

MANATEE COUNTY UTILITIES DEPARTMENT

LENA ROAD LANDFILL

STAGE II PHASE II GCCS EXPANSION

CONSTRUCTION DRAWINGS

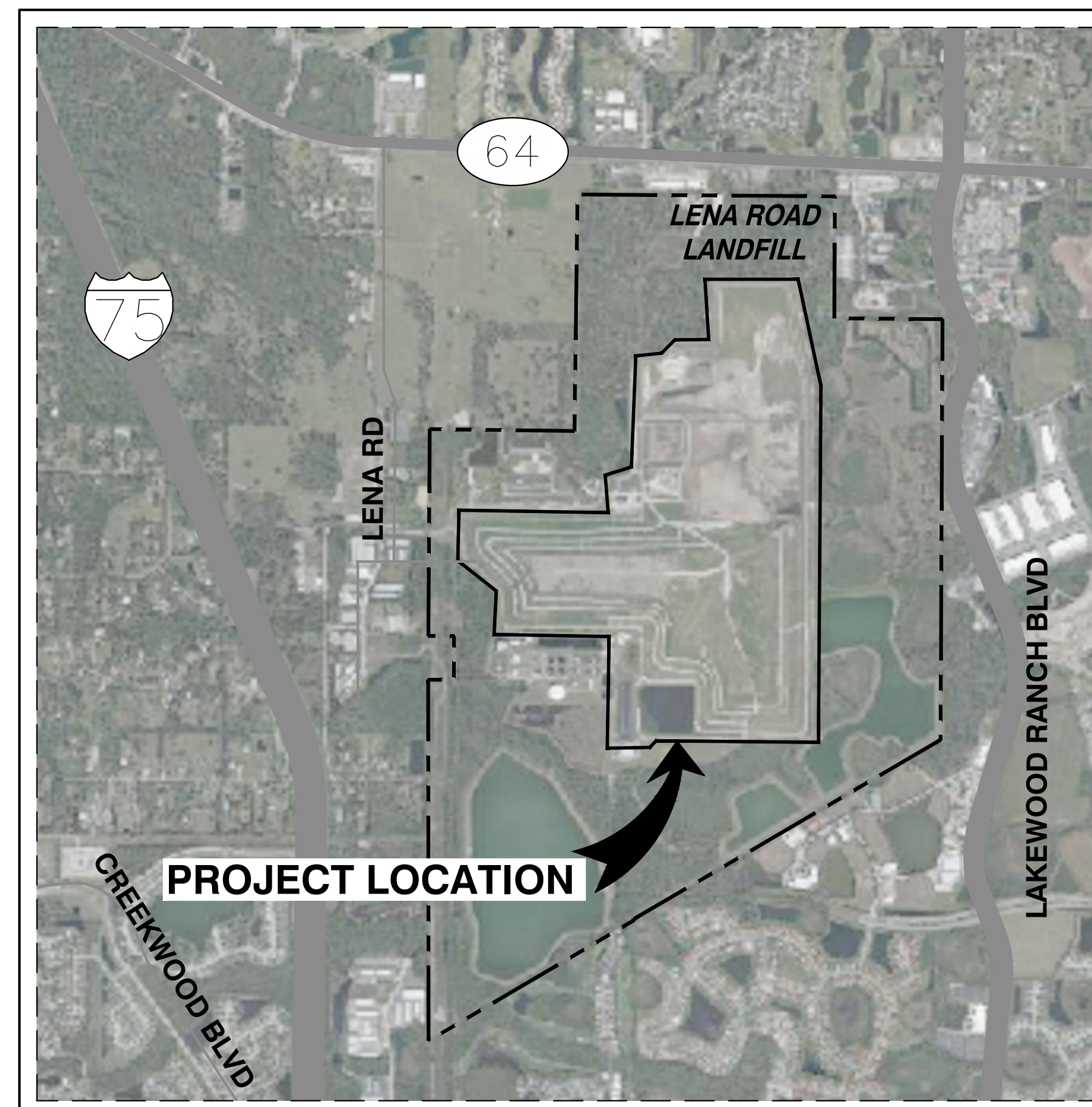
MANATEE COUNTY, FLORIDA

OCTOBER 2022



MANATEE COUNTY BOARD OF COUNTY COMMISSIONERS

JAMES SATCHER	DISTRICT 1
REGGIE BELLAMY	DISTRICT 2
KEVIN VAN OSTENBRIDGE	DISTRICT 3
MISTY SERVIA	DISTRICT 4
VANESSA BAUGH	DISTRICT 5
CAROL WHITMORE	AT LARGE
GEORGE KRUSE	AT LARGE



1500 0 1500 3000
SCALE FEET

LOCATION MAP

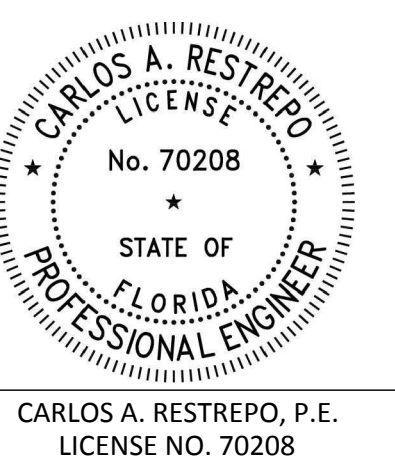
SCS ENGINEERS
 STEARNS, CONRAD AND SCHMIDT
 CONSULTING ENGINEERS, INC.
 3922 COCONUT PALM DRIVE, SUITE 102
 TAMPA, FL 33619
 PH. (813) 621-0080 FAX. (813) 623-6757
 FIRM REGISTRATION RY 4892
 WWW.SCSENGINEERS.COM
 SCS PROJECT NO. 09217088.27

INDEX OF DRAWINGS

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WHEN DRAWINGS ARE REDUCED IN SIZE FROM ORIGINAL 24" X 36", SCALING WILL NOT BE ACCURATE.

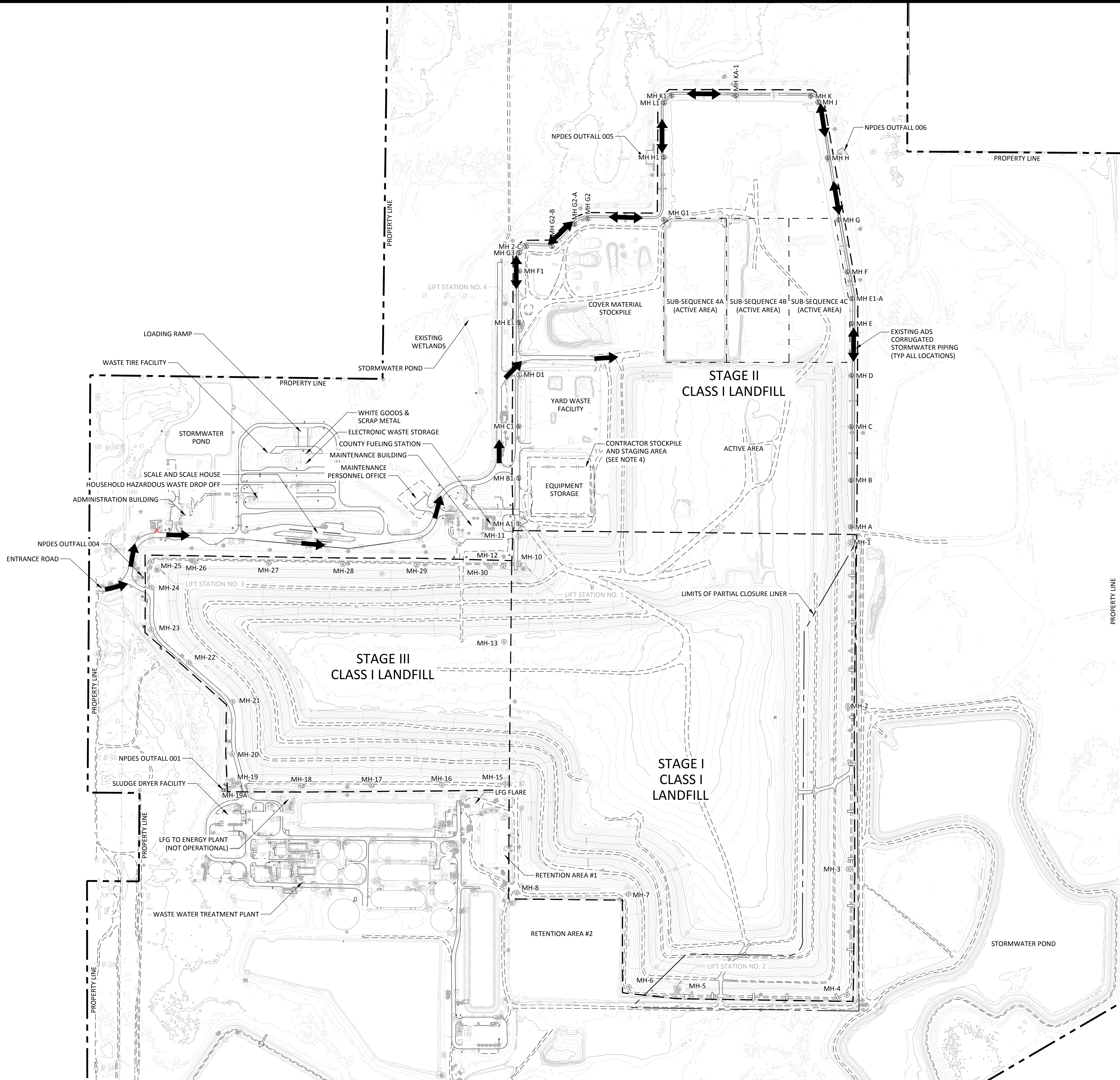
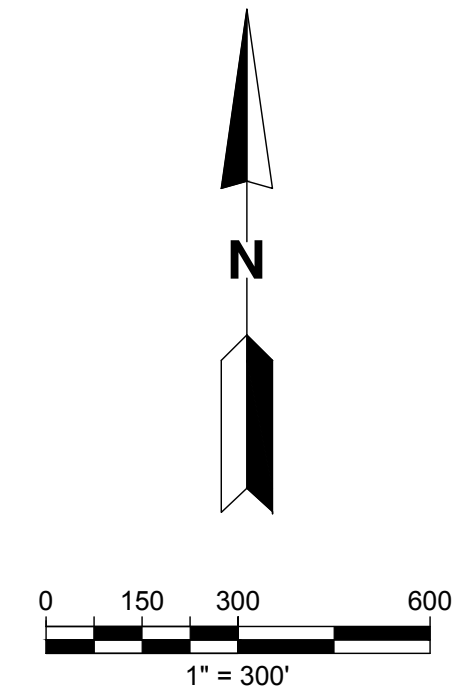
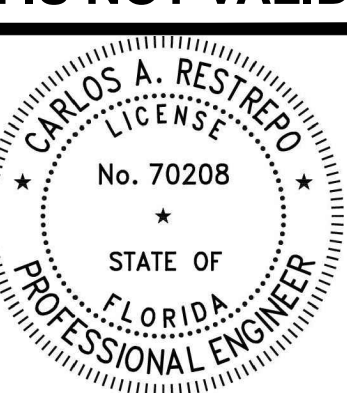


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CARLOS A. RESTREPO, P.E.
 LICENSE NO. 70208

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- NOTES:**
1. TOPOGRAPHIC SURVEY FROM AERIAL PHOTOGRAPHY PERFORMED BY PICKETT AND ASSOCIATES, DATED JANUARY 2022.
 2. GAS COLLECTION SYSTEM NOT SHOWN FOR CLARITY, REFER TO SET FOR ADDITIONAL INFORMATION.
 3. WASTE FILLING OPERATIONS CURRENTLY CONDUCTED WITHIN SUB-SEQUENCE 4C.
 4. CONTRACTOR TO COORDINATE WITH COUNTY PRIOR TO STAGING/STORING MATERIALS IN THIS AREA.

- LEGEND**
- PROPERTY LINE
 - - - SUBCELL BOUNDARY LINE
 - - - SLURRY WALL
 - ⊙ MH-# LEACHATE MANHOLES
 - CONSTRUCTION TRAFFIC ROUTE
 - - - PARTIAL CLOSURE LINER
 - - - STAGING AREA

CHK. BY	DESCRIPTION	DATE	REV
			1
			2
			3
			4

SHEET TITLE
OVERALL SITE PLAN

PROJECT TITLE
LENA ROAD LANDFILL
STAGE II PHASE II GCCS EXPANSION
CONSTRUCTION DRAWINGS

CLIENT
MANATEE COUNTY
UTILITIES DEPARTMENT
4410 66TH STREET WEST
BRADENTON, FLORIDA 34210

SCS ENGINEERS
STEARNS, CONRAD AND SCHMIDT
CONSULTING ENGINEERS
3922 COCONUT PALM DRIVE, SUITE 102, TAMPA, FL 33619
PH (813) 821-0080 FAX NO. (813) 623-6757
FLORIDA FIRM REGISTRATION RY-4892

PROJ. NO. 09217088.27
DWN. BY: KAC
CHK. BY: LAA
DATE: 09/17/2022

Q/A REVIEW BY: CAR
APP. BY: CAR

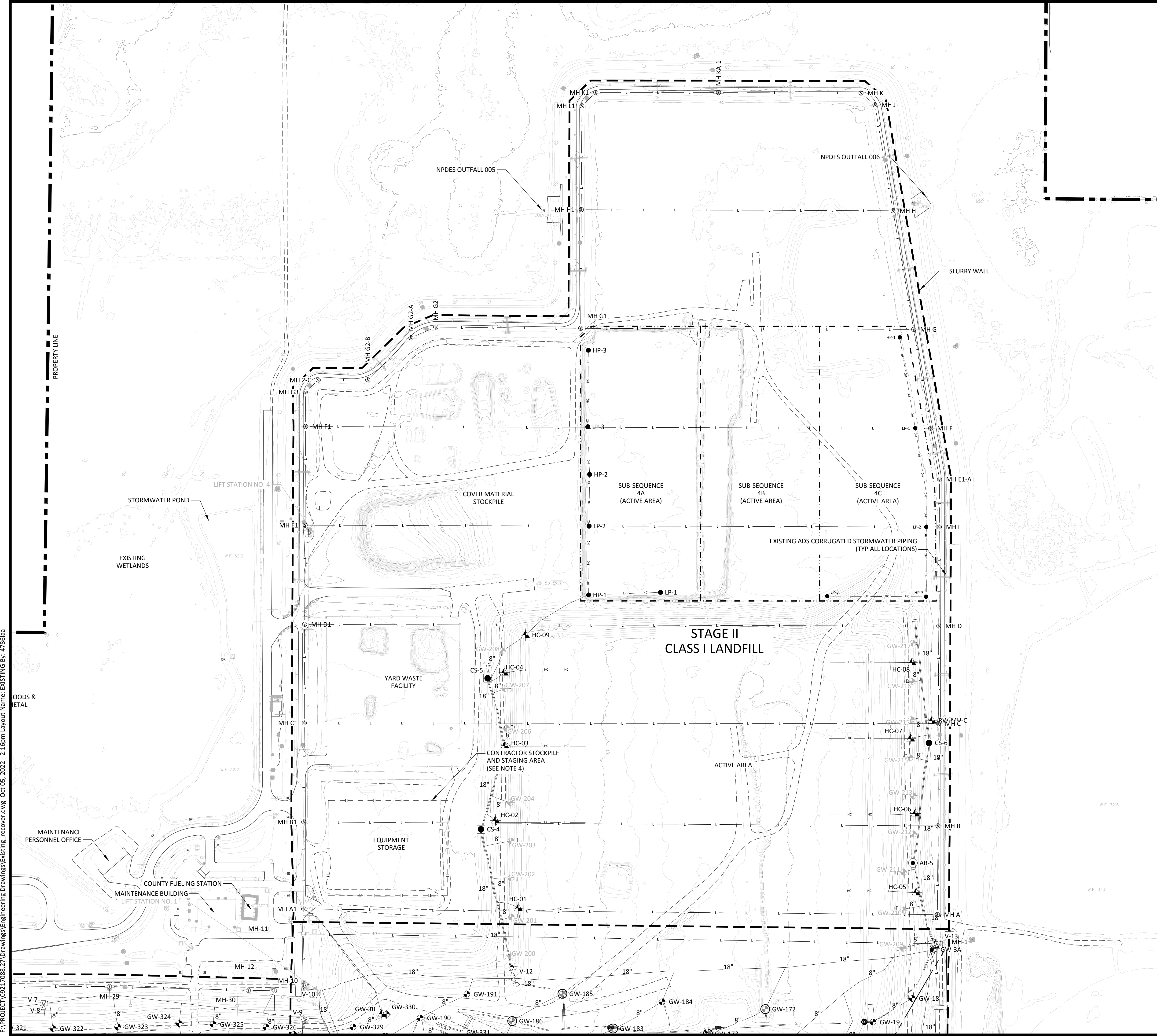
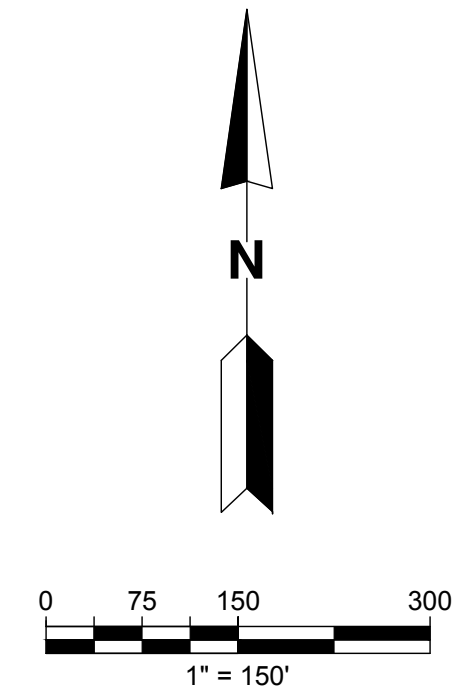
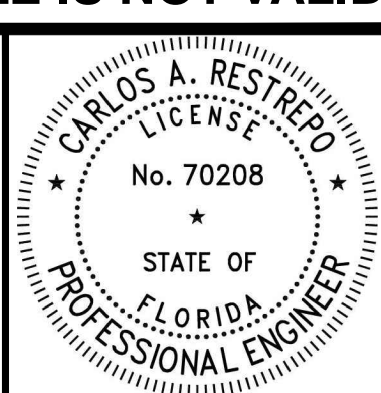
CADD FILE:

DATE:
OCTOBER 2022

DRAWING NO.

2
SHEET 2 of 15

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NOTES:

1. TOPOGRAPHIC SURVEY FROM AERIAL PHOTOGRAPHY PERFORMED BY PICKETT AND ASSOCIATES, DATED JANUARY 2022.
2. AS-BUILT STAGE I GAS SYSTEM INFORMATION PROVIDED BY PBS&J DRAWING ENTITLED: "RECORD DRAWINGS, STAGE III PHASE II LANDFILL GAS COLLECTION SYSTEM, DECEMBER 5, 2011" AND "AS-BUILT SURVEY FOR LENA ROAD - STAGE III LANDFILL GAS COLLECTION SYSTEM, MARCH 16, 2009" BY SURVTECH SOLUTIONS.
3. AS-BUILT STAGE III GAS SYSTEM INFORMATION PROVIDED BY HYATT SURVEY SERVICES DRAWING ENTITLED: "AS-BUILT SURVEY 2018 PHASE III GCCS EXPANSION STAGE III", DATED AUGUST 14, 2018.
4. STAGE II HORIZONTAL COLLECTORS INSTALLED DURING OCTOBER 2019 HORIZONTAL COLLECTOR GCCS EXPANSION.
5. STAGE II, SUBSEQUENCE 4A HORIZONTAL COLLECTOR BY HYATT SURVEY SERVICES, INC. ON APRIL 21, 2022.
6. STAGE II, SUBSEQUENCE 4C HORIZONTAL COLLECTOR BY HYATT SURVEY SERVICES, INC.

LEGEND

- PROPERTY LINE PROPERTY LINE
- SUBCELL BOUNDARY LINE
- SLURRY WALL
- EXISTING LEACHATE COLLECTION PIPE
- EXISTING BELOW GRADE HEADER/LATERAL PIPE
- EXISTING AIR SUPPLY LINE
- EXISTING CONDENSATE (DISCHARGE) LINE
- PARTIAL CLOSURE LINE
- EXISTING HORIZONTAL COLLECTOR PERFORATED PIPE
- EXISTING BLIND FLANGE
- EXISTING VERTICAL EXTRACTION WELL
- EXISTING VERTICAL EXTRACTION WELL WITH PUMP
- EXISTING HORIZONTAL COLLECTOR WELL
- EXISTING HEADER ISOLATION VALVE
- EXISTING AIR LINE ISOLATION VALVE
- EXISTING CONDENSATE (DISCHARGE) LINE ISOLATION VALVE
- EXISTING DUAL CONDENSATE (DISCHARGE) LINE CLEANOUT
- EXISTING SINGLE CONDENSATE (DISCHARGE) LINE CLEANOUT
- EXISTING LEACHATE MANHOLE
- EXISTING CONDENSATE SUMP
- EXISTING VACUUM ACCESS RISER
- EXISTING ROAD CROSSING
- EXISTING HIGH POINT/LOW POINT OF HORIZONTAL COLLECTOR PIPE

CHK. BY	DESCRIPTION	DATE	REV

SHEET TITLE
EXISTING GCCS SITE PLAN

PROJECT TITLE
LENA ROAD LANDFILL
STAGE II PHASE II GCCS EXPANSION
CONSTRUCTION DRAWINGS

MANATEE COUNTY UTILITIES DEPARTMENT
4410 66TH STREET WEST
BRADENTON, FLORIDA 34210

SCS ENGINEERS
STEARNS, CONRAD AND SCHMIDT
CONSULTING ENGINEERS
3922 COCONUT PALM DRIVE, SUITE 102, TAMPA, FL 33619
PH (813) 821-0080 FAX NO. (813) 625-6757
FLORIDA FIRM REGISTRATION RY-4892

DATE: OCTOBER 2022

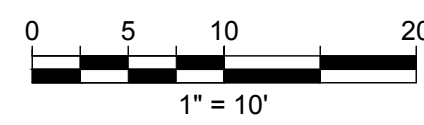
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DATE: OCTOBER 2022

DRAWING NO. **3**

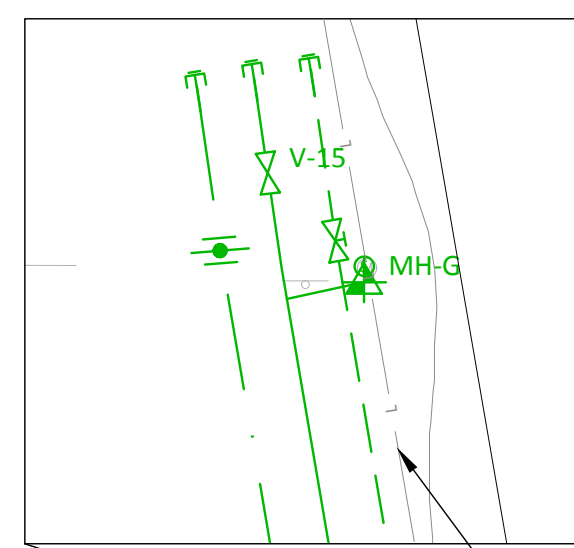
SHEET **3** of **15**

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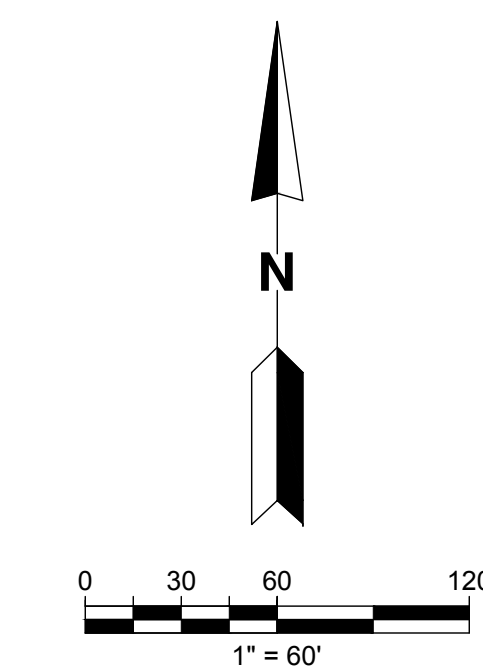
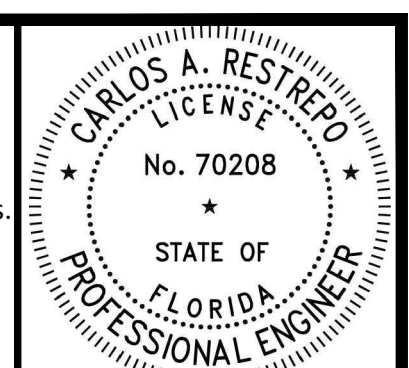


NOTES:

1. DEWATERING, AIR, AND HEADER ISOLATION VALVES SPREAD APART FOR CLARITY PURPOSES ONLY.



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NOTES:

1. TOPOGRAPHIC SURVEY FROM AERIAL PHOTOGRAPHY PERFORMED BY PICKETT AND ASSOCIATES, DATED JANUARY 2022.
2. AS-BUILT STAGE I GAS SYSTEM INFORMATION PROVIDED BY PBS&J DRAWING ENTITLED: "RECORD DRAWINGS, STAGE III PHASE II LANDFILL GAS COLLECTION SYSTEM, DECEMBER 5, 2011" AND "AS-BUILT SURVEY FOR LENA ROAD - STAGE III LANDFILL GAS COLLECTION SYSTEM, MARCH 16, 2009" BY SURYTECH SOLUTIONS.
3. AS-BUILT STAGE III GAS SYSTEM INFORMATION PROVIDED BY HYATT SURVEY SERVICES DRAWING ENTITLED: "AS-BUILT SURVEY 2018 PHASE III GCCS EXPANSION STAGE III", DATED AUGUST 14, 2018.
4. STAGE II HORIZONTAL COLLECTORS INSTALLED DURING OCTOBER 2019 HORIZONTAL COLLECTOR GCCS EXPANSION.
5. CONTRACTOR TO FIELD VERIFY PROPOSED ALIGNMENT OF 18-INCH HEADER PIPE AND LOCATION OF ALL NEW FEATURES PRECONSTRUCTION SURVEY TO IDENTIFY ALL CONFLICTS IN ORDER FOR ENGINEER TO DETERMINE LAYOUT ADJUSTMENTS.
6. NEW 18-INCH HEADER PIPE TO BE LOCATED ALONG THE OUTER SLOPE OF THE PERIMETER STORMWATER SWALE EXERCISE CAUTION WITH ALL ABOVE/BELOW FEATURES. MAINTAIN A MINIMUM SEPERATION OF 3 FEET FROM CONCRETE MANHOLES AND PROTECT DURING EXCAVATION
7. NEW 18-INCH HEADER PIPE TO BE LOCATED BELOW ALL EXISTING STORMWATER PIPES. STORMWATER PIPE INVERT ELEVATIONS SHALL BE MAINTAINED.

CHK. BY	DESCRIPTION	DATE	REV

SHEET TITLE **PROPOSED STAGE II PHASE II GCCS EXPANSION SITE PLAN-1**
 PROJECT TITLE **LENA ROAD LANDFILL STAGE II PHASE II GCCS EXPANSION CONSTRUCTION DRAWINGS**

CLIENT **MANATEE COUNTY UTILITIES DEPARTMENT 4410 66TH STREET WEST BRADENTON, FLORIDA 34210**

CLIENT **SCS ENGINEERS STEARNS, CONRAD AND SCHMIDT CONSULTING ENGINEERS 3922 COCONUT PALM DRIVE, SUITE 102, TAMPA, FL 33619 PH (813) 821-0080 FAX NO. (813) 625-6757 FLORIDA FIRM REGISTRATION RY-4892**

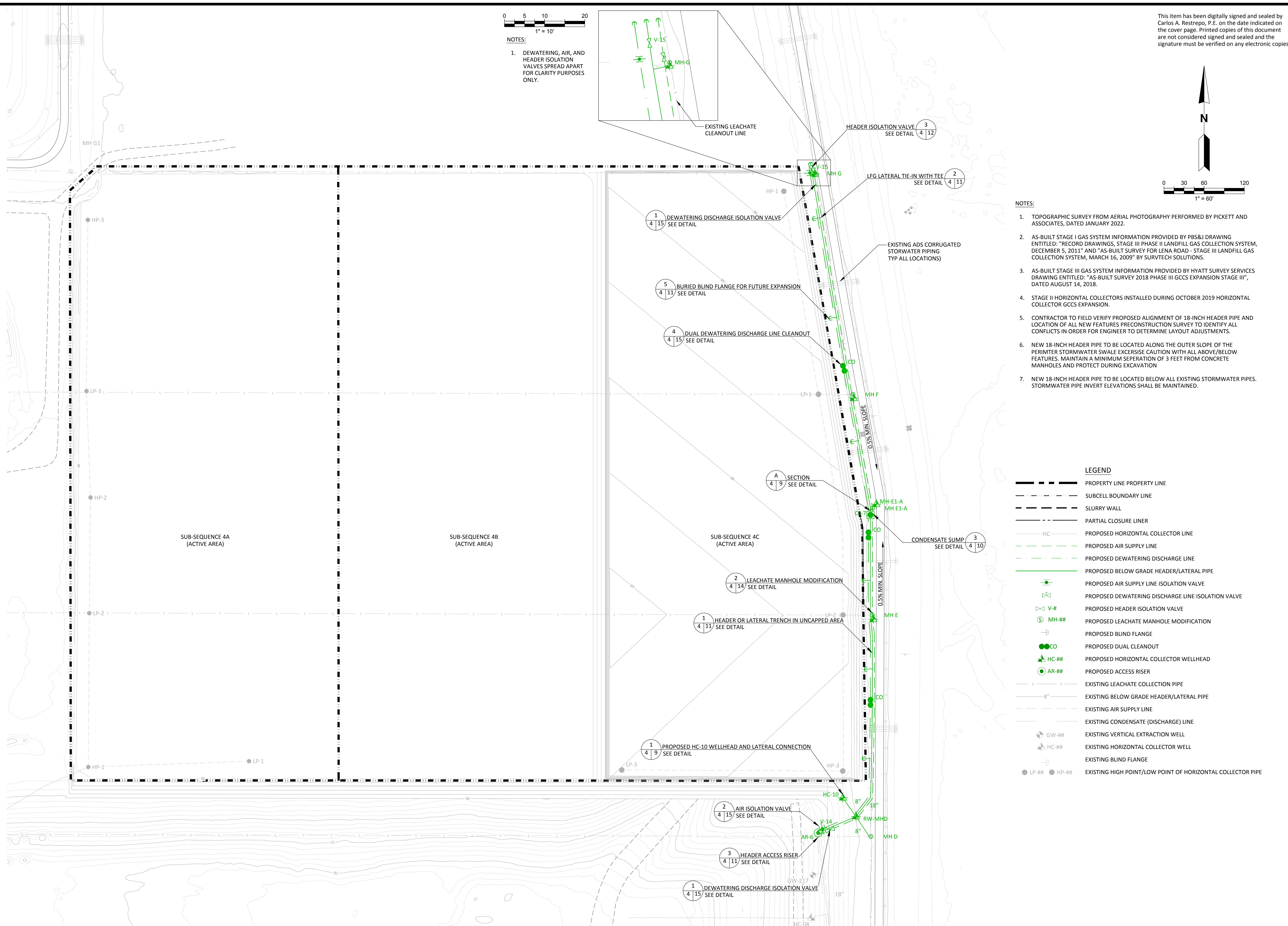
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DATE: **OCTOBER 2022**

DRAWING NO. **4**

SHEET **4** of **15**

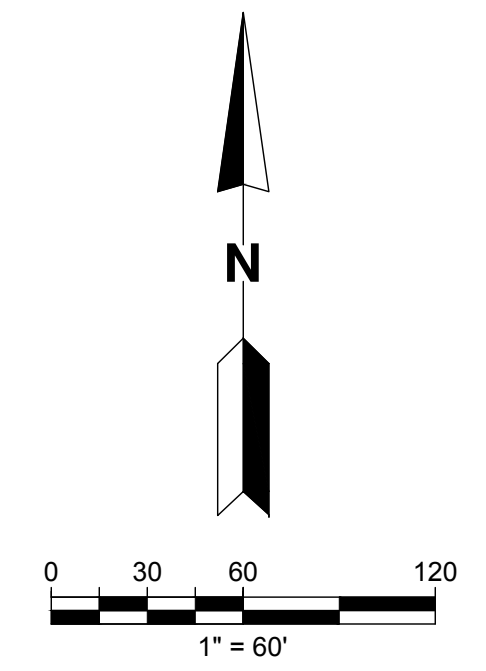
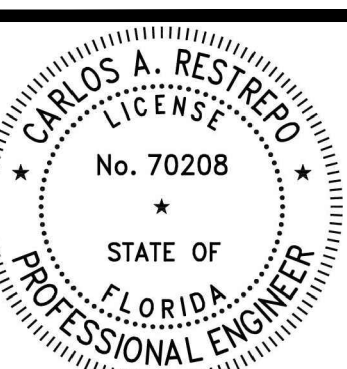
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LEGEND

	PROPERTY LINE PROPERTY LINE
	SUBCELL BOUNDARY LINE
	SLURRY WALL
	PARTIAL CLOSURE LINER
	PROPOSED HORIZONTAL COLLECTOR LINE
	PROPOSED AIR SUPPLY LINE
	PROPOSED DEWATERING DISCHARGE LINE
	PROPOSED BELOW GRADE HEADER/LATERAL PIPE
	PROPOSED AIR SUPPLY LINE ISOLATION VALVE
	PROPOSED DEWATERING DISCHARGE LINE ISOLATION VALVE
	PROPOSED HEADER ISOLATION VALVE
	PROPOSED LEACHATE MANHOLE MODIFICATION
	PROPOSED BLIND FLANGE
	PROPOSED DUAL CLEANOUT
	PROPOSED HORIZONTAL COLLECTOR WELLHEAD
	PROPOSED ACCESS RISER
	EXISTING LEACHATE COLLECTION PIPE
	EXISTING BELOW GRADE HEADER/LATERAL PIPE
	EXISTING AIR SUPPLY LINE
	EXISTING CONDENSATE (DISCHARGE) LINE
	EXISTING VERTICAL EXTRACTION WELL
	EXISTING HORIZONTAL COLLECTOR WELL
	EXISTING BLIND FLANGE
	EXISTING HIGH POINT/LOW POINT OF HORIZONTAL COLLECTOR PIPE

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NOTES:

1. TOPOGRAPHIC SURVEY FROM AERIAL PHOTOGRAPHY PERFORMED BY PICKETT AND ASSOCIATES, DATED JANUARY 2022.
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3. AS-BUILT STAGE III GAS SYSTEM INFORMATION PROVIDED BY HYATT SURVEY SERVICES DRAWING ENTITLED: "AS-BUILT SURVEY 2018 PHASE III GCCS EXPANSION STAGE III", DATED AUGUST 14, 2018.
4. STAGE II HORIZONTAL COLLECTORS INSTALLED DURING OCTOBER 2019 HORIZONTAL COLLECTOR GCCS EXPANSION.

LEGEND

- PROPERTY LINE PROPERTY LINE
- SUBCELL BOUNDARY LINE
- SLURRY WALL
- PARTIAL CLOSURE LINER
- PROPOSED AIR SUPPLY LINE
- PROPOSED DEWATERING DISCHARGE LINE
- PROPOSED BELOW GRADE HEADER/LATERAL PIPE
- PROPOSED AIR SUPPLY LINE ISOLATION VALVE
- PROPOSED DEWATERING DISCHARGE LINE ISOLATION VALVE
- PROPOSED HEADER ISOLATION VALVE
- PROPOSED LEACHATE MANHOLE MODIFICATION
- PROPOSED REMOTE WELLHEAD
- EXISTING LEACHATE COLLECTION PIPE
- EXISTING BELOW GRADE HEADER/LATERAL PIPE
- EXISTING VERTICAL EXTRACTION WELL
- EXISTING HORIZONTAL COLLECTOR WELL
- EXISTING HEADER ISOLATION VALVE
- EXISTING LEACHATE MANHOLE
- EXISTING CONDENSATE SUMP
- EXISTING VACUUM ACCESS RISER
- EXISTING DUAL DEWATERING DISCHARGE CLEANOUT
- EXISTING SINGLE DEWATERING DISCHARGE CLEANOUT
- EXISTING ROAD CROSSING
- EXISTED HIGHPOINT/LOW POINT OF HORIZONTAL COLLECTOR PIPE

CHK. BY	DESCRIPTION	DATE	REV

SHEET TITLE **PROPOSED STAGE II PHASE II GCCS EXPANSION SITE PLAN-2**
 PROJECT TITLE **LENA ROAD LANDFILL STAGE II PHASE II GCCS EXPANSION CONSTRUCTION DRAWINGS**

CLIENT **MANATEE COUNTY UTILITIES DEPARTMENT 4410 66TH STREET WEST BRADENTON, FLORIDA 34210**

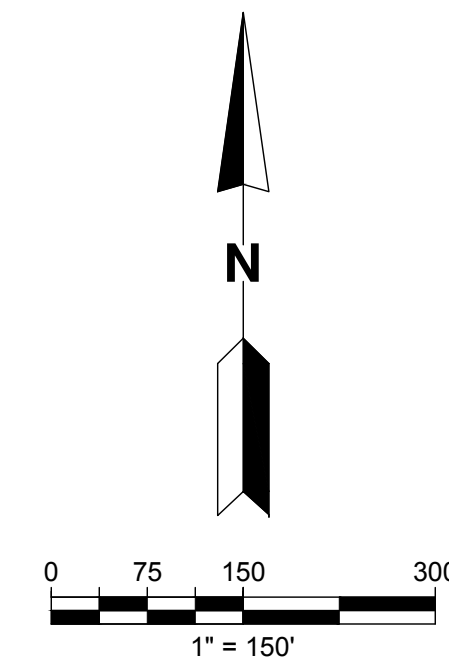
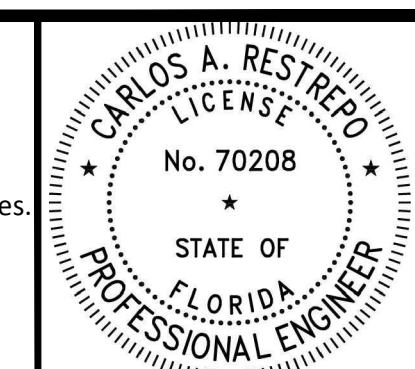
SCS ENGINEERS
 STEARNS, CONRAD AND SCHMIDT CONSULTING ENGINEERS
 3922 COCONUT PALM DRIVE, SUITE 102, TAMPA, FL 33619
 PH (813) 821-0080 FAX NO. (813) 625-6757
 FLORIDA FIRM REGISTRATION RY-4892
 PROJ. NO. 09177086.27
 DATE: 10/27/2022
 DRAWN BY: KCC
 CHECKED BY: LAA
 Q/A/INSP BY: CAR
 APP. BY: CAR

CADD FILE: **PROP STAGE II RECOVER**

DATE: **OCTOBER 2022**

DRAWING NO. **5**

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NOTES:

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3. AS-BUILT STAGE III GAS SYSTEM INFORMATION PROVIDED BY HYATT SURVEY SERVICES DRAWING ENTITLED: "AS-BUILT SURVEY 2018 PHASE III GCCS EXPANSION STAGE III", DATED AUGUST 14, 2018.
4. STAGE II HORIZONTAL COLLECTORS INSTALLED DURING OCTOBER 2019 HORIZONTAL COLLECTOR GCCS EXPANSION.

LEGEND

- PROPERTY LINE PROPERTY LINE
- SLURRY WALL
- PARTIAL CLOSURE LINER
- PROPOSED AIR SUPPLY LINE
- PROPOSED DEWATERING DISCHARGE LINE
- PROPOSED VERTICAL EXTRACTION WELL ABANDONMENT
- PROPOSED AIR AND DEWATERING DISCHARGE STUB UPS FOR EXISTING VERTICAL EXTRACTION WELL
- EXISTING LEACHATE COLLECTION PIPE
- EXISTING BELOW GRADE HEADER/LATERAL PIPE
- EXISTING VERTICAL EXTRACTION WELL
- EXISTING HORIZONTAL COLLECTOR WELL
- EXISTING HEADER ISOLATION VALVE
- EXISTING MANHOLE
- EXISTING CONDENSATE SUMP
- EXISTING VACUUM ACCESS RISER
- EXISTING ROAD CROSSING
- EXISTING SINGLE DEWATERING DISCHARGE CLEANOUT
- EXISTING DUAL DEWATERING DISCHARGE CLEANOUT

CHK. BY	DESCRIPTION	DATE	REV

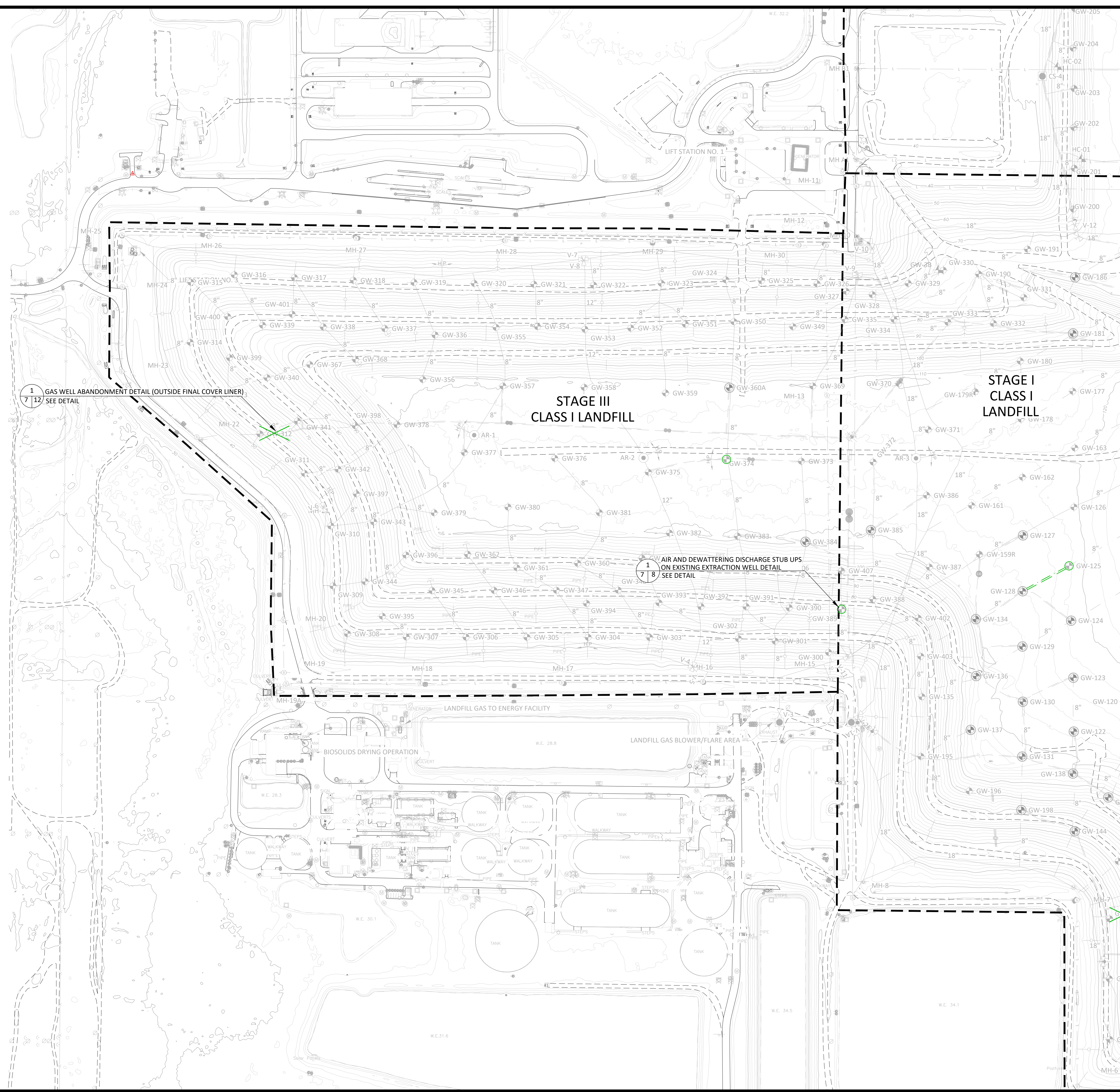
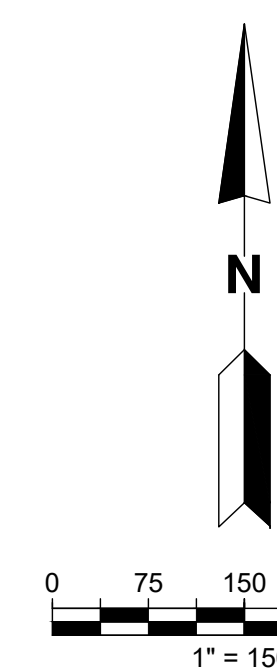
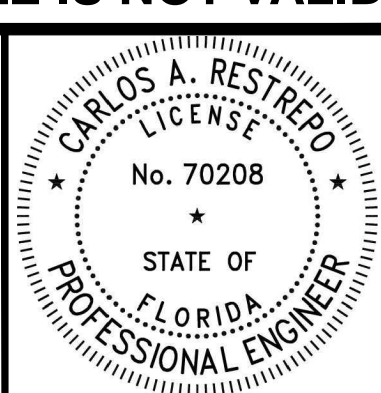
SHEET TITLE	PROPOSED STAGE I GCCS IMPROVEMENTS SITE PLAN
PROJECT TITLE	LENA ROAD LANDFILL STAGE II PHASE II GCCS EXPANSION CONSTRUCTION DRAWINGS

CLIENT
MANATEE COUNTY UTILITIES DEPARTMENT
 4410 66TH STREET WEST
 BRADENTON, FLORIDA 34210

SCS ENGINEERS STEARNS, CONRAD AND SCHMIDT CONSULTING ENGINEERS 3922 COCONUT PALM DRIVE, SUITE 102, TAMPA, FL 33619 PH (813) 821-0080 FAX NO. (813) 625-6757 FLORIDA FIRM REGISTRATION RY-4892	DATE: OCTOBER 2022
--	--------------------

CADD FILE: STAGE I	DRAWING NO. 6
DATE: OCTOBER 2022	SHEET 6 of 15

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NOTES:

1. TOPOGRAPHIC SURVEY FROM AERIAL PHOTOGRAPHY PERFORMED BY PICKETT AND ASSOCIATES, DATED JANUARY 2022.
2. AS-BUILT STAGE I GAS SYSTEM INFORMATION PROVIDED BY PBS&J DRAWING ENTITLED: "RECORD DRAWINGS, STAGE III PHASE II LANDFILL GAS COLLECTION SYSTEM, DECEMBER 5, 2011" AND "AS-BUILT SURVEY FOR LENA ROAD - STAGE III LANDFILL GAS COLLECTION SYSTEM, MARCH 16, 2009" BY SURVTECH SOLUTIONS.
3. AS-BUILT STAGE III GAS SYSTEM INFORMATION PROVIDED BY HYATT SURVEY SERVICES DRAWING ENTITLED: "AS-BUILT SURVEY 2018 PHASE III GCCS EXPANSION STAGE III", DATED AUGUST 14, 2018.
4. STAGE II HORIZONTAL COLLECTORS INSTALLED DURING OCTOBER 2019 HORIZONTAL COLLECTOR GCCS EXPANSION.

LEGEND

- PROPERTY LINE PROPERTY LINE
- SUBCELL BOUNDARY LINE
- SLURRY WALL
- PARTIAL CLOSURE LINER
- PROPOSED AIR SUPPLY LINE
- PROPOSED DEWATERING DISCHARGE LINE
- PROPOSED VERTICAL EXTRACTION WELL ABANDONMENT
- PROPOSED AIR AND DEWATERING DISCHARGE STUB UPS FOR EXISTING VERTICAL EXTRACTION WELL
- EXISTING LEACHATE COLLECTION PIPE
- EXISTING BELOW GRADE HEADER/LATERAL PIPE
- EXISTING VERTICAL EXTRACTION WELL
- EXISTING HORIZONTAL COLLECTOR WELL
- EXISTING HEADER ISOLATION VALVE
- EXISTING MANHOLE
- EXISTING CONDENSATE SUMP
- EXISTING VACUUM ACCESS RISER
- EXISTING ROAD CROSSING
- EXISTING SINGLE DEWATERING DISCHARGE CLEANOUT
- EXISTING DUAL DEWATERING DISCHARGE CLEANOUT

1 GAS WELL ABANDONMENT DETAIL (OUTSIDE FINAL COVER LINER)
7 12 SEE DETAIL

1 AIR AND DEWATERING DISCHARGE STUB UPS
7 8 ON EXISTING EXTRACTION WELL DETAIL
SEE DETAIL

STAGE III
CLASS I LANDFILL

STAGE I
CLASS I LANDFILL

CHK. BY	DESCRIPTION	DATE	REV

SHEET TITLE	PROPOSED STAGE III GCCS IMPROVEMENTS SITE PLAN
PROJECT TITLE	LENA ROAD LANDFILL STAGE II PHASE II GCCS EXPANSION CONSTRUCTION DRAWINGS

MANATEE COUNTY
UTILITIES DEPARTMENT
4410 66TH STREET WEST
BRADENTON, FLORIDA 34210

CLIENT
SCS ENGINEERS
STEARNS, CONRAD AND SCHMIDT
CONSULTING ENGINEERS
3922 COCONUT PALM DRIVE, SUITE 102, TAMPA, FL 33619
PH (813) 821-0080 FAX NO. (813) 623-6757
FLORIDA FIRM REGISTRATION RY-4892

PROJ. NO. 09217088.27
DWN. BY: KKC
CHK. BY: LAA

Q/A REV. BY: CAR
APP. BY: CAR

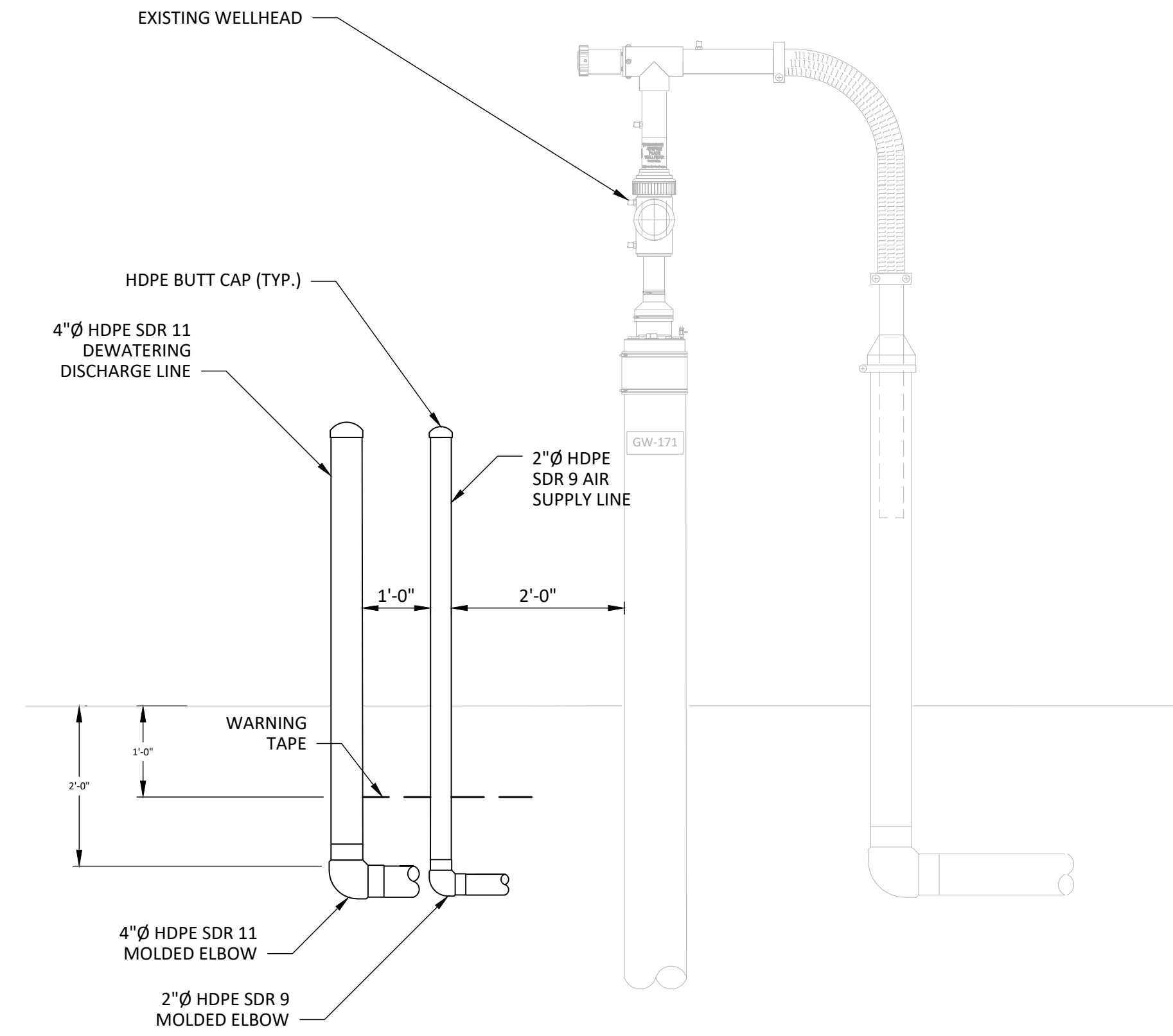
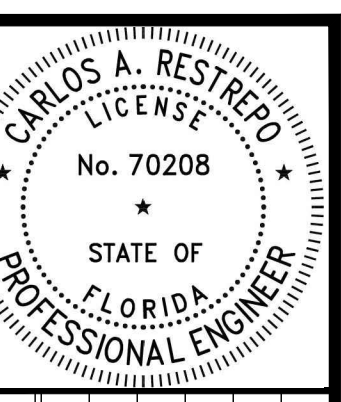
CADD FILE: STAGE III

DATE: OCTOBER 2022

DRAWING NO. 7

SHEET 7 of 15

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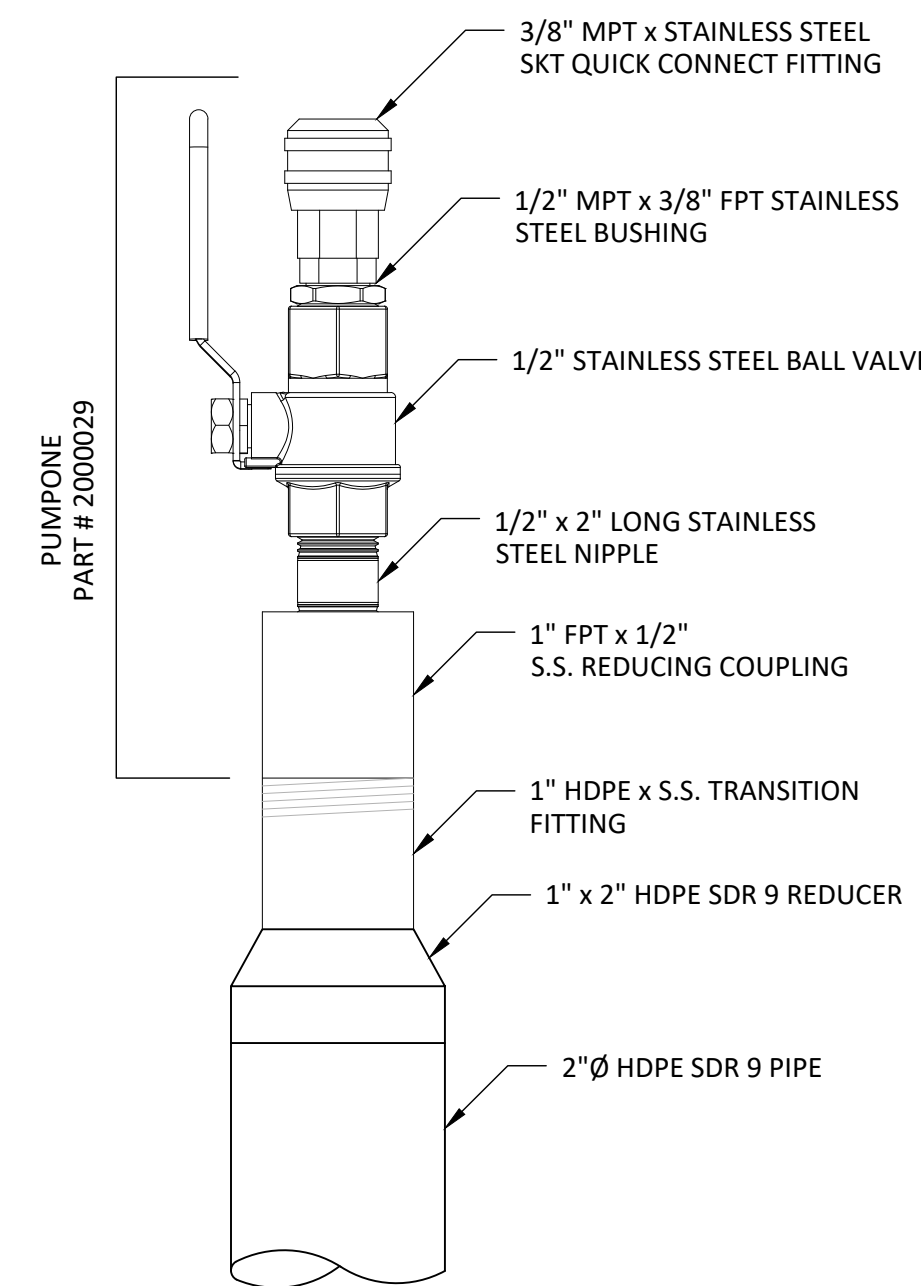
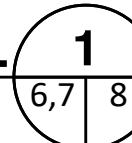
EXTRACTION WELLS TO INSTALL AIR AND DEWATERING DISCHARGE STUB UPS
GW-95
GW-107
GW-108
GW-111
GW-112
GW-125
GW-146
GW-147
GW-157
GW-169
GW-171
GW-374
GW-389

NOTES:

1. CONTRACTOR TO INSTALL AIR AND DEWATERING DISCHARGE STUB UPS FOR FUTURE PUMP INSTALLATION AT WELLS INDICATED IN TABLE.
2. HDPE WELDED CAPS REQUIRED ON ALL STUB-UPS.

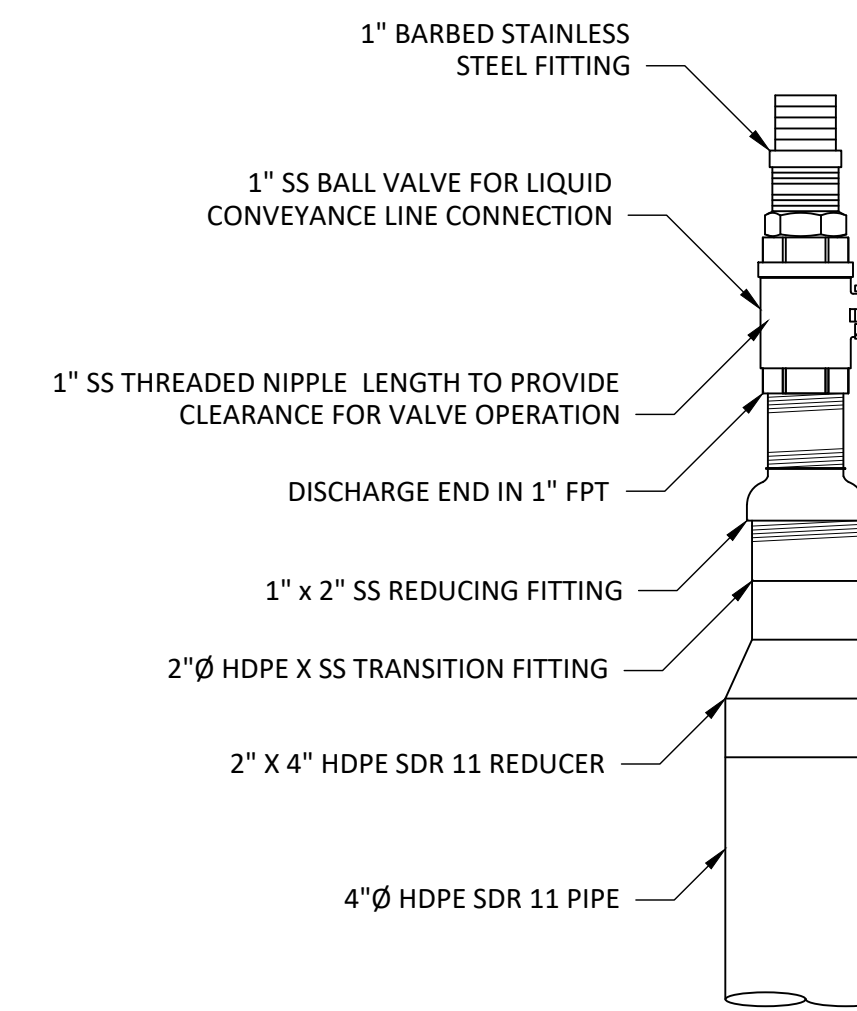
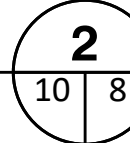
AIR AND DEWATERING DISCHARGE STUB UPS ON EXISTING EXTRACTION WELL DETAIL

NOT TO SCALE



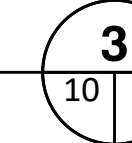
AIR SUPPLY LINE VALVE DETAIL

NOT TO SCALE



DEWATERING DISCHARGE VALVE DETAIL

NOT TO SCALE



CHK. BY	DESCRIPTION	DATE	REV

SHEET TITLE	DETAILS-1
PROJECT TITLE	LENA ROAD LANDFILL STAGE II PHASE II GCCS EXPANSION CONSTRUCTION DRAWINGS

CLIENT	MANATEE COUNTY UTILITIES DEPARTMENT 4410 66TH STREET WEST BRADENTON, FLORIDA 34210
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SCS ENGINEERS STEARNS, CONRAD AND SCHMIDT CONSULTING ENGINEERS 3922 COCONUT PALM DRIVE, SUITE 102, TAMPA, FL 33619 PH (813) 621-0080 FAX NO. (813) 625-6757 FLORIDA FIRM REGISTRATION RY-4892	DRAWN BY: KKC CHECKED BY: LAA	DATE: 09/27/2022	SCALE: 1"=10'	APP. BY: CAR	CAR
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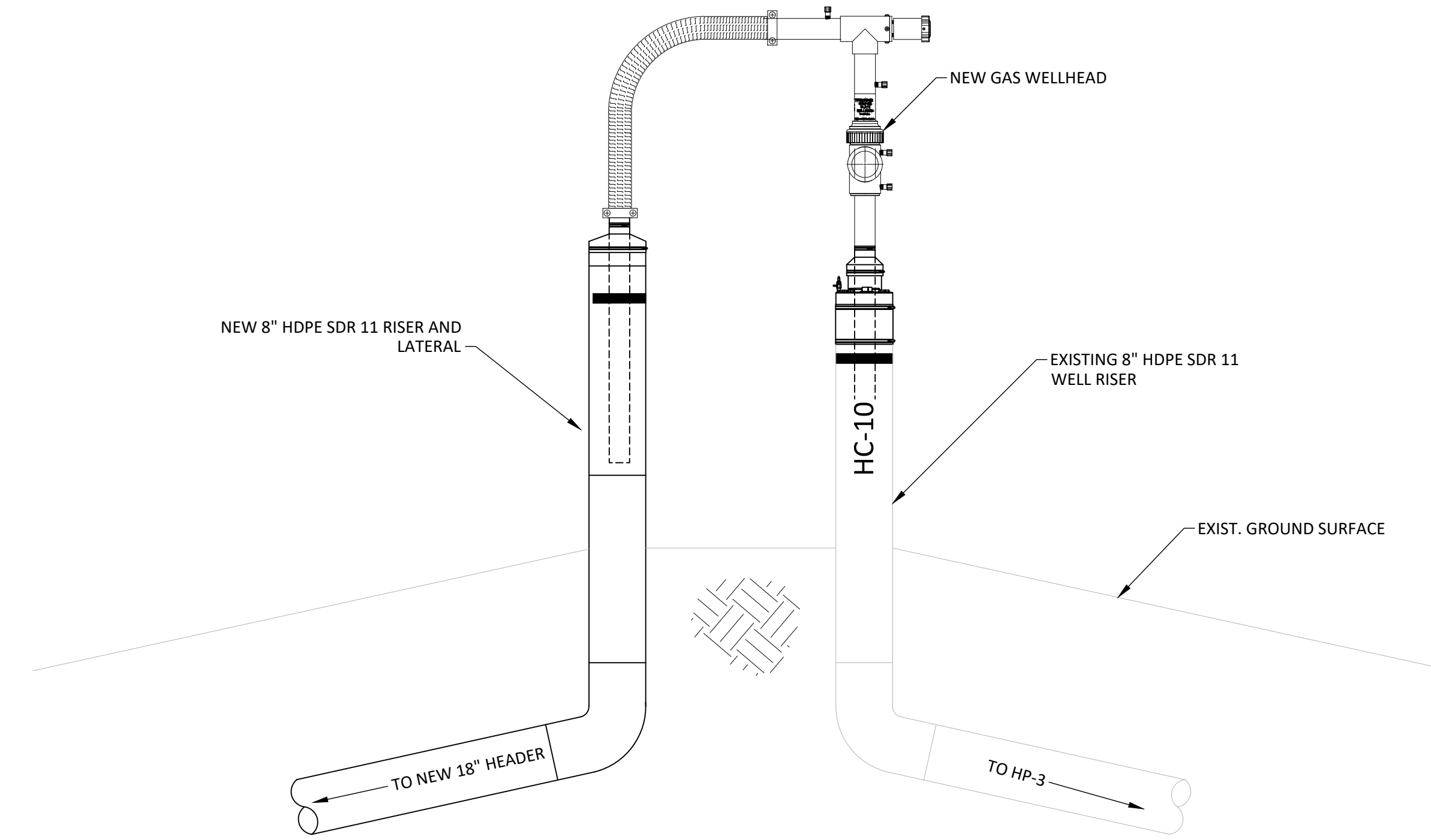
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DATE:	OCTOBER 2022
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DRAWING NO.	8
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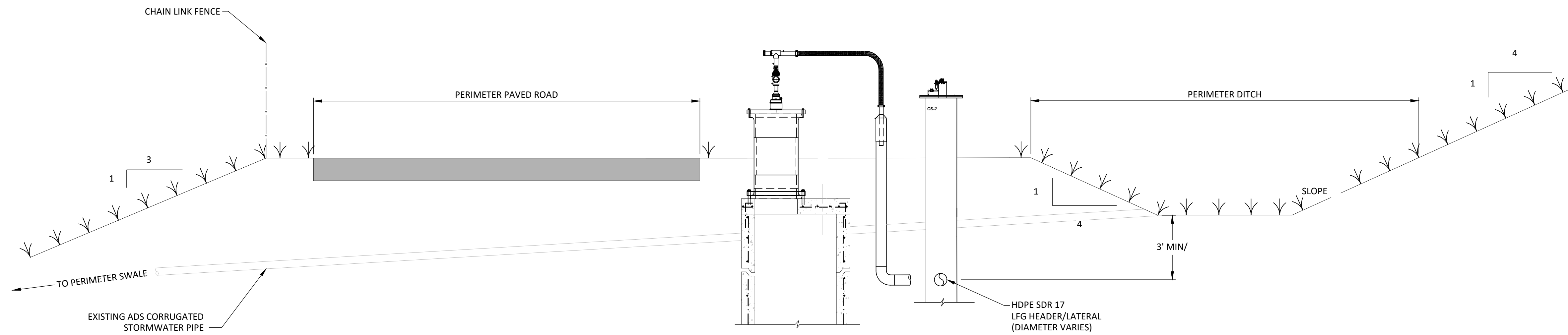
SHEET	8 of 15
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- NOTES:
- CONTRACTOR TO COORDINATE WITH ENGINEER TO DETERMINE IF WELLHEADS FROM ABANDONED WELLS CAN BE REUSED.

PROPOSED HC-10 WELLHEAD AND LATERAL CONNECTION DETAIL 1
4 | 9
NOT TO SCALE



- NOTES:
- CROSS SECTION SHOWING PERIMETER STORMWATER SWALE AND STORMWATER PIPES. LOCATION OF EXISTING CONCRETE MANHOLES WITH IMPROVEMENTS AND OTHER RELATED FEATURES SHOWN BASED ON AVAILABLE INFORMATION AND FOR CLERIFICATION PURPOSES ONLY. DETAILS ARE SHOWN OFFSET FOR CLARITY. REFER TO SITE PLAN FOR ADDITIONAL INFORMATION.
 - CONTRACTOR IS MADE AWARE THAT LOCATION OF NEW CONDENSATE SUMP, LFG HEADER PIPE, AND RELATED IMPROVEMENTS WILL INTERSECT EXISTING FEATURES.
 - CONTRACTOR IS REQUIRED TO CONFIRM ALL INFORMATION (ABOVE AND BELOW GRADE) AS PART OF THE PRE-CONSTRUCTION SURVEY AND SUBMIT TO ENGINEER FOR REVIEW PRIOR TO CONSTRUCTION.
 - INVERTS OF ALL EXISTING STORMWATER PIPES SHALL REMAIN PER PRE-CONSTRUCTION CONDITIONS.
 - CONTRACTOR TO PROVIDE ENGINEER WITH EXCAVATION PLAN AND METHODS FOR PROTECTING EXISTING FEATURES WITHIN THE ALIGNMENT OF NEW HEADER LINES.

SECTION A A
4 | 9
NOT TO SCALE

CHK. BY	DESCRIPTION	DATE	REV

SHEET TITLE	DETAILS-2
PROJECT TITLE	LENA ROAD LANDFILL STAGE II PHASE II GCCS EXPANSION CONSTRUCTION DRAWINGS

CLIENT	MANATEE COUNTY UTILITIES DEPARTMENT 4410 66TH STREET WEST BRADENTON, FLORIDA 34210
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SCS ENGINEERS	STEARNS, CONRAD AND SCHMIDT CONSULTING ENGINEERS 3922 COCONUT PALM DRIVE, SUITE 102, TAMPA, FL 33619 PH (813) 821-0080 FAX NO. (813) 623-6757 FLORIDA FIRM REGISTRATION RY-4892
PROJ. NO.	09217088.27
DATE	10/27/2022
DRAWN BY	KKC
CHECKED BY	LAA
DATE	10/27/2022
APP. BY	CAR
DATE	10/27/2022

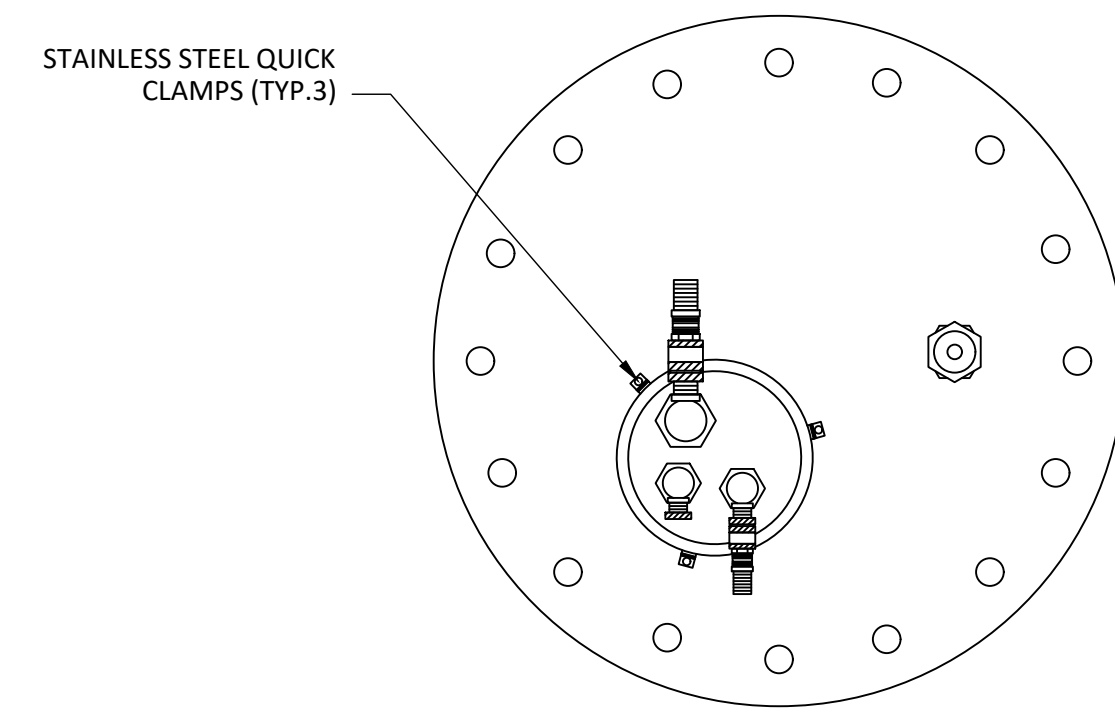
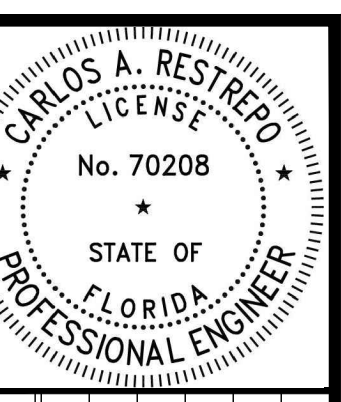
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DATE: OCTOBER 2022

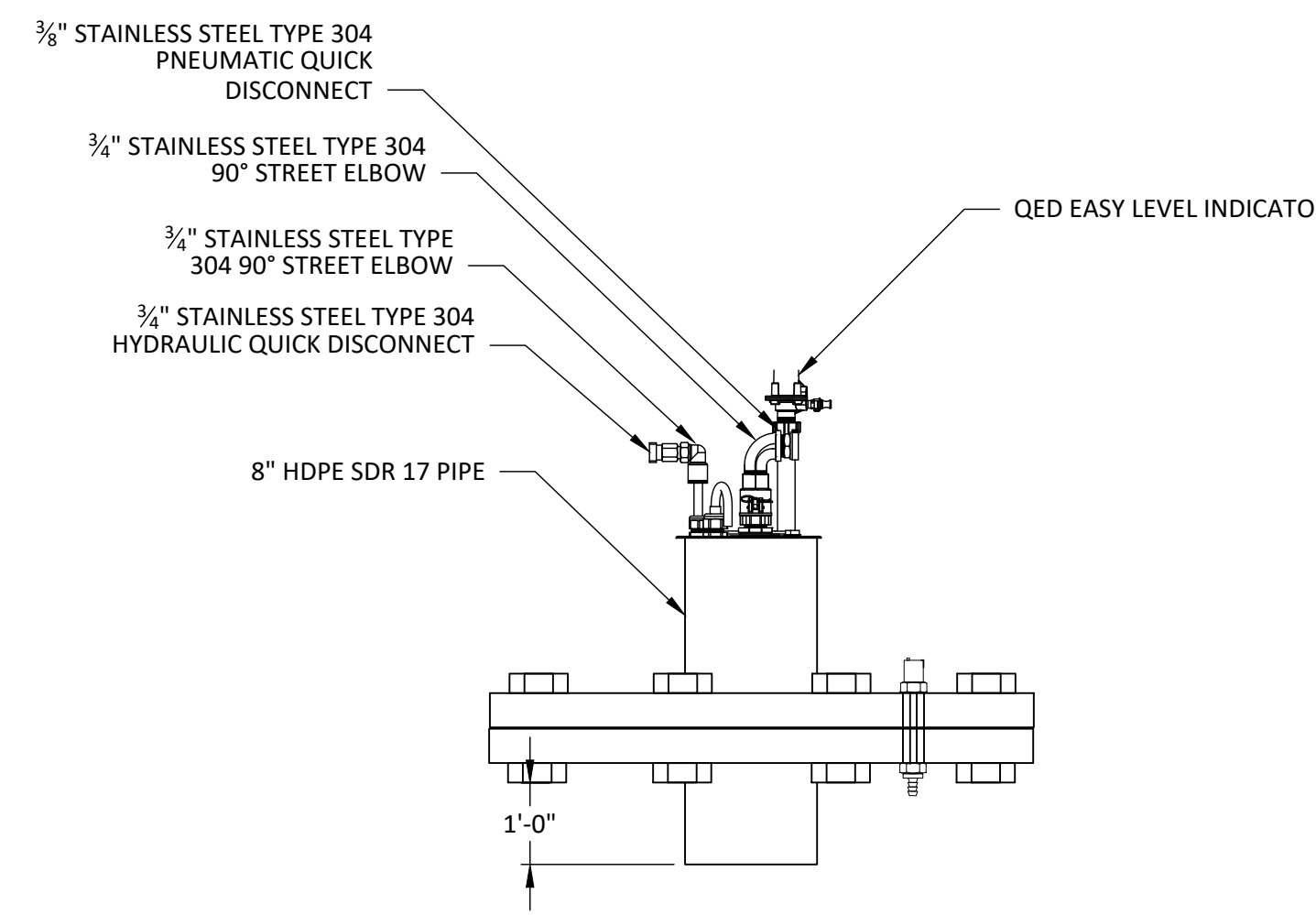
DRAWING NO. **9**

SHEET **9** of **15**

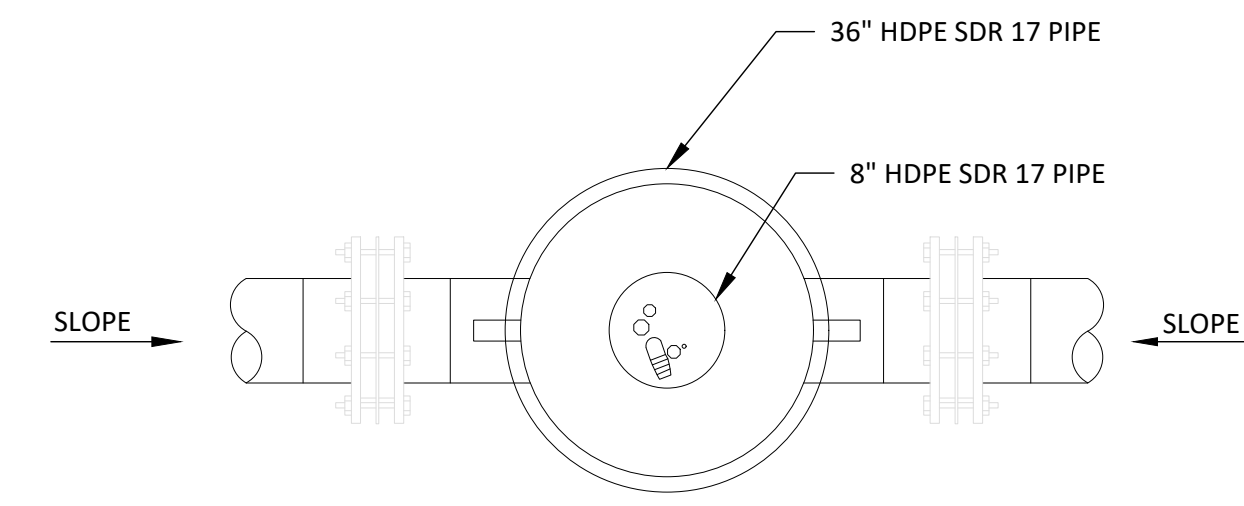
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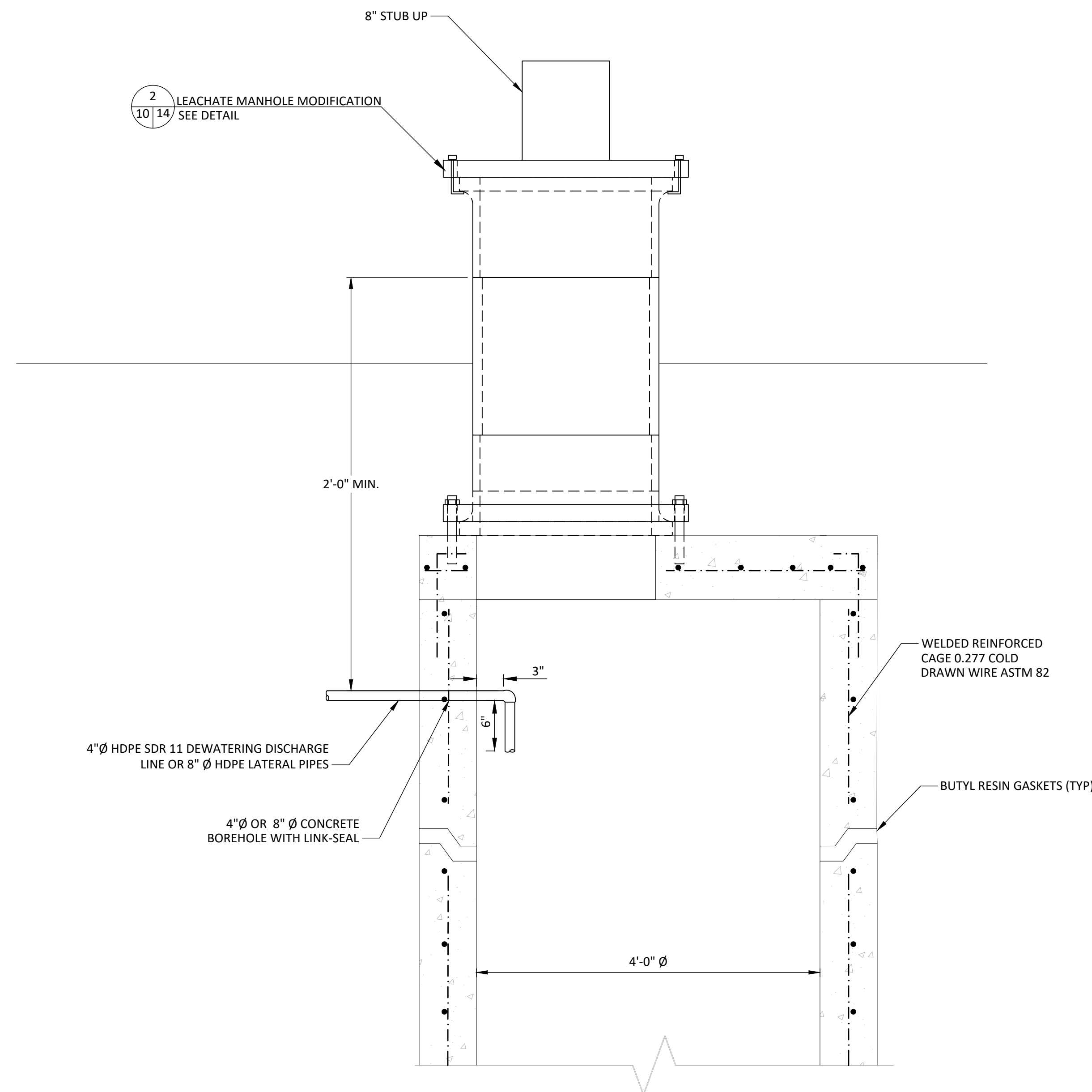
PLAN VIEW



FLANGED CONDENSATE SUMP LID WITH QUICK RELEASE CAP DETAIL 1
NOT TO SCALE



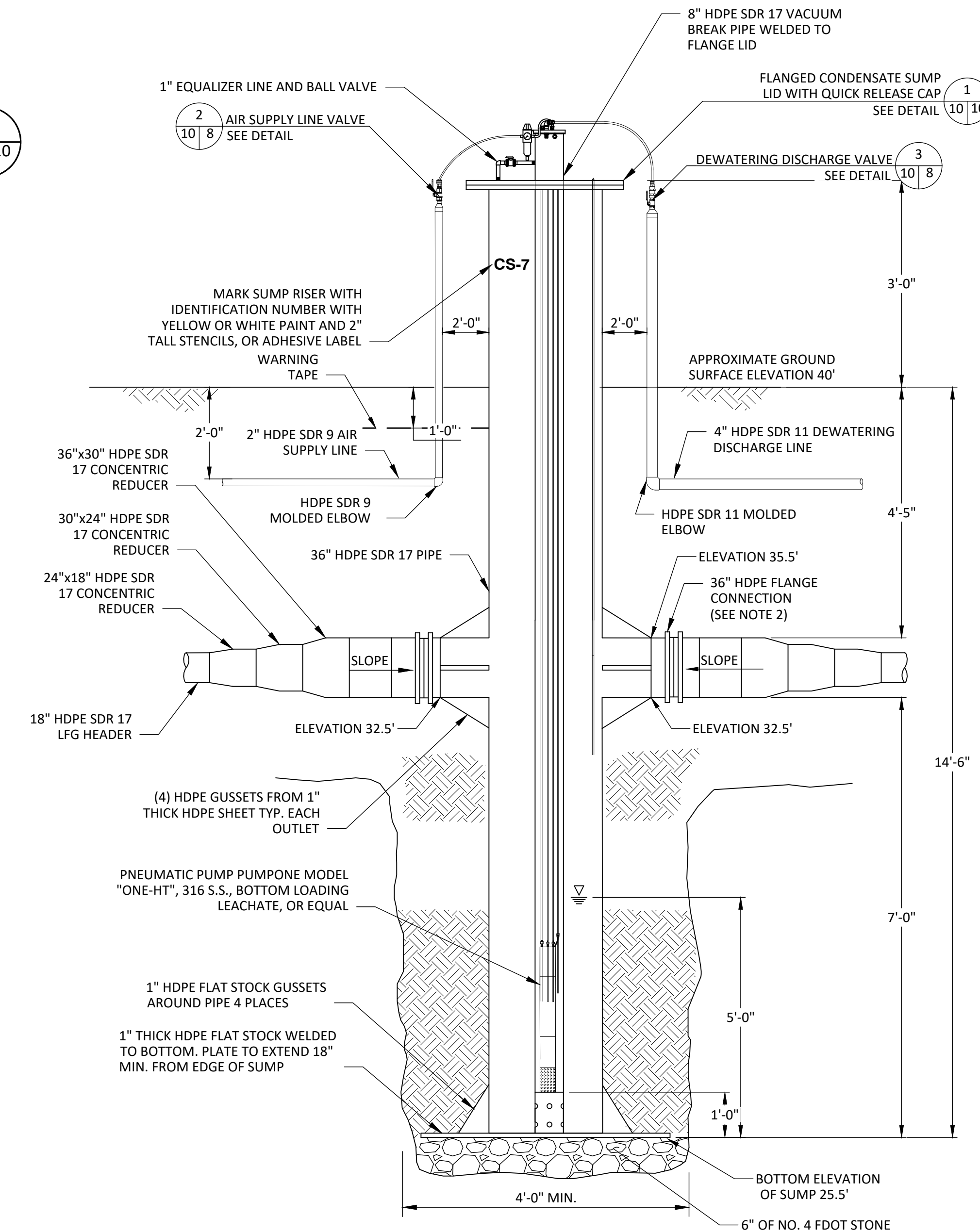
TOP VIEW



NOTES:

1. DEWATERING DISCHARGE OR LATERAL TO BE CORED INTO EXISTING MANHOLE AND VOID SPACE TO BE FILLED WITH LINK-SEAL.
2. 4" HDPE DEWATERING CONNECTION AT MH-G AND MH-EIA.
3. 8" HDPE LATERAL CONNECTION AT MH-A, M-B, AND MH-D.
4. PROPOSED HDPE ASSEMBLY SHOWN FOR INFORMATION PURPOSES ONLY. NOT ALL MANHOLES WILL INCLUDE HDPE ASSEMBLIES, REFER TO SET FOR SPECIFIC MANHOLES THAT WILL REQUIRE HDPE ASSEMBLY.

CONCRETE MANHOLE TIE-IN DETAIL 2
NOT TO SCALE



NOTES:

1. 8" HDPE SDR 17 VACUUM BREAK PIPE EXTRUSION TO BE WELDED TO THE FLANGE LID. 1'-0" OF PIPE TO PROTRUDE THROUGH TOP OF FLANGE. CENTER OF PIPE TO BE LOCATED 2" OFF CENTER OF BLIND FLANGE.
2. THOROUGHLY COAT ENTIRE SURFACE OF BOLTS, WASHERS, NUTS AND BACKUP RINGS WITH POLYCOAT RUBBERIZED PRIMER, OR EQUAL, AFTER TIGHTENING BOLTS. WRAP FLANGE IN PLASTIC WRAP PRIOR TO BACKFILLING.
3. CONTRACTOR SHALL VERIFY CONDENSATE SUMP CONFIGURATION AND NECESSARY ELEVATIONS IN FIELD. ADJUSTMENTS AND FINAL CONFIGURATION SHALL BE APPROVED BY ENGINEER PRIOR TO FABRICATION.

CONDENSATE SUMP DETAIL 3
NOT TO SCALE

CHK. BY	DESCRIPTION	DATE	REV

SHEET TITLE: DETAILS-3
PROJECT TITLE: LENA ROAD LANDFILL STAGE II PHASE II GCCS EXPANSION CONSTRUCTION DRAWINGS

CLIENT: MANATEE COUNTY UTILITIES DEPARTMENT 4410 66TH STREET WEST BRADENTON, FLORIDA 34210

SCS ENGINEERS
STEARNS, CONRAD AND SCHMIDT CONSULTING ENGINEERS
3922 COCONUT PALM DRIVE, SUITE 102, TAMPA, FL 33619
PH (813) 621-0080 FAX NO. (813) 625-6757
FLORIDA FIRM REGISTRATION RY-4892
PROJ. NO. 09217088.27
DATE: OCT 2022

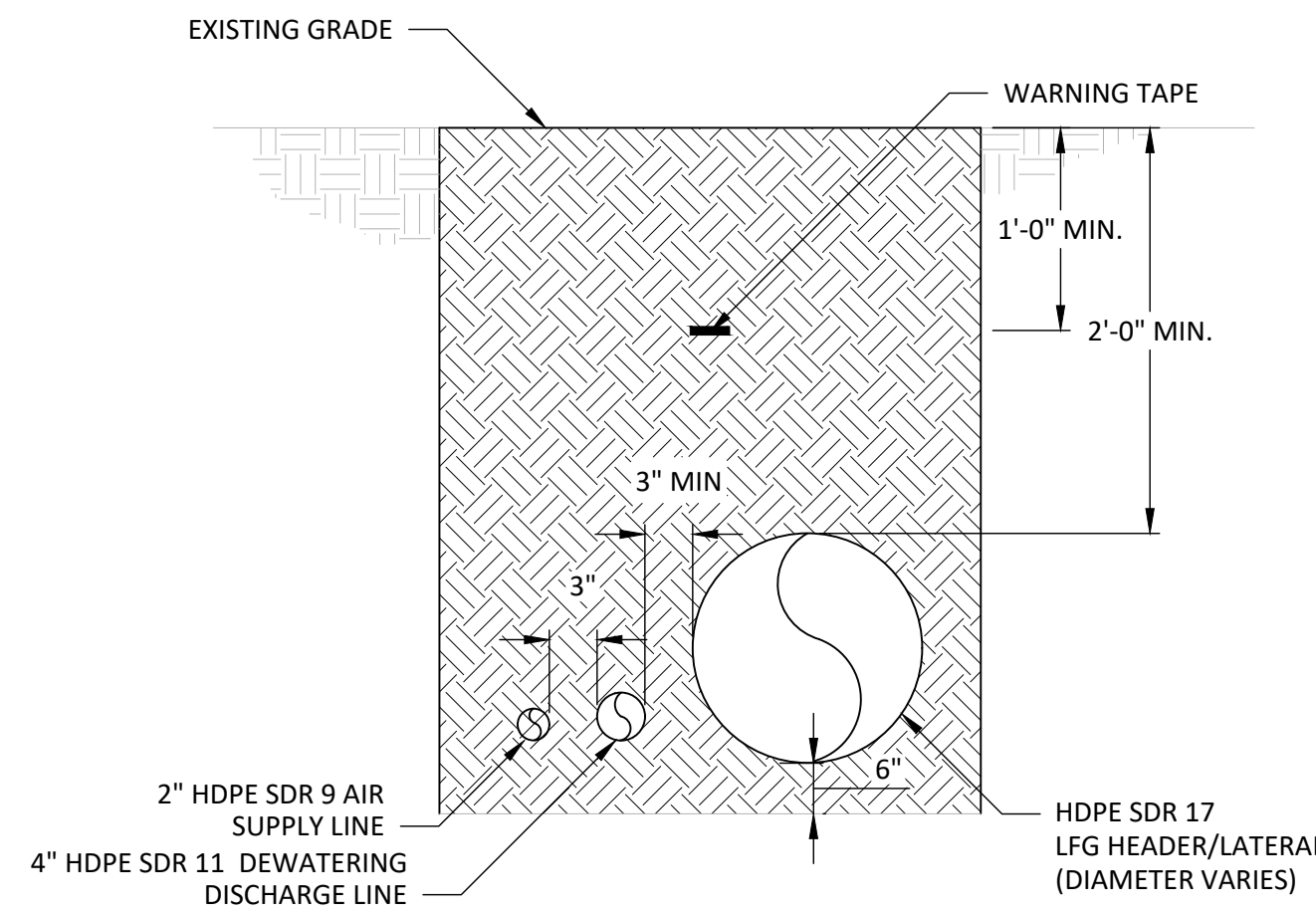
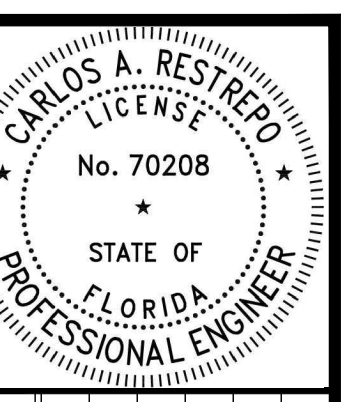
CADD FILE: DETAILS

DATE: OCTOBER 2022

DRAWING NO. 10

SHEET 10 of 15

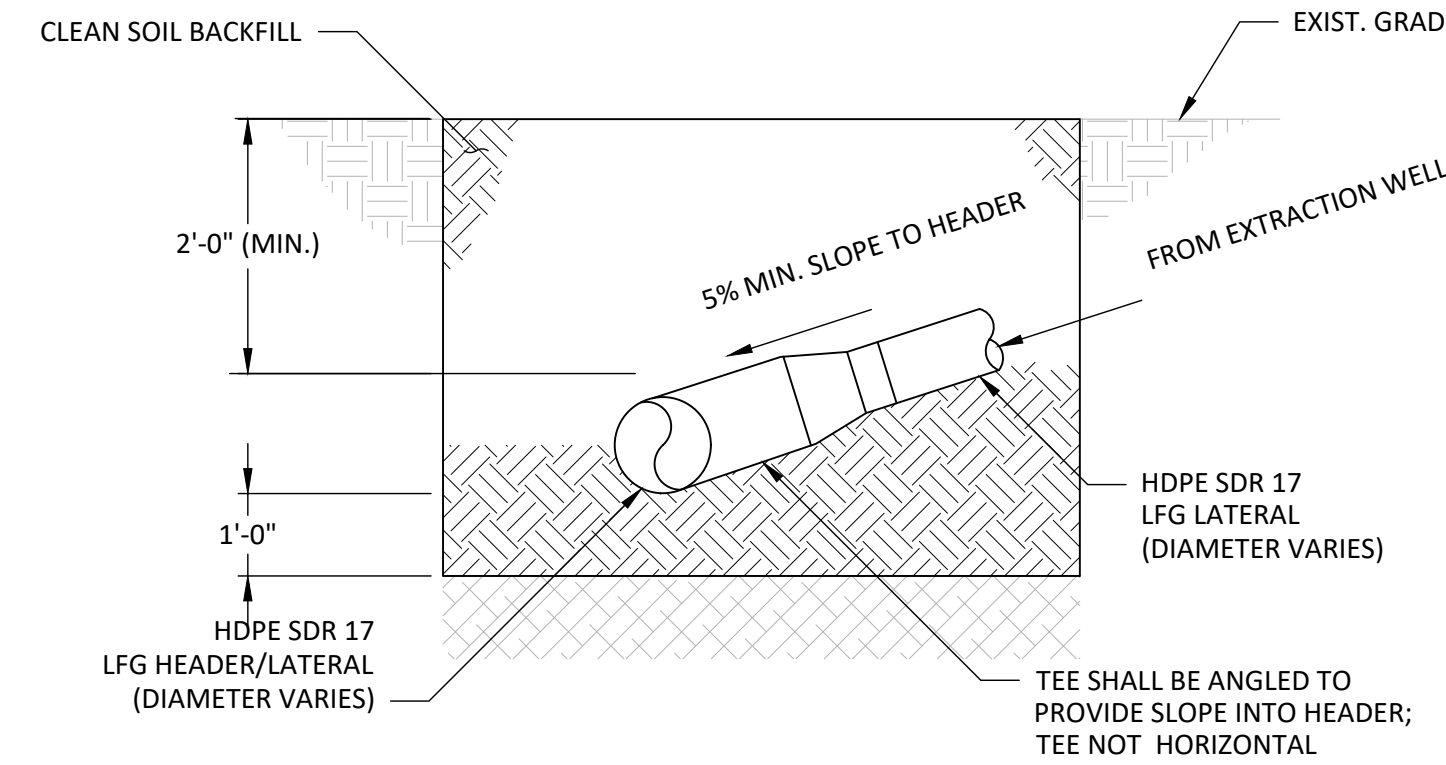
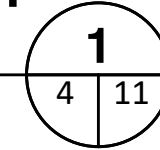
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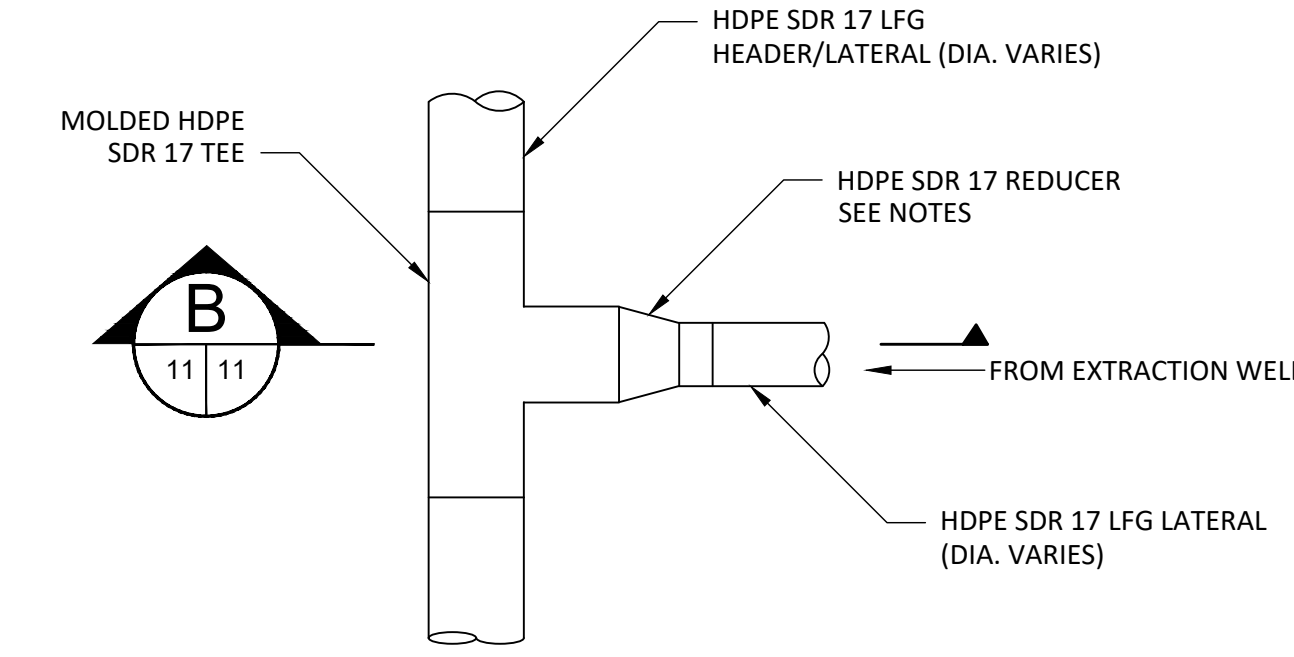
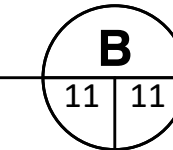
NOTES:

- WARNING TAPE SHALL BE MIN. 3" WIDE AND IMPRINTED WITH "GAS LINE BURIED BELOW" WITH A METALLIC LAYER FOR DETECTION ABOVE GRADE.
- OUT OF WASTE HEADER TO BE INSTALLED AT 0.5% MIN. SLOPE AND 2' COVER UNLESS OTHERWISE SPECIFIED OR APPROVED BY ENGINEER. ALIGNMENTS MAY BE MODIFIED IN THE FIELD TO MATCH EXISTING GRADES.
- HEADER/LATERALS INSTALLED IN WASTE TO BE INSTALLED AT 5% MIN. SLOPE UNLESS OTHERWISE SPECIFIED OR APPROVED BY ENGINEER.
- ALL HEADER/LATERAL PIPING TO BE HDPE SDR 17.
- THE NUMBER AND TYPES OF PIPES INSTALLED IN THE TRENCH MAY VARY, REFER TO SITE PLAN.
- 2" AIR SUPPLY AND 3" DEWATERING DISCHARGE LINES INSTALLED ON THE UPHILL SIDE OF THE HEADER AND LATERALS.

HEADER OR LATERAL TRENCH IN UNCAPPED AREA DETAIL
NOT TO SCALE



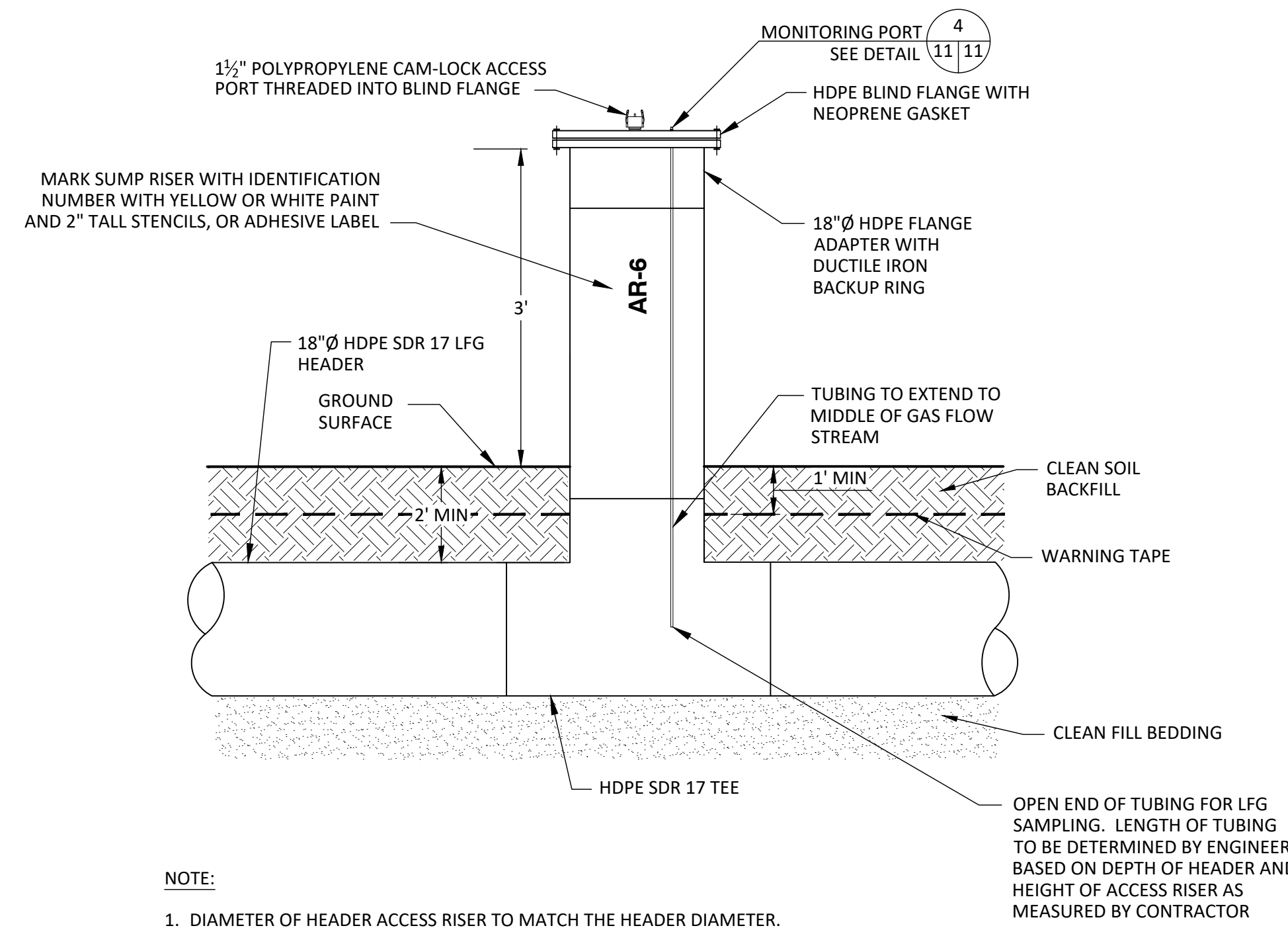
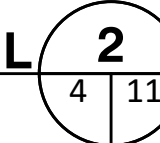
SECTION B
NOT TO SCALE



NOTES:

- CONSECUTIVE SIZE REDUCERS TO BE USED TO TRANSITION FROM THE MOLDED TEE TO THE LFG LATERAL.
- MOLDED HDPE TEES TO BE INSTALLED FOR ALL TIE-INS OF LATERALS TO HEADER SMALLER THAN 12". TEES TO BE ANGLED TO MAINTAIN SLOPE INTO THE HEADER AS SHOWN IN SECTION VIEW.
- 1' MIN. OF CLEAN SOIL TO BE PLACED BELOW EACH TEE. THE CLEAN SOIL INSTALLED TO EXTEND 3' MIN. IN EACH DIRECTION OF THE TEE. CLEAN SOIL TO BE SLIGHTLY MOISTENED AND HAND-TAMPED PROVIDING SUPPORT TO ALL POINTS OF THE TEE. CLEAN, GRADED SOIL TO BE HAND-TAMPED ABOVE TEE (1' MIN.) BEING CAREFUL TO ELIMINATE VOIDS.

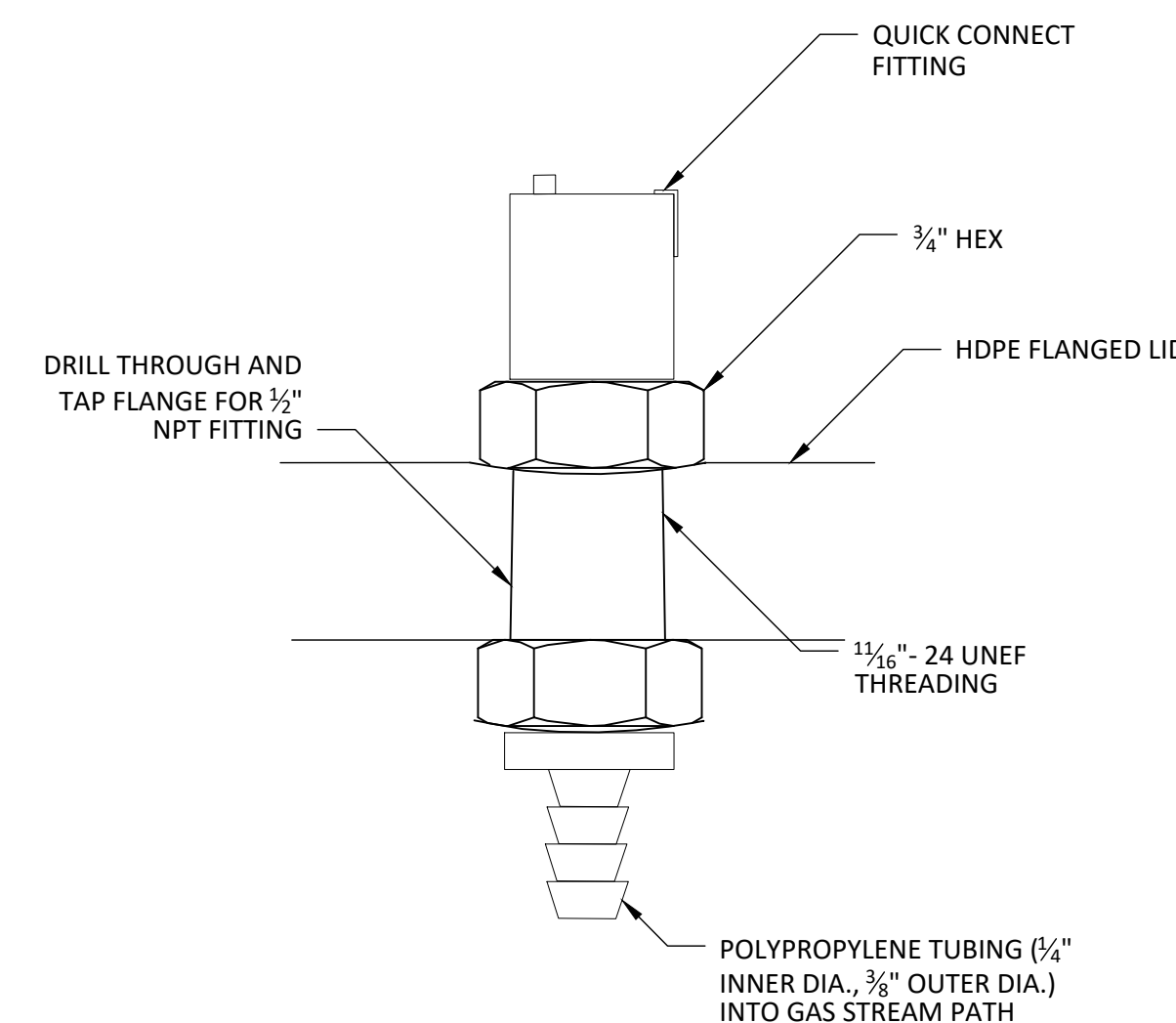
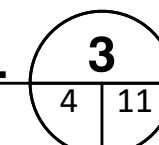
LFG LATERAL TIE-IN WITH TEE DETAIL
NOT TO SCALE



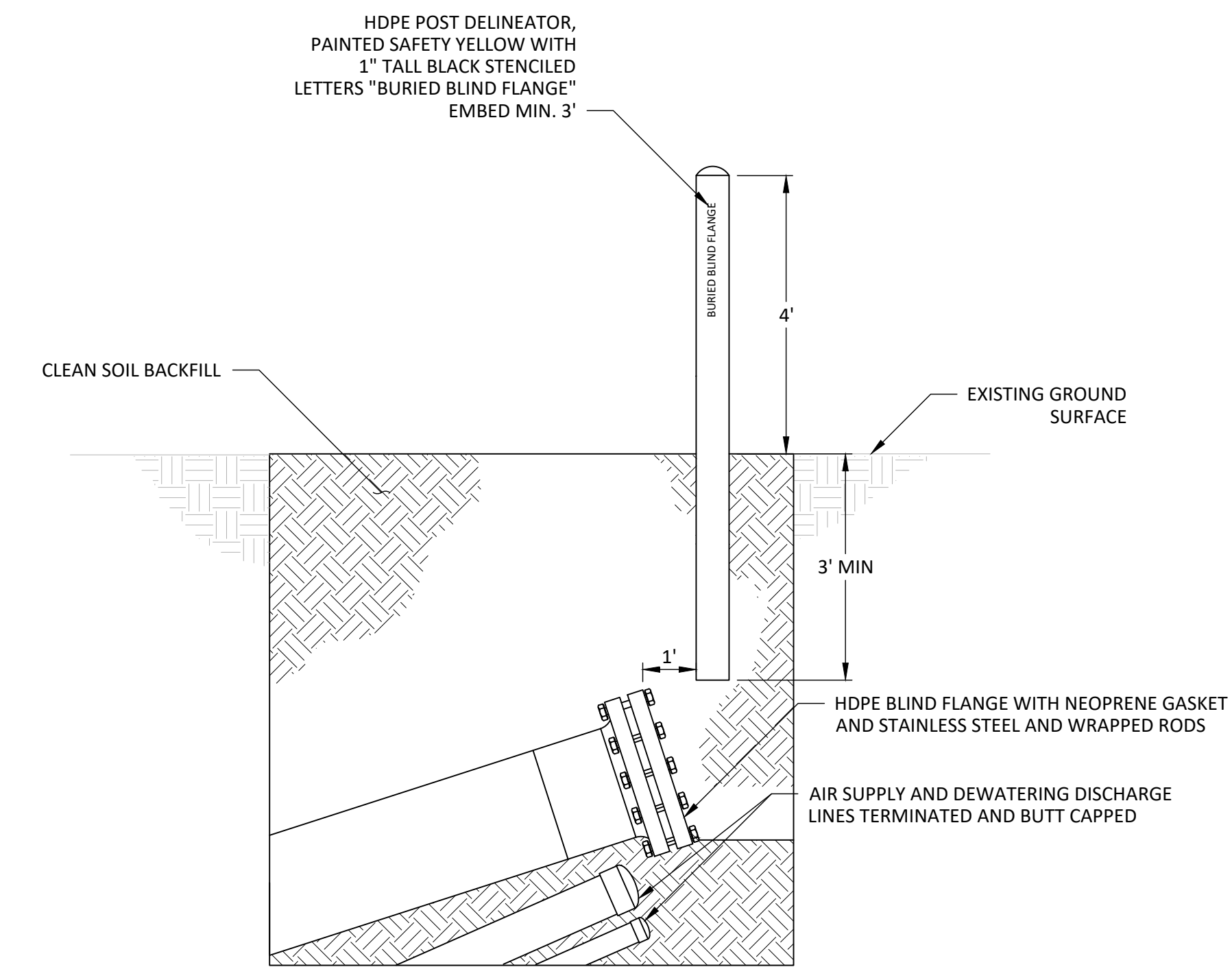
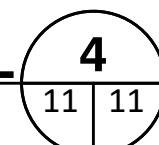
NOTE:

- DIAMETER OF HEADER ACCESS RISER TO MATCH THE HEADER DIAMETER.

HEADER ACCESS RISER DETAIL
NOT TO SCALE



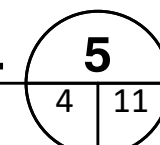
MONITORING PORT DETAIL
NOT TO SCALE



NOTES:

- STAINLESS STEEL THREADED RODS, WASHERS, NUTS AND BACKUP RINGS TO BE THOROUGHLY COATED WITH POLYCOAT RUBBERIZED PRIMER, OR EQUAL, AFTER TIGHTENING BOLTS. FLANGE TO BE WRAPPED IN PLASTIC WRAP PRIOR TO BACKFILLING.
- FLANGE TO BE INSTALLED WITH THE PROPER SLOPE TO PROVIDE FOR FUTURE CONDENSATE DRAINAGE.
- MINIMUM 10 FEET OF 18-INCH TEE AT EACH FUTURE LATERAL CONNECTION. REFER TO SITE PLAN FOR LOCATIONS.

BURIED BLIND FLANGE FOR FUTURE EXPANSION DETAIL
NOT TO SCALE



CHK. BY	DESCRIPTION	DATE	REV

DETAILS-4
PROJECT TITLE
**LENA ROAD LANDFILL
STAGE II PHASE II GCCS EXPANSION
CONSTRUCTION DRAWINGS**

CLIENT
**MANATEE COUNTY
UTILITIES DEPARTMENT
4410 66TH STREET WEST
BRADENTON, FLORIDA 34210**

SCS ENGINEERS
STEARNS, CONRAD AND SCHMIDT
CONSULTING ENGINEERS
3922 COCONUT PALM DRIVE, SUITE 102, TAMPA, FL 33619
PH (813) 821-0080 FAX NO. (813) 623-6757
FLORIDA FIRM REGISTRATION RY-4892
PROJ. NO. 09217088.27
DATE: 09/17/2022
DWN. BY: KCC
CHK. BY: LAA
APP. BY: CAR
CAR

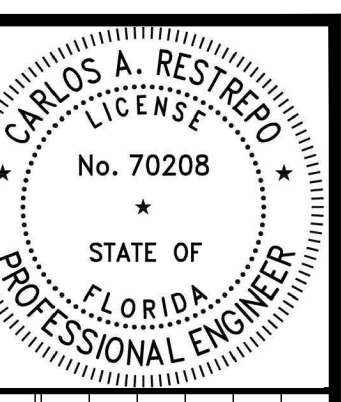
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DETAILS

DATE:
OCTOBER 2022

DRAWING NO.

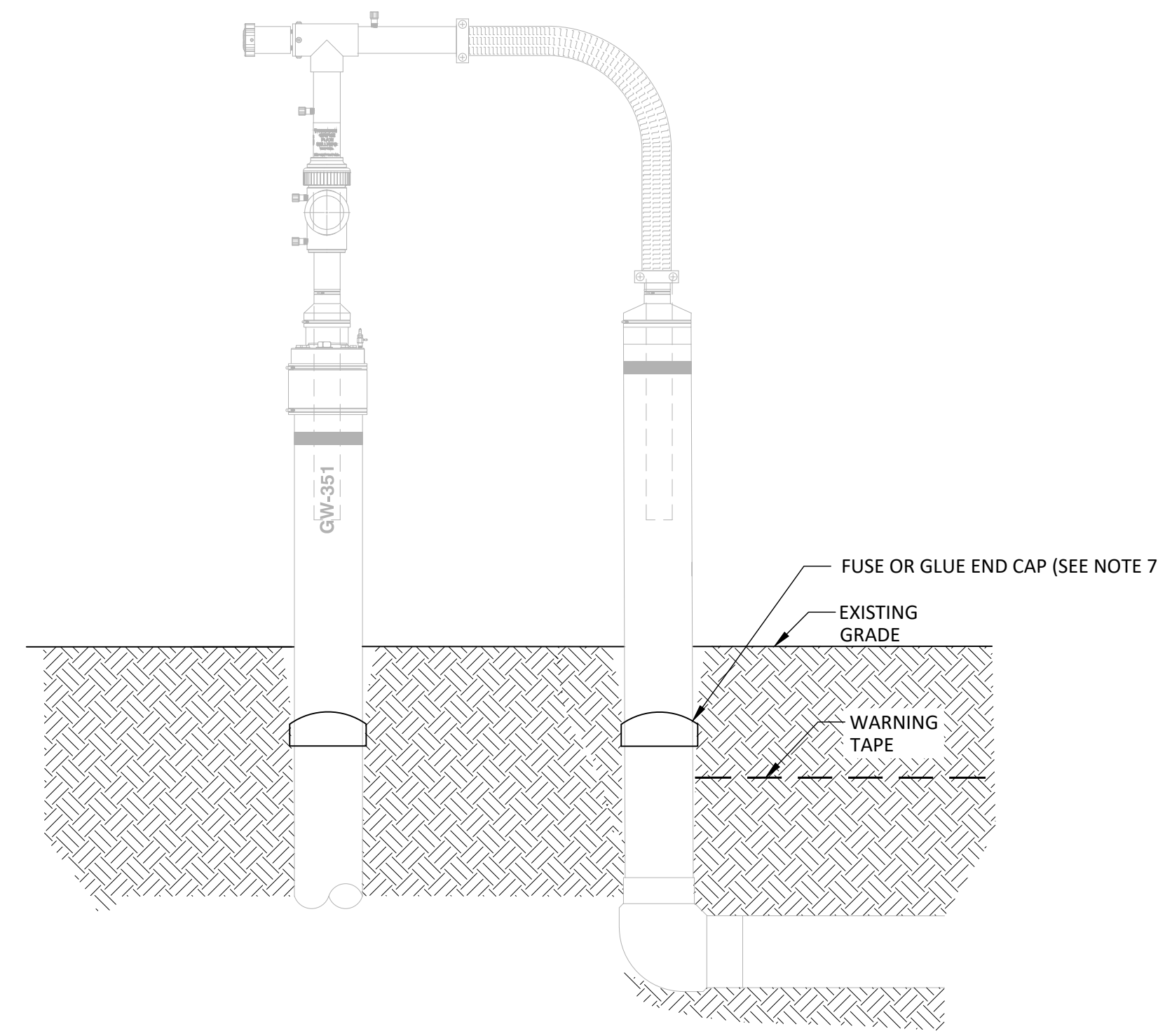
11
SHEET 11 of 15

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EXTRACTION WELLS TO ABANDON WITHIN FINAL COVER LINER	
GW-1	GW-15
GW-3	GW-31
GW-9	GW-38
GW-12	

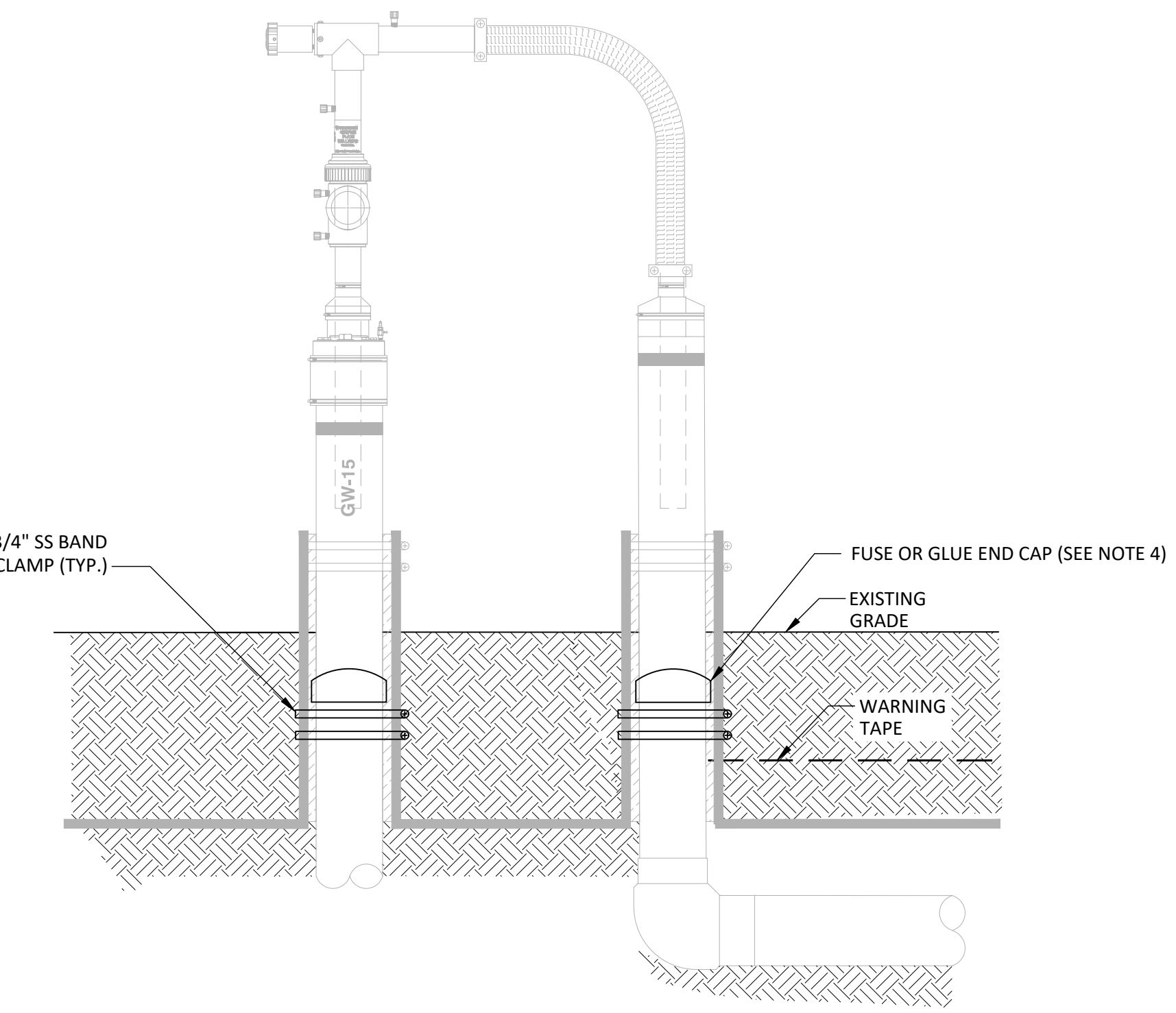
EXTRACTION WELLS TO ABANDON OUTSIDE FINAL COVER LINER	
GW-61	
GW-153	
GW-312	



GAS WELL ABANDONMENT DETAIL (OUTSIDE FINAL COVER LINER)

1
6 12

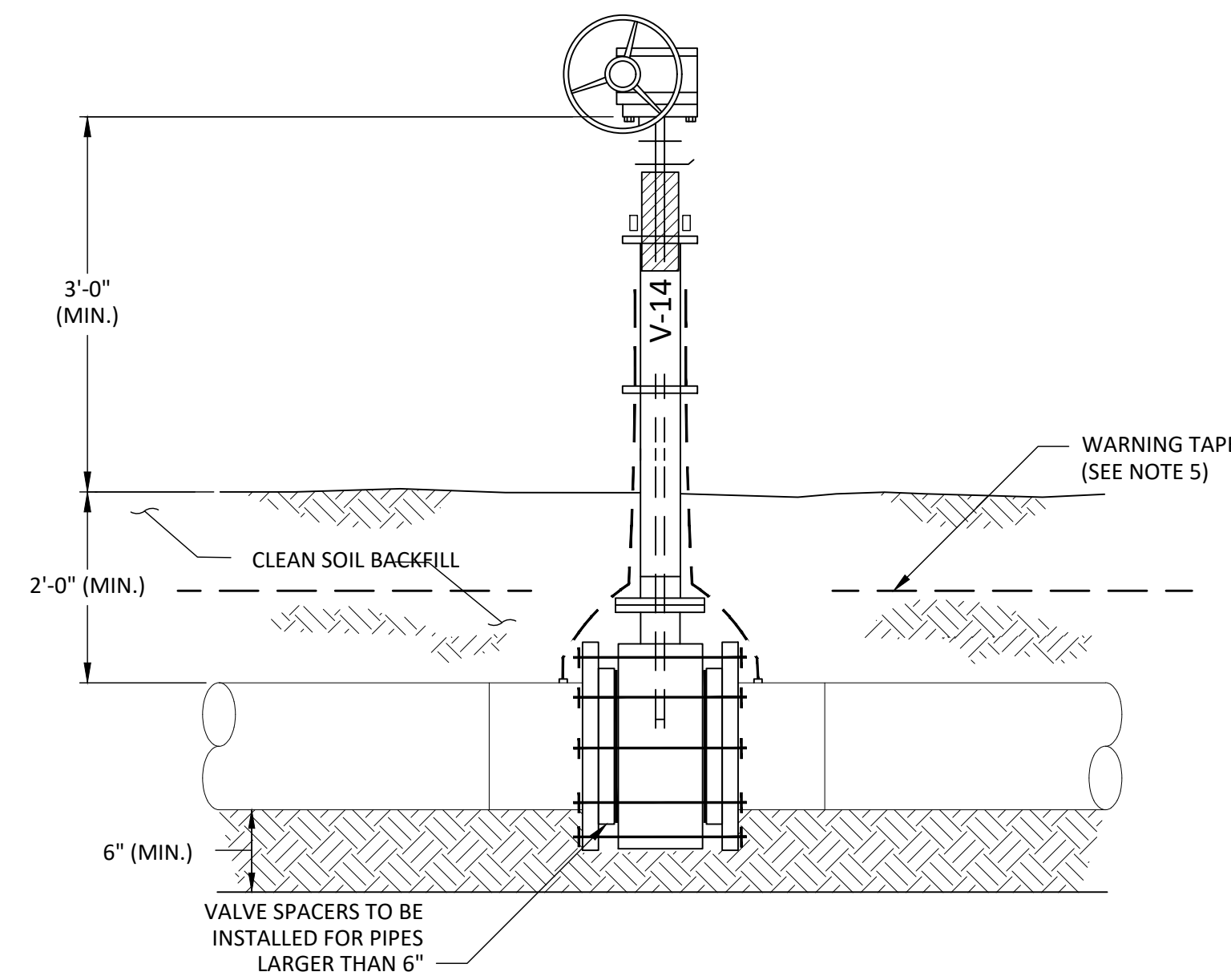
NOT TO SCALE



GAS WELL ABANDONMENT DETAIL (WITHIN FINAL COVER LINER)

2
6,7 12

NOT TO SCALE



NOTES:

1. STAINLESS STEEL THREADED RODS, WASHERS, NUTS AND BACKUP RINGS TO BE THOROUGHLY COATED WITH POLYCOAT RUBBERIZED PRIMER, OR EQUAL, AFTER TIGHTENING BOLTS.
2. FLANGE TO BE WRAPPED IN PLASTIC PRIOR TO BACK FILLING.
3. VALVE STEM TO BE LABELED WITH VALVE NAME.
4. CONTRACTOR TO PLACE SEALANT BETWEEN SAMPLING PORT HOSE AND VALVE STEM TO SEAL VOIDS.
5. WARNING TAPE SHALL BE MIN. 3" WIDE AND IMPRINTED WITH "GAS LINE BURIED BELOW" WITH A METALLIC LAYER FOR DETECTION ABOVE GRADE.

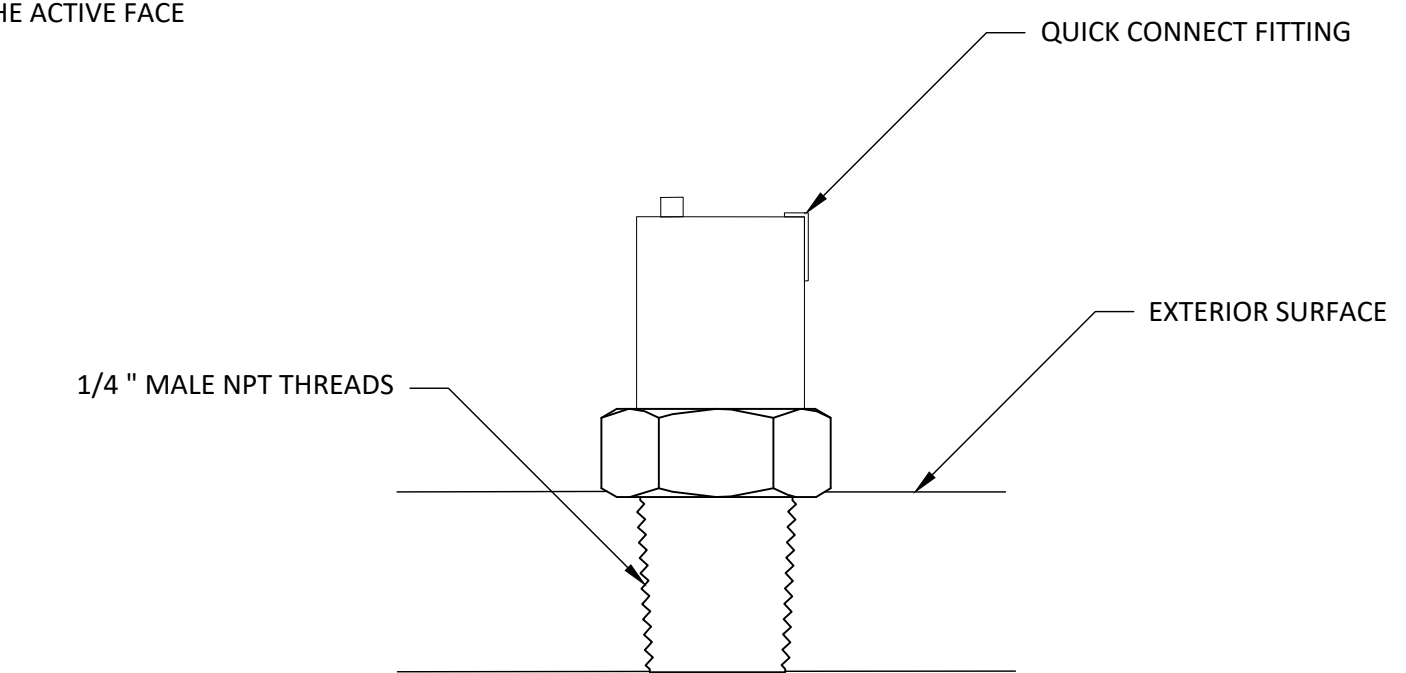
HEADER ISOLATION VALVE DETAIL

3
4 12

NOT TO SCALE

GAS WELL ABANDONMENT NOTES:

1. CONTRACTOR TO EXCAVATE INDICATED GAS WELLS FOR ABANDONMENT. EXERCISE CARE TO PREVENT DAMAGE TO EXISTING FINAL COVER LINER AND GAS WELL PIPE BOOT LINER. DAMAGES TO FINAL COVER LINER OR GAS LINER OR GAS WELL PIPE BOOT LINER SHALL BE REPAIRED BY CONTRACTOR AT NO ADDITIONAL EXPENSE TO THE COUNTY.
2. LOCATION OF LIMITS OF EXISTING CLOSURE LINER AND PIPE BOOT DETAILS BASED ON AVAILABLE INFORMATION FROM DRAWINGS BY HDR ENGINEERING TITLED "LENA ROAD LANDFILL PARTIAL CLOSURE NUMBER 2" DATED JULY 2000 AND SHOWN FOR REFERENCES PURPOSES ONLY.
3. CONTRACTOR IS TO PERFORM FIELD INSPECTION OF GAS WELLS SELECTED FOR ABANDONMENT AND DETERMINE LINER CONFIGURATION. CONTRACTOR TO COMMUNICATE WITH ENGINEER IF FIELD CONDITIONS SIGNIFICANTLY CHANGE FROM DETAIL.
4. CAREFULLY EXPOSE AREA WITHOUT DAMAGING EXISTING LINER AND CUT WELL RISER, LATERAL RISER, AND ASSOCIATED PIPE BOOT LINER 1 FOOT BELOW EXISTING SURFACE. ALL PIPES SHALL BE CAPPED WITH PVC CAP (FOR PVC WELLS) OR HDPE CAP (FOR ALL HDPE) DEPENDING ON EXISTING MATERIAL. STEEL CLAMPS FROM PIPE BOOT SHALL BE ADJUSTED AND RELOCATED BELOW THE NEW CAP TO CREATE A NEW SEAL.
5. CONTRACTOR TO RE-USE ALL REMOVED WELLHEADS ON PROPOSED EXPANSION. ANY REMAINING WELLHEADS SHALL BE RETURNED TO THE COUNTY.
6. BACKFILL AREA WITH CLEAN SOIL AFTER ABANDONMENT IS COMPLETE. ALL CONSTRUCTION DEBRIS TO BE DISCARDED AT THE ACTIVE FACE OF THE LANDFILL.
7. CAPS FOR WELLS WILL BE SCH 80 PVC WITH GLUE/SCREWS FOR PVC WELLS OR HDPE BUTT FUSION FOR HDPE WELLS.



QUICK CONNECT DETAIL

4
12 12

NOT TO SCALE

CHK. BY	DESCRIPTION	DATE	REV

SHEET TITLE	DETAILS-5
PROJECT TITLE	LENA ROAD LANDFILL STAGE II PHASE II GCCS EXPANSION CONSTRUCTION DRAWINGS

CLIENT	MANATEE COUNTY UTILITIES DEPARTMENT 4410 66TH STREET WEST BRADENTON, FLORIDA 34210
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SCS ENGINEERS	STEARNS, CONRAD AND SCHMIDT CONSULTING ENGINEERS	3922 COCONUT PALM DRIVE, SUITE 102, TAMPA, FL 33619	PH (813) 821-0080 FAX NO. (813) 625-6757	FLORIDA FIRM REGISTRATION RY-4892	
PROJ. NO.	09217088.27	DATE:	09/27/2022	CHK. BY:	LAA
DESIGN BY:	KKC	APP. BY:	CAR	CHECKED BY:	CAR

CADD FILE:	DETAILS
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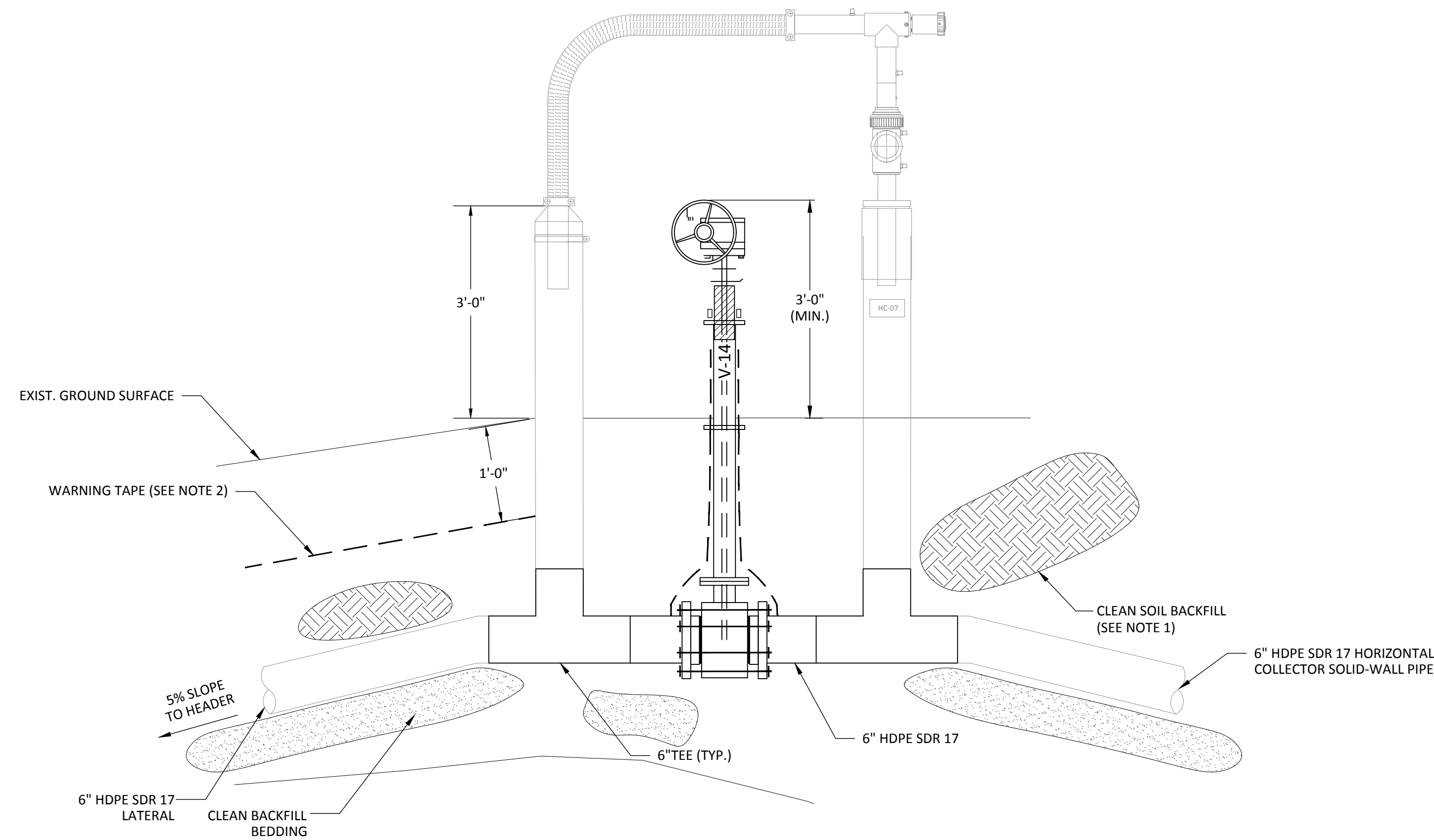
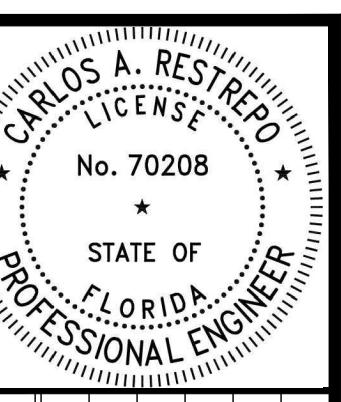
DATE:	OCTOBER 2022
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DRAWING NO.	12
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SHEET	12 of 15
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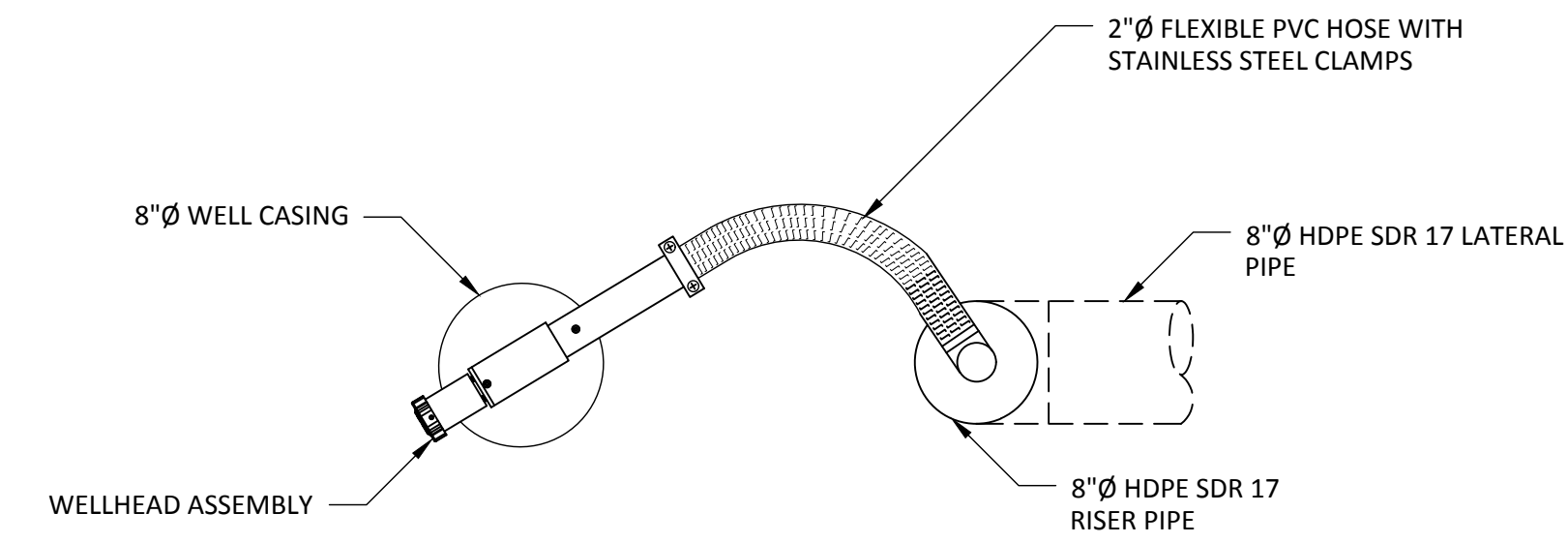
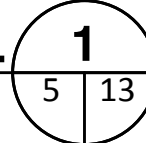


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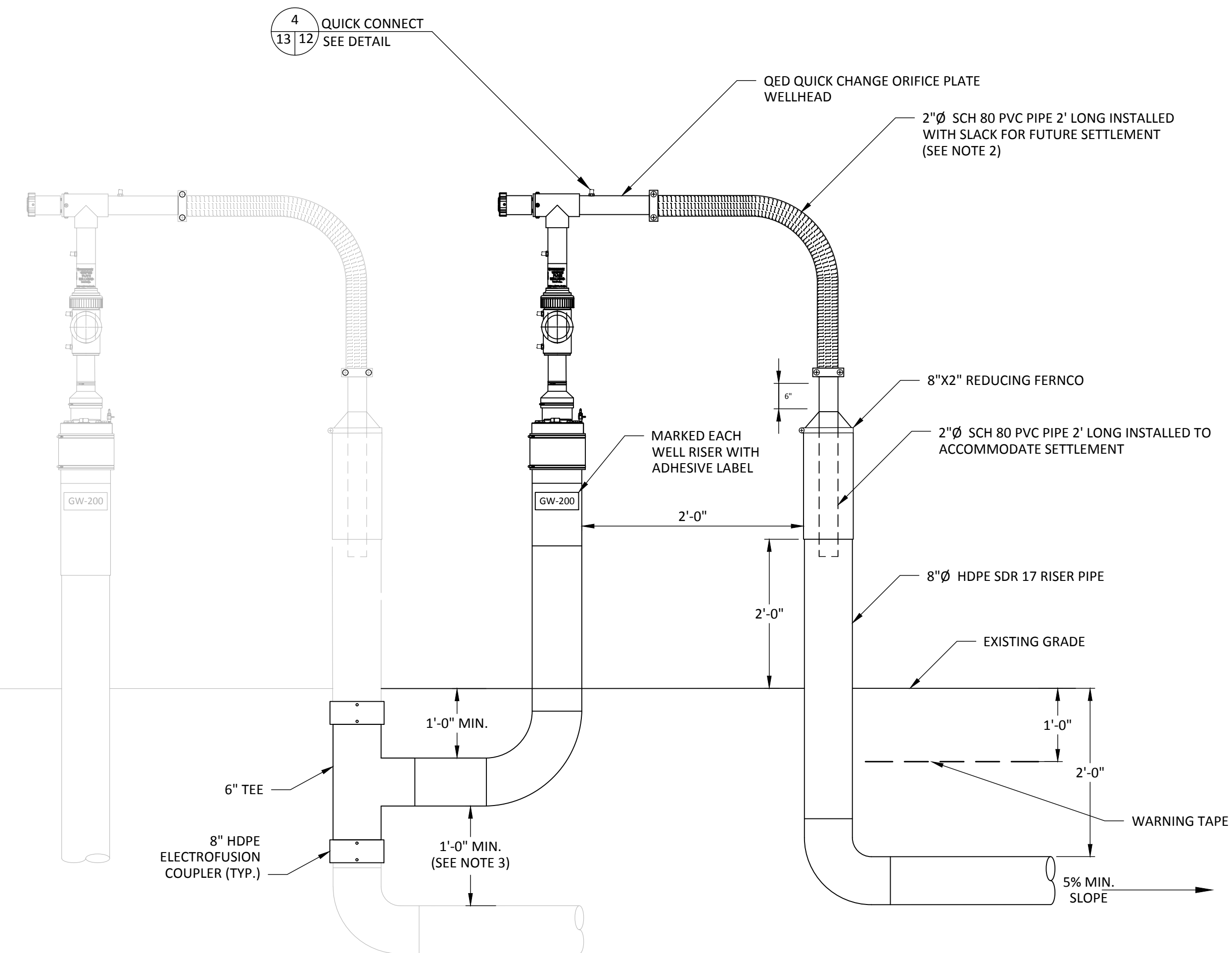
1. CONTRACTOR TO REMOVE EXISTING HDPE ELBOWS AT RISER AND LATERAL LINES AND CONNECT BOTH WITH NEW 6" HDPE SDR 17 SECTION AND AN ISOLATION VALVE.
2. ADJUST SPACING OF RISER AND LATERAL TO FACILITATE PLACEMENT OF ISOLATION VALVE.
3. BACKFILL ABOVE HORIZONTAL COLLECTOR TRENCHES WITH CLEAN BACKFILL.
4. WARNING TAPE IS MIN. 3" WIDE AND IMPRINTED WITH "GAS LINE BURIED BELOW"; WITH A METALLIC LAYER FOR DETECTION ABOVE GRADE.

HORIZONTAL COLLECTOR HC-7 AND HC-8 MODIFICATION DETAIL

NOT TO SCALE



PLAN VIEW

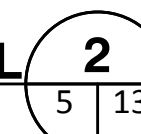


NOTES:

1. CONTRACTOR TO SUPPLY FULL ORIFICE PLATE PACKAGE FOR WELLHEAD AND DOCUMENT SIZE INSTALLED WITH COUNTY PERSONNEL AND ENGINEER.
2. WELLHEAD TO BE ROTATED TO PROVIDE SLACK IN FLEXIBLE HOSE FOR FUTURE SETTLEMENT, SEE PLAN VIEW.
3. CONTRACTOR TO MAINTAIN AT LEAST A 1-FT MINIMUM CLEARANCE BETWEEN EXISTING AND NEW LATERAL.

REMOTE LFG WELLHEAD DETAIL

NOT TO SCALE



CHK. BY	DESCRIPTION	DATE	REV

SHEET TITLE	DETAILS-6
PROJECT TITLE	LENA ROAD LANDFILL STAGE II PHASE II GCCS EXPANSION CONSTRUCTION DRAWINGS

CLIENT	MANATEE COUNTY UTILITIES DEPARTMENT 4410 66TH STREET WEST BRADENTON, FLORIDA 34210
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SCS ENGINEERS STEARNS, CONRAD AND SCHMIDT CONSULTING ENGINEERS 3922 COCONUT PALM DRIVE, SUITE 102, TAMPA, FL 33619 PH (813) 821-0080 FAX NO. (813) 625-6757 FLORIDA FIRM REGISTRATION RY-4892	DATE: OCTOBER 2022
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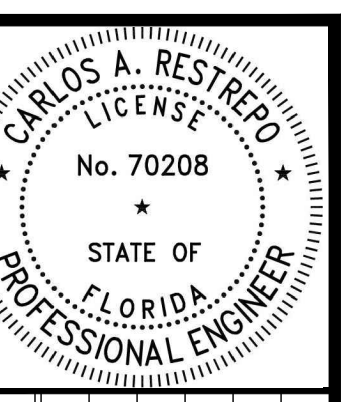
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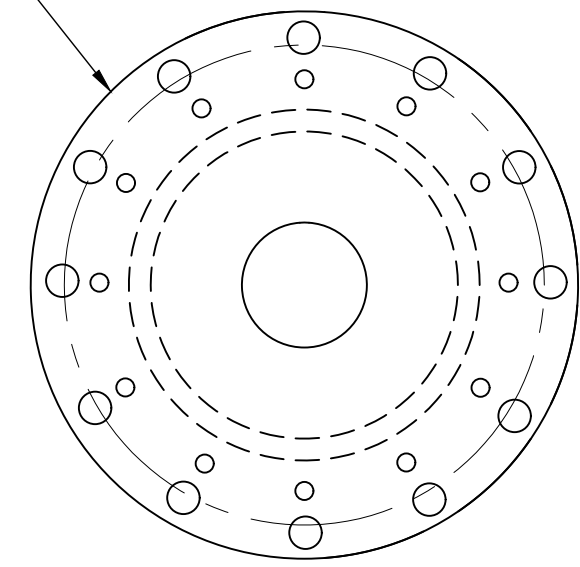
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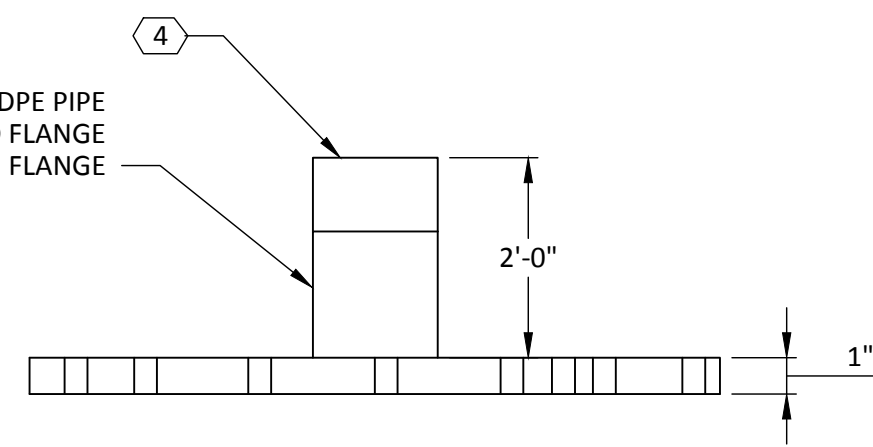


24" HDPE MANHOLE FLANGED COVER WITH SS BOLTS



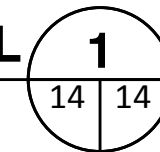
PLAN VIEW

1.5 FT LONG 8" DR 17 IPS HDPE PIPE THROUGH CENTER OF BLIND FLANGE AND TRANSITION FLANGE



FLANGED MANHOLE LID DETAIL 1

NOT TO SCALE



MANHOLE MODIFICATION WITH WELLHEAD
MH-E MH-E1-A MH-F MH-G*

MANHOLE MODIFICATION WITHOUT WELLHEAD
MH-A MH-B MH-D MH-H MH-J MH-K MH-KA-1

NOTES:

- * MH-G WILL ONLY REQUIRE WELLHEAD INSTALLATION AS IT WILL HAVE ALREADY BEEN MODIFIED PRIOR TO CONSTRUCTION.

GENERAL NOTES:

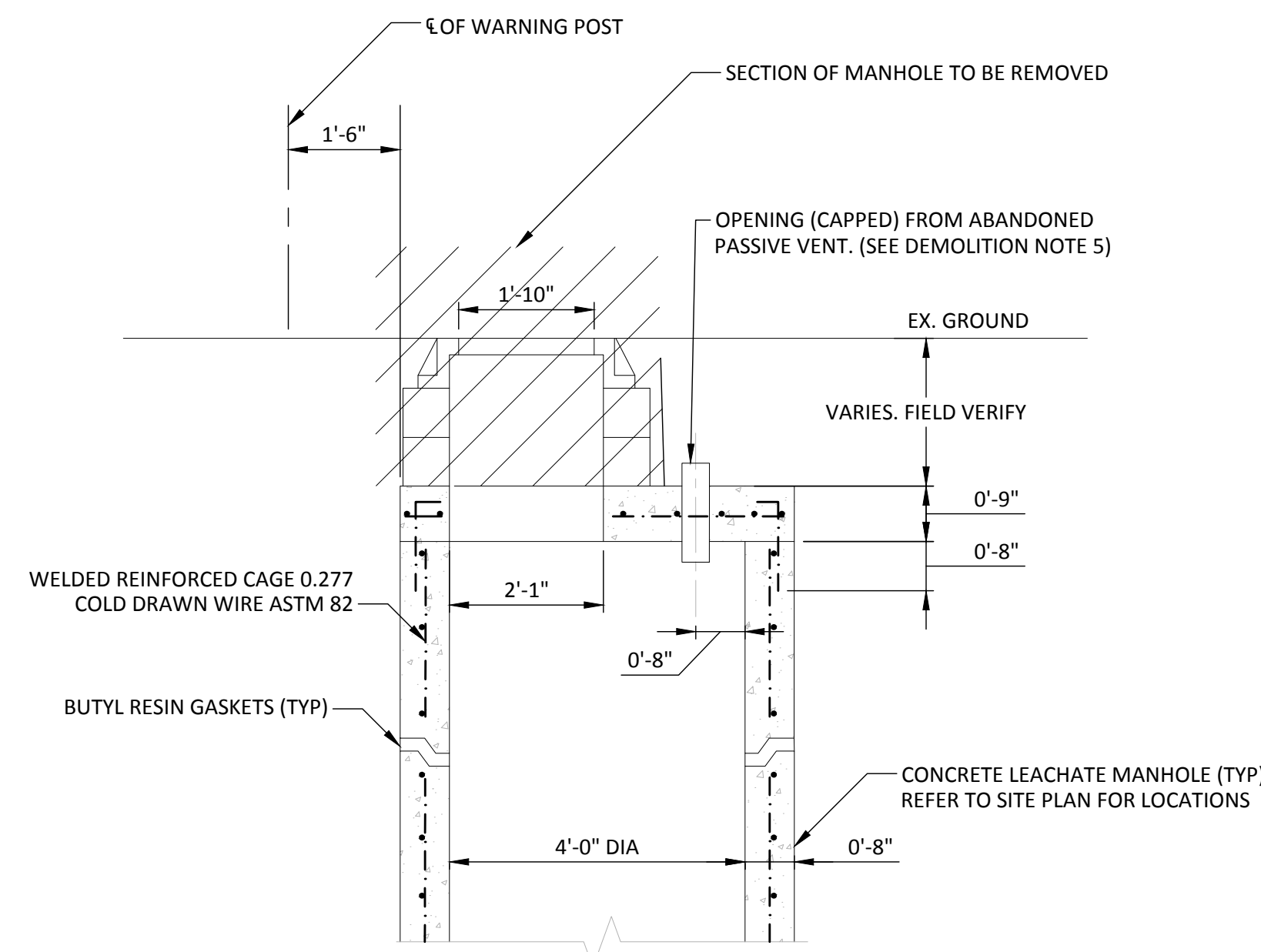
- EXISTING LEACHATE CONCRETE MANHOLE BASED ON RECORD DRAWINGS TITLED "STAGE 2 LEACHATE COLLECTION SYSTEM, PUMP STATION AND FORCE MAIN" DATED NOVEMBER 18, 1991 BY THOMAS J. ZINE AND SHOWN FOR GENERAL INFORMATION PURPOSES ONLY.
- CONTRACTOR IS ADVISED THAT FIELD CONDITIONS MAY DIFFER FROM DETAIL SHOWN.
- CONTRACTOR IS REQUIRED TO FIELD EVALUATE EACH MANHOLE FOR CLEARANCE AND PROVIDE DIMENSIONS TO ENGINEER FOR REVIEW AND APPROVAL PRIOR TO ORDERING PROPOSED HDPE FITTING ASSEMBLY AND CONNECTIONS.
- CONTRACTOR MAY BE REQUIRED TO EXCAVATE SOILS FROM AROUND THE MANHOLE LID OPENING TO FACILITATE IMPROVEMENTS. EXISTING STRUCTURES SHALL BE PROTECTED DURING SOIL EXCAVATION.
- CONTRACTOR IS ADVISED OF LANDFILL GAS PRESENT WITHIN THE MANHOLES. EXERCISE CARE DURING WORK IN THIS AREA, ALLOW MANHOLE TO RELEASE GAS, AND FOLLOW CONTRACTOR'S HEALTH AND SAFETY PLAN. APPROPRIATE PPE AND GAS METERS MUST BE WORN AT ALL TIMES.

DEMOLITION NOTES:

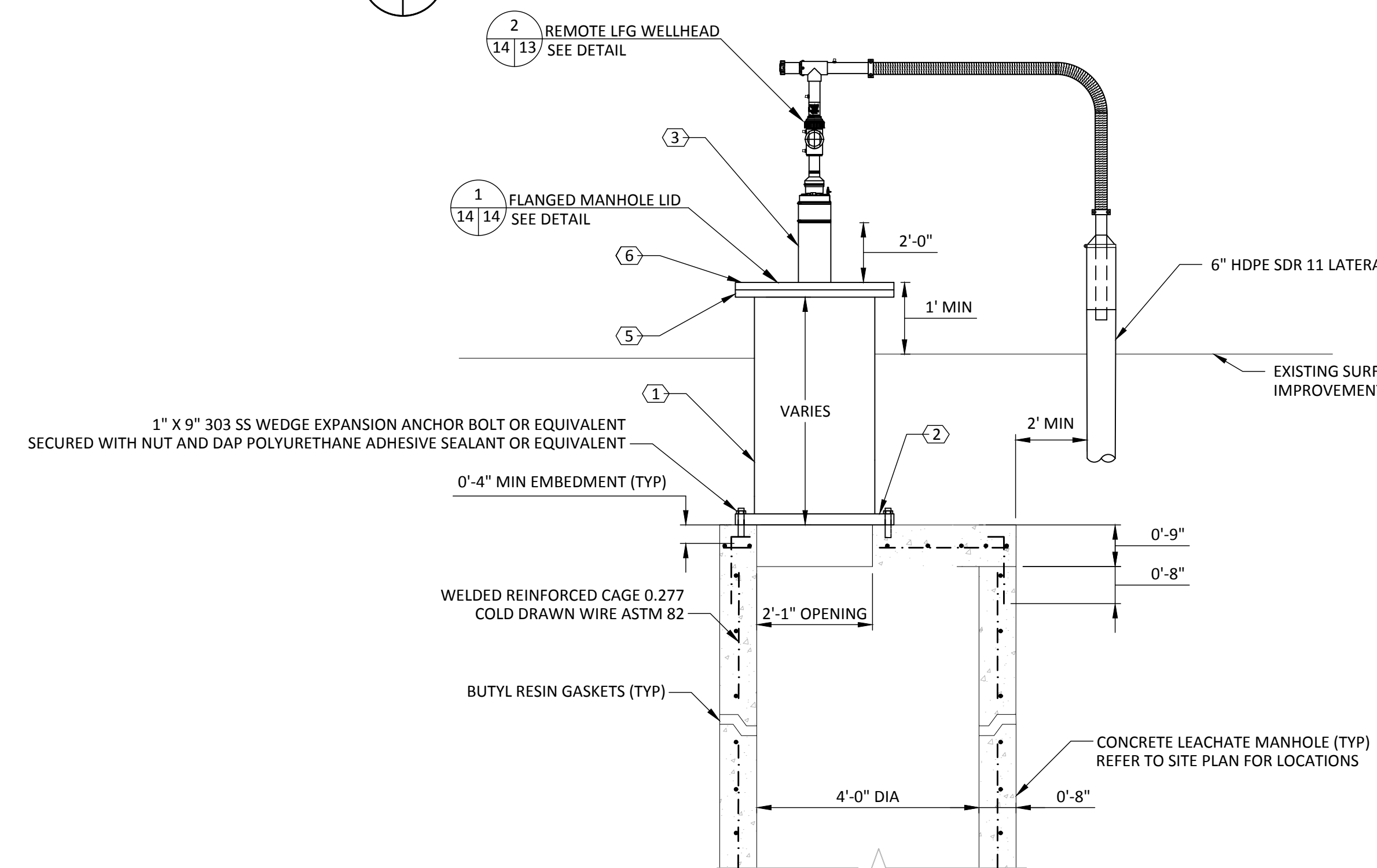
- CONTRACTOR IS ONLY REQUIRED TO DEMOLISH INDICATED TOP SEGMENT OF THE MANHOLE. THIS SEGMENT IS AN ADD-ON AND NOT STRUCTURALLY CONNECTED TO THE MANHOLE (I.E., NO REBARS CONNECTING TOP SEGMENT WITH MANHOLE). TOP SEGMENT IS COMPRISED OF SEVERAL ROUND CONCRETE PLATES TO RAISE THE MANHOLE LID AT OR ABOVE SURFACE.
- EXERCISE CARE NOT TO DAMAGE CONCRETE MANHOLE, REINFORCING, AND ANY OTHER STRUCTURAL ELEMENTS NOT INDICATED TO BE REMOVED. CARE MUST BE TAKEN TO PROTECT INTERIOR MANHOLE DRAINS. INTERIOR DRAINS AND LEACHATE PIPING MUST BE KEPT FREE OF DEBRIS AND FUNCTIONAL THROUGHOUT DEMOLITION AND CONSTRUCTION PERIOD.
- AFTER SELECTIVE DEMOLITION, ALL ROUGH CONCRETE SURFACE TO BE SCARIFIED (GRINDING, SHOT BLASTING, ETC) AROUND THE PROPOSED IMPROVEMENT UP TO THE LIMITS OF THE PROPOSED HDPE FITTING ASSEMBLY AND CONNECTIONS.
- A LEVEL SURFACE WITHIN THE LIMITS OF THE PROPOSED HDPE FITTING ASSEMBLY AND CONNECTIONS MUST BE COMPLETED BEFORE ANY IMPROVEMENTS. REPAIR ANY UNDULATIONS, CHIP EXPOSED CONCRETE AND/OR BRITTLE CONCRETE IN ORDER TO ESTABLISH AN UNIFORM SURFACE.
- TOP OF CONCRETE MANHOLE MAY INCLUDE AN ADDITIONAL OPENING (ESTIMATED 6" DIA) FOR AN ABANDONED PASSIVE VENT PIPE. SOME MANHOLES HAVE A PVC CAP GLUED TO PREVENT GAS RELEASE. CONTRACTOR TO CAREFULLY INSPECT ALL INDICATED MANHOLES AND DETERMINE IF EXISTING CAP STILL SERVICEABLE AND PROVIDES GOOD SEAL. COORDINATE WITH THE ENGINEER IF CAP NEEDS REPLACEMENT PRIOR TO IMPROVEMENTS.
- COORDINATE WITH COUNTY AND ENGINEER IF EXISTING CONDITIONS SIGNIFICANTLY CHANGE FROM DETAIL.

IMPROVEMENT NOTES:

- CONTRACTOR TO PREPARE AND CLEAN AREA PRIOR TO INSTALLING PROPOSED HDPE FITTING ASSEMBLY AND CONNECTIONS.
- CONTRACTOR TO SUBMIT TO ENGINEER PROPOSED MEANS AND METHODS TO INSTALL PROPOSED FITTING ASSEMBLY AND CONNECTIONS. SEAL TYPE BETWEEN HDPE AND CONCRETE MANHOLE TO CREATE SEAL-TIGHT CONNECTIONS AND ANY PROPOSED MODIFICATIONS TO THE EXISTING VENT OPENING IN ORDER TO FACILITATE INSTALLATION OF WELLHEAD.
- WEDGE ANCHORS, HEX BOLT NUTS, LOCK WASHERS TO BE TYPE 303 STAINLESS-STEEL.
- EXISTING SURFACE VARIES AT EACH MANHOLE LOCATION. CONTRACTOR IS TO INSTALL PROPOSED HDPE FITTING ASSEMBLY AND CONNECTIONS WITH A MINIMUM OF 1 FOOT CLEARANCE ABOVE EXISTING SURFACE. EXTENSION OF HDPE FITTINGS AND WELLHEAD CONNECTION WILL VARY TO MEET THIS REQUIREMENT.
- RE-GRADE AREA AND IF REQUIRED BACKFILL ON TOP OF MANHOLE ONLY AFTER IMPROVEMENTS ARE COMPLETE, INSPECTED, AND APPROVED BY ENGINEER. RESTORE ALL SOD PER PRE-EXISTING CONDITIONS.



EXISTING CONDITIONS - DEMOLITION PLAN



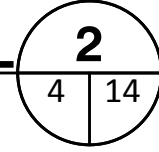
PROPOSED IMPROVEMENTS PLAN

KEY NOTES:

- 24" DR 17 DIPS HDPE PIPE WITH A CUSTOM NEOPRENE GASKET.
- HDPE TRANSITION FLANGE 1-1/2" THICK, 36" OD, 25.8" ID w(12) 1-1/4" BH ON 31.75" BHC.
- 8" DR 17 IPS HDPE PIPE.
- FOR MANHOLES WITHOUT WELLHEADS, 8" DR 17 IPS CAP MOLDED HDPE.
- HDPE TRANSITION FLANGE 1-1/2" THICK, 31" OD, 25.8" ID w(12) 3/4" BH ON 28.5" BHC.
- HDPE BLIND FLANGE 1" THICK, 31" OD w(12) 3/4" BH ON 28.5" BHC.

LEACHATE MANHOLE MODIFICATION DETAIL 2

SCALE 1" = 2'



CHK. BY	DESCRIPTION	DATE	REV

SHEET TITLE	DETAILS-7
PROJECT TITLE	LENA ROAD LANDFILL STAGE II PHASE II GCCS EXPANSION CONSTRUCTION DRAWINGS

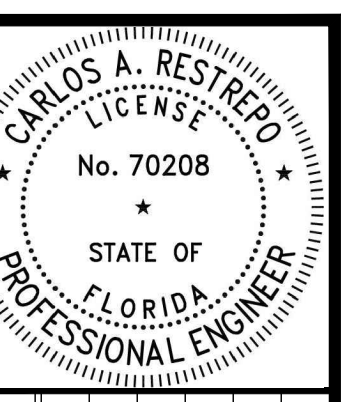
CLIENT	MANATEE COUNTY UTILITIES DEPARTMENT 4410 66TH STREET WEST BRADENTON, FLORIDA 34210
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SCS ENGINEERS STEARNS, CONRAD AND SCHMIDT CONSULTING ENGINEERS 3922 COCONUT PALM DRIVE, SUITE 102, TAMPA, FL 33619 PH (813) 821-0080 FAX NO. (813) 625-6757 FLORIDA FIRM REGISTRATION RY-4892	DATE: OCT 2022	SCALE: 1" = 2'
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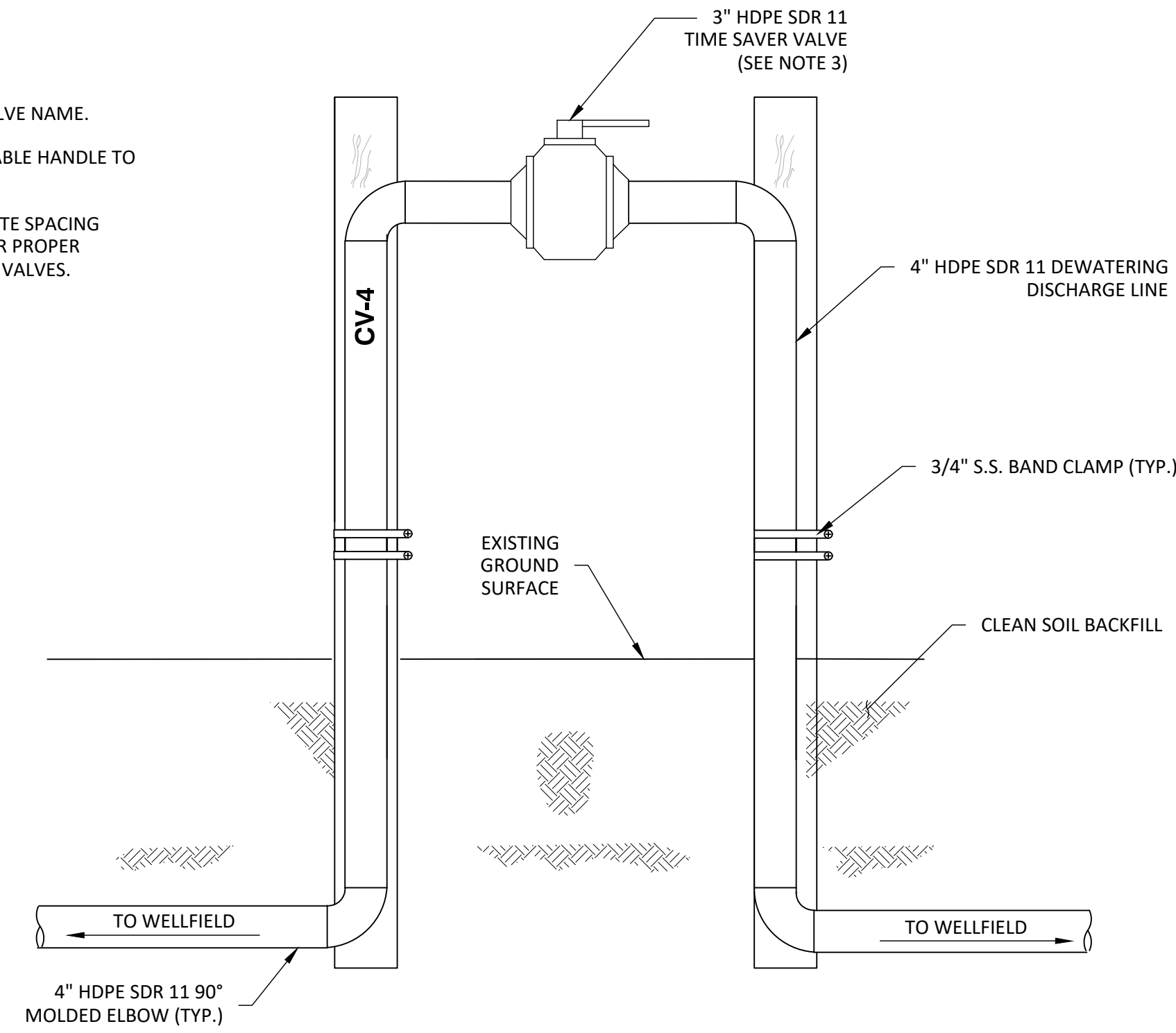
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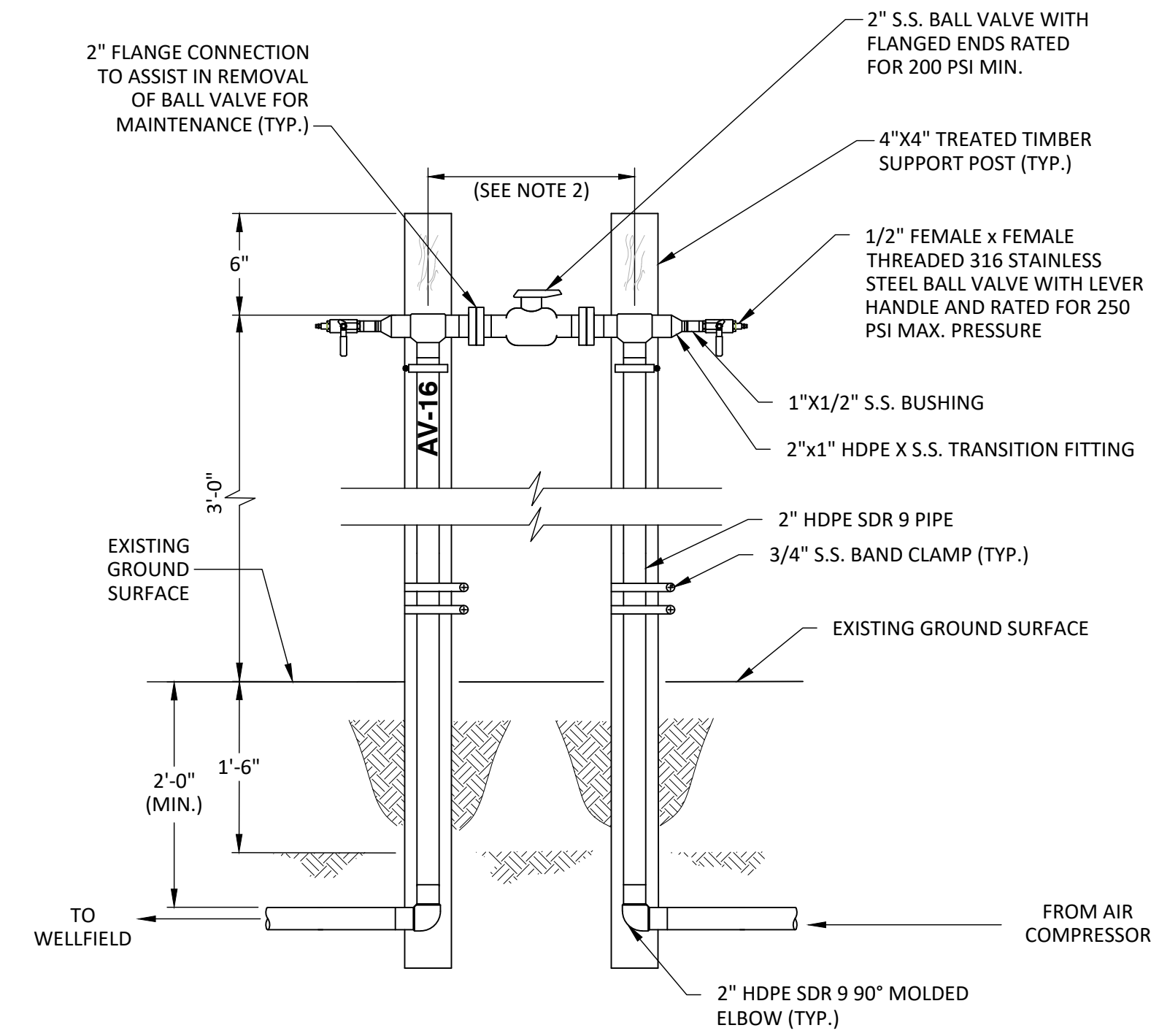
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- NOTES:
1. RISER PIPE TO BE LABELED WITH VALVE NAME.
 2. CONTRACTOR TO PROVIDE REMOVABLE HANDLE TO COUNTY.
 3. CONTRACTOR TO PROVIDE ADEQUATE SPACING BETWEEN THE POSTS TO ALLOW FOR PROPER OPERATION/MAINTENANCE OF THE VALVES.

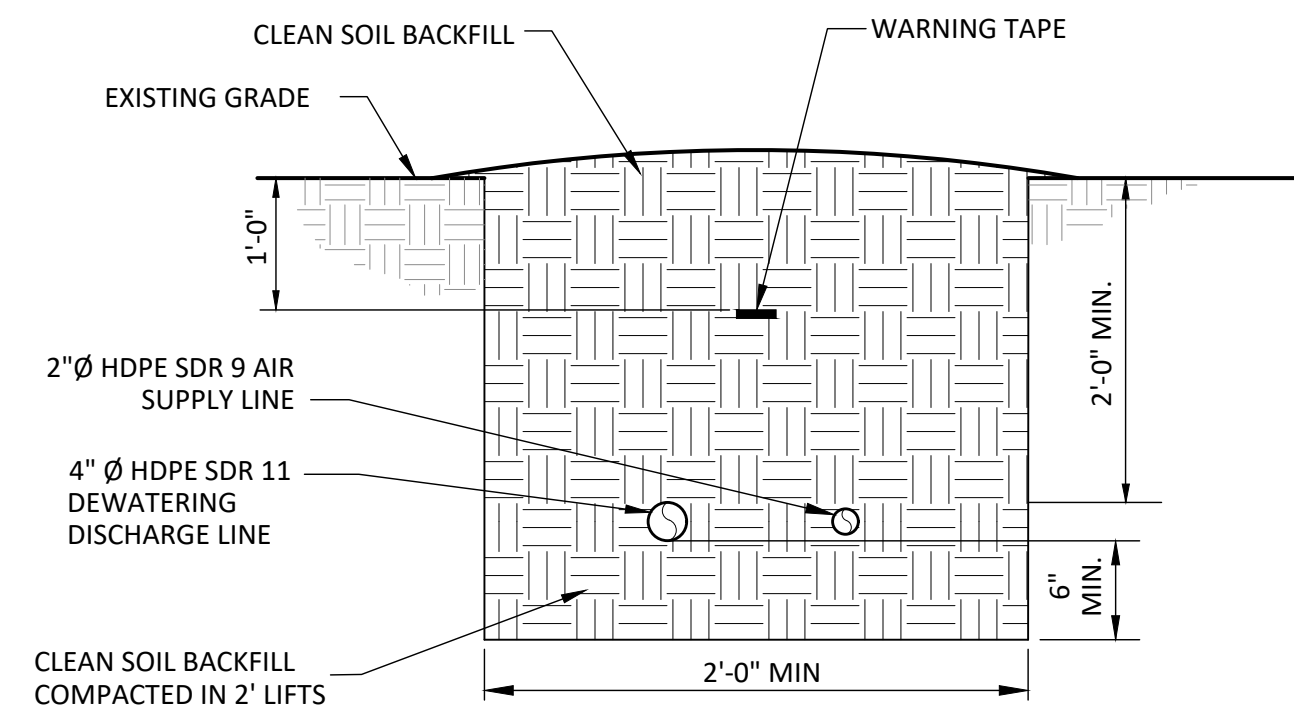


DEWATERING DISCHARGE ISOLATION VALVE DETAIL 1
NOT TO SCALE



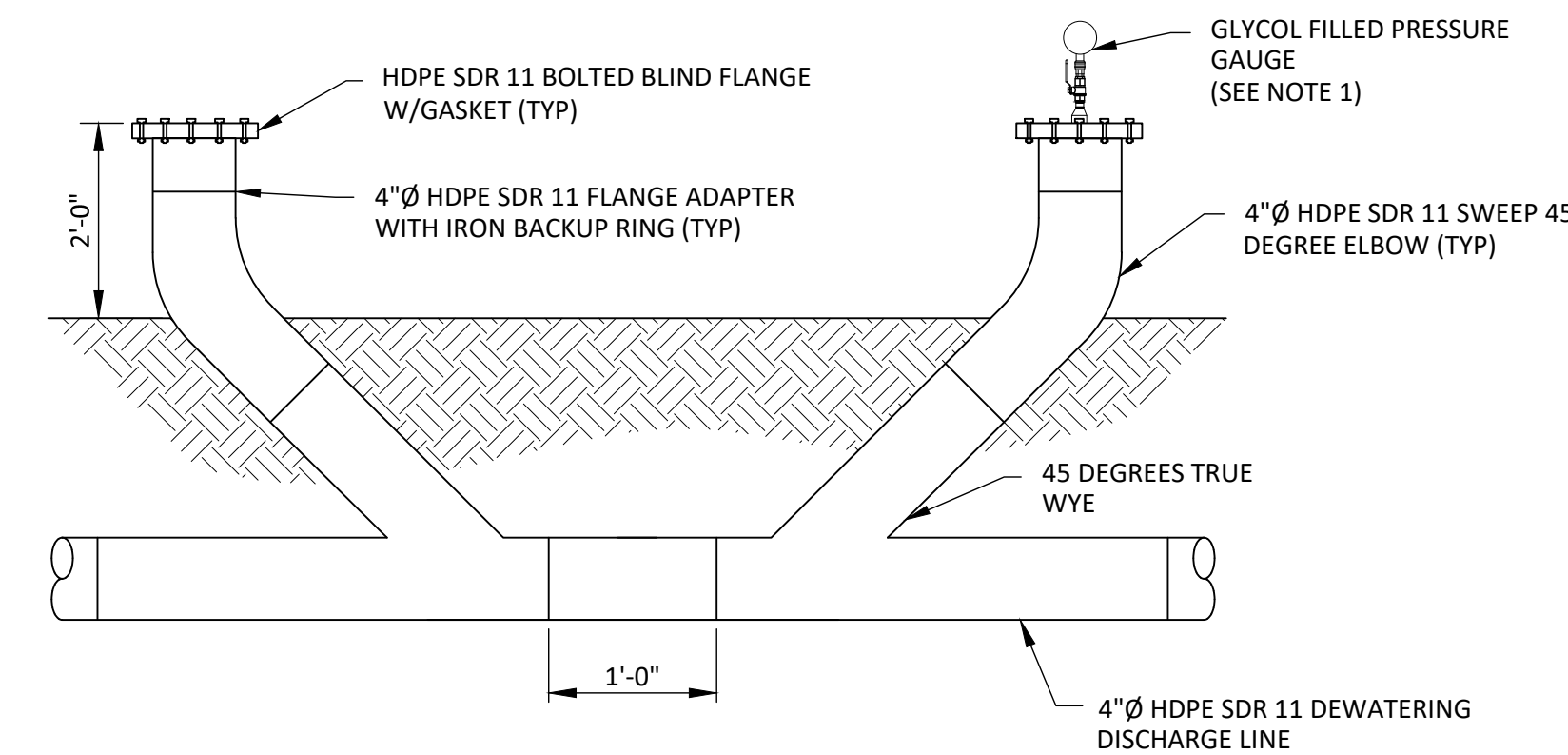
- NOTES:
1. RISER PIPE TO BE LABELED WITH VALVE NAME.
 2. CONTRACTOR TO PROVIDE ADEQUATE SPACING BETWEEN THE POSTS TO ALLOW FOR PROPER OPERATION/MAINTENANCE OF THE VALVES.

AIR ISOLATION VALVE DETAIL 2
NOT TO SCALE



- NOTES:
1. WARNING TAPE SHALL BE MIN. 3" WIDE AND IMPRINTED WITH "CAUTION GAS LINE BURIED BELOW."

AIR AND DEWATERING DISCHARGE LINES IN TRENCH DETAIL 3
NOT TO SCALE



- NOTES:
1. 1/2" X 3/8" SS BUSHING TO BE DRILLED AND TAPPED WITH 3/8" SS BALL VALVE AND GLYCOL FILLED PRESSURE GAUGE (0-200 PSI RANGE)

DUAL DEWATERING DISCHARGE LINE CLEANOUT DETAIL 4
NOT TO SCALE

CHK. BY	DESCRIPTION	DATE	REV

SHEET TITLE	DETAILS-8
PROJECT TITLE	LENA ROAD LANDFILL STAGE II PHASE II GCCS EXPANSION CONSTRUCTION DRAWINGS

CLIENT	MANATEE COUNTY UTILITIES DEPARTMENT 4410 66TH STREET WEST BRADENTON, FLORIDA 34210
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DATE:	OCTOBER 2022
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