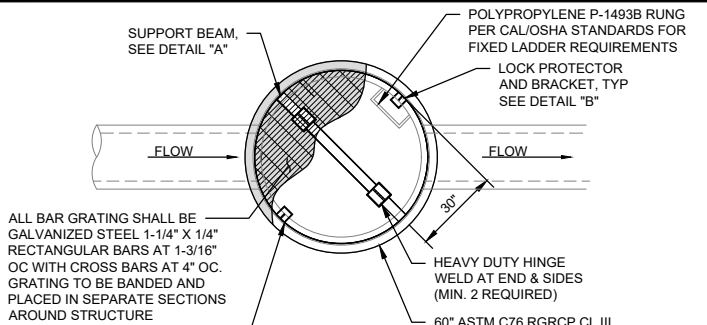


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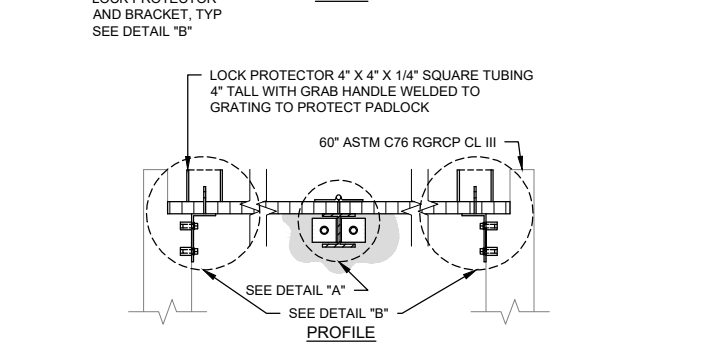
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CD2

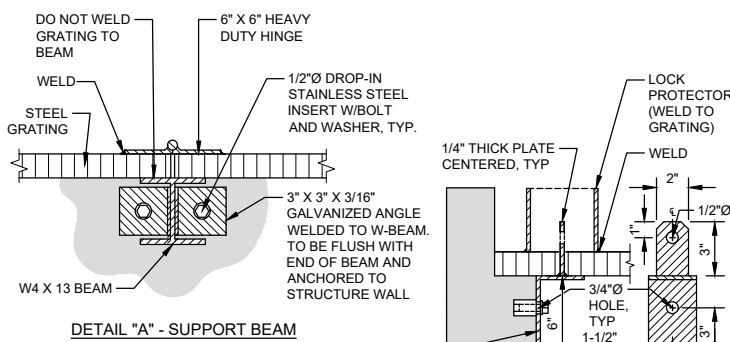
6" Ø AIR VENT



PLAN



PROFILE



DETAIL "A" - SUPPORT BEAM

NOTES

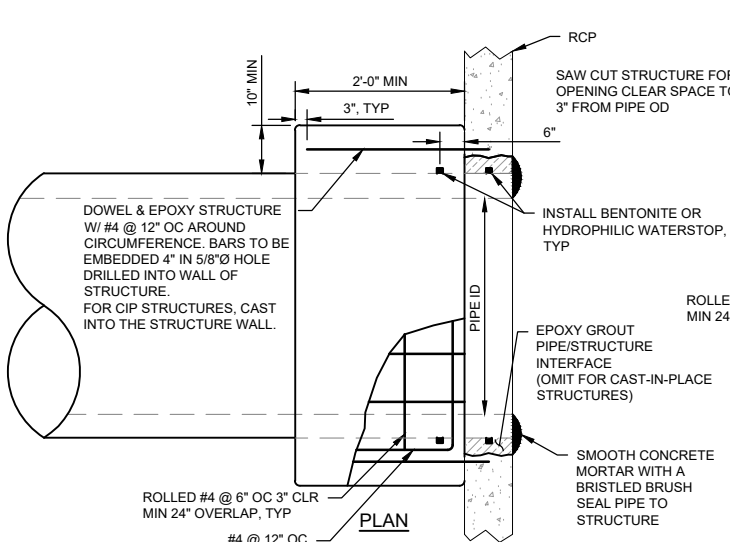
- ALL STEEL SHALL BE GALVANIZED UNLESS OTHERWISE DIRECTED.
- DETAIL PROVIDED IS FOR SCHEMATIC PURPOSES ONLY. CONTRACTOR SHALL FABRICATE METAL COVER BASED ON FIELD DIMENSIONS.

NOT TO SCALE

3

CD2

FLOW METER STAND LID

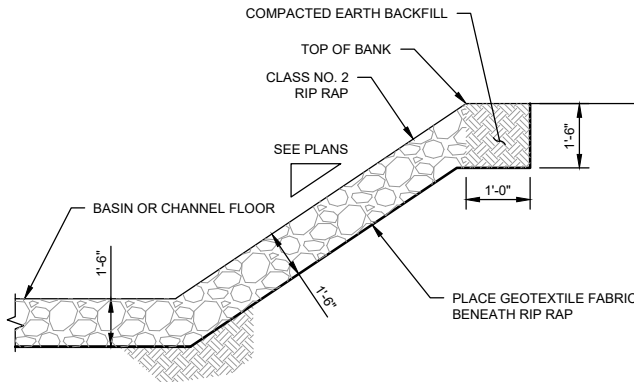


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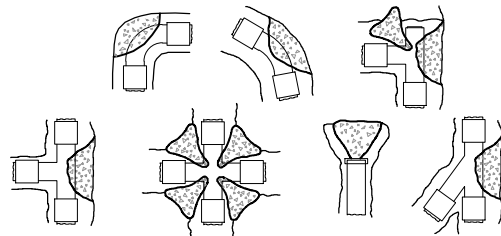
8

CD2

PIPE COLLAR



RIP RAP



MAX INTERNAL PRESSURE (PSI)				50	
SOIL BEARING PRESSURE (PSF)				1000	
SAFETY FACTOR				2	
MINIMUM BEARING AREA (SF)					
PIPE SIZE	DEAD END OR TEE	90° BEND	45° BEND	22.5° BEND	11.25° BEND
24	45.2	64.0	34.6	17.7	8.9
30	70.7	100.0	54.1	27.6	13.9
36	101.8	143.9	77.9	39.7	20.0

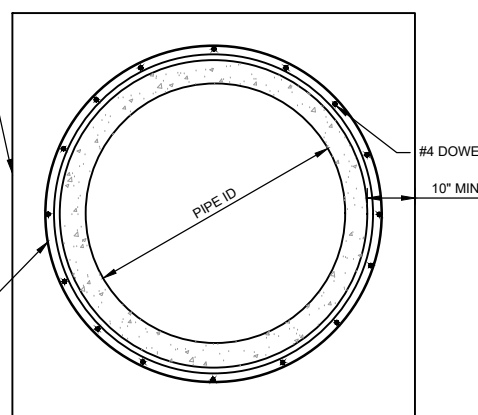
NOTES

- ALL FITTINGS TO BE WRAPPED IN 4 MIL VISQUEEN.
- CONCRETE SHALL NOT ENCR OACH ON END FITTINGS.
- CONCRETE SHALL BEAR AGAINST UNDISTURBED SOIL.
- CONCRETE TO HAVE ULTIMATE STRENGTH OF 4000 PSI @ 28 DAYS.

5

CD2

THRUST BLOCKS



SECTION

NOTES

- IF AN AIR VENT IS REQUIRED, VENT SHALL BE INCORPORATED INTO CONCRETE COLLAR. LENGTHEN COLLAR AS NECESSARY. COLLAR TO EXTEND 12 INCH MINIMUM BEYOND VENT.
- DIAMETER OF ROLLED HOOPS SHALL BE PIPE INSIDE DIAMETER + (2 X WALL THICKNESS) + 10 INCHES.
- CONCRETE SHALL BE VIBRATED AROUND PIPE JOINT DURING PLACEMENT.
- CONCRETE PIPE SHALL BE CLEANED AND TREATED WITH CONCRETE BONDING AGENT PRIOR TO CONCRETE PLACEMENT.
- JOINT SHALL BE WATERTIGHT.

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BASINS AND STORMWATER CAPTURE
PROJECT
CITY OF LOS BANOS
IN MERCED COUNTY
CIVIL DETAILS

DATE SIGNED: _____

DETAILS

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IRC, SG
CHECKED BY:
ACC

DATE: 09/03/2025

JOB NO: 350123007

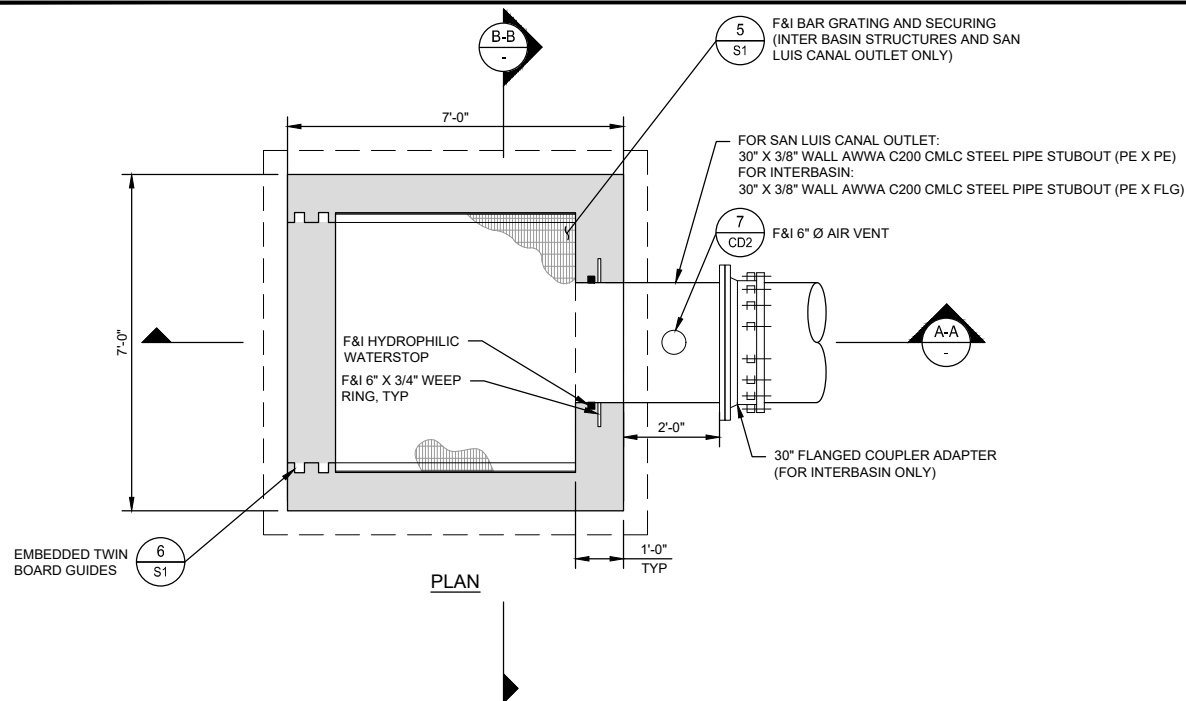
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SHEET
CD2

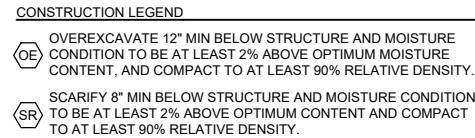
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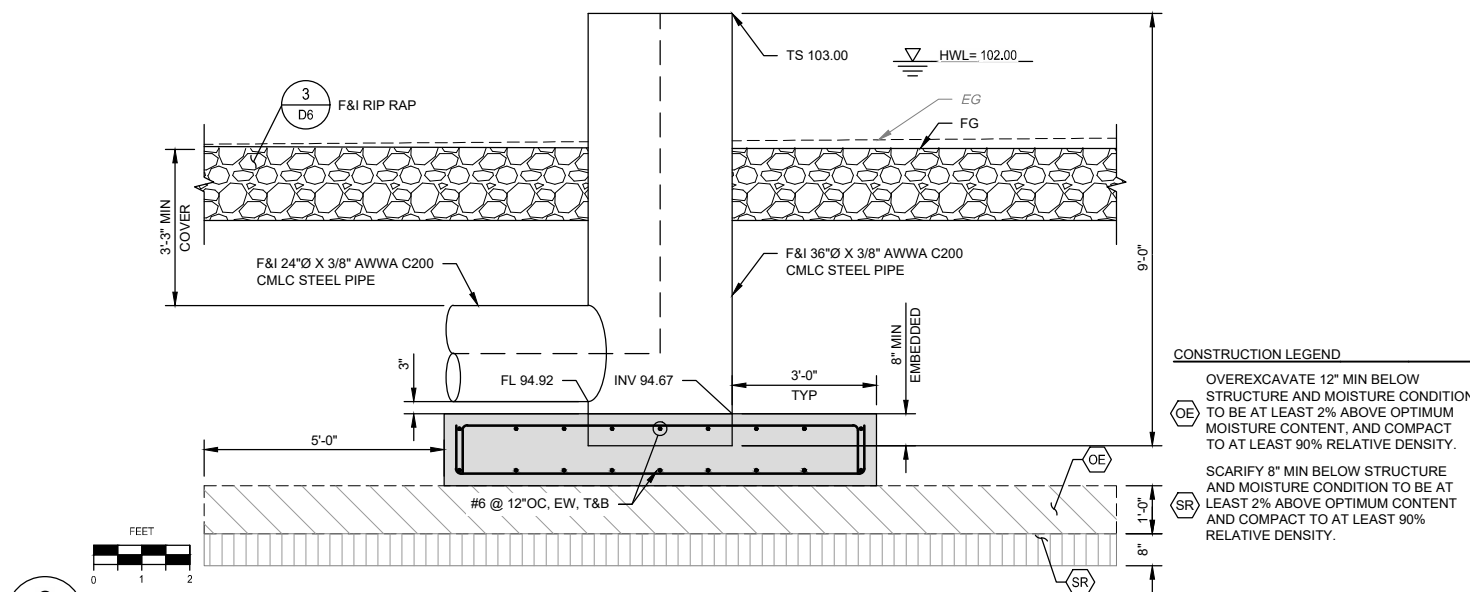


NOTES

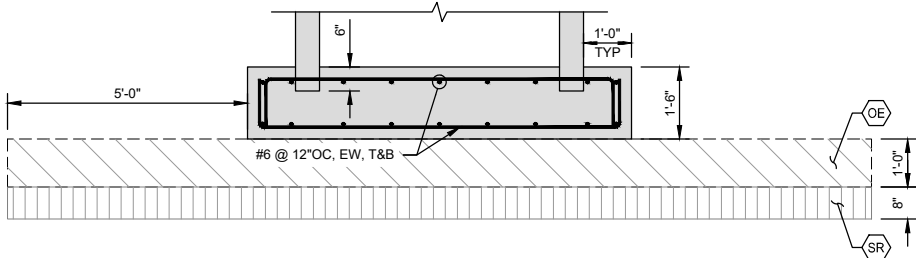
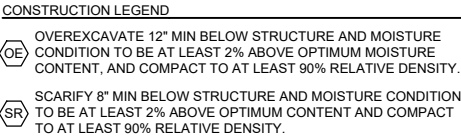
1. CONTRACTOR TO F&I TEMPORARY EXPANDED METAL COVER FOR PUMP SUMP. SECURE TO TOP OF STRUCTURE.



PUMP SUMP



REINFORCED CONCRETE SLAB



STANDPIPE SLAB

