

WARNING!!!
EXIST. UNDERGROUND WATER LINE CONTRACTOR
TO VERIFY LOCATION AND DEPTH OF
EXISTING UTILITIES PRIOR TO CONSTRUCTION.

WARNING!!!
EXIST. UNDERGROUND ELECTRIC, TELEPHONE
& WATER. CONTRACTOR TO VERIFY LOCATION AND
DEPTH OF EXISTING UTILITIES PRIOR TO CONSTRUCTION.

REMOVE EXIST. HEADWALL, EXTEND
EXIST. PIPE 12 FT WEST, CONT. TO
MATCH SIZE & GRADE OF EX.
CONSTRUCT TYPE "A" HDWL.
WITH CONC. RIP-RAP. INSTALL 50 FT
GUARD RAIL AS PER TxDOT STANDARD

CULVERT #1 (SCP-6)
(ASTM C-850)

INSTALL 80 LF OF GUARD RAIL
AS PER TxDOT STANDARDS

STA. 15+41.92 (31.67' LT.)
S.H. 1141=
STA. 0+92.00 CULVERT "1"
CONST. SAFETY END TREATMENT TYPE "1"
TxDOT SETB-PD W/20' CONC. RIP-RAP
FOR SCP-6 BOX CULVERT
FL= 495.00

NOTE:
ROCK BERM TO BE INSTALLED
AS PER NTOOG DETAILS

NTMWD NOTE-1
FRANCHISED UTILITIES ARE NOT PERMITTED IN
NTMWD EASEMENT EXCEPT FOR CROSSINGS.

STA. 25+21.30 (32.47' LT.)
S.H. 1141=
STA. 0+84.00 CULVERT "2"
CONST. SAFETY END TREATMENT TYPE "1"
TxDOT SETB-PD W/ 10' CONC. RIP-RAP
FOR 2 SCP-4 BOX CULVERT
FL= 525.50

INSTALL 100 LF OF GUARD RAIL
AS PER TxDOT STANDARDS

CULVERT #2 (2-SCP-4)
(ASTM C-850)

INSTALL 88 LF OF GUARD RAIL
AS PER TxDOT STANDARDS

STA. 0+31.77 (19.55' RT.)
FUTURE 205 BYPASS=
STA. 2+32.00 CULVERT "2"
CONST. SAFETY END TREATMENT TYPE "1"
TxDOT SETB-PD W/10' CONC. RIP-RAP
FOR 2 SCP-4 BOX CULVERT
FL= 526.33

A4
8.93

LEGEND

- 730 - EXIST. CONTOURS
- 724 - PROP. CONTOURS
- S.S. - SANITARY SEWER
- Q₁₀₀ - 100-YR FLOW
- TC - TOP OF CURB
- FL - FLOW LINE
- EW - END OF WALL
- 89°0 - EXIST. SPOT ELEVATION
- - FLOW ARROW
- - - - DRAINAGE BOUNDARY
- A - AREA DESIGNATION
- D.45 - AREA IN ACRES

NTMWD NOTES-2

- A. NORTH TEXAS MUNICIPAL WATER DISTRICT (NTMWD) 30-INCH WATER TRANSMISSION PIPELINE IS LOCATED WITHIN LIMITS OF CONSTRUCTION.
- B. OPERATION OF HEAVY EARTH MOVING 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 CROSSINGS 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 BOTTOM OF THE EASEMENT, WITHOUT AUTHORIZATION FROM THE NTMWD. IF THE CONTRACTOR DESIRES TO USE THE NTMWD'S EASEMENT FOR STOCKPILE OF MATERIALS, CONTACT NTMWD ENGINEERING 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 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."

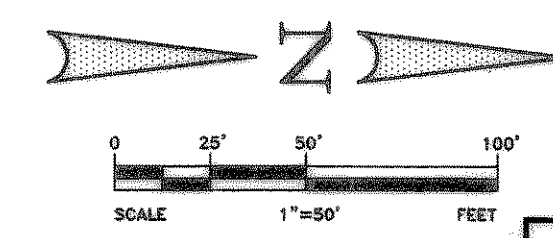
NTMWD NOTE-3

EXCAVATION ADJACENT TO NTMWD PIPELINE AND APPURTENANCES TO INSTALL THE PROPOSED IMPROVEMENTS SHALL BE PERFORMED SO THAT THE PIPELINE OR APPURTENANCES ARE NOT DISPLACED OR DAMAGED. ANY DAMAGE TO THE PIPELINE OR APPURTENANCES SHALL BE REPAIRED TO THE SATISFACTION OF THE NTMWD. FURTHER, ANY COST FOR REPAIR OF DAMAGE TO THE PIPELINE THE RESPONSIBILITY OF THE DEVELOPER.

NTMWD NOTE-4

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.

100 YR FLOW					
AREA DESIGNATION	AREA (ACRES)	C	T _c (MIN)	I ₁₀₀ (IN/HR)	Q ₁₀₀ (CFS)
B	5.72	0.50	10	9.80	28.03



RECORD DRAWING
RECORD INFORMATION PROVIDED BY
PRECISION MANAGEMENT, FORTNEY, TEXAS &
RODMAN COMPANIES, FRISCO, TEXAS

BENCHMARK:
"X" CHISELED IN @ OF ALLEY EAST OF MORNINGSTAR
DRIVE WITHIN 3RD LOT NORTH OF MIDNIGHT PASS.
ELEV. 513.26

BENCHMARK:
PK NAIL IN @ OF CARUTH LANE & ALLEY INTER-
SECTION 150'± EAST OF MORNINGSTAR DRIVE.
ELEV. 491.66

NO.	DATE	REVISION	APPROVE		
<p>M.B. JONES SURVEY, ABSTRACT NO. 122 CITY OF ROCKWALL, ROCKWALL COUNTY, TEXAS</p> <p>LUMBERMEN'S INVESTMENT CORPORATION 5495 BELLEVUE ROAD #225 DALLAS, TEXAS 75240</p>					
<p>DRAINAGE AREA MAP & CALCULATIONS (PHASE 6 & PHASE 6A) CULVERT '1' & CULVERT '2' PLAN</p>					
<p>THESE CONSTRUCTION PLANS WERE PREPARED BY M.D. NAIM UDDIN KHAN, REGISTERED PROFESSIONAL ENGINEER NO. 87778</p> <p>THE SEAL APPEARING ON THIS DOCUMENT WAS AUTHORIZED BY M.D. NAIM UDDIN KHAN, # 87778</p> <p>Scale : 1"=50' Date : 02/27/03 Designed By : MS Drawn By : MS Checked By : NK File : 146546ANCF2.dwg\Draw : Project No. : 14654.01</p>					
<p>SHEET 32 OF 57</p>					

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