

LEGEND

- PROP. WATER LINE
- PROP. FIRE HYDRANT AND VALVE
- PROP. GATE VALVE
- ⊗ PROP. FLUSH VALVE
- EXIST. WATER LINE
- EXIST. FIRE HYDRANT AND VALVE
- PROP. SANITARY SEWER
- PROP. MANHOLE
- PROP. CLEANOUT
- EXIST. SANITARY SEWER
- EXIST. MANHOLE
- PROP. STORM SEWER
- PROP. CURB INLETS
- PROP. CONC. HEADWALL

NOTES FOR CONSTRUCTION WITH THE NORTH TEXAS MUNICIPAL WATER DISTRICT EASEMENT

A. North Texas Municipal Water District's (NTMWD's) 20-inch water 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 ensure 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 written approval of the NTMWD.

G. Unless otherwise shown or required a minimum of one-foot clearance shall be provided for 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. Franchised utilities are not permitted in NTMWD easements except for crossings. Water and storm sewer facilities are not permitted in NTMWD easements except for crossings. Sanitary sewer facilities are not permitted in NTMWD easements.

J. For all proposed utility crossings the proposed method of excavation shall be bored or open-cut with the following restrictions:

- 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.
- Limits of bore shall be a minimum of the NTMWD easement width centered on NTMWD's pipeline.
- The casing pipe shall terminate outside of NTMWD's easement.

SANITARY SEWER CURVE TABLE

CURVE NO.	DELTA	RADIUS	LENGTH	TANGENT
1.	0° 00' 00"	0.00'	0.00'	0.00'
2.	0° 00' 00"	0.00'	0.00'	0.00'
3.	13° 19' 29"	1075.00'	250.00'	125.57'
4.	02° 52' 03"	1075.00'	53.80'	26.90'
5.	16° 55' 26"	1075.00'	317.53'	159.93'
6.	26° 38' 57"	1075.00'	500.00'	254.61'
7.	21° 51' 25"	740.00'	282.29'	142.88'
8.	30° 58' 14"	740.00'	400.00'	205.02'
9.	06° 56' 14"	740.00'	89.60'	44.85'
10.	16° 52' 37"	490.00'	144.33'	72.69'
11.	12° 18' 02"	520.00'	111.64'	56.03'
12.	04° 34' 35"	520.00'	41.53'	20.78'
13.	07° 02' 28"	950.00'	116.74'	58.45'
14.	64° 36' 36"	280.00'	315.74'	177.04'
15.	76° 18' 39"	280.00'	372.92'	219.99'
16.	27° 54' 52"	595.00'	289.89'	147.88'
17.	13° 00' 45"	905.00'	205.54'	103.21'
18.	11° 58' 42"	905.00'	189.20'	94.95'
19.	25° 17' 17"	270.00'	119.17'	60.57'
20.	22° 32' 33"	905.00'	356.07'	180.37'
21.	18° 48' 36"	905.00'	297.11'	149.90'
22.	03° 58' 54"	905.00'	62.89'	31.46'
23.	21° 55' 29"	900.00'	344.39'	174.33'
24.	14° 17' 32"	900.00'	224.50'	112.84'
25.	0° 00' 00"	0.00'	0.00'	0.00'
26.	0° 00' 00"	0.00'	0.00'	0.00'
27.	23° 29' 24"	880.00'	360.78'	182.96'
28.	02° 15' 26"	5575.00'	219.64'	109.83'
29.	05° 08' 19"	5575.00'	500.00'	250.17'
30.	02° 50' 27"	5575.00'	276.42'	138.24'
31.	20° 26' 52"	250.00'	89.22'	45.09'
32.	27° 04' 07"	250.00'	118.11'	60.18'
33.	06° 33' 13"	795.00'	90.93'	45.52'
34.	27° 23' 14"	795.00'	380.03'	193.72'
35.	15° 48' 38"	305.00'	84.16'	42.35'
36.	17° 55' 15"	445.00'	139.19'	70.17'
37.	09° 43' 13"	445.00'	75.50'	37.84'
38.	39° 08' 33"	475.00'	324.50'	168.87'
39.	28° 56' 58"	475.00'	240.00'	122.62'
40.	24° 05' 48"	595.00'	250.24'	127.00'

AS-BUILT DECEMBER 2008
 TO THE BEST OF OUR KNOWLEDGE CORWIN ENGINEERING, INC. HEREBY STATES THAT THIS PLAN IS AS-BUILT. THIS INFORMATION PROVIDED IS BASED ON SURVEYING AT THE SITE AND INFORMATION PROVIDED BY THE CONTRACTORS.



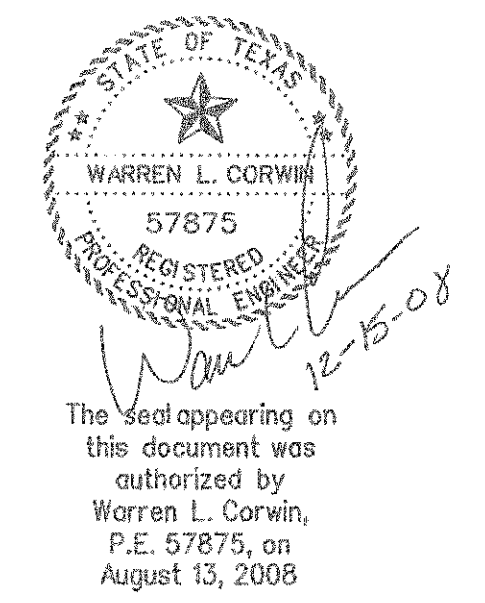
NOTE:

ALL WATER LINES TO BE CLASS 200 PIPE SDR 14.

ALL SANITARY SEWER PIPE TO BE SDR 35 FOR 5'-10" DEEP AND SDR 26 FOR 10' AND GREATER.

INSTALL BLUE "EMS" DISK ON WATER LINE AT EVERY CHANGE IN DIRECTION, VALVE, AND SERVICE.

INSTALL GREEN "EMS" DISK ON SANITARY SEWER LINE AT EVERY CHANGE IN DIRECTION, MANHOLE, CLEANOUT, AND SERVICE.



1.	REVISED WATERLINE FROM 8" TO 12"	CMF	9-09-08
NO.	REVISIONS	BY	DATE
 CORWIN ENGINEERING, INC. 200 W. BELMONT, SUITE E ALLEN, TEXAS 75013 (972) 396-1200			
CONSTRUCTION PLANS FOR STONE CREEK PHASE I ROCKWALL, TEXAS			
WATER & SANITARY SEWER PLAN			
DRAWN BY	DESIGNED BY	CHECKED BY	SHEET NO.
CMF	WLC	WLC	
JOB NUMBER	DATE	SCALE:	
08033	JANUARY 2008	1"=100'	33 of 62