100+00 101+00 102+00 103+00 104+00 105+00 106+00 107+00 108+00 109+00

DI TC= 5.07' INV= 0.58

CB TYPE 2 T.C.=4.89 INV.=0.35

REQ'D DOUBLE-ARM LIGHT STANDARD

Ø4.94

Ø5.26

CB TYPE 3 T.C.=4.89 INV.=0.29

REQ'D 38'-18" RCPA @ 0.15%

DI TC= 5.27' INV= 0.45'

DMH TC= 6.76' INV= 0.11' HIGH TOP

NO OWNER LISTED NOT-A-PART

REQ'D 194'-18" RCPA @ 0.15%

CB TYPE 2 T.C.=4.79 INV.=0.03

REQ'D SINGLE-ARM LIGHT STANDARD (TYP.)

REQ'D 22'-18" RCPA @ 0.15%

Ø4.79

CB TYPE 3 T.C.=4.79 INV.=0.00

REQ'D 27' WIDE CONC. ROAD

EXIST. AT&T DUCT BANK LOCATION TO REMAIN, VERIFY IN FIELD PRIOR TO CONSTRUCTION

REQ'D 220'-18" RCPA @ 0.18%

5.46

5.80

REQ'D 50'-60" RCPA @ 0.18% W/ CONC. HEADWALL (SEE SHT. 22)

REQ'D DMH W/ WEIR SEE DETAIL T.C.=5.80 INV.=-0.45

REQ'D 12'-60" RCPA @ 0.20% W/ CONC. HEADWALL (SEE SHT. 22)

5.75

REQ'D STOP STREET NAME SIGN, TYP.

8" WV

8"x8"x8" TEE

EQUATION: 106+09.48 = 206+43.41

FIRE HYDRANT W/ 6" VALVE

CB TYPE 3 T.C.=4.74 INV.=-0.26

REQ'D 22'-18" RCPA @ 0.15%

Ø4.74

CB TYPE 3 T.C.=4.74 INV.=-0.29

REQ'D 106'-18" RCPA @ 0.15%

REQ'D 184'-18" RCPA @ 0.15%

Ø6.00

TIE INTO EXIST. 8" WATER LINE

MUCK OUT EXIST. DITCH AND FILL W/ GRANULAR MATERIAL

5.25

REQ'D SMH T.C.=4.60 INV.=0.10

8" WV

CB TYPE 3 T.C.=4.53 INV.=0.02

REQ'D 22'-18" RCPA @ 0.15%

Ø4.53

CB TYPE 2 T.C.=4.53 INV.=0.05

REQ'D SMH T.C.=4.90 INV.=-1.41

REQ'D 250'-8"S (PVC) @ 0.33%

8" WL

REQ'D SINGLE-ARM LIGHT STANDARD (TYP.)

REQ'D 27' WIDE CONC. ROAD

5.15

REQ'D SMH T.C.=5.15 INV.=-2.13

MATCHLINE (STA. 109+00)

SPECIALIZED ENGINEERING

LA COA: 5809

PROJECT NO. 20-1801
DWG.FILE NO. 19 - PlanProf
HOR.SCALE 1" = 30'
VERT.SCALE 1" = 3'
DRAWN K.J.B.
CHECKED A.J.B.
DATE M.F.
REVISED 07-29-2023, 06-17-2024

STATE OF LOUISIANA ALLISON B. FROEBA License No. 32492 PROFESSIONAL ENGINEER IN CIVIL ENGINEERING 6/17/24

0 30 60
1" = 30'

LEFT SIDE

STA. 100+20.00 MATCH EXIST. GRADE ELEV. 4.75

+0.49% −0.40% +0.40% −0.57% +0.40% −0.41% +0.40%

PVI 101+24.12 ELEV. 5.26
PVI 102+41.72 ELEV. 4.79
PVI 104+13.93 ELEV. 5.48
PVI 105+44.14 ELEV. 4.74
PVI 106+09.48 ELEV. 5.00
PVI 107+25.36 ELEV. 4.53
PVI 108+88.13 ELEV. 5.15

REQ'D 38'-18" RCPA @ 0.15%
STA. 201+48 CB TYPE 2 T.C.=4.89 INV.=0.35

REQ'D 22'-18" RCPA @ 0.15%
STA. 102+42 CB TYPE 2 T.C.=4.79 INV.=0.03

REQ'D 50'-60" RCPA @ 0.20%

REQ'D 22'-18" RCPA @ 0.15%
REQ'D 184'-18" RCPA @ 0.15%
STA. 105+44 CB TYPE 3 T.C.=4.74 INV.=-0.26

REQ'D 22'-18" RCPA @ 0.15%
STA. 107+25 CB TYPE 3 T.C.=4.53 INV.=0.02

RIGHT SIDE

STA. 100+20.00 MATCH EXIST. GRADE ELEV. 4.75

+0.49% −0.40% +0.40% −0.57% +0.40% −0.41% +0.40%

PVI 101+24.12 ELEV. 5.26
PVI 102+41.72 ELEV. 4.79
PVI 104+13.93 ELEV. 5.48
PVI 105+44.14 ELEV. 4.74
PVI 106+09.48 ELEV. 5.00
PVI 107+25.36 ELEV. 4.53
PVI 108+88.13 ELEV. 5.15

REQ'D 38'-18" RCPA @ 0.15%
STA. 101+48 CB TYPE 3 T.C.=4.89 INV.=0.29

REQ'D 194'-18" RCPA @ 0.15%
REQ'D 22'-18" RCPA @ 0.15%
STA. 102+42 CB TYPE 3 T.C.=4.79 INV.=0.00

REQ'D 220'-18" RCPA @ 0.18%
REQ'D 50'-60" RCPA @ 0.20%
STA. 104+41 REQ'D DMH T.C.=5.80 INV.=-0.45

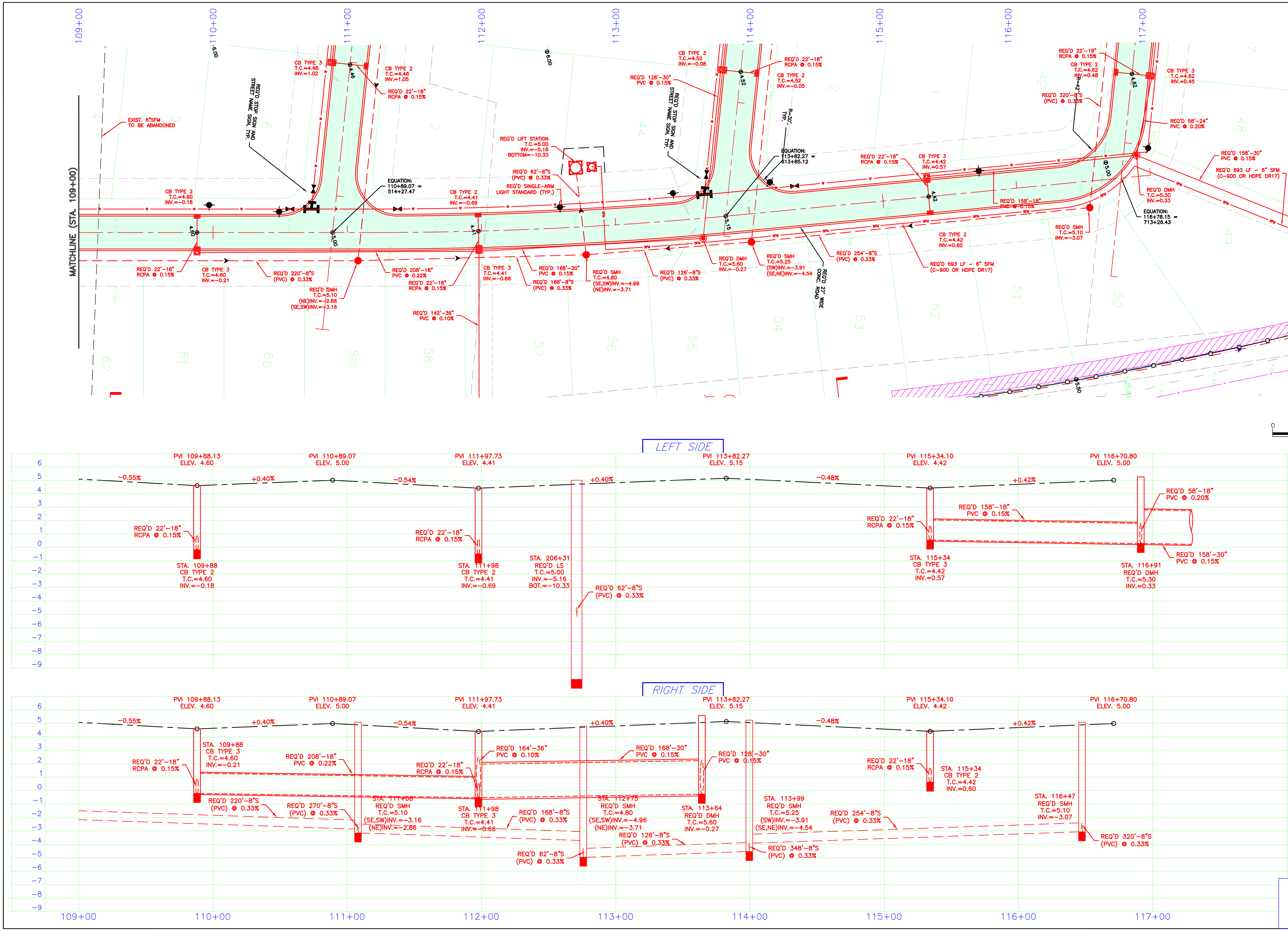
REQ'D 108'-18" RCPA @ 0.15%
REQ'D 22'-18" RCPA @ 0.15%
STA. 105+44 CB TYPE 3 T.C.=4.74 INV.=-0.29

REQ'D 22'-18" RCPA @ 0.15%
REQ'D 250'-8"S (PVC) @ 0.33%
STA. 106+06 REQ'D SMH T.C.=4.90 INV.=-1.41
STA. 107+25 CB TYPE 2 T.C.=4.53 INV.=0.05

STA. 108+88 REQ'D SMH T.C.=5.15 INV.=-2.13

100+00 101+00 102+00 103+00 104+00 105+00 106+00 107+00 108+00

SHEET NO. 10 OF SHEETS

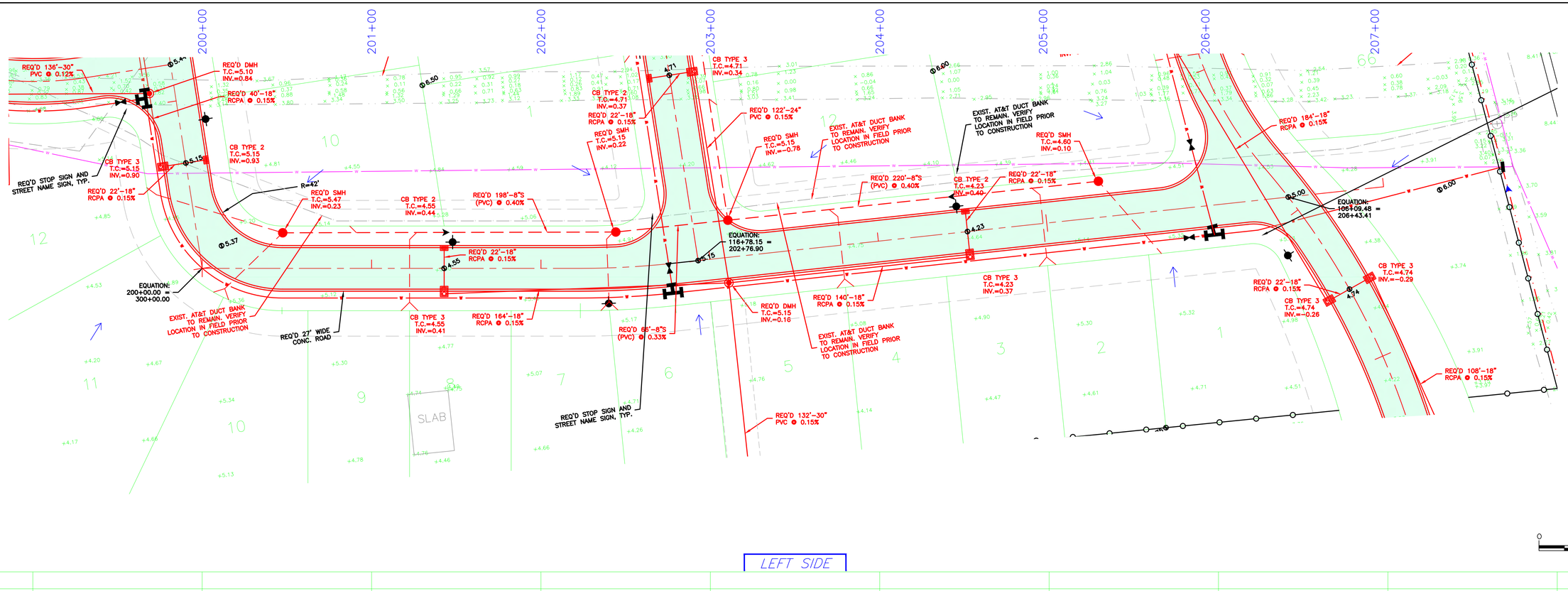


SPECIALIZED ENGINEERING

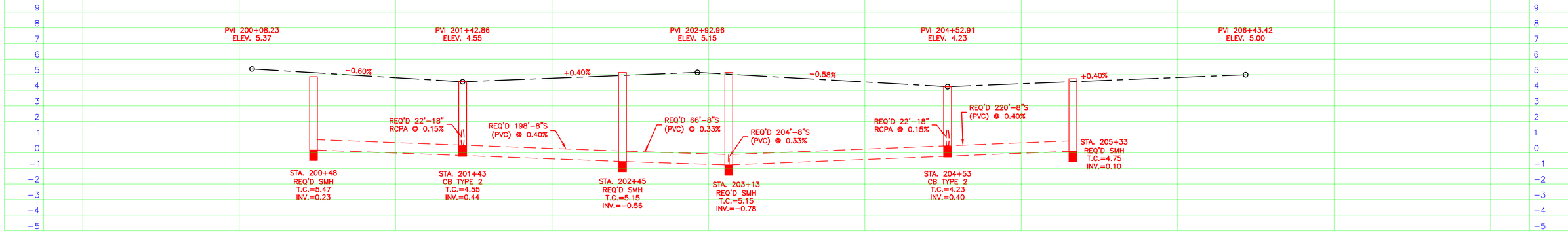
LA COA: 5809

PROJECT NO. 20-1801
DWG.FILE NO. 11 - PlanProf
HOR.SCALE 1" = 30'
VERT.SCALE 1" = 3'
DRAWN KJB, AJB
CHECKED MJF
DATE 07-29-2023
REVISED 06-17-2024

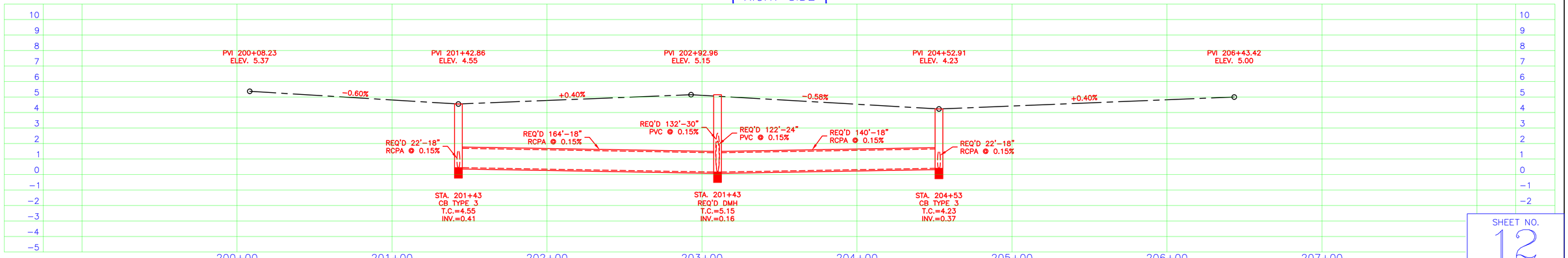
SHEET NO. 11 OF SHEETS



LEFT SIDE



RIGHT SIDE

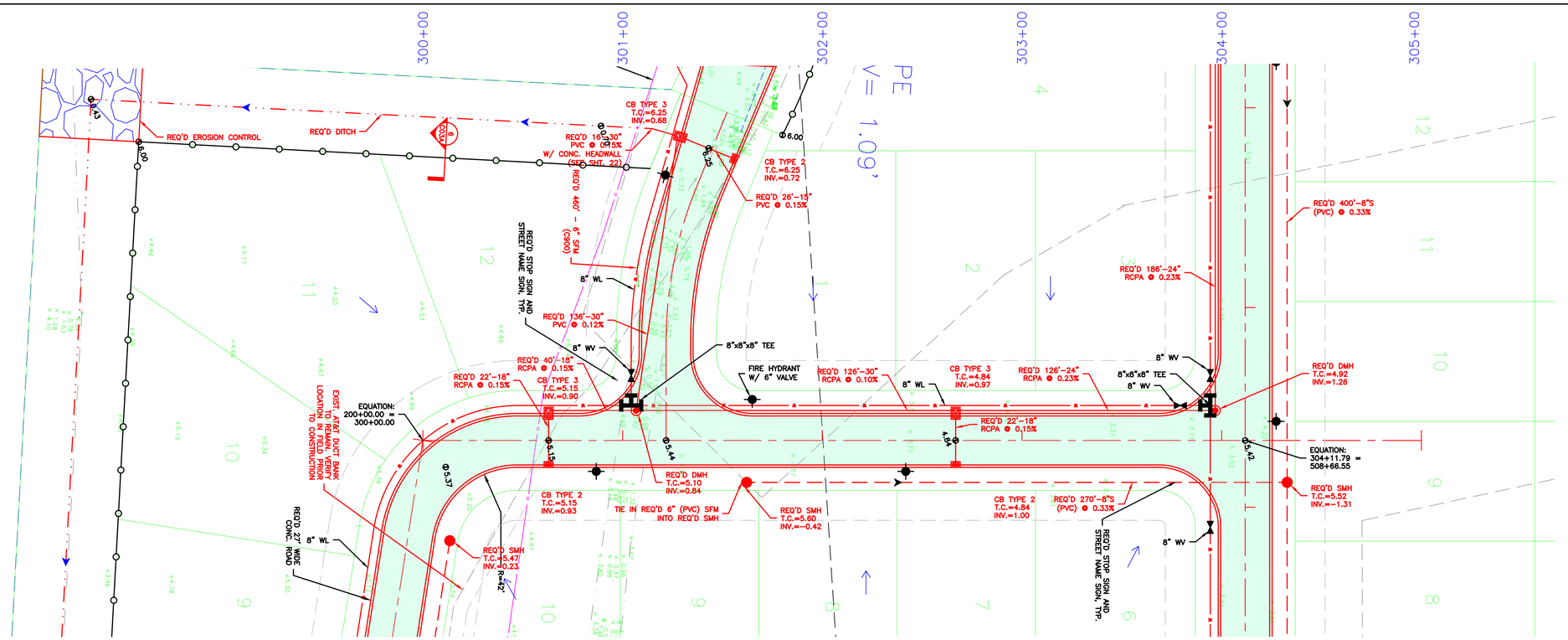


SPECIALIZED ENGINEERING
LA COA: 5809

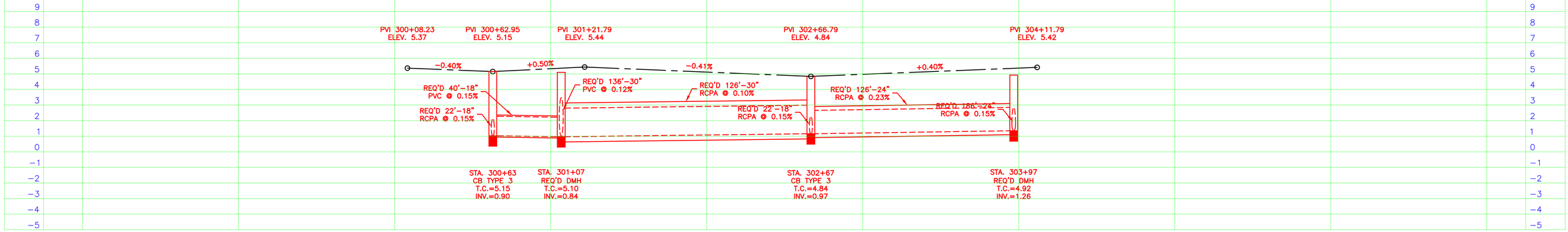
PROJECT NO. 20-1801
DWG.FILE NO. 12 - PlanProf
HOR.SCALE 1" = 30'
VERT.SCALE 1" = 3'
DRAWN K.J.F. AJB
CHECKED M.P.
DATE 07-29-2023
REVISED 06-17-2024

STATE OF LOUISIANA
ALLISON B. FROEBA
License No. 32492
PROFESSIONAL ENGINEER
IN
CIVIL ENGINEERING
6/17/24

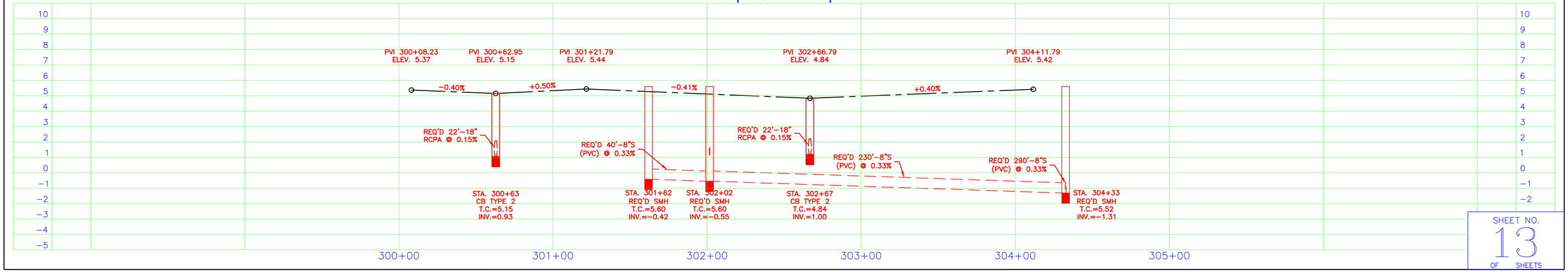
SHEET NO. 12 OF SHEETS



LEFT SIDE



RIGHT SIDE

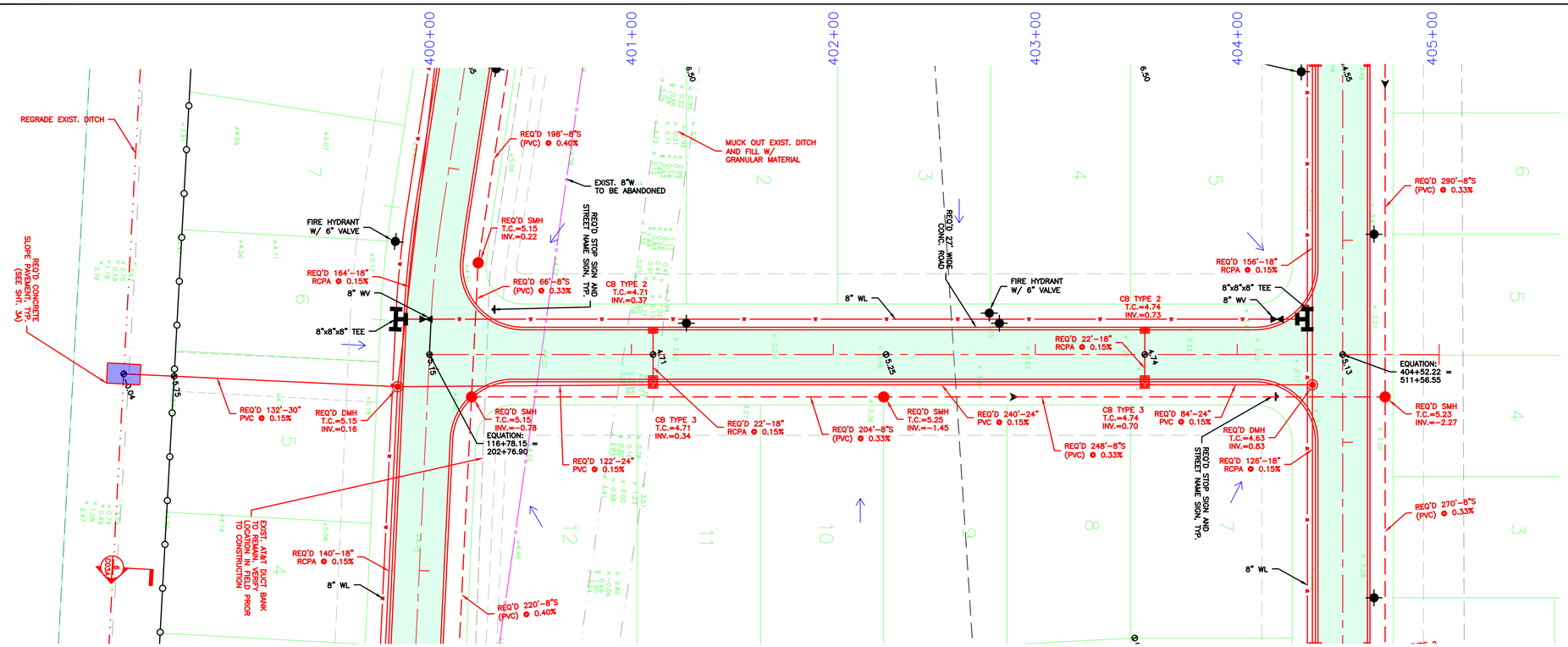


SPECIALIZED ENGINEERING
LA COA: 5809

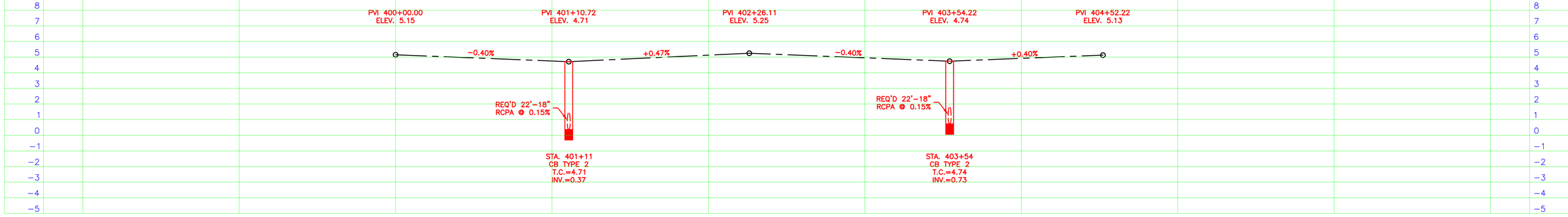
PROJECT NO. 20-1801
DWG.FILE NO. 13 - PlanProf
HOR.SCALE 1" = 30'
VERT.SCALE 1" = 3'
DRAWN K.J.B. AJB
CHECKED M.J.F.
DATE 07-29-2023
REVISED 06-17-2024

STATE OF LOUISIANA
ALLISON B. FROEBA
License No. 32492
PROFESSIONAL ENGINEER
IN
CIVIL ENGINEERING
6/17/24

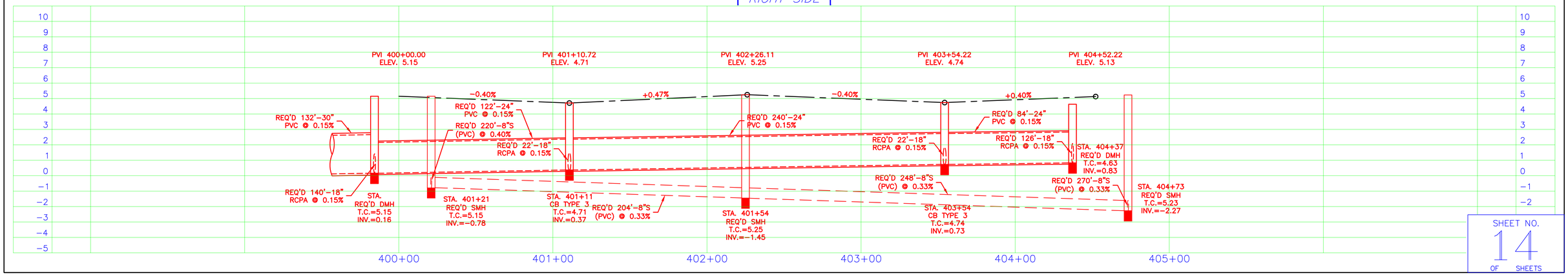
SHEET NO.
13
OF SHEETS



LEFT SIDE



RIGHT SIDE



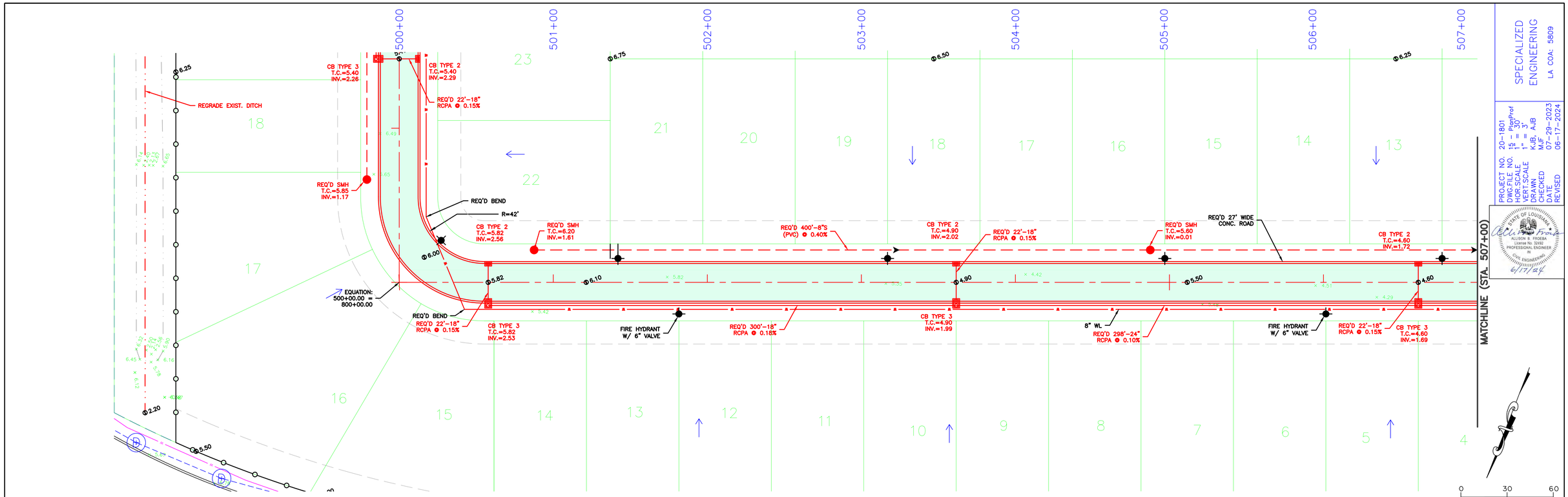
SPECIALIZED ENGINEERING
LA COA: 5809

PROJECT NO. 20-1801
DWG.FILE NO. 14 - PlanProf
HOR.SCALE 1" = 30'
VERT.SCALE 1" = 3'
DRAWN K.J.B. AJB
CHECKED M.J.F.
DATE 07-29-2023
REVISED 06-17-2024

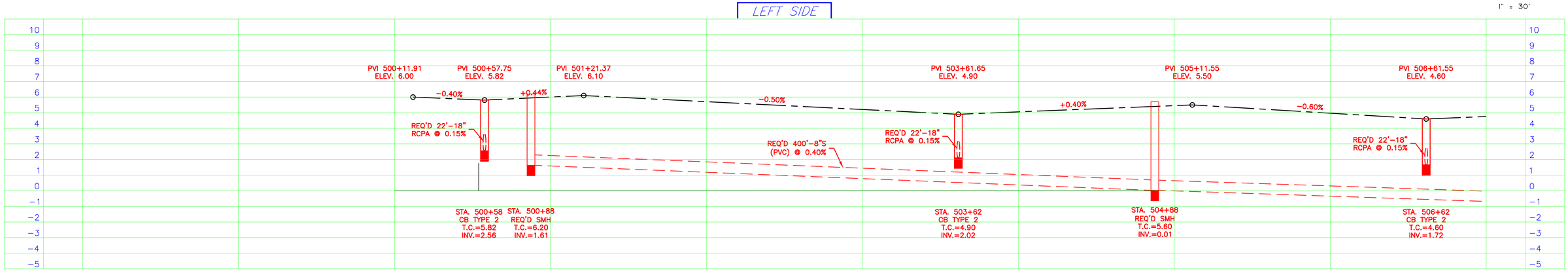
STATE OF LOUISIANA
ALISON B. FROEBA
License No. 32492
PROFESSIONAL ENGINEER
IN
CIVIL ENGINEERING
6/17/24

0 30 60
1" = 30'

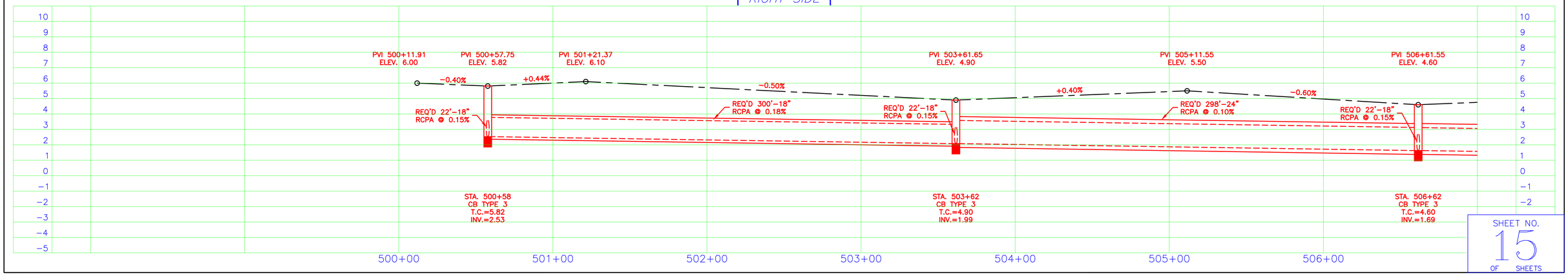
SHEET NO. 14 OF SHEETS



LEFT SIDE



RIGHT SIDE



SPECIALIZED ENGINEERING
LA COA: 5809

PROJECT NO. 20-1801
DWG.FILE NO. 15 - PlanProf
HOR.SCALE 1" = 30'
VERT.SCALE 1" = 3'
DRAWN K.B. AJB
CHECKED M.F.
DATED 07-29-2023
REVISED 06-17-2024

STATE OF LOUISIANA
ALISON B. FROEBA
License No. 32492
PROFESSIONAL ENGINEER
IN
CIVIL ENGINEERING
6/17/24

SHEET NO.
15
OF SHEETS

MATCHLINE (STA. 507+00)

REQ'D 400'–8"S (PVC) @ 0.33%
REQ'D SMH T.C.=5.52 INV.=–1.31
REQ'D DMH T.C.=4.92 INV.=1.26
REQ'D 186'–24" RCPA @ 0.23%
8" WV
8"x8"x8" TEE
8" WV
REQ'D 126'–24" RCPA @ 0.23%
EQUATION: 304+11.79 = 508+66.55
8" WV
REQ'D STOP SIGN AND STREET NAME SIGN, TYP.
REQ'D 270'–8"S (PVC) @ 0.33%
CB TYPE 2 T.C.=4.55 INV.=1.09
REQ'D 290'–8"S (PVC) @ 0.33%
REQ'D 22'–18" RCPA @ 0.15%
CB TYPE 3 T.C.=4.55 INV.=1.06
FIRE HYDRANT W/ 6" VALVE
REQ'D 156'–18" RCPA @ 0.15%
8"x8"x8" TEE
8" WV
REQ'D SMH T.C.=5.23 INV.=–2.27
REQ'D 270'–8"S (PVC) @ 0.33%
REQ'D 22'–18" RCPA @ 0.15%
CB TYPE 2 INV.=1.05
EQUATION: 404+52.22 = 511+56.55
REQ'D DMH T.C.=4.63 INV.=0.83
REQ'D 126'–18" RCPA @ 0.15%
8" WL
CB TYPE 3 T.C.=4.46 INV.=1.02
REQ'D STOP SIGN AND STREET NAME SIGN, TYP.
REQ'D 84'–24" PVC @ 0.15%
CB TYPE 2 T.C.=4.74 INV.=0.73
CB TYPE 3 T.C.=4.74 INV.=0.70
REQ'D 248'–8"S (EVC) @ 0.33%
REQ'D 22'–18" RCPA @ 0.15%
8" WL
REQ'D 22'–18" RCPA @ 0.15%
REQ'D 168'–30" PVC @ 0.15%
CB TYPE 2 T.C.=4.41 INV.=–0.69
CB TYPE 3 T.C.=4.41 INV.=–0.66
REQ'D 142'–36" PVC @ 0.10%
REQ'D 168'–8"S (PVC) @ 0.33%
REQ'D 208'–18" PVC @ 0.22%
REQ'D STOP SIGN AND STREET NAME SIGN, TYP.
8" WV
REQ'D SMH T.C.=5.10 (NE)INV.=–2.86 (SE,SW)INV.=–3.16
EQUATION: 110+89.07 = 514+27.47
8" WV
8"x8"x8" TEE
8" WV
REQ'D 220'–8"S (PVC) @ 0.33%
FIRE HYDRANT W/ 6" VALVE
CB TYPE 2 T.C.=4.60 INV.=–0.18
CB TYPE 3 T.C.=4.60 INV.=–0.21
REQ'D 22'–18" RCPA @ 0.15%

LEFT SIDE

PVI 508+66.55 ELEV. 5.42
PVI 510+11.55 ELEV. 4.55
PVI 511+56.55 ELEV. 5.13
PVI 513+01.80 ELEV. 4.46
PVI 514+27.47 ELEV. 5.00
+0.40%
–0.60%
+0.40%
–0.46%
+0.43%
REQ'D 400'–8"S (PVC) @ 0.33%
STA. 508+88 REQ'D SMH T.C.=5.52 INV.=–1.31
REQ'D 22'–18" RCPA @ 0.15%
STA. 510+12 CB TYPE 2 T.C.=4.55 INV.=1.09
REQ'D 290'–8"S (PVC) @ 0.33%
STA. 511+78 REQ'D SMH T.C.=5.23 INV.=–2.27
REQ'D 320'–8"S (PVC) @ 0.33%
REQ'D 22'–18" RCPA @ 0.15%
STA. 513+02 CB TYPE 2 T.C.=4.46 INV.=1.05
REQ'D 270'–8"S (PVC) @ 0.33%
STA. 514+46 REQ'D SMH T.C.=5.10 (NE)INV.=–2.86 (SE,NW)INV.=–3.16
REQ'D 220'–8"S (PVC) @ 0.33%
REQ'D 168'–8"S (PVC) @ 0.33%

RIGHT SIDE

PVI 508+66.55 ELEV. 5.42
PVI 510+11.55 ELEV. 4.55
PVI 511+56.55 ELEV. 5.13
PVI 513+01.80 ELEV. 4.46
PVI 514+27.47 ELEV. 5.00
+0.40%
–0.60%
+0.40%
–0.46%
+0.43%
REQ'D 186'–24" RCPA @ 0.23%
REQ'D 126'–24" RCPA @ 0.23%
STA. 508+52 REQ'D DMH T.C.=4.92 INV.=1.26
REQ'D 22'–18" RCPA @ 0.15%
STA. 510+12 CB TYPE 3 T.C.=4.55 INV.=1.06
REQ'D 156'–18" RCPA @ 0.15%
REQ'D 84'–24" PVC @ 0.15%
REQ'D 126'–18" RCPA @ 0.15%
STA. 508+52 REQ'D DMH T.C.=4.63 INV.=0.83
REQ'D 22'–18" RCPA @ 0.15%
STA. 513+02 CB TYPE 3 T.C.=4.46 INV.=1.02

507+00 508+00 509+00 510+00 511+00 512+00 513+00 514+00 515+00

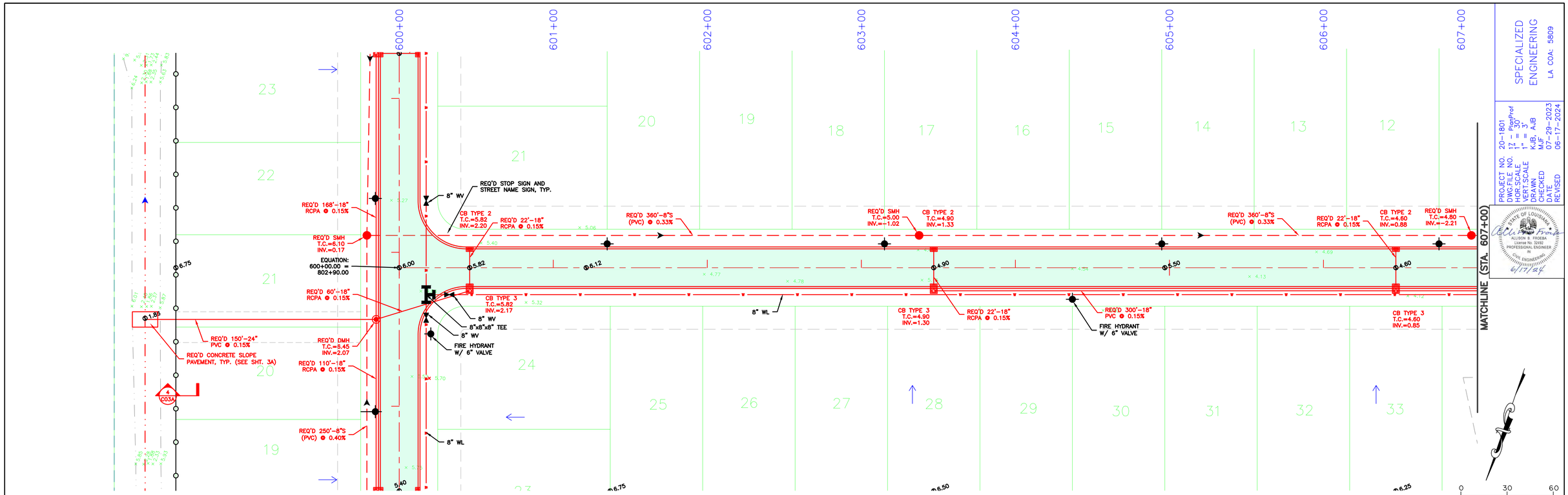
SPECIALIZED ENGINEERING
LA COA: 5809

PROJECT NO. 20-1801
DWG.FILE NO. 16 - PlanProf
HOR.SCALE 30"
VERT.SCALE 1" = 3'
DRAWN K.M.P.
CHECKED A.J.B.
DATE 07-29-2023
REVISED 06-17-2024

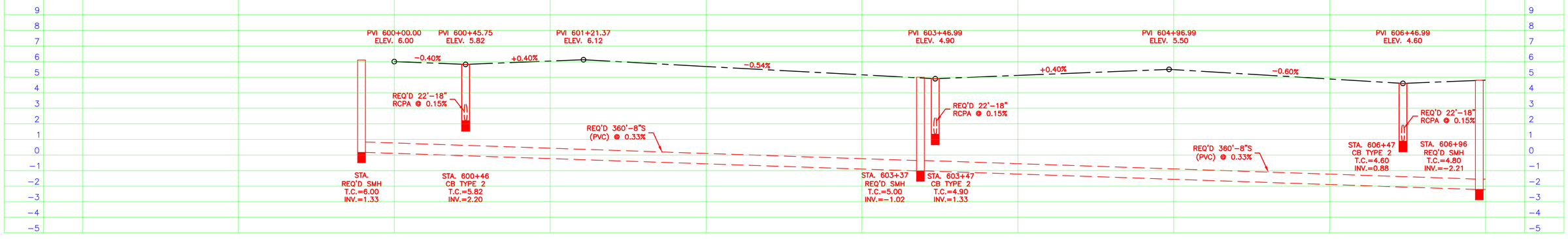
STATE OF LOUISIANA ALLISON B. FROEBA License No. 32492 PROFESSIONAL ENGINEER IN CIVIL ENGINEERING 6/17/24

0 30 60
1" = 30'

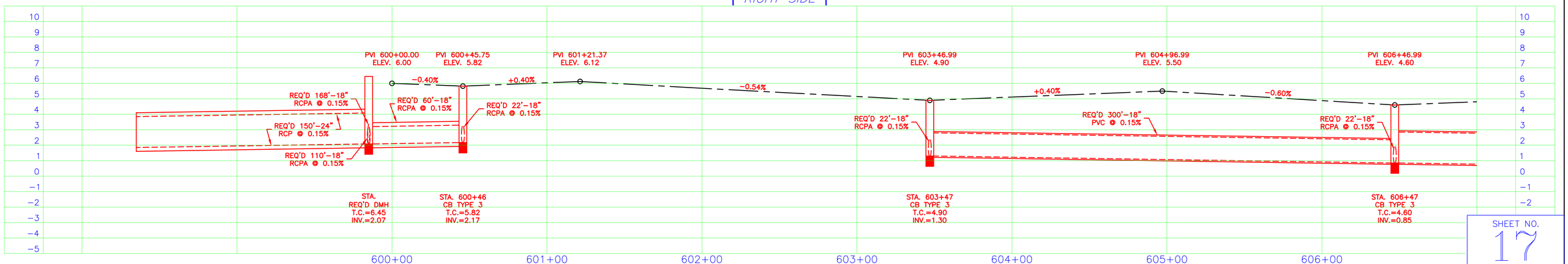
SHEET NO. 16 OF SHEETS



LEFT SIDE



RIGHT SIDE

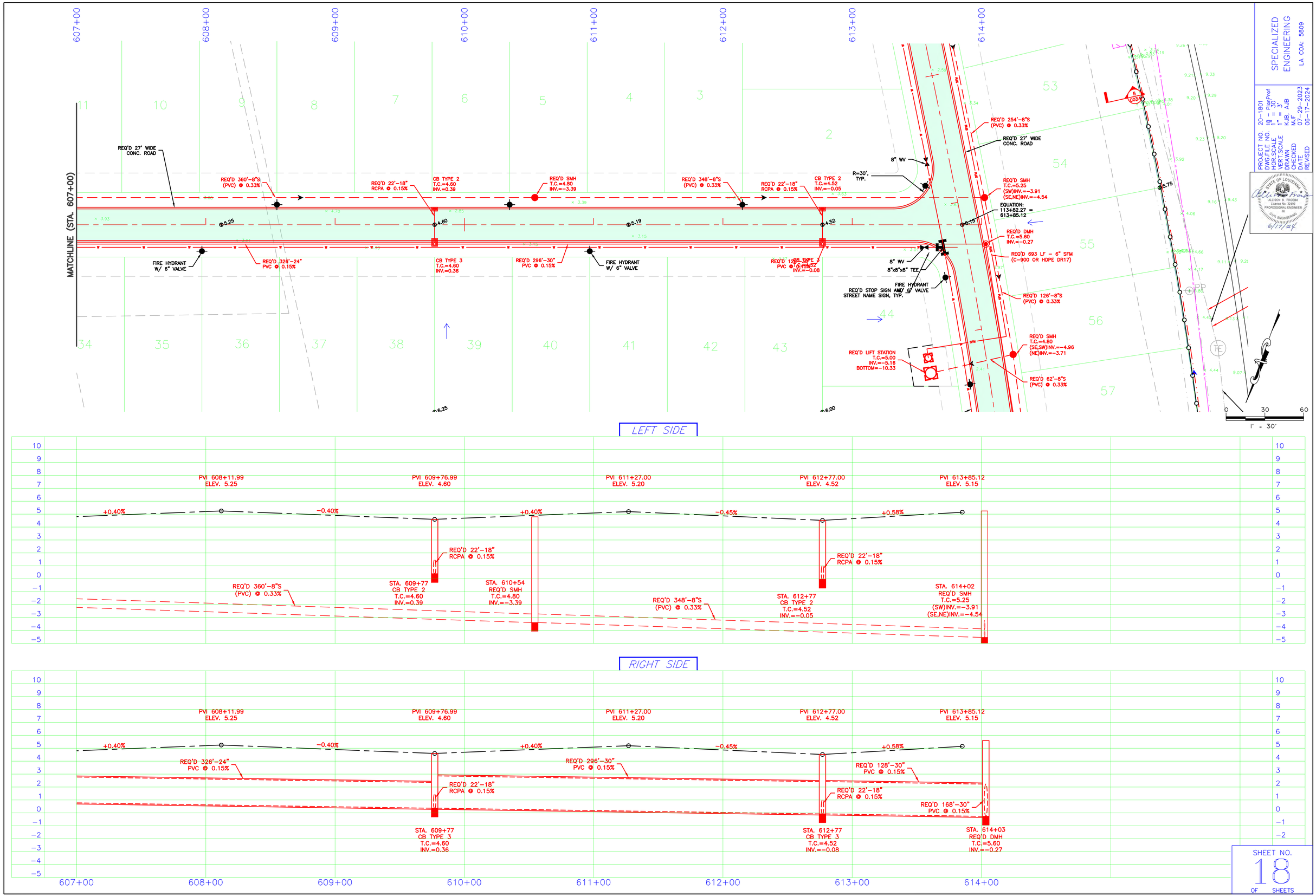


SPECIALIZED ENGINEERING
LA COA: 5809

PROJECT NO. 20-1801
DWG.FILE NO. 17 - PlanProf
HOR.SCALE 1" = 30'
VERT.SCALE 1" = 3'
DRAWN K.B. AJB
CHECKED M.P.
DATED 07-29-2023
REVISED 06-17-2024

STATE OF LOUISIANA
ALLISON B. FROEBA
License No. 32492
PROFESSIONAL ENGINEER
IN
CIVIL ENGINEERING
6/17/24

SHEET NO. 17 OF SHEETS



LEFT SIDE

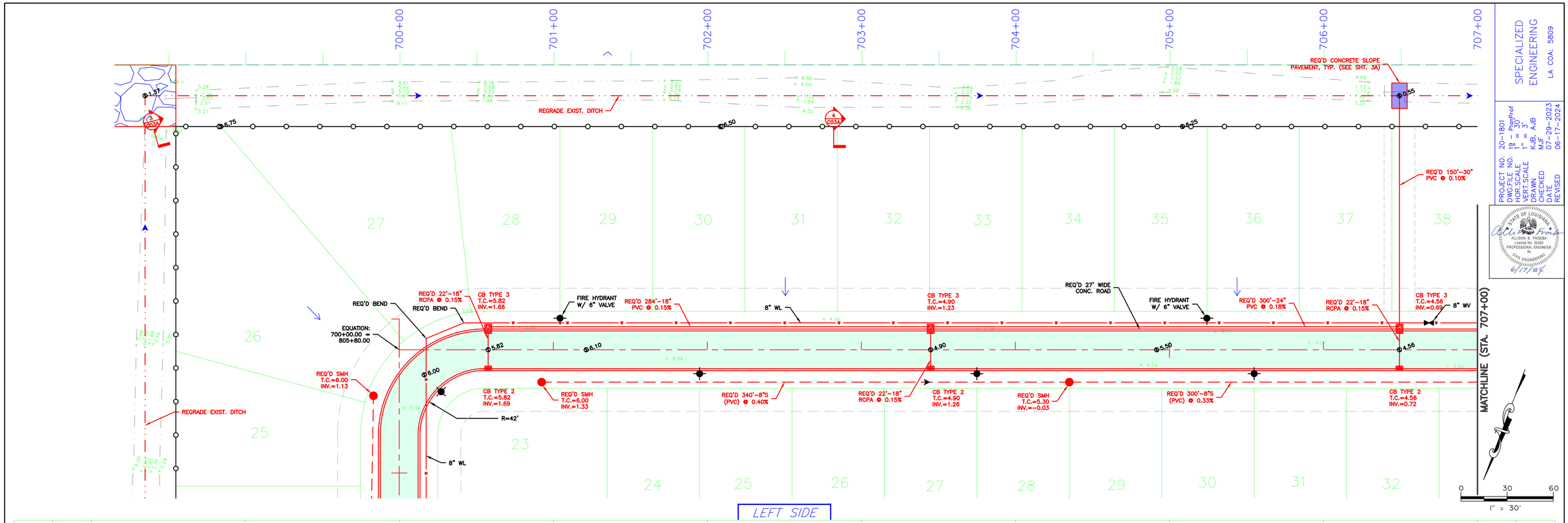
RIGHT SIDE

SPECIALIZED ENGINEERING
LA COA: 5809

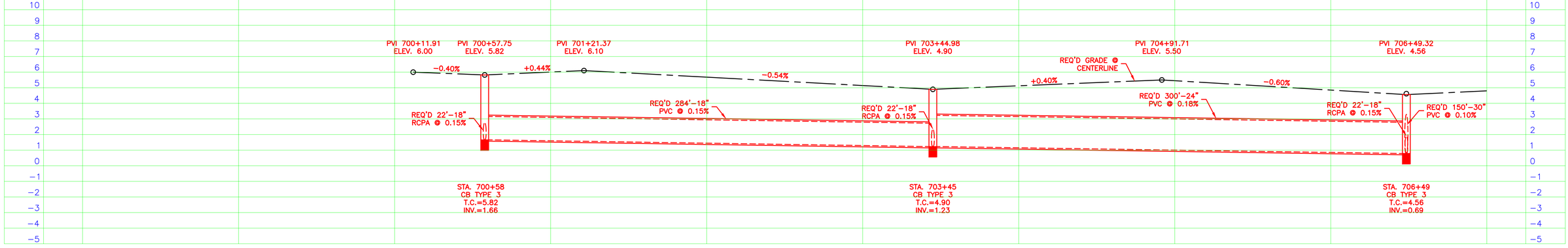
PROJECT NO. 20-1801
DWG.FILE NO. 18 - PlanProf
HOR.SCALE 1" = 30'
VERT.SCALE 1" = 3'
DRAWN K.B. AJB
CHECKED M.P.
DATE 07-29-2023
REVISED 06-17-2024

STATE OF LOUISIANA
ALLISON B. FROEBA
License No. 32492
PROFESSIONAL ENGINEER
IN
CIVIL ENGINEERING
6/17/24

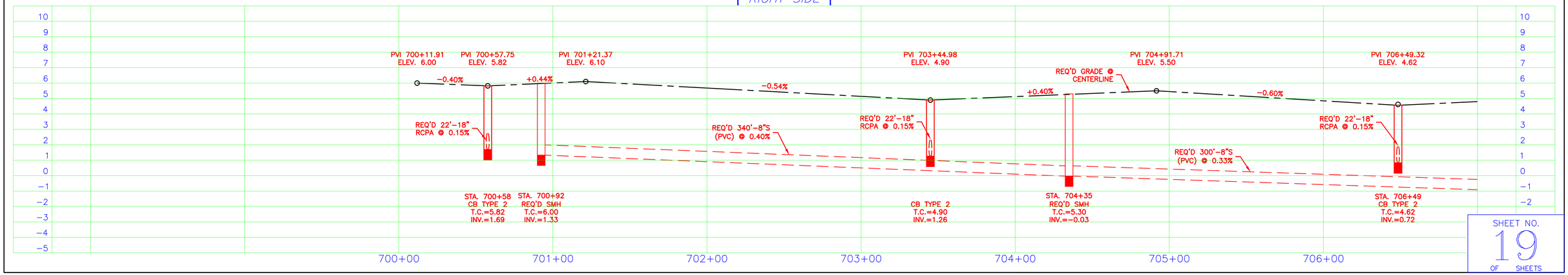
SHEET NO.
18
OF SHEETS



LEFT SIDE



RIGHT SIDE

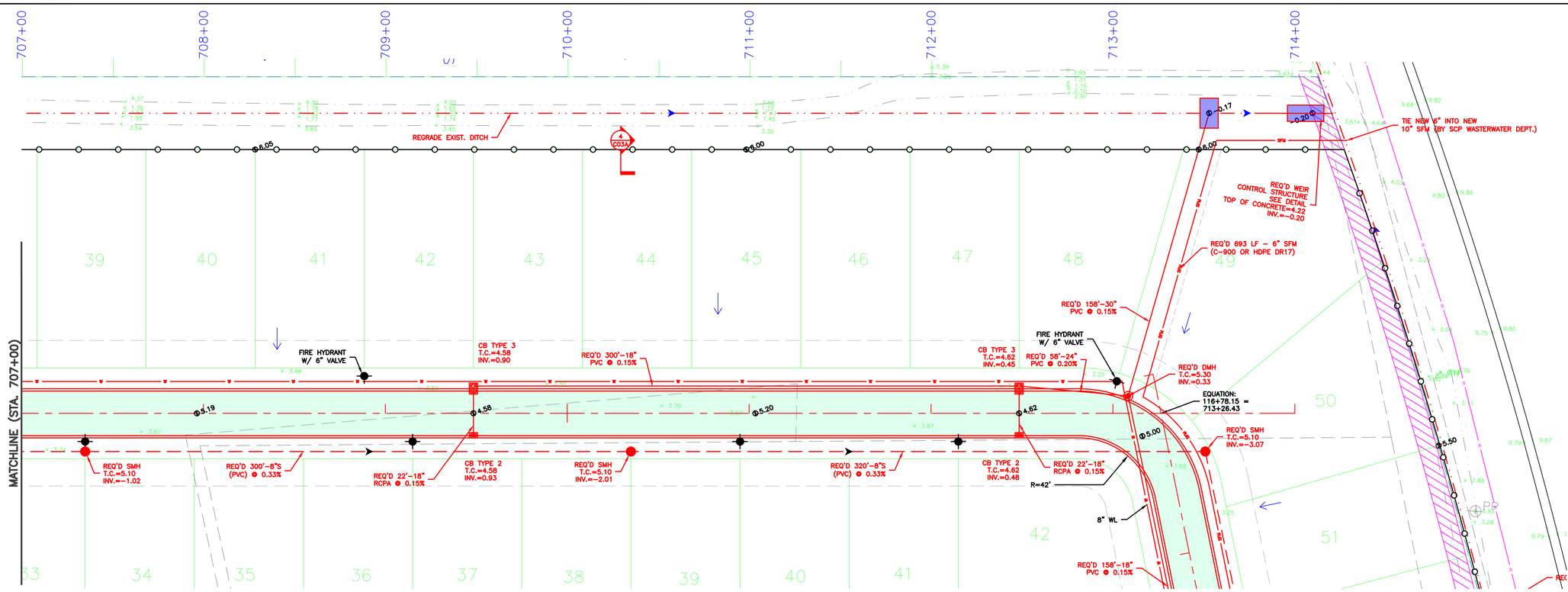


SPECIALIZED ENGINEERING
LA COA: 5809

PROJECT NO. 20-1801
DWG.FILE NO. 19 - PlanProf
HOR.SCALE 1" = 30'
VERT.SCALE 1" = 3'
DRAWN K.J.P. AJB
CHECKED M.J.P.
DATE 07-29-2023
REVISED 06-17-2024

STATE OF LOUISIANA
ALLISON B. FROEBA
License No. 32492
PROFESSIONAL ENGINEER
IN
CIVIL ENGINEERING
6/17/24

SHEET NO. 19 OF SHEETS

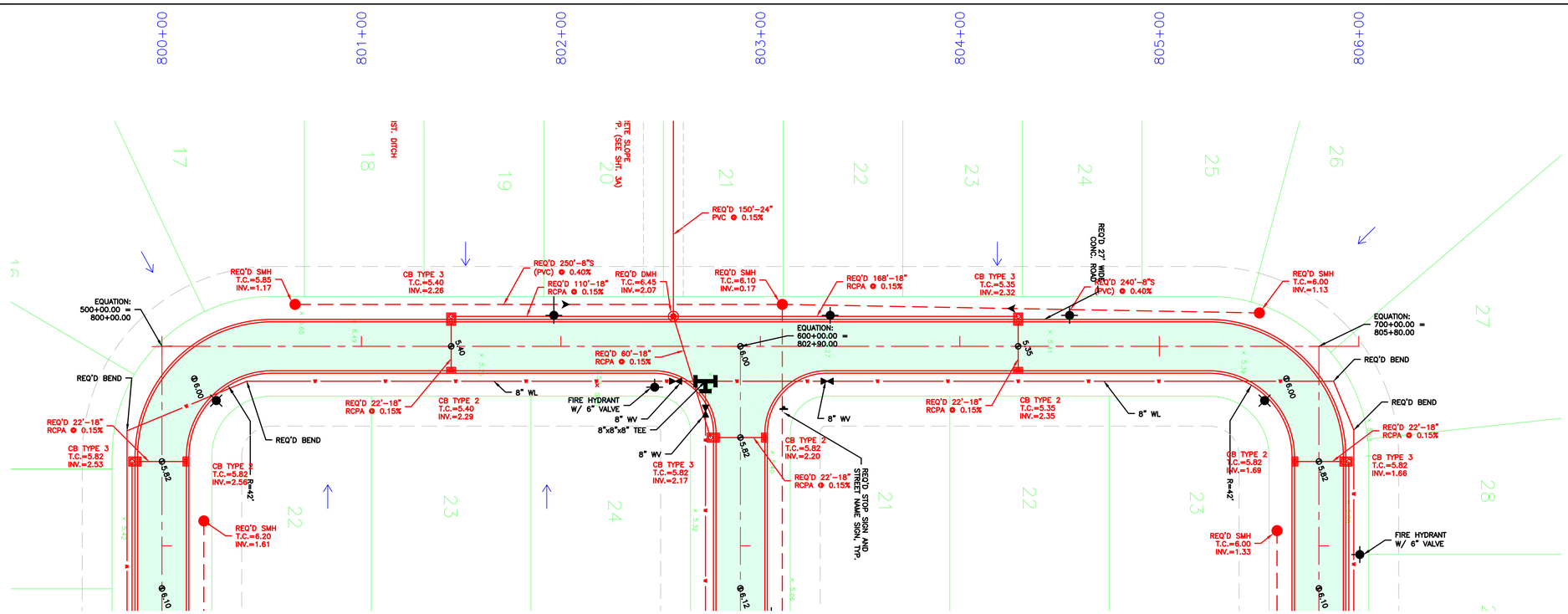


SPECIALIZED ENGINEERING
LA COA: 5809

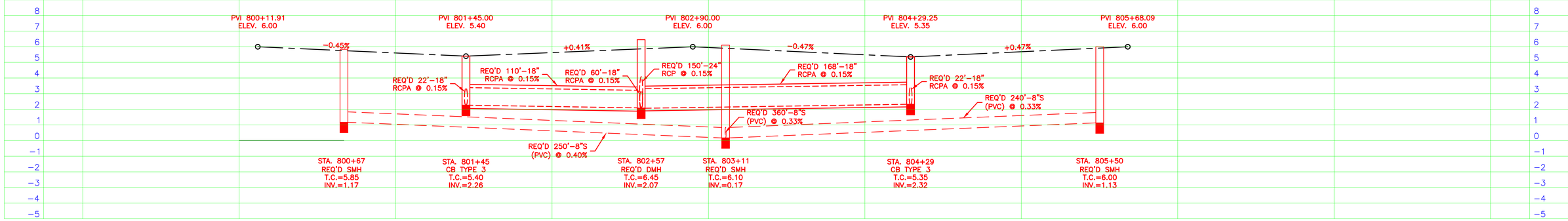
PROJECT NO. 20-1801
DWG.FILE NO. 20 - PlanProf
HOR.SCALE 1" = 30'
VERT.SCALE 1" = 3'
DRAWN K.B. AJB
CHECKED M.P.
DATE 07-29-2023
REVISED 06-17-2024

STATE OF LOUISIANA
ALLISON B. FROEBA
License No. 32492
PROFESSIONAL ENGINEER
IN
CIVIL ENGINEERING
6/17/24

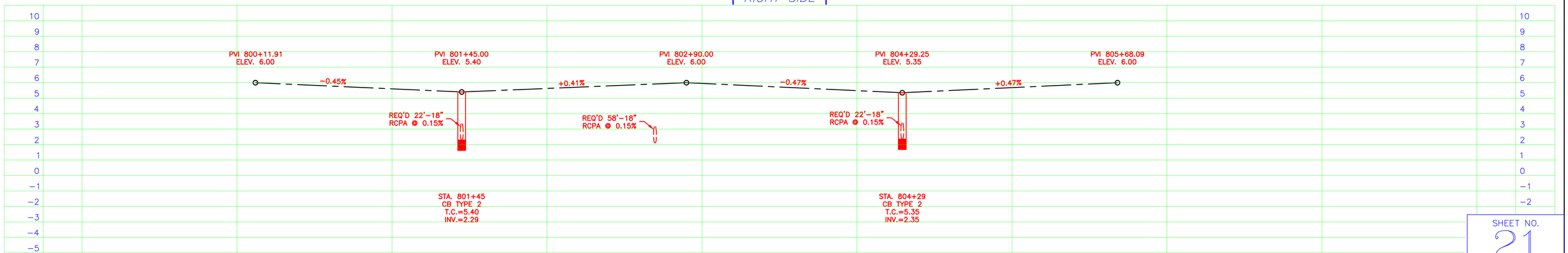
SHEET NO. 20 OF SHEETS



LEFT SIDE



RIGHT SIDE



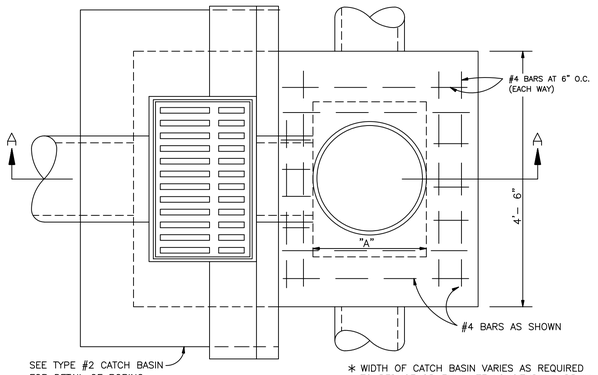
SPECIALIZED ENGINEERING
LA COA: 5809

PROJECT NO. 20-1801
DWG.FILE NO. 21 - PlanProf
HOR.SCALE 1" = 30'
VERT.SCALE 1" = 3'
DRAWN K.B. AJB
CHECKED M.P.
DATE 07-29-2023
REVISED 06-17-2024

STATE OF LOUISIANA
ALLISON B. FROEBA
License No. 32492
PROFESSIONAL ENGINEER IN CIVIL ENGINEERING
6/17/24

0 30 60
1" = 30'

SHEET NO. 21 OF SHEETS



PLAN OF TYPE 3 CATCH BASIN

CANAL DISCHARGE PIPE CHART (C.S.P.)				
R.C.P. NOM. DIA.	WALL THICKNESS	R.C.P. O.D.	REQ'D C.S.P. I.D.	GAGE REQ'D
12"	2"	16"	16.5"	Δ 14
15"	2.25"	19.5"	20"	Δ 12
18"	2.5"	23"	23.5"	Δ 12
21"	2.75"	26.5"	27"	Δ 12
24"	3"	30"	30.5"	Δ 12
27"	3.25"	33.5"	34"	Δ 12
30"	3.50"	37"	37.5"	Δ 12
36"	4"	44"	44.5"	Δ 12
42"	4.5"	51"	51.5"	Δ 12
48"	5"	58"	58.5"	Δ 12
54"	5.5'	65"	65.5"	* 12
60"	6"	72"	72.5"	* 12
66"	6.5"	79"	79.5"	* 12
72"	7"	86"	86.5"	* 12
78"	7.5"	93"	93.5"	* 12
84"	8"	100"	100.5"	* 12
90"	8.5'	107"	107.5"	* 12
96"	9"	114"	114.5"	* 12

NOTES

1–CONCRETE STRENGTH TO BE 4'000 PSI (MIN.) AT 28 DAYS.

2–WHEN BOX IS 7'–0" OR LESS IN HEIGHT, USE ONE LAYER OF BRICK. WHEN BOX'S HEIGHT IS GREATER THAN 7'–0" BUT LESS THAN 12'–0" USE TWO LAYERS OF BRICK.

3–ALL MASONRY TO BE LAID WITH RUNNING BOND AND HEADER COURSE (EVERY FOURTH LAYER).

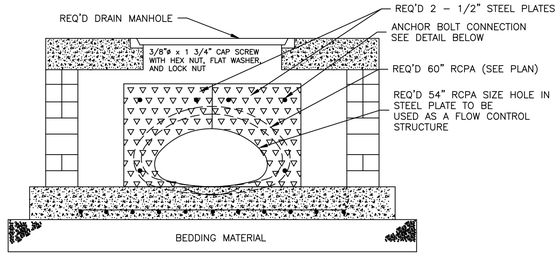
4–ALL WALLS TO BE PLASTERED 1/2" THICK INSIDE AND OUTSIDE.

5–12" THICK CRUSH STONE BEDDING FOUNDATION SHALL BE REQUIRED UNDER ALL MANHOLES AND CATCH BASINS.

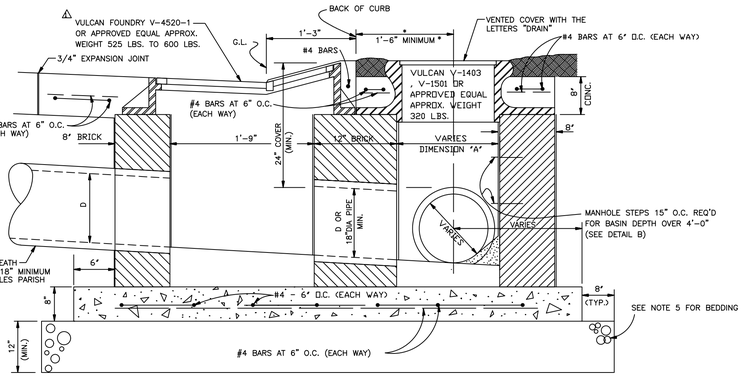
6–ALL CATCH BASINS AND MANHOLES GREATER THAN 4'– 0" DEEP ARE REQUIRED TO HAVE IRON STEPS.

7–CONTRACTOR MAY SUBSTITUTE "PRECAST CONCRETE" OR POURED IN PLACE CONCRETE" DRAIN BASINS AND TRANSITION BOXES ONCE THE SUBMITTAL SHOWING ALL DETAILS IS APPROVED BY THE ENGINEER.

2 2/3" X 1 1/2" CORRUGATION REQUIRED.
+ 3" X 1" CORRUGATION REQUIRED.
* * CORRUGATED STEEL TWO PIECE BAND WITH 4 – 7/16" GALVANIZED CIRCUMFERENCIAL RODS WITH LUGS. BANDS SHALL BE OF THE SAME COATING AS PIPE.

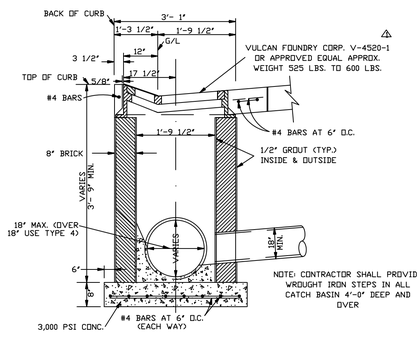


DRAINAGE MANHOLE W/ WEIR CONTROL STRUCTURE

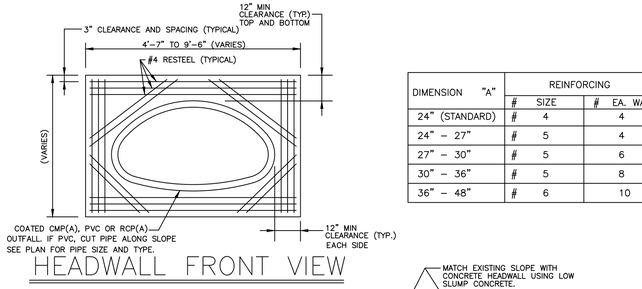


TYPE 3 CATCH BASIN SECTION A–A

* WIDTH OF CATCH BASIN VARIES AS REQUIRED TO REDUCE OR ELIMINATE LONGITUDINAL DRAINAGE PIPE BENEATH THE ROADWAY

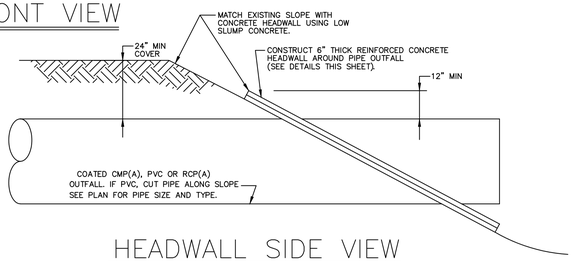


SIDE ELEVATION OF ROLLOVER CATCH BASIN TYPE 2

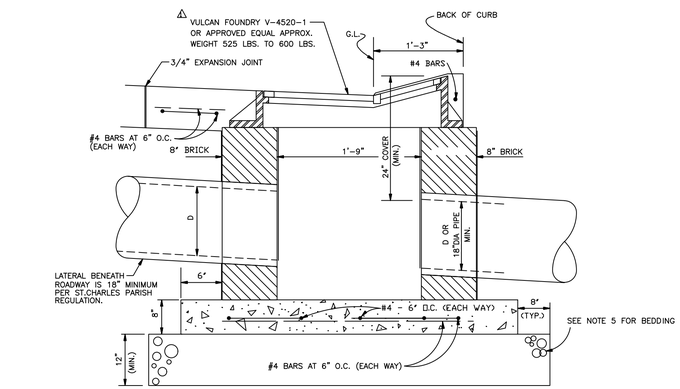


HEADWALL FRONT VIEW

DIMENSION "A"	REINFORCING	
	# SIZE	# EA. WAY
24" (STANDARD)	# 4	4
24" – 27"	# 5	4
27" – 30"	# 5	6
30" – 36"	# 5	8
36" – 48"	# 6	10

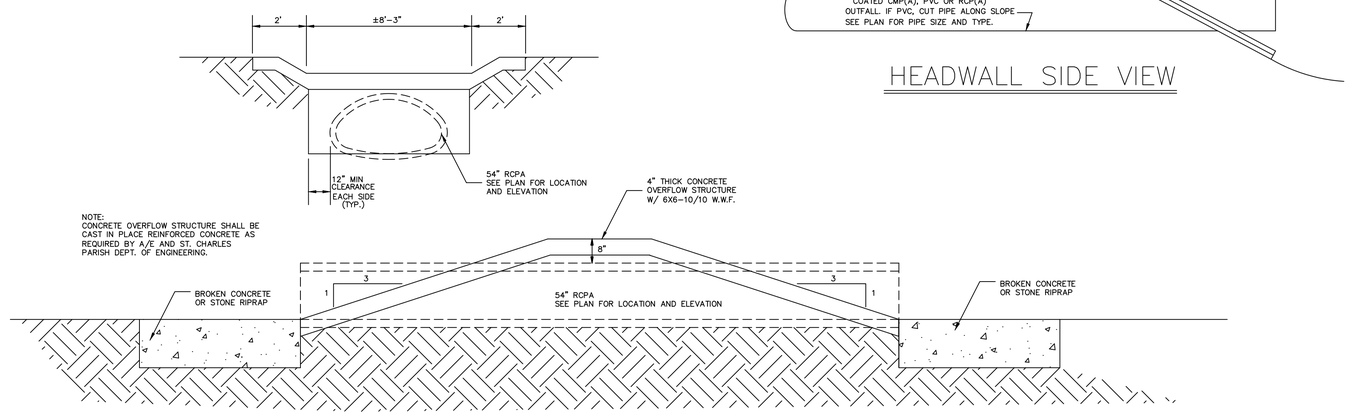


HEADWALL SIDE VIEW



MODIFIED TYPE 3 CATCH BASIN SECTION

* WIDTH OF CATCH BASIN VARIES AS REQUIRED TO REDUCE OR ELIMINATE LONGITUDINAL DRAINAGE PIPE BENEATH THE ROADWAY



TYPICAL WEIR CONTROL STRUCTURE

Louisiana One Call. before you dig. 1–800–272–3020

Note: "Prior to construction, the contractor will verify all utilities." If a conflict exist, notify the project engineer/architect.

STATE OF LOUISIANA
ALLISON B. FROEBA
License No. 32492
PROFESSIONAL ENGINEER IN CIVIL ENGINEERING
6/17/24

ENGINEER OF RECORD
NAME ALLISON B. FROEBA
NUMBER 32492

ALMEDIA GARDENS SUBDIVISION
MISCELLANEOUS DRAINAGE DETAILS
ST. CHARLES PARISH

REV NO.	DESCRIPTION	DATE

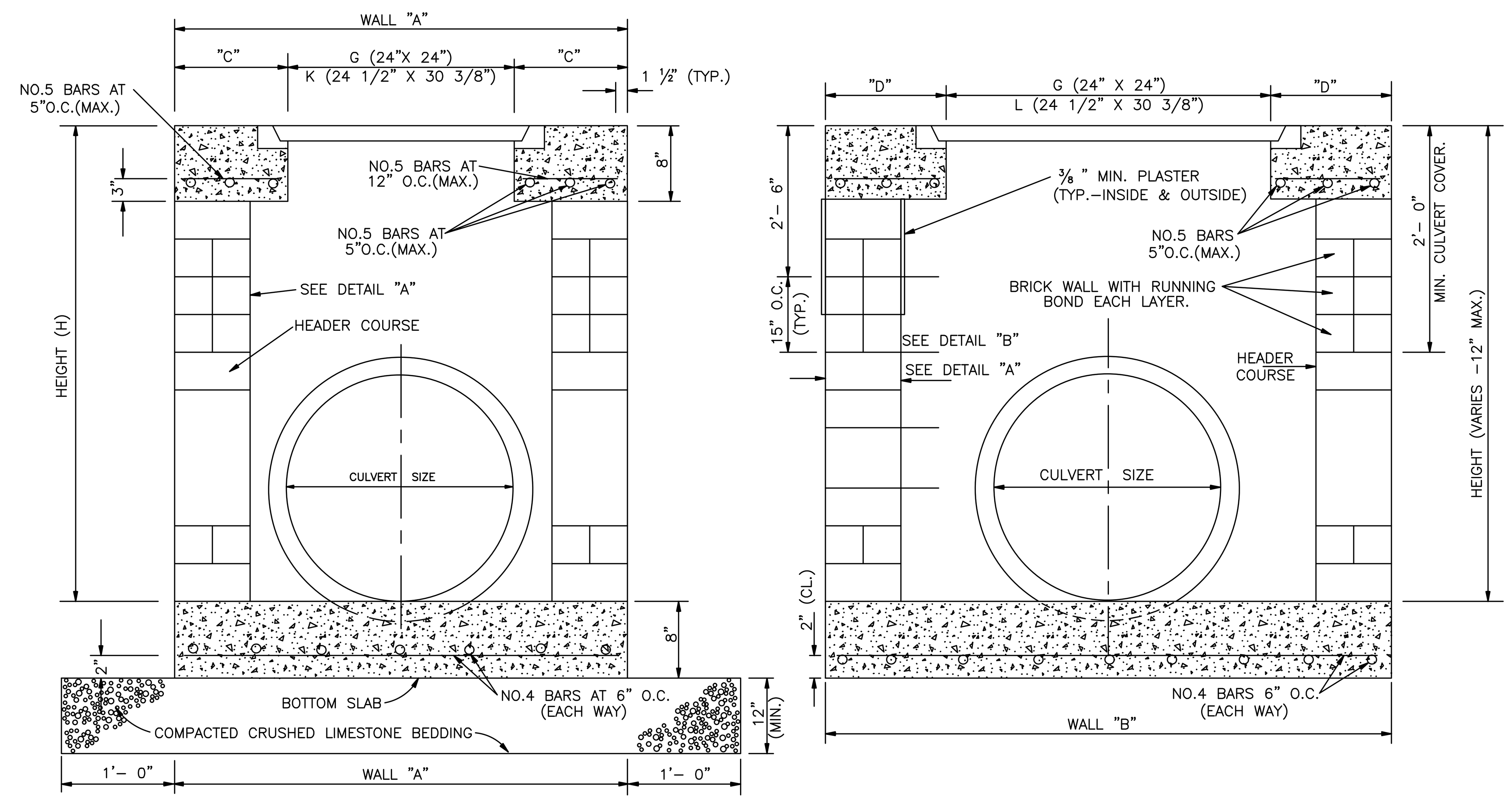
CADD NO.: FDN. DWG
DRAWING NO. C 0 22
ISSUE NO. A

THIS DRAWING MUST NOT BE USED FOR CONSTRUCTION UNTIL DATED AND SIGNED BY THE ENGINEER AND APPROVED

DRAWN BY: KJB
DATE 06/17/2024
SCALE AS NOTED

SPECIALIZED ENGINEERING

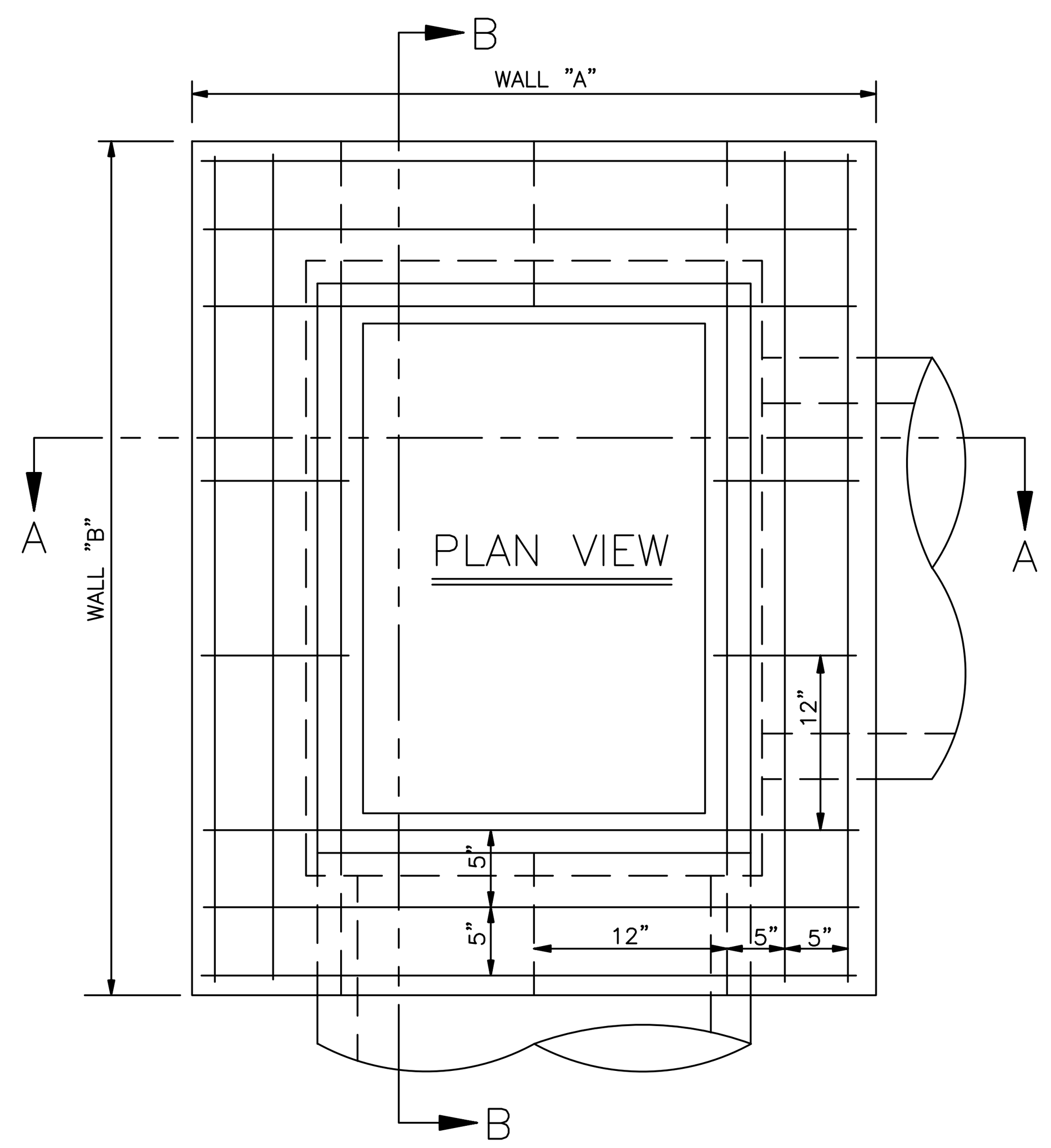
LA COA: 5809

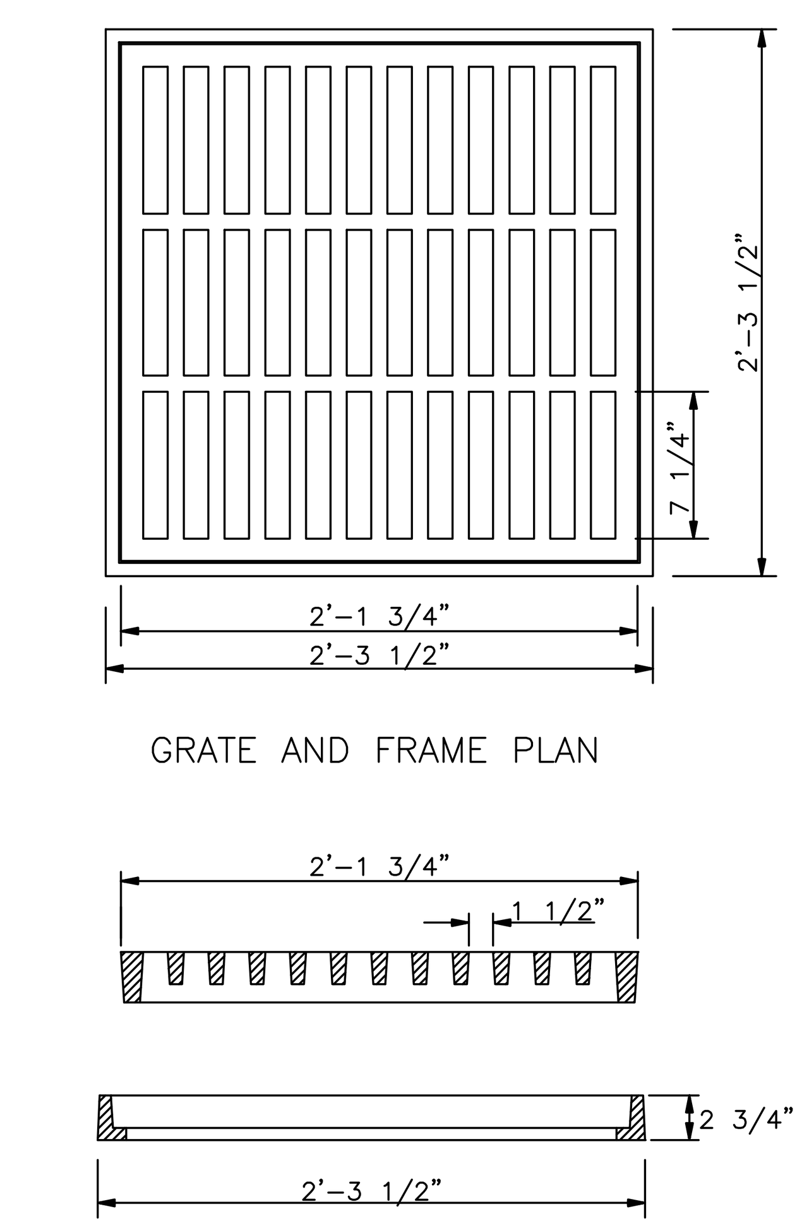


SECTION " A – A "
SCALE: 1/8" = 1'

DROP INLET

SECTION " B – B "
SCALE: 1/8" = 1'





GRATE AND FRAME PLAN

GRATE AND FRAME SECTION

V–5726 (24" X 24")
OPEN AREA 321 SQ. IN.

NOTES:

1. CULVERT SIZE SHOWN PERTAIN TO B & S PIPE. (UNLESS OTHERWISE SPECIIFIED).
2. CONCRETE STRENGTH TO BE 3,000 PSI (MINIMUM) AT 28 DAYS.
3. DIMENSIONS FOR BOTTOM SLAB AS PER DIMENSIONS FOR WALLS "A" AND "BB".
4. WHEN BOX IS 7'– 0" OR LESS IN HEIGHT, WALLS TO BE 8" THICK. WHEN BOX HEIGHT IS GREATER THAN 7'– 0" BUT LESS 12'– 0". SEE DETAIL "A".
5. WIDTH OF STONE BEDDING SHALL BE AS PER DIMENSIONS SHOWN FOR WALLS "A" AND "B" PLUS 2'– 0".
6. ALL MASONARY TO BE LAID WITH RUNNING BOND AND HEADER COURSE (EVERY FOURTH LAYER).
7. ALL WALLS TO BE PLASTERED INSIDE AND OUTSIDE (3/8" MIN. THICKNESSS).
8. ALL GRATES AND FRAMES SHALL BE VULCAN FOUNDRY OR APPROVED EQUAL. ALL CAST IRON TYPE AND WITHOUT PAINT.

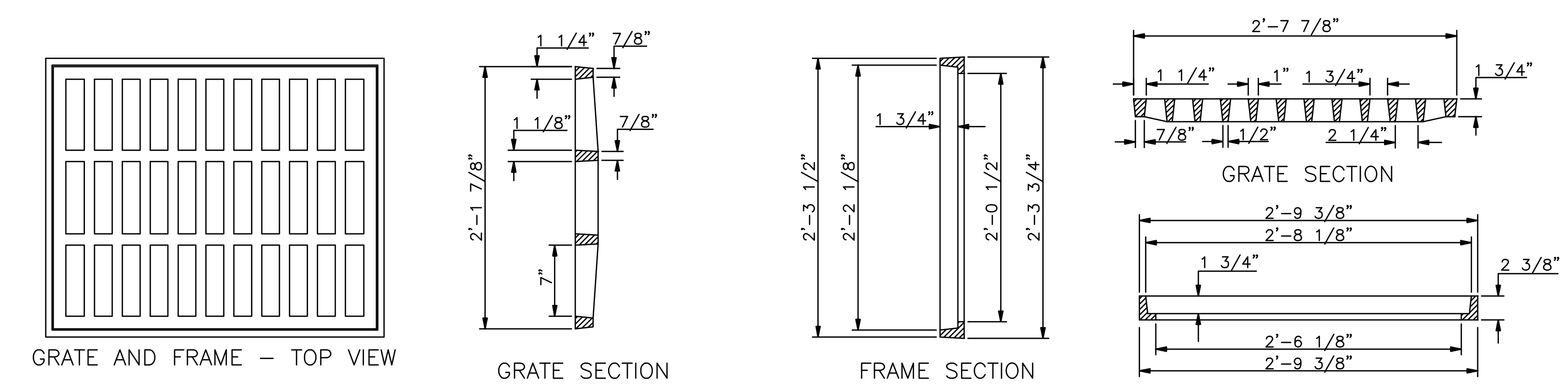
⚠ NOTE:
ALL GREY CASTINGS FOR MANHOLES, AND CATCH BASINS OF ALL TYPES SHALL CONFORM TO THE REQUIRMENTS OF A.S.T.M. A–48, CLASS 30. AND SHALL BE FURNISHED WITHOUT PAINT (AASHTO#306–891)

SQUARE " GRATE " (V–5726)

CULVERT SIZE	BOTTOM SLAB	TOP SLAB	C & D	CULVERT SIZE	BOTTOM SLAB	TOP SLAB	C & D
12"DIA.	3'–2"X 3'–2"	–	–	21"DIA.X24"DIA.	4'–6"X 4'–6"	4'–6"X 4'–6"	–
15"DIA.	3'–2"X 3'–2"	–	–	27"DIA.X30"DIA.	4'–6"X 4'–6"	4'–6"X 4'–6"	–
18"DIA.	3'–6"X 3'–6"	–	–	36"DIA.	5'–0"X 5'–0"	5'–0"X 5'–0"	–

RECTANGULAR "GRATE" (V–5763)

CULVERT SIZE ON WALLS A & B	WALL "A"	" C "	WALL "B"	" D "
21"DIA.& 24"DIA. B& S	4'– 6"	14 ½ " (3 NO.5 BARS)	5'– 0"	14 ½ " (3 NO.5 BARS)
27"DIA.& 30"DIA. B& S	4'– 6"	14 ½ " (3 NO.5 BARS)	5'– 0"	14 ½ " (3 NO.5 BARS)
36"DIA. B& S	5'– 0"	17 ½ " (3 NO.5 BARS)	5'– 0"	14 ½ " (3 NO.5 BARS)
42"DIA. B& S	5'– 6"	20 ½ " (4 NO.5 BARS)	5'– 6"	17 ½ " (4 NO.5 BARS)
48"DIA. B& S	6'– 0"	23 ½ " (4 NO.5 BARS)	6'– 0"	20 ½ " (4 NO.5 BARS)
54"DIA. B& S	6'– 8"	27 ½ " (5 NO.5 BARS)	6'– 8"	24 ½ " (5 NO.5 BARS)
60"DIA. B& S	7'– 6"	32 ½ " (6 NO.5 BARS)	7'– 6"	29 ½ " (6 NO.5 BARS)
72"DIA. B& S	8'– 8"	39 ½ " (8 NO.5 BARS)	8'– 8"	36 ½ " (7 NO.5 BARS)



GRATE AND FRAME – TOP VIEW

GRATE SECTION

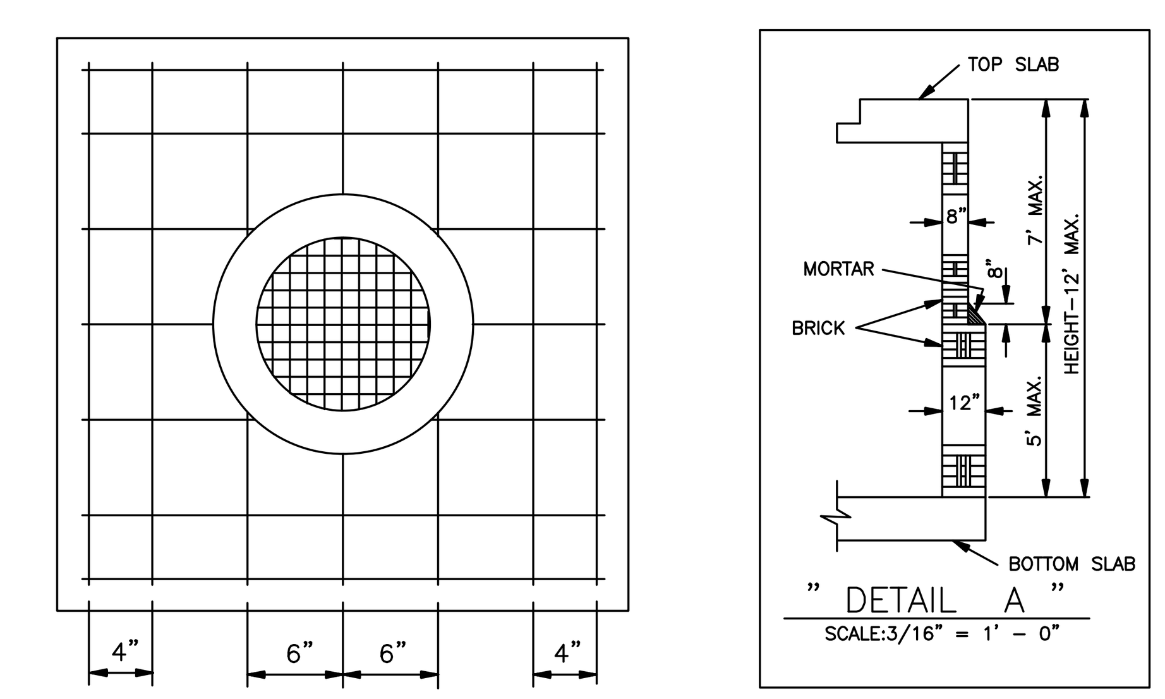
FRAME SECTION

GRATE SECTION

FRAME SECTION

V–5763 (24" X 30")
OPEN AREA= 400 SQ.IN.

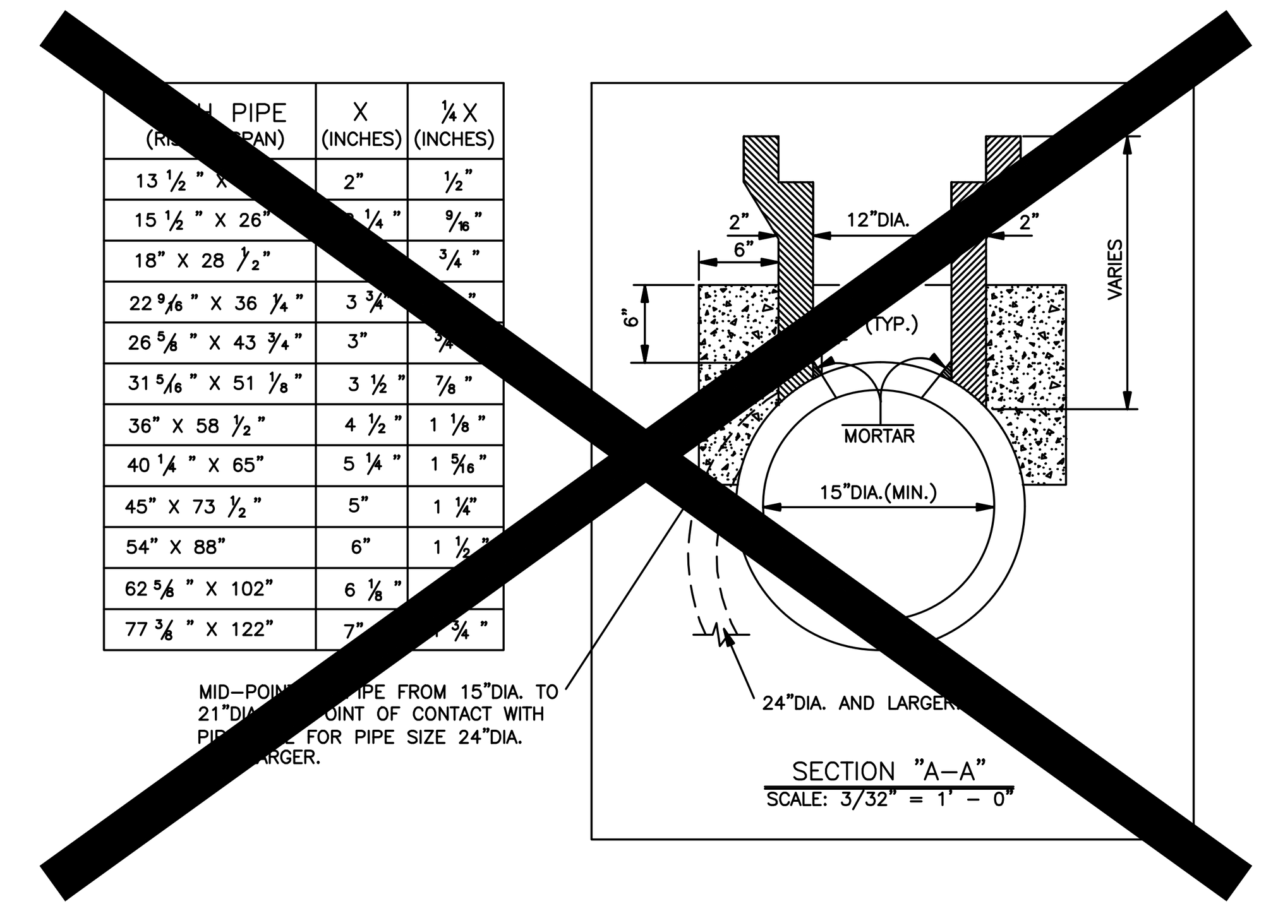
3'X 3' CONCRETE PAD

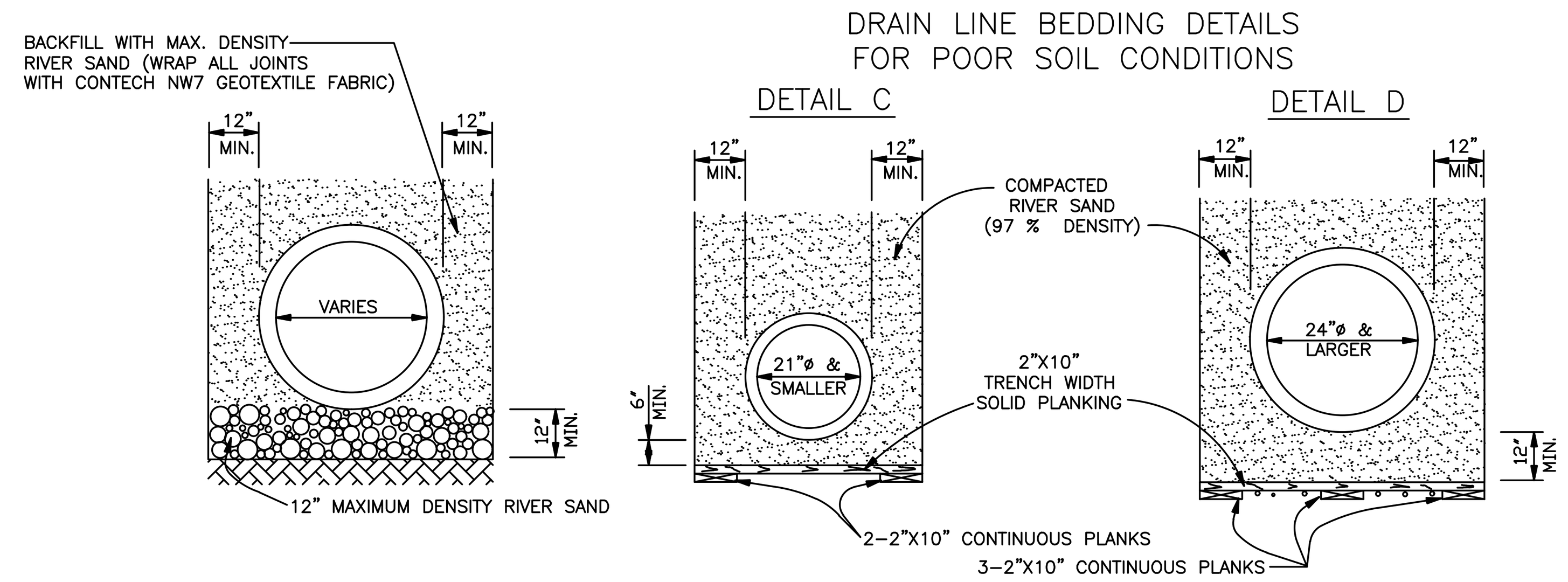


TOP VIEW
7 NO.3 BARS SPACED AS SHOWN (EACH WAY)
N.T.S.

" DETAIL A "
SCALE:3/16" = 1' – 0"

B & S = BELL & SPIGOT
T & G = TONGUE & GROOVE
W.I. = WROUGHT IRON





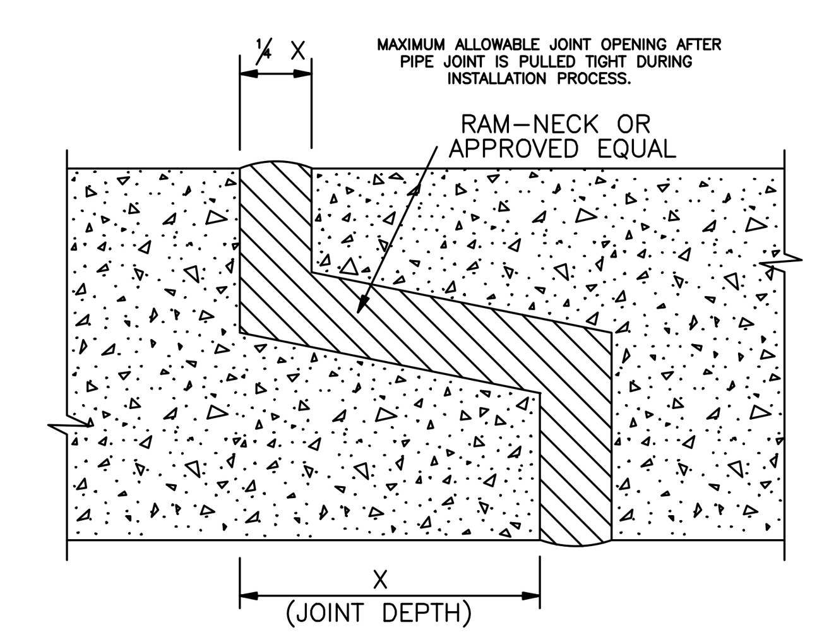
One Call before you dig.
1-800-272-3020

Note: *"Prior to construction, the contractor will verify all utilities." If a conflict exist, notify the project engineer/architect.*

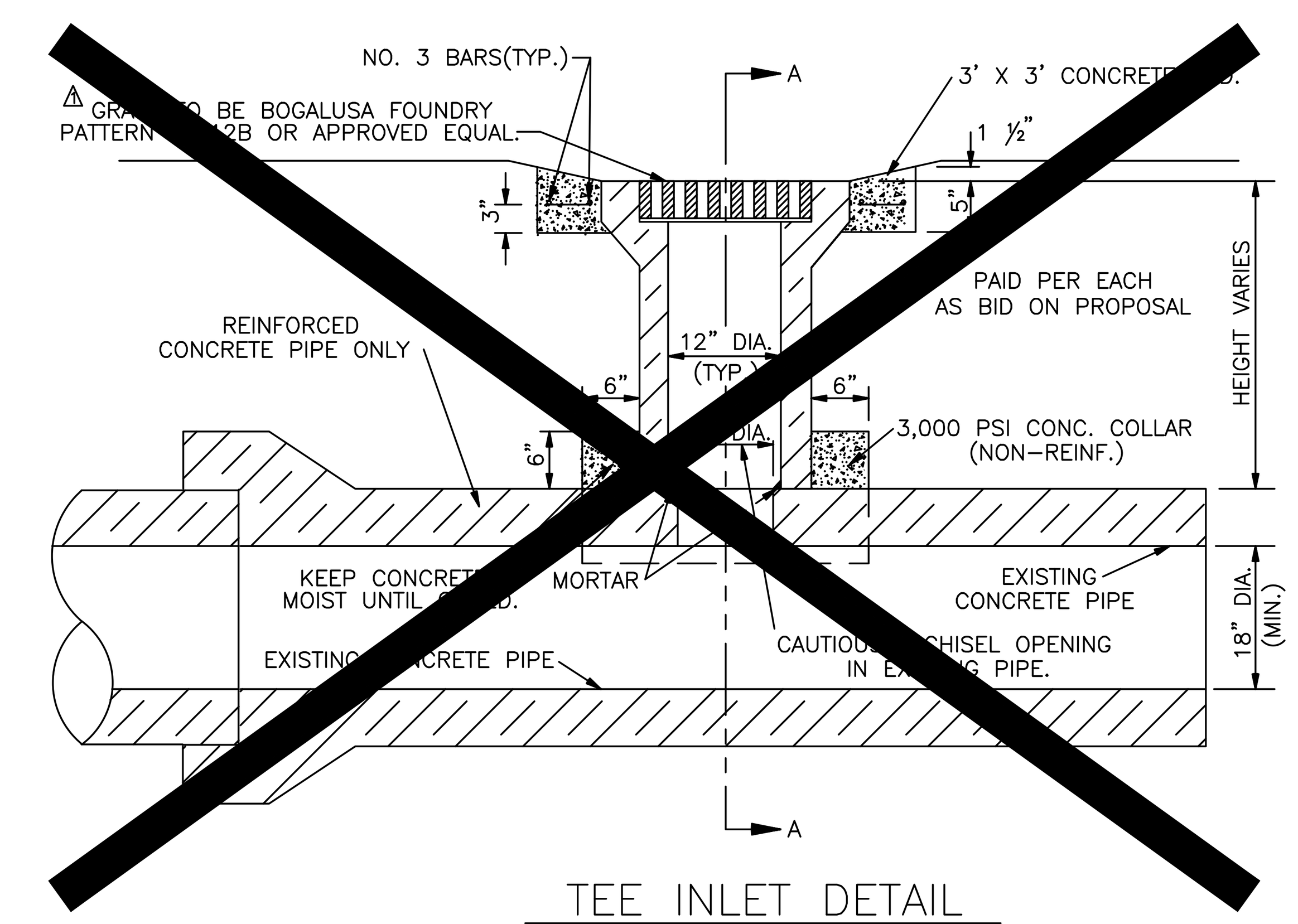
A–2000 PVC PIPE BEDDING

DRAIN LINE BEDDING DETAILS
FOR POOR SOIL CONDITIONS

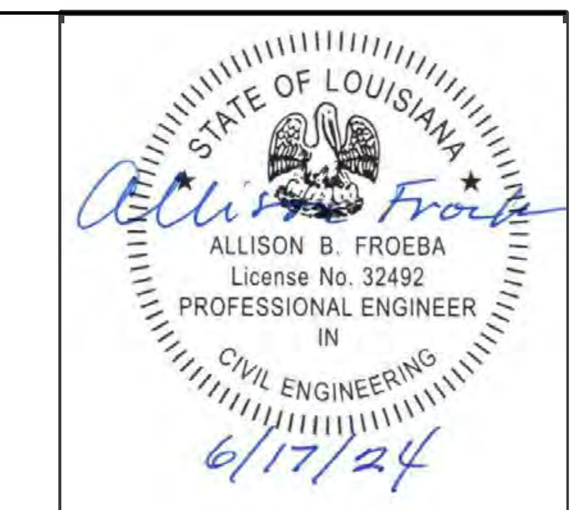
ALL CONCRETE DRAIN LINES



APPLICABLE TO TONGUE AND GROOVE PIPE
(ARCH PIPE ONLY)
N.T.S.



TEE INLET DETAIL
SCALE: N.T.S.



ENGINEER OF RECORD
NAME ALLISON B. FROEBA
NUMBER 32492

DATE	SIGN	DESCRIPTION	REV. NO.	ISSUE NO.
				A

ALMEDIA GARDENS SUBDIVISION
MISCELLANEOUS DRAINAGE DETAILS

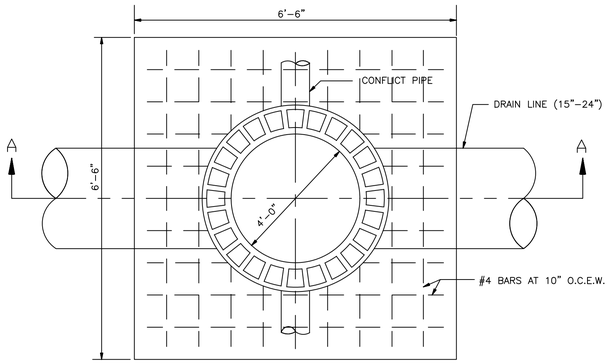
ST. CHARLES PARISH

CADD NO.: FDN. DWG
DRAWING NO. C 0 23

THIS DRAWING MUST NOT BE USED FOR CONSTRUCTION UNTIL DATED AND SIGNED AS CHECKED AND APPROVED

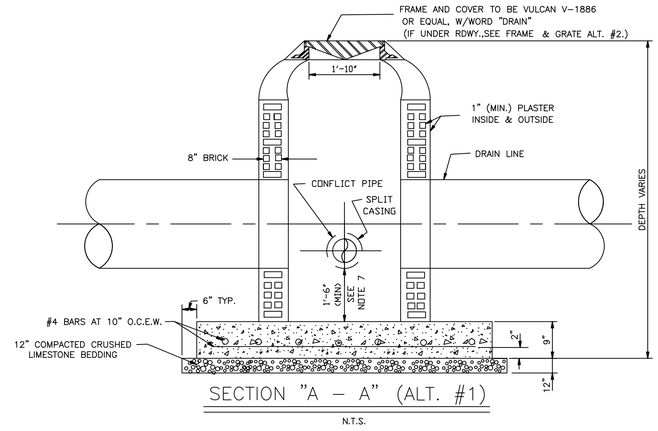
DRAWN BY: KJB
DATE 06/17/2024
SCALE AS NOTED

LA COA: 5809



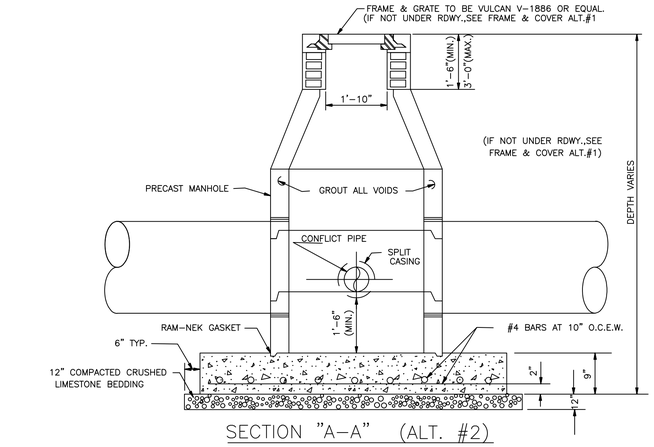
PLAN

N.T.S.



SECTION "A - A" (ALT. #1)

N.T.S.



SECTION "A-A" (ALT. #2)

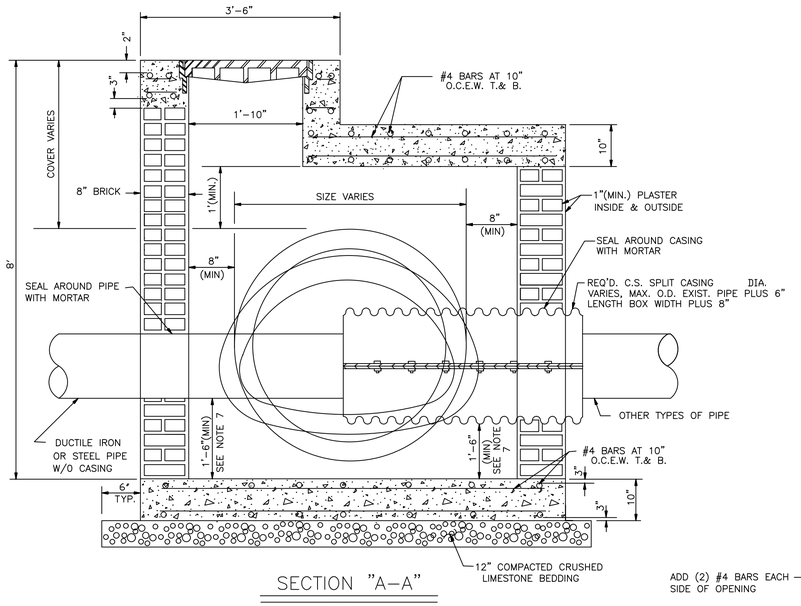
N.T.S.

CONFLICT BOX DRAIN LINE (15"-24")

N.T.S.

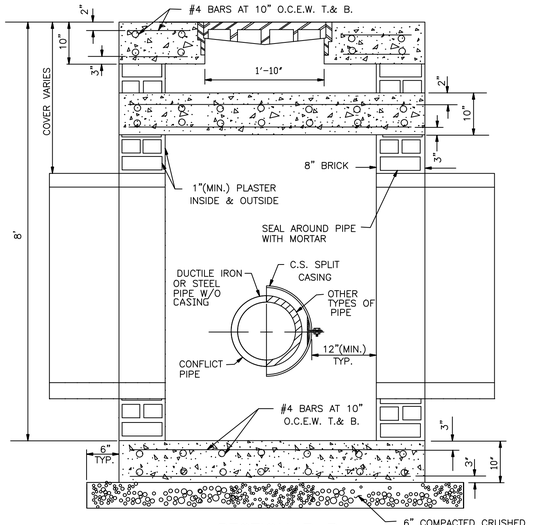
Louisiana One Call. before you dig. 1-800-272-3020

Note: "Prior to construction, the contractor will verify all utilities." If a conflict exist, notify the project engineer/architect.



SECTION "A-A"

N.T.S.

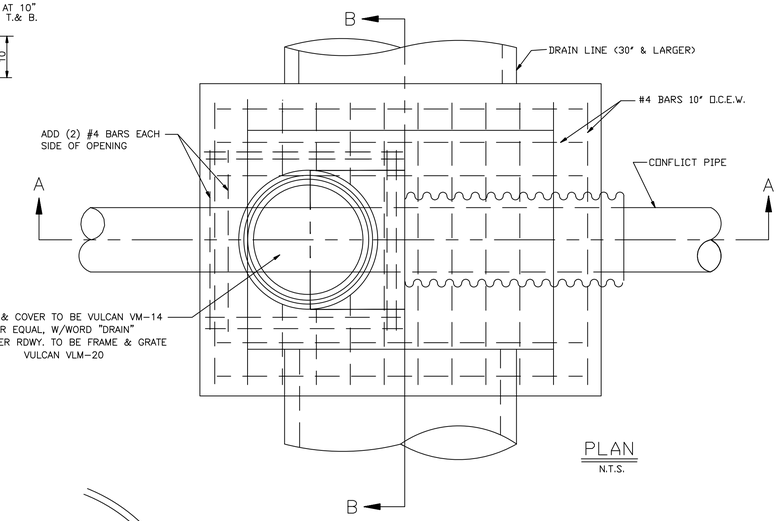


SECTION B B

N.T.S.

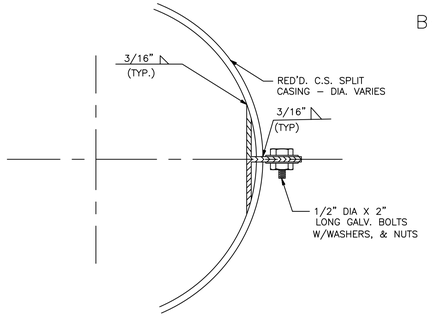
NOTES:

1. CONCRETE STRENGTH TO BE 3000 PSI (min.) AT 28 DAYS.
2. REINFORCING STEEL SHALL CONFORM TO A.S.T.M. DESIGNATION A615G-GRADE 60.
3. ALL MASONARY TO BE LAID WITH RUNNING BOND AND HEADER COURSE, EVERY FOURTH LAYER.
4. THE MORTAR SHOULD BE TYPE "A", (C250 PSI COMPRESSION).
5. SPLIT CASING SHALL BE BITUMINOUS COATED CORRUGATED STEEL, IN COMPLIANCE WITH SEC.701-LA. DOTD STD. SPEC. (1982 EDITION). THICKNESS SHALL BE A MINIMUM 8 GAUGE UNCOATED.
6. THE BRICK SHALL CONFORM TO AASHTO DESIGNATION M91, MANHOLE BRICK GRADE MM.
7. IF BOTTOM ELEVATION OF THE CONFLICT IS ABOVE THE UPPER 3RD. OF THE INSIDE DIAMETER OF THE DRAIN LINE THE INVERT OF THE CONFLICT BOX COULD BE THE SAME AS THE INVERT OF THE DRAIN LINE SUBJECT TO THE APPROVAL OF THE PARISH.
8. ALL WATER LINES IN CONFLICT BOX SHALL BE DUCTILE IRON PIPE. OTHER PIPE MATERIAL SHALL BE INSTALLED IN SPLIT CASING.
9. THE EXTERIOR COATING OF ALL DUCTILE IRON PIPE AND FITTINGS PLACED IN THE GROUND SHALL CONSIST OF THE STANDARD BITUMINOUS COATING PLUS A POLYETHYLENE TUBE FOR ADDITIONAL PROTECTION. THE POLYETHYLENE TUBE SHALL BE EIGHT (8) MILS THICK. THE POLYETHYLENE TUBE AND ITS INSTALLATION PROCEDURES SHALL BE IN ACCORDANCE WITH THE SPECIFICATION OF ANSI-A21.5 AND AWWA-C105.



PLAN

N.T.S.



SPLIT CASING DETAIL

N.T.S.

STATE OF LOUISIANA
ALLISON B. FROEBA
License No. 32492
PROFESSIONAL ENGINEER
IN
CIVIL ENGINEERING
6/17/24

ENGINEER OF RECORD
NAME ALLISON B. FROEBA
NUMBER 32492

ST. CHARLES PARISH

ALMEDIA GARDENS SUBDIVISION

MISCELLANEOUS DRAINAGE DETAILS

REV NO.	DESCRIPTION	SIGN	DATE

CADD NO.: FDN. DWG | DRAWING NO.: C 0 24 | ISSUE NO.: A

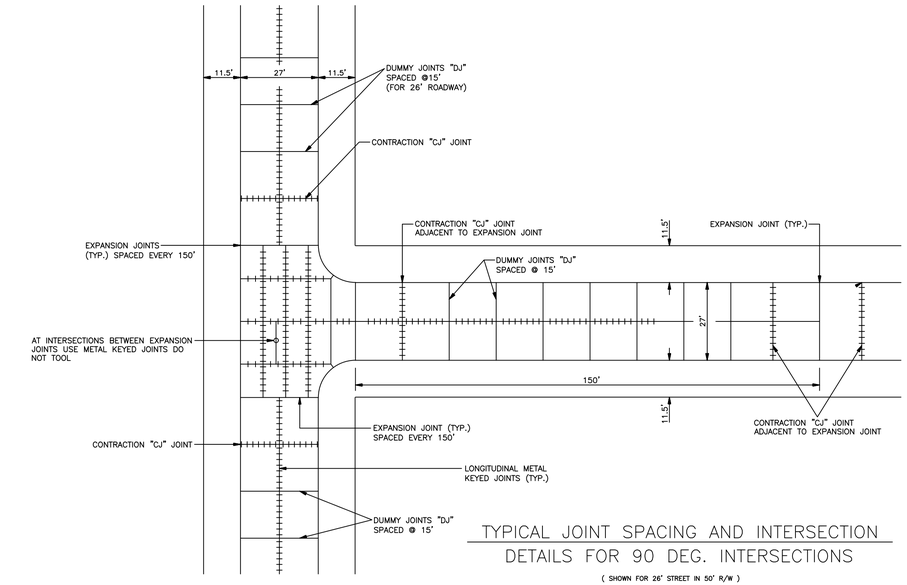
THIS DRAWING MUST NOT BE USED FOR CONSTRUCTION UNTIL DATED AND SIGNED AS APPROVED

DRAWN BY: KJB | DATE: 06/17/2024

SCALE: AS NOTED

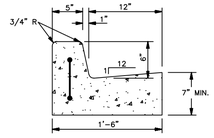
SPECIALIZED ENGINEERING

LA COA: 5809



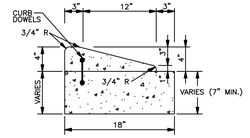
TYPICAL JOINT SPACING AND INTERSECTION DETAILS FOR 90 DEG. INTERSECTIONS

(SHOWN FOR 26' STREET IN 50' R/W)



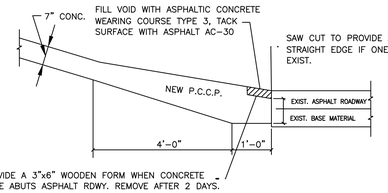
6" BARRIER TYPE CONCRETE CURB & GUTTER

(CONCRETE AND ASPHALT PAVEMENT ROADWAY)

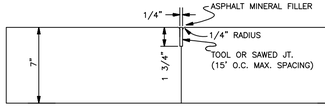


4" ROLLOVER TYPE CONCRETE CURB & GUTTER

(CONCRETE AND ASPHALT PAVEMENT ROADWAY)

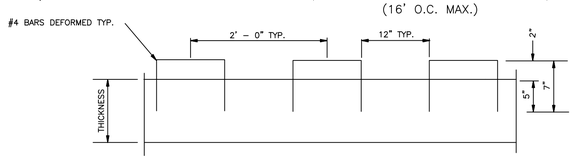


SECTION OF BUTT JOINT (TYPE BJ)

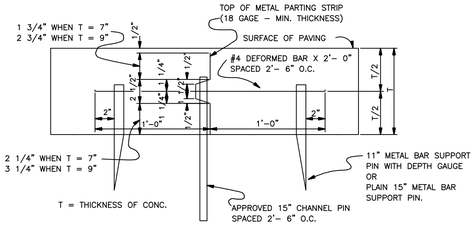


TRANSVERSE CONTRACTION JOINT (DUMMY JT.)

(APPLICABLE TO 7" P.C.C. PAVT. ONLY)
(16' O.C. MAX.)



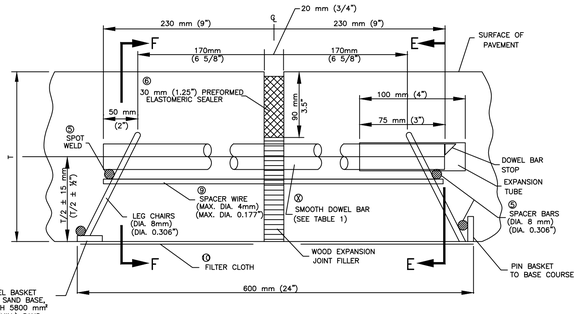
CURB DOWELS



DEFORMED LONGITUDINAL JOINT

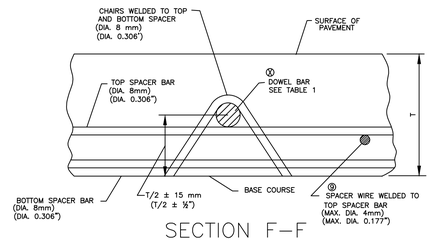
TYPICAL NOTES FOR CONCRETE PAVEMENT JOINTS

1. PAVEMENT EDGES SHALL BE SLIGHTLY ROUNDED TO APPROXIMATELY 5 mm (188") RADIUS.
2. REASONABLE TOLERANCES TO ALL DIMENSIONS WILL BE ALLOWED.
3. NOT USED.
4. ALL JOINTS ARE TO BE USED WHERE SHOWN ON THIS SHEET OR AS SHOWN ELSEWHERE IN THE DRAWINGS OR AS DIRECTED BY THE ENGINEER.
5. ON TYPE EJ JOINTS, ARC WIELD ALTERNATE ENDS OF DOWEL BARS TO DOWEL BASKETS AND PLACE EXPANSION TUBES ON ALTERNATE ENDS OF DOWEL BARS.
6. TYPE EJ JOINTS SHALL BE SEALED WITH ELASTOMERIC JOINT SEALER. THE SEALER SHALL HAVE A NOMINAL WIDTH OF 30 mm (1-188") BEFORE COMPRESSION. JOINTS SHALL BE CLEANED PRIOR TO SEALING.
7. TYPE LJ JOINTS SHALL BE CONSTRUCTED IN ACCORDANCE WITH DEFORMED LONGITUDINAL JOINT (SECTION D-D) (TYPE LJ).
8. TYPE TCL OR CJ JOINTS MAY BE FORMED AND SEALED BY ANY OF THE METHODS LISTED BELOW. ALL JOINTS SHALL BE FORMED OR SAW CUT TO THE DEPTH SHOWN IN TABLE 1, AND SHALL BE CLEANED IMMEDIATELY PRIOR TO SEALING.
   A. WHEN JOINTS ARE FORMED WITH A REMOVABLE FORMING DEVICE, THE JOINTS SHALL BE SEALED WITH PERFORMED ELASTOMERIC SEALER OR SILICONE SEALER. THE SEALANT RESERVOIR SHALL BE SAW CUT TO THE REQUIRED WIDTH AND DEPTH.
   B. WHEN JOINTS ARE FORMED BY SAWING, THE INITIAL CUT SHALL BE SAWED WITH A 3 mm (1/8") MIN. WIDTH BLADE. SAWING SHALL COMMENCE AS SOON AS THE CONCRETE HAS HARDENED SUFFICIENTLY TO PERMIT CUTTING THE CONCRETE WITHOUT CHIPPING, SPALLING OR TEARING AND SHALL BE COMPLETED PRIOR TO DEVELOPMENT OF RANDOM CRACKING. THE SEALANT RESERVOIR MAY BE SAW CUT TO THE REQUIRED WIDTH AND DEPTH SIMULTANEOUSLY WITH THE FIRST CUT OR ANY TIME LATER. JOINTS SHALL BE SEALED WITH PERFORMED ELASTOMERIC SEALER OR SILICONE SEALER.
   C. WHEN JOINTS ARE FORMED WITH AN APPROVED PERMANENT JOINT FORMING AND SEALING DEVICE. THE DEVICE SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS AND NO ADDITIONAL SEALER IS REQUIRED.
9. EXCEPT AS NOTED BELOW, DOWEL BARS & TIE BARS SHALL BE HELD IN PLACE BY SUPPORTS SIMILAR TO THE ONES SHOWN, OR APPROVED EQUALS. APPROVED MECHANICAL PLACEMENT OF DOWEL BARS AND TIE BARS WILL BE ALLOWED WITH ALL PAVING METHODS. WHEN DOWEL BAR BASKETS ARE USED, SPACER WIRES THAT SPAN ACROSS THE JOINT SHALL BE CUT AND REMOVED AFTER STAKING BASKETS IN PLACE.
10. INSTALL FILTER CLOTH UNDER ALL TCJ, AND EJ JOINTS WHEN CONCRETE PAVEMENT IS PLACE ON UNSTABILIZED OR UNTREATED BASE COURSE OR SUBBASES. WHEN DOWEL BARS ARE MECHANICALLY IMPLANTED, THE FILTER CLOTH SHALL BE ANCHORED TO THE BASE COURSE WITH PINS.
11. NOT USED.
12. WHEN A MOUNTABLE TYPE CURB IS POURED MONOLITHIC WITH THE CONCRETE PAVEMENT AND AN APPROVED MECHANICAL DEVICE IS USED FOR LOAD TRANSFER PLACEMENT, THE FIRST LOAD TRANSFER DEVICE SHALL BE INSTALLED 450 mm (18") FROM THE PAVEMENT EDGE.
13. TRANSVERSE EXPANSION JOINTS SHALL NOT BE USED FOR CONSTRICTION JOINTS.
14. WHEN PLASTIC OR EPOXY COATED DOWEL BARS ARE USED, THE NEXT SMALLER SIZE OF DOWEL BARS MAY BE USED AT UNCHANGED SPACING. (IN ENGLISH UNITS: THE DOWEL BAR SIZE MAY BE REDUCED BY 1/8").



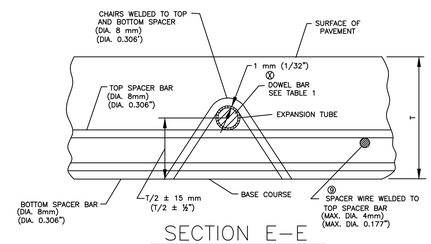
SECTION A-A TYPE EJ ⑧

(TRANSVERSE EXPANSION JOINT)
N.T.S.



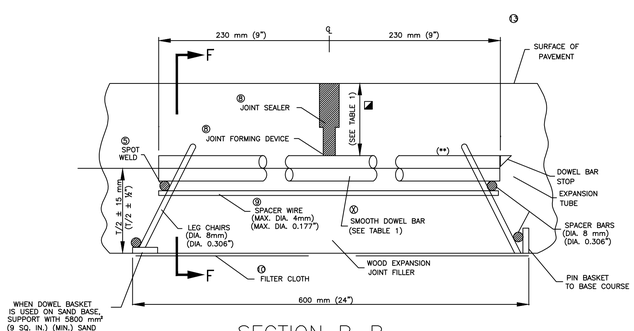
SECTION F-F

N.T.S.



SECTION E-E

N.T.S.



SECTION B-B TYPE TCJ OF CJ

(TRANSVERSE CONTRACTION JOINT OF TRANSVERSE CONSTRUCTION JOINT)
N.T.S.

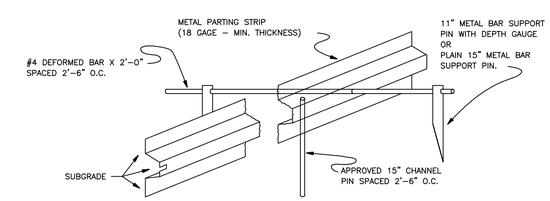
(**) ALTERNATE ENDS THAT ARE NOT WELDED SHALL BE GREASED UNLESS PLASTIC OR EPOXY COATED DOWEL IS USED.

TABLE 1 (ENGLISH UNITS)

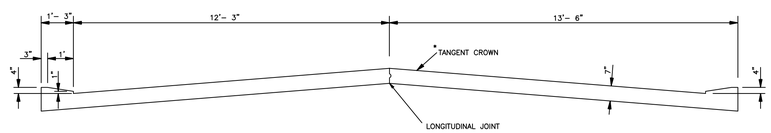
(ALL DIMENSIONS IN INCHES)

PAVEMENT THICKNESS T ⑫	SMOOTH DOWEL BARS ⑨ SIZE	LENGTH	SPACING ●	DEF. TIE BARS ⑬ SIZE	LENGTH	SPACING	DEPTH OF JOINT TCL & CJ ±¼"	DEPTH OF JOINT LJ ±¼"	KEYWAY A ±¼"	KEYWAY B ±¼"
7 OR LESS	1	18	12	½	24	36	2	2-½	1-½	3/4
8	1-1/8	18	12	5/8	30	36	2-½	3	2-½	1-¼
9	1-¼	18	12	5/8	30	36	2-½	3-½	2-½	1-¼
10	1-3/8	18	12	5/8	30	36	3	4	2-½	1 ¼
11	1-½	18	12	5/8	30	36	3	4	2-½	1-¼
12	1-½	18	12	5/8	30	30	3-½	4-½	3	1-½
13	1-½	18	12	5/8	30	30	3-½	4-½	3	1-½
14	1-½	18	12	5/8	30	24	4	5	3	1 ½

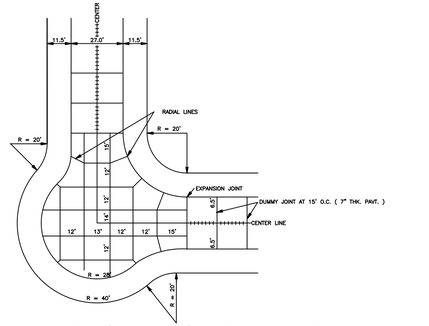
● FOR CONC. SHOULDERS, DOWEL BAR SPACING SHALL BE 24" OR LESS
⑫ FOR CONC. SHOULDERS, "T" IS THICKNESS AT TE PAVEMENT EDGE.



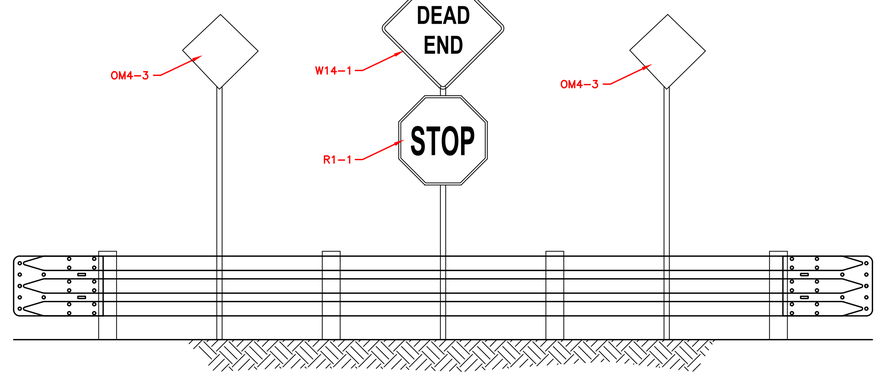
OBLIQUE VIEW METAL PARTING STRIP FOR DEFORMED LONGITUDINAL JOINT



TYPICAL SECTION OF 27' ROADWAY



SPECIAL JOINTING DETAILS PARTIAL CUL DE SAC



END OF ROAD SIGNAGE

Louisiana One Call. before you dig. 1-800-272-3020

Note: "Prior to construction, the contractor will verify all utilities." If a conflict exist, notify the project engineer/architect.

STATE OF LOUISIANA — ALLISON B. FROEBA — License No. 32492 — PROFESSIONAL ENGINEER IN CIVIL ENGINEERING — 6/17/24

ENGINEER OF RECORD
NAME ALLISON B. FROEBA
NUMBER 32492

ST. CHARLES PARISH

ALMEDIA GARDENS SUBDIVISION
MISCELLANEOUS ROADWAY DETAILS

ISSUE NO.	REV NO.	DESCRIPTION	SIGN	DATE
A				

CADD NO.: FDN. DWG
DRAWING NO. C 0 25

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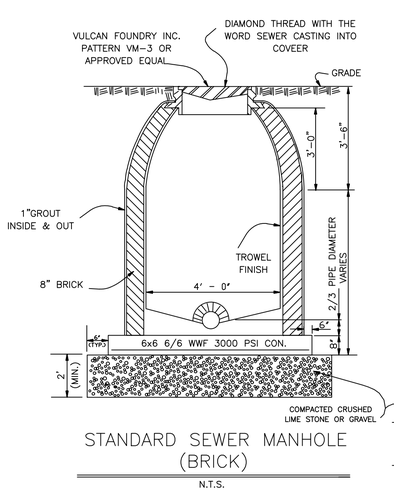
DRAWN BY: KJB — DATE 06/17/2024
SCALE AS NOTED

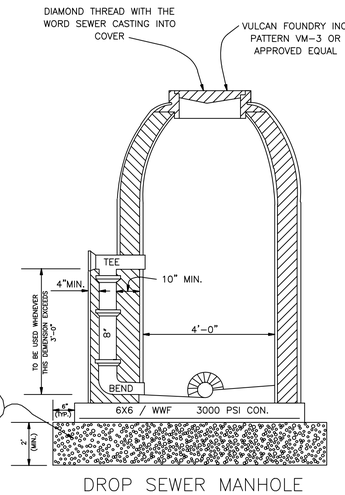
SPECIALIZED ENGINEERING

LA COA: 5809



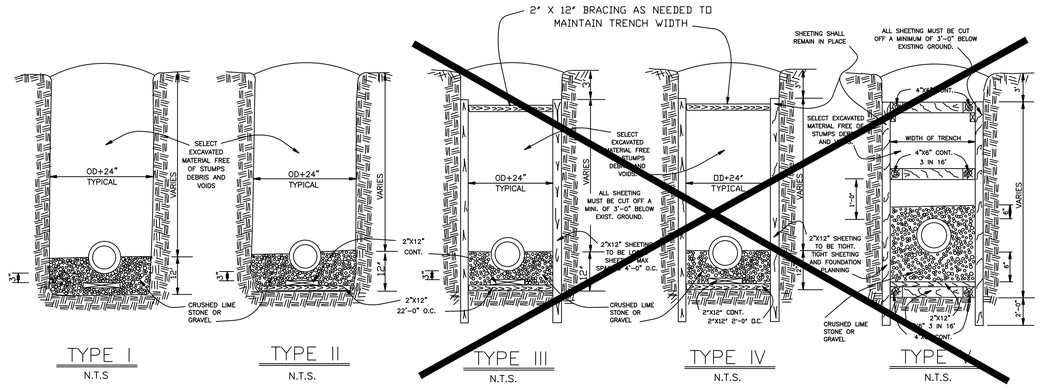
STANDARD SEWER MANHOLE (BRICK)

N.T.S.



DROP SEWER MANHOLE (BRICK)

N.T.S.



TYPE I N.T.S | TYPE II N.T.S. | TYPE III N.T.S. | TYPE IV N.T.S. | TYPE V N.T.S.

SANITARY SEWER PIPE FOUNDATIONS

N.T.S.

SEWERAGE BEDDING TYPE VS DEPTH (FEET)

SOIL TYPE	0–4	4–6	6–8	8–10
6	I	II	III	V
16	II	II	III	V
14	II	II	III	V
13	II	II	III	V
3	II	III	IV	V
9	II	III	IV	V
5	II	III	IV	V
20	II	III	IV	V
18	II	III	IV	V
4	II	III	IV	V
1	II	III	IV	V
11	II	III	IV	V
2	II	III	IV	V
8	II	III	IV	V

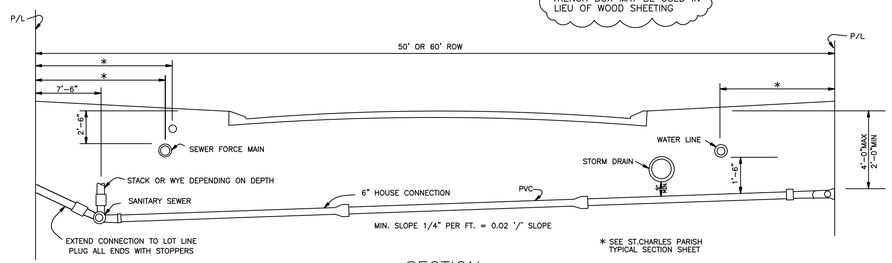
BACKFILL WITH SELECT EXCAVATED MATERIAL FREE OF STUMPS,DEBRIS AND VOIDS.

NOTE:

BEDDING MATERIALS FOR HOUSE CONNECTIONS TO BE IN CONFORMANCE WITH THE FOLLOWING SCHEDULE.

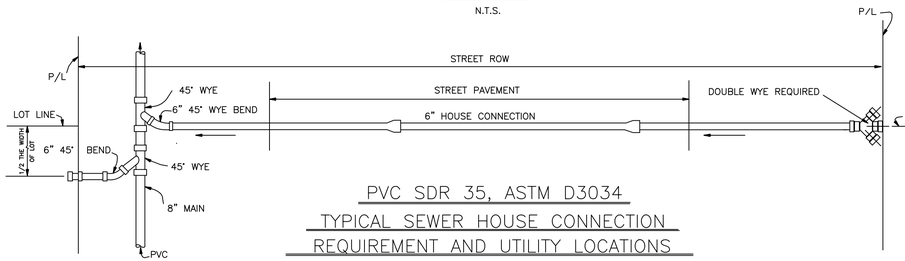
TYPE OF MAIN SEWER BEDDING	TYPE OF REQUIRED HOUSE CONNECTION BEDDING
V	IV
IV	III
III	II
II	I
I	CRUSHED LIME STONE OR GRAVEL ONLY

TRENCH BOX MAY BE USED IN LIEU OF WOOD SHEETING



SECTION

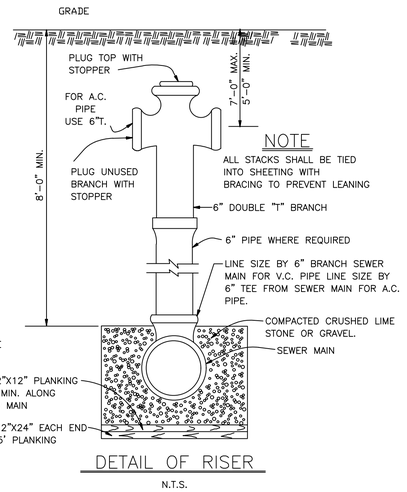
N.T.S.



PVC SDR 35, ASTM D3034

TYPICAL SEWER HOUSE CONNECTION REQUIREMENT AND UTILITY LOCATIONS

PIPE FOR HOUSE CONNECTION SHALL CONFORM TO SAME MATERIAL TYPE USED IN MAIN LINE.

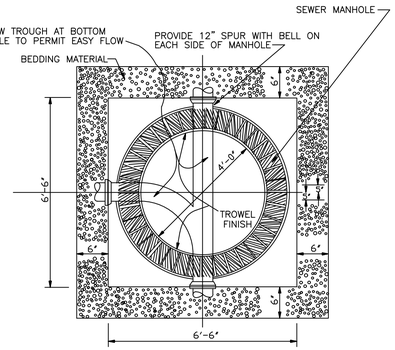


NOTE

ALL STACKS SHALL BE TIED INTO SHEETING WITH BRACING TO PREVENT LEANING

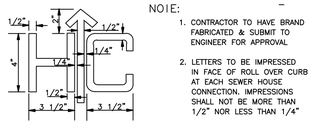
DETAIL OF RISER

N.T.S.



TYPICAL SEWER MANHOLE BOTTOM

N.T.S.

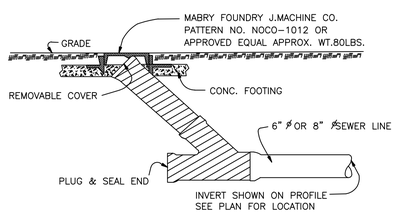


NOTE:

1. CONTRACTOR TO HAVE BRAND FABRICATED & SUBMIT TO ENGINEER FOR APPROVAL
2. LETTERS TO BE IMPRESSED IN FACE OF ROLL OVER CURB AT EACH SEWER HOUSE CONNECTION. IMPRESSIONS SHALL NOT BE MORE THAN 1/2" NOR LESS THAN 1/4"

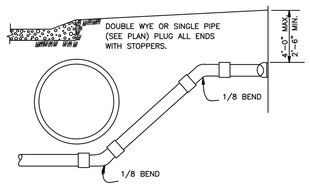
LETTER DETAIL FOR HOUSE CONNECTION MARKING DEVICE

N.T.S.



CLEANOUT DETAIL

N.T.S.



HOUSE CONNECTION UNDER DEEP DRAIN

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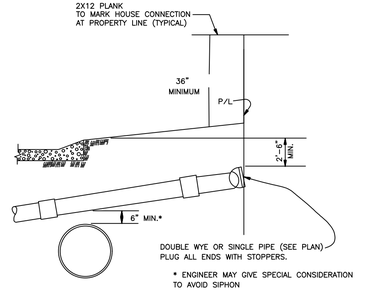
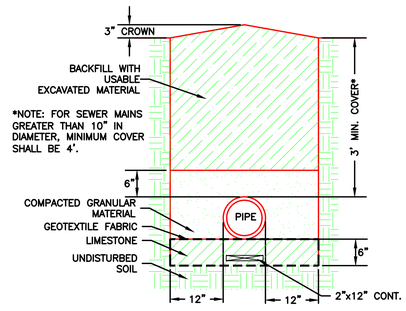
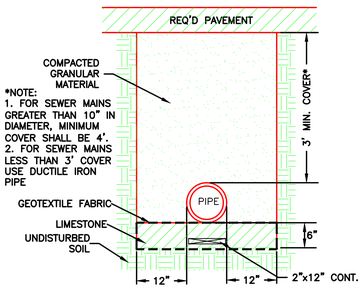


HOUSE CONNECTION OVER DRAIN

N.T.S.



SANITARY SEWER PIPE FOUNDATION UNDER NATURAL GROUND



SANITARY SEWER PIPE FOUNDATION UNDER PAVEMENT N.T.S

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STATE OF LOUISIANA
ALLISON B. FROEBA
License No. 32492
PROFESSIONAL ENGINEER IN CIVIL ENGINEERING
6/17/24

ENGINEER OF RECORD
NAME ALLISON B. FROEBA
NUMBER 32492

ST. CHARLES PARISH

ALMEDIA GARDENS SUBDIVISION

MISCELLANEOUS SEWER DETAILS

REV NO.	DESCRIPTION	DATE	SIGN

ISSUE NO. A

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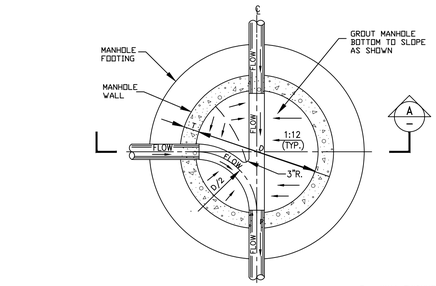
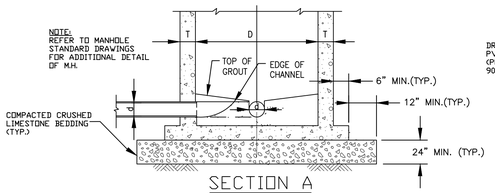


PLAN

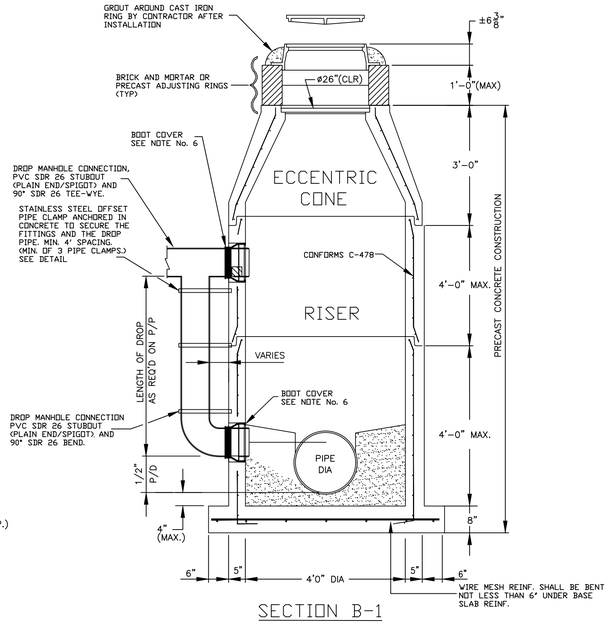
T = WALL THICKNESS
D = MANHOLE DIAMETER
d = PIPE DIAMETER



SECTION A

TYPICAL SEWER MANHOLE BOTTOM

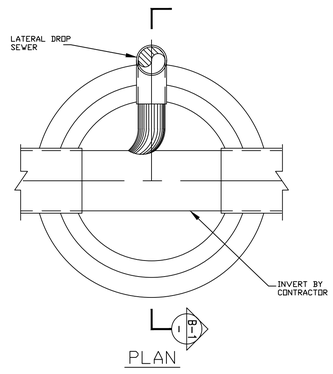
N.T.S.



SECTION B-1

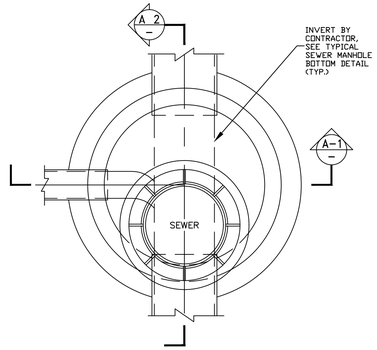
PRECAST DROP SEWER MANHOLE

N.T.S.

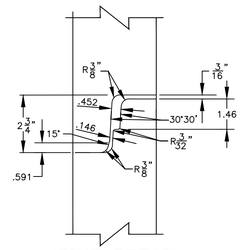


PLAN

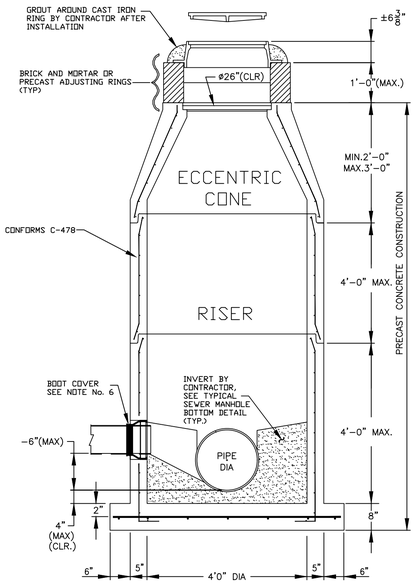
MANHOLE NOTES:
1. REINFORCING STEEL TO MEET ASTM A-615 GRADE 60, CONCRETE TO BE 4000 PSI IN 28 DAYS.
2. CONCRETE TO CONTAIN ZYPEX ADMIX AS PER MANUFACTURER RECOMMENDATIONS.
3. REINFORCING TO MEET AASHTO HS-20 LOADING.
4. JOINTS BETWEEN PRECAST UNITS WILL BE SEALED WITH A RUBBER GASKET TO MEET ASTM C-443.
5. PRECAST CONCRETE STRUCTURES TO MEET ASTM C-478.
6. USE RESILIENT BOOT CONNECTORS TO CONNECT PIPES TO MANHOLES. RESILIENT BOOT CONNECTORS AND THEIR INSTALLMENT SHALL MEET AND/OR EXCEED ALL REQUIREMENTS OF ASTM C923, ASTM C1244, AND ASTM C1478.
7. MANHOLES THAT EXCEED 12 FT IN DEPTH SHALL USE 10" THICK CONC. BOTTOM SLAB.
8. XYPEX ADMIX C-1000 SHALL BE INCORPORATED INTO ALL MORTAR MIXES USED IN SANITARY SEWER MANHOLES.
9. ALL XYPEX ADMIX SHALL INCLUDE A DYE SO IT CAN BE DISTINGUISHED FROM CONCRETE WITHOUT XYPEX EXCEPT TOP SLAB OF LIFT STATION WET WELLS AND VALVE PITS WHICH SHOULD NOT HAVE ANY DYE IN THE XYPEX.
10. CONCRETE "FORTIFIED WITH CONSHIELD" (IN ADDITION TO XYPEX), IS REQUIRED FOR LIFT STATION WET WELLS, MANHOLES WITHIN CLOSE PROXIMITY (100 FT) OF LIFT STATION, DEEP (8 FT AND DEEPER) MANHOLES, AND NAY MANHOLE WHICH IS OR WILL BE RECEIVING A FORCE MAIN.
11. FIBERGLASS AS WELL AS BRICK, CAST-IN-PLACE AND PRECAST CONCRETE MANHOLES MAY BE SPECIFIED IF APPROVED BY A/E AND OWNER PRIOR TO BIDDING. THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS FOR MANHOLES TO THE A/E FOR APPROVAL PRIOR TO CONSTRUCTION.



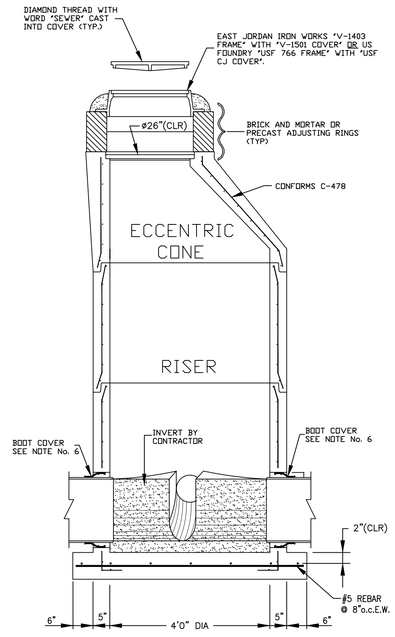
PLAN



JOINT DETAIL



SECTION A-1



SECTION A-2

PRECAST SEWER MANHOLE

N.T.S.

STATE OF LOUISIANA
ALLISON B. FROEBA
License No. 32492
PROFESSIONAL ENGINEER
IN
CIVIL ENGINEERING
6/17/24

ENGINEER OF RECORD
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NUMBER 32492

ST. CHARLES PARISH

ALMEDIA GARDENS SUBDIVISION
MISCELLANEOUS SEWER DETAILS

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DRAWN BY: KJB	DATE: 06/17/2024
SCALE: AS NOTED	

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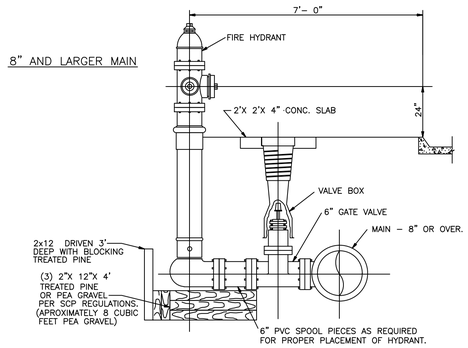
DRAWING NO.	C 0	26A A

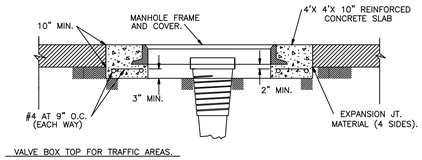
SPECIALIZED ENGINEERING

LA COA: 5809

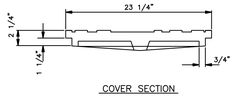


FIRE HYDRANT DETAIL

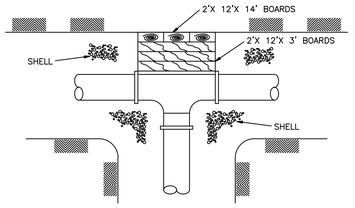
N.T.S.

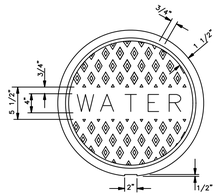


VALVE BOX TOP FOR TRAFFIC AREAS.

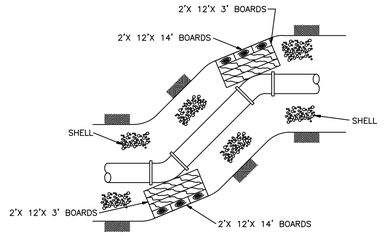


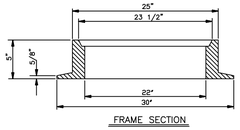
COVER SECTION





FRAME COVER





FRAME SECTION

MANHOLE COVER

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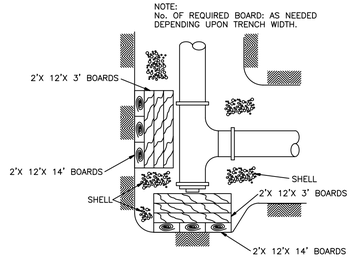
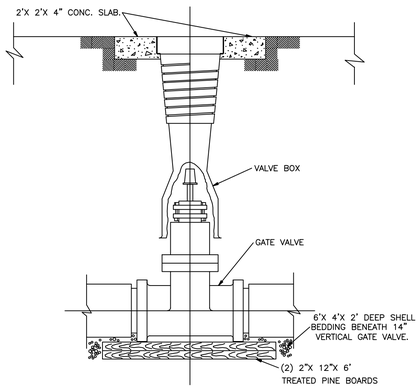


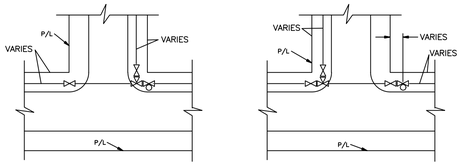
THRUST BLOCKING DETAILS

N.T.S.



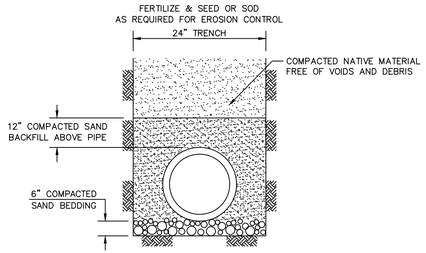
VALVE BOX DETAIL

N.T.S.



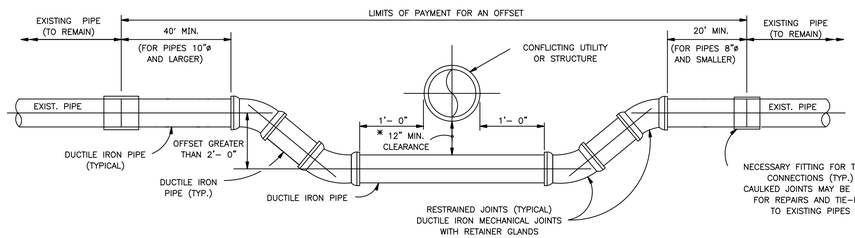
TYPICAL FIRE HYDRANT AND VALVE LOCATIONS AT INTERSECTIONS

N.T.S.



PIPE BEDDING BACKFILL DETAIL

N.T.S.



TYPICAL OFFSET DETAILS (VERTICAL OR HORIZONTAL OFFSET) FOR WATER AND SEWER FORCE MAINS

N.T.S.

* 18" MIN. CLEARANCE BETWEEN SEWER FORCE MAINS AND WATER LINES

STATE OF LOUISIANA
ALLISON B. FROEBA
License No. 32492
PROFESSIONAL ENGINEER
IN
CIVIL ENGINEERING
6/17/24

ENGINEER OF RECORD
NAME ALLISON B. FROEBA
NUMBER 32492

ST. CHARLES PARISH

ALMEDIA GARDENS SUBDIVISION

MISCELLANEOUS WATER DETAILS

REV NO.	DESCRIPTION	ISSUE NO.	DATE	SIGN
		A		

CADD NO.: FDN. DWG
DRAWING NO. C 0 27

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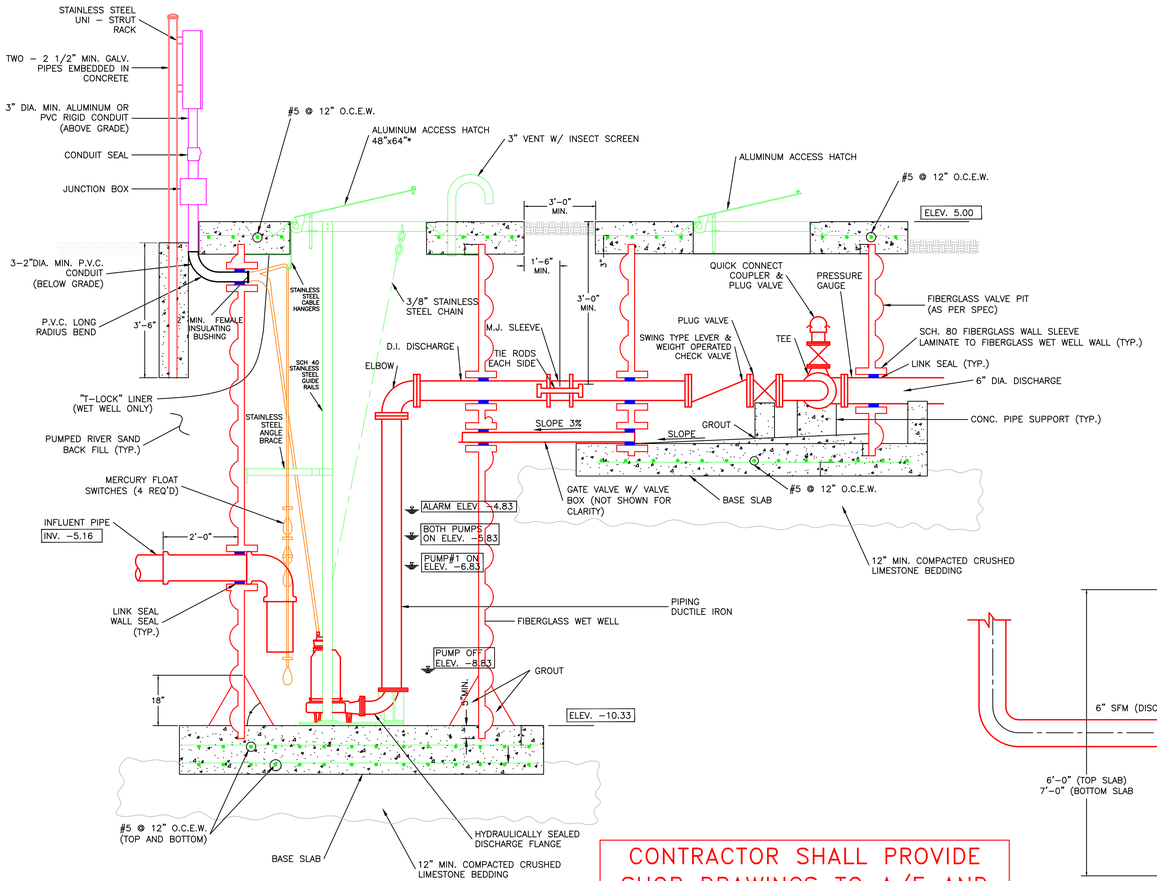
DRAWN BY: KJB
SCALE: AS NOTED
DATE: 06/17/2024

SPECIALIZED ENGINEERING

LA COA: 5809

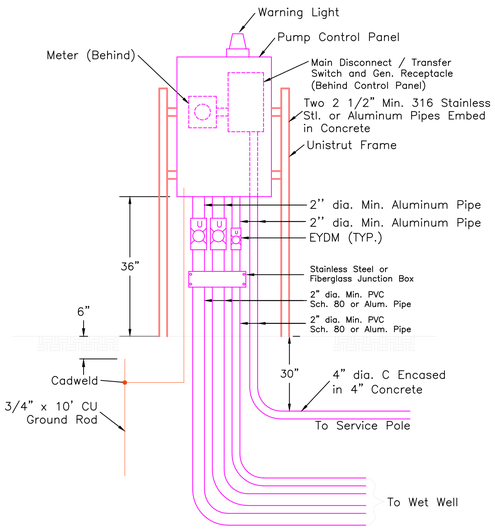


NOTE: SOME ITEMS IN THIS VIEW HAVE BEEN ROTATED FOR CLARITY.

LIFT STATION SECTION VIEW

SCALE: N.T.S.

CONTRACTOR SHALL PROVIDE SHOP DRAWINGS TO A/E AND ST. CHARLES PARISH FOR APPROVAL

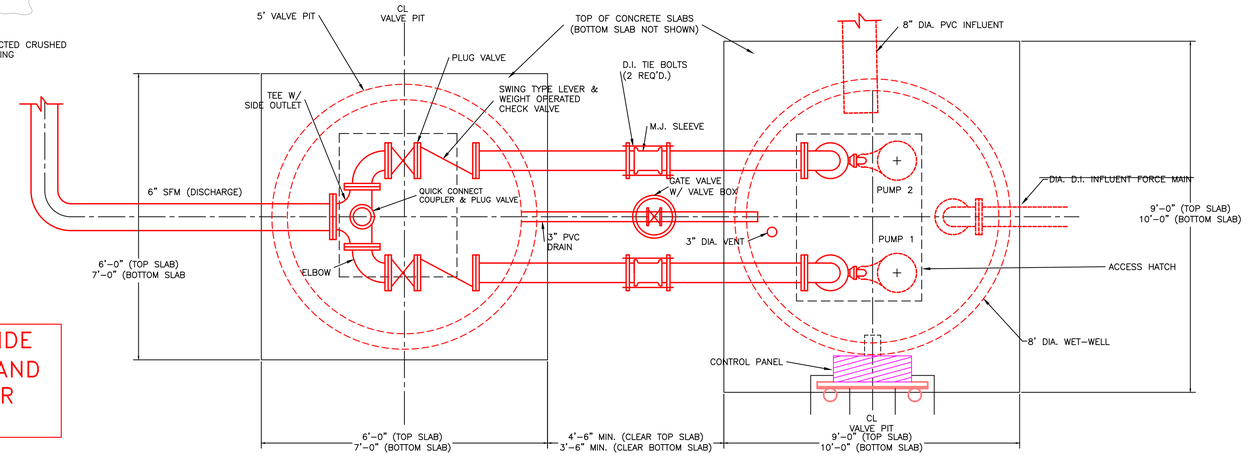


ELECTRICAL NOTES:

1. ALL CONDUITS ABOVE GRADE SHALL BE SCHEDULE 40 ALUMINUM OR SCHEDULE 80 PVC, AND CONDUITS BELOW GRADE SHALL BE SCHEDULE 80 PVC. CONDUITS TO BE PACKED AND SEALED.
2. MOUNT EQUIPMENT ON 316 STAINLESS STEEL POLES AND 316 STAINLESS STEEL UNI–STRUT FRAME. FASTENERS AND UNI–STRUT TO BE STAINLESS STEEL.
3. MAINTAIN ELECTRICAL SERVICE TO EXISTING FACILITIES DURING CONSTRUCTION OR PROVIDE TEMPORARY POWER AS REQUIRED. SERVICE TO THE LIFT STATION SHALL NOT BE INTERRUPTED WITHOUT PRIOR APPROVAL OF THE ST. CHARLES PARISH DEPARTMENT OF PUBLIC WORKS/ WASTEWATER.
4. EXISTING ELECTRICAL WIRING AND EQUIPMENT SHALL BE REMOVED AND DELIVERED TO THE OWNER OR DISPOSED OF AS DIRECTED BY THE ENGINEER.
5. ENCLOSURE FOR TRANSFER SWITCH / DISCONNECT SHALL BE NEMA 3R, STAINLESS STEEL. PROVIDE ENGRAVED PLASTIC NAMEPLATES TO DENOTE "NORMAL POWER", "EMERGENCY POWER", AND "VOLTAGE – 480, 3 PHASE".
6. ALL EQUIPMENT SHALL BE NEMA 4 RATED.
7. ALL ELECTRICAL WORK SHALL COMPLY WITH THE NATIONAL ELECTRICAL CODE, LATEST REVISION, AND ENTERGY SERVICE STANDARDS.
8. NEW SERVICE SHALL BE 277/480 VOLT, 3 PHASE, 60 HZ
9. CONTRACTOR TO PROVIDE NECESSARY TRANSFORMER TO SUPPLY VOLTAGE REQUIRED FROM UNDERGROUND FEED.

NOTE: SOME ITEMS IN THIS VIEW HAVE BEEN ROTATED FOR CLARITY.

ELECTRICAL EQUIPMENT INSTALLATION



LIFT STATION NOTES:

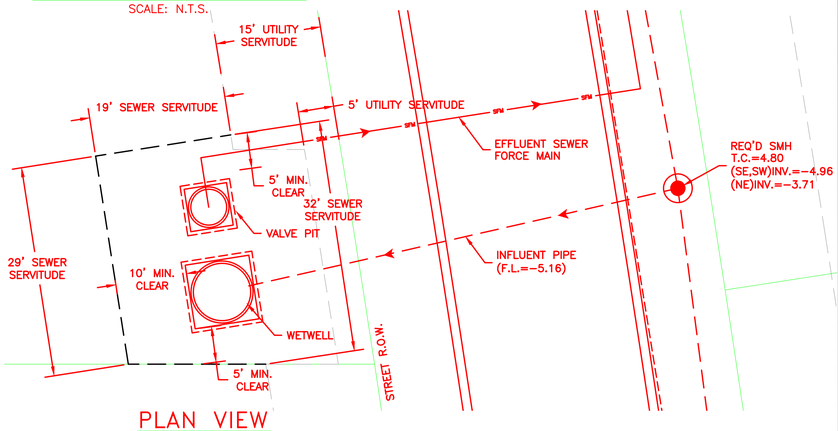
1. CONCRETE SHALL BE 4000 PSI AT 28 DAYS WITH 4" MAXIMUM SLUMP. REINFORCING BARS SHALL BE ASTM A615, GRADE 60. LIMESTONE SHALL BE INCLUDED. CONTRACTOR SHALL COORDINATE WITH ST. CHARLES PARISH WASTEWATER DEPARTMENT PRIOR TO CONSTRUCTION FOR MIX DESIGN AND DETAILS.
2. PROVIDE 3/4" CHAMFER ON EXPOSED EDGES AND RUBBED FINISH ON EXPOSED SURFACES OF TOP SLABS.
3. FIBERGLASS WET WELL AND VALVE PIT SHALL BE MANUFACTURED BY HUTCHINS CORP. OR APPROVED EQUAL. PROVIDE SCHEDULE 80 FIBERGLASS PIPE WALL SLEEVES FOR ALL WALL PENETRATIONS. LAMINATE WALL SLEEVES TO FIBERGLASS WET WELL AND VALVE PIT WALLS. SEAL ANNULAR SPACE WITH "LINK – SEALS" USING ALL STAINLESS STEEL BOLTS AND HARWARE.
4. COMPLETED WET WELL AND VALVE PIT SHALL BE COMPLETELY WATERTIGHT.
5. PROVIDE LINER OR EPOXY IN UNDERSIDE OF NEW WET WELL TOP SLAB AND NEW TOP SLAB FOR EXISTING WET WELL. ALL EXPOSED CONCRETE SHALL BE COATED WITH EPOXY AT MINIMUMS AS APPROVED BY ST. CHARLES PARISH.
6. ALL INTERNAL PIPING SHALL BE FLANGED DUCTILE IRON. DUCTILE IRON PIPING OUTSIDE THE WET WELL SHALL HAVE MECHANICAL JOINTS WITH RESTRAINER GLANDS. CONNECT TO EXISTING FORCE MAINS USING MECHANICAL JOINTS AND RESTAINER GLANDS. (EBAA IRON OR UNIFLANGE)
7. ALL FASTENERS, BRACKETS, PLATES, HANGERS, ETC. (INCLUDE FLANGE BOLTS) IN THE WET WELL SHALL BE 316 STAINLESS STEEL ONLY.
8. DISCHARGE CHECK VALVES SHALL BE SWING TYPE WITH OUTSIDE LEVER AND WEIGHT. PLUG VALVES SHALL BE FULL PORTED, ECCENTRIC, NON–LUBRICATED PLUG VALVES WITH GEARED OPERATORS.
9. PUMPS SHALL BE SUBMERSIBLE NON–CLOG WASTEWATER PUMPS. PUMPS SHALL BE MANUFACTURED BY HYDROMATIC (MODEL S4MXP1500EC) OR APPROVED EQUAL. PUMPS SHALL BE 3" SUBMERSIBLE, 5 HP, 1150 RPM MOTORS, CAPACITY OF EACH PUMP SHALL BE 463 GPM AT 48.66 T.D.H. CONTRACTOR SHALL PROVIDE SHOP DRAWINGS OF LIFT STATION INCLUDING PUMPS AND MOTOR PRIOR TO CONSTRUCTION FOR APPROVAL.
10. MOTORS SHALL BE SUBMERSIBLE TYPE, SUITABLE FOR 120/240 VOLT, 3 PHASE, 60 HERTZ SERVICE. MOTORS SHALL BE NON–OVERLOADING ANYWHERE ON THE PUMP OPERATING CURVE. (CONTRACTOR SHALL PROVIDE STEP DOWN TRANSFORMER FROM UNDERGROUND SERVICE TO ELIMINATE OVERHEAD FEED).
11. CONTROLS SHALL AUTOMATICALLY OPERATE ONE OR BOTH PUMPS AS REQUIRED BY THE LIQUID LEVEL IN THE WET WELL AND SHALL AUTOMATICALLY ALTERNATE LEAD AND LAG PUMPS EACH CYCLE. LEVEL CONTROLS SHALL BE MERCURY FLOAT SWITCHES. ALL EQUIPMENT SHALL BE NEMA 4 RATED. CONTROL ENCLOSURE SHALL BE WELDED STAINLESS STEEL.
12. CONTRACTOR SHALL BACK FILL EXCAVATIONS WITH PUMPED RIVER SAND. EXCESS EXCAVATED MATERIAL SHALL BE HAULED OFF SITE AND DISPOSED OF BY CONTRACTOR.
13. THE FLOATS SHALL BE SET TO AVOID SURCHARGING OF ALL INFLUENT PIPES AND TO MAINTAIN MINIMUM PUMP EFFICIENCY.

PUMP STATION DATA TABLE

PUMP STATION NUMBER	ALMEDIA GARDENS FULL DEVELOPMENT & CHARLESTOWNE	ALMEDIA GARDENS PHASE 1 & CHARLESTOWNE	ALMEDIA GARDENS PHASE 1 & 2 & CHARLESTOWNE
NUMBER OF PUMPS	2	2	2
TYPE OF DRIVE	CONSTANT	CONSTANT	CONSTANT
DESIGN CAPACITY PER PUMP, G.P.M.	462.5	401.56	440.63
TOTAL DYNAMIC HEAD, FT.	48.66	39.42	45.42
MIN. EFF. AT DESIGN CAPACITY, %	65.5	60.3	63.5
DESIGN SPEED, MAX R.P.M.	1750	1750	1750
MIN. HORSEPOWER PER PUMP, HP	15	15	15
MIN. SIZE SOLIDS, INCHES	3.0	3.0	3.0
MIN. DISCHARGE SIZE, INCHES	4	4	4
IMPELLER DIA. SIZE, INCHES	8.13	7.5	7.88

ENLARGED PLAN VIEW

SCALE: N.T.S.



PLAN VIEW

SCALE: 1"=10'

DATE	REVISION
3–8–05	REVISE "CABLE" TO "CHAIN"
5–18–05	UNISTRUT, 3 2" PVC CONDUITS,
	PRES. GAUGE, REVISE NOTE 13.

SEWER LIFT STATION DETAIL

ST. CHARLES PARISH

DEPARTMENT OF WASTEWATER

DESIGNED BY	DRAWN BY	CHECKED BY
	T.M.D.	L.P.Z.

STAMP

SCALE	NTS
DATE	7–17–03
J.N.	
SHEET NO.	1 OF 1

STATE OF LOUISIANA
ALLISON B. FROEBA
License No. 32492
PROFESSIONAL ENGINEER IN CIVIL ENGINEERING
6/17/24

ENGINEER OF RECORD
NAME ALLISON B. FROEBA
NUMBER 32492

ALMEDIA GARDENS SUBDIVISION
SEWER LIFT STATION DETAILS
ST. CHARLES PARISH

REV NO.	DESCRIPTION	DATE

ISSUE NO.	SIGN
A	

CADD NO.: FDN. DWG
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DRAWN BY: KJB
SCALE AS NOTED
DATE 06/17/2024

SPECIALIZED ENGINEERING

LA COA: 5809