COLLIER COUNTY PUBLIC UTILITIES
GOODLAND PUMP STATION IMPROVEMENTS

1600 CHEVROLET WAY, SUITE 102
ESTERO, FL 33928
TEL: (239) 390-1467 FAX: (239) 390-1769
www.tetratech.com

TETRA TECH

PROJECT LOCATION:
2559 SAN MARCO RD.
SECTION 13, TOWNSHIP 52, RANGE 26

CLIENT INFORMATION:
COLLIER COUNTY PUBLIC UTILITIES
3339 TAMIAMI TRAIL EAST, SUITE 301
NAPLES, FL 34112

Tt PROJECT No.:
200-08486-22002

CLIENT PROJECT No.:
70276.2

PROJECT DESCRIPTION / NOTES:
UPGRADES TO THE GOODLAND PUMP STATION.

ISSUED:
BID SET - AUGUST 2025

VICINITY MAP:

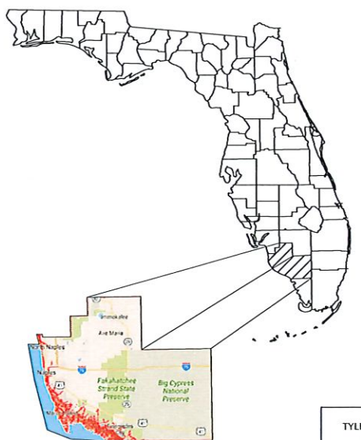
Collier County

PREPARED FOR

COLLIER COUNTY PUBLIC UTILITIES
COLLIER COUNTY WATER-SEWER DISTRICT
3339 TAMIAMI TRAIL E., SUITE 303
NAPLES, FLORIDA 34112

BOARD OF COUNTY COMMISSIONERS

RICK LOCASTRO	DISTRICT 1
CHRIS HALL	DISTRICT 2 (CHAIRMAN)
BURT L. SAUNDERS	DISTRICT 3 (VICE CHAIRMAN)
DAN KOWAL	DISTRICT 4
WILLIAM L. MCDANIEL, JR.	DISTRICT 5



COLLIER COUNTY

TYLER WAINRIGHT, P.E.
LICENSE #80476
Tetra Tech Inc.
10600 Chevrolet Way, Ste. 102
Estero, Florida 33928
Engineering Business No. 2429

DATE _____

GENERAL NOTES

1. CONTRACTOR SHALL SUBMIT FOR REVIEW A DETAILED SHUT DOWN AND SEQUENCING PLAN TO THE ENGINEER AND THE COUNTY FOR REVIEW AND APPROVAL. ALL SHUT DOWNS WILL REQUIRE A MINIMUM OF SEVEN (7) DAYS ADVANCED NOTICE.
2. CONTRACTOR IS HEREBY ADVISED THAT THE UTILITIES SHOWN ON THESE PLANS ARE BASED ON LIMITED RECORD DRAWING INFORMATION WHICH WAS ACQUIRED DURING THE DESIGN PHASE OF THIS PROJECT. A COMPREHENSIVE SET OF RECORD DRAWINGS FOR THIS SITE WAS NOT MADE AVAILABLE TO TETRA TECH AND ADDITIONAL ABOVE AND BELOW GROUND UTILITIES, STRUCTURES, ETC. MAY EXIST BEYOND WHAT IS SHOWN ON THESE DRAWINGS. PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL CONDUCT A THOROUGH SITE INSPECTION IN ORDER TO FAMILIARIZE HIMSELF WITH THE SITE CONDITIONS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE EXACT LOCATION, DEPTH AND CHARACTER OF ALL UTILITIES DURING CONSTRUCTION. IF THE EXISTING UTILITIES DIFFER FROM THESE CONSTRUCTION PLANS, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ENGINEER AND COLLIER COUNTY PRIOR TO PROCEEDING WITH ANY FURTHER WORK.
3. ALL WORK SHALL BE IN ACCORDANCE WITH THE COLLIER COUNTY UTILITY STANDARDS MANUAL WHICH CAN BE FOUND AT WWW.COLLIERGOV.NET
4. THE CONTRACTOR SHALL NOTIFY UTILITY OWNERS THROUGH SUNSHINE ONE CALL OF FLORIDA INC. (811) TWO (2) FULL BUSINESS DAYS IN ADVANCE OF BEGINNING CONSTRUCTION ON THE JOB SITE.
5. POTABLE WATER PIPELINES SHALL BE SEPARATED FROM WASTEWATER LINES AND /OR STORMWATER LINES BY A MINIMUM CLEAR VERTICAL DISTANCE OF 18 INCHES AND A HORIZONTAL DISTANCE OF 10 FEET. THE 18 INCHES MINIMUM VERTICAL SEPARATION DISTANCE DOES NOT APPLY TO SEPARATIONS OF SEWER LATERALS AND POTABLE WATER PIPELINE INSTALLATIONS. 57 STONE SHALL BE UTILIZED FOR SEPARATION BETWEEN WASTEWATER LINES AND STORMWATER LINES. NON-POTABLE IRRIGATION WATER PIPELINES TWO INCHES AND LARGER SHALL BE SEPARATED FROM POTABLE WATER MAINS, WASTEWATER LINES AND/OR STORMWATER LINES BY A MINIMUM CLEAR VERTICAL DISTANCE OF 18 INCHES AND A HORIZONTAL DISTANCE OF FIVE FEET. WASTEWATER LINES SHALL BE SEPARATED FROM STORMWATER LINES BY A MINIMUM CLEAR VERTICAL DISTANCE OF 18 INCHES AND A HORIZONTAL DISTANCE OF FIVE FEET. ALL PIPELINE CROSSINGS WITH VERTICAL CLEARANCE LESS THAN 18 INCHES SHALL BE MADE USING A FULL 20 FOOT LENGTH OF THICKNESS CLASS 200 AWWA C900 PVC PIPE, CLASS 235 AWWA C905 PVC PIPE, OR, IF NECESSARY, PRESSURE CLASS 250 DUCTILE IRON PIPE CENTERED ON THE CROSSING. THE SEWER PIPE IN THESE LOCATIONS SHALL BE BACK-FILLED WITH BEDDING STONE OR SAND TO A HEIGHT SIX INCHES ABOVE THE CROWN OF THE PIPE. POTABLE WATER, NON-POTABLE IRRIGATION WATER, AND WASTEWATER PIPELINES SHALL BE SEPARATED FROM TELEPHONE, POWER, CABLE AND GAS SLEEVES/LINES AND ANY OTHER UNDERGROUND UTILITIES BY A MINIMUM CLEAR VERTICAL DISTANCE OF 18 INCHES AND HORIZONTAL DISTANCE OF FIVE FEET.
6. ALL PIPING SHALL HAVE A MINIMUM 30" AND A MAXIMUM OF 48" OF COVER.
7. DEWATERING MAY BE REQUIRED IN SOME AREAS TO ACHIEVE THE NECESSARY EXCAVATION AND SUBSEQUENT CONSTRUCTION, BACKFILLING AND COMPACTING. NO EXTRA COMPENSATION FOR DEWATERING WILL BE ALLOWED. CONTRACTOR WILL BE RESPONSIBLE FOR OBTAINING ANY NECESSARY DEWATERING PERMIT(S). ALL DEWATERING SHALL BE IN ACCORDANCE WITH COLLIER COUNTY DIVISION 31 OF THE SPECIFICATIONS. WETLAND AREAS SHALL NOT RECEIVE ANY REMOVED WATER.
8. PRIOR TO BID PREPARATION, THE CONTRACTOR MUST BECOME FAMILIARIZED WITH THE OVERALL SITE CONDITION AND PERFORM ADDITIONAL INVESTIGATIONS AS DETERMINED NECESSARY TO UNDERSTAND THE LIMIT AND DEPTH OF ROCK, UNSUITABLE FILL MATERIALS, EXPECTED ORGANIC SILT PEAT AREAS, ADEQUACY OF EXISTING MATERIALS AS FILL, DEWATERING REQUIREMENTS, CLEAN FILL REQUIRED FROM OFFSITE, AND MATERIALS TO BE DISPOSED OF OFFSITE ALL OF WHICH WILL AFFECT HIS PRICING. ANY DELAY, INCONVENIENCE OR EXPENSE CAUSED TO THE CONTRACTOR DUE TO INADEQUATE INVESTIGATION OF EXISTING CONDITIONS SHALL BE INCIDENTAL TO THE CONTRACT AND NO EXTRA COMPENSATION WILL BE ALLOWED. THE MATERIALS ANTICIPATED TO BE ENCOUNTERED DURING CONSTRUCTION MAY REQUIRE DRYING PRIOR TO USE AS BACKFILL AND THE CONTRACTOR MAY HAVE TO BRING IN MATERIALS AT NO EXTRA COST FROM OFFSITE TO MEET THE REQUIREMENTS FOR COMPACTION AND PROPER FILL.
9. CONTRACTOR SHALL COMPLY WITH ALL ASPECTS OF THE COLLIER COUNTY NOISE ORDINANCE.
10. IT IS THE CONTRACTOR'S RESPONSIBILITY TO REPLACE ANY EXISTING LANDSCAPING (I.E. SOD, BUSHES, TREES, ETC.), AND FENCING THAT MAY HAVE BEEN REMOVED OR HAS BEEN DAMAGED DURING CONSTRUCTION. CONTRACTOR TO REPLACE OR REPAIR ANY DAMAGED PROPERTY OR IMPROVEMENTS TO A CONDITION EQUAL TO OR BETTER THAN EXISTED PRIOR TO CONSTRUCTION.
11. THE CONTRACTOR SHALL NOTIFY COLLIER COUNTY UTILITIES DEPARTMENT AT LEAST THREE FULL WORK DAYS IN ADVANCE OF ALL PLANNED SERVICE INTERRUPTIONS, AND RECEIVE COUNTY PROJECT MANAGER'S APPROVAL BEFORE PROCEEDING WITH PLANNED INTERRUPTIONS.
12. CONTRACTOR IS REQUIRED TO OBTAIN FROM THE ENGINEER OF RECORD AND COUNTY PROJECT MANAGER WRITTEN APPROVAL FOR ANY DEVIATIONS FROM THE PLANS AND/OR SPECIFICATIONS.
13. ALL CONSTRUCTION DEBRIS AND OTHER WASTE MATERIAL SHALL BE DISPOSED OF OFFSITE IN ACCORDANCE WITH APPLICABLE REGULATIONS.
14. WORK AREAS ARE TO BE CLEANED ON A DAILY BASIS.
15. ALL DISTURBED AREAS SHALL BE RETURNED TO PRE-EXISTING CONDITION OF SAME TYPE AND QUALITY.
16. SOD REPLACEMENT TO MATCH PRE-PROJECT TYPE.
17. ACCESS ONTO EXISTING STREETS AND DRIVES SHALL BE MAINTAINED TO LOCAL TRAFFIC AND PROPERTY OWNERS, RESPECTIVELY. CONTRACTOR SHALL LIMIT CONSTRUCTION ACTIVITIES ON PUBLIC OR PRIVATE ROADWAYS.
18. ALL DEFECTIVE WORK NOT ACCEPTED BY THE ENGINEER, OR BY THE OWNERS REPRESENTATIVE, OR BY ANY GOVERNMENT PERMITTING AGENCY SHALL BE IMMEDIATELY REPAIRED BY THE CONTRACTOR AT THE CONTRACTOR'S EXPENSE
19. THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO PROTECT THE PUBLIC HEALTH AND ENSURE JOB SAFETY. THE CONTRACTOR SHALL CONFORM TO ALL APPLICABLE OCCUPATIONAL SAFETY & HEALTH AGENCY (OSHA) STANDARDS AND FEDERAL, STATE AND LOCAL GOVERNMENT SAFETY REQUIREMENTS.
20. THE CONTRACTOR SHALL BE FULLY RESPONSIBLE FOR, AND REPAIR OR REPLACE, ALL DAMAGES TO LANDSCAPING, BUILDINGS, TELEPHONE OR OTHER CABLES, SEWER AND WATER PIPES, PAVEMENT, DRIVEWAYS, WALLS, SPRINKLER SYSTEMS, SURVEY MARKERS, OR OTHER STRUCTURES WHICH MAY BE ENCOUNTERED WHETHER OR NOT SHOWN ON THE PLANS. CONTRACTOR TO REPORT ANY DAMAGES TO EXISTING ITEMS TO REMAIN PRIOR TO BEGINNING CONSTRUCTION.
21. ANY POTABLE WATER COMPONENTS TAKEN OUT OF SERVICE DURING CONSTRUCTION, INCLUDING THE POTABLE WATER STORAGE TANKS, SHALL BE CLEANED AND DISINFECTED BY THE CONTRACTOR PRIOR TO BEING RETURNED TO SERVICE.

STRUCTURAL NOTES

1. ALL WORK SHALL BE IN ACCORDANCE WITH THE 2023 FLORIDA BUILDING CODE, 8TH EDITION.
2. SEE ACI 318-11 BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE.
3. STRUCTURAL CONCRETE SHALL HAVE A MINIMUM COMPRESSION STRENGTH OF 4000 PSI. MISCELLANEOUS CONCRETE FOR SIDEWALKS, VALVE BOX PADS, ETC. MAY UTILIZE 3000 PSI CONCRETE.
4. WELDED SMOOTH WIRE FABRIC (WWF) SHALL BE IN ACCORDANCE WITH ASTM A185 (SHEETS ONLY, ROLL FABRIC NOT ALLOWED).
5. ALL CONCRETE SLABS SHALL HAVE CHAMFERED EDGES AND BROOM FINISHES UNLESS OTHERWISE SHOWN.

NOTES FROM SURVEYOR

1. BEARINGS SHOWN HEREON ARE BASED ON THE STATE PLANE COORDINATE SYSTEM ESTABLISHED BY THE NATIONAL GEODETIC SURVEY FOR FLORIDA WEST ZONE, 1983 DATUM WITH 2011 ADJUSTMENT OBTAINED UTILIZING RTK GPS OBSERVATIONS ON THE FDOT NETWORK AND REFER TO THE NORTH LINE OF TRACT "B", MARCO BEACH UNIT TWENTY, PLAT BOOK 6A, PAGES 16A THROUGH 18A, PUBLIC RECORDS OF COLLIER COUNTY, FLORIDA AS BEING S 87°42'15" W.
2. THIS SURVEY WAS PREPARED WITHOUT THE BENEFIT OF ABSTRACT OF TITLE AND MAY BE SUBJECT TO EASEMENTS, RESERVATIONS AND/OR RESTRICTIONS OF RECORD. ALL MATTERS OF TITLE SHOULD BE REFERRED TO AN ATTORNEY AT LAW.
3. ELEVATIONS SHOWN HEREON ARE IN FEET AND ARE BASED ON THE NORTH AMERICAN VERTICAL DATUM OF 1988. ELEVATIONS WERE DERIVED BY DIFFERENTIAL LEVELING FROM NGS BENCHMARK 872-4979 E, HAVING A PUBLISHED ELEVATION OF 2.96 FEET
4. THIS PROPERTY IS LOCATED WITHIN FLOOD ZONE AE, HAVING A BASE FLOOD ELEVATION OF 9.0' NAVD88, PER THE FEDERAL EMERGENCY MANAGEMENT AGENCY FLOOD INSURANCE RATE MAP #12021C 0842 H, DATED 16 MAY 2012. FLOOD LINES SHOWN HEREON WERE OBTAINED FROM A COLLIER COUNTY GIS FILE AND ARE ASSUMED TO BE APPROXIMATE.
5. CERTAIN FEATURES REPRESENTED BY SYMBOLS MAY NOT BE SHOWN AT THEIR TRUE LOCATION AND/OR SCALE IN ORDER TO BE ABLE TO DEPICT THEM ON THIS MAP.
6. DIMENSIONS SHOWN HEREON ARE IN U.S. SURVEY FEET AND DECIMALS THEREOF.
7. THIS SURVEY DOES NOT ADDRESS ANY ENVIRONMENTAL CONCERNS, ENDANGERED WILDLIFE OR JURISDICTIONAL WETLANDS, IF ANY, EXCEPT AS SHOWN ON THIS SURVEY.
8. THIS CERTIFICATION IS ONLY FOR THE LANDS DESCRIBED HEREON. IT IS NOT A CERTIFICATION OF TITLE, ZONING, SETBACKS, OR FREEDOM OF ENCUMBRANCES.
9. THIS SURVEY IS NOT VALID WITHOUT THE ORIGINAL SIGNATURE AND SEAL OR THE DIGITAL SIGNATURE AND DIGITAL SEAL OF A LICENSED FLORIDA SURVEYOR AND MAPPER. NO ADDITIONS OR DELETIONS TO THIS SURVEY MAP ARE PERMITTED WITHOUT THE EXPRESSED WRITTEN CONSENT OF THE SIGNING PARTY.
10. UNLESS OTHERWISE NOTED, BELOW GROUND UTILITIES AND FOUNDATIONS WERE NOT LOCATED FOR THE PURPOSES OF THIS SURVEY.
11. BY SIGNING BELOW I CERTIFY THAT THIS SURVEY WAS MADE UNDER MY DIRECTION AND THAT IT MEETS THE STANDARDS OF PRACTICE SET FORTH BY THE BOARD OF PROFESSIONAL LAND SURVEYORS IN CHAPTER 5J-17.051, F.A.C, PURSUANT TO CHAPTER 472.027, FLORIDA STATUTES.
12. UTILITY MARKINGS AND STUB OUTS SHOWN HEREON WERE PROVIDED BY OTHERS.
13. DATE OF LAST FIELD WORK: 4/18/2022.

PROPERTY DESCRIPTION
(PER OFFICIAL RECORDS BOOK 882, PAGE 1109)

COMMENCE AT THE INTERSECTION OF THE WESTERLY END OF THE MARCO ISLAND BRIDGE WITH THE CENTERLINE OF CONSTRUCTION OF STATE ROAD 92; THENCE RUN N 81°42'23" E A DISTANCE OF 241.26 FEET ALONG SAID CENTERLINE; THENCE S 02°27'37" E A DISTANCE OF 69.19 FEET TO POINT "A" ON THE NORTHERLY CORNER OF THE MOST EASTERLY WALL OF THE TIMBER WINGWALL AND THE POINT OF BEGINNING;

THENCE CONTINUE S 02°27'37" E A DISTANCE OF 25 FEET, MORE OR LESS, TO POINT "B"; THENCE S39°09'15" W A DISTANCE OF 115 FEET, MORE OR LESS, ALONG SAID WINGWALL TO POINT "C"; THENCE S87°32'23" W A DISTANCE OF 185 FEET, MORE OR LESS, TO A POINT ON THE EASTERLY RIGHT-OF-WAY LINE OF THE ACCESS ROAD; THENCE NORTH-EASTERLY A DISTANCE OF 155 FEET, MORE OR LESS, ALONG SAID EASTERLY RIGHT-OF-WAY LINE TO A POINT ON A LINE 25 FEET SOUTHERLY OF AND PARALLEL TO THE SAID CENTERLINE OF CONSTRUCTION; THENCE N 81°42'23" E A DISTANCE OF 150 FEET, MORE OR LESS, ALONG SAID PARALLEL LINE TO POINT "D"; THENCE SOUTH 45°16'11" E A DISTANCE OF 55 FEET, MORE OR LESS, TO THE POINT OF BEGINNING; ALL IN SECTION 13, TOWNSHIP 52 SOUTH, RANGE 26 EAST, COLLIER COUNTY, FLORIDA.

Digitally signed by Tyler C Wainright
Date: 2025.08.05 21:18:56 -04'00'

Tyler C. Wainright
PE #80476
10600 Chevrolet Way, Suite 102, Estero FL 33928
Responsible for: G, C, D Sheets

Titus J Maddela
ENGINEER OF RECORD FOR STRUCTURAL SHEETS
2025.08.06 11:56:22-04'00'

Titus Maddela
PE #82624
4910 Brownsboro Rd, Louisville KY 40222
Responsible for: S Sheets

Digitally signed by Faisal Al Twal
Date: 2025.08.06 09:38:59-04'00'

Faisal Al Twal
PE #92862
102 E. Pine St, Orlando FL 32801
Responsible for: M, P Sheets

2025.08.06 07:50:39-05'00'

Jerry McCullough
PE #95867
1136 Oak Valley Dr, Ann Arbor MI 48108
Responsible for: E Sheets

2025.08.06 09:59:32-04'00'

John Reed
PE #73092
102 E. Pine St, Orlando FL 32801
Responsible for: I Sheets

DRAWING INDEX

DWG NO.	DRAWING TITLE
GENERAL	
G-000	COVER
G-001	DRAWING INDEX AND GENERAL NOTES
G-002	LEGENDS AND ABBREVIATIONS
CIVIL	
C-100	TEMPORARY BYPASS PLAN
C-101	EXTERIOR DEMOLITION PLAN
C-102	EXTERIOR DEMOLITION SECTIONS & DETAILS
C-103	EXTERIOR DEMOLITION SECTIONS & DETAILS
C-104	EXTERIOR DEMOLITION PHOTOGRAPHS
C-105	PROPOSED SITE PLAN
C-106	TANK PIPING MODIFICATIONS
C-107	TANK PIPING MODIFICATIONS
C-108	FLOW METER ASSEMBLY SECTION
C-501	CIVIL DETAILS
C-502	CIVIL DETAILS
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D-102	INTERIOR DEMOLITION PLAN - PUMP ROOM
D-103	INTERIOR DEMOLITION PLAN - CHEMICAL ROOM
D-104	PUMP STATION MODIFICATIONS PLAN
D-105	PUMP STATION MODIFICATION SECTIONS AND PERSPECTIVES
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D-107	PROPOSED GROUND STORAGE TANK SECTIONS AND DETAILS
D-108	PROPOSED GROUND STORAGE TANK SECTIONS AND DETAILS
D-109	PROPOSED GROUND STORAGE TANK SECTIONS AND DETAILS
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P-201	PLUMBING MODIFICATION PLAN
P-501	PLUMBING DETAILS AND SCHEMATICS
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E-104	PUMP STATION PROPOSED ELECTRICAL PLAN
E-105	PUMP STATION ELECTRICAL LIGHTING DEMOLITION PLAN
E-106	PUMP STATION ELECTRICAL PROPOSED LIGHTING PLAN
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E-301	VFD WIRING DIAGRAM
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I-200	PUMP STATION P&ID
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I-502	INSTRUMENTATION DETAILS

TETRA TECH
www.tetratech.com
10600 CHEVROLET WAY, SUITE 102
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Collier County

MARK	DATE	DESCRIPTION	BY

COLLIER COUNTY PUBLIC UTILITIES
GOODLAND PUMP STATION IMPROVEMENTS

DRAWING INDEX AND GENERAL NOTES

PROJ: 200-08486-22002
DESN:
DRWN:
CHKD:

G-001

Bar Measures 1 inch, otherwise drawing not to scale

8/4/2025 5:50:12 PM - O:\PROJECTS\ORLANDO\ER\08486200-08486-22002\CAD\SHEETFILES\PS IMPROVEMENTS\G-001 DRAWING INDEX AND GENERAL NOTES.DWG - CYR, STEVE

LIST OF STANDARD ABBREVIATIONS

A	
AAP	ALARM ANNUNCIATOR PANEL
AARV	AUTOMATIC AIR RELEASE VALVE
AAV	AUTOMATIC AIR VENT
AB	ANCHOR BOLT
ABAN	ABANDON(ED)
ABRSV	ABRASIVE
ABS	ACRYLONITRILE BUTADIENE STYRENE
ABV	ABOVE
AC	ALTERNATING CURRENT
ACCMP	ASPHALT-COATED CORRUGATED METAL PIPE
ACP	ASBESTOS CEMENT PIPE
ADDM	ADDENDUM
ADH	ADHESIVE
AFF	ABOVE FINISHED FLOOR
AFG	ABOVE FINISHED GRADE
AFS	ABOVE FINISHED SLAB
AHD	AHEAD
AL	ALUMINUM
ALT	ALTERNATE
AMP	AMPERE
AMT	AMOUNT
APRX	APPROXIMATE(LY)
ARCH	ARCHITECT(URAL)
AS	ALUM SOLUTION
ASPH	ASPHALT
ASSY	ASSEMBLY
AVE	AVENUE
A/C	AIR CONDITIONING
A/V	AIR/VACUUM AIR VALVE
B	
BAF	BAFFLE
BCV	BALL CHECK VALVE
BF	BLIND FLANGE
BFV	BUTTERFLY VALVE
BHP	BRAKE HORSEPOWER
BI	BLACK IRON
BITUM	BITUMINOUS OR BITUMASTIC
B/L	BASELINE
BLDG	BUILDING
BLK	BLOCK
BM	BENCH MARK
BOC	BACK OF CURB
BOT	BOTTOM
BP	BASE PLATE
BRG	BEARING
BSP	BLACK STEEL PIPE
BV	BALL VALVE
BW	BOTH WAYS
BWW	BACKWASH WATER
C	
CAP	CAPACITY
CA	COMPRESSED AIR
CAV	COMBINATION AIR VALVE
CB	CATCH BASIN
CCC	CHLORINE CONTACT CHAMBER
CE	CHLORINATED EFFLUENT
CFM	CUBIC FEET PER MINUTE
CFS	CUBIC FEET PER SECOND
CV	CHECK VALVE
CI	CAST IRON
CIP	CAST IRON PIPE
CISP	CAST IRON SOIL PIPE
CJ	CONSTRUCTION JOINT
CKT	CIRCUIT
C/L	CENTER LINE
CL2	CHLORINE GAS
CLF	CHAIN LINK FENCE
CLR	CLEAR OR CLEARANCE
CLVT	CULVERT
CMP	CORRUGATED METAL PIPE
CMPA	CORRUGATED METAL PIPE ARCH
CMU	CONCRETE MASONRY UNIT
CND	CONDUIT
CNR	CORNER
CO	CLEAN OUT
CO2	CARBON DIOXIDE
COAG	COAGULANT
COL	COLUMN
COM	COMMON
CONC	CONCRETE
CONN	CONNECTION
CONSTR	CONSTRUCT(ION)
CONT	CONTINUOUS
CONTR	CONTRACT(OR)
COORD	COORDINATE
CO	COMPANY
CP	CONCRETE PIPE
CPA	CONCRETE PIPE ARCH
CPLG	COUPLING
CPVC	CHLORINATED POLYVINYL CHLORIDE
CR	CONCENTRIC REDUCER
CS	CHLORINE SOLUTION
CSG	CASING
CTV	CABLE TELEVISION
CY	CUBIC YARD
CYL	CYLINDER
C&G	CURB AND GUTTER
C/C	CENTER TO CENTER
D	
DAT	DATUM
DBL	DOUBLE
DC	DIRECT CURRENT
DEMO	DEMOLITION
DEPT	DEPARTMENT
DESC	DESCRIPTION
DET	DETAIL
DF	DIESEL FUEL
DI	DUCTILE IRON
DIA	DIAMETER
DIFF	DIFFUSER
DIM	DIMENSION
DIP	DUCTILE IRON PIPE
DISCH	DISCHARGE
DIR	DIRECTION
DMH	DROP MANHOLE
DN	DOWN
DR	DRAIN
DV	DIAPHRAGM VALVE
DW	DRIVEWAY
DWG	DRAWING
DWV	DRAIN, WASTE, AND VENT
E	
E	EAST
EA	EACH
ECC	ECCENTRIC
EF	EACH FACE
EFF	EFFLUENT
E/L	EASEMENT LINE
EL	ELEVATION
ELAST	ELASTOMERIC
ELEC	ELECTRICAL
EMER	EMERGENCY
EMC	ENCASE(MENT)
ENGR	ENGINEER
EP	EDGE OF PAVEMENT
EPDM	ETHYLENE PROPYLENE DIENE MONOMER
EPRF	EXPLOSION PROOF
EQUIP	EQUIPMENT
ER	ECCENTRIC REDUCER
ESTM	EASEMENT
EST	ESTIMATE(D)
EW	EACH WAY
EXC	EXCAVATE
EXP	EXPANSION
EXST	EXISTING
EXST GR	EXISTING GRADE
EXT	EXTERIOR
EXTN	EXTENSION
F	
FAB	FABRICATE(D)
FCA	FLANGED COUPLING ADAPTER
FB	FLAT BAR
FCV	FLOW-CONTROL VALVE
FD	FLOOR DRAIN
FDN	FOUNDATION
FE	FILTER(ED) EFFLUENT
FHY	FIRE HYDRANT
FIG	FIGURE
FIN	FINISH(ED)
FIN FLR	FINISH FLOOR
FIN GR	FINISH GRADE
FL	FLUORIDE
FLG	FLANGE(D)
FLL	FLOW LINE
FLTR	FILTER
FM	FORCE MAIN
FPM	FEET PER MINUTE
FPS	FEET PER SECOND
FRP	FIBERGLASS REINFORCED PLASTIC
FT	FOOT OR FEET
FUT	FUTURE
FV	FOOT VALVE
FW	FINISHED WATER
FWP	FACTORY WIRED PANEL
F/F	FACE TO FACE
G	
GA	GAUGE
GAL	GALLON(S)
GALV	GALVANIZED
GIP	GALVANIZED IRON PIPE
GJ	GROOVE JOINT
GND	GROUND
GPD	GALLONS PER DAY
GPH	GALLONS PER HOUR
GPM	GALLONS PER MINUTE
GPS	GALLONS PER SECOND
GR	GRADE
GRTG	GRATING
GS	GALVANIZED STEEL
GSP	GALVANIZED STEEL PIPE
GSR	GROUND STORAGE RESERVOIR
GST	GROUND STORAGE TANK
GT	GROUT
GV	GATE VALVE
H	
HB	HOSE BIBB
HD	HEAVY-DUTY
HDPE	HIGH-DENSITY POLYETHYLENE
HDR	HYDRAULIC
HFA	HYDROFLUOSILICIC ACID
HGR	HANGER
HGT	HEIGHT
HNDRL	HAND RAIL
HOA	HAND-OFF-AUTO
HORIZ	HORIZONTAL
HP	HORSEPOWER
HPA	HIGH PRESSURE AIR
HR	HOUR
HVAC	HEATING, VENTILATION, AND AIR CONDITIONING
HWL	HIGH WATER LEVEL
HWY	HIGHWAY
HZ	HERTZ
I	
ID	INSIDE DIAMETER
IN	INCH(ES)
INF	INFLUENT
INT	INTERSECTION
INTR	INTERIOR
INV	INVERT
IP	IRON PIPE
IPS	INTERNATIONAL PIPE STANDARD
IR	INTERNAL RECYCLE
IW	IRRIGATION WATER
J	
JB	JUNCTION BOX
JT	JOINT
K	
K	KIP (1,000 LB)
KPL	KICK PLATE
KV	KILOVOLT
KVA	KILOVOLT-AMPERE
KW	KILOWATT
KWH	KILOWATT-HOUR
L	
L	LEFT
LAB	LABORATORY
LAM	LAMINATE OR LAMINATION
LATL	LATERAL
LAV	LAVATORY
LEN	LENGTH
LB	POUND(S)
LF	LINEAR FEET
LP	LIGHT POLE
LS	LIVE SLURRY
LSS	LIVE STABILIZED SLUDGE
LVR	LOUVER
LWL	LOW WATER LEVEL
M	
M	METER
MAINT	MAINTAIN OR MAINTENANCE
MAN	MANUAL(LY)
MAS	MASONRY
MATL	MATERIAL
MAX	MAXIMUM
MCC	MOTOR CONTROL CENTER
ME	MITERED END
MECH	MECHANICAL
MEG	MATCH EXISTING GRADE
MFR	MANUFACTURE(R)
MG	MILLION GALLONS
MGD	MILLION GALLONS PER DAY
MH	MANHOLE
MI	MILE(S)
MIN	MINIMUM, MINUTE(S)
MISC	MISCELLANEOUS
MJ	MECHANICAL JOINT
ML	MIXED LIQUOR
MO	MASONRY OPENING
MON	MONUMENT
MPH	MILES PER HOUR
MPT	MALE PIPE THREAD
MS	MOTOR STARTER
MSP	MOTOR STARTER PANEL
MTD	MOUNTED
MV	MOTORIZED VALVE
MW	MANWAY
MWL	MEAN WATER LEVEL
MWP	MAXIMUM WORKING PRESSURE
N	
N	NORTH
NaOCl	SODIUM HYPOCHLORITE
NE	NORTHEAST
NIC	NOT IN CONTRACT
NO	NUMBER
NOM	NOMINAL
NPF	NATIONAL PIPE THREAD
NPT	NATIONAL PIPE TAPER (THREAD)
NPW	NON-POTABLE WATER
NRS	NON-RISING SYSTEM
NTS	NOT TO SCALE
NW	NORTHWEST
N/A	NOT APPLICABLE
O	
O2	OXYGEN
OC	ON CENTER
OD	OUTSIDE DIAMETER
ODP	OPEN DRIP PROOF
OF	OUTSIDE FACE
OH	OVER HEAD
OHW	OVER HEAD WIRE
OPP	OPPOSITE
OPT	OPTIONAL
OR	OFFICIAL RECORDS
OSY	OUTSIDE SCREW AND YOKE
O&M	OPERATION AND MAINTENANCE
P	
PA	PROCESS AIR
PC	POINT OF CURVE
PCM	PERMANENT CONTROL MONUMENT
PE	PLAIN END
PG	PRESSURE GAGE
PI	POINT OF INTERSECTION
PL	PLATE
P/L	PROPERTY LINE
PNV	PINCH VALVE
POB	POINT OF BEGINNING
POJ	PUSH-ON JOINT
POL	POLYMER
PP	POWER POLE
PPD	POUNDS PER DAY
PPM	PARTS PER MILLION
PREFAB	PREFABRICATED
PRESS	PRESSURE
PRV	PRESSURE REDUCING VALVE
PRW	PROCESS WATER
PSF	POUNDS PER SQUARE FOOT
PSI	POUNDS PER SQUARE INCH
PSIA	POUNDS PER SQUARE INCH ABSOLUTE
PSIG	POUNDS PER SQUARE INCH GAGE
PT	POINT OF TANGENCY
PV	PLUG VALVE
PVC	POLYVINYL CHLORIDE
PVMT	PAVEMENT
PW	POTABLE WATER
PWR	POWER
Q	
Q	FLOW
QTY	QUANTITY
R	
RAD	RADIUS
RAS	RETURN ACTIVATED SLUDGE
RC	REINFORCED CONCRETE
RCB	REINFORCED CONCRETE BOX
RCP	REINFORCED CONCRETE PIPE
RCPA	REINFORCED CONCRETE PIPE ARCH
RD	ROAD
RDCR	REDUCER
REBAR	REINFORCING STEEL
REF	REFERENCE
REINF	REINFORCE(D)(ING)(MENT)
REM	REMOVE(ABLE)
REQ'D	REQUIRED
RF	RAISED FACE
RJ	RESTRAINED JOINT
RM	ROOM
RPBP	REDUCED PRESSURE BACKFLOW PREVENTER
RPM	REVOLUTIONS PER MINUTE
RR	RAILROAD
RT	RIGHT
RVT	RIVETED
RW	RAW WATER
RWW	RAW WASTEWATER
R/W	RIGHT-OF-WAY
S	
S	SOUTH
SA	SAMPLE LINE
SAN	SANITARY
SCHED	SCHEDULE
SD	STORM DRAIN
SE	SOUTHEAST
SECT	SECTION
SEFF	SECONDARY EFFLUENT
SF	SQUARE FOOT OR FEET
SHT	SHEET(ED)(ING)
SIG	SIGNAL
SIM	SIMILAR
SL	SLUDGE
SLV	SLEEVE
SM	SHEET METAL
SOLN	SOLUTION
SP	SOIL PIPE, SPACE(ING)
SPEC	SPECIFICATION
SPRT	SUPPORT
SQ	SQUARE
SS	SANITARY SEWER
SSE	SUBSTANDARD EFFLUENT
SST	STAINLESS STEEL
ST	STREET
STA	STATION
STD	STANDARD
STK	STAKE
STL	STEEL
STR	STRAIGHT
STRUCT	STRUCTURAL
SURF	SURFACE
SV	SOLENOID VALVE
SVCE	SERVICE
SWW	SERVICE WATER
SW	SOUTHWEST
SWD	SIDEWATER DEPTH
SWSH	SURFACE WASH
SYM	SYMBOL
SYMM	SYMMETRICAL
S/W	SIDEWALK
T	
TAN	TANGENT
TB	TOP OF BEAM
TBM	TEMPORARY BENCH MARK
TB-xx	TEST BORING-xx (e.g. TB-1)
TD	TRENCH DRAIN
TDH	TOTAL DYNAMIC HEAD
TE	TOTALLY ENCLOSED
TEFC	TOTALLY ENCLOSED FAN COOLED
TEL	TELEPHONE
TENV	TOTALLY ENCLOSED NON-VENTILATED
THD	THREAD(ED)
THK	THICK(NESS)
TLM	TELEMETRY
TOB	TOP OF BANK
TOC	TOP OF CURB
TOS	TOE OF SLOPE
TOT	TOTAL
TP	TELEPHONE POLE
TS	THICKENED SLUDGE
TV	TELEVISION
TYP	TYPICAL
T&B	TOP AND BOTTOM
U	
UD	UNDERDRAIN
UG	UNDERGROUND
ULT	ULTIMATE
UN	UNION
UON	UNLESS OTHERWISE NOTED
UGE	UNDERGROUND ELECTRIC
UTC	UNDERGROUND TELEPHONE CABLE
UTIL	UTILITY
V	
V	VOLT(S)
VAC	VACUUM
VAR	VARIES
VC	VERTICAL CURVE
VCP	VITRIFIED CLAY PIPE
VEL	VELOCITY
VERT	VERTICAL
VFD	VARIABLE FREQUENCY DRIVE
VOL	VOLUME
W	
W	WATT, WEST
WAS	WASTE ACTIVATED SLUDGE
WCO	WALL CLEAN OUT
WF	WIDE FLANGE
WH	WALL HYDRANT
WL	WATER LINE
WM	WATER MAIN
WP	WATER PROOF(ING), WORKING POINT
WPR	WORKING PRESSURE
WS	WATER SURFACE
WSP	WELDED STEEL PIPE
WT	WEIGHT
WTP	WATER TREATMENT PLANT
WW	WASH WATER
WWF	WELDED WIRE FABRIC
WWM	WELDED WIRE MESH
WWTP	WASTEWATER TREATMENT PLANT
W/	WITH
W/O	WITHOUT
X	
XFER	TRANSFER
Y	
YD	YARD(S)
YH	YARD HYDRANT
YR	YEAR(S) YR

PIPING LEGEND

FITTING/ APPURTENANCE	FLANGED				MECHANICAL JOINT				GROOVE JOINT				SOLVENT WELD			
	SINGLE-LINE		DOUBLE-LINE		SINGLE-LINE		DOUBLE-LINE		SINGLE-LINE		DOUBLE-LINE		SINGLE-LINE		DOUBLE-LINE	
	EXISTING	PROPOSED	EXISTING	PROPOSED	EXISTING	PROPOSED	EXISTING	PROPOSED	EXISTING	PROPOSED	EXISTING	PROPOSED	EXISTING	PROPOSED	EXISTING	PROPOSED
BEND																
TEE																
WYE																
REDUCER																
CAP/ BLIND FLANGE					N/A	N/A	N/A	N/A								
PLUG	N/A	N/A	N/A	N/A					N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
BUTTERFLY VALVE																
BALL VALVE					N/A	N/A	N/A	N/A								
CHECK VALVE					N/A	N/A	N/A	N/A								
GATE VALVE																
PLUG VALVE																
AUTOMATIC CONTROL VALVE					N/A	N/A	N/A	N/A								
PINCH VALVE					N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A				

CIVIL LEGEND

- R/W — RAW WATER MAIN
- RIGHT OF WAY LINE (R-O-W)
- LIMITS OF CONTRUCTION
- EASEMENT
- 130 — PROPOSED CONTOUR MAJOR
- 129 — PROPOSED CONTOUR MINOR (LABEL OPTIONAL)
- WATER
- STORM SEWER
- SANITARY SEWER
- SANITARY SEWER (FORCE MAIN)
- GUARD RAIL
- STEEL FENCE
- WOOD FENCE

- XXXX.XX SPOT ELEVATION
- TOP / BOTTOM EMBANKMENT
- LIGHT POLE
- POWER POLE
- UTILITY POLE
- MH-?? MANHOLE
- SS SEWER MANHOLE
- SV SEWER VALVE
- CO SEWER CLEANOUT
- MW-X MONITORING WELL
- TREE - EVERGREEN
- TREE - PALM TREE
- TREE - DECIDUOUS
- WV WATER VALVE
- WELL WATER WELL
- WM WATER METER
- FH HYDRANT
- SD STORM MANHOLE
- STORM CULVERT END
- FLARED END - RCP
- MONUMENT

- VEGETATION

REFERENCE SYMBOLS

X / X-XX — DENOTES DETAIL NUMBER IDENTIFICATION; DENOTES DRAWING NO WHERE DETAIL IS LOCATED — DETAIL REFERENCE

X / – DETAIL, SCALE: — DENOTES DETAIL NUMBER IDENTIFICATION; DENOTES DRAWING NO WHERE DETAIL IS LOCATED — DETAIL TITLE

HATCHING LEGEND

- ASPHALT OR CONCRETE SURFACE (SIDEWALK OR ROADWAY)
- ROADWAY/SIDEWALK OPEN CUT RESURFACE
- SODDED OR SEEDED AND MULCHED AREA OR EXISTING WETLAND
- EARTH
- EXISTING PIPES, STRUCTURES, EQUIPMENT TO BE REMOVED
- CAST-IN-PLACE CONCRETE
- PRECAST CONCRETE
- GROUT
- TO BE DEMOLISHED
- STEEL
- WETLAND
- GRATING

MECHANICAL/DRAFTING LEGEND

	EXISTING	PROPOSED
VISIBLE LINE		
HIDDEN LINE		
CENTER LINE		
PHANTOM LINE		
MATCHLINE		
BREAK LINE		
DIMENSION LINES AND LEADERS	1 3/32"	NOTE

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Collier County

MARK	DATE	DESCRIPTION	BY

COLLIER COUNTY PUBLIC UTILITIES
GOODLAND PUMP STATION IMPROVEMENTS

LEGEND AND ABBREVIATIONS

PROJ: 200-08486-22002
DESN:
DRWN:
CHKD:

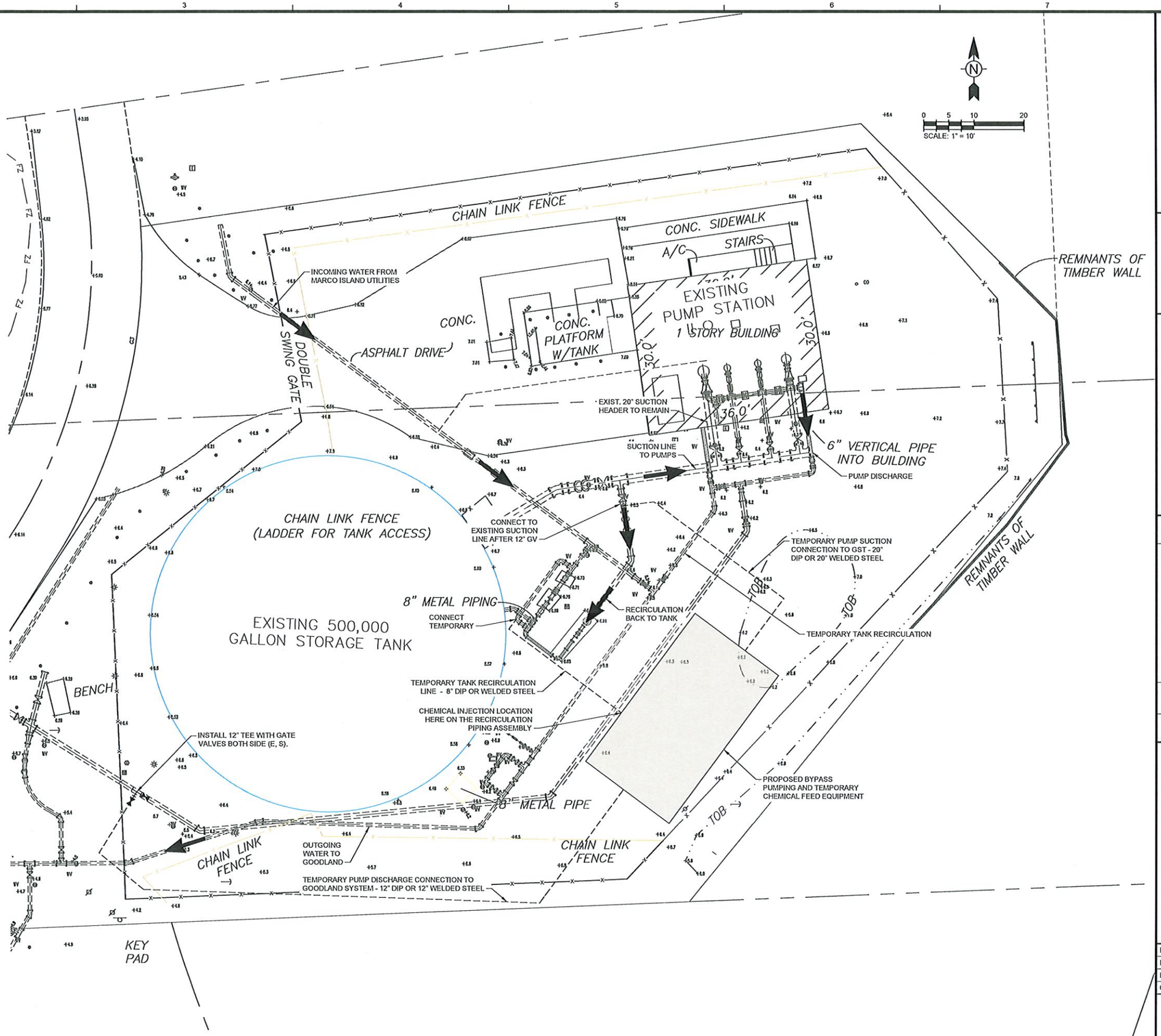
G-002

Bar Measures 1 inch, otherwise drawing not to scale

5/21/2025 6:00:15 PM - O:\PROJECTS\GORLAND\DWG\08486200-08486-22002\CAD\SHEETFILES\PS IMPROVEMENTS\G-002 LEGENDS AND ABBREVIATIONS.DWG - CYR, STEVE

BYPASS NOTES

1. CONTRACTOR IS REQUIRED TO MAINTAIN OPERATIONS AT THE GOODLAND BOOSTER PUMP STATION AT ALL TIMES, INCLUDING MAINTAINING OPERATION OF THE EXISTING FIRM PUMPING CAPACITY, CHEMICAL INJECTION SYSTEMS, SCADA FUNCTIONALITY AND EMERGENCY BYPASS POWER.
2. ANY SHUT DOWNS TO THE PUMP STATION THAT MAY BE REQUIRED IN ORDER TO IMPLEMENT THE TEMPORARY BYPASS SYSTEM WILL REQUIRE A MINIMUM OF 2 WEEKS NOTICE, AND SHALL BE LIMITED TO 48 HOURS IN DURATION, WITH WRITTEN APPROVAL FROM THE OWNER.
3. PRIOR TO PLACING ANY BYPASS COMPONENTS INTO OPERATION AND PRIOR TO PERFORMING ANY SHUTDOWNS, THE CONTRACTOR IS REQUIRED TO RPEPARE A DETAILED OUTAGE PLAN FOR REVIEW AND APPROVAL BY THE COUNTY. THE OUTAGE PLAN MUST INCLUDE, AT A MINIMUM, A DETAILED SCHEDULE TO BE BROKEN DOWN INTO 4 HOUR INCREMENTS, A LIST OF ALL PERSONNEL AND EQUIPMENT PROPOSED TO BE USED, CONTINGENCY PLANS FOR UNANTICIPATED EVENTS, AND A DIAGRAM OF THE PROPOSED WORK.
4. THE TEMPORARY BYPASS PUMPS MUST BE CAPABLE OF PUMPING A FIRM CAPACITY OF 1,800 GPM @ 185FT. ALL PUMPS MUST MEET THE REQUIREMENTS OF NSF 61.
5. THE TEMPORARY BYPASS PUMP SET UP MUST CONTAIN A MINIMUM OF 4 PUMPS.
6. THE TEMPORARY CHEMICAL SYSTEM MUST INCLUDE THE FOLLOWING CHEMICALS:
   - SODIUM HYPOCHLORITE - MINIMUM OF 150 GALS OF STORAGE.
   - AMMONIA GAS - MINIMUM OF 3 80LB CYLINDERS (LIQUID AMONIA MAY BE UTILIZED WITH WRITTEN APPROVAL FROM COLLIER COUNTY UTILITIES).
7. THE CHEMICAL INJECTION SYSTEM MUST BE FULLY REDUNDANT, CONTAINING A MINIMUM OF 2 INJECTION PUMPS.
8. THE CHEMICAL INJECTION LOCATIONS MUST BE COORDINATED WITH COLLIER COUNTY AND BE APPROVED IN WRITING PRIOR TO IMPLEMENATION.
9. ALL PUMPS AND CHEMCIAL SYSTEM COMPONENTS MUST BE CAPABLE OF REMOTE OPERATION AND REMOTE MONITORING UTILIZING THE COLLIER COUNTY SCADA SYSTEM.
10. THE TEMPORARY SYSTEMS SHALL AT A MINIMUM INCUDE PRESSURE, CHLORINE RESIDUAL, PH, AND FLOW MEASUREMENT CAPABILITIES TO REPORT LOCALLY AT THE PUMP STATION AND EXTERNALLY VIA THE SCADA SYSTEM.
11. TEMPORARY POWER AND BACKUP POWER GENERATION MUST BE PROVIDED ONSITE FOR THE BYPASS PUMPING AND TEMPORARY CHEMICAL SYSTEMS.
12. DURING CONSTRUCTION THE POTABLE WATER STORAGE TANK MUST UTILIZE MIXING OR TANK RECIRCULATION PUMPING AT ALL TIMES.
13. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONSTRUCTING AND MAINTAINING THE BYPASS PUMPING AND TEMPORARY CHEMICAL SYSTEMS FOR THE ENTIRETY OF CONSTRUCTION.
14. THE DRAWINGS SHOWN ON THIS PAGE ARE FOR INFORMATIONAL PURPOSES AND DEMONSTRATE THE MINIMUM REQUIREMENTS OF THE BYPASS SYSTEM. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PREPARING A DETAILED BYPASS PUMPING PLAN, COMPLETE WITH DESCRIPTIONS OF ALL COMPONENTS FOR REVIEW AND APPROVAL BY THE OWNER AND ENGINEER.



Bar Measures 1 Inch, otherwise drawing not to scale

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Collier County

MARK	DATE	DESCRIPTION	BY

COLLIER COUNTY PUBLIC UTILITIES
GOODLAND PUMP STATION IMPROVEMENTS

TEMPORARY BYPASS PLAN

PROJ: 200-08486-22002
DESN:
DRWN:
CHKD:

C-100

5/21/2025 6:01:51 PM - O:\PROJECTS\ORLANDO\ER\08486200-08486-22002\CAD\SHEETFILES\PS IMPROVEMENTS\C-100 TEMPORARY BYPASS PLAN.DWG - CYR, STEVE

REMOVE EXIST. ASPHALT & RECOMPACT EXIST. BASE

EXIST. CONVAULT FUEL TANK TO BE RELOCATED

CHAIN LINK FENCE

CONC. SIDEWALK

STAIRS

A/C

EXIST. ALUMINUM PLATFORM TO BE DEMOLISHED & REMOVED SEE SHEET C-102 FOR DETAILS

EXIST. LINE TO BE DEMOLISED

EXISTING PUMP STATION 1 STORY BUILDING

CONC. PLATFORM W/TANK

ASPHALT DRIVE

REMNANTS OF TIMBER WALL

CUT EXIST. 16" DI PIPE PRIOR TO VERT. 90° BEND, HORIZ. PORTION TO REMAIN

CUT EXIST. 20" DI PIPE PRIOR TO VERT. 90° BEND, HORIZ. PORTION TO REMAIN

EXIST. 20" SUCTION HEADER TO REMAIN

EXIST. 20" SUCTION HEADER TO REMAIN

EXIST. 16" SUCTION HEADER TO REMAIN

6" VERTICAL PIPE INTO BUILDING

EXIST. 10" SUCTION HEADER TO REMAIN

EXISTING 500,000 GALLON STORAGE TANK

EXIST. TANK RECIRCULATION PIPING TO BE DEMOLISH & REMOVED SEE SHEET C-102 FOR DETAILS

BENCH

EXIST. YARD PIPING TO BE DEMOLISHED & REMOVED

EXIST. GROUND STORAGE TANK TO BE DEMOLISH & REMOVED

METAL PIPE

CHAIN LINK FENCE

CONC.

FH.

KEY PAD

DEMOLISH & REMOVE EXIST. PIPING

TOB

SCALE: 1" = 10'

Bar Measures 1 inch, otherwise drawing not to scale

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Collier County

MARK	DATE	DESCRIPTION	BY

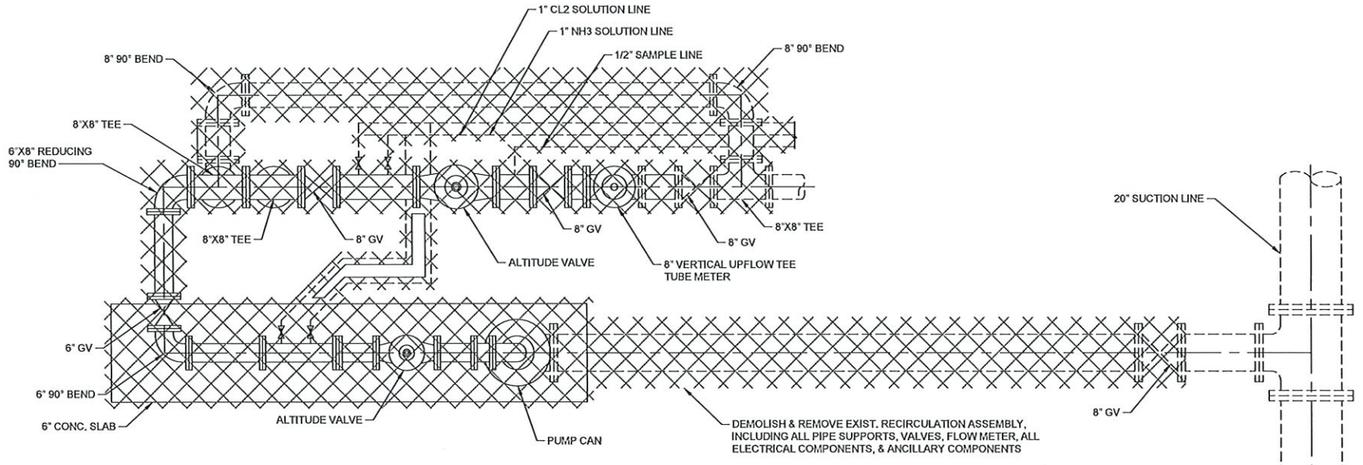
COLLIER COUNTY PUBLIC UTILITIES
GOODLAND PUMP STATION IMPROVEMENTS

EXTERIOR DEMOITION PLAN

PROJ: 200-08486-22002
DESN:
DRWN:
CHKD:

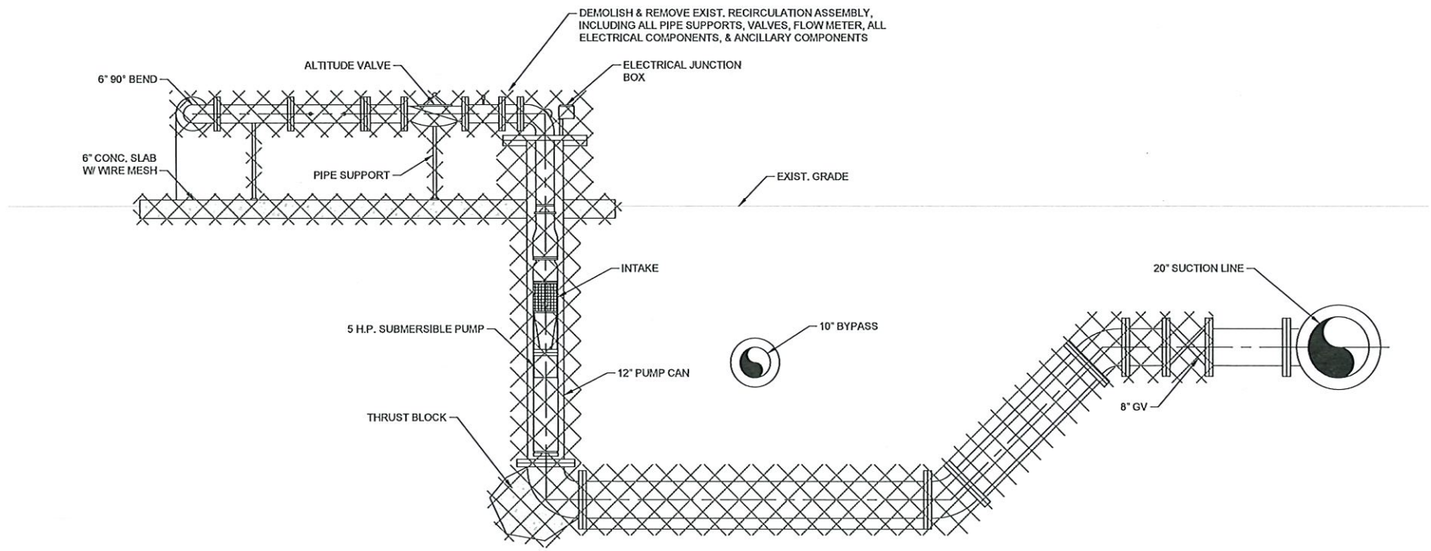
C-101

5/21/2025 6:03:14 PM - O:\PROJECTS\ORLANDO\ER\08486200-08486-22002\CAD\SHEETFILES\PS IMPROVEMENTS\C-101 EXTERIOR DEMOLITION PLAN.DWG - CYR, STEVE



TANK RECIRCULATION PIPING PLAN

SCALE: 1/2"=1'-0"



TANK RECIRCULATION PIPING SECTION

SCALE: 1/2"=1'-0"

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Collier County

MARK	DATE	DESCRIPTION	BY

COLLIER COUNTY PUBLIC UTILITIES
GOODLAND PUMP STATION IMPROVEMENTS

EXTERIOR DEMOLITION SECTIONS & DETAILS

PROJ: 200-08486-22002
DESN:
DRWN:
CHKD:

C-102

Bar Measures 1 inch, otherwise drawing not to scale

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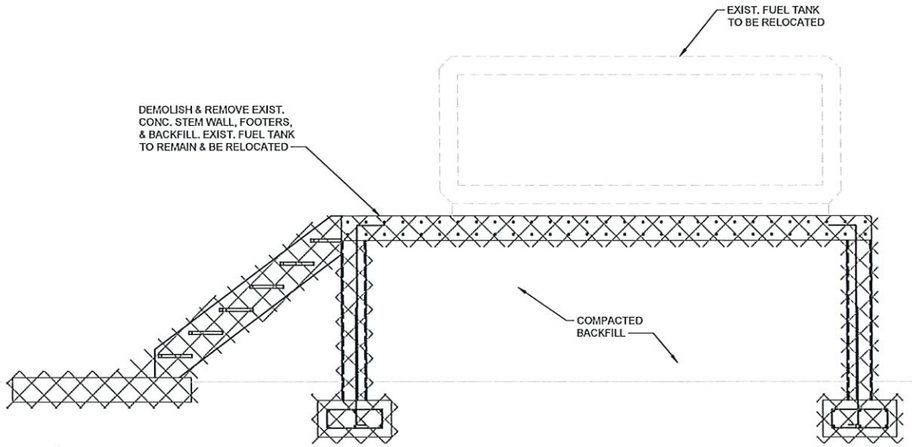
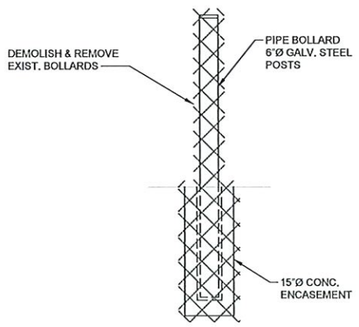


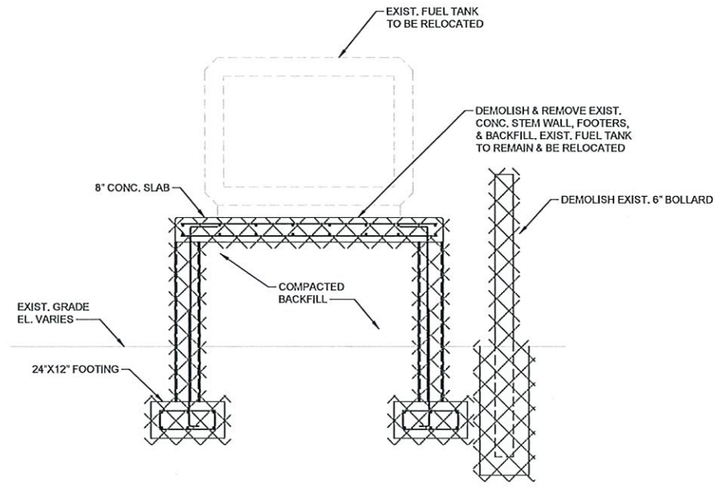
CONCRETE PLATFORM SECTION

SCALE: 1/2"=1'-0"



BOLLARDS

SCALE: 1/2"=1'-0"



CONCRETE PLATFORM SECTION

SCALE: 1/2"=1'-0"

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Collier County

MARK	DATE	DESCRIPTION	BY

COLLIER COUNTY PUBLIC UTILITIES
GOODLAND PUMP STATION IMPROVEMENTS

EXTERIOR DEMOLITION
SECTIONS & DETAILS

PROJ: 200-08486-22002
DESN:
DRWN:
CHKD:

C-103

Bar Measures 1 inch, otherwise drawing not to scale

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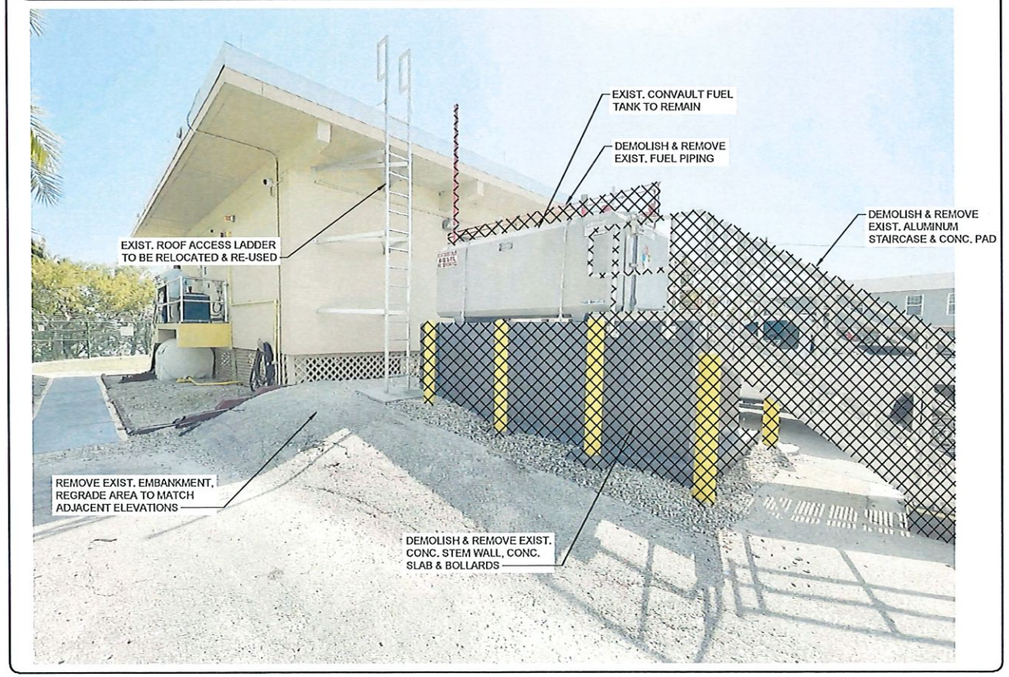
1 SITE PHOTO

2 SITE PHOTO

3 SITE PHOTO



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Collier County

MARK	DATE	DESCRIPTION	BY

COLLIER COUNTY PUBLIC UTILITIES
GOODLAND PUMP STATION IMPROVEMENTS

EXTERIOR DEMOLITION PHOTOGRAPHS

PROJ: 200-08486-22002
DESN:
DRWN:
CHKD:

C-104

Bar Measures 1 inch, otherwise drawing not to scale

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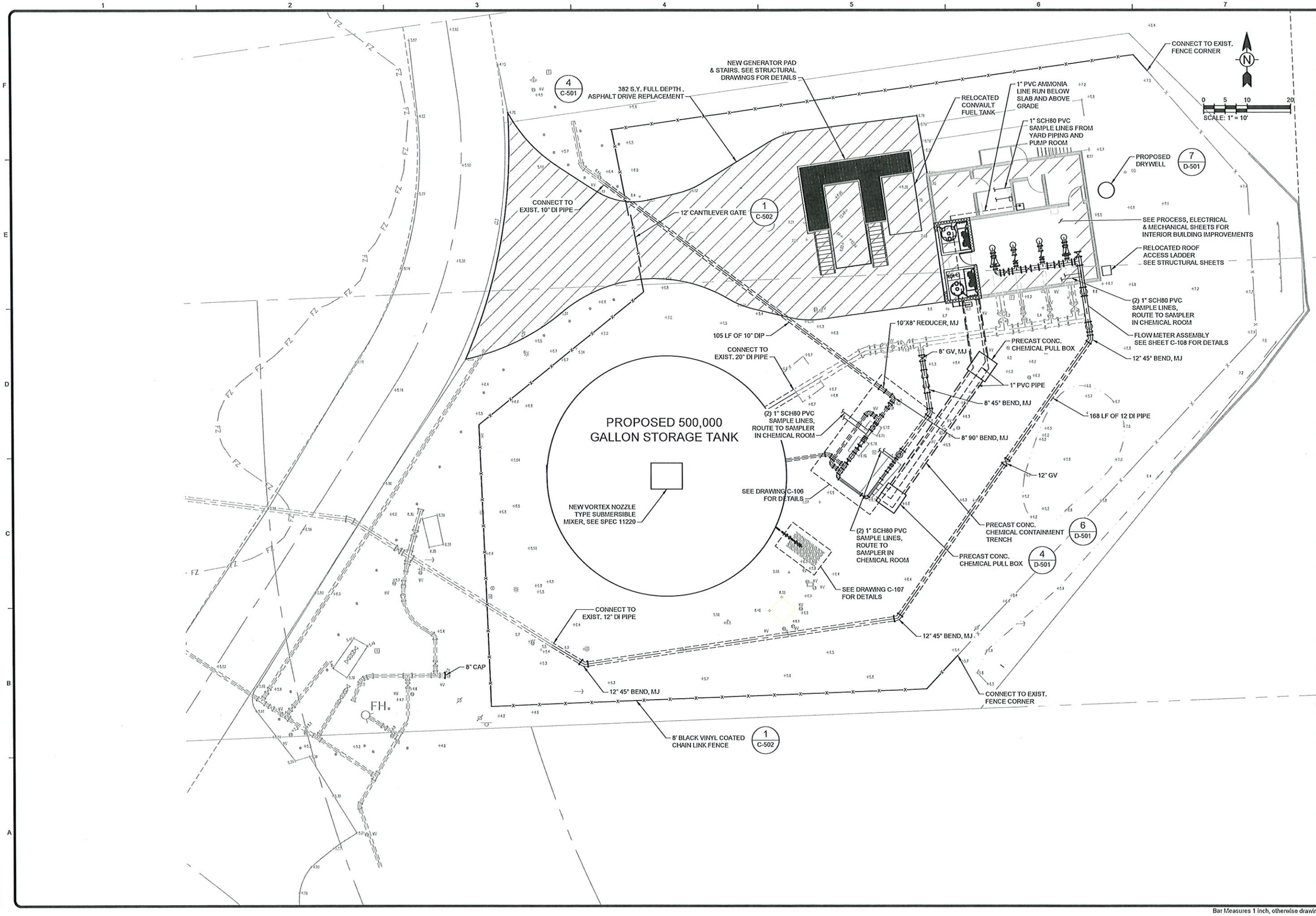

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Collier County

MARK	DATE	DESCRIPTION	BY

COLLIER COUNTY PUBLIC UTILITIES
GOODLAND PUMP STATION IMPROVEMENTS

PROPOSED SITE PLAN

PROJ: 200-08486-22002
DESN:
DRWN:
CHKD:

C-105

Bar Measures 1 inch, otherwise drawing not to scale

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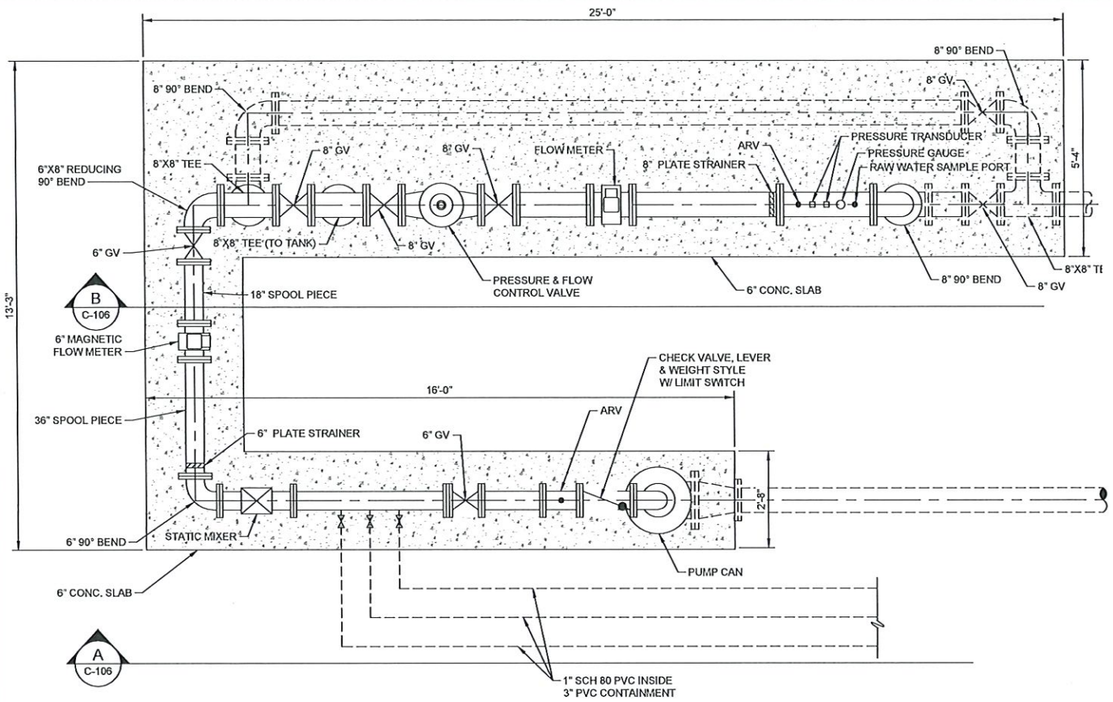
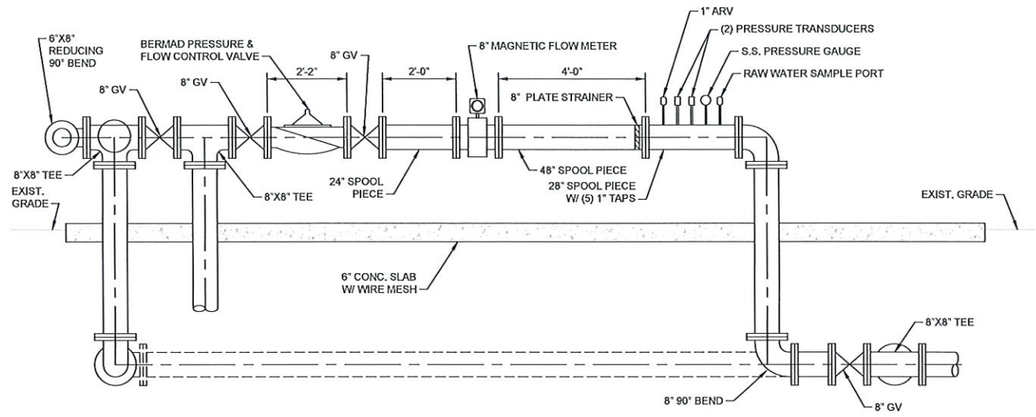


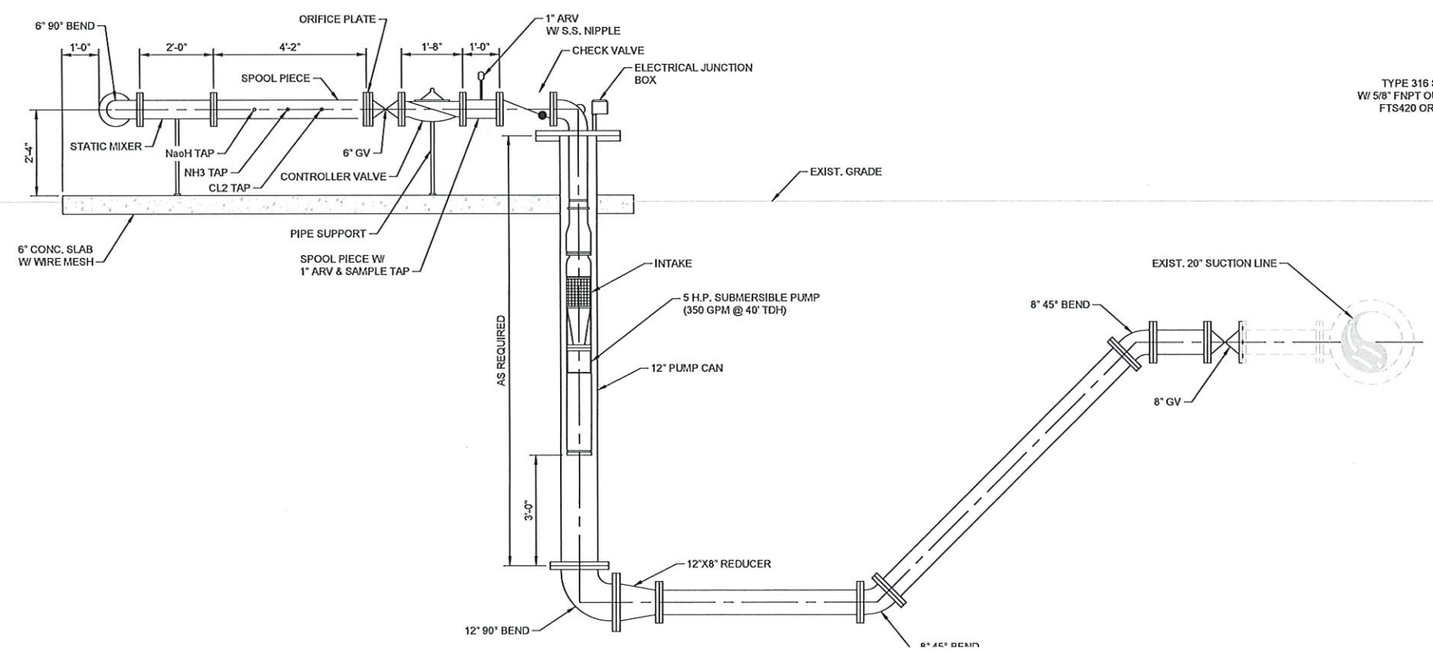
TANK RECIRCULATION PIPING PLAN

SCALE: 1/2"=1'-0"



B — TANK RECIRCULATION PIPING SECTION

SCALE: 1/2"=1'-0"



A — TANK RECIRCULATION PIPING SECTION

SCALE: 1/2"=1'-0"

NOTES:

1. DETAIL DEPICTS GENERAL LAYOUT. SEE PLANS FOR PIPE SIZES AND INJECTION ORIENTATION.
2. SOLUTION DIFFUSER ASSEMBLY SHALL INCLUDE THE SOLUTION TUBE, NPT BRASS CORP STOP SIZED FOR PASSAGE OF THE SHOWN SOLUTION TUBE ADAPTER, PACKING NUT, SST SAFETY CHAIN AND RESTRAIN HOOK AND BALL CHECK VALVE. SOLUTION DIFFUSER SHALL BE RATED FOR 150 PSI AND MANUFACTURED BY SAF-T-FLO OR ENGINEERED APPROVED EQUAL. ALL COMPONENTS IN CONTACT W/ CHEMICAL SHALL BE SCHEDULE 80 PVC UNLESS ANOTHER MATERIAL IS SPECIFIED FOR THIS CHEMICAL SERVICE.
3. BACK PRESSURE VALVE NOT REQUIRED ON CHLORINE SOLUTION INJECTION.

1 — INJECTION DETAIL

SCALE: N.T.S.

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Collier County

MARK	DATE	DESCRIPTION	BY

COLLIER COUNTY PUBLIC UTILITIES
GOODLAND PUMP STATION IMPROVEMENTS

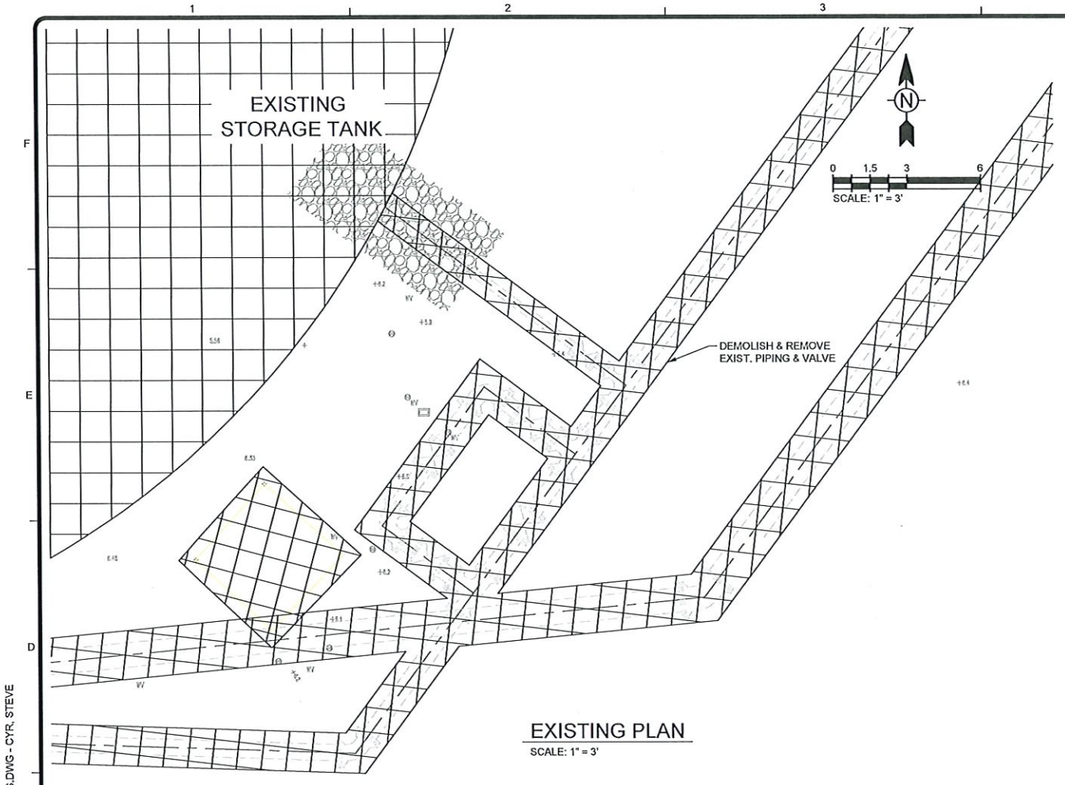
TANK PIPING MODIFICATIONS

PROJ: 200-08486-22002
DESN:
DRWN:
CHKD:

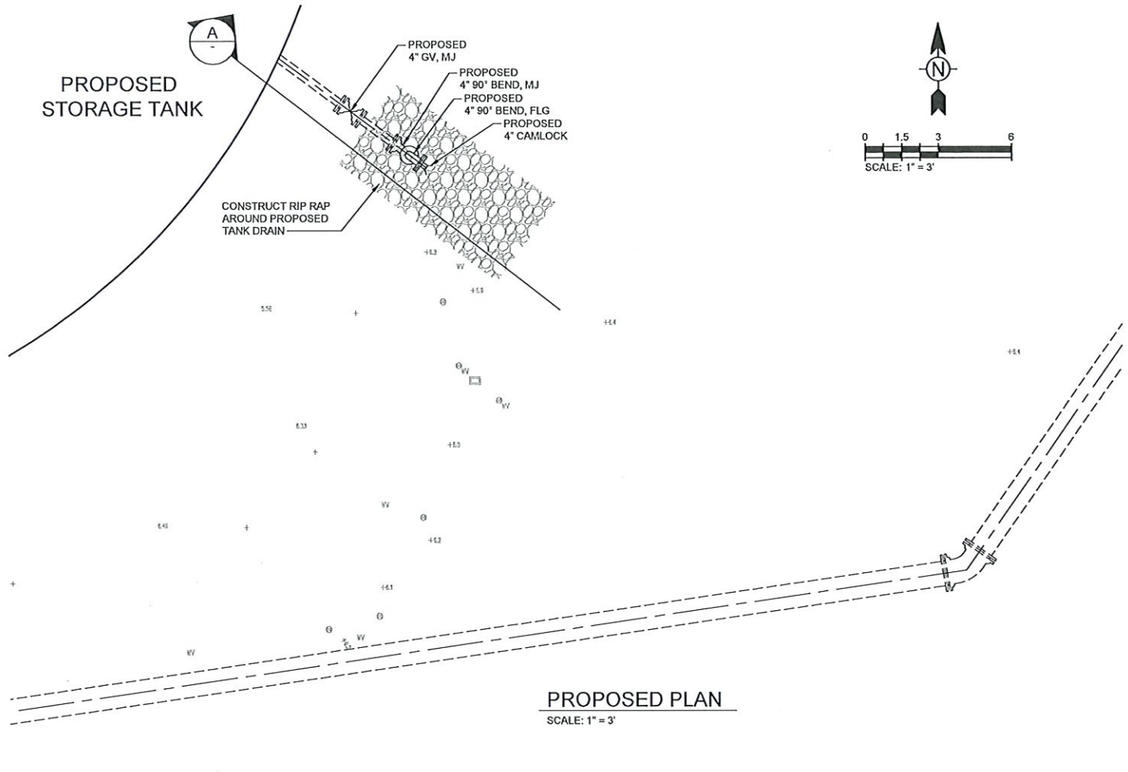
C-106

Bar Measures 1 inch, otherwise drawing not to scale

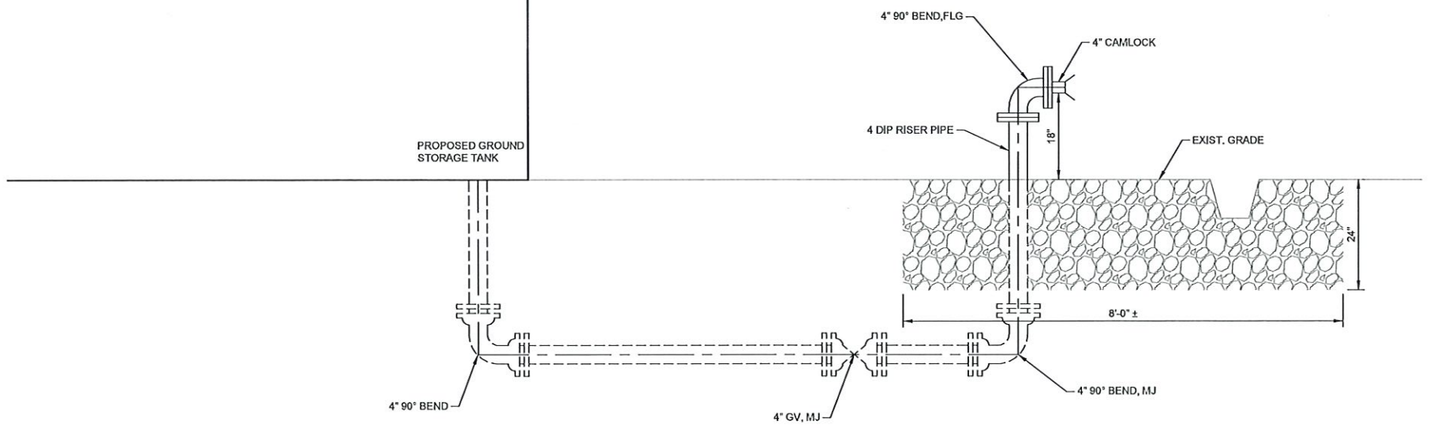
5/21/2025 6:07:08 PM - O:\PROJECTS\ORLANDO\ER\08486\200-08486-22002\CAD\SHEETFILES\PS IMPROVEMENTS\C-106 TANK PIPING MODIFICATIONS.DWG - CYR, STEVE



EXISTING PLAN
SCALE: 1" = 3'



PROPOSED PLAN
SCALE: 1" = 3'



A — SECTION
SCALE: 3/4"=1'-0"

Bar Measures 1 inch, otherwise drawing not to scale

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TANK PIPING MODIFICATIONS

PROJ: 200-08486-22002
DESN:
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CHKD:

C-107

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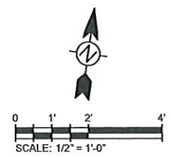
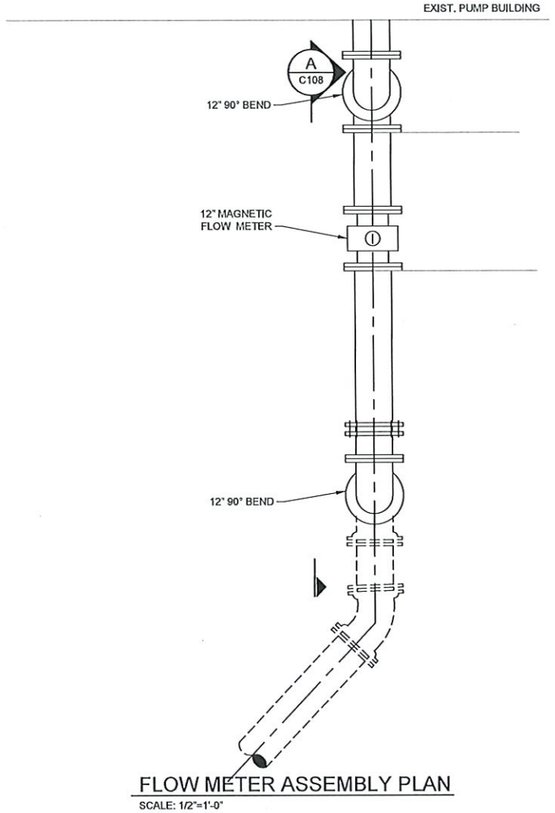
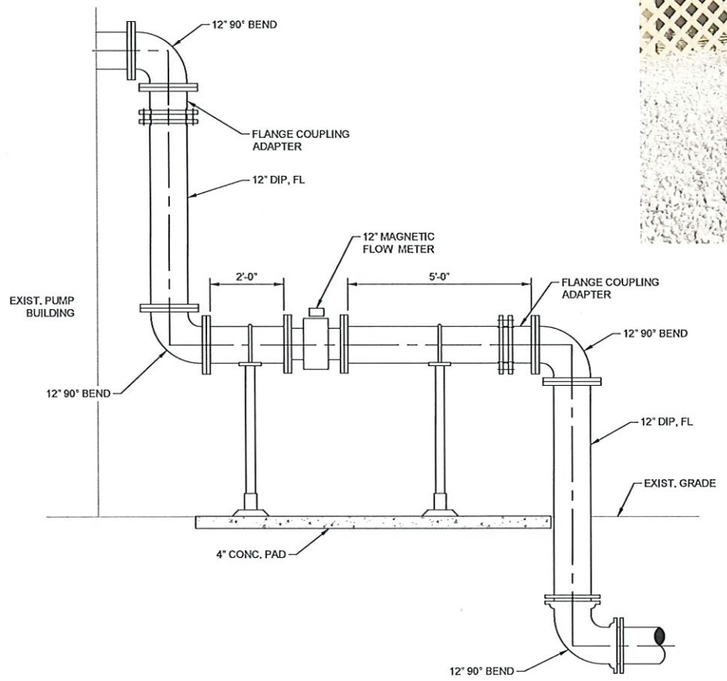




FLOW METER ASSEMBLY PLAN
SCALE: 1/2"=1'-0"



A — FLOW METER ASSEMBLY SECTION
SCALE: 1/2"=1'-0"

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FLOW METER ASSEMBLY SECTION

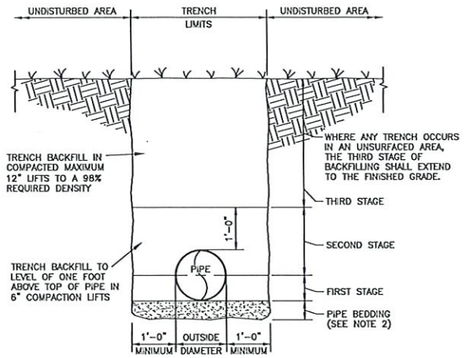
PROJ: 200-08486-22002
DESN:
DRWN:
CHKD:

C-108

Bar Measures 1 inch, otherwise drawing not to scale

5/21/2025 6:08:50 PM - O:\PROJECTS\GORLANDO\ER\08486\200-08486-22002\CAD\SHEETFILES\PS IMPROVEMENTS\C-108 CAUSTIC INJECTION POINT.DWG - CYR, STEVE

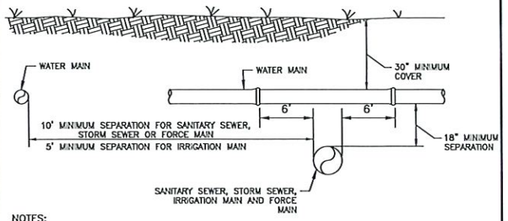
1 UNPAVED AREA TRENCH BACKFILL



NOTES:

1. BACKFILL SHALL BE OF SUITABLE MATERIAL REMOVED FROM EXCAVATION EXCEPT WHERE OTHER MATERIAL IS SPECIFIED. BACKFILL MATERIAL SHALL CONSIST OF EARTH, LOAM, SANDY CLAY, GRAVEL, CRUSHED LIMESTONE, OR OTHER APPROVED MATERIAL. REFER TO TECHNICAL SPECIFICATIONS FOR DETAIL REQUIREMENTS.
2. IF TRENCH BOTTOM CONTAINS ROCK, THEN A MINIMUM OF A 6" PIPE BEDDING SHALL BE USED.

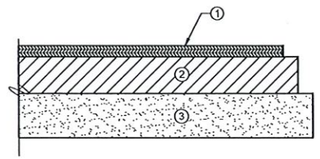
2 PIPE SEPARATION



NOTES:

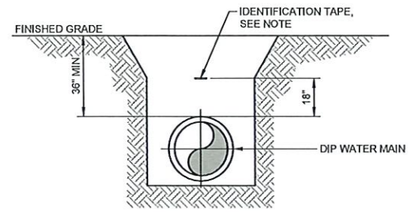
1. WATER MAINS SHALL BE SEPARATED FROM STORM SEWER, SANITARY SEWER, NON-POTABLE IRRIGATION MAINS, AND FORCE MAINS BY A MINIMUM CLEAR VERTICAL DISTANCE OF 18 INCHES MEASURED BETWEEN THE BOTTOM OF THE UPPER PIPE AND THE TOP OF THE LOWER PIPE. THE 18 INCHES MINIMUM VERTICAL SEPARATION DISTANCE DOES NOT APPLY TO SEPARATIONS OF SEWER LATERALS AND POTABLE WATER MAIN PIPELINE INSTALLATIONS. ALSO, WATER MAINS SHALL BE SEPARATED FROM STORM SEWER, SANITARY SEWER AND FORCE MAINS BY 10 FEET AND FROM IRRIGATION MAINS BY 5 FEET MEASURED HORIZONTALLY BETWEEN OUTSIDE OF PIPES.
2. ALL CROSSINGS WITH VERTICAL CLEARANCE LESS THAN 18 INCHES SHALL REQUIRE SUBMISSION AND APPROVAL OF A DEVIATION. IF A DEVIATION IS SUBMITTED, THE FOLLOWING MINIMUM STIPULATIONS APPLY: THE CROSSING SHALL BE MADE USING A FULL LENGTH OF THICKNESS CLASS 200 (DR14) AWWA C-900 PVC OR CLASS 235 (DR18) AWWA C-905 PVC PIPE CENTERED ON THE CROSSING.
3. 18 INCHES CLEAR DISTANCE SHALL NOT BE REDUCED IN CASES WHERE WATER CROSSES UNDER SEWER LINE.
4. WATER MAINS, SANITARY SEWER, STORM SEWER, AND NON-POTABLE IRRIGATION MAINS SHALL BE IN SEPARATE TRENCHES.
5. WATER MAINS CROSSING ANY TYPE OF SANITARY SEWER, INCLUDING FORCE MAIN, OR STORM SEWER SHALL HAVE THE ONE FULL LENGTH OF WATER MAIN CENTERED ABOVE OR BELOW THE OTHER PIPELINE SO THAT THE WATER JOINTS WILL BE AS FAR AS POSSIBLE FROM THE OTHER PIPELINE. ALTERNATIVELY, AT SUCH CROSSINGS, THE PIPES SHALL BE ARRANGED SO THAT ALL WATER MAIN JOINTS ARE AT LEAST THREE FEET FROM ALL JOINTS IN VACUUM-TYPE SANITARY SEWERS, STORM SEWERS, STORMWATER FORCE MAINS, OR PIPELINES CONVEYING RECLAIMED WATER REGULATED UNDER PART III OF CHAPTER 62-610, FAC, AND AT LEAST SIX FEET FROM ALL JOINTS IN GRAVITY- OR PRESSURE-TYPE SANITARY SEWERS, FORCE MAINS, OR PIPELINES CONVEYING RECLAIMED WATER NOT REGULATED UNDER PART III OF CHAPTER 62-610.
6. IF THE VERTICAL SEPARATION BETWEEN GRAVITY SANITARY SEWER AND STORMWATER LINES IS LESS THAN 18 INCHES, THEN 57 STONE SHALL BE UTILIZED BETWEEN THE TWO LINES.
7. SEE SECTION 1- DESIGN CRITERIA FOR ADDITIONAL REQUIREMENTS.

3 TYPICAL ASPHALT PAVEMENT SECTION

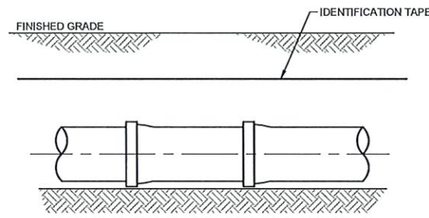


1. 1.5" OF SP-12.5 ASPHALTIC CONCRETE.
2. EXISTING BASE MATERIAL, PROOF ROLL PRIOR TO PAVING.
3. EXISTING SUBGRADE.

4 LOCATING TAPE



SECTION



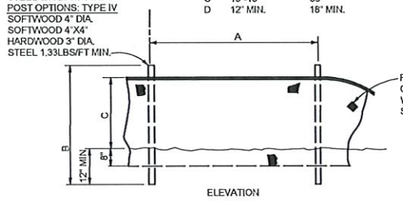
PROFILE

NOTE:
DETECTABLE IDENTIFICATION TAPE SHALL BE INSTALLED DIRECTLY OVER CENTERLINE OF THE PIPE AT 18-INCHES ABOVE THE PIPE.

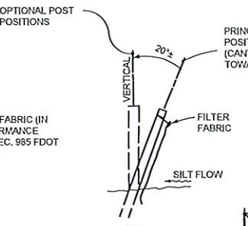
5 SILT FENCE

POST OPTIONS: TYPE III
SOFTWOOD 2-1/2" DIA.
SOFTWOOD 2"X4"
HARDWOOD 1-1/2" DIA.
STEEL 1.33LBS/FT MIN.
POST OPTIONS: TYPE IV
SOFTWOOD 4" DIA.
SOFTWOOD 4"X4"
HARDWOOD 3" DIA.
STEEL 1.33LBS/FT MIN.

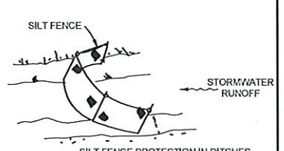
	TYPE III	TYPE IV
A	6' MAX.	10' MAX.
B	3' OR MORE	5' OR MORE
C	15"-18"	33"
D	12" MIN.	18" MIN.



ELEVATION

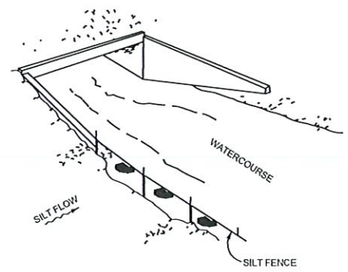


SECTION



SILT FENCE PROTECTION IN DITCHES WITH INTERMITTENT FLOW

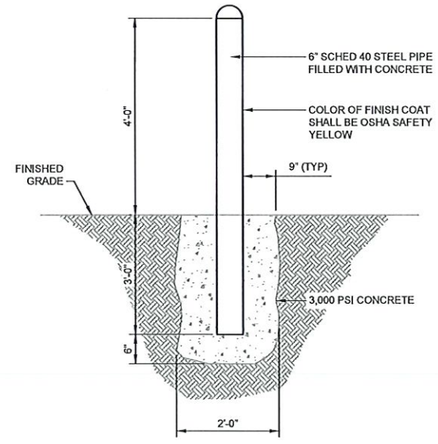
SILT FENCE PROTECTION AROUND DITCH BOTTOM INLETS



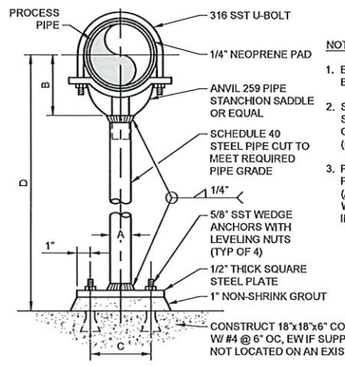
NOTES FOR SILT FENCES

1. TYPE III SILT FENCE TO BE USED AT MOST LOCATIONS. WHERE USED IN DITCHES, THE SPACING FOR TYPE III SILT FENCE SHALL BE IN ACCORDANCE WITH CHART I, SHEET I.
2. TYPE IV SILT FENCE TO BE USED WHERE LARGE SEDIMENT LOADS ARE ANTICIPATED. SUGGESTED USE IS WHERE FILL SLOPE IS 1:2 OR STEEPER AND LENGTH OF SLOPE EXCEEDS 25 FEET. AVOID WHERE THE DETAINED WATER MAY BACK INTO TRAVEL LANES OR OFF THE RIGHT OF WAY.
3. DO NOT CONSTRUCT SILT FENCES ACROSS PERMANENT FLOWING WATERCOURSES. SILT FENCES ARE TO BE UPLAND LOCATIONS AND TURBIDITY BARRIERS USED AT PERMANENT BODIES OF WATER.
4. WHERE USED AS SLOPE PROTECTION, SILT FENCE IS TO BE CONSTRUCTED ON 0% LONGITUDINAL GRADE TO AVOID CHANNELIZING RUNOFF ALONG THE LENGTH OF THE FENCE.
5. SILT FENCE TO BE PAID UNDER THE CONTRACT UNIT PRICE FOR STACKED SILT FENCE, (LF).

3 BOLLARD



3 PIPE SUPPORT



NOTES:

1. ENTIRE PIPE SUPPORT TO BE 304 STAINLESS STEEL.
2. SEE PLANS AND SECTIONS FOR PIPE GRADE REQUIREMENT (DIMENSION "D").
3. PROVIDE INSULATION PROTECTION SHIELD (ANVIL FIG 167 OR EQUAL) WHEN PIPING IS INSULATED.

PIPE SIZE	A	B	C	D	
				MIN	MAX
4	3	4 3/16	7	6	60
6	3	5 7/16	7	8	60
8	3	6 15/16	7	8	60
10	3	8 7/16	7	10	60
12	3	9 15/16	7	12	60
16	3	11 1/2	7	20	60
18	4	13 1/2	7	28	60
20	4	14 1/2	7	36	60
24	4	17 1/2	7	40	60

* ALL DIMENSIONS IN INCHES.

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CIVIL DETAILS

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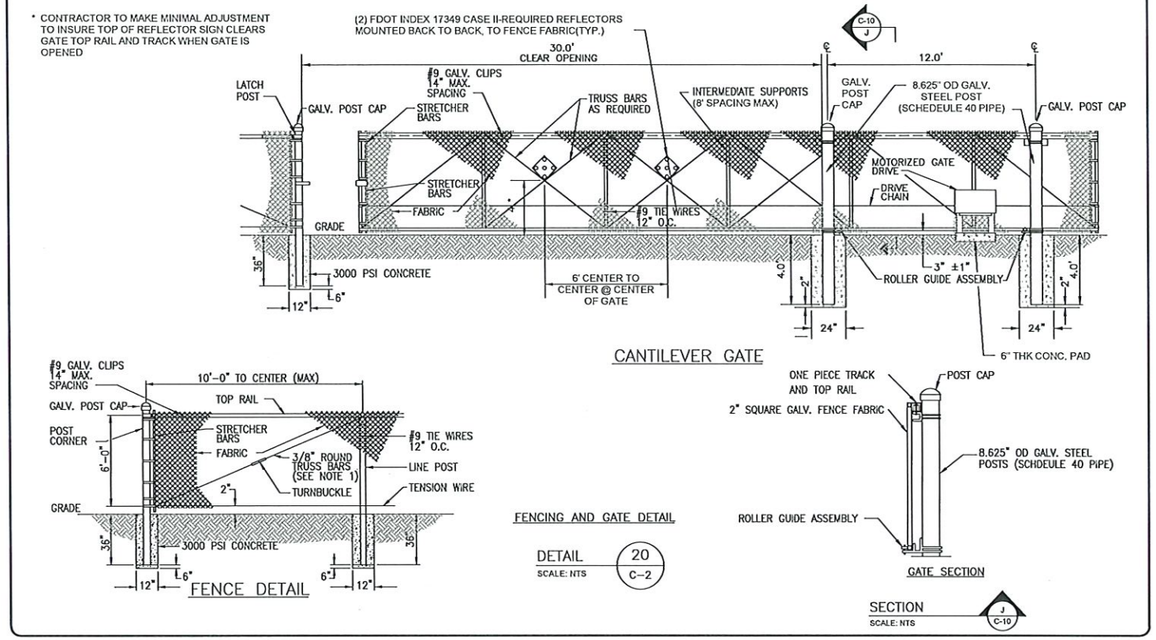
DESN:
DRWN:
CHKD:

C-501

Bar Measures 1 inch, otherwise drawing not to scale

1 CHAIN LINK FENCE WITH CANTILEVER GATE



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DESN:
DRWN:
CHKD:

C-502

Bar Measures 1 inch, otherwise drawing not to scale