



**CORPORATE CROSSING**  
(VARIABLE WIDTH RIGHT)

0 10 20 40 60  
GRAPHIC SCALE IN FEET

**LEGEND**

BL	BOLLARD	TELE	TELEPHONE BOX
EM	ELECTRIC METER	FLOOD	FLOOD LIGHT
PP	POWER POLE	FL	FLAG POLE
LS	LIGHT STANDARD	TS	TRAFFIC SIGN
WM	WATER METER	PL	PROPERTY LINE
WV	WATER VALVE	X	FENCE
ICV	IRRIGATION CONTROL VALVE	OHL	OVERHEAD UTILITY LINE
FH	FIRE HYDRANT	E	UNDERGROUND ELECTRIC LINE
CO	CLEANOUT	T	UNDERGROUND TELEPHONE LINE
MH	MANHOLE	C	UNDERGROUND CABLE LINE
TSC	TRAFFIC SIGNAL CONTROL	6"W	UNDERGROUND WATER LINE
TSP	TRAFFIC SIGNAL POLE	6"SS	UNDERGROUND SANITARY SEWER LINE

- WATER & SANITARY SEWER GENERAL NOTES**
- ALL CONCRETE SHALL BE CLASS "A" (3000 PSI, 5.5 SACK MIX), UNLESS OTHERWISE NOTED.
  - ALL WATER MAINS SHALL BE PVC C900, DR 14, CLASS 235. FIRE PROTECTION SERVICES SHALL BE PVC C900, DR 14, CLASS 305 AND INSTALLED IN ACCORDANCE WITH THE DESIGN AND SPECIFICATIONS OF THE FIRE PROTECTION PLANS TO BE PREPARED BY A LICENSED FIRE PROTECTION CONTRACTOR.
  - WATER AND SANITARY SEWER SERVICES SHALL MEET PLUMBING CODE REQUIREMENTS.
  - ALL WATER MAINS SHALL HAVE A MINIMUM COVER OF 48 INCHES BELOW IMPROVED FINISHED GRADE, UNLESS OTHERWISE NOTED.
  - WHEN WATER MAINS AND SANITARY SEWERS ARE INSTALLED, THEY SHALL BE INSTALLED NO CLOSER TO EACH OTHER THAN NINE FEET IN ALL DIRECTIONS AND PARALLEL LINES MUST BE INSTALLED IN SEPARATE TRENCHES. WHERE THE NINE FOOT SEPARATION DISTANCE CANNOT BE ACHIEVED, THE FOLLOWING GUIDELINES SHALL APPLY:
    - WHERE A SANITARY SEWER PARALLELS A WATERLINE, THE SEWER SHALL BE CONSTRUCTED OF CAST IRON, DUCTILE IRON, OR PVC MEETING ASTM SPECIFICATIONS WITH A PRESSURE RATING OF 150 PSI FOR BOTH THE PIPE AND JOINTS. THE VERTICAL SEPARATION SHALL BE A MINIMUM OF TWO FEET BETWEEN OUTSIDE DIAMETERS AND THE HORIZONTAL SEPARATION SHALL BE A MINIMUM OF FOUR FEET BETWEEN OUTSIDE DIAMETERS. THE SEWER SHALL BE LOCATED BELOW THE WATERLINE.
    - WHERE A SANITARY SEWER CROSSES A WATERLINE AND THE SEWER IS CONSTRUCTED OF CAST IRON, DUCTILE IRON, OR PVC WITH A MINIMUM PRESSURE RATING OF 150 PSI, AN ABSOLUTE MINIMUM DISTANCE OF 12 INCHES BETWEEN OUTSIDE DIAMETERS SHALL BE MAINTAINED AND WATERLINE SHALL BE ENCASED.
    - WHERE A SANITARY SEWER CROSSES UNDER A WATERLINE AND THE SEWER IS CONSTRUCTED OF ABS TRUSS PIPE, SIMILAR SEMI-RIGID PLASTIC COMPOSITE PIPE, CLAY PIPE, OR CONCRETE PIPE WITH GASKETED JOINTS, A MINIMUM TWO FOOT SEPARATION DISTANCE SHALL BE MAINTAINED. IN ADDITION, THE SEWER SHALL BE LOCATED BELOW THE WATERLINE WHERE POSSIBLE AND ONE LENGTH OF THE SEWER PIPE MUST BE CENTERED ON THE WATERLINE.
    - WHERE A SANITARY SEWER CROSSES OVER A WATERLINE ALL PORTIONS OF THE SEWER WITHIN NINE FEET OF THE WATERLINE SHALL BE CONSTRUCTED OF CAST IRON, DUCTILE IRON, OR PVC PIPE WITH A PRESSURE RATING OF AT LEAST 150 PSI USING APPROPRIATE ADAPTERS. IN LIEU OF THIS PROCEDURE, THE NEW CONVEYANCE MAY BE ENCASED IN A JOINT OF 150 PSI PRESSURE CLASS PIPE AT LEAST 18 FEET LONG AND TWO NOMINAL SIZES LARGER THAN THE NEW CONVEYANCE. THE SPACE AROUND THE CARRIER PIPE SHALL BE SUPPORTED AT FIVE FEET INTERVALS WITH SPACERS OR BE FILLED TO THE SPRING LINE WITH WASHED SAND. THE ENCASEMENT PIPE SHOULD BE CENTERED ON THE CROSSING AND BOTH ENDS SEALED WITH CEMENT GROUT OR MANUFACTURED SEAL.
    - THE SANITARY SEWER NEED NOT BE DISTURBED WHERE A NEW WATERLINE IS TO BE INSTALLED PARALLEL TO AN EXISTING SEWER THAT SHOWS NO EVIDENCE OF LEAKAGE AND THE WATERLINE IS INSTALLED ABOVE THE SEWER A MINIMUM OF TWO FEET VERTICALLY AND FOUR FEET HORIZONTALLY.
    - THE SANITARY SEWER NEED NOT BE DISTURBED WHERE A NEW WATERLINE IS TO CROSS OVER BY TWO FEET OR MORE, AN EXISTING SEWER SHOWING NO EVIDENCE OF LEAKAGE. SHOULD EXCAVATION FOR THE WATERLINE PRODUCE EVIDENCE THAT THE SEWER IS LEAKING, THE SEWER MUST BE REPAIRED OR REPLACED AS DESCRIBED IN SUBPARAGRAPH (6.C) OR (6.D).
  - CONTRACTOR TO VERIFY ALL EXISTING SEWER FLOW LINES BEFORE BEGINNING CONSTRUCTION, AND NOTIFY ENGINEER OF ANY DISCREPANCIES.
  - CONTRACTOR SHALL TIE A ONE INCH WIDE PIECE OF RED PLASTIC FLAGGING TO THE END OF SEWER SERVICE AND SHALL LEAVE A MINIMUM OF 36 INCHES OF FLAGGING EXPOSED AFTER BACKFILL. AFTER CURB AND PAVING IS COMPLETED, CONTRACTOR SHALL MARK THE LOCATION OF THE SEWER SERVICE ON THE CURB OR ALLEY IN ACCORDANCE WITH THE STANDARD CITY SPECIFICATIONS.
  - ALL SANITARY SEWER LINES SHALL BE TESTED IN ACCORDANCE WITH THE STANDARD CITY SPECIFICATIONS, AND PLUMBING CODE REQUIREMENTS.
  - THE UTILITY CONTRACTOR SHALL INSTALL THE WATER SERVICES TO A POINT TWO FEET BACK OF THE CURB LINE AT A DEPTH OF 12 INCHES. THE METER BOX SHALL BE FURNISHED AND INSTALLED BY THE CONTRACTOR AFTER THE PAVING CONTRACTOR HAS COMPLETED THE FINE GRADING BEHIND THE BACK OF THE CURB. EACH SERVICE LOCATION SHALL BE MARKED ON THE CURB WITH A BLUE LETTER "W" BY THE UTILITY CONTRACTOR AND TIED TO PROPERTY CORNERS ON THE "RECORD DRAWING."
  - ALL METER BOXES SHALL BE LOCATED IN NON-TRAFFIC AREAS.
  - TRENCH BACKFILL MATERIAL SHALL CONFORM TO THE REQUIREMENTS OF NCTCOG ITEM 504.2 AND SHALL BE MECHANICALLY COMPACTED IN 6-INCH LIFTS TO THE TOP OF SUBGRADE TO A MINIMUM OF 95% STANDARD PROCTOR DENSITY IN ACCORDANCE WITH NCTCOG ITEM 504.5 UNLESS OTHERWISE SHOWN ON THESE PLANS OR STATED IN THE STANDARD CITY SPECIFICATIONS.
  - EMBEDMENT SHALL CONFORM TO THE REQUIREMENTS OF NCTCOG (3RD EDITION) UNLESS OTHERWISE SHOWN ON THESE PLANS OR STATED IN THE STANDARD CITY SPECIFICATIONS.
  - VALVE BOXES SHALL BE FURNISHED AND SET ON EACH GATE VALVE. AFTER THE FINAL CLEAN-UP AND ALIGNMENT HAS BEEN COMPLETED, THE UTILITY CONTRACTOR SHALL POUR A 24"x24"x6" CONCRETE BLOCK AROUND ALL VALVE BOX TOPS LEVEL WITH THE FINISHED GRADE.
  - CONTRACTOR SHALL RECONNECT ALL EXISTING SERVICES AND MAINTAIN EXISTING SERVICES THROUGHOUT CONSTRUCTION.
  - IF REQUIRED DUE TO CONSTRUCTION, POWER POLES TO BE BRACED OR RELOCATED AT CONTRACTOR'S EXPENSE.

INSTALL:  
1-2" WATER SERVICE (IRRIGATION)  
1-2" WATER METER W/BOX  
CONNECT TO EXISTING 8" WATER  
1-TESTABLE BACKFLOW DEVICE  
W/ DOUBLE CHECK

INSTALL 2" WATER SERVICE UNDER  
CAPITAL BOULEVARD BY BORE  
INSTALL:  
56 FL 6" STEEL ENCASEMENT PIPE  
(MIN 3/8" WALL THICKNESS)  
EXTEND PAST CURB MIN. 5'

INSTALL:  
1-2" WATER SERVICE (IRRIGATION)  
1-2" WATER METER W/BOX  
CONNECT TO EXISTING 8" WATER  
1-TESTABLE BACKFLOW DEVICE  
W/ DOUBLE CHECK

PROPOSED MONUMENT SIGN  
W/ FLAG POLES & LIGHTS  
SEE LANDSCAPE PLANS

**CAPITAL BOULEVARD**

**ISSUED FOR PRELIMINARY PRICING PURPOSES ONLY**  
(SUBJECT TO REVISION PRIOR TO CONSTRUCTION)

THESE DOCUMENTS HAVE BEEN PREPARED BY THE ENGINEER WITH THE INTENT OF COMPLYING WITH ALL CITY STANDARD REQUIREMENTS. THESE DOCUMENTS HAVE NOT BEEN APPROVED AND RELEASED FOR CONSTRUCTION BY THE CITY AS OF THIS DATE AND, THEREFORE, REVISIONS MAY BE REQUIRED PRIOR TO CONSTRUCTION. BY ANY USE OF THESE DOCUMENTS, THE USER AFFIRMS THEIR UNDERSTANDING OF THE PRELIMINARY STATUS OF THE PLANS AND THE POTENTIAL FOR REVISION PRIOR TO ANY CONSTRUCTION.

NO.	DATE	REVISION
09/18/2017	RECORD DRAWINGS	

**Pacheco Koch**  
7557 RAMBLER ROAD, SUITE 1400  
DALLAS, TX 75231 972.235.3031  
TX REG. ENGINEERING FIRM F-14439  
TX REG. SURVEYING FIRM LS-10193805

**WATER PLAN**  
**ROCKWALL REGIONAL DETENTION POND**  
**LOT 1, BLOCK B**  
**ROCKWALL TECHNOLOGY PARK PHASE IV**  
**CITY OF ROCKWALL, ROCKWALL COUNTY, TEXAS**

DESIGN	DRAWN	DATE	SCALE	NOTES	FILE	NO.
CTL	RHB	AUG 2016	1"=20'			<b>C5.1</b>

**RECORD DRAWING**

THE SIGNED AND SEALED CONSTRUCTION DOCUMENT HAS BEEN REVISED TO REFLECT CONSTRUCTION RECORDS MAINTAINED AND PROVIDED BY THE CONTRACTOR FOR THIS PROJECT. THE INFORMATION SHOWN ON THIS RECORD DRAWING, WHICH WAS PROVIDED BY THE CONTRACTOR, OR OTHERS NOT ASSOCIATED WITH THE DESIGN ENGINEER, CANNOT BE RELIED UPON FOR ACCURACY OR COMPLETENESS. PACHECO KOCH SHALL ASSUME NO LIABILITY FOR ANY CHANGES MADE DURING CONSTRUCTION THAT WERE NOT SPECIFICALLY APPROVED BY THE ENGINEER PRIOR TO CONSTRUCTION. THE SEALED CONSTRUCTION DRAWINGS ARE ON FILE AT THE OFFICES OF PACHECO KOCH.

ATTESTED BY: *[Signature]*  
SIGNATURE:  
ENGINEER OF RECORD: CHET LEUBERS, P.E.  
CONTRACTOR: R.A. RAMOS GENERAL CONTRACTORS, INC.  
DATE REVISED: 09/18/2017