CHARLOTTE COUNTY
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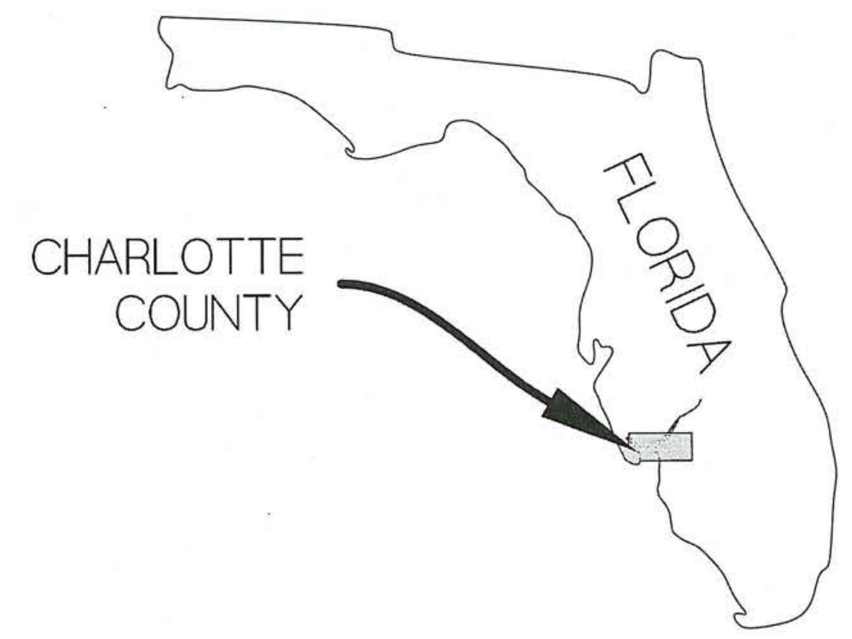
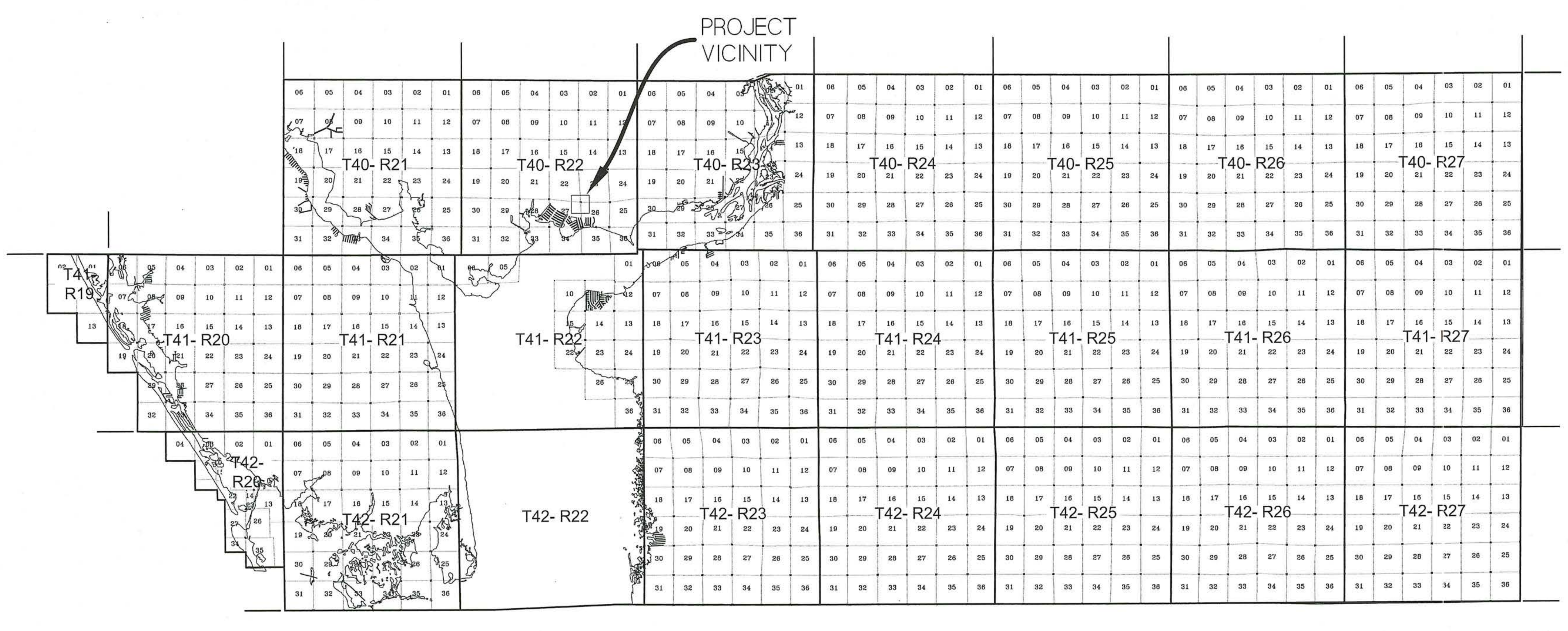
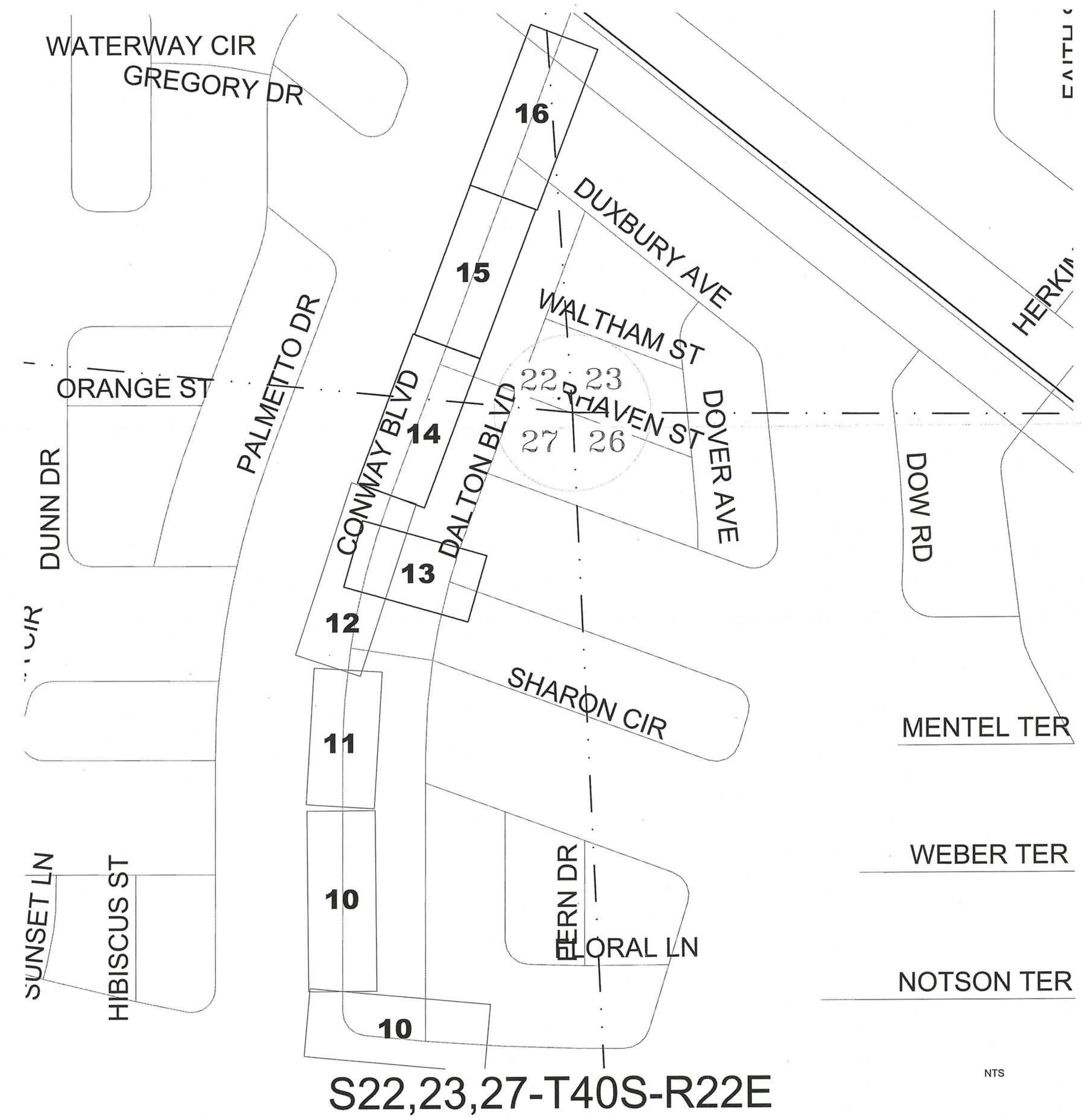


CCU PRJ # 20-0002 - LS. #2 CONWAY AREA FORCEMAIN AND WATERMAIN REPLACEMENT





S22,23,27-T40S-R22E

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BID SET

CHARLOTTE COUNTY
FLORIDA

No.	DESCRIPTION	DATE	BY

DESIGNED BY: KS | DWN BY: DEC | CKD BY: BRB
DATE: 2020-07-24 | S-T-R: S22,23,27-T40S-R22E | PROJECT NO. 20-0002 - LS. #2
DATUM: NAVD 1988 | SCALE: NTS | PLOT DATE: 2020-07-24 1:13 PM
FILE NAME: 20-0002_FM_WM CONWAY COVER.dwg
SIZE: ARCH full sized D (36x24.00 inches)

CHARLOTTE COUNTY UTILITIES
25550 HARBOR VIEW RD.
PORT CHARLOTTE FL 33980
PH: 941-764-4516
FAX: 941-764-4969

BRUCE R. BULLERT
LICENSE No. 68658
STATE OF FLORIDA
PROFESSIONAL ENGINEER
DATE: 7/29/2020

20-0002 - LS. #2 CONWAY AREA FORCEMAIN AND WATERMAIN REPLACEMENT

COVER

SHEET
1 OF 15

DWG: 20-0002_FM_WM CONWAY COVER.dwg
DATE: Jul 24, 2020 1:13pm

NOTES:

1. ALL EXISTING UTILITIES SHOWN ON THESE PLANS ARE APPROXIMATE ONLY AND SHALL BE FIELD VERIFIED PRIOR TO CONSTRUCTION.
2. FOR UTILITY AND DRAINAGE CONFLICTS, SEE THE CCU "TYPICAL UTILITY CROSSING DETAIL" PAGE GD-23 AND MAIN SEPARATION DETAIL PAGE GD-05 IN THE STANDARD DRAWING DETAILS ONLINE.
3. FOR DIRECTIONAL BORE REQUIREMENTS SEE TYPICAL DIRECTIONAL BORE DETAIL PAGE GD-10 IN THE STANDARD DRAWING DETAILS ONLINE.
4. DIMENSIONS SHOWN ON THESE PLANS ARE FROM MATCHLINE TO MATCHLINE UNLESS NOTED.
5. OPEN CUT ROADS:
   A. ANY STRIPING, STOP BARS, ETC, DAMAGED OR OBLITERATED AS THE RESULTS OF CONSTRUCTION ACTIVITY SHALL BE REPLACED IN KIND.
6. OPEN CUT DRIVEWAYS:
   A. ALL DISTURBED CONCRETE DRIVEWAYS SHALL BE REMOVED AND REPLACED FROM THE EDGE OF PAVEMENT TO THE NEAREST CONSTRUCTION / EXPANSION JOINT.
7. CONTRACTOR SHALL OBTAIN PERMITS WITHIN CHARLOTTE COUNTY RIGHT-OF-WAY.
8. METERS SHALL BE PLACED IN ACCORDANCE WITH THE CHARLOTTE COUNTY UNIFORM WATER AND SEWER TARIFF, BOOK 1159 PAGE 735 ADOPTED MAY 9, 1991, RECORDED MAY 31ST, 1991, RULE NUMBER 30.0 - METERS.
9. THESE DRAWINGS WERE CREATED UTILIZING GPS EQUIPMENT. DUE TO THE SMALL VARIANCES IN ELEVATIONS CREATED BY USING GPS ANY ELEVATIONS WE SUPPLY ARE ONLY FOR THE PROJECT SPECIFIED. THEY ARE BASED ON NAVD88 BUT ARE NOT SET BY DIFFERENTIAL LEVELING SURVEY METHODS AND SHOULD BE REGARDED IN THE SAME MANNER AS AN ASSUMED BENCH MARK.
10. THE STATIONED ALIGNMENTS DEPICTED ON THESE PLANS ARE BASED ON THE APPROXIMATE CENTERLINE OF THE RIGHT-OF-WAY ONLY. THE LOCATIONS OF THE RIGHT-OF-WAYS AND PROPERTY LINES HAVE NOT BEEN VERIFIED IN THE FIELD, OR CERTIFIED BY A LICENSED LAND SURVEYOR.
11. THE STATIONED ALIGNMENT GEOMETRY HAS BEEN IDENTIFIED FOR THE PURPOSES OF ESTABLISHING A RELATIONSHIP BETWEEN THE STATIONED ALIGNMENTS AND THE PROPOSED APPURTENANCES TO BE PLACED IN THE GROUND BY CHARLOTTE COUNTY UTILITIES, AND IN NO WAY DEPICTS THE ACTUAL LOCATION OF SUCH APPURTENANCES.
12. THE INTENTION OF THESE PLANS IS TO HAVE ALL PROPOSED CHARLOTTE COUNTY APPURTENANCES LOCATED WITHIN CHARLOTTE COUNTY RIGHTS-OF WAYS, OR WITHIN PROPERTY LINES OF LAND OWNED BY CHARLOTTE COUNTY/CHARLOTTE COUNTY UTILITIES, OR WITHIN EASEMENTS GRANTED TO THE SAME.
13. CHARLOTTE COUNTY SHALL ASSUME NO LIABILITY FOR ANY ERRORS, OMISSIONS, OR INACCURACIES IN THE INFORMATION PROVIDED REGARDLESS OF HOW CAUSED. CHARLOTTE COUNTY SHALL ASSUME NO LIABILITY FOR ANY DECISIONS MADE OR ACTIONS TAKEN OR NOT TAKEN BY THE USER OF THE INFORMATION OR DATA FURNISHED HEREIN.
14. THE RESOURCES FOR THE RIGHT-OF-WAY LINES, PROPERTY LINES AND BUILDING OUTLINES IS THE CHARLOTTE COUNTY G.I.S. DEPARTMENT (C) COPYRIGHT 2020.
15. PLEASE REFER TO THE CHARLOTTE COUNTY G.I.S. WEB SITE FOR ADDITIONAL DATA INFORMATION AND ACCURACIES. (https://www.charlottecountyfl.gov/services/gis/Pages/Shapefile-Gallery.aspx)
16. PLEASE REFER TO THE CHARLOTTE COUNTY UTILITIES DEPARTMENT STANDARD DRAWING DETAILS LOCATED AT THIS WEB ADDRESS; (https://www.charlottecountyfl.gov/dept/utilities/Pages/Standard-Drawing-Details.aspx)
17. PLEASE REFER TO THE CHARLOTTE COUNTY UTILITIES DEPARTMENT STANDARD SPECIFICATIONS LOCATED AT THIS WEB ADDRESS: (https://www.charlottecountyfl.gov/dept/utilities/Pages/Standard-Specifications.aspx)

ABBREVIATIONS

AC	ASBESTOS CONCRETE PIPE
ASPH	ASPHALT
BO	BLOW-OFF
CTV	CABLE TV
CI	CAST IRON PIPE
CB	CATCH BASIN
CL	CENTER LINE
CO	CLEAN-OUT
CONC	CONCRETE
CM	CONCRETE MONUMENT
DAT	DATUM
DWG	DRAWING
DI	DUCTILE IRON PIPE
ESMT	EASEMENT
E	EAST
E:	EASTING
ELEC	ELECTRIC
ETB	TOP OF BANK
EBS	BOTTOM OF SLOPE
EX	EXISTING
FH	FIRE HYDRANT
FT	FOOT
FM	FORCE MAIN
FOC	FIBER OPTIC CABLE
GALV	GALVINIZED PIPE
GV	GATE VALVE
HORZ	HORIZONTAL
IN	INCH
INST	INSTALL
INV	INVERT
IP	IRON PIPE
IR	IRON ROD
IRC	IRON ROD AND CAP
LF	LINEAR FEET
LFT	LEFT
LS	LIFT STATION
LT	LIGHT
LF	LINEAR FEET
LP	LOW PRESSURE
LPS	LOW PRESSURE SEWER
MH	MANHOLE
M	METER
G	NATURAL GAS
N	NORTH
N:	NORTHING
NIC	NOT IN CONTRACT
NTS	NOT TO SCALE
PG	PAGE
PED	PEDESTAL
PCP	PERMANENT CONTROL POINT
PG	PLUG VALVE
PT.	POINT
PVC	POLYVINYL CHLORIDE PIPE
PL	PROPERTY LINE
RGE	RANGE
RCM	RECLAIMED WATER MAIN
RCP	REINFORCED CONCRETE PIPE
RT	RIGHT
ROW	RIGHT OF WAY
SARV	SEWER AIR RELEASE VALVE
SEC	SECTION
SFV	SEWER FORCEMAIN VALVE
ST	SEPTIC TANK
SVC	SERVICE
SLE	SEWER LINE EXTENSION
SLV	SLEEVE
S	SOUTH
SST	STAINLESS STEEL
STA	STATION
SD	STORM DRAIN
TEL	TELEPHONE
TEMP	TEMPORARY
TERM	TERMINAL
TOS	TOE OF SLOPE
TOB	TOP OF BANK
T.O.P.	TOP OF PIPE
TWP	TOWNSHIP
UGND	UNDERGROUND
UTIL	UTILITY

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SYMBOL LEGEND

- RIGHT OF WAY LINE
- PROPERTY LINE
- 100+50 — BASELINE STATIONING
- EX 6" WM — EXISTING 6" WATER MAIN
- EX 4" WM — EXISTING 4" WATER MAIN
- 8" DR-18 PVC WM — PROPOSED 8" WATER MAIN
- 6" DR-18 PVC FM — PROPOSED 6" FORCE MAIN
- 10" GS — PROPOSED 10" GRAVITY SEWER MAIN
- EDGE OF PAVEMENT
- EXISTING FIRE HYDRANT
- PROPOSED FIRE HYDRANT ASSEMBLY
- W — EXISTING WATER VALVE
- S — EXISTING SEWER VALVE
- PROPOSED GATE VALVE
- PROPOSED PLUG VALVE
- PIPE CAP
- REDUCER
- TEE
- CROSS
- 90° BEND
- 45°, 22.5° OR 11.25° BEND
- SANITARY WYE CONNECTION
- SLEEVE
- SP — TEMPORARY SAMPLE POINT
- SAN — EXISTING SANITARY SEWER MANHOLE
- CO — CLEAN-OUT
- EXISTING UTILITY POLE
- W — EXISTING WATER SERVICE
- PROPOSED WATER SERVICE
- EXISTING DRAINAGE PIPE
- 3240 — BLOCK NUMBER
- 41 — LOT NUMBER
- #6789 — PARCEL ADDRESS
- EXISTING CHAIN LINK FENCE
- BO — BLOW OFF
- M — WATER METER
- E — ELECTRICAL BOX
- T — TELEPHONE BOX
- C — CABLE TV BOX
- BENCH MARK
- +7.22 — GROUND ELEVATION
- IRON PIPE
- IRON ROD
- PCP — PERMANENT CONTROL POINT
- CONCRETE MONUMENT
- IRON ROD WITH CAP

PIPE PROFILE LEGEND

- EXISTING 4" WATER MAIN
- EXISTING 6" FORCE MAIN
- EXISTING GRAVITY MAIN
- PROPOSED 4" PVC FORCE MAIN
- PROPOSED 8" PVC WATER MAIN
- PROPOSED 2" PVC FIBER OPTIC CONDUIT

BID SET

CHARLOTTE COUNTY FLORIDA

No.	DESCRIPTION	DATE	BY

DESIGNED BY: KS | DWN BY: DEC | CKD BY: BRB
DATE: 2020-07-24 | S-T-R: S22,23,27-T40S-R20E | PROJECT NO: 20-0002 - LS. #2
DATUM: NAVD 1988 | SCALE: NTS | PLOT DATE: 2020-07-24 12:06 PM
FILE LOCATION: Z:\Auto Cad R14\CURRENT-PROJECTS_ACTIVE\2020\20-0002 Lift Station 2 Dalton Boulevard\CADProduction Drawings_Fla_NAVD\20-0002_LEGEND.dwg
SIZE: ANSI full bleed D (24.00 x 36.00 Inches) | XREFS: 20-0002_LEGEND.dwg

CHARLOTTE COUNTY UTILITIES
ENGINEERING SERVICES DIVISION
25550 HARBOR VIEW RD.
PORT CHARLOTTE FL 33980
PH:941-764-4516
FAX: 941-764-4969

BRUCE R. BULLERT — LICENSE No. 68658 — STATE OF FLORIDA — PROFESSIONAL ENGINEER
DATE: 2/29/2020

20-0002 - LS. #2 CONWAY AREA FORCEMAIN AND WATERMAIN REPLACEMENT

NOTES AND LEGEND

SHEET 2 OF 15

DWG: Z:\Auto Cad R14\CURRENT-PROJECTS_ACTIVE\2020\20-0002 Lift Station 2 Dalton Rehabilitation\CADProduction Drawings_Fla_NAVD\20-0002_LEGEND.dwg
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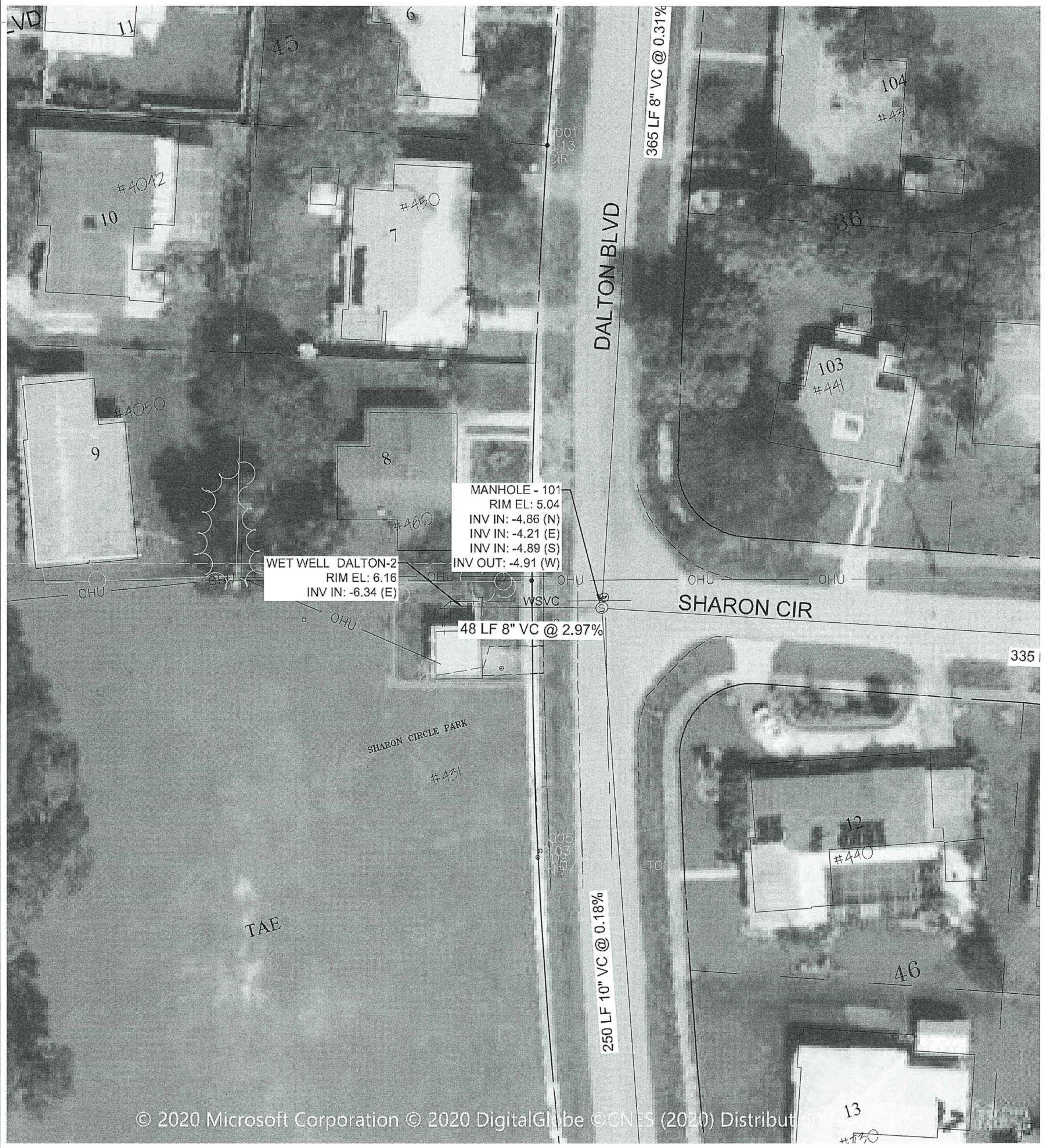

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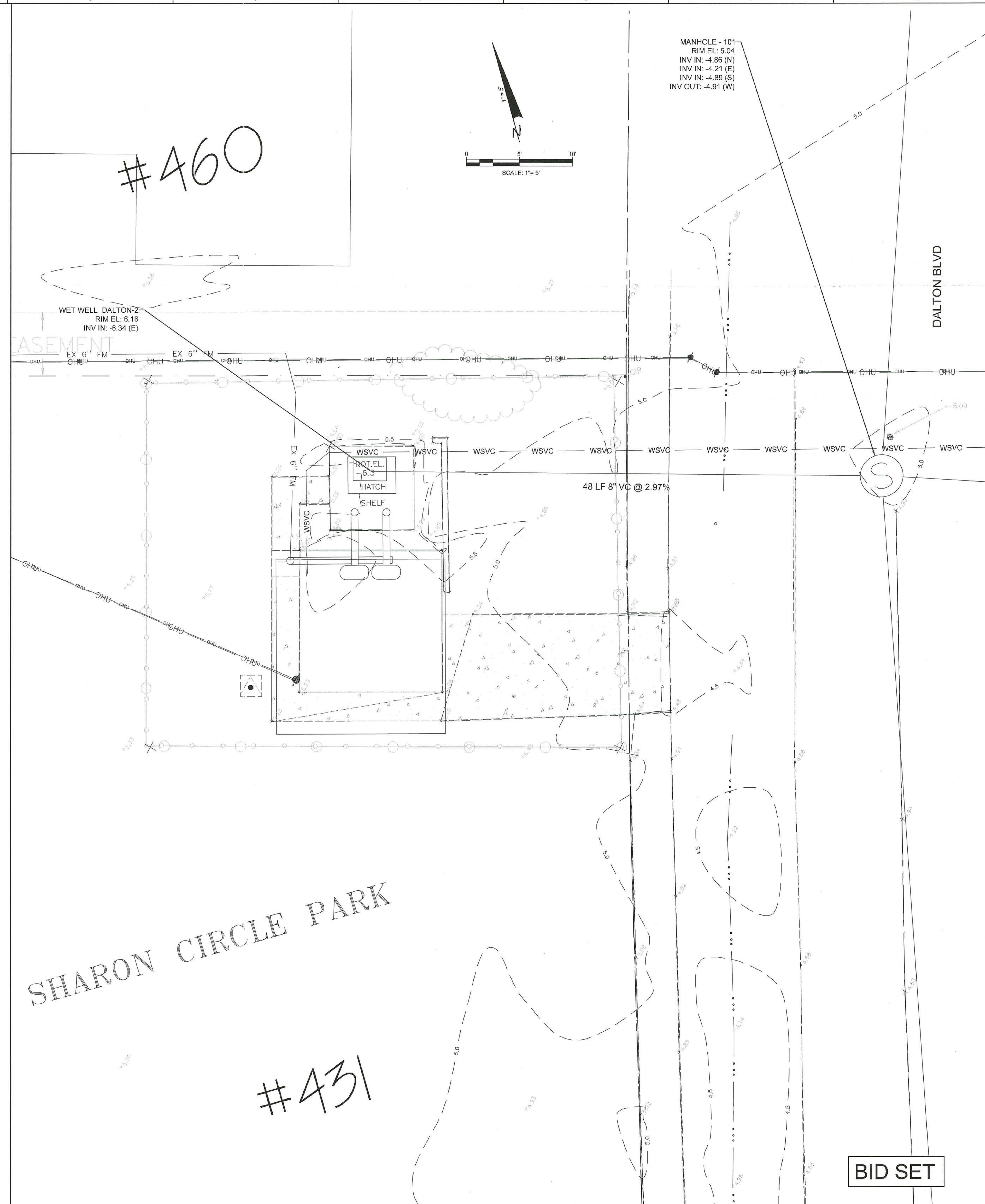

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CHARLOTTE COUNTY
FLORIDA

CHARLOTTE COUNTY UTILITIES
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PH:941-764-4516
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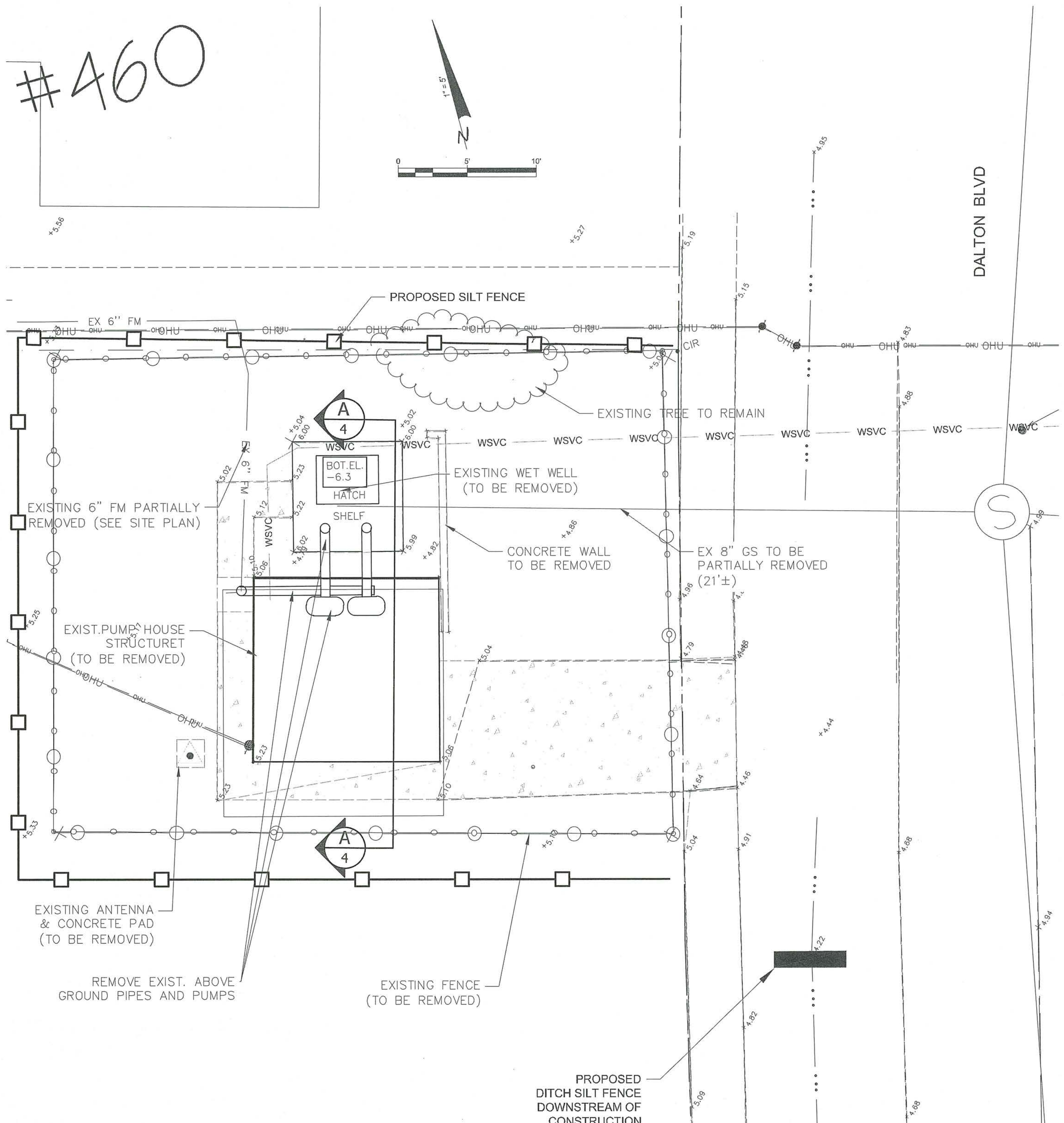
BRUCE R. BULLERT
LICENSE
No. 68658
STATE OF FLORIDA
PROFESSIONAL ENGINEER

DATE: 7/29/2020

20-0002 - LS. #2 CONWAY AREA FORCEMAIN AND WATERMAIN REPLACEMENT

LS - EXISTING CONDITIONS

SHEET
3 OF 15



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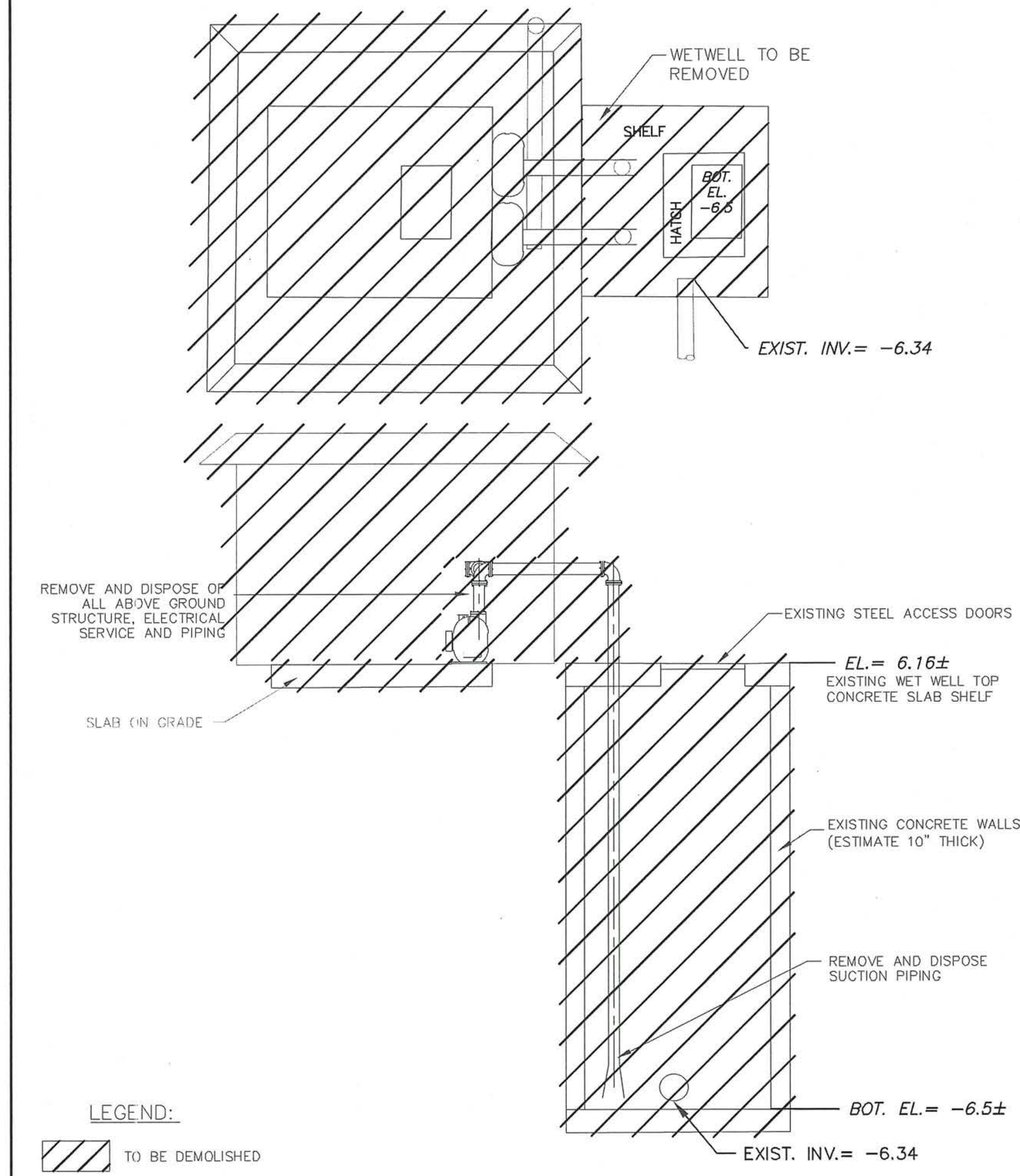


A/4 **SECTION— EXISTING PRIMARY WET WELL**
SCALE: NTS

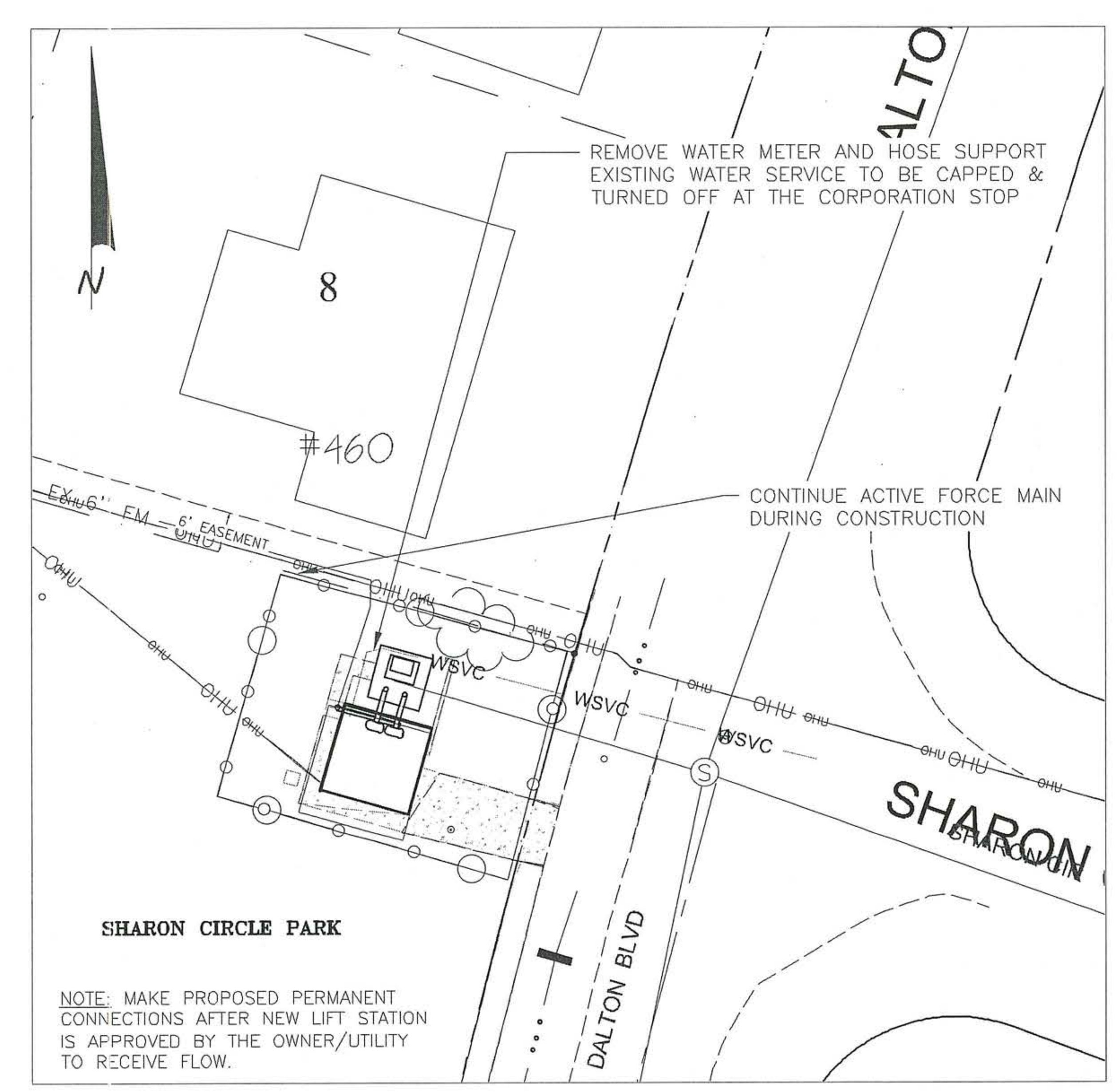
DEMOLITION NOTES:

WET WELL:

1. REMOVE AND DISPOSE TOP SLAB, SUCTION PIPING AND ALL APPURTENANCES. REMOVE TOP 4' OF CONCRETE WALLS. CORE 8" HOLE IN BOTTOM SLAB. BACKFILL WET WELL TO SURFACE USING PROPER COMPACTION TECHNIQUES.

L.S. BUILDING:

1. REMOVE AND DISPOSE EXISTING PUMPS, PIPING, CONTROL PANEL AND ALL APPURTENANCES. CONTRACTOR TO PROVIDE CCU WITH SELECTED COMPONENTS. REMOVE AND DISPOSE ALL BUILDING STRUCTURES AND SLABS.
2. CLEAN DEBRIS AND PREPARE FOR LANDSCAPING.



PLAN VIEW - MAINTENANCE OF FLOW
SCALE: 1"= 20'

LIFT STATION # 2 — DALTON BLVD NOTES:

1. IT IS THE CONTRACTOR'S RESPONSIBILITY TO MAINTAIN THE EXISTING LIFT STATION #2 FLOW THROUGHOUT CONSTRUCTION. A MAINTENANCE OF FLOW PLAN MUST BE SUBMITTED TO CHARLOTTE COUNTY UTILITIES FOR REVIEW A MINIMUM OF SEVEN (7) DAYS PRIOR TO START OF CONSTRUCTION. THE PLAN SHALL INCLUDE A 24 HOUR, 7 DAY PER WEEK EMERGENCY CONTACT. NO MAINTENANCE OF FLOW METHOD CAN BE INITIATED WITHOUT CHARLOTTE COUNTY UTILITIES' APPROVAL TO PROCEED.
2. CAUTION: ALL ENCLOSED AREAS OF THE LIFT STATION AND ADJACENT MANHOLES (ABOVE AND BELOW GROUND) ARE CONSIDERED HIGH HAZARD AREAS WITH EXPLOSIVE AND LIFE THREATENING GASES PRESENT. PUBLIC ACCESS TO THE WORK AREA IS PROHIBITED AT ALL TIMES. NOTIFY THE PUBLIC OF THE CONSTRUCTION DANGERS WITH A MINIMUM OF TWO (2) SIGNS (UTILITY WORK AHEAD), MINIMUM 24-INCHES SQUARE SIZE. PROVIDE NIGHTTIME SIGNAGE FOR PUBLIC SAFETY WITH FLASHING LIGHTS AND ANY OTHER PROTECTION AND WARNING DEVICES DEEMED NECESSARY BY THE OWNER AND CONTRACTOR.
3. THE LIFT STATION IS WITHIN NOISE SENSITIVE AREAS. THE CONTRACTOR'S WORK SHALL CONFORM TO THE REQUIREMENTS OF THE COUNTY'S NOISE ORDINANCE. THE CONTRACTOR SHALL USE "QUIET PACK" PUMPS OR EQUIVALENT LOW NOISE EQUIPMENT FOR DEWATERING AND BY PASS PUMPING.
4. THE EXISTING ELECTRICAL CONTROL PANEL MAY BE USED FOR A POWER SOURCE AND ON-OFF CONTROLS FOR BY-PASS PUMPING AT THE CONTRACTOR'S OPTION. THE CONTRACTOR IS RESPONSIBLE FOR TEMPORARY WIRING AND CONTROLS.

   THE EXISTING PUMPS OPERATE AT A FLOW RATE OF APPROXIMATELY 270 GALLONS PER MINUTE AT APPROXIMATELY 31-FEET OF TOTAL DYNAMIC HEAD (ONE PUMP ON), WITH A STATIC HEAD OF APPROXIMATELY 10-FEET. THE 6-INCH FORCE MAIN FROM THE LIFT STATION # 2 IS APPROXIMATELY 2000-FEET LONG AND DISCHARGES TO A 12" FORCE MAIN ALONG THE SOUTH SIDE OF US 41
5. ALL WASTEWATER SPILL SHALL BE CONTAINED AND CLEANED UP BY THE CONTRACTOR AT NO COST TO THE UTILITY.

BEST MANAGEMENT PRACTICES:

1. INSTALL SILT FENCE AND ALL EROSION CONTROL MEASURES PRIOR TO THE COMMENCEMENT OF CONSTRUCTION PER APPLICABLE SECTIONS OF THE FDOT DESIGN STANDARDS INDEX 102.
2. STABILIZE ALL DISTURBED AREAS AS EARLY IN THE CONSTRUCTION PROCESS AS POSSIBLE.
3. ADDITIONAL TEMPORARY EROSION/SEDIMENT CONTROLS (NOT SHOWN ON THE CONSTRUCTION PLAN) THAT ARE NECESSARY TO MAINTAIN COMPLIANCE WITH STATE FLORIDA WATER QUALITY STANDARDS, SHALL BE DESIGNED, SPECIFIED, LOCATED AND INSTALLED IN THE FIELD UNDER THE SUPERVISION OF THE ENGINEER/CONTRACTOR OR DESIGNATED REPRESENTATIVE.
4. CONTRACTOR SHALL REMOVE AND DISPOSE SILT FENCE UPON COMPLETION OF CONSTRUCTION AND AS DIRECTED BY THE ENGINEER.

BID SET

CHARLOTTE COUNTY FLORIDA

No.	DESCRIPTION	DATE	BY

DESIGNED BY: #### | DWN BY: DEC | CKD BY: BRB
DATE: 2020-07-24 | S-T-R: S27-T40-R22 | PROJECT NO. 20-0002 L.S. #2
DATUM: NAVD 1988 | SCALE: AS NOTED | PLOT DATE: 2020-07-24 12:07 PM
FILE LOCATION: Z:\Auto Cad R14\CURRENT-PROJECTS_ACTIVE\2020\20-0002 Lift Station 2 Dalton
SIZE: ARCH full bleed D (36.00 x 24.00 Inches) | FILE NUMBER 20-0002 DEMOLITION.dwg

CHARLOTTE COUNTY UTILITIES
25550 HARBOR VIEW RD.
PORT CHARLOTTE FL 33980
PH:941-764-4516
FAX: 941-764-4969

BRUCE R. BULLERT LICENSE No. 68658 STATE OF FLORIDA PROFESSIONAL ENGINEER 7/29/2020

DATE: 7/29/2020

20-0002 - LS. #2 CONWAY AREA FORCEMAIN AND WATERMAIN REPLACEMENT

LS - DEMOLITION

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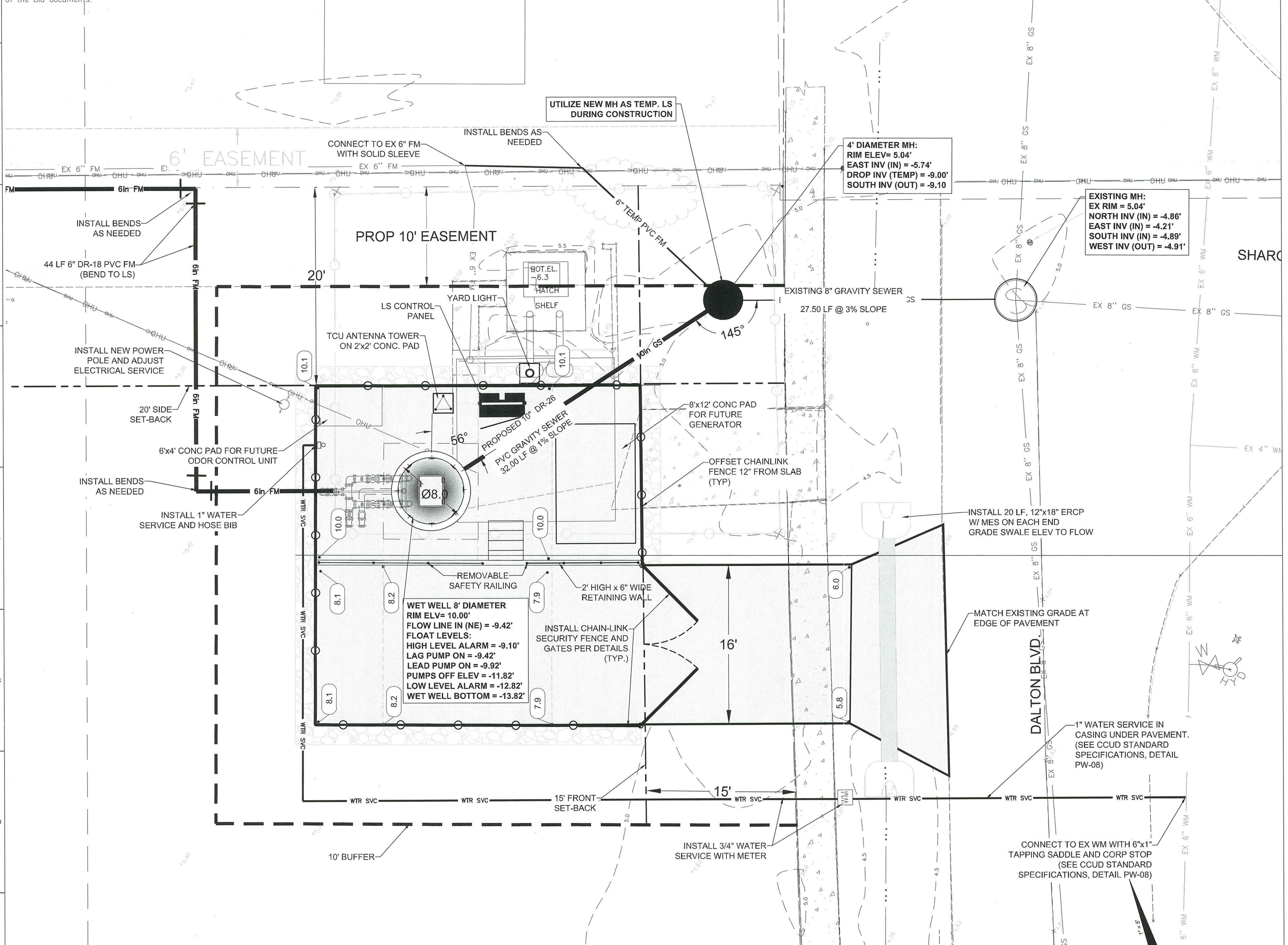

PROPOSED SITE & GRADING PLAN
SCALE: 1"=5'

SYMBOL LEGEND

Symbol	Description
— — —	PROPERTY LINE
— — —	RIGHT OF WAY LINE
— — —	EASEMENT LINE
× 6.23	EXISTING ELEVATION
- - - -	EXISTING EDGE OF PAVEMENT
— ∘ ∘ ∘ —	EXISTING SWALE
——	BASELINE OF CONSTRUCTION
— EX 8" FM —	EXISTING 8" FORCE MAIN
— EX GS —	EXISTING GRAVITY SEWER
— X — — X — — X — —	EXISTING FENCE
Ⓢ	EXISTING SANITARY MANHOLE
	EXISTING POWER POLE
E	ELECTRICAL BOX
T	TELEPHONE BOX
W	EXISTING GATE VALVE
— 10in GS —	PROPOSED 10" GRAVITY SEWER MAIN
— 8in WM —	PROPOSED 8" WATER MAIN
— 6in FM —	PROPOSED 6" FORCE MAIN
●	PROPOSED MANHOLE
— WTR SVC —	PROPOSED WATER SERVICE
	PIPE CAP
Δ	REDUCER
	TEE
	PIPE BENDS
—o—o—	PROPOSED FENCE
10.9	PROPOSED GRADE
WM	PROPOSED WATER METER
	8" THK. CONC. DRIVE & WORK AREA

ABBREVIATIONS

GS	GRAVITY SEWER
WM	WATER MAIN
FM	FORCE MAIN
GS	GRAVITY SEWER
WTR SRV	WATER SERVICE
GV	GATE VALVE
LS	LIFT STATION
TCU	TELEMETRY CONTROL UNIT
TEL	TELEPHONE LINE
R/W	RIGHT-OF-WAY
P/L	PROPERTY LINE
STA.	STATION
INV.	INVERT
EX. / EXIST.	EXISTING
INSTL	INSTALL
LF	LINEAR FOOT
L	LEFT
R	RIGHT
N.I.C.	NOT IN CONTRACT
CONC.	CONCRETE
CLF	CHAIN LINK FENCE
OHU	OVERHEAD UTILITY
SMH	SANITARY MANHOLE
BOT	BOTTOM

GENERAL NOTES:

1. CONTRACTOR IS RESPONSIBLE FOR VERIFICATION OF ALL EXISTING PIPE LOCATIONS AND DEPTHS PRIOR TO PROPOSED PIPE INSTALLATION
2. ALL DETAILS AND SPECIFICATIONS FOR CONSTRUCTION OF THIS PROJECT ARE LOCATED ON THE CHARLOTTE COUNTY UTILITIES WEB SITE LOCATED AT: http://www.charlottecountyfl.com/ccu/Engineering/

BID SET

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DATE: 2020-07-24 | S-T-R S27-T40-R22 | PROJECT NO. 20-0002 - LS. #2
DATUM: NAVD 1988 | SCALE: AS NOTED | PLOT DATE: 2020-07-27 8:57 AM
FILE LOCATION: Z:\Auto Cad R14\CURRENT-PROJECTS_ACTIVE\2020\20-0002 Lift Station 2 Dalton Rehabilitation\CAD\Production Drawings\SHEET SETS
SIZE: ARCH full bleed D (36.00 x 24.00 Inches) | FILE NUMBER 20-0002 SITE & GRADING.dwg

CHARLOTTE COUNTY UTILITIES
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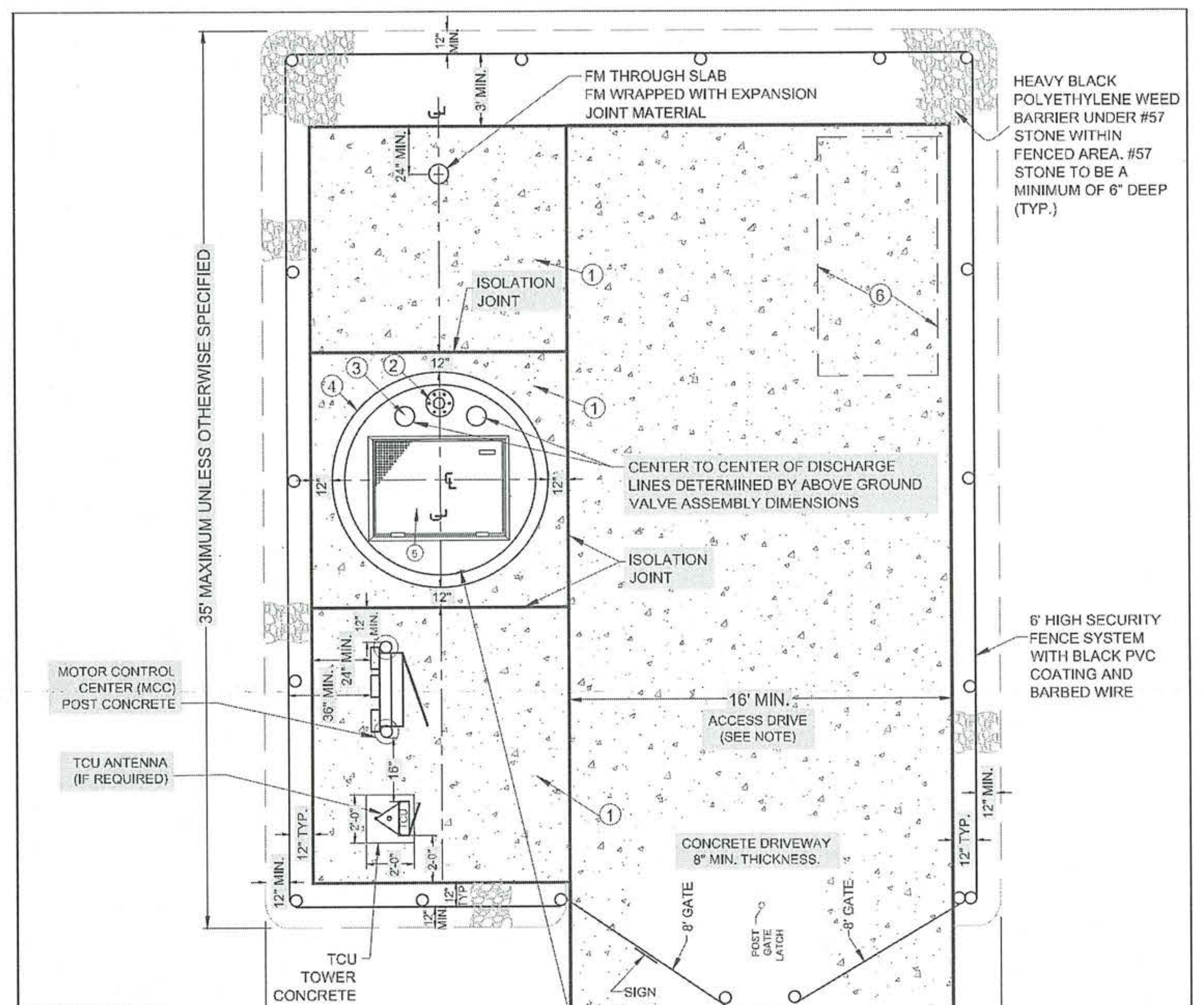
DATE: 7/29/2020

20-0002 - LS. #2 CONWAY AREA FORCEMAIN AND WATERMAIN REPLACEMENT

LS - SITE & GRADING PLAN

SHEET
5 OF 15



DRAWING LEGEND:

(1) 8" CONCRETE SLAB TO BE FORMED AND POURED IN PLACE. SLAB IS TO BE 3000 PSI WITH FIBER MESH AND EVEN WITH WET WELL TOP AND TO HAVE A BROOM FINISH.

(2) STATION VENT - COMPRISED OF 8" SCH. 80 PVC RISER AND ONE PIECE FLANGE, 8" PVC BLANK FLANGE AND 316 SS BOLTS, WASHERS AND NUTS (8 - 316 S.S. BOLTS & WASHERS REQUIRED). USE A 1-1/4" SCH. 80 PVC SPACER AT EACH BOLT LOCATION. 1/8" THICK HEAVY FIBER GLASS SCREENING SHALL ALSO BE INSTALLED UNDER PVC SPACER. (SEE DETAIL "B").

(3) "LINK SEAL" MODEL S-316 FOR D.I.P.S. / CAST OR CORE BIT DRILLED HOLE.

(4) PRECAST CONCRETE WET WELL SHALL CONFORM TO ASTM C478, SHALL BE ACID RESISTANT CEMENT AND SHALL ATTAIN A MINIMUM COMPRESSIVE STRENGTH OF 4000 PSI IN 28 DAYS. BASE SHALL BE MONOLITHIC WITH BOTTOM SECTION F OF WET WELL.

(5) HALLIDAY S1R _____ ALUMINUM ACCESS COVER WITH STANDARD LOCKING BAR & FRAME OR APPROVED EQUAL. INSTALLED PER MFG. ACTUAL HATCH SIZE TO ACCOMMODATE PUMPS (MIN. 36X48)

NOTE: LIFT STATION IS TO HAVE AN ACCESS DRIVE A MINIMUM OF 16' WIDE AND CONTINUOUS FROM ROAD TO ACCESS GATE. ACCESS DRIVE IS TO BE BUILT PER ENGINEER AND/OR CHARLOTTE COUNTY UTILITIES' SPECIFICATIONS.

DATE: 7/01/2016	SITE LAYOUT	PROVIDED FOR INFORMATIONAL PURPOSES ONLY. NO MODIFICATIONS WITHOUT WRITTEN CCU APPROVAL.
DRAWN BY: KBC	LIFT STATION DETAIL	LS-10
APPROVED BY: BRB	CHARLOTTE COUNTY UTILITIES	ID: LS-01_Site Plan.dwg

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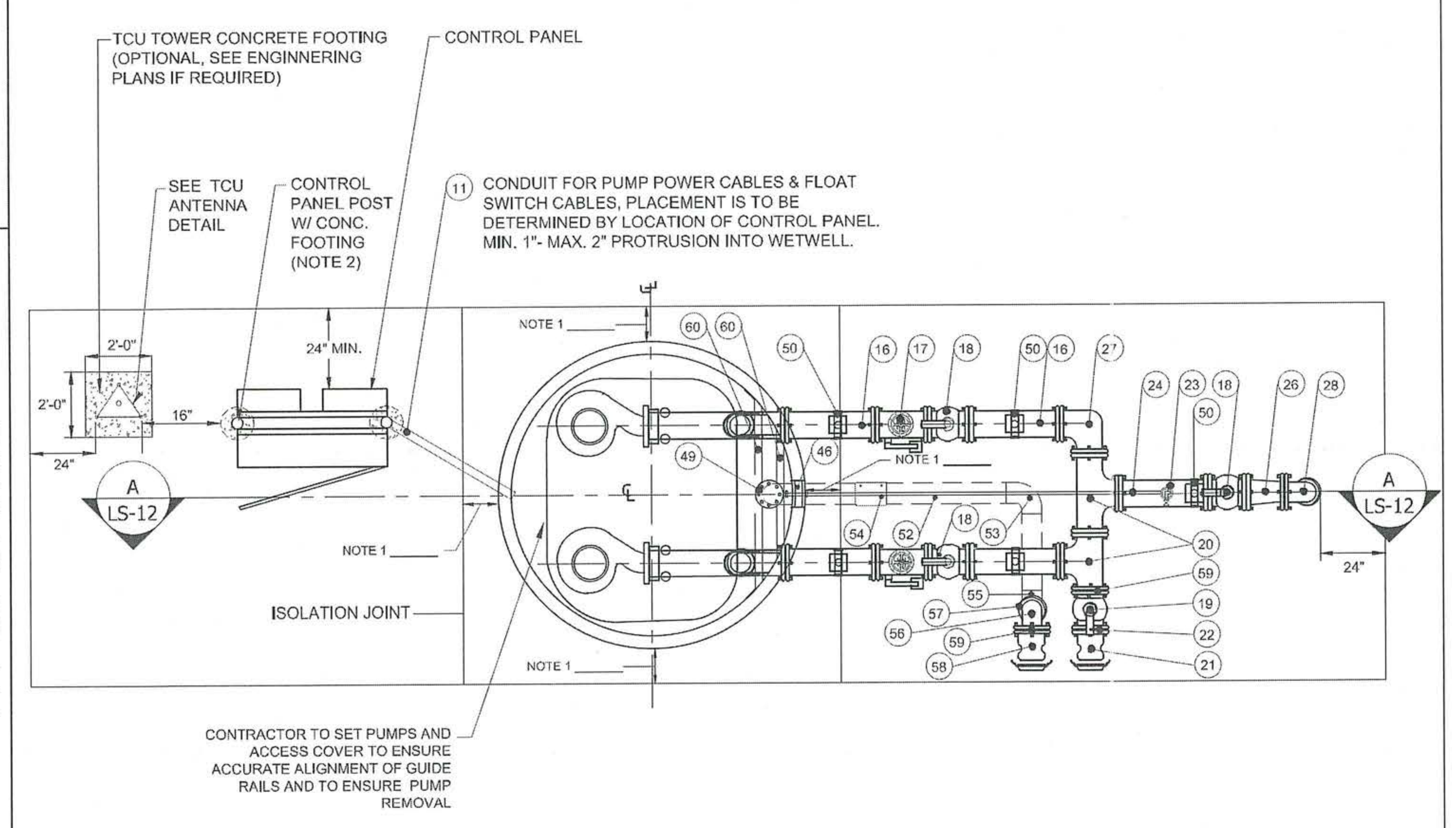

NOTES:

1. DISTANCE (12" MINIMUM) BASED ON WET WELL OUTSIDE DIAMETER.
2. MOTOR CONTROL CENTER PANEL, TCU TOWER, YARD LIGHT AND CONDUIT TO BE INSTALLED AS SHOWN ON SITE PLAN.

DATE: 07-01-2016	PIPING PLAN	PROVIDED FOR INFORMATIONAL PURPOSES ONLY. NO MODIFICATIONS WITHOUT WRITTEN CCU APPROVAL.
DRAWN BY: KBC	LIFT STATION DETAIL	LS-02
APPROVED BY: BRB	CHARLOTTE COUNTY UTILITIES	ID: LS-02-Piping Plan.dwg

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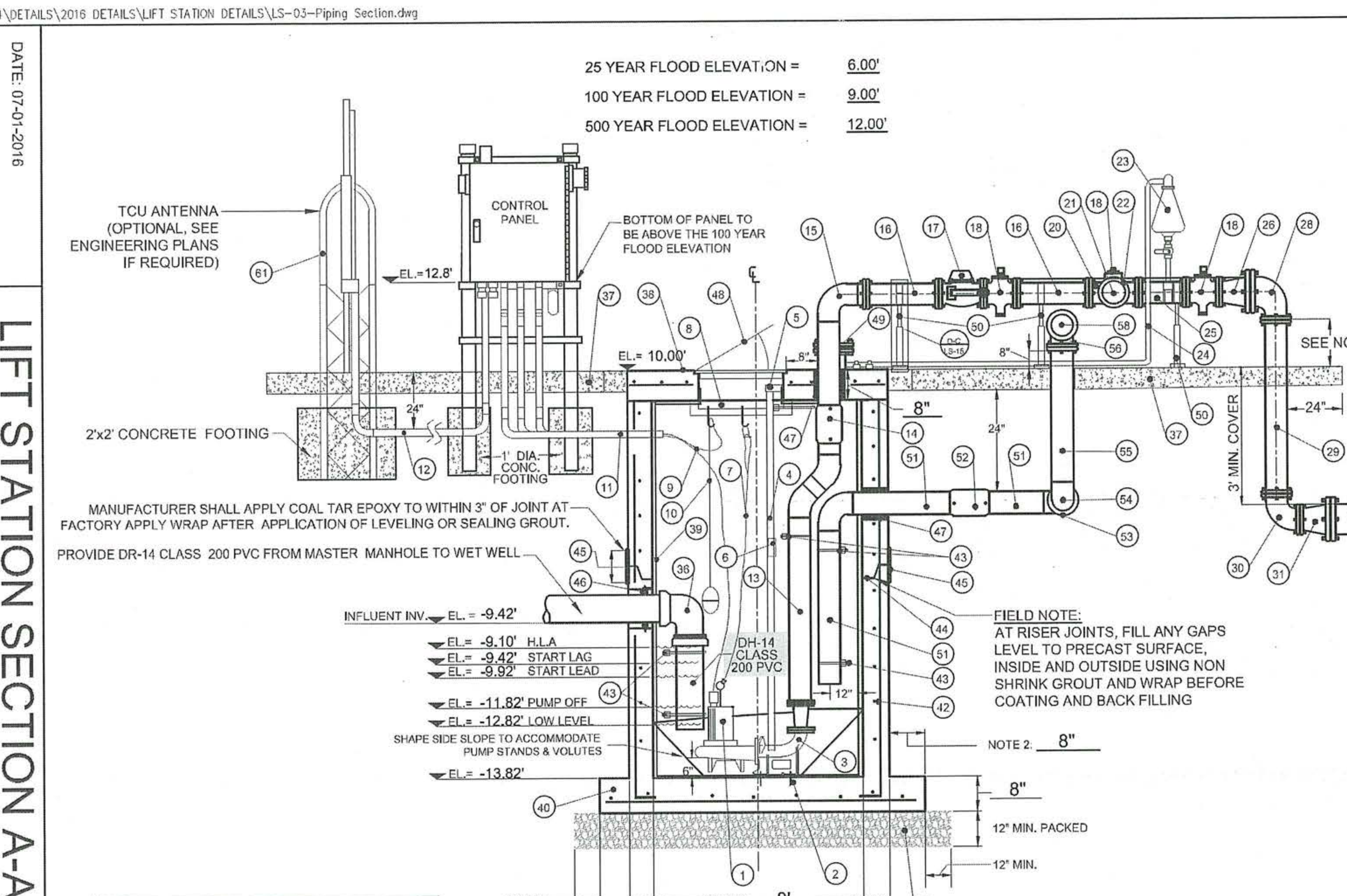


SECTION A-A, THROUGH WET WELL

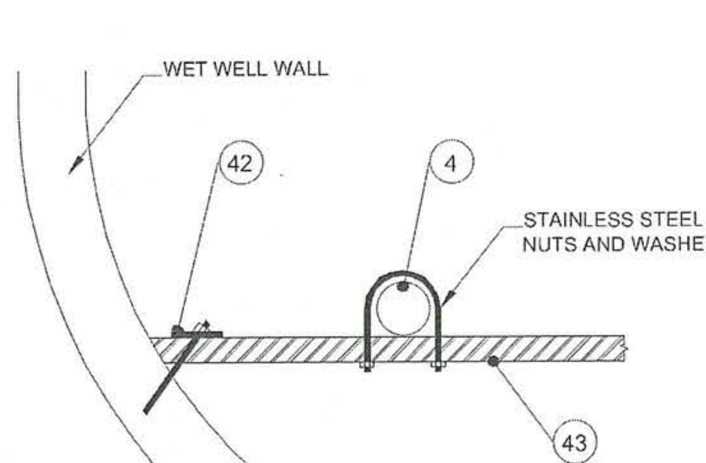
NOTES:

1. CONDUITS FROM THE SLAB TO THE MCC SHALL BE STAINLESS STEEL INSTEAD OF SCH 80.
2. WATER SERVICE SHALL BE BRASS INSTEAD OF GALVANIZED

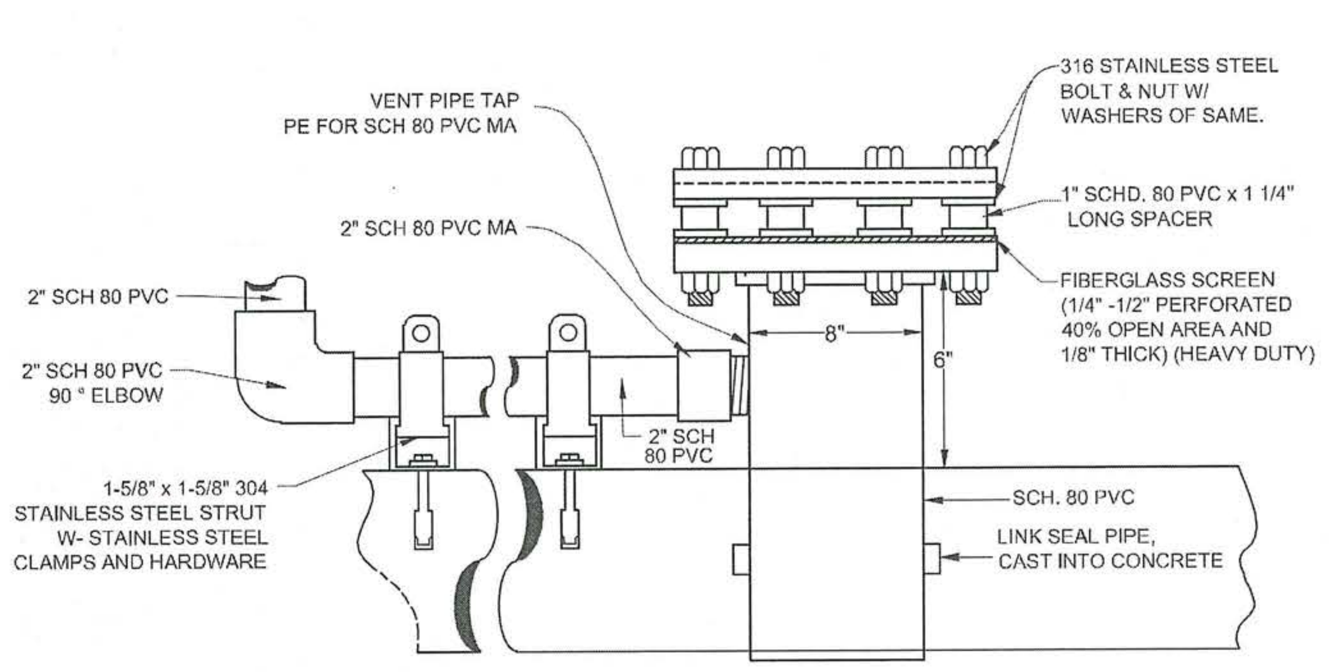
NOTES:

1. MAXIMUM HEIGHT FROM BOTTOM OF PIPE TO TOP OF SLAB 24".
2. FINAL WET WELL DIMENSIONS ARE BASED ON WET WELL ANTI-FLOTATION CALCULATIONS.
3. MINIMUM DISTANCE BETWEEN INFLUENT INVERT AND WETWELL BOTTOM SHALL BE 5 FT.

DATE: 07-01-2016	LIFT STATION SECTION A-A	PROVIDED FOR INFORMATIONAL PURPOSES ONLY. NO MODIFICATIONS WITHOUT WRITTEN CCU APPROVAL.
DRAWN BY: KBC	LIFT STATION DETAIL	LS-03
APPROVED BY: BRB	CHARLOTTE COUNTY UTILITIES	ID: LS-03-Piping Section.dwg

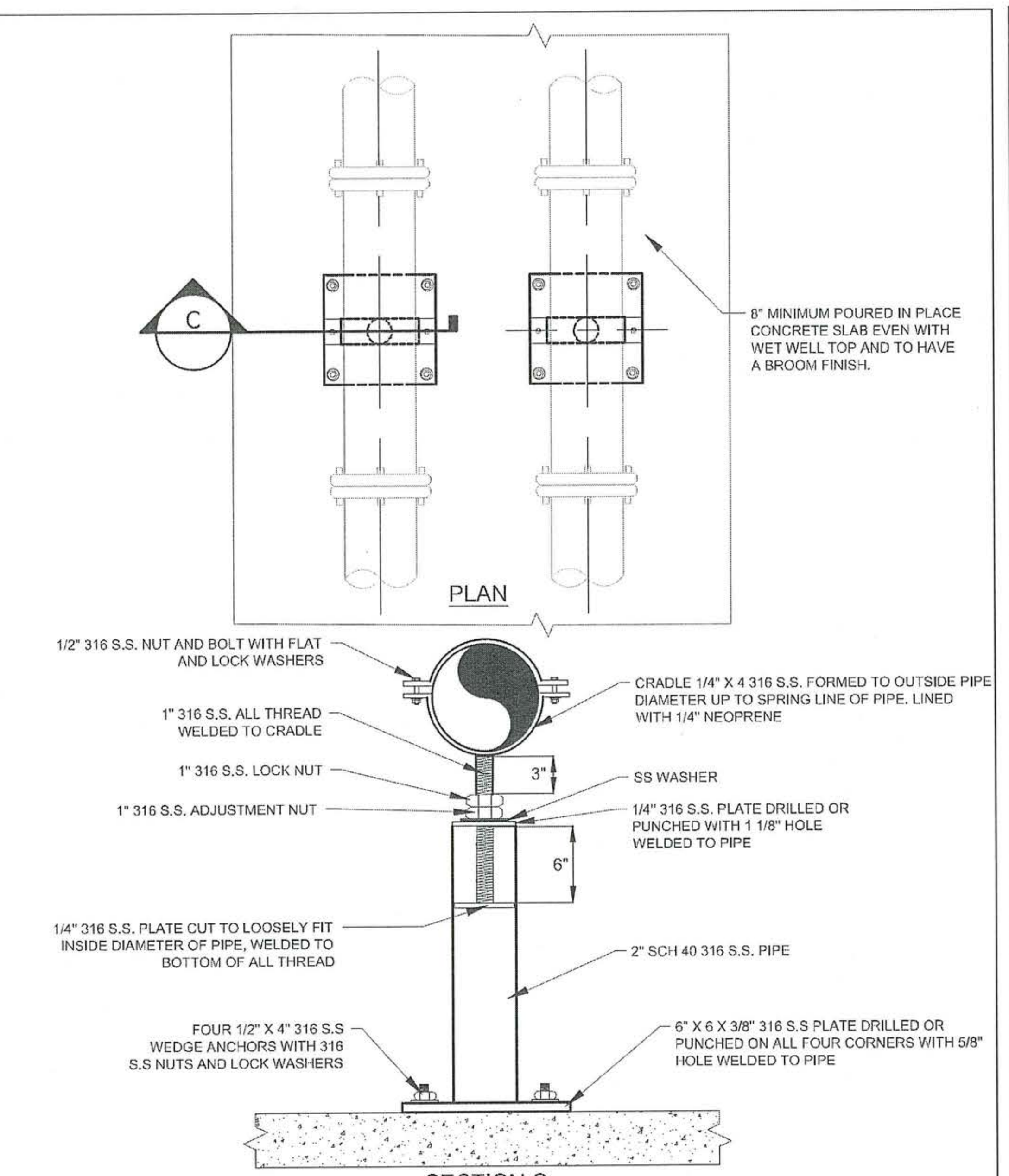


DETAIL 'A'



DETAIL 'B'

DATE: June 17, 2020	DETAILS 'A' AND 'B'	PROVIDED FOR INFORMATIONAL PURPOSES ONLY. NO MODIFICATIONS WITHOUT WRITTEN CCU APPROVAL.
DRAWN BY: DEC	LIFT STATION DETAIL	LS-04
APPROVED BY: BRB	CHARLOTTE COUNTY UTILITIES	ID: LS-04-Details A-B.dwg



SECTION C

NOTE: MAXIMUM HEIGHT FROM BOTTOM OF PIPE TO TOP OF SLAB 24"

DATE: 07-01-2016	PIPE SUPPORT	PROVIDED FOR INFORMATIONAL PURPOSES ONLY. NO MODIFICATIONS WITHOUT WRITTEN CCU APPROVAL.
DRAWN BY: KBC	LIFT STATION DETAIL	LS-05
APPROVED BY: BRB	CHARLOTTE COUNTY UTILITIES	ID: LS-05-PIPE SUPPORT.dwg

PIPING PLAN & SECTION LEGEND

1. CENTRIFUGAL NON-CLOG SUBMERSIBLE PUMP - TYPE _____, MODEL NO. _____, IMPELLER NO. _____, 480 VOLTS, 3 PHASE 270 GPM @ 34 TDH, (2 REQUIRED)
2. ANCHOR BOLTS 4 PER PUMP
3. CHARLOTTE COUNTY UTILITIES APPROVED MANUFACTURER COMPATIBLE 6" STANDARD DISCHARGE CONNECTION (2 REQ'D.) ADJUST FOR PUMP TO WETWELL BOTTOM CLEARANCE AS REQUIRED BY PUMP MANUFACTURER WITH 4000 PSI TYPE II CONCRETE
4. 2" DIAMETER PVC SCH. 40 WELDED STAINLESS STEEL PIPE TYPE 316, MUST BE WITHIN 1/4" TOLERANCE OF FITTING INTO GUIDE RAIL BRACKETS AS PER MFG. (4 REQUIRED)
5. UPPER GUIDE RAIL BRACKETS (2 REQUIRED)
6. FOR GUIDE RAILS OVER 15 FT INSTALL INTERMEDIATE GUIDE RAIL BRACKETS (2 REQUIRED) (SEE LIFT STATION DETAIL "A")
7. PUMP LIFTING CHAIN (2 REQUIRED).
8. LIQUID LEVEL SENSOR, EACH SENSOR CABLE SHALL BE CONTINUOUS (NO SPLICES) AND A MINIMUM OF 40 FEET IN LENGTH. 4 REQUIRED, 5 REQUIRED IF TCU EQUIPED
9. PUMP POWER CABLE (2 REQUIRED)
10. LIQUID LEVEL SENSOR CABLE HOLDER TYPE 316 SS WITH PUMP LIFTING CABLE RING. FURNISH WITH NOT LESS THAN 6 PRONGS.
11. 2" CONDUIT FOR CABLES (3 REQUIRED). FROM TOP OF SWEEP TO MCC TO BE PVC SCH. 80 ELECTRICAL GRADE, FROM TOP OF SWEEP TO INSIDE OF WET WELL TO BE PVC SCH. 80. CLAMP CONDUIT TO BOTTOM STRUT OF MOTOR CONTROL CABINET (MCC). (SEE STANDARD LIFT STATION SECTION A-A DETAIL)
12. 1" CONDUIT FOR CABLE FROM TOP OF SWEEP TO MCC, TO BE PVC SCH. 80 ELECTRICAL GRADE, FROM TOP OF SWEEP TO BOTTOM OF SLAB TO BE PVC SCH. 80
13. 6" DIPS SDR-11 HDPE WITH FUSED FLANGE W/ STAINLESS STEEL BACK UP RING, (USE BENDS AS NECESSARY)
14. 6" HDPE FUSION COUPLER (IF NEEDED)
15. 6" DIPS SDR-11 HDPE 90 DEGREE ELBOW WITH FUSED FLANGE W/ STAINLESS STEEL BACK UP RING AT SPOOL PIECE
16. 6" x 24" LONG FLANGE BY FLANGE DI PIPE
17. 6" MUELLER R M&H "QUIET CLOSING SWING CHECK" WITH WEIGHT AND LEVER
18. 6" PLUG VALVE (3 REQ'D.)
19. 6" GATE VALVE
20. 6" DUCTILE IRON PIPE (DIP) TEE (2 REQ'D.)
21. 6" COUPLER
22. 6" x 6" DIP COMPANION FLANGE
23. 2" FLANGED AUTOMATIC AIR-RELEASE VALVE (ARV) WITH ______" EPOXY COATED STAINLESS STEEL STRAP SADDLE
24. ______1" OR 2" (MATCH ARV DISCHARGE) PVC SCH. 80. DISCHARGE LINE FROM ARV's, WITH FITTINGS (FROM ARV's INTO TOP OF VENT)
25. 6" x 16" LONG CLASS 53 DIP EPOXY LINED PIPE FLANGE x FLANGE
26. N/A" x N/A" EPOXY LINED DI FLANGED REDUCER (IF NEEDED)
27. 6" x 90° EPOXY LINED DIP FLANGED BEND
28. 6" x 90° EPOXY LINED DIP FLANGED BEND
29. 6" CLASS 53 DIP EPOXY LINED PIPE, PLAIN END BY FLANGE END (AS NEEDED)
30. 6" x 90° EPOXY LINED MJ BEND. (RESTRAINED JOINT AND THRUST BLOCK AS REQUIRED) (2 REQUIRED)

NOTES:

1. CONDUITS FROM THE SLAB TO THE MCC SHALL BE STAINLESS STEEL INSTEAD OF SCH 80.
2. WATER SERVICE SHALL BE BRASS INSTEAD OF GALVANIZED

DATE: July 27, 2020	PIPING PLAN &	PROVIDED FOR INFORMATIONAL PURPOSES ONLY. NO MODIFICATIONS WITHOUT WRITTEN CCU APPROVAL.
DRAWN BY: DEC	SECTION LEGEND	LS-06
APPROVED BY: BRB	CHARLOTTE COUNTY UTILITIES	NUMBER: 20-0002 DETAILS

PIPING PLAN & SECTION LEGEND (CONTINUED)

31. N/A"x N/A" MJ REDUCER (IF NEEDED)
32. 6" MJ GATE VALVE
33. 6" CLASS 53 DUCTILE IRON PIPE (DIP) EPOXY LINED SOLID SLEEVE - RESTRAINED JOINT
34. 6" 316 STAINLESS STEEL INSERT
35. 6" HDPE DIPS SDR-11 FUSED 90° ELBOW W/ PLAIN ENDS
36. 6" SDR 35 PVC 90° ELBOW
37. 8" MINIMUM POURED IN PLACE CONCRETE SLAB EVEN WITH WET WELL TOP AND TO HAVE A BROOM FINISH
38. PRECAST CONCRETE WET WELL TOP, WITH BROOM FINISH
39. WET WELL LINING
40. PRECAST CONCRETE WET WELL AND BASE
41. PROVIDE 12 INCHES OF COMPACTED CRUSHED STONE OR PEA GRAVEL LEVELING COURSE. COMPACT TO STABILIZE. WET WELL SHALL BE PLACED ON UNDISTURBED SUB-BASE OR 100% COMPACTED CLEAN FILL
42. #5 REBAR AT 12" ON CENTER EACH WAY
43. 1-5/8"x 1-5/8" SLOTTED 12 GAUGE CHANNEL STRUT, TO BE PLACED 6" FROM BOTTOM OF PIPE AND 6" BELOW 90° ELBOW
44. TONGUE AND GROOVE JOINT WITH SEAL
45. WRAP
46. ELASTOMERIC GASKET BOOT
47. "LINK SEAL" MODEL S-316 FOR DIPS / CAST OR CORE BIT DRILLED HOLE, TYPE WALL SLEEVE PIPE SUPPORTS W/ SS BOLTS (2)
48. ACCESS COVER INSTALLED PER MFG. ACTUAL HATCH SIZE TO ACCOMMODATE PUMPS (MIN. 36"x48")
49. STATION VENT - AIR RELEASE VALVE (ARV)
50. STAINLESS STEEL SUPPORT CRADLE (SEE STANDARD LIFT STATION PIPE SUPPORT DETAIL) (4 REQUIRED)
51. 4" DIPS SDR 11 HDPE FUSED WITH 90° ELBOW W/ PLAIN ENDS
52. 4" HDPE FUSION COUPLER (IF NEEDED)
53. 4" 316 STAINLESS STEEL INSERT
54. 4" x 90° EPOXY LINED MJ BEND. (RESTRAINED JOINT AND THRUST BLOCK AS REQUIRED) (2 REQUIRED)
55. 4" CLASS 53 DIP EPOXY LINED PIPE, PLAIN END BY FLANGE END (AS NEEDED)
56. 4" x 90° EPOXY LINED DI FLANGED BEND (2 REQUIRED)
57. 4" x 4" DIP COMPANION FLANGE
58. 4" COUPLER
59. ALL GASKETS SHALL BE 1/8" THICK SBR AS MANUFACTURED BY: U.S. PIPE "FLANGE - TYPE" OR AMERICAN CAST IRON PIPE "TORUSEAL"
60. 1-5/8"x 1-5/8" SLOTTED 12 GAUGE CHANNEL STRUT TO BE PLACED AT 6' INTERVALS ON PIPE LONGER THAN 10 FEET (SEE STANDARD LIFT STATION DETAIL 'A'). IF LESS THAN 10 FEET, PLACE AT MIDPOINT OF PIPE
61. SCADA ANTENNA, TOWER AND FOOTING BY OTHERS

DATE: July 27, 2020	PIPING PLAN &	PROVIDED FOR INFORMATIONAL PURPOSES ONLY. NO MODIFICATIONS WITHOUT WRITTEN CCU APPROVAL.
DRAWN BY: DEC	SECTION LEGEND (CONT)	LS-07
APPROVED BY: BRB	CHARLOTTE COUNTY UTILITIES	NUMBER: 20-0002 DETAILS

CHARLOTTE COUNTY FLORIDA

CHARLOTTE COUNTY UTILITIES
25550 HARBOR VIEW RD.
PORT CHARLOTTE FL 33980
PH:941-764-4516
FAX: 941-764-4969

BRUCE R. BULLERT LICENSE No. 68658 STATE OF FLORIDA PROFESSIONAL ENGINEER

DATE: 7/29/2020

20-0002 - LS. #2 CONWAY AREA FORCEMAIN AND WATERMAIN REPLACEMENT

LS - DETAILS 1

BID SET

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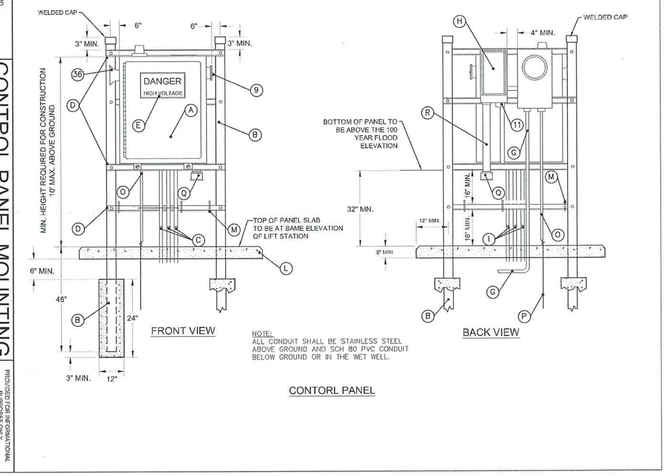
CONTROL PANEL MOUNTING
LIFT STATION DETAIL
CHARLOTTE COUNTY UTILITIES

DATE: June 17, 2020
DRAWN BY: DEC
APPROVED BY: BRB

PROVIDED FOR INFORMATIONAL PURPOSES ONLY. NO MODIFICATIONS WITHOUT WRITTEN CCU APPROVAL.

LS-09

ID: LS-09-Control Panel Mounting.dwg



NOTE:
ALL CONDUIT SHALL BE STAINLESS STEEL ABOVE GROUND AND SCH 80 PVC CONDUIT BELOW GROUND OR IN THE WET WELL.

CONTORL PANEL

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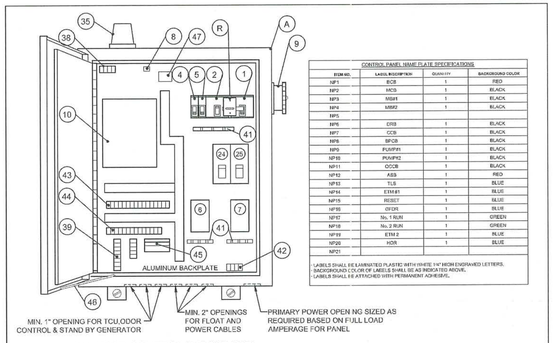
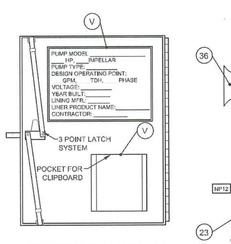


INTERIOR CONTROL (MCC) PANEL

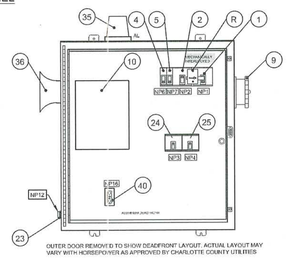
CONTROL PANEL NAME PLATE SPECIFICATIONS

ITEM NO.	LABEL INSCRIPTION	QUANTITY	BACKGROUND COLOR
NP1	ECB	1	RED
NP2	MCB	1	BLACK
NP3	MSM1	1	BLACK
NP4	MSM2	1	BLACK
NP5			
NP6	CRB	1	BLACK
NP7	CCB	1	BLACK
NP8	SPCB	1	BLACK
NP9	PUMP#1	1	BLACK
NP10	PUMP#2	1	BLACK
NP11	OCCB	1	BLACK
NP12	ASB	1	RED
NP13	TLS	1	BLUE
NP14	ETM #1	1	BLUE
NP15	RESET	1	BLUE
NP16	OVDR	1	BLUE
NP17	No. 1 RUN	1	GREEN
NP18	No. 2 RUN	1	GREEN
NP19	ETM #2	1	BLUE
NP20	HOR	1	BLUE
NP21			

LABELS SHALL BE LAMINATED PLASTIC WITH WHITE 1/4" MOM ENGRAVED LETTERS. BACKGROUND COLOR OF LABELS SHALL BE AS INDICATED ABOVE. LABELS SHALL BE ATTACHED WITH PERMANENT ADHESIVE.



BACK OF ENCLOSURE DOOR



OUTER DOOR REMOVED TO SHOW DEADFRONT LAYOUT. ACTUAL LAYOUT MAY VARY WITH HORSEPOWER AS APPROVED BY CHARLOTTE COUNTY UTILITIES

DEADFRONT DOOR

DATE: 07-01-2016
DRAWN BY: KBC
APPROVED BY: BRB

CONTROL PANEL LAYOUT
LIFT STATION DETAIL
CHARLOTTE COUNTY UTILITIES

PROVIDED FOR INFORMATIONAL PURPOSES ONLY. NO MODIFICATIONS WITHOUT WRITTEN CCU APPROVAL.

LS-10

ID: LS-10-Control Panel Layout.dwg

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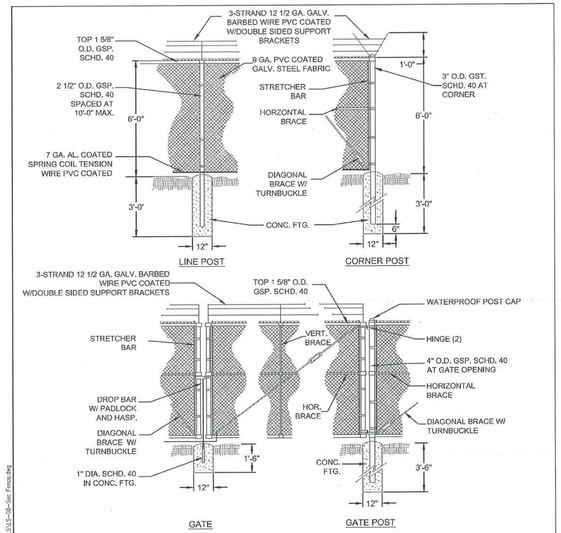

NOTES:
1. DOUBLE GATE TO BE 16'-0" CLEAR OPENING OR AS SPECIFIED.
2. PVC COATED GALVANIZED STEEL WOVEN WIRE FABRIC TO BE STRETCHED TAUT W/STRETCHER BARS AND STRAPS AND FASTENED TOP & BOTTOM AND AT POSTS WITH GALV. PVC COATED PIG RING TIES. AS TO COMPLY WITH ASTM-392, CLASS II.
3. EACH GATE TO BE SECURED OPEN WITH A GATE STOP SET IN CONCRETE.
4. ALL HARDWARE, PIPE AND ACCESSORIES TO COMPLY TO ASTM 1-120,123,153 AND TO BE PVC COATED AND MATCH IN COLOR.
5. COLOR OF FENCING, POSTS, HARDWARE AND BARBED WIRE SHALL BE PVC COATED BLACK. UNLESS APPROVED BY CCU.

DATE: 07-01-2016
DRAWN BY: DEC
APPROVED BY: BRB

SECURITY FENCE
LIFT STATION DETAIL
CHARLOTTE COUNTY UTILITIES

PROVIDED FOR INFORMATIONAL PURPOSES ONLY. NO MODIFICATIONS WITHOUT WRITTEN CCU APPROVAL.

LS-08

ID: LS-08-Sec Fence.dwg

CHARLOTTE COUNTY
FLORIDA

No.	DESCRIPTION	DATE	BY

DESIGNED BY: ####
DRWN BY: DEC
CKD BY: ####
DATE: 2020-07-24
S-T-R S27-T40S-R22E
PROJECT NO. 20-0002 - LS. #2
DATUM: NAVD 1988
SCALE: N/A
PLOT DATE: 2020-07-27 9:32 AM
FILE LOCATION: Z:\Auto Cad R14\CURRENT PROJECTS_ACTIVE\2020\20-0002 Lift Station 2 Dalton Rehabilitation\Engineering\Production drawings\sheet sets\20-0002 details.dwg
FILE NUMBER: 20-0002 DETAILS.dwg
SIZE: 24.00 x 24.00 inches

CONTROL PANEL LEGEND

ITEM NO.	ABBREV.	PART	QUANTITY	DESCRIPTION
1	ECB	EMERGENCY CIRCUIT BREAKER	1	SQ-D FAL ____ 3-POLE ____ A
2	MCB	MAIN CIRCUIT BREAKER	1	SQ-D FAL ____ 3-POLE ____ A
3	BPCB	BYPASS CONTROL CIRCUIT BREAKER	1	SQ-D FAL ____ 1-POLE 15 AMP
4	DRB	DUPLEX RECEPTICAL BREAKER W/GFI	1	SQ-D FAL ____ 1-POLE 15 AMP
5	CCB	CONTROL CIRCUIT BREAKER	1	SQ-D FAL ____ 1-POLE 15 AMP
6	MS 1	MOTOR STARTER	1	SQ-D 8536 _____ (SIZE _____)
7	MS 2	MOTOR STARTER	1	SQ-D 8536 _____ (SIZE _____)
8	FL	ALARM FLASHER RELAY	1	SSAC FS-126
9	GR	GENERATOR RECEPTACLE	1	PYLE NATIONAL JRE 4100
10		TCU	1	DATA FLOW SYSTEMS TELEMETRY UNIT
11	LA	LIGHTNING ARRESTER	1	SQ-D #SP3650 650 V, 3PH
12				
13		NOT USED		
14	ETM 1	ELAPSED TIME METER	1	ETMAC 200-10N07 ROUND MOUNT
15	ETM 2	ELAPSED TIME METER	1	ETMAC 200-10N07 ROUND MOUNT
16	SS	SURGE SUPPRESSOR	1	EDCO MSP - 121 RTRM
17	CPT	CONTROL POWER TRANSFORMER		
18		NOT USED		
19	OL	OVERLOAD HEATER (IN PANEL)		SQ-D _____ _____
20	SF 1	SEAL FAIL RELAY	1	DIVERSIFIED SPM - 120 - AAB - 100K
21	SF 2	SEAL FAIL RELAY	1	DIVERSIFIED SPM - 120 - AAB - 100K
22	OCCB	ODOR CONTROL CIRCUIT BREAKER	1	SQ -D FAL _____ 3 POLE _____ A (IF REQUIRED)
23	ASB	ALARM SILENCE BUTTON	1	SIEMENS-ALLIS 3SB02-PFB10 OR SQ-D SKRBH13
24	MB 1	MOTOR BREAKER PUMP #1	1	SQ-D FAL _____ 3-POLE ____ A
25	MB 2	MOTOR BREAKER PUMP #2	1	SQ-D FAL ____ 3-POLE ____ A
26	SR 1	STARTER RELAY	1	DAYTON 8 - PIN, 120 VAC 50/60 HZ #5ZA15 W/SOCKET 3 5X852
27	BPR	BYPASS CONTROL RELAY	3	OMRON 14 PIN MY4AC1101205
28	SR 2	STARTER RELAY	1	DAYTON 8 - PIN, 120 VAC 50/60 HZ #5ZA15 W/SOCKET 3 5X852
29	HOA 1	HAND-OFF-AUTO SWITCH	1	SQUARE"D" SWITCH CSS0001SKS43S CONTACT BLOCK-CT8001KA-1 LEDGEN 9031KN2GSSP
30	MES	MAINTAINANCE / ENTRY SWITCH	1	SPST SWITCH
31	FR	FLOAT REGULATOR		ROTO-FLOAT TYPE S, LIQUID LEVEL SENSOR
32	TLS	TROUBLE LIGHT SWITCH INT. & EXT.	1	SQ-D 9K5F43B#2 & KA1
33	TL	TROUBLE LIGHT	1	LEVITON 9880 (48 WATT BULB)
34	HOA 2	HAND-OFF-AUTO SWITCH	1	SQUARE"D" SWITCH CSS0001SKS43S CONTACT BLOCK-CT8001KA-1 LEDGEN 9031KN2GSSP
35	AL	ALARM LIGHT	1	INGRAM LBX-43 or OHIO ELECTRIC RL-3K
36	AH 1	ALARM HORN	1	ALA-876-N5, EDWARDS 120V
37	AH 2	ALARM HORN	1	ALA-876-N5, EDWARDS 12V
38	TB 3	TERMINAL BLOCK #3	1	SQ-D 58364 4 PT
39	TB5	TERMINAL BLOCK #5	1	SQ-D 58364 12 PT
40	GFDI	GROUND FAULT DUPLEX RECEPTACLE	1	15A-ARROW HART OR LEVITON
41	PB	POWER BLOCK	1	BUSSMAN # 16021-3
42	TB 4	TERMINAL BLOCK #4	1	SQ-D 58364 6 PT
43	TB 2	TERMINAL BLOCK #2 (RTU)	1	SUPPLIED BY DFS
44	TB 1	TERMINAL BLOCK #1	1	SQ-D 58364 33 PT
45	BATT	BATTERY	1	
46		DOOR BAR WIND RESTRAINT	1	
47	NB	NEUTRAL BLOCK	1	GB-1 WEIDMULLER
48	BUAC	BATTERY BACK-UP MODULE	1	
49	MC	MOUNTING CHANNEL	4	SQ-D 9080GH112
50	XFMA	TRANSFORMER	1	MICRON, 3100, P7JK

DATE: 07-01-2016
DRAWN BY: KBC
APPROVED BY: BRB

CONTROL PANEL LEGEND
LIFT STATION DETAIL
CHARLOTTE COUNTY UTILITIES

PROVIDED FOR INFORMATIONAL PURPOSES ONLY. NO MODIFICATIONS WITHOUT WRITTEN CCU APPROVAL.

LS-11

ID: LS-11-Control Panel Legend.dwg

CONTROL PANEL MOUNTING NOTES

A. THE CONTROL PLANEL ENCLOSURE SHALL HAVE A PAD LOCKABLE HASP AND A THREE PO INT LATCH SYSTEM AND WIND RESTRAINER ARM THAT INCLUDES HARDWARE TO RESTRA IN THE DEAD FRONT DOOR WHEN OPENED. THE HASP AND HARDWARE SHALL BE TYPE 316 STAINLESS STEEL.

B. TWO (2) 4 INCH DIAMETER SCHEDULE 80 ALUMINUM PIPES WITH 4 INCH WELDED ALUMINUM CAPS SHALL BE ANCHORED IN CONCRETE FROM 3 INCHES BELOW THE BOTTOM OF THE P IPE TO 12 INCHES BELOW THE F INISHED GRADE.

C. THREE (3) "EYE" EXPLOSION PROOF CLASS 1 SEAL-OFF 2 INCH DIAMETER SEAL WITH NON-HARDENING CONDUIT SEALANT AS APPROVED BY THE MANUFACTURER FOR A TEMPORARY SEAL.

D. THE ALUMINUM PIPES SHALL INCLUDE TYPE 316 STAINLESS STEEL H-I 7/8 INCH CHANNEL STRUT C/W TYPE 316 STAINLESS STEEL DISSIMILAR METALS SHALL BE ISOLATED WITH RUBBER GASKETS.

E. PLASTIC WARNING LABEL STATING 'DANGER -HIGH VOLTAGE' SHALL BE INSTALLED ON THE OUTSIDE OF THE ENCLOSURE DOOR AND BE SECURED TO THE DOOR WITH ADHESIVE OR CEMENT.

F. TWO (2) INCH CONDUIT AND WIRING BETWEEN THE FPL METER CAN AND THE SAFETY DISCONNECT PANEL AND THE CONTROL PANEL.

G. UNDERGROUND SCH 80 CONDUIT AND WIRING BETWEEN THE FPL METER CAN AND THE FPL HAND HOLE.

H. FUSED SAFETY DISCONNECT IN A NEMA 4X ENCLOSURE W ITH A LOCKING PLATE. INSTALL AN EXTERNAL LIGHTING ARRESTOR. POWER FROM THE CONTROL PANEL SHALL EXIT THE ENCLOSURE FROM THE UNDERS IDE.

I. THREE (3) 2" CONDUIT AND WIRING BETWEEN THE MCC AND THE WETWELL. FROM THE TOP OF THE SWEEP TO THE MCC SHALL BE PVC SCH 80 ELECTRICAL GRADE AND FROM THE TOP OF THE SWEEP TO THE INSIDE OF THE WETWELL SHALL BE SCHEDULE 80 PVC.

J. ¾" GALVANIZED STEEL PIPE WITH TWO (2) 90 DEGREE BENDS TO THE BACKFLOW PREVENTION DEVICE AND THE HOSE BIB.

K. ¾" POLYETHYLENE PIPING FROM THE WATER METER AND THE WATER SERVICE. **NOTE: WATER SERVICE SHALL BE BRASS INSTEAD OF GALVANIZED.**

L. CONCRETE SLAB.

M. WORM DRIVE CLAMPS. (3 MINIMUM)

N. ONE (1) NUMBER 6 WIRE GROUND IN ¾" SCHEDULE 80 PVC.

O. GROUND ROD.

P. THREADED RIGID TYPE 316 STAINLESS STEEL CONDUIT SIZED AS REQUIRED BY FULL LOAD AMPERAGE.

Q. CAST ALUMINUM TYPE LB FITTING WITH ALUMINUM CAP.

R. HEAVY DUTY MECHANICAL INTERLOCK FOR EMERGENCY POWER TRANSFER.

S. PANDUIT TO BE FILLED TO ONLY 50% CAPACITY.

T. IF REQUIRED, ONE (1) INCH PVC AND TYPE 316 STAINLESS STEEL CONDUIT BETWEEN THE CONTROL PANEL AND THE TCU CONTROL PANEL ENCLOSURE, THE AREA LIGHT, THE STAND-BY GENERATOR, AND/OR THE ODOR CONTROL IN ACCORDANCE WITH THE ENGINEERING DRAWINGS.

U. ALL INTERNAL MCC WIRING SHALL BE STRANDED WIRE AND PERMANENTLY NUMBERED.

V. PLASTIC LIFT STATION LABEL AND POCKET FOR CLIP BOARD, PROVIDED AND INSTALLED BY THE CONTRACTOR ON THE BACK OF THE CONTROL PANEL ENCLOSURE DOOR USING AN ADHESIVE OR CEMENT.

DATE: 07/01/2016
DRAWN BY: KBC
APPROVED BY: BRB

CONTROL PANEL MOUNTING NOTES
LIFT STATION DETAIL
CHARLOTTE COUNTY UTILITIES

PROVIDED FOR INFORMATIONAL PURPOSES ONLY. NO MODIFICATIONS WITHOUT WRITTEN CCU APPROVAL.

LS-12

ID: LS-12-Control Panel Notes.dwg

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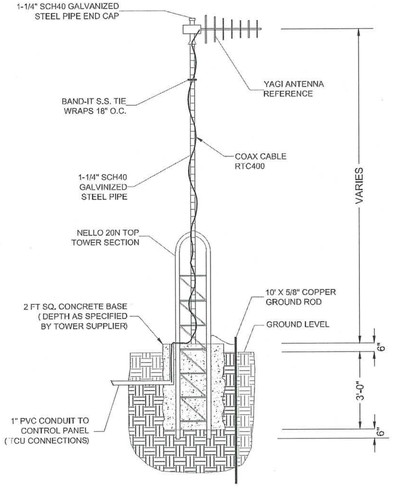

NOTE:
1. SEE ENGINEERING PLANS FOR LOCATION OF TCU.

DATE: 7/01/2016
DRAWN BY: KBC
APPROVED BY: BRB

TCU ANTENNA
LIFT STATION DETAIL
CHARLOTTE COUNTY UTILITIES

PROVIDED FOR INFORMATIONAL PURPOSES ONLY. NO MODIFICATIONS WITHOUT WRITTEN CCU APPROVAL.

LS-14

ID: LS-14-TCU Antenna.dwg

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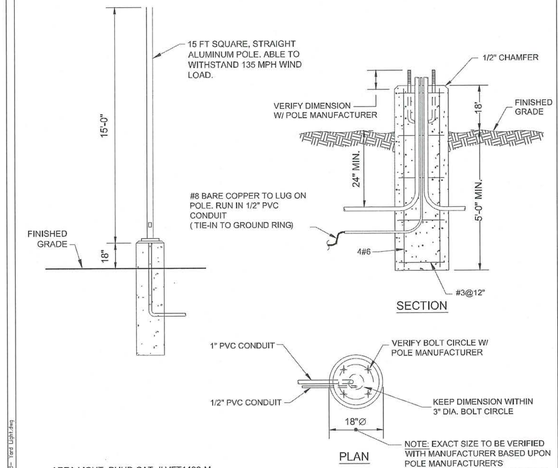


NOTE: EXACT SIZE TO BE VERIFIED WITH MANUFACTURER BASED UPON POLE MANUFACTURER'S REQUIREMENTS FOR 135 MPH WIND LOAD.

AREA LIGHT: RUUD CAT. # VFT1492-M
250W METAL-HALIDE, 277V, DARK BRONZE.

POLE: RUUD CAT. # PA4S15C1BZ
15', 4" SQUARE, STRAIGHT ALUMINUM POLE, DARK BRONZE. (135 mph WIND LOAD CAPACITY)

NOTE: YARD LIGHT DETAIL (FOR SERVICE ONLY)

DATE: 07-01-2016
DRAWN BY: KBC
APPROVED BY: BRB

YARD LIGHT
LIFT STATION DETAIL
CHARLOTTE COUNTY UTILITIES

PROVIDED FOR INFORMATIONAL PURPOSES ONLY. NO MODIFICATIONS WITHOUT WRITTEN CCU APPROVAL.

LS-13

ID: LS-13- Yard Light.dwg

CHARLOTTE COUNTY UTILITIES
25550 HARBOR VIEW RD.
PORT CHARLOTTE FL 33980
PH:941-764-4516
FAX: 941-764-4969

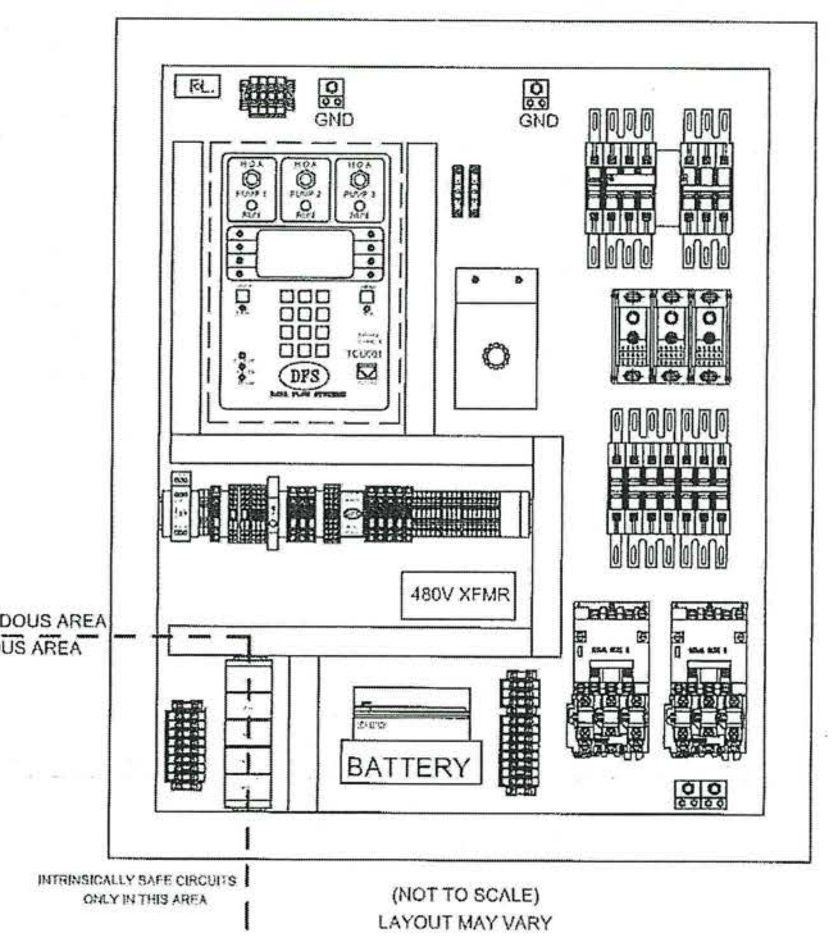
BRUCE R. BULLERT LICENSE No. 68658 STATE OF FLORIDA PROFESSIONAL ENGINEER
DATE: 7/29/2020

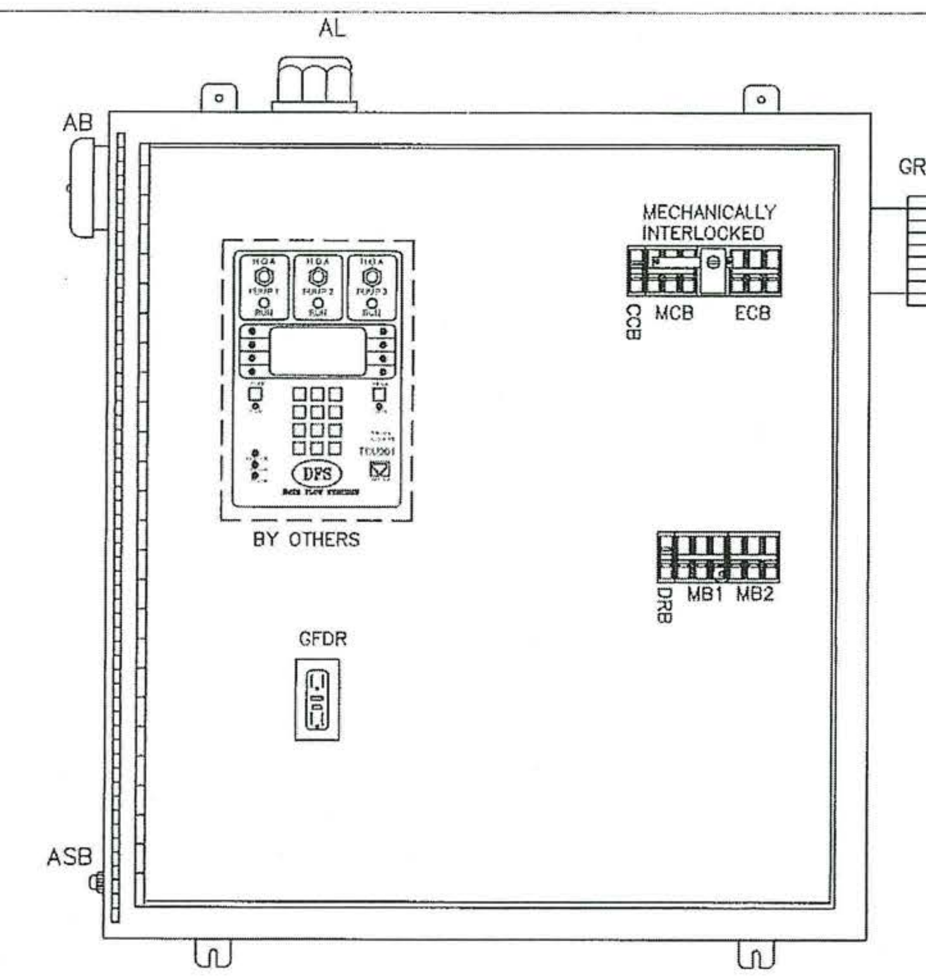
20-0002 - LS. #2 CONWAY AREA FORCEMAIN AND WATERMAIN REPLACEMENT

LS - DETAILS 2

SHEET 7 OF 15

BID SET



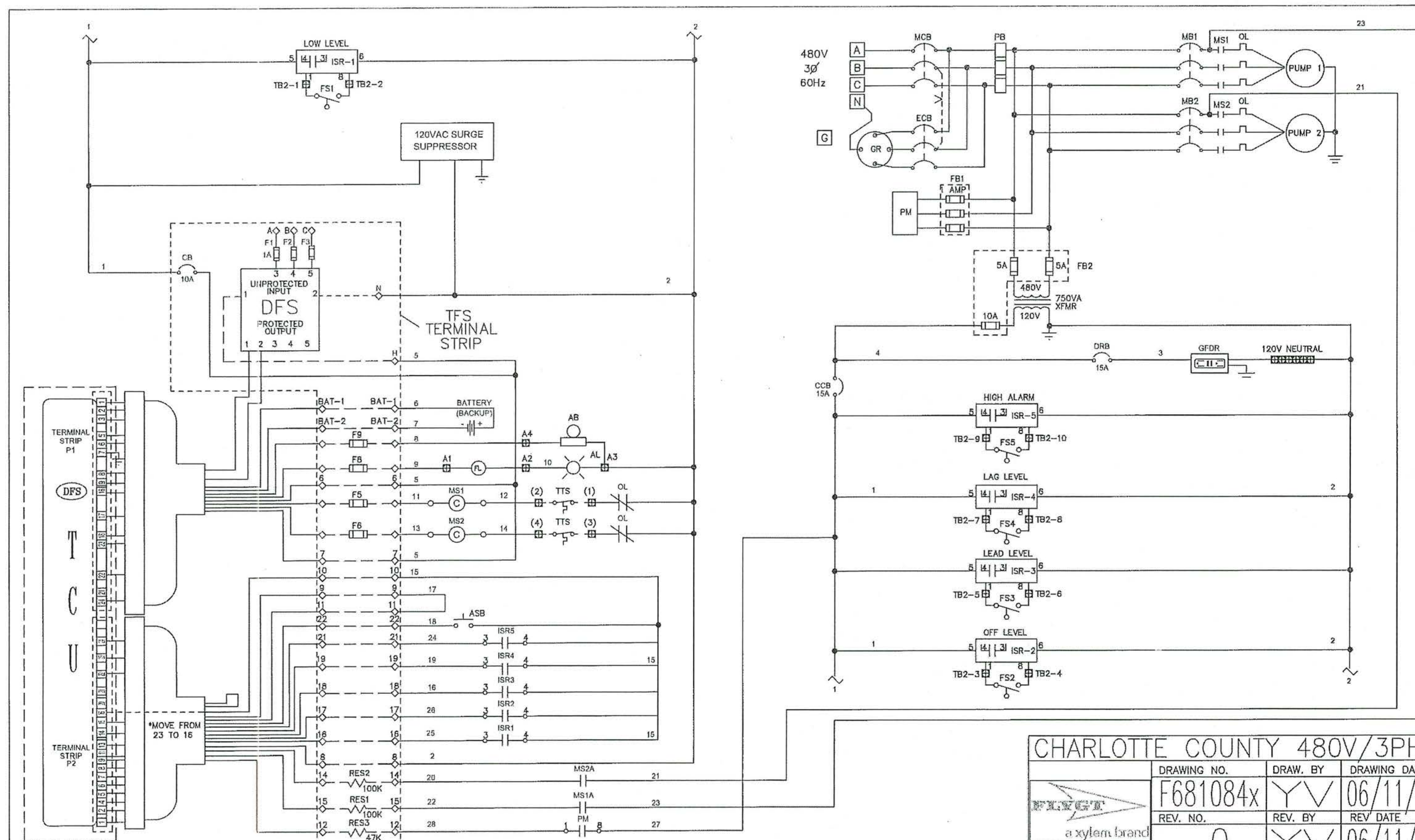


OUTER DOOR REMOVED TO SHOW DEADFRONT LAYOUT
NEMA TYPE 3R S.S. ENCLOSURE WITH CONT. HINGE
ALL HARDWARE TYPE 304 S.S.
TYPICAL, ACTUAL LAYOUT MAY VARY WITH HORSEPOWER

LEGEND

AL – ALARM LIGHT
CCB – CONTROL CIRCUIT BREAKER
DRB – DUPLEX RECEPTACLE BREAKER
F – FUSE
FB – FUSE BLOCK
FL – FLASHER
FR – FLOAT REGULATOR
GFDR – GROUND FAULT DUPLEX RECEPTACLE
GR – GENERATOR RECEPTACLE
MB – MOTOR BREAKER
MCB – MAIN CIRCUIT BREAKER/SERVICE DISCONNECT
MS – MOTOR STARTER
OL – OVERLOAD
PCU – PUMP CONTROL UNIT
SA – SURGE ARRESTOR
TB – TERMINAL BLOCK
TL – TROUBLE LIGHT (FLUORESCENT)
TTS – THERMAL TERMINAL STRIP

CHARLOTTE COUNTY 480V/3PH			
FLYGT a xylem brand	DRAWING NO.	DRAW. BY	DRAWING DATE
	F681084x	YV	06/11/12
	REV. NO.	REV. BY	REV DATE
	0	YV	06/11/12
			SHEET 2 OF 2



CHARLOTTE COUNTY 480V/3PH			
FLYGT a xylem brand	DRAWING NO.	DRAW. BY	DRAWING DATE
	F681084x	YV	06/11/12
	REV. NO.	REV. BY	REV DATE
	0	YV	06/11/12
			SHEET 1 OF 2

CHARLOTTE COUNTY FLORIDA

No.	DESCRIPTION	DATE	BY

DESIGNED BY: KS | DWN BY: DEC | CKD BY: BRB
DATE: 2019-12-11 | S-T-R S22,23,27-T40S-R22E | PROJECT NO. 20-0002 - LS. #2
DATUM: NAVD 1988 | SCALE: NTS | PLOT DATE: 2015-04-20 11:18 AM
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SIZE: 24" x 36" | FILE NUMBER 2019_CCU-FIELD TO FINISH.dwt

CHARLOTTE COUNTY UTILITIES
25550 HARBOR VIEW RD.
PORT CHARLOTTE FL 33980
PH: 941-764-4516
FAX: 941-764-4969

BRUCE R. BULLERT
LICENSE
No. 68658
STATE OF FLORIDA
PROFESSIONAL ENGINEER
DATE: 7/29/2020

20-0002 - LS. #2 DALTON AREA FORCE MAIN REPLACEMENT

LS - PANEL DETAILS

DWG: Z:\Auto Cad R14\CURRENT-PROJECTS_ACTIVE\2020\20-0002 Lift Station 2 Dalton Rehabilitation\CAD\Source Drawings\LS DETAILS\20-0002 LS Panel Details.dwg USER: cjohnd
DATE: Jul 24, 2020 12:58pm
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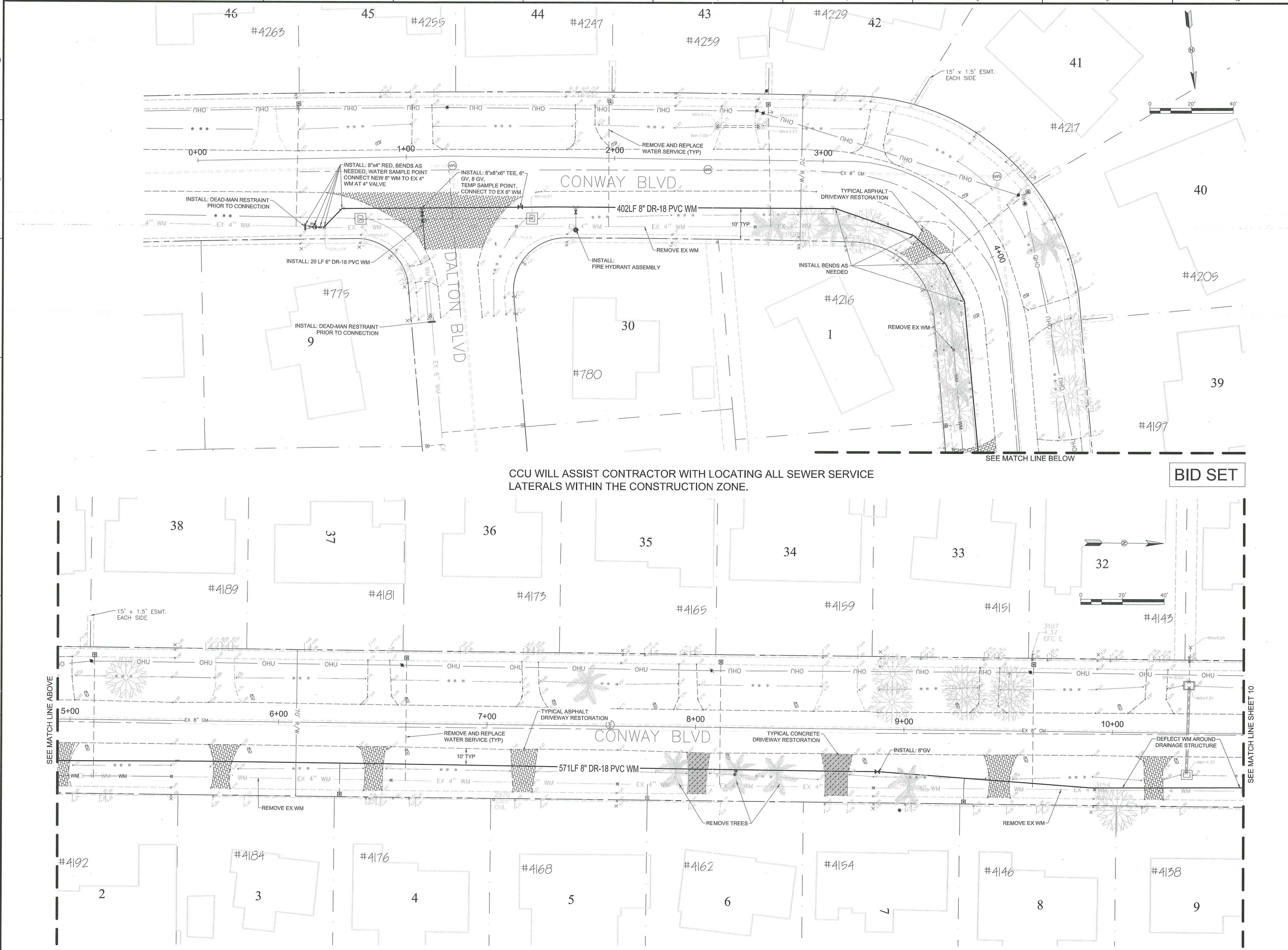

CHARLOTTE COUNTY
FLORIDA

NO.	DESCRIPTION	DATE	BY

DESIGNED BY: DEC
DWN BY: DEC
CKD BY: KS
DATE: 2020-07-27
S-T-R: S22,23,27-T40S-R22E
PROJECT NO. 20-0002 - LS. #2
DATUM: NAVD 1988
SCALE: 1" = 20'
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FILE LOCATION: Z:\Auto Cad\R:\14\CURRENT-PROJECTS_ACTIVE\2020\20-0002 Lift Station 2 Dalton Rehabilitation\CAD\Production Drawings_FM_WM
FILE NUMBER: 20-0002_FM_WM_Conway_V2.dwg
SIZE: ARCH full bleed D (36.00 x 24.00 Inches)

CHARLOTTE COUNTY UTILITIES
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FAX: 941-764-4969

BRUCE R. BULLERT
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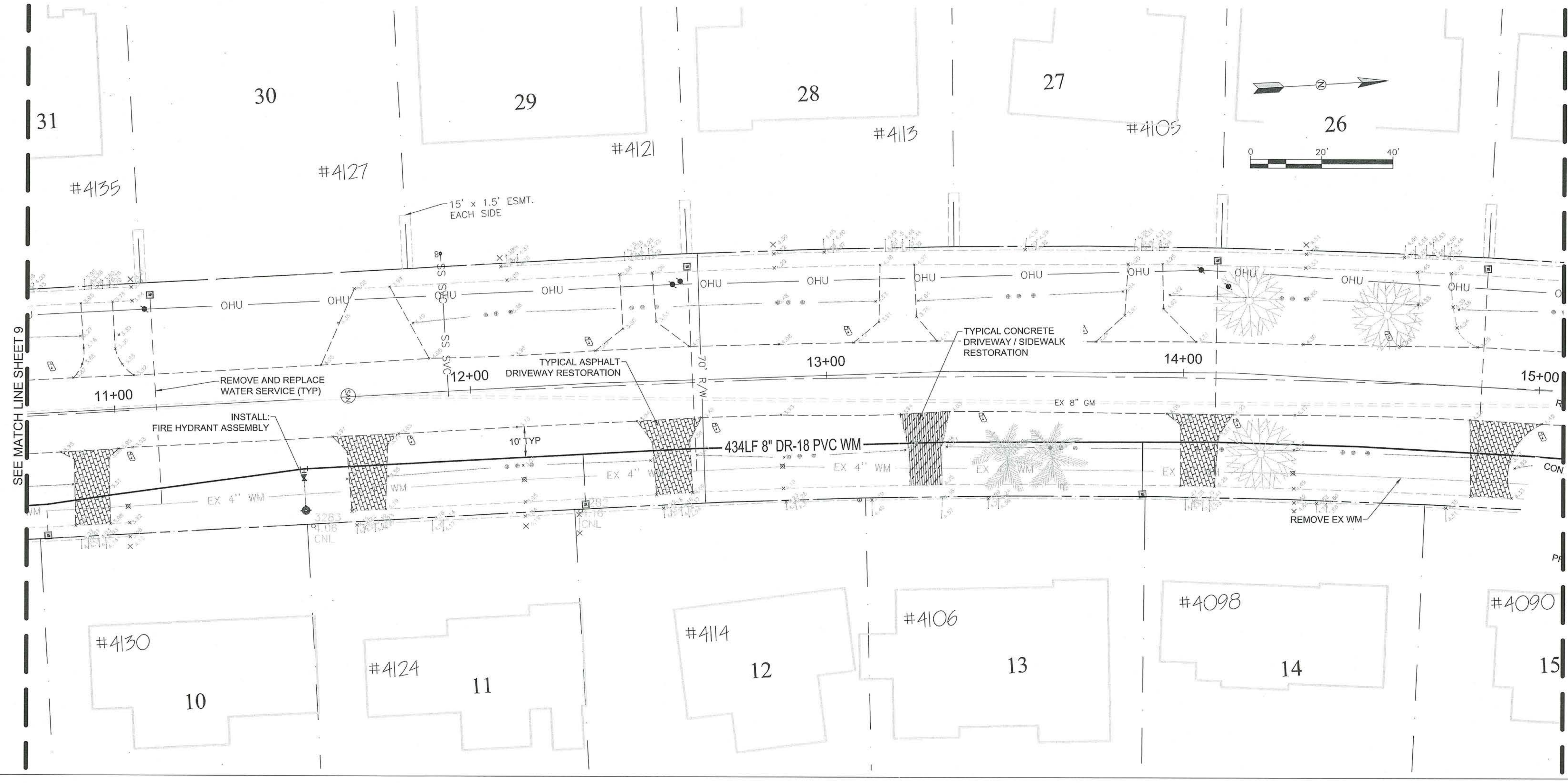
No. 68658
STATE OF FLORIDA
PROFESSIONAL ENGINEER
7/29/2020
DATE: 7/29/2020

20-0002 - L.S. #2 CONWAY AREA FORCEMAIN AND WATERMAIN REPLACEMENT

WATER MAIN PLAN 1



CCU WILL ASSIST CONTRACTOR WITH LOCATING ALL SEWER SERVICE LATERALS WITHIN THE CONSTRUCTION ZONE.

BID SET

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CHARLOTTE COUNTY FLORIDA

NO.	DESCRIPTION	DATE	BY

DESIGNED BY: DEC | DWN BY: DEC | CKD BY: KS

DATE: 2020-07-27 | S-T-R: S22,23,27-T40S-R22E | PROJECT NO. 20-0002 - LS. #2

CHARLOTTE COUNTY UTILITIES
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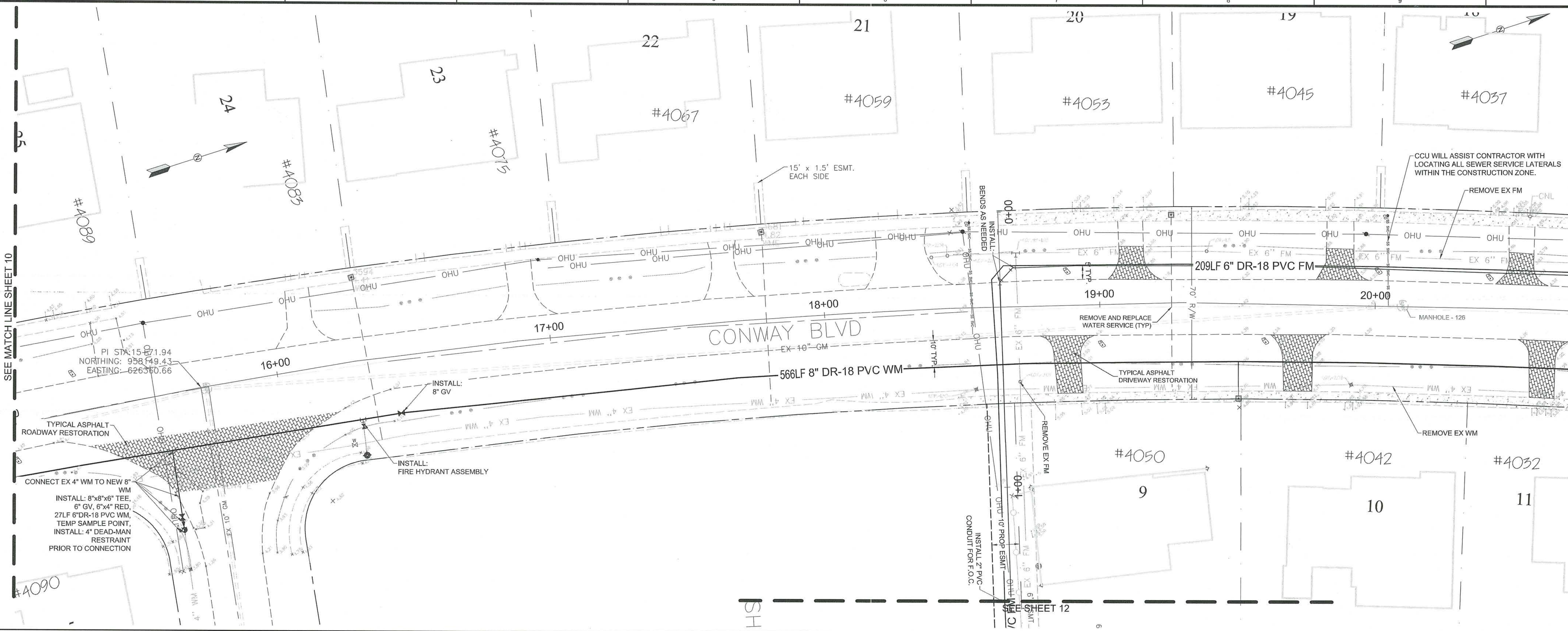
BRUCE R. BULLERT LICENSE No. 68658 STATE OF FLORIDA PROFESSIONAL ENGINEER

DATE: 7/29/2020

20-0002 - LS. #2 CONWAY AREA FORCEMAIN AND WATERMAIN REPLACEMENT

PLAN AND PROFILE



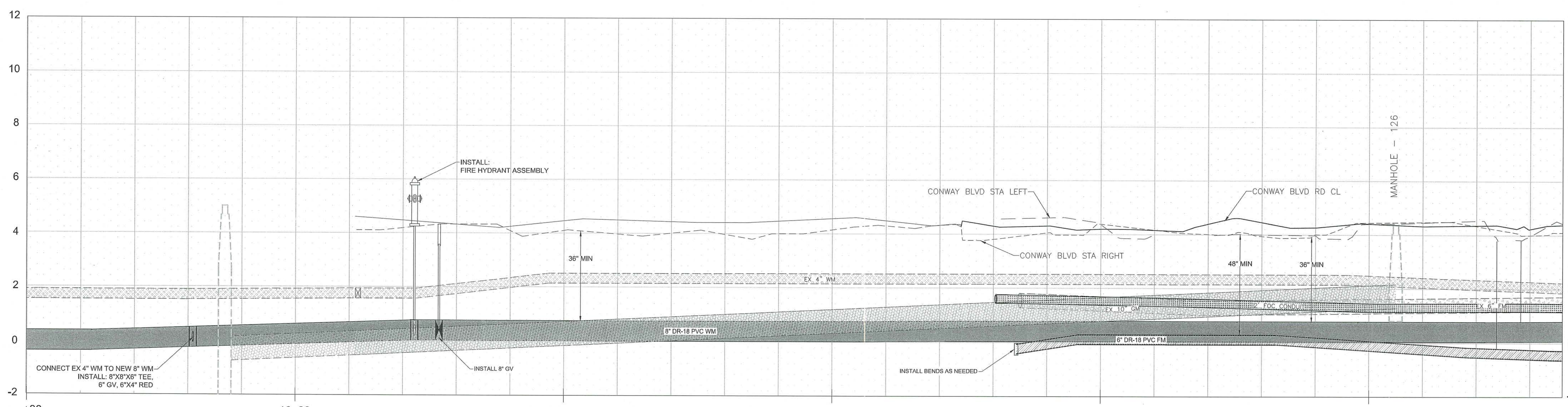
HOR. SCALE IN FEET 1" = 20'

VERT. SCALE IN FEET 1" = 2'

CCU WILL ASSIST CONTRACTOR WITH LOCATING ALL SEWER SERVICE LATERALS WITHIN THE CONSTRUCTION ZONE.

BID SET

CONWAY BLVD PROFILE- STA: 15+00 to 20+72



CHARLOTTE COUNTY FLORIDA

DESIGNED BY: DEC	DWN BY: DEC	CKD BY: KS
DATE: 2020-07-27	S-T-R S22,23,27-T40S-R22E	PROJECT NO. 20-0002 - LS. #2
DATUM: NAVD 1988	SCALE: 1" = 20'	PLOT DATE: 2020-07-27 9:47 AM

SIZE: ARCH full bleed D (36.00 x 24.00)

FILE NUMBER: 20-0002_FM_WM_Conway.V2.dwg

CHARLOTTE COUNTY UTILITIES
25550 HARBOR VIEW RD.
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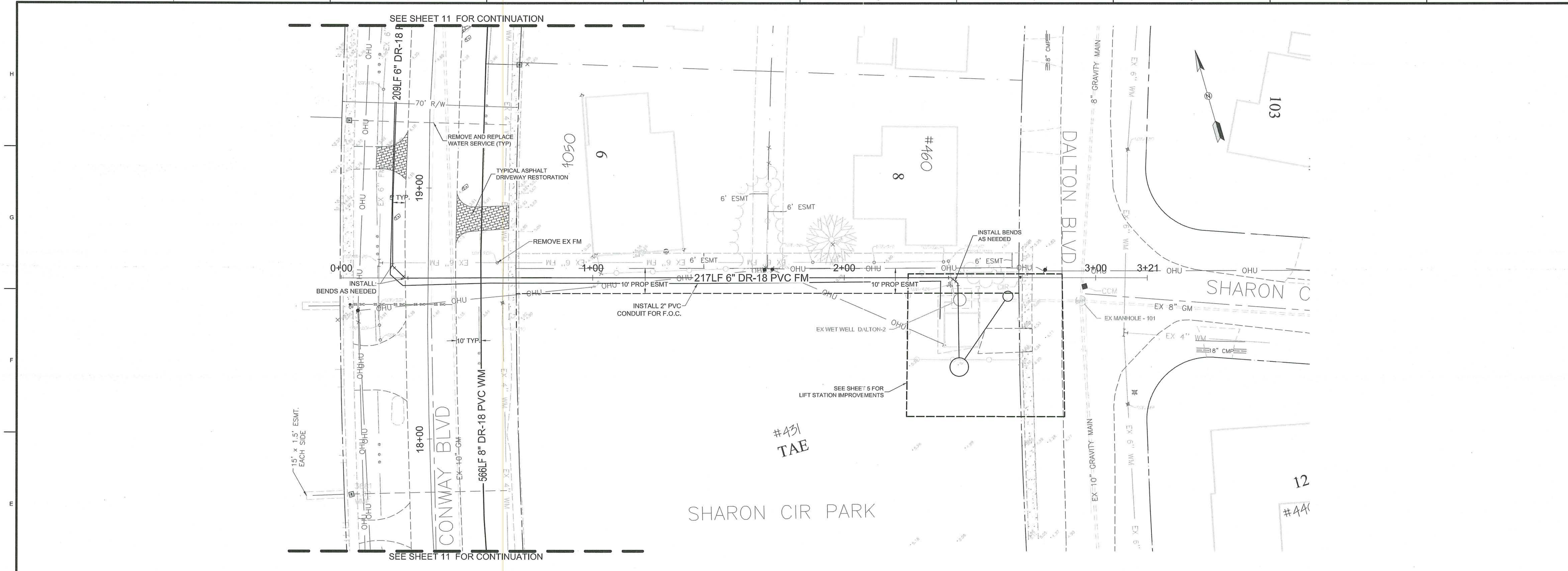
DATE: 7/29/2020

20-0002 - LS. #2 CONWAY AREA FORCEMAIN AND WATERMAIN REPLACEMENT

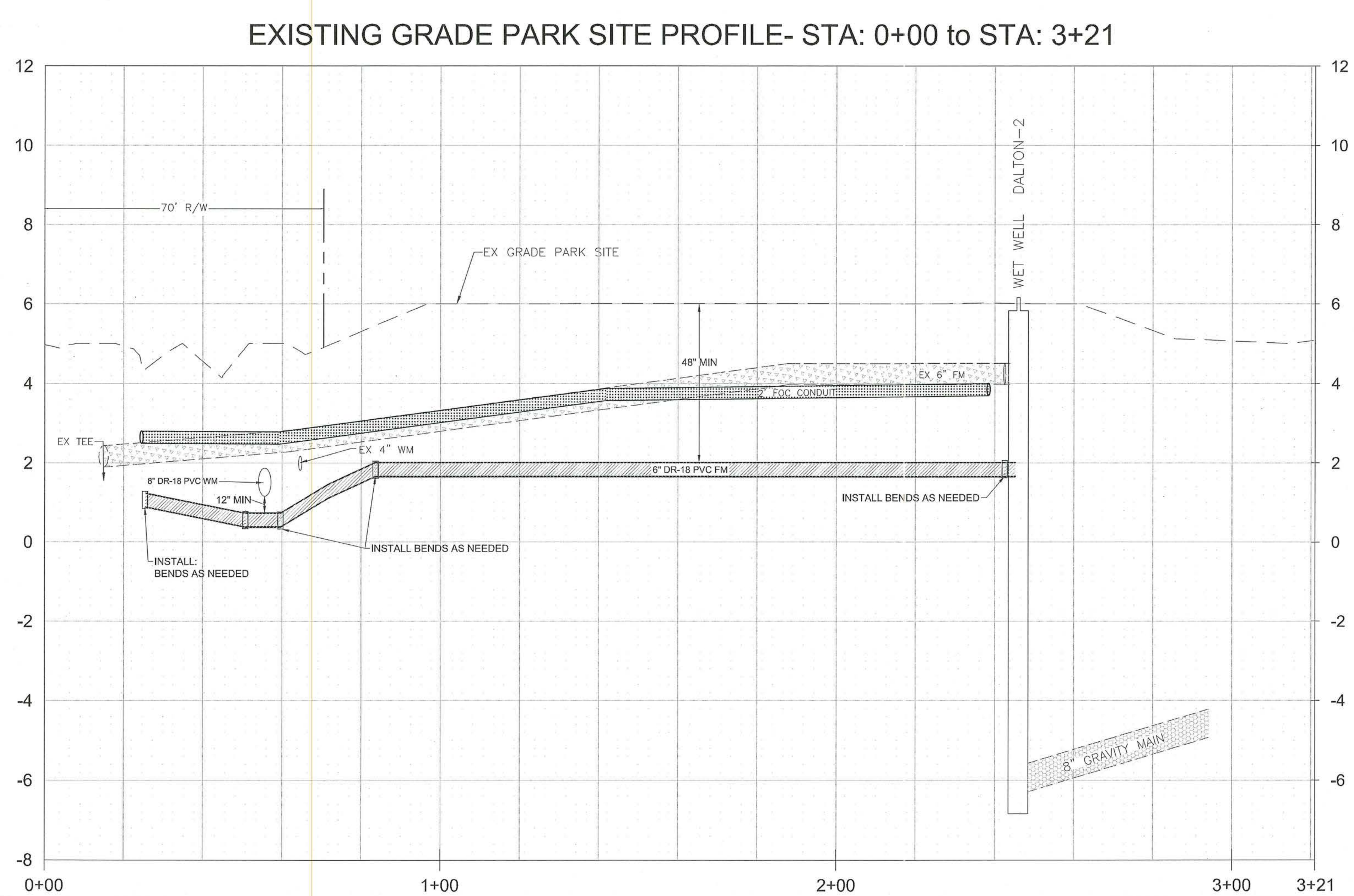
PLAN AND PROFILE

SHEET 11 OF 15



BID SET

EXISTING GRADE PARK SITE PROFILE- STA: 0+00 to STA: 3+21



HOR. SCALE IN FEET 1" = 20' (0, 20, 50, 100)

VERT. SCALE IN FEET 1" = 2' (0, 2, 5, 10)

CCU WILL ASSIST CONTRACTOR WITH LOCATING ALL SEWER SERVICE LATERALS WITHIN THE CONSTRUCTION ZONE.

CHARLOTTE COUNTY FLORIDA

No.	DESCRIPTION	DATE	BY

DESIGNED BY: KS | DWN BY: DEC | CKD BY: BRB
DATE: 2020-07-27 | S-T-R: S22,23,27-T40S-R22E | PROJECT NO. 20-0002 - LS. #2
DATUM: NAVD 1988 | SCALE: 1" = 20' | PLOT DATE: 2020-07-27 8:47 AM

CHARLOTTE COUNTY UTILITIES
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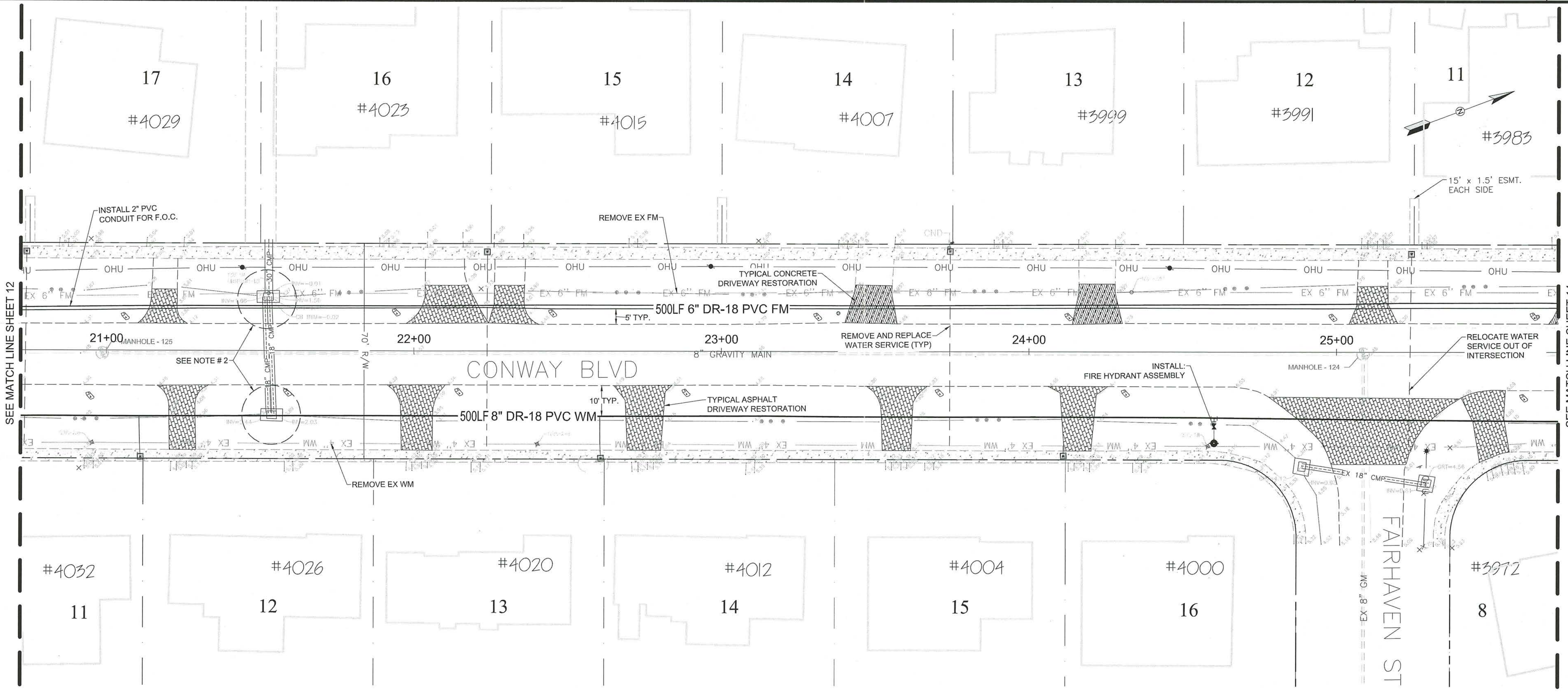
DATE: 7/29/2020

20-0002 - LS. #2 CONWAY AREA FORCEMAIN AND WATERMAIN REPLACEMENT

PLAN AND PROFILE

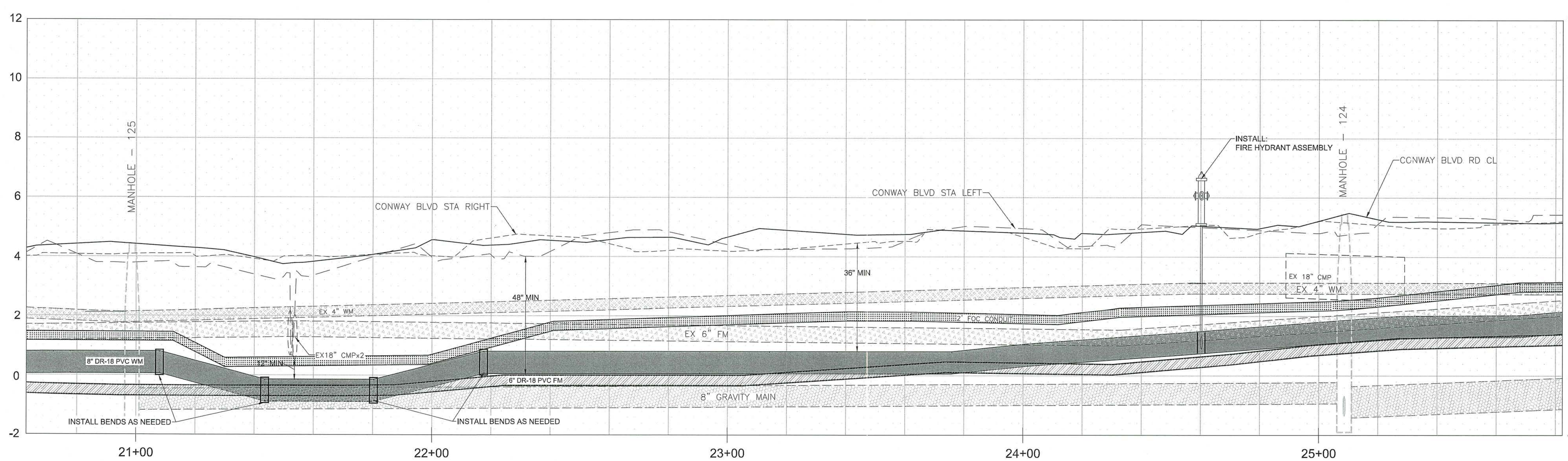


HOR. SCALE IN FEET
1" = 20'
0 20 50 100
0 2 5 10
VERT. SCALE IN FEET
1" = 2'

BID SET

CCU WILL ASSIST CONTRACTOR WITH LOCATING ALL SEWER SERVICE LATERALS WITHIN THE CONSTRUCTION ZONE.

CONWAY BLVD PROFILE- STA: 20+72 to 25+71



CHARLOTTE COUNTY
FLORIDA

No.	DESCRIPTION	DATE	BY

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DATE: 2020-07-27 | S-T-R S22,23,27-T40S-R22E | PROJECT NO. 20-0002 - LS #2
DATUM: NAVD 1988 | SCALE: 1" = 20' | PLOT DATE: 2020-07-27 9:47 AM

CHARLOTTE COUNTY UTILITIES
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BRUCE R. BULLERT
LICENSE No. 68658
STATE OF FLORIDA
PROFESSIONAL ENGINEER
DATE: 7/29/2020

20-0002 - LS. #2 CONWAY AREA FORCEMAIN AND WATERMAIN REPLACEMENT
PLAN AND PROFILE

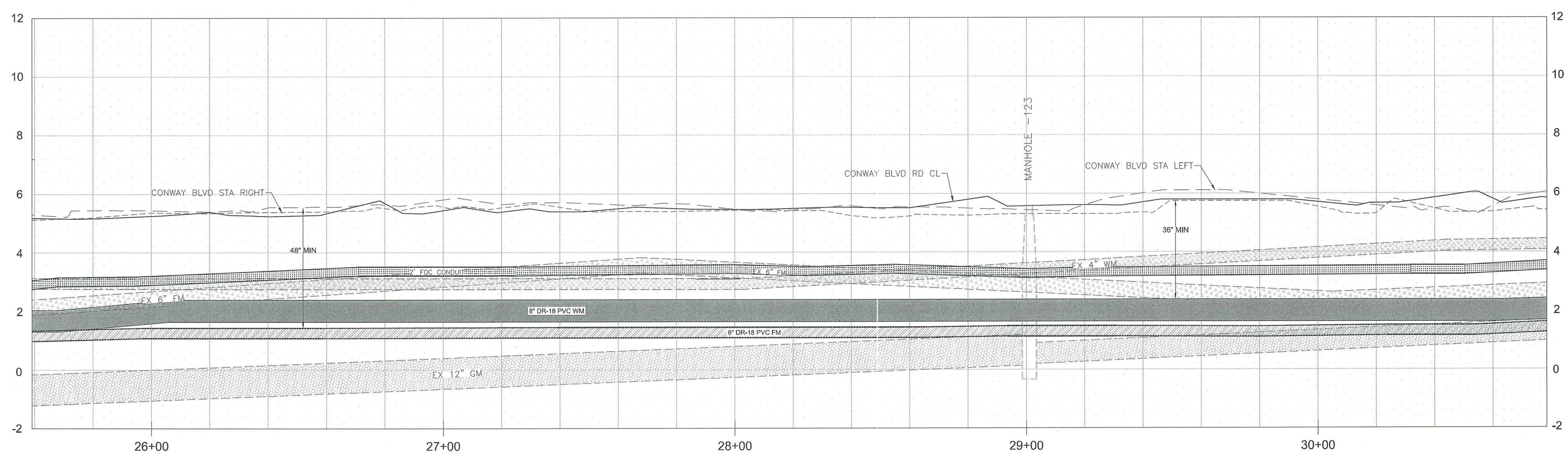
HOR. SCALE IN FEET
1" = 20'
0 20 50 100

0 2 5 10
VERT. SCALE IN FEET
1" = 2'

BID SET

CCU WILL ASSIST CONTRACTOR WITH LOCATING ALL SEWER SERVICE LATERALS WITHIN THE CONSTRUCTION ZONE.

CONWAY BLVD PROFILE- STA: 25+71 to 30+75



CHARLOTTE COUNTY
FLORIDA

No.	DESCRIPTION	DATE	BY

DESIGNED BY: DEC | DWN BY: DEC | CKD BY: KS
DATE: 2020-07-27 | S-T-R: S22,23,27-T40S-R22E | PROJECT NO. 20-0002 - LS #2
DATUM: NAVD 1988 | SCALE: 1" = 20' | PLOT DATE: 2020-07-27 9:47 AM
FILE LOCATION: Z:\Auto Cad\...\20-0002 Lift Station 2 Dalton
FILE NUMBER 20-0002_FM_WM_Conway_V2.dwg
SIZE: ARCH full bleed D (36.00 x 24.00 inches)

CHARLOTTE COUNTY UTILITIES
25550 HARBOR VIEW RD.
PORT CHARLOTTE FL 33980
PH:941-764-4516
FAX: 941-764-4969

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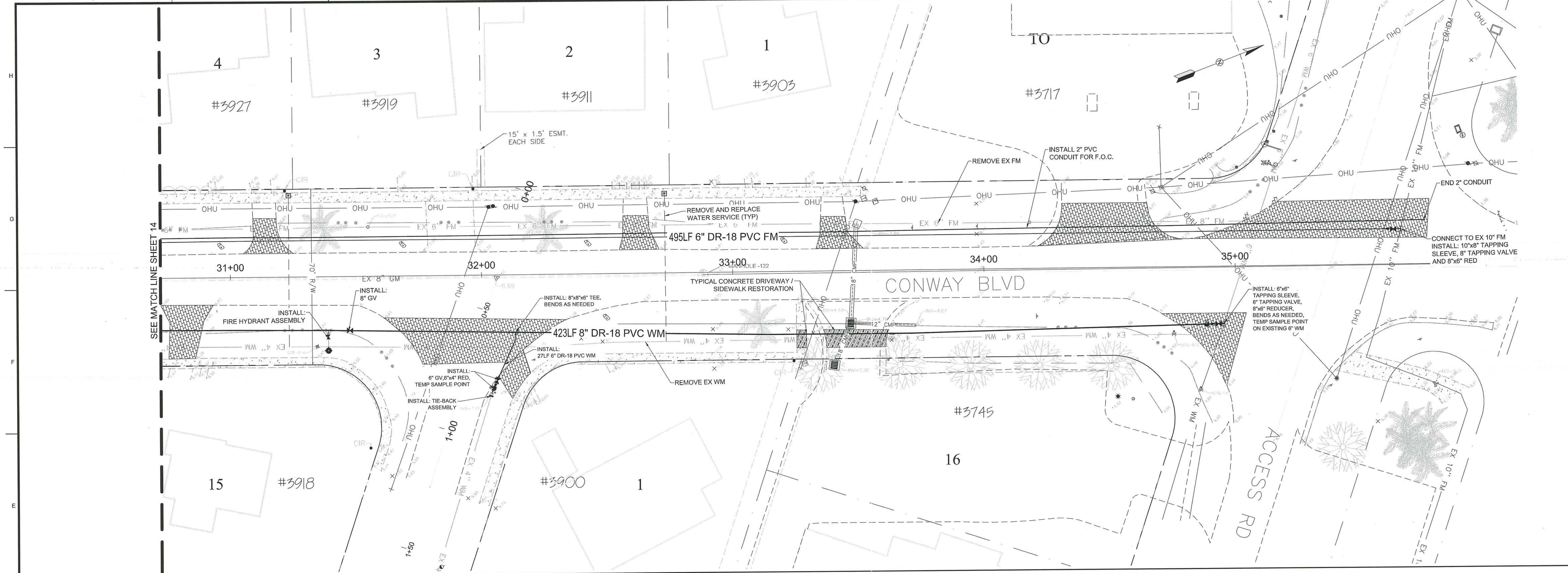
PROFESSIONAL ENGINEER
7/29/2020

DATE: 7/29/2020

20-0002 - LS. #2 CONWAY AREA FORCEMAIN AND WATERMAIN REPLACEMENT

PLAN AND PROFILE



HOR. SCALE IN FEET
1" = 20'

0 20 50 100

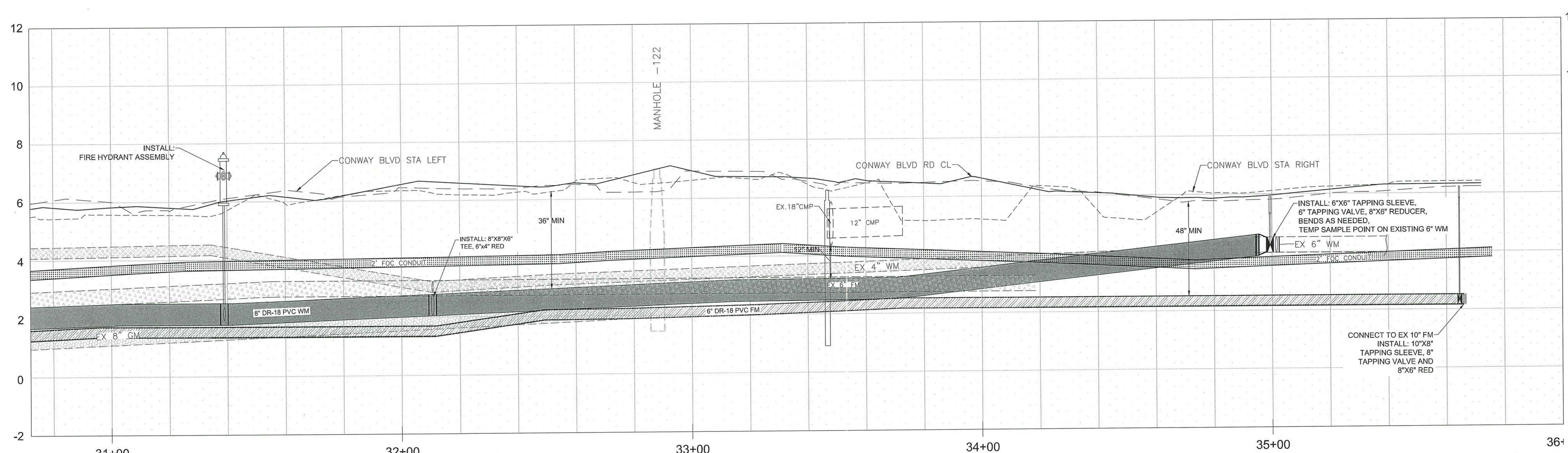
0 2 5 10

VERT. SCALE IN FEET
1" = 2'

BID SET

CCU WILL ASSIST CONTRACTOR WITH LOCATING ALL SEWER SERVICE LATERALS WITHIN THE CONSTRUCTION ZONE.

CONWAY BLVD PROFILE- STA: 30+75 to 36+12



CHARLOTTE COUNTY
FLORIDA

No.	DESCRIPTION	DATE	BY

DESIGNED BY: DEC | DWN BY: DEC | CKD BY: KS

DATE: 2020-07-27 | S-T-R S22,23,27-T40S-R22E | PROJECT NO. 20-0002 - LS. #2

DATUM: NAVD 1988 | SCALE: 1" = 20' | PLOT DATE: 2020-07-27 9:47 AM

FILE LOCATION: Z:\Auto Cad R14\CURRENT PROJECTS_ACTIVE\2020\20-0002 Lift Station 2 Dalton Rehabilitation\CAD\Production Drawings_FM_WM

FILE NUMBER: 20-0002_FM_WM_Conway_V2.dwg

SIZE: ARCH full bleed D (36.00 x 24.00 Inches)

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PLAN AND PROFILE