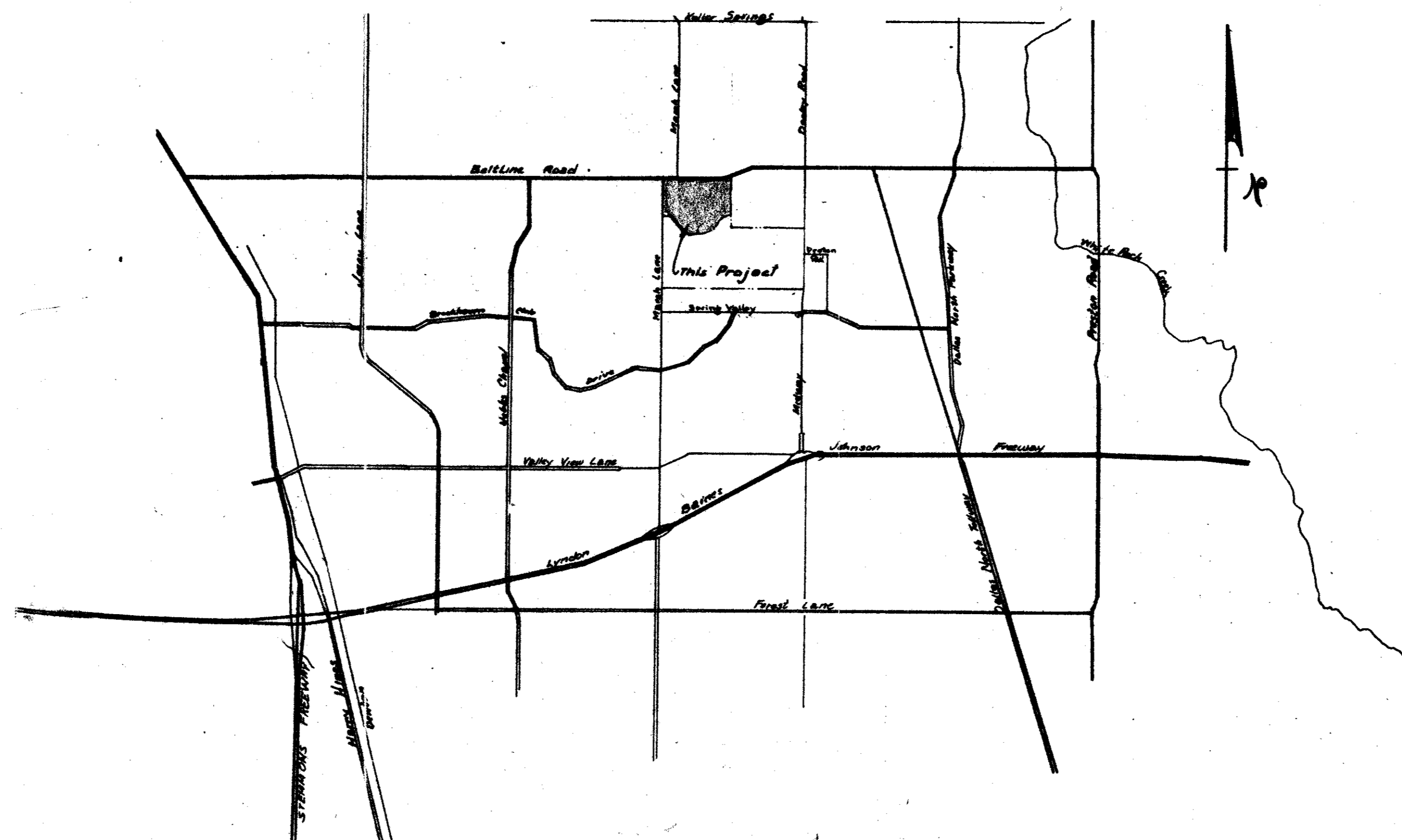


LES LACS PLAZA

for

LES LACS PLAZA JOINT VENTURE



VICINITY MAP

DESIGNED BY

RAYMOND L. GOODSON JR., INCORPORATED, CONSULTING ENGINEERS
3409 OAK GROVE
528-2200
DALLAS, TEXAS
75204

CONSTRUCTION SET
2/25/83

CITY OF ADDISON
APPROVED
FOR CONSTRUCTION
R. D. Jones
BUILDING DEPARTMENT
4-15-83

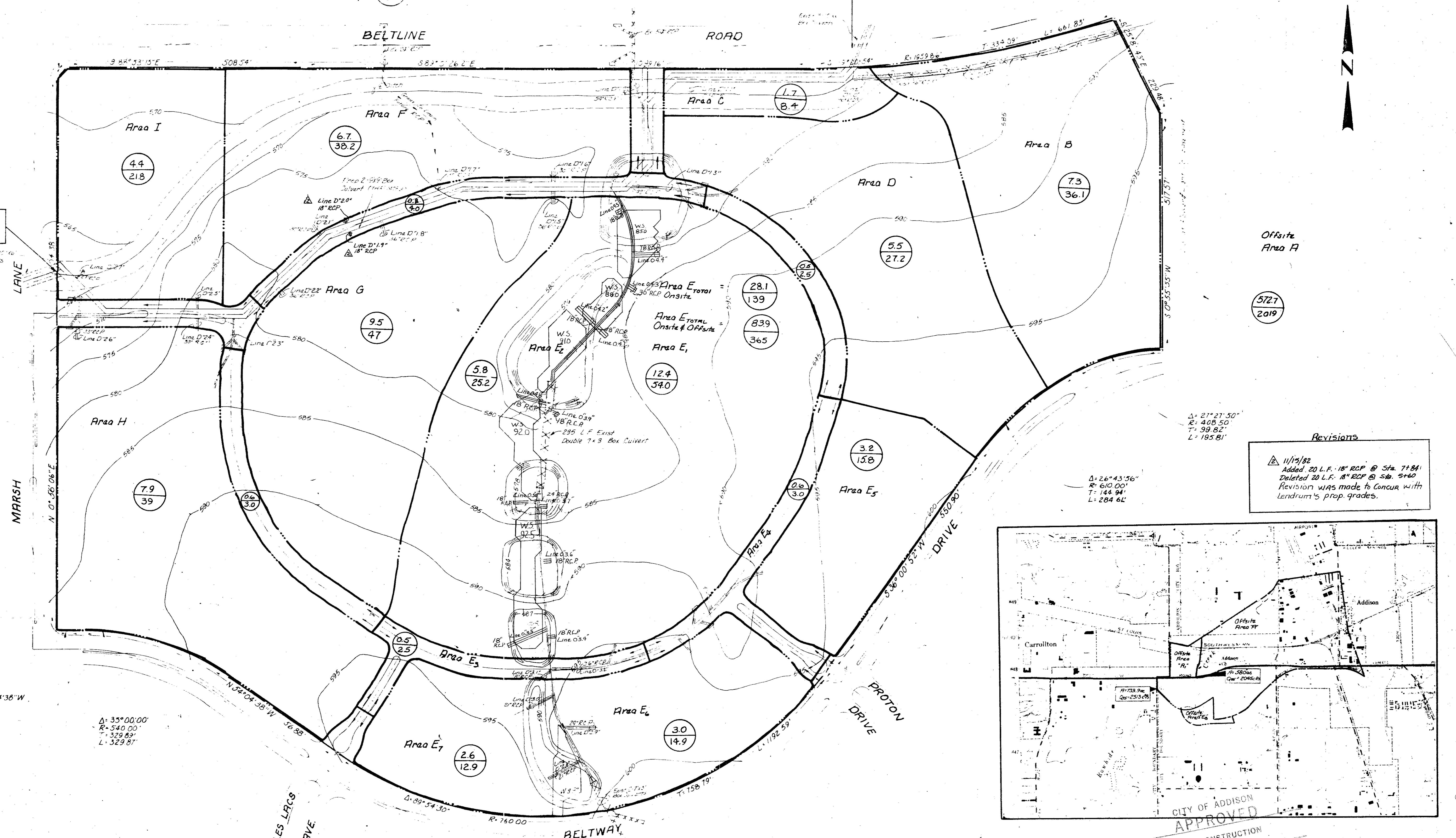
DATE: 4-15-83
NOTE: CONTRACTOR IS HEREBY INSTRUCTED TO EXERCISE CARE IN MEETING OR EXCEEDING ALL REQUIREMENTS OF BOTH NATIONAL AND LOCAL CODES AND/OR ORDINANCES APPLICABLE TO HIS WORK. APPROVAL OF THESE DRAWINGS SHALL NOT BE CONSTRUED TO RELIEVE RESPONSIBILITY OR IMPLY VARIANCE TO SUCH CODES.

Offsite Area A, 38.6 / 191.0

Offsite Area A

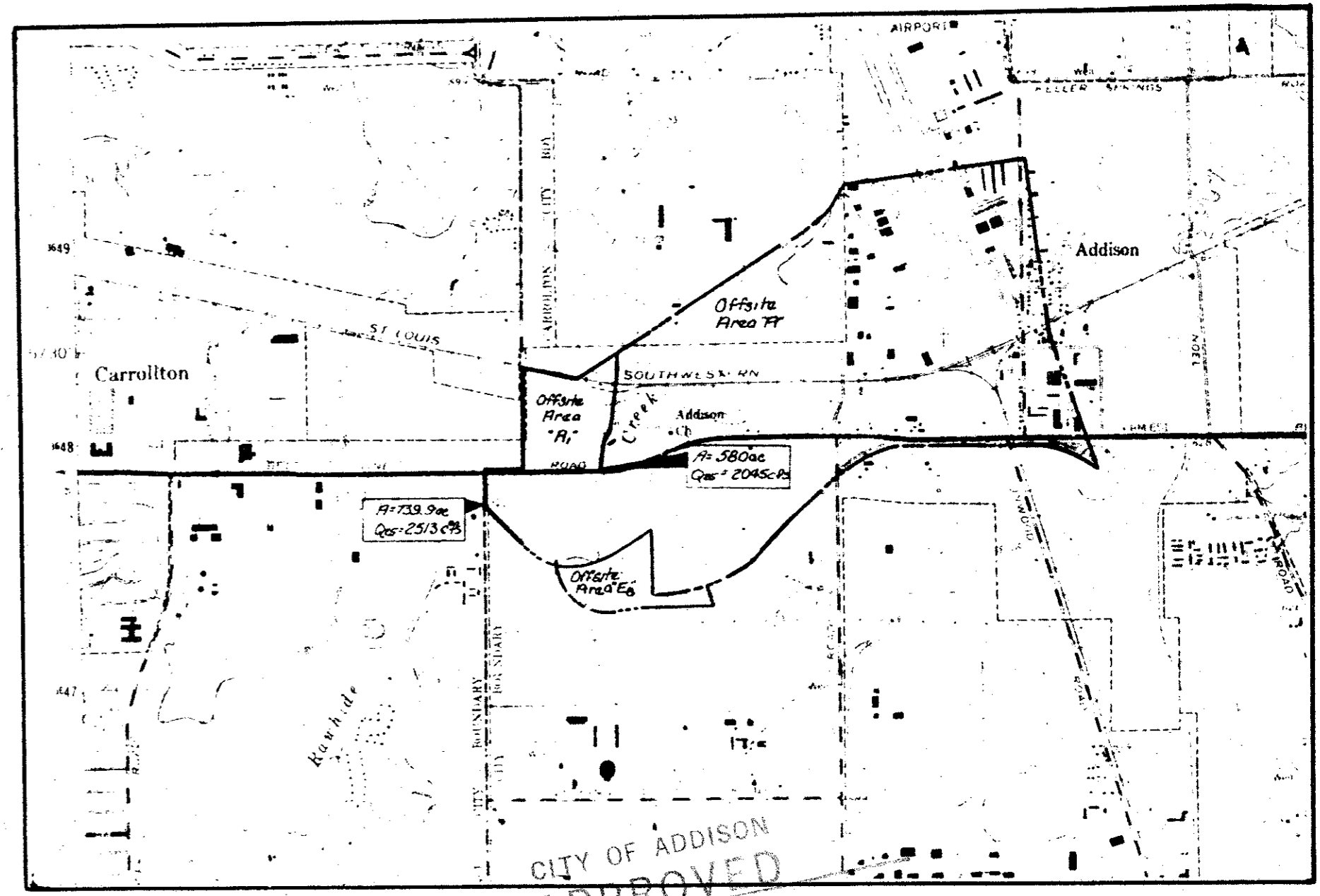
Total Area = 580ac
Total Qes = 2045ac

Total Area = 139.9ac
Qes = 2513 cfs



Revisions

11/13/82
 Added 20 L.F. 18" RCP @ Sta. 7+84'
 Deleted 20 L.F. 18" RCP @ Sta. 5+60
 Revision was made to concur with Lendrum's prop. grades.



CITY OF ADDISON
 APPROVED

FOR CONSTRUCTION
 Offsite Drainage Area Map
 Scale 1" = 2000'

Accepted For Construction By:
 [Signature] Date: 2-12-82
 [Signature] Date: 3-14-83
 Contractor

Existing Offsite Area E8 55.8 / 243

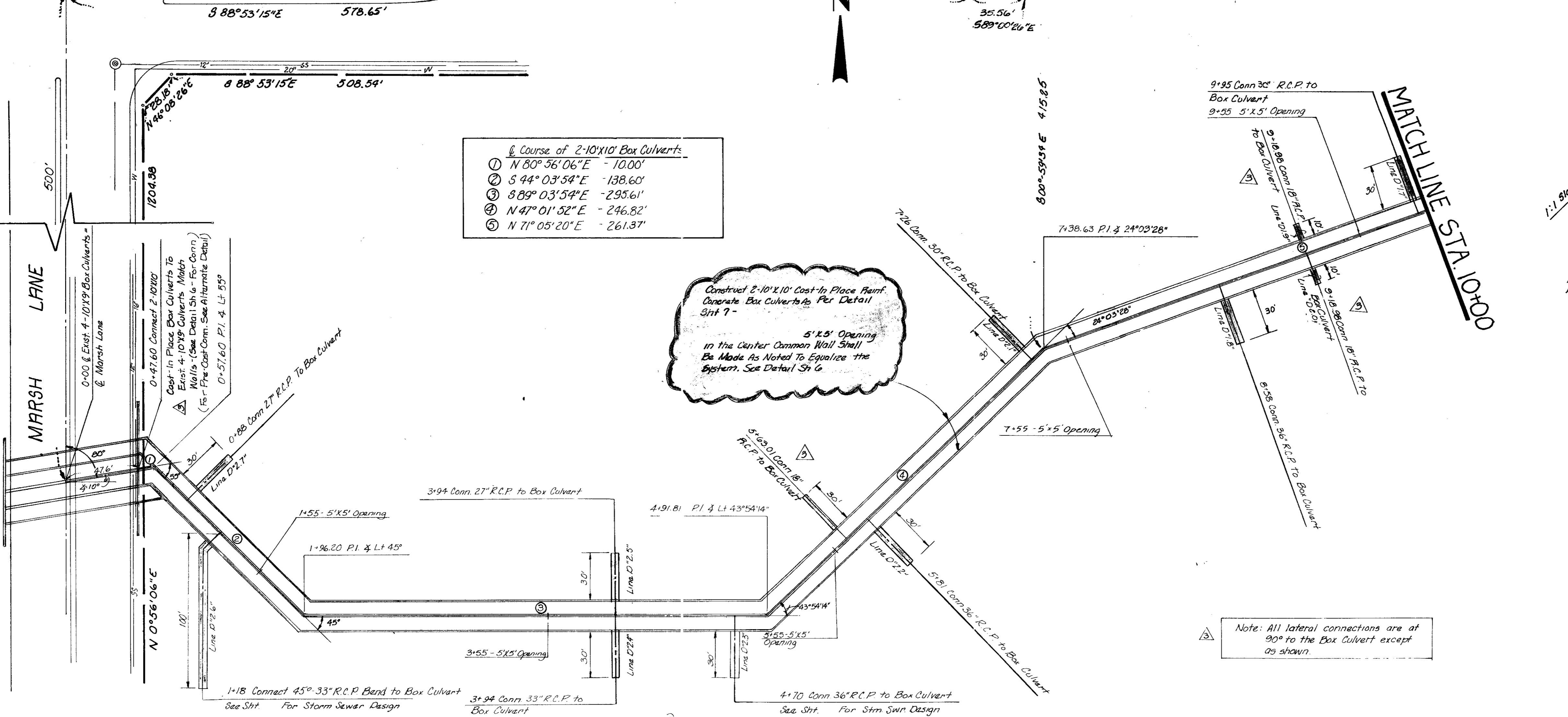
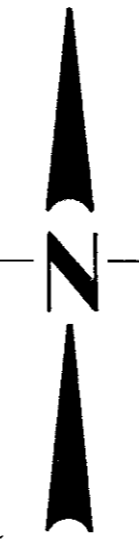
NOTE: CONTRACTOR IS HEREBY INSTRUCTED TO EXERCISE CARE IN MEETING OR EXCEEDING ALL REQUIREMENTS OF BOTH NATIONAL AND LOCAL CODES AND/OR ORDINANCES APPLICABLE TO HIS WORK. APPROVAL OF THESE DRAWINGS SHALL NOT BE CONSTRUED TO RELIEVE RESPONSIBILITY OR IMPLY VARIANCE TO SUCH CODES.

**DRAINAGE AREA MAP
 LES LACS PLAZA**

**CONSTRUCTION SET
 2/25/83**

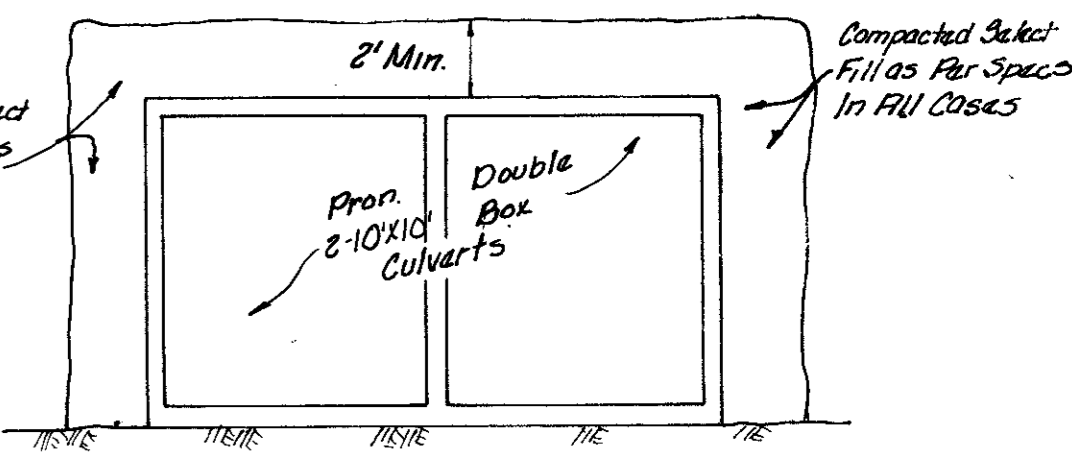
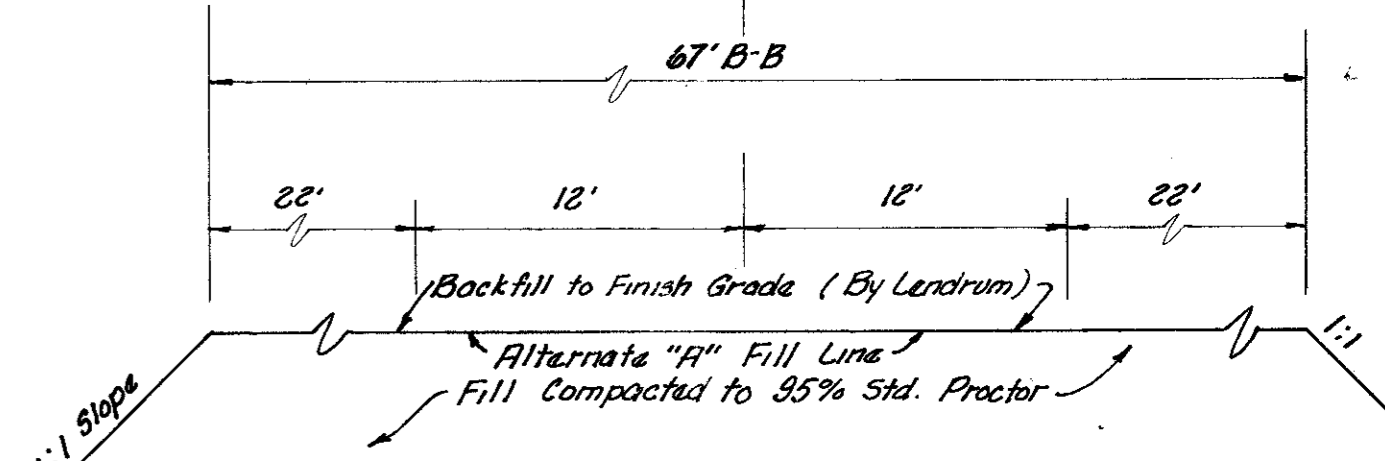
CITY OF ADDISON, TEXAS					
RAYMOND L. GOLDSON JR. INC. ENGINEERS					
DESIGN	DRAWN	DATE	SCALE	NOTES	FILE
RL	RL	FEB 1983	1"=200'	31	60

BELTLINE ROAD



- Course of 2-10'x10' Box Culverts
- ① N 80° 56' 06" E - 10.00'
 - ② S 44° 03' 54" E - 138.60'
 - ③ S 89° 03' 54" E - 295.61'
 - ④ N 47° 01' 52" E - 246.82'
 - ⑤ N 71° 05' 20" E - 261.37'

Construct 2-10'x10' Cast-In Place Reinforced Concrete Box Culverts Per Detail Sheet 7 -
 5'x5' Opening in the Center Common Wall Shall Be Made As Noted To Equalize the System. See Detail Sheet 6

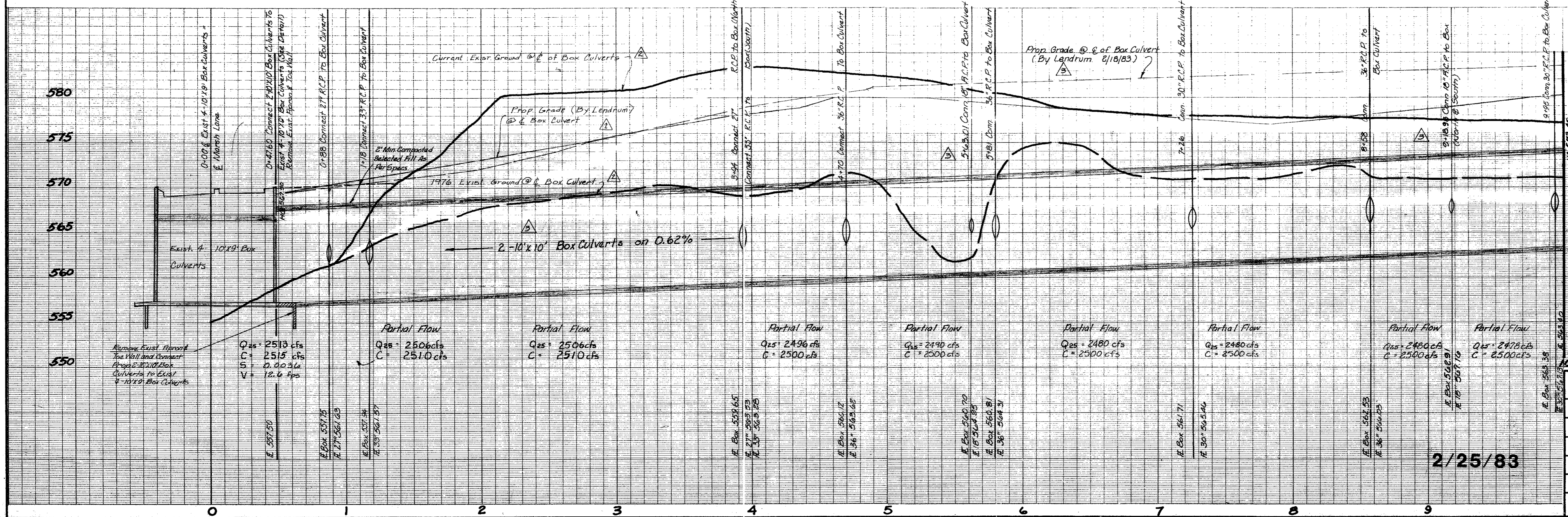


Alternate "A"
 Note: Base Bid Fill Line Shall Match Existing Ground Line and/or Min. 8" Cover Compacted Select Fill As Per Specs In All Cases

Bench Marks

- "1" Top of Curbs at the Center of a 10' Inlet and 75' West of Centerline Commercial at the North Side of Belt Line Road Elevation: 580.85
- "2" Top of Concrete Footing at N.W. Corner of Tower #12N-3W-7288 Elevation: 605.20

Note: All lateral connections are at 90° to the Box Culvert except as shown.



Revised 10/15
 11/11/82 Revised: Elevation of Prop. Ground @ E. of Box Culvert
 11/15/82 Revised: 1976 Existing & Current Existing Ground @ E. of Box Culvert
 Added 2" L.F. 18" R.C.P. @ Sta. 7+00
 Deleted 2" L.F. 18" R.C.P. @ Sta. 5+40
 Revisions were made to conform with Lendrum's prop. grades.
 Proposed Box Size & Prop. Grade Line

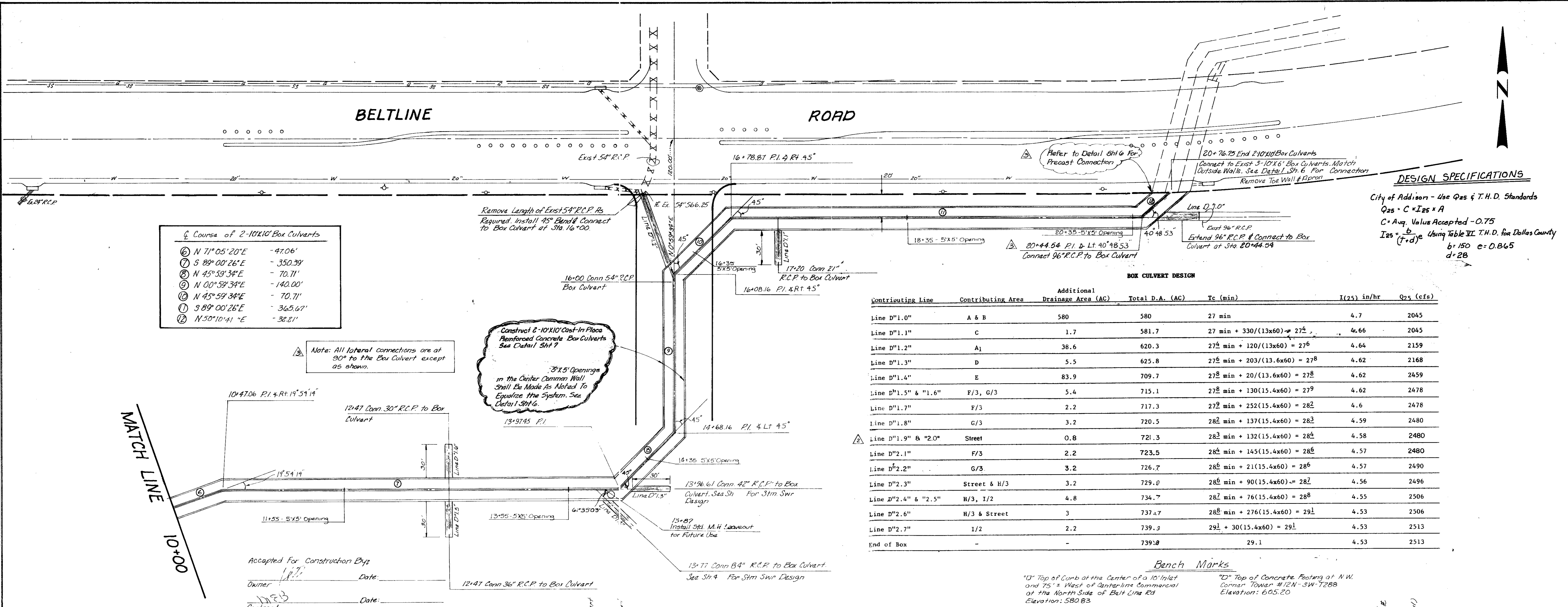
Accepted for Construction By
 Owner: [Signature]
 Date: [Blank]
 Contractor: [Signature]
 Date: [Blank]

BOX CULVERT DESIGN
LES LACS PLAZA

CITY OF ADDISON, TEXAS
 RAYMOND L. GOODSON JR. INC., ENGINEERS

DESIGN	DRAWN	DATE	SCALE	NOTES	FILE	NO.
R.L.G. INC.	R.L.G. INC.	FEB. 1983	1" = 40'H 1" = 6'V	R.L.G. INC.		

2/25/83



Course of 2-10'x10' Box Culverts

①	N 71° 05' 20" E	- 47.06'
②	S 89° 00' 26" E	- 350.39'
③	N 45° 59' 34" E	- 70.71'
④	N 00° 59' 34" E	- 140.00'
⑤	N 45° 59' 34" E	- 70.71'
⑥	S 89° 00' 26" E	- 365.67'
⑦	N 50° 10' 41" E	- 38.21'

Note: All lateral connections are at 90° to the Box Culvert except as shown.

Construct 6-10'x10' Cast-In-Place Reinforced Concrete Box Culverts See Detail Sht 7

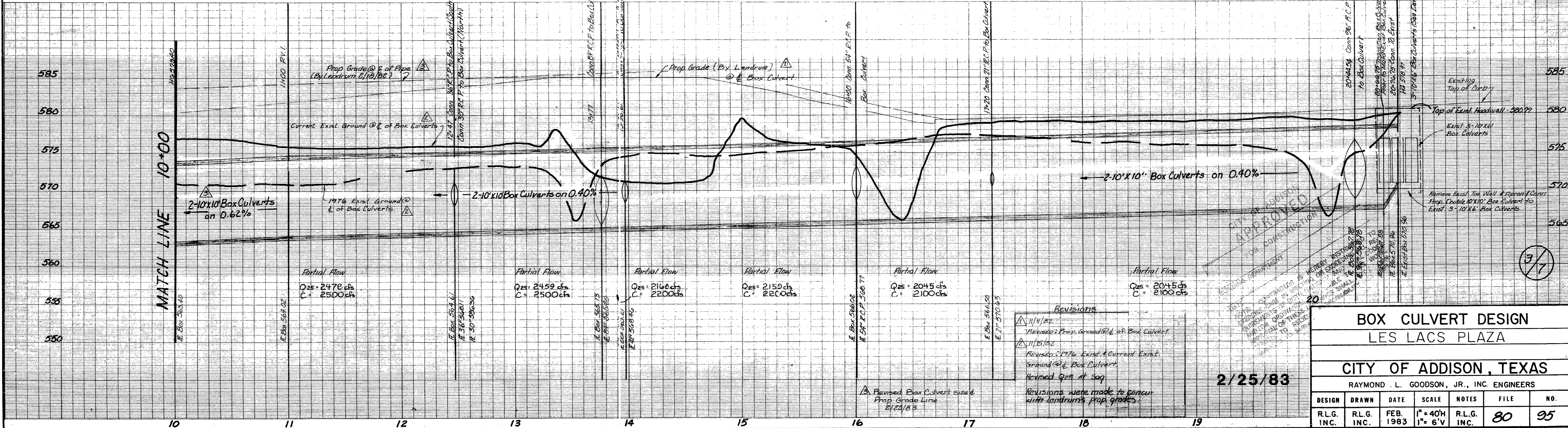
BOX CULVERT DESIGN

Contributing Line	Contributing Area	Additional Drainage Area (AC)	Total D.A. (AC)	Tc (min)	I(25) in/hr	Q25 (cfs)
Line D"1.0"	A & B	580	580	27 min	4.7	2045
Line D"1.1"	C	1.7	581.7	27 min + 330/(13x60) = 27 $\frac{1}{2}$	4.66	2045
Line D"1.2"	A ₁	38.6	620.3	27 $\frac{1}{2}$ min + 120/(13x60) = 27 $\frac{3}{4}$	4.64	2159
Line D"1.3"	D	5.5	625.8	27 $\frac{3}{4}$ min + 203/(13.6x60) = 27 $\frac{3}{4}$	4.62	2168
Line D"1.4"	E	83.9	709.7	27 $\frac{3}{4}$ min + 20/(13.6x60) = 27 $\frac{3}{4}$	4.62	2459
Line D"1.5" & "1.6"	F/3, G/3	5.4	715.1	27 $\frac{3}{4}$ min + 130/(15.4x60) = 27 $\frac{3}{4}$	4.62	2478
Line D"1.7"	F/3	2.2	717.3	27 $\frac{3}{4}$ min + 252/(15.4x60) = 28 $\frac{1}{2}$	4.6	2478
Line D"1.8"	G/3	3.2	720.5	28 $\frac{1}{2}$ min + 137/(15.4x60) = 28 $\frac{1}{2}$	4.59	2480
Line D"1.9" & "2.0"	Street	0.8	721.3	28 $\frac{1}{2}$ min + 132/(15.4x60) = 28 $\frac{1}{2}$	4.58	2480
Line D"2.1"	F/3	2.2	723.5	28 $\frac{1}{2}$ min + 145/(15.4x60) = 28 $\frac{1}{2}$	4.57	2480
Line D"2.2"	G/3	3.2	726.7	28 $\frac{1}{2}$ min + 21/(15.4x60) = 28 $\frac{1}{2}$	4.57	2490
Line D"2.3"	Street & H/3	3.2	729.9	28 $\frac{1}{2}$ min + 90/(15.4x60) = 28 $\frac{1}{2}$	4.56	2496
Line D"2.4" & "2.5"	H/3, I/2	4.8	734.7	28 $\frac{1}{2}$ min + 76/(15.4x60) = 28 $\frac{1}{2}$	4.55	2506
Line D"2.6"	H/3 & Street	3	737.7	28 $\frac{1}{2}$ min + 276/(15.4x60) = 29 $\frac{1}{2}$	4.53	2506
Line D"2.7"	I/2	2.2	739.9	29 $\frac{1}{2}$ + 30/(15.4x60) = 29 $\frac{1}{2}$	4.53	2513
End of Box	-	-	739.8	29.1	4.53	2513

DESIGN SPECIFICATIONS
 City of Addison - Use Q25 & T.H.D. Standards
 Q25 = C x I₂₅ x A
 C = Avg. Value Accepted - 0.75
 I₂₅ = $\frac{b}{(F+d)}$ Using Table VII T.H.D. for Dallas County
 b = 150 c = 0.865
 d = 28

Accepted For Construction By: _____ Date: _____
 Owner: _____
 Contractor: _____ Date: _____

Bench Marks
 "D" Top of Curb at the Center of a 10' Inlet and 75' West of Centerline Commercial at the North Side of Belt Line Rd Elevation: 580.83
 "D" Top of Concrete Footing at N.W. Corner Tower #12N-3W-7288 Elevation: 605.20

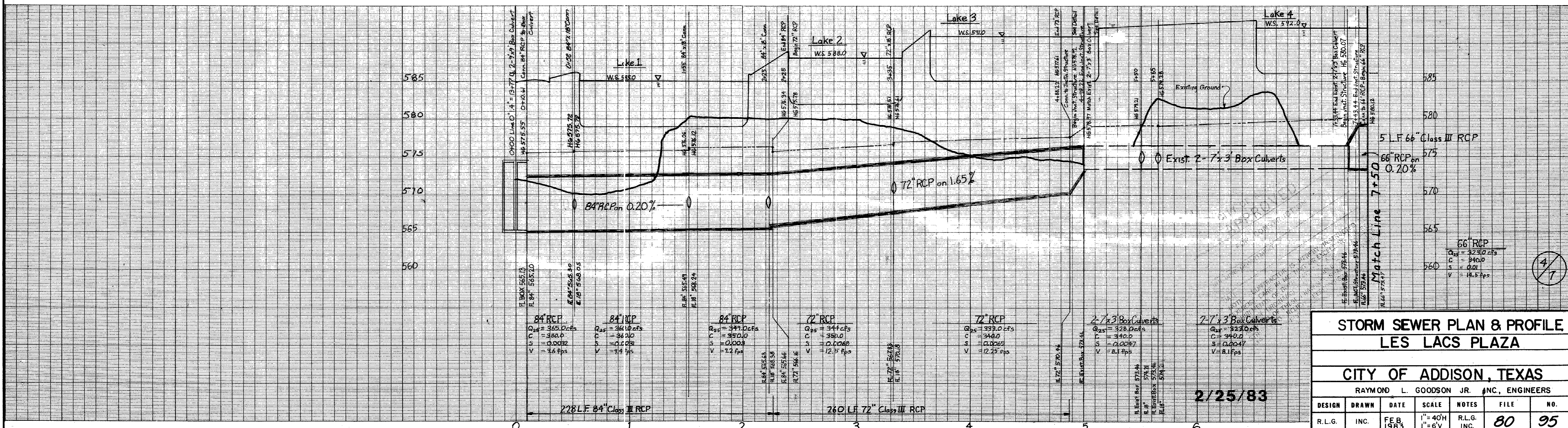
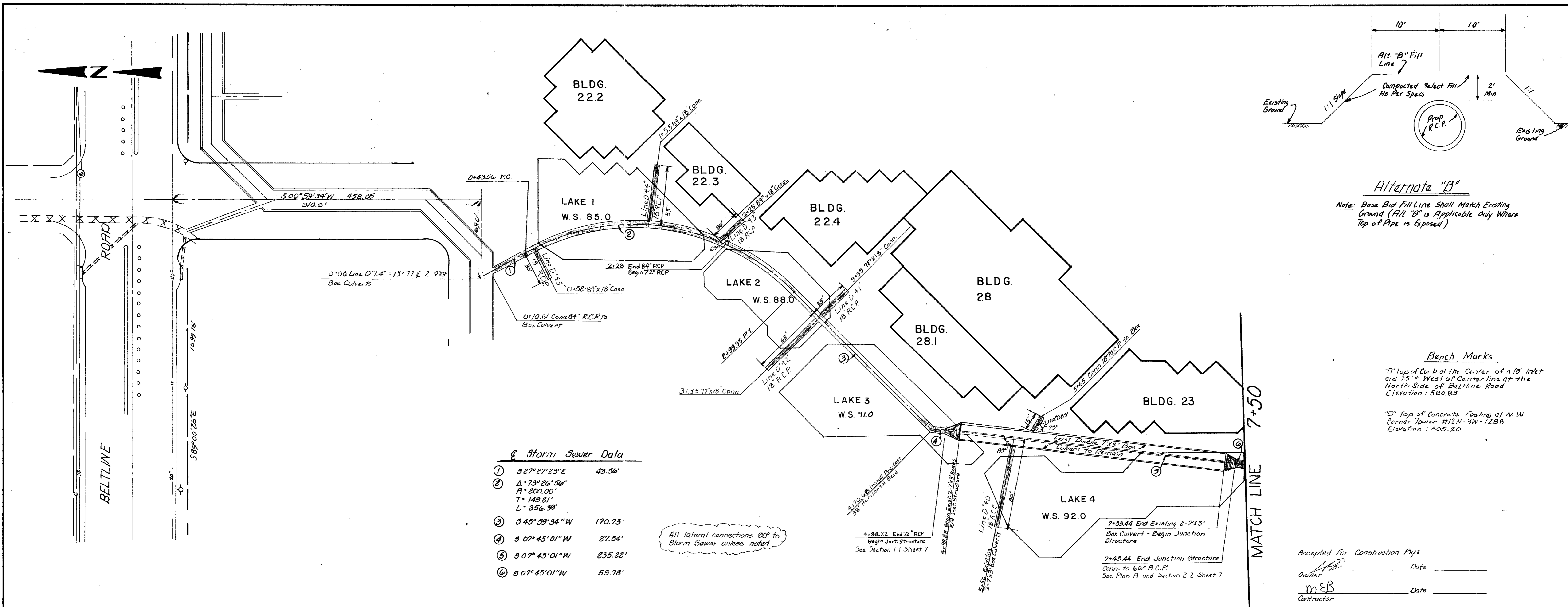


Revisions
 1/11/83 Revised Prop. Grade @ E of Box Culvert
 1/15/83 Revised 17th to Exist. & Current Exist. Ground @ E of Box Culvert
 Revised Q25 of Sag
 Revisions were made to conform with Landrum's Prop. Grades

2/25/83

BOX CULVERT DESIGN
LES LACS PLAZA
 CITY OF ADDISON, TEXAS
 RAYMOND L. GOODSON, JR., INC. ENGINEERS

DESIGN	DRAWN	DATE	SCALE	NOTES	FILE	NO.
RLG INC.	RLG INC.	FEB. 1983	1" = 40'H 1" = 6'V		80	95



DESIGN	DRAWN	DATE	SCALE	NOTES	FILE	NO.
R.L.G.	INC.	FEB 1983	1" = 40'H 1" = 6'V	R.L.G. INC.	80	95

CONSTRUCTION SET

Storm Sewer Design

* Use C=0.75 Q_s = 4.35 * A

Contributing Line	Contributing Area	Additional Drainage Area (Ac)	Total D.A. (Ac)	Tc (min)	I ₂₅ (1 ⁱⁿ /hr)	Q ₂₅ (cfs)
Existing 2-7x3 Box Culu	E ₀ (Offsite)	55.8	55.8	15	5.8	293
Line D "2.8"	E _{1/2}	1.3	57.1	"	"	298
Line D "2.9"	E _{1/2}	1.5	58.6	"	"	255
Line D "3.0"	E _{1/2}	1.3	59.9	"	"	261
Line D "3.1"	E _{3/2}	0.25	60.15	"	"	262
Line D "3.2"	E _{1/2} , E _s , E _a , E _{1/10} , E _{1/10}	7.7	67.85	"	"	295
Line D "3.3"	E _{3/2}	0.25	68.10	"	"	296
Line D "3.4"	E _{1/10}	1.24	69.34	"	"	302
Line D "3.5"	E _{1/5}	1.16	70.50	"	"	307
Line D "3.6"	E _{1/10}	1.24	71.74	"	"	312
Line D "3.7"	E _{1/10}	1.24	72.98	"	"	317
Line D "3.8"	E _{1/5}	1.16	74.14	"	"	323
Line D "3.9"	E _{1/10}	1.24	75.38	"	"	328
Line D "4.0"	E _{1/5}	1.24	76.62	"	"	333
Line D "4.1" ± D "4.2"	E _{1/10} , E _{1/5}	2.4	79.02	"	"	344
Line D "4.3"	E _{1/10}	1.24	80.26	"	"	349
Line D "4.4"	E _{1/10} , E _{1/10}	2.48	82.74	"	"	360
Line D "4.5"	E _{1/5}	1.16	83.9	"	"	365

Bench Marks

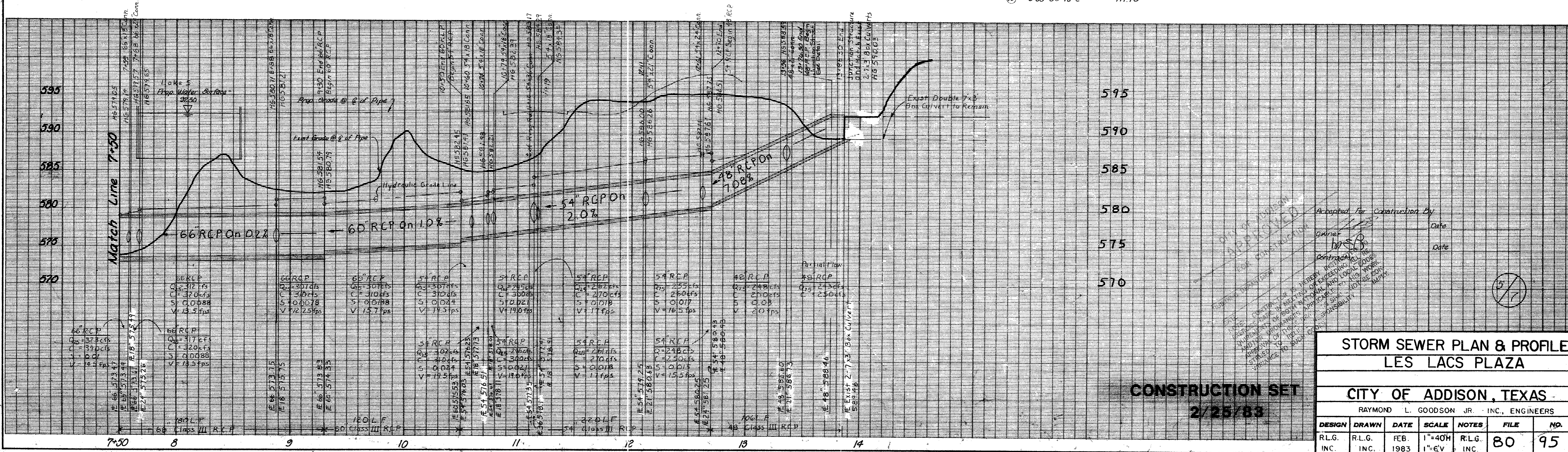
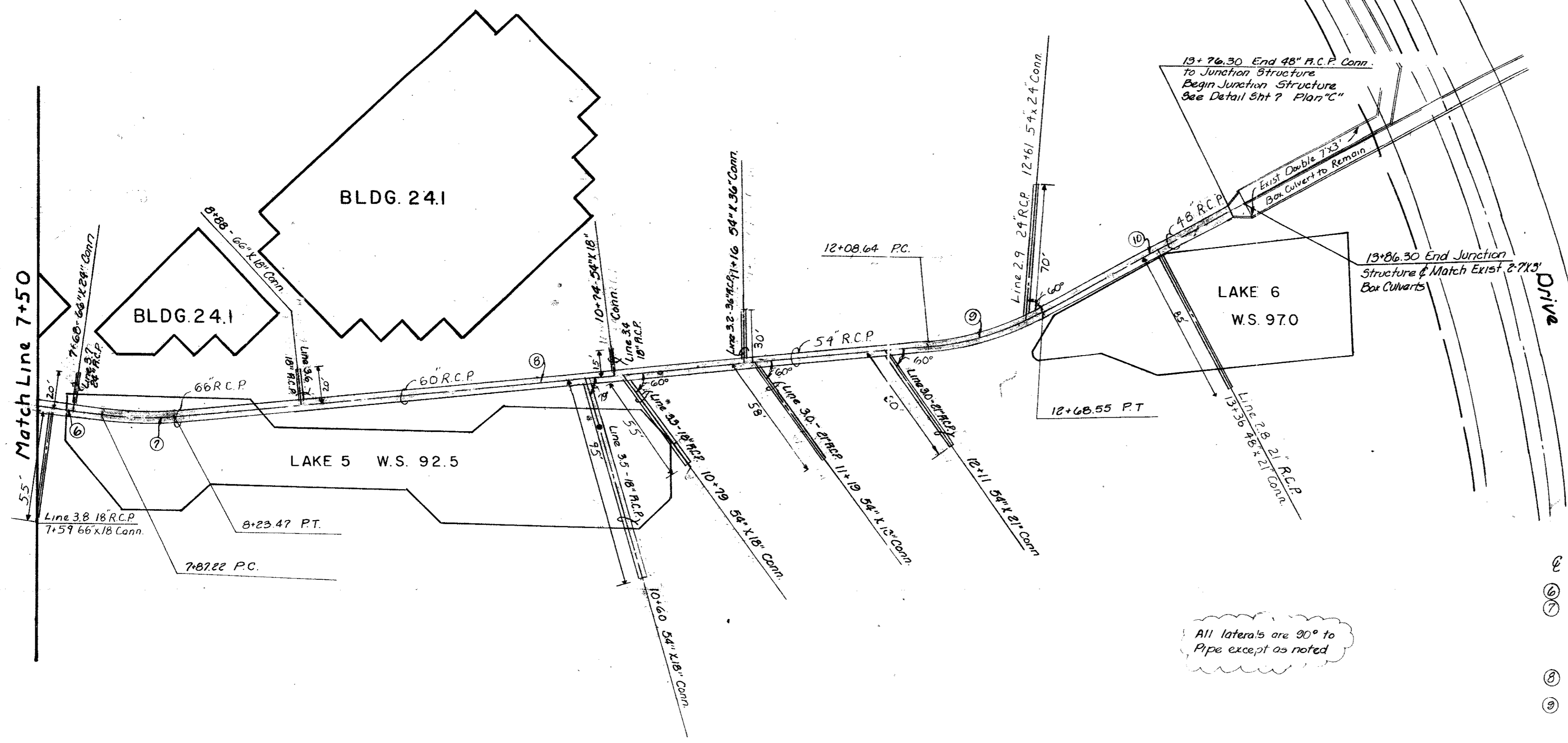
□ Top of Curb at the Center of a 10' Inlet and 75' West of Centerline Commercial at N. Side of Belt Line Road. Elevation: 580.83

□ Top of Concrete Footing at NW Corner Tower # 12N-3W-T288. Elevation: 605.20

Storm Sewer Data

- ⑥ 807°45'01"W 53.78'
- ⑦ Δ=13°50'40"
R=150.00'
T=18.21'
L=36.25'
- ⑧ 906°05'39"E 385.17'
- ⑨ Δ=28°53'03"
R=150.00'
T=30.36'
L=59.01'
- ⑩ 828°58'42"E 117.75'

All laterals are 90° to Pipe except as noted



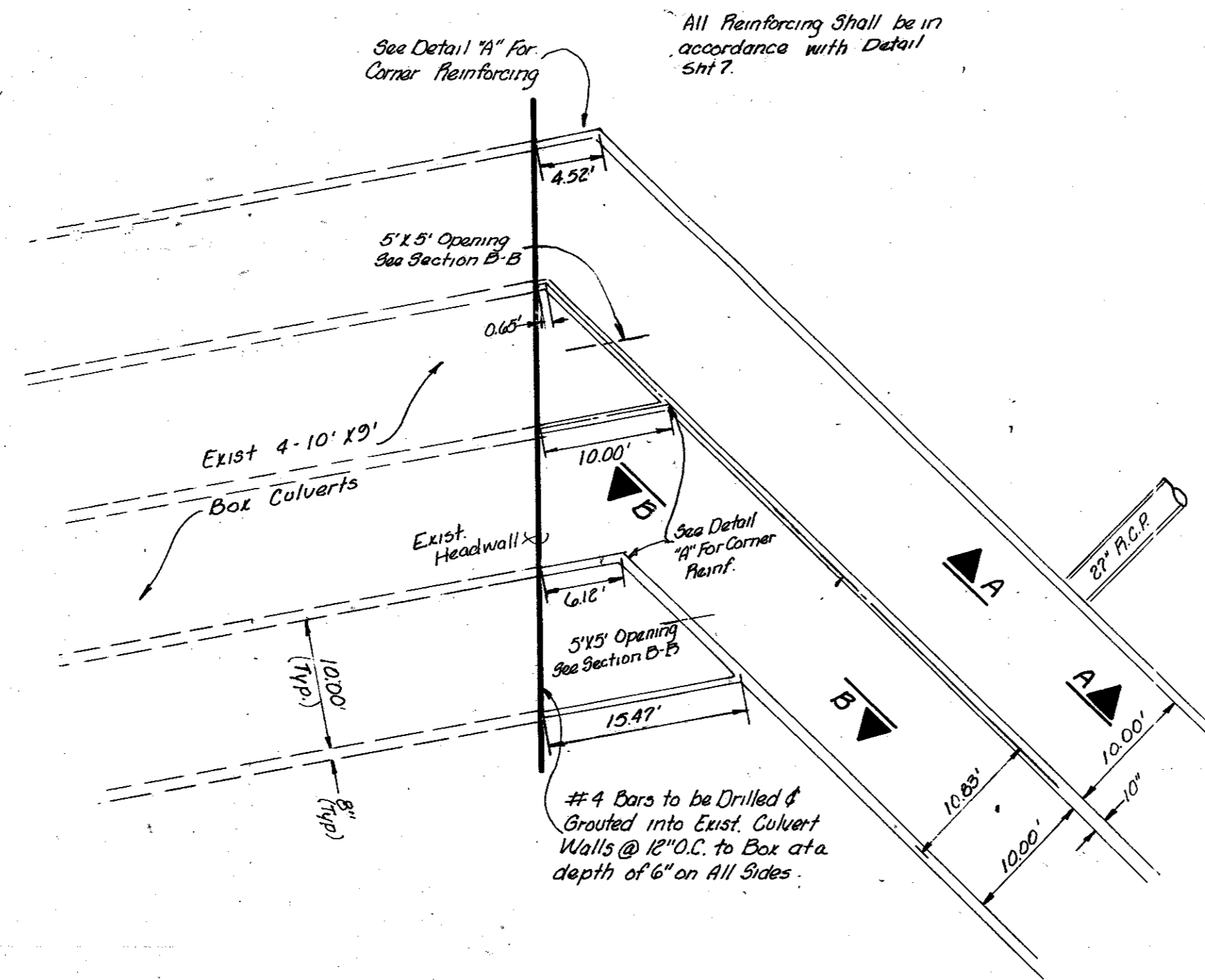
Accepted for Construction By
 Date
 Date

STORM SEWER PLAN & PROFILE LES LACS PLAZA

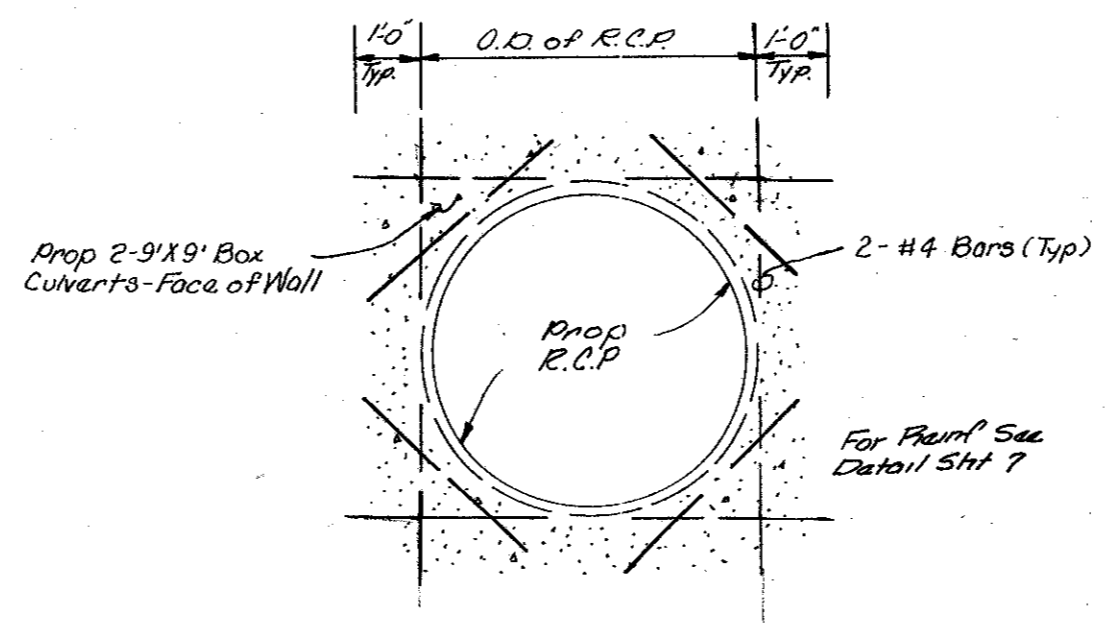
CITY OF ADDISON, TEXAS
 RAYMOND L. GOODSON JR., INC., ENGINEERS

DESIGN	DRAWN	DATE	SCALE	NOTES	FILE	NO.
R.L.G. INC.	R.L.G. INC.	FEB. 1983	1"=40' 1"=6'	R.L.G. INC.	80	95

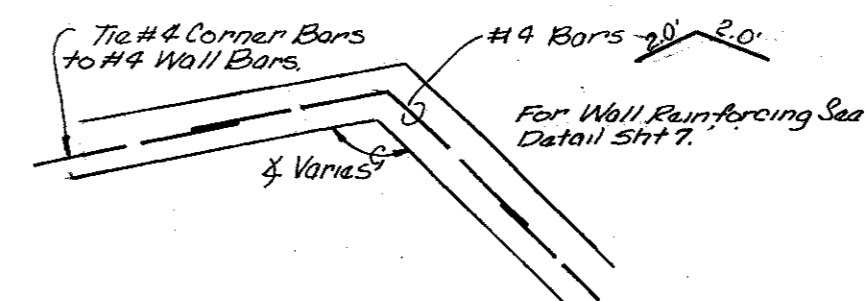
CONSTRUCTION SET
2/25/83



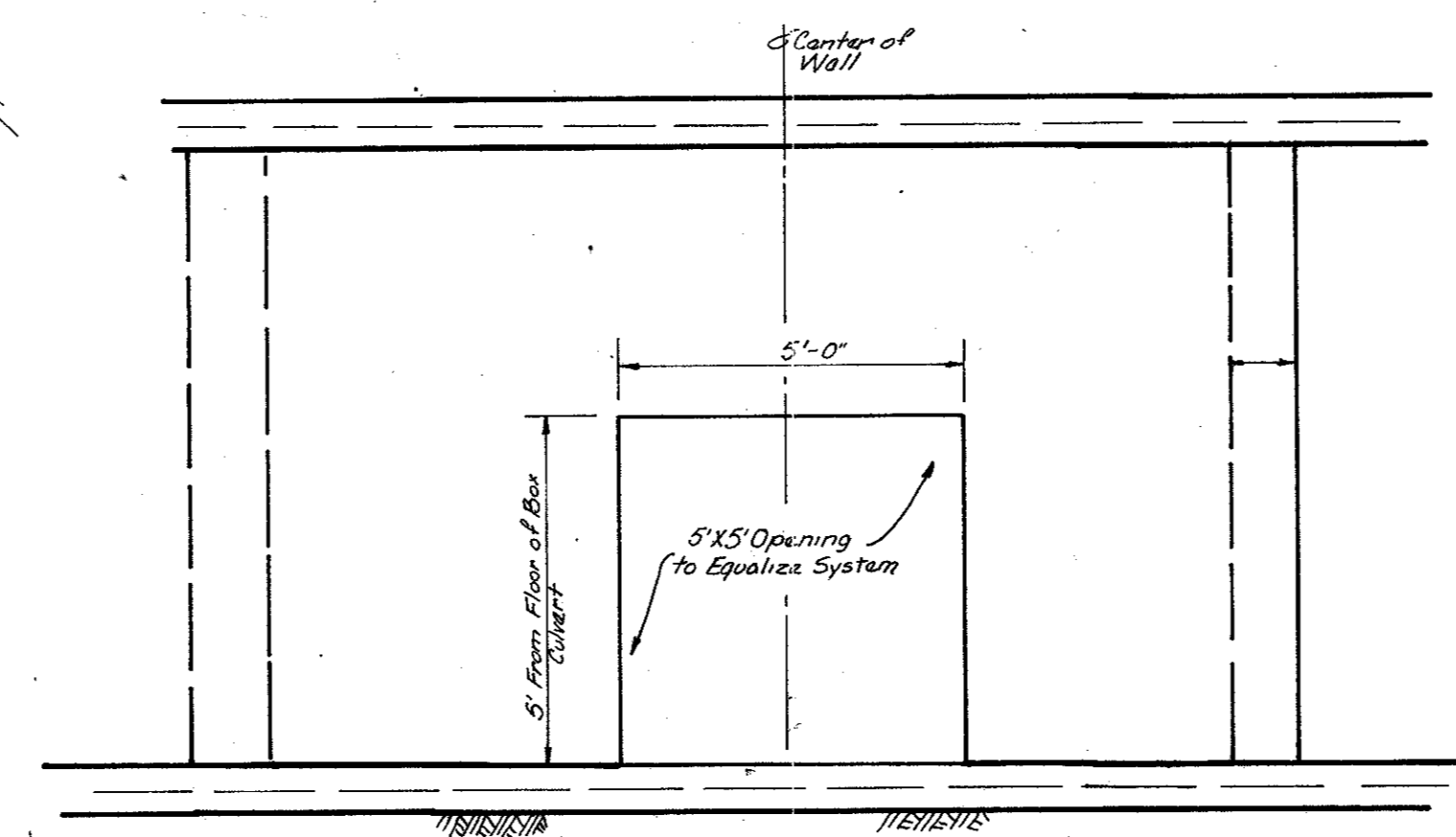
Plan View of Box Culvert Connection (Marsh Lane)
Cast-In Place



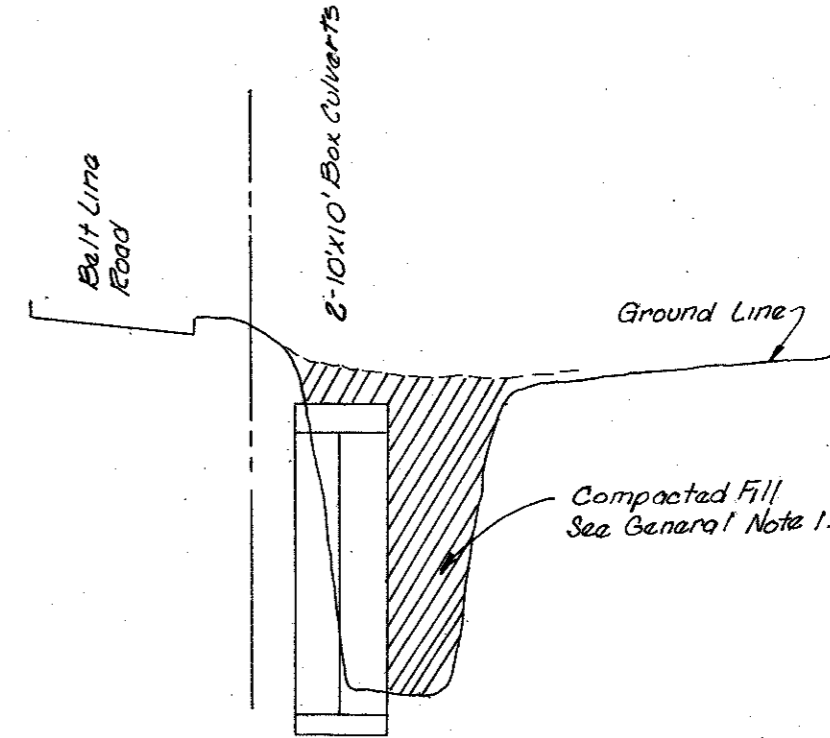
Section A-A (Typical)
No Scale



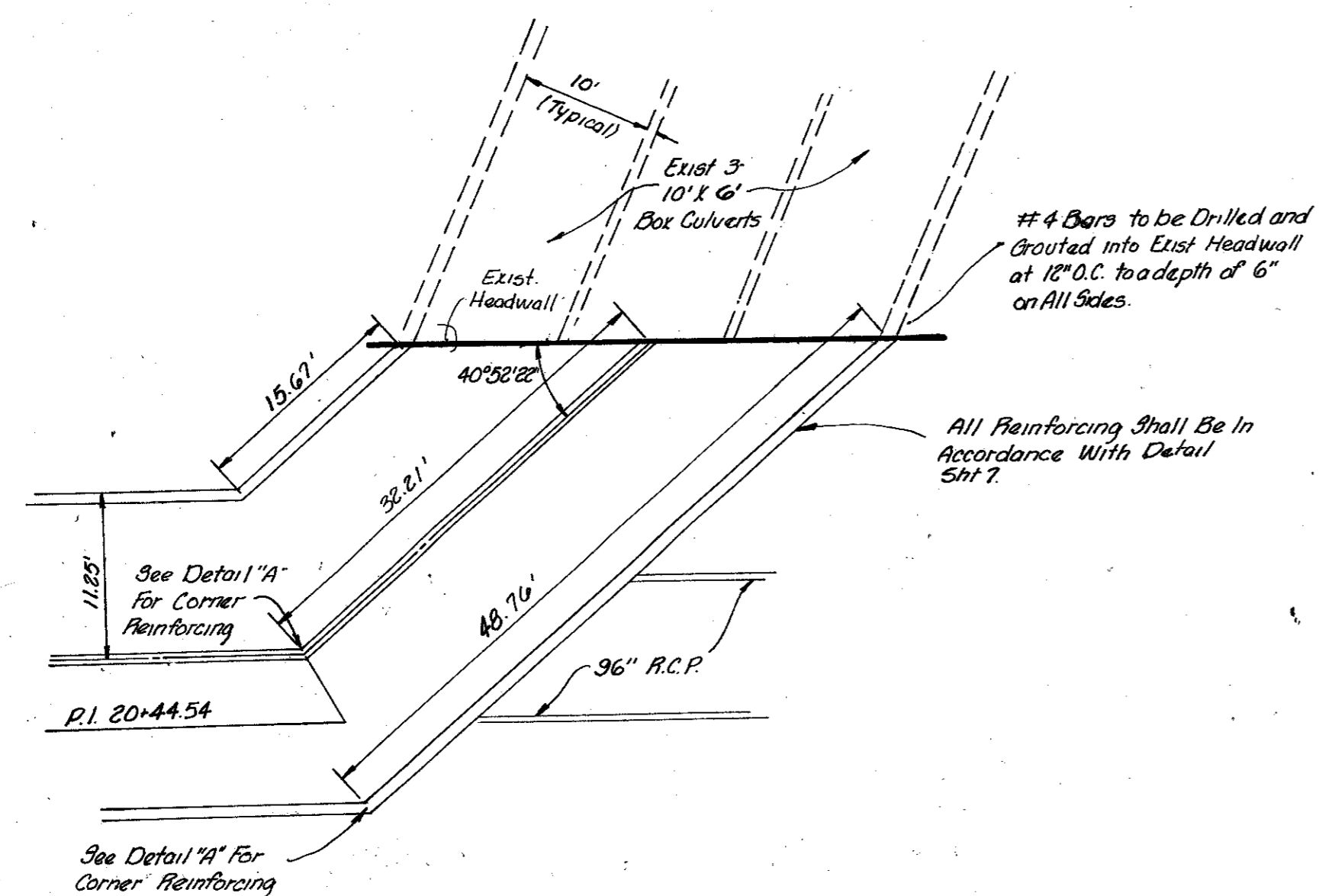
Detail A Corner Reinforcing Bars (Typical)
No Scale



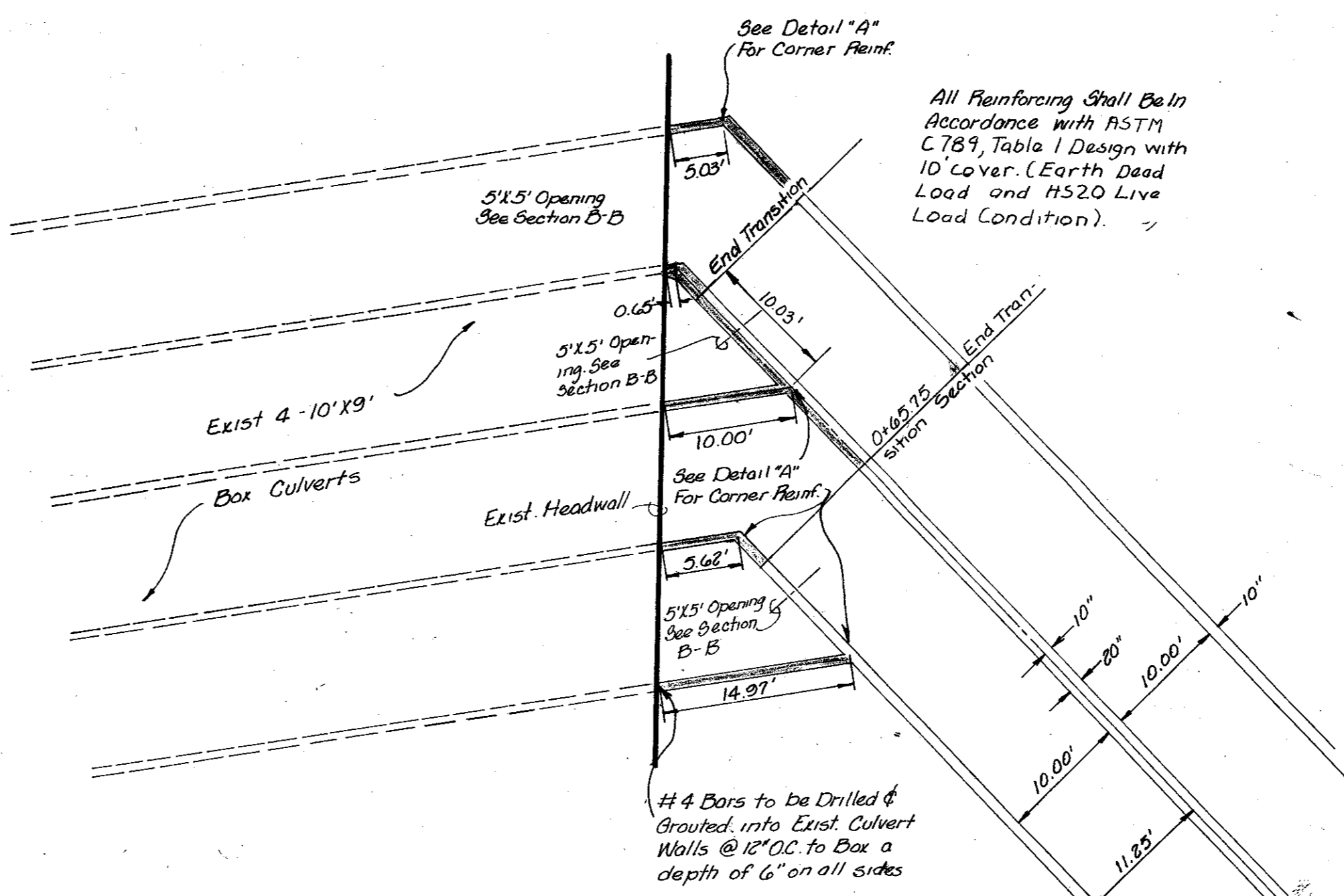
Section B-B (Typical)
No Scale



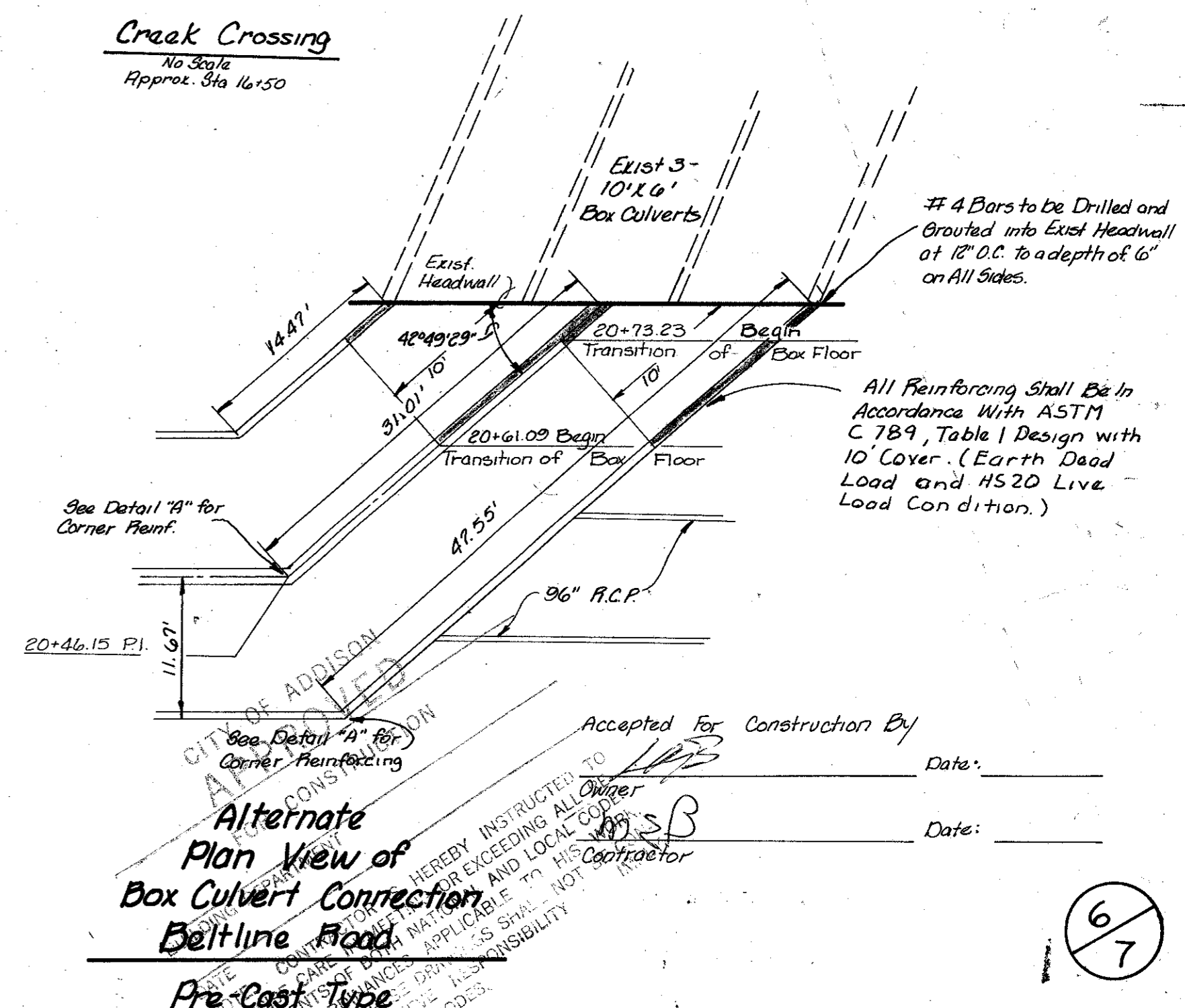
Creek Crossing
No Scale
Approx. Sta 16+50



Plan View of Box Culvert Connection (Belt Line Road)
Cast-In Place



Alternate Plan View of Box Culvert Connection Marsh Lane
Pre-Cast Type



Alternate Plan View of Box Culvert Connection Belt Line Road
Pre-Cast Type

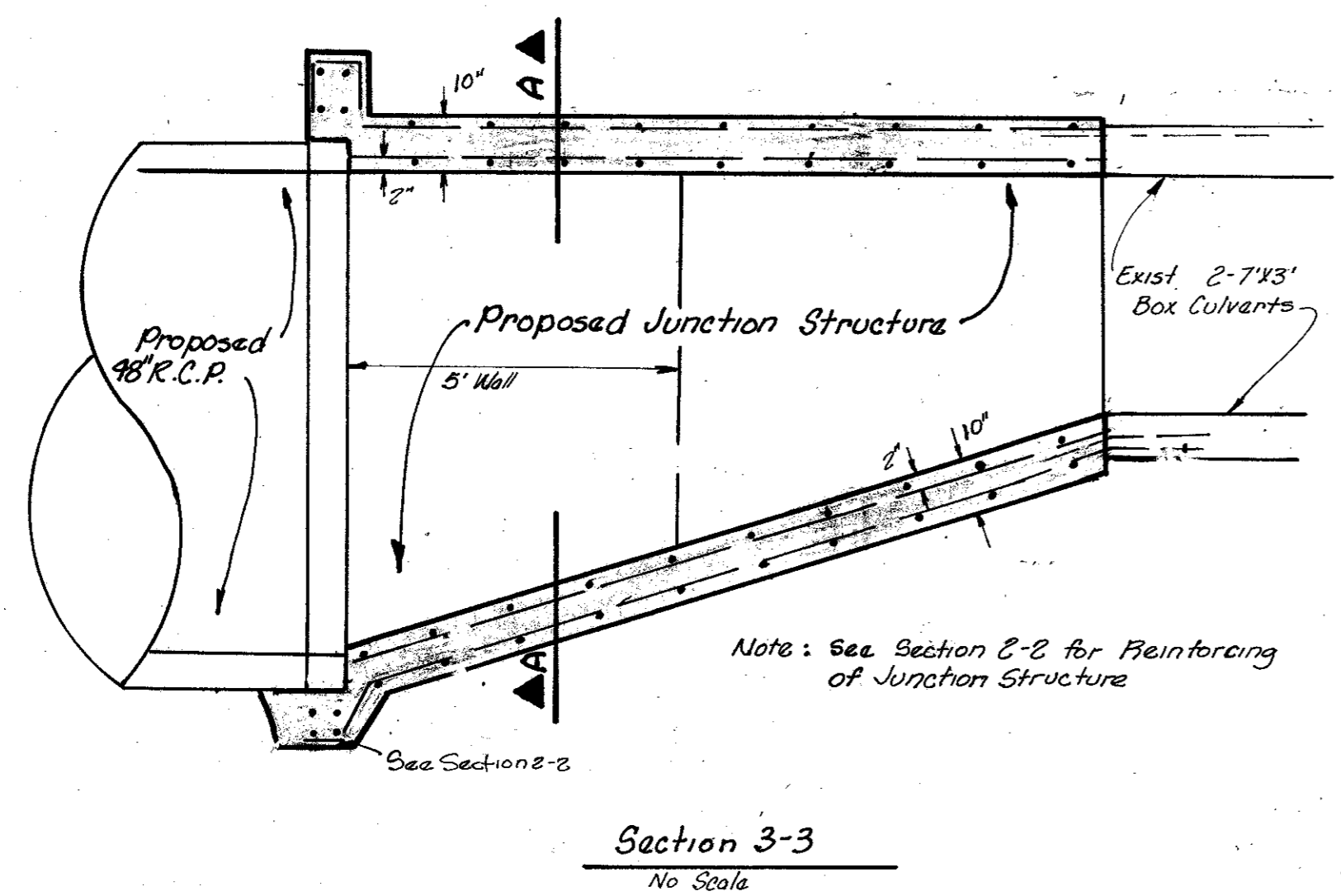
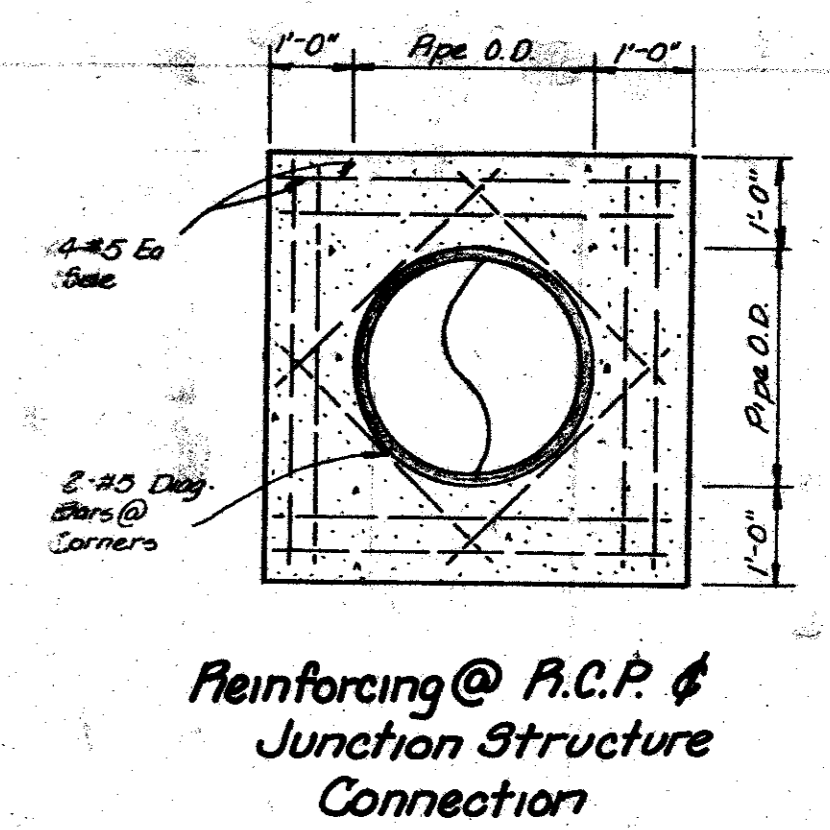
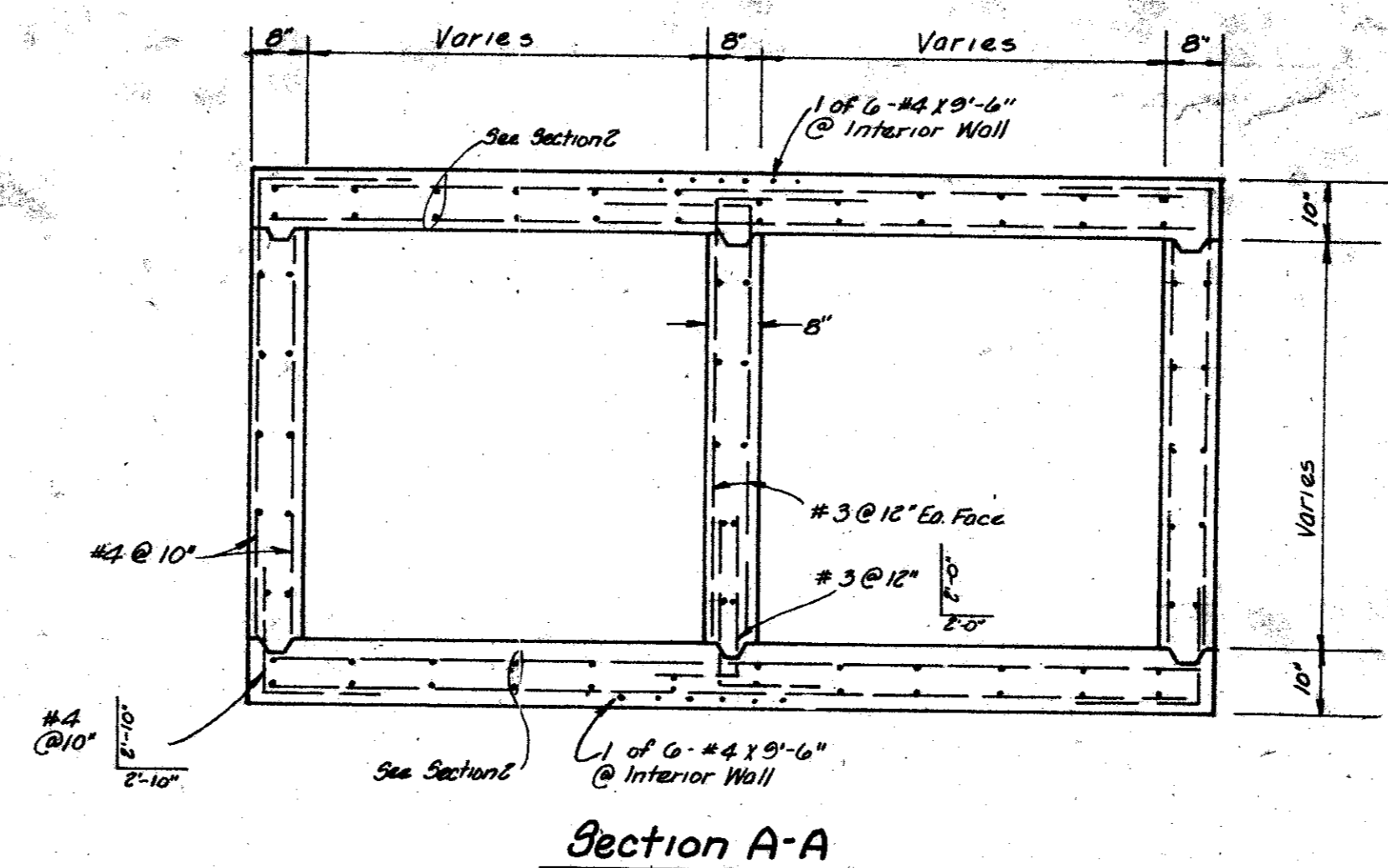
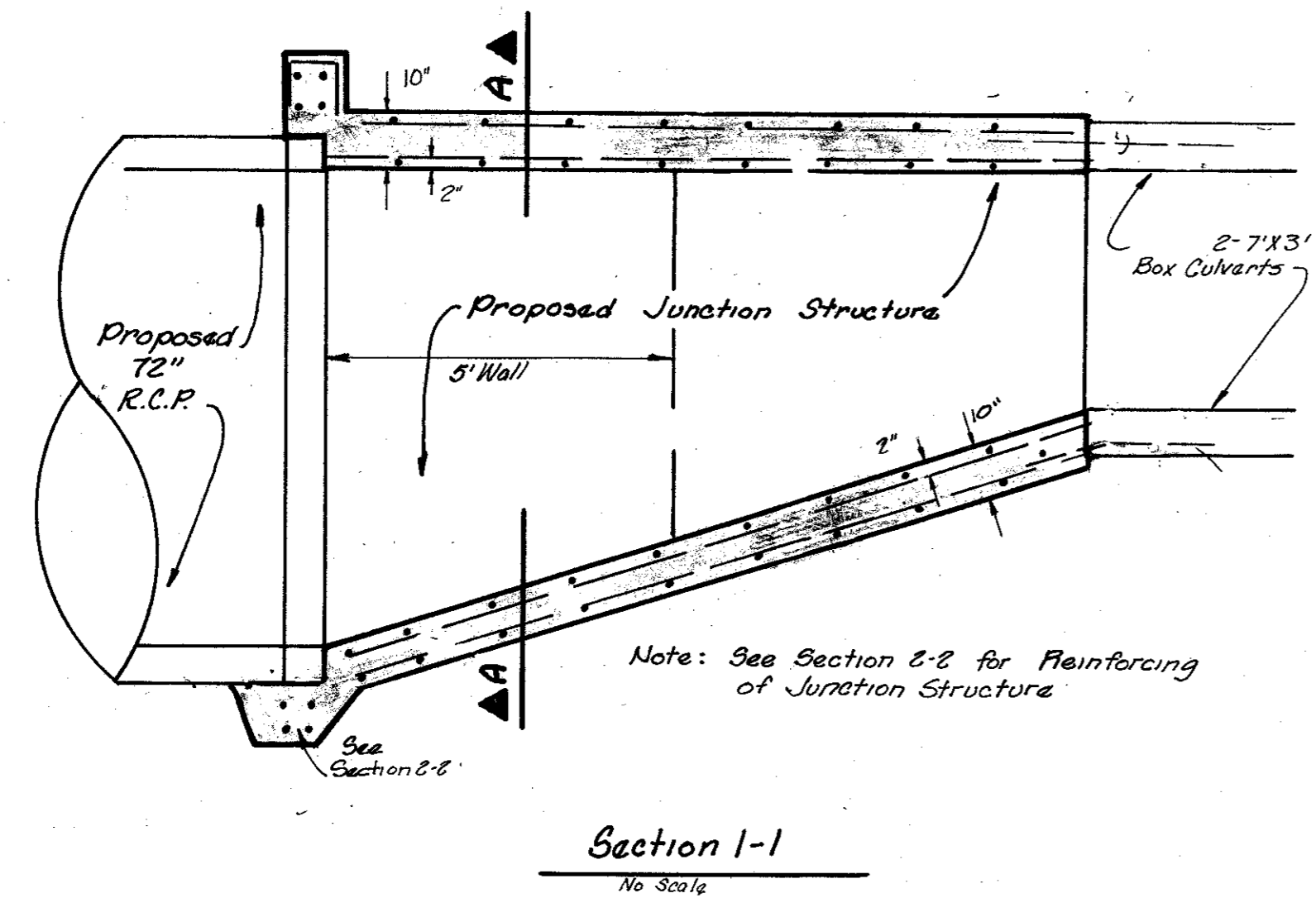
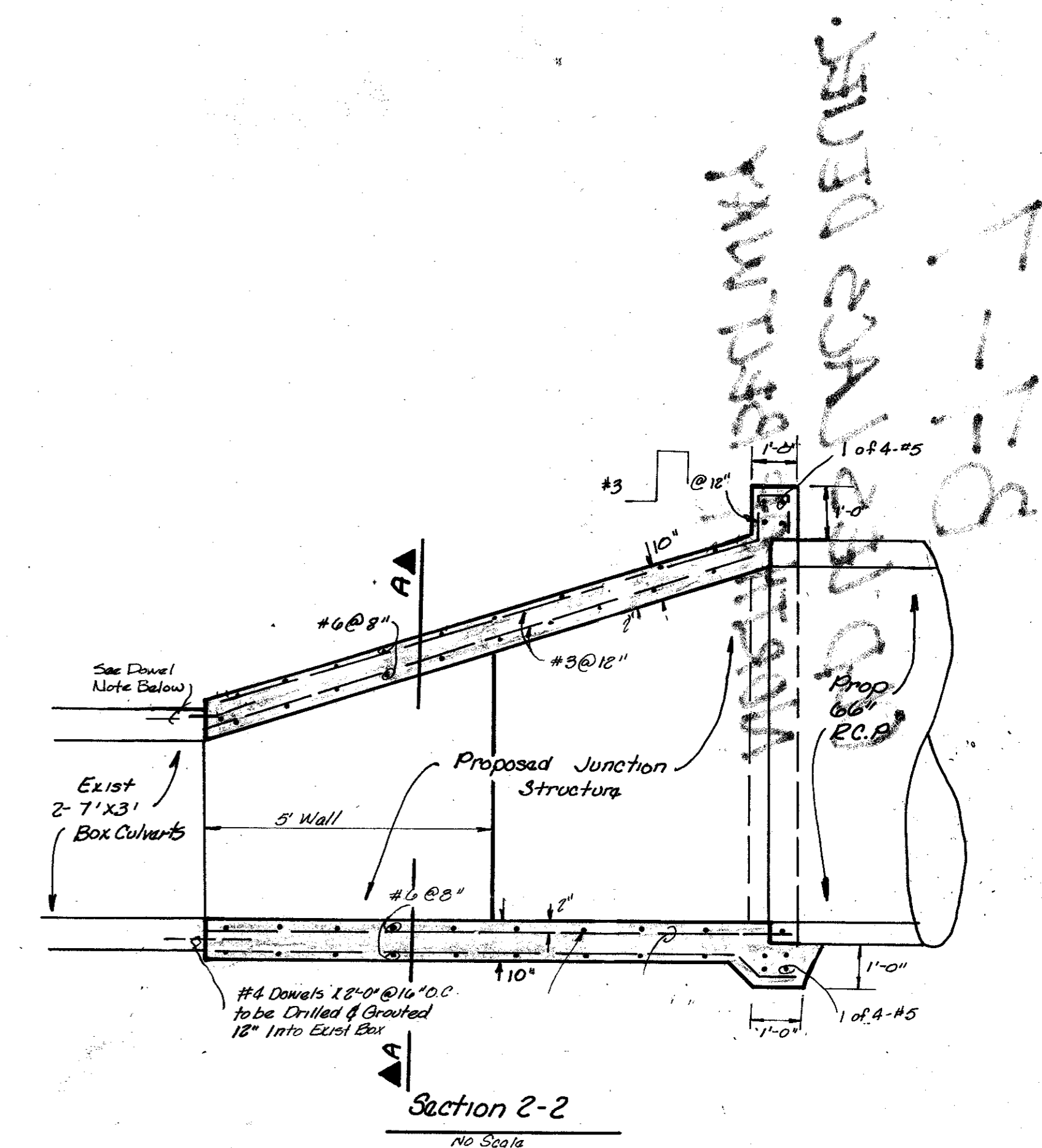
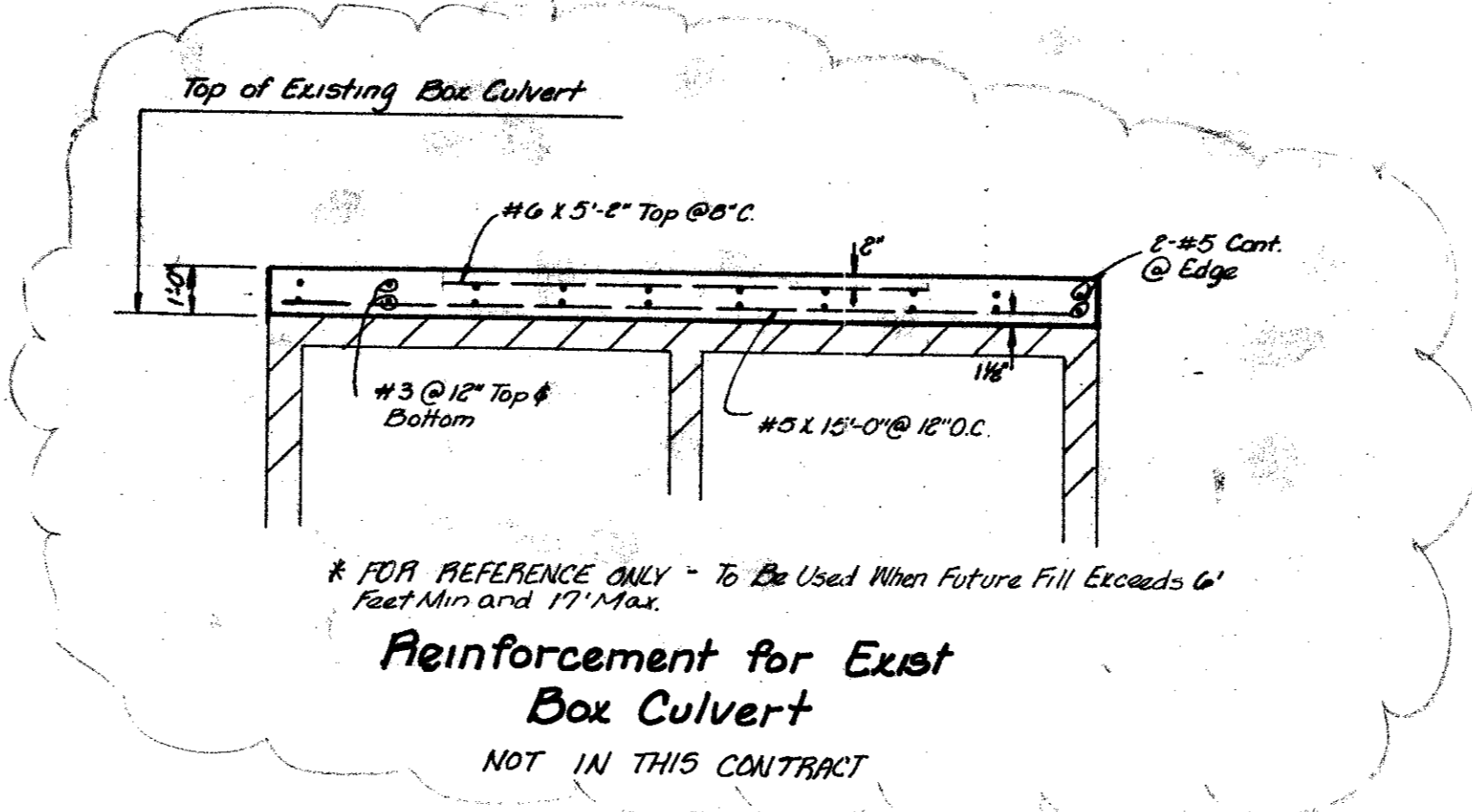
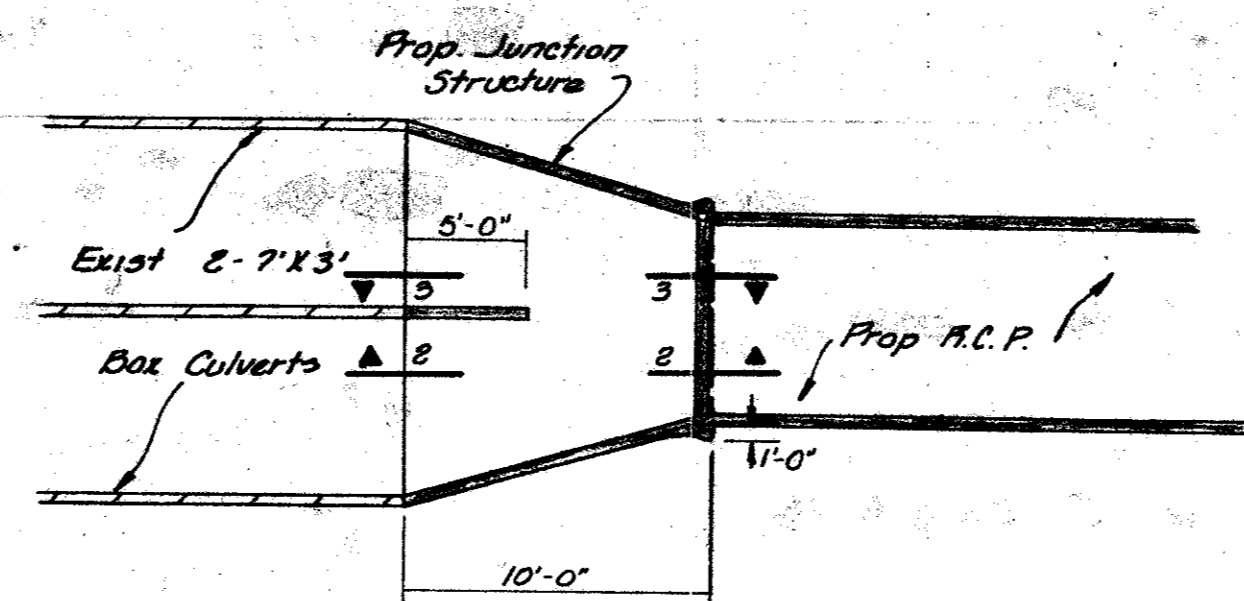
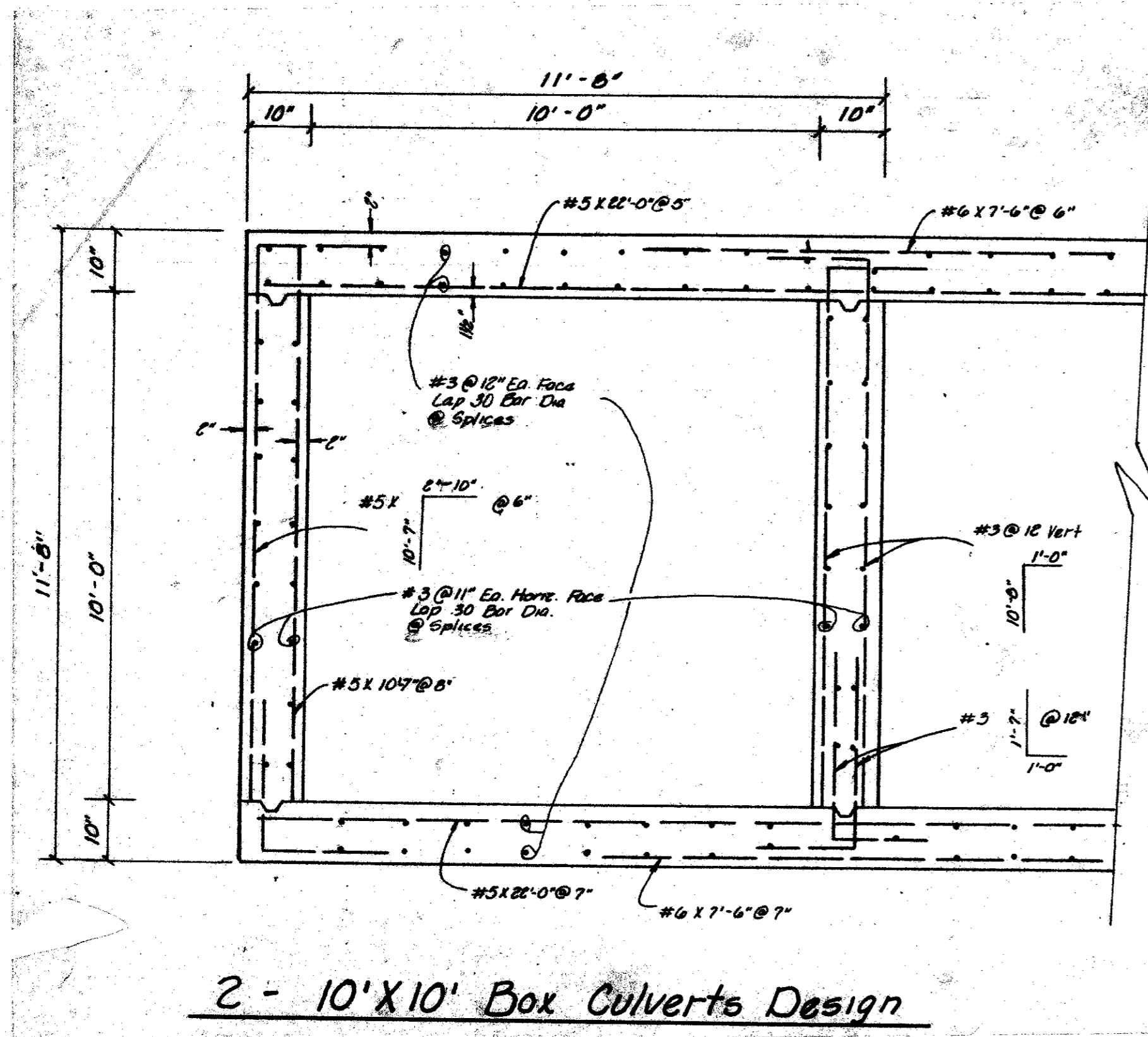
General Notes

1. All areas to receive fill shall be scarified to a depth of 6 inches and compacted to a density of 95% Standard Proctor Density. All fill shall be placed in horizontal layers not exceeding 8 inches (loose depth) and compacted to a density of 95% Standard Proctor with the moisture content within 4% of optimum.
2. The Contractor shall be entirely responsible for damage to existing utilities, streets, curbs, sidewalks and other structures of any kind during the execution of this work and shall be liable for damage to public or private property resulting therefrom.
3. All materials and workmanship shall conform to the City of Addison Standards and Specifications, and to the contract specifications and documents.
4. Contractor shall be solely responsible for the location and protection during construction, of any existing utilities or structures whatsoever. Those utilities shown herein are for general information only and do not necessarily represent the location, nature or type of existing utilities or structures that may be found on the field.

Accepted for Construction By _____ Date: _____
 _____ Date: _____

CONSTRUCTION SET
2/25/83

BOX CULVERT DETAILS						
LES LACS PLAZA						
CITY OF ADDISON, TEXAS						
RAYMOND L. GOODSON JR. INC., ENGINEERS						
DESIGN	DRAWN	DATE	SCALE	NOTES	FILE	NO.
RLG INC.	RLG INC.	FEB. 1983		RLG INC.		6/7



CITY OF ADDISON APPROVED
FOR CONSTRUCTION
FOR CONSTRUCTION BY:
BUILDING DEPARTMENT
DATE: _____
NOTE: CONTRACTORS ARE HEREBY INSTRUCTED TO BE CAREFUL IN THE EXERCISE OF BOTH NATIONAL AND LOCAL CODES AND FOR ORDINANCES APPLICABLE TO HIS WORK. APPROVAL OF THESE DETAILS SHALL NOT BE CONSTRUED TO RELIEVE RESPONSIBILITY OF THE CONTRACTOR TO SUCH CODES.

CONSTRUCTION SET
2/25/83

BOX CULVERTS DETAILS						
LES LACS PLAZA						
CITY OF ADDISON, TEXAS						
RAYMOND L. GOODSON JR. INC., ENGINEERS						
DESIGN	DRAWN	DATE	SCALE	NOTES	FILE	NO.
RLG INC.	RLG INC.	FEB. 1983		RLG INC.		