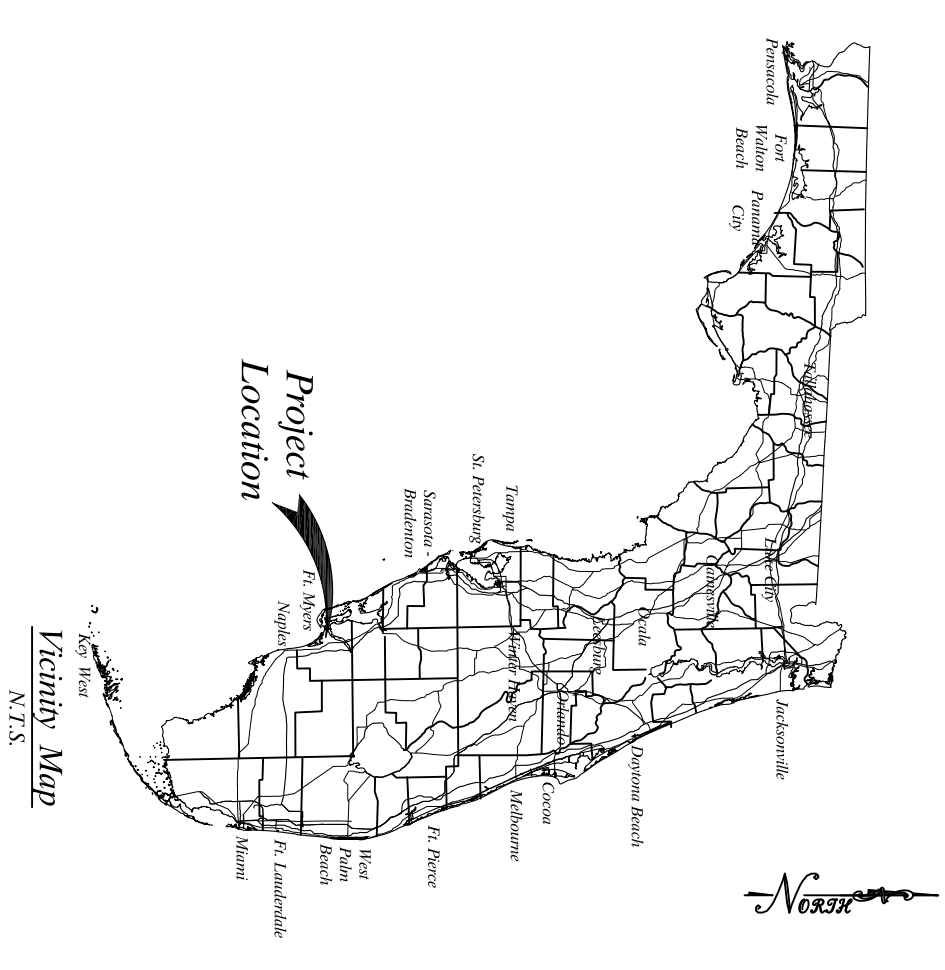
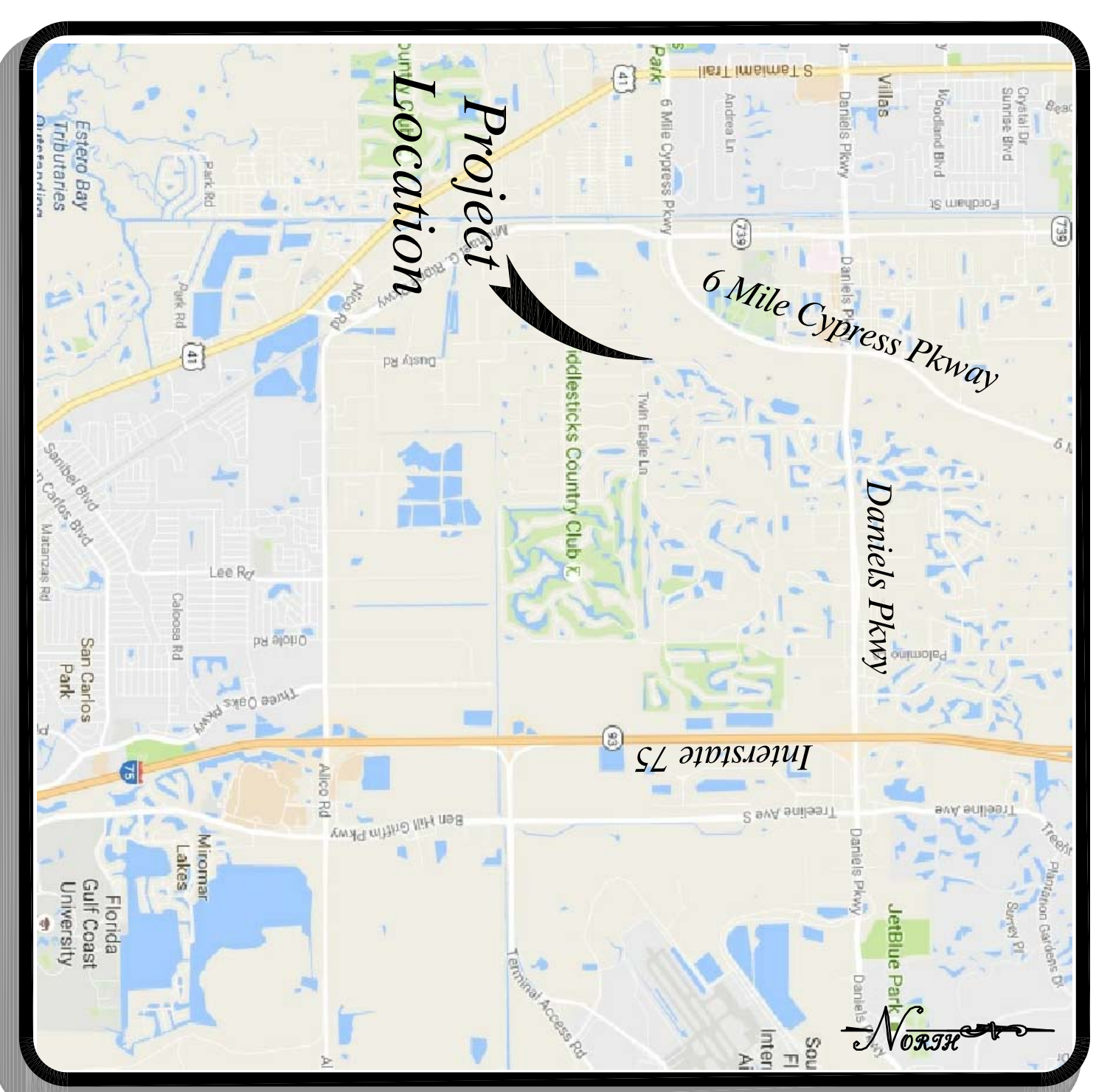
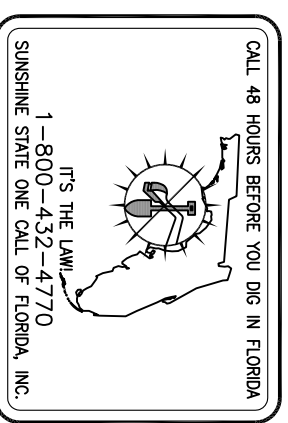


Drawings For Eagle Ridge WWTF (FLA014498) Surge Tank Replacement

Section 29, Township 45 South, Range 25 East
Fort Myers, Florida
Lee County



Facility Location
Eagle Ridge WWTF
14668 Aeries Way Drive
Fort Myers, Florida
Lee County



LOCATION MAP
Not To Scale

Drawing Number	Drawing Description
1	Cover Sheet and Drawing Index
2	General Notes and Engineering Notes
3	Master Legend
4	Existing Conditions Survey
5	Demolition Plan
6	Paving and Grading Plan
7	Influent Screen and Surge Tank Elevations
8	Site Details
9	Miscellaneous Details
10	Tank Details
11	Screen and Sew Details

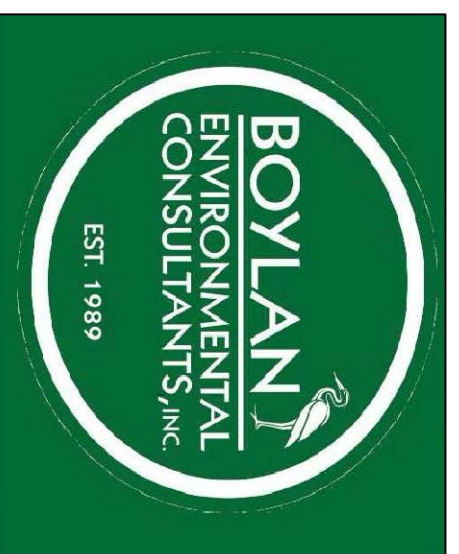
Owner
Mr. Patrick Flynn
Vice President of Operations
Utilities, Inc.
200 Weathersfield Avenue
Altamonte Springs, Florida 32714

Geotechnical Engineer



UNIVERSAL
ENGINEERING SCIENCES
Consultants in Geotechnical Engineering • Environmental Sciences
Construction Materials Testing • Thermal Protection & Thermal Inspections

Environmental Engineering

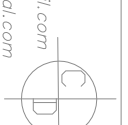


ENVIRONMENTAL & CIVIL ENGINEERS
CERTIFICATE OF AUTHORIZATION NO. 27541
1222 WILSHIRE BOULEVARD
CASSELBERRY, FL 32707
TEL: (407) 260-2292
FAX: (407) 260-4193
WWW.EXCELENGINEERS.COM

Survey Provided By

CHARLES DEGRAFF, LAND SURVEYOR
Land Surveyors and Mappers
301 Hazeltine Drive, Dabney, Florida 32713

Phone (329) 899-9492
Fax (329) 899-9493
www.surveyorscentral.com
Web www.surveyorscentral.com

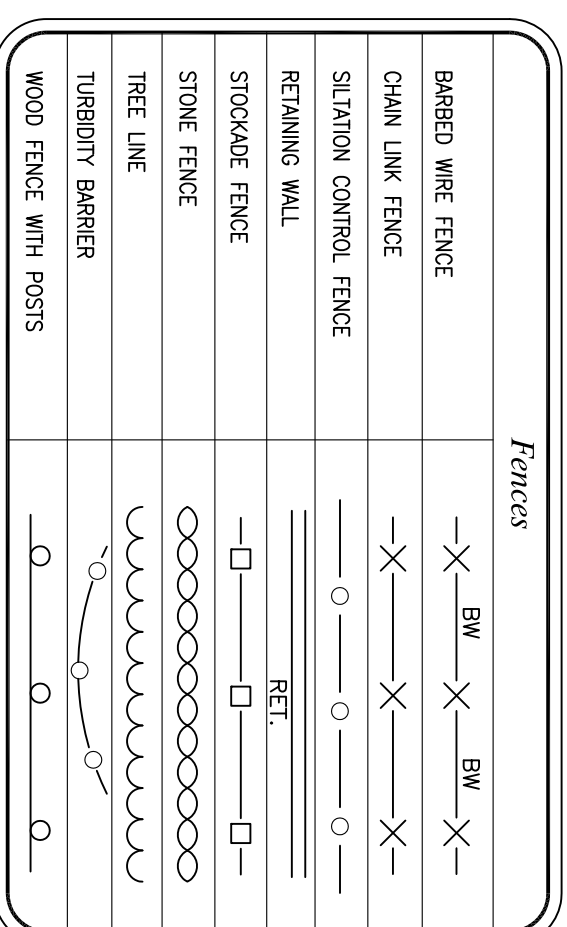


Legend

Abbreviations

A ₁	ACRES
ACSP	ASBESTOS CEMENT SEWER PIPE
ACWP	ASBESTOS CEMENT WATER PIPE
B.M.	BENCHMARK
BOV., BOTS.	BOUNDARY, BOUNDARIES
CL	CAST IRON
CP	CAST IRON PIPE
℄	CENTER LINE
C.G.	CENTER OF GRADE
C.L.F.	CHAIN LINK FENCE
C.L.F.B.	CHAIN LINK FENCE WITH BARBED WIRE
C.O.	CLEAN OUT
CS	CONTROL STRUCTURE
CWP	CORROGATED METAL ARCH PIPE
CMP	CORROGATED METAL PIPE
C.F.	CUBIC FEET
C	OUT
C.Y.	CUBIC YARD
DNST.	DISTANCE
DP	DUCTILE IRON PIPE
EL	ELEVATION
ESRP	ELLIPTICAL REINFORCED CONCRETE PIPE
ESMT.	EASEMENT
F.F.E.	FINISHED FLOOR ELEVATION
FT.	FEET
℄	FENCE LINE
F	FILL
F.G.	FINISH GRADE
F.L.	FLOW LINE (INVERT)
FRA.C.	FRACTIONAL
Q.L.	GALLON
G.P.D.	GALLONS PER DAY
G.P.M.	GALLONS PER MINUTE
GSP	GALVANIZED STEEL PIPE
HC	HANDICAP
HDPE	HIGH DENSITY POLYETHYLENE PIPE
hp	HORSE POWER
H.P.	HIGH POINT
HPD	FIRE HYDRANT
INV.	INVERT
L.F.	LINEAL FEET
WH	MANHOLE
MAX.	MAXIMUM
MCS	METERED END SECTION
M.H.W.	MEAN HIGH WATER
M.L.W.	MEAN LOW WATER
M.V.	MINIMUM
NO.	NUMBER
N.M.L.	NORMAL WATER LEVEL
N.T.S.	NOT TO SCALE
PAINT.	PAVEMENT
P.C.	POINT OF CURVATURE
P.I.	POINT OF INTERSECTION
psf	POUNDS PER SQUARE INCH
P.L.	POINT OF TANGENCY
P.V.C.	POINT OF VERTICAL CURVATURE
P.V.I.	POINT OF VERTICAL INTERSECTION
P.U.T.	POLYVINYL CHLORIDE
P.C.	POINT OF REVERSE CURVE
P.P.	POWER POLE
R.	PROPERTY LINE
RCP	REINFORCED CONCRETE PIPE
R/W	RIGHT-OF-WAY
S.M.M.D.	ST. JOHN'S WATER MANAGEMENT DISTRICT
S.F.M.D.	SOUTH FLORIDA WATER MANAGEMENT DISTRICT
STK.	STAKE
STA.	STATION
ST.	STREET
Sq. Ft.	SQUARE FEET
TEMP.	TEMPERATURE
T.B.M.	TEMPORARY BENCH MARK
U.N.O.	UNLESS NOTED OTHERWISE
VCP	VIBRATED CLAY PIPE
YD	YARD
W.L.	WROUGHT IRON

Fences

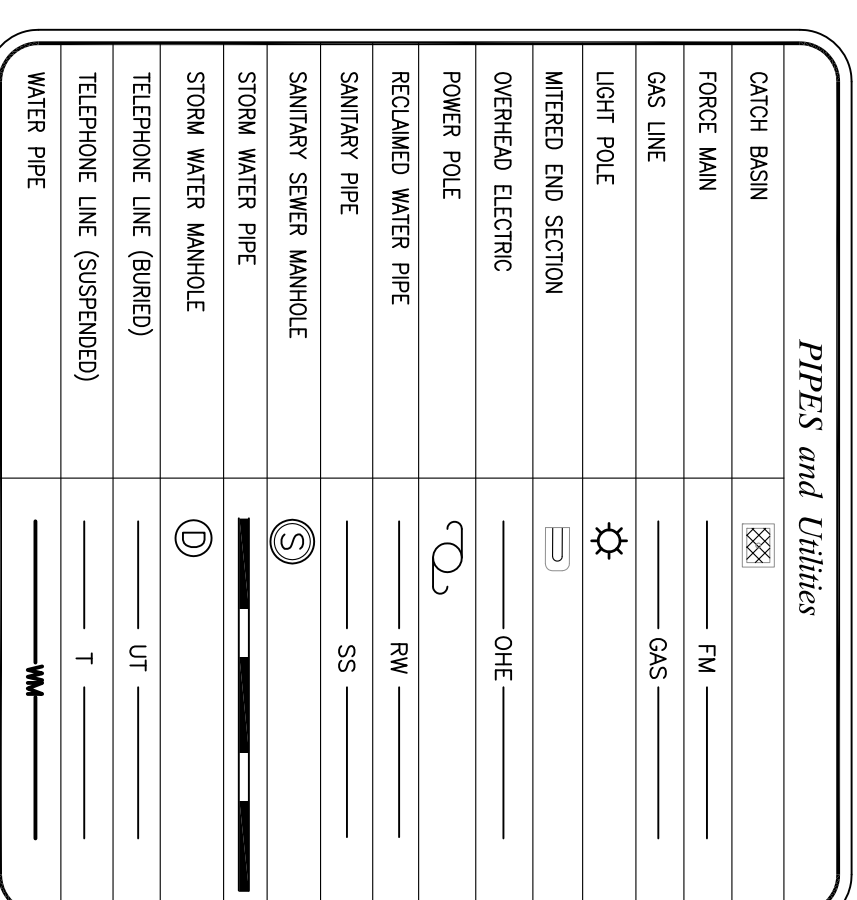


Fittings Table

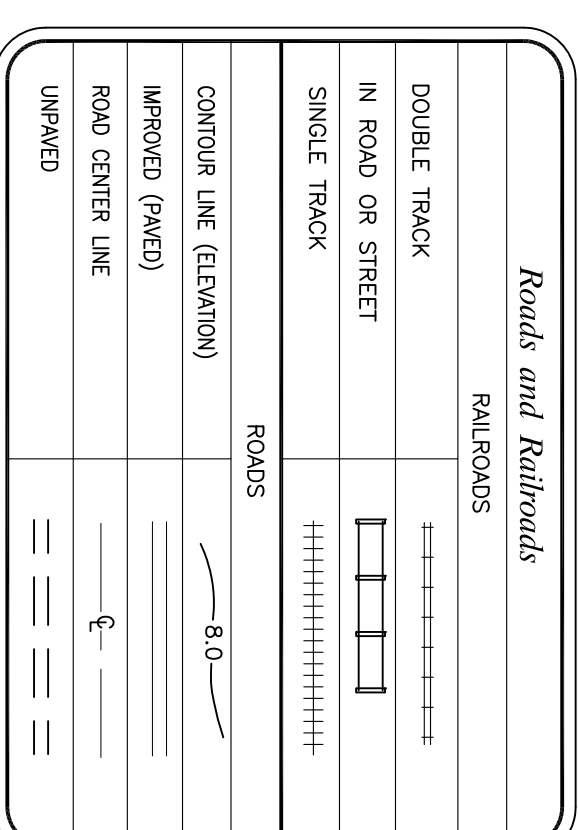
DESCRIPTION	FLANGED		STANDARD (1)	
	NEW	EXISTING (2)	NEW	EXISTING
AIR RELEASE VALVE				
BALL VALVE				
BACK FLOW PREVENTER				
CP				
CHECK VALVE				
CLEAN OUT				
GROSS				
ELBOW 45°				
ELBOW 90°				
ELBOW TURNED DOWN				
ELBOW TURNED UP				
FIRE HYDRANT				
FIRE DEPARTMENT CONNECT				
GATE OR PLUG VALVE				
HOSE BIB				
LINE STOP				
POST INDICATOR VALVE				
PRESSURE REDUCING VALVE				
LIFT STATION				
REDUCER				
REDUCING ELBOW				
REDUCING TEE				
TEE				
TEE OUTLET DOWN				
TEE OUTLET UP				
WATER METER				
WATER VALVE				
WVE				

(1) STANDARD JOINT = SCREENED MECHANICAL OR PUSH ON JOINT
(2) EXISTING FITTINGS SCREENED (GRAVED) UNLESS OTHERWISE NOTED

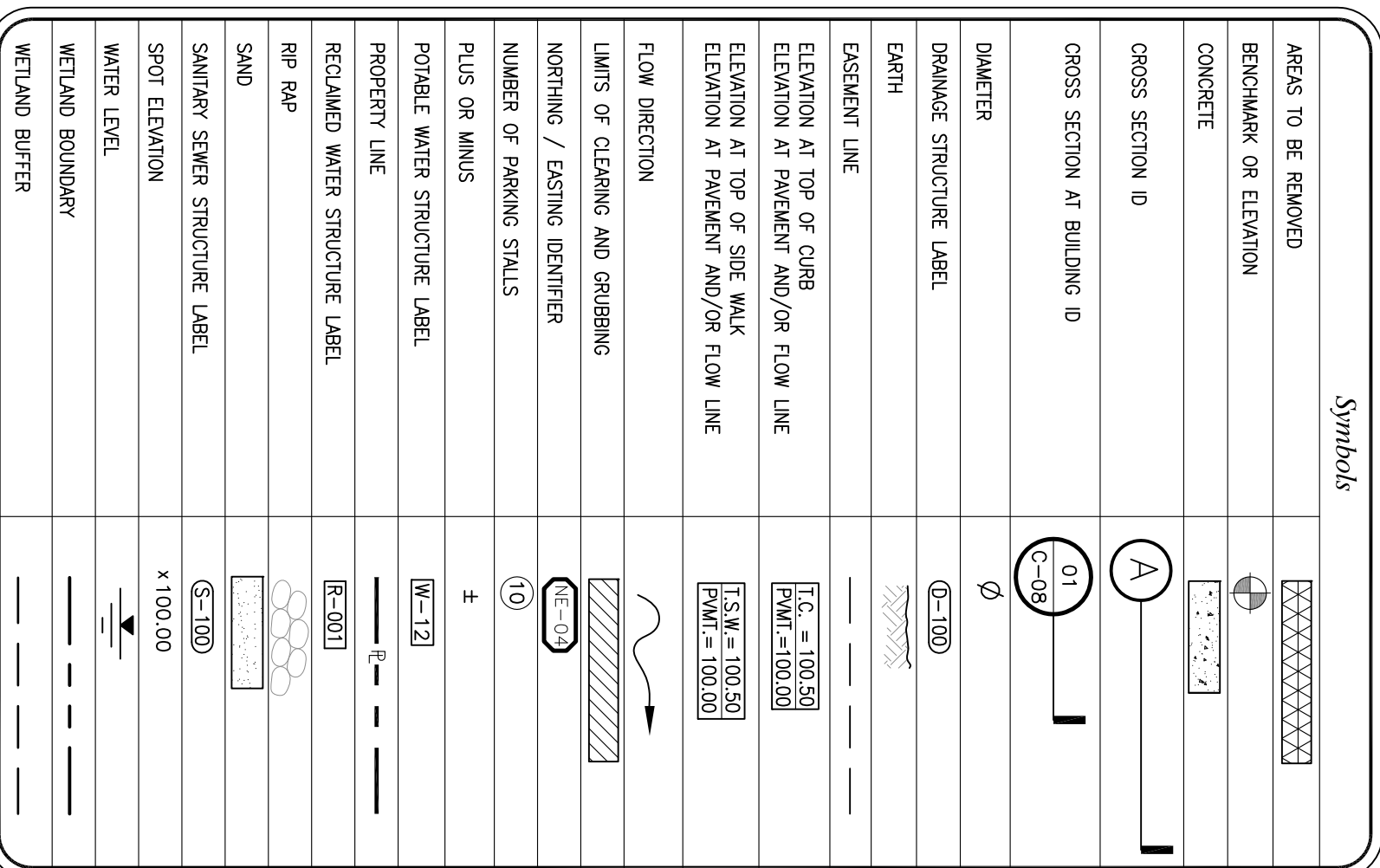
Pipes and Utilities



Roads and Railroads



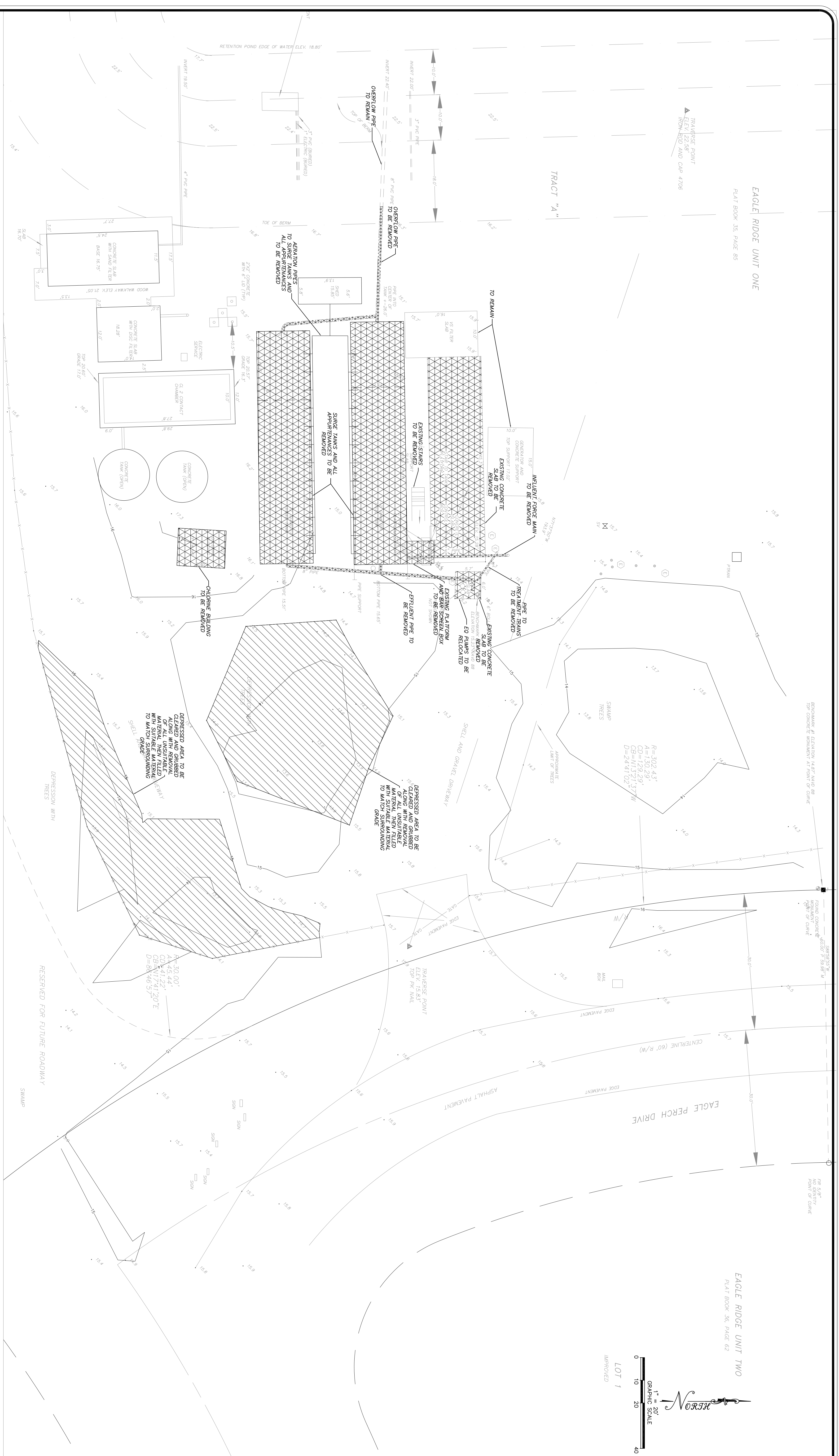
Symbols



- Notes:**
- Legend Does Not Apply to Survey Drawing.
 - Existing Features and Structures are Screened Back.

REVISIONS:

NUMBER	DESCRIPTION	DATE



- ENGINEERING NOTES**
1. ALL AREAS WHERE EXISTING SURGE TANKS ARE TO BE REMOVED SHALL BE RESTORED BY:
 - 1.1. REMOVING AND UNSUITABLE MATERIALS
 - 1.2. FILLING WITH SUITABLE MATERIALS
 - 1.3. COMPACTING FILL
 2. LOCATIONS WHERE PIPES ARE REMOVED SHALL BE BACKFILLED WITH SUITABLE MATERIAL AND COMPACTED.
 3. ALL FILING OR BACKFILLING CALLED OUT ON THIS SHEET SHALL BE ACCOMPLISHED WITH SUITABLE MATERIALS AND COMPACTED TO MAX DENSITY AS PER ASHTO T-180. ALL ITEMS NOT SPECIFICALLY CALLED OUT FOR REMOVAL SHALL REMAIN. CONTRACTOR SHALL MAKE ANY AND ALL MEASURES NECESSARY FOR PROTECTING THEM FROM DAMAGE.

NUMBER	DESCRIPTION	DATE

Project Number
UT102-0216

SCALE: AS SHOWN

DRAWN: N.R.C.

CHECKED: T.N.S.

APPROVED: J.R.C.

DATE: 2/10/2016

SHEET NO. 5
OF 11

FOR THE CLIENT: EAGLE RIDGE WWTW
122 WILSHIRE BOULEVARD
CASSELBERRY, FL 32707
TEL: (407) 260-2292
FAX: (407) 260-1193
WWW.EXCELENGINEERS.COM

**Eagle Ridge WWTW
Feasibility Study
Lee County Florida**

Demolition Plan

Excel Engineering
CONSULTANTS, L.L.C.

ENVIRONMENTAL & CIVIL ENGINEERS

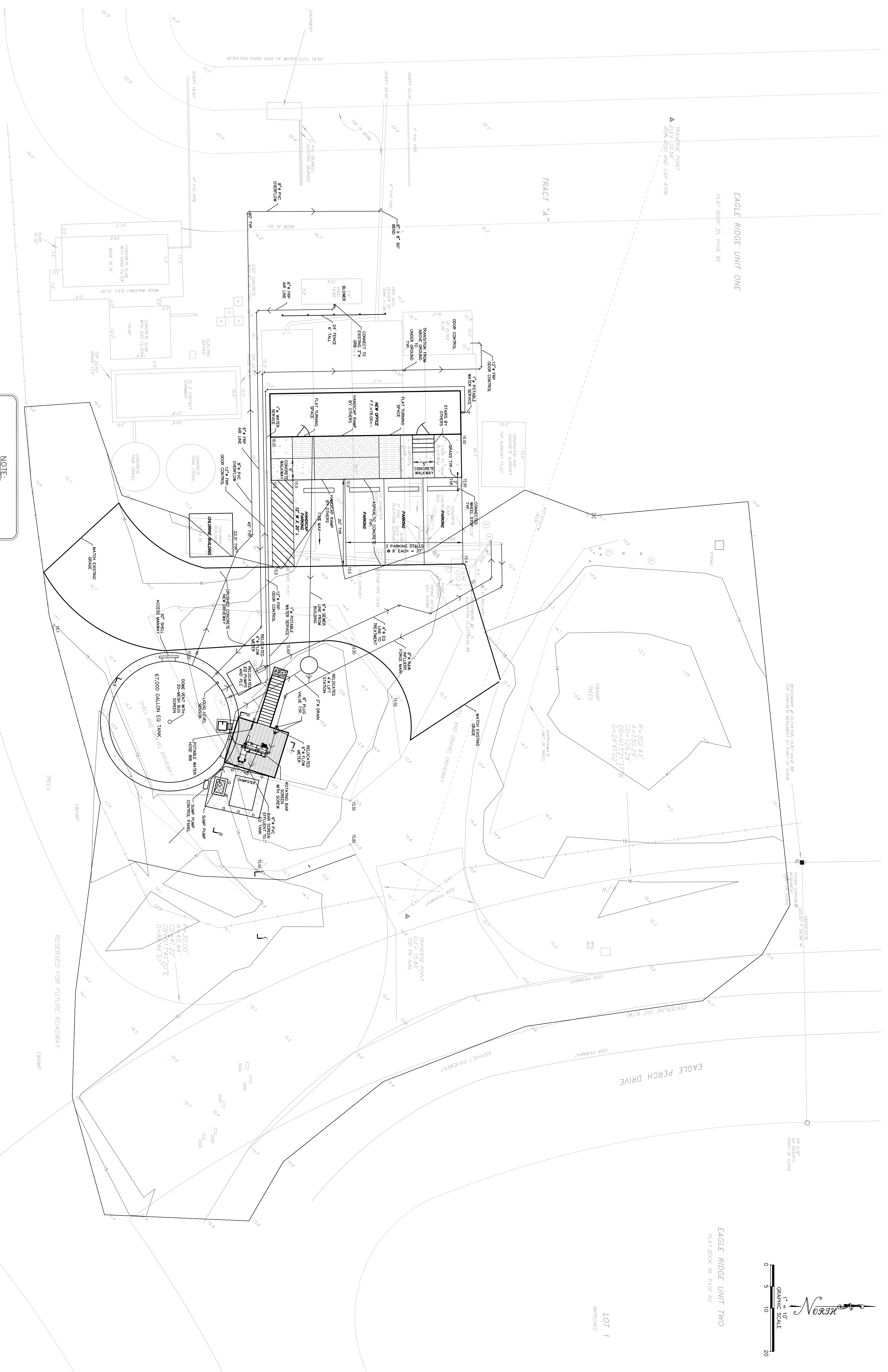
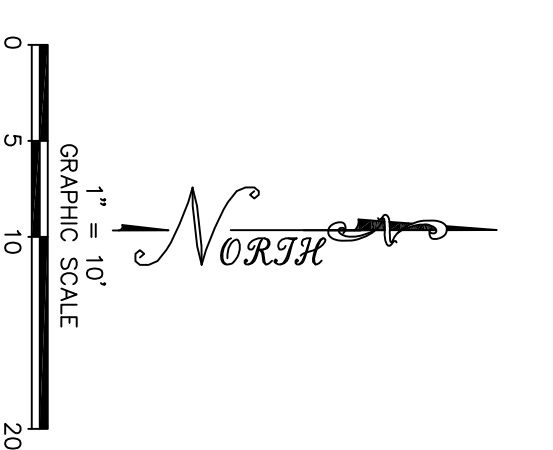
CERTIFICATE OF AUTHORIZATION NO. 27541

122 WILSHIRE BOULEVARD
CASSELBERRY, FL 32707
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WWW.EXCELENGINEERS.COM

EAGLE RIDGE UNIT ONE
 PLAT BOOK 35, PAGE 85

EAGLE RIDGE UNIT TWO
 PLAT BOOK 36, PAGE 82

TRACT "A"



NOTE:
 OFFICE BUILDING, HANDICAP RAMP, AND STAIRS TO BE PROVIDED BY OTHERS. CONTRACTOR TO SUPPLY ELECTRICAL SERVICE TO OFFICE BUILDING.

Project Number
 U7102-0216
 SCALE: AS SHOWN
 DRAWN: N.R.C.
 CHECKED: T.N.S.
 APPROVED: J.R.C.
 DATE: 2/10/2016
 SHEET NO. 5
 OF 11

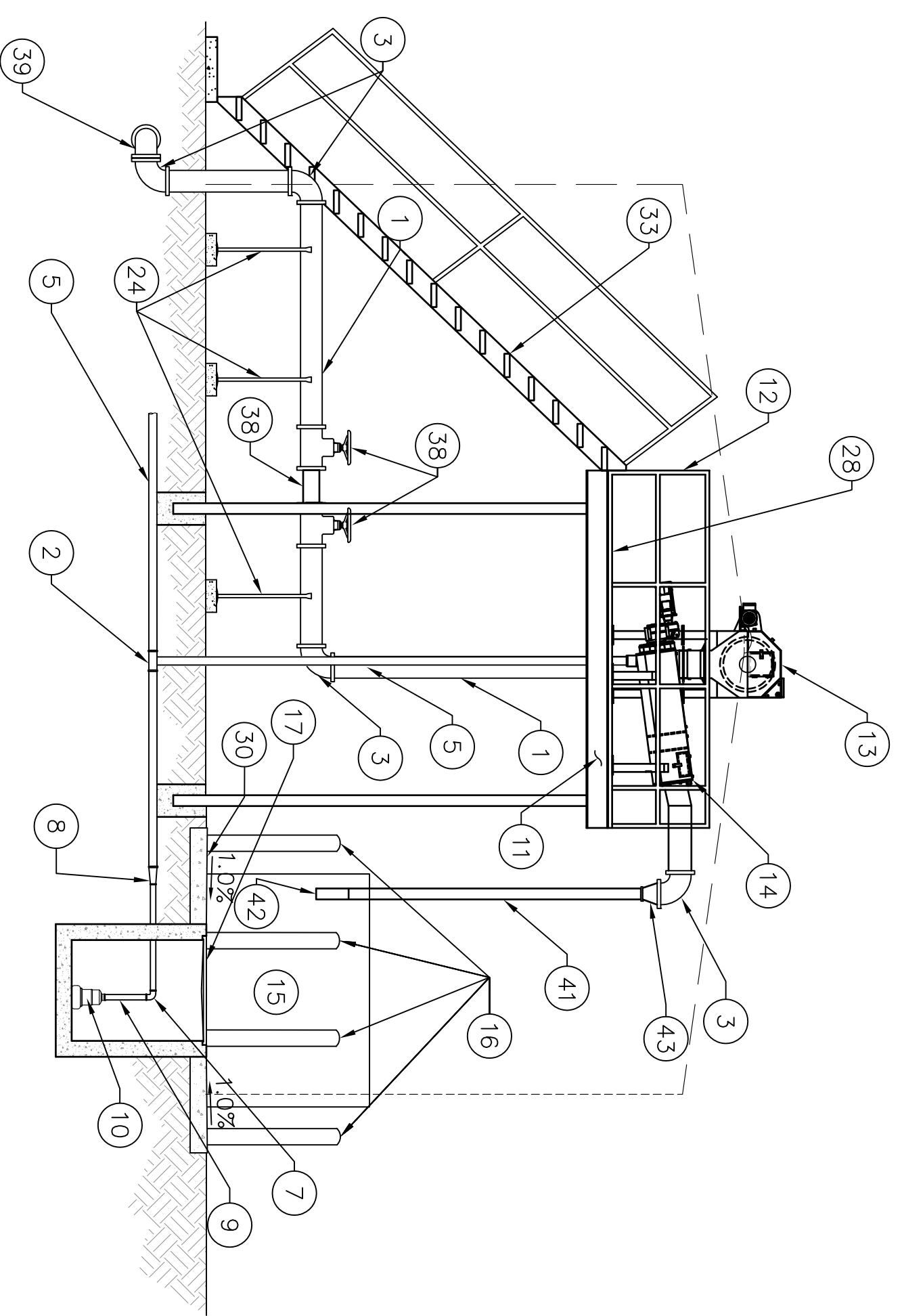
NUMBER	DESCRIPTION	DATE

DESIGNED BY: J.R.C.
 DRAWN BY: N.R.C.
 CHECKED BY: T.N.S.
 APPROVED BY: J.R.C.
 DATE: 2/10/2016

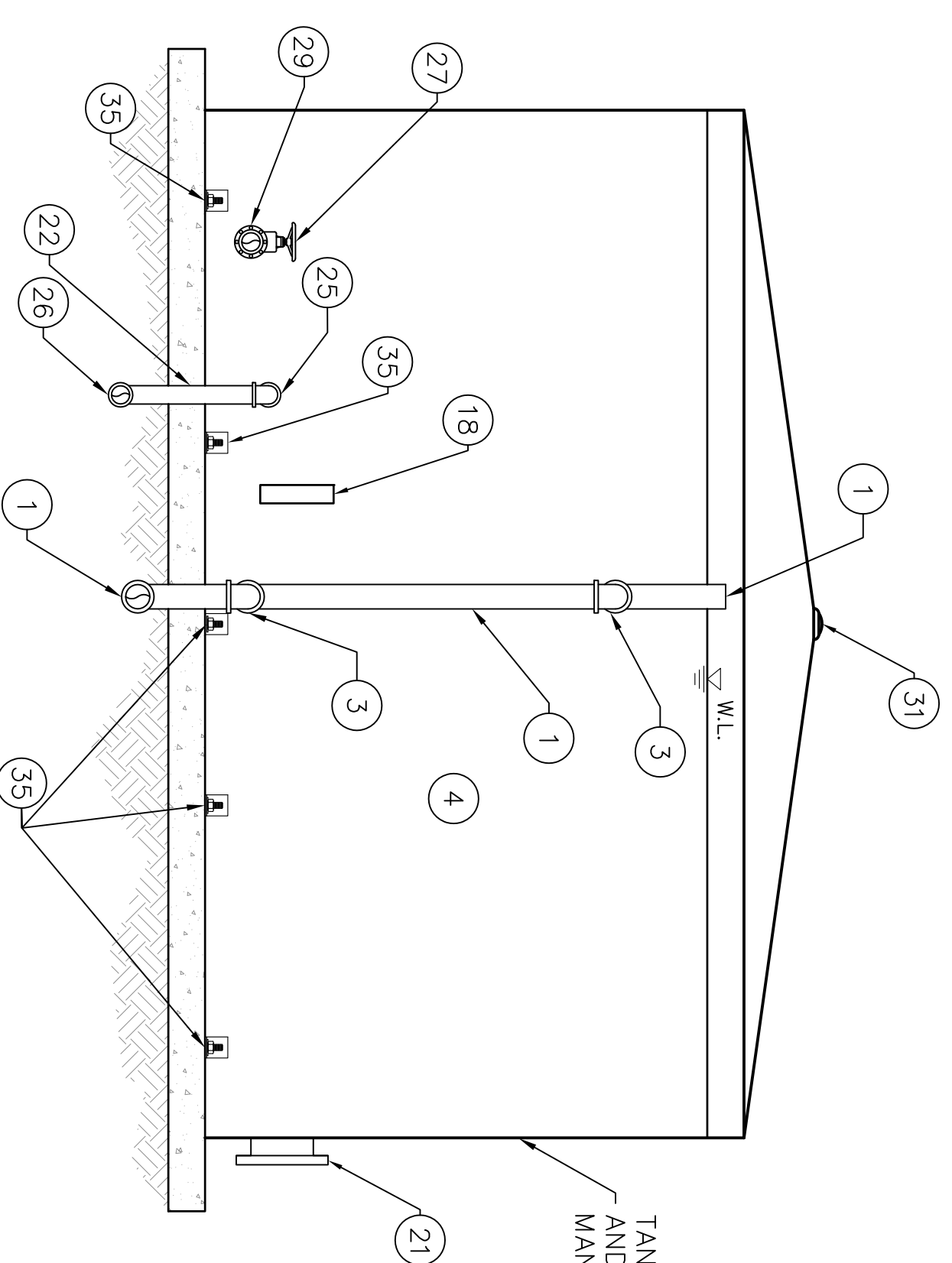
**Eagle Ridge WWTF
 Feasibility Study
 Lee County Florida**

Piping, Paving, and Grading Plan

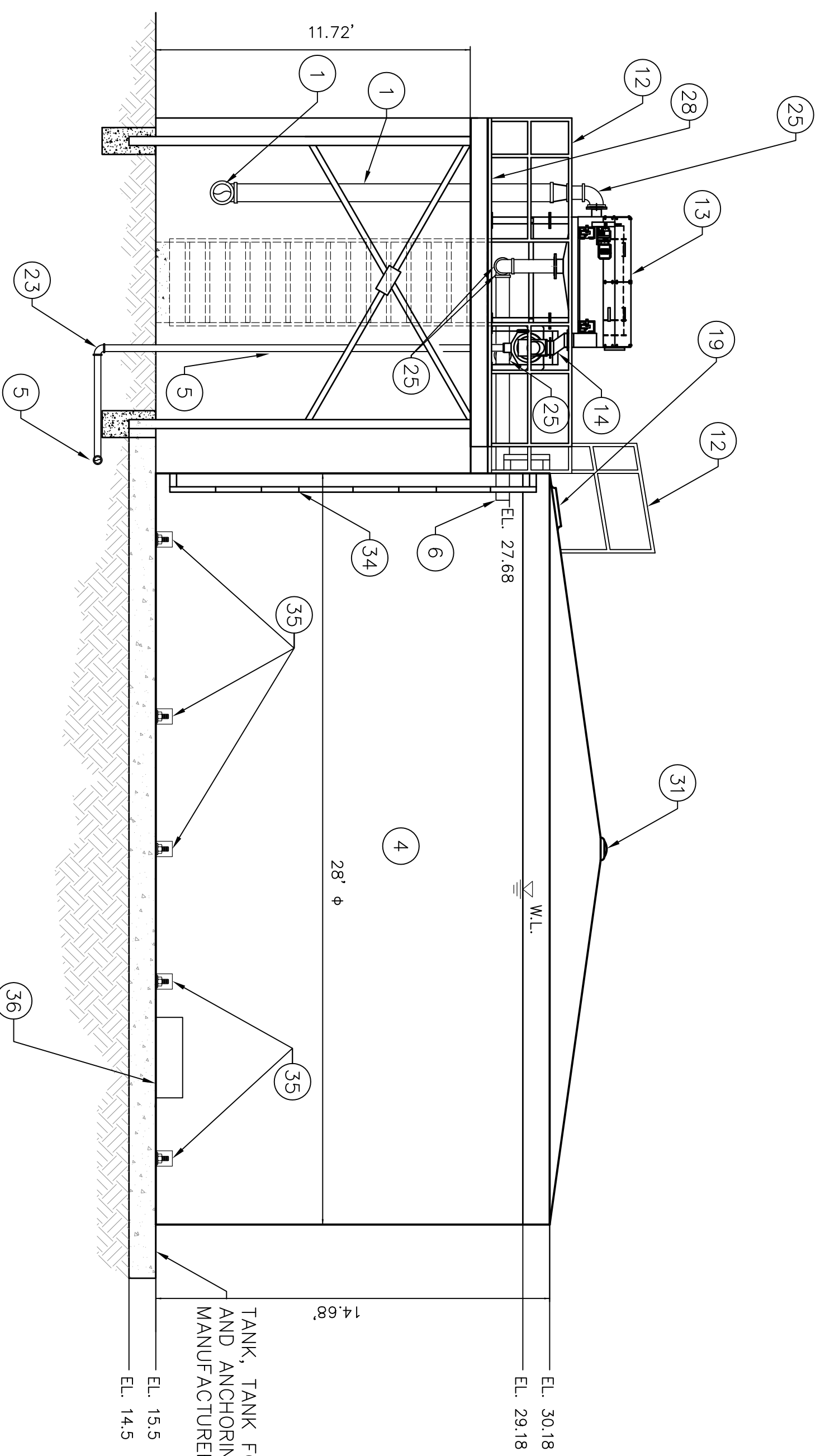
Excel Engineering
 CONSULTANTS, L.L.C.
 ENVIRONMENTAL & CIVIL ENGINEERS
 122 WILSHIRE BOULEVARD
 CASSELBERRY, FL 32707
 TEL: (407) 260-2292
 FAX: (407) 260-1183
 WWW.EXCELENGINEERS.COM



Section B-B
Scale: 1"=4'



Northwestern Tank Elevation
Scale: 1"=4'



Section A-A
Scale: 1"=4'

TANK, TANK FOUNDATION SLAB,
AND ANCHORING SYSTEM BY TANK
MANUFACTURER

Legend	
1	8" PVC PIPE
2	3"x3"x3" WYE
3	8"-90° BEND
4	67,000 GAL AQUASTORE TANK
5	3" PVC PIPE
6	6" PIPE
7	2"-90° ELBOW
8	3"x2" PIPE INCREASER
9	2" PIPE
10	SUMP PUMP & CONTROL PANEL
11	11"x12"-3"
12	OSHA-COMPLIANT ALUMINUM HANDRAIL
13	JMCC-IFEC SCREEN
14	JMCC-IFEC SCREEN
15	DUMPISTER
16	BOLLARD (TPP)
17	TYPE C CATCHBASIN
18	LIQUID LEVEL SENSOR
19	24" SQUARE ROOF ACCESS MANWAY WITH LOCKING MECHANISM AND PASSENGER
20	LIQUID LEVEL CONTROL TRANSDUCER
21	30" SHELL ACCESS MANWAY
22	6" GALVANIZED STEEL PIPE
23	3"-90° ELBOW
24	PIPE SUPPORT WITH CONCRETE BASE
25	6"-90° ELBOW
26	6" FRP PIPE
27	8" GATE VALVE
28	OSHA-COMPLIANT FIBERGLASS GRATE
29	8" OUTLET IRON PIPE
30	DUMPISTER PAD
31	DOME VENT W/ 20-MESH BUG SCREEN
32	8" PIPE INCREASER
33	OSHA-COMPLIANT ALUMINUM STAIRS
34	OSHA-COMPLIANT FIBERGLASS LADDER
35	TANK ANCHOR BOLTS TPP
36	SACRIFICIAL ANODE
37	8" FLUG VALVE
38	RELOCATED FLOW METER
39	8"-45° BEND
40	ALUMINUM CHUTE
41	4" FLEXIBLE HOSE
42	4" STEEL PIPE ON OUTSIDE OF HOSE
43	8"-4" COUPLING

NOTE:
STAIRS TO SCREEN PLATFORM TO BE MADE OF WELDED ALUMINUM WITH BAR-GRATE 8"-5/8" TREADS 10" X 2.6" ALUMINUM STRUCTURAL CHANNEL STRINGERS, & WELDED HANDRAILS OF 1.5" X .125 ALUMINUM SQUARE TUBING AS MANUFACTURED BY FINDUSTRIES OR APPROVED EQUAL.

NOTE:
FIXED LADDER INSIDE OF E.O. TANK TO MADE OF FRP WITH 1 3/4" SIDE RAILS WITH 1 1/4" FLUTED RUNGS 18" WIDE AND 14.8" LONG AS MANUFACTURED BY STRUCTURAL FIBERGLASS OR APPROVED EQUAL.

NOTE:
ALL ABOVE GROUND PIPING IS TO BE SUPPORTED BY PIPE SUPPORTS THAT ARE ANCHORED INTO THE NEW REINFORCED CONCRETE SLABS OR ON 12"x12"x4" THICK CONCRETE SLABS.

REVISIONS:	NUMBER	DESCRIPTION	DATE

**Eagle Ridge WWTF
Feasibility Study
Lee County Florida**

**Influent Screen and Surge Tank
Elevations**

Excel Engineering
CONSULTANTS, L.L.C.
ENVIRONMENTAL & CIVIL ENGINEERS
122 WILSHIRE BOULEVARD
CASSELBERRY, FL 32707
TEL: (407) 260-2292
FAX: (407) 260-1183
WWW.EXCELENGINEERS.COM

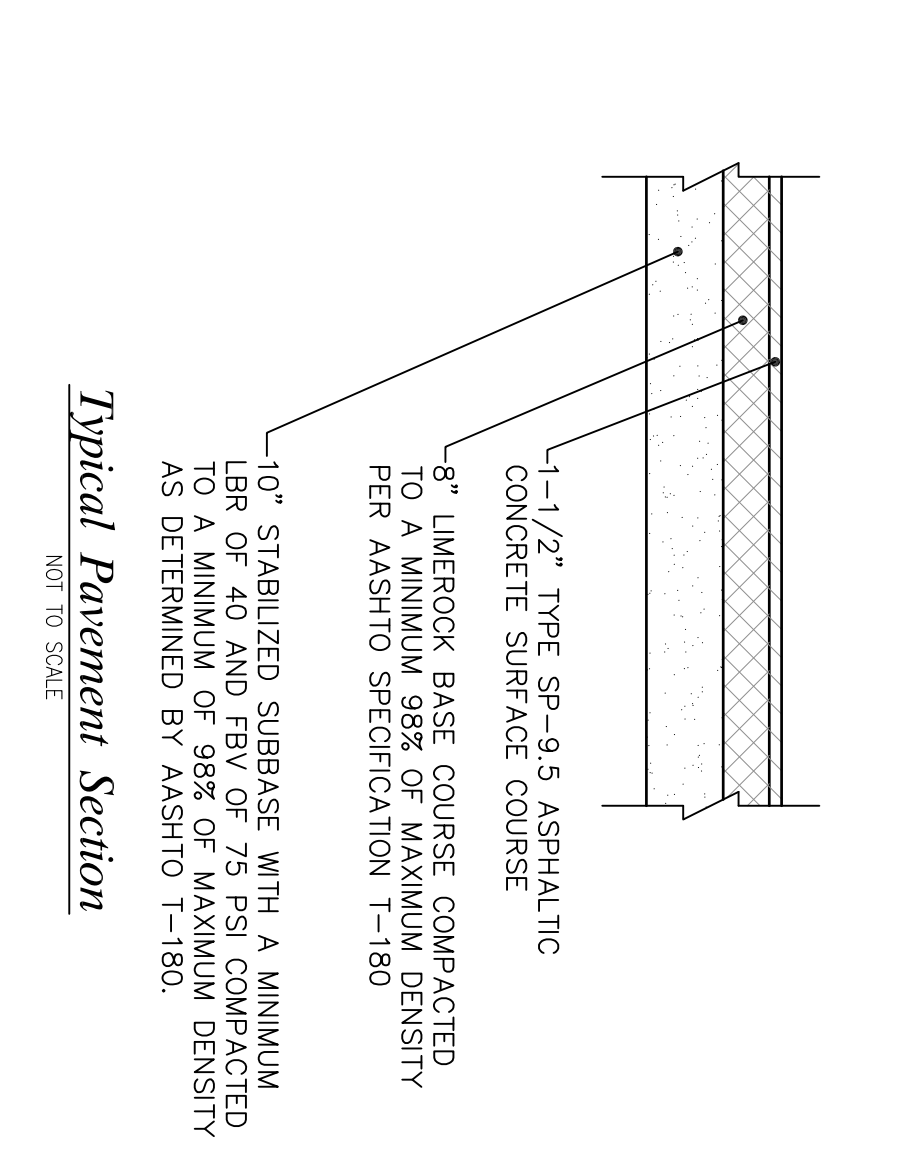
Project Number
UT103-0216

SCALE: AS SHOWN
DRAWN: N.R.C.
CHECKED: T.N.S.
APPROVED: J.R.C.
DATE: 2/10/2016
SHEET NO. 7
OF 11

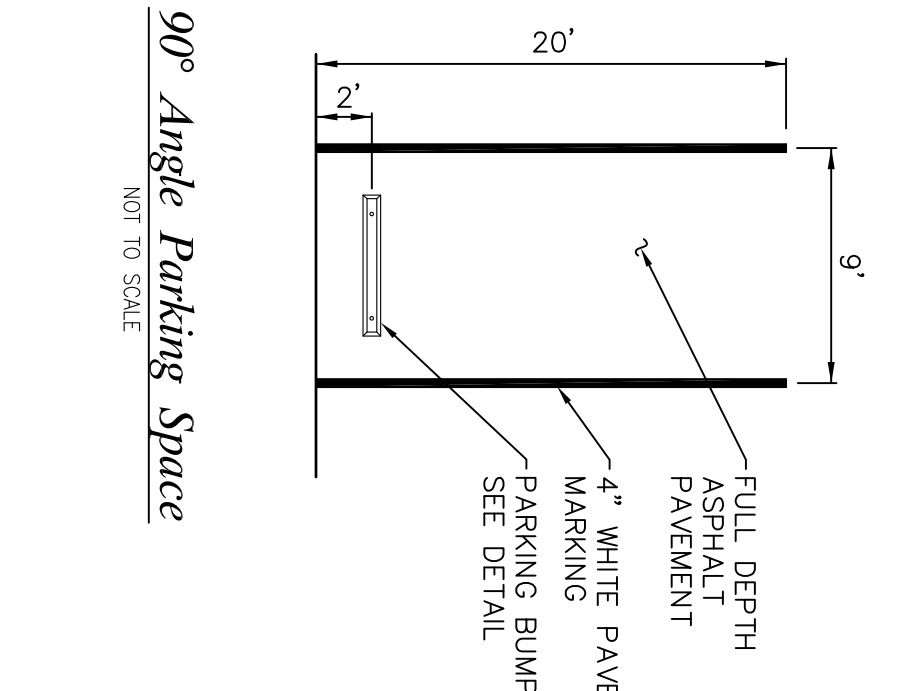
FOR EACH DESIGN, THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS FROM THE LOCAL, STATE, AND FEDERAL AGENCIES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS FROM THE LOCAL, STATE, AND FEDERAL AGENCIES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS FROM THE LOCAL, STATE, AND FEDERAL AGENCIES.

REVISIONS:	DESCRIPTION	DATE

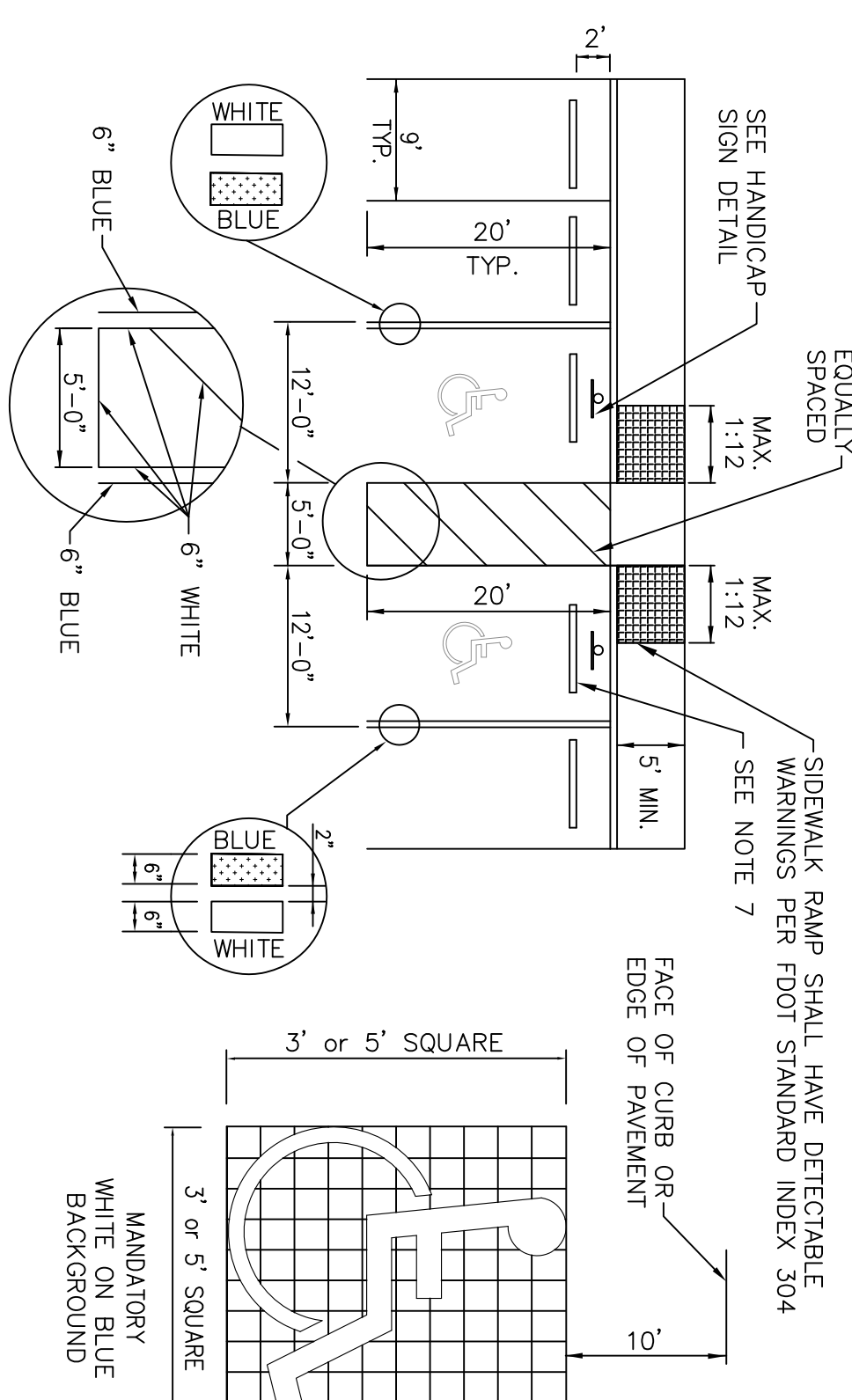
Project Number
UT103-0216
SCALE: AS SHOWN
DRAWN: N.R.C.
CHECKED: T.N.S.
APPROVED: J.R.C.
DATE: 2/10/2016
SHEET NO. 8
OF 11



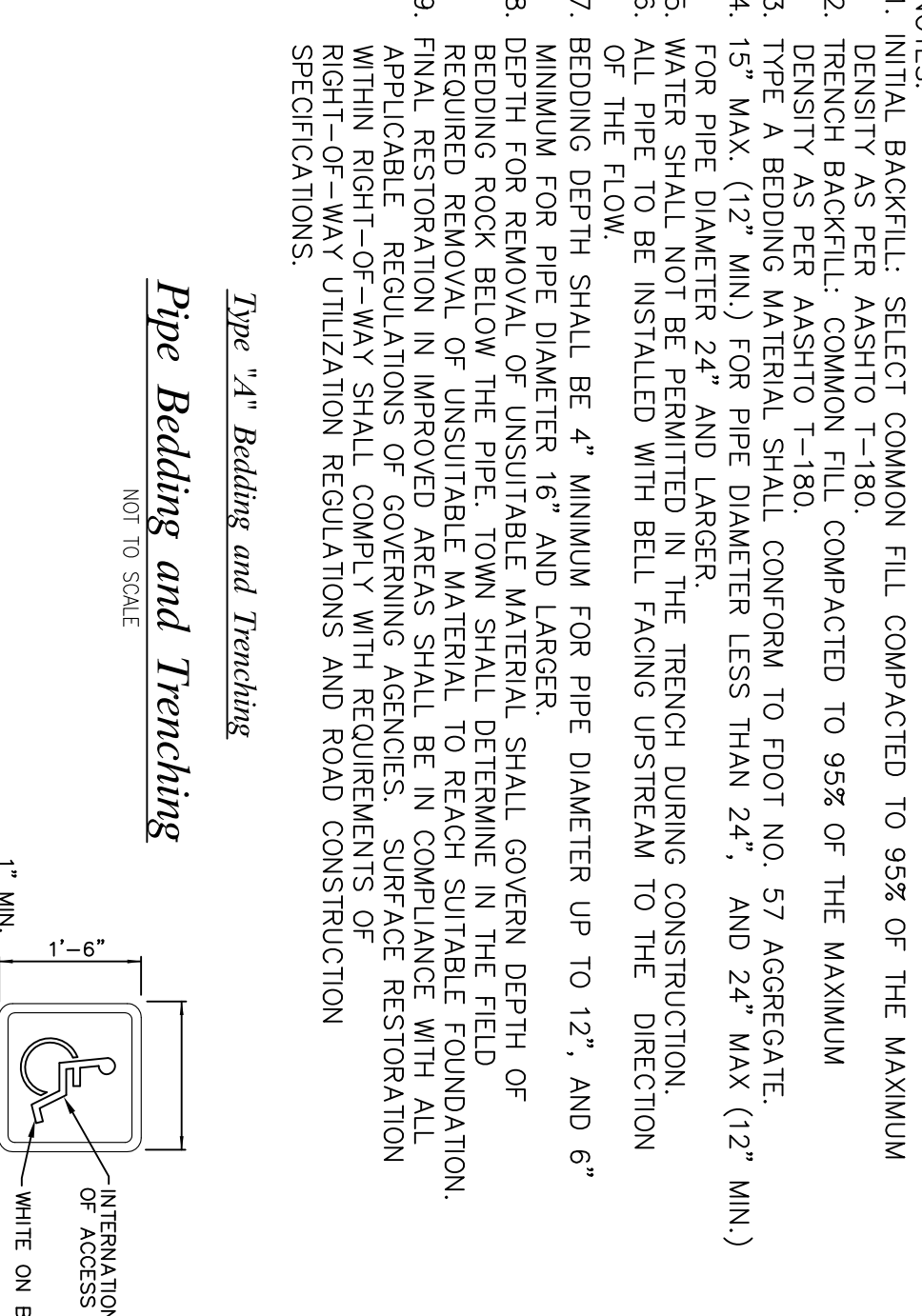
Typical Pavement Section
NOT TO SCALE



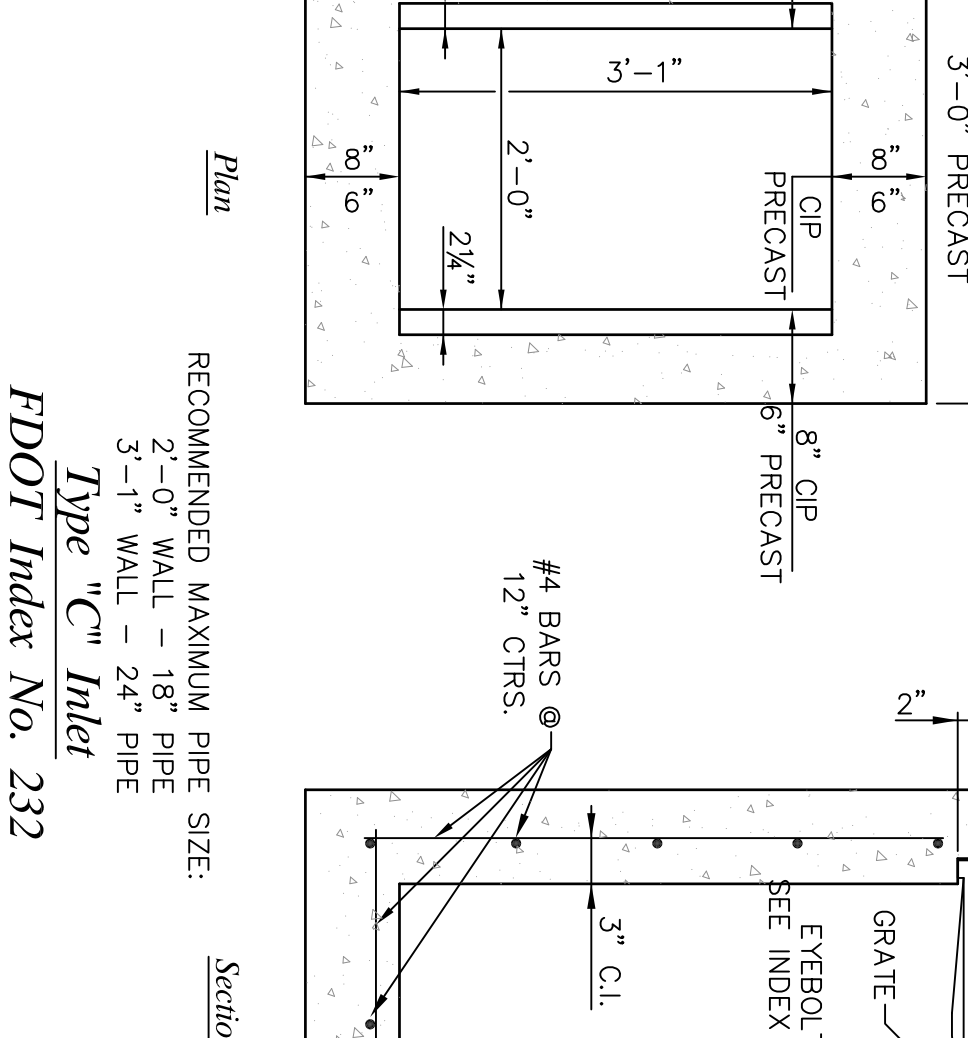
90° Angle Parking Space
NOT TO SCALE



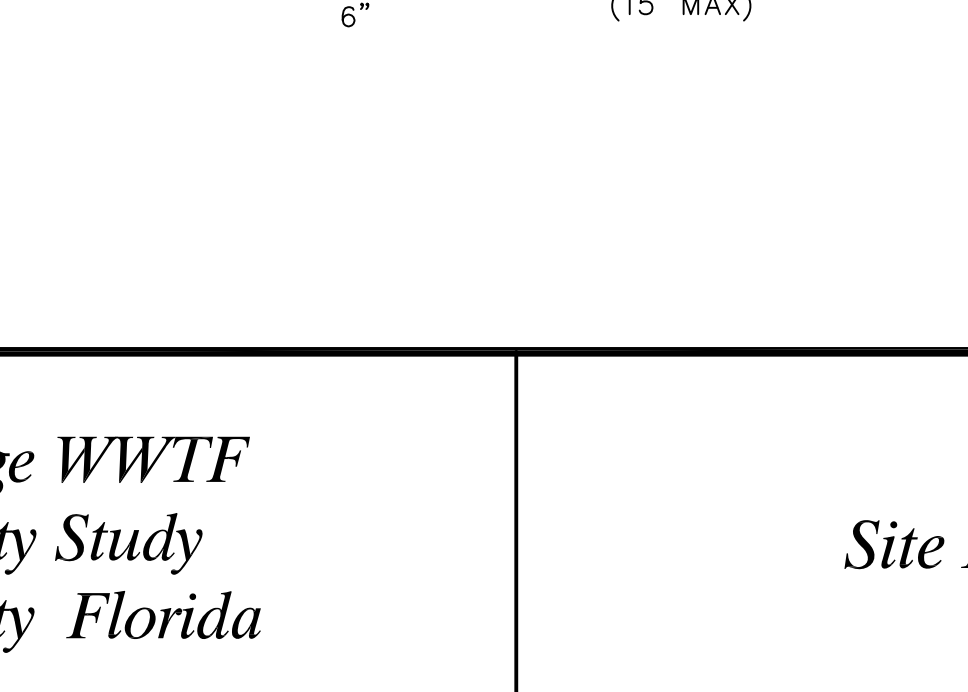
Disabled Parking / Marking - And Parking Stalls
N.T.S.



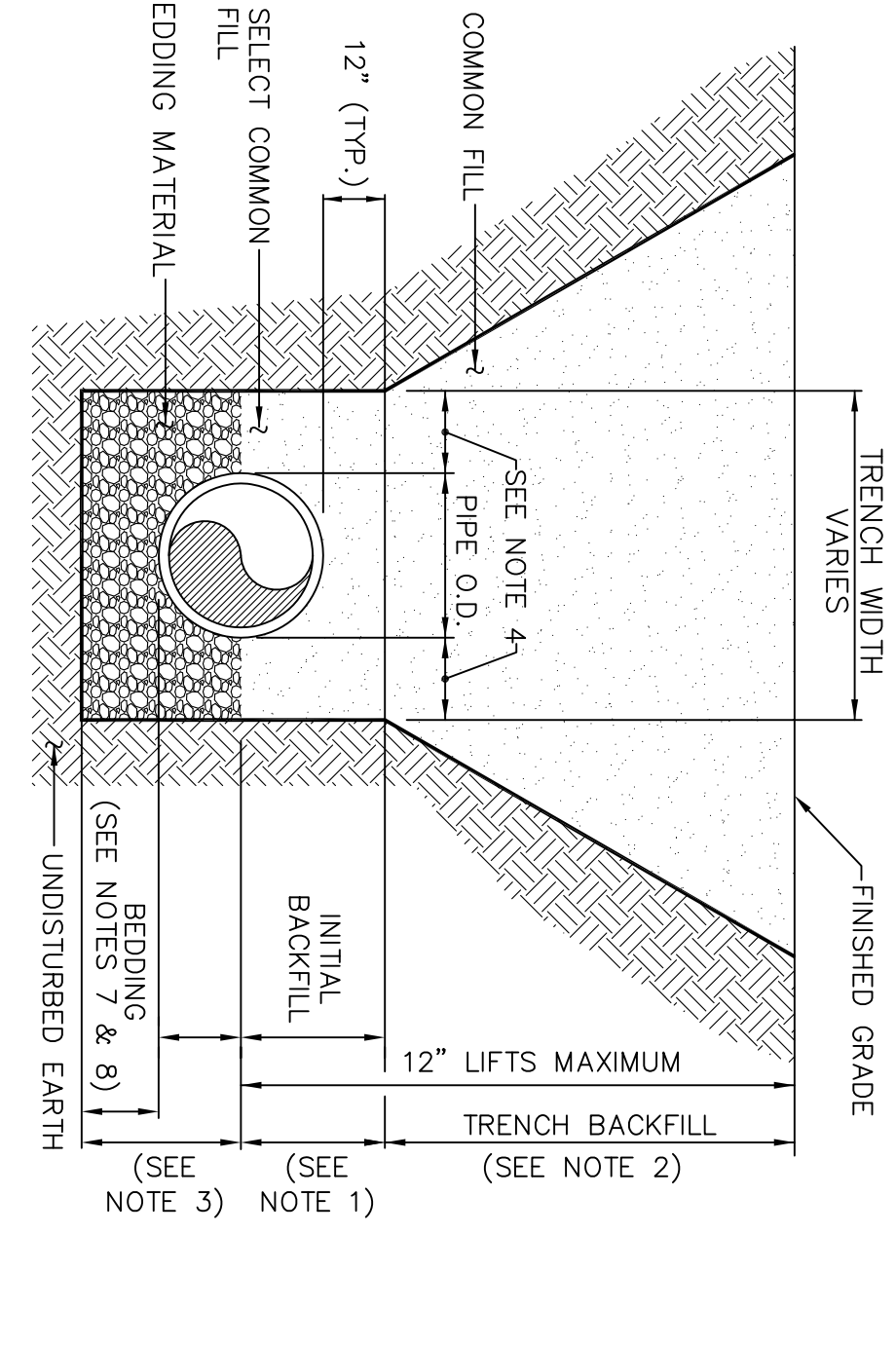
Pipe Bedding and Trenching
NOT TO SCALE



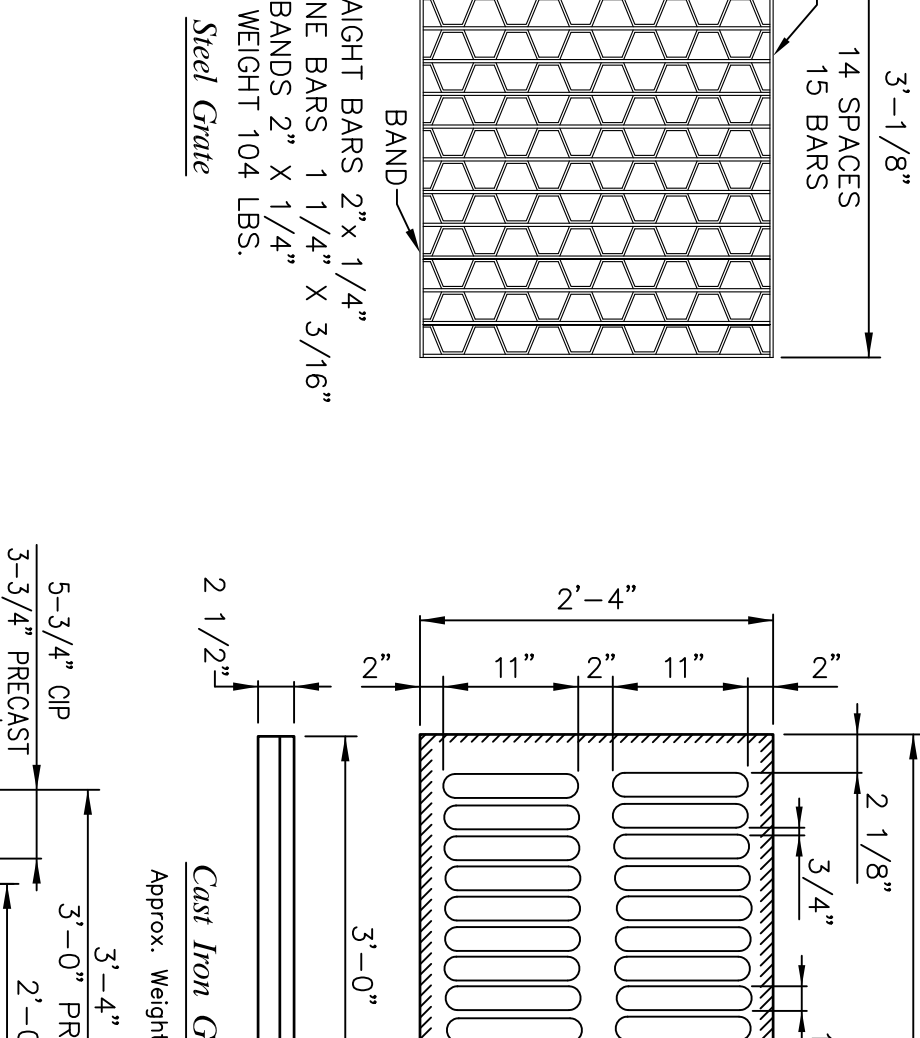
Type 'A' Bedding and Trenching
N.T.S.



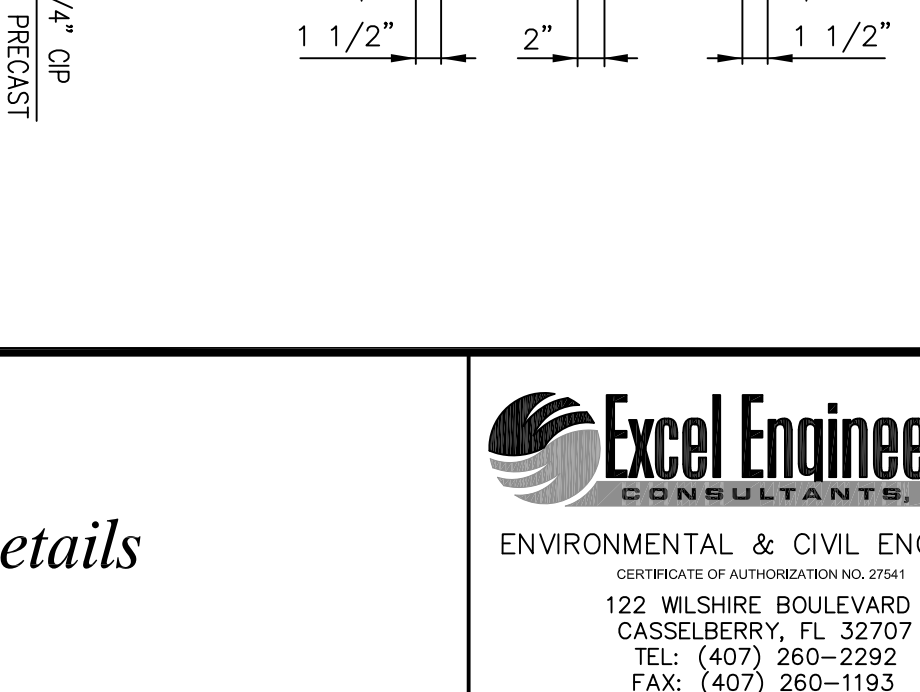
Type 'C' Inlet
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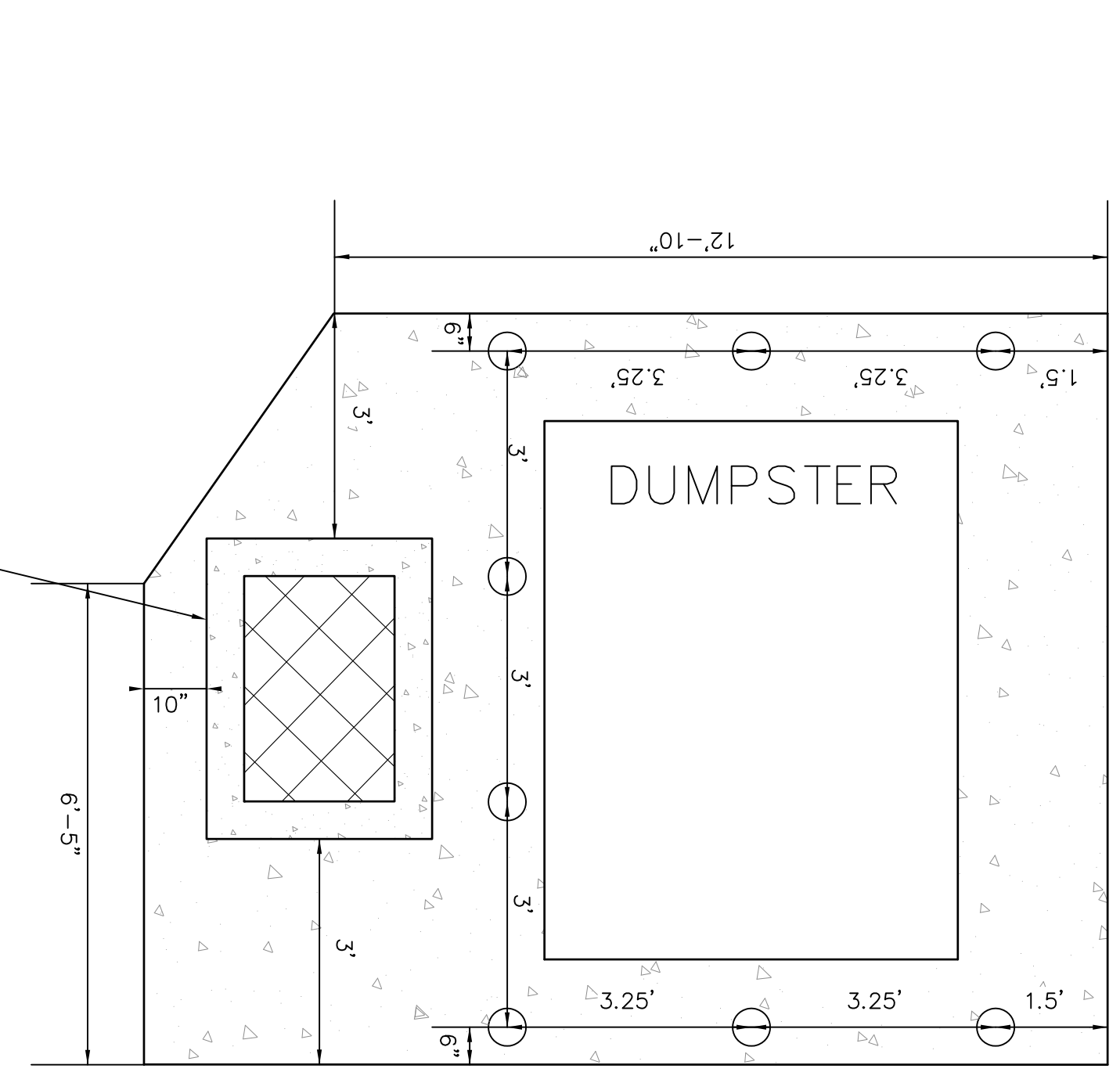
Plan



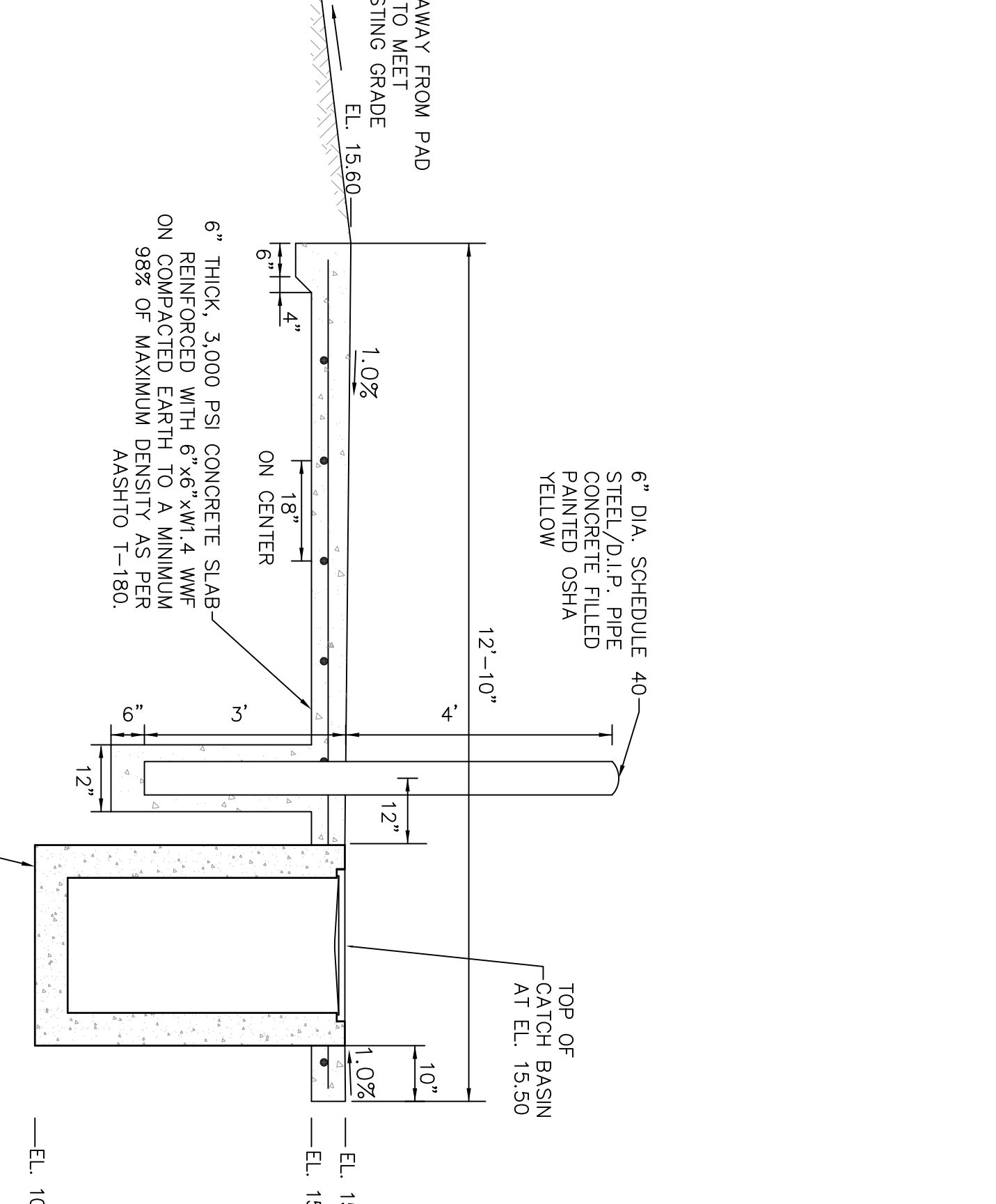
Section



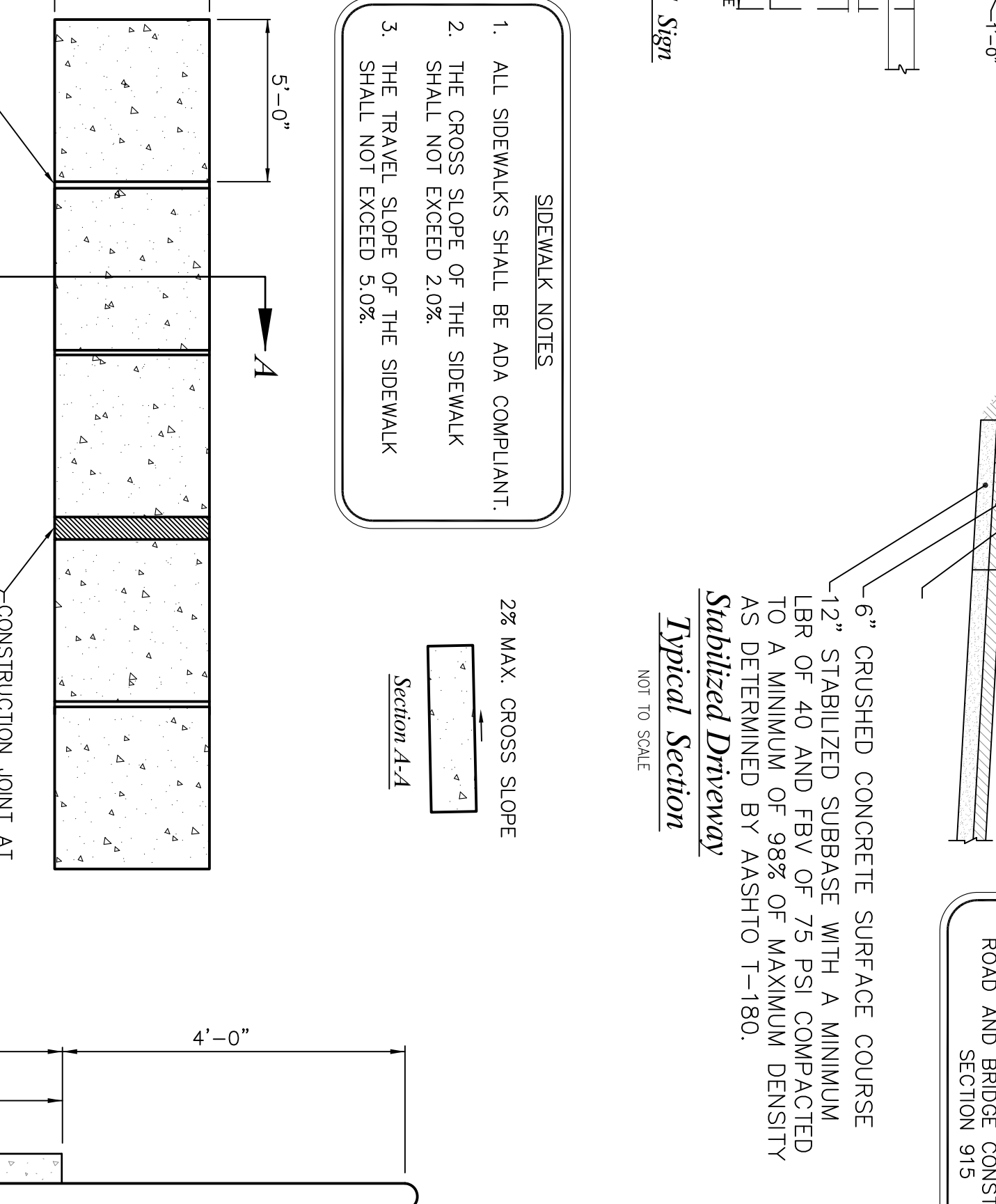
Cast Iron Grate
Approx. Weight 235 Lbs.



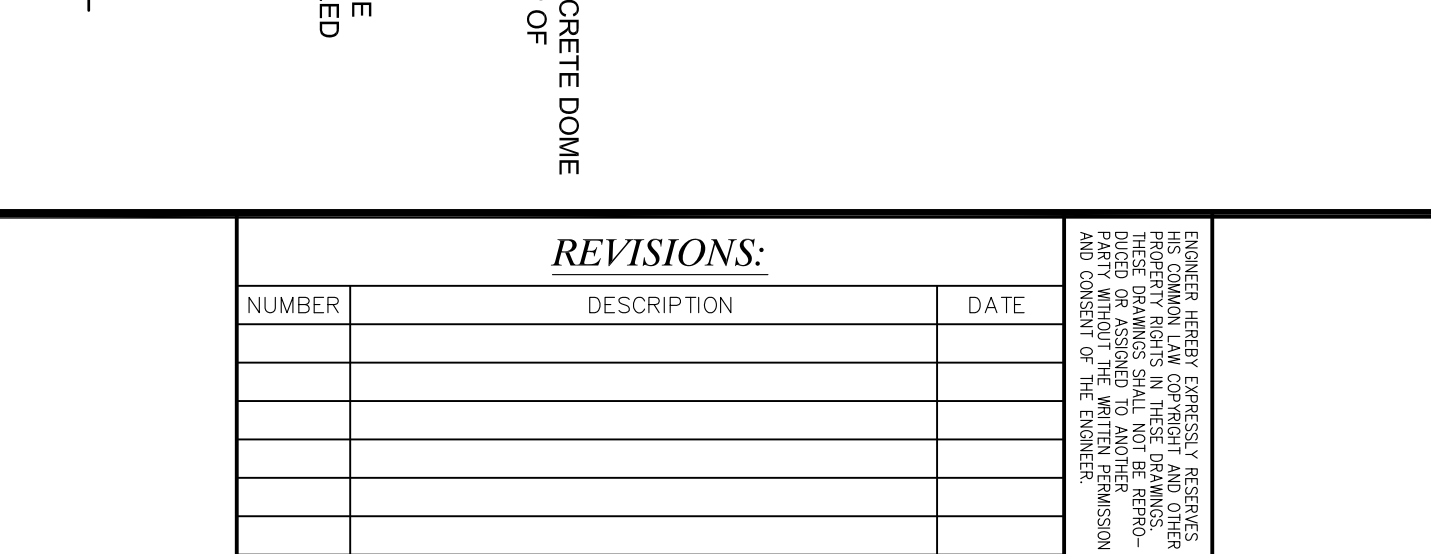
Dumpster Pad Detail
1" = 2'



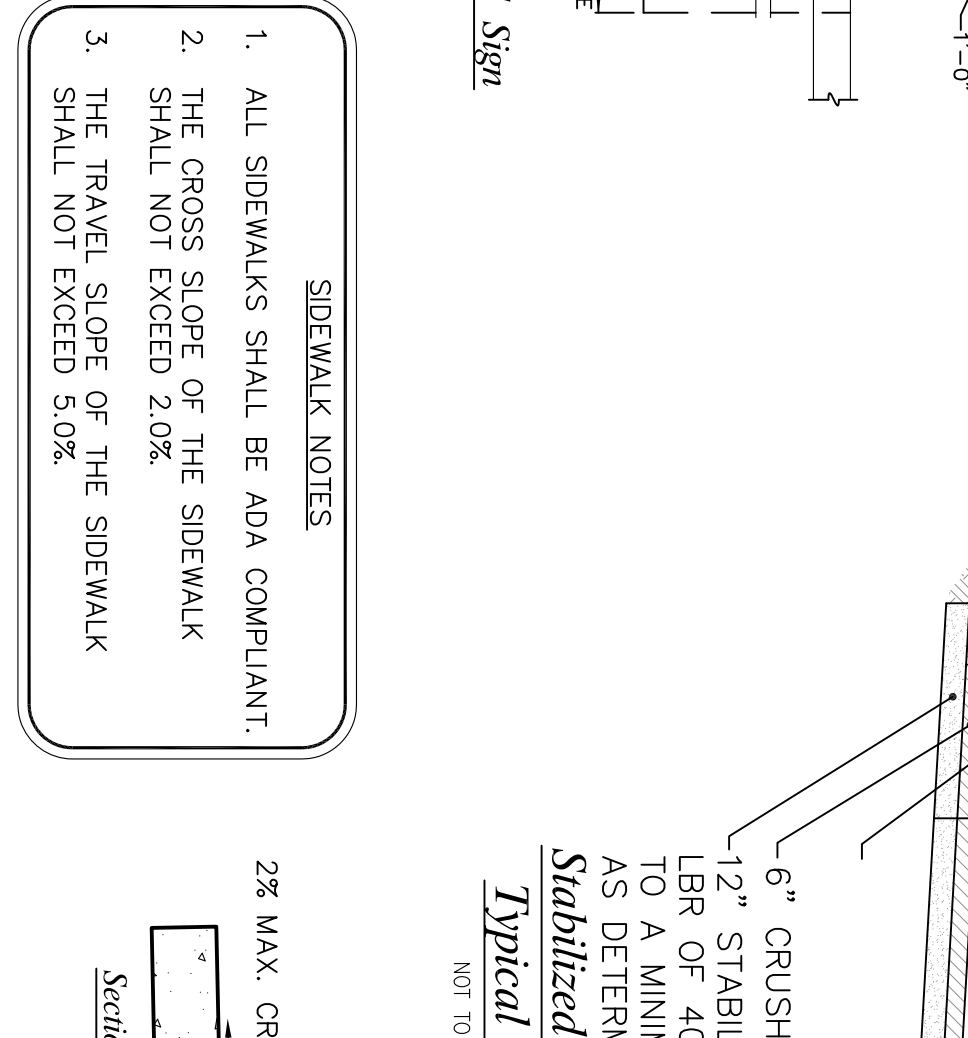
Reinforced Concrete Dumpster Pad With Thickened Edge
1" = 2'



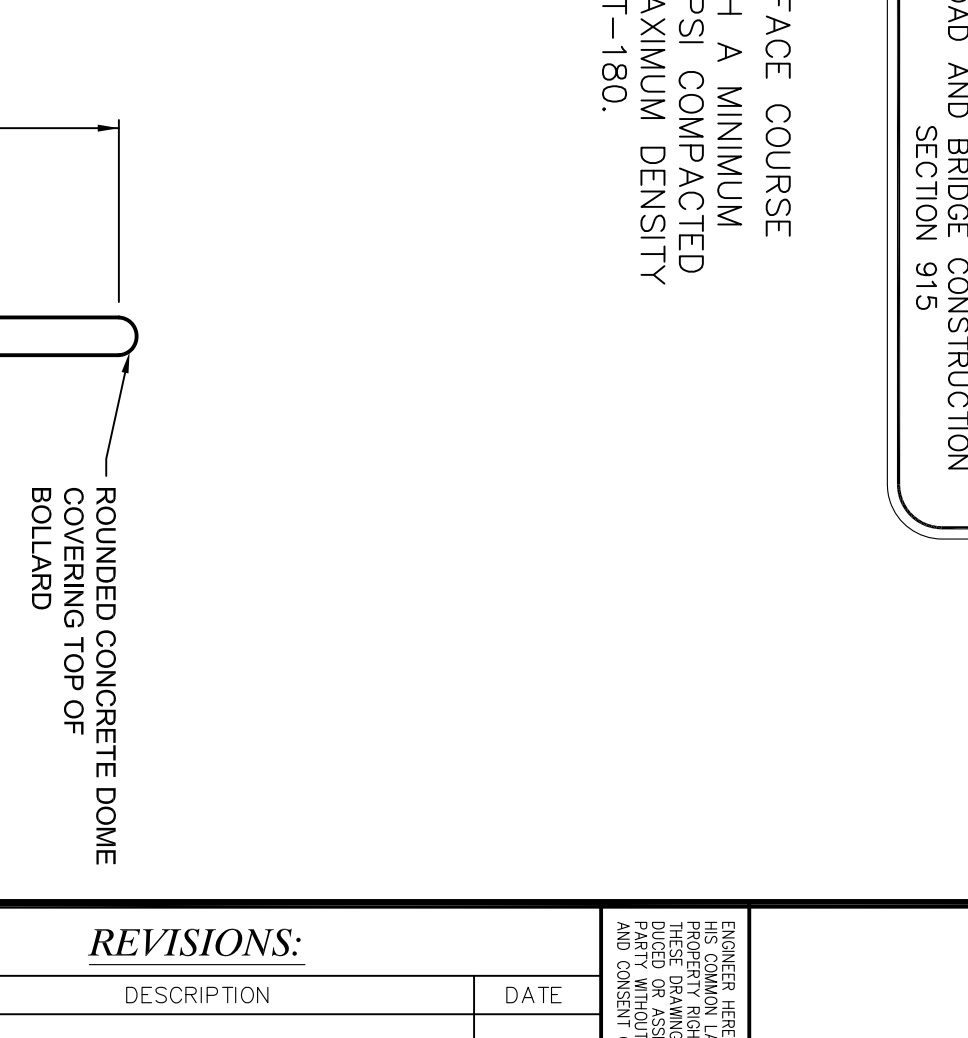
Concrete Sidewalk
NOT TO SCALE



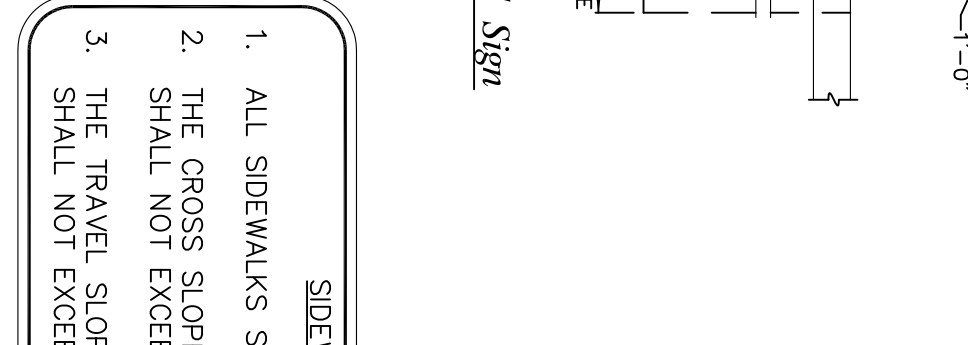
Bollard
NOT TO SCALE



Disabled Sign
N.T.S.



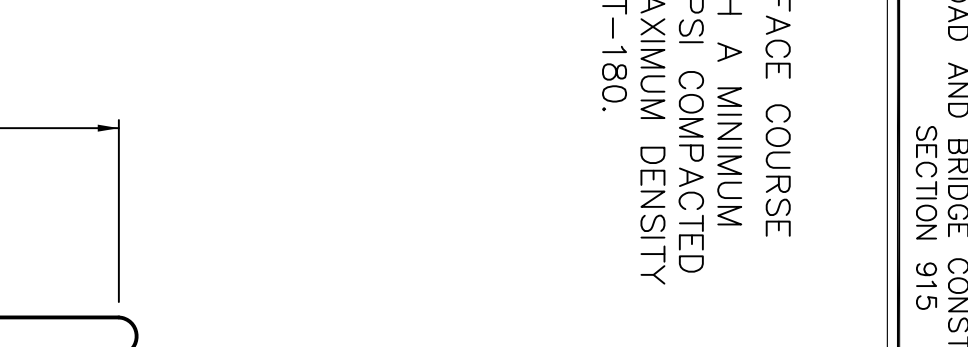
Typical Driveway
NOT TO SCALE



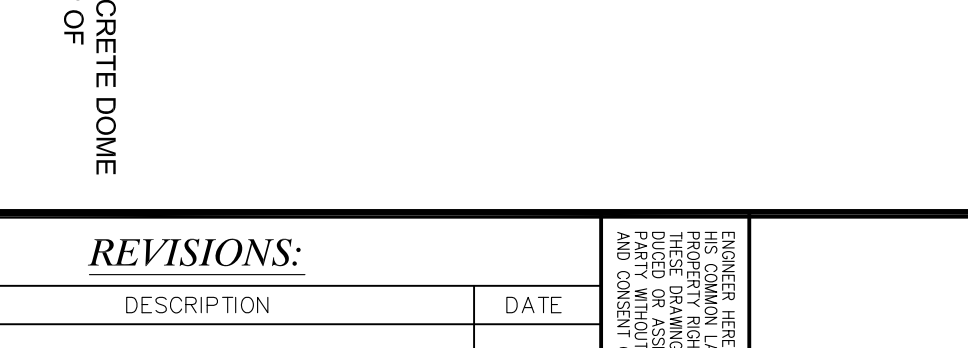
Sidewalk Notes



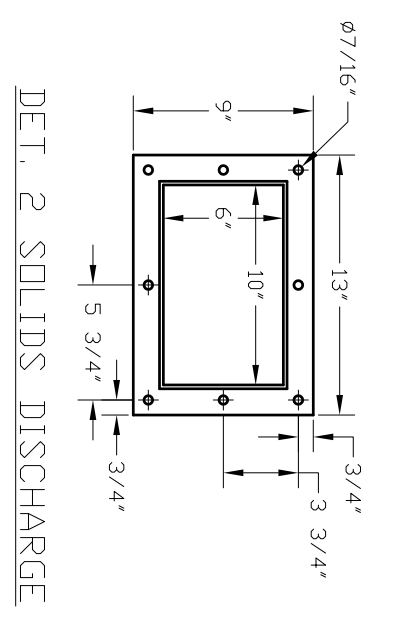
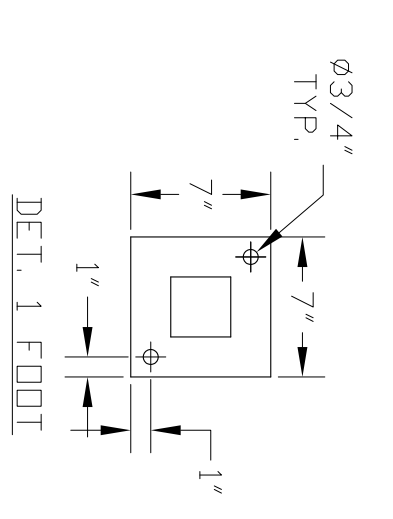
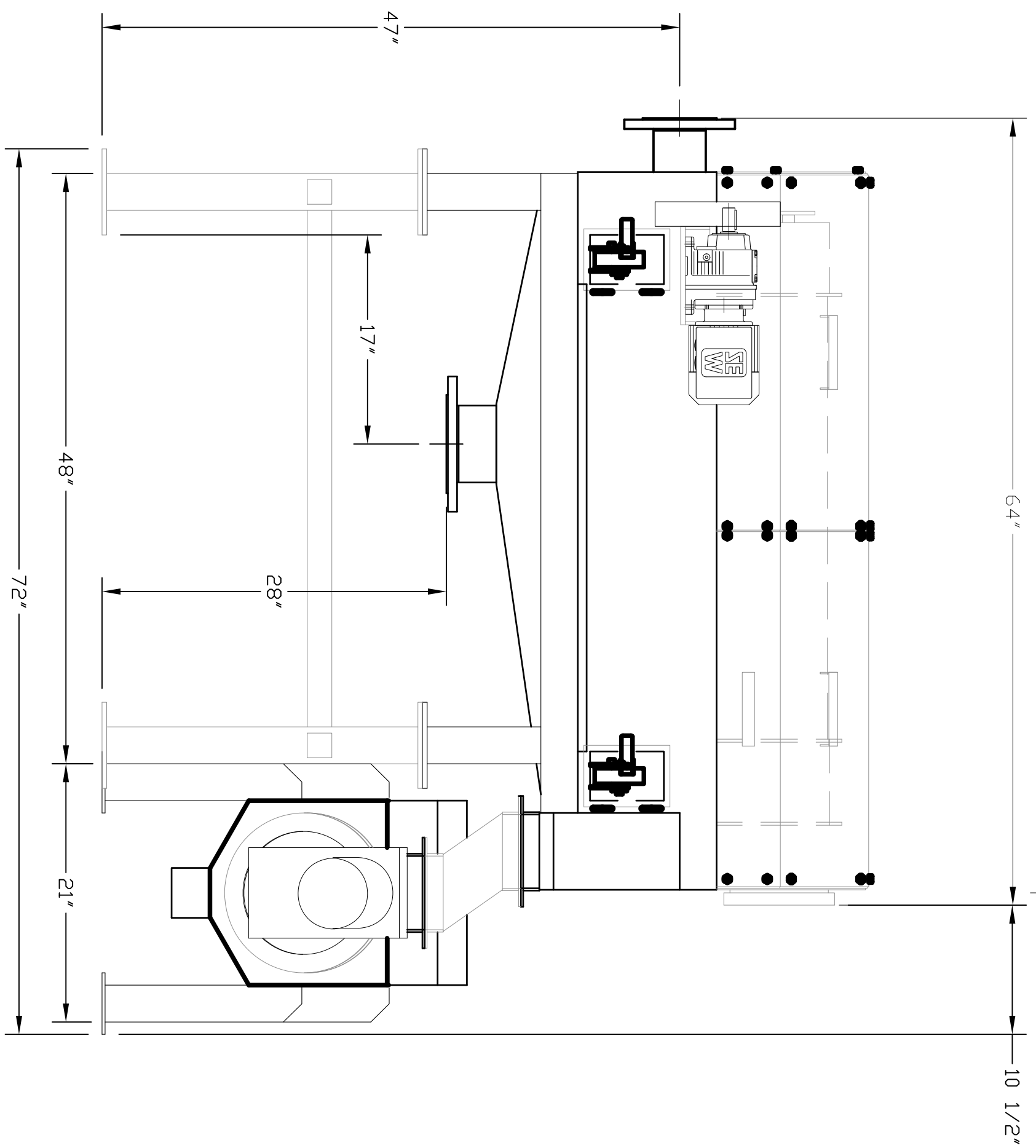
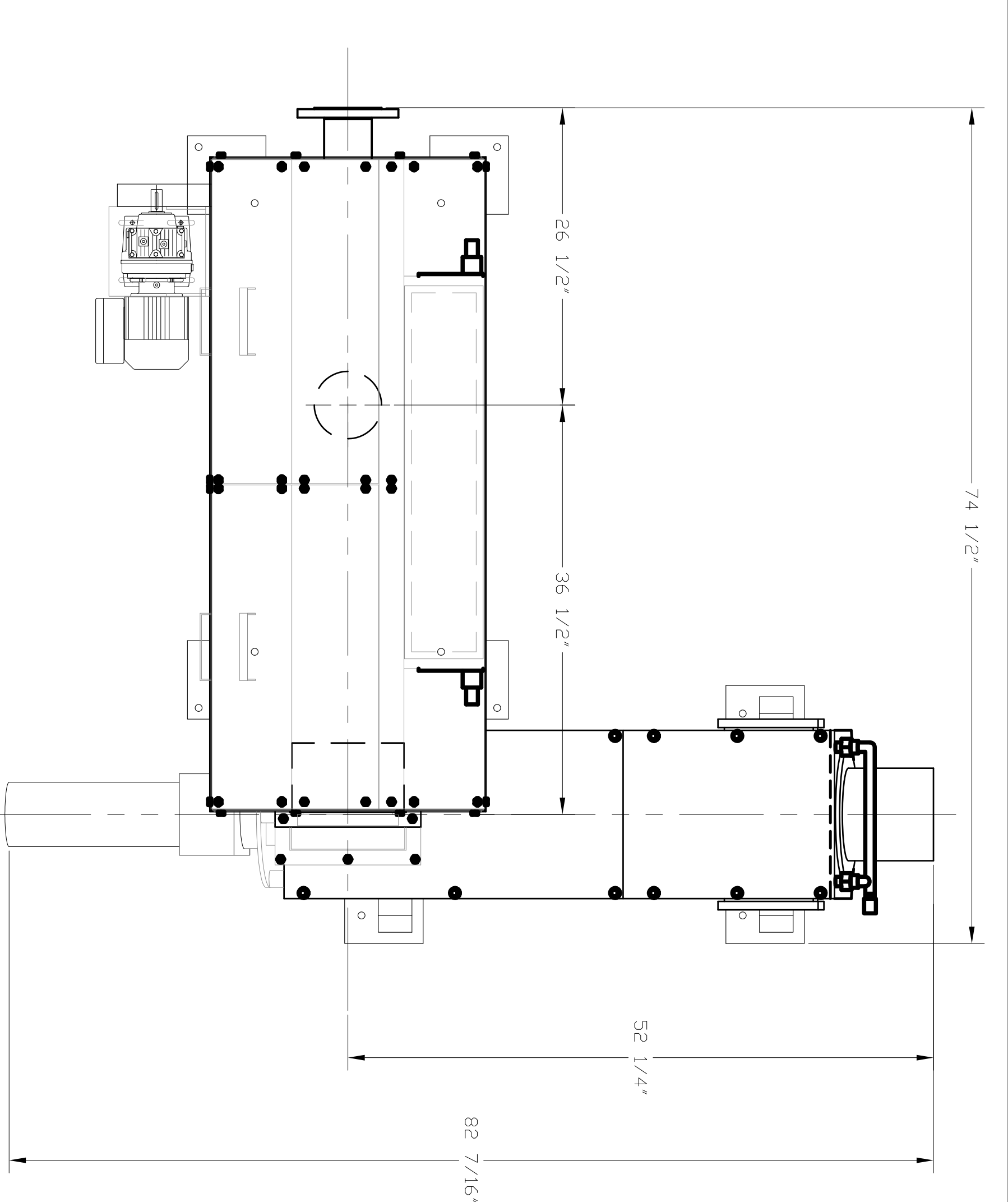
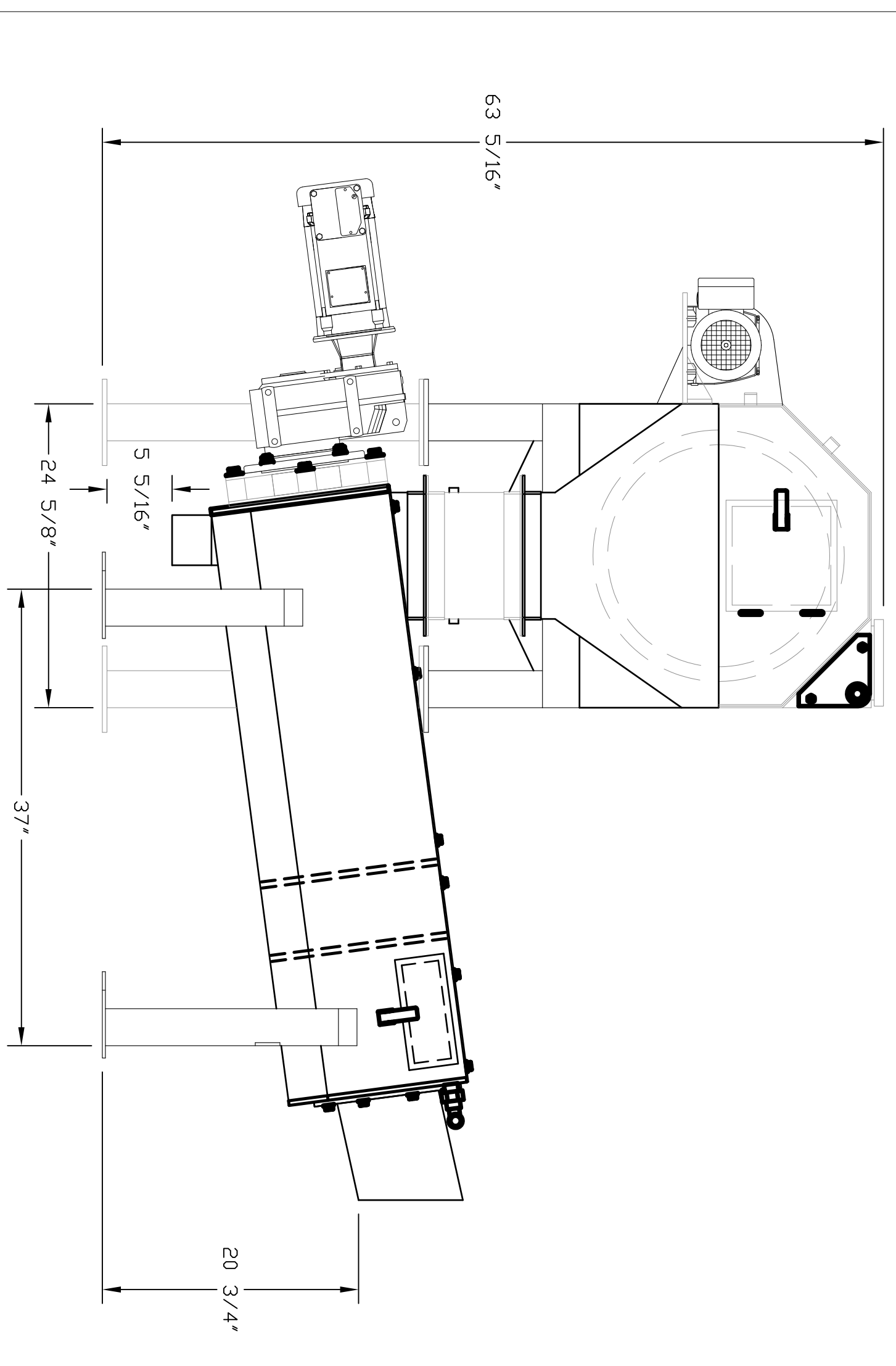
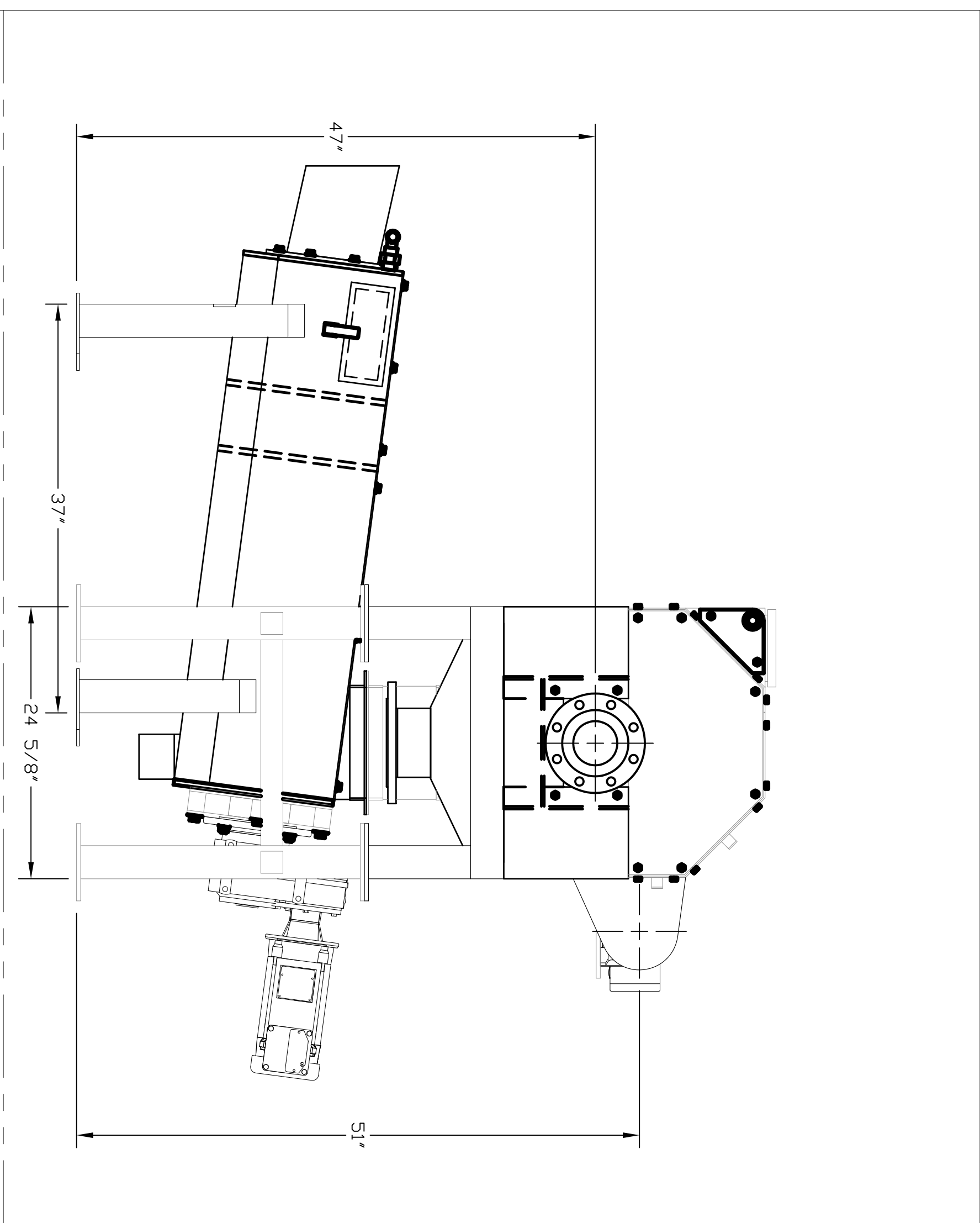
Section A-A



Rounded Concrete Dome Bollard



Concrete Footing



SYMBOL	DESCRIPTION	DATE	BY

CUSTOMER: ***	TITLE: IPEC
IFM 1836	IPEC CONSULTANTS
C/W	2889 NORLAND AVE.
PLB 630	BURNABY, B.C.
GENERAL	CANADA V5B 3A9
ARRANGEMENT	1 800 663 8409

DATE: MAY 17, 2011	PROJECT: ***	SCALE: ***
DWG. NO: 20120528	CHK'D: ARL	DWG. NO: M1836201
DATE: MAY 17, 2011	DATE: MAY 17, 2011	REV: 0

Project Number
 U7102-0216
 SCALE: AS SHOWN
 DRAWN: N.R.C.
 CHECKED: T.M.S.
 APPROVED: J.R.C.
 DATE: 2/10/2016
 SHEET NO. 11
 OF 11

NUMBER	DESCRIPTION	DATE

Eagle Ridge WWTF
 Feasibility Study
 Lee County Florida

Screen and Screw Details

Excel Engineering
 CONSULTANTS, L.L.C.
 ENVIRONMENTAL & CIVIL ENGINEERS
CORPORATE OFFICE
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 CASSELBERRY, FL 32707
 TEL: (407) 260-2292
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