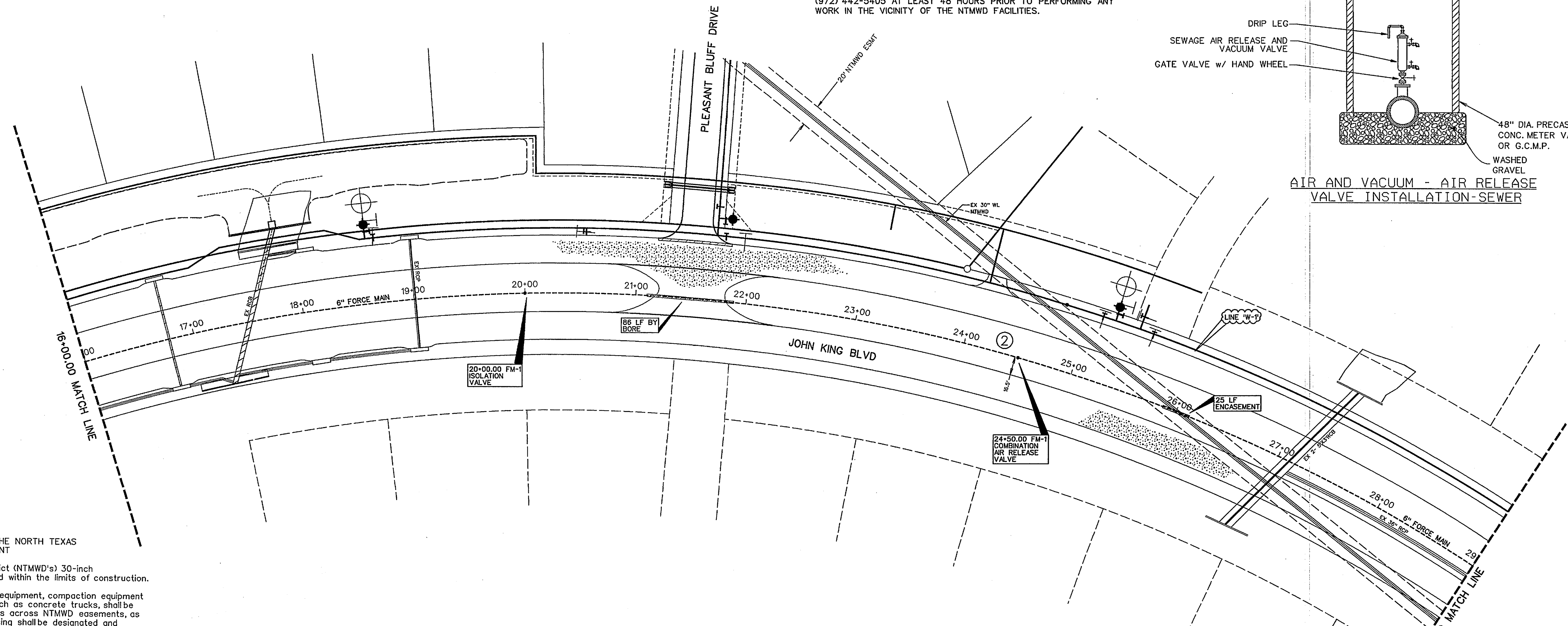
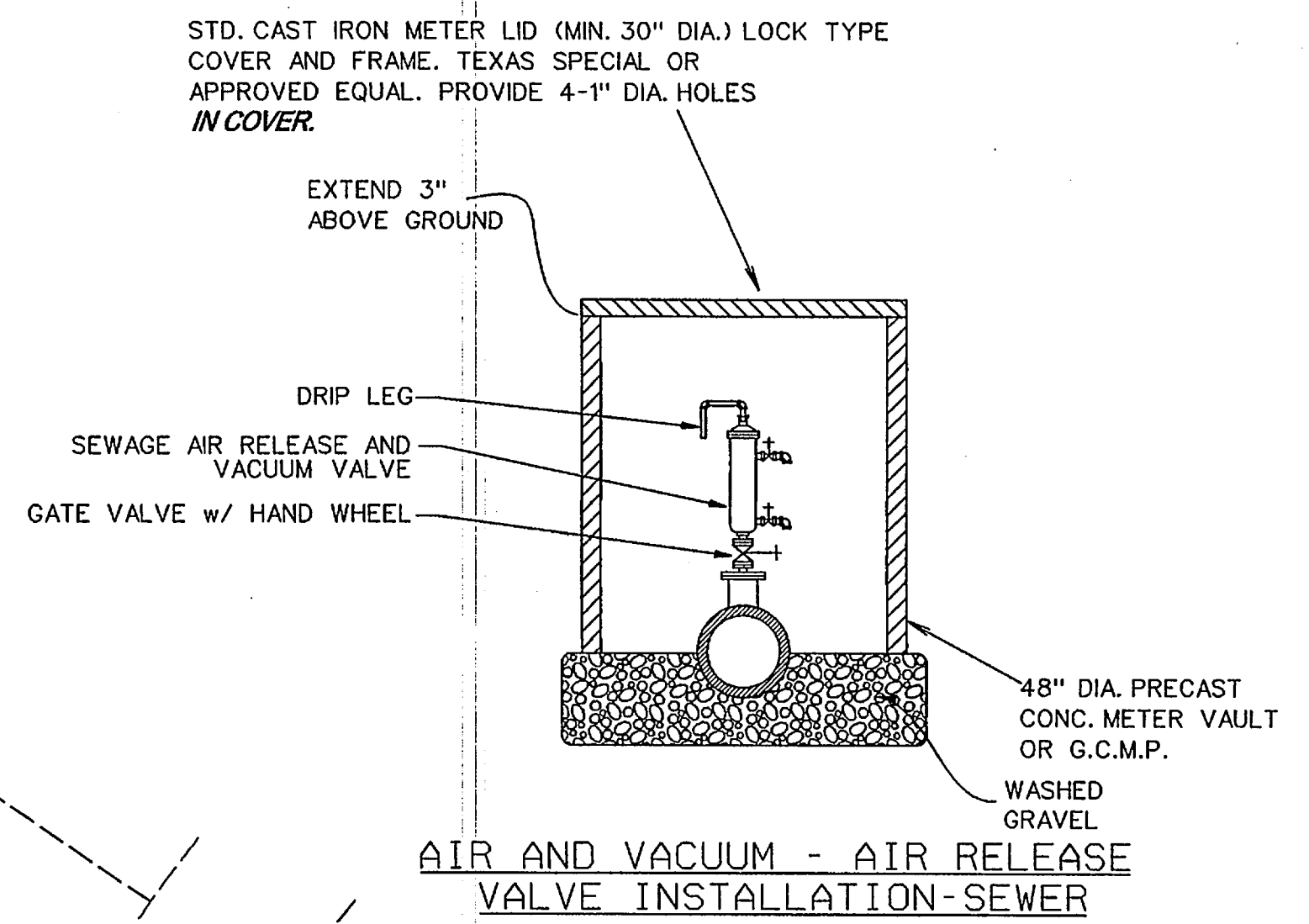


NOTE:  
THE CONTRACTOR SHALL CONTACT NTMWD ENGINEERING AT (972) 442-5405 AT LEAST 48 HOURS PRIOR TO PERFORMING ANY WORK IN THE VICINITY OF THE NTMWD FACILITIES.



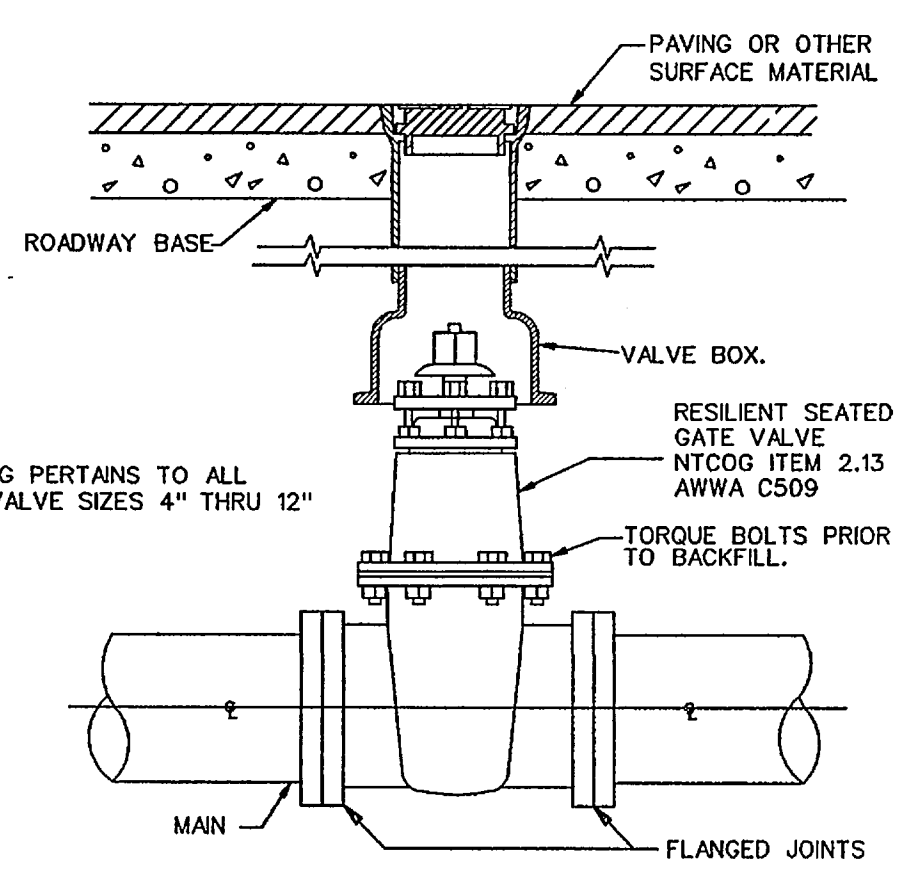
**NOTES FOR CONSTRUCTION WITH THE NORTH TEXAS MUNICIPAL WATER DISTRICT EASEMENT**

- A. North Texas Municipal Water District (NTMWD)'s 30-inch water transmission pipeline is located within the limits of construction.
- B. Operation of heavy earthmoving equipment, compaction equipment or heavy construction equipment, such as concrete trucks, shall be restricted to specific crossing points across NTMWD easements, as approved by the NTMWD. The crossing shall be designated and verified to provide a minimum of five-feet of cover.
- C. To assure that placing of significant loads over the NTMWD pipeline does not damage the existing pipeline, no materials shall be stockpiled on the NTMWD easement, without authorization from the NTMWD. If the contractor desires to use NTMWD's easement for stockpile of materials, contact NTMWD's Engineering Department at (972) 442-5405 so your plans for use of NTMWD's easement can be reviewed.
- D. A minimum of three feet separation between the bottom of the pavement and top of NTMWD pipeline is required. In addition, if separation between the bottom of the pavement and the top of the pipeline is less than 3.5 feet, a thickened pavement section is required.
- E. Crossing of the NTMWD easement with other utilities, such as TV cable, phone, gas and electric, shall be coordinated with the NTMWD to avoid damage to the NTMWD facilities.
- F. Outdoor lighting, landscaping, screening walls or other facilities shall not be installed in NTMWD easements without approval of the NTMWD.
- G. Unless otherwise shown or required a minimum of one-foot clearance shall be provided for all utilities crossing the NTMWD pipelines.
- H. The contractor shall contact NTMWD Engineering at (972) 442-5405 at least 48 hours prior to performing any work in the vicinity of the NTMWD facilities.
- I. For open cut where crossing under the NTMWD pipeline, within ten feet either side of centerline of pipeline, the trench width to be cut shall be limited to four-foot vertical walls, no sloping bank with the appropriate trench safety. The entire excavation within the limits noted above shall be backfilled with gravel to one-foot above top of NTMWD pipeline. One-foot minimum vertical clearance is required between NTMWD pipeline and proposed utilities.
- J. Limits of bore shall be a minimum of the NTMWD easement width centered on NTMWD's pipeline.
- K. The casing pipe shall terminate outside of NTMWD's easement.
- L. All proposed sanitary sewer crossings where installed above NTMWD's pipeline shall be comprised of a minimum 150-PSI pressure rated carrier pipe and casing pipe. Installation of this carrier pipe and casing pipe shall be installed across the entire NTMWD easement.
- M. Water and sewer lines crossing the NTMWD easement shall be installed in compliance with the Rules and Regulations for Public Water Systems Paragraph 290.44 (e), Location of Water Lines.

**CURVE TABLE**

CURVE NO.	DELTA	RADIUS	LENGTH	TANGENT
2.	56°17'37"	1495.00'	1468.85'	799.83'

- NOTES:**
- IN UNPAVED AREAS, INSTALL 2' x 2' x 4" CONCRETE VALVE PAD FLUSH WITH THE TOP OF VALVE BOX.
  - IF CONNECTING TO A METALLIC PIPE, FLANGE JOINT SHALL BE INSULATED. CONTRACTOR SHALL FURNISH AND INSTALL "INSULKET" FLANGE GASKETS, OR APPROVED EQUIVALENT, INSULATING SLEEVES AND TWO PLASTIC WASHERS FOR EACH BOLT AT EACH FLANGE AND VALVE CONNECTION.

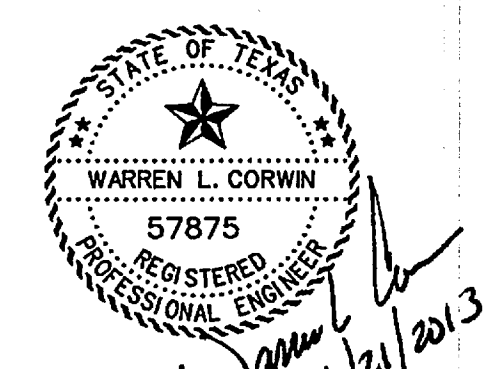


**ISOLATION GATE VALVE DETAIL**

NOTE:  
EXISTING UTILITIES SHOWN ARE A GRAPHICAL REPRESENTATION OF THE LOCATION BASED ON AS-BUILT DRAWINGS. ACTUAL LOCATION AND ELEVATION MAY BE DIFFERENT. CONTRACTOR MUST VERIFY ALL EXISTING UTILITIES FOR LOCATION AND ELEVATION PRIOR TO CONSTRUCTION.

NOTE:  
ALL FORCE MAIN TO BE AWWA C-900 PIPE DR14, COLORED GREEN.  
INSTALL GREEN SANITARY SEWER MARKER POSTS APPROX. EVERY 250 FEET ABOVE FORCE MAIN.  
CAUTION: LIGHT POLE CONDUIT IN MEDIAN OF JOHN KING BLVD. ANY DAMAGE SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE TO THE SATISFACTION OF THE CITY OF ROCKWALL.  
DETECTOR TAPE SHALL BE REQUIRED ALONG FORCE MAIN. SEE TCEQ 217.66

- LEGEND**
- FM- FORCE MAIN
  - TS- TRAFFIC SIGN
  - FOC-FIBER OPTIC CABLE MARKER
  - ICV- IRRIGATION CONTROL VALVE
  - LP- LIGHT POLE
  - WV- WATER VALVE
  - PP- POWER POLE
  - GW- GUY WIRE
  - ELEC-ELECTRIC MARKER
  - TEL- TELEPHONE MARKER
  - ATT- ATT MARKER OR BOX
  - SWB- TELEPHONE MARKER
  - WL- WATER LINE
  - RPC- REINFORCED CONCRETE PIPE
  - RCB- REINFORCED CONCRETE BOX



The seal appearing on this document was authorized by Warren L. Corwin, P.E. 57875, on June 21, 2013

**AS-BUILT APRIL 2014**  
INFORMATION PROVIDED BY CONTRACTORS  
(NOT FIELD VERIFIED)

<p><b>CORWIN ENGINEERING, INC.</b> 200 W. BELMONT, SUITE E ALLEN, TEXAS 75013 (972) 396-1200 TBPE FIRM #5951</p>			
<p>DEVELOPMENT PLANS FOR <b>BREEZY HILL FORCE MAIN ROCKWALL, TEXAS</b></p>			
<p><b>FORCE MAIN PLAN</b></p>			
DRAWN BY	DESIGNED BY	CHECKED BY	SHEET NO.
JOB NUMBER	DATE	SCALE:	2 OF 9
12003F	JANUARY 2013	1"=50'	