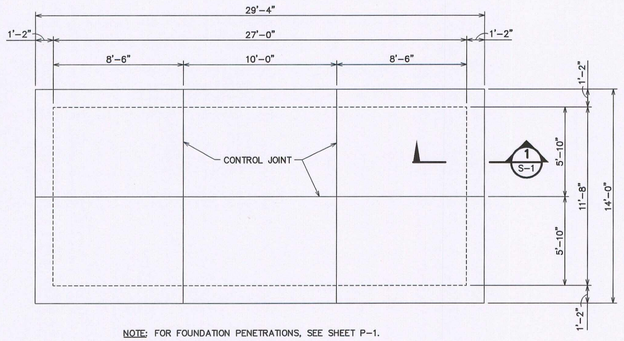
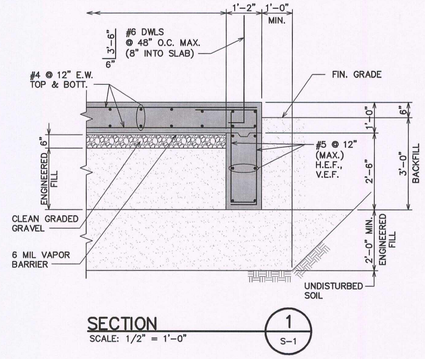


NOTE: FOR FOUNDATION PENETRATIONS, SEE SHEET P-1.

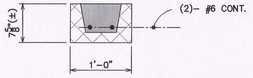
PUMP STATION FLOOR PLAN
SCALE: 1/4" = 1'-0"

N



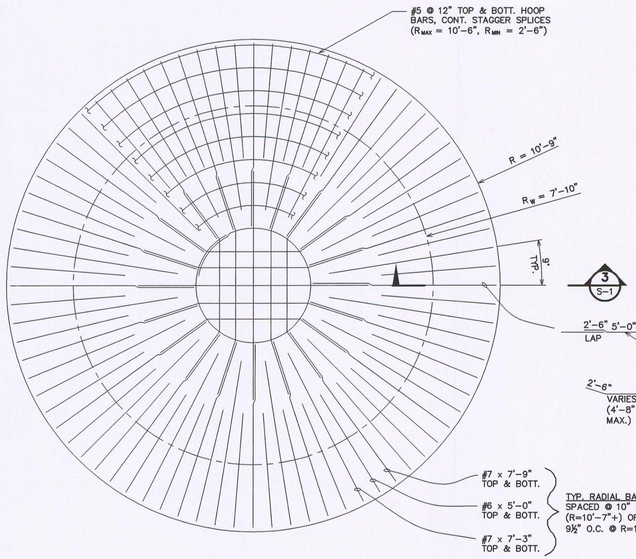
SECTION
SCALE: 1/2" = 1'-0"

1
S-1



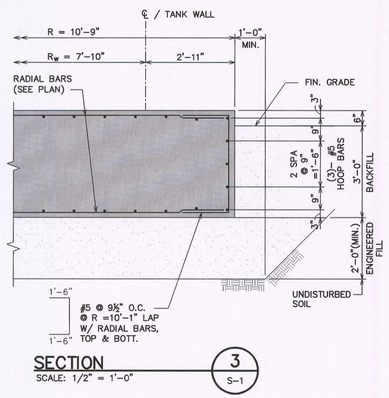
BOND BEAM SECTION
SCALE: 1" = 1'-0"

2
A-1



NOTE: FOR FOUNDATION PENETRATIONS, SEE SHEET P-1.

TANK FOUNDATION PLAN
SCALE: 3/8" = 1'-0"
(TYP. FOR 2)



SECTION
SCALE: 1/2" = 1'-0"

3
S-1

GENERAL NOTES:

1. VERIFY CONDITIONS AND MEASUREMENTS AT THE SITE AND REPORT ANY DISCREPANCIES TO THE OWNER BEFORE PROCEEDING WITH THE WORK.
2. THE CONTRACTOR SHALL NOT BURN, CUT, DRILL OR MODIFY STRUCTURAL MEMBERS WITHOUT APPROVAL OF THE OWNER
3. THE CONTRACTOR SHALL LOCATE ALL ACTIVE UNDERGROUND UTILITIES PRIOR TO STARTING WORK, AND SHALL CONDUCT HIS OPERATIONS IN SUCH A MANNER AT TO ENSURE THAT THOSE UTILITIES NOT REQUIRING RELOCATION WILL NOT BE DISTURBED.
4. EXISTING UTILITIES ARE SHOWN ON THE PLANS FOR THE CONVENIENCE OF THE CONTRACTOR, AND NO GUARANTEE CAN BE MADE TO THE COMPLETENESS OR EXACTNESS OF LOCATION. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO DETERMINE THE EXISTENCE AND LOCATION OF UTILITIES IN THE CONSTRUCTION AREA. THE CONTRACTOR WILL BE HELD RESPONSIBLE FOR ANY DAMAGE TO EXISTING UTILITIES IN THE CONSTRUCTION AREA, AND WILL BE HELD RESPONSIBLE FOR ANY DAMAGE TO EXISTING UTILITIES FROM HIS OPEATION.
5. ALL PAVEMENT, SIDEWALK, DRIVEWAYS. SHOULDERS, LANDSCAPING, DRAINAGE PIPES, ETC., DAMAGED DURING CONSTRUCTION SHALL BE RESTORED BY THE CONTRACTOR AT HIS EXPENSE TO A CONDITION EQUAL TO OR BETTER THAN THAT WHICH EXISTED PRIOR TO CONSTRUCTION.
6. EXISTING MONUMENTS AND PROPERTY CORNERS ARE TO BE PRESERVED AND PROTECTED. DISTURBED SURVEY MARKERS SHALL BE RESTORED AT THE CONTRACTOR'S EXPENSE.
7. AS RECOMMENDED BY SOIL CONSULTANT, CLEAN GRADED GRAVEL & ENGINEERED BACKFILL WILL BE REQUIRED FOR BACKFILL AT ALL STRUCTURES. EXCAVATED MATERIAL NOT SUITABLE FOR BACKFILL SHALL BE REMOVED FROM THE SITE. SEE GEOTECHNICAL ENGINEERING REPORT BY GEOMAT, INC. FOR ADDITIONAL REQUIREMENTS.
8. ALL CONSTRUCTION MUST CONFORM TO CURRENT N.M.O.S.H.A. SAFETY STANDARDS.

EXCAVATION AND BACKFILL NOTES:

1. FOR SOIL BORING LOCATIONS, SEE PLAN SHEETS. FOR SOIL BORING LOGS, SEE SPECIFICATIONS. PRESENTATION OF THIS INFORMATION IN NO WAY INFERS THAT SUBSURFACE CONDITIONS ARE THE SAME AT LOCATIONS OTHER THAN EXACT LOCATION OF BORING.
2. GROUND WATER LEVEL IS SUBJECT TO CHANGE. THE CONTRACTOR IS RESPONSIBLE FOR MAKING HIS OWN DETERMINATION OF WATER LEVELS THAT WILL EXIST DURING CONSTRUCTION.
3. PLACE ENGINEERED FILL BETWEEN FOOTINGS AND UNDISTURBED SOIL HAVING BEARING CAPACITY OF AT LEAST 3,000 PSF. WHERE UNSTABLE SOIL IS ENCOUNTERED BELOW STRUCTURAL CONCRETE, IT SHALL BE EXCAVATED AND BACKFILLED WITH ENGINERRED FILL AS RECOMMENDED BY GEOTECHNICAL CONSULTANT.
4. UNSUITABLE MATERIAL UNDER FOOTINGS SHALL BE REMOVED AND BACKFILLED WITH ENGINEERED FILL. PEAT, MUCK, MARL, BLUE AND GREY CLAY, AND OTHER ORGANIC MATERIALS SHALL BE CONSIDERED UNSUITABLE MATERIALS.
5. CONTRACTOR SHALL PREVENT GROUND WATER FROM REACHING ALL PORTIONS OF THE WORK PRIOR TO ATTAINING 28 DAY STRENGTH IN SUPPORTING ELEMENTS.
6. ENGINEERED FILL SHALL BE USED AS BACKFILL WHERE SHOWN ON THE PLANS UP TO THE BOTTOM OF THE FOOTING..
7. BACKFILL SURROUNDING STRUCTURES SHALL BE ENGINEERED FILL MATERIAL UNLESS OTHERWISE NOTED.

REINFORCED CONCRETE NOTES:

1. CONCRETE SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 4,000 PSI AT 28 DAYS UNLESS OTHERWISE NOTED.
2. STEEL REINFORCEMENT SHALL BE NEW BILLET CONFORMING TO ASTM A615, GRADE 60. REINFORCEMENT STEEL FOR TIES AND STIRRUPS MAY BE NEW BILLET STEEL CONFORMING TO A615, GRADE 40.
3. SHOP DRAWINGS SHALL BE SUBMITTED FOR ALL REINFORCEMENT.
4. REINFORCEMENT SHALL BE DETAILED IN ACCORDANCE WITH LATEST EDITION ACI 318 "BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE" AND ACI 315, "MANUAL OF STANDARD PRACTICE FOR DETAILING REINFORCED CONCRETE STRUCTURES".
5. MINIMUM LAP OF REINFORCEMENT SHALL BE CLASS "B", CATEGORY "6", AS CALLED FOR IN ACI 318, UNLESS OTHERWISE NOTED.
6. CONCRETE COVER TO REINFORCEMENT:
   CONCRETE PLACED AGAINST GROUND . . . . . 3"
   ALL OTHER (UNLESS OTHERWISE INDICATED). . . . . 2"
7. CORNER BARS SHALL BE PROVIDED ON OUTSIDE FACE OF ALL CORNERS SAME SIZE AND SPACING AS HORIZONTAL REINFORCEMENT UNLESS OTHERWISE NOTED. PROVIDE LAP SPLICE. PROVIDE HOOKS ON ALL HORIZONTAL BARS MADE DISCONTINUOUS AT WALL OPENINGS.
8. PROVIDE KEYWAYS AT ALL CONSTRUCTION JOINTS (C.J.).
9. (2) – #5 BARS SHALL BE PLACED EACH FACE AROUND ALL OPENINGS IN WALLS AND SLABS UNLESS OTHERWISE NOTED. BARS SHALL EXTEND 2'-0" PAST OPENING UNLESS OTHERWISE NOTED. (1) – #5 DIAGONAL x 3'-0" LONG TOP AND BOTTOM BAR SHALL BE PROVIDED AT EACH CORNER OF OPENINGS.
10. A ¾" x 45° CHAMFER SHALL BE PROVIDED AT EXPOSED EDGES OF ALL CONCRETE WALLS, SLABS AND BEAMS UNLESS OTHERWISE NOTED.

BUILDING CODE (1)

THE BUILDING CODE FOR THE CITY OF GALLUP IS THE INTERNATIONAL BUILDING CODE 2006.

BUILDING NAME	USE GROUP
SANITARY WASTEWATER LIFT STATION	II

DESIGN LOADS (2)

DIRECTION	LOADED ELEMENT	TYPE OF LOAD	DESIGN LOAD	REMARKS	
VERTICAL	FLOORS (NO LIVE LOAD REDUCTION)	TYPICAL LIVE	150 P.S.F.	TYPICAL UNLESS OTHERWISE NOTED	
		SPECIAL LIVE	SEE REMARKS	AS INDICATED ON DRAWINGS	
		EQUIPMENT & BASES	SEE REMARKS	AS SHOWN ON DWG'S VERIFY W/APPROVED SHOP DRAWINGS	
	ROOFS OF EXPOSED STRUCTURES	SNOW	SEE BELOW	DRIFT	PLUS ROOF SUPPORTED EQUIPMENT OR HOISTS
		WIND	SEE BELOW	UPLIFT	
		MECH. & ELEC.	10 P.S.F.		
	STAIRS & WALKWAYS	LIVE	100 P.S.F.		
ANY	RAILINGS & POSTS	UNIFORM	50 PLF		
		CONCENTRATED	200 LBS		
LATERAL	COMPLETE STRUCTURE	EARTHQUAKE	PER IBC 2006	SEE EARTHQUAKE DESIGN DATA	
	EXPOSED VERTICAL SURFACES	WIND (90 M.P.H.)	FACTORED 23.4 P.S.F.	LESS THAN 42 FT. HIGH	
	WALLS RETAINING EARTH	EARTH	SEE GEOTECHNICAL LATERAL LOADS		
	WALLS RETAINING LIQUID	SEWAGE OR WATER	63 P.C.F.	WEIGHT OF FLUID TO TOP OF TANK	
		OTHER FLUID	SEE REMARKS	WEIGHT OF FLUID TO TOP OF TANK	

STRUCTURAL DESIGN DATA (IBC 2006) (3)

I.B.C. 2006 (1603.1.1) LIVE LOAD DATA

SANITARY WATEWATER LIFT STATION	150 PSF

GEOTECHNICAL LATERAL LOADS:

LATERL EARTH PRESSURES	
GRANULA SOIL BACKFILL	30 P.S.F./FT.
UNDISTURBED SUBSOIL	40 P.S.F./FT.

I.B.C. 2006 (1603.1.3) ROOF SNOW LOAD DATA

NUMBER	SPEC. SECTION	ITEM		VALUE
1	1608.2	GROUND SNOW LOAD	Pg	15 P.S.F.
2	ASCE 7	FLAT ROOF SNOW LOAD	Pf	10.5 P.S.F.
3	1608.3.1	SNOW EXPOSURE FACTOR	Ce	1.0
4	1608.3.2	THERMAL FACTOR	Ct	1.0
5	1608.3.3	SNOW LOAD IMPORTANCE FACTOR	I	1.0

I.B.C. 2006 (1603.1.4) WIND DESIGN DATA

NUMBER	SPEC. SECTION	ITEM	VALUE
1	1609.3	BASIC WIND SPEED (V_{ult})	90 M.P.H.
2	ASCE 7	STRUCTURE CATEGORY	II
3	ASCE 7	WIND LOAD IMPORTANCE FACTOR	1.0
4	1609.4	WIND EXPOSURE – FRAMING SYSTEM (ALL SIDES)	C
5	ASCE 7	INTERNAL PRESSURE COEFF GC $_{pi}$	+/– 0.18
6	ASCE 7	COMPONENTS & CLADDING PSF	15.9
7	ASCE 7	COMPONENTS & CLADDING PSF	–15.9
8	ASCE 7	WIND DESIGN PRESSURE (P.S.F.)	15.9

I.B.C. 2006 (1603.1.5) EARTHQUAKE DESIGN DATA

NUMBER	SPEC. SECTION	ITEM	VALUE/TYPE
1	1604.5	SEISMIC IMPORTANCE FACTOR	1.0
1	1616.2	SEISMIC USE GROUP	I
2	(USGS)	MAPPED SPECTRAL RESPONSE ACCELERATION % g, S_s	0.251
		ACCELERATION % g, S_1	0.058
3	1615.1.1	SITE CLASS	C
		SEISMIC DESIGN CATEGORY	B
4	1615.1.3	SPECTRAL RESPONSE COEFF S_{DS}	0.201
4	1615.1.3	SPECTRAL RESPONSE COEFF S_{D1}	0.066
4	1617.6	BASIC SEISMIC – FORCE – RESISTING SYSTEM	SHOWN IN TABLE BELOW
5	1617.41	DESIGN BASE SHEAR	
6	1617.4	ANALYSIS PROCEDURE UTILIZED	EQUIVALENT LATERAL FORCE PROCEDURE
8	ASCE 7-02	SEISMIC RESPONSE COFFICIENT, C_s	0.083
9	ASCE 7-02	RESPONSE MODIFICATION FACTOR, R (SEISMIC CONTROLS – TANK) (WIND LOAD GREATER THAN SEISMIC BLDG.)	2.0

BASIC SEISMIC – FORCE – RESISTING SYSTEM	DESIGN BASE
1. BEARING WALL SYSTEM H ORDINARY REINF'D MAS. SHEAR WALLS	0.101 W
2. STORAGE TANK	0.1266 W

Western Refining

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WEB SITE: http:// www.hrc-engr.com

6-18-08	NMOCD SUBMITTAL
5-28-08	OWNER REVIEW
DATE	ADDITIONS AND/OR REVISIONS
DESIGNED	T.C / J.M.L
DRAWN	K.R.K.
CHECKED	F.C.N.
APPROVED	P.T.R.

EDWARD L. COTE
NEW MEXICO
18022
PROFESSIONAL ENGINEER

WESTERN REFINING - GALLUP

SANITARY WASTEWATER LIFT STATION

JAMESTOWN NEW MEXICO 87347

LIFT STATION PLAN, SECTIONS AND NOTES

HRC JOB NO. 20070465	SCALE AS NOTED
DATE JANUARY 2008	SHEET NO. S-1

GW - 32

Maps