

PERMIT MODIFICATION

GAS MANAGEMENT SYSTEM

VISTA LANDFILL - APOPKA, FLORIDA

PERMIT NO. SO 48-0165969-018



OWNER:

VISTA LANDFILL, LLC
VISTA LANDFILL
242 WEST KEENE ROAD
APOPKA, FLORIDA 32703
(407) 886-2920

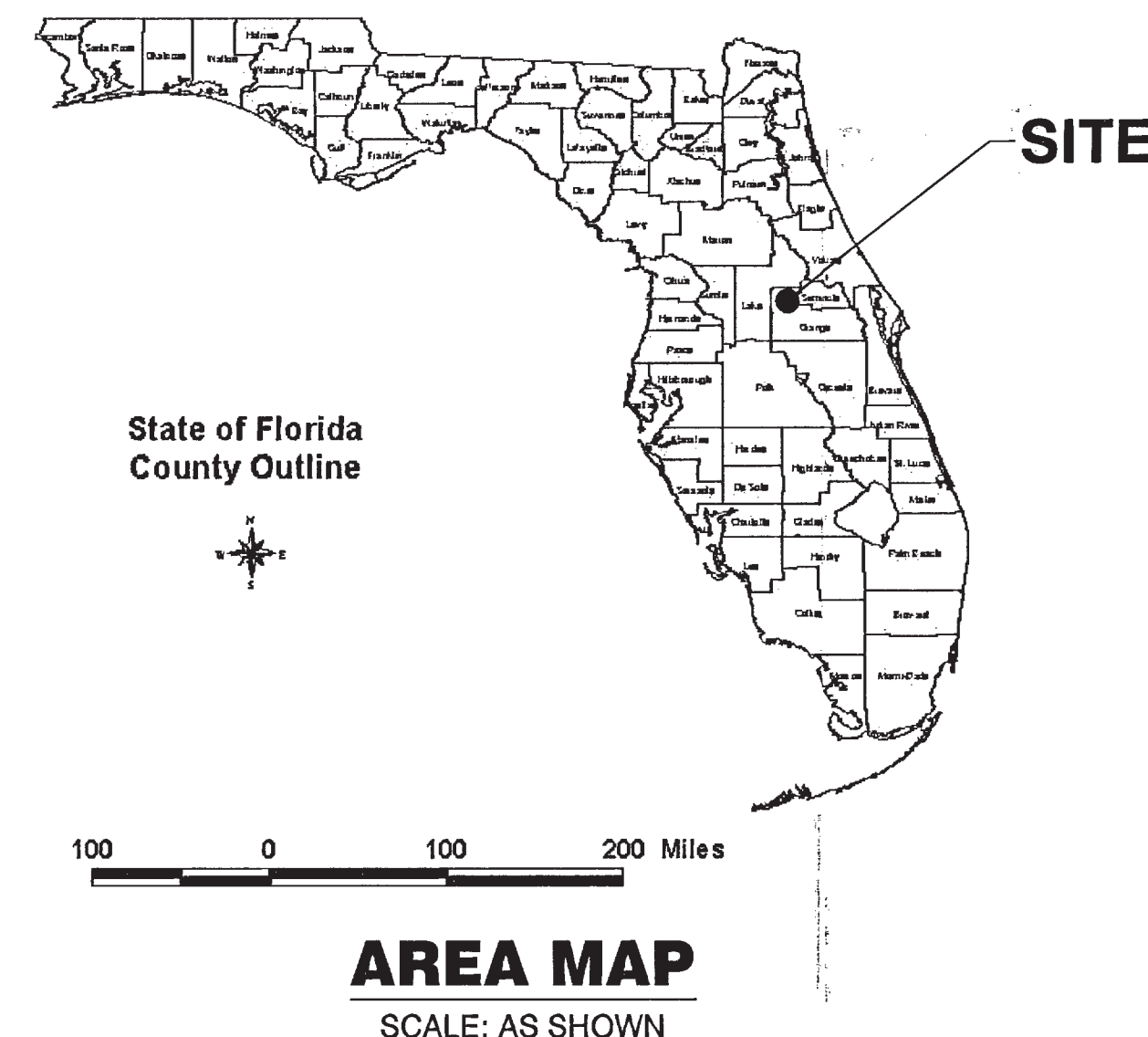
OWNER REPRESENTATIVE:
CRAIG PELTON
(954) 984-2000

ENGINEER:

CARLSON ENVIRONMENTAL CONSULTANTS, PC
305 SOUTH MAIN STREET
MONROE, NORTH CAROLINA 28112
(704) 283-9765

CEC JOB NO. 101.07.07

AUGUST 2012
REVISED NOVEMBER 2012



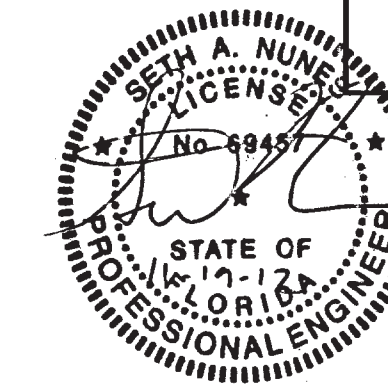
NOTES:

1. THESE PERMIT MODIFICATION FIGURES ARE FOR PERMITTING PURPOSES ONLY AND ARE NOT SUITABLE FOR CONSTRUCTION.

2. PLEASE SEE THE GAS MANAGEMENT PLAN PERMIT MODIFICATION FOR THE VISTA LANDFILL, BY CARLSON ENVIRONMENTAL CONSULTANTS, PC DATED AUGUST 2012 (REVISED NOVEMBER 2012) FOR ADDITIONAL INFORMATION.

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1	TITLE SHEET
2	EXISTING LFG SITE PLAN - JANUARY 1, 2012
3	INTERIM GCCS PLAN
4	GCCS BUILDOUT PLAN
5	TYPICAL LFG DETAILS
6	TYPICAL LFG DETAILS



FOR PERMITTING PURPOSES ONLY
NOT FOR CONSTRUCTION

DRAWING TITLE:		TITLE SHEET	
PROJECT:		PERMIT MODIFICATION GAS MANAGEMENT PLAN	
SITE:		VISTA LANDFILL, LLC VISTA LANDFILL APOPKA, FLORIDA	
CARLSON ENVIRONMENTAL CONSULTANTS, PC			
305 SOUTH MAIN STREET MONROE, NORTH CAROLINA 28112		FLORIDA COA# 27045	(704) 283-9765 FAX (704) 283-9755
CEC PROJECT NO. 101.07.07		DWG.VISTA.MOD.2012.TITLE	REV. 1
SCALE NO SCALE		FIGURE 1 OF 6	
DATE AUG 2012		REV DATE NOV 2012	

E 490,000

E 490,000

E 491,000

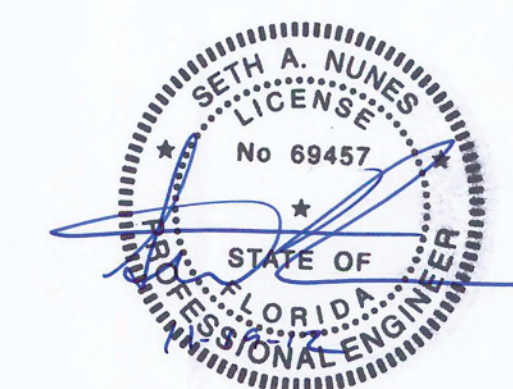
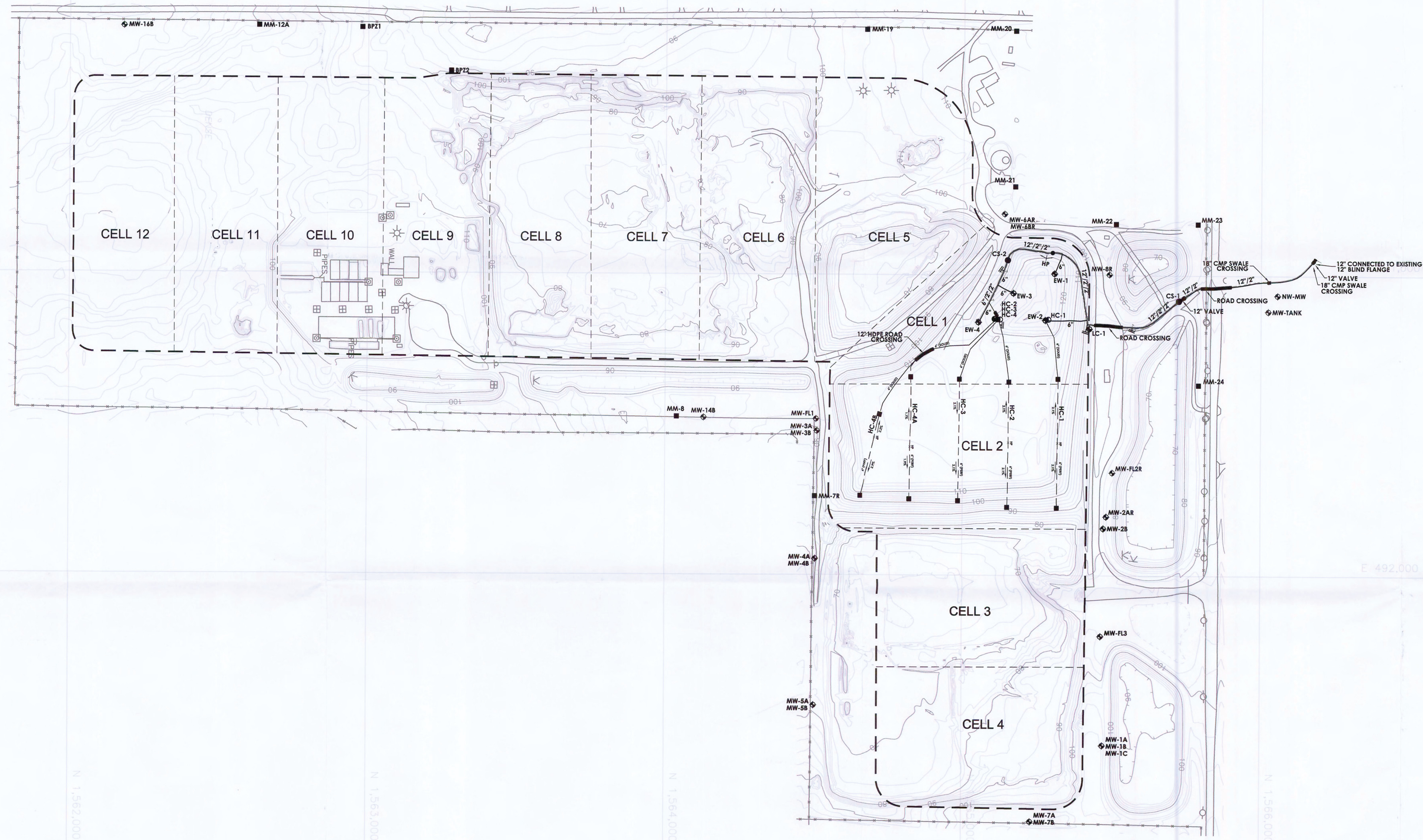
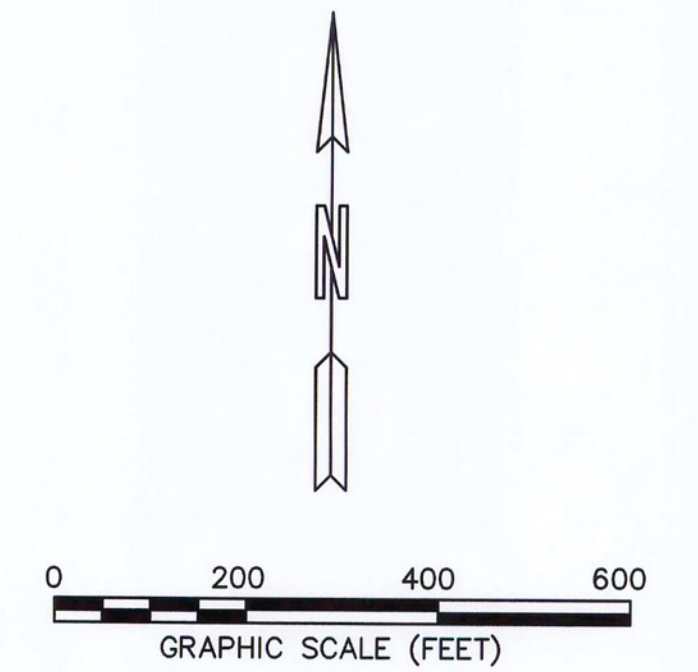
E 492,000

N 1,562,000

N 1,563,000

N 1,564,000

N 1,565,000



FOR PERMITTING PURPOSES ONLY
NOT FOR CONSTRUCTION

LEGEND

- PROPERTY BOUNDARY
- PERMITTED LIMITS OF WASTE
- 10-FOOT CONTOUR LINE
- 2-FOOT CONTOUR LINE
- CELL BOUNDARY
- ⊕ GROUNDWATER MONITORING WELL
- METHANE MONITORING DATA
- LFG HEADER/LATERAL
- LFG HORIZONTAL COLLECTOR
- ⊕ LFG WELLHEAD
- HORIZONTAL COLLECTOR SUMP

NOTES

1. AERIAL TOPOGRAPHY COMPILED BY PICKETT AND ASSOCIATES, INC. FROM AERIAL PHOTOGRAPH FLOWN ON JANUARY 1, 2012.

2. THIS FIGURE IS FOR PERMITTING PURPOSES AND IS NOT INTENDED FOR CONSTRUCTION.

DRAWING TITLE:

EXISTING LFG SITE PLAN - JANUARY 1, 2012

PROJECT:

PERMIT MODIFICATION
GAS MANAGEMENT PLAN

SITE:

VISTA LANDFILL, LLC
VISTA LANDFILL
APOPKA, FLORIDA

**CARLSON ENVIRONMENTAL
CONSULTANTS, PC**

305 SOUTH MAIN STREET
MONROE, NORTH CAROLINA 28112

FLORIDA COA# 27045

(704) 283-9765
FAX (704) 283-9755

CEC PROJECT NO. 101.07.07

DWG. VISTA.MOD.2012.SITE REV. 1

SCALE 1" = 200'

DATE AUG 2012 REV DATE NOV 2012

FIGURE 2 OF 6

E 490,000

E 490,000

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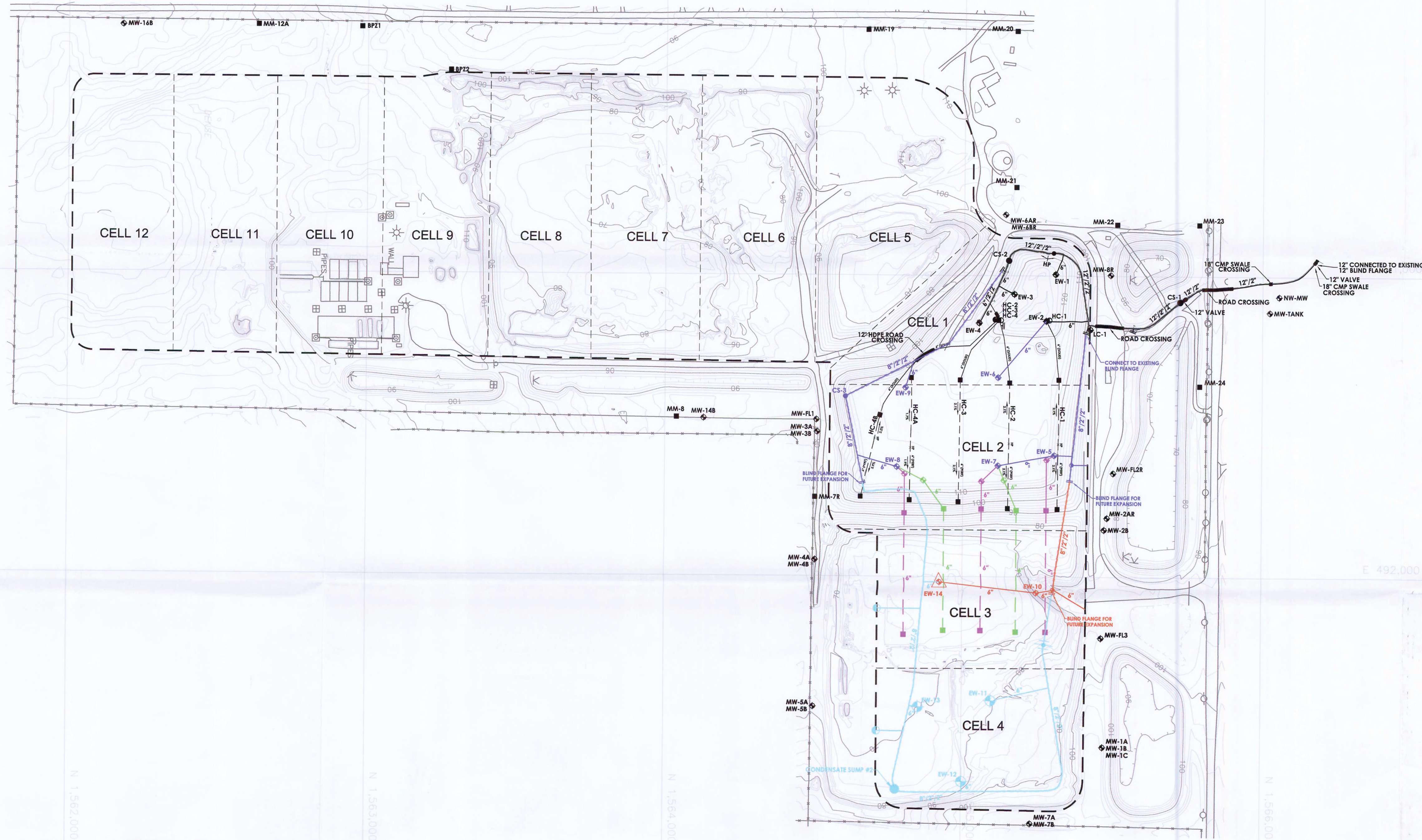
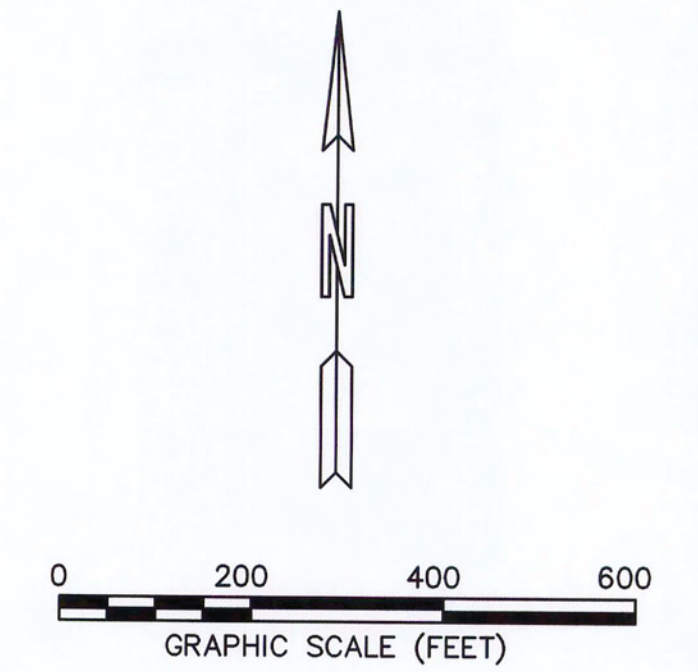
E 492,000

N 1,562,000

N 1,563,000

N 1,564,000

N 1,566,000

**LEGEND**

- PROPERTY BOUNDARY
- PERMITTED LIMITS OF WASTE
- 10-FOOT CONTOUR LINE
- 2-FOOT CONTOUR LINE
- CELL BOUNDARY
- ⊕ GROUNDWATER MONITORING WELL
- METHANE MONITORING DATA
- LFG HEADER/LATERAL
- LFG HORIZONTAL COLLECTOR
- ⊕ LFG WELLHEAD
- ⊕ LFG DOWN SLOPE WELLHEAD
- ⊕ LECAPTE CLEANOUT CONNECTION

PROPOSED LFG PHASING

- PHASE 1
- PHASE 2
- PHASE 3
- PHASE 4
- PHASE 5

NOTES

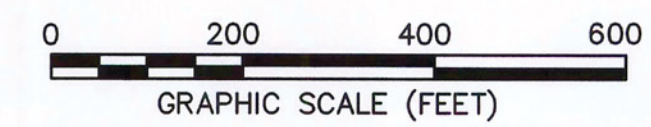
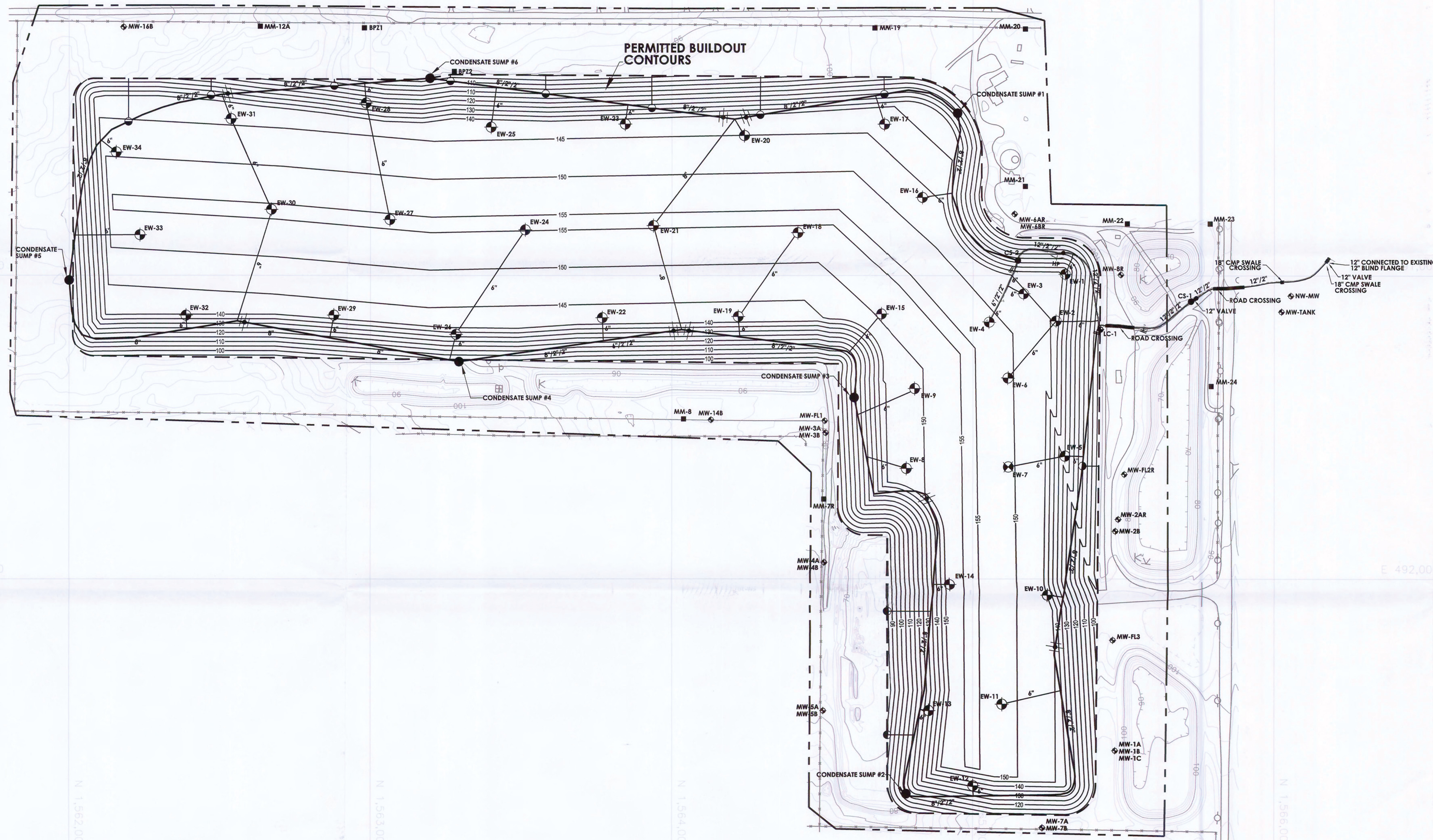
1. AERIAL TOPOGRAPHY COMPILED BY PICKETT AND ASSOCIATES, INC. FROM AERIAL PHOTOGRAPH FLOWN ON JANUARY 1, 2012.

2. THIS FIGURE IS FOR PERMITTING PURPOSES AND IS NOT INTENDED FOR CONSTRUCTION.



FOR PERMITTING PURPOSES ONLY
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DRAWING TITLE:		INTERIM GCCS PLAN	
PROJECT:		PERMIT MODIFICATION GAS MANAGEMENT PLAN	
SITE:		VISTA LANDFILL, LLC VISTA LANDFILL APOPKA, FLORIDA	
CARLSON ENVIRONMENTAL CONSULTANTS, PC			
305 SOUTH MAIN STREET MONROE, NORTH CAROLINA 28112		FLORIDA COA# 27045	(704) 283-9765 FAX (704) 283-9755
CEC PROJECT NO. 101.07.07		DWG. VISTA.MOD.2012.INTER	REV. 0
SCALE 1" = 200'		FIGURE 3 OF 6	
DATE NOVEMBER 2012			



LEGEND

- PROPERTY BOUNDARY
- PERMITTED LIMITS OF WASTE
- 10-FOOT CONTOUR LINE
- 2-FOOT CONTOUR LINE
- FINAL CONTOURS
- ⊕ GROUNDWATER MONITORING WELL
- METHANE MONITORING DATA
- BUILDOUT LFG HEADER/LATERAL
- ⊙ BUILDOUT LFG WELLHEAD

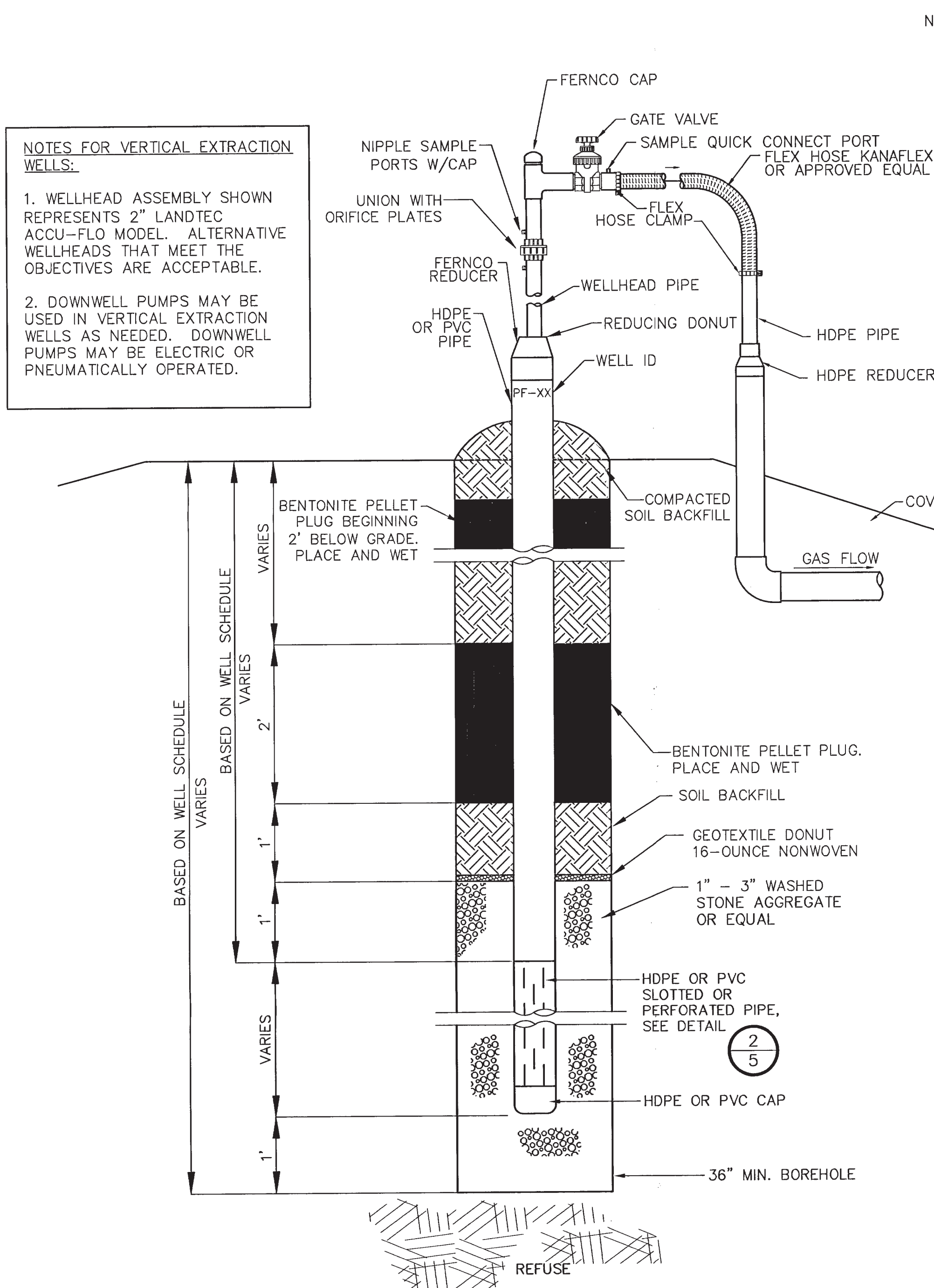
NOTES

1. AERIAL TOPOGRAPHY COMPILED BY PICKETT AND ASSOCIATES, INC. FROM AERIAL PHOTOGRAPH FLOWN ON JANUARY 1, 2012.
2. FINAL GRADING PLAN AND CONTOURS PROVIDED BY APPLIED TECHNOLOGY & MANAGEMENT, INC. IN MAY 2012.
3. THIS FIGURE IS FOR PERMITTING PURPOSES AND IS NOT FOR CONSTRUCTION.

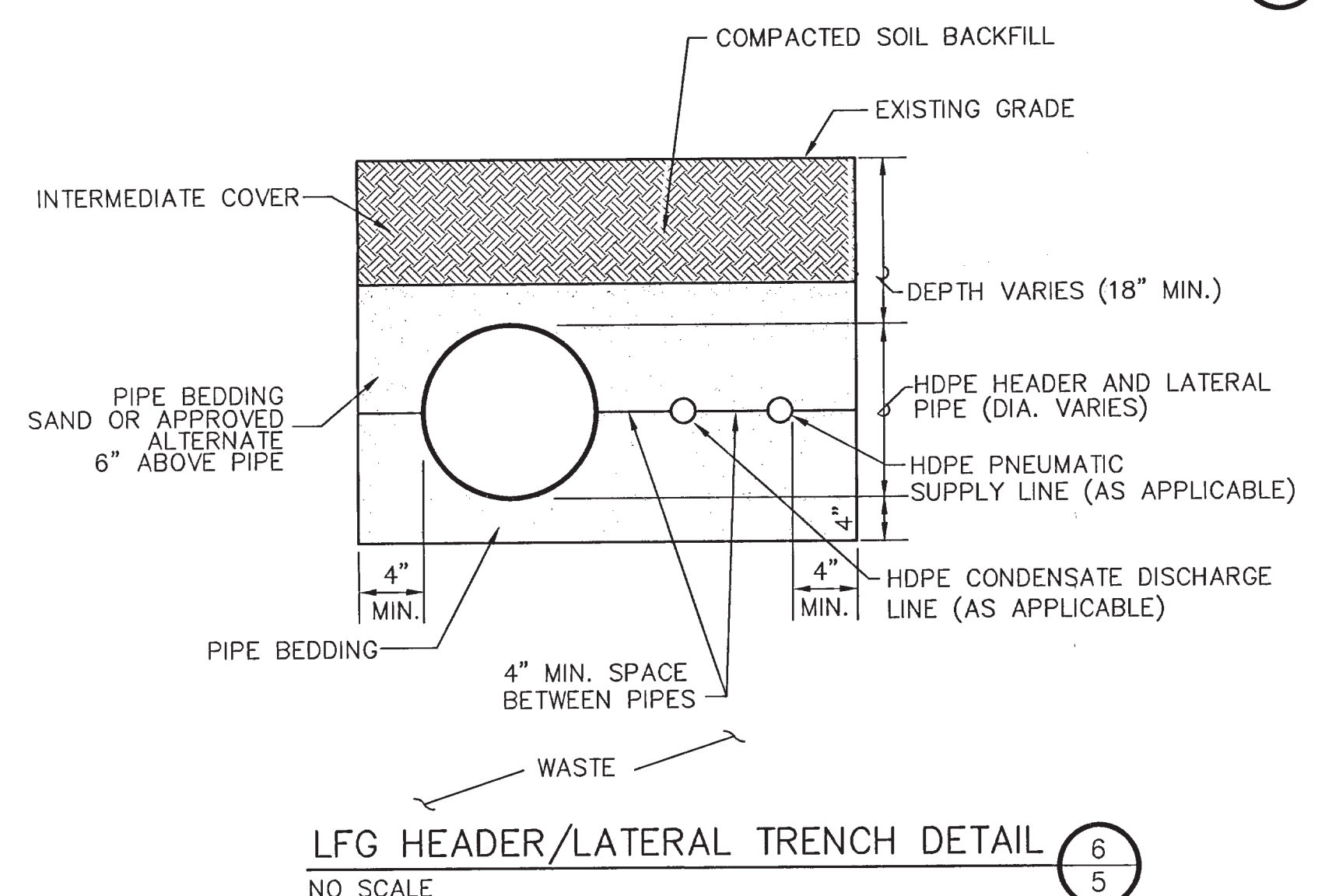
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DRAWING TITLE:		LFG FINAL BUILDOUT PLAN	
PROJECT:		PERMIT MODIFICATION GAS MANAGEMENT PLAN	
SITE:		VISTA LANDFILL, LLC VISTA LANDFILL APOPKA, FLORIDA	
CARLSON ENVIRONMENTAL CONSULTANTS, PC			
305 SOUTH MAIN STREET MONROE, NORTH CAROLINA 28112		FLORIDA COA# 27045	(704) 283-9765 FAX (704) 283-9755
CEC PROJECT NO. 101.07.07		DWG. VISTA.MOD.2012.BUILD	REV. 1
SCALE 1" = 200'		FIGURE 4 OF 6	
DATE AUG 2012			
REV DATE NOV 2012			

NOTES FOR VERTICAL EXTRACTION WELLS:
1. WELLHEAD ASSEMBLY SHOWN REPRESENTS 2" LANDTEC ACCU-FLO MODEL. ALTERNATIVE WELLHEADS THAT MEET THE OBJECTIVES ARE ACCEPTABLE.
2. DOWNWELL PUMPS MAY BE USED IN VERTICAL EXTRACTION WELLS AS NEEDED. DOWNWELL PUMPS MAY BE ELECTRIC OR PNEUMATICALLY OPERATED.

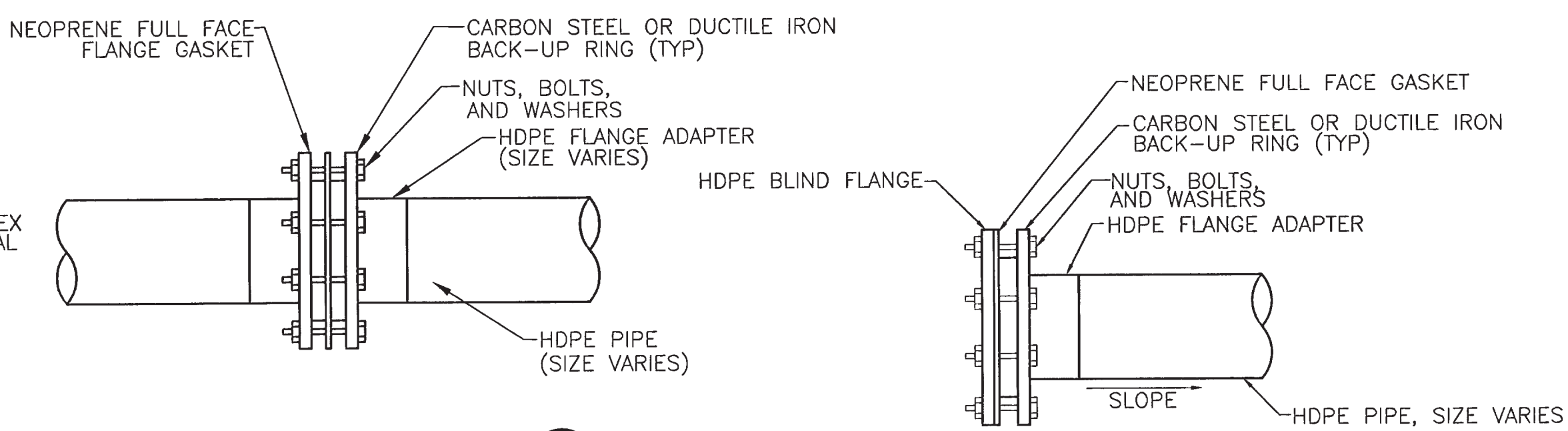


VERTICAL EXTRACTION WELL DETAIL 1/5
NOT TO SCALE



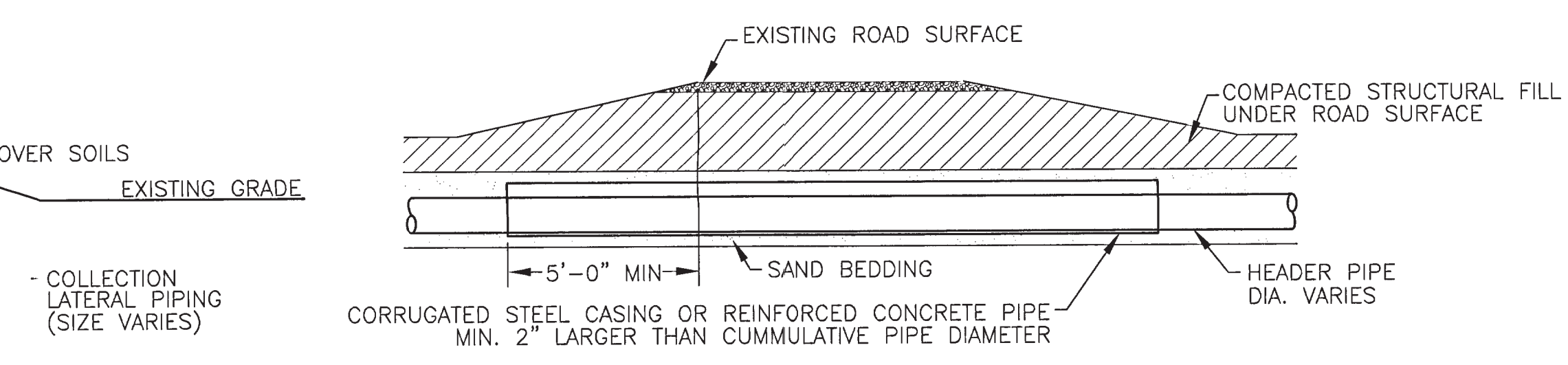
LFG HEADER/LATERAL TRENCH DETAIL 6/5
NO SCALE

NOTES:
1. THE DETAILS SHOWN ON THIS SHEET ARE TYPICAL LANDFILL GAS COMPONENTS THAT MAY BE USED IN THE ACTUAL LFG COLLECTION SYSTEM AT THE VISTA LANDFILL. THE OWNER MAY ALTER THE DETAILS SHOWN HERE AS NEEDED TO SUIT ACTUAL FIELD CONDITIONS.

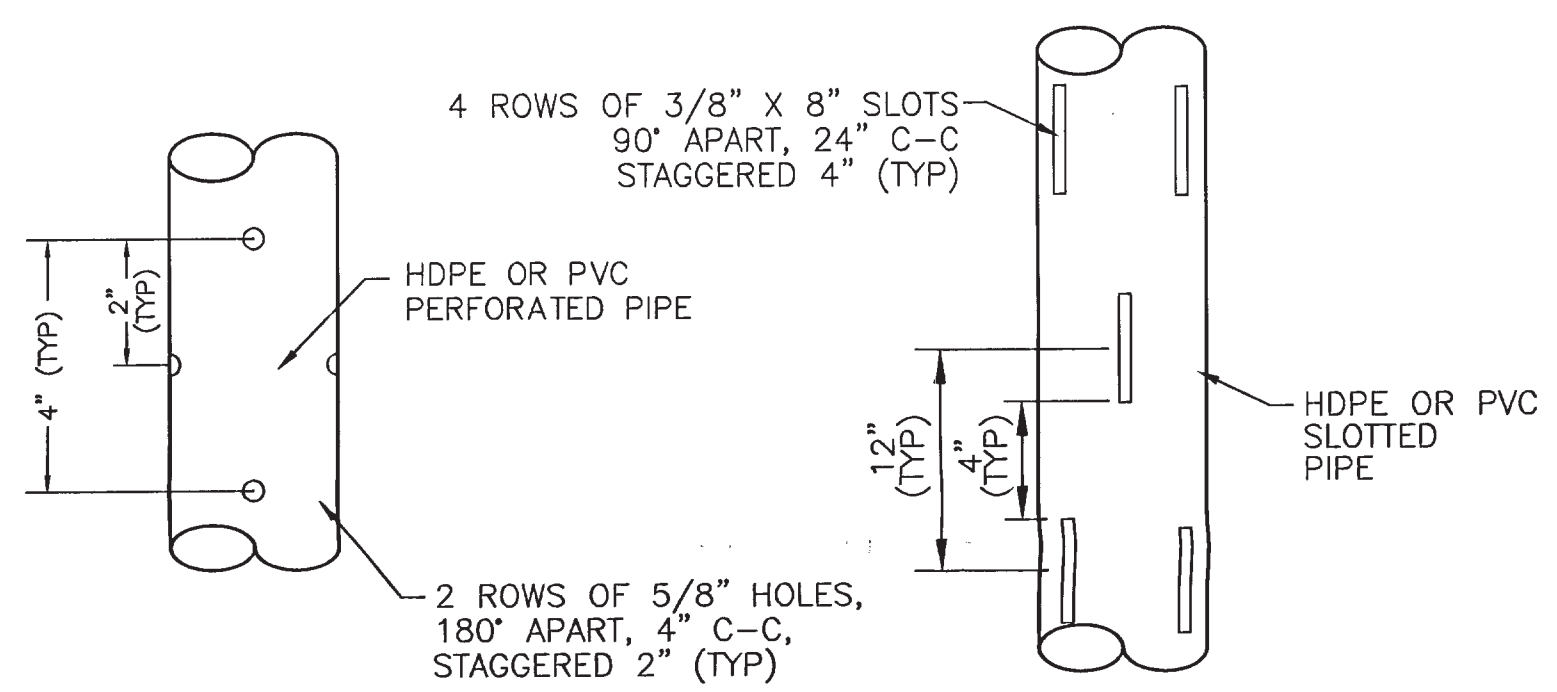


FLANGE CONNECTION 3/5
NOT TO SCALE

HEADER PIPE BLIND FLANGE 4/5
NOT TO SCALE



ROAD CROSSING DETAIL 5/5
NOT TO SCALE

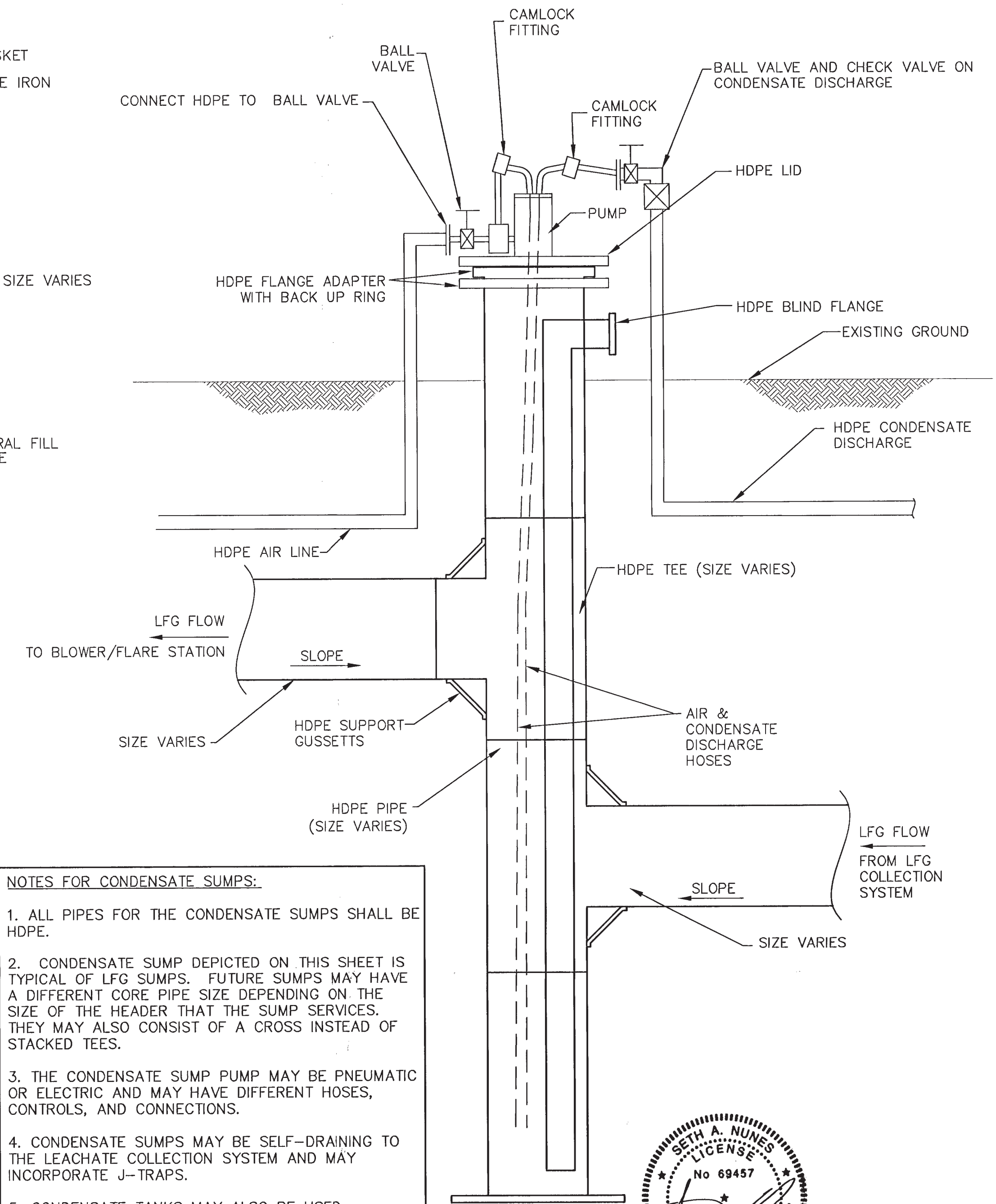


PERFORATED PIPE

SLOTTED PIPE

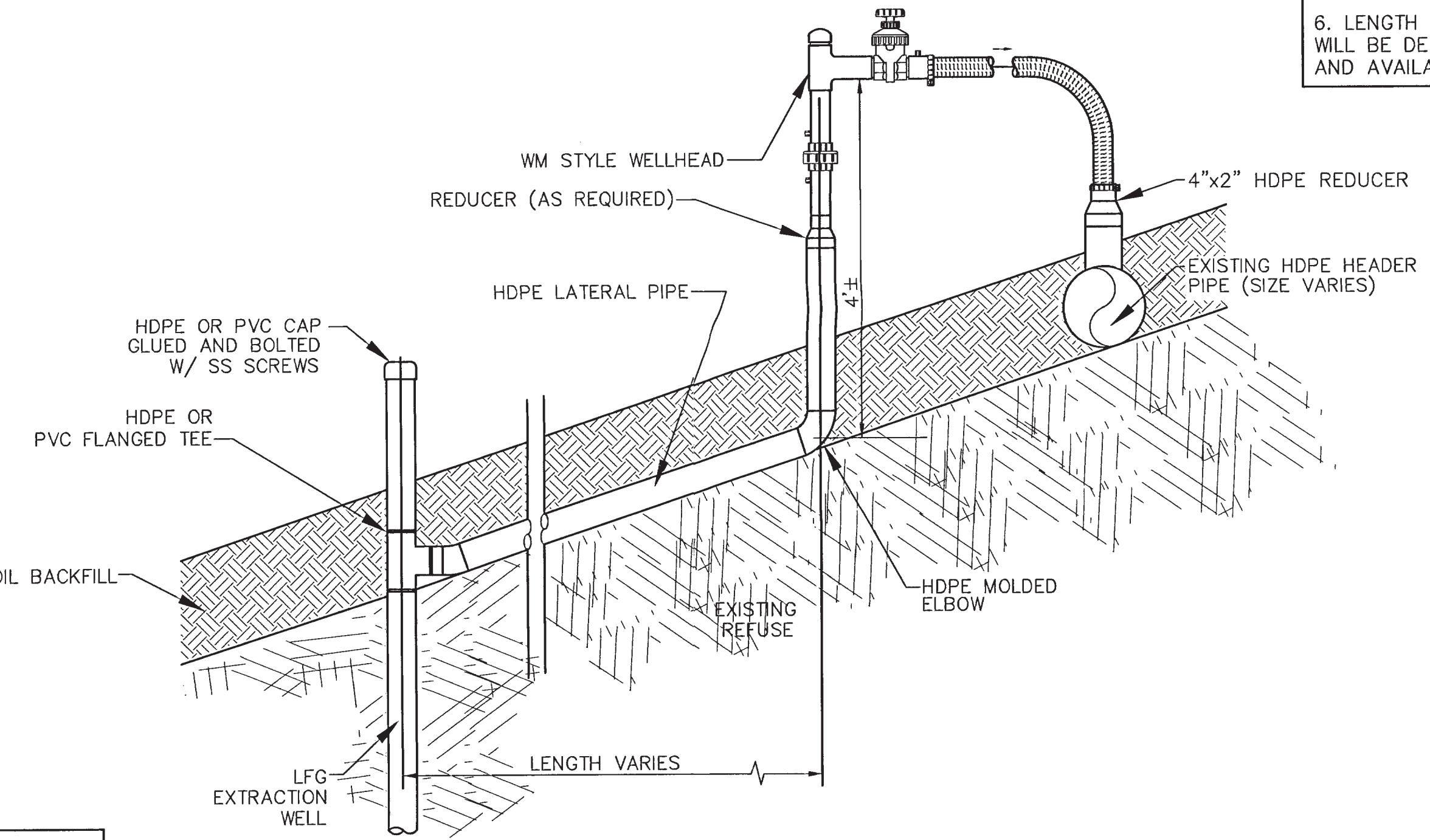
PIPE FOR VERTICAL WELLS DETAIL 2/4
NOT TO SCALE

NOTES FOR CONDENSATE SUMPS:
1. ALL PIPES FOR THE CONDENSATE SUMPS SHALL BE HDPE.
2. CONDENSATE SUMP DEPICTED ON THIS SHEET IS TYPICAL OF LFG SUMPS. FUTURE SUMPS MAY HAVE A DIFFERENT CORE PIPE SIZE DEPENDING ON THE SIZE OF THE HEADER THAT THE SUMP SERVICES. THEY MAY ALSO CONSIST OF A CROSS INSTEAD OF STACKED TEES.
3. THE CONDENSATE SUMP PUMP MAY BE PNEUMATIC OR ELECTRIC AND MAY HAVE DIFFERENT HOSES, CONTROLS, AND CONNECTIONS.
4. CONDENSATE SUMPS MAY BE SELF-DRAINING TO THE LEACHATE COLLECTION SYSTEM AND MAY INCORPORATE J-TRAPS.
5. CONDENSATE TANKS MAY ALSO BE USED.
6. LENGTH AND DEPTH OF THE CONDENSATE SUMP WILL BE DETERMINED BASED ON THE DESIRED VACUUM AND AVAILABLE REFUSE DEPTH.

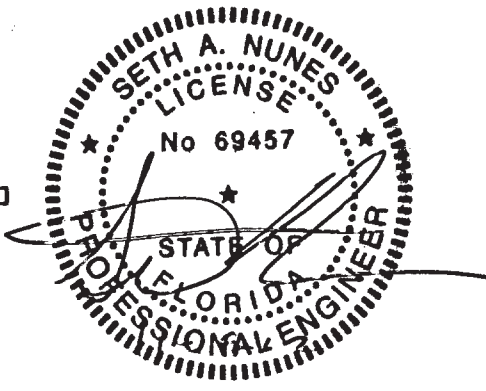


CONDENSATE SUMP DETAIL 8/5
NO SCALE

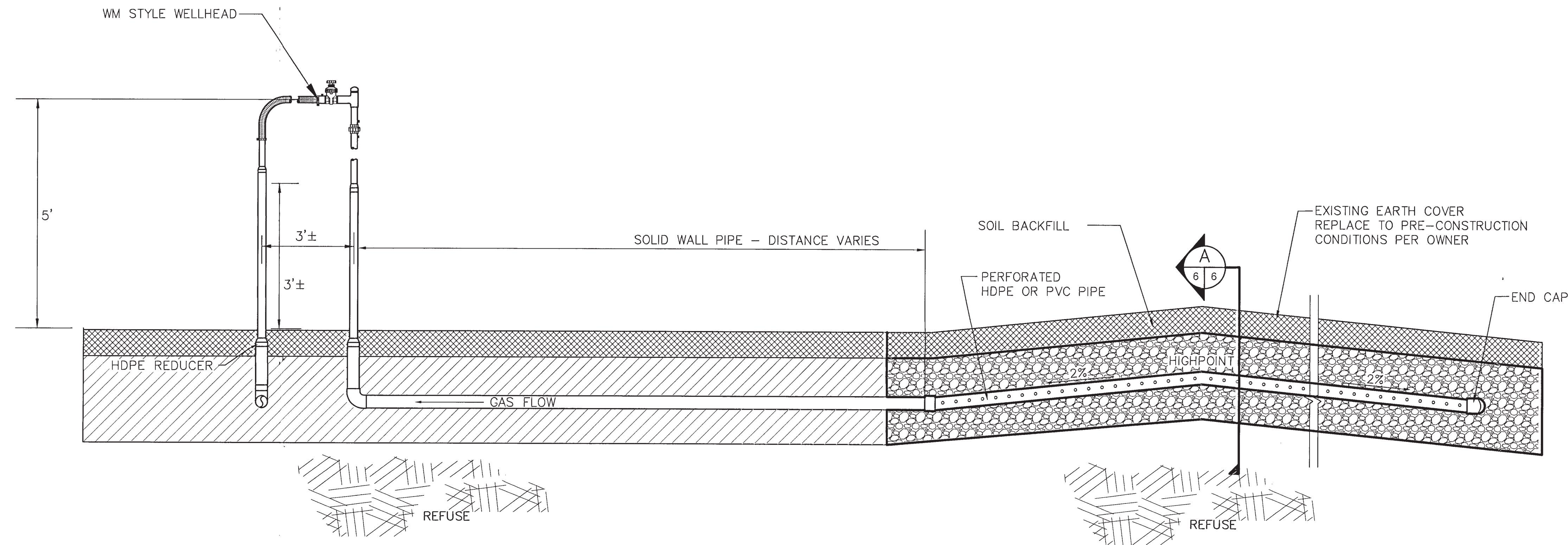
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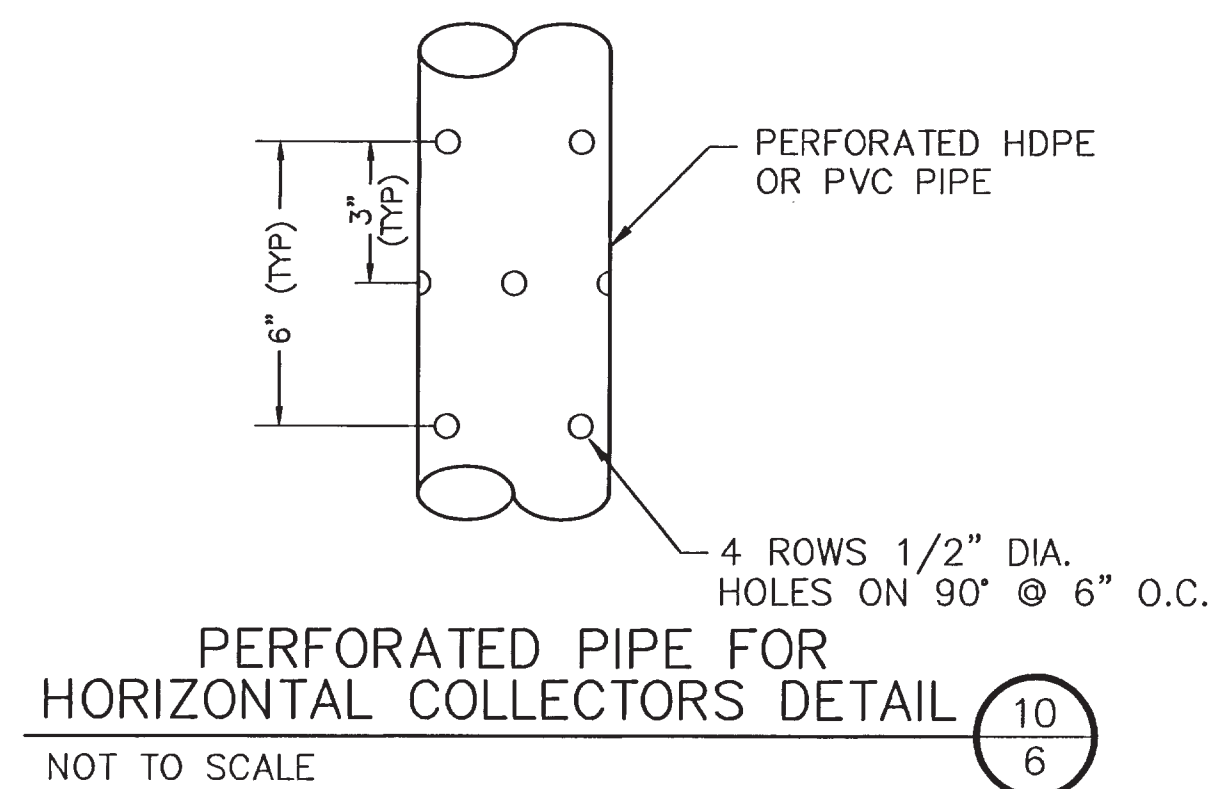
DOWNSLOPE EXTRACTION WELL DETAIL 7/5
NOT TO SCALE



DRAWING TITLE: TYPICAL LFG DETAILS			
PROJECT: PERMIT MODIFICATION GAS MANAGEMENT PLAN			
SITE: VISTA LANDFILL, LLC VISTA LANDFILL APOPKA, FLORIDA			
CARLSON ENVIRONMENTAL CONSULTANTS, PC			
305 SOUTH MAIN STREET MONROE, NORTH CAROLINA 28112		FLORIDA COA# 27045 (704) 283-9765 FAX (704) 283-9755	
CEC PROJECT NO. 101.07.07		DWG. VISTA.MOD.2012.DET	REV. 1
SCALE NO SCALE		FIGURE 5 OF 6	
DATE AUG 2012	REV DATE NOV 2012		

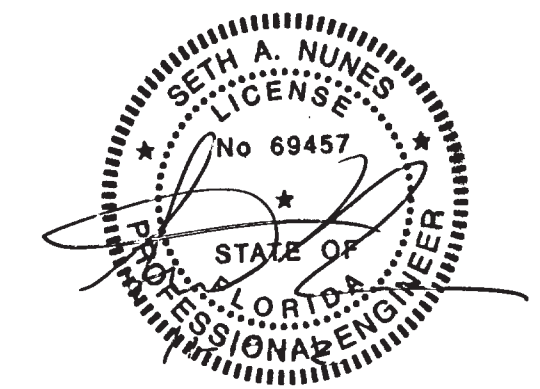


HORIZONTAL COLLECTORS 9
6
NO SCALE

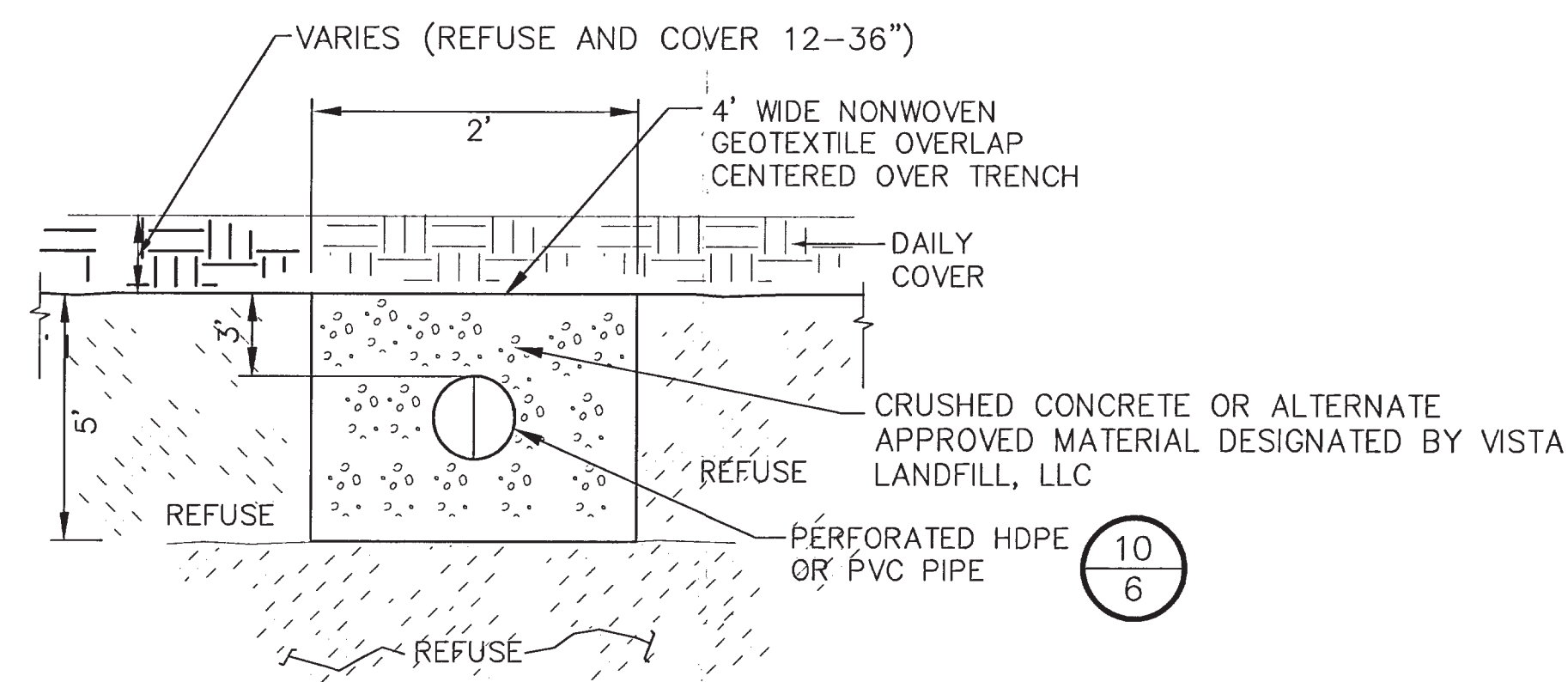


NOTES FOR HORIZONTAL COLLECTORS:

- HORIZONTAL COLLECTORS TO SLOPE ALL HORIZONTAL COLLECTOR PIPE AT A MINIMUM 1% SLOPE.
- THE HORIZONTAL COLLECTOR WILL HAVE A MINIMUM OF 5 FEET OF CRUSHED CONCRETE OR APPROVED ALTERNATE WITH THE AMOUNT OF COVER SOIL/REFUSE FROM 12 TO 36 INCHES.



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HORIZONTAL COLLECTOR SECTION A
6
6
NO SCALE

DRAWING TITLE:		TYPICAL LFG DETAILS	
PROJECT:		PERMIT MODIFICATION GAS MANAGEMENT PLAN	
SITE:		VISTA LANDFILL, LLC VISTA LANDFILL APOPKA, FLORIDA	
CARLSON ENVIRONMENTAL CONSULTANTS, PC			
305 SOUTH MAIN STREET MONROE, NORTH CAROLINA 28112		FLORIDA COA# 27045	(704) 283-9765 FAX (704) 283-9755
CEC PROJECT NO. 101.07.07		DWG. VISTA.MOD.2012.DET	REV. 0
SCALE NO SCALE		FIGURE 6 OF 6	
DATE NOVEMBER 2012			