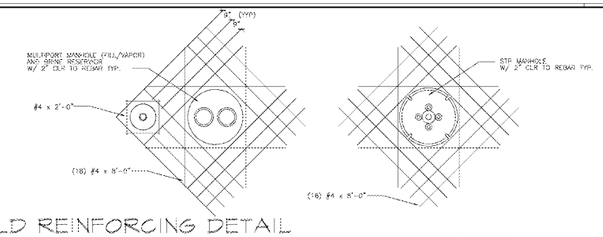
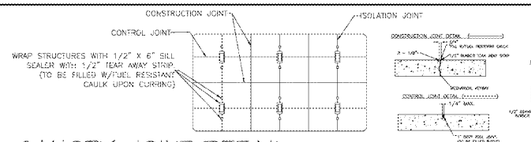
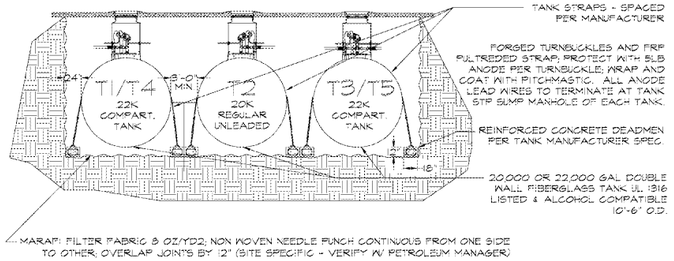


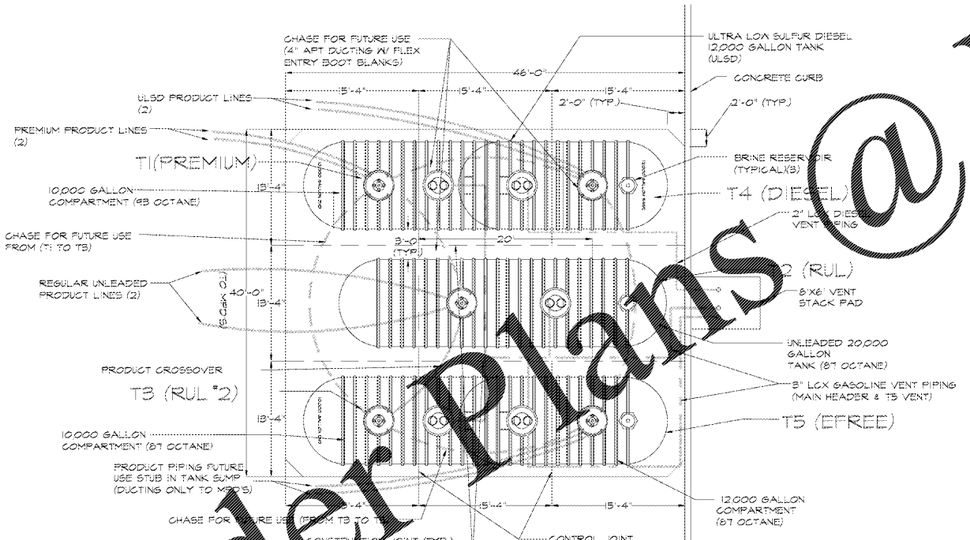
D / G-1 TANKFIELD REINFORCING DETAIL
SCALE: 1/4"=1'-0"



C / G-1 TYPICAL CANOPY JOINT DETAIL
SCALE: NTS

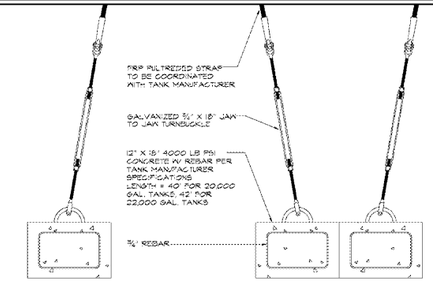


B / G-1 TANK BURIAL
SCALE: 1/8" = 1'-0"

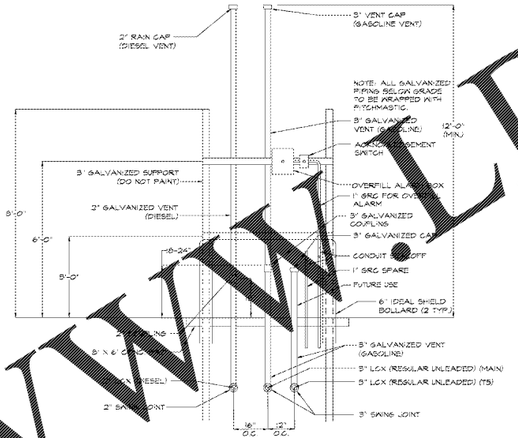


NOTES:
1. ALL PIPING SHALL BE UNDERWRITERS LABORATORY LISTED (UL-1316) AS CALLED FOR ON THE SITE SPECIFIC DRAWING OF THIS DESIGN AND THE SUPPLEMENTAL CONDITIONS AND SHALL BE DOUBLE WALL TANKS OF FIBERGLASS REINFORCED PLASTIC (FRP). INSTALLATION OF TANKS & PIPING SHALL BE IN ACCORDANCE W/ THE LATEST EDITION 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 PER MANUFACTURERS TORQUE SETTINGS & ADJUST AS REQ. (TYP.)
3. SEE SHEET 4 FOR EXACT LOCATIONS OF SUMP PIPE ENTRANCES.

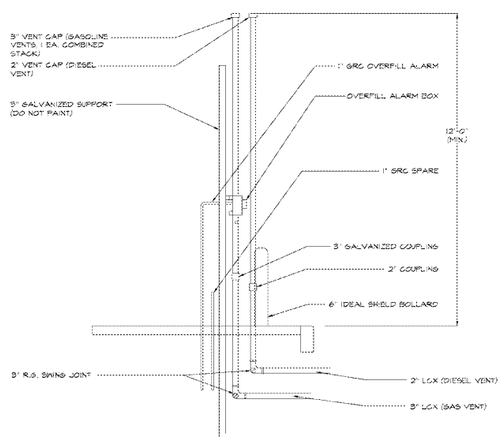
A / G-1 TANK FIELD LAYOUT
SCALE: 1/8" = 1'-0"



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



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



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

DEADMAN BURIAL WATER AT GRADE — **WAWA** — **JWL** — **11/10/11**

TANK DATA			INSTALLATION	
NOM. CAP. (GAL.)	20000	(12k x 8k)	TOTAL COVER INCLUDING SOIL &	4.50
TYPE (SINGLEWALL=1;DW=3)	3		TOP SLAB (FT)	
DRY=1; WET=2	2		TOP SLAB THICKNESS (IN)	8.00
NOM. TANK DIA. (FT.)	10		TOP SLAB LENGTH (FT)	46.00
			TOP SLAB WIDTH (FT)	13.00
PROD. STORED (GAL)	0		DEADMAN LNG (FT)	40.00
SPEC. GRAV. USED	1.00		DEADMAN WID (IN)	18.00
BRINE FILL (GAL)	270		DEADMAN THK (IN)	12.00
SAFETY FACTOR			# OF 42" DIAMETER SUMPS	2
DOWN FORCE/UP FORCE =	**1.51 :1**			

TOTAL WEIGHTS

DOWN FORCES			
CONCRETE WEIGHT	41066.67	LBS.	
BACKFILL WEIGHT	219998.63	LBS.	
TANK WEIGHT	11100.00	LBS.	
PRODUCT WEIGHT	0.00	LBS.	
TOTAL DOWN FORCE=----			272165.30 LBS.
UP FORCES			
TANK DISP. FORCE	180021.73	LBS.	
TOTAL UP FORCE=----			180021.73 LBS.

WORKSHEET

TANK DATA

SHELL DIAMETER----------	10.00	FT.	ACTUAL CAP (GAL)	19806.00
SHELL LENGTH----------	27.77	FT.	TANK WT. (LBS.)	11100.00
DOME PROJECTION---------	5.00	FT.	O.A.L. (FT.)	37.77
MID POINT HEIGHT--------	8.83	FT.	NUMBER OF RIBS	22.00
COLUMN HEIGHT----------	13.83	FT.		
RIB VOLUME----------	2631.00	CU. IN.	DOME A. (SQ FT)	78.54
			DOME VOL. (CU FT)	523.60

REINFORCED CONCRETE VOLUMES (CU. FT.)

TOP SLAB----------	346.67	DEADMEN	120.00
FORCE = VOL. X 88 LBS/CF	30506.67	**FORCE (LBS) = VOL. X 88 LBS/CF**	10560.00
TOP SLAB & DEADMEN FORCE	41066.67 LBS.		

BACKFILL VOLUMES (CU. FT.)

OVER TANK SHELL----------	1215.01	OVER DEADMEN	1660.00
OVER TANK DOMES---------	431.97	END WEDGE	359.67
TOTAL WET VOLUME	3666.64		
FORCE = VOL. X 60 LBS/CF			219998.63 LBS.

BUOYANCY

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.	21585.54	GALLONS
FORCE = GAL X 8.34 (LBS./GAL.)		180021.73 LBS.

DEADMAN BURIAL WATER AT GRADE — **WAWA** — **JWL** — **11/10/11**

TANK DATA			INSTALLATION	
NOM. CAP. (GAL.)	20000		TOTAL COVER INCLUDING SOIL &	4.50
TYPE (SINGLEWALL=1;DW=3)	3		TOP SLAB (FT)	
DRY=1; WET=2	2		TOP SLAB THICKNESS (IN)	8.00
NOM. TANK DIA. (FT.)	10		TOP SLAB LENGTH (FT)	40.00
			TOP SLAB WIDTH (FT)	13.00
PROD. STORED (GAL)	0		DEADMAN LNG (FT)	40.00
SPEC. GRAV. USED	1.09		DEADMAN WID (IN)	18.00
BRINE FILL (GAL)	194		DEADMAN THK (IN)	12.00
SAFETY FACTOR			# OF 42" DIAMETER SUMPS	2
DOWN FORCE/UP FORCE =	**1.57 :1**			

TOTAL WEIGHTS

DOWN FORCES			
CONCRETE WEIGHT	41066.67	LBS.	
BACKFILL WEIGHT	224301.69	LBS.	
TANK WEIGHT	8900.00	LBS.	
PRODUCT WEIGHT	0.00	LBS.	
TOTAL DOWN FORCE=----			274268.36 LBS.
UP FORCES			
TANK DISP. FORCE	175216.07	LBS.	
TOTAL UP FORCE=----			175216.07 LBS.

WORKSHEET

TANK DATA

SHELL DIAMETER----------	10.00	FT.	ACTUAL CAP (GAL)	19782.00
SHELL LENGTH----------	27.73	FT.	TANK WT. (LBS.)	8900.00
DOME PROJECTION---------	5.00	FT.	O.A.L. (FT.)	37.73
MID POINT HEIGHT--------	8.83	FT.	NUMBER OF RIBS	22.00
COLUMN HEIGHT----------	13.83	FT.		
RIB VOLUME----------	2631.00	CU. IN.	DOME A. (SQ FT)	78.54
			DOME VOL. (CU FT)	523.60

REINFORCED CONCRETE VOLUMES (CU. FT.)

TOP SLAB----------	346.67	DEADMEN	120.00
FORCE = VOL. X 88 LBS/CF	30506.67	**FORCE (LBS) = VOL. X 88 LBS/CF**	10560.00
TOP SLAB & DEADMEN FORCE	41066.67 LBS.		

BACKFILL VOLUMES (CU. FT.)

OVER TANK SHELL----------	1586.73	OVER DEADMEN	1060.00
OVER TANK DOMES---------	431.97	END WEDGE	359.67
TOTAL WET VOLUME	3738.36		
FORCE = VOL. X 60 LBS/CF			224301.69 LBS.

BUOYANCY

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 / G-1 BUOYANCY CALCULATIONS
SCALE: N.T.S.

NO.	DATE	REVISION	BY
7	06/15/18	GENERAL REVISION	A.M.T.
6	01/01/18	GENERAL REVISION	A.M.T.
5	06/02/17	GENERAL REVISION	J.C.F.
4	04/11/17	GENERAL REVISION	L.D.K.

GASOLINE DETAILS

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

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

Wawa
260 WEST BALTIMORE PIKE
WAWA, PA 19063
PHONE: 610-358-8000 FAX: 610-358-8005

DRAWING NO.
1 OF 5
SHEET NO.