

FOUNDATION NOTES

- FOUNDATION DESIGN AND SUBSURFACE INFORMATION IS BASED ON SOILS INVESTIGATION G03908 DATED DECEMBER 17, 2003, PREPARED BY ALPHA TESTING, INC., DALLAS TEXAS. ALLOWABLE SOIL BEARING PRESSURE USED FOR SLABS AND FOOTINGS IS 2.0 KSF. HEADWALL AND JUNCTION BOX ARE SUBJECT TO 3" VERTICAL MOVEMENT IN IN-SITU SOILS.

GENERAL NOTES

- PRINCIPAL OPENINGS ARE SHOWN ON THE DRAWINGS. THE CONTRACTOR SHALL PROVIDE FOR ALL OPENINGS WHETHER SHOWN ON THE STRUCTURAL DRAWINGS OR FROM OPENINGS SHOWN ON THE STRUCTURAL DRAWINGS SHALL BE BROUGHT TO THE ATTENTION OF THE STRUCTURAL ENGINEER FOR APPROVAL PRIOR TO FABRICATION OR INSTALLATION OF STRUCTURAL MEMBERS.
- JUNCTION BOX AND HEADWALL HAVE BEEN DESIGNED TO MATE WITH PRECAST BOX CULVERTS AT THE SPECIFIED SKEW ANGLE IN ACCORDANCE WITH TEXAS DEPARTMENT OF TRANSPORTATION SPECIFICATION SECTIONS SCP-MD, SCP-E, AND SCP-B. SHOULD THE CONTRACTOR OPT TO CONSTRUCT CAST-IN-PLACE CONCRETE BOX CULVERTS, TEXAS DEPARTMENT OF TRANSPORTATION SPECIFICATION SECTIONS MC-MD, MC-E-16, AND MC-B-13 SHALL BE ADHERED TO, AND THE ENGINEER OF RECORD SHALL BE NOTIFIED IN WRITING PRIOR TO CONSTRUCTION.
- CONCRETE WING WALLS ASSOCIATED WITH BOX CULVERT HEADWALL HAVE BEEN DESIGNED IN ACCORDANCE WITH TEXAS DEPARTMENT OF TRANSPORTATION SPECIFICATION SECTIONS FW AND FW-S.

CONCRETE NOTES

- ALL CONCRETE SHALL BE LABORATORY DESIGNED AND CONTROLLED AND SHALL MEET THE REQUIREMENTS OF "BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE" (ACI 318-99). CONCRETE SHALL ALSO CONFORM TO THE FOLLOWING REQUIREMENTS:

COMPRESSIVE STRENGTH @ 28 DAYS	TYPE AGGREGATE + AIR ENTRAINMENT	USAGE	WATER/CEMENT RATIO (MAX.)
4000	HARD ROCK	SLABS, WALLS AND FOOTINGS.	.44

- IF CONCRETE IS TO BE PUMPED, A SEPARATE MIX DESIGN SHALL BE SUBMITTED. ALL CONCRETE TO BE PUMPED SHALL BE PLASTICIZED USING A HIGH RANGE WATER REDUCING ADMIXTURE. REFERENCE PROJECT SPECIFICATIONS.
- CONCRETE PROTECTION FOR REINFORCEMENT SHALL BE AS NOTED BELOW. REFERENCE ACI 318 SECTION 7.7 FOR CONDITIONS NOT NOTED.

PILASTERS	BACKFILLED SIDES
ALL CONCRETE PLACED AGAINST SOIL	3" NON-BACKFILLED SIDES
SLABS-ON-GRADE	1" TOP
BASEMENT WALLS	2" BACKFILLED SIDES
NON PRESTRESSED CONCRETE:	1" NON-BACKFILLED SIDES
CONCRETE EXPOSED TO SOIL OR WEATHER	2" (#6 OR LARGER BARS)
	1 1/2" (#5 BAR OR SMALLER)
CONCRETE NOT EXPOSED TO SOIL OR WEATHER:	
BEAMS AND COLUMNS	1 1/2" (REF. DETAILS)
ELEVATED STRUCTURAL SLABS	1"

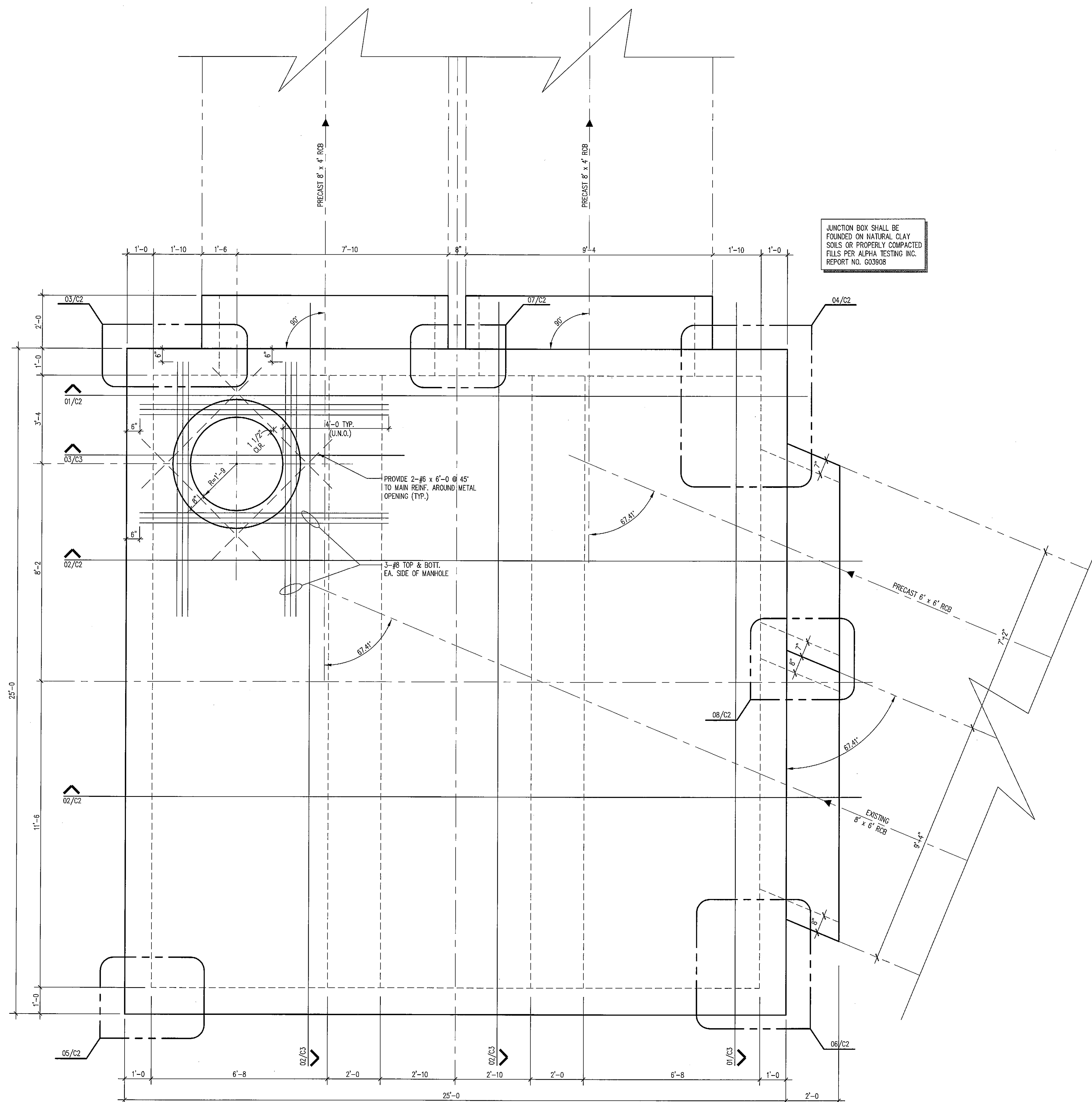
- PROVIDE 2#4 CONTINUOUS KEYWAYS AT ALL CONSTRUCTION JOINTS UNLESS NOTED OTHERWISE.
- PROVIDE 3/4" CHAMFER AT ALL CAST IN PLACE COLUMN AND WALL CORNERS.

REINFORCING STEEL NOTES

- ALL REINFORCING SHALL BE NEW BILLET STEEL, ASTM A615-GRADE 60. REINFORCING SHALL BE DETAILED AND FABRICATED IN ACCORDANCE WITH THE ACI 315 AND ACI 318-99. ALL REINFORCING TO BE HOT DIPPED GALVANIZED.
- HORIZONTAL WALL AND BEAM REINFORCEMENT SHALL BE CONTINUOUS AND SHALL HAVE 90 DEGREE BENDS AND EXTENSIONS AT CORNERS AND INTERSECTIONS AS SHOWN ON THE DRAWINGS.

PRECAST CONCRETE NOTES

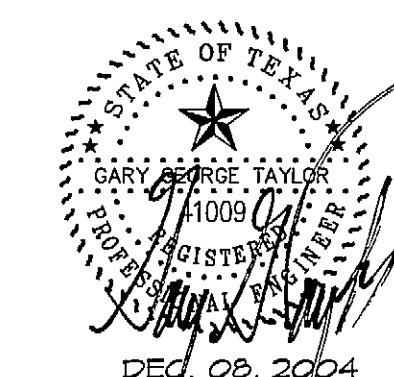
- CONNECTION DETAILS FOR PRECAST MEMBERS CONNECTED TO CAST IN PLACE CONCRETE SHALL BE FURNISHED BY THE PRECAST MANUFACTURER.
- PROVIDE 3/4" CHAMFER AT ALL EXPOSED CONCRETE EDGES.
- ALL PRECAST MEMBERS SHALL BE DESIGNED BY THE MANUFACTURER PER TEXAS DEPARTMENT OF TRANSPORTATION STANDARDS FOR ALL DEAD, LIVE, GEOSTATIC, HYDROSTATIC AND HYDRODYNAMIC LOADS. ALL PRECAST CONNECTIONS SHALL BE FURNISHED TO THE ENGINEER FOR REVIEW.
- MANUFACTURER SHALL SUBMIT WRITTEN CLARIFICATION STATING THAT PRECAST MEMBERS HAVE BEEN DESIGNED IN ACCORDANCE WITH THE PUBLISHED TEXAS DEPARTMENT OF TRANSPORTATION STANDARDS AND THE LOADS STATED ON THE DRAWINGS AND IN THE SPECIFICATIONS. SUCH CERTIFICATION SHALL BE SUBMITTED WITH THE SHOP DRAWINGS AND SIGNED AND SEALED BY A PROFESSIONAL ENGINEER LICENSED IN THE STATE OF TEXAS.



JUNCTION BOX "A" PLAN VIEW

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

© Copyright 2004 Brockette/Davis/Drake, Inc. All Rights Reserved.
 This drawing is the property of Brockette/Davis/Drake, Inc.
 and its use without the written authorization of Brockette/Davis/Drake, Inc. is prohibited.



The seal appearing on this document was authorized by Gary George Taylor, P.E. 41009 on December 08, 2004. Alteration of a sealed document without proper notification to the responsible engineer is an offense under the Texas Engineering Act.

JUNCTION BOX PLAN
LAKEFRONT TRAIL STORM SEWER
DRAINAGE IMPROVEMENTS
ROCKWALL, TEXAS

BROCKETTE · DAVIS · DRAKE , inc.
consulting engineers

Civil & Structural Engineering · Surveying
 4144 North Central Expressway, Suite 1100 Dallas, Texas 75204
 (214)824-3647, fax (214) 824-7064

DESIGN	DRAWN	DATE	SCALE	NOTES	FILE	NO.
ALM	KDT	11/2004		BDD	C03360	C1

C1-DETAIL-FW