

September 6, 2011

Permit No.	Date	Document ID No.
98-01	September 6, 2011	15082

Mr. Ming-Tai Chao, PE  
Engineer II  
NCDENR Solid Waste  
1646 Mail Service Center  
Raleigh, NC 27699-1646

RECEIVED  
**September 6, 2011 via a hand delivery**  
Solid Waste Section  
Raleigh Central Office

Subject: MP Wilson, LLC – Permit #98-01  
Dewatering Maintenance Operation

Mr. Chao:

MP Wilson, LLC is proposing to install four (4) pumps on the Wilson County Landfill. The installation of four (4) Viridian VP-4 pneumatic bottom loading pumps with compensator kits at wells GW-8, GW-9, GW-31, and GW-32 will help to automate the dewatering on the site. The dewatering system includes a two (2) inch condensate force main, a one (1) inch pneumatic air supply line and related appurtenances as shown in the attached drawing. A 5 horsepower, 14 scfm compressor will be installed to handle these needs. The additional liquid generated will be stored in a 9,500 gallon above ground storage tank at the flare site and then disposed of at the local wastewater treatment facility in accordance with our existing permit from them.

The purpose for the installation of the additional pumps is to further optimize the existing system and increase the gas collection on the landfill, sending more gas to the flare and reducing gas emitted to the atmosphere. The operation history at another facility in South Carolina has shown more gas is consistently collected when automated dewatering occurs. MP Wilson hopes the addition of these pumps will also show an increase in the reliability of gas flow to the flare at this site. The installation should also reduce the amount of gas that is not being captured from the landfill and thus is venting to the environment.

MP Wilson is ready to authorize the contractor to proceed with the construction immediately after approval is received.

If you have any questions or comments regarding the installation of the dewatering system, please let me know and we will address them as quickly as possible. I can be reached at 919-475-9948 or [amy@methanepower.net](mailto:amy@methanepower.net).

Thank you for your assistance in this matter.

Regards,



Amy Ratliff, PE  
Regulatory Manager

Attachments

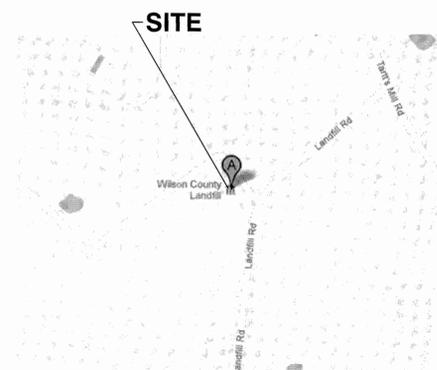
# WILSON COUNTY LANDFILL GAS COLLECTION SYSTEM - DEWATERING MODIFICATIONS

Site Owner  
**WILSON COUNTY LANDFILL**  
**4537 LANDFILL ROAD**  
**WILSON, NC 27893**  
**(252) 399-2823**

Project By:  
**MP Wilson, LLC**  
**121 Edinburgh South Drive, Suite 207**  
**Cary, North Carolina 27511**  
**(PH) 919-297-7206 (FAX) 919-297-7211**



**AREA MAP**  
SCALE: AS SHOWN



## INDEX OF SHEETS

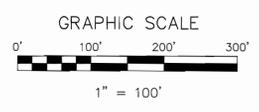
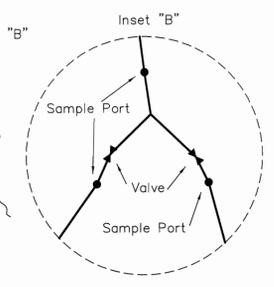
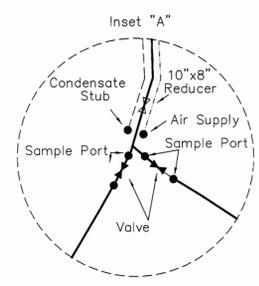
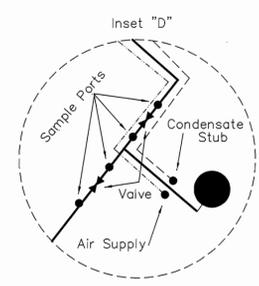
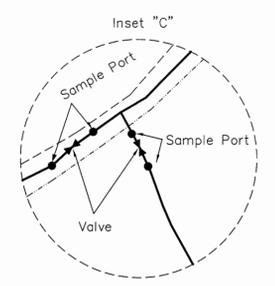
SHEET NO.	DESCRIPTION
1	TITLE - COVER SHEET
2	Existing Conditions
3	Proposed System Dewatering Modifications
4	Existing Details
5	Proposed Details
6	Future 9,500 Condensate Storage Tank



## Safety Notes:

Contractor shall be solely responsible for initiating maintaining and supervising all safety precautions and programs in connections with the work. Contractor shall comply with all applicable Laws and Regulations relating to the safety of persons or property, or to the protection of persons or property from damage, injury or loss; and shall erect and maintain all necessary safeguards for such safety and protection.

**NOTE:**  
 TOPOGRAPHIC CONTOURS FOR THIS DRAWING AND EXISTING LFG COLLECTION SYSTEM INFORMATION WERE OBTAINED FROM AN AS-BUILT SURVEY PREPARED BY RANDY D. WARD, PLS DATED AUGUST 2010



LEGEND	
	EXISTING CONTOUR
	LFG HEADER/LATERAL
	CONDENSATE FORCEMAIN
	AIR SUPPLY
	ROAD CROSSING
	STUBS OF CONDENSATE LINE
	STUBS OF AIR LINE
	EXISTING GAS WELL

DRAWN BY: RG  
 SURVEY BY:  
 CHECKED BY: AR  
 FILE NAME:  
 CUCWILNC-92011

*Project Owner:*  
**MP WILSON, LLC**  
**121 EDINBURGH SOUTH DRIVE, SUITE 207**  
**CARY, NORTH CAROLINA 27511**  
 (PH) 919-297-7206 (FAX) 919-297-7211

*SEAL:*

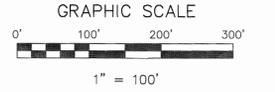
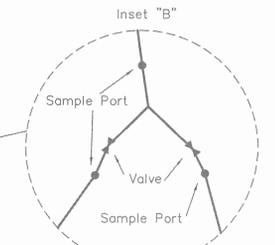
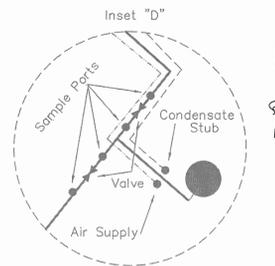
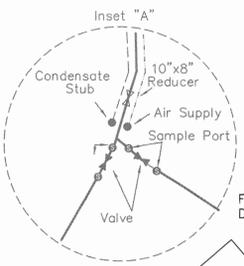
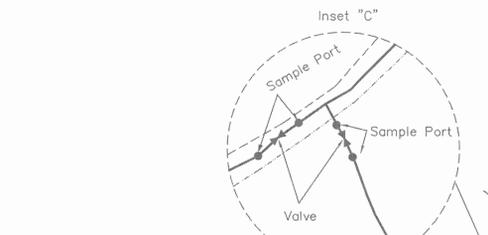
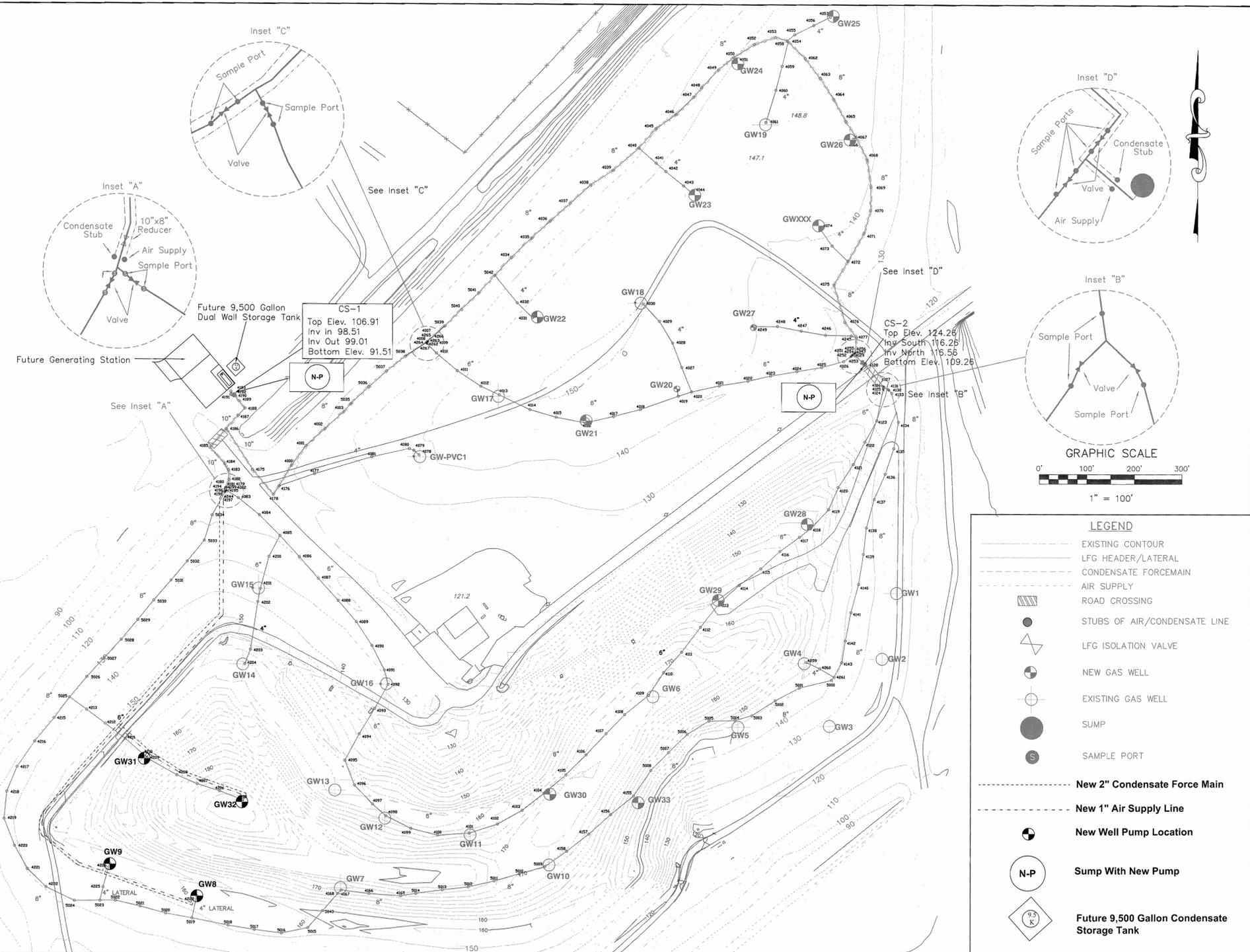
*Project Title:*  
**WILSON COUNTY LANDFILL**  
**GAS COLLECTION SYSTEM**  
**DEWATERING MODIFICATIONS**

DRAWING TITLE:	EXISTING CONDITIONS:
SITE OWNER:	WILSON COUNTY LANDFILL, NC
SCALE:	1" = 100'
DATE:	SEPTEMBER 2011
SHEET NO.	2 OF 6

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CS-2 Sump Modifications Details	③ ⑤
Trench Details	④ ⑤

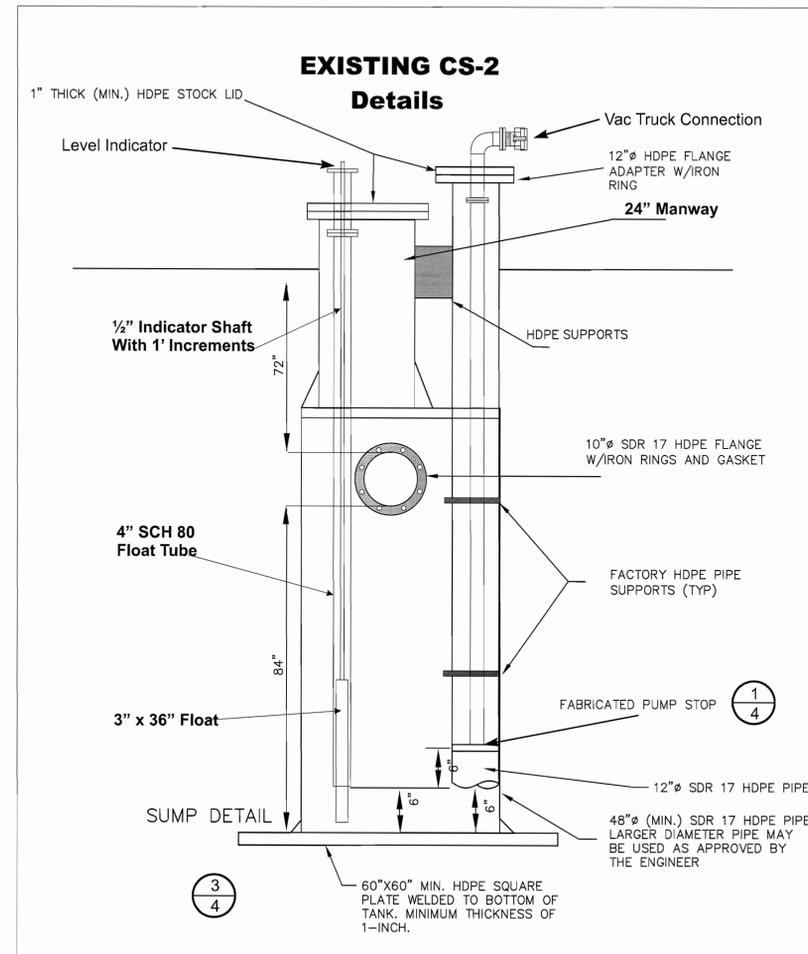
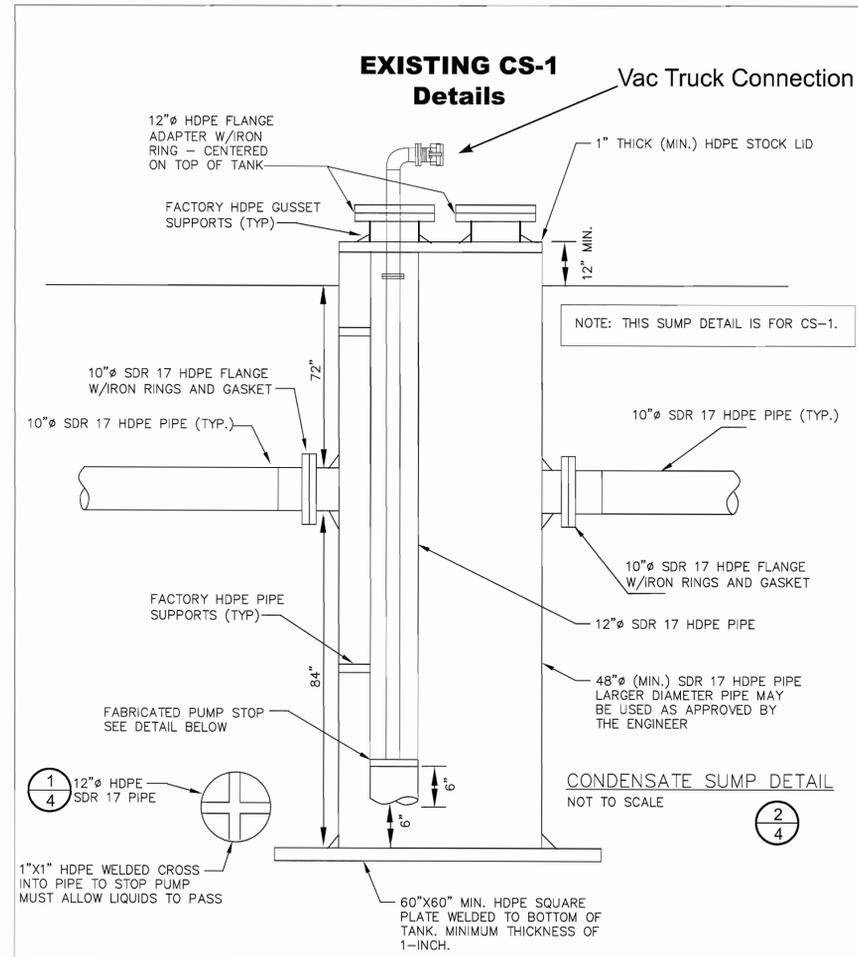
**NOTE:**  
TOPOGRAPHIC CONTOURS FOR THIS DRAWING AND EXISTING LFG COLLECTION SYSTEM INFORMATION WERE OBTAINED FROM AN AS-BUILT SURVEY PREPARED BY RANDY D. WARD, PLS DATED AUGUST 2010



LEGEND	
	EXISTING CONTOUR
	LFG HEADER/LATERAL
	CONDENSATE FORCEMAIN
	AIR SUPPLY
	ROAD CROSSING
	STUBS OF AIR/CONDENSATE LINE
	LFG ISOLATION VALVE
	NEW GAS WELL
	EXISTING GAS WELL
	SUMP
	SAMPLE PORT
	New 2" Condensate Force Main
	New 1" Air Supply Line
	New Well Pump Location
	Sump With New Pump
	Future 9,500 Gallon Condensate Storage Tank

DRAWN BY: RG	Project Owner:	SEAL:	Project Title:	DRAWING TITLE:	PROPOSED SYSTEM DEWATERING MODIFICATIONS:
SURVEY BY:	<b>MP WILSON, LLC</b> 121 EDINBURGH SOUTH DRIVE, SUITE 207 CARY, NORTH CAROLINA 27511 (PH) 919-297-7206 (FAX) 919-297-7211		<b>WILSON COUNTY LANDFILL                  GAS COLLECTION SYSTEM                  DEWATERING MODIFICATIONS</b>	SITE OWNER:	WILSON COUNTY LANDFILL, NC
CHECKED BY: AR				SCALE:	1" = 100'
FILE NAME:				DATE:	SEPTEMBER 2011
CUCWILNC-92011				SHEET NO.	3 OF 6

# EXISTING SUMP CONDITIONS

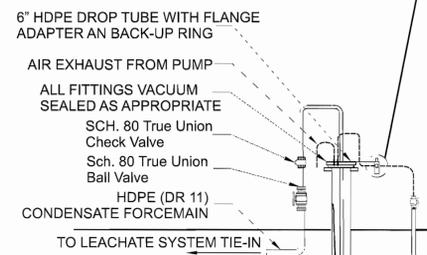
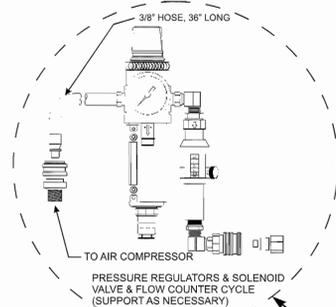
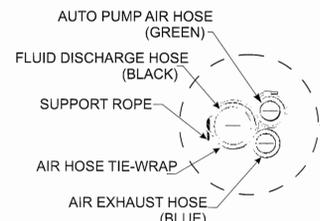


DRAWN BY: RG	<p>Project Owner:</p> <p><b>MP Wilson, LLC</b></p> <p>121 Edinburgh South Drive, Suite 207 Cary, North Carolina 27511 (PH) 919-297-7206 (FAX) 919-297-7211</p>	SEAL:	<p>Project Title:</p> <p><b>WILSON COUNTY LANDFILL GAS COLLECTION SYSTEM DEWATERING MODIFICATIONS</b></p>	DRAWN TITLE:	EXISTING DETAILS
SURVEY BY:				SITE OWNER:	WILSON COUNTY LANDFILL, NC
CHECKED BY: AR				SCALE:	NO SCALE
FILE NAME: 09-1062-2011-02612				DATE:	SEPTEMBER 2011
				SHEET NO.	4 OF 6

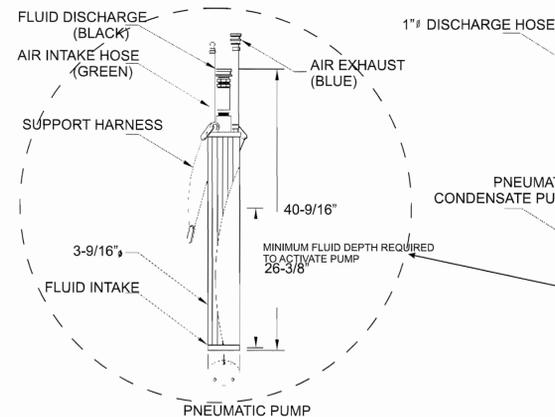
**VP PUMP DETAIL** (1/5)

**REGULATOR**

**TOP VIEW OF PUMP**

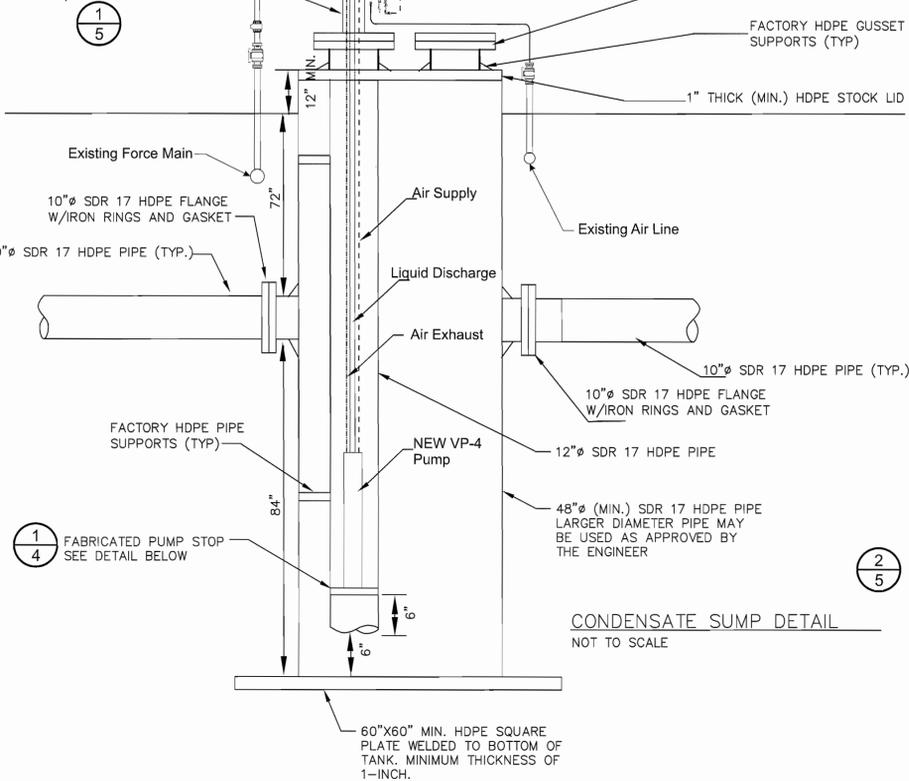


**SIDE VIEW OF PUMP**

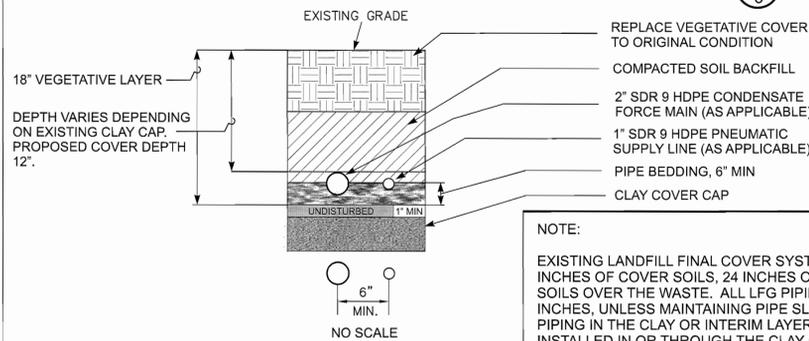


**CS-1 Modification Details**

Modify Existing 12" Flange To Receive New VP-4 Pump. Extrusion Weld 6" SDR-17 Into 12" Flange Adapter. See VP-4 Details. This Sheet For Pump Installation.

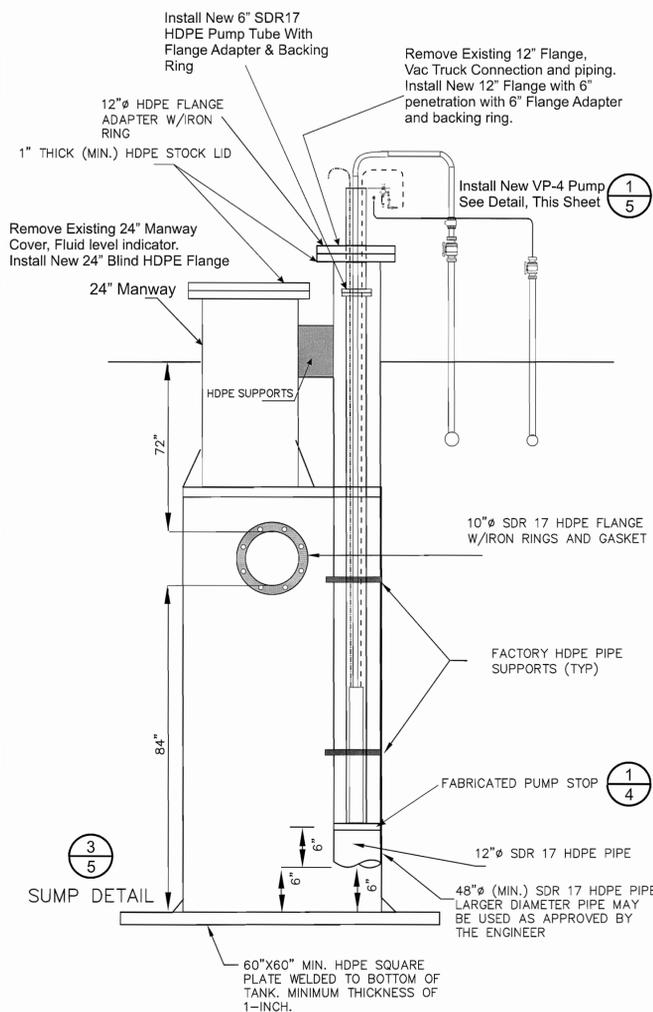


**NEW AIR SUPPLY / FORCE MAIN TRENCH DETAIL** (4/5)



**NOTE:**  
 EXISTING LANDFILL FINAL COVER SYSTEM CONSISTS OF APPROXIMATELY 18 INCHES OF COVER SOILS, 24 INCHES OF CLAY, AND 12 INCHES OF INTERIM SOILS OVER THE WASTE. ALL LFG PIPING TO BE INSTALLED IN THE UPPER 18 INCHES. UNLESS MAINTAINING PIPE SLOPE REQUIRES INSTALLATION OF LFG PIPING IN THE CLAY OR INTERIM LAYERS. SHOULD LFG PIPING BE INSTALLED IN OR THROUGH THE CLAY CAP, BENTONITE CLAY SHALL BE ADDED TO THE AREAS OF PENETRATION TO REPLACE THE DISTURBED CAP. COA PERSONNEL TO DOCUMENT ANY DISTURBANCE OF THE CLAY LANDFILL CAP AND ALL REPAIRS.

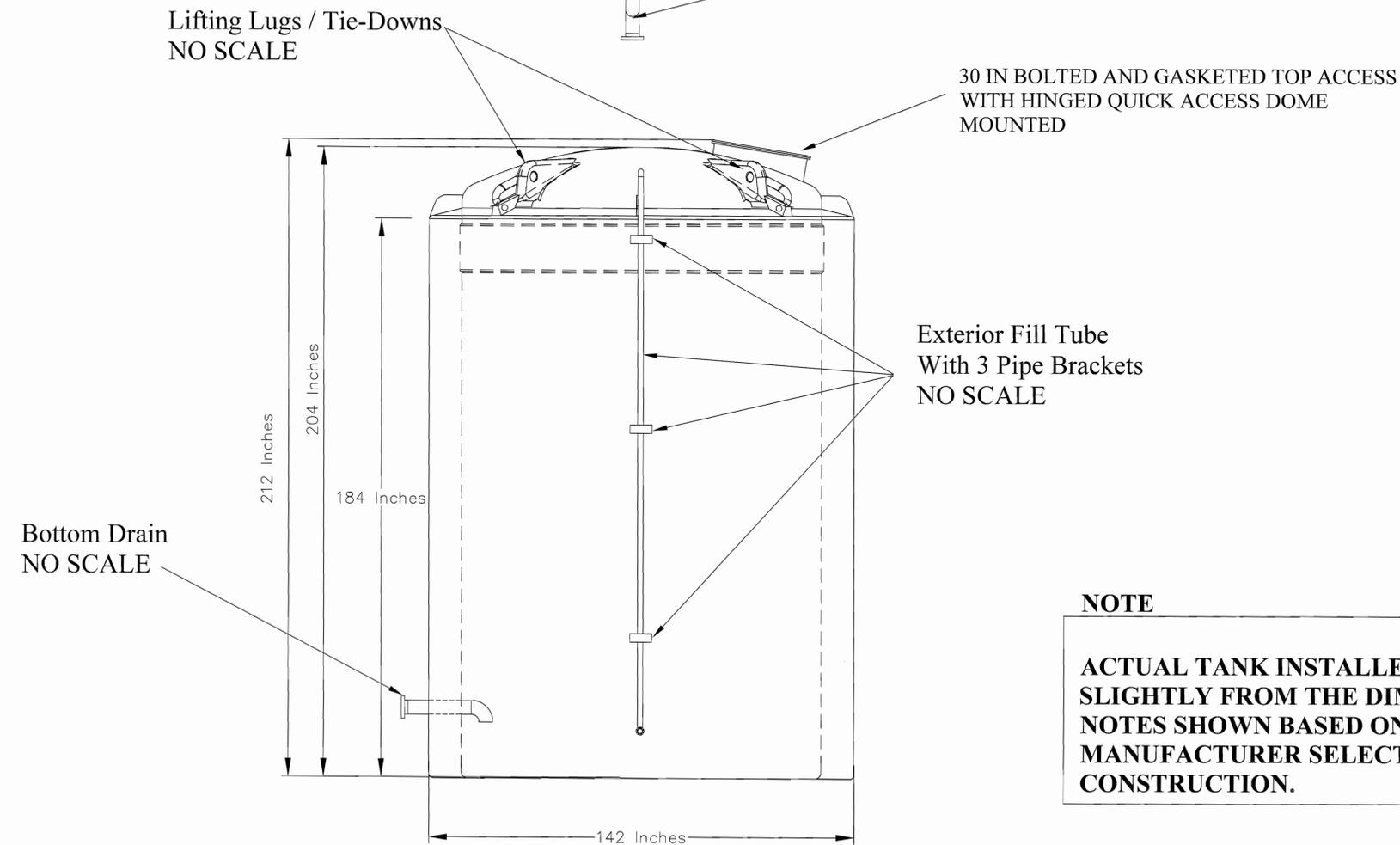
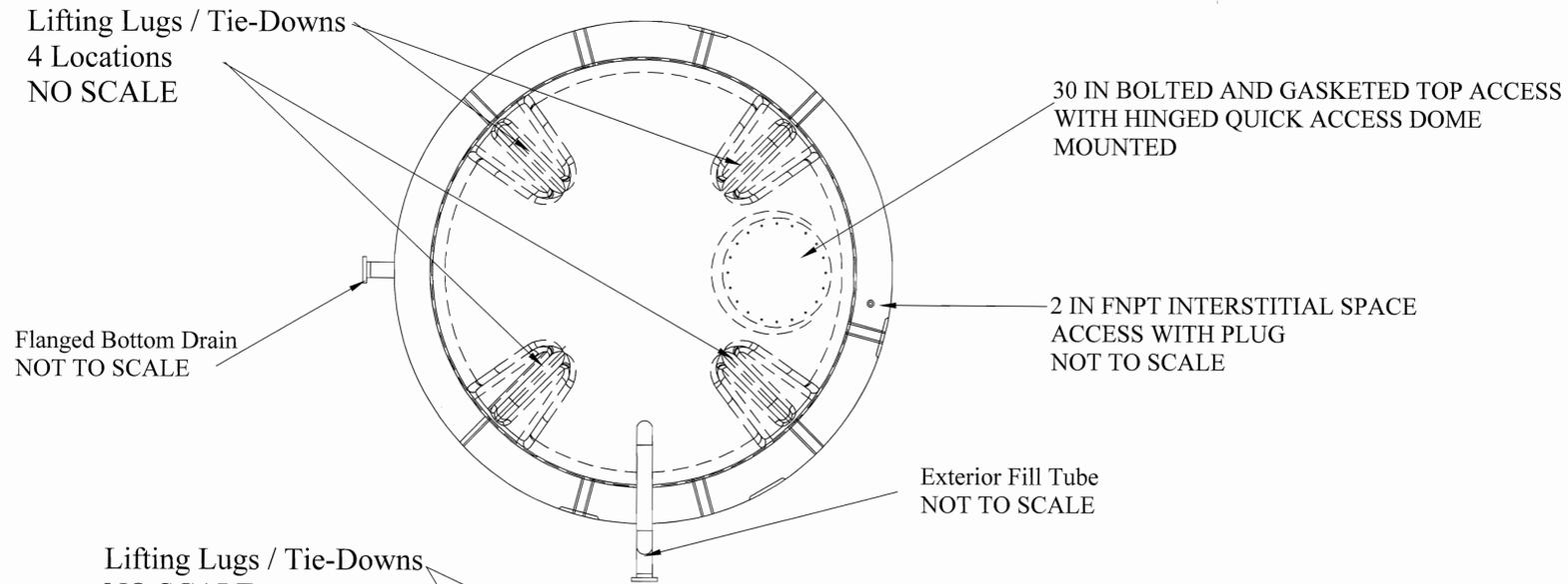
**CS-2 Modification Details**



DRAWN BY: RG	Project Owner:	SEAL:	Project Title:	DRAWN TITLE:	PROPOSED DETAILS
SURVEY BY:	<b>MP Wilson, LLC</b>		<b>WILSON COUNTY LANDFILL GAS COLLECTION SYSTEM DEWATERING MODIFICATIONS</b>	SITE OWNER:	WILSON COUNTY LANDFILL, NC
CHECKED BY: AR	<b>121 Edinburgh South Drive, Suite 207</b>			SCALE:	NO SCALE
FILE NAME:	<b>Cary, North Carolina 27511</b>			DATE:	SEPTEMBER 2011
09-1062-2011-02612	<b>(PH) 919-297-7206 (FAX) 919-297-7211</b>			SHEET NO.	5 OF 6

**NOTES:**

- 9500 GAL DOUBLE WALLED TANK.
- HEAVY PRIMARY CONTAINMENT TO BE (1) PIECE MOLDED HDLPE.
- SECONDARY TO BE (1) PIECE MOLDED OF HDLPE.
- TANK IS FLAT BOTTOM, VERTICAL, CLOSED TOP.
- TANK HAS A SEALED AND VENTED INTERSTITIAL SPACE.
- NOM DIM OF 142 IN DIA X 212 IN TALL.
- TANK DESIGNED FOR CONTENTS TO 1.7 S.G PER ASTM D-1998 USING A 600 PSI HOOP.
- COLOR: NATURAL
- TANK FABRICATION INCLUDES THE FOLLOWING:**
- 1-SEALED INTERSTITIAL SPACE
- 1 IN INTERSTITIAL SPACE DOWNPIPE WITH MUSHROOM VENT
- 1-2 IN FNPT INTERSTITIAL SPACE ACCESS WITH PLUG
- 4-COMBO LIFTING / HOLD DOWN LUGS
- 1-30 IN BOLTED AND GASKETED TOP ACCESS AND HINGED QUICK ACCESS DOME MOUNTED
- 2 IN RAISED FACE WELDED FLANGE NOZZLE GUSSETED IN (4) PLACES 150LB BOLT SPACING DOME MOUNTED
- 3 EXTERIOR SIDE WALL PIPE CLAMPS
- 2" SCH 80 PVC EXTERIOR FILL PIPE. TERMINATES WITH 2 IN PP BALL VALVE WITH 2 IN MALE QUICK CONNECT AND DUST CAP
- 2 IN RAISED FACE, WELDED, 150# ANSI BOLT SPACED, DOUBLE WALL FLANGE FITTING SIDE BOTTOM DRAIN



**NOTE**

ACTUAL TANK INSTALLED MAY VARY SLIGHTLY FROM THE DIMENSIONS AND NOTES SHOWN BASED ON THE MANUFACTURER SELECTED AT TIME OF CONSTRUCTION.

DRAWN BY: RG

SURVEY BY:

CHECKED BY: AR

FILE NAME:

CUCWILNC-92011

*Project Owner:*

**MP WILSON, LLC**  
**121 EDINBURGH SOUTH DRIVE, SUITE 207**  
**CARY, NORTH CAROLINA 27511**

(PH) 919-297-7206 (FAX) 919-297-7211

*SEAL:*

*Project Title:*

**WILSON COUNTY LANDFILL  
 GAS COLLECTION SYSTEM  
 DEWATERING MODIFICATIONS**

DRAWING TITLE:	FUTURE 9500 CONDENSATE STORAGE TANK:
SITE OWNER:	WILSON COUNTY LANDFILL, NC
SCALE:	NONE
DATE:	SEPTEMBER 2011
SHEET NO.	6 OF 6