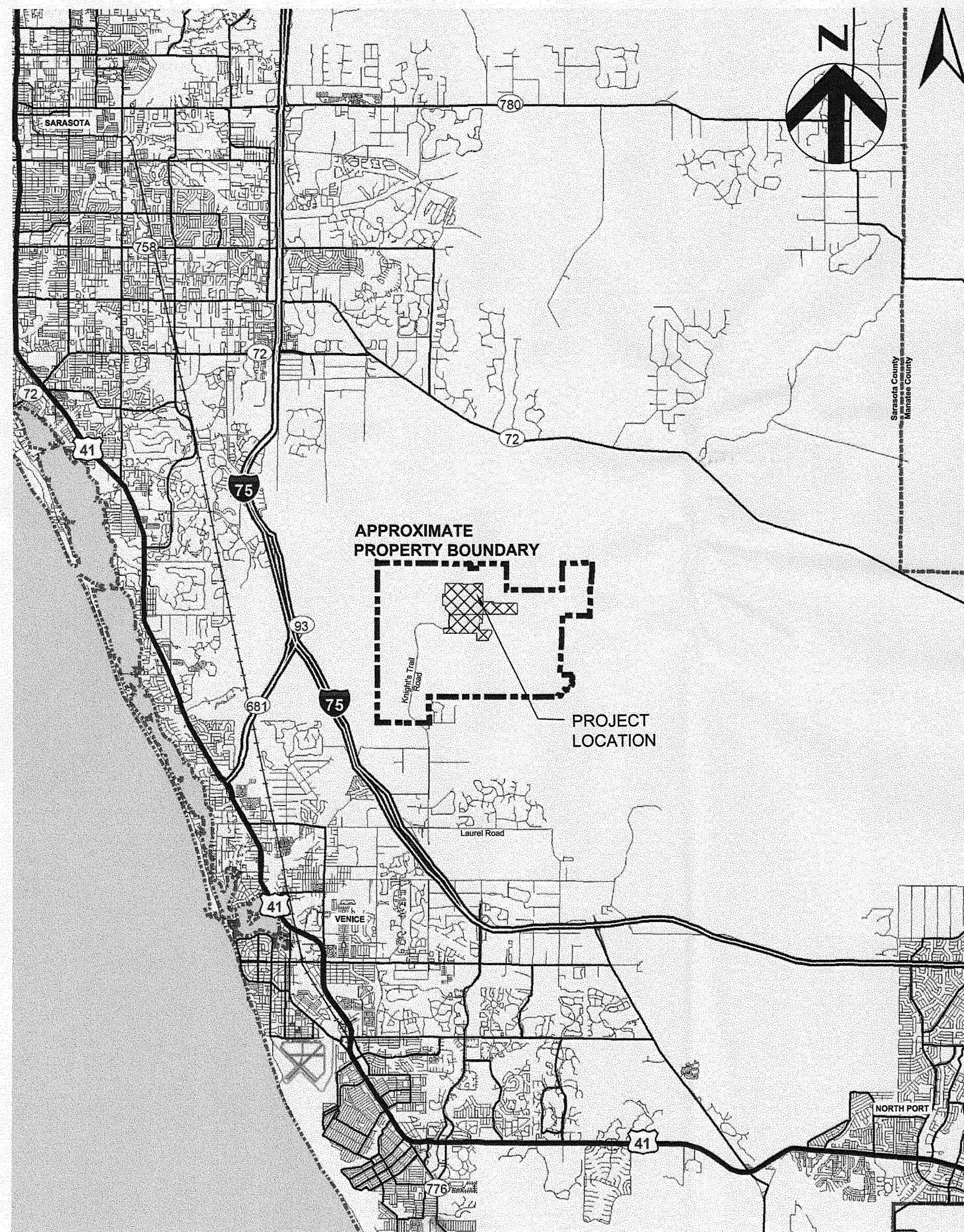




Sarasota County

HDR

5426 Bay Center Drive, Ste. 400
Tampa, Florida 33609
813-282-2300
HDR CERT. AUTH. NO. CA 4213
FL REG. AA C000457



PHASE I SEQUENCE 2 LANDFILL GAS COLLECTION AND CONTROL SYSTEM

ADDRESS: 4000 KNIGHTS TRAIL ROAD
NOKOMIS, FLORIDA 34275

PROJECT NO. 00096-130530-005

SARASOTA COUNTY, FLORIDA

CIP NO. 95206

BID NO. 111383CS

RECORD DRAWINGS

AUGUST 2012

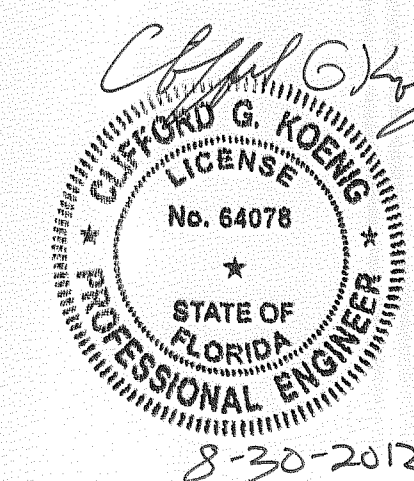
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LFG-03C	PHASE I SEQUENCE 2 GAS SYSTEM AS-BUILT
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RECORD DRAWING

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CLIFFORD G. KOENIG, P.E.
FLORIDA P.E. NO. 64078

HDR ENGINEERING, INC.

FLORIDA DEPARTMENT OF
ENVIRONMENTAL PROTECTION
SEP - 7 2012
SOUTHWEST DISTRICT
TAMPA

SHEET
G-01

ENGINEERING SYMBOLOGY

HP

HIGH POINT

LP

LOW POINT

S-1

PROPOSED CONDENSATE SUMP

GW-49

PROPOSED LFG EXTRACTION WELL

AP

PROPOSED ACCESS POINT

KO

PROPOSED KNOCKOUT POT

U1

PROPOSED U-TRAP

PROPOSED REMOTE WELLHEAD

EXISTING LEACHATE SUMP

EXISTING LEACHATE CLEANOUT

PROPOSED AIRLINE/FORCE MAIN VALVE PIT

PROPOSED HEADER ISOLATION VALVE PIT

PROPOSED ECCENTRIC REDUCER

PROPOSED STRAW BALE BARRIER

PROPOSED TEMPORARY DITCH BLOCK

EXISTING SOLAR FLARE

GP-7

EXISTING GAS PROBE

MW-14

EXISTING GROUNDWATER MONITORING WELL

EXISTING WATER SUPPLY WELL

PROPOSED ELECTRICAL HOUSING

PROPOSED SILT FENCE

PROPOSED 2" HDPE SDR 9 AIR SUPPLY LINE

PROPOSED 4" HDPE SDR 9 CONDENSATE RETURN LINE

PROPOSED 4" HDPE SDR 11 LATERAL

PROPOSED 6" HDPE SDR 11 LATERAL

PROPOSED 8" HDPE SDR 11 LATERAL

PROPOSED HDPE SDR 17 HEADER

EXISTING MAJOR/MINOR CONTOURS

40

PROPOSED MAJOR/MINOR CONTOURS

PHASE LIMITS

CELL LIMITS

PROPERTY LINE

EXISTING 6" LEACHATE FORCEMAIN

PROPOSED CHAIN LINK FENCE

EXISTING CHAIN LINK FENCE

LIMITS OF CONSTRUCTION

UGE

PROPOSED UNDERGROUND ELECTRIC CONDUIT

UGT

PROPOSED UNDERGROUND TELEPHONE CONDUIT

DETAILS LEGEND OF PATTERNS

CLEAN BACKFILL

PIPE BEDDING (DEFINED AS FIELD COMPACTED AND LEVELED BACKFILL OR EQ.)

INTERMEDIATE COVER

WASTE

BENTONITE SEAL

EXISTING GROUND

STONE

ONSITE SOIL

CONCRETE

ASPHALT

NOTE

SYMBOLGY IS REPRESENTATIVE OF MAJOR LANDFILL GAS COMPONENTS.

GENERAL SYMBOLOGY

ARROW INDICATES DIRECTION OF PLAN NORTH

DETAIL NUMBER

#

XXX

SHEET WHERE DETAIL IS LOCATED

DETAIL MARKER

FOR REFERENCING DETAILS INCLUDED IN DRAWING SET.

DETAIL NUMBER

#

XXX

SHEET WHERE DETAIL WAS CALLED OUT

DETAIL

3" = 1'-0"

DETAIL TITLE

SURVEY AND MAP REPORT:

1. TOPOGRAPHY WITHIN PHASES I THROUGH IV AREAS COMPILED BY KUCERA INTERNATIONAL INC., OF WILLOUGHBY, OHIO USING PHOTOGRAMMETRIC METHODS FROM AERIAL PHOTOGRAPHS DATED JUNE 2010.

SPECIFIC NOTES:

1. 2 WEEKS PRIOR TO INITIATING WORK, THE CONTRACTOR WILL SUBMIT FOR APPROVAL A SCHEDULE TO THE ENGINEER, FOR COMPLETION OF THE PROJECT.

2. ALL EXCAVATION AND DRILLING WITHIN THE LANDFILL LIMITS SHALL CEASE PRIOR TO 3:00 PM. ALL WASTE EXCAVATED SHALL BE DELIVERED TO THE ACTIVE FACE OF THE LANDFILL DAILY BY 5:00 PM. WASTE NOT TAKEN TO WORKING FACE SHALL BE COVERED OR CONTAINERIZED. CHANGES IN WORK HOURS ARE BASED UPON OWNER'S APPROVAL.

3. HOURS FOR CONSTRUCTION: 7:00 AM TO 7:00 PM MONDAY THRU SATURDAY, NO WORK ALLOWED ON SUNDAY UNLESS OTHERWISE APPROVED BY OWNER AND PERMIT WITH A MAXIMUM OF 60 HOURS PER WEEK.

4. CONTRACTOR MAY CONTAINERIZE WASTE AND TARP OVERNIGHT BASED ON OWNER APPROVAL.

EROSION AND SEDIMENT CONTROL:

1. CONTRACTOR WILL ADD EROSION AND SEDIMENT CONTROL AS NECESSARY TO PREVENT SEDIMENTATION AND DAMAGE TO ADJACENT AREAS AND AS DIRECTED BY THE OWNER'S REPRESENTATIVE.

2. CONTRACTOR WILL INSPECT AND REPAIR, AS NECESSARY, ANY EROSION AND SEDIMENT CONTROL DAILY AND FOLLOWING EACH RAIN.

3. EROSION AND SEDIMENT CONTROL WILL BE INSTALLED PRIOR TO CONSTRUCTION AND SHALL BE MAINTAINED UNTIL PERMANENT GROUND COVER IS ESTABLISHED.

4. CONTRACTOR IS RESPONSIBLE FOR MONITORING DOWNSTREAM CONDITIONS THROUGHOUT THE CONSTRUCTION PERIOD AND CLEARING ANY DEBRIS AND SEDIMENT RESULTING FROM CONSTRUCTION.

5. EROSION CONTROL FENCING MUST MEET THE REQUIREMENT OF THE DEPARTMENT OF TRANSPORTATION, STATE OF FLORIDA STANDARD SPECIFICATIONS. EROSION CONTROL MEASURES WILL BE MAINTAINED AT ALL TIMES.

6. ADDITIONAL EROSION AND SEDIMENT CONTROL MEASURES WILL BE INSTALLED IF DEEMED NECESSARY BY ON-SITE INSPECTION.

EARTHWORK:

1. EXCAVATION IS UNCLASSIFIED AND INCLUDES REMOVAL OF EARTH FILLS, RUBBLE, TRASH, AND OTHER MATERIALS ENCOUNTERED IN EXCAVATION AND GRADING OPERATIONS TO DEPTH AND EXTENT SHOWN ON DRAWINGS OR SPECIFIED. THE OWNER'S REPRESENTATIVE SHALL BE THE FINAL AUTHORITY AND SHALL MAKE THE FINAL DECISION DURING CONSTRUCTION AS TO THE DEPTH AND EXTENT TO WHICH MATERIALS MUST BE REMOVED AND REPLACED.

2. SURVEY BENCHMARKS, MONUMENTS AND OTHER REFERENCE POINTS WILL BE PROTECTED FROM DAMAGE AND DISPLACEMENT. IF DISTURBED OR DESTROYED, THEY WILL BE REPLACED AT THE CONTRACTOR'S EXPENSE.

3. CONTRACTOR SHALL KEEP DIRT, DUST, NOISE AND OTHER OBJECTIONABLE NUISANCES TO A MINIMUM.

4. ALL FILL AREAS ARE TO BE COMPACTED AS DEFINED IN THE SPECIFICATIONS AND DRAWINGS.

5. CUT AND FILL SLOPES FOR STRUCTURAL EMBANKMENTS SHALL NOT EXCEED 3 HORIZONTAL TO 1 VERTICAL.

UTILITIES:

1. THERE MAY BE OTHER UTILITIES NOT SHOWN ON THESE PLANS. THE ENGINEER ASSUMES NO RESPONSIBILITY FOR LOCATIONS SHOWN AND IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY THE LOCATIONS OF ALL UTILITIES WITHIN THE LIMITS OF THE WORK PRIOR TO CONSTRUCTION. ALL DAMAGE MADE TO EXISTING UTILITIES SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR. THE CONTRACTOR SHALL NOTIFY ALL UTILITY COMPANIES IN THE AREA AT LEAST 72 HOURS PRIOR TO BEGINNING CONSTRUCTION. CALL FLORIDA SUNSHINE STATE ONE CALL CENTER AT 1-800-432-4770. ALL COORDINATION AND REQUIRED UTILITY COMPANY TEMPORARY PROTECTION SHALL BE AT THE CONTRACTOR'S EXPENSE. IT IS THE CONTRACTOR'S RESPONSIBILITY TO ENSURE UNINTERRUPTION OF SERVICE AND REPLACEMENT OF DAMAGED UTILITIES.

AS-BUILT SURVEY DATA:

1. CONTRACTOR SHALL BE RESPONSIBLE FOR MINIMIZING LANDFILL GAS EMISSIONS FROM SURVEY TUBES (E.G. SEAL TOP OF SURVEY TUBES).

2. THE CONTRACTOR SHALL PROVIDE SURVEY DATA TO THE ENGINEER SHOWING THE LANDFILL GAS SYSTEM HAS BEEN PROPERLY CONSTRUCTED AND MEETS THE MINIMUM SLOPES REQUIRED AS SHOWN ON THE DRAWINGS.

3. THE SURVEY DATA SUBMITTED TO THE ENGINEER SHALL BE GROUND SURFACE ELEVATIONS AND TOP OF PIPE ELEVATIONS AT 50 FOOT INTERVALS ON CENTER AND AT EACH FITTING, LATERAL CONNECTION, VALVE, BENDS AND OTHER SIGNIFICANT FEATURES

4. ALL REQUESTED SURVEY DATA MUST BE PROVIDED TO OWNER'S REPRESENTATIVE IN FLORIDA STATE PLANE COORDINATES AND BE PERFORMED BY A STATE OF FLORIDA CERTIFIED SURVEYOR.

GENERAL NOTES:

1. THE CONTRACTOR IS ADVISED THAT NO ACTIVITIES MAY INTERFERE, DISRUPT, BLOCK, OR OTHERWISE CONFLICT WITH LANDFILL OPERATIONS. IF CONFLICTS ARE ANTICIPATED THEY SHALL BE COORDINATED AND APPROVED BY THE OWNER AND ENGINEER PRIOR TO DISRUPTION.

2. PROJECT SITE IS A SOLID WASTE LANDFILL, AS SUCH, CONDITIONS ARE SUBJECT TO CHANGE WITH TIME. CONTROLS, IN PARTICULAR VERTICAL CONTROL, SHOULD BE EXPECTED (AND ANTICIPATED) TO VARY FROM THOSE SHOWN ON THESE DRAWINGS DUE TO ONGOING SUBSIDENCE RESULTING FROM REFUSE DECOMPOSITION. RELATIVE ELEVATION DIFFERENCES IN EXISTING AND PROPOSED ELEVATIONS SHOWN ON THE DRAWINGS SHALL BE ADJUSTED ACCORDINGLY. LOCATION OF STRUCTURES SHALL BE PLACED IN ACCORDANCE WITH HORIZONTAL CONTROLS. VERTICAL PLACEMENT OF STRUCTURES SHALL BE IN ACCORDANCE WITH CONSTRUCTION DOCUMENTS, OR AS APPROVED BY THE ENGINEER.

3. CONSTRUCTION OF LANDFILL GAS COLLECTION SYSTEM WILL INVOLVE REFUSE EXCAVATION. THE CONTRACTOR SHALL MAKE ALL SAFETY AND ENVIRONMENTAL PRECAUTIONS TO PROTECT ITS WORKERS AND SUBCONTRACTORS, AT NO ADDITIONAL COST TO THE OWNER. ALL EXCAVATED WASTES SHALL BE PLACED AT THE WORKING FACE. CONTRACTOR IS ADVISED THAT THE POTENTIAL FOR ENCOUNTERING ASBESTOS CONTAINING MATERIAL EXISTS. SHOULD SUSPECT ASBESTOS-CONTAINING MATERIAL BE ENCOUNTERED, IT SHALL BE MAINTAINED IN A MOIST CONDITON DURING THE REMOVAL AND TRANSFER PROCESS TO MINIMIZE/PREVENT EMISSIONS FROM SUCH. DISTURBED REFUSE (INCLUDING ANY SUSPECT ASBESTOS-CONTAINING MATERIAL) WILL BE TRANSPORTED TO THE WORKING FACE OF THE CENTRAL COUNTY SOLID WASTE DISPOSAL COMPLEX BY THE END OF EACH WORKING DAY FOR PROPER DISPOSAL AND BURIED WITH A MINIMUM OF SIX (6) INCHES OF SOIL COVER.

4. ANY AND ALL FINES IMPOSED ON THE OWNER BY ANY REGULATORY AGENCY DUE TO ACTIONS OF THE CONTRACTOR SHALL BE PAID BY THE CONTRACTOR.

5. INSPECTION: EXAMINE AREAS FOR CONDITIONS UNDER WHICH WORK IS TO BE PERFORMED. REPORT IN WRITING TO OWNER'S REPRESENTATIVE ALL CONDITIONS CONTRARY TO THOSE SHOWN ON THE DRAWINGS OR SPECIFIED HEREIN AND ALL OTHER CONDITIONS THAT WILL AFFECT SATISFACTORY EXECUTION OF WORK. DO NOT PROCEED WITH WORK UNTIL UNSATISFACTORY CONDITIONS HAVE BEEN CORRECTED. STARTING WORK CONSTITUTES ACCEPTANCE OF THE CONDITIONS UNDER WHICH WORK IS TO BE PERFORMED. AFTER SUCH ACCEPTANCE, THE CONTRACTOR SHALL, AT CONTRACTORS EXPENSE, BE RESPONSIBLE FOR CORRECTING ALL UNSATISFACTORY AND DEFECTIVE WORK RESULTING FROM SUCH UNSATISFACTORY CONDITIONS.

6. PROTECTIONS: INSTALL TEMPORARY BARRIERS, FENCES, BARRICADES, LIGHTS, WARNING SIGNS AND OTHER DEVICES NECESSARY TO PROTECT STRUCTURES, UTILITIES, LANDSCAPING, EXCAVATIONS, AND OTHER ITEMS AS NECESSARY. PROTECT SURVEY BENCHMARKS AND MONUMENTS FROM DISPLACEMENT.

7. ALL WORK SHALL BE PERFORMED IN A QUALITY WORKMANLIKE MANNER.

8. DEVIATIONS FROM THESE PLANS AND SPECIFICATIONS WITHOUT PRIOR WRITTEN CONSENT OF THE ENGINEER OR OWNER MAY CAUSE THE WORK TO BE UNACCEPTABLE AND WILL BE ADJUSTED OR REPAIRED AT THE CONTRACTOR'S EXPENSE.

9. THE CONTRACTOR SHALL OBTAIN AND PAY FOR ALL NECESSARY LICENSES AND PERMITS ASSOCIATED WITH THE CONSTRUCTION OF THIS PROJECT UNLESS NOTIFIED OTHERWISE IN WRITING BY THE OWNER.

10. LATERAL PIPING ALIGNMENTS ARE APPROXIMATE. CONTRACTOR TO FIELD VERIFY TO ASSURE REQUIRED SLOPE AND DIRECTION OF GAS AND CONDENSATE FLOW.

11. SUGGESTED INSTALLATION SEQUENCE: THE FOLLOWING INSTALLATION SEQUENCE HAS BEEN ASSUMED IN THE ENGINEER CALCULATIONS.
(A.) DRILL ALL VERTICAL WELLS, INSTALLING AND COMPLETING WELL COMPONENTS AS PROCEEDING.
(B.) TRENCH LATERAL PIPING FROM THE WELLS TO CONNECTION POINT IN THE ACTIVE GAS COLLECTION SYSTEM.
(C.) CONNECT ALL LATERALS TO ACTIVE GAS COLLECTION SYSTEM.
(D.) INSTALL FORCEMAIN AND AIR LINE PIPING
(E.) INSTALL PNEUMATIC PUMPS AT WELLS DESIGNATED BY ENGINEER.
(F.) COMPLETE WELLHEAD INSTALLATION AND PNEUMATIC PUMP CONNECTIONS.

12. PRIOR TO INSTALLATION OF GAS COLLECTION SYSTEM, ENGINEER TO BE PROVIDED WITH THE FINAL GRADING PLAN TO CONFIRM LAYOUT AND MINIMUM SLOPES.

13. ALL WORK SHALL HAVE A WARRANTY AS SPECIFIED IN THE CONTRACT DOCUMENTS.

14. ALL BORE HOLES THAT ARE NOT COMPLETED AT THE END OF THE DAY ARE TO BE COVERED WITH A METAL WELL COVER CAPABLE OF PREVENTING ANY PERSONS FROM FALLING INTO THE HOLE. THE HOLE MUST THEN BE COVERED WITH A PIECE OF PLYWOOD TO SUBSTANTIALLY COVER THE ENTIRE HOLE. SOIL MUST BE PLACED ON TOP OF THE PLYWOOD TO COMPLETELY COVER THE PLYWOOD TO FURTHER PREVENT GAS EMISSIONS. SUBSTITUTE SAFETY MEASURES MAY BE USED IF APPROVED BY ENGINEER.

15. ALL HDPE PIPES SHALL BE PRESSURE TESTED AFTER FUSION FOR LEAKS. THE STANDARD PRESSURE TEST SHALL BE 10 PSI FOR 1 HOUR WITH A MAXIMUM OF 5% LOSS.

16. CONTRACTOR SHALL BE RESPONSIBLE FOR THE REMOVAL OF ALL SURVEY TUBES AT THE END OF THE PROJECT, UNLESS INSTRUCTED OTHERWISE BY OWNER OR ENGINEER.

17. ACTUAL DIMENSIONS AND LOCATIONS MAY VARY BASED ON FIELD LOCATIONS.

18. TERMS "OWNER'S REPRESENTATIVE" AND "ENGINEER" ARE INTERCHANGEABLE.

19. CONTRACTOR TO PROVIDE SHOP DRAWINGS TO ENGINEER FOR APPROVAL.

20. THE CONTRACTOR IS ADVISED THAT THE LANDFILL CONTAINS A SYNTHETIC LINER AS PART OF THE SUBGRADE CONSTRUCTION. ALL COSTS ASSOCIATED WITH REPAIR RESULTING FROM DAMAGE TO THIS LINER SYSTEM SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR. THESE COSTS SHALL INCLUDE, BUT ARE NOT LIMITED TO ENGINEER'S REVIEW, REPAIR OR REPLACEMENT BY A QUALIFIED LLDPE LINER INSTALLER, THIRD PARTY OBSERVATION, AND COUNTY REVIEW.

21. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL ENGINEERING HOURS OVER THE 60 HOURS PER WEEK WORK SCHEDULE AT A RATE OF \$100/HR.

RECORD DRAWING

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CLIFFORD G. KOENIG, P.E.
FLORIDA P.E. NO. 64078

HDR ENGINEERING, INC.

SEP - 7 2012

PROJECT MANAGER

R. SIEMERING

REVIEWED BY

C. KOENIG

CIVIL DESIGN

C. RESTREPO, T. YANOSCHACK

DRAWN BY

B. JOHNSON

PROJECT NUMBER

00096-130530-005

CLIFFORD G. KOENIG, P.E.

CERTIFICATE NO. 64078

Sarasota County

FLORIDA

Central County Solid Waste Disposal Complex

PHASE I SEQUENCE 2

LANDFILL GAS COLLECTION AND CONTROL SYSTEM

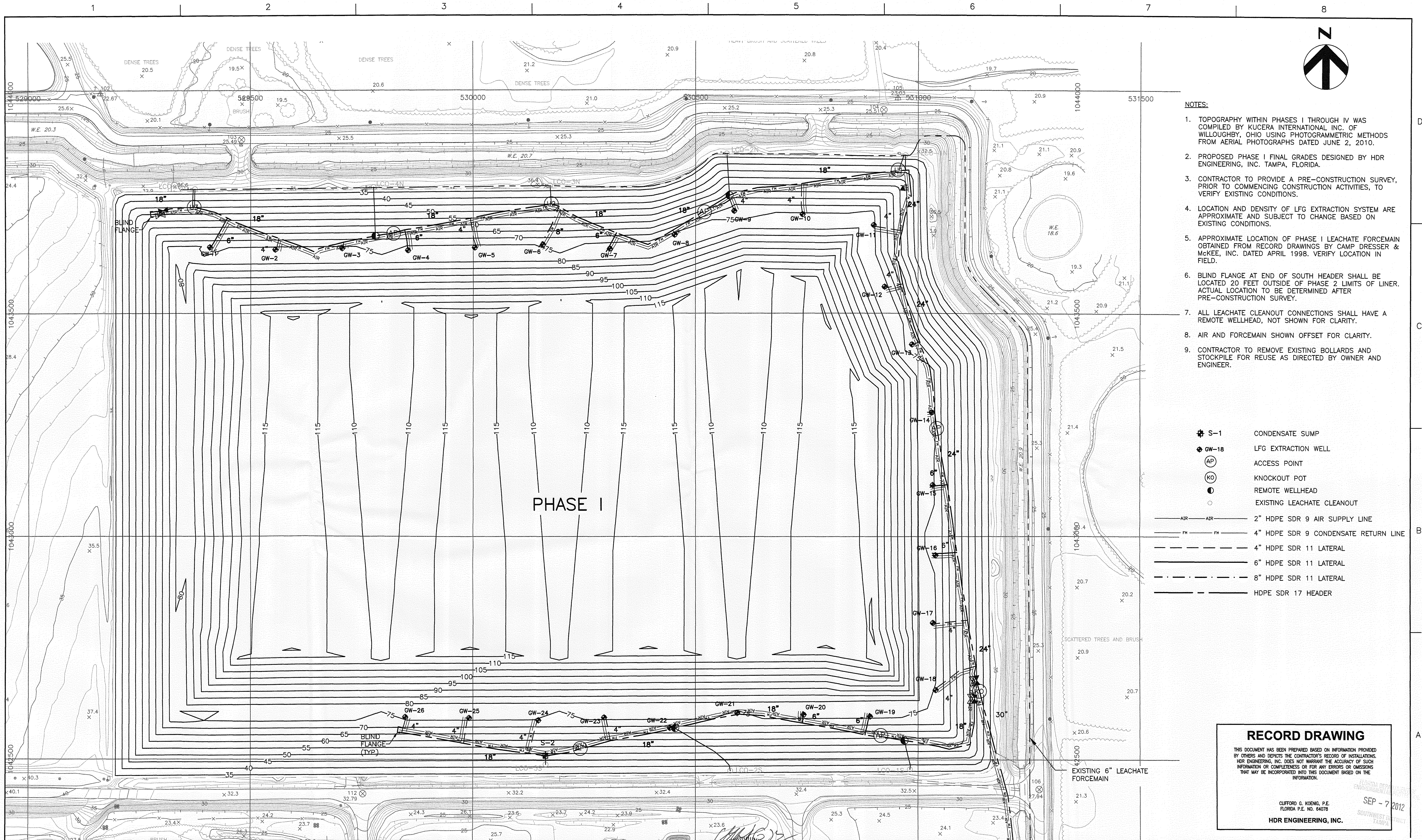
GENERAL NOTES, LEGEND AND ABBREVIATIONS

0 1" 2"

FILENAME 00G-02.DWG

SCALE AS SHOWN

SHEET G-02



- NOTES:
1. TOPOGRAPHY WITHIN PHASES I THROUGH IV WAS COMPILED BY KUCERA INTERNATIONAL INC. OF WILLOUGHBY, OHIO USING PHOTOGRAMMETRIC METHODS FROM AERIAL PHOTOGRAPHS DATED JUNE 2, 2010.
 2. PROPOSED PHASE I FINAL GRADES DESIGNED BY HDR ENGINEERING, INC. TAMPA, FLORIDA.
 3. CONTRACTOR TO PROVIDE A PRE-CONSTRUCTION SURVEY, PRIOR TO COMMENCING CONSTRUCTION ACTIVITIES, TO VERIFY EXISTING CONDITIONS.
 4. LOCATION AND DENSITY OF LFG EXTRACTION SYSTEM ARE APPROXIMATE AND SUBJECT TO CHANGE BASED ON EXISTING CONDITIONS.
 5. APPROXIMATE LOCATION OF PHASE I LEACHATE FORCEMAIN OBTAINED FROM RECORD DRAWINGS BY CAMP DRESSER & MCKEE, INC. DATED APRIL 1998. VERIFY LOCATION IN FIELD.
 6. BLIND FLANGE AT END OF SOUTH HEADER SHALL BE LOCATED 20 FEET OUTSIDE OF PHASE 2 LIMITS OF LINER. ACTUAL LOCATION TO BE DETERMINED AFTER PRE-CONSTRUCTION SURVEY.
 7. ALL LEACHATE CLEANOUT CONNECTIONS SHALL HAVE A REMOTE WELLHEAD, NOT SHOWN FOR CLARITY.
 8. AIR AND FORCEMAIN SHOWN OFFSET FOR CLARITY.
 9. CONTRACTOR TO REMOVE EXISTING BOLLARDS AND STOCKPILE FOR REUSE AS DIRECTED BY OWNER AND ENGINEER.

- Legend:
- S-1 CONDENSATE SUMP
 - GW-18 LFG EXTRACTION WELL
 - AP ACCESS POINT
 - KO KNOCKOUT POT
 - REMOTE WELLHEAD
 - EXISTING LEACHATE CLEANOUT
 - AIR 2" HDPE SDR 9 AIR SUPPLY LINE
 - FM 4" HDPE SDR 9 CONDENSATE RETURN LINE
 - 4" HDPE SDR 11 LATERAL
 - 6" HDPE SDR 11 LATERAL
 - 8" HDPE SDR 11 LATERAL
 - HDPE SDR 17 HEADER

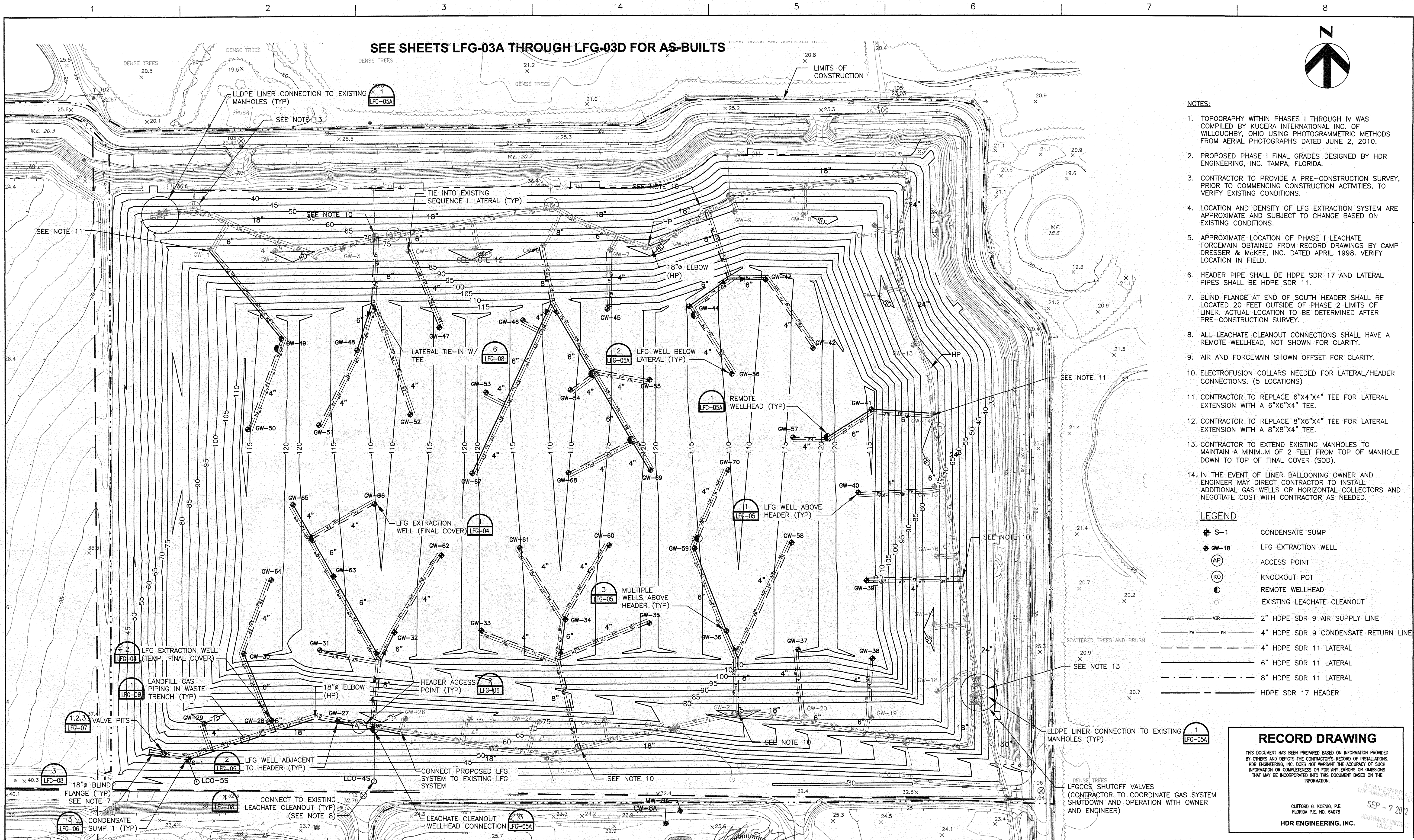
RECORD DRAWING

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CLIFFORD G. KOENIG, P.E.
FLORIDA P.E. NO. 64078
HDR ENGINEERING, INC.

SEP - 7 2012
SOUTHWEST DISTRICT
TAMPA

 5426 Bay Center Drive, Ste. 400 Tampa, Florida 33609 813-282-2300 HDR CERT. AUTH. NO. CA 4213 FL REG. AA C000457	1 08/2012 RECORD DRAWINGS		PROJECT MANAGER R. SIEMERING		Central County Solid Waste Disposal Complex PHASE I SEQUENCE 2 LANDFILL GAS COLLECTION AND CONTROL SYSTEM SARASOTA COUNTY FLORIDA	PHASE I GAS SYSTEM LAYOUT - EXISTING CONDITIONS	0 1" 2" SCALE 1"=100'	FILENAME 00LFG-02.DWG	SHEET LFG-02
	0 10/2011 ISSUED FOR CONSTRUCTION		CIVIL DESIGN C. RESTREPO, T. YANOSCHACK DRAWN BY B. JOHNSON						
ISSUE DATE DESCRIPTION									

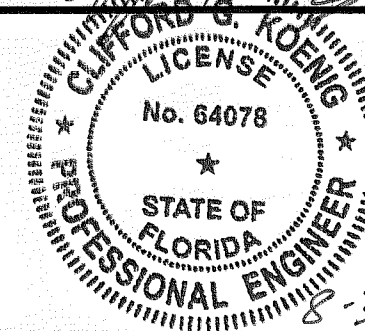


HDR

5428 Bay Center Drive, Ste. 400
Tampa, Florida 33609
813-282-2300
HDR CERT. AUTH. NO. CA 4213
FL REG. AA 000457

ISSUE	DATE	DESCRIPTION
1	08/2012	RECORD DRAWINGS
0	10/2011	ISSUED FOR CONSTRUCTION

PROJECT MANAGER	R. SIEMERING
REVIEWED BY	C. KOENIG
CIVIL DESIGN	C. RESTREPO, T. YANOSCHACK
DRAWN BY	B. JOHNSON
PROJECT NUMBER	00096-130530-005



CLIFFORD G. KOENIG, P. E.
CERTIFICATE NO. 64078

Sarasota County

**Central County Solid
Waste Disposal
Complex**
**PHASE I SEQUENCE 2
LANDFILL GAS COLLECTION
AND CONTROL SYSTEM**

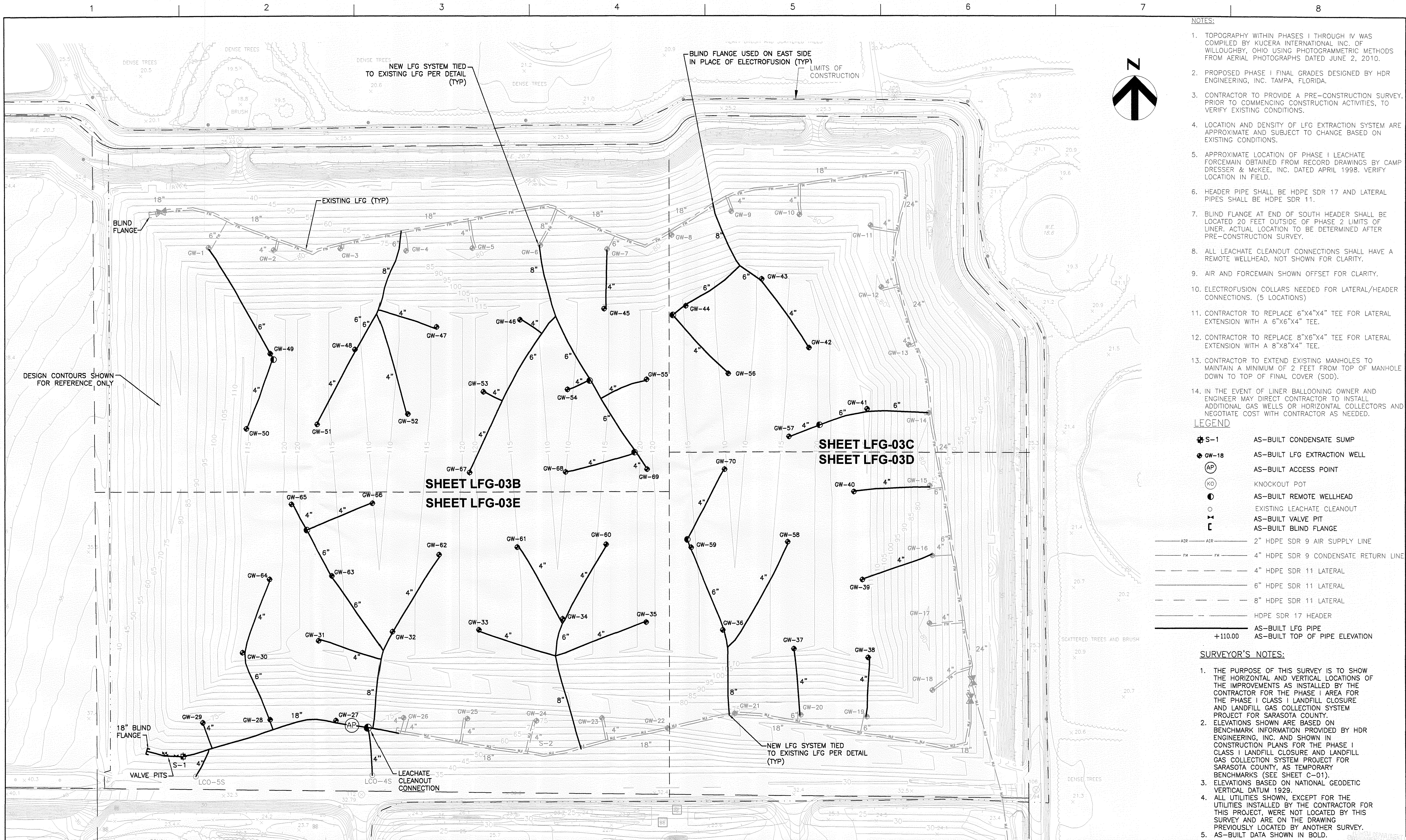
FLORIDA

**PHASE I SEQUENCE 2 GAS SYSTEM LAYOUT
AS-BUILT**



FILENAME 00LFG-03.DWG
SCALE 1"=100'

SHEET
LFG-03A



- NOTES:
1. TOPOGRAPHY WITHIN PHASES I THROUGH IV WAS COMPILED BY KUCERA INTERNATIONAL INC. OF WILLOUGHBY, OHIO USING PHOTOGRAMMETRIC METHODS FROM AERIAL PHOTOGRAPHS DATED JUNE 2, 2010.
 2. PROPOSED PHASE I FINAL GRADES DESIGNED BY HDR ENGINEERING, INC. TAMPA, FLORIDA.
 3. CONTRACTOR TO PROVIDE A PRE-CONSTRUCTION SURVEY, PRIOR TO COMMENCING CONSTRUCTION ACTIVITIES, TO VERIFY EXISTING CONDITIONS.
 4. LOCATION AND DENSITY OF LFG EXTRACTION SYSTEM ARE APPROXIMATE AND SUBJECT TO CHANGE BASED ON EXISTING CONDITIONS.
 5. APPROXIMATE LOCATION OF PHASE I LEACHATE FORCEMAIN OBTAINED FROM RECORD DRAWINGS BY CAMP DRESSER & MCKEE, INC. DATED APRIL 1998. VERIFY LOCATION IN FIELD.
 6. HEADER PIPE SHALL BE HDPE SDR 17 AND LATERAL PIPES SHALL BE HDPE SDR 11.
 7. BLIND FLANGE AT END OF SOUTH HEADER SHALL BE LOCATED 20 FEET OUTSIDE OF PHASE 2 LIMITS OF LINER. ACTUAL LOCATION TO BE DETERMINED AFTER PRE-CONSTRUCTION SURVEY.
 8. ALL LEACHATE CLEANOUT CONNECTIONS SHALL HAVE A REMOTE WELLHEAD, NOT SHOWN FOR CLARITY.
 9. AIR AND FORCEMAIN SHOWN OFFSET FOR CLARITY.
 10. ELECTROFUSION COLLARS NEEDED FOR LATERAL/HEADER CONNECTIONS. (5 LOCATIONS)
 11. CONTRACTOR TO REPLACE 6"x4"x4" TEE FOR LATERAL EXTENSION WITH A 6"x6"x4" TEE.
 12. CONTRACTOR TO REPLACE 8"x6"x4" TEE FOR LATERAL EXTENSION WITH A 8"x8"x4" TEE.
 13. CONTRACTOR TO EXTEND EXISTING MANHOLES TO MAINTAIN A MINIMUM OF 2 FEET FROM TOP OF MANHOLE DOWN TO TOP OF FINAL COVER (SOD).
 14. IN THE EVENT OF LINER BALLOONING OWNER AND ENGINEER MAY DIRECT CONTRACTOR TO INSTALL ADDITIONAL GAS WELLS OR HORIZONTAL COLLECTORS AND NEGOTIATE COST WITH CONTRACTOR AS NEEDED.

- LEGEND
- AS-BUILT CONDENSATE SUMP
 - AS-BUILT LFG EXTRACTION WELL
 - AS-BUILT ACCESS POINT
 - KNOCKOUT POT
 - AS-BUILT REMOTE WELLHEAD
 - EXISTING LEACHATE CLEANOUT
 - AS-BUILT VALVE PIT
 - AS-BUILT BLIND FLANGE
 - 2" HDPE SDR 9 AIR SUPPLY LINE
 - 4" HDPE SDR 9 CONDENSATE RETURN LINE
 - 4" HDPE SDR 11 LATERAL
 - 6" HDPE SDR 11 LATERAL
 - 8" HDPE SDR 11 LATERAL
 - HDPE SDR 17 HEADER
 - AS-BUILT LFG PIPE
 - AS-BUILT TOP OF PIPE ELEVATION

- SURVEYOR'S NOTES:
1. THE PURPOSE OF THIS SURVEY IS TO SHOW THE HORIZONTAL AND VERTICAL LOCATIONS OF THE IMPROVEMENTS AS INSTALLED BY THE CONTRACTOR FOR THE PHASE I AREA FOR THE PHASE I CLASS I LANDFILL CLOSURE AND LANDFILL GAS COLLECTION SYSTEM PROJECT FOR SARASOTA COUNTY.
 2. ELEVATIONS SHOWN ARE BASED ON BENCHMARK INFORMATION PROVIDED BY HDR ENGINEERING, INC. AND SHOWN IN CONSTRUCTION PLANS FOR THE PHASE I CLASS I LANDFILL CLOSURE AND LANDFILL GAS COLLECTION SYSTEM PROJECT FOR SARASOTA COUNTY, AS TEMPORARY BENCHMARKS (SEE SHEET C-01).
 3. ELEVATIONS BASED ON NATIONAL GEODETIC VERTICAL DATUM 1929.
 4. ALL UTILITIES SHOWN, EXCEPT FOR THE UTILITIES INSTALLED BY THE CONTRACTOR FOR THIS PROJECT, WERE NOT LOCATED BY THIS SURVEY AND ARE ON THE DRAWING PREVIOUSLY LOCATED BY ANOTHER SURVEY.
 5. AS-BUILT DATA SHOWN IN BOLD.

ISSUE	DATE	DESCRIPTION
2	7/31/12	PROGRESSIVE AS-BUILT
1	3/12/12	PROGRESSIVE AS-BUILT

I hereby certify that the survey shown hereon is true and correct to the best of my knowledge and belief, based on actual measurements taken in the field. This survey meets the Minimum Technical Standards as set forth by the Florida Board of Professional Land Surveyors in Chapter 6J-17, Florida Administrative Code, pursuant to Section 472.027, Florida Statutes.

UNLESS IT BEARS THE SIGNATURE AND ORIGINAL RAISED SEAL OF A FLORIDA LICENSED SURVEYOR AND MAPPER THIS DRAWING SKETCH, PLAN OR MAP IS FOR INFORMATIONAL PURPOSES ONLY AND IS NOT VALID.

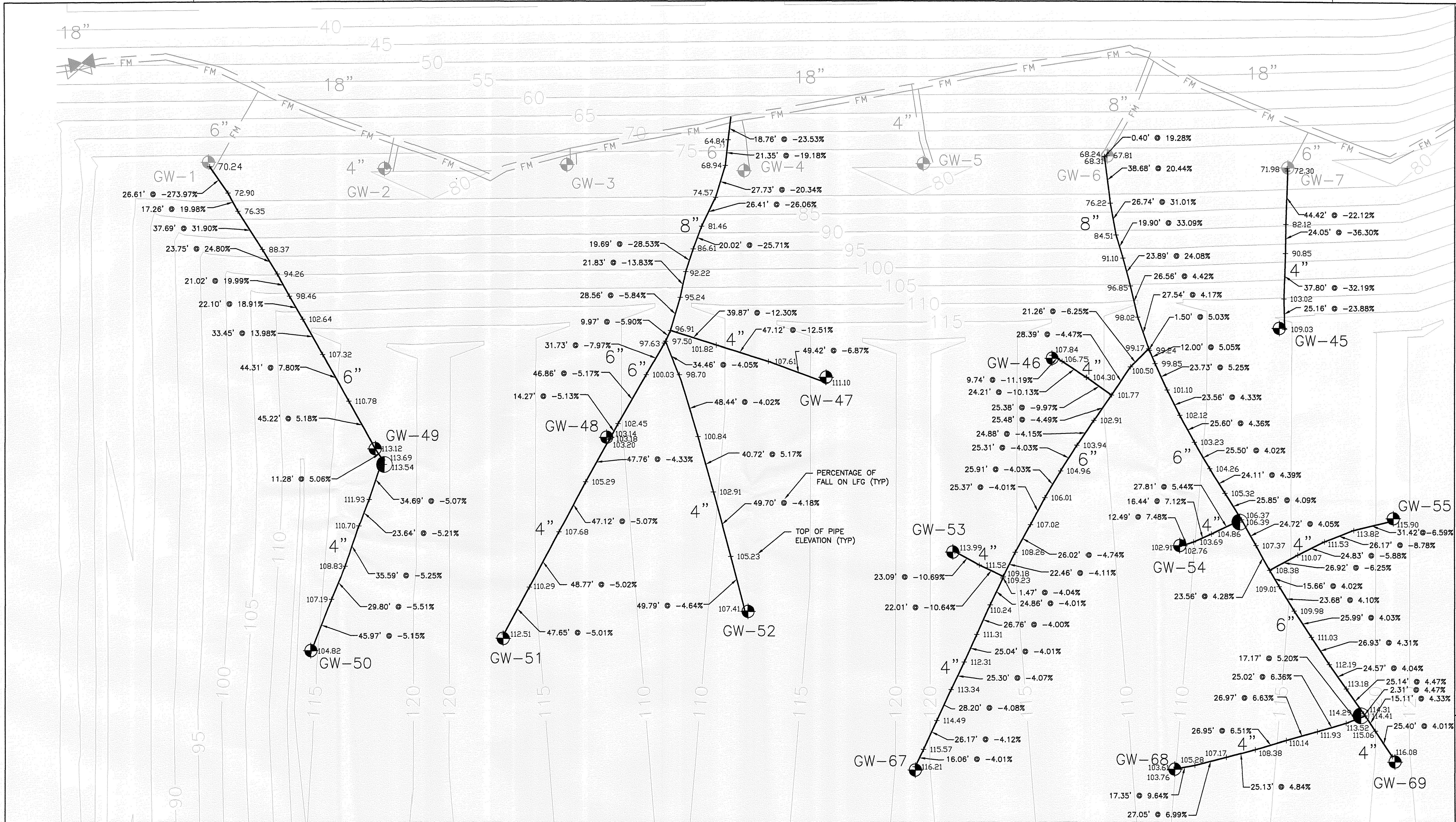
LAYOUT SERVICES, INC.
3380 S PARK AVE STE 100
TITUSVILLE, FL 32780
(321) 758-2779
(321) 263-8748 (FAX)
James Zimmerman
Professional Land Surveyor No. 6545
State of Florida

THOMAS M. YANOSCHAK, P. E.
CERTIFICATE NO. 44200



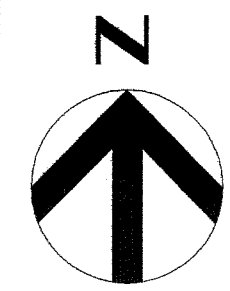
Central County Solid Waste
Disposal Complex
PHASE I CLASS I LANDFILL
CLOSURE AND LANDFILL GAS
COLLECTION SYSTEM
AS-BUILT SURVEY
FLORIDA

PROJECT NUMBER 00096-130530-005		SEP - 7 2012	
0 1" 2"	FILENAME 00C-12 AS-BUILT.DWG	SHEET	LFG-03A
SCALE 1"=100'			



MATCHLINE SEE LFG-03C

MATCHLINE SEE LFG-03E



ISSUE	DATE	DESCRIPTION
2	7/31/12	PROGRESSIVE AS-BUILT
1	3/12/12	PROGRESSIVE AS-BUILT

I hereby certify that the survey shown hereon is true and correct to the best of my knowledge and belief, based on actual measurements taken in the field. This survey meets the Minimum Technical Standards as set forth by the Florida Board of Professional Land Surveyors in Chapter SJ-17, Florida Administrative Code, pursuant to Section 472.027, Florida Statutes.

UNLESS IT BEARS THE SIGNATURE AND ORIGINAL RAISED SEAL OF A FLORIDA LICENSED SURVEYOR AND MAPPER THIS DRAWING, SKETCH, PLAN OR MAP IS FOR INFORMATIONAL PURPOSES ONLY AND IS NOT VALID.

LAYOUT SERVICES, INC.
3380 S PARK AVE STE 7
TITUSVILLE, FL 32780
Professional Land Surveyor No. 6545
State of Florida

THOMAS M. YANOSCHAK, P. E.
CERTIFICATE NO. 44200

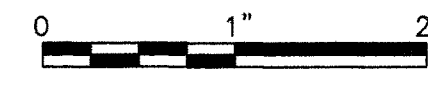


SARASOTA COUNTY

Central County Solid Waste
Disposal Complex
PHASE I CLASS I LANDFILL
CLOSURE AND LANDFILL GAS
COLLECTION SYSTEM
AS-BUILT SURVEY

PHASE I SEQUENCE 2 GAS SYSTEM LAYOUT
AS-BUILT SURVEY

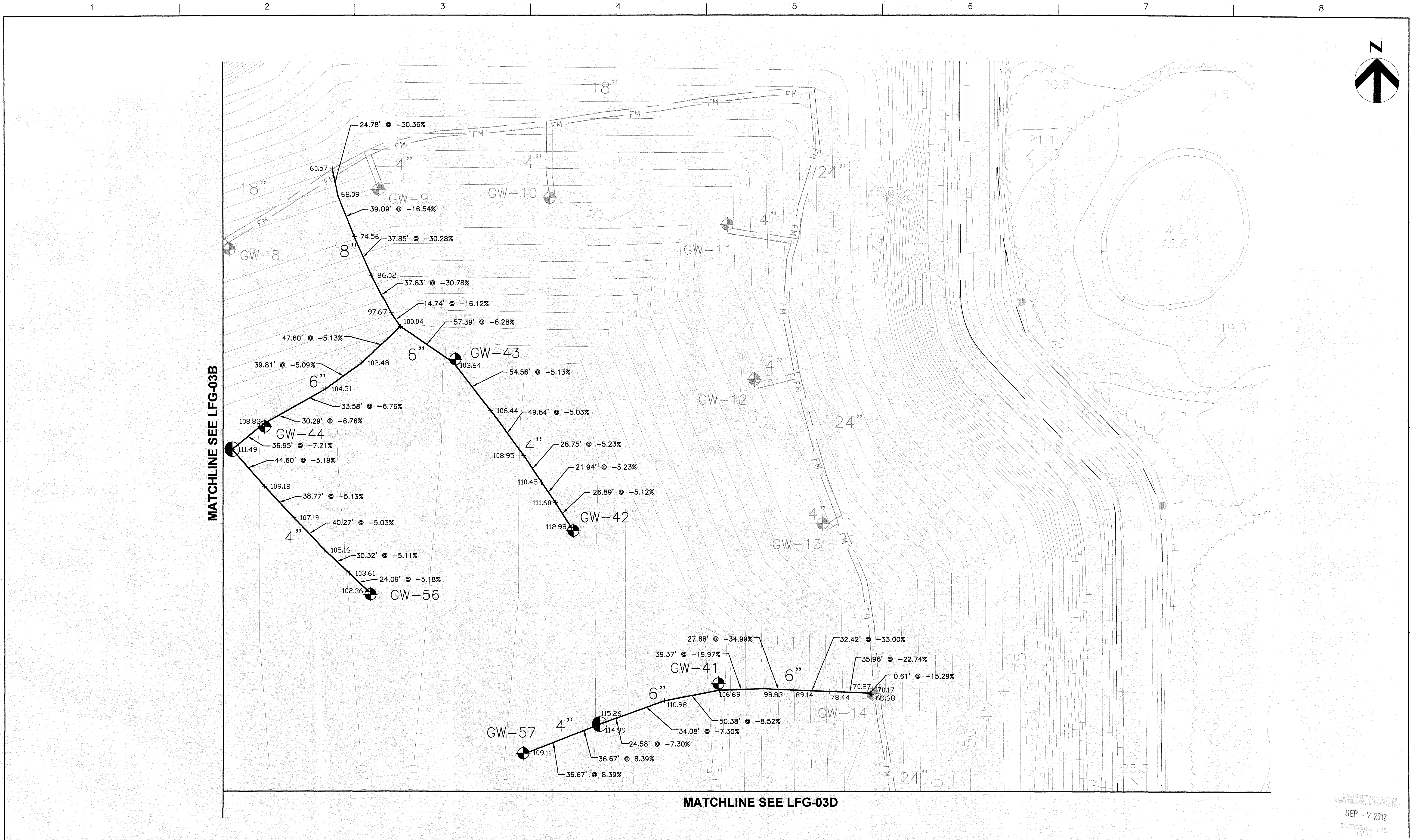
PROJECT NUMBER 00096-130530-005



FILENAME 00C-12 AS-BUILT.DWG
SCALE 1"=40'

SHEET
LFG-03B

FLORIDA DEPARTMENT OF
ENVIRONMENTAL PROTECTION
SEP - 7 2012



2	7/31/12	PROGRESSIVE AS-BUILT
1	3/12/12	PROGRESSIVE AS-BUILT
ISSUE	DATE	DESCRIPTION

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LAYOUT SERVICES, INC.
3380 S PARK AVE STE 7
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(321) 264-9748 (FAX)

James Zimmerman
Professional Land Surveyor No. 6545
State of Florida

THOMAS M. YANOSCHAK, P. E.
CERTIFICATE NO. 44200

SARASOTA COUNTY
FLORIDA

Central County Solid Waste
Disposal Complex
PHASE I CLASS I LANDFILL
CLOSURE AND LANDFILL GAS
COLLECTION SYSTEM
AS-BUILT SURVEY

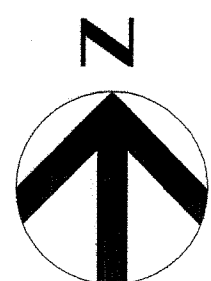
PHASE I SEQUENCE 2 GAS SYSTEM LAYOUT
AS-BUILT SURVEY

PROJECT NUMBER 00096-130530-005

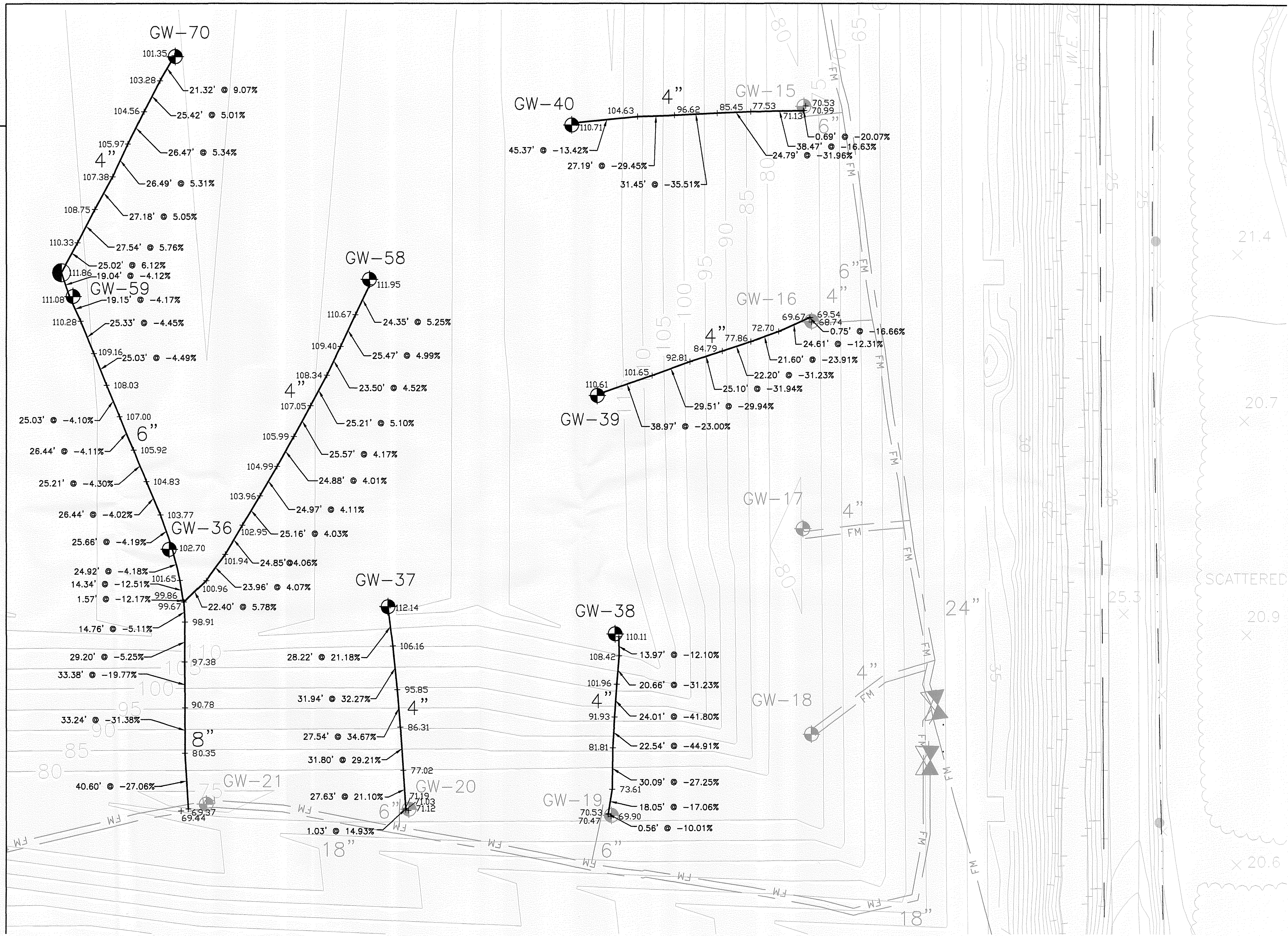
SCALE 1"=40'

FILENAME 00C-12 AS-BUILT.DWG
SHEET LFG-03C

MATCHLINE SEE LFG-03C



MATCHLINE SEE LFG-03E



ISSUE	DATE	DESCRIPTION
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1	3/12/12	PROGRESSIVE AS-BUILT

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LAYOUT SERVICES, INC.
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Jamies Zimmerman
Professional Land Surveyor No. 6545
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THOMAS M. YANOSCHAK, P. E.
CERTIFICATE NO. 44200

SARASOTA COUNTY

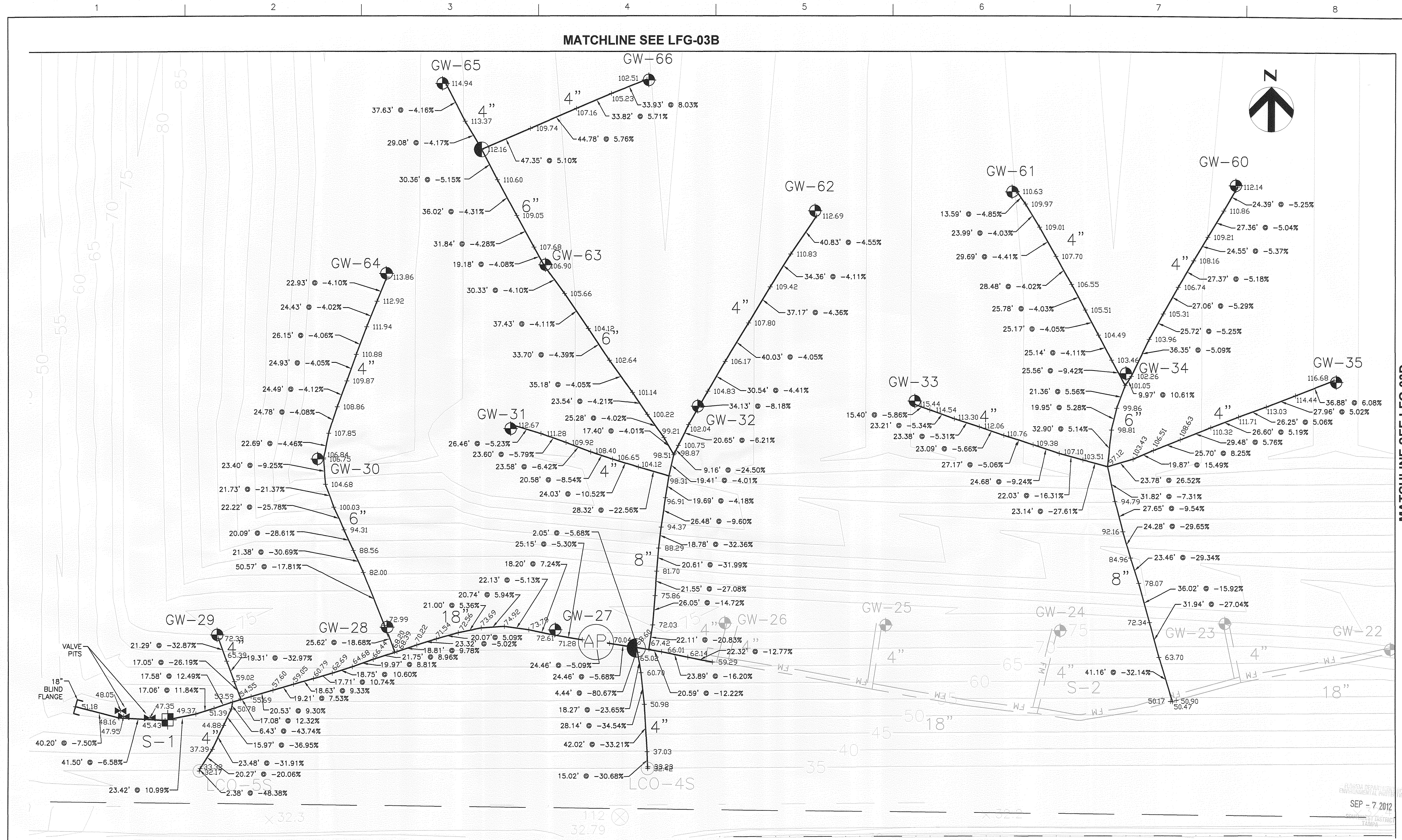
Central County Solid Waste Disposal Complex
PHASE I CLASS I LANDFILL CLOSURE AND LANDFILL GAS COLLECTION SYSTEM
AS-BUILT SURVEY
FLORIDA

PHASE I SEQUENCE 2 GAS SYSTEM LAYOUT
AS-BUILT SURVEY

PROJECT NUMBER 00096-130530-005

0 1" 2"
SCALE 1"=40'

FILENAME 00C-12 AS-BUILT.DWG
SHEET **LFG-03D**



2	7/31/12	PROGRESSIVE AS-BUILT
1	3/12/12	PROGRESSIVE AS-BUILT
ISSUE	DATE	DESCRIPTION

I hereby certify that the survey shown hereon is true and correct to the best of my knowledge and belief, based on actual measurements taken in the field. This survey meets the Minimum Technical Standards as set forth by the Florida Board of Professional Land Surveyors in Chapter 6J-17, Florida Administrative Code, pursuant to Section 472.027, Florida Statutes.

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LAYOUT SERVICES, INC.

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James Zimmerman
Professional Land Surveyor No. 6645
State of Florida

THOMAS M. YANOSCHAK, P. E.
CERTIFICATE NO. 44200

SARASOTA COUNTY

Central County Solid Waste Disposal Complex
PHASE I CLASS I LANDFILL CLOSURE AND LANDFILL GAS COLLECTION SYSTEM
AS-BUILT SURVEY

FLORIDA

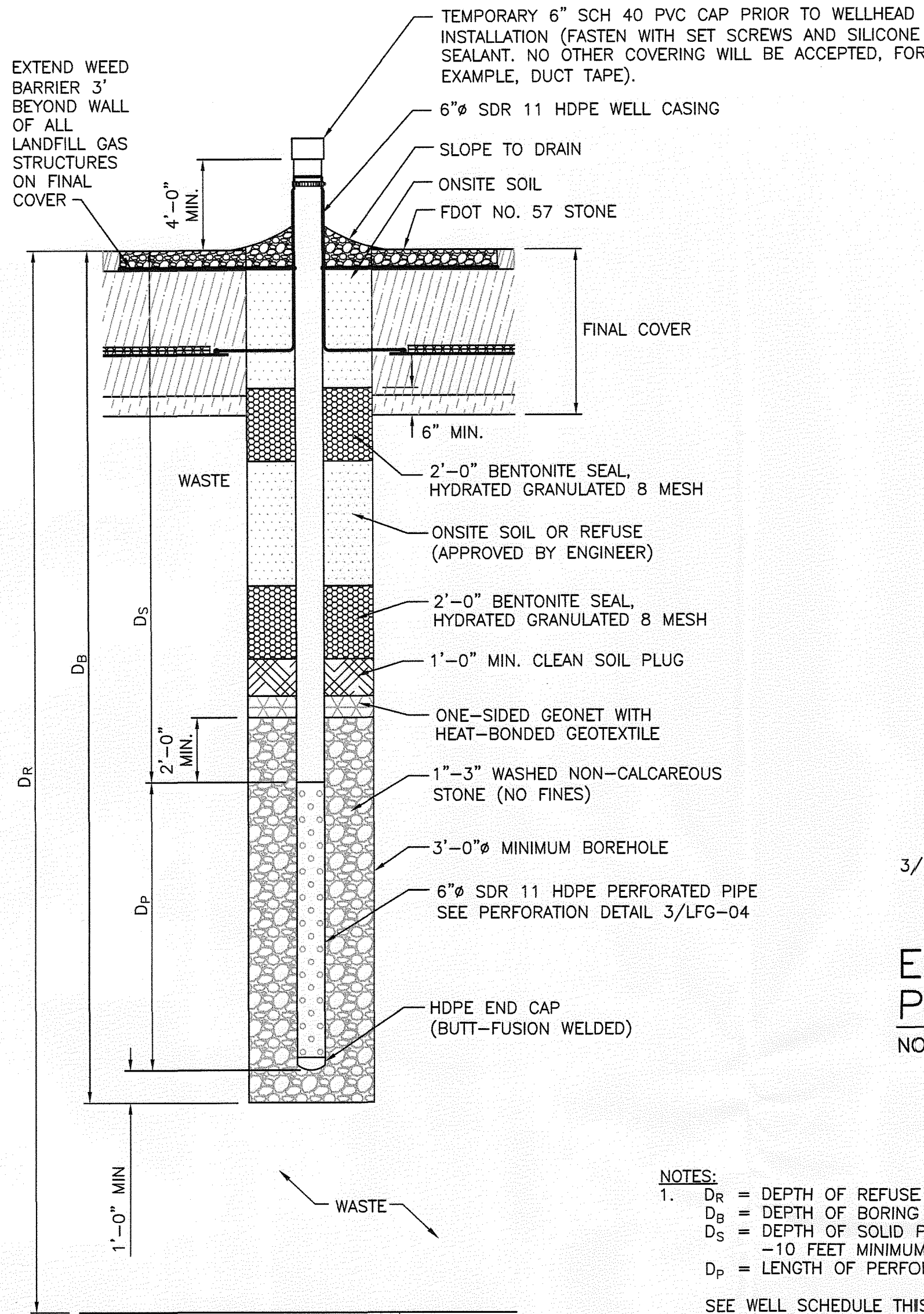
PHASE I SEQUENCE 2 GAS SYSTEM LAYOUT
AS-BUILT SURVEY

PROJECT NUMBER 00096-130530-005

0 1" 2"

FILENAME 00C-12 AS-BUILT.DWG SHEET LFG-03E

SCALE 1"=40'



- NOTES:
- D_R = DEPTH OF REFUSE
 D_B = DEPTH OF BORING
 D_S = DEPTH OF SOLID PIPE (BELOW GRADE)
-10 FEET MINIMUM
 D_P = LENGTH OF PERFORATED PIPE
 - SEE WELL SCHEDULE THIS SHEET.
 - 1"-3" WASHED NON-CALCAREOUS STONE (NO FINES).
WELL DRILLING WILL NOT COMMENCE UNTIL EXISTING GRADE ELEVATIONS ARE IDENTIFIED AND VERIFIED BY PROJECT SURVEYOR, DESIGN ENGINEER, AND CQA REPRESENTATIVE.
 - WELL DRILLING TABLE WILL BE MANAGED BY OWNER OR DESIGNATED REPRESENTATIVE TO ENSURE ONLY THE VERIFIED WELL DEPTHS ARE PRESENT, AND THAT DRILLER AND CQA REPRESENTATIVE HAVE THE IDENTICAL INFORMATION PRIOR TO DRILLING.

LANDFILL GAS EXTRACTION WELL (FINAL COVER)

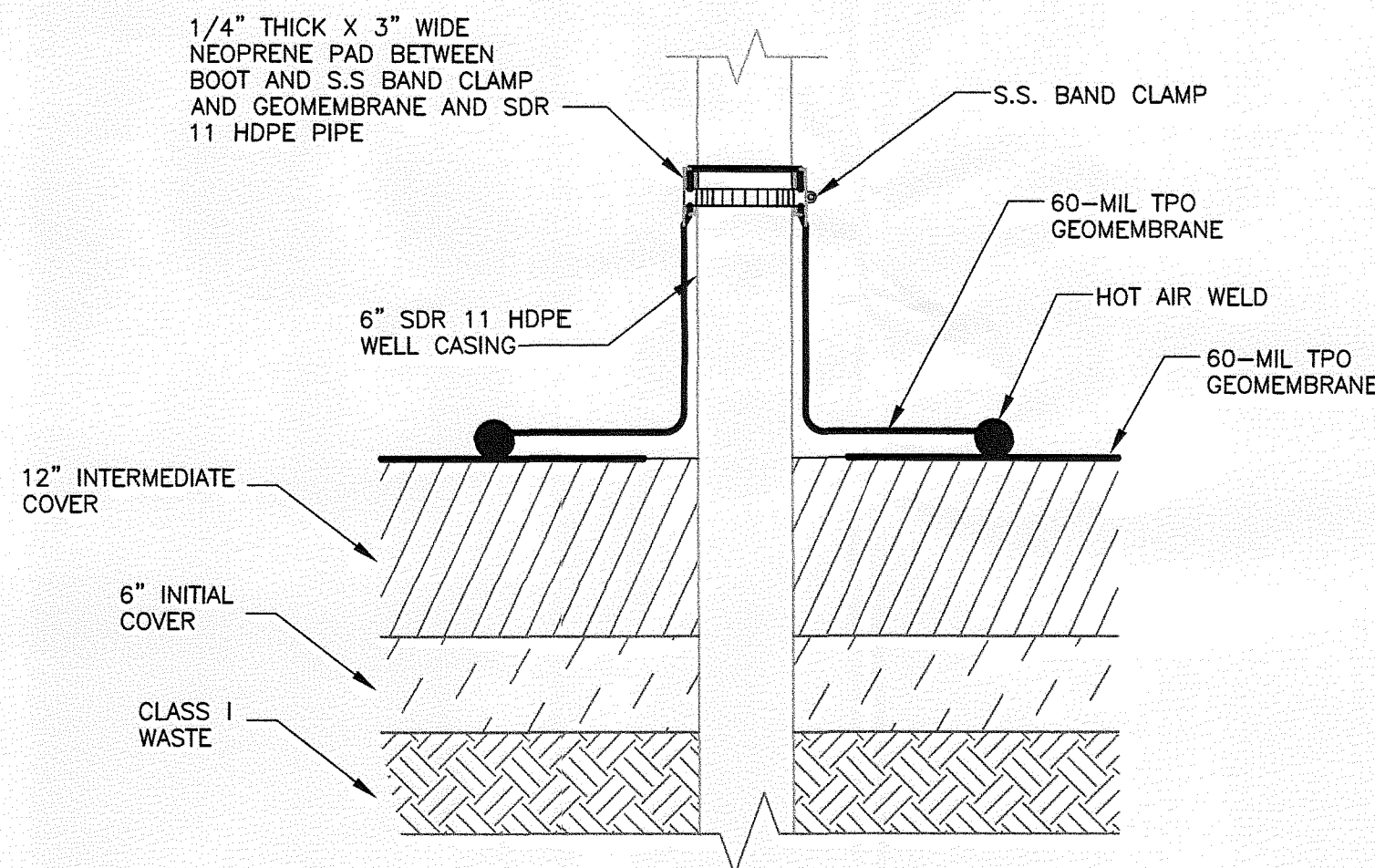
NOT TO SCALE

EXTRACTION WELL PERFORATION DETAIL

NOT TO SCALE

- 6"Ø HDPE, SDR 11
- 3/4" PERFORATIONS
- PERFORATIONS SPACED 90-DEGREES APART HORIZONTALLY
- 90 AND 270 DEGREE ROWS STAGGERED 2" BELOW 0 AND 180 DEGREE ROWS

WELL ID	NORTHING	EASTING	FG ELEVATION	BG ELEVATION	DEPTH OF WASTE (D_W)	BORING (D_B)	SOLID PIPE (D_S)	PERFORATED PIPE (D_P)	Grid Coordinates (Surveyed) Northing	Grid Coordinates (Surveyed) Easting	Surveyed Cover Elevation	Calculated Borehole Depth (D_B)	Calculated Perforated Length (D_P)
GW-27	1042588.88	529696.26	78.0	29.0	49.0	32.0	10.0	22.0	1042588.88	529696.26	74.98	28.0	19.0
GW-28	1042690.90	529646.65	79.0	31.0	48.0	32.0	10.0	22.0	1042690.90	529646.65	78.39	28.0	19.0
GW-29	1042583.90	529394.20	77.0	28.0	49.0	32.0	10.0	22.0	1042583.90	529394.20	70.89	27.0	18.0
GW-30	1042740.47	529484.07	117.0	30.0	87.0	58.0	10.0	48.0	1042740.47	529484.07	111.80	56.0	46.0
GW-31	1042747.90	529655.28	118.0	30.0	88.0	58.0	10.0	48.0	1042747.90	529655.28	113.71	55.0	46.0
GW-32	1042788.78	529535.56	113.0	29.0	84.0	56.0	10.0	48.0	1042788.78	529535.56	108.12	53.0	44.0
GW-33	1042791.98	530017.16	120.0	31.0	89.0	59.0	10.0	49.0	1042791.98	530017.16	116.38	57.0	48.0
GW-34	1042816.73	530205.71	111.0	29.0	82.0	54.0	10.0	44.0	1042816.73	530205.71	108.76	51.0	42.0
GW-35	1042809.04	530393.63	121.0	32.0	89.0	59.0	10.0	49.0	1042809.04	530393.63	115.76	56.0	47.0
GW-36	1042791.49	530667.31	112.0	28.0	84.0	56.0	10.0	48.0	1042791.49	530667.31	107.51	53.0	44.0
GW-37	1042749.48	530727.80	118.0	31.0	87.0	58.0	10.0	48.0	1042749.48	530727.80	111.85	51.0	42.0
GW-38	1042729.74	530894.99	117.0	30.0	87.0	56.0	10.0	48.0	1042729.74	530894.99	108.85	51.0	42.0
GW-39	1042804.29	530881.75	117.0	31.0	86.0	57.0	10.0	47.0	1042804.29	530881.75	112.64	54.0	45.0
GW-40	1043101.51	530662.82	117.0	31.0	86.0	57.0	10.0	47.0	1043101.51	530662.82	113.37	54.0	45.0
GW-41	1043287.03	530892.47	115.0	31.0	84.0	56.0	10.0	48.0	1043287.03	530892.47	107.96	53.0	44.0
GW-42	1043423.64	530761.90	119.0	29.0	90.0	60.0	10.0	50.0	1043423.64	530761.90	113.62	58.0	47.0
GW-43	1043577.01	530655.82	111.0	27.0	84.0	56.0	10.0	48.0	1043577.01	530655.82	106.29	52.0	43.0
GW-44	1043616.87	530484.19	115.0	26.0	89.0	59.0	10.0	49.0	1043616.87	530484.19	108.24	55.0	46.0
GW-45	1043510.85	530300.25	114.0	27.0	87.0	58.0	10.0	48.0	1043510.85	530300.25	107.64	55.0	46.0
GW-46	1043486.01	530110.70	113.0	26.0	87.0	58.0	10.0	48.0	1043486.01	530110.70	106.24	55.0	46.0
GW-47	1043470.08	529922.80	116.0	28.0	88.0	58.0	10.0	48.0	1043470.08	529922.80	110.81	55.0	46.0
GW-48	1043420.67	529739.69	111.0	26.0	85.0	56.0	10.0	48.0	1043420.67	529739.69	107.85	53.0	44.0
GW-49	1043411.11	529551.95	118.0	29.0	89.0	59.0	10.0	49.0	1043411.11	529551.95	114.43	56.0	47.0
GW-50	1043243.55	529493.43	115.0	28.0	87.0	58.0	10.0	48.0	1043243.55	529493.43	110.59	56.0	46.0
GW-51	1043253.76	529653.64	117.0	28.0	89.0	59.0	10.0	49.0	1043253.76	529653.64	113.78	56.0	47.0
GW-52	1043276.06	529857.54	112.0	27.0	85.0	56.0	10.0	48.0	1043276.06	529857.54	108.80	53.0	44.0
GW-53	1043325.43	530028.10	119.0	27.0	92.0	61.0	10.0	51.0	1043325.43	530028.10	115.57	58.0	49.0
GW-54	1043330.53	530217.36	109.0	26.0	83.0	55.0	10.0	45.0	1043330.53	530217.36	106.60	52.0	43.0
GW-55	1043353.53	530395.40	121.0	29.0	92.0	61.0	10.0	51.0	1043353.53	530395.40	116.90	57.0	48.0
GW-56	1043366.35	530580.19	109.0	26.0	83.0	55.0	10.0	45.0	1043366.35	530580.19	106.70	52.0	43.0
GW-57	1043224.37	530716.99	116.0	29.0	87.0	58.0	10.0	48.0	1043224.37	530716.99	113.30	55.0	46.0
GW-58	1042988.69	530713.97	117.0	28.0	89.0	59.0	10.0	49.0	1042988.69	530713.97	113.23	56.0	47.0
GW-59	1042976.22	530495.90	116.0	27.0	89.0	59.0	10.0	49.0	1042976.22	530495.90	112.03	56.0	47.0
GW-60	1042983.27	530304.05	116.0	30.0	86.0	57.0	10.0	47.0	1042983.27	530304.05	113.03	54.0	45.0
GW-61	1042977.11	530103.91	115.0	29.0	86.0	57.0	10.0	47.0	1042977.11	530103.91	111.80	54.0	45.0
GW-62	1042960.10	529828.06	118.0	31.0	87.0	58.0	10.0	48.0	1042960.10	529828.06	113.76	55.0	46.0
GW-63	1042912.18	529667.23	116.0	29.0	87.0	58.0	10.0	48.0	1042912.18	529667.23	111.57	55.0	46.0
GW-64	1042904.69	529645.79	119.0	31.0	88.0	58.0	10.0	48.0	1042904.69	529645.79	114.98	54.0	45.0
GW-65	1043072.86	529595.53	121.0	31.0	90.0	60.0	10.0	50.0	1043072.86	529595.53	116.35	56.0	47.0
GW-66	1043075.88	529779.37	110.0	28.0	82.0	54.0	10.0	44.0	1043075.88	529779.37	107.18	51.0	42.0
GW-67	1043145.00	529996.99	121.0	29.0	92.0	61.0	10.0	51.0	1043145.00	529996.99	116.84	58.0	49.0
GW-68	1043145.70	530212.83	110.0	26.0	84.0	56.0	10.0	46.0	1043145.70	530212.83	107.73	53.0	44.0
GW-69	1043151.72	530396.57	121.0	29.0	92.0	61.0	10.0	51.0	1043151.72	530396.57	116.96	58.0	49.0
GW-70	1043151.52	530571.59	110.0	28.0	84.0	56.0	10.0	46.0	1043151.52	530571.70	107.89	53.0	44.0
Total						2,463.0	440.0	2,023.0					



- NOTES:
- EXTRUSION WELD LINER AROUND PIPE FOR ACCESS POINTS AND SUMP.

LANDFILL GAS EXTRACTION WELL (TEMP FINAL COVER) DETAIL

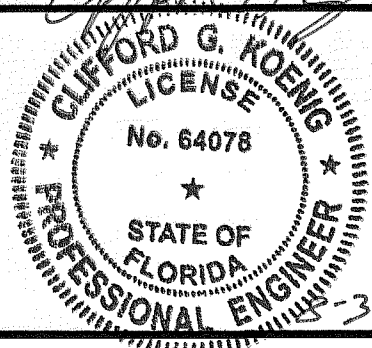
NOT TO SCALE

HDR

5426 Bay Center Drive, Ste. 400
Tampa, Florida 33609
813-292-2300
HDR CERT. AUTH. NO. CA 4213
FL REG. AA C000457

ISSUE	DATE	DESCRIPTION
1	08/2012	RECORD DRAWINGS
0	10/2011	ISSUED FOR CONSTRUCTION

PROJECT MANAGER	R. SIEMERING
REVIEWED BY	C. KOENIG
CIVIL DESIGN	C. RESTREPO, T. YANOSCHACK
DRAWN BY	B. JOHNSON
PROJECT NUMBER	00096-130530-005



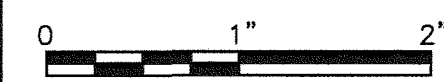
CLIFFORD G. KOENIG, P. E.
CERTIFICATE NO. 64078

Sarasota County

Central County Solid Waste Disposal Complex
PHASE I SEQUENCE 2
LANDFILL GAS COLLECTION AND CONTROL SYSTEM

FLORIDA

EXTRACTION WELL DETAILS AND WELL SCHEDULE



FILENAME OOLFG-04.DWG
SCALE AS SHOWN

SHEET
LFG-04

RECORD DRAWING

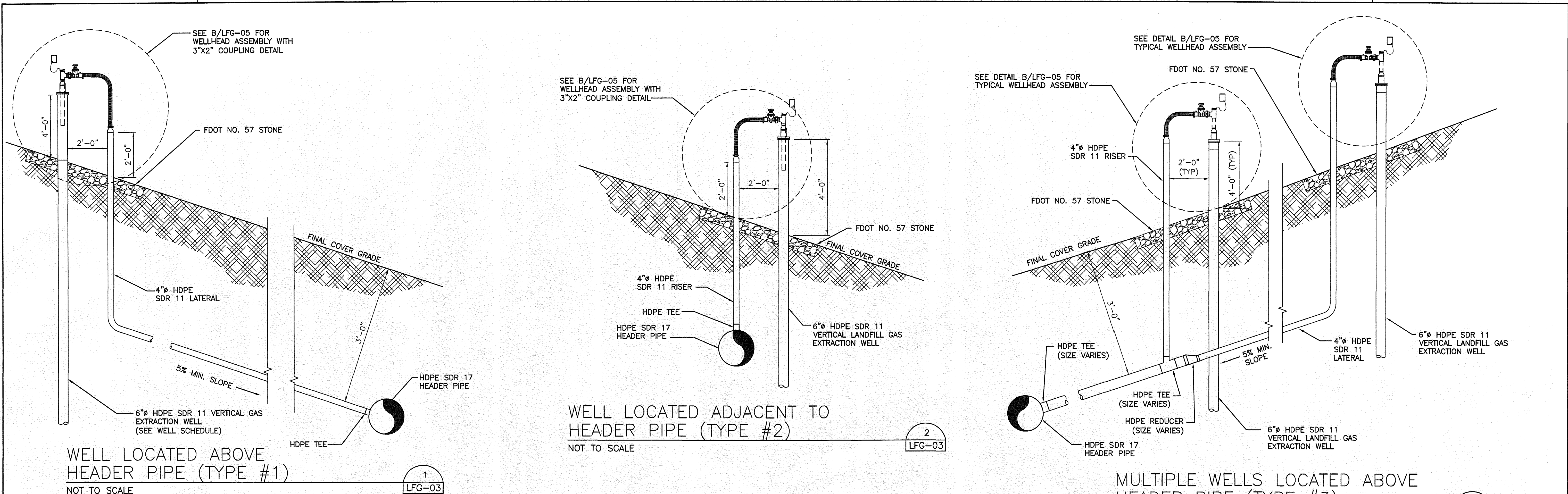
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CLIFFORD G. KOENIG, P.E.
FLORIDA P.E. NO. 64078

HDR ENGINEERING, INC.

SEP - 7 2012

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TAMPA

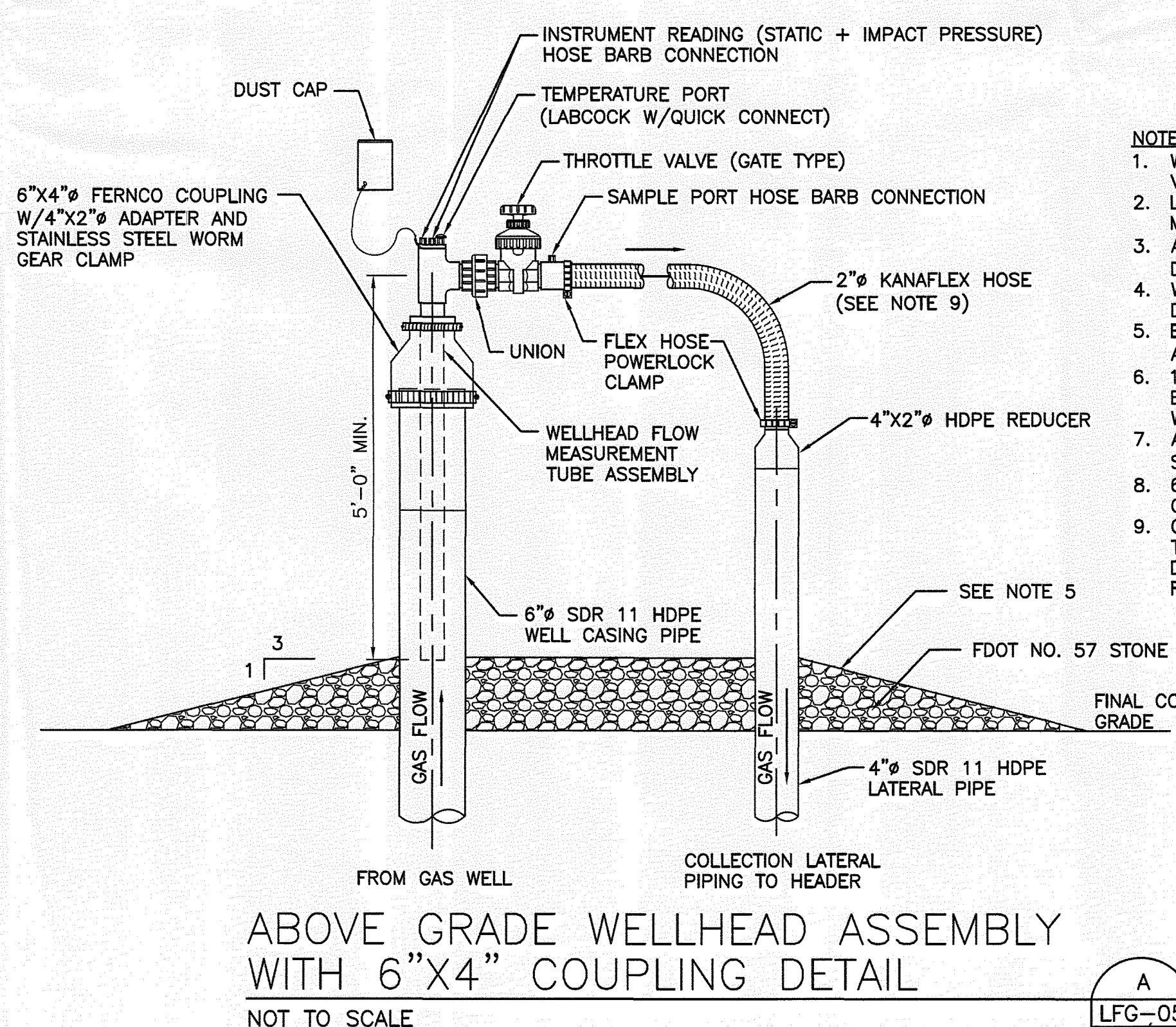
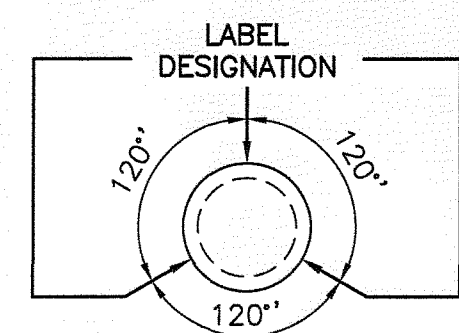


VERTICAL WELL HEAD CONFIGURATION SCHEDULE

TYPE #1				TYPE #2	
GW-29	GW-40	GW-53	GW-65	GW-27	
GW-31	GW-42	GW-55	GW-67		
GW-33	GW-45	GW-58	GW-69		
GW-35	GW-46	GW-60			
GW-37	GW-47	GW-61			
GW-38	GW-51	GW-62			
GW-39	GW-52	GW-64			

TYPE #3		TYPE #4	LCO
GW-28	GW-44	GW-50	LCO-4S
GW-30	GW-48	GW-54	LCO-5S
GW-32	GW-49	GW-56	
GW-34	GW-59	GW-57	
GW-36	GW-63	GW-66	
GW-41		GW-68	
GW-43		GW-70	

FOR INFORMATIONAL PURPOSES ONLY
SEE TYP WELL HEAD ASSEMBLIES FOR SIZES, DIMENSIONS
AND SPECIFICS ON COMPONENTS. SEE ABOVE FOR WELL
HEAD CONFIGURATION SCHEDULE.

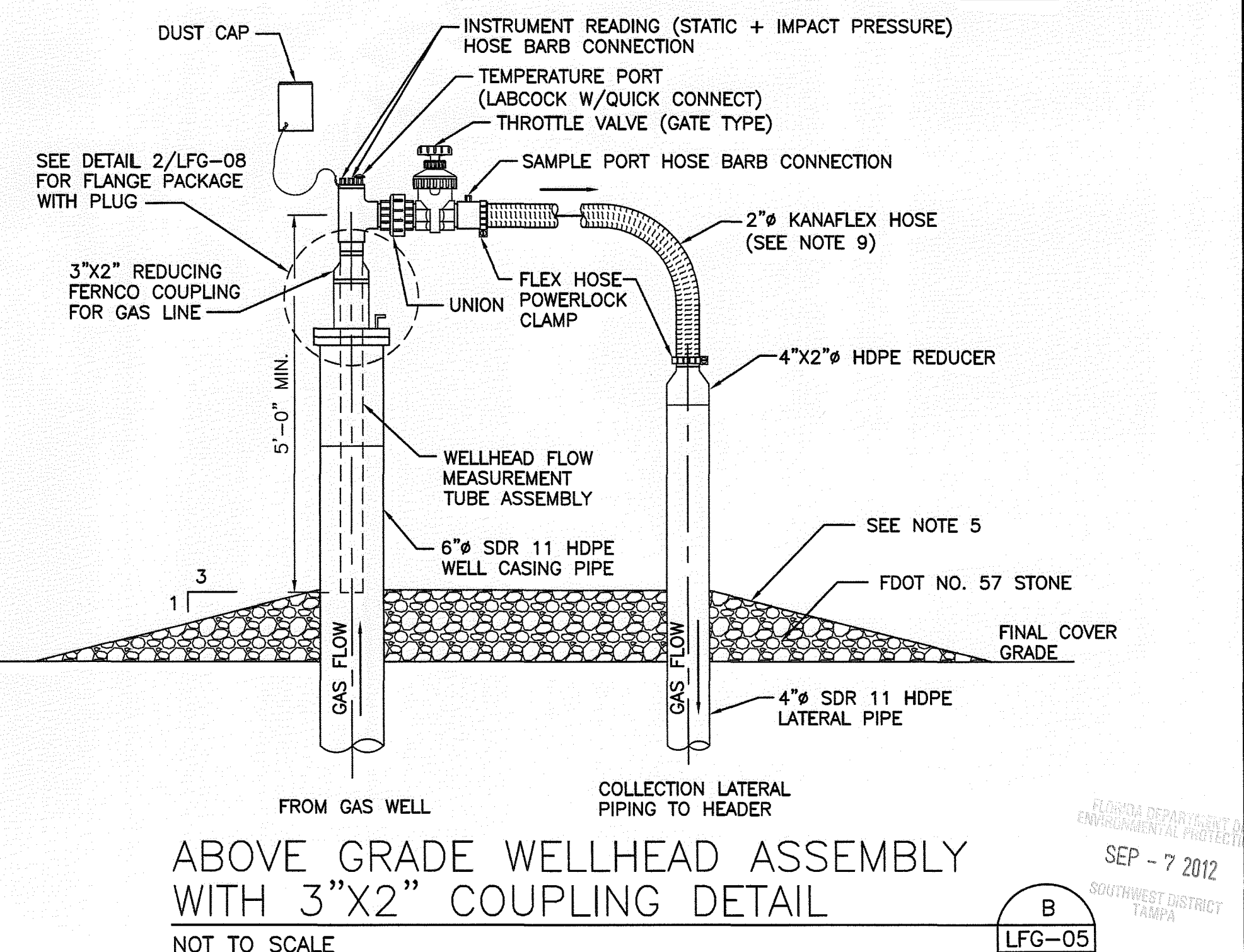


- NOTES:**
1. WELLHEAD ASSEMBLY SHOWN REPRESENTS 2" LANDTEC VERTICAL ACCU-FLO WELLHEAD ASSEMBLY.
 2. LABEL ALL WELL RISERS WITH IDENTIFICATION NUMBER TO MATCH EXISTING WELL RISERS.
 3. AIR AND FORCEMAIN LINES NOT SHOWN FOR CLARITY (SEE DETAIL 4/LFG-08).
 4. WELLHEAD TO BE CONSTRUCTED TO ALLOW INSTALLATION OF DEWATERING PUMP.
 5. EXISTING GRADE TO BE SLOPED FOR POSITIVE DRAINAGE IN A 1'-0" SURROUNDING SURFACE EXPRESSION.
 6. 1" DIAMETER RISERS FOR FORCEMAIN AND AIRLINE WITH BALL VALVES ARE REQUIRED FOR ALL VERTICAL EXTRACTION WELLS.
 7. ALL WELLS TO BE CONSTRUCTED WITH BOOT CONNECTION. SEE DETAILS 1 AND 2/LFG-04.
 8. 6"x4" COUPLING DETAIL A/LFG-05 CORRESPONDS TO LCO CONNECTIONS AND REMOTE WELLHEADS ONLY.
 9. CONTRACTOR SHALL PROVIDE SUFFICIENT SLACK IN HOSE TO ALLOW FOR SETTLEMENT, HOWEVER HOSE MUST FREELY DRAIN TO THE LATERAL PIPE AND NOT HOLD WATER. THE FINAL HOSE LENGTH MUST BE APPROVED BY THE ENGINEER.

RECORD DRAWING

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CLIFFORD G. KOENIG, P.E.
FLORIDA P.E. NO. 64078
HDR ENGINEERING, INC.



5426 Bay Center Drive, Ste. 400
Tampa, Florida 33609
813-282-2300
HDR CERT. AUTH. NO. CA 4213
FL REG. AA C000457

ISSUE	DATE	DESCRIPTION
1	08/2012	RECORD DRAWINGS
0	10/2011	ISSUED FOR CONSTRUCTION

PROJECT MANAGER	R. SIEMERING
REVIEWED BY	C. KOENIG
CIVIL DESIGN	C. RESTREPO, T. YANOSCHACK
DRAWN BY	B. JOHNSON
PROJECT NUMBER	00096-130530-005

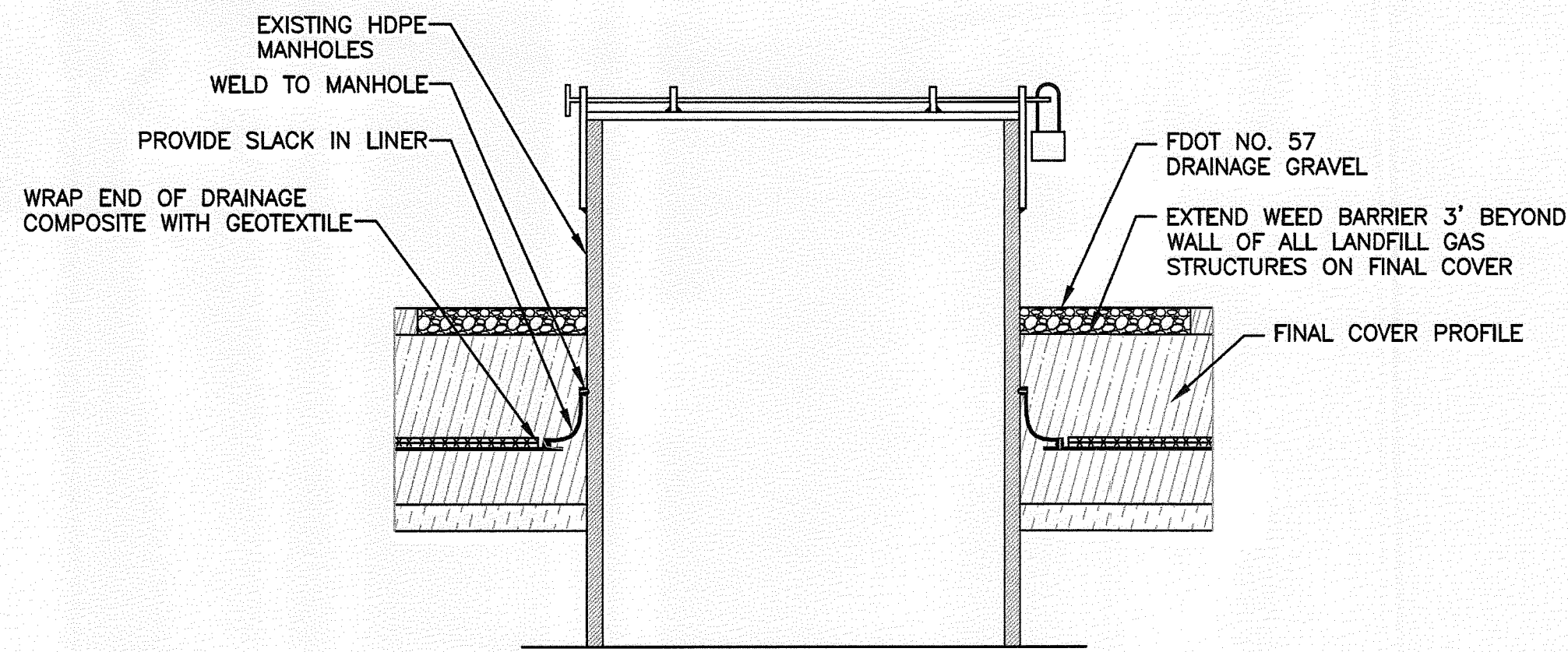
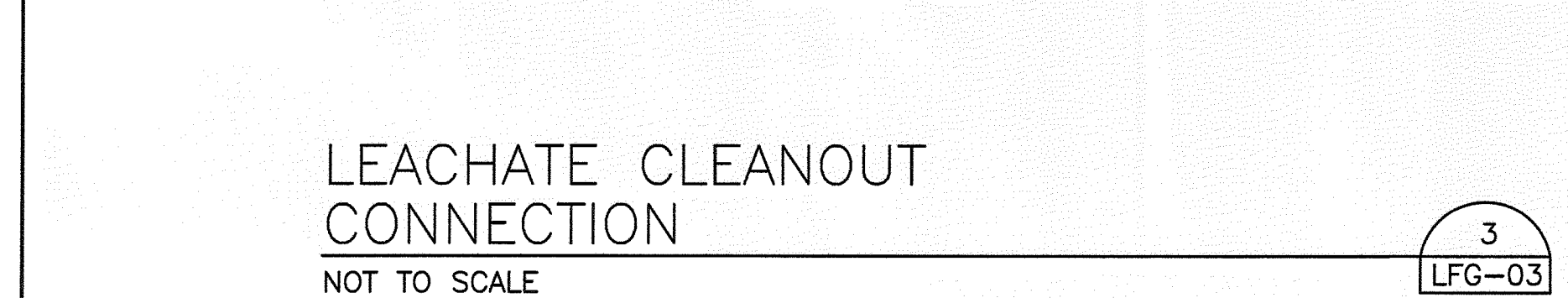
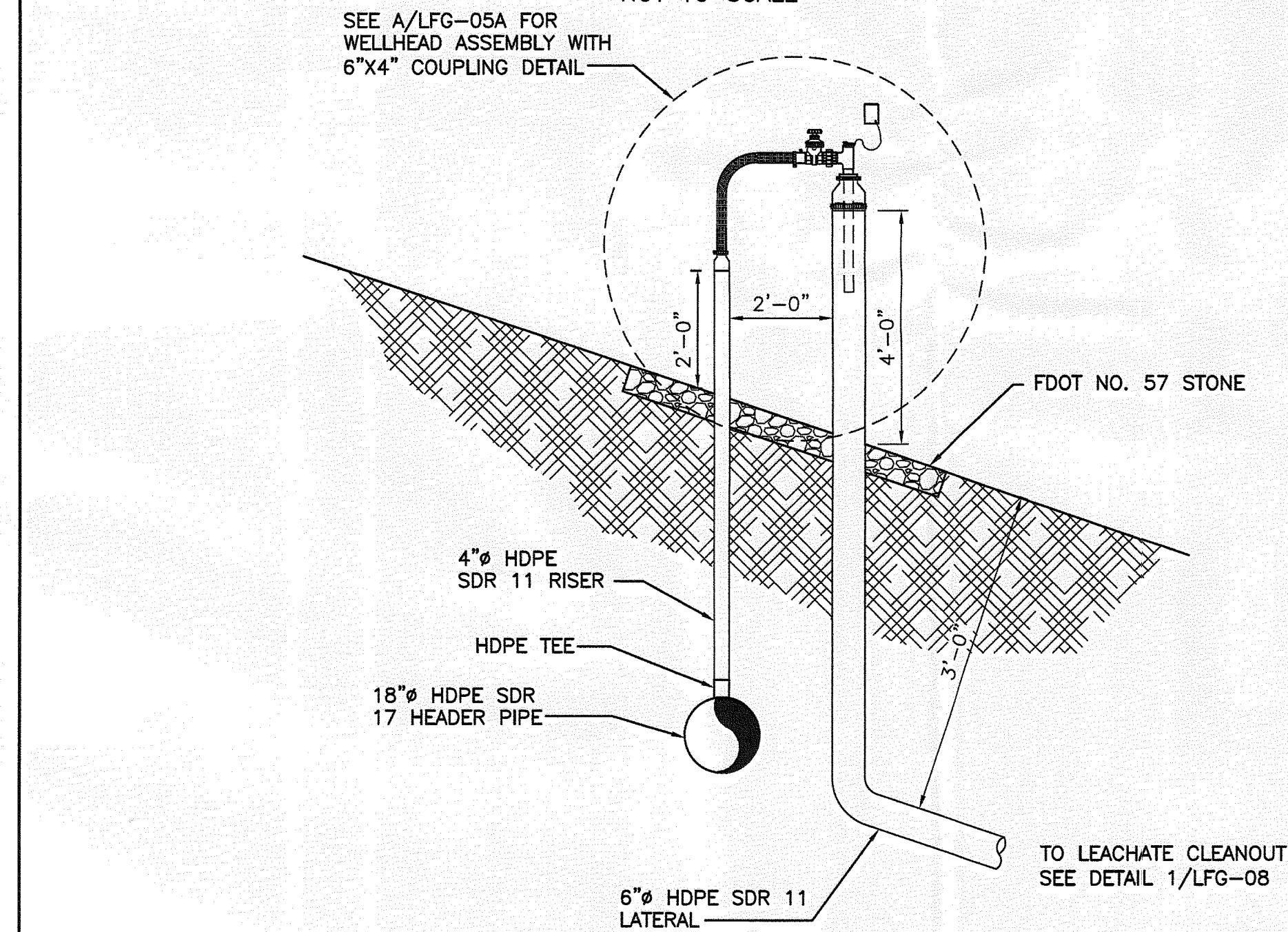
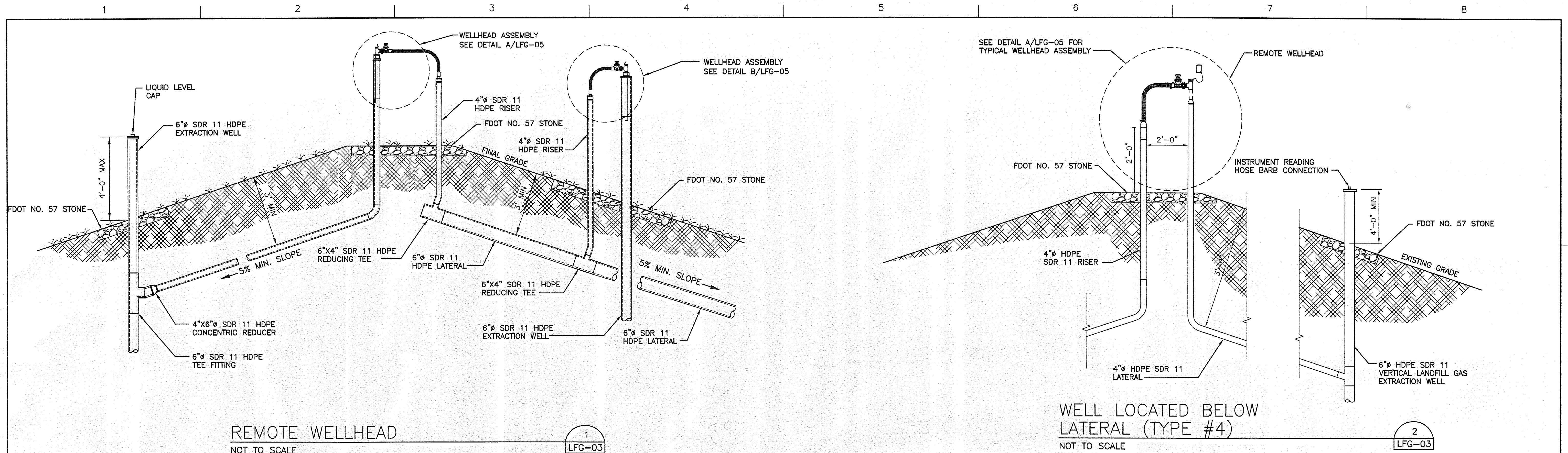
CLIFFORD G. KOENIG, P.E.
CERTIFICATE NO. 64078

Central County Solid Waste Disposal Complex
PHASE I SEQUENCE 2
LANDFILL GAS COLLECTION AND CONTROL SYSTEM

WELLHEAD AND CONFIGURATION DETAILS

FILENAME: 00LFG-05.DWG
SCALE: AS SHOWN

SHEET: LFG-05



RECORD DRAWING

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CLIFFORD G. KOENIG, P.E.
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HDR ENGINEERING, INC.

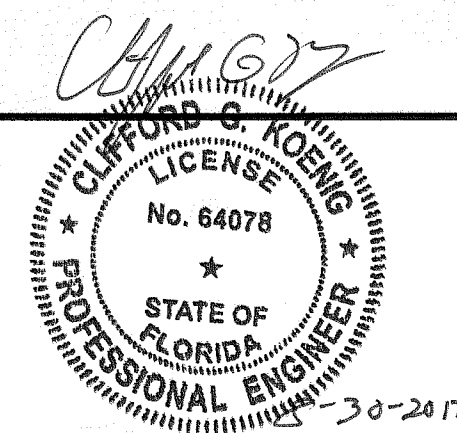
SEP - 7 2012

HDR

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Tampa, Florida 33609
813-282-2300
HDR CERT. AUTH. NO. CA 4213
FL REG. AA C000457

ISSUE	DATE	DESCRIPTION
1	08/2012	RECORD DRAWINGS
0	10/2011	ISSUED FOR CONSTRUCTION

PROJECT MANAGER	R. SIEMERING
REVIEWED BY	C. KOENIG
CIVIL DESIGN	C. RESTREPO, T. YANOSCHACK
DRAWN BY	B. JOHNSON
PROJECT NUMBER	00096-130530-005

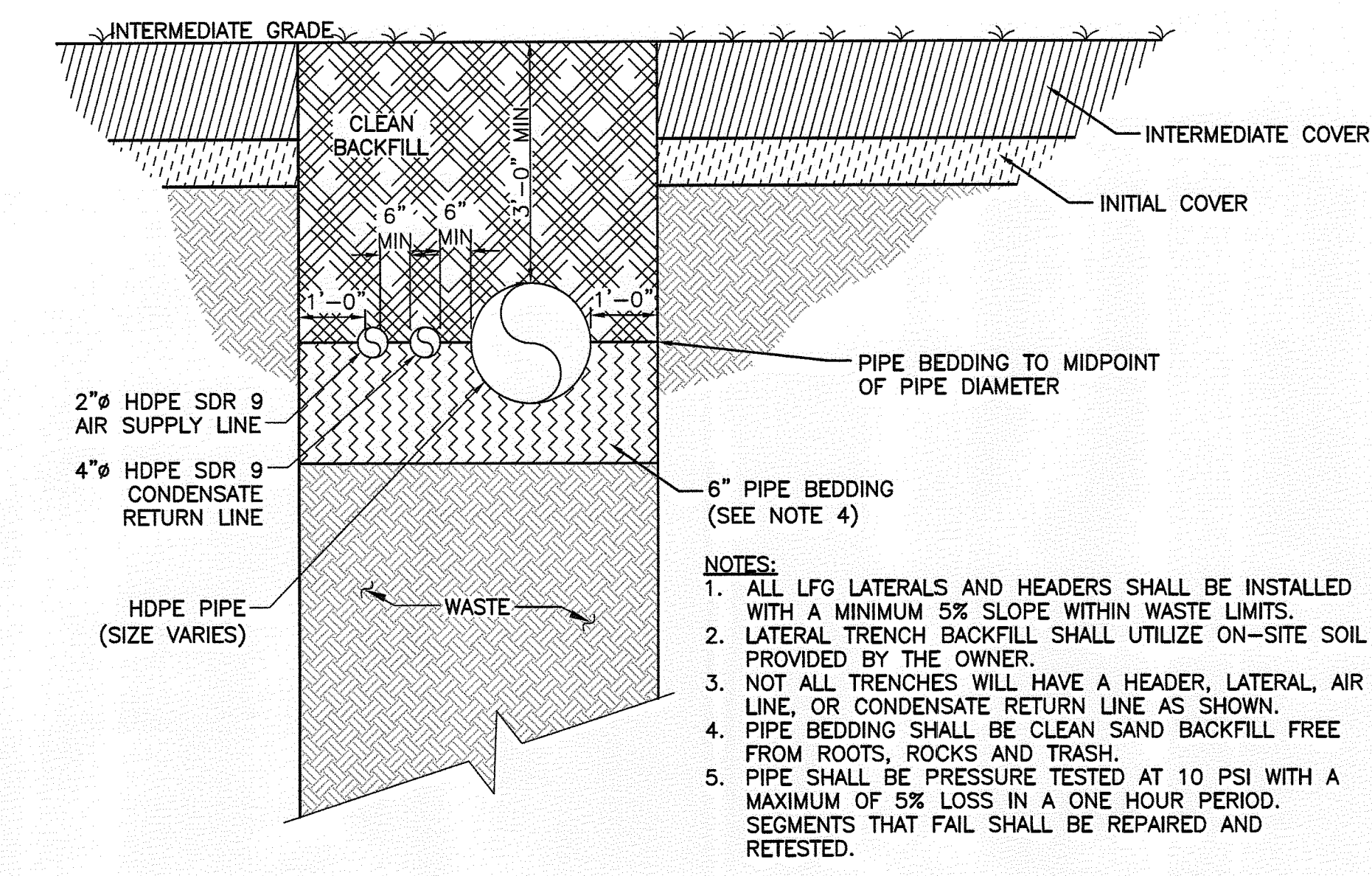


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Sarasota County
SARASOTA COUNTY

Central County Solid Waste Disposal Complex
PHASE I SEQUENCE 2
LANDFILL GAS COLLECTION AND CONTROL SYSTEM

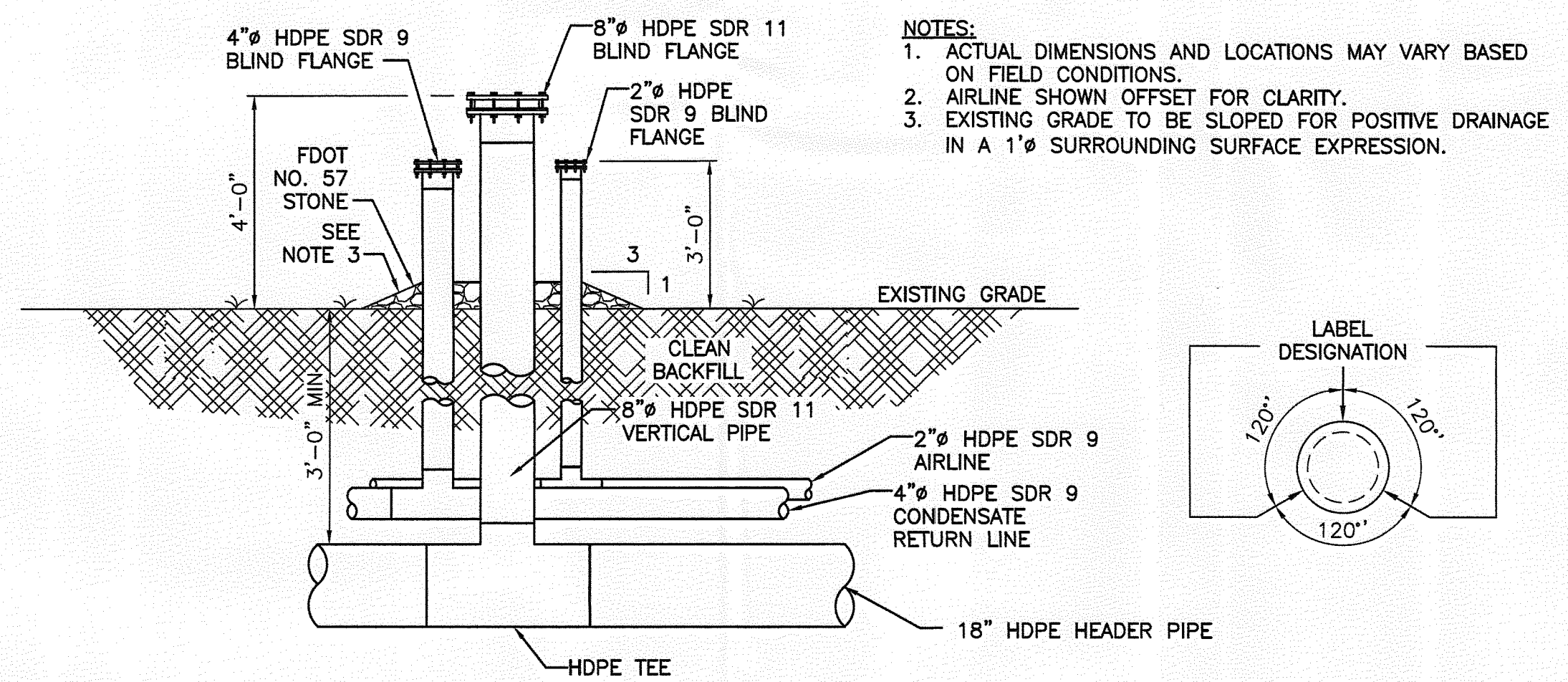
WELLHEAD AND CONFIGURATION DETAILS		SHEET
FILENAME	00LFG-05A.DWG	LFG-5A
SCALE	AS SHOWN	



LANDFILL GAS PIPING IN WASTE TRENCH DETAIL

NOT TO SCALE

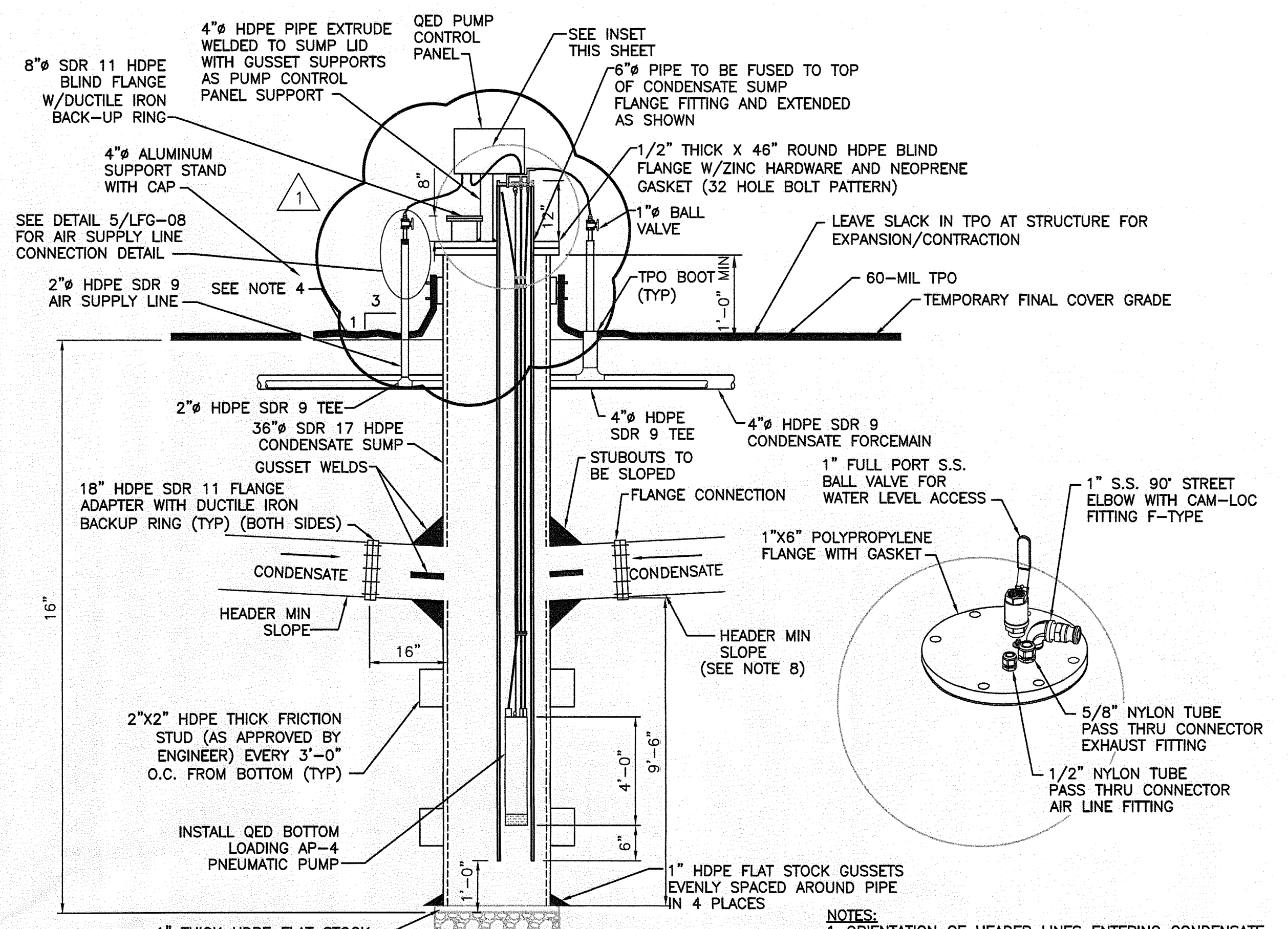
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LFG-06



HEADER ACCESS POINT

NOT TO SCALE

2
LFG-03



CONDENSATE SUMP DETAIL (TYP)

NOT TO SCALE

3
LFG-03

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Central County Solid Waste Disposal Complex
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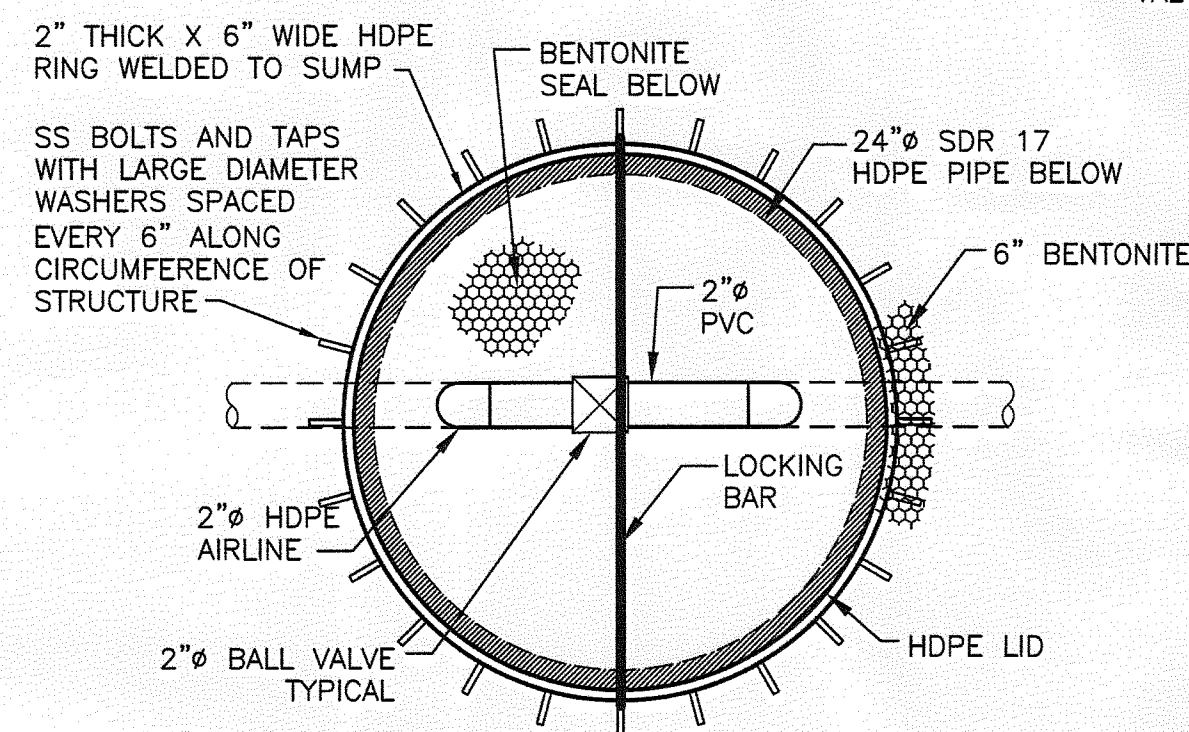
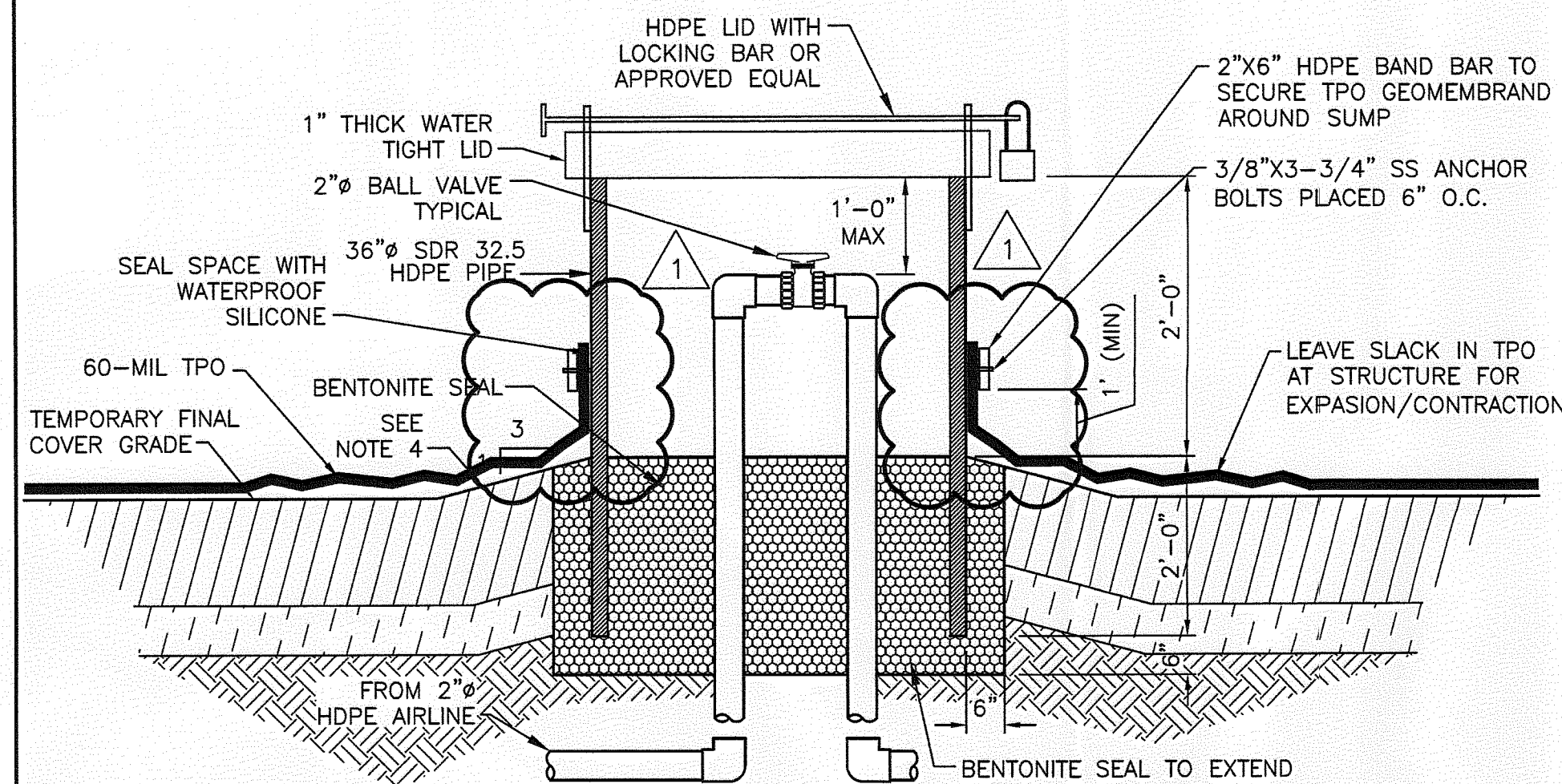
SARASOTA COUNTY FLORIDA

GENERAL LFG DETAILS

SEP - 7 2012

FILENAME: 00LFG-06.DWG
SCALE: AS SHOWN

SHEET
LFG-06

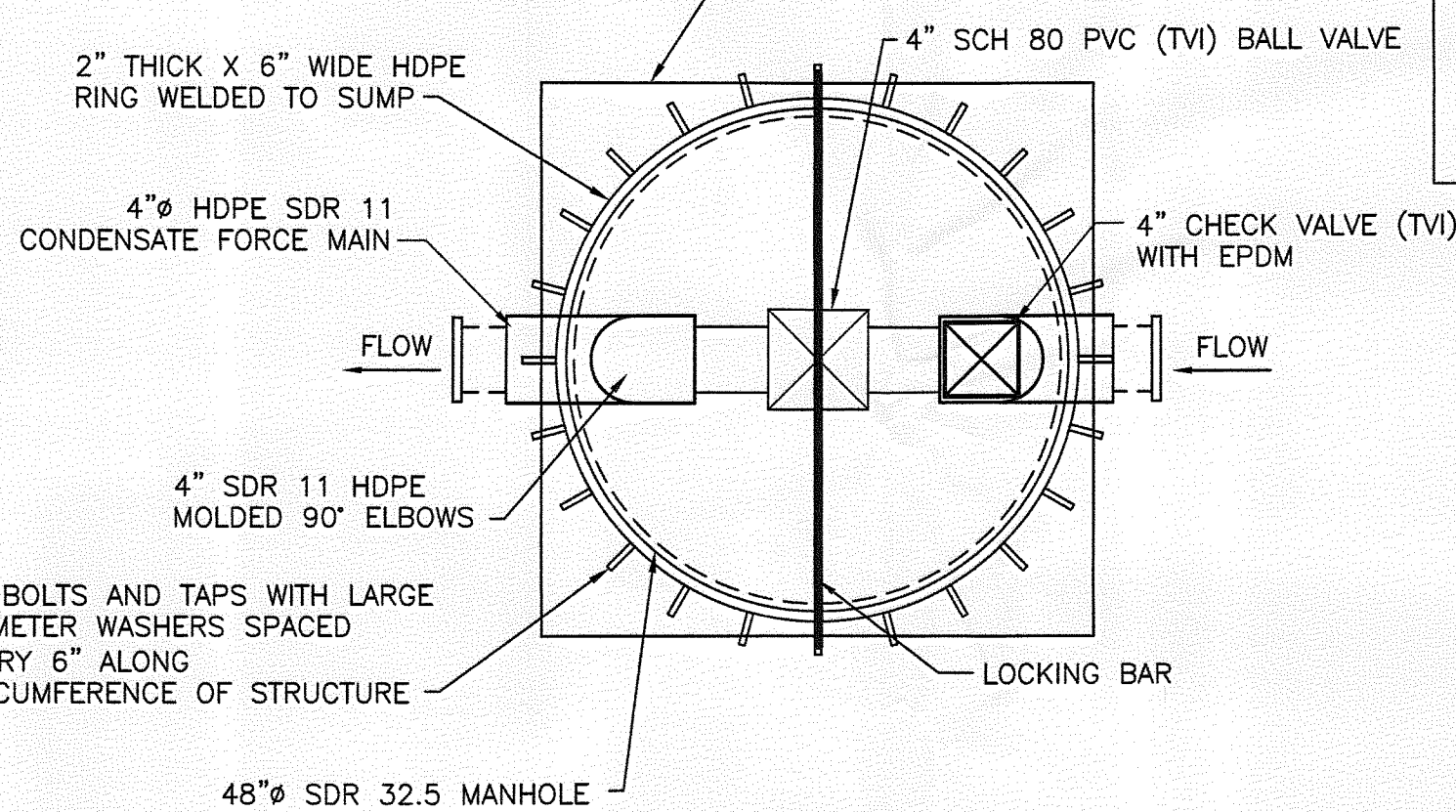
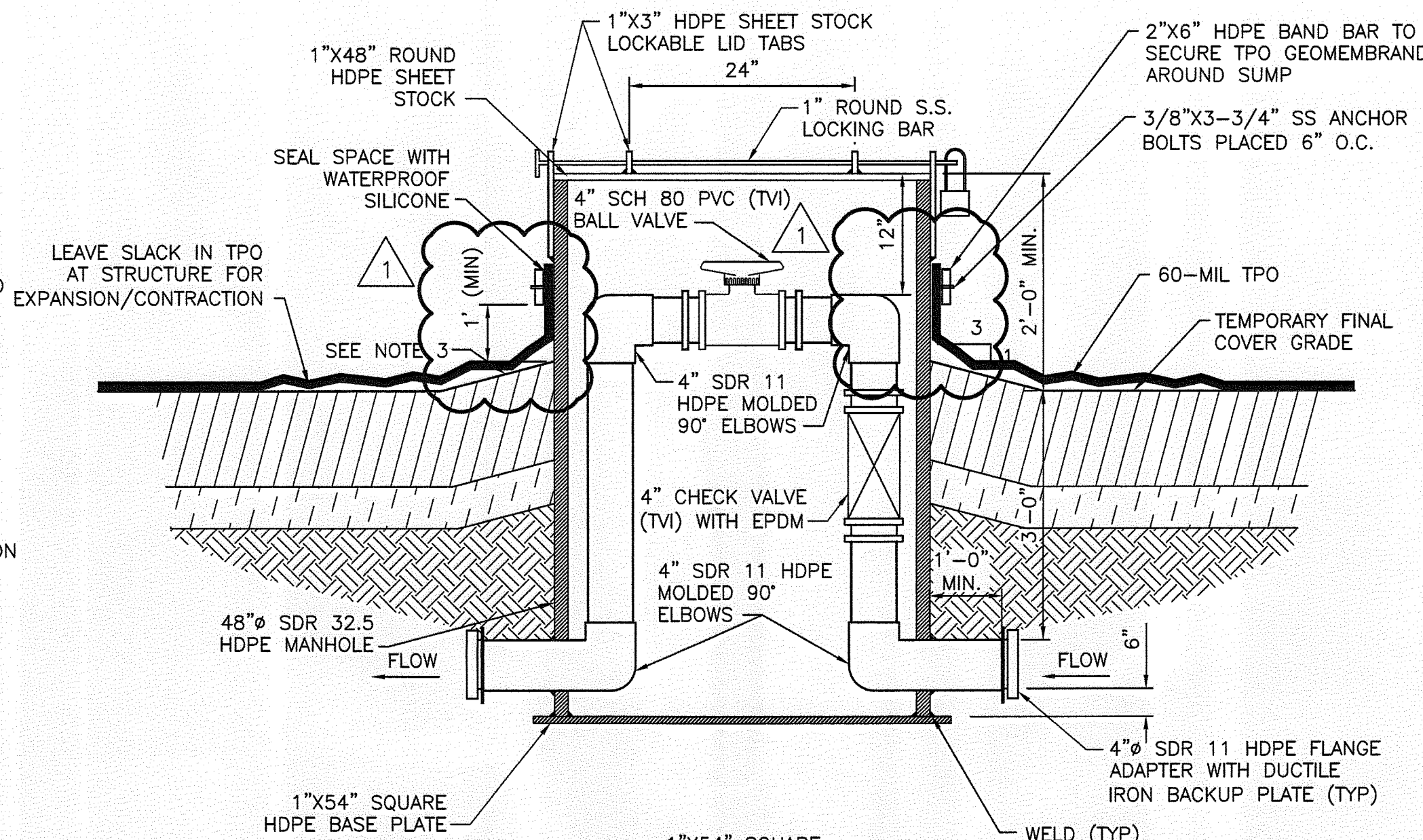


TOP VIEW

AIRLINE VALVE PIT
NOT TO SCALE

- NOTES:
1. ALL FITTINGS SHALL BE HDPE SDR 9 UNLESS OTHERWISE NOTED.
 2. VALVE BOX AND COVER SHALL BE 2'-0" MIN, WITH LID AND LOCKING DEVICE.
 3. LABEL ALL VALVE PITS WITH IDENTIFICATION NUMBER TO MATCH EXISTING VALVE PITS.
 4. EXISTING GRADE TO BE SLOPED FOR POSITIVE DRAINAGE IN A 1" SURROUNDING SURFACE EXPRESSION.

1
LFG-03

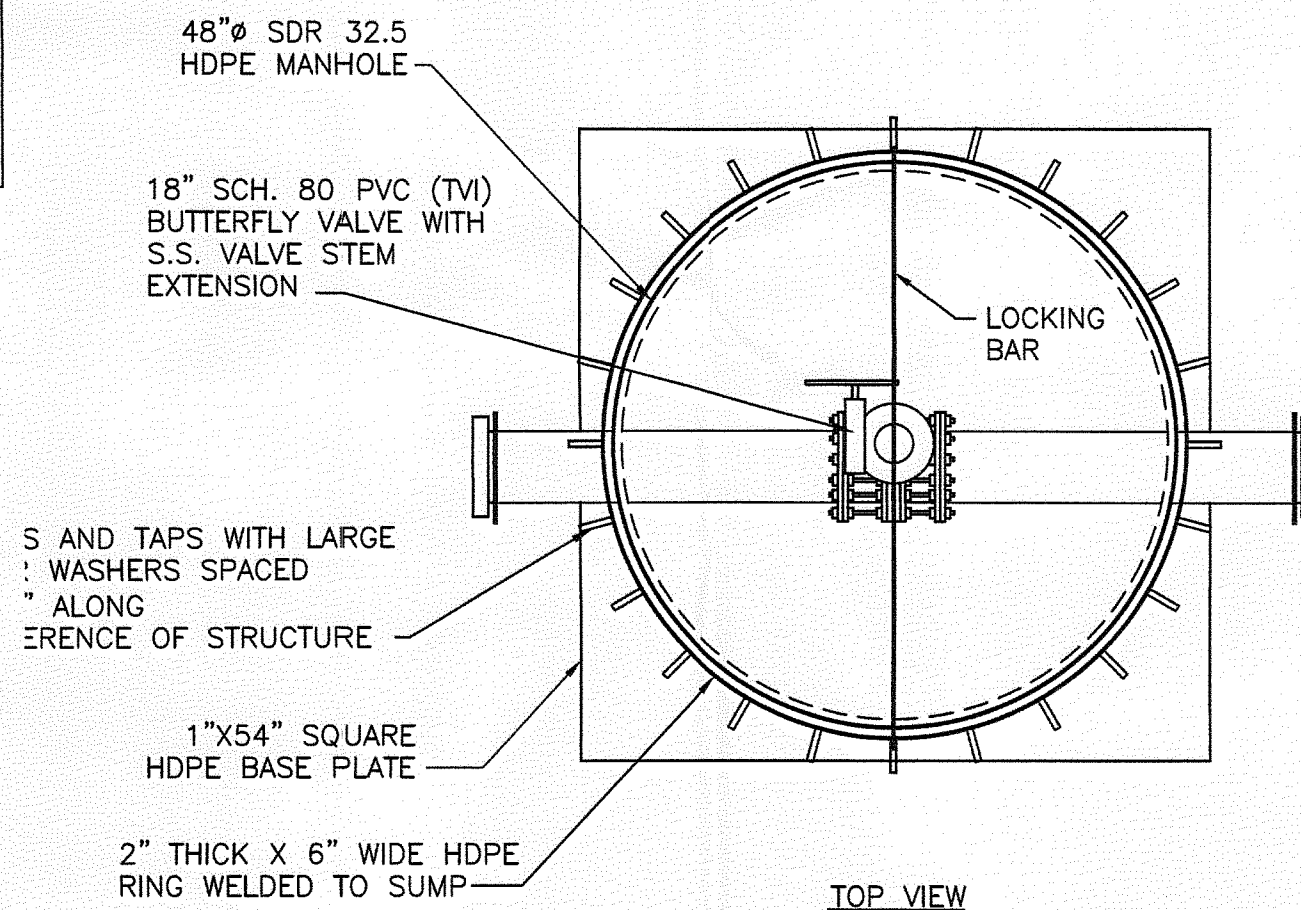
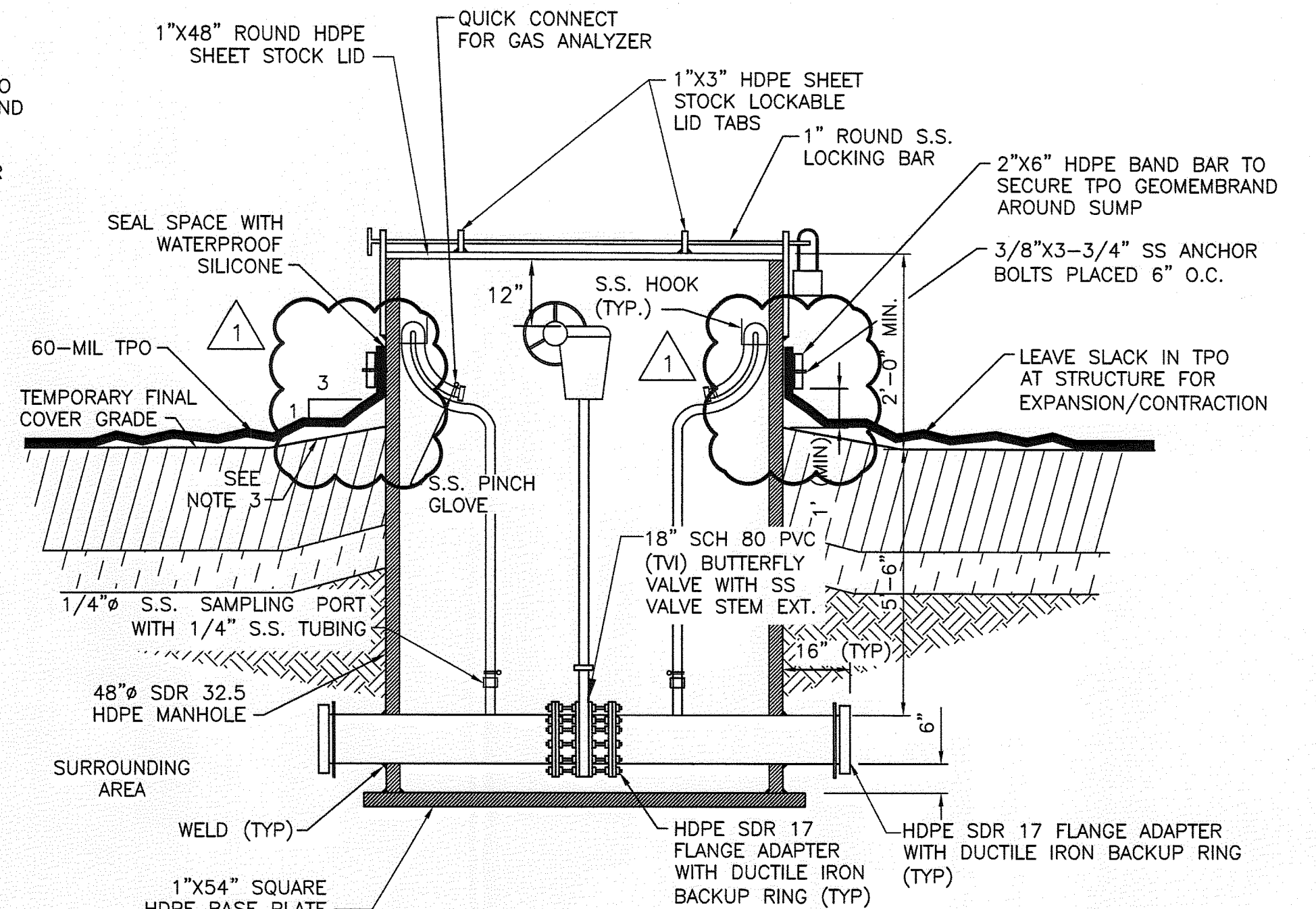


TOP VIEW

FORCE MAIN VALVE PIT
NOT TO SCALE

- NOTES:
1. ACTUAL DIMENSIONS AND LOCATIONS MAY VARY BASED ON FIELD CONDITIONS.
 2. LABEL ALL VALVE PITS WITH IDENTIFICATION NUMBER TO MATCH EXISTING VALVE PITS.
 3. EXISTING GRADE TO BE SLOPED FOR POSITIVE DRAINAGE IN A 1" SURROUNDING SURFACE EXPRESSION.

2
LFG-03



TOP VIEW

HEADER LINE ISOLATION VALVE PIT
NOT TO SCALE

- NOTES:
1. HOOK FOR SAMPLE PORT SHALL BE CONNECTED TO WALL OF VALVE PIT WITHIN REACH OF TOP OF VALVE PIT.
 2. LABEL ALL VALVE PITS WITH IDENTIFICATION NUMBER MATCHING EXISTING VALVE PITS.
 3. EXISTING GRADE TO BE SLOPED FOR POSITIVE DRAINAGE IN A 1" SURROUNDING SURFACE EXPRESSION.

3
LFG-03

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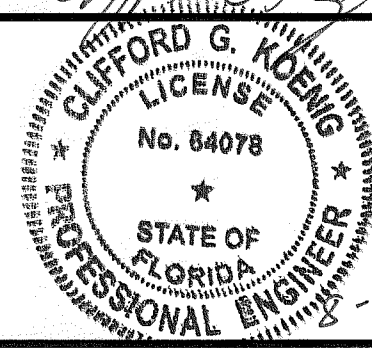
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DRAWN BY	B. JOHNSON
PROJECT NUMBER	00096-130530-005



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Sarasota County
SARASOTA COUNTY

Central County Solid
Waste Disposal
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PHASE I SEQUENCE 2
LANDFILL GAS COLLECTION
AND CONTROL SYSTEM
FLORIDA

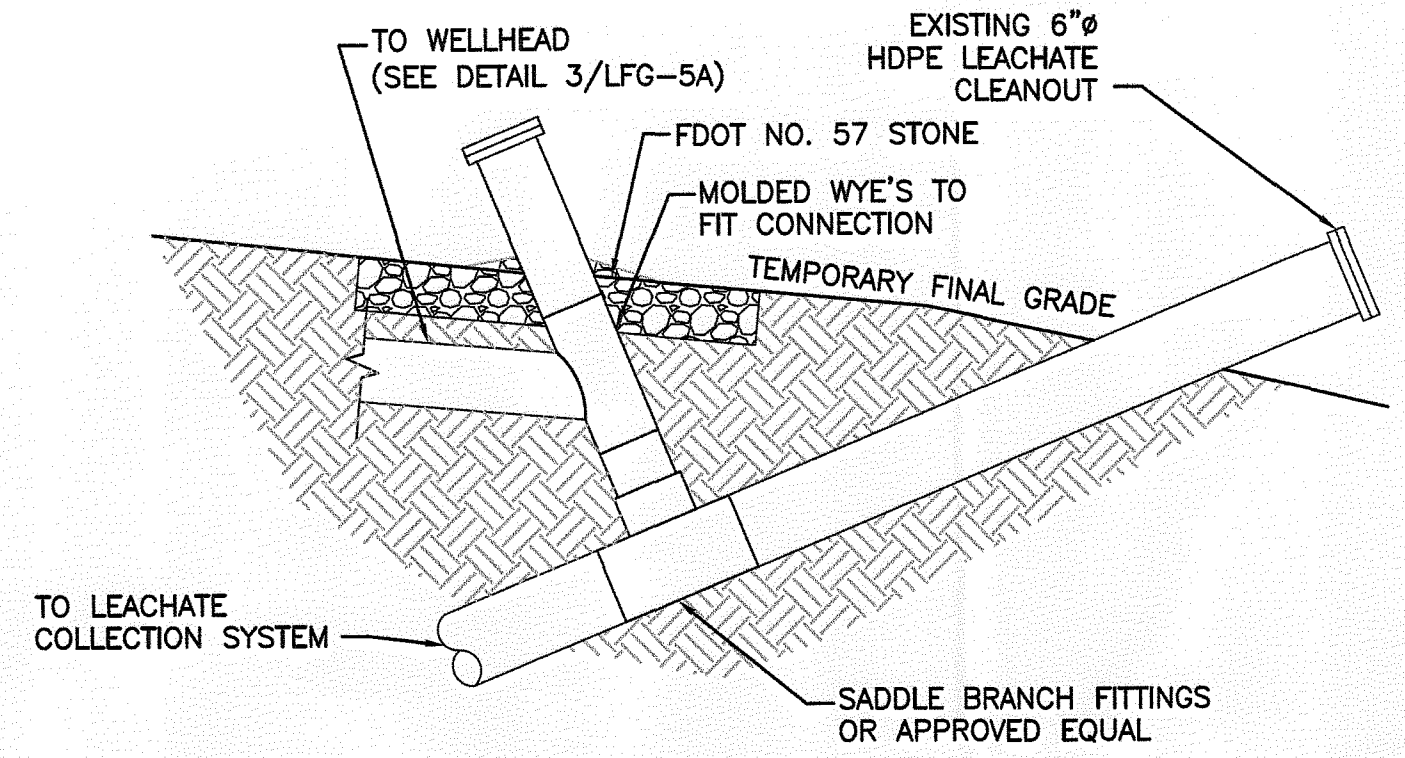
VALVE PIT DETAILS

FLORIDA DEPARTMENT OF
ENVIRONMENTAL PROTECTION
SEP - 7 2012
SOUTHWEST DISTRICT
TAMPA



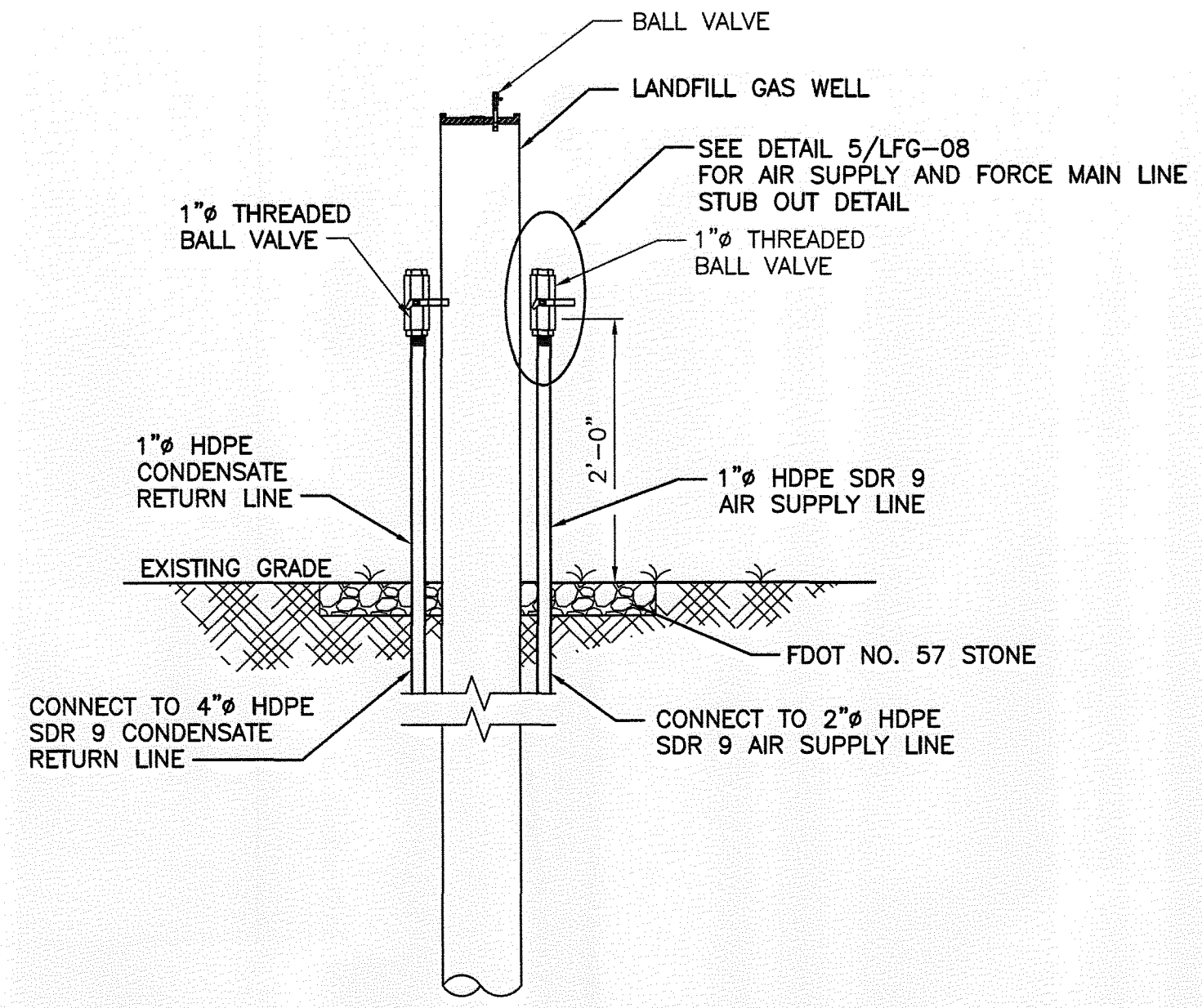
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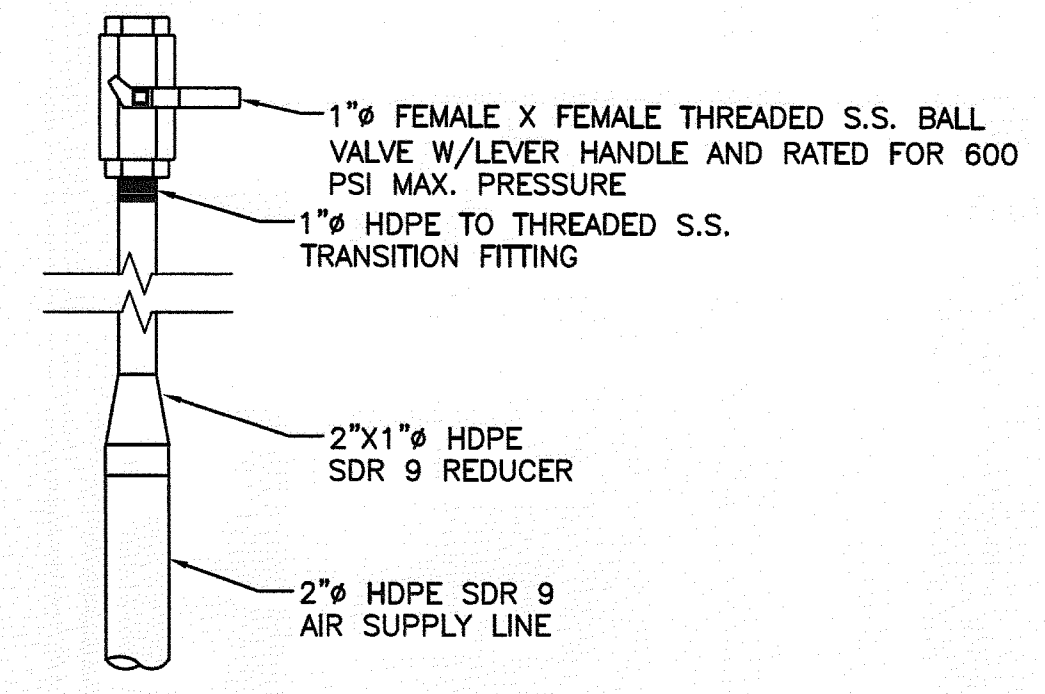
GAS COLLECTION FROM LEACHATE CLEANOUT CONNECTION (TYP)
NOT TO SCALE

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LFG-03
LFG-5A



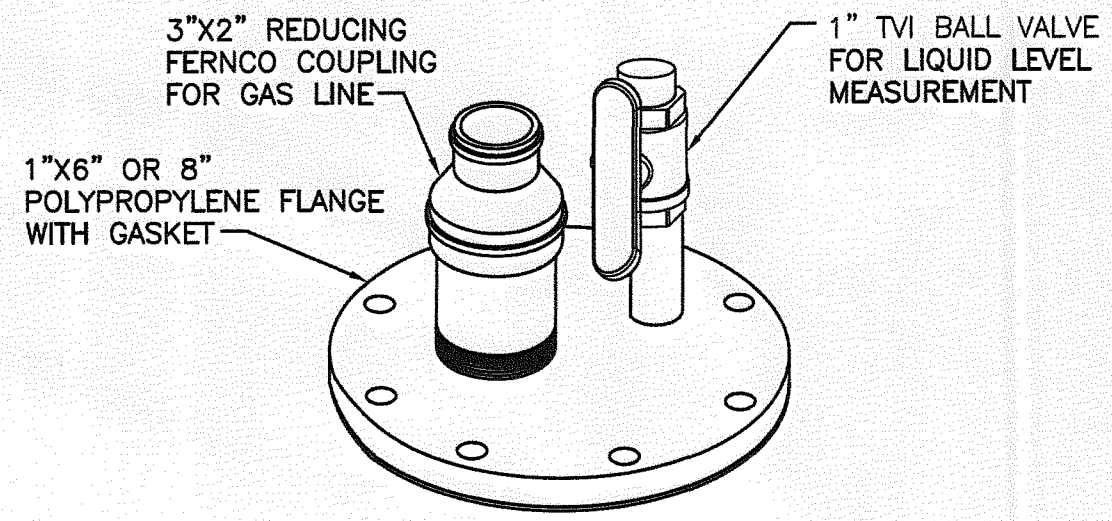
WELL RISER DETAIL (TYP)
NOT TO SCALE

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LFG-05



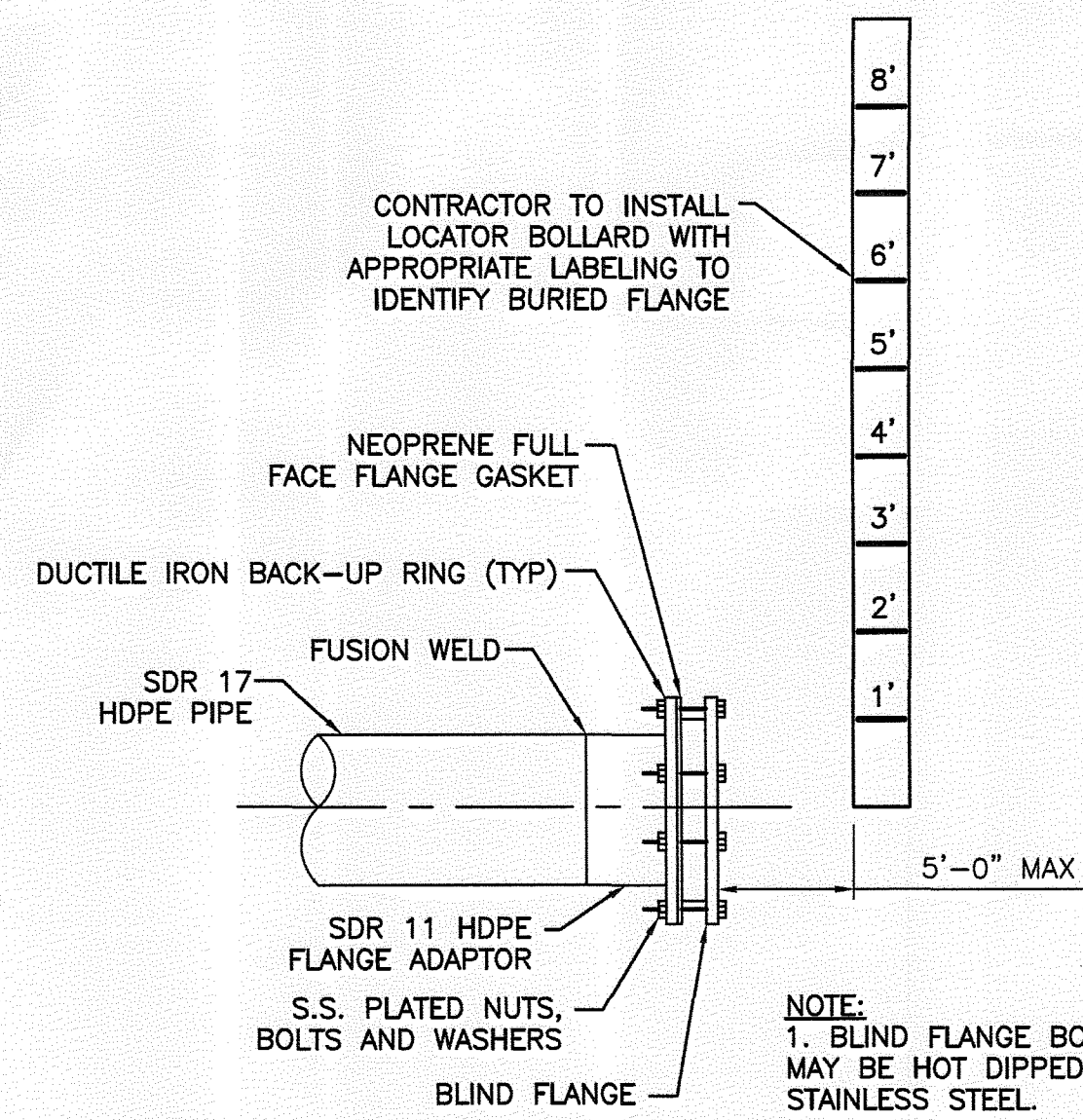
AIR SUPPLY AND FORCE MAIN LINE CONNECTION DETAIL (TYP)
NOT TO SCALE

5
LFG-08



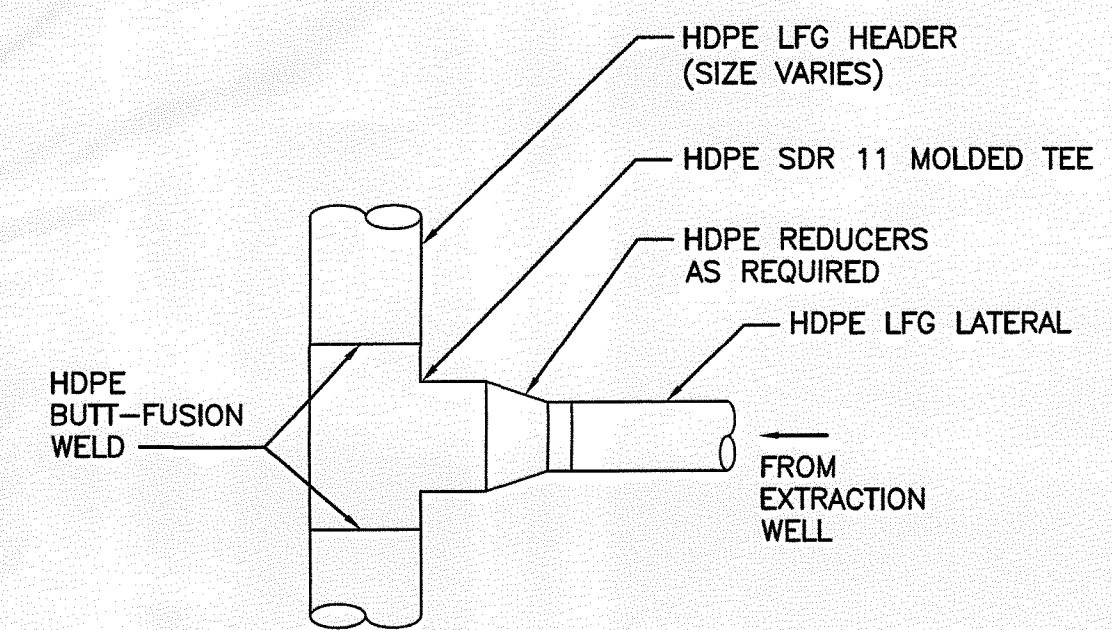
VERTICAL WELL WITHOUT PUMP FLANGE PACKAGE
NOT TO SCALE

2
LFG-05



BLIND FLANGE WITH LOCATOR BOLLARD DETAIL
NOT TO SCALE

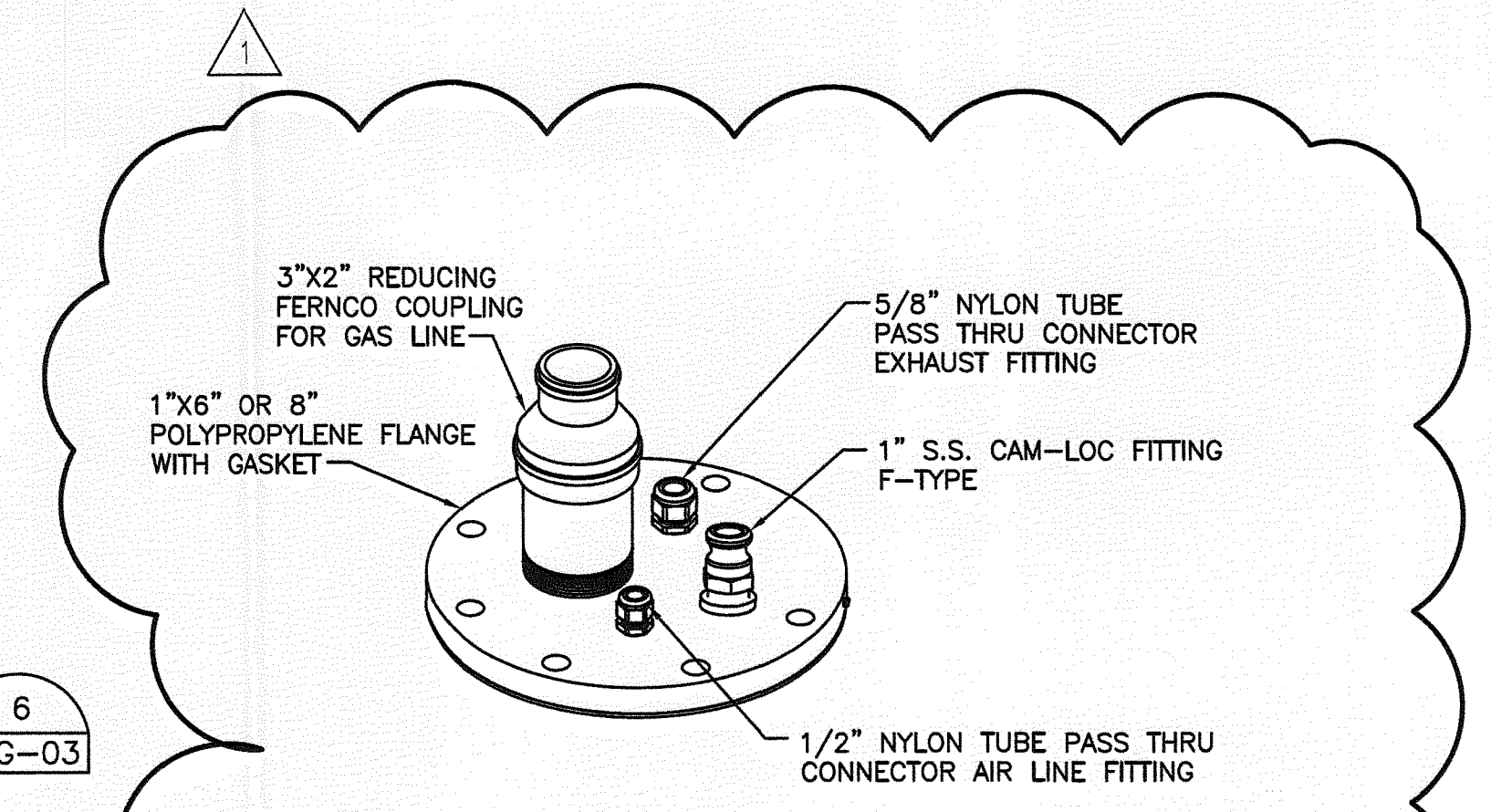
3
LFG-03



LATERAL TIE-IN W/TEE
NOT TO SCALE

6
LFG-03

NOTES:
1. SHOP FABRICATED BRANCH SADDLE FITTINGS MAY BE USED AS APPROVED BY THE ENGINEER. FIELD FABRICATED BRANCH SADDLE FITTINGS WILL NOT BE ACCEPTED.
2. 1' MIN. OF SAND WILL BE PLACED BELOW EACH TEE. THE SAND WILL BE INSTALLED SO IT EXTENDS 3'-0" MIN. ON EACH SIDE OF THE TEE. SAND WILL BE SLIGHTLY MOISTENED AND HAND-TAMPED PROVIDING SUPPORT TO ALL POINTS OF THE TEE. CLEAN, GRADED SOIL WILL BE HAND-TAMPED ABOVE TEE (1'-0" MIN.) BEING CAREFUL TO ELIMINATE ALL VOIDS.



VERTICAL WELL WITH PUMP FLANGE PACKAGE
NOT TO SCALE

2
LFG-05

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SARASOTA COUNTY FLORIDA

GENERAL LFG DETAILS

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SOUTHWEST DISTRICT
TAMPA

0 1" 2"

FILENAME: 00LFG-08.DWG
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