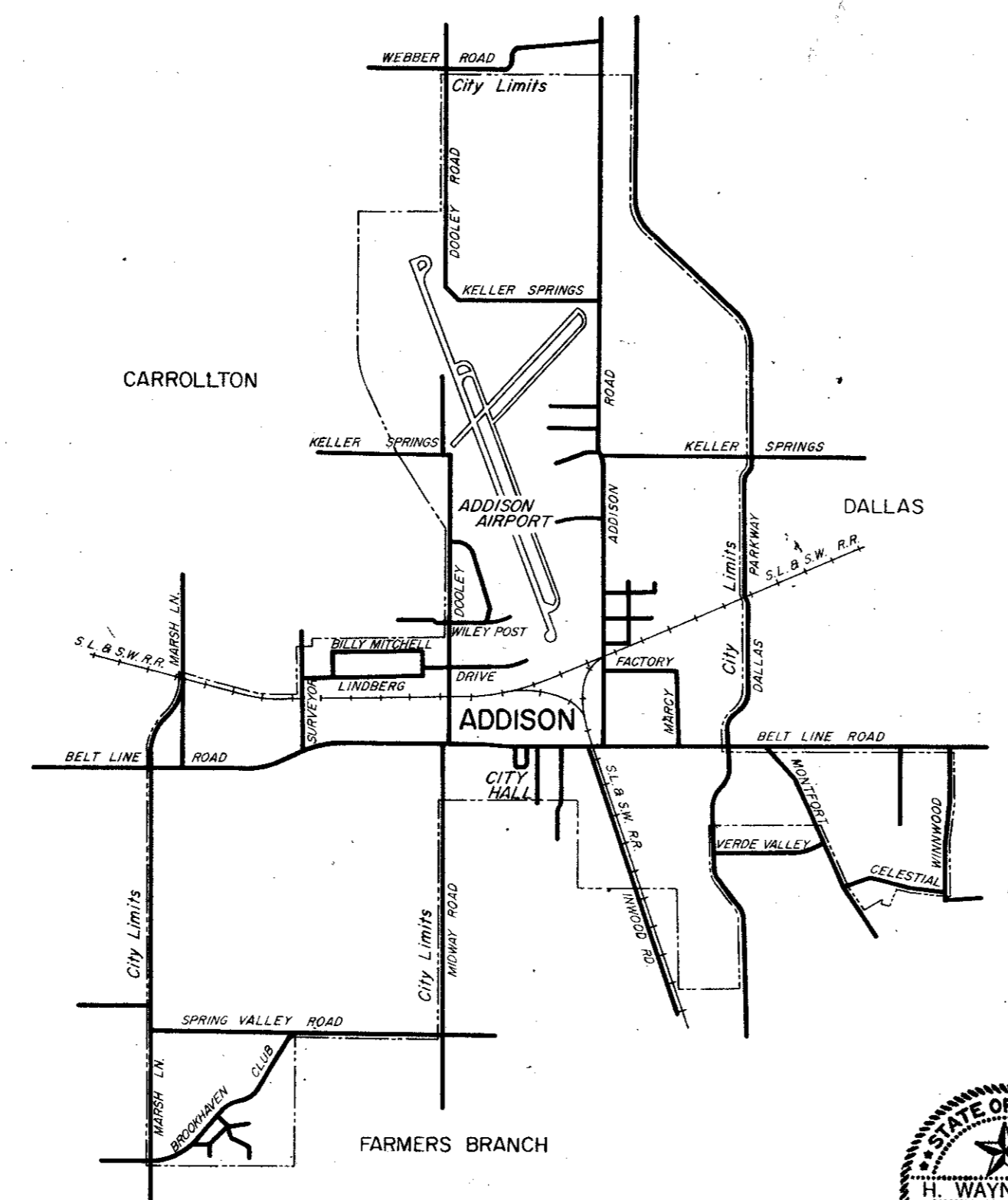


CITY OF ADDISON DALLAS COUNTY, TEXAS

CONSTRUCTION PLANS FOR: WATER PUMP STATION AND WATER MAINS



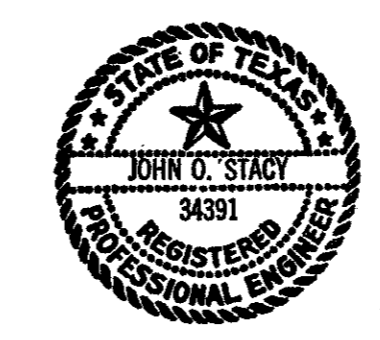
JERRY J. REDDING - MAYOR

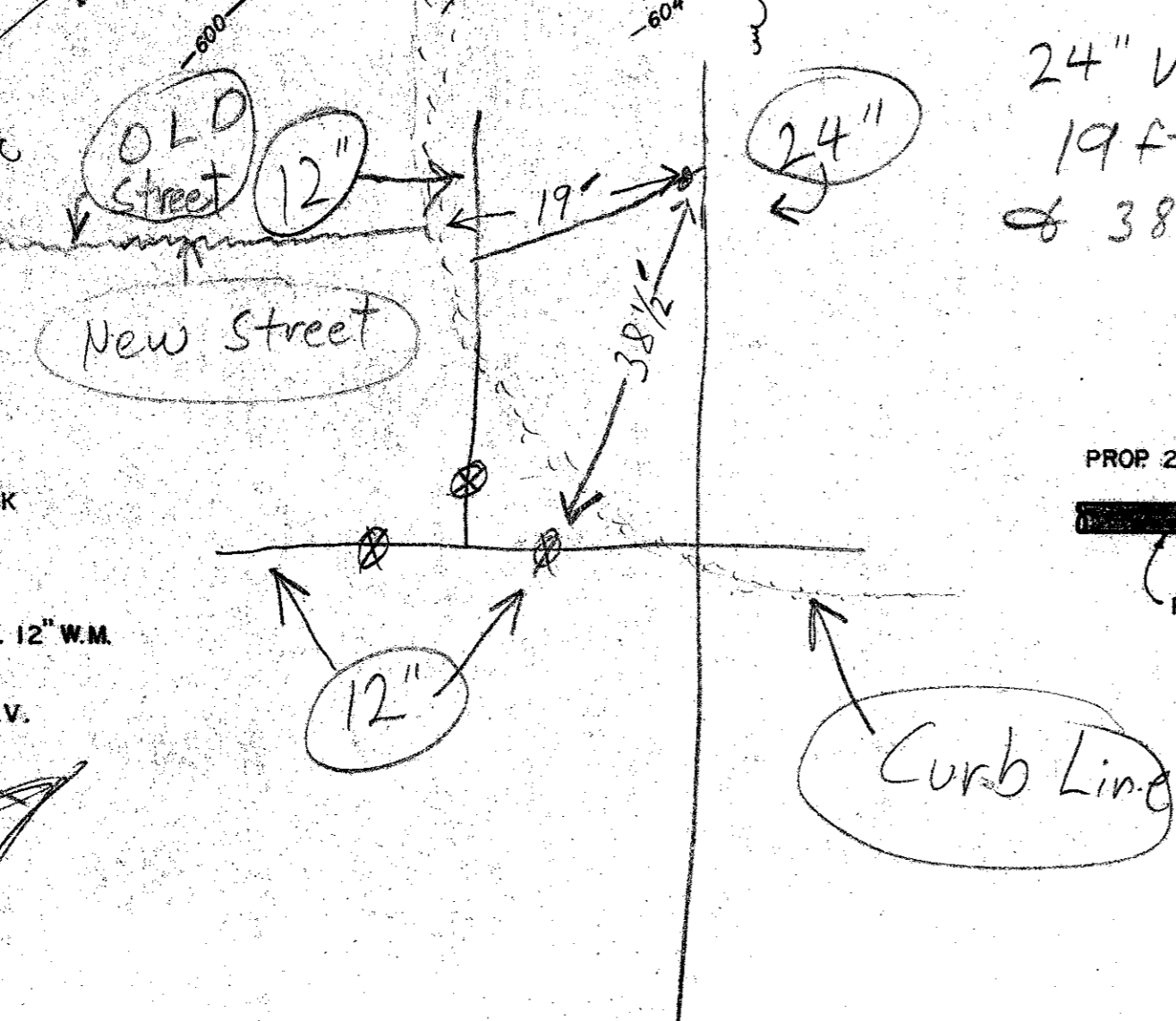
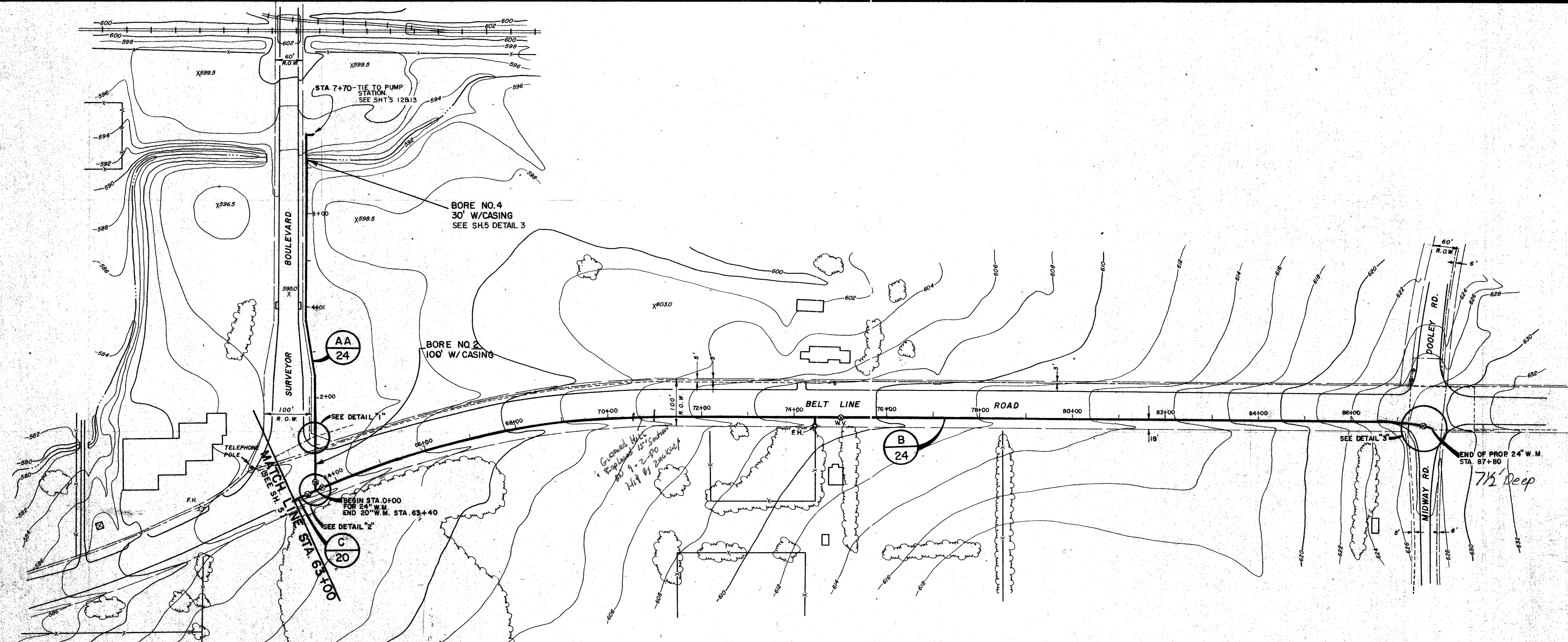
COUNCILMEN:

- JOHN B. ALLEN**
- RICHARD RODER**
- WILLIAM F. SELLMAYER**
- A. E. MARCY**
- TERRY ROBERTS**

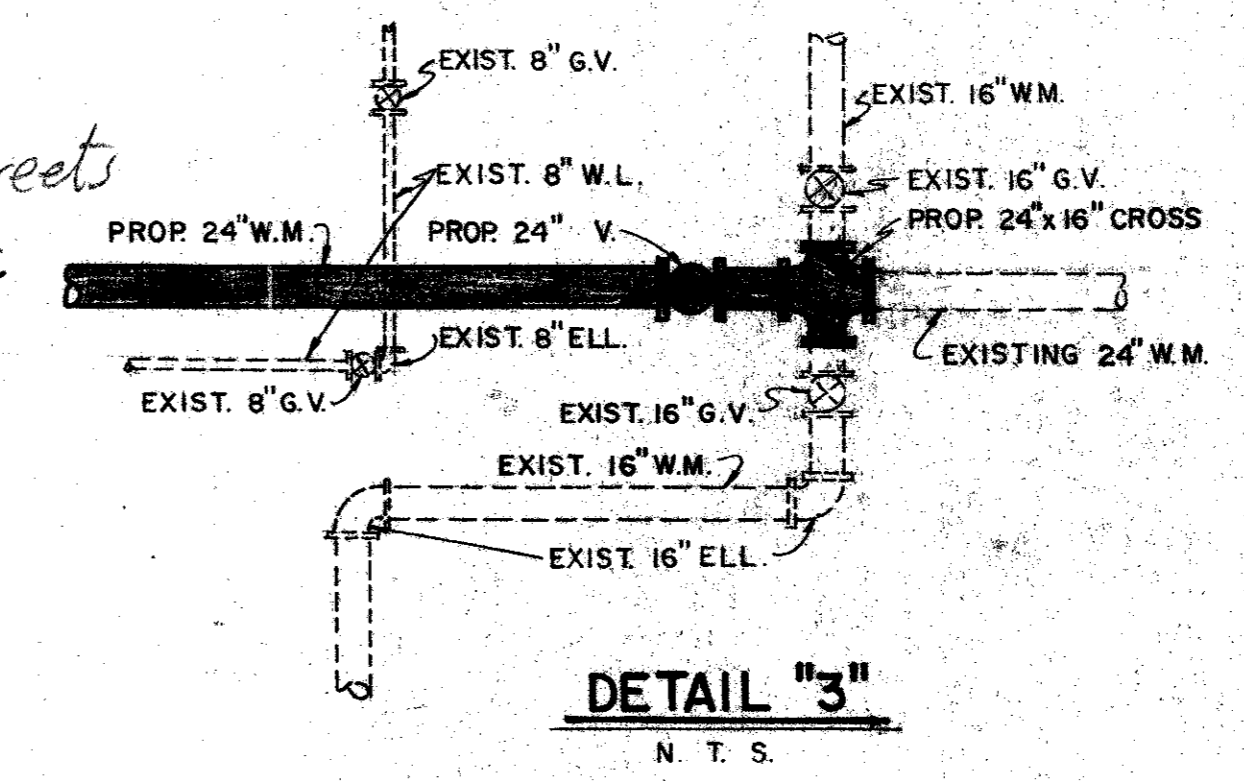
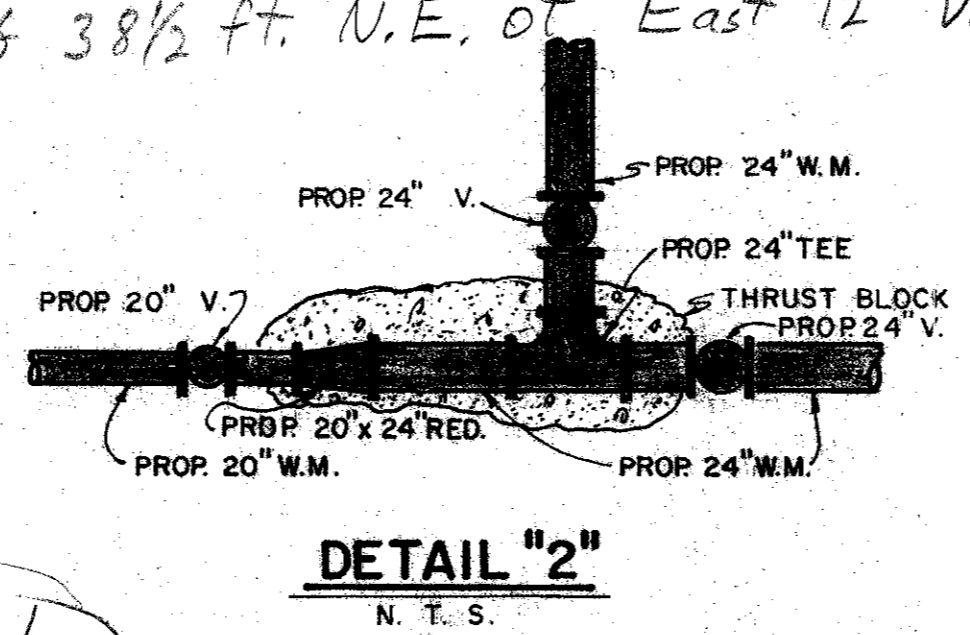
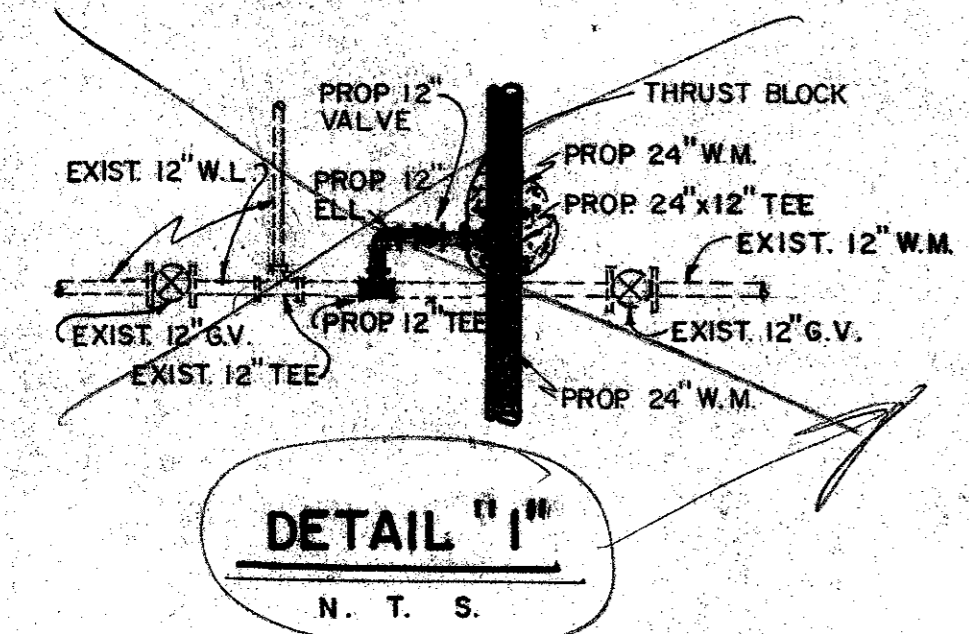
J. MILLIGAN Act- CITY ADMINISTRATOR

GINN & STACY, INC.
 CONSULTING ENGINEERS
 DALLAS, TEXAS
 1977



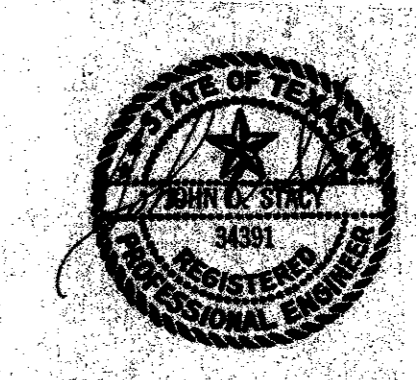


24" Valve is:
 19 ft. East of Cut in Curb Joining old & New Streets
 & 38 1/2 ft. N.E. of East 12" Valve or 3 together.



Scale: 1"=100'

LEGEND	
⊠	Hub & Tack
○	CORP Monument
⊙	Power Pole
◉	Water Meter
◊	Water Valve
⊙	Water Hydrant
⊙	Gas Meter
⊙	Gas Meter
⊙	Telephone Box
⊙	Guy Wire
⊙	Iron Pin
⊙	Mail Box
⊙	Water Line
⊙	Gas Line
⊙	Underground Telephone



CITY OF ADDISON
 DALLAS COUNTY, TEXAS
 WATER IMPROVEMENTS
 LINE "B" - STA. 63+40 TO STA. 87+80
 LINE "C" - STA. 63+00 TO STA. 63+40
 LINE "AA" - STA. 0+00 TO STA. 7+70

GINN & STACY, INC.
 CONSULTING ENGINEERS - DALLAS, TEXAS
 Designed By: J.D.S. Scale: As Shown
 Drawn By: G.L.H. Date: 1977 Sheet 6 of 24

LINE 'B' CURVE DATA

NUMBER	RADIUS	DELTA	ARC LENGTH	CHORD BEARING	CHORD LENGTH
C1	855.83	25°41'58"	383.88	N 77°10'12" E	380.67

NO.	DATE	REVISION	APPROV.
1	06/28/04	REVISED PER ADDENDA	A.K.C.
2	06/28/04	REVISED PER G & A	A.K.C.
3			

PAV. STA. 37+14.35, 61.09' LT.
 STA. 0+39.04 LAT. 'B-1'
 END 30" RCP
 CONST. TYPE 'Y' INLET
 TOP OF INLET 598.00
 THROAT 597.00
 F/L 30" 593.00
 N = 9988.80
 E = 6925.89

STA. 1+00.74 5' LT. LINE 'B'=
 STA. 0+00.00 LAT. 'B-1'
 PIPE TO BOX CONNECTION
 F/L 10'x6" 589.42
 F/L 30" 591.17
 N = 9949.88
 E = 6922.95

INSTALL 9 S.Y. OF GROUTED RIP-RAP (SEE NOTE 10, SW-1)

MATCH LINE STA. 0+85.21

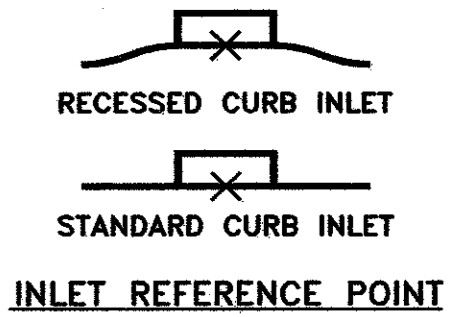
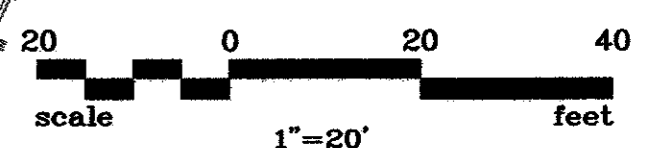
OVER HEAD ELEC. TO BE RELOCATED

PUBLIC STORAGE OF DALLAS, LTD.

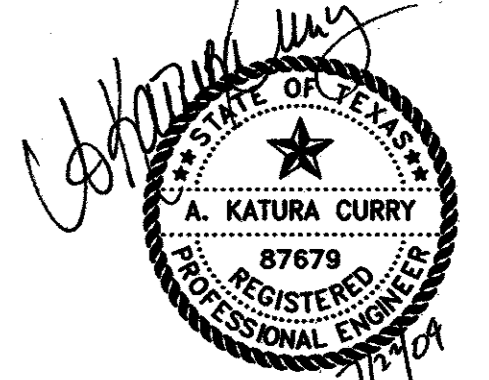
INSTALL 32 S.Y. OF GROUTED RIP-RAP (SEE NOTE 10, SW-1)

PAV. STA. 39+38.91, 108.95' LT. LAT. 'B-2'
 STA. 1+12.12 LAT. 'B-2'
 END 6'x5' BOX CULVERT
 CONST. TYPED 'PW' WINGWALL (S) 2'
 F/L 6'x5' 591.80
 N = 10149.33
 E = 7112.39

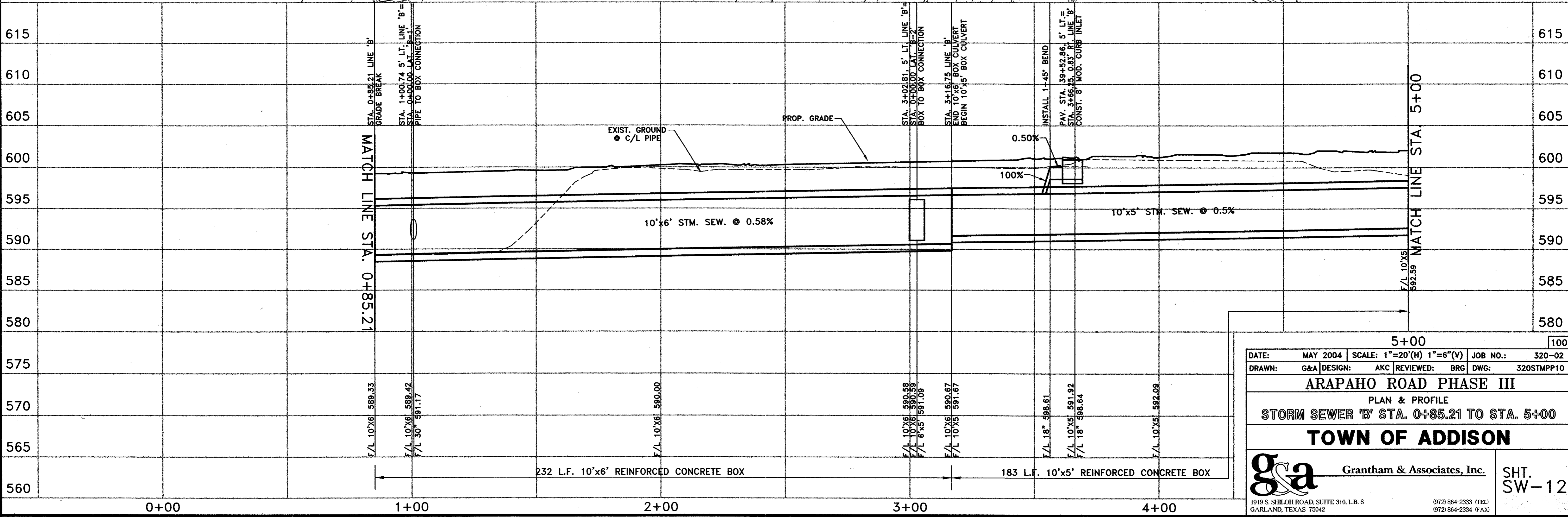
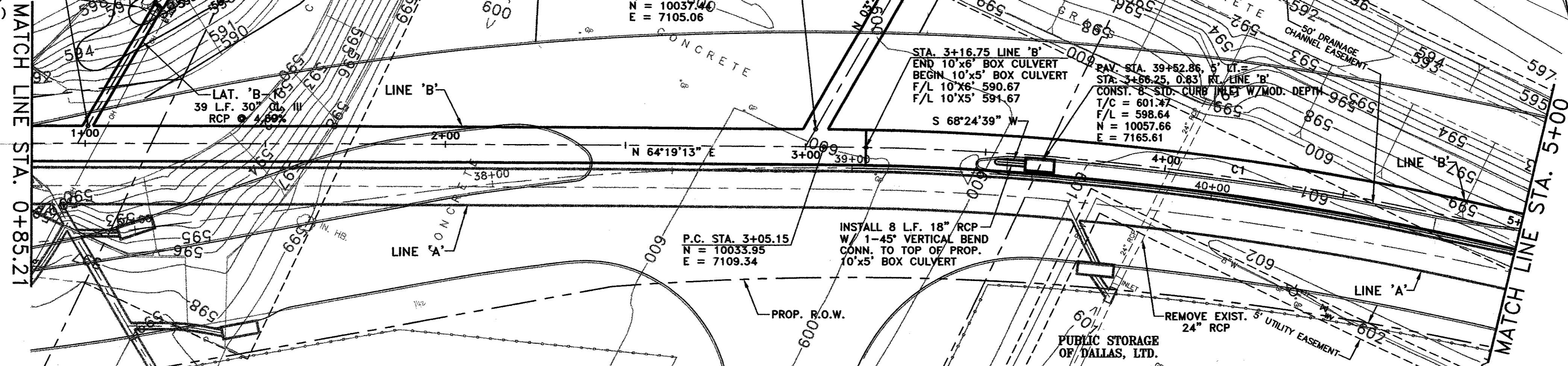
CAUTION! OVER HEAD ELECTRIC TO REMAIN



NOTE REFER TO SW-1 FOR STORM SEWER NOTES



THE SEAL APPEARING ON THIS DOCUMENT WAS AUTHORIZED BY: A. KATURA CURRY ON 7-21-04. ALTERATION OF A SEALED DOCUMENT WITHOUT PROPER NOTIFICATION TO THE RESPONSIBLE ENGINEER IS AN OFFENSE UNDER THE TEXAS ENGINEERING PRACTICE ACT.



5+00 100

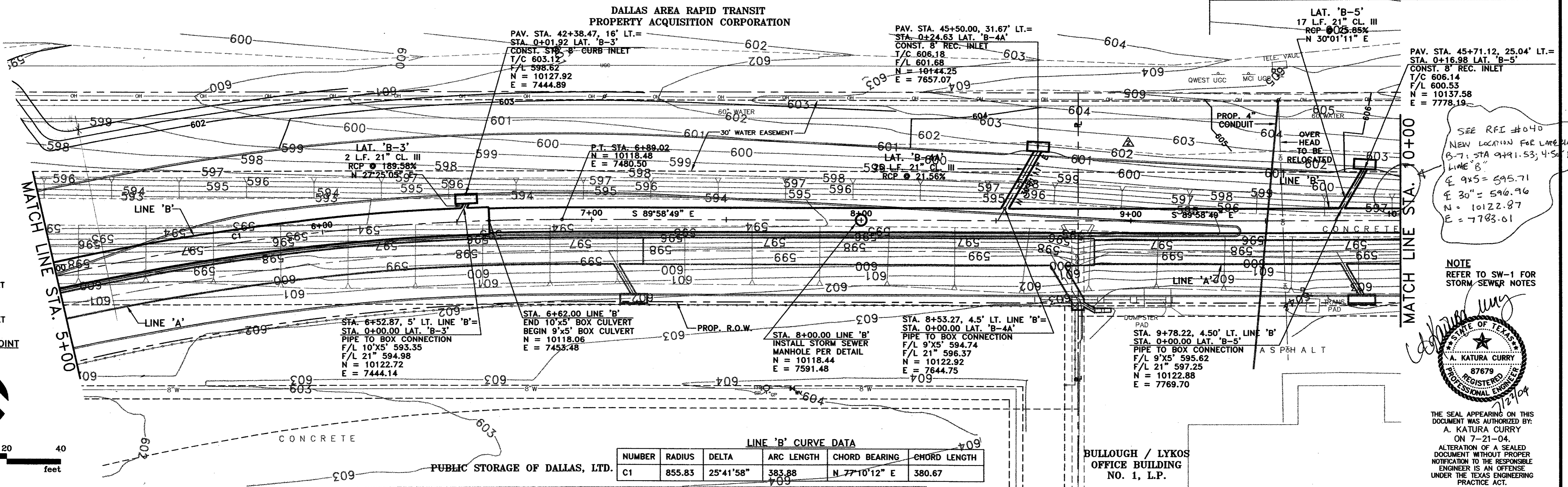
DATE: MAY 2004 SCALE: 1"=20'(H) 1"=6"(V) JOB NO.: 320-02
 DRAWN: G&A DESIGN: AKC REVIEWED: BRG DWG: 320STMP10

ARAPAHO ROAD PHASE III
 PLAN & PROFILE
 STORM SEWER 'B' STA. 0+85.21 TO STA. 5+00

TOWN OF ADDISON

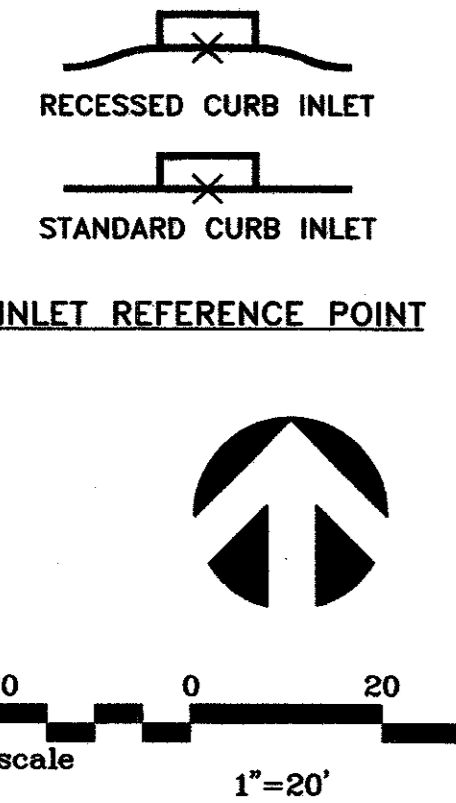
g&a Grantham & Associates, Inc. SHT. SW-12
 1919 S. SHILOH ROAD, SUITE 310, L.B. 8 GARLAND, TEXAS 75042 (972) 864-2333 (TEL) (972) 864-2334 (FAX)

NO.	DATE	REVISION	APPROV.
1	06/28/04	REVISED PER ADDENDA	A.K.C.
2	06/28/04	REVISED PER G & A	A.K.C.
3			



LINE 'B' CURVE DATA

NUMBER	RADIUS	DELTA	ARC LENGTH	CHORD BEARING	CHORD LENGTH
C1	855.83	25°41'58"	383.88	N 77°10'12" E	380.67

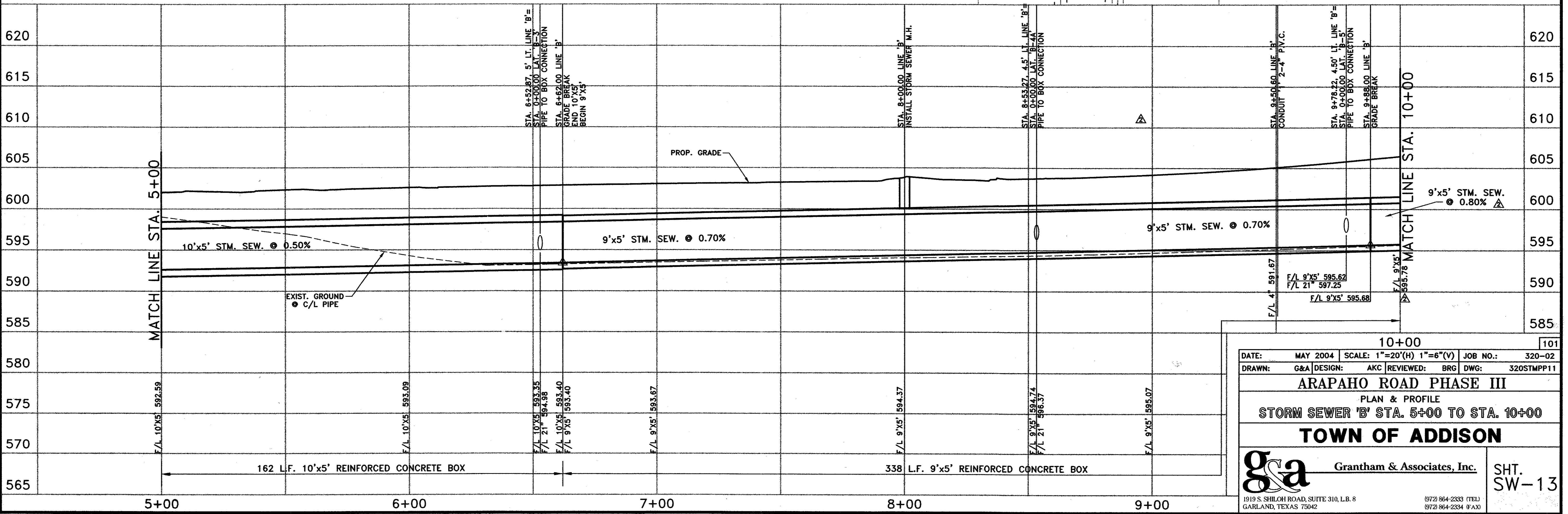


SEE RFI #040
NEW LOCATION FOR LANE 24 L
B-7. STA 9+91.53; 4.50' LT.
LINE 'B'
E 9'x5' = 595.71
E 30" = 596.96
N = 10122.87
E = 7783.01

NOTE
REFER TO SW-1 FOR
STORM SEWER NOTES

A. Katura Curry
A. KATURA CURRY
REGISTERED PROFESSIONAL ENGINEER
NO. 87679
STATE OF TEXAS
1/27/04

THE SEAL APPEARING ON THIS DOCUMENT WAS AUTHORIZED BY:
A. KATURA CURRY
ON 7-21-04.
ALTERATION OF A SEALED DOCUMENT WITHOUT PROPER NOTIFICATION TO THE REGISTERED ENGINEER IS AN OFFENSE UNDER THE TEXAS ENGINEERING PRACTICE ACT.



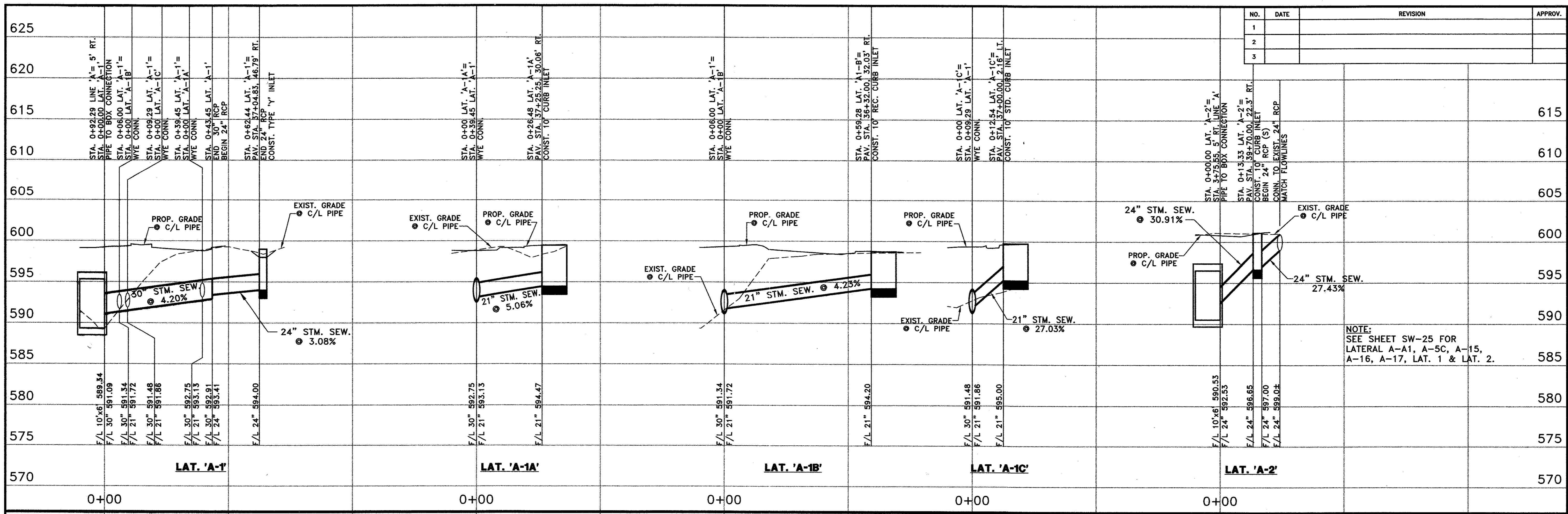
10+00 101

DATE: MAY 2004 SCALE: 1"=20'(H) 1"=6"(V) JOB NO.: 320-02
DRAWN: G&A DESIGN: AKC REVIEWED: BRG DWG: 320STMP11

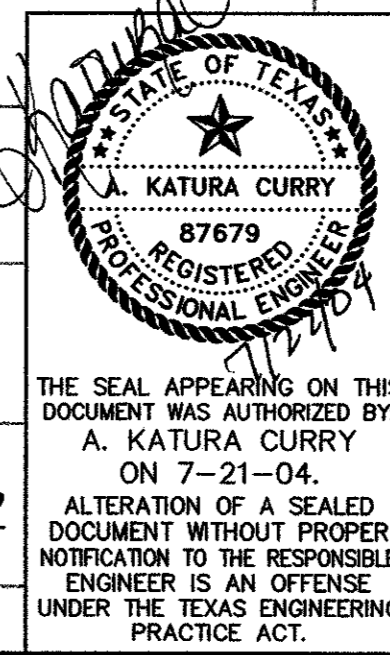
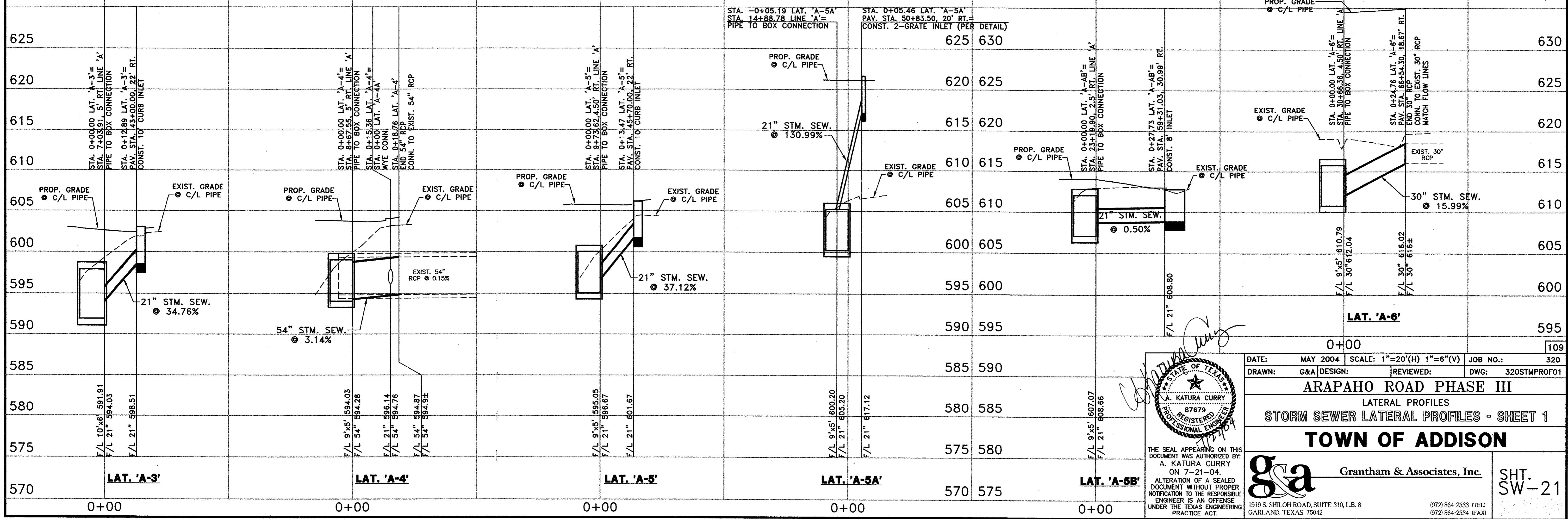
ARAPAHO ROAD PHASE III
PLAN & PROFILE
STORM SEWER 'B' STA. 5+00 TO STA. 10+00

TOWN OF ADDISON

g&a Grantham & Associates, Inc. SHT. SW-13
1919 S. SHILOH ROAD, SUITE 310, L.B. 8 GARLAND, TEXAS 75042 (972) 864-2333 (TEL) (972) 864-2334 (FAX)



NO.	DATE	REVISION	APPROV.
1			
2			
3			



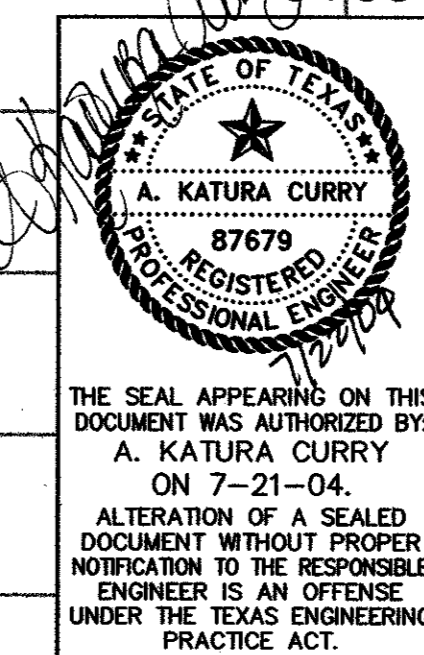
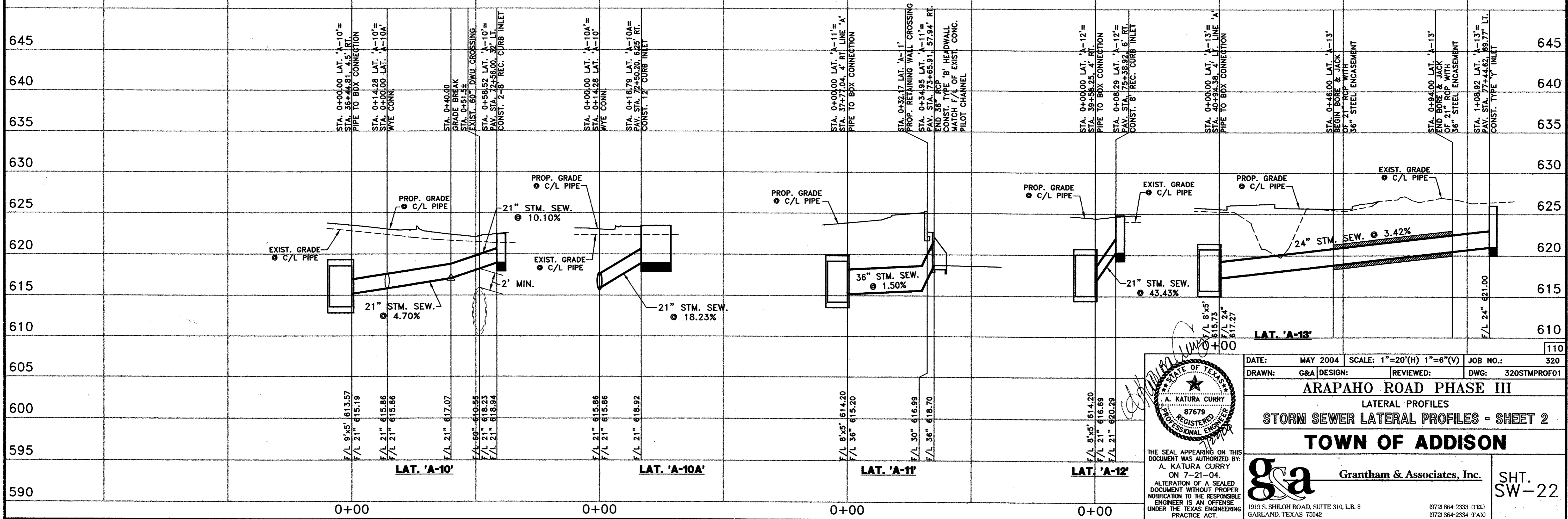
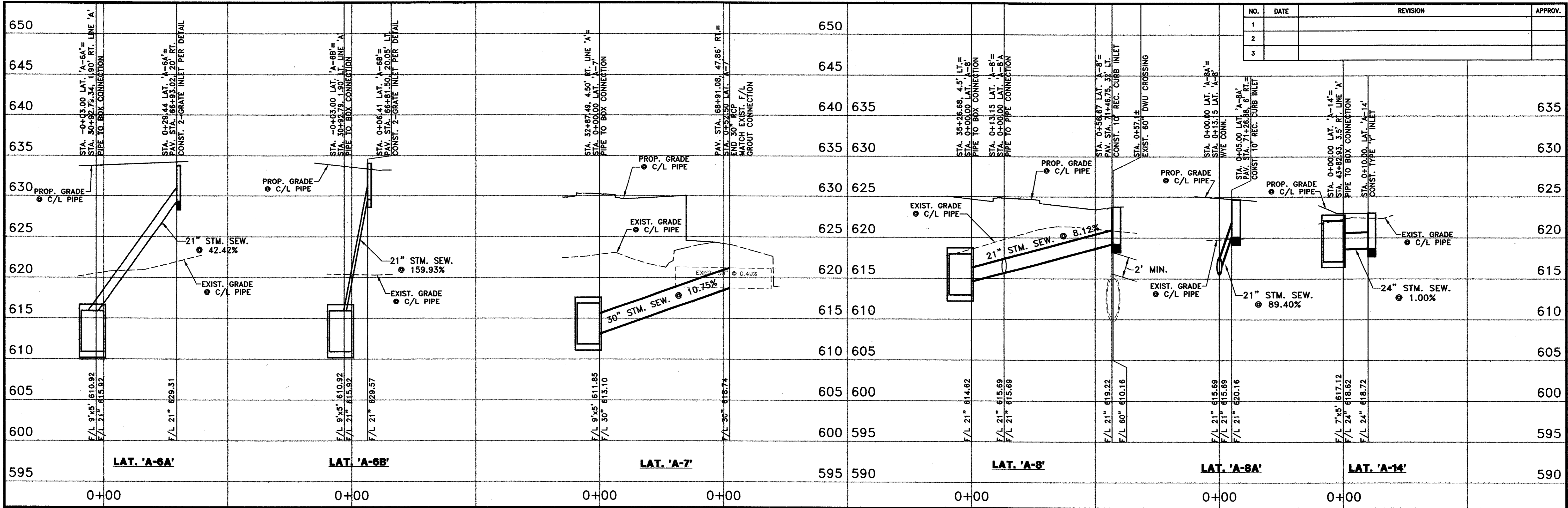
DATE: MAY 2004 SCALE: 1"=20'(H) 1"=6'(V) JOB NO.: 320
 DRAWN: G&A DESIGN: REVIEWED: DWG: 320STMPROF01

ARAPAHO ROAD PHASE III
 LATERAL PROFILES
STORM SEWER LATERAL PROFILES - SHEET 1
TOWN OF ADDISON

g&a Grantham & Associates, Inc.
 1919 S. SHILOH ROAD, SUITE 310, L.B. 8 GARLAND, TEXAS 75042 (972) 864-2333 (TEL) (972) 864-2334 (FAX)

SHT. SW-21

NO.	DATE	REVISION	APPROV.
1			
2			
3			



DATE: MAY 2004 SCALE: 1"=20'(H) 1"=6'(V) JOB NO.: 320
 DRAWN: G&A DESIGN: REVIEWED: DWG: 320STMPROF01

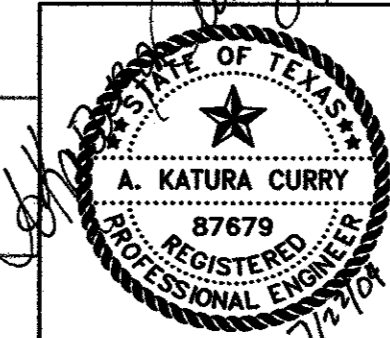
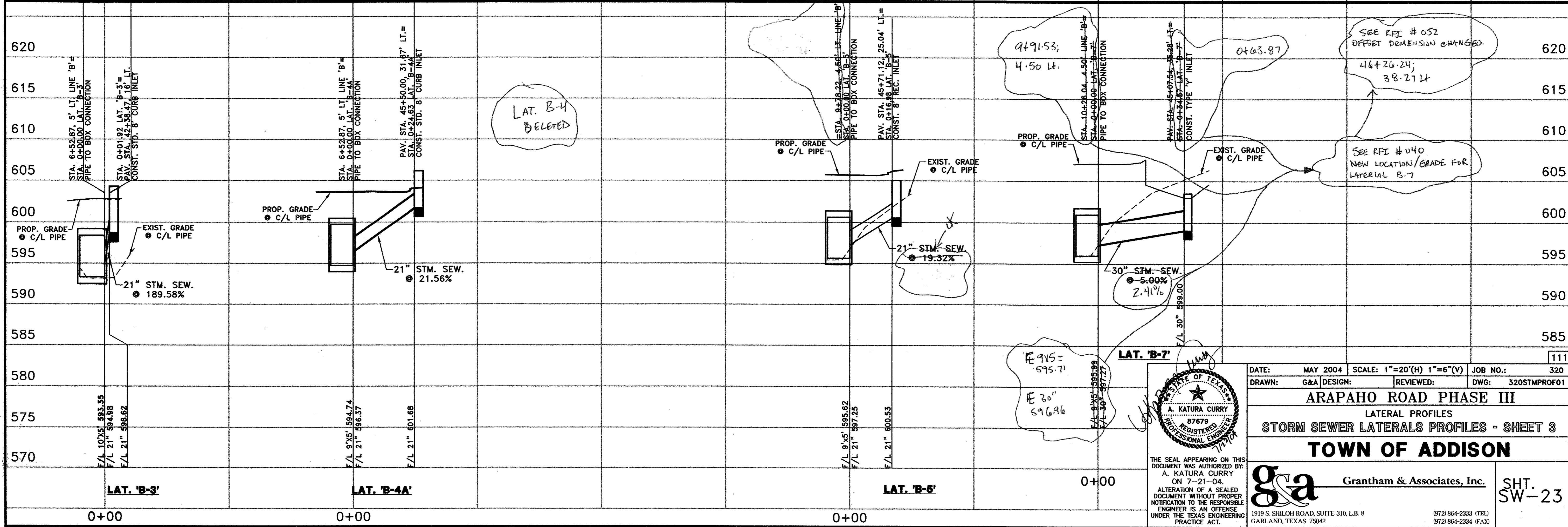
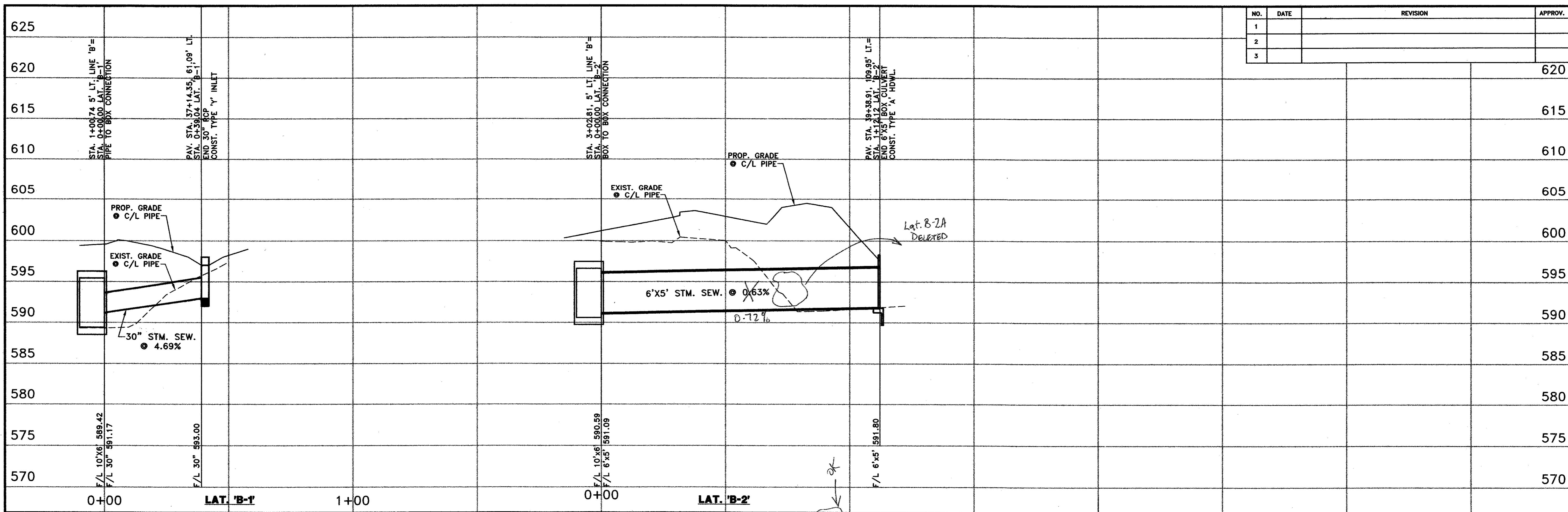
ARAPAHO ROAD PHASE III
 LATERAL PROFILES
STORM SEWER LATERAL PROFILES - SHEET 2
TOWN OF ADDISON

THE SEAL APPEARING ON THIS DOCUMENT WAS AUTHORIZED BY: A. KATURA CURRY ON 7-21-04. ALTERATION OF A SEALED DOCUMENT WITHOUT PROPER NOTIFICATION TO THE RESPONSIBLE ENGINEER IS AN OFFENSE UNDER THE TEXAS ENGINEERING PRACTICE ACT.

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SHT. SW-22

NO.	DATE	REVISION	APPROV.
1			
2			
3			



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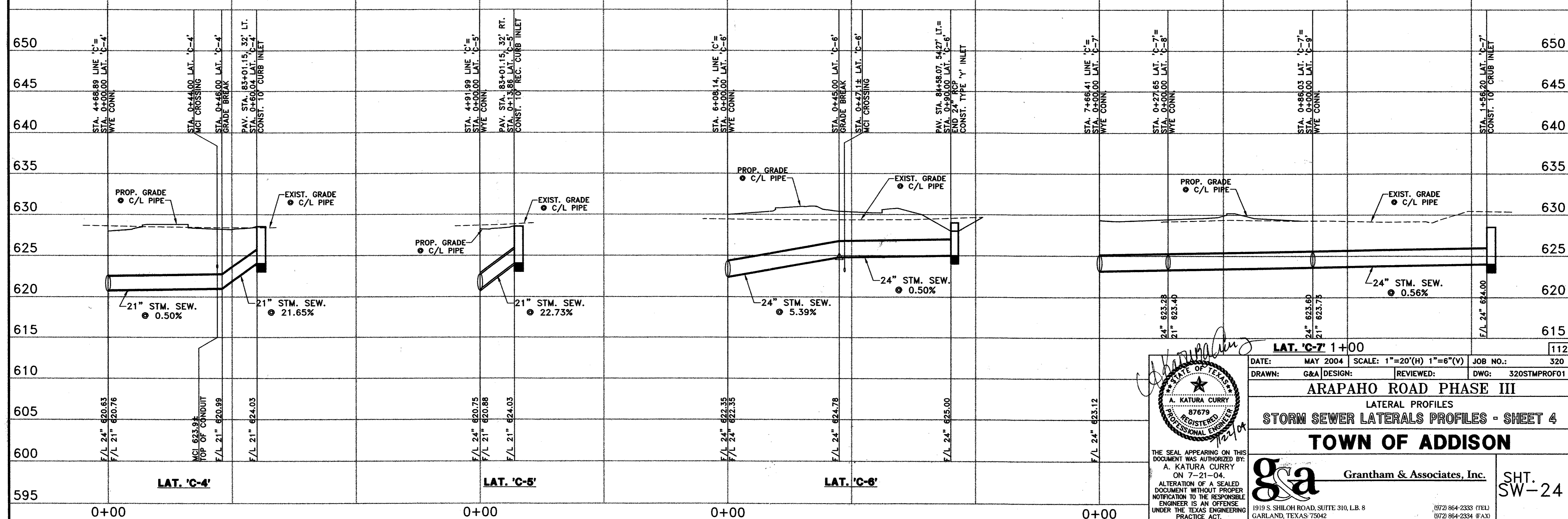
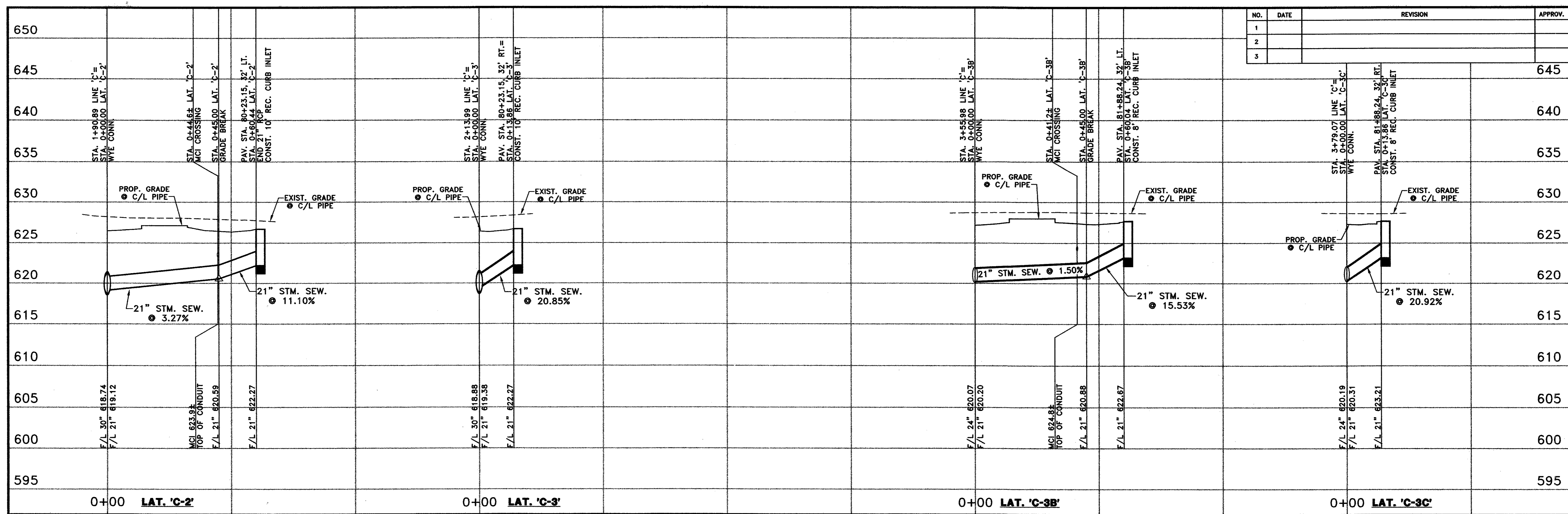
DATE: MAY 2004 SCALE: 1"=20'(H) 1"=6"(V) JOB NO.: 320
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ARAPAHO ROAD PHASE III
 LATERAL PROFILES
 STORM SEWER LATERALS PROFILES - SHEET 3
TOWN OF ADDISON

g&a Grantham & Associates, Inc. SHT. SW-23

1919 S. SHILOH ROAD, SUITE 310, L.B. 8 GARLAND, TEXAS 75042 (972) 864-2333 (TEL) (972) 864-2334 (FAX)

NO.	DATE	REVISION	APPROV.
1			
2			
3			



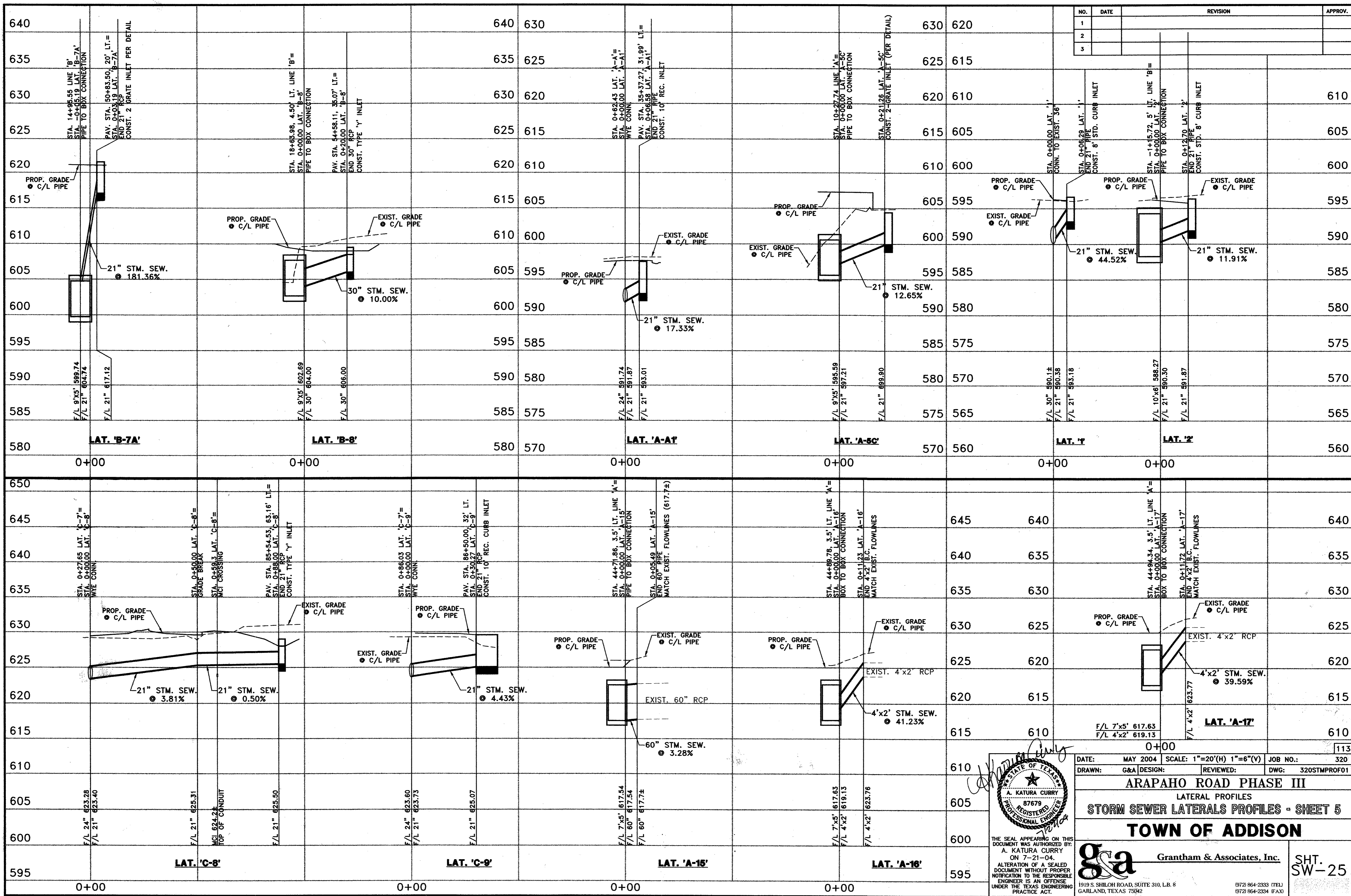
THE SEAL APPEARING ON THIS DOCUMENT WAS AUTHORIZED BY: A. KATURA CURRY ON 7-21-04. ALTERATION OF A SEALED DOCUMENT WITHOUT PROPER NOTIFICATION TO THE RESPONSIBLE ENGINEER IS AN OFFENSE UNDER THE TEXAS ENGINEERING PRACTICE ACT.

LAT. 'C-7' 1+00 [112]

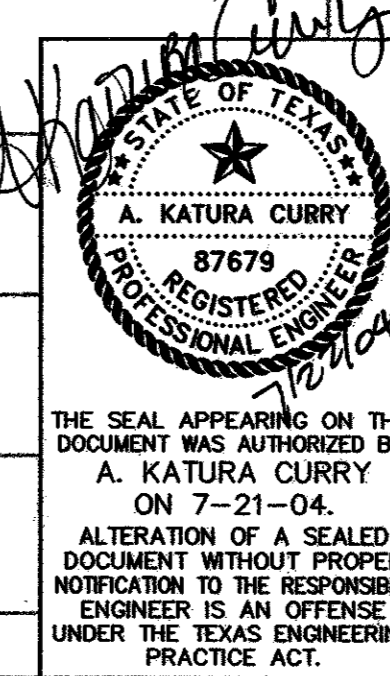
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ARAPAHO ROAD PHASE III
 LATERAL PROFILES
STORM SEWER LATERALS PROFILES - SHEET 4
TOWN OF ADDISON

Grantham & Associates, Inc. SHT. SW-24
 1919 S. SHILOH ROAD, SUITE 310, L.B. 8 GARLAND, TEXAS 75042 (972) 864-2333 (TEL) (972) 864-2334 (FAX)



NO.	DATE	REVISION	APPROV.
1			
2			
3			



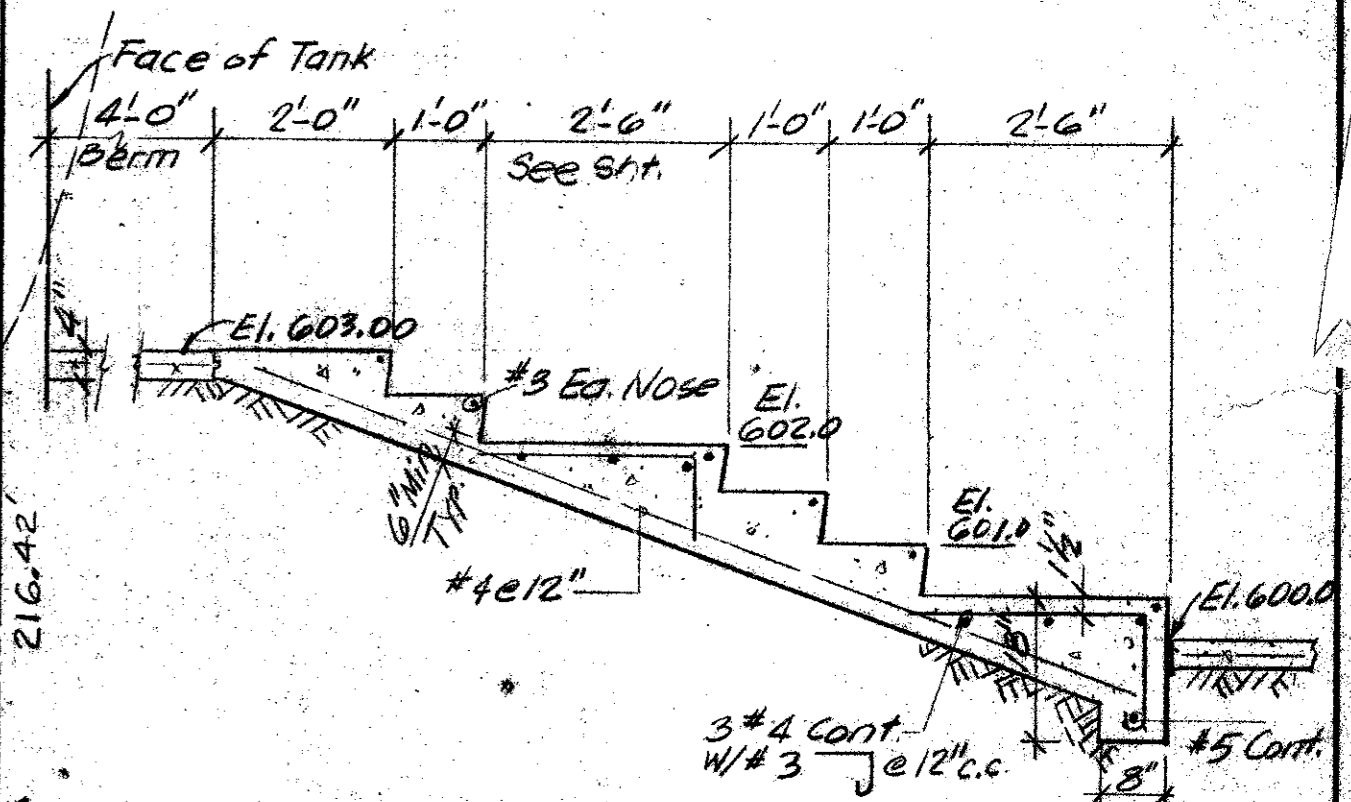
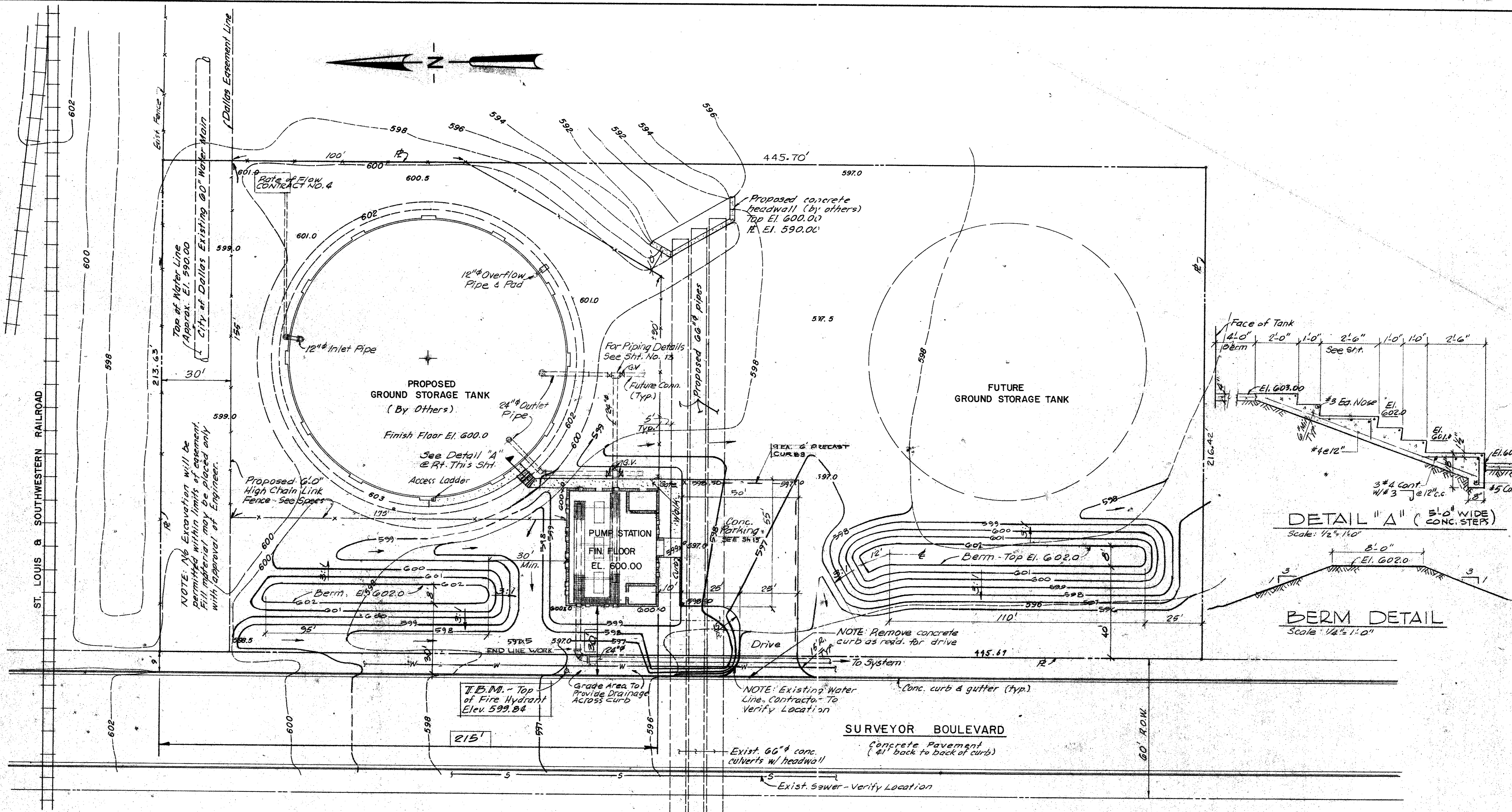
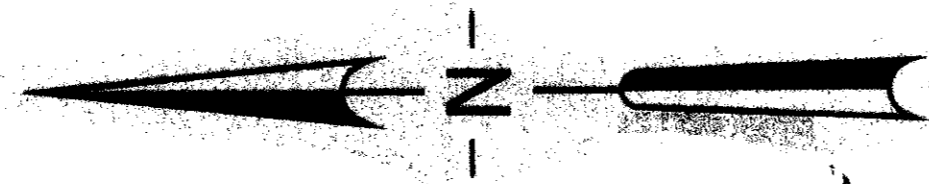
DATE: MAY 2004 SCALE: 1"=20'(H) 1"=6'(V) JOB NO.: 320
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ARAPAHO ROAD PHASE III
 LATERAL PROFILES
STORM SEWER LATERALS PROFILES - SHEET 5

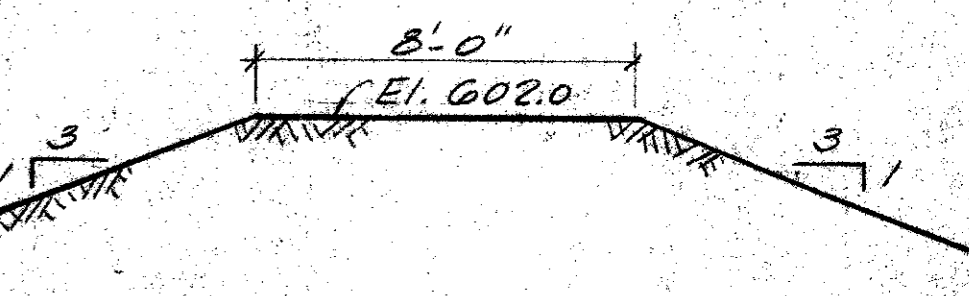
TOWN OF ADDISON

g&a Grantham & Associates, Inc. SHT. SW-25

1919 S. SHILOH ROAD, SUITE 310, L.B. 8 GARLAND, TEXAS 75042 (972) 864-2333 (TEL) (972) 864-2334 (FAX)



DETAIL "A" (5'-0" WIDE CONC. STEPS)
Scale: 1/2" = 1'-0"



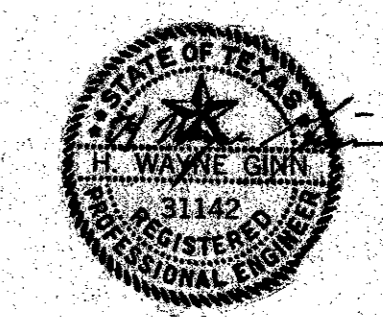
BERM DETAIL
Scale: 1/4" = 1'-0"

SITE PLAN ~ 1"=20'

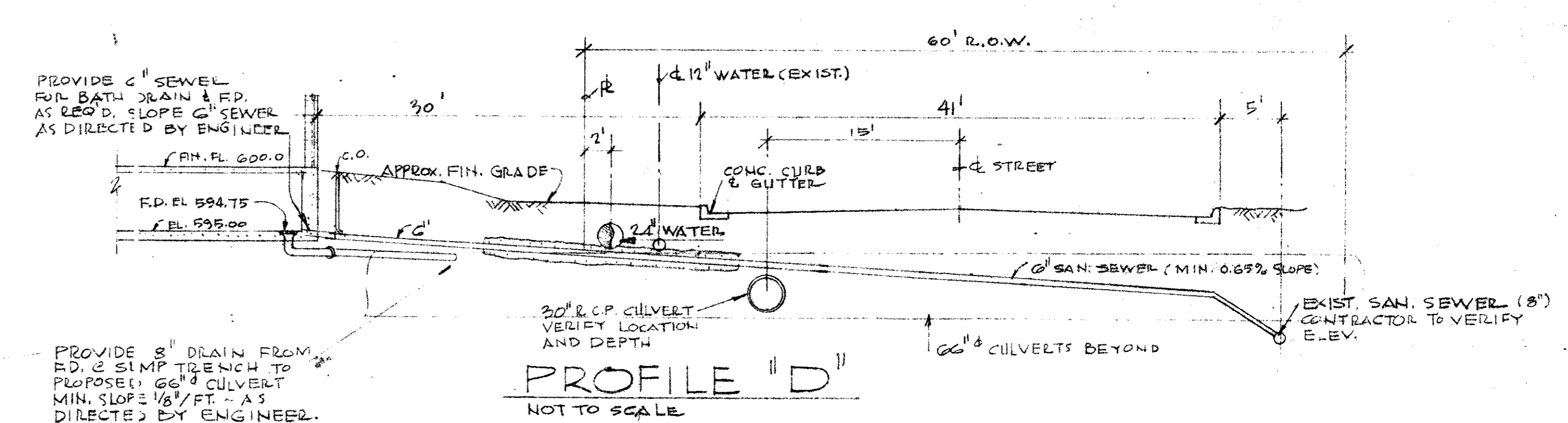
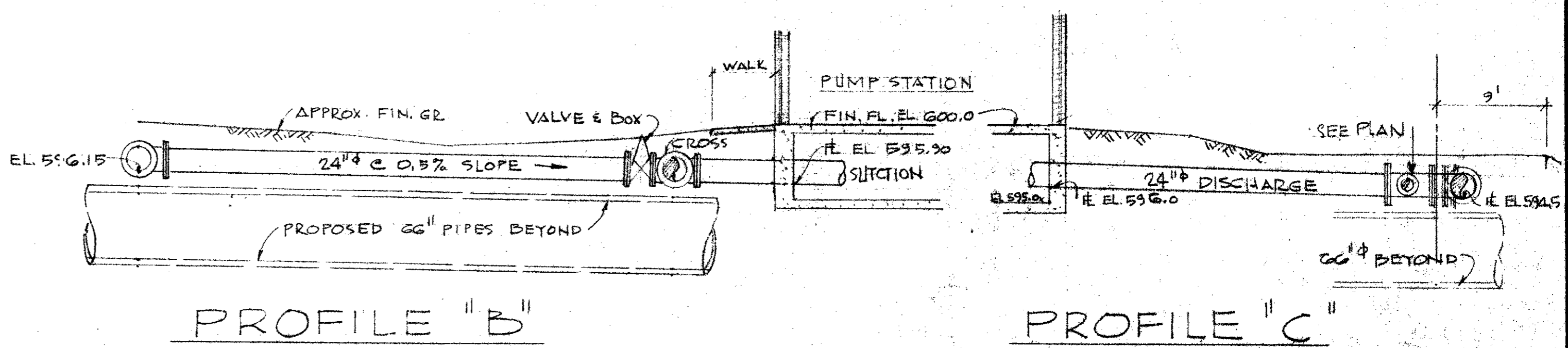
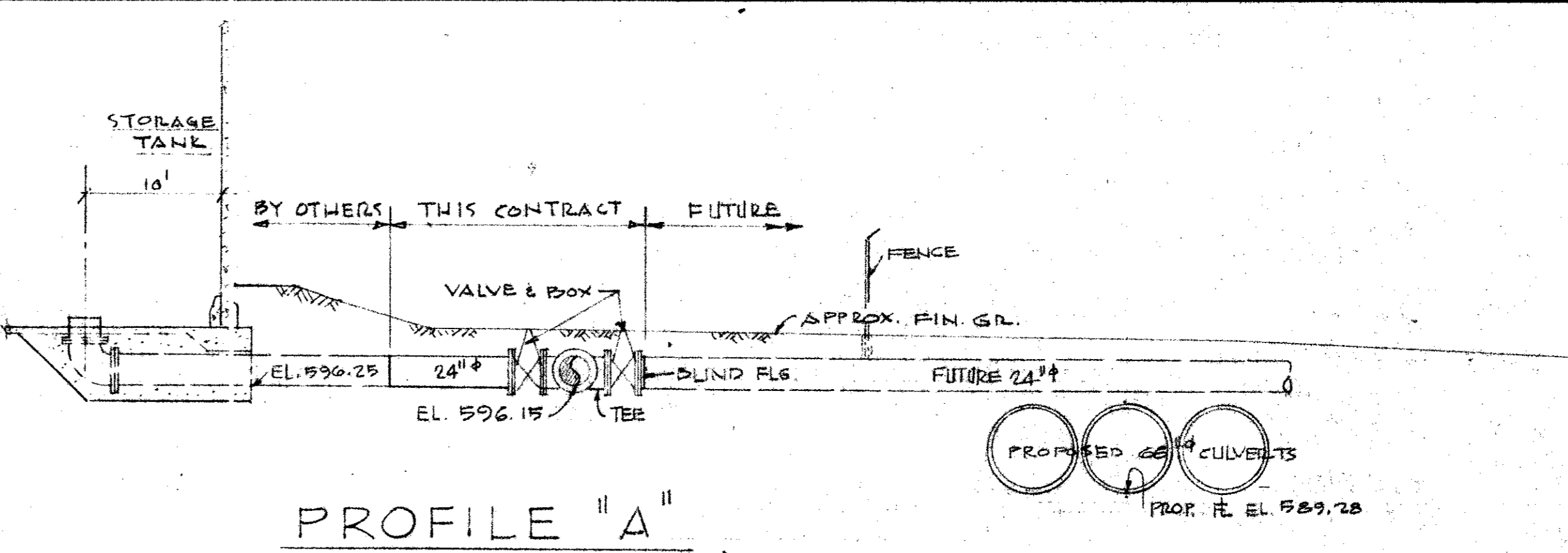
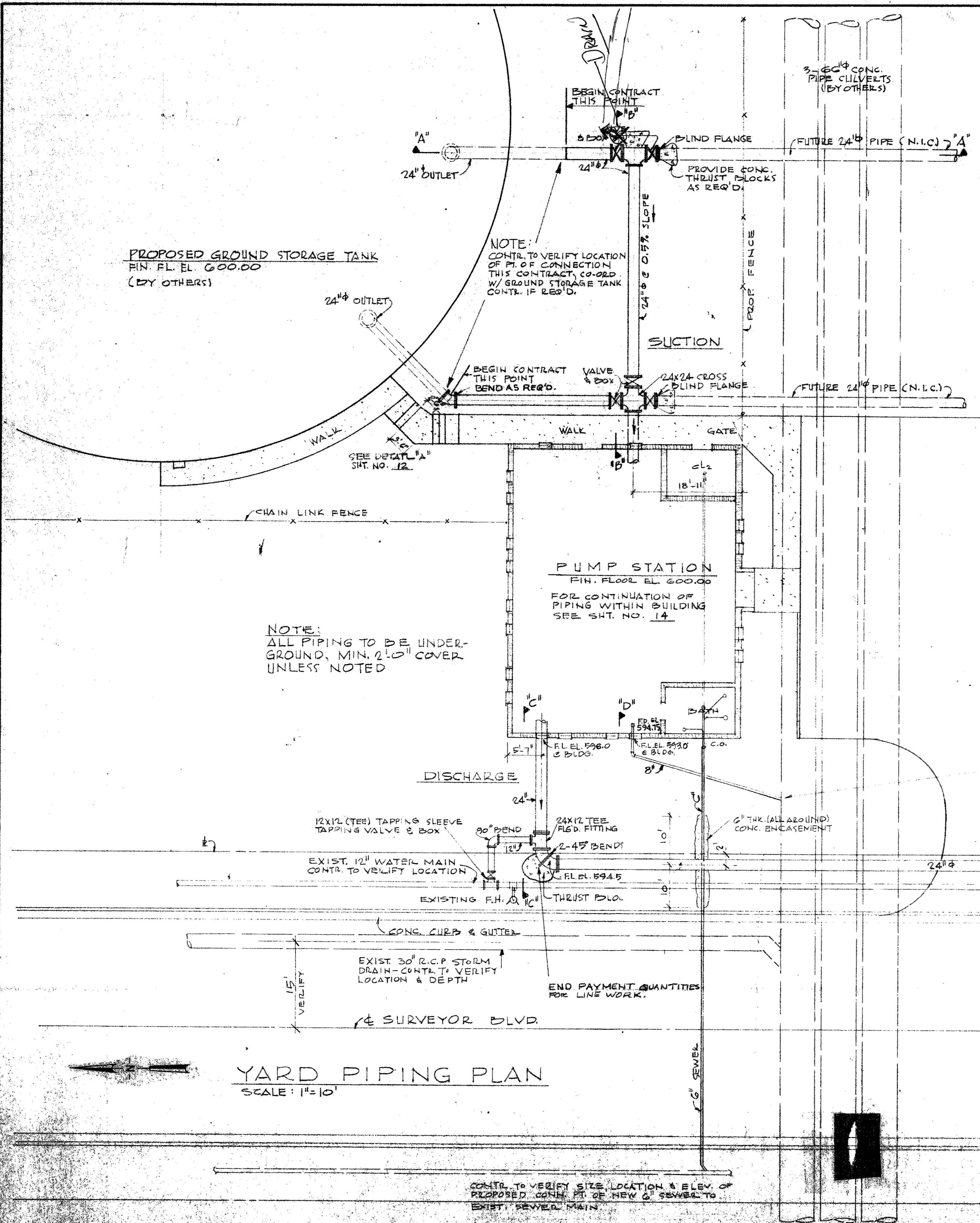
NOTE: This Contractor Responsible For All Final Grading and Landscaping. This Contractor To Coordinate Grading With Tank Contractor During Construction.

LEGEND

- 600 --- Existing Contours
- 599.5 --- Existing Spot Elevation
- 599 --- Finished Grades
- 598.5 --- Fin. Spot Elevation



CITY OF ADDISON DALLAS COUNTY, TEXAS	
WATER PUMP STATION AND WATER MAINS	
SITE LAYOUT	
GINN & STACY, INC. CONSULTING ENGINEERS - DALLAS, TEXAS	
DESIGNED BY: HMG	SCALE: 1" = 20'
DRAWN BY: GF	DATE: AUG. 77
Sheet 12 of 24	

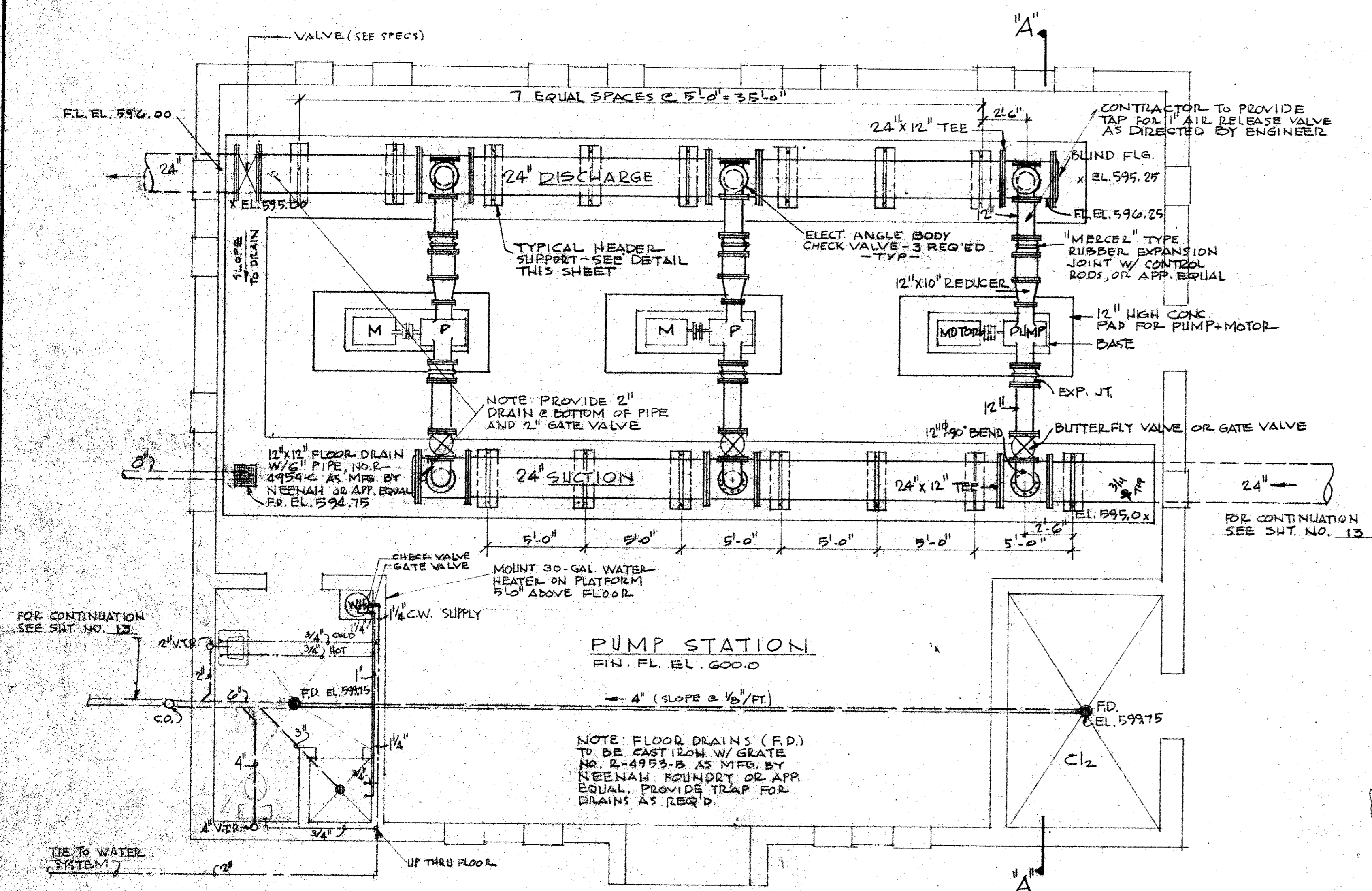


NOTE:
1. CONTRACTOR TO OPEN CUT AND VERIFY ALL UTILITIES PRIOR TO INSTALLATION OF SEWER MAIN.
2. VALVES MAY BE GATE OR BUTTERFLY UNLESS SPECIFICALLY DESIGNATED.

YARD PIPING PLAN
SCALE: 1"=10'

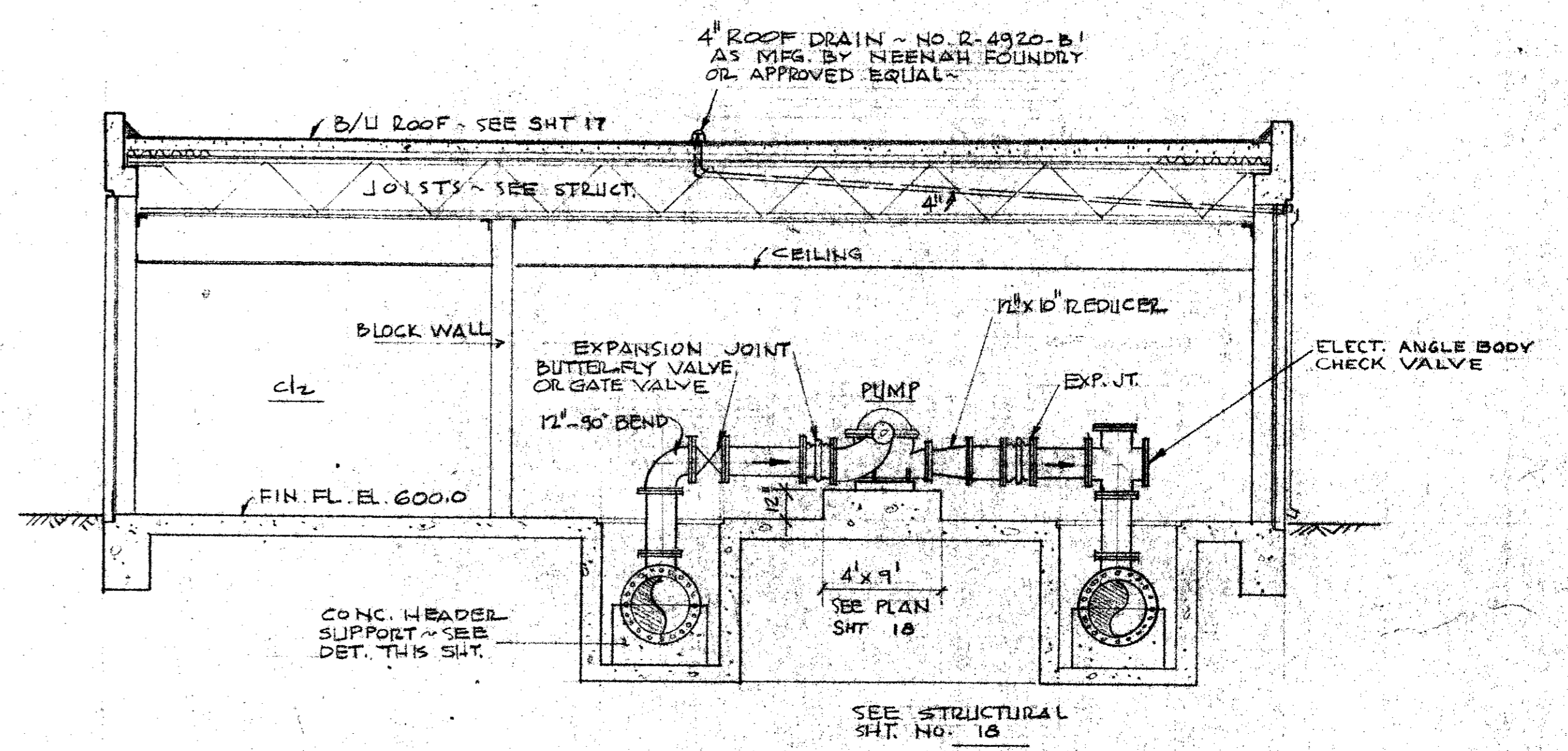
CITY OF ADDISON DALLAS COUNTY, TEXAS	
WATER PUMP STATION AND WATER MAINS	
YARD PIPING	
GINN & STACY, INC. CONSULTING ENGINEERS DALLAS, TEXAS	
DESIGNED BY: [Signature]	SCALE: 25 SHOW
DRAWN BY: [Signature]	DATE: 12/1/77
Sheet 13 of 24	



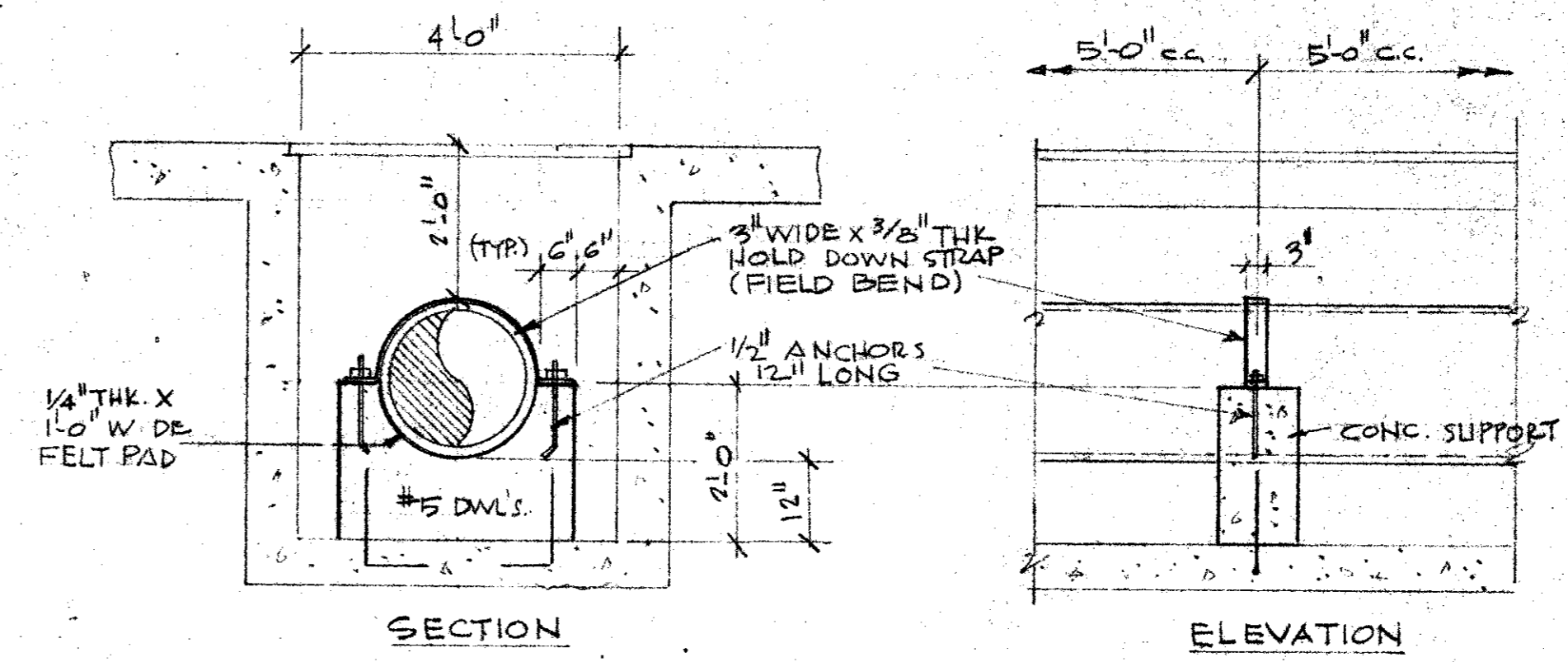


PUMP STATION PIPING PLAN
SCALE: 1/4" = 1'-0"

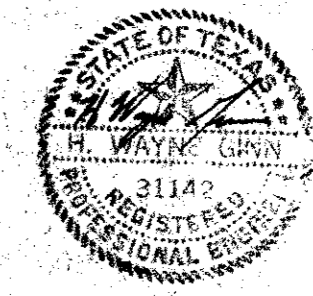
NOTE: DUCTILE IRON PIPE SHALL BE USED THRU WALLS AND INSIDE PUMP STATION. NO SUBSTITUTION WILL BE ALLOWED. VALVES MAY BE GATE OR BUTTERFLY UNLESS SPECIFICALLY DESIGNATED.



SECTION A-A
SCALE: 1/4" = 1'-0"



TYPICAL HEADER PIPE SUPPORT
SCALE: 1/2" = 1'-0"



CITY OF ADDISON DALLAS COUNTY, TEXAS	
WATER PUMP STATION AND WATER MAINS	
PUMP STATION PIPING PLAN	
GINN & STACY, INC. CONSULTING ENGINEERS - DALLAS, TEXAS	
DESIGNED BY: <i>HWB</i>	SCALE: AS SHOWN
DRAWN BY: <i>GF</i>	DATE: AUG. 77
Sheet 14 of 24	

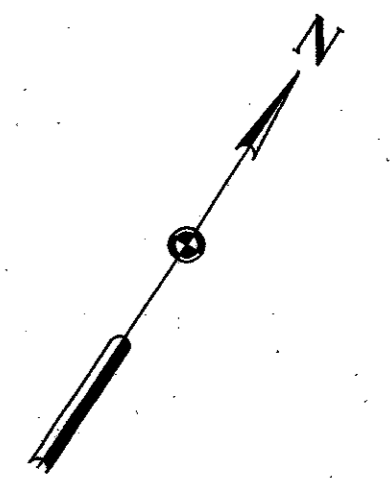
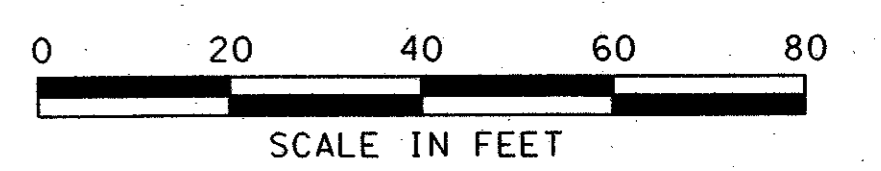
Sanitary Sewer Manhole
STA 35+0.93; 107.80' % LT
E. 576.67'

Sanitary Sewer Manhole
STA 34+65.21; 85.28' % LT
E. 575.99'

6" Sanitary Sewer
STA 35+11.78; 143.14' % LT
Top Pipe = 593.34' R.E.T.E.

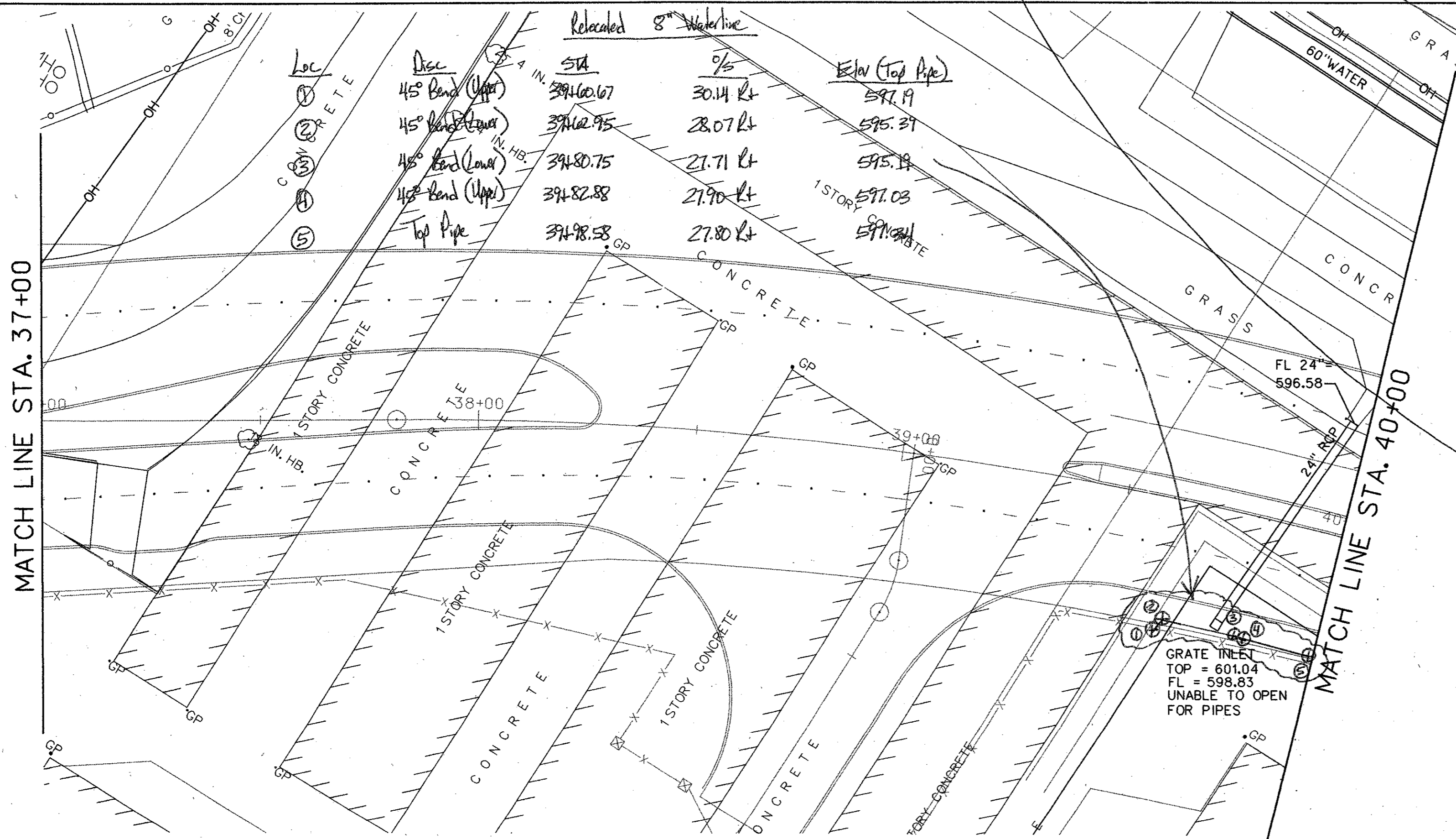
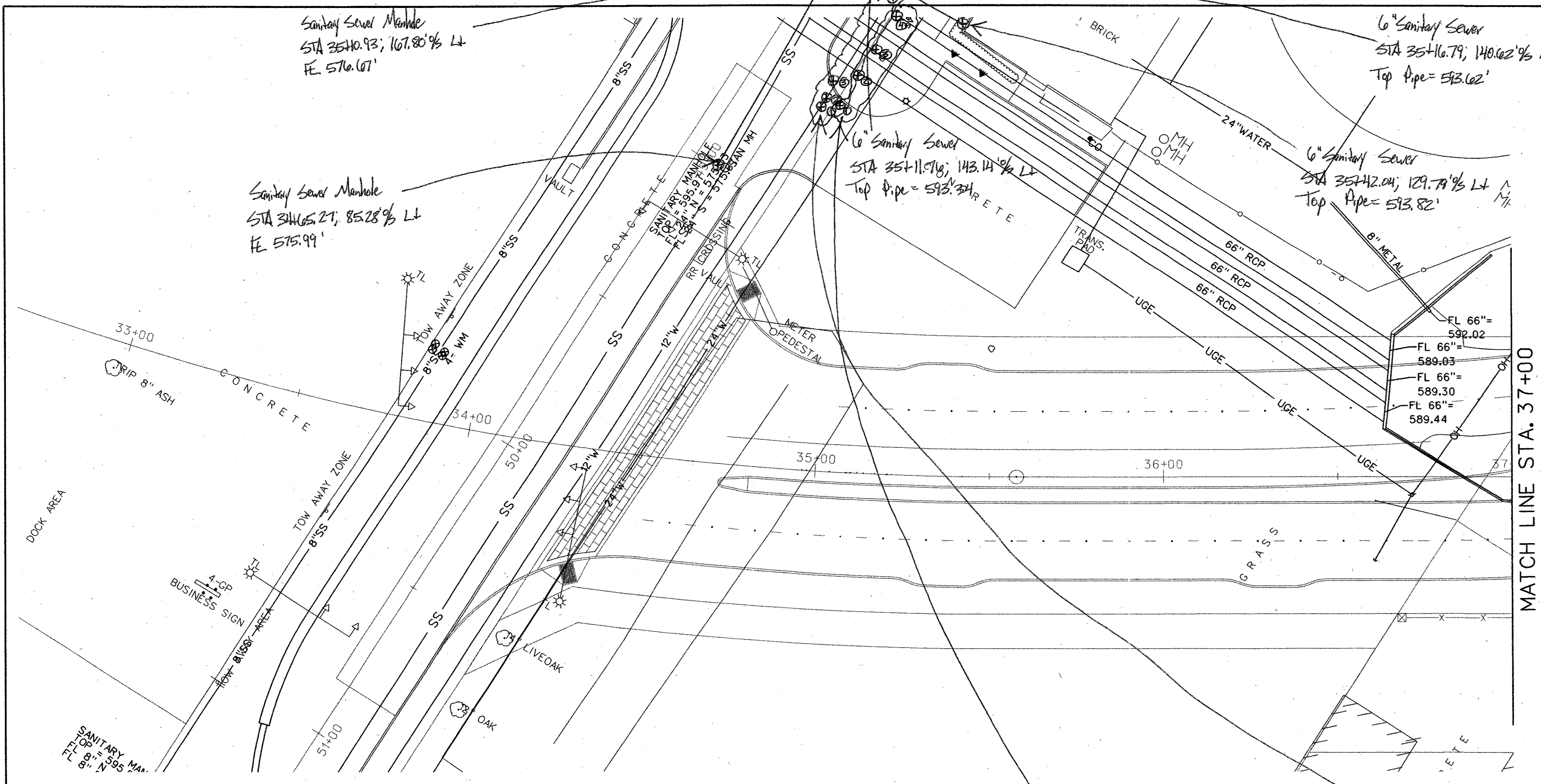
6" Sanitary Sewer
STA 35+16.79; 140.62' % LT
Top Pipe = 593.62'

6" Sanitary Sewer
STA 35+42.04; 129.71' % LT
Top Pipe = 593.82'



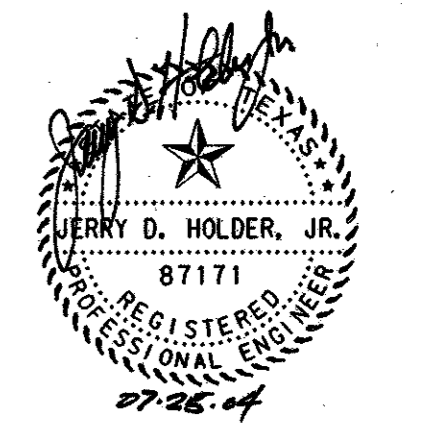
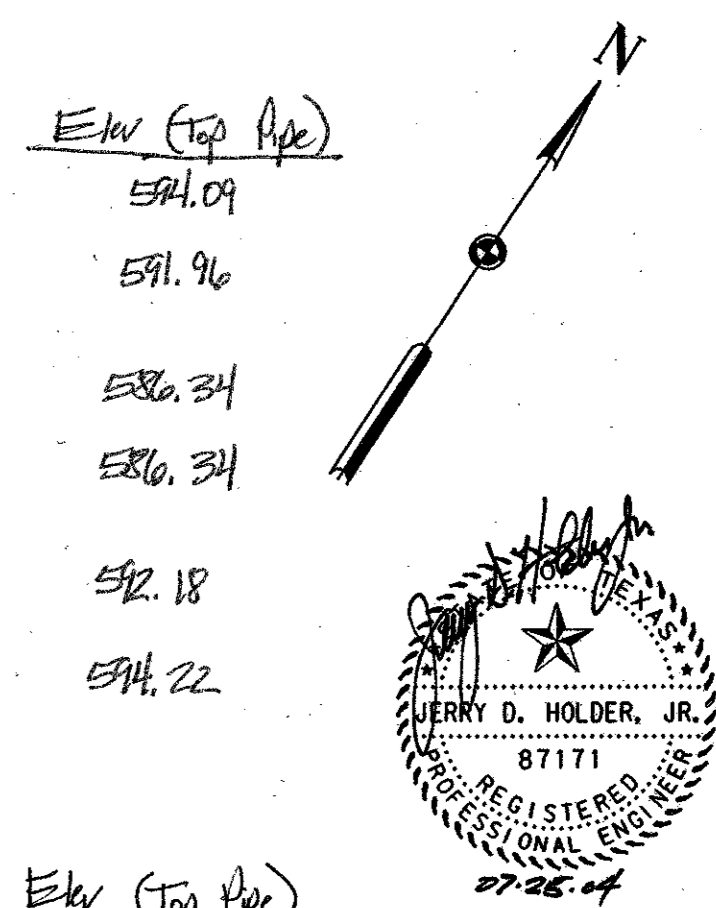
LEGEND

- OH — OVERHEAD LINES
- CO SANITARY SEWER CLEANOUT
- FH FIRE HYDRANT
- W WV WATER VALVE
- ⊗ WM WATER METER
- ⊗ GM GAS METER



12" Waterline Lowering			
Loc	Desc	STA	%
①	Valve Stem	34+95.68	104.30 LT
②	Upper 45° Bend	34+97.47	106.99 LT
③	Lower 45° Bend	35+00.42	112.02 LT
④	Lower 45° Bend	35+17.59	138.52 LT
⑤	Upper 45° Bend	35+21.77	144.43 LT
⑥	Valve Stem	35+21.05	147.70 LT

24" Waterline			
Loc	Desc	STA	%
①	Top Pipe	35+08.99	106.26 LT
②	↑	35+08.91	113.94 LT
③	↓	35+13.75	121.88 LT
④	Top Pipe	35+20.56	132.35 LT



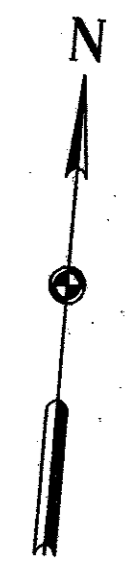
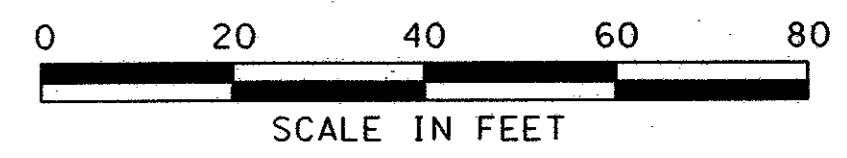
NOTE:

UNDERGROUND UTILITIES EXIST WITHIN AND ADJACENT TO THE LIMITS OF CONSTRUCTION. AN ATTEMPT HAS BEEN MADE TO LOCATE THESE UTILITIES ON THE PLANS. ALL EXISTING UTILITIES MAY NOT BE SHOWN ON THE PLANS, AND THE LOCATION OF THE UTILITIES SHOWN MAY VARY FROM THE LOCATION ON THE PLANS. PRIOR TO THE BEGINNING OF ANY TYPE OF EXCAVATION, THE CONTRACTOR SHALL CONTACT THE UTILITIES INVOLVED AND MAKE ARRANGEMENTS FOR THE LOCATION OF THE UTILITY ON THE GROUND. THE CONTRACTOR SHALL MAINTAIN THE UTILITY LOCATION MARKINGS UNTIL THEY ARE NO LONGER NECESSARY.

587.61	REVISION	APPROV.	182
HNTB ARCHITECTS ENGINEERS PLANNERS The HNTB Companies			
ARAPAHO ROAD - PHASE III			
SURVEYOR BOULEVARD TO ADDISON ROAD			
EXISTING UTILITY PLAN			
STA 33+87.02 TO 40+00			
TOWN OF ADDISON, TEXAS			
Design JSN	Drawn GFS	DATE	SCALE
Check JDH	Check JSN	APRIL 04	1" = 20'
PROJECT NO.		SHEET NO.	
25768		U-1	

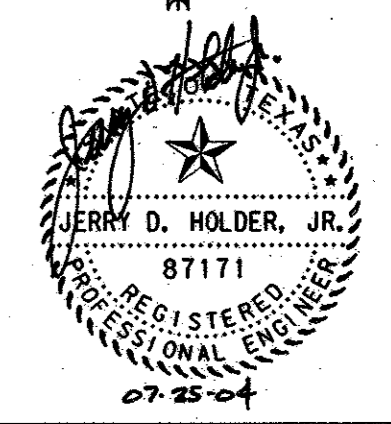
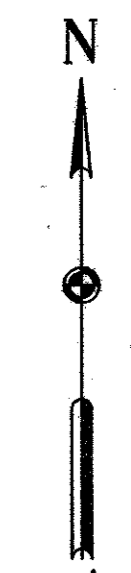
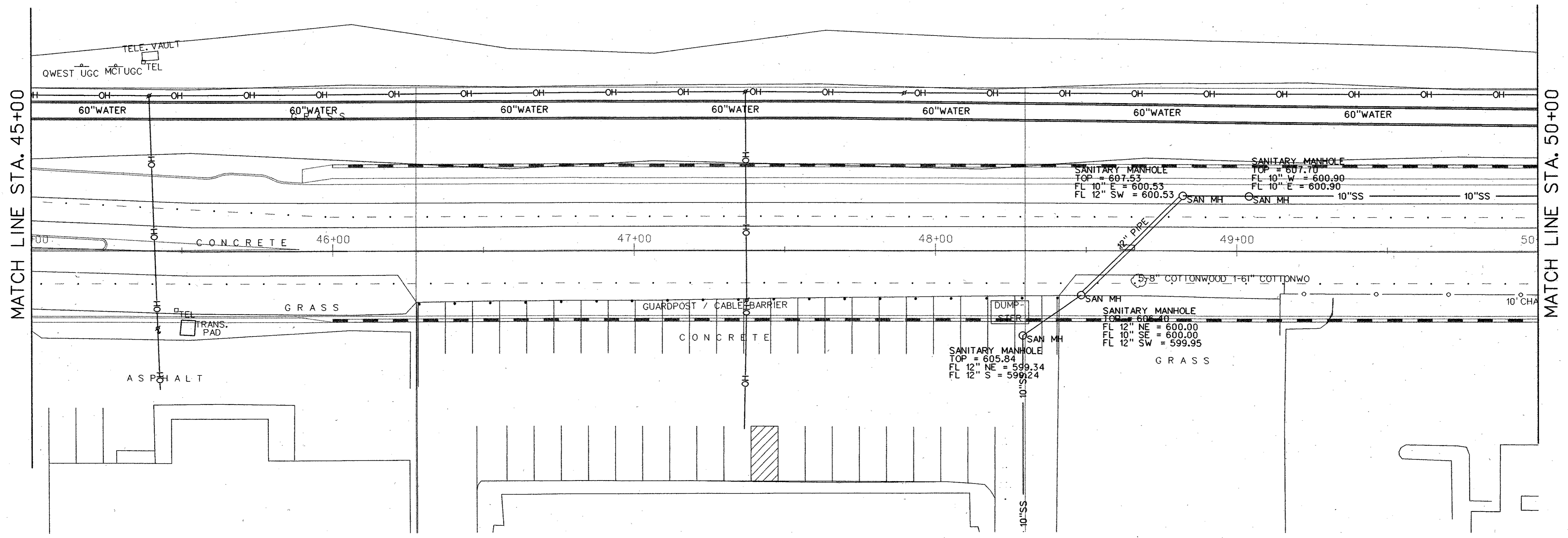
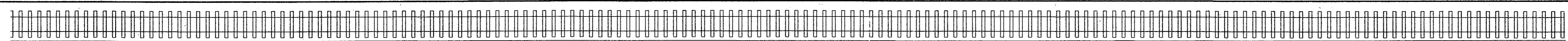
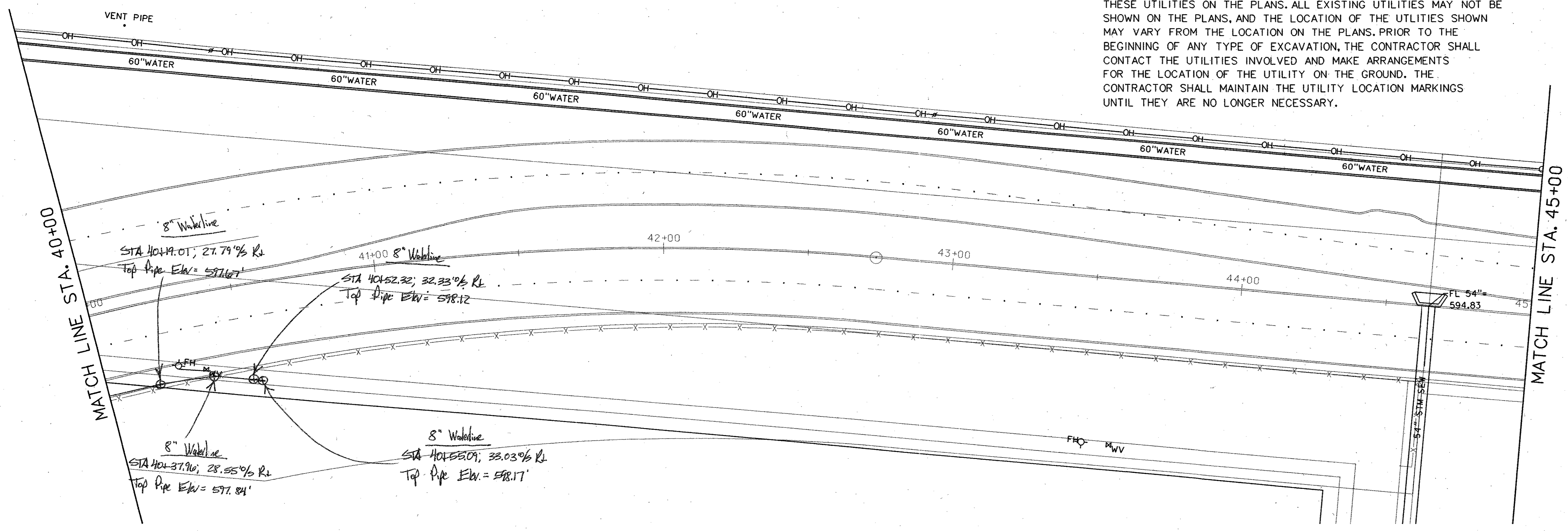
NOTE:

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LEGEND

- OH — OVERHEAD LINES
- CO SANITARY SEWER CLEANOUT
- FH FIRE HYDRANT
- ⊕ WV WATER VALVE
- ⊗ WM WATER METER
- ⊗ GM GAS METER



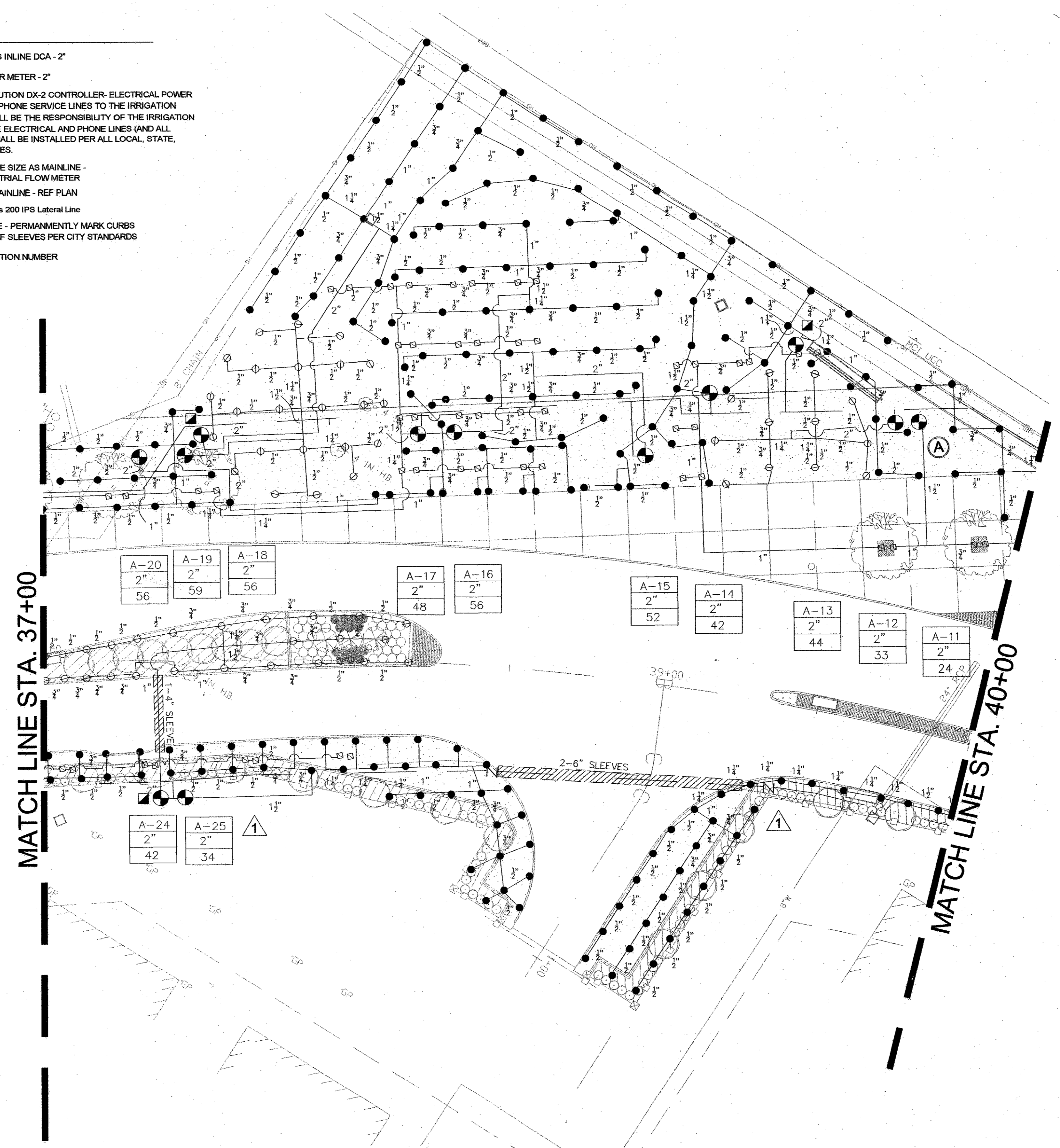
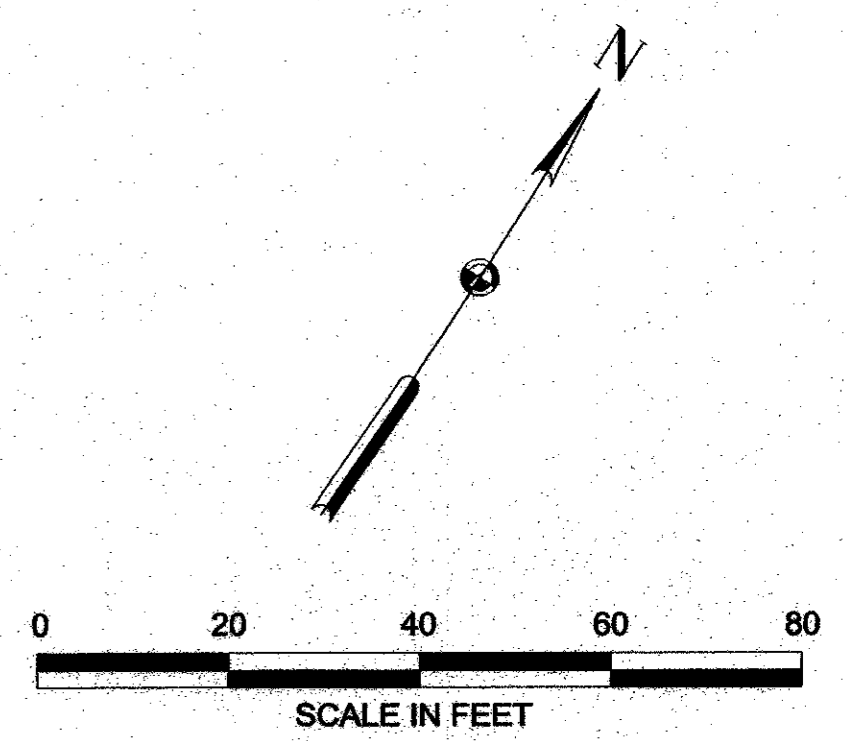
				183	
NO.	DATE	REVISION	APPROV.		
HNTB ARCHITECTS ENGINEERS PLANNERS <i>The HNTB Companies</i>					
ARAPAHO ROAD - PHASE III					
SURVEYOR BOULEVARD TO ADDISON ROAD					
EXISTING UTILITY PLAN					
STA 40+00 TO 50+00					
TOWN OF ADDISON, TEXAS					
Design JSN	Drawn GFS	DATE	SCALE	PROJECT NO.	SHEET NO.
Check JDH	Check JSN	APRIL 04	1" = 20'	25768	U-2

29-JUN-2004 13:02 G:\25768-ph3\h1\Cds\3\ut02.dgn

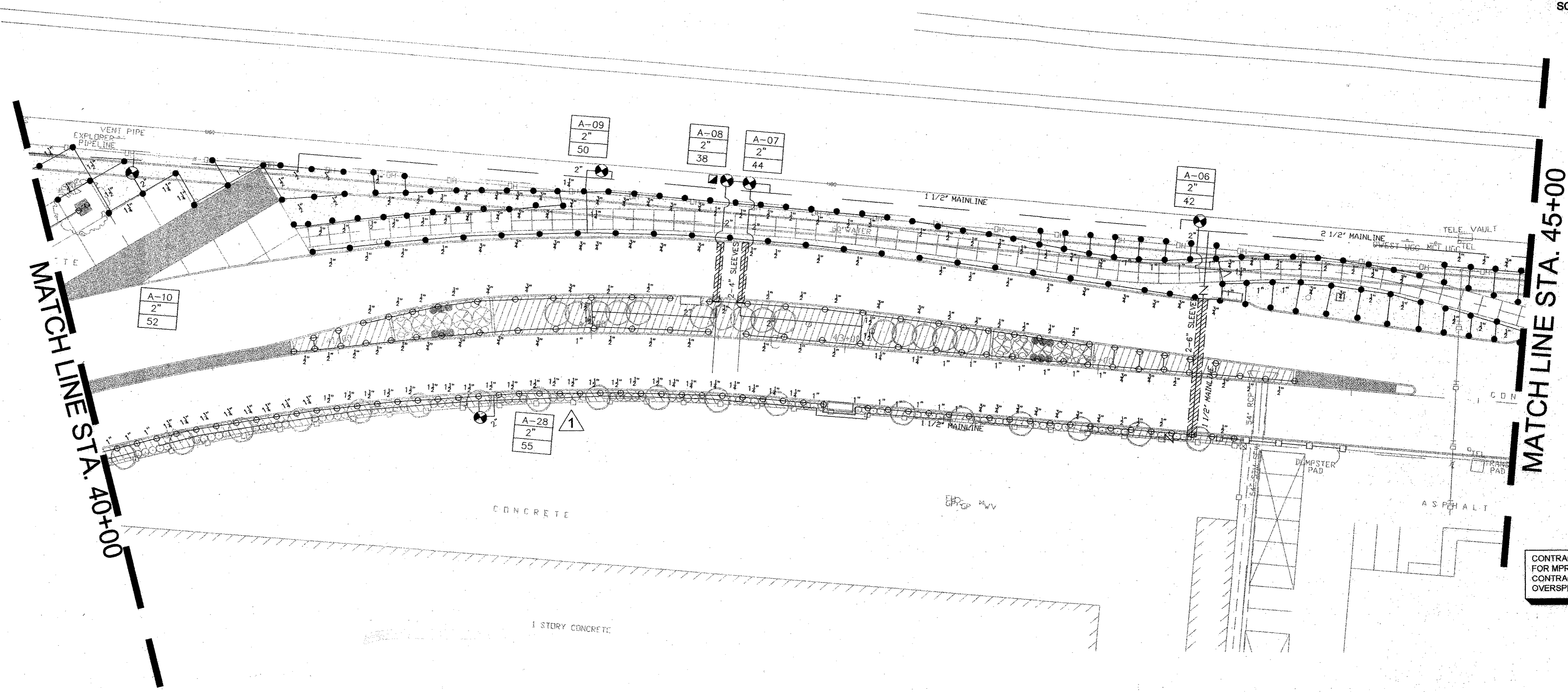
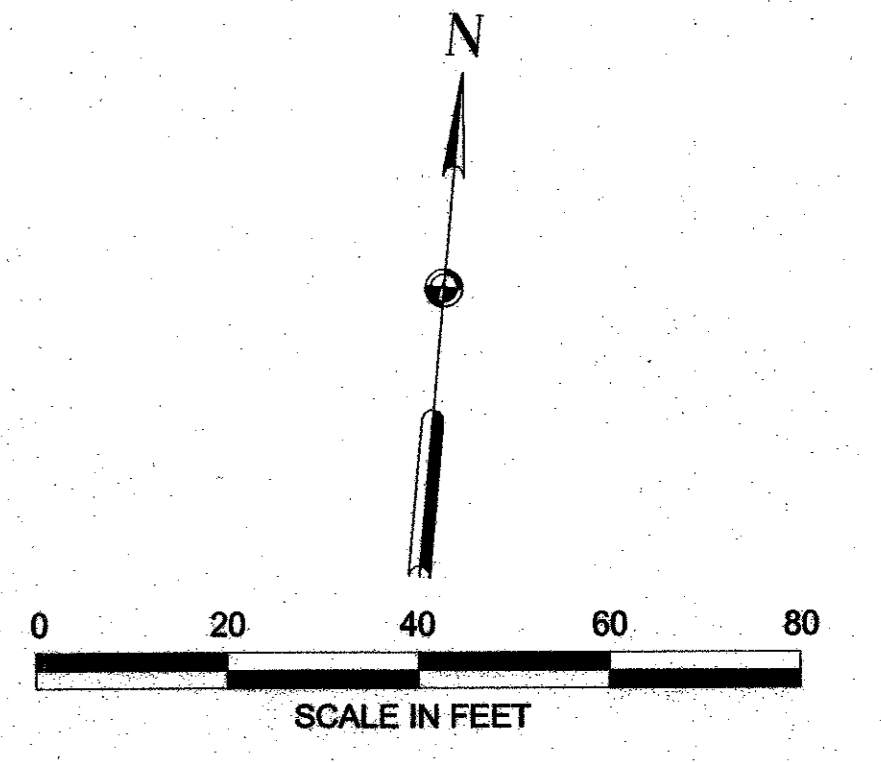
IRRIGATION LEGEND:

- RAINBIRD 1804-PRS-SAM SERIES 4" POP-UP SPRAY - MPR NOZZLES
- RAINBIRD 1806-PRS-SAM SERIES 6" POP-UP SPRAY - MPR NOZZLES
- ⊙ RAINBIRD 1812-PRS-SAM SERIES 12" POP-UP SPRAY - MPR NOZZLES
- ◇ TORO FB-PC-50 SERIES 12" POP-UP BUBBLERS - TURF AREAS
- ◇ TORO FB-100 ON SCH 80 RISER W/SHRUB ADAPTOR - TREE WELLS
- HUNTER I20-ADV SERIES - 8.0 NOZZLE
- ⊖ HUNTER I20-ADV SERIES - 4.0 NOZZLE
- ⊕ HUNTER I20-6P-ADV SERIES - 8.0 NOZZLE
- ⊕ HUNTER I20-6P-ADV SERIES - 4.0 NOZZLE
- △ HUNTER I20-HP-ADV SERIES - 8.0 NOZZLE
- △ HUNTER I20-HP-ADV SERIES - 4.0 NOZZLE
- ⊕ WEATHERMATIC 11000CR SERIES REMOTE CONTROL VALVE
MANIFOLDED VALVES SHALL BE SPACED 4'-0" APART
- ⊕ BUCKNER QB3SBL07 SINGLE LUG 3/4" QUICK COUPLING VALVE
- N SPEARS PLASTIC BALL VALVE - Same size as mainline
- ⊕ WATTS 007M SERIES INLINE DCA - 2"
- M HERSEY MVR WATER METER - 2"
- A RAINMASTER EVOLUTION DX-2 CONTROLLER- ELECTRICAL POWER DISTRIBUTION AND PHONE SERVICE LINES TO THE IRRIGATION CONTROLLERS SHALL BE THE RESPONSIBILITY OF THE IRRIGATION CONTRACTOR. THE ELECTRICAL AND PHONE LINES (AND ALL RELATED WORK) SHALL BE INSTALLED PER ALL LOCAL, STATE, AND NATIONAL CODES.
- ⊕ FLOW METER - SAME SIZE AS MAINLINE - FS-200 DATA INDUSTRIAL FLOW METER
- ▬ SCHEDULE 40 PVC MAINLINE - REF PLAN
Class 315 IPS or Class 200 IPS Lateral Line
- ▨ SCH 40 PVC SLEEVE - PERMANENTLY MARK CURBS WITH LOCATIONS OF SLEEVES PER CITY STANDARDS
- ZONE CONTROLLER - STATION NUMBER
- VALVE VALVE SIZE
- GPM GPM PER VALVE

CONTRACTOR SHALL VERIFY NOZZLE SIZES IN FIELD FOR MPR AND HEAD TO HEAD COVERAGE
CONTRACTOR TO MINIMIZE OVERSPRAY. NO OVERSPRAY ONTO PAVEMENT SHALL BE ACCEPTED.



VOID

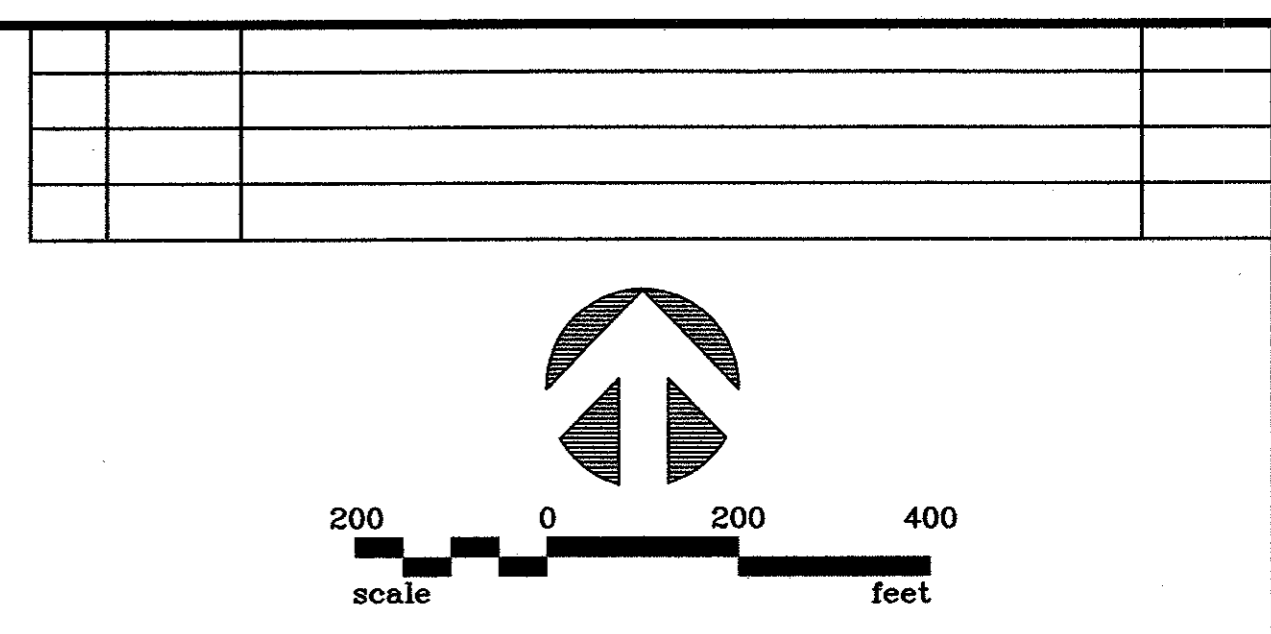
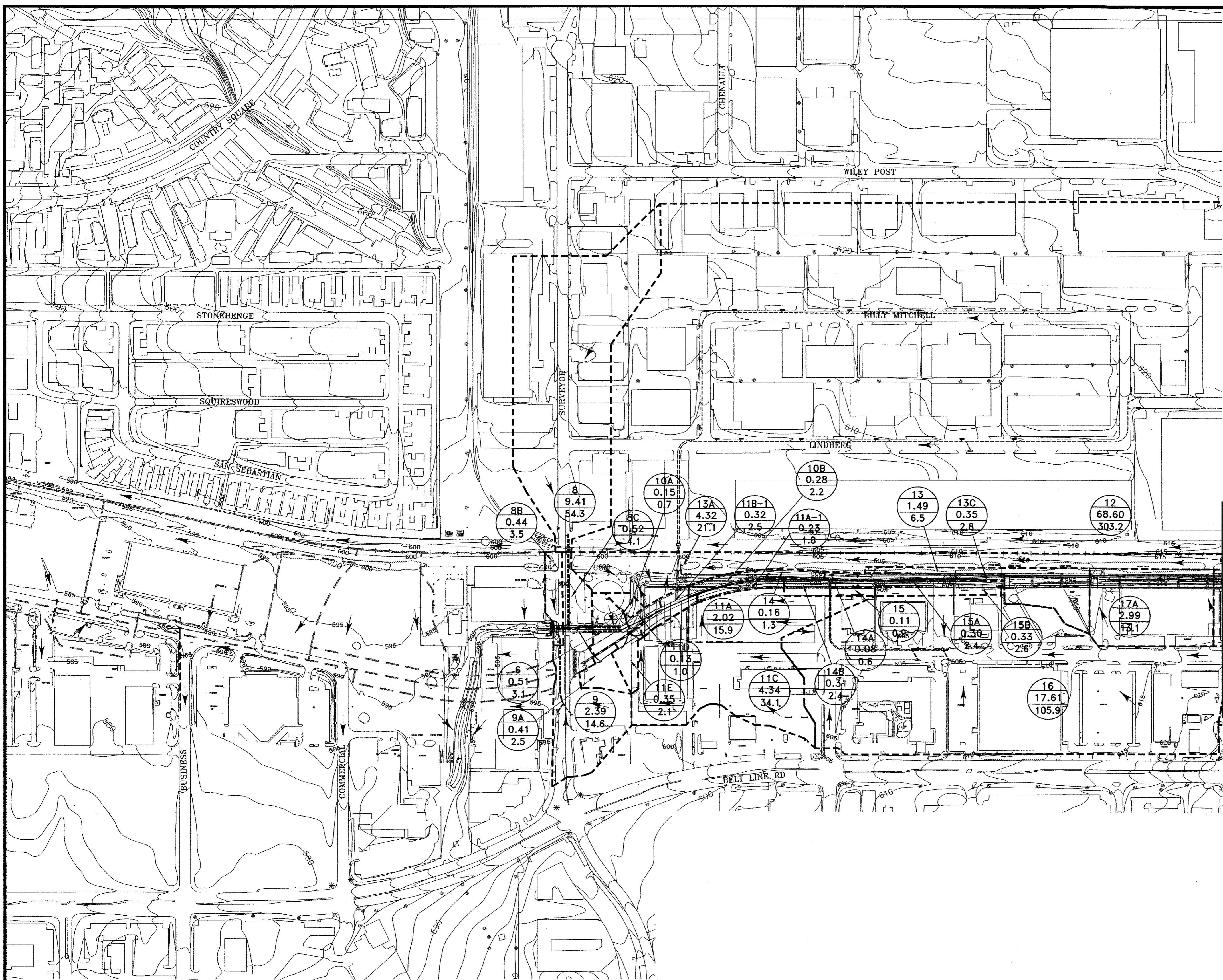


CONTRACTOR SHALL VERIFY NOZZLE SIZES IN FIELD FOR MPR AND HEAD TO HEAD COVERAGE. CONTRACTOR TO MINIMIZE OVERSPRAY. NO OVERSPRAY ONTO PAVEMENT SHALL BE ACCEPTED.

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- ⊕ FLOW METER - SAME SIZE AS MAINLINE - FS-200 DATA INDUSTRIAL FLOW METER
- SCHEDULE 40 PVC MAINLINE - REF PLAN
- Class 315 IPS or Class 200 IPS Lateral Line
- ▨ SCH 40 PVC SLEEVE - PERMANENTLY MARK CURBS WITH LOCATIONS OF SLEEVES PER CITY STANDARDS
- ZONE CONTROLLER - STATION NUMBER
- VALVE VALVE SIZE
- GPM GPM PER VALVE

VOID

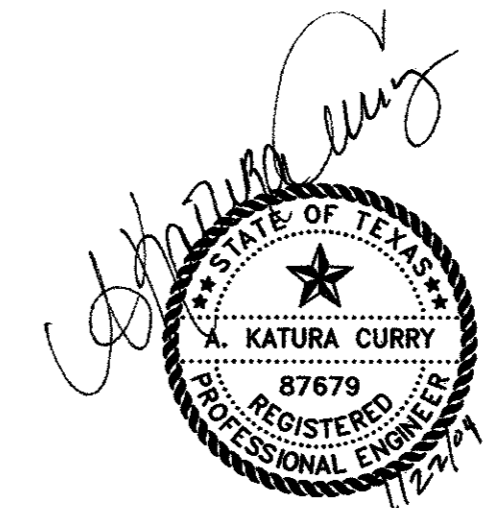


DRAINAGE AREA CALCULATIONS

DRAINAGE AREA NO.	AREA (ACRES)	C	Tc (MINUTES)	I 100 YR (IN/HR)	Q (cfs) (100-YR)	INTERCEPTED BY
6	0.51	0.70	10.00	8.74	3.1	I-0+06.58, A-A1
8	9.41	0.70	12.00	8.25	54.3	J-1+23.37B
8B	0.44	0.90	10.00	8.74	3.5	I-0+06.29, LAT1
8C	0.52	0.90	10.00	8.74	4.1	I-0+12.70, LAT2
9	2.39	0.70	10.00	8.74	14.6	I-EX D2
9A	0.41	0.70	10.00	8.74	2.5	I-1+33.87, A-A
10A	0.15	0.50	10.00	8.74	0.7	I-0+39.04, B-1
10B	0.28	0.90	10.00	8.74	2.2	I-3+66.25B
11A	2.02	0.90	10.00	8.74	15.9	I-A2-A
11A-1	0.23	0.90	10.00	8.74	1.8	I-0+13.33, A-2
11B-1	0.32	0.90	10.00	8.74	2.5	I-0+26.48, A-1A
11C	4.34	0.90	10.00	8.74	34.1	I-0+64.55, A-1
11D	0.13	0.90	10.00	8.74	1.0	I-0+12.54, A1-C
11E	0.35	0.70	10.00	8.74	2.1	I-0+59.28, A1-B
13	1.49	0.50	10.00	8.74	6.5	I-0+34.57, B-7
12, 13A	72.92	0.65	20.00	6.80	322.3	I-1+12.12, B-2
13C	0.35	0.90	10.00	8.74	2.8	I-0+16.98, B-5
14	0.16	0.90	10.00	8.74	1.3	I-0+01.92, B-3
14A	0.08	0.90	10.00	8.74	0.6	I-0+24.63, B-4A
14B	0.31	0.90	10.00	8.74	2.4	I-0+12.89, A-3
15	0.11	0.90	10.00	8.74	0.9	I-0+07.24, A-4A
15A	0.30	0.90	10.00	8.74	2.4	I-0+13.47, A-5
15B	0.33	0.90	10.00	8.74	2.6	I-0+23.79, A-5C
16	17.61	0.80	15.00	7.52	105.9	I-0+16.76, A-4
17A	2.99	0.50	10.00	8.74	13.1	I-0+20, B-8
17B	0.56	0.90	10.00	8.74	4.4	I-0+27.73, A-5B
19, 21B	166.50	0.58	39.50	5.03	485.7	I-24+10.26B
21A	4.39	0.90	10.00	8.74	34.5	I-MID SOUTH 30
21C	6.17	0.80	10.00	8.74	43.1	I-0+24.76, A-6
22	0.29	0.90	10.00	8.74	2.3	I-0+05, A-8A
22B	0.45	0.90	10.00	8.74	3.5	I-0+56.67, A-8
23	1.50	0.70	10.00	8.74	9.2	I-0+68.85, A-7
25	1.28	0.70	10.00	8.74	7.8	I-0+58.52, A-10
26A	0.24	0.90	10.00	8.74	1.9	I-0+8.86, A-12
26B	0.30	0.90	10.00	8.74	2.4	I-0+16.79, A-10A
27A	0.51	0.90	10.00	8.74	4.0	I-1+56.20, C-7
27C	0.23	0.90	10.00	8.74	1.8	I-0+30.27, C-9
27E	0.20	0.30	15.00	7.52	0.5	I-0+88.00, C-8
28A	0.33	0.30	15.00	7.52	0.7	I-0+13.86, C-3C
28B	0.30	0.30	15.00	7.52	0.7	I-0+13.86, C-5
28C	0.37	0.90	10.00	8.74	2.9	I-8+33.85C
28D	0.15	0.90	10.00	8.74	1.2	I-0+60.04, C-4
28E	0.34	0.30	15.00	7.52	0.8	I-0+90.00, C-6
29B	10.95	0.50	10.00	8.74	47.9	I-LATA11
B1	0.26	0.30	10.00	8.74	0.7	I-1+09.49, A-13
B2	0.32	0.70	10.00	8.74	2.0	I-0+80.04, C-3B
B4	0.72	0.70	10.00	8.74	4.4	I-0+80.04, C-2
B5	9.16	0.50	12.00	8.25	37.8	I-0+10, A-14
B6	6.54	0.50	12.00	8.25	27.0	I-45+05.00A
B7	28.80	0.65	18.90	6.96	130.3	I-2+43.50D
B8	30.31	0.65	15.00	7.52	148.2	I-44+71.86A
B11	0.67	0.30	15.00	7.52	1.5	I-0+13.86, C-3
B12	1.75	0.30	15.00	7.52	3.9	I-0+04.55, D-1
BRIDGE	0.49	0.90	10.00	8.74	3.9	I-0+03.19, B-7A
BRIDGE	0.49	0.90	10.00	8.74	3.9	I-0+05.46, A-5A
BRIDGE	0.34	0.90	10.00	8.74	2.7	I-0+29.44, A-6A
BRIDGE	0.34	0.90	10.00	8.74	2.7	I-0+06.41, A-6B

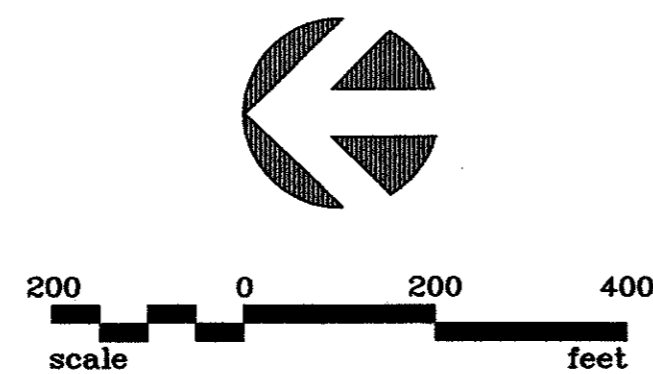
MATCH LINE STA. 59+00

- LEGEND:**
- DRAINAGE DIVIDE
 - EXISTING STORM SEWER SYSTEM
 - PROPOSED STORM SEWER SYSTEM
 - DRAINAGE AREA
 - ACRES
 - Q₁₀₀

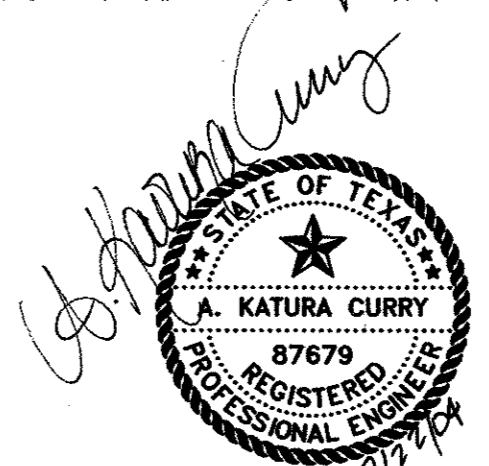


THE SEAL APPEARING ON THIS DOCUMENT WAS AUTHORIZED BY: A. KATURA CURRY ON 7-21-04. ALTERATION OF A SEALED DOCUMENT WITHOUT PROPER NOTIFICATION TO THE RESPONSIBLE ENGINEER IS AN OFFENSE UNDER THE TEXAS ENGINEERING PRACTICE ACT.

DATE:	MAY 2004	SCALE:	1"=200'	JOB NO.:	02-320
DRAWN:	G&A	DESIGN:	AKC	REVIEWED:	BRG
DWG:		320DRNAREA			
ARAPAHO ROAD PHASE III					
DRAINAGE AREA MAP - SHEET 1					
TOWN OF ADDISON					
		Grantham & Associates, Inc.		SHT. D-1	
1919 S. SHILOH ROAD, SUITE 310, L.B. 8 GARLAND, TEXAS 75042		(972) 864-2333 (TEL) (972) 864-2334 (FAX)			



- LEGEND:**
- DRAINAGE DIVIDE
 - EXISTING STORM SEWER SYSTEM
 - PROPOSED STORM SEWER SYSTEM
 - DRAINAGE AREA
 - ACRES
 - Q₁₀₀

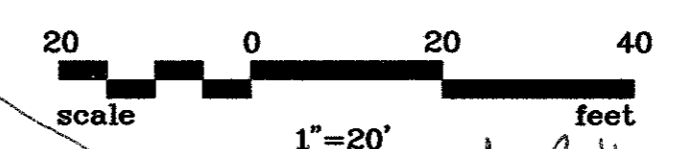
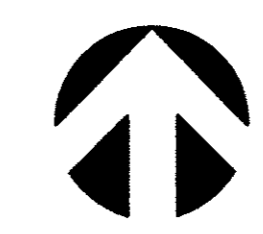


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 A. KATURA CURRY
 ON 7-21-04.
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DATE:	MAY 2004	SCALE:	1"=200'	JOB NO.:	02-320
DRAWN:	G&A	DESIGN:	AKC	REVIEWED:	BRG
DWG:		320DRNAREA			
ARAPAHO ROAD PHASE III					
DRAINAGE AREA MAP - SHEET 2					
TOWN OF ADDISON					
		Grantham & Associates, Inc.		SHT. D-2	
1919 S. SHILOH ROAD, SUITE 310, L.B. 8 GARLAND, TEXAS 75042				(972) 864-2334 (TEL) (972) 864-2334 (FAX)	

MATCH LINE STA. 59+00

NO.	DATE	REVISION	APPROV.
1	06/28/04	REVISED PER ADDENDA	A.K.C.
2	06/28/04	REVISED PER G & A	A.K.C.
3			



- STORM SEWER NOTES:**
- PRE-CAST OR CAST-IN-PLACE BOX CULVERTS CAN BE USED ON THIS PROJECT.
 - ALL BOX CULVERTS AND HEADWALLS/WINGWALLS PER TEXAS DEPARTMENT OF TRANSPORTATION (TXDOT) DETAILS, UNLESS OTHERWISE NOTED.
 - ALL CONNECTIONS SHALL BE PRE-CAST OR CAST-IN-PLACE AND GROUTED.
 - ALL GRADING SHOWN ON STORM WATER PLANS IS ROUGH GRADING. FINAL GRADES FOR ALL SIDEWALKS, TRAILS, LANDSCAPE FEATURES, AND PARKING LOTS SHALL BE AS SHOWN ON LANDSCAPE PLANS AND PARKING LOT GRADING PLANS. CAUTION: CONTRACTOR SHALL MEET ALL ABA STANDARDS FOR TRAILS AND PARKING.
 - CONTRACTOR SHALL REFER TO STREETScape PLANS FOR DETAILED GRADING.
 - BETWEEN SURVEYOR BLVD. AND STA. 14+00 ON LINE A AND LINE B, WHERE THE BOX CULVERTS ARE IMMEDIATELY ADJACENT TO ONE ANOTHER, A MINIMUM SEPARATION OF 6 INCHES SHALL BE PROVIDED BETWEEN BOX WALLS. THIS SPACE SHALL BE BACKFILLED WITH CEMENT STABILIZED SAND IN ACCORDANCE WITH TXDOT STANDARDS.
 - ALL PIPE TO BOX CONNECTIONS SHALL BE MADE IN ACCORDANCE WITH TXDOT STANDARDS.
 - CONTRACTOR TO FIELD VERIFY ALL EXISTING STORM SEWER FLOWLINES PRIOR TO INSTALLING NEW STORM SEWER. CONTACT ENGINEER IF DISCREPANCY IS FOUND WITH PLANS.
 - CONTRACTOR TO INSTALL TXDOT BOX CULVERT TYPE TO MATCH COVER OVER BOX. DIRECT BURY BOX REQUIRED WHERE COVER IS LESS THAN 2 FEET (E.G. UNDER SURVEYOR).
 - CONTRACTOR TO GRADE AROUND ALL "Y"-INLETS AND GRATE INLETS TO PROVIDE POSITIVE DRAINAGE TO INLET. CONTACT ENGINEER PRIOR TO INSTALLING INLET TOP IF CHANGE IN THROAT OR GRATE ELEVATION IS REQUIRED.

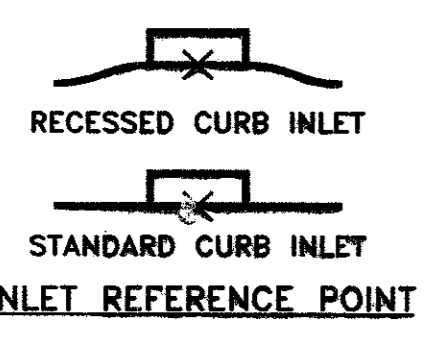
Conduit #7 As Built

Loc	STA	9/5	Top Conduit Elev
①	35182.14	60.854	595.66
②	35191.42	54.624	595.72
③	35193.20	53.724	585.13
④	36151.79	54.124	580.38
⑤	36161.63	54.184	596.22

LAT. 'D-1' CURVE DATA

NUMBER	RADIUS	DELTA	ARC LENGTH	CHORD BEARING	CHORD LENGTH
C1	100'	30°02'53"	52.44'	S 44°26'44" E	51.84'

CAUTION!!!
UNDERGROUND GAS & TELEPHONE PRESENT IN THIS AREA. CALL 1-800-BIG-TESS PRIOR TO CONSTRUCTION

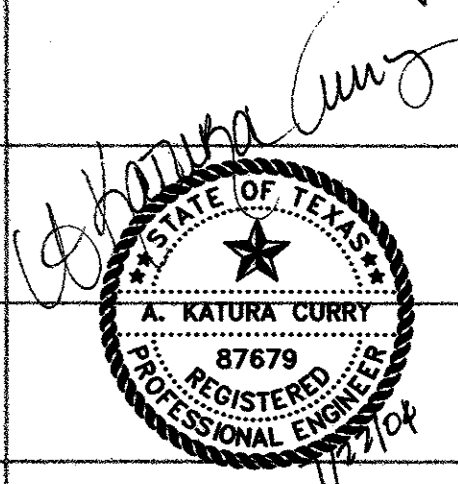
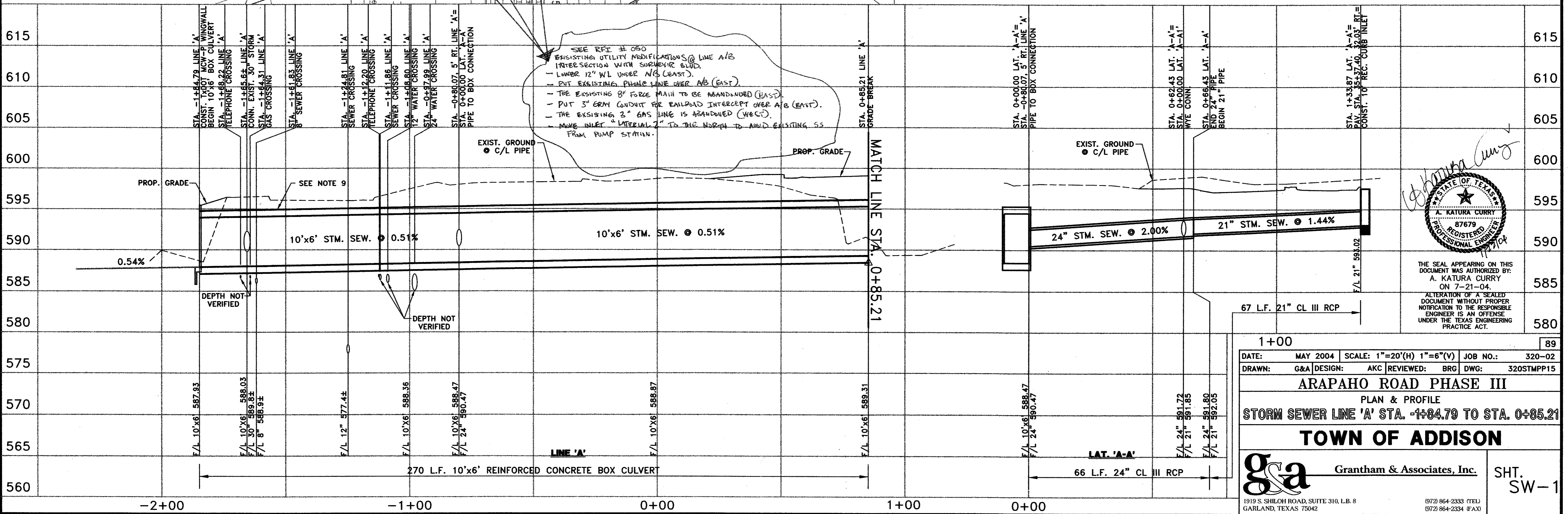


LEGEND

- CONCRETE PAVEMENT REMOVE/REPLACE MATCH EXIST.
- CONCRETE DRIVE REMOVE/REPLACE MATCH EXIST.

CAUTION!!!
CONTRACTOR TO FIELD VERIFY DEPTHS OF ALL UTILITIES CROSSING SURVEYOR CULVERTS PRIOR TO INSTALLATION. CONTACT ENGINEER IF CONFLICT

SEE RFI # 027 (SEE SHEET # 21a)
GRADED PIPE DETAIL



THE SEAL APPEARING ON THIS DOCUMENT WAS AUTHORIZED BY: A. KATURA CURRY ON 7-21-04.
ALTERATION OF A SEALED DOCUMENT WITHOUT PROPER NOTIFICATION TO THE RESPONSIBLE ENGINEER IS AN OFFENSE UNDER THE TEXAS ENGINEERING PRACTICE ACT.

1+00 89

DATE: MAY 2004 SCALE: 1"=20'(H) 1"=6'(V) JOB NO.: 320-02
DRAWN: G&A DESIGN: AKC REVIEWED: BRG DWG: 320STMP15

ARAPAHO ROAD PHASE III
PLAN & PROFILE
STORM SEWER LINE 'A' STA. -1+84.79 TO STA. 0+85.21

TOWN OF ADDISON

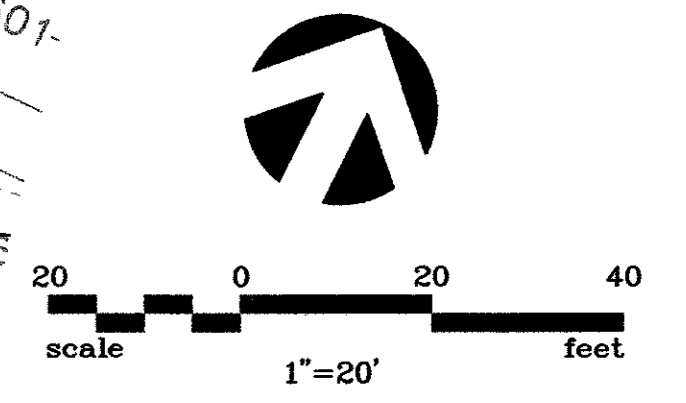
G&A Grantham & Associates, Inc. SHT. SW-1

1919 S. SHILOH ROAD, SUITE 310, L.B. 8 GARLAND, TEXAS 75042 (972) 864-2333 (TEL) (972) 864-2334 (FAX)

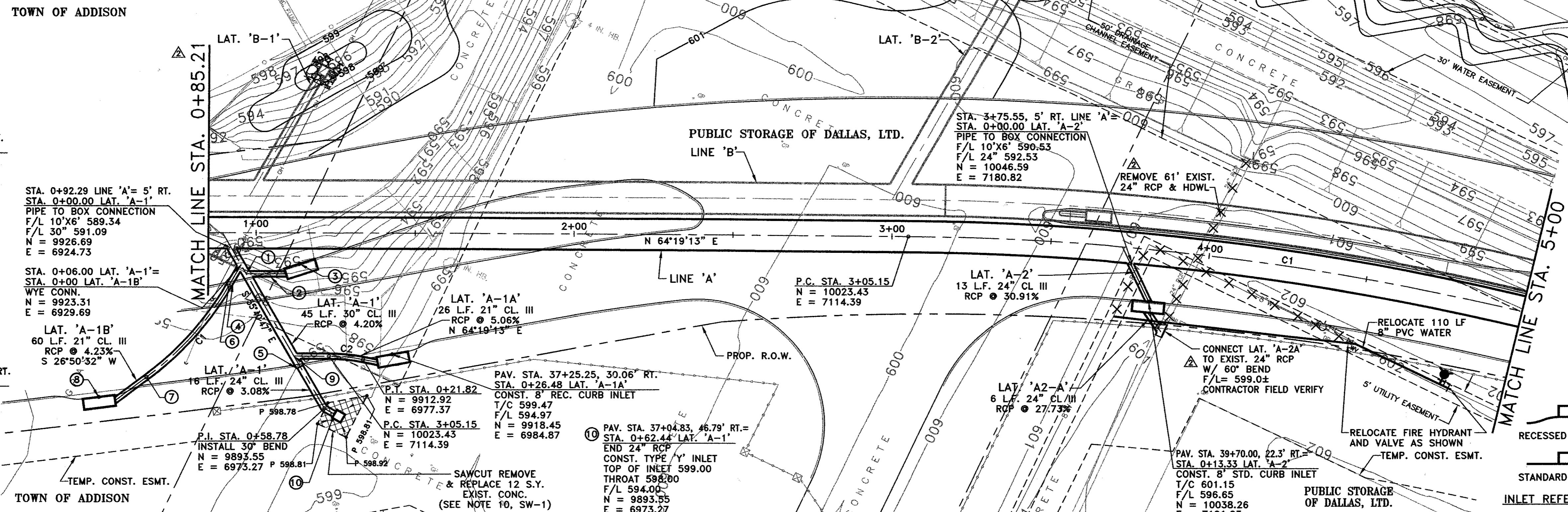
LINE 'A' CURVE DATA					
NUMBER	RADIUS	DELTA	ARC LENGTH	CHORD BEARING	CHORD LENGTH
C1	844.17	25°41'58"	378.64	N 77°10'12" E	375.48

LAT. 'A-1A' CURVE DATA					
NUMBER	RADIUS	DELTA	ARC LENGTH	CHORD BEARING	CHORD LENGTH
C2	55.00	11°15'00"	10.80	N 69°56'43" E	10.78

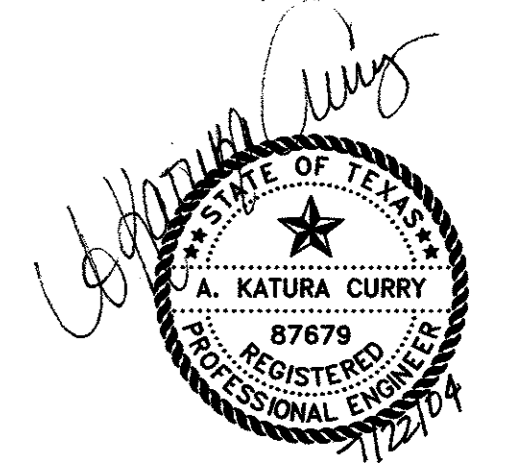
NO.	DATE	REVISION	APPROV.
1	06/28/04	REVISED PER ADDENDA	A.K.C.
2	06/28/04	REVISED PER G & A	A.K.C.
3			



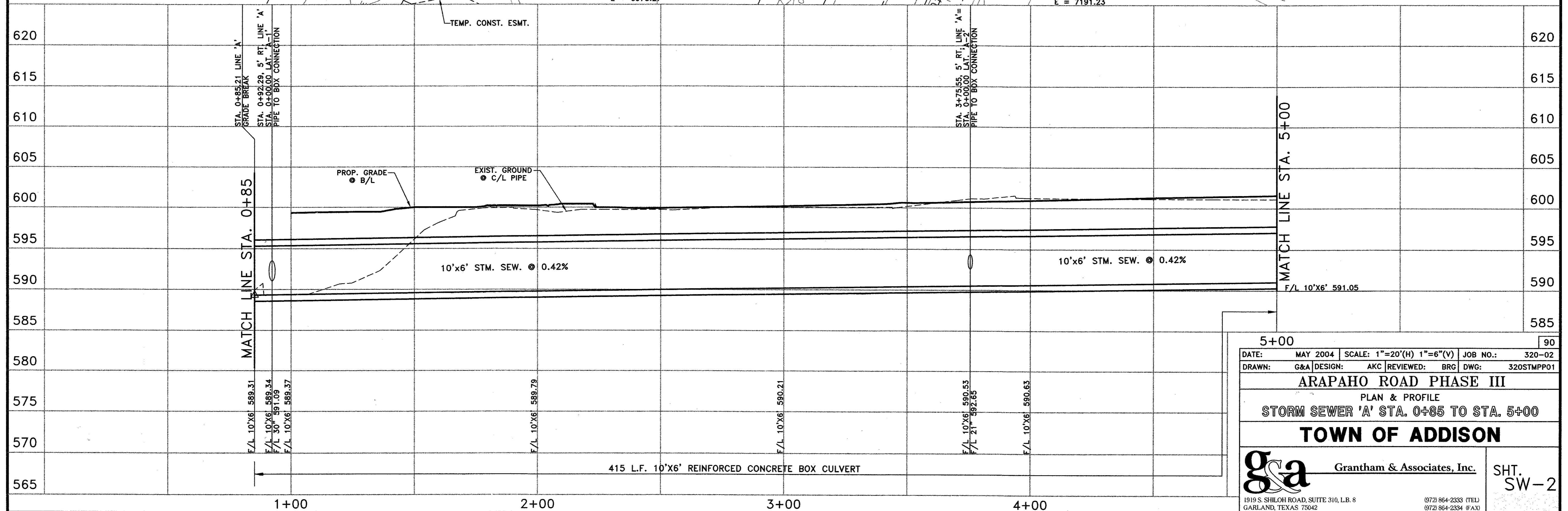
- ① STA. 0+09.29 LAT. 'A-1'=
STA. 0+00 LAT. 'A1-C'
WYE CONN.
N = 9921.45
E = 6932.40
- ② LAT. 'A-1C'
13 L.F. 21" CL. III
RCP @ 27.03%
N 64°19'13" E
- ③ PAV. STA. 37+00.00, 2.16' LT.
STA. 0+12.54 LAT. 'A1-C'
CONST. 10' STD. CURB INLET
T/C 599.5
F/L 595.0
N = 9926.89
E = 6943.70
- ④ S 04°19'13" W
- ⑤ STA. 0+43.45 LAT. 'A-1'
END 30" RCP
BEGIN 24" RCP
E = 6924.73
- ⑥ P.C. STA. 0+07.57
N = 9915.76
E = 6929.11
- ⑦ P.T. STA. 0+46.88
N = 9878.14
E = 6918.62
- ⑧ PAV. STA. 36+32.00, 32.03' RT.
STA. 0+59.28 LAT. 'A1-B'
CONST. 10' REC. CURB INLET
T/C 598.7
F/L 594.2
N = 9867.07
E = 6913.02
- ⑨ STA. 0+39.45 LAT. 'A-1'=
STA. 0+00 LAT. 'A-1A'
WYE CONN.
N = 9904.45
E = 6957.31



NOTE
REFER TO SW-1 FOR
STORM SEWER NOTES

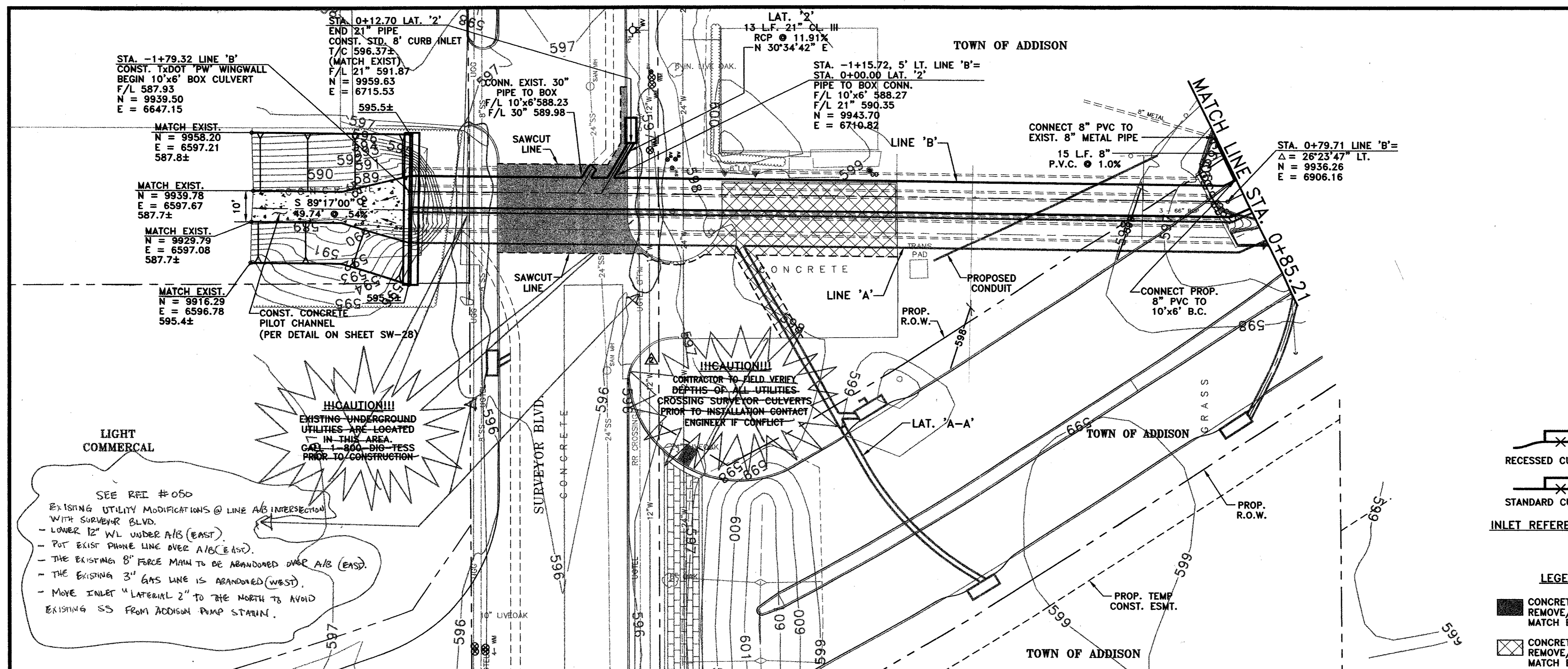
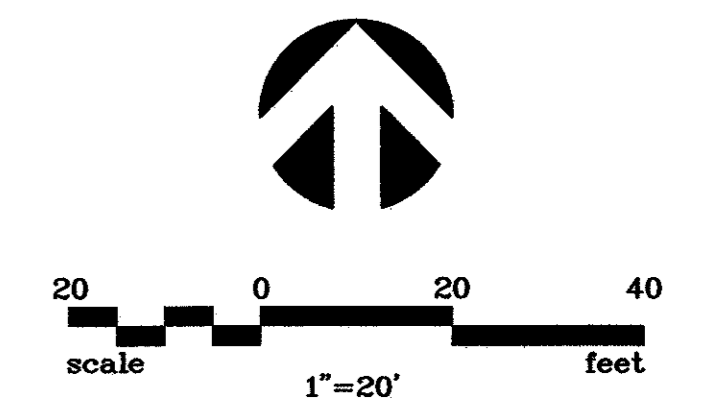


THE SEAL APPEARING ON THIS DOCUMENT WAS AUTHORIZED BY:
A. KATURA CURRY
ON 7-21-04
ALTERATION OF A SEALED DOCUMENT WITHOUT PROPER NOTIFICATION TO THE RESPONSIBLE ENGINEER IS AN OFFENSE UNDER THE TEXAS ENGINEERING PRACTICE ACT.

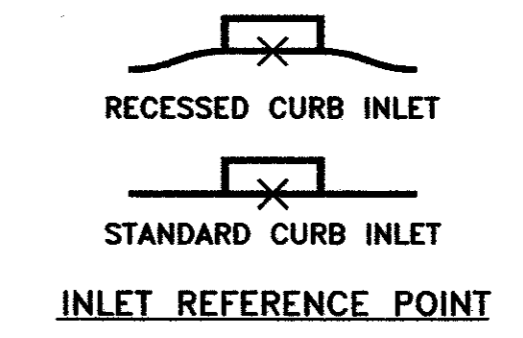


DATE:	MAY 2004	SCALE: 1"=20'(H) 1"=6'(V)	JOB NO.:	320-02
DRAWN:	G&A	DESIGN:	AKC	REVIEWED: BRG
		DWG:	320STMP01	
ARAPAHO ROAD PHASE III				
PLAN & PROFILE				
STORM SEWER 'A' STA. 0+85 TO STA. 5+00				
TOWN OF ADDISON				
		Grantham & Associates, Inc.		SHT. SW-2
1919 S. SHILOH ROAD, SUITE 310, L.B. 8 GARLAND, TEXAS 75042		(972) 864-2333 (TEL) (972) 864-2334 (FAX)		

NO.	DATE	REVISION	APPROV.
1			
2	06/28/04	REVISED PER G & A	A.K.C.
3			

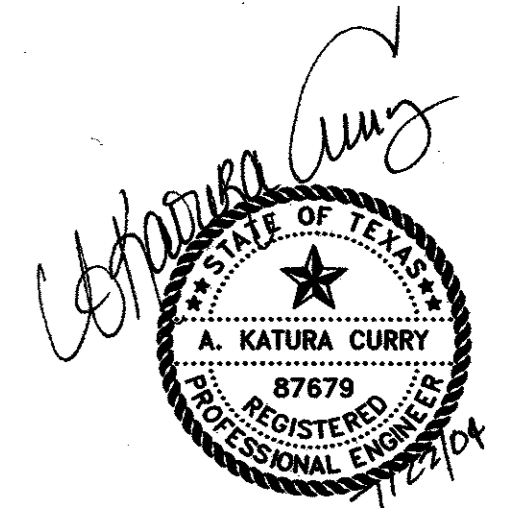


SEE REF # 060
 EXISTING UTILITY MODIFICATIONS @ LINE A/B INTERSECTION WITH SURVEYOR BLVD.
 - LOWER 12" WL UNDER A/B (EAST).
 - PUT EXIST PHONE LINE OVER A/B (EAST).
 - THE EXISTING 8" FORCE MAIN IS TO BE ABANDONED OVER A/B (EAST).
 - THE EXISTING 3" GAS LINE IS ABANDONED (WEST).
 - MOVE INLET "LATERAL 2" TO THE NORTH TO AVOID EXISTING SS FROM ADDISON PUMP STATION.

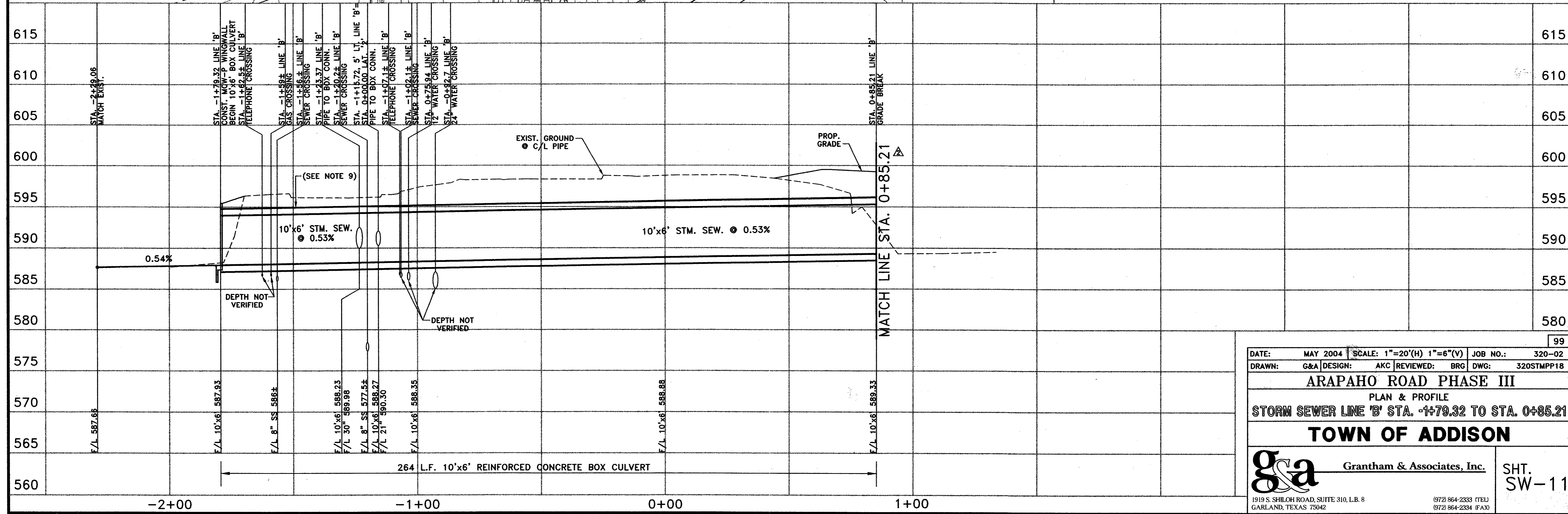


LEGEND
 [Symbol] CONCRETE PAVEMENT REMOVE/REPLACE MATCH EXIST.
 [Symbol] CONCRETE DRIVE REMOVE/REPLACE MATCH EXIST.

NOTE
 REFER TO SW-1 FOR STORM SEWER NOTES



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DATE:	MAY 2004	SCALE:	1"=20'(H) 1"=6"(V)	JOB NO.:	320-02
DRAWN:	G&A	DESIGN:	AKC	REVIEWED:	BRG
		DWG:	320STMP18		
ARAPAHO ROAD PHASE III					
PLAN & PROFILE					
STORM SEWER LINE 'B' STA. -1+79.32 TO STA. 0+85.21					
TOWN OF ADDISON					
		Grantham & Associates, Inc.		SHT. SW-11	
1915 S. SHILOH ROAD, SUITE 310, L.B. 8 GARLAND, TEXAS 75042		(972) 864-2333 (TEL) (972) 864-2334 (FAX)			