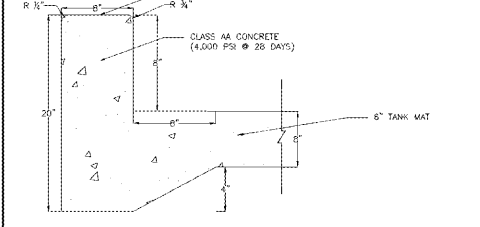
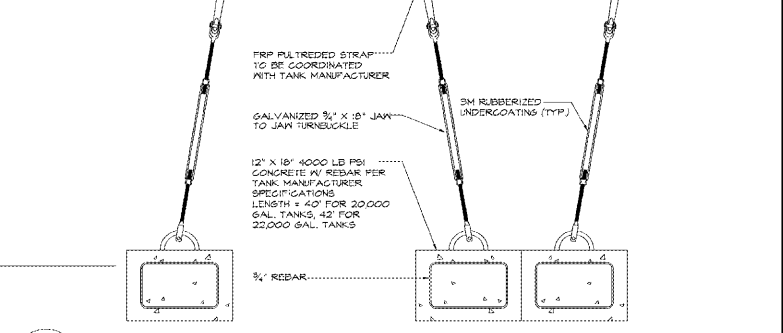


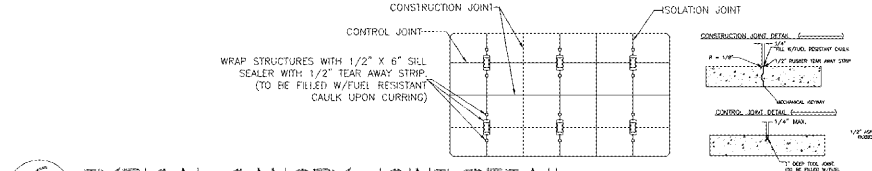
**D TANKFIELD REINFORCING DETAIL**  
 G-1 SCALE: 1/4" = 1'-0"



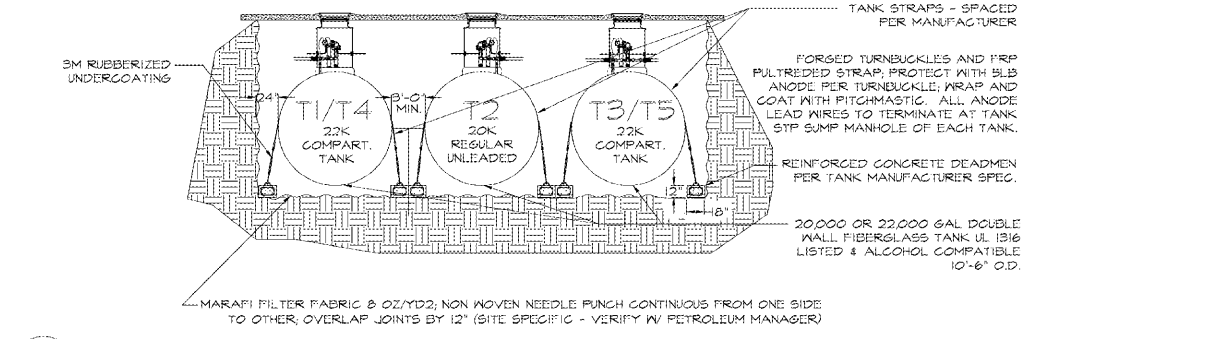
**I MONOLITHIC CURB**  
 G-1 SCALE: N.T.S.



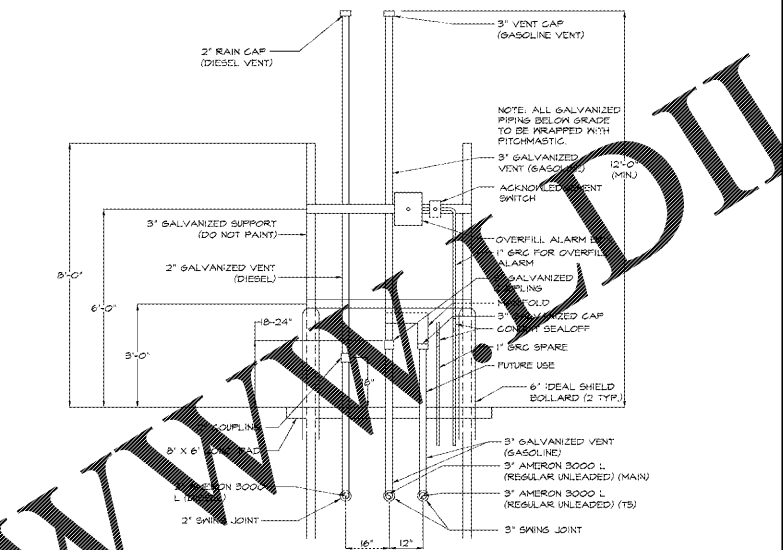
**E TANK HOLD DOWN DETAIL**  
 G-1 SCALE: 1" = 1'-0"



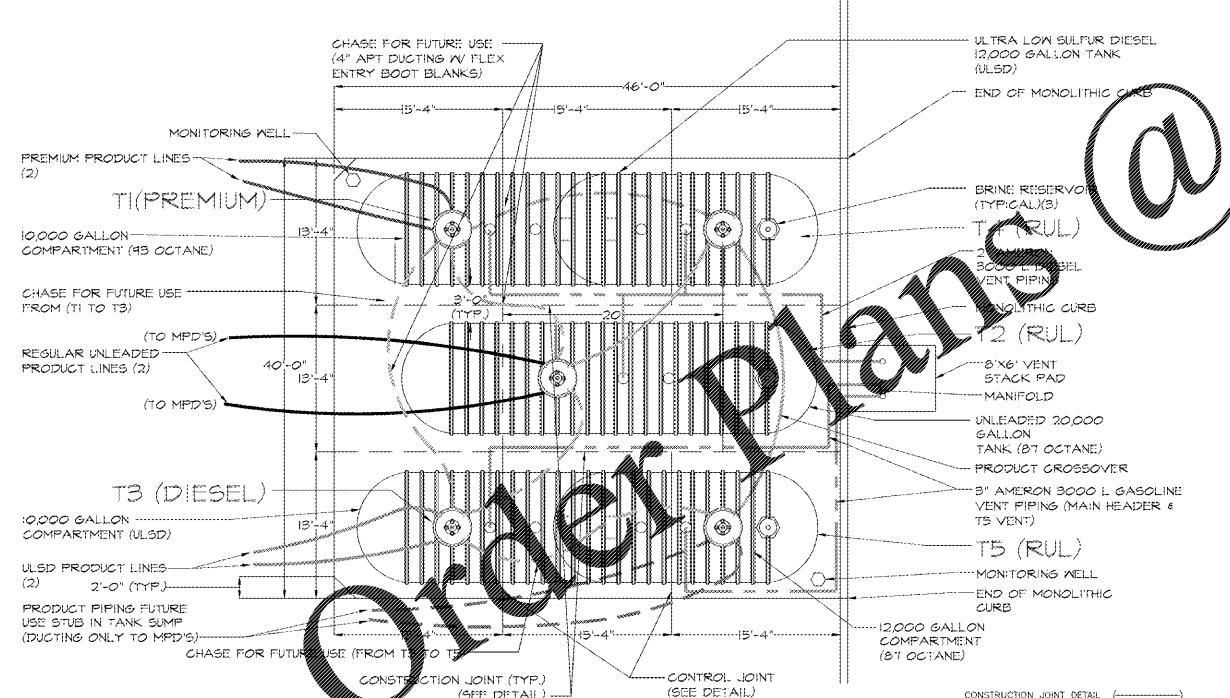
**C TYPICAL CANOPY JOINT DETAIL**  
 G-1 SCALE: N.T.S.



**B TANK BURIAL**  
 G-1 SCALE: 1/8" = 1'-0"



**F VENT STACK**  
 G-1 SCALE: 3/8" = 1'-0"



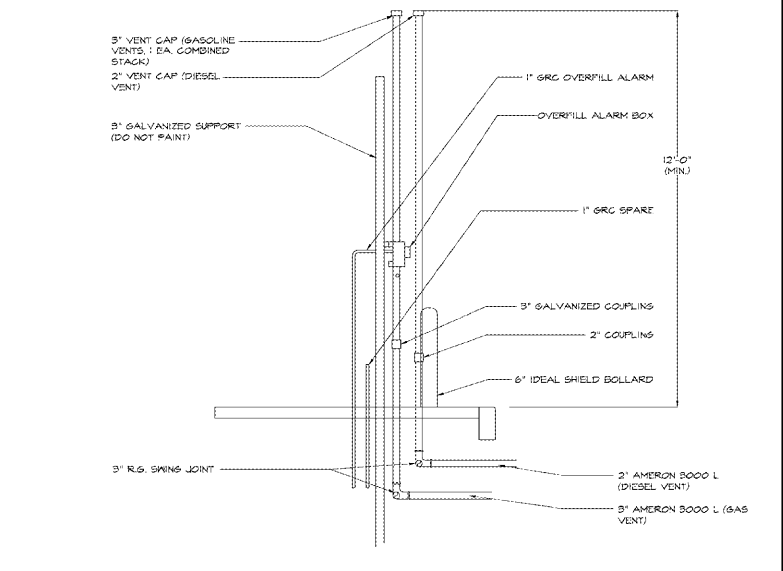
**NOTES:**  
 1. TANK(S), SHALL BE UNDERWRITERS LABORATORY LISTED (UL-1316) AS CALLED FOR ON THE SITE SPECIFIC DRAWING OR AS DESIGNATED ON THE SUPPLEMENTAL CONDITIONS AND SHALL BE DOUBLE WALL TANKS OF FIBERGLASS REINFORCED PLASTIC (FRP). INSTALLATION OF TANKS & PIPING SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE INSTALLATION SPECIFICATION AS PROVIDED BY WAWA, INC. & MANUFACTURER'S INSTRUCTIONS.  
 2. PRIOR TO TESTING, PETROLEUM CONTRACTOR SHALL VERIFY TIGHTNESS OF MANWAY BOLTS. VERIFY BOLTS TO BE SET PER MANUFACTURER'S TORQUE SETTINGS & ADJUST AS REQ. (TYP.)  
 3. SEE SHEET 4 FOR EXACT LOCATIONS OF SUMP PIPE ENTRANCES.  
 4. SEE SHEET 2 FOR SPECIFIC TANK DETAILS.

**A TANK FIELD LAYOUT**  
 G-1 SCALE: 1/8" = 1'-0"

DEADMAN BURIAL WATER AT GRADE		WAWA	
		JWL	11/10/11
<b>TANK DATA</b>		<b>INSTALLATION</b>	
NOM. CAP. (GAL.)	20000 (12x8x8)	TOTAL COVER INCLUDING SOIL & TOP SLAB (FT)	4.50
TYPE (SINGLEWALL=1;DW=2)	3	TOP SLAB THICKNESS (IN)	8.00
DRY=1; WET=2	2	TOP SLAB LENGTH (FT)	40.00
NOM. TANK DIA. (FT)	10	TOP SLAB WIDTH (FT)	13.00
PROD. STORED (GAL)	0	DEADMAN LRG (FT)	40.00
SPEC. GRAV. USED	1.00	DEADMAN WID (IN)	18.00
BRINE FILL (GAL)	270	DEADMAN THK (IN)	12.00
<b>SAFETY FACTOR</b>		# OF 42" DIAMETER SUMPS	
DOWN FORCE/UP FORCE =	1.51 : 1		
<b>TOTAL WEIGHTS</b>			
CONCRETE WEIGHT	41066.67 LBS.		
BACKFILL WEIGHT	21998.63 LBS.		
TANK WEIGHT	11100.00 LBS.		
PRODUCT WEIGHT	0.00 LBS.		
<b>TOTAL DOWN FORCE =</b>		272165.30 LBS.	
<b>UP FORCES</b>			
TANK DISP. FORCE	180021.73 LBS.		
<b>TOTAL UP FORCE =</b>		180021.73 LBS.	
<b>WORKSHEET</b>			
<b>TANK DATA</b>		<b>ACTUAL CAP (GAL)</b>	
SHELL DIAMETER	10.00 FT. *	TANK WT. (LBS.)	11100.00
SHELL LENGTH	27.75 FT. *	O.A.L. (FT.)	37.75
DOME PROJECTION	5.00 FT. *	NUMBER OF RIBS	22.00
MID POINT HEIGHT	8.83 FT. *	DEADMAN THK (IN)	18.00
COLUMN HEIGHT	13.83 FT. *	DEADMAN THK (IN)	12.00
RIB VOLUME	2631.00 CU. IN.	DOME A. (SQ FT)	78.54
		DOME VOL. (CU. FT)	523.60
<b>REINFORCED CONCRETE VOLUMES (CU. FT.)</b>			
TOP SLAB	346.67	DEADMEN	120.00
FORCE = VOL. X 88 LBS/CF	30506.67	FORCE (LBS) = VOL. X 88 LBS/CF	10560.00
<b>TOP SLAB &amp; DEADMEN FORCE 41066.67 LBS.</b>			
<b>BACKFILL VOLUMES (CU. FT.)</b>			
OVER TANK SHELL	1215.01	OVER DEADMEN	1660.00
OVER TANK DOMES	431.97	END WEDGE	359.67
TOTAL WET VOLUME	5666.64		
FORCE = VOL. X 60 LBS/CF	340000.00	21998.63 LBS.	
<b>BUOYANCY</b>			
SHELL VOLUME	2328.65 CUBIC FT.		
DOME VOLUME	523.60 CUBIC FT.		
RIB VOLUME	33.50 CUBIC FT.		
TOTAL VOLUME	2885.74 CUBIC FT.		
VOL. X 7.48 GAL/CU.FT.	21585.34 GALLONS		
FORCE = GAL X 8.34 (LBS./GAL.)	180021.73 LBS.		

DEADMAN BURIAL WATER AT GRADE		WAWA	
		JWL	11/10/11
<b>TANK DATA</b>		<b>INSTALLATION</b>	
NOM. CAP. (GAL.)	20000	TOTAL COVER INCLUDING SOIL & TOP SLAB (FT)	4.50
TYPE (SINGLEWALL=1;DW=2)	3	TOP SLAB THICKNESS (IN)	8.00
DRY=1; WET=2	2	TOP SLAB LENGTH (FT)	40.00
NOM. TANK DIA. (FT)	10	TOP SLAB WIDTH (FT)	13.00
PROD. STORED (GAL)	0	DEADMAN LRG (FT)	40.00
SPEC. GRAV. USED	1.00	DEADMAN WID (IN)	18.00
BRINE FILL (GAL)	194	DEADMAN THK (IN)	12.00
<b>SAFETY FACTOR</b>		# OF 42" DIAMETER SUMPS	
DOWN FORCE/UP FORCE =	1.57 : 1		
<b>TOTAL WEIGHTS</b>			
CONCRETE WEIGHT	41066.67 LBS.		
BACKFILL WEIGHT	22401.69 LBS.		
TANK WEIGHT	8900.00 LBS.		
PRODUCT WEIGHT	0.00 LBS.		
<b>TOTAL DOWN FORCE =</b>		274268.36 LBS.	
<b>UP FORCES</b>			
TANK DISP. FORCE	175216.07 LBS.		
<b>TOTAL UP FORCE =</b>		175216.07 LBS.	
<b>WORKSHEET</b>			
<b>TANK DATA</b>		<b>ACTUAL CAP (GAL)</b>	
SHELL DIAMETER	10.00 FT. *	TANK WT. (LBS.)	8900.00
SHELL LENGTH	27.75 FT. *	O.A.L. (FT.)	37.75
DOME PROJECTION	5.00 FT. *	NUMBER OF RIBS	22.00
MID POINT HEIGHT	8.83 FT. *	DEADMAN THK (IN)	18.00
COLUMN HEIGHT	13.83 FT. *	DEADMAN THK (IN)	12.00
RIB VOLUME	2631.00 CU. IN.	DOME A. (SQ FT)	78.54
		DOME VOL. (CU. FT)	523.60
<b>REINFORCED CONCRETE VOLUMES (CU. FT.)</b>			
TOP SLAB	346.67	DEADMEN	120.00
FORCE = VOL. X 88 LBS/CF	30506.67	FORCE (LBS) = VOL. X 88 LBS/CF	10560.00
<b>TOP SLAB &amp; DEADMEN FORCE 41066.67 LBS.</b>			
<b>BACKFILL VOLUMES (CU. FT.)</b>			
OVER TANK SHELL	1286.73	OVER DEADMEN	1660.00
OVER TANK DOMES	431.97	END WEDGE	359.67
TOTAL WET VOLUME	3738.36		
FORCE = VOL. X 60 LBS/CF	224301.69	224301.69 LBS.	
<b>BUOYANCY</b>			
SHELL VOLUME	2251.61 CUBIC FT.		
DOME VOLUME	523.60 CUBIC FT.		
RIB VOLUME	33.50 CUBIC FT.		
TOTAL VOLUME	2808.71 CUBIC FT.		
VOL. X 7.48 GAL/CU.FT.	21009.12 GALLONS		
FORCE = GAL X 8.34 (LBS./GAL.)	175216.07 LBS.		

**H BUOYANCY CALCULATIONS**  
 G-1 SCALE: N.T.S.



**G VENT STACK**  
 G-1 SCALE: 3/8" = 1'-0"

**GASOLINE DETAILS**  
 PENNSYLVANIA / VIRGINIA  
 TANK DETAILS  
 (22,000 GALS. COMPARTMENTALIZED TANKS)

**Wawa**  
 260 WEST BALTIMORE PIKE  
 WAWA, PA 19063  
 PHONE: 610-381-6000 FAX: 610-381-6001

SCALE	DATE	DRAWN BY:	CHECKED BY:
AS NOTED	4/01/14	DCV	REK

DRAWING NO. \_\_\_\_\_  
 1 OF 5 SHEET NO. \_\_\_\_\_