

DATE 11/10/2008

Columbia County Building Permit  
This Permit Must Be Prominently Posted on Premises During Construction

PERMIT  
000027478

APPLICANT JACK BUREAU PHONE 904.777.9495  
ADDRESS 10142 103RD STREET JACKSONVILLE FL 32210  
OWNER FIRST COAST ENERGY(TEXACO) PHONE 904-596-3200  
ADDRESS 3317 US HWY 90 WEST LAKE CITY FL 32055  
CONTRACTOR JACK BUREAU PHONE 904.777.9495

LOCATION OF PROPERTY CORNER OF 90 W & KNIGHTS AVE  
TEXACO/SHELL STATION

TYPE DEVELOPMENT REPLACEMENT TANKS ESTIMATED COST OF CONSTRUCTION 99000.00

HEATED FLOOR AREA TOTAL AREA HEIGHT STORIES

FOUNDATION WALLS ROOF PITCH FLOOR

LAND USE & ZONING CHI MAX. HEIGHT

Minimum Set Back Requirments: STREET-FRONT REAR SIDE

NO. EX.D.U. 1 FLOOD ZONE DEVELOPMENT PERMIT NO.

PARCEL ID 35-3S-16-02549-000 SUBDIVISION

LOT BLOCK PHASE UNIT TOTAL ACRES 0.91

PCC052627  
Culvert Permit No. Culvert Waiver Contractor's License Number Applicant/Owner/Contractor  
EXISTING P-08-343 BLK HD N  
Driveway Connection Septic Tank Number LU & Zoning checked by Approved for Issuance New Resident

COMMENTS: NOC ON FILE. IMPACT FEE EXEMPT.

Check # or Cash 01183

FOR BUILDING & ZONING DEPARTMENT ONLY

(footer/Slab)

Temporary Power date/app. by Foundation date/app. by Monolithic date/app. by  
Under slab rough-in plumbing date/app. by Slab date/app. by Sheathing/Nailing date/app. by  
Framing date/app. by Rough-in plumbing above slab and below wood floor date/app. by  
Electrical rough-in date/app. by Heat & Air Duct date/app. by Peri. beam (Lintel) date/app. by  
Permanent power date/app. by C.O. Final date/app. by Culvert date/app. by  
M/H tie downs, blocking, electricity and plumbing date/app. by Pool date/app. by  
Reconnection date/app. by Pump pole date/app. by Utility Pole date/app. by  
M/H Pole date/app. by Travel Trailer date/app. by Re-roof date/app. by

BUILDING PERMIT FEE \$ 495.00 CERTIFICATION FEE \$ 0.00 SURCHARGE FEE \$ 0.00

MISC. FEES \$ 0.00 ZONING CERT. FEE \$ 50.00 FIRE FEE \$ 0.00 WASTE FEE \$

FLOOD DEVELOPMENT FEE \$ FLOOD ZONE FEE \$ CULVERT FEE \$ TOTAL FEE 545.00

INSPECTORS OFFICE CLERKS OFFICE

NOTICE: IN ADDITION TO THE REQUIREMENTS OF THIS PERMIT, THERE MAY BE ADDITIONAL RESTRICTIONS APPLICABLE TO THIS PROPERTY THAT MAY BE FOUND IN THE PUBLIC RECORDS OF THIS COUNTY. AND THERE MAY BE ADDITIONAL PERMITS REQUIRED FROM OTHER GOVERNMENTAL ENTITIES SUCH AS WATER MANAGEMENT DISTRICTS, STATE AGENCIES, OR FEDERAL AGENCIES.

"WARNING TO OWNER: YOUR FAILURE TO RECORD A NOTICE OF COMMENCEMENT MAY RESULT IN YOUR PAYING TWICE FOR IMPROVEMENTS TO YOUR PROPERTY. IF YOU INTEND TO OBTAIN FINANCING, CONSULT WITH YOUR LENDER OR AN ATTORNEY BEFORE RECORDING YOUR NOTICE OF COMMENCEMENT."

EVERY PERMIT ISSUED SHALL BECOME INVALID UNLESS THE WORK AUTHORIZED BY SUCH PERMIT IS COMMENCED WITHIN 180 DAYS AFTER ITS ISSUANCE, OR IF THE WORK AUTHORIZED BY SUCH PERMIT IS SUSPENDED OR ABANDONED FOR A PERIOD OF 180 DAYS AFTER THE TIME THE WORK IS COMMENCED. A VALID PERMIT RECIEVES AN APPROVED INSPECTION EVERY 180 DAYS. WORK SHALL BE CONSIDERED TO BE IN ACTIVE PROGRESS WHEN THE PERMIT HAS RECIEVED AN APPROVED INSPECTION WITHIN 180 DAYS.

The Issuance of this Permit Does Not Waive Compliance by Permittee with Deed Restrictions.



\* STAFF: 2 PERMITS TO BE ISSUED FCE 1078

Columbia County Building Permit Application

27979

For Office Use Only Application # 0810-24 Date Received 10/13 By JW Permit # 27478  
Zoning Official BLK Date 17.10.08 Flood Zone N/A FEMA Map # N/A Zoning CHI  
Land Use Highway Elevation N/A MFE N/A River N/A Plans Examiner HO Date 10-15-08  
Comments Introduce Impact Fee Exempt  
☒ NOC ☒ EH ☐ Deed or PA ☐ Site Plan ☐ State Road Info ☐ Parent Parcel # \_\_\_\_\_  
☐ Dev Permit # \_\_\_\_\_ ☐ In Floodway ☒ Letter of Authorization from Contractor  
☐ Unincorporated area ☐ Incorporated area ☐ Town of Fort White ☐ Town of Fort White Compliance letter

Septic Permit No. P-08-343 Fax 904 777-9496

Name Authorized Person Signing Permit JACK N BUREAU Phone 904 777-9495

Address 10142 103RD STREET JACKSONVILLE FL 32210

Owners Name FIRST COAST ENERGY Phone 904 596-3200

911 Address 7014 AC SKINNER PARKWAY JAX FL 32256

Contractors Name UNIVERSAL PETROLEUM INC JACK BUREAU Phone 904 777-9495

Address 10142 103RD STREET JAX FL 32210

Fee Simple Owner Name & Address NA

Bonding Co. Name & Address NA

Architect/Engineer Name & Address NA

Mortgage Lenders Name & Address NA

Circle the correct power company - FL Power & Light - Clay Elec. - Suwannee Valley Elec. - Progress Energy

Property ID Number 35-35-16  
163535-02549-000 Estimated Cost of Construction 99,000.00

Subdivision Name \_\_\_\_\_ Lot \_\_\_\_\_ Block \_\_\_\_\_ Unit \_\_\_\_\_ Phase \_\_\_\_\_

Driving Directions West on U.S. 90 to 3317 Hwy 90 approx 1/4 East of I-75 @ Texaco Station

Number of Existing Dwellings on Property 1

Construction of REPLACE 2 TANKS (UNDERGROUND) Total Acreage .91 Lot Size \_\_\_\_\_

Do you need a - Culvert Permit or Culvert Waiver or Have an Existing Drive Total Building Height \_\_\_\_\_

Actual Distance of Structure from Property Lines - Front \_\_\_\_\_ Side \_\_\_\_\_ Side \_\_\_\_\_ Rear \_\_\_\_\_

Number of Stories \_\_\_\_\_ Heated Floor Area \_\_\_\_\_ Total Floor Area \_\_\_\_\_ Roof Pitch \_\_\_\_\_

Application is hereby made to obtain a permit to do work and installations as indicated. I certify that no work or installation has commenced prior to the issuance of a permit and that all work be performed to meet the standards of all laws regulating construction in this jurisdiction.

left message

W/ JACK

545.00 permit - install  
40 - removal

I SET & THE TANKS SUBMITTED

0118



**WARNING TO OWNER:** YOUR FAILURE TO RECORD A NOTICE OF COMMENCEMENT MAY RESULT IN YOU PAYING TWICE FOR IMPROVEMENTS TO YOUR PROPERTY. A NOTICE OF COMMENCEMENT MUST BE RECORDED AND POSTED ON THE JOB SITE BEFORE THE FIRST INSPECTION. IF YOU INTEND TO OBTAIN FINANCING, CONSULT WITH YOUR LENDER OR ATTORNEY BEFORE RECORDING YOUR NOTICE OF COMMENCEMENT.

**FLORIDA'S CONSTRUCTION LIEN LAW: Protect Yourself and Your Investment**

According to Florida Law, those who work on your property or provide materials, and are not paid-in-full, have a right to enforce their claim for payment against your property. This claim is known as a construction lien. If your contractor fails to pay subcontractors or material suppliers or neglects to make other legally required payments, the people who are owed money may look to your property for payment, even if you have paid your contractor in full. This means if a lien is filed against your property, it could be sold against your will to pay for labor, materials or other services which your contractor may have failed to pay.

**NOTICE OF RESPONSIBILITY TO BUILDING PERMITEE:**

**YOU ARE HEREBY NOTIFIED** as the recipient of a building permit from Columbia County, Florida, you will be held responsible to the County for any damage to sidewalks and/or road curbs and gutters, concrete features and structures, together with damage to drainage facilities, removal of sod, major changes to lot grades that result in ponding of water, or other damage to roadway and other public infrastructure facilities caused by you or your contractor, subcontractors, agents or representatives in the construction and/or improvement of the building and lot for which this permit is issued. No certificate of occupancy will be issued until all corrective work to these public infrastructures and facilities has been corrected.

**OWNERS CERTIFICATION:** I hereby certify that all the foregoing information is accurate and all work will be done in compliance with all applicable laws and regulating construction and zoning. I further understand the above written responsibilities in Columbia County for obtaining this Building Permit.

  
Owners Signature

**CONTRACTORS AFFIDAVIT:** By my signature I understand and agree that I have informed and provided this written statement to the owner of all the above written responsibilities in Columbia County for obtaining this Building Permit.

  
Contractor's Signature (Permitee)

Contractor's License Number PC1052627  
Columbia County  
Competency Card Number \_\_\_\_\_

Affirmed under penalty of perjury to by the Contractor and subscribed before me this 13<sup>th</sup> day of OCTOBER 2008.  
Personally known \_\_\_\_\_ or Produced Identification \_\_\_\_\_

  
State of Florida Notary Signature (For the Contractor)

SEAL:



**DONNA A. MILLER**  
MY COMMISSION # DD 663704  
EXPIRES: July 29, 2011  
Bonded Thru Budget Notary Services



**DONNA A. MILLER**  
MY COMMISSION # DD 663704  
EXPIRES: July 29, 2011  
Bonded Thru Budget Notary Services



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11:42:54 AM 10/13/2008

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### Search Results

**Please see our glossary of terms for an explanation of the license status shown in these search results.**

**For additional information, including any complaints or discipline, click on the name.**

License Type	Name	Name Type	License Number/Rank	Status/Expires
Certified Pollutant Storage System Contractor	<a href="#">BUREAU, JACK N</a>	Primary	PCC052627 Cert Pollutant	Current, Active 08/31/2010

**License Location** 10142 103RD ST. SUITE 101  
 JACKSONVILLE, FL 32210  
**Address\*:**  
**Main Address\*:** 10142 103RD ST. SUITE 101  
 JACKSONVILLE, FL 32210

Certified Pollutant Storage System Contractor	<a href="#">UNIVERSAL PETROLEUM INC</a>	DBA	PCC052627 Cert Pollutant	Current, Active 08/31/2010
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**License Location** 10142 103RD ST. SUITE 101  
 JACKSONVILLE, FL 32210  
**Address\*:**  
**Main Address\*:** 10142 103RD ST. SUITE 101  
 JACKSONVILLE, FL 32210

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#### \* denotes

Main Address - This address is the Primary Address on file.

Mailing Address - This is the address where the mail associated with a particular license will be sent (if different from the Main or License Location addresses).

License Location Address - This is the address where the place of business is physically located.

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FCE 1078

Inst:200812018793 Date:10/13/2008 Time:12:14 PM  
 ✓ DC, P. DeWitt Cason, Columbia County Page 1 of 1 B:1160 P:896

NOTICE OF COMMENCEMENT FORM  
 COLUMBIA COUNTY, FLORIDA

THE UNDERSIGNED hereby gives notice that improvement will be made to certain real property, and in accordance with Chapter 713, Florida Statutes, the following information is provided in this Notice of Commencement.

Tax Parcel ID Number \_\_\_\_\_

1. Description of property: (legal description of the property and street address or 911 address).  
3317 U.S. HWY 90 WEST  
35-35-16 1126/1126 91 Acres Reg 4+ 4 DT on R/W  
US90, 33rd W of E Line of W/2 of Sec.
2. General description of improvement: REPLACE UNDERGROUND TANKS AND LINES 32258
3. Owner Name & Address FIRST COAST ENERGY 7014 AC SUMMER HWY JAX FL  
 Interest in Property C STORE + GAS STATION
4. Name & Address of Fee Simple Owner (if other than owner):  
NA
5. Contractor Name UNIVERSAL PETROLEUM INC Phone Number 904-777-9495  
 Address 10142 103RD ST JAX FL 32209
6. Surety Holders Name NA Phone Number \_\_\_\_\_  
 Address \_\_\_\_\_  
 Amount of Bond \_\_\_\_\_
7. Lender Name NA Phone Number \_\_\_\_\_  
 Address \_\_\_\_\_
8. Persons within the State of Florida designated by the Owner upon whom notices or other documents may be served as provided by section 713.13 (1)(a) 7; Florida Statutes:  
 Name NA Phone Number \_\_\_\_\_  
 Address \_\_\_\_\_
9. In addition to himself/herself the owner designates \_\_\_\_\_ of \_\_\_\_\_  
 to receive a copy of the Lienor's Notice as provided in Section 713.13 (1) -  
 (a) 7. Phone Number of the designee \_\_\_\_\_
10. Expiration date of the Notice of Commencement (the expiration date is 1 (one) year from the date of recording, (Unless a different date is specified) \_\_\_\_\_

NOTICE AS PER CHAPTER 713, Florida Statutes:

The owner must sign the notice of commencement and no one else may be permitted to sign in his/her stead.

[Signature]  
 Signature of Owner

Sworn to (or affirmed) and subscribed before  
 day of OCTOBER 13th, 2008

NOTARY STAMP/SEAL

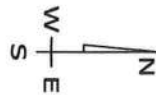
[Signature]



DONNA A. MILLER  
 MY COMMISSION # DD 063704  
 EXPIRES: July 29, 2011  
 Bonded Budget Notary Services

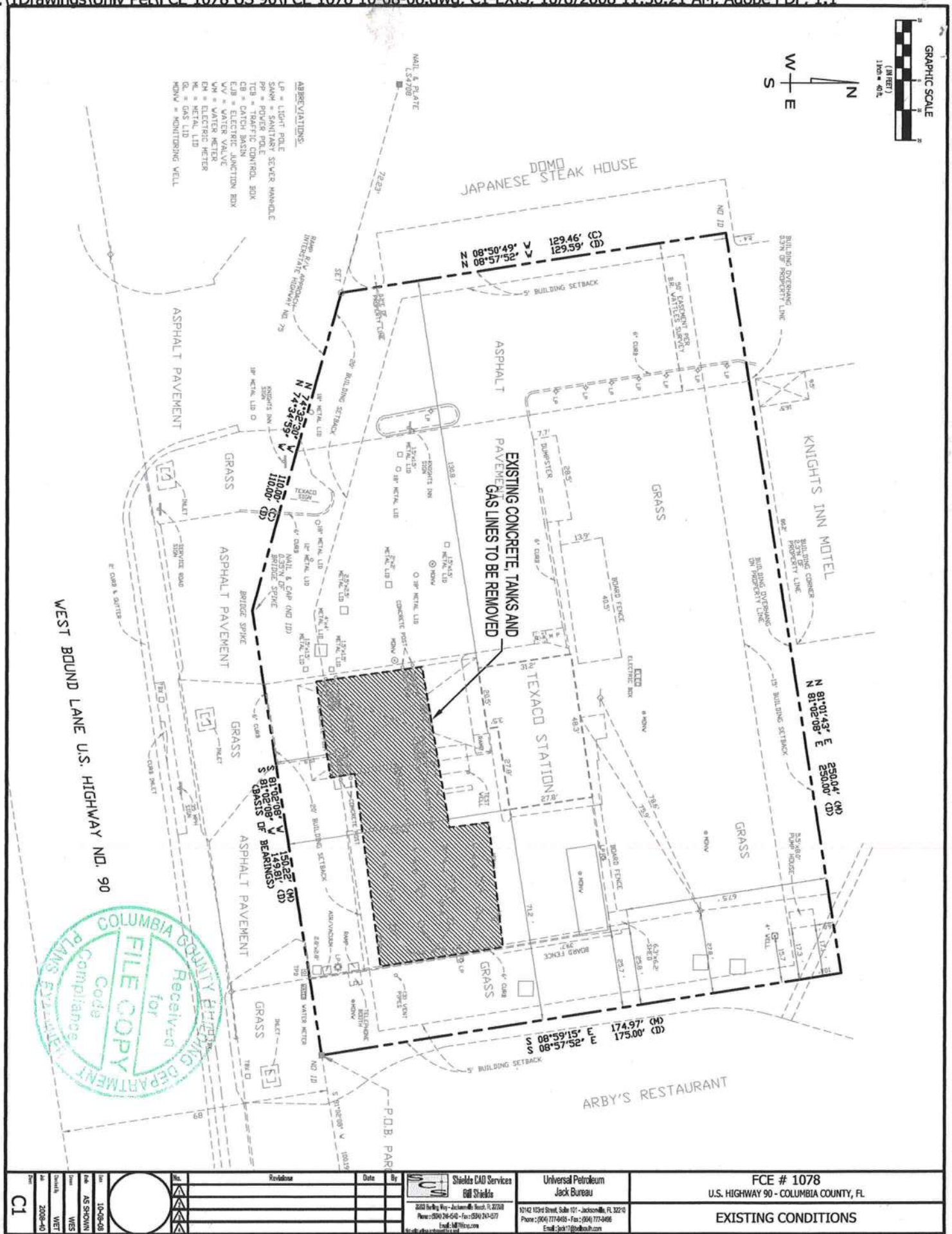
PROCTORS				
PROCTOR NO.	SOIL DESCRIPTION	MAXIMUM DRY UNIT WEIGHT (lb/ft <sup>3</sup> )	OPT. MOIST.	TYPE
*	Richardson Suite Prep	103.1	10.8	mod.
	F4. White Pitt			





ABBREVIATIONS:  
 LP = LIGHT POLE  
 SAN = SANITARY SEWER MANHOLE  
 PP = POWER POLE  
 TCB = TRAFFIC CONTROL BOX  
 CB = CATCH BASIN  
 EJB = ELECTRIC JUNCTION BOX  
 WV = WATER VALVE  
 EM = ELECTRIC METER  
 ME = METAL LID  
 MON = MONITORING WELL

WEST BOUND LANE U.S. HIGHWAY NO. 90



Shields CAD Services  
 Bill Shields  
 2000 Harley Way - Jacksonville Beach, FL 32208  
 Phone: (904) 246-6540 - Fax: (904) 240-5377  
 Email: bill@shields-cad.com

Universal Petroleum  
 Jack Bureau  
 10142 103rd Street, Suite 101 - Jacksonville, FL 32210  
 Phone: (904) 777-4605 - Fax: (904) 777-4666  
 Email: Jack.Bureau@univpet.com

FCE # 1078  
 U.S. HIGHWAY 90 - COLUMBIA COUNTY, FL  
 EXISTING CONDITIONS

C1





ABBREVIATIONS:  
 L.D. = LIGHT DUTY  
 S.M. = SEWER MANHOLE  
 P.P. = POWER POLE  
 T.C.B. = TRAFFIC CONTROL BOX  
 E.J.B. = ELECTRIC JUNCTION BOX  
 V.V. = WATER VALVE  
 E.M. = ELECTRIC METER  
 M.L. = METAL LID  
 G.L. = GAS LID  
 M.O.N.V. = MONITORING WELL

WEST BOUND LANE U.S. HIGHWAY NO. 90

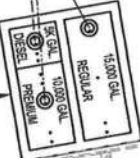
JAPANESE STEAK HOUSE

KNIGHTS INN MOTEL

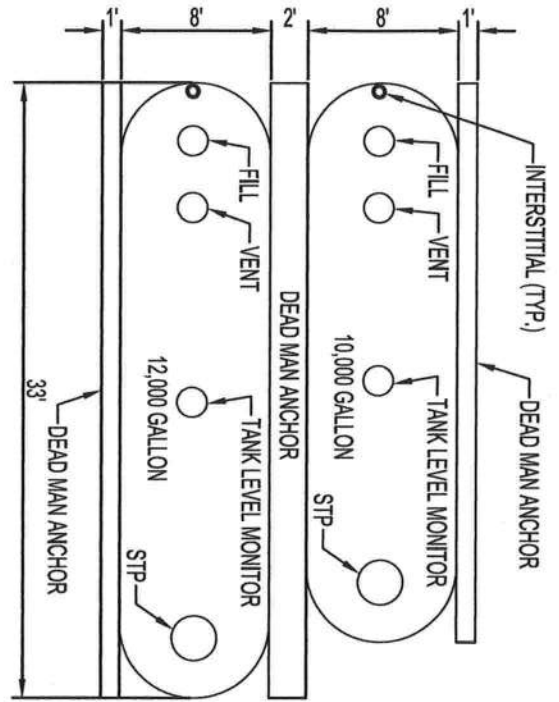
NEW 2" LCG PIPING  
 TO NPDS (TYP.)

TEXACO STATION

ARBY'S RESTAURANT

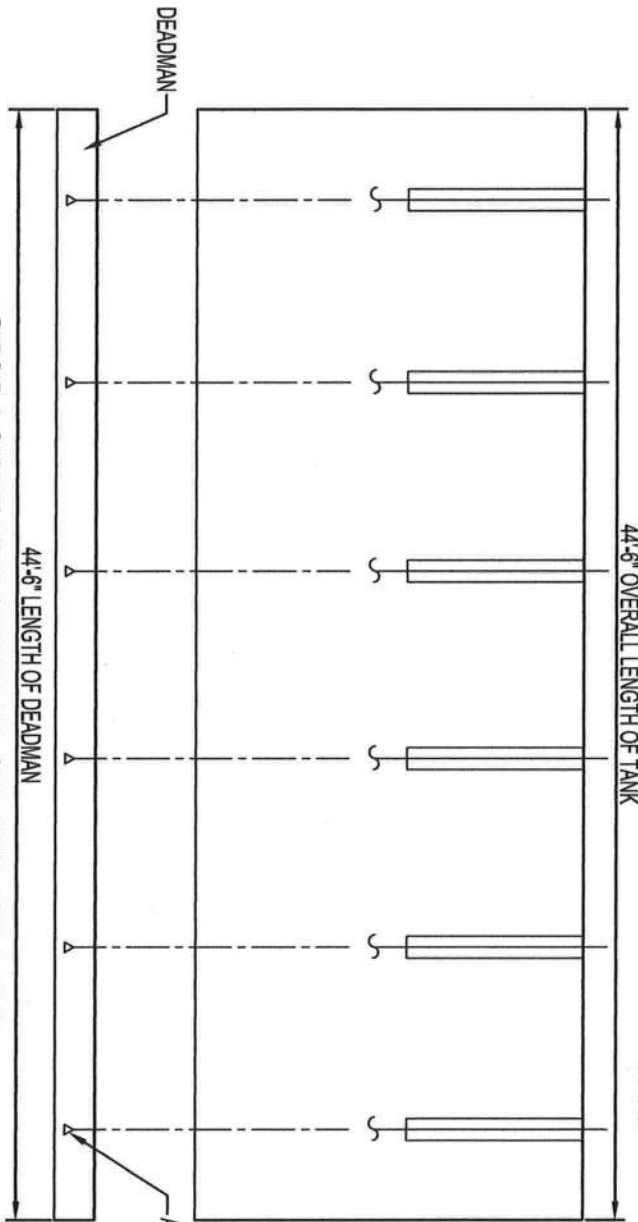
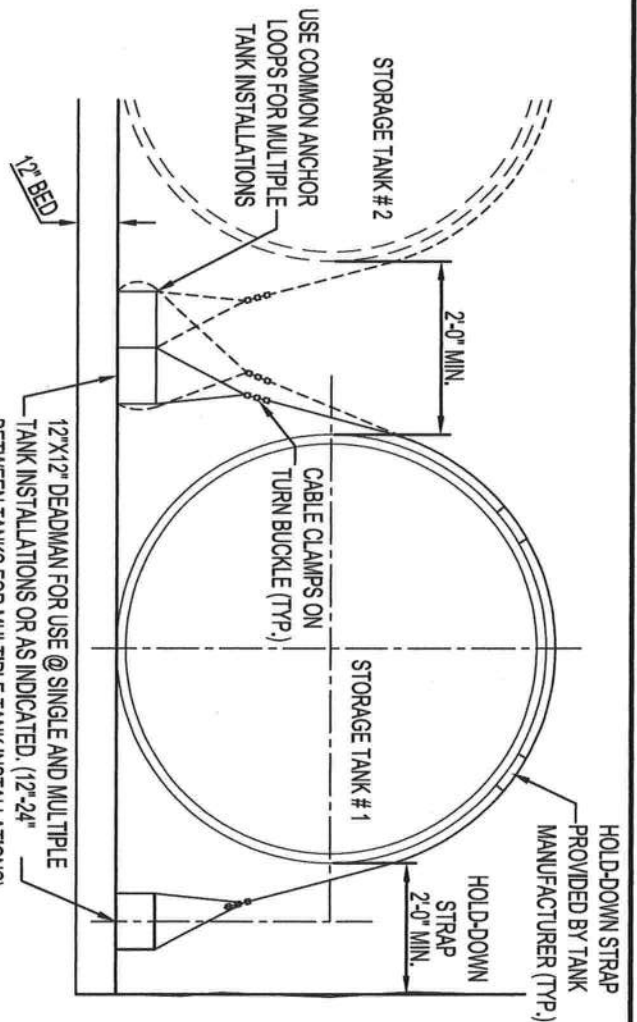


<p>C2</p>	<p>10-08-08</p> <p>AS SHOWN</p> <p>WES</p> <p>NET</p> <p>2008-10</p>	<p>Revisions</p> <p>Date</p> <p>By</p>	<p>Shields CAD Services</p> <p>Bill Shields</p> <p>2602 Boring Way - Jacksonville, FL 32218</p> <p>Phone: (904) 744-5454 - Fax: (904) 744-5717</p> <p>Email: Bill@shields.com</p>	<p>Universal Petroleum</p> <p>Jack Bureau</p> <p>19142 103rd Street, Suite 101 - Jacksonville, FL 32218</p> <p>Phone: (904) 777-4455 - Fax: (904) 777-4466</p> <p>Email: jack@ubdub.com</p>	<p>FCE # 1078</p> <p>U.S. HIGHWAY 90 - COLUMBIA COUNTY, FL</p> <p>PROPOSED CONDITIONS</p>
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**TANK FARM PLAN VIEW**  
SCALE: 1" = 10'

**STORAGE TANK DEADMAN (26,000 GALLON)**  
N.T.S.



**STORAGE TANK DEADMAN (26,000 GALLON)**  
N.T.S.

NOTE: CONTRACTOR SHALL  
CONFIRM TANK TIE-DOWN  
LOCATION WITH MANUFACTURER  
PRIOR TO TANK INSTALLATION.



C3

Rev	1	10-08-08	AS SHOWN
Rev	2	10-08-08	WES
Rev	3	10-08-08	WES

Rev	1	10-08-08	AS SHOWN
Rev	2	10-08-08	WES
Rev	3	10-08-08	WES

Revision	Date	By

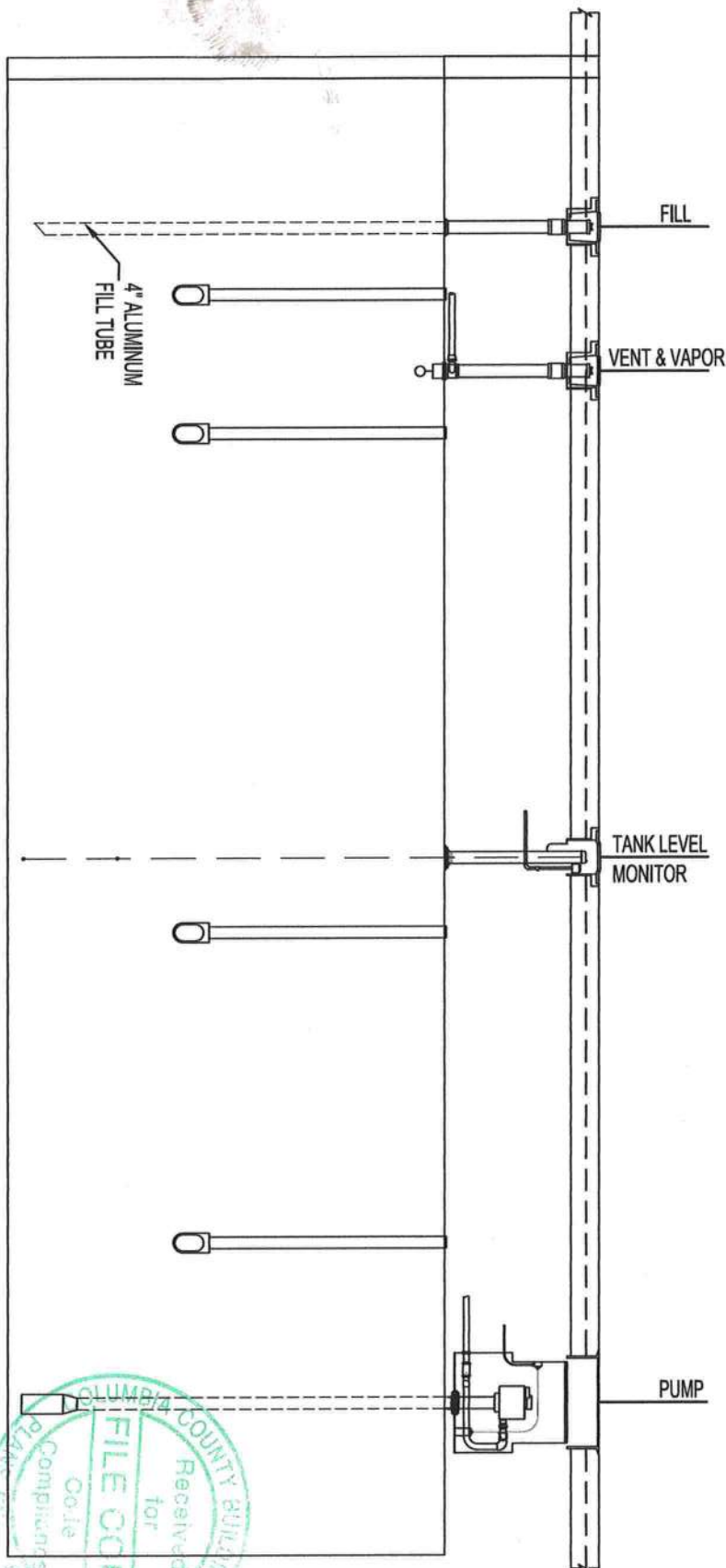

Shields CAD Services	Universal Petroleum
Bill Shields	Jack Bureau
5800 Harley Way - Jacksonville Beach, FL 32216	15142 153rd Street, Suite 101 - Jacksonville, FL 32216
Phone: (904) 246-6546 - Fax: (904) 241-5171	Phone: (904) 777-4465 - Fax: (904) 777-4466
Email: bill@shields.com	Email: jack@ubob.com

FCE # 1078
U.S. HIGHWAY 90 - COLUMBIA COUNTY, FL
DETAIL SHEET




## EQUIPMENT APPROVAL LIST

COMPANY	COMPONENT	MODEL NO.	#
METAL PRODUCTS	TANKS	ELUTRON	333
AMERON PIPING	PIPING	LCX 3000	291
EMCO-WHEATON	DOUBLEWALL BUCKETS	A1004-210S	594
OPW	STP SUMPS	TSMF-4536	318
OPW	DISP SUMPS	DSF-1836C	318
OPW	SHEAR VALVE	10BF-5725	N/A
EMCO-WHEATON	OVERFILL TUBES	A-1100	414
VEEDER ROOT	TANK MONITOR	TLS-350	198
F.E. PETRO	STPS	STP150-V12	N/A
F.E. PETRO	LEAK DETECTOR	STPM1D	335



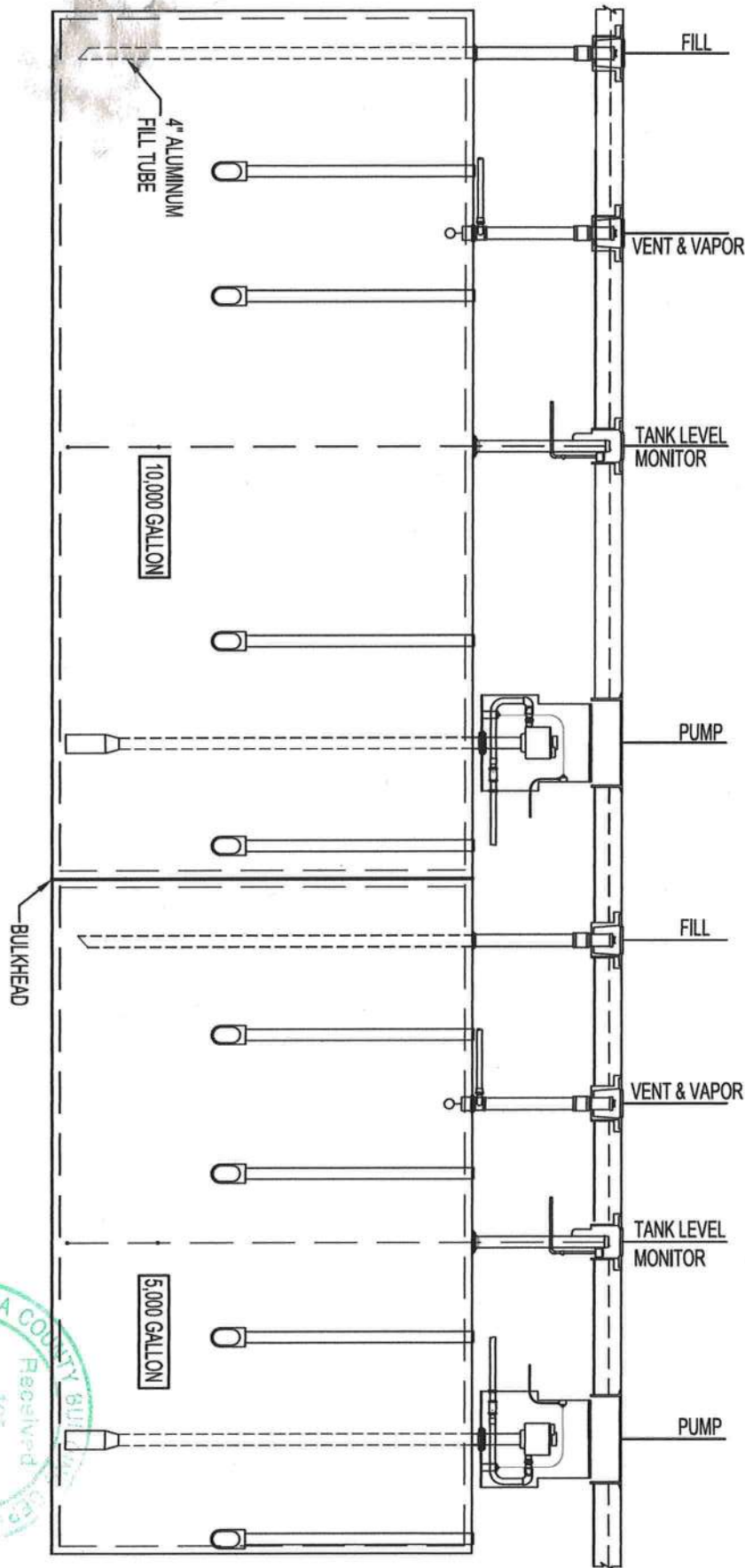
TANK DETAIL

N.T.S.



C4	Date: 10-08-08 Drawn: AS SHOWN Check: WES Title: 2008-40	Universal Petroleum Jack Bureau 10142 103rd Street, Suite 107 - Jacksonville, FL 32210 Phone: (904) 777-9405 - Fax: (904) 777-9406 Email: JackB1@bush.com	FCE # 1078 U.S. HIGHWAY 90 - COLUMBIA COUNTY, FL DETAIL SHEET

**TANK DETAIL**  
**N.T.S.**



C5

Rev	Date	By	Description
1	10-08-08	AS SHOWN	WES
2	2008-10	WES	



Rev	Date	By	Description
1	10-08-08	AS SHOWN	WES
2	2008-10	WES	

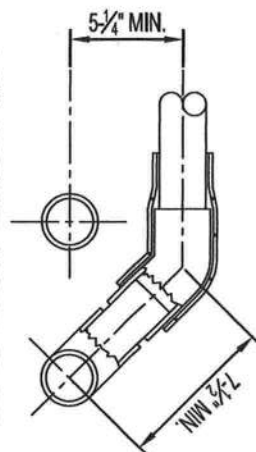
Shields CAD Services  
688 Shields  
2642 Harley Way - Jacksonville, FL 32226  
Phone: (904) 746-6540 - Fax: (904) 240-5377  
Email: info@shields-cad.com  
Website: www.shields-cad.com

Universal Petroleum  
Jack Bureau  
10142 103rd Street, Suite 101 - Jacksonville, FL 32210  
Phone: (904) 777-4405 - Fax: (904) 777-4406  
Email: jack17@outlook.com

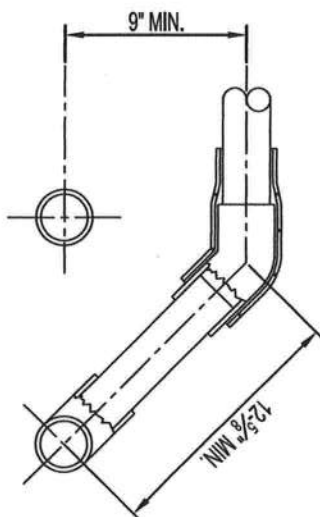
FCE # 1078  
U.S. HIGHWAY 90 - COLUMBIA COUNTY, FL

DETAIL SHEET

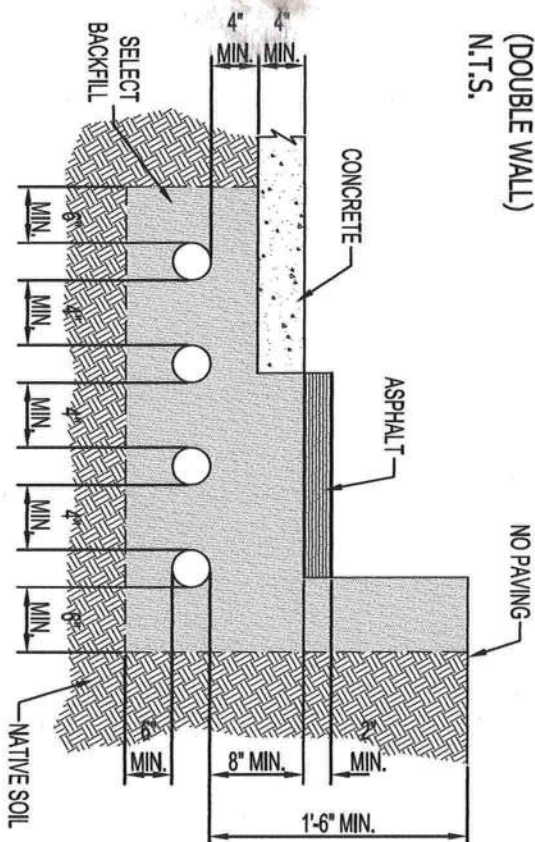




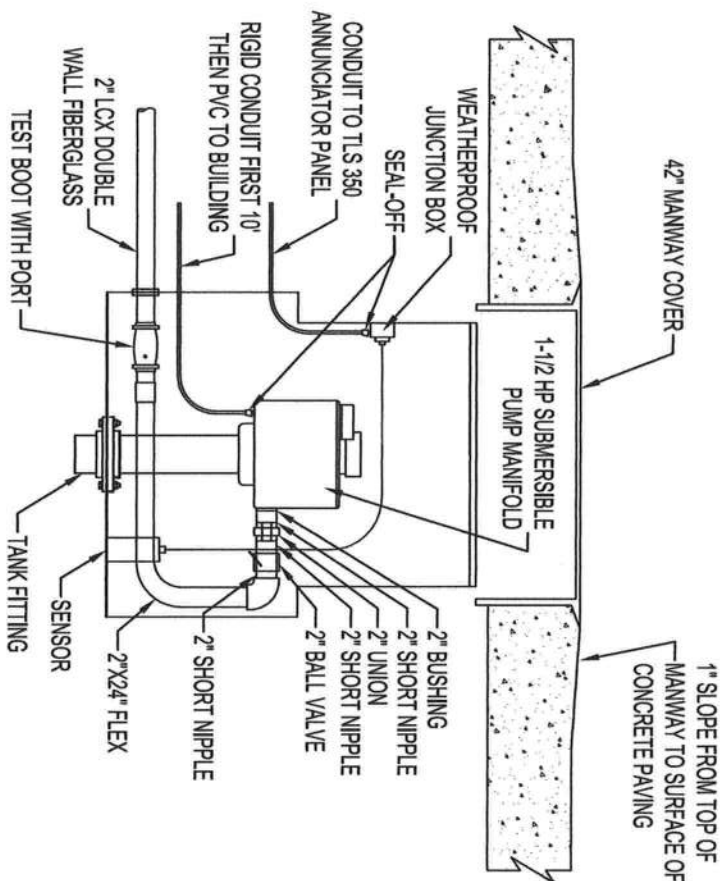
**LCX PIPING JUMP-OVER**  
(DOUBLE WALL)  
N.T.S.



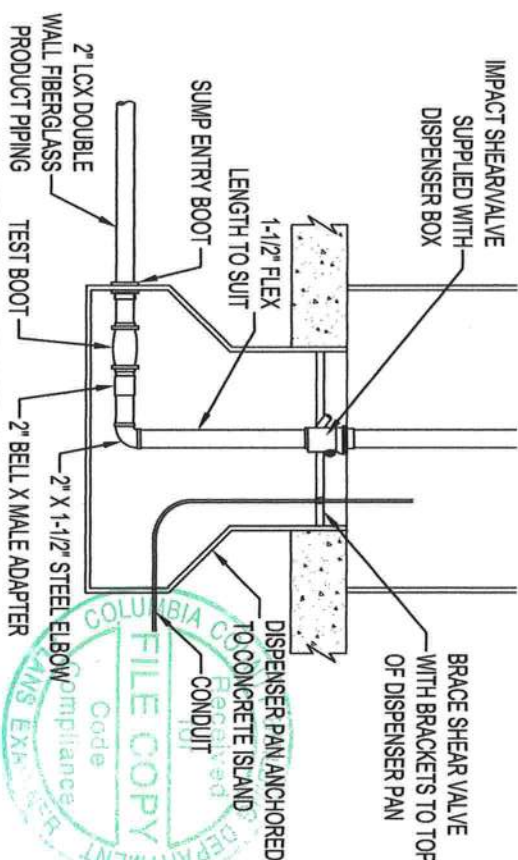
**LCX PIPING JUMP-OVER**  
(DOUBLE WALL)  
N.T.S.



**PIPING TRENCH**  
N.T.S.



**STANDARD SUMP DETAIL**  
N.T.S.



**DISPENSER SUMP CONNECTION DETAIL**  
N.T.S.





## SPECIFICATIONS

## 3.1 TANK HOLD-DOWNS (DEADMAN)

A. HOLD-DOWN WHEN SPECIFIED THE "DEADMAN" SHALL BE INSTALLED PRIOR TO THE BED MATERIAL. B. CAUTION: DO NOT PLACE TANKS ON CONCRETE SLABS, TIMBERS, BEAMS, CRADLES OR GROUT THE TANKS IN WEI GEMENT. THE TANK, WHEN TIED DOWN OR NOT, MUST NEVER BE LEFT ON THE BED WITHOUT A BACKFILL TO THE TOP OF THE TANK IF THERE IS AN CHANCE OF WATER, 12" OR MORE ABOVE THE TANK BOTTOM, IN THE HOLE.

## 3.2 TANK DEADMAN INSTALLATION

A. GENERAL REQUIREMENTS: ANCHOR ALL UNDERGROUND STORAGE TANKS WITH CONCRETE DEADMAN WHEN THICKENED TOP-SLAB DOES NOT PROVIDE ADEQUATE WEIGHT.  
1. TANK BEDDING, BALLASTING AND TANK HOLE BACKFILL PROCEDURE ARE DESCRIBED IN THESE SPECIFICATIONS.  
2. THE TANK ANCHORAGE SYSTEM SHOWN ON THE DRAWINGS IS DESIGNED FOR A MAXIMUM LEVEL OF GROUND WATER EQUAL TO THE SUB GRADE LEVEL.

## 3.3 MATERIALS

A. CONCRETE DEADMAN REINFORCED CONCRETE, 12"X12" OR 12"X24" IN CROSS-SECTION WITH CHAMFERED EDGES, LENGTH, AS SHOWN ON THE DRAWINGS, 1/2" DIAMETER REBAR ANCHOR LOOPS ARE TO BE CAST IN TO DEADMAN AT LOCATIONS SHOWN. PRECAST MATERIAL SHALL HAVE ACHIEVED ITS ULTIMATE COMPRESSIVE STRENGTH OF 2500 PSI (28 DAYS) PRIOR TO INSTALLATION.  
NOTE: PRECAST CONCRETE FOUNDATION POLES WHICH MEET OR EXCEED ABOVE SPECIFICATIONS ARE ACCEPTABLE.

## B. ANCHOR CABLE, MINIMUM 1/2" DIAMETER, TRAWLING CABLE.

C. HARDWARE: CABLE CLAMPS, CABLE GUIDES, GUARDS, ETC., SHALL BE FURNISHED BY CONTRACTOR.  
D. PROTECTIVE COATING: PRIOR TO BACKFILLING TANKS, APPLY A GENEROUS QUANTITY OF ASPHALT OR SIMILAR BITUMINOUS COATING BY BRUSH TO ALL EXPOSED STEEL CABLES, LOOPS AND HARDWARE.

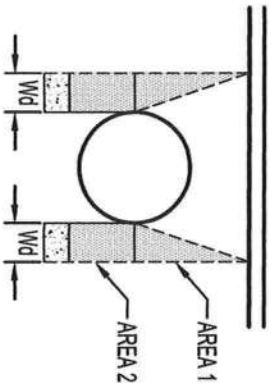
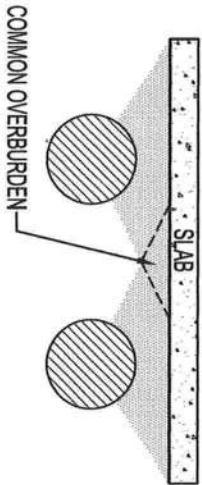
## 3.4 INSTALLATION PROCEDURE:

A. PREPARE THE TANK HOLE TO RECEIVE THE DEADMAN. INSTALL SHORING (OR SLOE SLOPING) IN ACCORDANCE WITH SECTION 1.3.  
B. PUMP THE WATER OUT OF THE TANK HOLE. KEEP WATER OUT OF THE TANK HOLE UNTIL TANKS HAVE BEEN SET, TIED DOWN BALLASTED AND BACKFILLED.

C. INSERT EACH CABLE THROUGH ITS OWN ANCHOR LOOP IN THE DEADMAN RESERVING SUFFICIENT CABLE SO THAT BOTH ENDS OF THE CABLE WILL BE KEPT AT THE TOP OF THE TANK HOLE AFTER THE DEADMAN ARE SET.  
D. LOWER AND POSITION THE DEADMAN IN THE TANK HOLE KEEPING BOTH ENDS OF THE CABLES AT THE TOP OF THE HOLE. INSTALL THE 12" MINIMUM THICK BEDDING MATERIAL IN THE TANK HOLE. SMOOTH AND SLOPE PER THE TANK BEDDING INSTRUCTIONS.

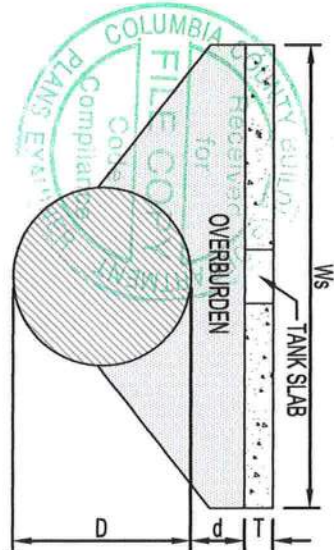
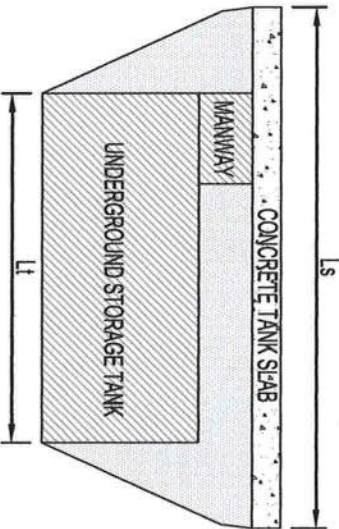
E. PROCEED WITH SETTING THE TANKS BY ADDING BALLAST AS NECESSARY TO SINK AND KEEP DOWN THE TANKS. USE ONLY ENOUGH BALLAST TO HOLD THE TANKS DOWN UNTIL THE BACKFILL IS EVEN WITH THE TOP OF THE TANKS. (REFER TO SECTION 1.1 FOR TANK SETTING REQUIREMENTS) CAUTION: BALLAST LEVEL IN TANK MUST NEVER EXCEED WATER (OR BACKFILL) LEVEL IN TANK HOLE DURING INSTALLATION.

F. SHARED OVERBURDEN BETWEEN THE TWO TANKS IS ILLUSTRATED BELOW.

TANK FLOATOUT AND ANCHORAGE CALCULATIONS  
AS OUTLINED IN PEIRP 100-94 TANKS SHOWN IN GALLONS

RULE DESCRIPTION	UNITS	26,000	RULE DESCRIPTION	UNITS	26,000
<b>A.2 SUBMERGED WEIGHT</b>			<b>A.2 TANK WEIGHT OF OVERBURDEN</b>		
SAND AND PEA GRAVEL (WTG)	LBS. PER C.F.	60.0	TANK DIAMETER (D)	FT.	10.00
REINFORCED CONCRETE (WTG)	LBS. PER C.F.	87.6	DEPTH OF OVERBURDEN (d)	FT.	3.00
TANKS AND MANWAYS (WTG)	LBS.	19,000	HEIGHT OF OVERBURDEN (h)	FT.	8.00
WATER PUMP AND RISER (WTG)	LBS.	500.0	AREA OF THE CONCRETE SLAB AT GRADE (B1)	S.F.	700
WATER (WTW)	GAL. PER C.F.	7.48	REFLECTED TANK AREA (B2)	GAL.	445
<b>A.3 REFLECTED TANK AREA</b>			TANK DISPLACEMENT (Vg)	GAL.	26,748
AREA OF TRAPEZOIDAL	LBS. PER C.F.	62.4	TANK DISPLACEMENT (Vg)	C.F.	3.576
END SEGMENTS	S.F.	0.00	VOID IN OVERBURDEN	C.F.	100
CYLINDRICAL BODY	S.F.	445.00	<b>TOTAL WEIGHT OF OVERBURDEN</b>		
TOTAL (B2)	S.F.	445.00	(B2) (B2-B1)*9.81*(B2-B1)/2+H	S.F.	572.5
<b>A.4 TANK DISPLACEMENT</b>			TOTAL AREA	FT.	8.00
INNER TANK STRUCTURE	C.F.	-	X DEPTH OF FILL (h)	C.F.	4,380
OUTER TANK STRUCTURE	C.F.	-	TOTAL FILL	C.F.	1,788
	C.F.	-	LESS TANK VOLUME	C.F.	1,788
	C.F.	-	LESS OTHER VOID	C.F.	100
	C.F.	-	LESS COMMON OVERBURDEN **	C.F.	0
	GAL.	-	TOTAL VOLUME	C.F.	2,692
RIBS	C.F.	0.00	X WEIGHT OF SOL (WTG)	LBS. PER C.F.	60.0
TANK CAPACITY	C.F.	3,476	TOTAL WEIGHT OF OVERBURDEN	LBS.	161,522
	GAL.	26,000	<b>DEADMAN OVERBURDEN AND BALLASTING</b>		
	C.F.	-	DEADMAN WIDTH (Wd)	FT.	1
	C.F.	-	DEADMAN AREA 1	S.F.	4
	GAL.	-	DEADMAN AREA 2	S.F.	5
	C.F.	-	TOTAL AREA (AREA 1 + AREA 2)	S.F.	9
	C.F.	-	DEADMAN LENGTH (L)	S.F.	44.5
	GAL.	-	DEADMAN OVERBURDEN VOLUME	LBS.	24,030
	C.F.	-	DEADMAN OVERBURDEN WEIGHT	LBS.	3,988
	GAL.	-	DEADMAN CONCRETE WEIGHT	LBS.	27,928
	C.F.	-	DEADMAN BALLAST (PER BALLAST)	LBS.	55,856
	GAL.	-	TOTAL DEADMAN BALLAST	LBS.	161,522
	C.F.	-	<b>A.6 TANK WEIGHT OF OVERBURDEN</b>		
	GAL.	-	DOWN FORCES	LBS.	35,596
	C.F.	-	WEIGHT OF OVERBURDEN	LBS.	19,000
	GAL.	-	CONCRETE PAVING AT GRADE	LBS.	500
	C.F.	-	WEIGHT OF OTHER MATERIALS	LBS.	55,856
	GAL.	-	WEIGHT OF DEADMAN	LBS.	27,928
	C.F.	-	SUBTOTAL	LBS.	212,444
	GAL.	-	<b>UP FORCES</b>		
	C.F.	-	BUOYANCY OF TANK	LBS.	223,138
	GAL.	-	VE X WTW	LBS.	49,306
	C.F.	-	TOTAL FORCES (DOWN)	LBS.	49,306
	GAL.	-	<b>A.7 CALCULATIONS OF SAFETY FACTOR</b>		
	C.F.	-	FORCE DOWN DIVIDED BY FORCE UP	SAFETY FACTOR	1.22

\* SEE PETROLEUM PLANS FOR SIZE OF OVERALL TANK SLAB, CONCRETE LENGTH AND WIDTH DIMENSIONS SHOWN ARE FOR BUOYANCY CALCULATIONS OF THE INDIVIDUAL TANKS.



FCE # 1078

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