

CONTRACT DOCUMENTS
FOR THE CONSTRUCTION OF

BRADEN WOODS LIFT STATION REHABILITATION AND NEW FORCE MAIN



PREPARED FOR
MANATEE COUNTY UTILITIES
MANATEE COUNTY, FL

VOLUME 2 OF 2
DRAWINGS

For information regarding this project, contact:
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Project No. D33339100
MAY 2021

BID DOCUMENTS

SIGNATURE FLY SHEET

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STATE OF FLORIDA

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TAO FU - PROCESS MECHANICAL

- 2 G-001 INDEX OF DRAWINGS
- 3 D-001 PROCESS MECHANICAL LEGEND
- 25 D-001 LIFT STATION UPPER AND LOWER PLAN
- 26 D-001 LIFT STATION SECTION
- 27 D-001 LIFT STATION DETAILS
- 28 D-002 LIFT STATION DETAILS
- 29 D-003 LIFT STATION DETAILS

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Richard Thomas Morrison
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RICHARD MORRISON - CIVIL

- 9 G-005 CIVIL GENERAL NOTES AND LEGENDS
- 11 C-001 OVERALL PROJECT PLAN
- 12 C-011 LIFT STATION DEMOLITION AND EROSION CONTROL PLAN
- 13 C-012 INSTRUMENTATION AND CONTROL PLAN
- 14 C-013 INSTRUMENTATION AND CONTROL LEGEND SHEET 1
- 15 C-202 FORCE MAIN PLAN AND PROFILE
- 16 C-203 FORCE MAIN PLAN AND PROFILE
- 17 C-204 LIFT STATION PROFILE
- 18 C-204 LIFT STATION SITE PLAN
- 19 C-801 MANATEE COUNTY STANDARD DETAILS
- 20 C-802 MANATEE COUNTY STANDARD DETAILS
- 21 C-804 STANDARD DETAILS

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CLEMENT ANSON - STRUCTURAL

- 4 G-005 STRUCTURAL NOTES SHEET
- 24 S-001 STANDARD DETAILS

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DAVID NICHOLSON - ELECTRICAL

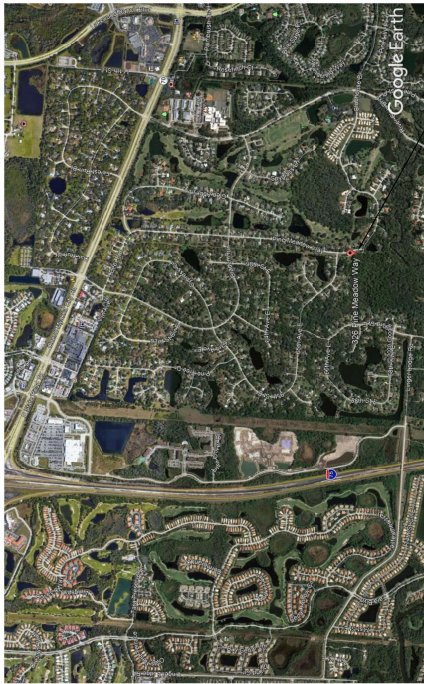
- 6 G-009 ELECTRICAL LEGEND SHEET 1 OF 3
- 7 G-010 ELECTRICAL LEGEND SHEET 2 OF 3
- 8 G-011 ELECTRICAL LEGEND SHEET 3 OF 3
- 30 C-201 LIFT STATION SITE PLAN
- 31 E-202 MOTOR CONTROL AND RISER DIAGRAM
- 32 E-502 STANDARD DETAILS
- 33 E-502 STANDARD DETAILS
- 34 E-503 STANDARD DETAILS
- 35 E-504 STANDARD DETAILS
- 36 E-505 STANDARD DETAILS
- 37 E-506 STANDARD DETAILS
- 38 E-507 STANDARD DETAILS

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CYRUS SAHARKHIZ - I & C

- 9 G-012 INSTRUMENTATION AND CONTROL LEGEND SHEET 1
- 10 G-013 INSTRUMENTATION AND CONTROL LEGEND SHEET 2
- 22 N-401 PUMP STATION
- 23 N-401 STANDARD DETAILS



PROJECT LOCATION MAP

PROJECT SITE

INDEX OF DRAWINGS.

01 - GENERAL

- 2 G-001 INDEX OF DRAWINGS
- 3 G-003 CIVIL GENERAL NOTES AND LEGENDS
- 4 G-004 PROCESS MECHANICAL LEGEND
- 5 G-007 ELECTRICAL LEGEND SHEET 1 OF 3
- 6 G-008 ELECTRICAL LEGEND SHEET 2 OF 3
- 7 G-011 ELECTRICAL LEGEND SHEET 3 OF 3
- 8 G-012 INSTRUMENTATION AND CONTROL LEGEND SHEET 1
- 9 G-013 INSTRUMENTATION AND CONTROL LEGEND SHEET 2

CIVIL

- 11 C-001 OVERALL PROJECT PLAN
- 12 C-101 LIFT STATION DEMOLITION AND EROSION CONTROL PLAN
- 13 C-102 LIFT STATION CONCEPTUAL EXCAVATION PLAN
- 14 C-201 FORCE MAIN PLAN AND PROFILE
- 15 C-202 FORCE MAIN PLAN AND PROFILE
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- 17 C-501 MANATEE COUNTY STANDARD DETAILS
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- 26 D-301 LIFT STATION SECTION
- 27 D-501 LIFT STATION DETAILS
- 28 D-502 LIFT STATION DETAILS
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ELECTRICAL

- 30 E-201 LIFT STATION SITE PLAN
- 31 E-202 MOTOR CONTROL AND RISER DIAGRAM
- 32 E-501 LIFT STATION DEMOLITION AND MODIFICATIONS
- 33 E-502 STANDARD DETAILS
- 34 E-503 STANDARD DETAILS
- 35 E-504 STANDARD DETAILS
- 36 E-505 STANDARD DETAILS

	<p>JACOBS</p> <p>GENERAL</p> <p>INDEX OF DRAWINGS</p>	<p>642 SW 4TH AVE, SUITE 400 GAINESVILLE, FLORIDA 32601 FB2822 TAO, P.U. PE 68138</p> <p>BRADEN WOODS LIFT STATION REHAB MANATEE COUNTY BADDENTON, FLORIDA 34203</p>
<p>NO. DATE</p> <p>BSGN</p> <p>CHK</p> <p>REVISION</p> <p>APVD</p> <p>BY</p> <p>APVD</p>	<p>T LOSS</p> <p>T FU</p> <p>T DR</p> <p>T FU</p>	<p>REVISIONS</p> <p>DATE</p> <p>BY</p> <p>APVD</p>

GENERAL SITE NOTES:

1. SOURCE OF TOPOGRAPHY SHOWN ON THE ORIGINAL PLANS IS A SURVEY PROVIDED BY WATTS SURVEY SERVICES, INC., DATED MARCH 2024. ADDITIONAL MARKING HAS BEEN ADDED FROM AS-BUILT DATA. EXISTING CONDITIONS MAY VARY FROM THOSE SHOWN ON THESE PLANS. CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND ADJUST WORK PLAN ACCORDINGLY PRIOR TO BEGINNING CONSTRUCTION.
2. EXISTING TOPOGRAPHY, STRUCTURES, AND SITE FEATURES ARE SHOWN. SCREENED AND/OR HEAVY-LINED, AND SITE FEATURES ARE SHOWN.
3. HORIZONTAL DATUM: FLORIDA STATE PLAIN COORDINATE SYSTEM (WEST ZONE NAD 1983 / 2011 ADJUSTMENT).
4. VERTICAL DATUM: THE ELEVATIONS (AS VERTICAL CONTROL) MONUMENT WAS RECOVERED AND UTILIZED FOR THE ELEVATIONS INDICATED HEREIN: HORSESHOE BEACH NAVD 1988 ELEVATION 21.86'.
5. MAINTAIN, RELOCATE, OR REPLACE EXISTING SURVEY MONUMENTS, CONTROL POINTS, AND STAKES WHICH ARE DISTURBED OR DESTROYED. PERFORM THE WORK TO PRODUCE THE SAME LEVEL OF ACCURACY AS THE ORIGINAL MONUMENT(S) IN A TIMELY MANNER, AND AT THE CONTRACTOR'S EXPENSE.
6. COORDINATES AND DIMENSIONS SHOWN FOR ROADWAY IMPROVEMENTS ARE TO FACE OF CURB OR EDGE OF PAVEMENT.
7. IF NECESSARY, THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING A STAGING AREA FOR EMPLOYEE PARKING, CONTRACTOR'S TRAILERS AND ON-SITE STORAGE OF MATERIALS.
8. PROVIDE TEMPORARY FENCING AS NECESSARY TO MAINTAIN SECURITY AT ALL TIMES.
9. ELEVATIONS GIVEN ARE TO FINISH GRADE UNLESS OTHERWISE SHOWN.
10. SLOPE UNFORMALLY BETWEEN CONTOURS AND SPOT ELEVATIONS SHOWN.
11. UNLESS SHOWN OTHERWISE, ALL DISTURBED AREAS NOT RECEIVING A HARD SURFACE SHALL BE COVERED WITH GRASS.
12. CONTRACTOR SHALL BE RESPONSIBLE FOR IMPLEMENTING AND MAINTAINING EROSION CONTROL DEVICES DURING CONSTRUCTION. EROSION CONTROL DEVICES SHOWN ARE THE MINIMUM REQUIRED.
13. CONTRACTOR SHALL TAKE ALL OTHER MEASURES TO POSITIVELY PRECLUDE EROSION MATERIALS FROM LEAVING THE SITE.
14. CONTRACTOR SHALL OBTAIN THE CAD FILE FROM THE ENGINEER FOR CONSTRUCTION LAYOUT.
15. THE COUNTY PROJECT MANAGER IS ALEJANDRO GONZALEZ, 708-7450 EXT. 7398.
16. CONTRACTOR SHALL BE RESPONSIBLE FOR INSTALLING MAINTENANCE OF TRAFFIC DEVICES (MOT) WORK FOR REVIEW AND APPROVAL AT LEAST TWO WEEKS PRIOR TO BEGINNING THE MOT WORK. THE MOT PLAN SHALL CLEARLY SHOW THE AREAS TO BE CLOSED, APPROXIMATE DURATION, AND DETOURS NEEDED.

GENERAL YARD PIPING AND UTILITIES NOTES:

1. EXISTING UNDERGROUND UTILITIES OBTAINED FROM COUNTY GIS, AS-BUILTS AND FROM FIELD SURVEY. CONTRACTOR SHALL VERIFY ALL UTILITIES PRIOR TO EXCAVATION. CONTRACTOR SHALL PROTECT ALL EXISTING UTILITIES DURING CONSTRUCTION.
2. EXISTING PIPING AND EQUIPMENT ARE SHOWN HEAVY-LINED, AND NEW PIPING AND EQUIPMENT ARE SHOWN LIGHT-LINED.
3. UNLESS OTHERWISE SHOWN ALL PIPING SHALL HAVE A MINIMUM OF 36" COVER.
4. ALL PIPES SHALL HAVE A CONSTANT SLOPE BETWEEN INVERT ELEVATIONS UNLESS A FITTING IS SHOWN.
5. FOR TRENCHING AND BACKFILL, SEE MANATEE COUNTY STANDARD DETAILS UG-11 AND UG-12.
6. FOR SURFACE RESTORATION OF ASPHALT CONCRETE, SEE MANATEE COUNTY STANDARD DETAIL UG-12, AND FOR GRASS, SEE SPECIFICATION 32.92.00.
7. MINIMUM ALLOWABLE CLEARANCE BETWEEN PIPES AT CROSSINGS SHALL BE AS SHOWN ON THE DRAWINGS. CONTROLLED LOW-STRENGTH FILL MATERIAL SUPPORT IS REQUIRED AS SHOWN ON (3123-120).

CIVIL LEGEND

- 156.5' SPOT ELEVATION
- CONTOUR LINE
- DRAINAGEWAY OR DITCH
- MANHOLE
- POST OR GUARD POST
- BRUSH/TREE LINE
- TREE
- PROPERTY / RW LINE
- CENTER LINE, BUILDING, ROAD, ETC.
- STAGING OR WORK AREA LIMITS
- EXISTING WATER LINE
- EXISTING STORM SEWER
- EXISTING SEWER LINE
- EXISTING OVERHEAD ELECTRIC
- STRUCTURE, BUILDING OR FACILITY LOCATION POINT - COORDINATES
- DEMOLITION
- STRUCTURE, BUILDING OR FACILITY
- SINGLE SWING GATE
- DOUBLE SWING GATE
- CHAIN LINK FENCE
- GRAVEL SURFACING
- CONCRETE
- ASPHALT PAVEMENT

SURVEY LEGEND

- SITE CONTROL POINT
- UTILITY RISER
- UTILITY HANDHOLE
- TRAFFIC SIGNAL POLE
- ANTENNA
- R/W RIGHT-OF WAY
- NO. 1/4" W/ DSC
- IRON ROD W/ CAP
- PID PARCEL IDENTIFICATION
- ORB OFFICIAL RECORDS BOOK
- PC PAGE
- PINE
- PALM
- TREE
- WOOD UTILITY POLE
- CONCRETE UTILITY POLE
- GUY WIRE
- WATER METER
- WATER VALVE
- SANITARY MANHOLE
- FIRE HYDRANT
- BACKFLOW PREVENTER
- COMMUNICATION MARKER
- CONCRETE MONUMENT FOUND
- GRAPE INLET
- MITERED END SECTION
- STORM MANHOLE
- MALIBOX
- GAS MARKER
- BOLLARD
- CLEANOUT
- SDN
- WOOD UTILITY POLE
- CONCRETE UTILITY POLE
- GUY WIRE
- WATER METER
- WATER VALVE
- SANITARY MANHOLE
- FIRE HYDRANT
- BACKFLOW PREVENTER
- COMMUNICATION MARKER

YARD PIPING LEGEND

- EXISTING
- THIS CONTRACT
- 6" PVC
- NOMINAL PIPE DIAMETER
- PIPE MATERIAL
- PIPING SINGLE LINE
- PIPING DOUBLE LINE
- EXISTING PIPE TO BE ABANDONED
- EXISTING PIPE TO BE REMOVED

EROSION CONTROL LEGEND

- COVER PRACTICES
- SILT FENCE
- COIR LOG BARRIER (BIOFILTER)
- SYMBOL



NO.	DATE	DESCRIPTION	BY	APP'D

642 SW 4TH AVE. SUITE 400
GAINESVILLE, FLORIDA 32601
F82822
RICHARD THOMAS MORRISON, PE 67713
MANATEE COUNTY
BRADEN WOODS LIFT STATION
MANATEE COUNTY
BRADENTON, FLORIDA 34205



GENERAL
CIVIL GENERAL NOTES

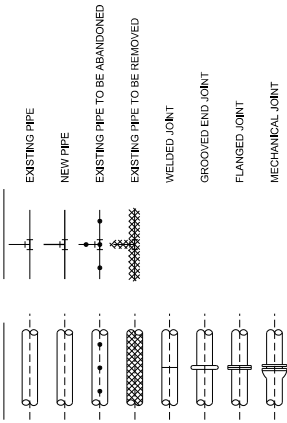
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DATE	BY	DESCRIPTION
MAY 2024		
D33391001		
CG-003		
SHEET	3 of 36	

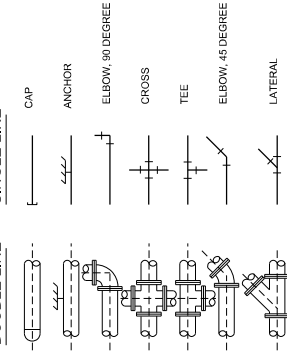
VERIFY SCALE
DATE
DRAWN
CHECKED
SHEET

PIPE AND FITTING SYMBOLS

DOUBLE LINE



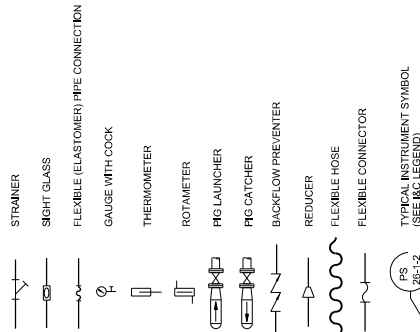
SINGLE LINE



NOTES:

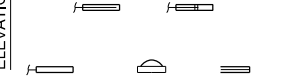
- ONLY FLANGED END CONNECTIONS ARE SHOWN HERE FOR DOUBLE LINE FITTINGS. ALL OTHER CONNECTIONS ARE SHOWN HERE FOR SINGLE LINE FITTINGS. REFER TO THE CONSTRUCTION DRAWINGS, ALSO SEE PIPING SPECIFICATIONS.
- SYMBOLS SHOWN HERE FOR SINGLE LINE FITTINGS ARE GENERIC ONLY. REFER TO PIPING SPECIFICATIONS FOR SPECIFIC END CONNECTIONS FOR SINGLE LINE PIPE AND FITTINGS.
- PROVIDE THRUST RESTRAINT FOR ALL FLEXIBLE COUPLINGS, FCAS, ETC. AS SPECIFIED.
- PROVIDE CONTROL RODS FOR ALL BELLOWS EXPANSION JOINTS AND COUPLINGS AS SPECIFIED.

MISCELLANEOUS PIPING SYMBOLS

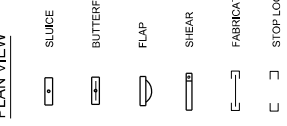


GATE SYMBOLS

ELEVATION VIEW

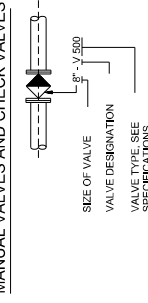


PLAN VIEW

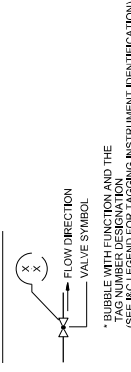


VALVE DESIGNATIONS

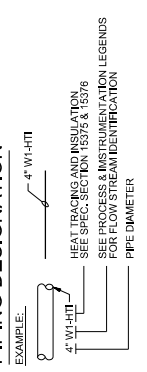
MANUAL VALVES AND CHECK VALVES



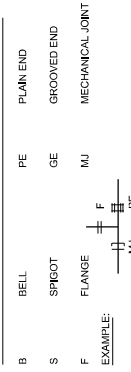
CONTROL VALVES



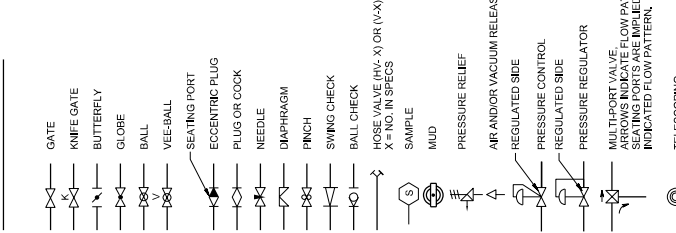
PIPING DESIGNATION



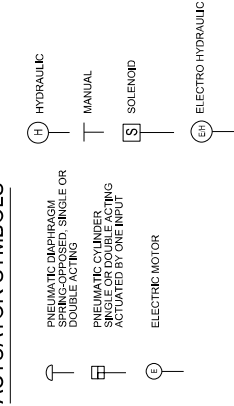
PIPE AND FITTING END PATTERNS



VALVE SYMBOLS



ACTUATOR SYMBOLS



642 SW 4TH AVE. SUITE 400
GAINESVILLE, FLORIDA 32601
E82822
TAO, FL, PE 63193

BRADEN WOODS LIFT STATION
REHAB
MAUNATEE COUNTY
BRANDTOWN, FLORIDA 34205

JACOBS

GENERAL
PROCESS MECHANICAL
LEGEND

DATE: MAY 2021
PROJECT: D333391001
DRAWING: C-207
SHEET: 5 of 36

VERIFY SCALE
DATE: MAY 2021
PROJECT: D333391001
DRAWING: C-207
SHEET: 5 of 36

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STATE OF FLORIDA
JACOBS ENGINEERING & CONSTRUCTION, INC.
ELECTRICAL ENGINEERING
LICENSE NO. 14001
DAVID C. NICHOLSON, P.E.

NO. DATE
REVISION
BY APVD
M GOSLOW
D NICHOLSON
A PASTRANA
CHK
D NICHOLSON

SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
	CAPACITOR		BATTERY
	LIMIT SWITCH, NORMALLY OPEN, CLOSING AT END OF TRAVEL		LIMIT SWITCH, NORMALLY CLOSED, CLOSING AT END OF TRAVEL
	TEMPERATURE SWITCH, NORMALLY OPEN, CLOSING ON TEMPERATURE RISE		TEMPERATURE SWITCH, NORMALLY CLOSED, CLOSING ON TEMPERATURE RISE
	FLOAT SWITCH, NORMALLY OPEN, CLOSING ON DESCENDING LEVEL		FLOAT SWITCH, NORMALLY CLOSED, CLOSING ON RISING LEVEL
	PRESSURE SWITCH, NORMALLY CLOSED, OPENS ON RISING PRESSURE		PRESSURE SWITCH, NORMALLY OPEN, CLOSING ON RISING PRESSURE
	FLOW SWITCH, NORMALLY OPEN, CLOSING ON INCREASED FLOW		FLOW SWITCH, NORMALLY CLOSED, CLOSING ON INCREASED FLOW
	NEUTRAL GROUND CURRENT LIMITING RESISTOR		CALIBRATING RESISTOR
	TACHOMETER GENERATOR		GROUND FAULT SENSOR
	FLASHER		SEALED CONTACT
	BUZZER		POTENTIOMETER
	RESISTOR		BLOWN FUSE INDICATOR
	COAXIAL CABLE		MULTICONDUCTOR SHIELDED CABLE
	DUPLEX RECEPTACLE		RELAY, WITH MECHANICAL LATCH
	FULLWAVE DIODE BRIDGE (AC TO DC)		

SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION											
	PUSHBUTTON SWITCH, MOMENTARY CONTACT, NORMALLY OPEN		PUSHBUTTON SWITCH, MOMENTARY CONTACT, NORMALLY CLOSED											
	PUSHBUTTON SWITCH, MAINTAINED CONTACTS WITH MECHANICAL INTERLOCK		3-POSITION SELECTOR SWITCH MAINTAINED CONTACT											
	SELECTOR SWITCH - MAINTAINED CONTACT - CHART IDENTIFIES OPERATION WHEN NEEDED FOR CLARITY:	<table border="1"> <tr> <td>CHART</td> <td>HAND</td> <td>POSITION</td> <td>REMOTE</td> </tr> <tr> <td>1</td> <td>X</td> <td>O</td> <td>O</td> </tr> <tr> <td>2</td> <td>O</td> <td>O</td> <td>X</td> </tr> </table>	CHART	HAND	POSITION	REMOTE	1	X	O	O	2	O	O	X
CHART	HAND	POSITION	REMOTE											
1	X	O	O											
2	O	O	X											
	TOGGLE SWITCH, ON-OFF TYPE		SELECTOR SWITCH, ON-OFF TYPE											
	MUSHROOM HEAD PUSHBUTTON SWITCH		INDICATING LIGHT, PUSH-TO-TEST, LETTER INDICATES COLOR											
	INDICATING LIGHT, LETTER INDICATES COLOR: S - STROBE, B - BLUE, R - RED, W - WHITE, C - CLEAR		ELAPSED TIME METER											
	MOTOR STARTER CONTACTOR COIL		CONTROL RELAY, X INDICATES NUMERICAL ORDER IN CIRCUIT											
	TIME DELAY RELAY, X INDICATES NUMERICAL ORDER IN CIRCUIT		SOLENOID VALVE, X INDICATES NUMERICAL ORDER IN CIRCUIT											
	CONTACT - NORMALLY OPEN		CONTACT - NORMALLY CLOSED											
	REMOTE DEVICE		TIME DELAY RELAY CONTACT, NORMALLY OPEN, CLOSING WHEN ENERGIZED AND TIMED OUT											
	TIME DELAY RELAY CONTACT, NORMALLY CLOSED, OPENS WHEN ENERGIZED AND TIMED OUT		TIME DELAY RELAY CONTACT, NORMALLY OPEN, OPENS WHEN DEENERGIZED AND TIMED OUT											
	TIME DELAY RELAY CONTACT, NORMALLY CLOSED, CLOSING WHEN DEENERGIZED AND TIMED OUT		MOTOR SPACE HEATER											
	TERMINAL BLOCK, REMOTE		TERMINAL BLOCK, INTERVAL											
	FUSED TERMINAL BLOCK		FUSE, RATING INDICATED											
	TRANSFORMER, CONTROL POWER		THERMOCOUPLE											

SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
	DRAWOUT POWER CIRCUIT BREAKER, MEDIUM VOLTAGE		NON DRAWOUT FUSED SWITCH, MEDIUM VOLTAGE
	DRAWOUT FUSED SWITCH AND CONTACTOR, MEDIUM VOLTAGE		DRAWOUT FUSED SWITCH AND VACUUM CONTACTOR, MEDIUM VOLTAGE
	DRAWOUT VACUUM CONTACTOR, MEDIUM VOLTAGE		MEDIUM VOLTAGE CABLE STRESS CONE TYPE TERMINATION, OPEN TERMINATOR OR ELBOW
	SWITCH - LOAD BREAK, GROUP OPERATED, MEDIUM VOLTAGE		DISCONNECTING FUSE - SOLID MATERIAL, MEDIUM VOLTAGE
	TERMINAL BLOCK LUG		DELTA CONNECTION
	WYE GROUNDED CONNECTION, SOLID GROUND		WYE NEUTRAL GROUND RESISTOR OR IMPEDANCE CONNECTION
	RELAY OR DEVICE, FUNCTION NUMBER AS INDICATED		CURRENT TRANSFORMER, ZERO SEQUENCE, RATIO AND QUANTITY INDICATED
	BUSHING CURRENT TRANSFORMER, MULTIRATIO AND QUANTITY INDICATED		MOTOR OPERATOR, BREAKER OR SWITCH
	ENERGY MONITORING UNIT		MOTOR PROTECTION RELAY

SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
	DRAWOUT AIR CIRCUIT BREAKER, LOW VOLTAGE		CIRCUIT BREAKER, THERMAL MAGNETIC TRIP SHOWN, 3 POLE, UNO
	CIRCUIT BREAKER WITH CURRENT LIMITING FUSES, TRIP AND FUSE RATING INDICATED, 3 POLE, UNO		FUSED SWITCH, SWITCH AND FUSE CURRENT RATING INDICATED, 3 POLE, UNO
	SWITCH, CURRENT RATING INDICATED, 3 POLE, UNO		FUSE, CURRENT RATING AND QUANTITY INDICATED
	MAGNETIC STARTER WITH OVERLOAD, NEMA SIZE INDICATED, FVAR UNO		ELECTRONIC STARTER/SPEED CONTROL, NEMA SIZE INDICATED, FVAR UNO
	KEY INTERLOCK		SURGE ARRESTER (GAP TYPE)
	CAPACITOR - KVAR INDICATED, 3 PHASE		AC MOTOR, SQUARE FLANGE INDUCTION-HORSEPOWER INDICATED
	GENERATOR, KW/KVA RATINGS SHOWN		ANALOG METER WITH SWITCH - SCALE RANGE SHOWN
	DIGITAL POWER METER (MULTIFUNCTION)		UTILITY REVENUE METER
	GROUND		SHIELDED ISOLATION TRANSFORMER
	POTENTIAL TRANSFORMER, VOLTAGE RATING AND QUANTITY INDICATED		CURRENT TRANSFORMER, RATIO(100:5) AND QUANTITY INDICATED (6)
	SURGE PROTECTIVE DEVICE		

NOTES:
1. THESE ARE STANDARD LEGEND SHEETS. SOME SYMBOLS AND ABBREVIATIONS MAY APPEAR ON THE LEGEND AND NOT ON THE DRAWINGS.
2. FOR ADDITIONAL ABBREVIATIONS OF OTHER DIVISIONS (HVAC, MECHANICAL, AND STRUCTURAL/ARCHITECTURAL) SEE OTHER LEGENDS.

CONNECTION POINT TO EQUIPMENT SPECIFIED IN OTHER DIVISIONS, RACEWAY, CONDUCTOR AND CONNECTION IN THIS DIVISION

V = VOLTAGE
KW = KILOWATTS
KVAR = KILOWATTS
PF = POWER FACTOR

TRANSFORMER, SIZE, VOLTAGE RATINGS, AND PHASE INDICATED

15 KVA
480/120/240V
1 PH

480-120V
(3)

100-5
(3)

3

500/25

0-900V

DPM

UTILITY REVENUE METER

GROUND

SHIELDED ISOLATION TRANSFORMER

POTENTIAL TRANSFORMER, VOLTAGE RATING AND QUANTITY INDICATED

CURRENT TRANSFORMER, RATIO(100:5) AND QUANTITY INDICATED (6)

CONNECTION POINT TO EQUIPMENT SPECIFIED IN OTHER DIVISIONS, RACEWAY, CONDUCTOR AND CONNECTION IN THIS DIVISION

SURGE PROTECTIVE DEVICE

RELAY OR DEVICE, FUNCTION NUMBER AS INDICATED

CURRENT TRANSFORMER, ZERO SEQUENCE, RATIO AND QUANTITY INDICATED

BUSHING CURRENT TRANSFORMER, MULTIRATIO AND QUANTITY INDICATED

MOTOR OPERATOR, BREAKER OR SWITCH

ENERGY MONITORING UNIT

MOTOR PROTECTION RELAY

DISCONNECTING FUSE - SOLID MATERIAL, MEDIUM VOLTAGE

DRAWOUT VACUUM CONTACTOR, MEDIUM VOLTAGE

DRAWOUT FUSED SWITCH AND VACUUM CONTACTOR, MEDIUM VOLTAGE

DRAWOUT FUSED SWITCH AND CONTACTOR, MEDIUM VOLTAGE

NON DRAWOUT FUSED SWITCH, MEDIUM VOLTAGE

DRAWOUT POWER CIRCUIT BREAKER, MEDIUM VOLTAGE

TERMINAL BLOCK LUG

DELTA CONNECTION

WYE GROUNDED CONNECTION, SOLID GROUND

1 2 3 4 5 6

DESCRIPTION SYMBOL DESCRIPTION SYMBOL DESCRIPTION SYMBOL DESCRIPTION SYMBOL

POWER SYSTEM PLAN-1
CONNECTION POINT TO EQUIPMENT SPECIFIED. RACEWAY, CONDUIT, TERMINATION AND CONNECTION IN THIS DIVISION.
MAJOR ELECTRICAL COMPONENT OR DEVICE - NAME OR IDENTIFYING SYMBOL AS SHOWN.
PANELBOARD - SURFACE MOUNTED
PANELBOARD LETTER OR NUMBER
FACILITY NUMBER
LP - LOW VOLTAGE PANEL
DP - DISTRIBUTION PANEL
PANELBOARD - FLUSH MOUNTED
TERMINAL JUNCTION BOX
MOTOR, SQUIRREL CAGE INDUCTION
GENERATOR, VOLTAGE AND SIZE AS INDICATED.
HOME RUN - DESTINATION SHOWN
EXPOSED CONDUIT AND CONDUCTORS -
CONCEALED CONDUIT AND CONDUCTORS -
NOTE:
ALL UNMARKED CONDUIT RUNS CONSIST OF TWO NO. 12, ONE NO. 12 GROUND, AND ONE NO. 12 CONDUCTOR.
ALL UNMARKED CONDUITS WITH SUBSCRIPT '0' INDICATES GREEN GROUND WIRE.
CONDUITS MARKED WITH BAR INDICATES NO. 10 CONDUCTOR, SIZE, CONDUIT, CONDUIT TYPE TO SPECIFICATIONS AND APPLICABLE CODE.
CONDUIT AND CONDUCTOR CALLOUT, SEE LEGEND.
CONDUIT DOWN
CONDUIT UP
CONDUIT, STUBBED AND CAPPED
CONDUIT TERMINATION AT CABLE TRAY
EXISTING CONDUIT/DUCT BANK
BUS DUCT - SEE SPECIFICATIONS
CONCRETE ENCASED CONDUIT
DIRECT BURIED CONDUIT
FIBER OPTIC CONDUIT
CONCRETE ENCASED DUCT BANK WHERE XXXX IS THE DUCT BANK NAME, SEE CIRCUIT AND RACEWAY GOING DEFINITION
CONCEALED CONDUIT ROUTING AREA
CONDUIT ROUTING AREA
CABLE TRAY
TRANSFORMER
GENERAL CONTROL OR WIRING DEVICE, IDENTIFIED BY NAME AND TYPE
INDICATE TYPE OF DEVICE
CONTROL STATION, SEE CONTROL DIAGRAMS FOR CONTROL DEVICES (REQUIRED)
NONUSED DISCONNECT SWITCH, CURRENT RATING
FUSED DISCONNECT SWITCH, CURRENT RATING INDICATED (60/40, 65/50 SWITCH RATING / 40/FUSE RATING)
3 POLE
COMBINATION CIRCUIT BREAKER AND MAGNETIC STARTER, NEW SIZE INDICATED

POWER SYSTEM PLAN-2
BREAKER SEPARATELY MOUNTED, CURRENT RATING INDICATED (100/40, 100 = FRAME SIZE; 40 = TRIP RATING)
3 POLE
CONTACTOR, MAGNETIC, NEW SIZE INDICATED
LIGHTING CONTACTOR, CURRENT RATING INDICATED
STARTER, MAGNETIC NEW SIZE INDICATED
CONVENIENCE RECEPTACLE - DUPLEX UNLESS NOTED OTHERWISE
WP - WEATHERPROOF
C - CLOCK HANDBAR
GFCI - GROUND FAULT CIRCUIT INTERRUPTER
SUBSCRIPT NUMBER AT RECEPTACLE INDICATES CIRCUIT
240V RECEPTACLE
CONVENIENCE RECEPTACLE - QUADRUPLX
MULTI OUTLET ASSEMBLY
DUPLEX CONVENIENCE RECEPTACLE - FLUSH IN FLOOR
CONVENIENCE RECEPTACLE/PEDESTAL, DUPLEX SINGLE FACE UNLESS INDICATED OTHERWISE
THERMOSTAT
UTILITY/REVENUE METERING FACILITY
ELECTRIC UNIT HEATER
ELECTRIC AIR CONDITIONER (SELF CONTAINED UNIT)
UTILITY POLE
LIGHTING SYSTEM PLAN
LUMINAIRE, SEE SCHEDULE
LUMINAIRE WITH INTERNAL BATTERY BACKUP, SEE SCHEDULE
STRIP LUMINAIRE, SEE SCHEDULE
LUMINAIRE AND POLE, SEE SCHEDULE
WALL MOUNTED LUMINAIRE, SEE SCHEDULE
FLOOD LIGHTS - AIM IN THE DIRECTION SHOWN
STANDBY LIGHTING UNIT, SURFACE MOUNTED, SEE SCHEDULE
EXIT LIGHTS - FILLED SECTION INDICATES LIGHTED FACE, UNLESS OTHERWISE SPECIFIED
XX - FIXTURE NUMBER, SEE SCHEDULE
SMALL LETTER SUBSCRIPT AT SWITCH AND LUMINAIRE INDICATES CIRCUIT NUMBER
AT LUMINAIRE INDICATES CIRCUIT
WALL SWITCH:
1. DOUBLE POLE
2. PILOT LIGHT
3. PULL CHAIN
4. DIMMER
WP - WEATHERPROOF
CR - CORROSION RESISTANT
MS - MOTOR RATED
MANUAL STARTER
WITH OVERLOADS
OCCUPANCY SENSOR
LIGHTING CONTACTOR
MOTION DETECTOR
PHOTOCELL

FIRE ALARM SYSTEM PLAN AND RISER
FIRE ALARM STATION, MANUAL
FIRE ALARM SYSTEM, AUTOMATIC SMOKE DETECTOR
FIRE ALARM SYSTEM, AUTOMATIC, HEAT DETECTOR
FIRE ALARM BELL
FIRE ALARM HORN
FIRE ALARM HORNSTROBE LIGHT
FIRE ALARM STROBE LIGHT
AIR DUCT DETECTOR
FIRE SPRINKLER FLOW SWITCH
FIRE SPRINKLER TAMPER SWITCH
DOOR HOLDER
TELEPHONE TERMINAL CABINET
TELEPHONE RECEPTACLE FLOOR BOX
TELEPHONE RECEPTACLE
TELEPHONE SYSTEM RACEWAY
COMBINED TELEPHONE/COMPUTER SYSTEM PLAN AND RISER
COMBINATION TELEPHONE/DATA RECEPTACLE, WALL MOUNTED, NUMBER OF PORTS INDICATED
COMBINATION TELEPHONE/DATA RECEPTACLE, FLOOR BOX, NUMBER OF PORTS INDICATED

ONE LINE PROTECTION RELAYING AND ELEMENTARY DIAGRAMS-1
RELAY COIL DEVICE FUNCTION NUMBER PER ANSI/IEEE C37.2 - AMERICAN STANDARD MANUAL AND AUTOMATIC STATION CONTROL, SUPERVISORY AND ASSOCIATED TELEPHONE EQUIPMENT
NORMALLY OPEN CONTACT
NORMALLY CLOSED CONTACT
REMOTE DEVICE
NEUTRAL GROUNDING RESISTOR
PHASE SHIFTING TRANSFORMER

FIRE ALARM SYSTEM PLAN AND RISER
FIRE ALARM STATION, MANUAL
FIRE ALARM SYSTEM, AUTOMATIC SMOKE DETECTOR
FIRE ALARM SYSTEM, AUTOMATIC, HEAT DETECTOR
FIRE ALARM BELL
FIRE ALARM HORN
FIRE ALARM HORNSTROBE LIGHT
FIRE ALARM STROBE LIGHT
AIR DUCT DETECTOR
FIRE SPRINKLER FLOW SWITCH
FIRE SPRINKLER TAMPER SWITCH
DOOR HOLDER
TELEPHONE TERMINAL CABINET
TELEPHONE RECEPTACLE FLOOR BOX
TELEPHONE RECEPTACLE
TELEPHONE SYSTEM RACEWAY
COMBINED TELEPHONE/COMPUTER SYSTEM PLAN AND RISER
COMBINATION TELEPHONE/DATA RECEPTACLE, WALL MOUNTED, NUMBER OF PORTS INDICATED
COMBINATION TELEPHONE/DATA RECEPTACLE, FLOOR BOX, NUMBER OF PORTS INDICATED

SECURITY SYSTEM PLAN AND RISER
CARD KEY ACCESS
CONTROL STATION
DOOR SWITCH
EGRESS PUSHBUTTON
ELECTRONIC LOCK
ELECTRONIC LOCK
S = STRIKE
INTERCOM
MONITOR
MOTION SENSOR
VIDEO CAMERA
PTZ = PAN/TILT/ZOOM
F = FIXED
GROUND SYSTEM PLAN
GROUND ROD
GROUND ROD IN TEST WELL
GROUNDING CONDUCTOR, SIZE AS INDICATED
PISTAL FOR CONNECTION TO EQUIPMENT CABINET OR FRAME
EQUIPMENT GROUND BUS
EQUIPMENT NEUTRAL BUS

GENERAL NOTES

- 1. CONDUIT, WIRE AND EQUIPMENT SIZES AND LOCATIONS SHOWN ARE...
2. TO DENOTE NOT ONLY THE RACEWAY OR CONDUIT ITSELF BUT ALSO...
3. NOTES INDICATED AS 'REF' REFERENCE OR REFER TO ARE PROVIDED...
4. ITEMS MARKED 'MISC' MANUFACTURER SUPPLIER OR SPECIFIED...
5. SETBACK FROM CONDUIT TO OBSTACLES...
6. CONDUCTORS SHALL NOT BE SPICED EXCEPT AS NOTED IN THE...
7. SPECIFICATIONS AND SCHEDULES FOR THE DRAWINGS...
8. PER TABLE 235.12 OF THE NEC, UNLESS OTHERWISE NOTED...
9. ALL PARTS INFORMATION SHOWN MUST BE FIELD VERIFIED...
10. REFER TO SPECIFICATION SECTION 28.41.00 FOR LIGHTNING PROTECTION...
11. SYSTEM COORDINATION, AND ARC FLASH STUDY REQUIREMENTS...
12. CONDUCTIVE ENCLOSURES AND OTHER EXTERIOR METAL COMPONENTS...
13. ALL WIRING SHALL BE PERMITTED TO BE CONNECTED TO 120 VOLT...
14. WHERE THE NUMBER OR SIZE OF CONDUCTORS, RAYS, OR BE...
15. ALL MATERIALS AND EQUIPMENT PROPOSED FOR USE SHALL BE NEW...
16. PROVIDE ARC FLASH WARNING AND OTHER SIGNS ON ALL SWITCHGEAR...
17. COORDINATE SIZE AND INSTALLATION OF ALL EQUIPMENT WITH...
18. STANDARD DETAILS INCLUDED IN THESE DOCUMENTS SHALL BE USED...
19. ALL TERMINATIONS OF RIGID METAL CONDUIT IN WALLS OF...

HAZARDOUS LOCATION NOTES:

- 1. PER NFPA 820 (2016), TABLE 4.2.2, ROW 186, THE AREA OF THE WASTE...
a) THE AREA INSIDE THE WET WELL IS CONSIDERED CLASS 1, DIV 1...
b) THE AREA WITHIN A WET ENVELOPE AROUND THE VENT IS CONSIDERED...
c) THE AREA WITHIN A 5 FT ENVELOPE AROUND THE VENT IS CONSIDERED...
d) THE AREA WITHIN AN ENVELOPE 6 INCHES AND ABOVE 4 FT BEYOND...
e) THE AREA BEYOND THE ENVELOPE IS UNCLASSIFIED...
2. PROVIDE SUITABLE WIRING METHODS AND MATERIALS FOR HAZARDOUS...
LOCATIONS PER NFPA 70 (NEC).

GENERAL CIRCUIT CONDUCTOR AND CONDUIT IDENTIFICATION

Table with columns: POWER CIRCUIT CALLOUTS, ANALOG CIRCUIT CALLOUTS, CONTROL CIRCUIT CALLOUTS, DATA HIGHWAY CABLE CIRCUIT CALLOUTS, and POWER CABLE CIRCUIT CALLOUTS. Includes callout codes like [P1], [A1], [C1], [I1], [PC1] and their corresponding descriptions.

DATE: MAY 2021, DRAWING NO: D3339100, SHEET: 8 OF 8, PLOT TIME: 10:45:39 AM, FILENAME: 014-c011_d3339100.dgn

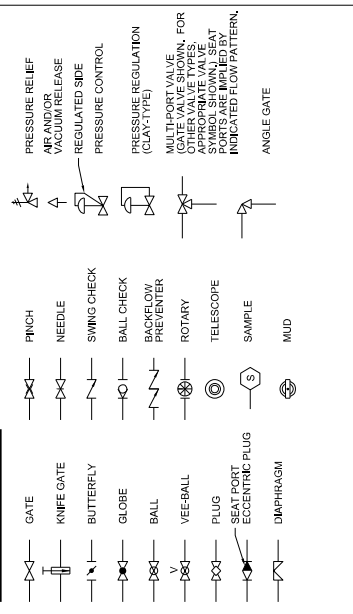
JACOBS logo and project information including 'BRADEN WOODS PLANT STATION' and 'RELEAS'.

Revision table with columns: NO, DATE, REVISION, and BY/APPV. Includes revision details for 'D NICHOLSON' and 'A PASTRANA'.

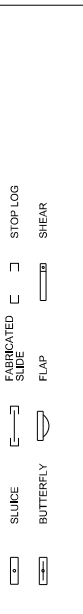


Large table containing the main content of the document, including specifications and notes.

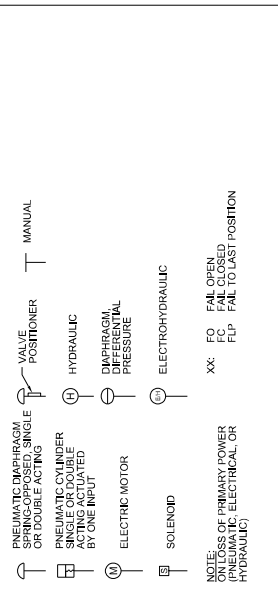
VALVE SYMBOLS



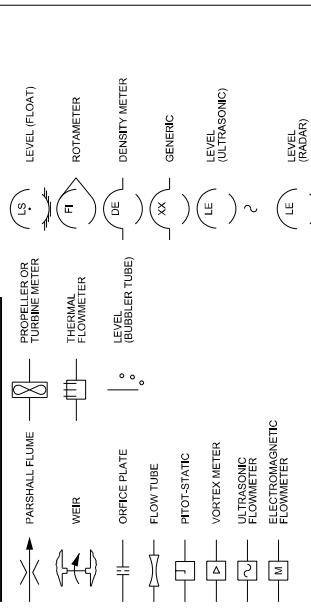
GATE SYMBOLS



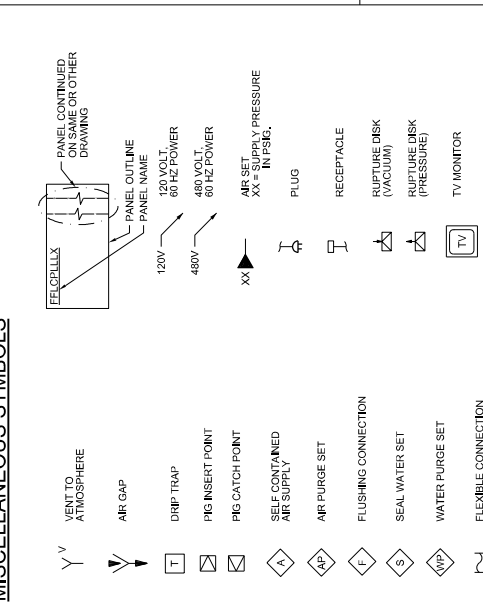
ACTUATOR SYMBOLS



PRIMARY ELEMENT SYMBOLS



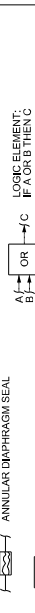
MISCELLANEOUS SYMBOLS



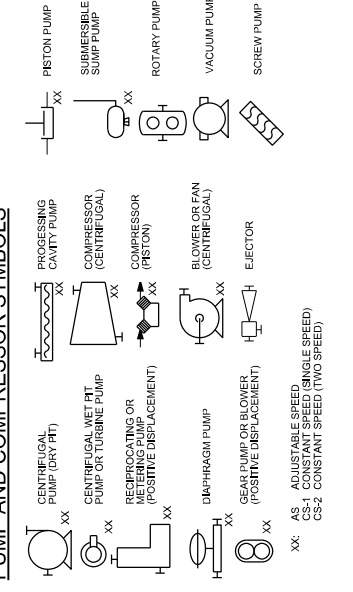
LINE SIZE AND MATERIAL IDENTIFICATION



FLOWSTREAM



PUMP AND COMPRESSOR SYMBOLS



LEGEND SHEET 2

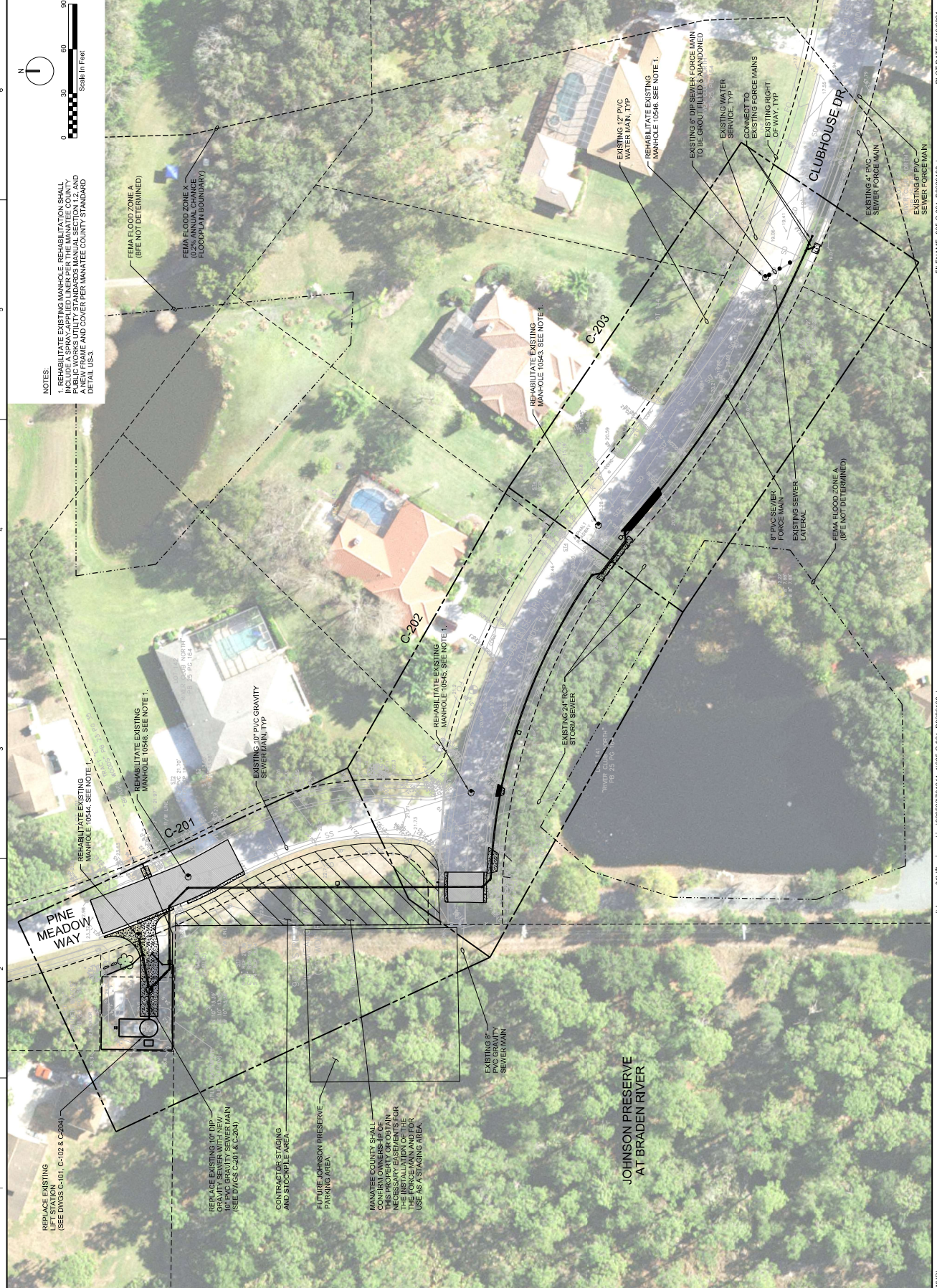
NO.	DATE	BY	APP'D

NO.	DATE	BY	APP'D

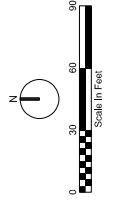
642 SW 4TH AVE., SUITE 400
GAINESVILLE, FLORIDA 32601
F82822
CYSUR, JOHN SAHAKHIZ, PE #4591
BRADEN WOODS LIFT STATION
MAUNTEE COUNTY
BRADENTON, FLORIDA 34205

DATE	BY	APP'D

FILENAME: 004-cv-013_03339100.dgn
PLOT TIME: 10:44:46 AM
SHEET: 10 of 36



NOTES:
 1. REHABILITATE EXISTING MANHOLE. REHABILITATION SHALL BE PERFORMED IN ACCORDANCE WITH THE LATEST EDITION OF THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS UTILITY STANDARDS MANUAL SECTION 12 AND A NEW FRAME AND COVER PER MANATEE COUNTY STANDARD DETAIL (05-3).



NO.	DATE	BY	APP'D	REVISION

R. MORRISON
 BRADEN WOODS LIFT STATION
 MANATEE COUNTY
 BRADENTON, FLORIDA 34205

JACOBS
 CIVIL
 OVERALL
 PROJECT PLAN

DATE	MAY 2021
PROJECT	D33391001
DWG	C-201
SHEET	11 OF 36

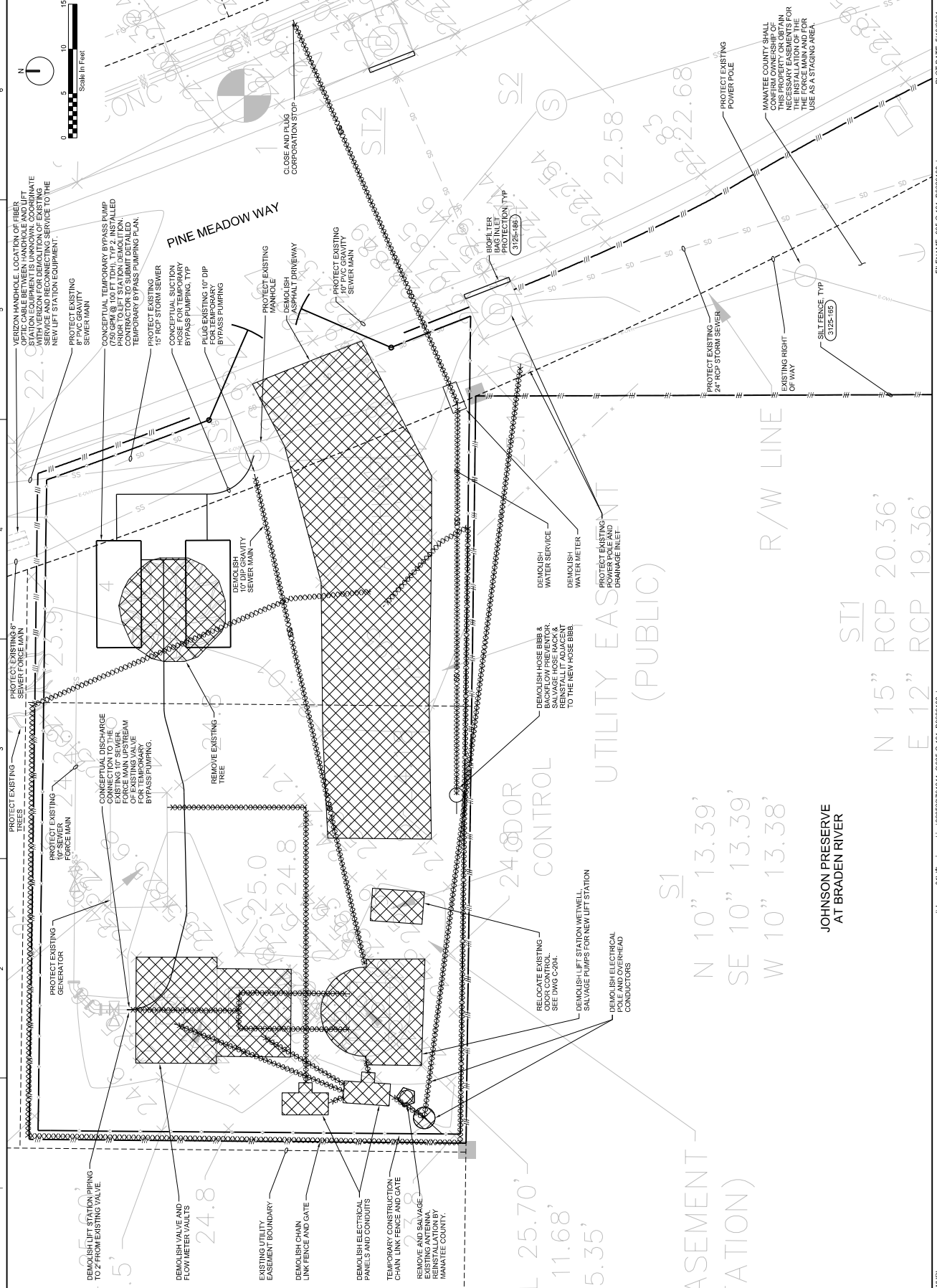


NO.	DATE	REVISION	BY	APPD.

6425 W. 4TH AVE., SUITE 400
GAINESVILLE, FLORIDA 32601
E82822
RICHARD THOMAS MORRISON, PE 67713
REHAB
MANATEE COUNTY
BRADEN WOODS LIFT STATION
BRADENWOODS, FLORIDA 34205
BDSGN
R MORRISON
C CHILDRESS
A MALONE
R MORRISON

JACOBS
CIVIL
LIFT STATION
DEMOLITION AND EROSION
CONTROL PLAN

VERIFY SCALE
DATE: MAY 2021
DRAWN: D33391001
CHECKED: C-101
SHEET: 12 OF 36

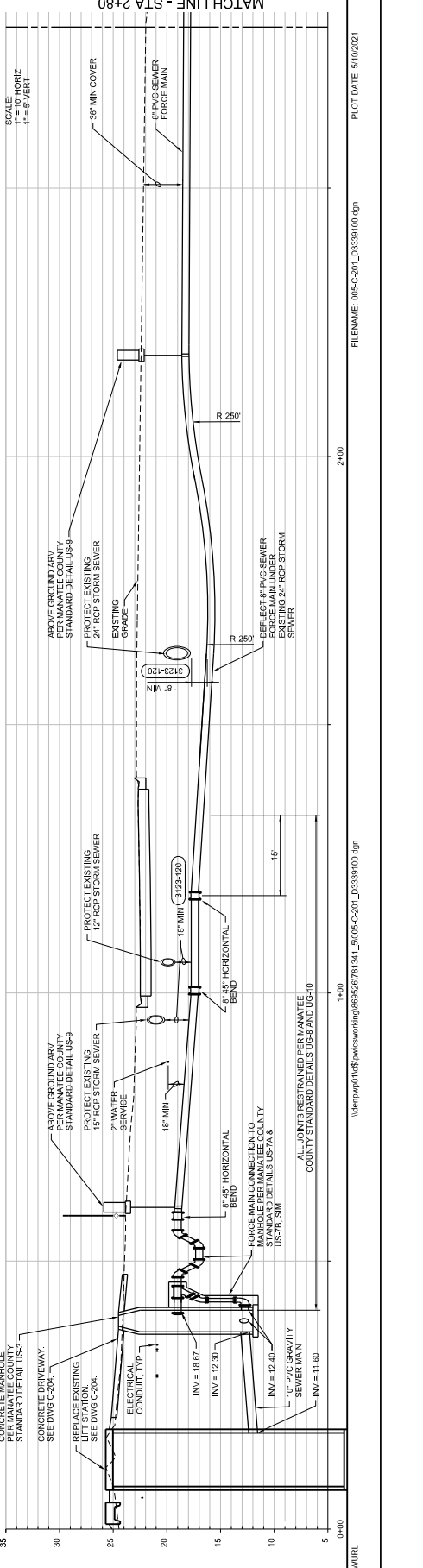
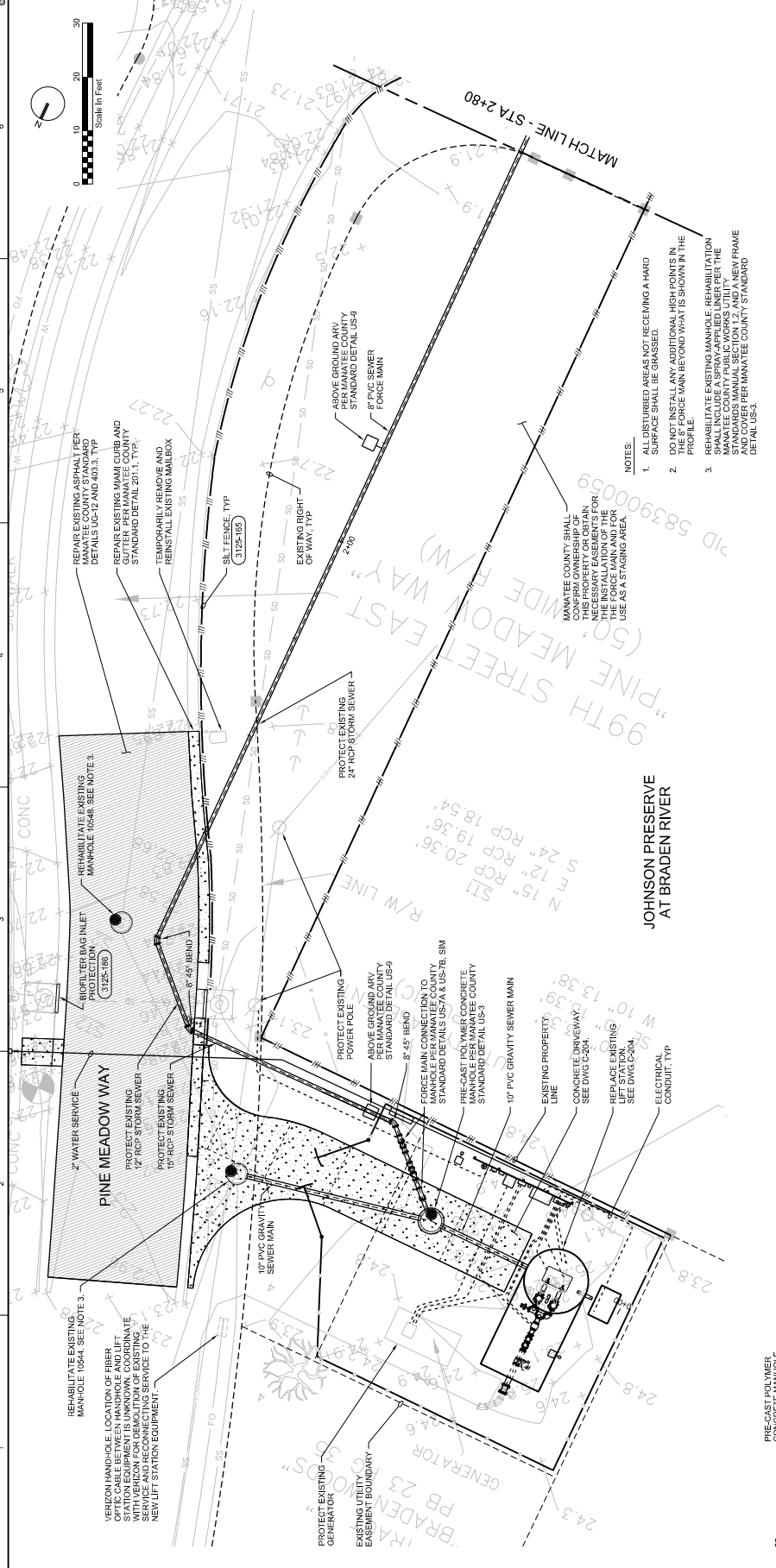




NO.	DATE	REVISION

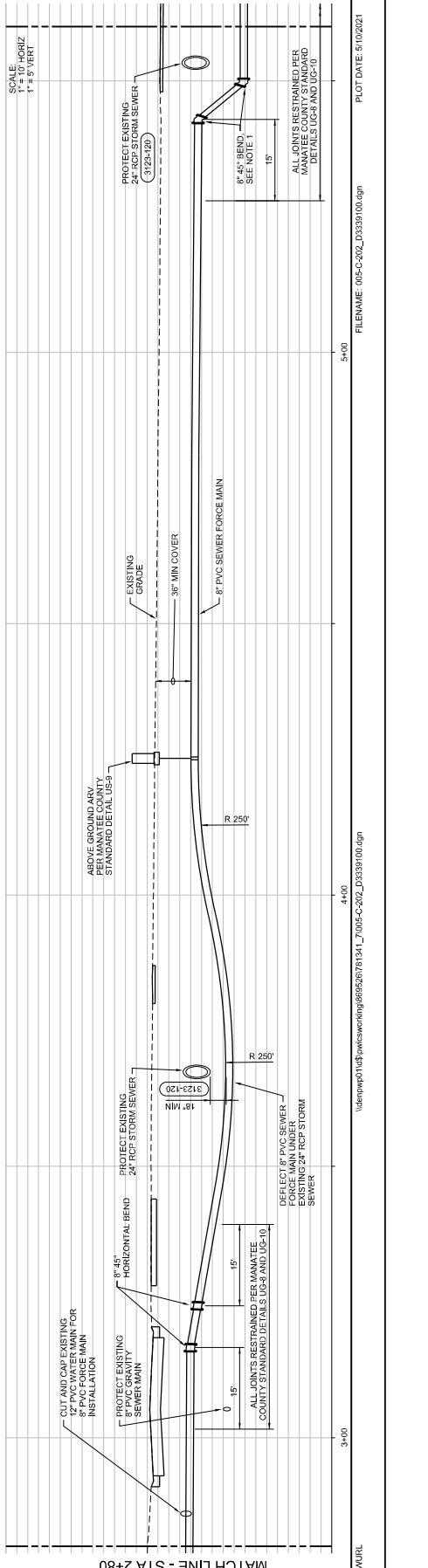
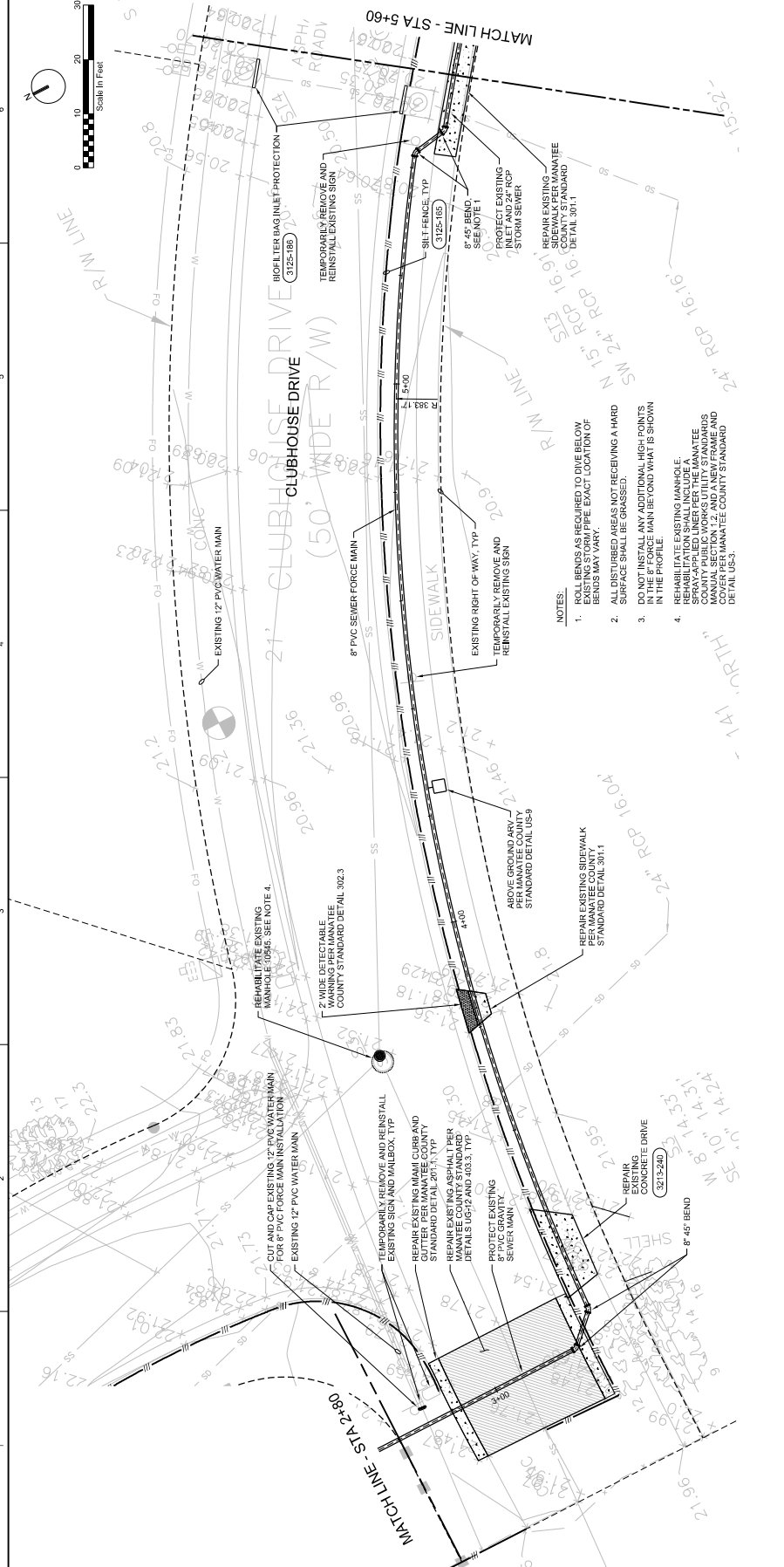
BRADEN WOODS LIFT STATION
 REHAB
 MANATEE COUNTY
 BRADENWOODS1420S
 6425 W 4TH AVE, SUITE 400
 GAINESVILLE, FLORIDA 32601
 FB2822
 RICHARD THOMAS MORRISON PE 67713

JACOBS
 CIVIL
**FORCE MAIN
 PLAN AND PROFILE**
 SCALE: 1" = 10' HORIZ
 1" = 5' VERT
 DATE: MAY 2021
 DRAWN: D33391001
 CHECKED: C3301
 SHEET: 14 OF 36
 PLOT TIME: 10:53:41 AM
 FILENAME: 005-C201_D33391001.dgn
 PLOT DATE: 5/10/2021



**JOHNSON PRESERVE
 AT BRADEN RIVER**

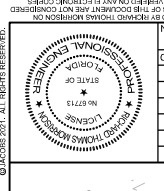
- NOTES:**
1. ALL DISTURBED AREAS NOT RECEIVING A HARD SURFACE SHALL BE GRASSED.
 2. DO NOT INSTALL ANY ADDITIONAL HIGH POINTS IN THE PROFILE.
 3. REHABILITATE EXISTING MANHOLE. REHABILITATION SHALL BE PERMANENT PER THE MANATEE COUNTY PUBLIC WORKS UTILITY STANDARDS MANUAL SECTION 1.2 AND A NEW FRAME SHALL BE PERMANENT COUNTY STANDARD DETAILS US-3.



MATCH LINE - STA 2+80 MATCH LINE - STA 5+60

SPWJRL FILENAME: 095-C-202_03330100.dgn PLOT DATE: 5/10/2021 SHEET: 15 OF 36

JACOBS CIVIL FORCE MAIN PLAN AND PROFILE	RICHARD THOMAS MORRISON, PE 6773 BRADEN WOODS LIFT STATION REHAB MANATEE COUNTY BRADENTON, FLORIDA 34205	REVISION NO. DATE 1. 2. 3. 4.	CHECKED DATE 1. 2. 3. 4.	DESIGNED DATE 1. 2. 3. 4.	DRAWN DATE 1. 2. 3. 4.
	642 SW 4TH AVE, SUITE 400 GAINESVILLE, FLORIDA 32601 FB2822	PROJECT NO. DATE 1. 2. 3. 4.	PROJECT NAME 1. 2. 3. 4.	PROJECT LOCATION 1. 2. 3. 4.	PROJECT SCALE 1" = 10' HORIZ 1" = 5' VERT

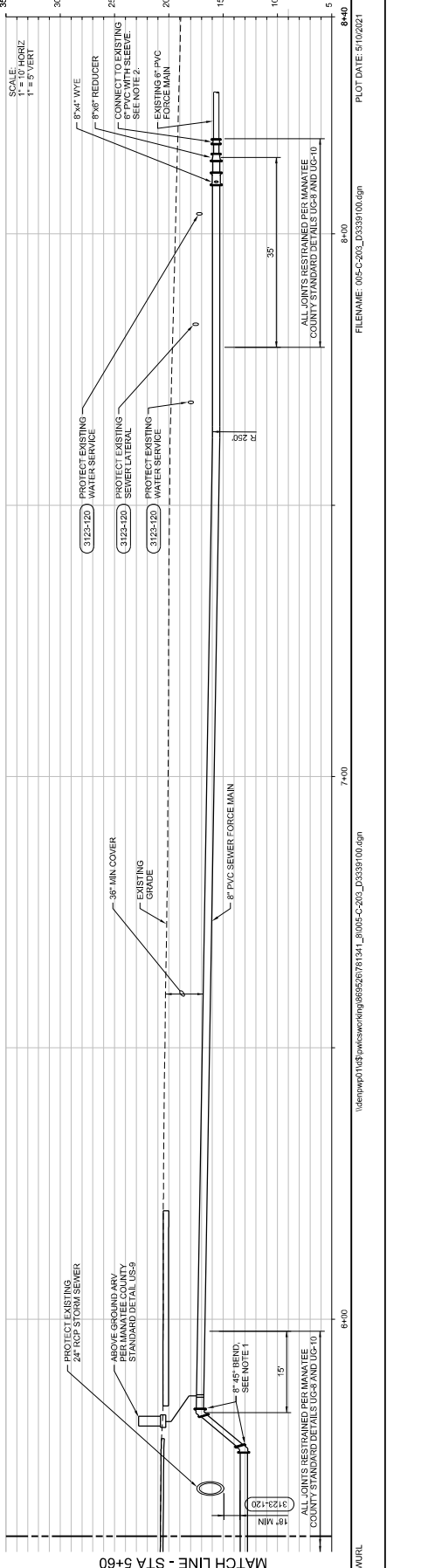
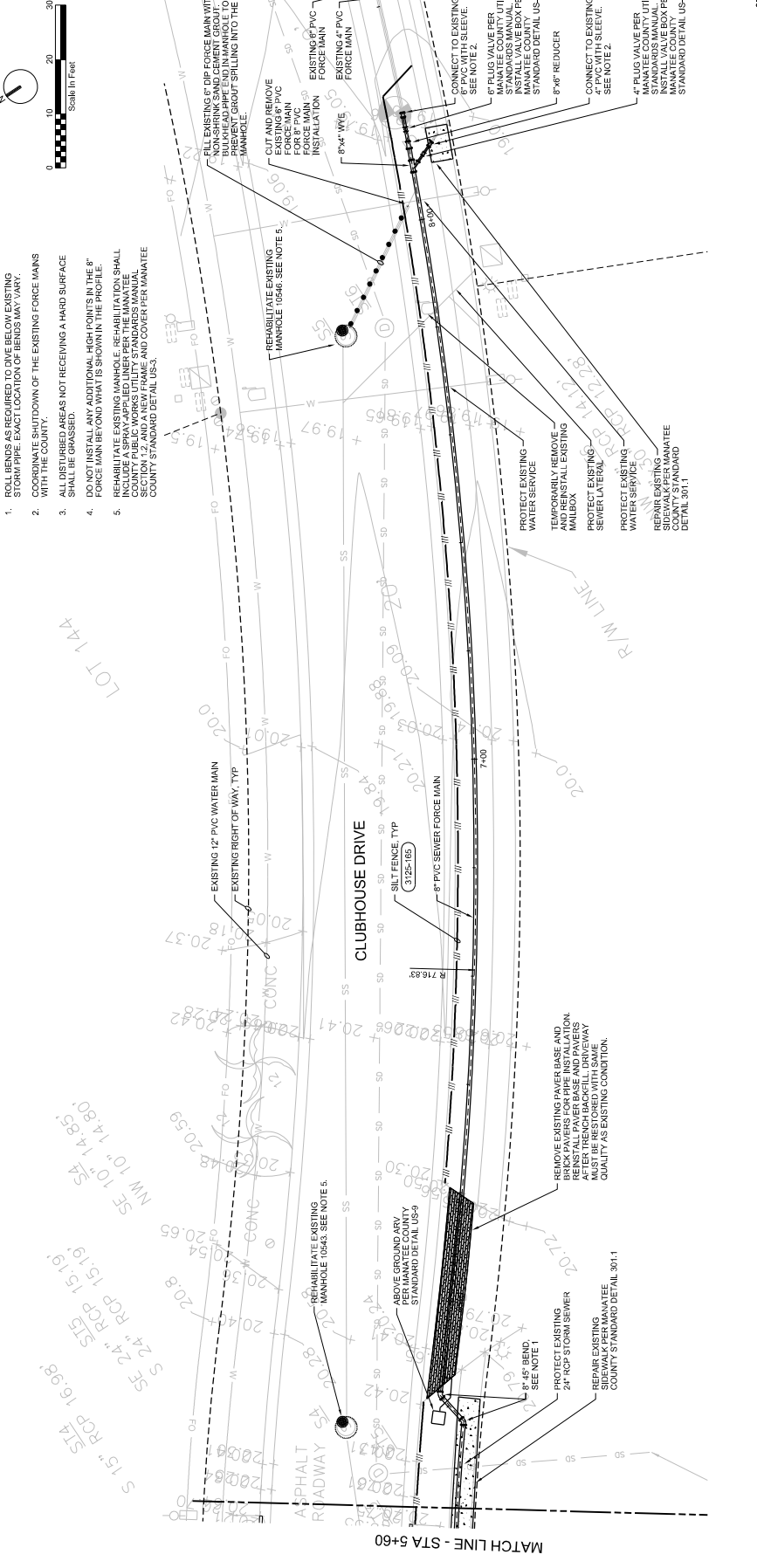


NO.	DATE	BY	APVD

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NOTES:

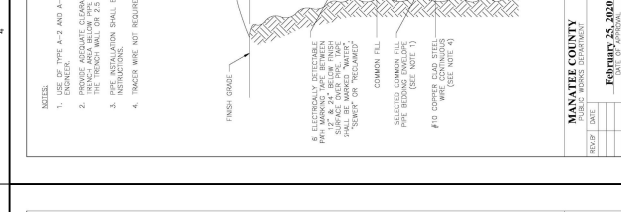
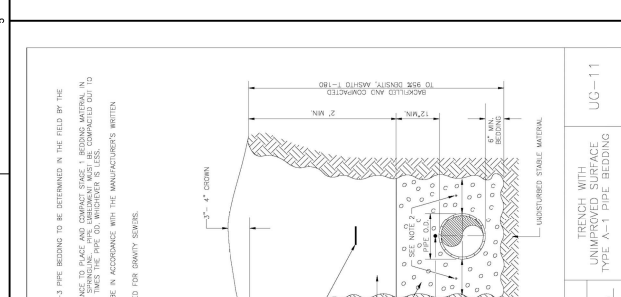
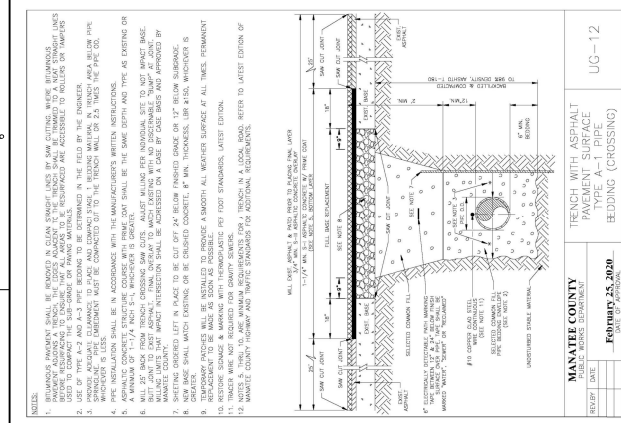
- ROLL BENDS AS REQUIRED TO DIVE BELOW EXISTING STORM PIPE. EXACT LOCATION OF BENDS MAY VARY.
- COORDINATE SHUTDOWN OF THE EXISTING FORCE MAINS WITH THE COUNTY.
- ALL DISTURBED AREAS NOT RECEIVING A HARD SURFACE SHALL BE GRASSED.
- DO NOT INSTALL ANY ADDITIONAL HIGH POINTS IN THE 8" FORCE MAIN BEYOND WHAT IS SHOWN IN THE PROFILE.
- REHABILITATE EXISTING MANHOLE. REHABILITATION SHALL BE PERFORMED PER MANATEE COUNTY PUBLIC WORKS UTILITY STANDARDS MANUAL SECTION 1.2, AND A NEW FRAME AND COVER PER MANATEE COUNTY STANDARD DETAIL US-1.



JACOBS
 CIVIL
 MANATEE COUNTY
 STANDARD DETAILS
 REVISIONS

NO.	DATE	BY	APVD

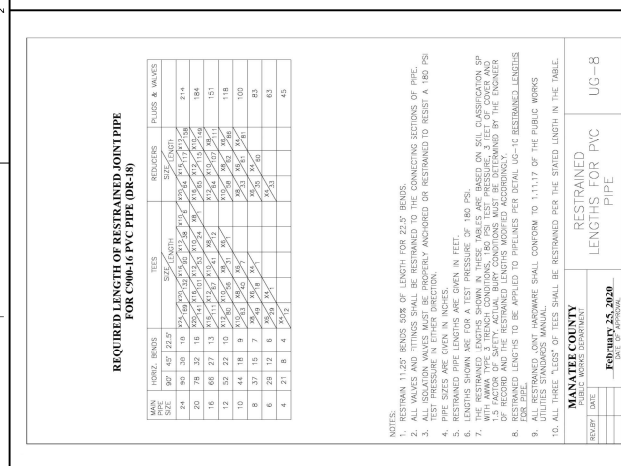
MANATEE COUNTY
 PUBLIC WORKS DEPARTMENT
 February 25, 2020
 UG-12



REQUIRED LENGTH OF RESTRAINED JOINT PIPE FOR 80-16-PVC PIPE (DR-18)

MANHOLE SIZE	REDUCER SIZE	TEES	REDUCERS	ELBOWS & WAJES
24"	20"	18"	16"	14"
20"	16"	14"	12"	10"
16"	12"	10"	8"	6"
12"	8"	6"	4"	3"
8"	6"	4"	3"	2"
6"	4"	3"	2"	1"
4"	3"	2"	1"	0"

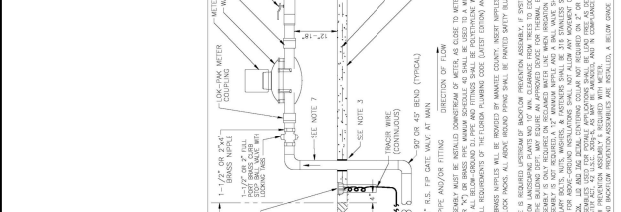
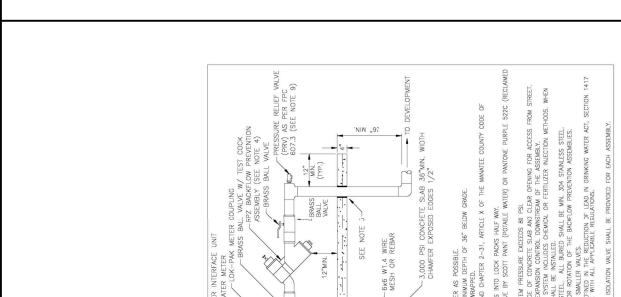
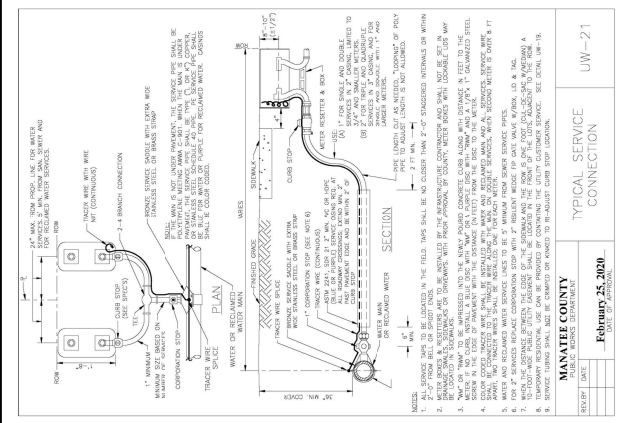
NOTES:
 1. RESTRAIN 1.20' BENDS FOR LENGTH FOR 22.5' BENDS.
 2. ALL SLOTTED WAJES MUST BE PROPERLY ANCHORED OR RESTRAINED TO RESIST A 180 PSI TEST PRESSURE IN EITHER DIRECTION.
 3. RESTRAINED PIPE LENGTHS ARE GIVEN IN FEET.
 4. LENGTHS SHOWN ARE FOR A TEST PRESSURE OF 180 PSI.
 5. WITH AWWA TYPE 3 TRENCH CONDITIONS, 180 PSI TEST PRESSURE, 2' LEFT OF COVER AND 2' RIGHT OF COVER, THE RESTRAINED LENGTHS MODIFIED ACCORDINGLY.
 6. RESTRAINED LENGTHS TO BE APPLIED TO PIPELINES PER DETAIL UG-14 RESTRAINED LENGTHS.
 7. ALL RESTRAINED JOINTS, HANGWARE SHALL CONFORM TO 111.17 OF THE PUBLIC WORKS DEPARTMENT.
 8. TO ALL THREE TYPES OF TEES SHALL BE RESTRAINED PER THE STATED LENGTH IN THE TABLE.



JACOBS
 CIVIL
 MANATEE COUNTY
 STANDARD DETAILS
 REVISIONS

NO.	DATE	BY	APVD

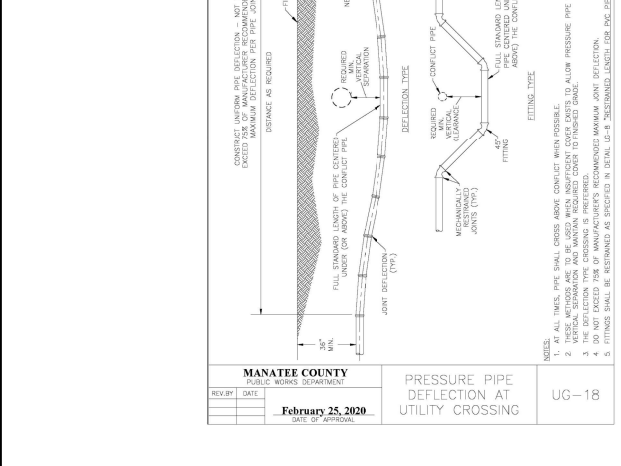
MANATEE COUNTY
 PUBLIC WORKS DEPARTMENT
 February 25, 2020
 UG-11



REQUIRED LENGTH OF RESTRAINED JOINT PIPE FOR 80-16-PVC PIPE (DR-18)

MANHOLE SIZE	REDUCER SIZE	TEES	REDUCERS	ELBOWS & WAJES
24"	20"	18"	16"	14"
20"	16"	14"	12"	10"
16"	12"	10"	8"	6"
12"	8"	6"	4"	3"
8"	6"	4"	3"	2"
6"	4"	3"	2"	1"
4"	3"	2"	1"	0"

NOTES:
 1. RESTRAIN 1.20' BENDS FOR LENGTH FOR 22.5' BENDS.
 2. ALL SLOTTED WAJES MUST BE PROPERLY ANCHORED OR RESTRAINED TO RESIST A 180 PSI TEST PRESSURE IN EITHER DIRECTION.
 3. RESTRAINED PIPE LENGTHS ARE GIVEN IN FEET.
 4. LENGTHS SHOWN ARE FOR A TEST PRESSURE OF 180 PSI.
 5. WITH AWWA TYPE 3 TRENCH CONDITIONS, 180 PSI TEST PRESSURE, 2' LEFT OF COVER AND 2' RIGHT OF COVER, THE RESTRAINED LENGTHS MODIFIED ACCORDINGLY.
 6. RESTRAINED LENGTHS TO BE APPLIED TO PIPELINES PER DETAIL UG-14 RESTRAINED LENGTHS.
 7. ALL RESTRAINED JOINTS, HANGWARE SHALL CONFORM TO 111.17 OF THE PUBLIC WORKS DEPARTMENT.
 8. TO ALL THREE TYPES OF TEES SHALL BE RESTRAINED PER THE STATED LENGTH IN THE TABLE.



JACOBS
 CIVIL
 MANATEE COUNTY
 STANDARD DETAILS

MANATEE COUNTY
 STANDARD DETAILS

BRADEN WOODS LIFT STATION
 REHAB
 MANATEE COUNTY
 BRADENTON, FLORIDA 34205

REVISIONS

NO.	DATE	BY	APVD

MANATEE COUNTY PROFESSIONAL ENGINEER
 STATE OF FLORIDA
 LICENSE NO. 87715
 RICHARD THOMAS MORRISON

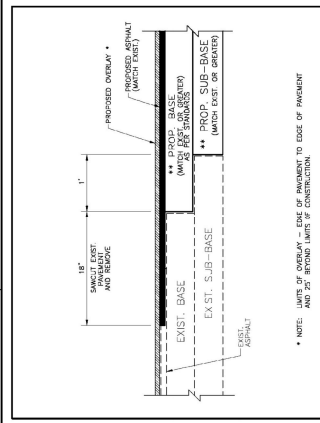
REVISIONS: C CHILDREN, R MORRISON, A MALONE

VERIFY SCALE
 DATE: MAY 2021
 DRAWN: D33391001
 CHECKED: C260
 SHEET: 20 OF 36

FILENAME: 095-C-603_D3339100.dgn

PLOT DATE: 5/10/2021

1 2 3 4 5 6

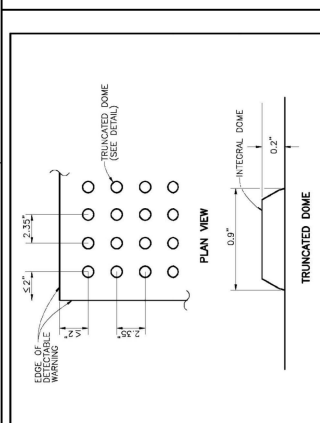


TRUNCATED DOME

CURB RAMP DETECTABLE WARNING DETAIL

NOTES:
 DETECTABLE WARNINGS ON WALKING SURFACES
 THE DETECTABLE WARNING SHALL EXTEND THE FULL WIDTH AND BIRTH OF THE CURB RAMP.
 DETECTABLE WARNING SHALL CONSIST OF RIGID, TRUNCATED DOMES WITH A DIAMETER OF 1.5\"/>

MANATEE COUNTY TRANSPORTATION DEPARTMENT	ROAD CONNECTION DETAIL	403.3
REVISED DATE	DATE	DATE
DATE	DATE	DATE

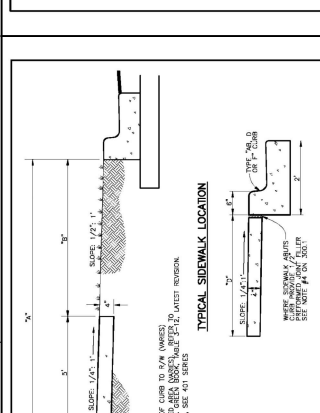


TYPICAL SIDEWALK LOCATION

ALTERNATE SIDEWALK LOCATION

NOTES:
 A - BACK OF CURB TO 0.4\"/>

MANATEE COUNTY TRANSPORTATION DEPARTMENT	SIDEWALK REQUIREMENTS	301.1
REVISED DATE	DATE	DATE
DATE	DATE	DATE

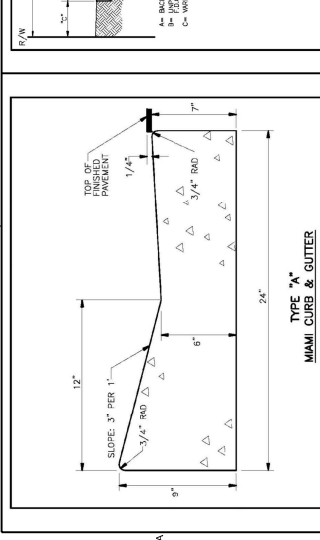


TYPE "A"

MIAMI CURB & GUTTER

NOTES:
 A) CLASS 1 CONCRETE 3,000 P.S.I. AT 28 DAYS.
 B) CURB AND GUTTER SHALL MEET THE SPECIFICATIONS ESTABLISHED BY FLORIDA D.O.T.
 C) CURB AND GUTTER SHALL BE CONCRETE WITH FINISH POLISH AND STRIPES PER SECTION 600.6
 INDEX NO. 304 LATEST REVISION

MANATEE COUNTY TRANSPORTATION DEPARTMENT	SHRUB PLANTING DETAIL	600.6
REVISED DATE	DATE	DATE
DATE	DATE	DATE



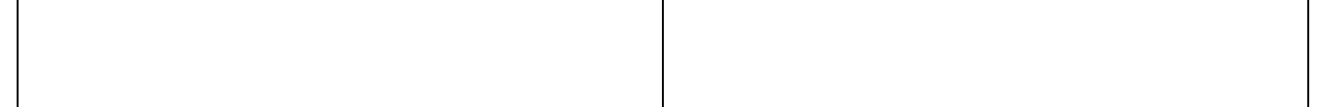
SHRUB PLANTING DETAIL

NOTES:
 1) Use only high quality specimens that have rigid branches and healthy foliage. Florida No. 1 quality unless otherwise noted.
 2) Check for physical damage and root system quality prior to planting.
 3) Plant any damaged branches.
 4) Prune any dead or diseased branches.
 5) Shrub must be set in individual roots.
 6) Stem must be set in rootball, not bales.
 7) Plant with root collar at or higher than finish grade, allow for settling.
 8) The use of prepackaged herbicides prior to mulch installation is not in the field control of weeds in shrub beds is highly encouraged always follow label for proper application rates and handling.
 9) Mulch rings shall be 2\"/>

MANATEE COUNTY TRANSPORTATION DEPARTMENT	SHRUB PLANTING DETAIL	600.6
REVISED DATE	DATE	DATE
DATE	DATE	DATE

JACOBS CIVIL STANDARD DETAILS		645 SW 4TH AVE, SUITE 400 GAINESVILLE, FLORIDA 32601 EB2822 RICHARD THOMAS MORRISON, PE 67713 REHAB MAUNTEE COUNTY MADENTON, FLORIDA 34203		NO. DATE DR R MORRISON C CHILDRESS CKM A MALONE APVD BY APVD	REVISION NO. DATE DR R MORRISON C CHILDRESS CKM A MALONE APVD BY APVD	LICENSE PROFESSIONAL ENGINEER RICHARD THOMAS MORRISON No. 67713 STATE OF FLORIDA PROFESSIONAL ENGINEER
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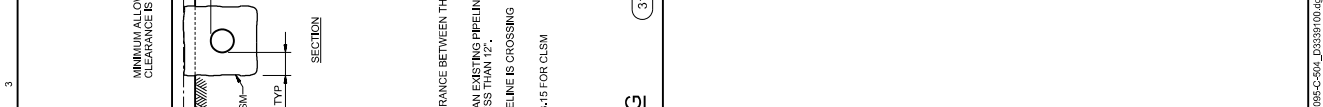
BIOFILTER BAG INLET BARRIER



BIOFILTER BAG INLET BARRIER



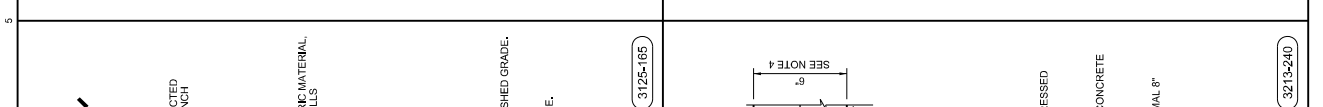
SILT FENCE



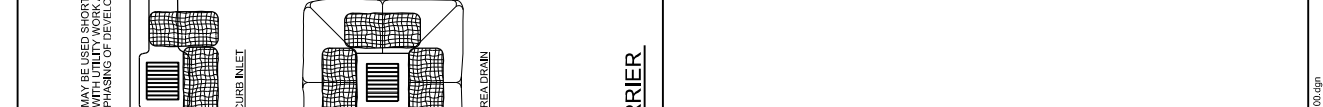
TRENCH PIPE CROSSING



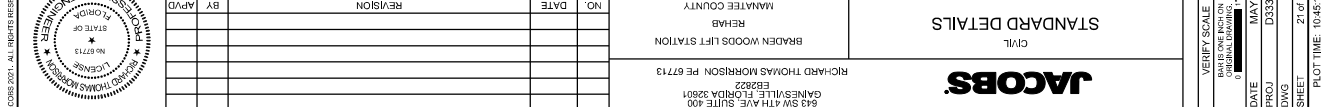
CONCRETE PAVEMENT



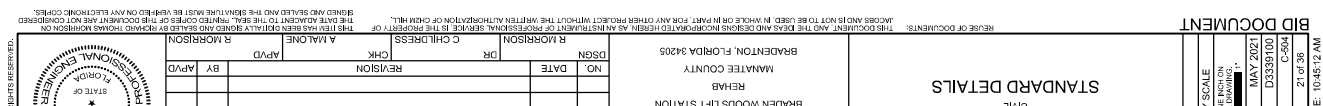
BIOFILTER BAG INLET BARRIER



SILT FENCE

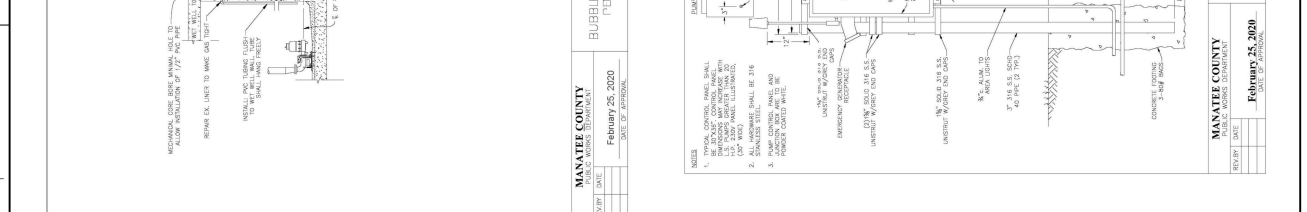
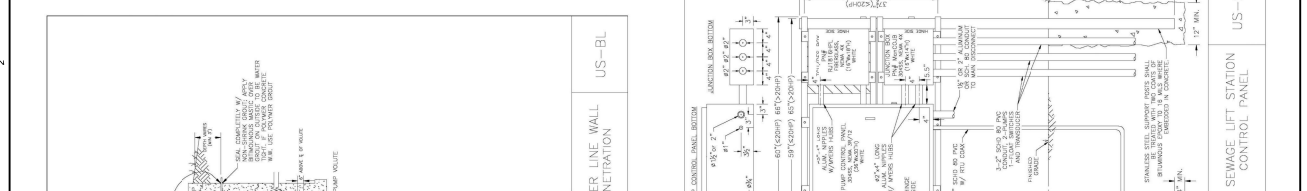
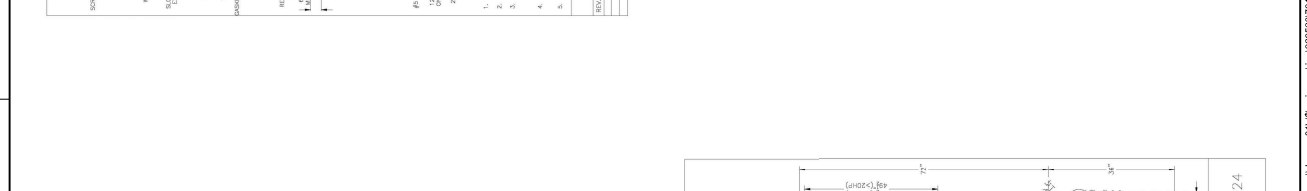
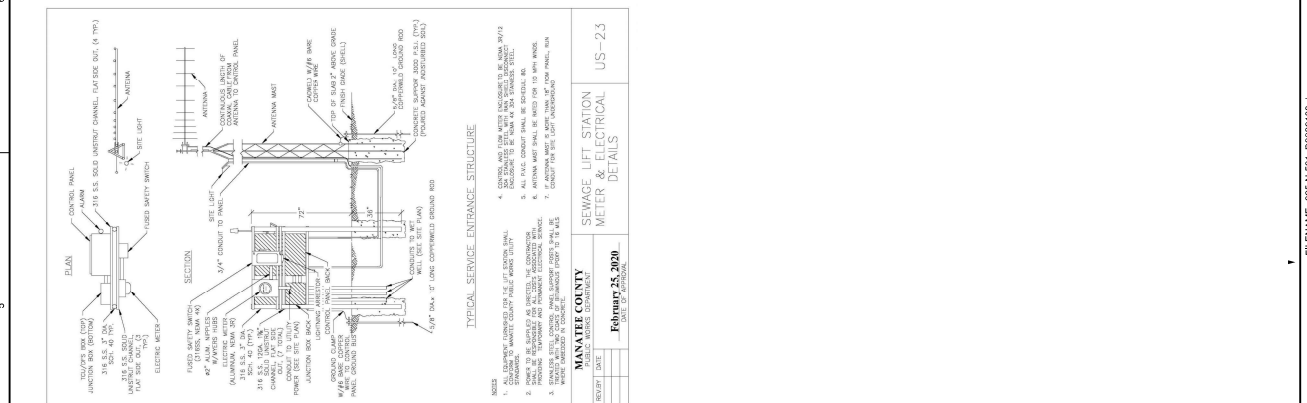


TRENCH PIPE CROSSING

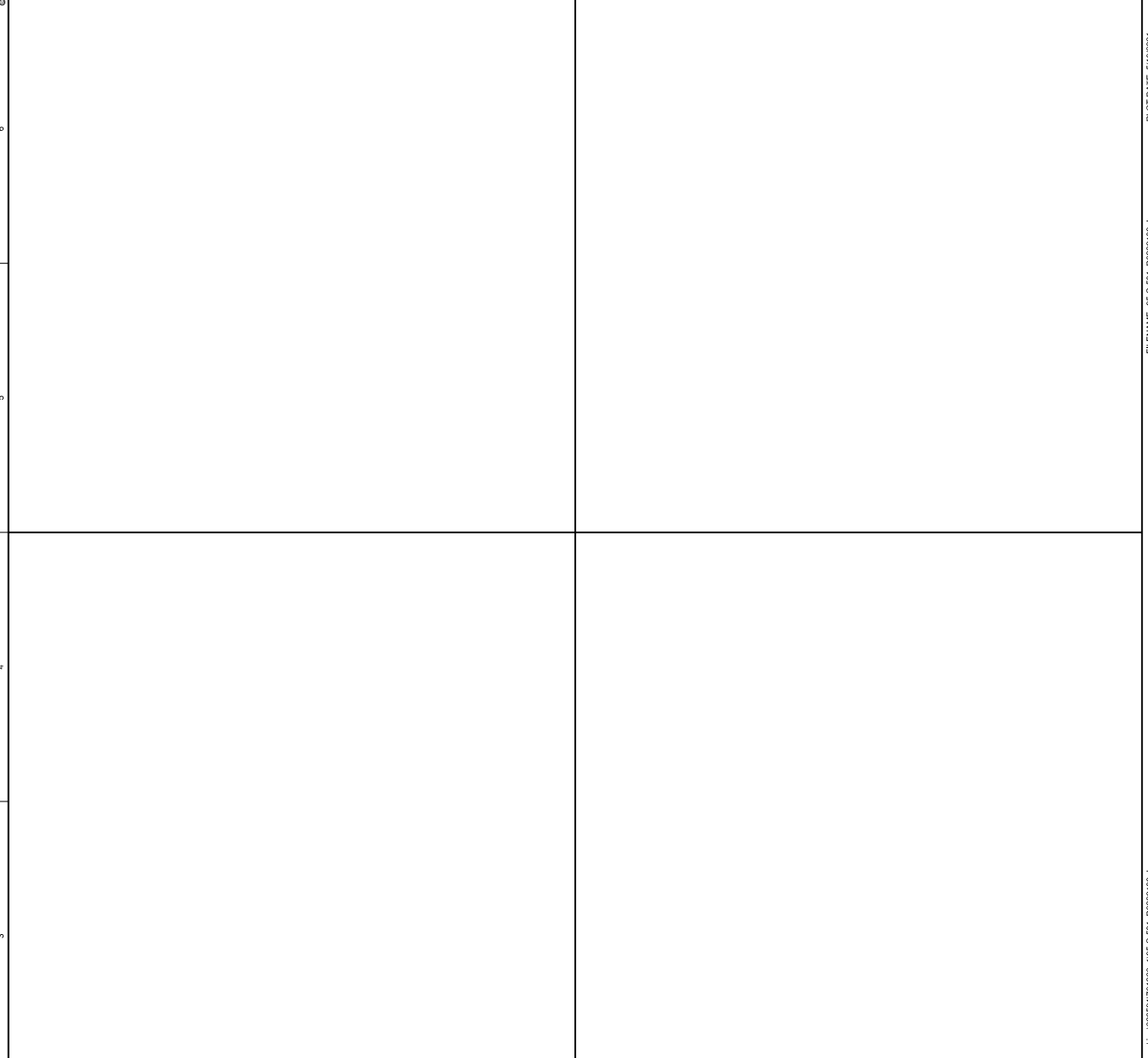


CONCRETE PAVEMENT

NO.	DATE	REVISION	BY	APPD.

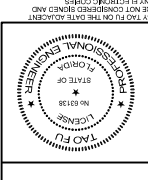


NO.	DATE	REVISION	BY	APPD.



OPENING REINFORCEMENT
 NTS
 0330-001

NOTES:
 1. PROVIDE MINIMUM LAP. SEE GENERAL STRUCTURAL NOTES.
 2. TYPICAL FOR ALL OPENINGS IN CONCRETE WALLS OF BELOW GRADE AND HYDRAULIC STRUCTURES AND ALL STRUCTURAL CONCRETE SLABS UNLESS INDICATED OTHERWISE.
 3. DO NOT HELD REINFORCEMENT TO PIPE SLEEVES AND INSERTS.
 4. PROVIDE A MINIMUM OF 2 #4 BARS AND 2 #3 BARS EACH SIDE OF OPENING (1 EACH FACE), INCLUDING DOWELS AND CORNER BARS, TYPICAL.
 5. FOR OPENINGS LARGER THAN 8'-0" REINFORCE SAME AS FOR 8'-0" OPENINGS.
 6. SPACE AT 3 BAR DIAMETERS (OR 3" MINIMUM ON CENTER, LOCATE HALF OF TOTAL AREA ON EACH SIDE OF OPENING.
 7. PROVIDE REINFORCEMENT FOR ALL OPENINGS IN WALL OR SLAB, PROVIDE ONLY THE EXTRA REINFORCEMENT WHICH WILL SET AT THE BAR SPACING IN NOTE 6.



NO.	DATE	BY	APVD

NO.	DATE	BY	APVD

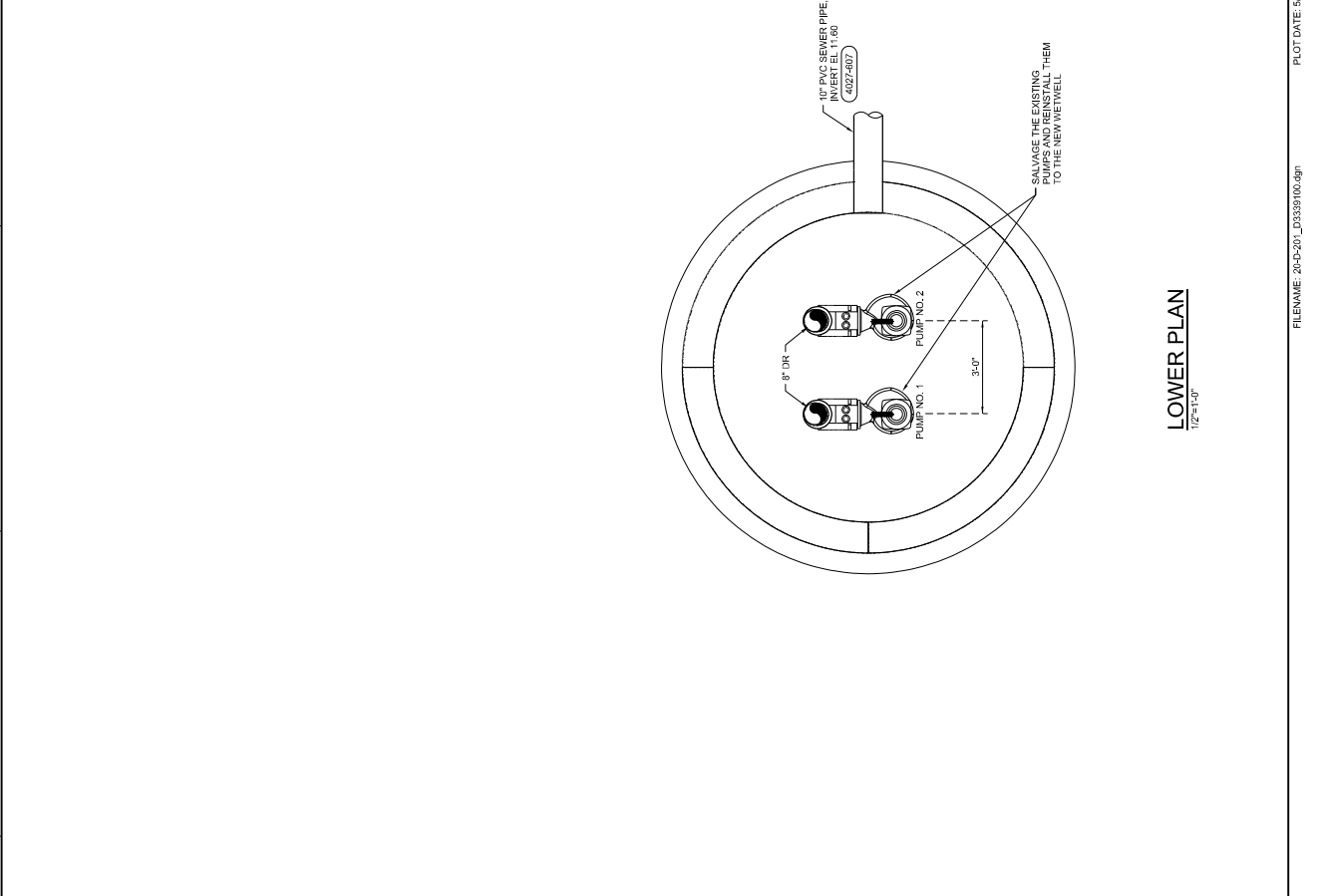
642 SW 4TH AVE, SUITE 400
 GAINESVILLE, FLORIDA 32601
 EB2822
 TAO FU, PE 68138
 BRADEN WOODS LIFT STATION
 REHAB
 MAHARTE COUNTY
 BRADENTON, FLORIDA 34205

JACOBS
 PROCESS MECHANICAL
 LIFT STATION
 UPPER AND LOWER PLAN

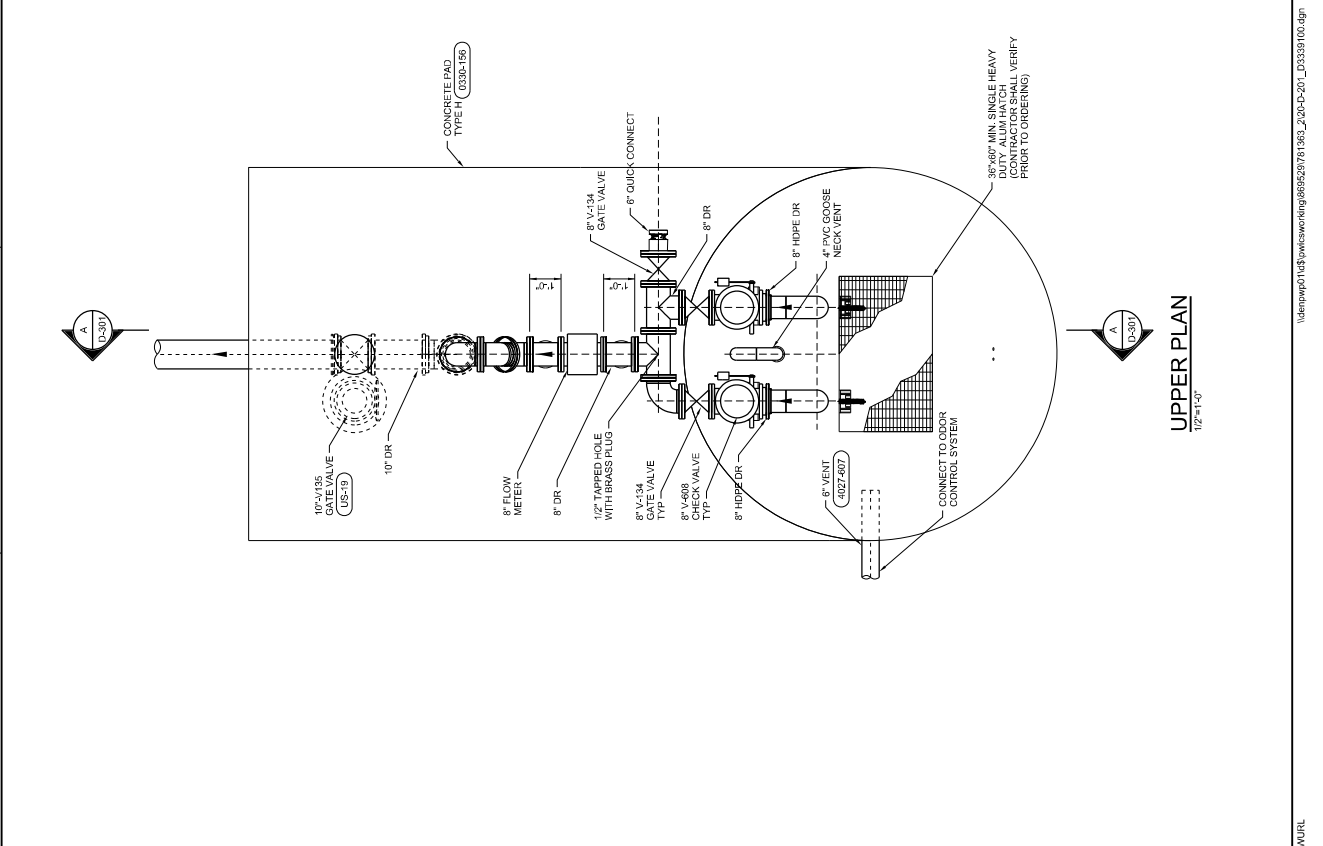
DATE: MAY 2017
 PROJECT: D35331001
 DWG: D35331001
 SHEET: 25 OF 36
 PLOT TIME: 10:42:38 AM

FILENAME: 2017-05-20_035331001.dgn

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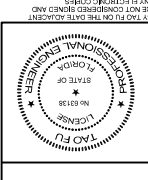


UPPER PLAN
 1/2" = 1'-0"



LOWER PLAN
 1/2" = 1'-0"

FILENAME: 2017-05-20_035331001.dgn



NO.	DATE	BY	APVD

NO.	DATE	BY	APVD

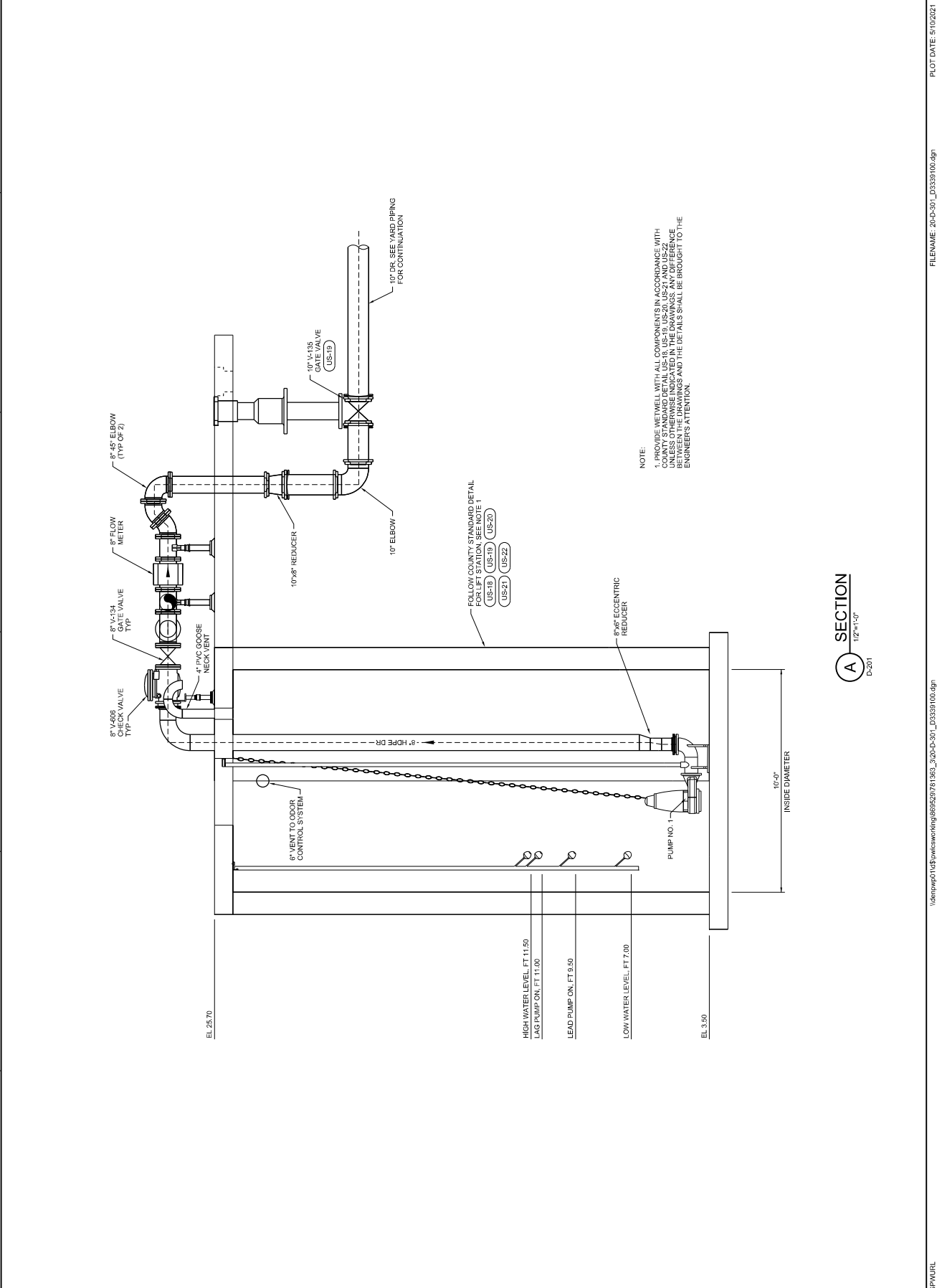
BRADEN WOODS LIFT STATION
 MAHARTEE COUNTY
 BRADENTON, FLORIDA 34205

JACOBS
 PROCESS MECHANICAL
 LIFT STATION
 SECTION

642 SW 4TH AVE, SUITE 400
 GAINESVILLE, FLORIDA 32601
 EB2822
 TAO FU, PE 68138

DATE	MAY 2017
DWG	D353301001
REV	D-201
SHEET	28 of 36

PLOT TIME: 5/10/2021



NOTE:
 1. PROVIDE WETWELL WITH ALL COMPONENTS IN ACCORDANCE WITH COUNTY STANDARD DETAIL US-18, US-19, US-20, US-21 AND US-22 UNLESS OTHERWISE INDICATED IN THE DRAWINGS. ANY DIFFERENCE BETWEEN THE STANDARD AND THE DETAILS SHALL BE BROUGHT TO THE ENGINEER'S ATTENTION.

FOLLOW COUNTY STANDARD DETAIL FOR LIFT STATION. SEE NOTE 1
 (US-18) (US-19) (US-20) (US-21) (US-22)

A SECTION
 1/2" = 1'-0"
 D-201

1

2

3

4

5

6

7

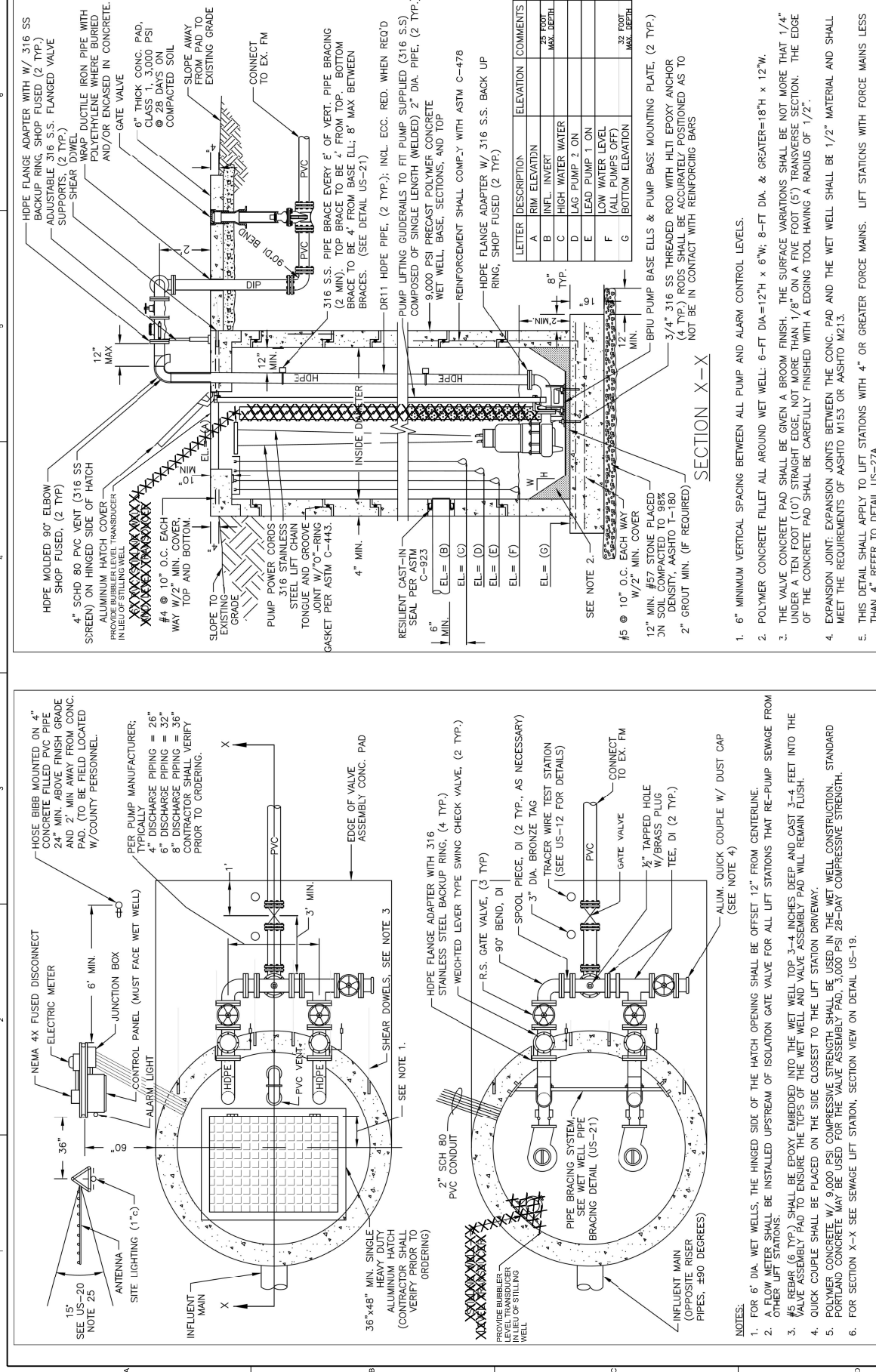
8

9

10

11

12



NOTES:

- FOR 6" DIA. WET WELLS, THE HINGED SIDE OF THE HATCH OPENING SHALL BE OFFSET 12" FROM CENTERLINE.
- A FLOW METER SHALL BE INSTALLED UPSTREAM OF ISOLATION GATE VALVE FOR ALL LIFT STATIONS THAT RE-PUMP SEWAGE FROM OTHER LIFT STATIONS.
- #5 REBAR (6 TYP.) SHALL BE EPOXY EMBEDDED INTO THE WET WELL TOP 3-4 INCHES DEEP AND CAST 3-4 FEET INTO THE VALVE ASSEMBLY PAD TO ENSURE THE TOPS OF THE WET WELL AND VALVE ASSEMBLY PAD WILL REMAIN FLUSH.
- QUICK COUPLE SHALL BE PLACED ON THE SIDE CLOSEST TO THE LIFT STATION DRIVEWAY.
- POLYMER CONCRETE W/ 9,000 PSI COMPRESSIVE STRENGTH SHALL BE USED IN THE WET WELL CONSTRUCTION. STANDARD PORTLAND CONCRETE MAY BE USED FOR THE VALVE ASSEMBLY PAD. 3,000 PSI 28-DAY COMPRESSIVE STRENGTH.
- FOR SECTION X-X SEE SEWAGE LIFT STATION, SECTION VIEW ON DETAIL US-19.

MANATEE COUNTY PUBLIC WORKS DEPARTMENT		SEWAGE LIFT STATION PLAN VIEW		US-18	
REV. BY	DATE	DATE OF APPROVAL		DATE OF APPROVAL	
		February 25, 2020		February 25, 2020	
		MANATEE COUNTY PUBLIC WORKS DEPARTMENT		SEWAGE LIFT STATION SECTION VIEW	
		US-19			

JACOBS
PROCESS MECHANICAL
LIFT STATION
DETAILS

BRADEN WOODS LIFT STATION
REHAB
MAVATEE COUNTY
FLORIDA 34205

642 SW 4TH AVE. SUITE 400
GAINESVILLE, FLORIDA 32601
E82822
TAO, P.L.L.C. PE 63136

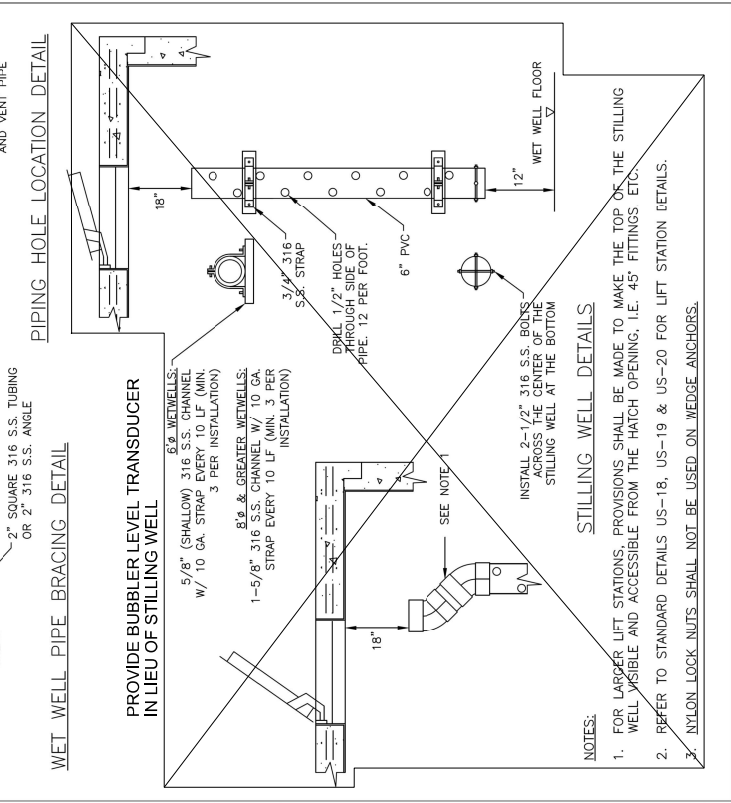
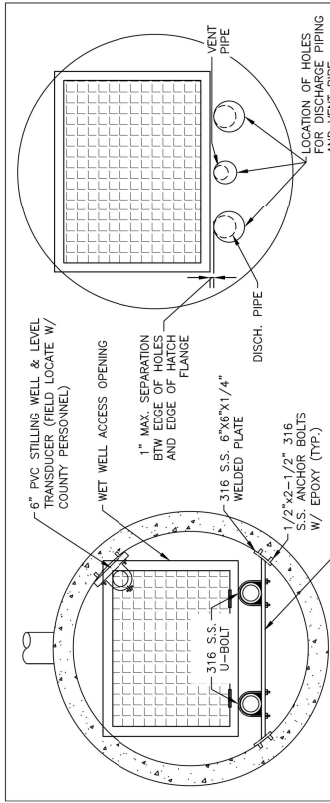
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NO.	DATE	REVISION	BY	APPV

PLOT TIME: 10:45:13 AM

GENERAL LIFT STATION NOTES:

- ALL ACCESS COVERS SHALL BE ALUMINUM WITH 316 STAINLESS STEEL HARDWARE AND RATED FOR 300 P.S.F. LOADING. ALL ALUMINUM SURFACES IN CONTACT WITH CONCRETE SHALL HAVE 2 COATS BITUMASTIC EPOXY. TOTAL 16 MILS DFT. ALL ACCESS COVERS SHALL BE EQUIPPED WITH A LOCKING STAPLE OR BAR FOR USE WITH A PADLOCK. PADLOCKS FOR WETWELL, FENCE GATE AND CONTROL PANELS OF PUBLICLY OWNED & MAINTAINED LIFT STATIONS SHALL BE FURNISHED BY THE MANATEE COUNTY UTILITIES DEPARTMENT, UPON ACCEPTANCE.
- INSTALL WET WELL VENT ON THE HINED SIDE OF THE WET WELL HATCH COVER, BETWEEN DISCHARGE PIPING AND MATCH HEIGHT.
- GROUND SHALL BE SLOPED AWAY FROM SLAB TO NATURAL GROUND ELEVATION IN ALL DIRECTIONS. A 4-INCH REVEAL SHALL BE PROVIDED AROUND THE STRUCTURES. SITE SHALL INCLUDE A WEED BARRIER FABRIC THAT IS COVERED WITH WASHED SAND. WOOD TYPE MULCH UNDER THE SHRUBS AND UP TO OUTSIDE OF THE FENCE WEED BARRIER FABRIC THAT IS COVERED WITH SHREDDED WOOD-TYPE MULCH SHALL BE LOCATED UNDER THE TREES FOR A MINIMUM DISTANCE OF 3 FEET FROM THE TREE. SODDING OR SHREDDED WOOD-TYPE MULCH SHALL BE INSTALLED ON THE REMAINDER OF THE SITE TO THE EDGE OF THE EASEMENT.
- ALL FORCE MAIN PIPING AND FITTINGS FROM THE PUMP BASE ELBOW IN THE WETWELL UP TO THE CHECK VALVE IN THE ABOVE GROUND VALVE ASSEMBLY SHALL BE DR11 HDPE. THE HDPE FITTINGS SHALL BE MOLDED FITTINGS. ALL CONNECTIONS TO IRON BODIED FLANGE FITTINGS IN THE WETWELL (PUMP BASE ELLS) AND TO THE CHECK VALVES SHALL BE MADE USING ALL PIPING DOWNSTREAM OF THE VALVE ASSEMBLY TO THE FIRST BURIED FITTING SHALL BE DUCTILE IRON PIPE (CL-55), THEN PVC (DR18).
- ALL PIPING BELOW GROUND SHALL BE COLOR CODED IN ACCORDANCE WITH THESE STANDARDS. GREEN-RAW SEWAGE; PURPLE-RECLAIMER; BLUE-POTABLE WATER.
- ANCHORS & LIFTING DEVICES SHALL NOT PENETRATE THE WALLS OF THE WET WELL.
- ALL TOP SECTIONS, AND BASE SHALL BE PRECAST POLYMER CONCRETE, MIN. 9,000 PSI COMPRESSIVE STRENGTH. SEE PRECAST POLYMER CONCRETE SANITARY SEWER MANHOLE FOR TURBULENT FLOW DETAIL.
- ALL ABOVE-GROUND METAL APPURTENANCES INCLUDING BOLTS, NUTS AND WASHERS SHALL BE 316 STAINLESS STEEL. ALL STAINLESS STEEL BOLTS SHALL BE TREATED WITH NEVER-SEIZE PRIOR TO ASSEMBLY.
- VERTICAL HOPE PUMP DISCHARGE PIPE IN THE WET WELL SHALL BE BRACED PER DETAIL US-21. THE PIPE SHALL BE CLAMPED TO A SINGLE LENGTH OF 2" 316 SS TUBING (OR 2" 316 SS ANGLE) INSTALLED HORIZONTALLY. THE TUBE SHALL BE CLAMPED TO THE TUBING WITH CUSHIONED 316 SS G-BOLTS.
- CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO PREVENT FLOTATION.
- TOP OF WET WELL AND VALVE ASSEMBLY SLAB SHALL BE AT THE SAME ELEVATION.
- THE EXTERIOR SURFACES OF THE CONCRETE WET WELL AND VALVE ASSEMBLY PAD EXPOSED ABOVE GRADE SHALL BE COATED WITH A LEAST TWO COATS SILICONE CRYLIC CONCRETE STAIN RESISTANT GREEN, MANUFACTURED BY FLK PAINTS, INC. WITH A WOOD PRESERVATIVE. THE CONCRETE SHALL BE FINISHED WITH A POLYURETHANE FINISH. CONTRACTOR SHALL TAKE PRECAUTIONS TO AVOID OVER-SPRAY ONTO THE VALVE ASSEMBLY CONCRETE PAD.
- FOR 5/8" WATER METER, PROVIDE POTABLE WATER SERVICE CONNECTION WITH 3/4" BRASS HOSE BIB. PROVIDE AN APPROVED BACKFLOW PREVENTION ASSEMBLY INSTALLED AT THE ROW. ALL WATER SERVICE PIPING FROM WATER METER TO BE TYPE 'K' COPPER OR BRASS; 3/4" MIN. DIAMETER FOR 5/8" METER AND 2" MIN. DIAMETER PIPING FOR 2" METER.
- LANDSCAPING SHALL BE IRRIGATED WITH NON-POTABLE WATER. A RAIN SENSOR SHALL BE FURNISHED AND INSTALLED.
- HOSE BIB TO BE A MINIMUM OF 6 FEET FROM THE ELECTRICAL CONTROL PANEL, 24" ABOVE THE SURROUNDING FINISH GRADE, AND ANCHORED TO A 4" PVC CONCRETE FILLED PIPE. EXACT LOCATION TO BE DETERMINED IN THE FIELD W/COUNTY PERSONNEL.
- WATER METER ASSEMBLY TO BE INSTALLED BY CONTRACTOR AS PART OF WATER SERVICE CONNECTION WITH FEES PAID BY THE DEVELOPER.
- BASE AND FIRST WALL SECTION OF WET WELL SHALL BE MONOLITHIC.
- EVERY EFFORT SHALL BE MADE BY THE CONTRACTOR TO CONSTRUCT WATERTIGHT STRUCTURES WITH NO VISIBLE LEAKS. COMPLETED STRUCTURES THAT ARE NOT WATERTIGHT AND/OR DO NOT MEET THE REQUIREMENTS OF ASTM C-443 WILL BE REJECTED.
- FLEXIBLE GASKET CONNECTORS SHALL MEET THE REQUIREMENTS OF ASTM C-923 LATEST REVISION.
- ALL GATE VALVES SHALL BE RESILIENT SEAT NON-RISING STEM TYPE IN ACCORDANCE WITH THESE STANDARDS.
- ELECTRICAL SERVICE SHALL BE 3 PHASE MINIMUM, UNLESS THE ELECTRICAL UTILITY PROVIDES CORRESPONDENCE STATING THAT 3 PHASE SERVICE IS UNAVAILABLE.
- ELECTRICAL CONDUIT SHALL BE RUN BY THE SHORTEST ROUTE POSSIBLE FROM THE ELECTRICAL SOURCE TO THE CONTROL PANEL AND FROM THE CONTROL PANEL TO THE LIFT STATION WET WELL.
- A FLOW METER AND EMERGENCY BACKUP PUMP SHALL BE REQUIRED FOR ALL LIFT STATIONS THAT MEET THE CRITERIA LISTED IN SECTION 1.14.14 OF THE PUBLIC WORKS UTILITY STANDARDS MANUAL.
- THE CONTROL WELL, HOSE BIB, EMERGENCY BACKUP PUMP, FUEL STORAGE TANK AND ANTENNA SHALL NOT BE LOCATED BETWEEN THE WET WELL, VALVE ASSEMBLY AND THE DRIVEWAY. THE PUMP SHALL NOT BE LOCATED WITHIN 25 FEET OF THE EDGE OF THE LIFT STATION EASEMENT AT THE ROW LINE.
- THE ANTENNA FOR THE RADIO TELEMETRY UNIT REQUIRES DIRECT LINE-OF-SIGHT SIGNALING CAPABILITY TO THE UTILITIES DEPARTMENT'S OFFICE THAT WILL RECEIVE THE SIGNAL. THERE SHALL BE AN UNOBSTRUCTED HORIZONTAL ANGLE OF FIFTEEN (15) DEGREES FROM THE ANTENNA MAST (7.5 DEGREES ON BOTH SIDES OF THE DIRECT LINE-OF-SIGHT AZIMUTH). NO TREE SHALL BE PLANTED WITHIN THE DESIGNATED UNOBSTRUCTED ANGLE FOR A TWENTY (20) FEET HORIZONTAL DISTANCE FROM THE ANTENNA MAST. THE ANTENNA MAST SHALL BE PLANTED WITHIN THE DESIGNATED UNOBSTRUCTED ANGLE AT THE LOCATION OF THE CONSTRUCTED TELEMETRY ANTENNA. THE ANTENNA TOWER/MAST SHALL BE TO THE LEFT OF THE CONTROL PANEL.



MANATEE COUNTY		LIFT STATION PIPE BRACING, & STILLING WELL DETAILS	
PUBLIC WORKS DEPARTMENT		US-21	
REV. BY	DATE	DATE OF APPROVAL	
		February 25, 2020	

MANATEE COUNTY		LIFT STATION NOTES	
PUBLIC WORKS DEPARTMENT		US-20	
REV. BY	DATE	DATE OF APPROVAL	
		February 25, 2020	

642 SW 4TH AVE. SUITE 400
GAINESVILLE FLORIDA 32601
E82822
TAO FL. PE 63198

RELEAS
MANATEE COUNTY
BRADEN WOODS LIFT STATION
BAYBENTON FLORIDA 34205

JACOBS

PROCESS MECHANICAL
LIFT STATION
DETAILS

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DATE: MAY 2021
DRAWN: D33539100
CHECKED: D33539100
SCALE: 1"=3'-0"
SHEET: 28 OF 36

PLANT TIME: 10:45:30 AM
PLOT DATE: 5/10/2021
FILENAME: 99D-502_D33539100.dgn

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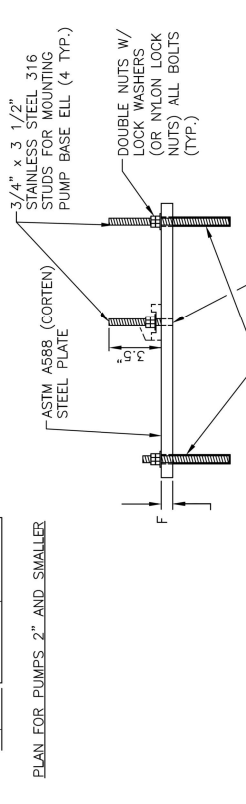
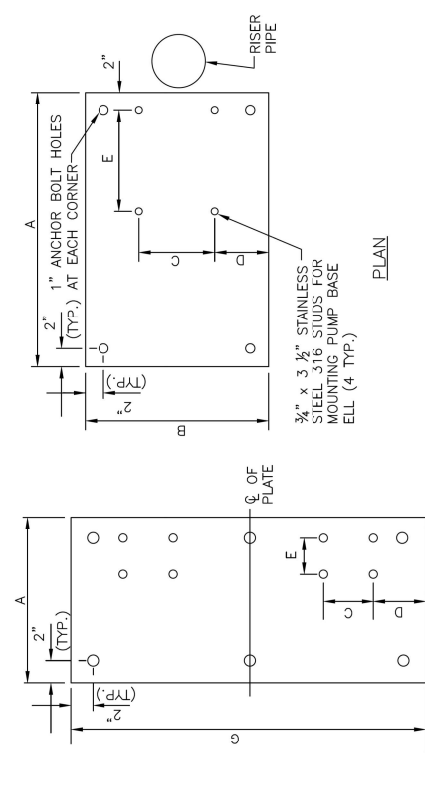


T INSSS		W PROQUE		I FU	
NO.	DATE	CHK	DR	NO.	DATE

BRADEN WOODS LIFT STATION
 REHAB
 MANATEE COUNTY
 BRADENTON, FLORIDA 34205
 TAO FU, PE 68138
 642 SW 4TH AVE, SUITE 400
 GAINESVILLE, FLORIDA 32601
 EB2822

JACOBS
 PROCESS MECHANICAL
 LIFT STATION
 DETAILS

DATE	DATE
PROJECT	PROJECT
DWG NO.	DWG NO.
SHEET	SHEET



PLAN FOR PUMPS 2" AND SMALLER

PROFILE

PUMP BASE ELL MOUNTING PLATE DIMENSIONS						
DIMENSIONS	A	B	C	D	E	F
FOR 6" PUMPS	24"	20"	8.25"	5.875"	11"	3/4"
FOR 4" PUMPS	20"	16"	6"	5"	10"	1/2"
2" PUMPS & SMALLER	15"	N/A	4.5"	4.75"	3.25"	1/2"
						32"

- NOTES:
1. INSTALL DOUBLE NUTS (OR NYLON LOCK NUTS) ON ALL EIGHT (8) THREADED RODS.
 2. THE PLATE EDGES AND ALL HOLES SHALL BE GROUND SMOOTH TO REMOVE ALL BURRS.
 3. DIMENSIONS "C", "D", & "E" ARE FOR BARNEY'S PUMPS, INC. BASE ELLS.
 4. FOR PUMPS WITH A 2-INCH DISCHARGE OR LESS, A SINGLE BASE PLATE SHALL BE INSTALLED UNDER BOTH GRINDER PUMPS.

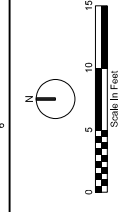
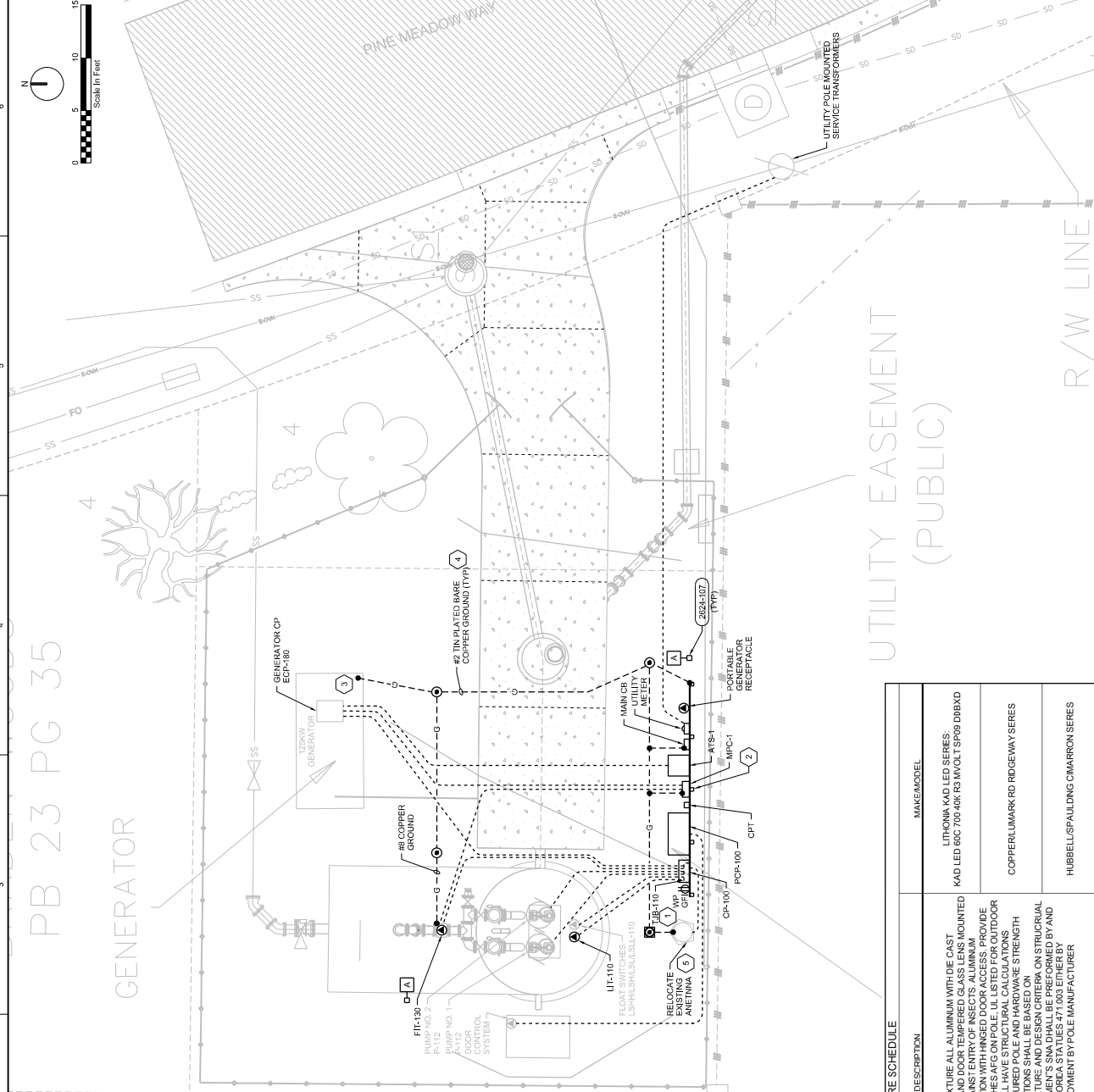
MANATEE COUNTY PUBLIC WORKS DEPARTMENT	PUMP BASE ELL MOUNTING PLATE	US-22
DATE	February 25, 2020	
DATE OF APPROVAL		

GENERAL SHEET NOTES

1. REFER TO DRAWING E-011 FOR GENERAL NOTES, HAZARDOUS LOCATION NOTES, AND WIRE AND CONDUITS CALLOUT TABLE.
2. REFER TO DRAWING E-501 FOR SINGLE LINE DIAGRAM.
3. REFER TO DRAWING E-201 FOR RISER DIAGRAM.

SHEET KEYNOTES

1. TERMINAL JUNCTION BOX, TUB, NIS, MOUNTED UNDER CONTROL PANEL, CP-100.
2. REFER TO MANATEE COUNTY STANDARDS DETAIL USA-24 SEWAGE LIFT STATION CONTROL PANEL FOR RACK MOUNTING REQUIREMENTS.
3. BOND TO GENERATOR FRAME.
4. GROUNDING ELECTRODE CONDUCTORS TO BE BURIED A MINIMUM OF 36 INCHES BELOW FINISHED GRADE.
5. REFER TO MANATEE COUNTY STANDARD DETAIL US-23 SEWAGE LIFT STATION METER AND MOUNTED ANTENNA INSTALLATION REQUIREMENTS.



NO.	DATE	BY	APVD

DAVID C. NICHOLSON
 642 SW 4TH AVE, SUITE 400
 GAINESVILLE, FLORIDA 32601
 EB2822
 BRADEN WOODS LIFT STATION
 MANATEE COUNTY
 BRAVENTON, FLORIDA 34205

REVISION
 CHK
 A PASTRANA
 M GOSLOW
 D NICHOLSON

BRADEN WOODS LIFT STATION
 MANATEE COUNTY
 BRAVENTON, FLORIDA 34205

DATE
 MAY 2021
 DRAWING NO.
 D3339100
 SHEET
 30 OF 36

UTILITY EASEMENT
 (PUBLIC)
 R/W LINE

UTILITY POLE MOUNTED SERVICE TRANSFORMERS

FILENAME: 006-E-201_D3339100.dgn
 PLOT TIME: 10:53:40 AM
 PLOT DATE: 5/10/2021

SPN:URL

LIGHTING FIXTURE SCHEDULE

MARK	DRIVER CURRENT	LAMP TYPE	WATTS (LUMENS)	MOUNT	DESCRIPTION	MAKE/MODEL
A	700mA (100)	LED 40K	137 15,964	CONCRETE POLE, 0FT AFG	CUT-OFF SHOE BOX LIGHTING FIXTURE ALL ALUMINUM WITH DIE CAST ANCHORS. THE FIXTURE SHALL BE MOUNTED ON ONE INCH ARM SEALED AGAINST ENTRY OF INSECTS. ALUMINUM REFLECTOR, TYPE R3 DISTRIBUTION WITH HINGED DOOR ACCESS. PROVIDE MANUAL ON-OFF SWITCH 48 INCHES AF ON POLE. UL LISTED FOR OUTDOOR LOCATIONS. CONTRACTOR SHALL HAVE STRUCTURAL CALCULATIONS AND DEPTH OF BURIAL CALCULATIONS SHALL BE BASED ON CHARACTERISTICS OF LIGHT FIXTURE AND DESIGN CRITERIA ON STRUCTURAL NOTES SHEET OF THESE DOCUMENT'S SNA SHALL BE PERFORMED BY AN ENGINEER QUALIFIED UNDER FLORIDA STATUTES 471.003 EITHER BY LICENSEURE OF FULL TIME EMPLOYMENT BY POLE MANUFACTURER	LITHONIA KAD LED SERIES: KAD LED 60C 700-40K R3 MVOLT SP09 D0B4D COPPERLUMARK RD ROGEWAY SERIES HUBBELSPALLING CIMARRON SERIES

REVISION
 NO. DATE BY APVD

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REVERSE OF DOCUMENTS

JACOBS

ELECTRICAL
 LIFT STATION
 SITE PLAN

VERIFICATION SCALE
 DATE
 DRAWING NO.
 SHEET

DAVID C. NICHOLSON
 LICENSE NO. 60201
 STATE OF FLORIDA
 PROFESSIONAL ENGINEER

DAVID C. NICHOLSON
 642 SW 4TH AVE, SUITE 400
 GAINESVILLE, FLORIDA 32601
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BRADEN WOODS LIFT STATION
 MANATEE COUNTY
 BRAVENTON, FLORIDA 34205

UTILITY EASEMENT
 (PUBLIC)
 R/W LINE

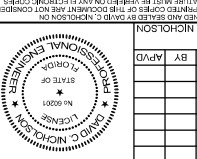
UTILITY POLE MOUNTED SERVICE TRANSFORMERS

FILENAME: 006-E-201_D3339100.dgn
 PLOT TIME: 10:53:40 AM
 PLOT DATE: 5/10/2021

SPN:URL

SHEET KEYNOTES

- 1" CONDUIT WITH WIRING PER MANUFACTURERS REQUIREMENTS FOR TEMPERATURE AND MOISTURE SIGNALS.
- NEMA 4X 3/4" STAINLESS STEEL TERMINAL JUNCTION BOX.
- CLASS 1, DIV 1 CONDUIT SEAL OFF.
- PUMP PROTECTIVE RELAY (PPR) INSTALL IN PUMP CONTROL PANEL PCP-100.
- REFER TO SPECIFICATION SECTION 40 80 01, INSTRUMENTATION AND CONTROL FOR PROCESS INSTRUMENTATION AND CONTROL FOR PUMP CONTROL PANEL STANDARD PROVIDED BY BARNEY'S PUMP INC. ATTACHED FOR REFERENCE TO THE PUMP CONTROL PANEL FOR ANY ADDITIONAL CONTROL PANEL REQUIREMENTS.
- 2" CONDUIT WITH FLOAT SWITCH CABLES.

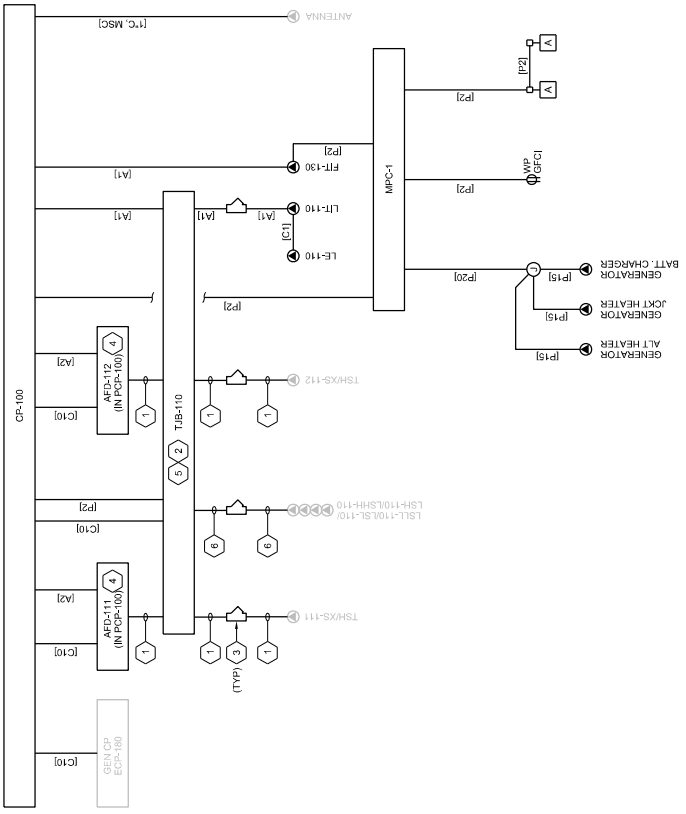


NO.	DATE	BY	APP'D

DAVID C. NICHOLSON
 642 SW 4TH AVE, SUITE 400
 GAINESVILLE, FLORIDA 32601
 EB2822
 REHAB
 BRADEN WOODS LIFT STATION
 MAUNATEE COUNTY
 BRADENTON, FLORIDA 34205

JACOBS
 ELECTRICAL
MOTOR CONTROL AND RISER DIAGRAM

UNNOTED
 VERIFY SCALE
 BATH DATE ENDED
 ORIGINAL DRAWING
 DATE: MAY 2021
 PROJ: D3338100
 DWG: E-202
 SHEET: 31 OF 36



RISER DIAGRAM



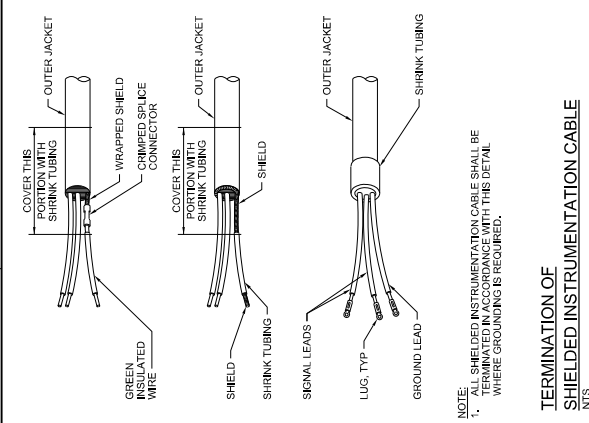
NO.	DATE	REVISION	BY	APP'D

DAVID C. NICHOLSON, P.E. 60201
 GAINESVILLE, FLORIDA 32601
 FB2822
 BRADEN WOODS LIFT STATION
 MAUNTEE COUNTY
 BRADENTON, FLORIDA 34205

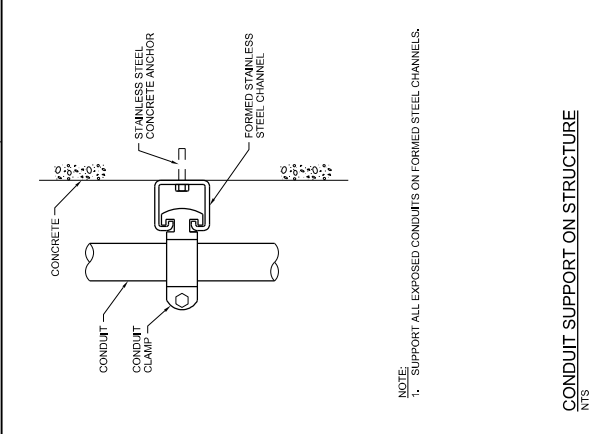
JACOBS
 ELECTRICAL
 STANDARD DETAILS

DATE	MAY 2017
PROJ	D33381001
DWG	E-202
SHEET	33 OF 36

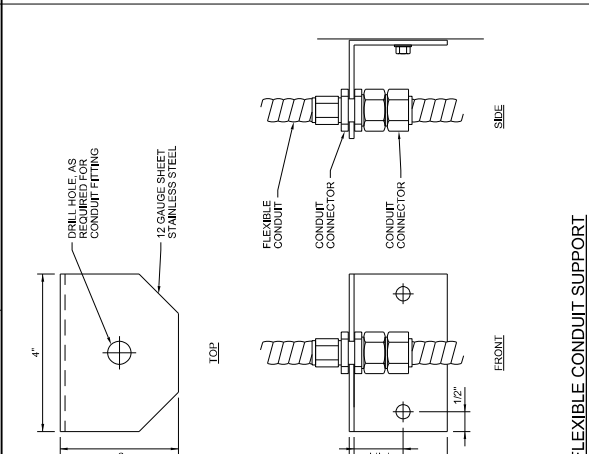
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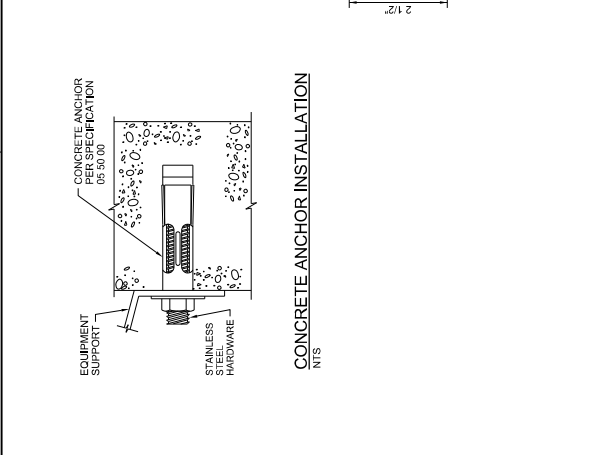
TERMINATION OF SHIELDED INSTRUMENTATION CABLE
 NTS
 (2605-100b)



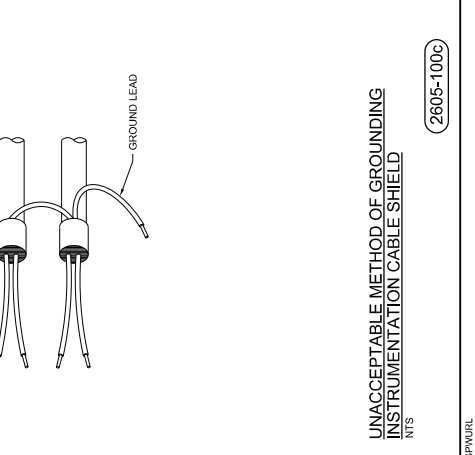
CONDUIT SUPPORT ON STRUCTURE
 NTS
 (2605-017)



FLEXIBLE CONDUIT SUPPORT
 NTS
 (2605-018)



UNACCEPTABLE METHOD OF GROUNDING INSTRUMENTATION CABLE SHIELD
 NTS
 (2605-100c)





NO.	DATE	REVISION

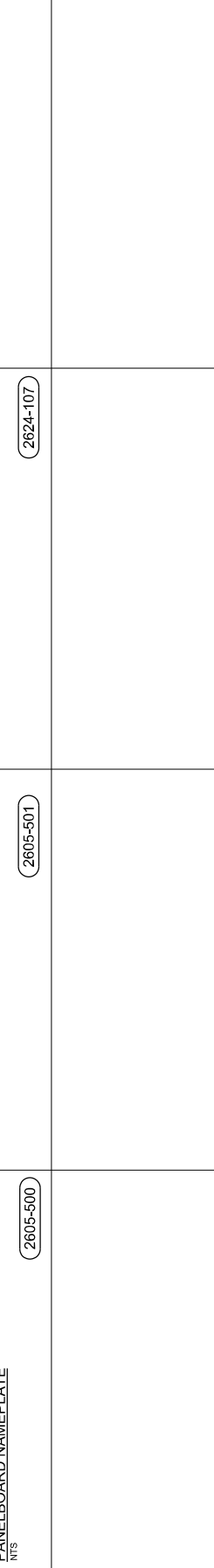
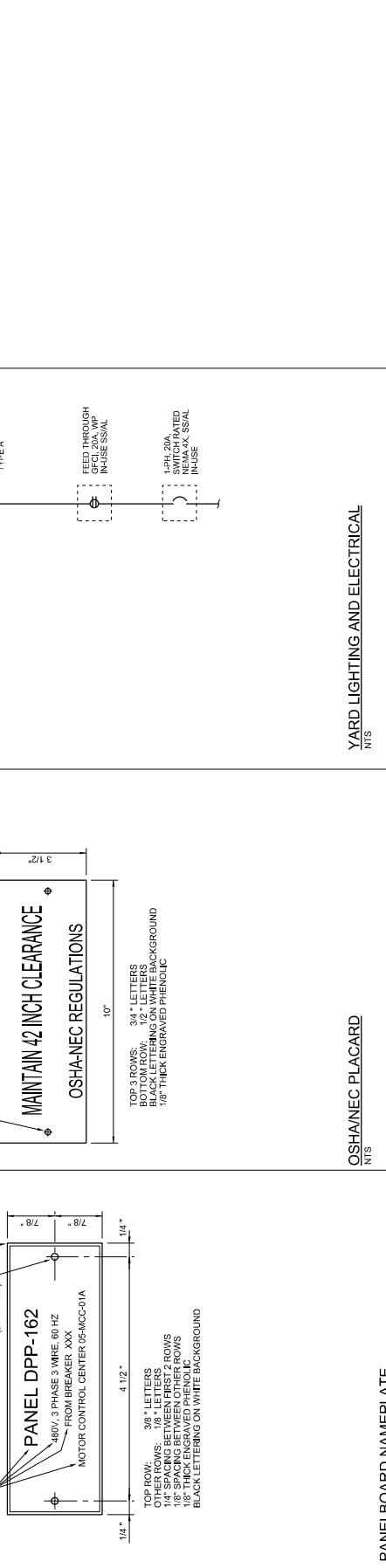
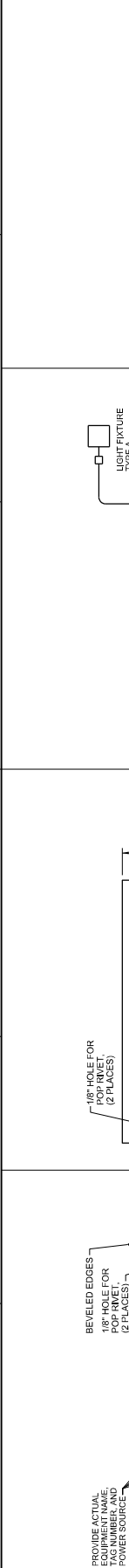
DAVID C. NICHOLSON
 ENGINEER
 642 SW 4TH AVE, SUITE 400
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 FB2822

BRADEN WOODS LIFT STATION
 REHAB
 MAUNTEE COUNTY
 BRADENTON, FLORIDA 34205

STANDARD DETAILS
 ELECTRICAL

DATE: MAY 2021
 PROJ: D3339100
 DWG: E-504
 SHEET: 35 of 36

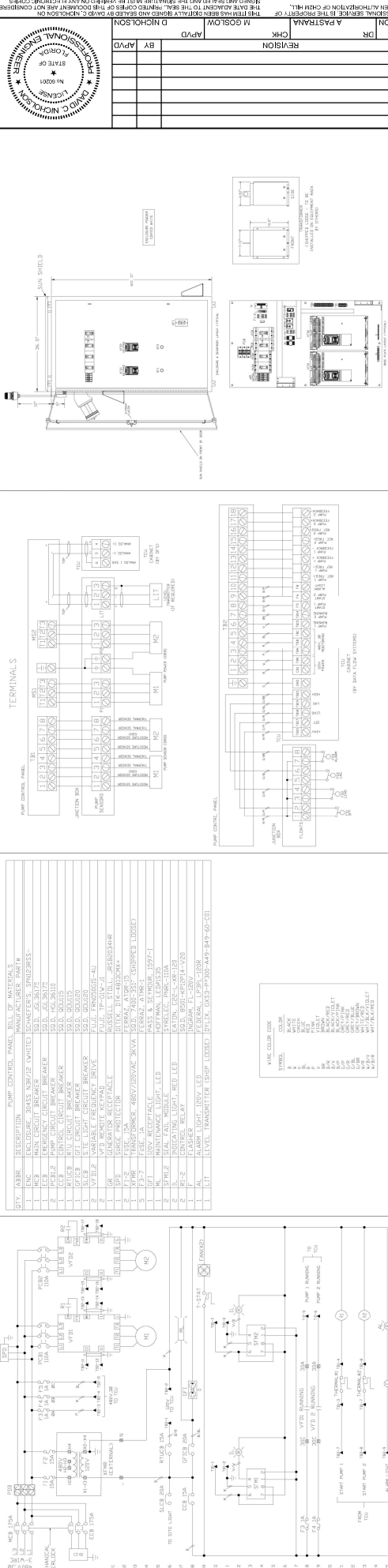
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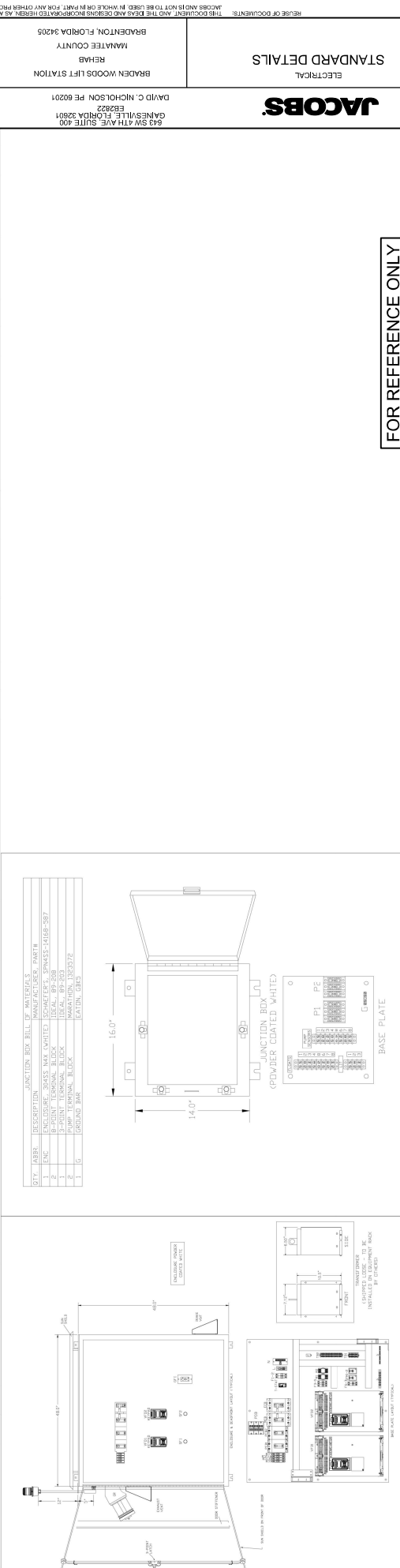
PANELBOARD NAMEPLATE
 NTS
 2605-500

OSHA-NEC PLACARD
 NTS
 2605-501

YARD LIGHTING AND ELECTRICAL
 NTS
 2624-107



NO.	DATE	BY	APVD	REVISION	CHK	M GOSLOW	D NICHOLSON	A PASTRANA



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STANDARD DETAILS

ELECTRICAL

BRADEN WOODS LIFT STATION

REHAB

DAVID C. NICHOLSON, P.E. 60321

642 SW 4TH AVE, SUITE 400
GAINESVILLE, FLORIDA 32601
FB2822

PROJECT: MANATEE COUNTY DUELER SHIP
SHEET: 38 OF 38

DATE: MAY 2007
DRAWN: D33391100
CHECKED: E-056

VERIFY SCALE
BASE DATE: 05/01/07
ORIGINAL DRAWING

DATE: MAY 2007
DRAWN: D33391100
CHECKED: E-056

FILENAME: 095-E-06_D33391100.dgn PLOT DATE: 5/10/2021 PLOT TIME: 10:42:36 AM