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STATE OF TEXAS STATE HIGHWAY DEPARTMENT

PLANS OF PROPOSED STATE HIGHWAY IMPROVEMENT

CONTROL 326-3-4

PLAN: 1 IN. = 50 FT.
PROFILE: 1 IN. HOR. = 50 FT. 1 IN. VERT. = 10 FT.
CROSS-SECTIONS: 1 IN. HOR. AND VERT. = 5 FT.
OTHERS AS NOTED.

NET LENGTH OF PROJECT = 4358.31 FT. = 0.825 MI.

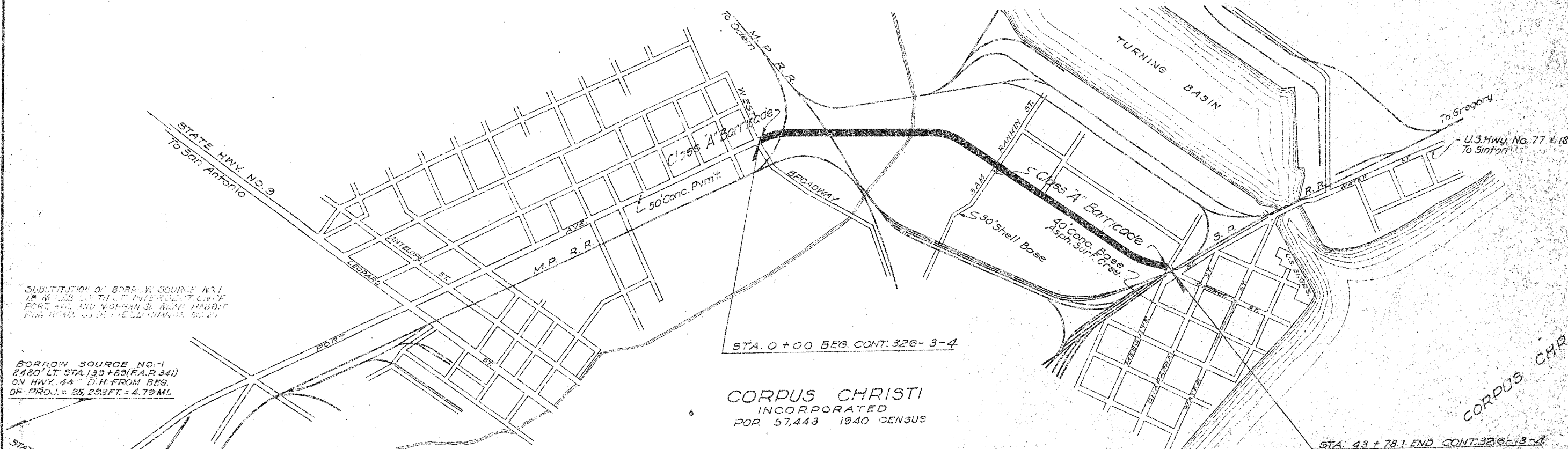
NUECES COUNTY

PORT AVENUE

FROM WEST BROADWAY TO MESQUITE STREET
GRADING, DRAINAGE STRUCTURES AND CONC. PVMT.

NET LENGTH GR., SM. DR. STRS. & CONC. PVMT. = 4318.23 FT. = 0.82 MI.
NET LENGTH LARGE DR. STR. = 40.08 FT. = 0.007 MI.
TOTAL LENGTH = 4358.31 FT. = 0.825 MI.

502512



CORPUS CHRISTI
INCORPORATED
POP. 57,443 1940 CENSUS

TWO EXCEPTIONS
Sta. 1+97.62 - Sta. 2+07 = 9.38 Ft.
Sta. 6+41.8 - Sta. 6+52.21 = 10.41 Ft.
Total Exceptions 19.79 Ft.

NO EQUATIONS

NO R.R. CROSSINGS ELIMINATED-TWO RETAINED

DELIVERY POINTS FOR MATERIALS				
RAILROAD DEL. POINT	RAILROAD	DISTANCE FROM PROJ.	STATION	CAR CAPACITY
CORPUS CHRISTI	SO. PAC.	400'	43+78.1	AMPLE
"	MO. PAC.	1000'	24+20	"
"	TEX.-MEX.	6800'	0+00	"

See Special Provision regarding Detours, Barricades, Warning signs, Sequence of Work, etc.

SPECIFICATIONS ADOPTED BY THE STATE HIGHWAY DEPARTMENT OF TEXAS, JANUARY 17, 1935, AND APPROVED BY THE PUBLIC ROADS ADMINISTRATION, FEBRUARY 16, 1935, AND SPECIFICATION ITEM LISTED AND DATED AS FOLLOWS, SHALL GOVERN ON THIS PROJECT.

Special Labor Provision for Texas Highway Projects adopted by State Highway Department of Texas Aug. 31, 1940.

LAYOUT SCALE: 1 IN. = 500 FT.

RECOMMENDED FOR APPROVAL: March 29, 1941

CORRECT:

STATE HIGHWAY DEPARTMENT

RECOMMENDED FOR APPROVAL:

J. C. Brown
CITY ENGINEER
CITY OF CORPUS CHRISTI

RECOMMENDED FOR APPROVAL: March 29, 1941

RECOMMENDED FOR APPROVAL:

J. C. Brown
COUNTY ENGINEER
NUECES COUNTY

RECOMMENDED FOR APPROVAL:

RECOMMENDED FOR APPROVAL:

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RECOMMENDED FOR APPROVAL:

RECOMMENDED FOR APPROVAL:

PROJ. NO.
DATE
LETTERING DATE
COUNTY
HWY. NO.
DATE ACCEPTED

CONVENTIONAL SIGNS
STATE OR NATIONAL LINE
CITY OR VILLAGE LINE
COUNTY LINE
BASE OR SURVEY LINE
RIGHT OF WAY LINE
RIGHT OF WAY MARKERS
FENCE LINE
RAILROAD
TRAVELER'S WAY
CULVERT OR SHOULDER
POWER LINE
TELEGRAPH OR TELEPHONE

SUBSTITUTION OF BORROW SOURCE NO. 1
ON HWY. 44 - D.H. FROM BEG.
OF PROJ. = 25,293 FT. = 4.79 MI.

BORROW SOURCE NO. 1
2480' LT. STA. 130+69 (F.A.P. 341)
ON HWY. 44 - D.H. FROM BEG.
OF PROJ. = 25,293 FT. = 4.79 MI.

S. No. 286
To Chapman Ranch

STATE HWY. 44
To Robstown

STATE HWY. NO. 9
To San Antonio

CORPUS CHRISTI BAY

U.S. HWY. No. 77 & 181
To Sinton

To Gregory

TURNING BASIN

STA. 0+00 BEG. CONT. 326-3-4

STA. 43+78.1 END. CONT. 326-3-4

70' Min. - 100' Max. R. O. W. Width

GENERAL NOTES

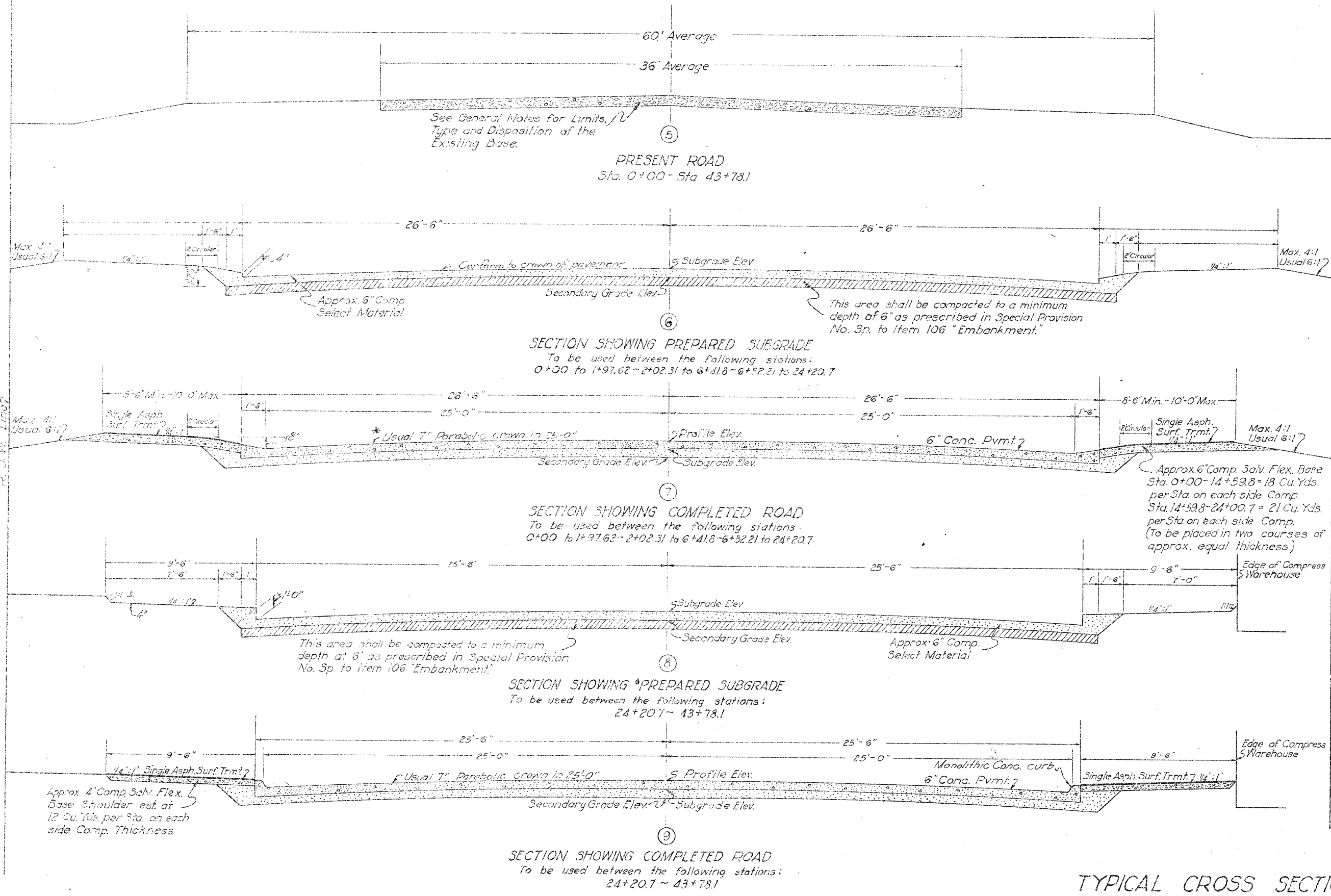
LIMITS, TYPE & DISPOSITION OF EXISTING BASE

Sta. 0+00 - 14+32 7" Av. *36' Broken Stone and Shell Base to be salvaged and replaced on prepared shoulder subgrade between Stations 0+00 - 24+00.7 under Item 207 f Sp.

Sta. 23+70 - 30+50 6 3/4" Av. *36' Surf. Shell with Sand to be salvaged and replaced on prepared shoulder subgrade between Stations 24+40.7 and 43+87.5 under Item 207 f Sp.

Sta. 14+86 - 23+70 and 30+50 - 43+70 2 1/2" Av. *36' Shell Sand and Clay Base (not salvagable) to be removed under Item 101.

* Approaching railroad crossings the usual 7" parabolic crown shall be modified to fit grade of railroad track within a distance of not less than 25' from the nearest rail.



RATE OF APPLICATION FOR SINGLE ASPH. SURF. TRMT.

Prime Coat (MC-2) 0.20 Gal. per Sq. Yd.
Asphalt (OA-135) 0.30 " " "
Aggregate 1 Cu. Yd. per 120 Sq. Yds.

TYPICAL CROSS SECTIONS
SURFACING
SHEET 2 OF 2 SHEETS

3

SECTION	STATE	FEDERAL AID PROJECT NO.	DATE
16	TEXAS	326	3
16	NOEYES	326	3

SUMMARY OF BRIDGES

PERM. STRUCT. NO.	SHEET NO.		NAME OF STREAM	STATION		OVER-ALL LENGTH	DESIGN	DESCRIPTION	Unclass. Struct. Excav.	Class "A" Concrete	Reinf. Steel		
	PLAN	LAY-OUT		BEG.	END				Cu. Yds.	Cu. Yds.	Lbs.		
	7	10	SALT CREEK	14+35	14+75.08	40'-1"	MBC-12-79F	6'-6" x 5' x 79' MBC-12-79-F	342	260.39	38,219		
Totals									342	260.39	38,219		

SUMMARY OF SPECIAL DRAINAGE FACILITIES

PLAN PROF. SHEET NO.	LAYOUT SHEET NO.	STATION	Unclass. Struct. Excav.	Type "A" Inlet	Type "B" Inlet	Type "C" (Mod. Inlet)	Class "A" Conc.	Reinf. Steel	15" 12" Std. R.C. Pipe	24" Std. R.C. Pipe	18" Std. R.C. Pipe	Relaying Culvert Pipe
			Cu. Yds.	Each	Each	Each	Cu. Yds.	Lbs.	Lin. Ft.	Lin. Ft.	Lin. Ft.	Lin. Ft.
6		LT RT 1+55	27		2		2.46	118		71		
6		LT RT 5+82	25		2		2.46	118		71		
6		LT RT 7+02	28		2		2.46	118		71		
7	10	LT RT 14+55.04				2						
9		RT 32+35	4	1								12-0
9		LT 41+05	6	1					6			
9		LT 43+70	16	1						15-3		
9		RT 43+70	114	1							7-0	278
9		LT 43+87.5	38	1					30			
Totals			258	5	6	2	7.38	354	36	228	7-0	290

SUMMARY OF GRADING

PLAN PROF. SHEET NO.	STATION	Comm. Road Exc.	Comm. Borrow	Comm. Chan. Excav.	Blading Embank.	Overhaul	Overhaul (Select)	Rolling 203-A	Salv. & Replac. Flexible Base	Sprinkling	Rolling 203-B
		Cu. Yds.	Cu. Yds.	Cu. Yds.	Hours	Yd. Qtr.	Yd. Qtr.	Hour	Sta.	M. Gal.	Hour
6	0+00 - 8+00	606	5967	13	30	70.54	54,504	29	7.8	134	6
7	8+00 - 21+00	1842	5550	384	61	3362	121,433	59	13	277	13
8	21+00 - 34+00	3255			33	4637		32	13	150	18
9	34+00 - 43+78.1	3530			17			16	9.8	77	10
Totals		9233	5967	397	141	7999	121,433	136	43.6	638	44
Final Totals		18240	5,539	397	65	7054	94,604	87	43.6	163,545	92.75

STRUCTURES TO BE REMOVED BY CONTRACTOR

STATION	SIZE	DESCRIPTION
6+03.6	18" x 75'	Conc. Pipe with Conc. Hwalls
9+21	12" x 70.5'	" " " "
14+59.1	34" x 40'	Grp. Tbr. 3-8erts-9ales per bent.
LT 28+37	20' x 26'	Timber Ramp
29 RT 35+08	18" x 15'	Tile Drain
29 RT 41+49	2-10" x 14'	Concrete Pipes
23 RT 42+82	15" x 11" x 2'	Concrete Catch Basin
35 RT 43+87.5	2' x 12" x 2'	" " "
23 RT 43+70	23" x 2' x 2'	Brick Manhole
Totals		0 Each

LOCATION OF OLD CONCRETE TO BE REMOVED (DRIVEWAYS)

STATION - STATION	SQ. YDS.
RT 29+66	10.7
RT 36+08.5	15.9
RT 43+55.5	52.0
Total	78.6

LOCATION OF MANHOLES TO BE ADJUSTED

STATION	EACH
33' LT 23+85	1
31' LT 29+35	1
31' LT 34+96	1
Total	3

LOCATIONS FOR TIMBER POST GUARD FENCE

STATION - STATION	SPACING	NO.
LT & RT 18+85 - 15+25	12'-0"	24
Total		24

ESTIMATE & QUANTITY SHEET
SHEET 1 OF 2 SHEETS

NO. 1000	NO. 1000	NO. 1000	NO. 1000
NO. 1000	NO. 1000	NO. 1000	NO. 1000
NO. 1000	NO. 1000	NO. 1000	NO. 1000
NO. 1000	NO. 1000	NO. 1000	NO. 1000

PLAN
PAGE FOUR (REVISIONS)
DATE: 10/1/78
BY: J. M. BROWN

PROFILE
PAGE FIVE
DATE: 10/1/78
BY: J. M. BROWN

LIMITS OF SURFACING

STATION TO STATION	TYPE	THICKNESS
0+00 - 1+9762	Concrete Pavement	6"
2+0231 - 6+4705	Concrete Pavement	6"
6+5221 - 43+781	Concrete Pavement	6"

* The usual 20% variation clause covered in the S.H.D. Standard Specifications paragraph 43, is hereby amended to permit a maximum variation of 50% for the items of "Sprinkling" and "Rolling."

Φ See Field Change No. 1

BASIS OF ESTIMATE

DESCRIPTION	RATE	
	ESTIMATED	FINAL
Blading (Sel. Mat'l & Embank.)	150 Cu. Yds. per Hr.	150 Cu. Yds. per Hr.
Sprinkling (Embk & Sel. Mat'l.)	30 Gal. per Cu. Yd.	15 Gal. per Cu. Yd.
Sprinkling (Salv. Flex. Base)	70 Gal. per Cu. Yd.	
Rolling (203; (Salv. Flex. Base)	150 Cu. Yds. per Hr.	124 Cu. Yds. per Hr.
Rolling (203-A & Sp) (Embank.)	150 Cu. Yds. per Hr.	112 Cu. Yds. per Hr.
Rolling (203-A & Sp) (Sel. Mat'l)	175 Cu. Yds.	
Rolling (203-B & Sp) (Sel. Mat'l)	1 Hr. per Sta.	1 Hr. per Sta.
Rolling (203-B & Sp) (Salv. Flex. Bs.)	50 Cu. Yds. per Hr.	36 Cu. Yds. per Hr.

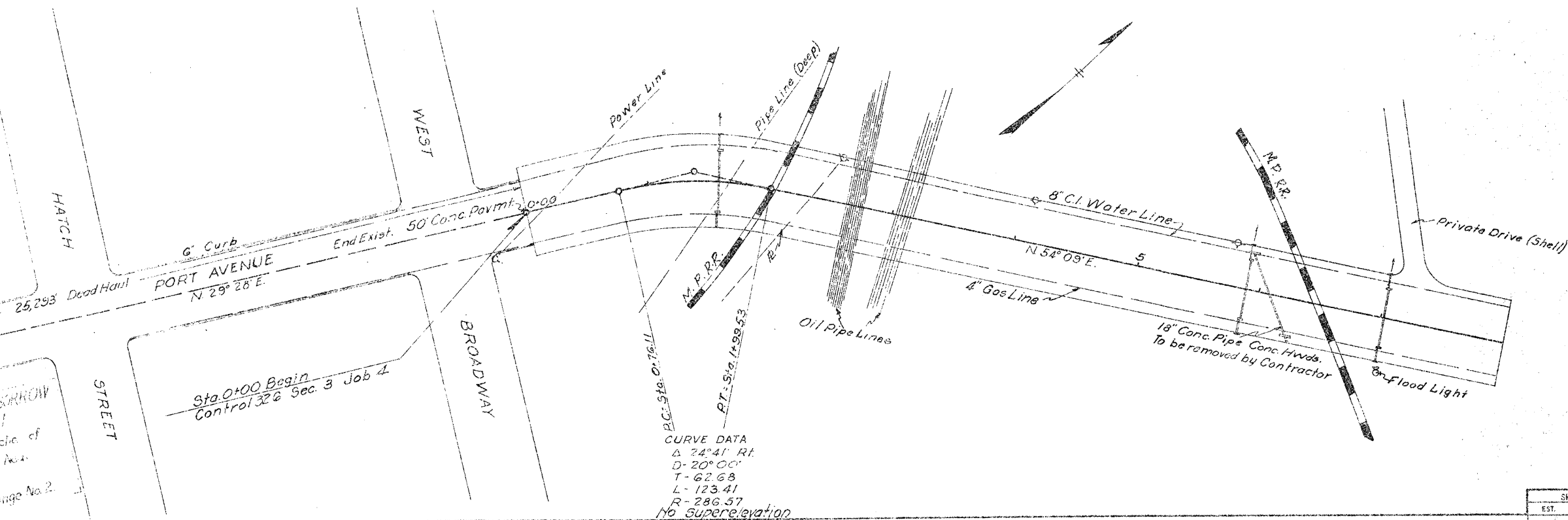
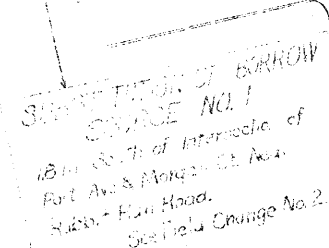
ESTIMATE SUMMARY

ITEM	DESCRIPTION	GRADING, CULVERTS AND SURFACING		BRIDGES		GRAND TOTAL		UNIT
		QUANTITIES		QUANTITIES		QUANTITIES		
		EST.	FINAL	EST.	FINAL	EST.	FINAL	
101	COMMON ROAD EXCAVATION	9233	8240			9233	8240	CU. YD.
102 & SP	COMMON BORROW	5967	5339			5967	5339	CU. YD.
103	COMMON CHANNEL EXCAVATION	397	397			397	397	CU. YD.
104	UNCLASSIFIED STRUCTURAL EXCAVATION	258	258	342	342	600	600	CU. YD.
106 & SP	BLADING EMBANKMENT	141	65			141	65	HOUR
110	OVERHAUL	7999	7054			7999	7054	YD. QTR
110	OVERHAUL (SELECT MAT'L)	121,433	94,604			121,433	94,604	YD. QTR
* 202	SPRINKLING	638	163,545			638	163,545	M. GAL.
* 203	ROLLING	15	105			15	105	HOUR
* 203 A & SP	ROLLING	136	810			136	810	HOUR
* 203 B & SP	ROLLING	88	92.75			88	92.75	HOUR
207 & SP	SALVAGING & REPLACING FLEXIBLE BASE	43.6	43.6			43.6	43.6	STA.
300 & SP	PRIME COAT (MC-2)	2000	1885			2000	1885	GAL.
304 A & SP	ASPHALT (OA-135)	2900	2480			2900	2480	GAL.
304 A & SP	AGGREGATE	81	68			81	68	CU. YD.
320 & SP	HIGH EARLY STRENGTH CONCRETE PAVEMENT	25,433	25,428.7			25,433	25,428.7	39. YD.
324	REINFORCING STEEL FOR PAVEMENTS	154,700	154,700			154,700	154,700	LBS.
403 & SP	CLASS "A" CONCRETE	7.38	133	260.39	260.39	267.77	267.77	CU. YD.
405	REINFORCING STEEL	554	354	38,219	38,219	38,573	38,573	LB.
SP	12" STANDARD REINF. CONCRETE PIPE	36	295			36	295	LF.
SP	24" STANDARD REINF. CONCRETE PIPE	228	225			228	225	LF.
500	REMOVING OLD STRUCTURES	9	9			9	9	EACH
512	MONOLITHIC CONCRETE CURBING	3843	3814			3843	3814	LF.
516 A & SP	TIMBER POST GUARD FENCE	24	24			24	24	EACH
518	REMOVING OLD CONCRETE (DRIVEWAYS)	79	79			79	79	39. YD.
SP	RELAYING CULV. PIPE (18" DIAM. AND UNDER)	290	260			290	260	LF.
SP	ADJUSTING MANHOLE TOPS	3	3			3	3	EACH
SP	INLETS (TYPE "A")	5	5			5	5	EACH
SP	INLETS (TYPE "B")	6	6			6	6	EACH
SP	INLETS (TYPE "B" MOD.)	2	2			2	2	EACH
SP	18" STD. REINF. CONC. PIPE	7	0			7	0	LIN. FT.

ESTIMATE & QUANTITY SHEET

SHEET 2 OF 2 SHEETS

FILE NO.	STATE	FEDERAL AID PROJECT NO.			
0	TEXAS				5
SHEET NO.					
16	NUFCES	226	3	4	

[illegible]

SHEET TOTAL	
EST	FINAL

102, 102	102, 102	95, 95	5, 5	2, 2	13, 13	104, 104	43, 43	606, 588 Cu Yr
596, 596	596, 596							588, 588 Cu Yr
					4, 4	13, 13	4, 4	

133 150	133 150	133 150	133 156	133 156	133 156	133 156	133 156	1004 143 Cu Y
161 139	119 155	324 130	454 120	509 135	447 191	161 139	329 132	2358 2450 Cu Y

Common Road Excavation
Common Borrow
Common Channel Excavation

2	Select Matl. Emb. Plus Shr.
4	Embankment Plus Shr.

PROJECT NOTES

PROJECT NOTES
All elevations based on State
Reclamation Department B.M.
No. 44 Elev. 5.93

All work to be done by hand labor methods adjacent to building to right of Sta. 25+04 to Sta. 41+36 will not be paid for directly but shall be considered as subsidiary work to the governing items of the contract.

All obstructions within the limits of the Right-of-Way to be removed by Nueces County unless otherwise noted.

Elevations shown on plan profile sheets are profile elevations. Subgrade elevations are 0.50' below profile elev. Secondary grade elevations are 1.00' below profile elev.

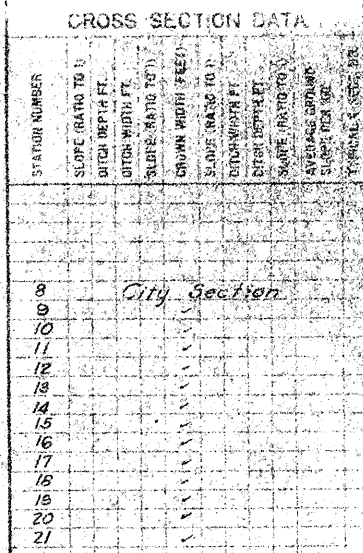
SHEET NOTES

B.M. Chisled egg on top East
Hdwl. Culyt Rt Sta Gt 30
State Reclamation # 44

B.M. Christed cross atop curb
N.E. cor. W. Broadway & Fort
Ave. 25' Rt. Sta. 0+50

1 Elev 1335

FILE NO.	STATE	CITY	ZIP CODE	DATE
10	MISSISSIPPI			1968
STATE	CITY	ZIP CODE	DATE	FILE NO.
10	MISSISSIPPI	396	1968	10

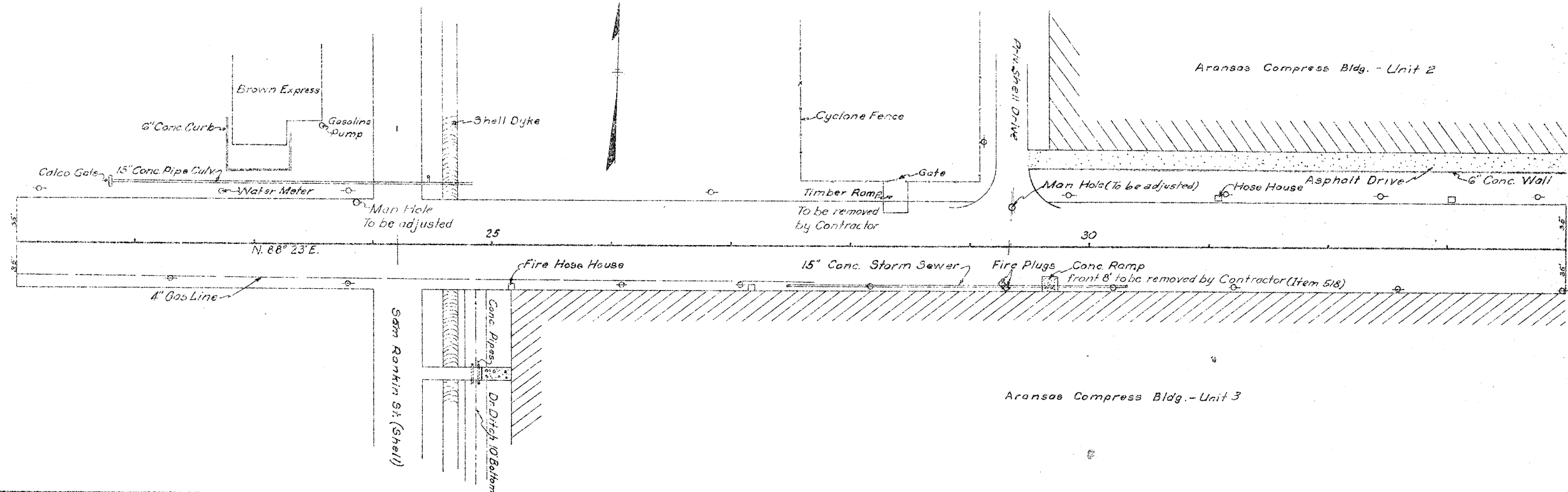
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Bass Lys. P
AH = 3765 ✓
Sub-Bas. P
AH = 2770 ✓
S/B Bas. P
Sub-Bas. P
AH = 1280 ✓
Scars: 1° 2000 Cy ✓
Sub-Bas. P

Common Road Excavation
Common Borrow
Common Channel Excav.
Select Matl. Emb. Plus Shr.
Embankment. Plus Shr.
Overhaul Select
Overhaul

SHEET NOTES
B.M. 60" Nail in power
pole 87 Lt. Sta. 10+90
Elev. 4.03

FIS. 2000 REV. 01	STATE	FISCAL AND FIN. SY. NO.	2000
0	FEES		
STATE UNIV. NO.	COUNTY	DEPARTMENT NO.	100
16	NUECES	229	3



CROSS SECTION DATA									
STATION NUMBER	SLOPE RATIO TO 1	DITCH DEPTH FT.	DITCH WIDTH FT.	SLOPE RATIO TO 1	CROWN WIDTH FEET	SLOPE RATIO TO 1	DITCH DEPTH FT.	DITCH WIDTH FT.	SLOPE RATIO TO 1
21									
22									
23									
24									
25									
26									
27									
28									
29									
30									
31									
32									
33									
34									

223

SHEET TOTALS		
EST.	FINAL	UNIT

97.125	144.63	214.27	432.510	104.22	92.67	172.107	317.220	418.336	336.295	372.248	254.128	237.124	3255.2912 Cu Yd
133.156	133.156	133.156	465.155	128.56	128.91	128.84	128.48	128.24	128.9	128.4	128.4	128.6	1716.1045 Cu Yd
409.103	317.280	168.162	50.35	169.74	168.260	113.116	34.0	9.0	11.0	5.0	5.0	7.0	1585.1393 Cu Yd
													4637.0

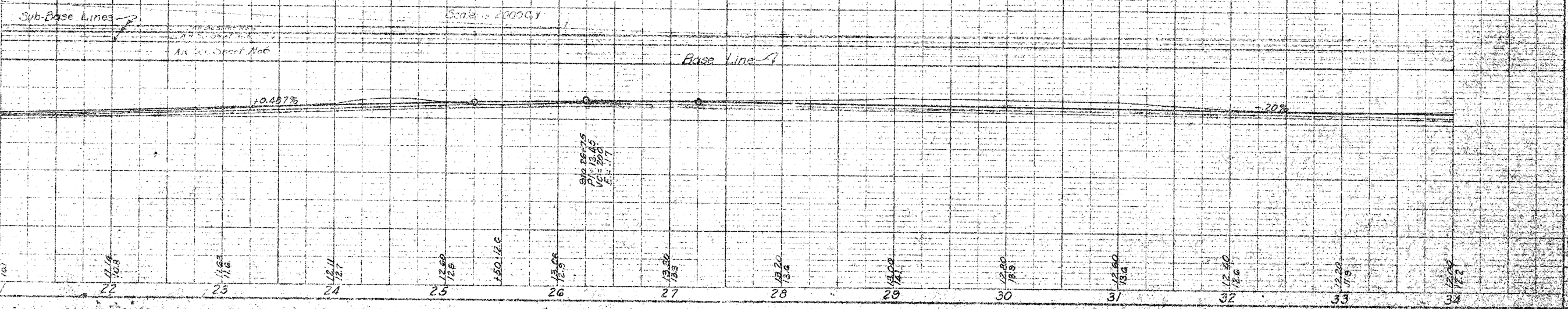
Common Road Excavation
Common Borrow
Common Channel Excav.

Select Matl. Emb. Plus Shr.
Embankment Plus Shr.

Overhaul

SHEET NOTES
B.M. Top W. Hdw. N.E. corner
Culvt. 50' Lt. Sta. 21+80
Elev. 10.41
B.M. Chisled cross on conc.
retaining wall 64' Lt. Sta. 33+27
opp. Warehouse door.
Elev. 13.76

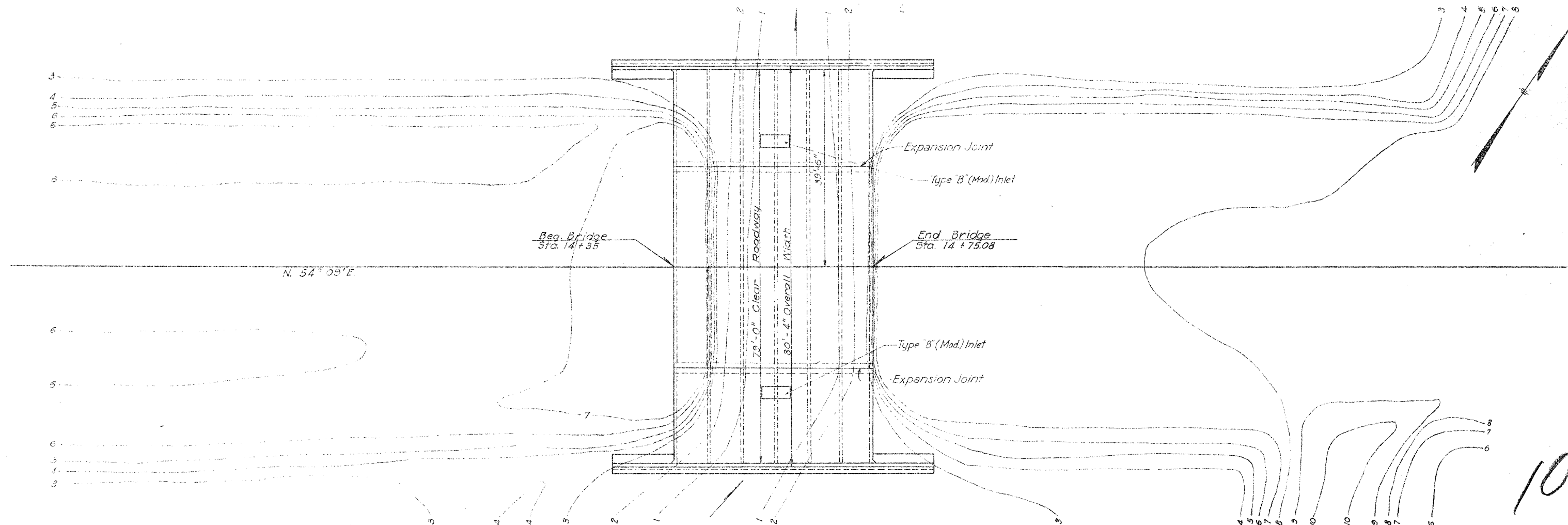
8



STATE	COUNTY	PROJECT NO.	SHEET NO.
TEXAS	DADE	16 NUECES 22 13	1

PLAN
 DATE 10-1-50
 BY J. W. B. JR.
 CHECKED BY J. W. B. JR.

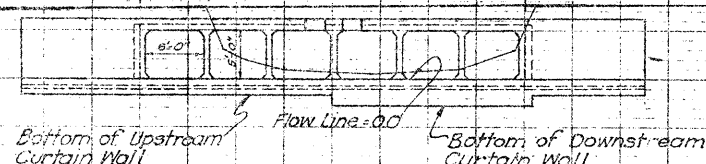
PROFILE
 DATE 10-1-50
 BY J. W. B. JR.
 CHECKED BY J. W. B. JR.



Note: Drainage Area = 1350 Acres
 C = 0.80

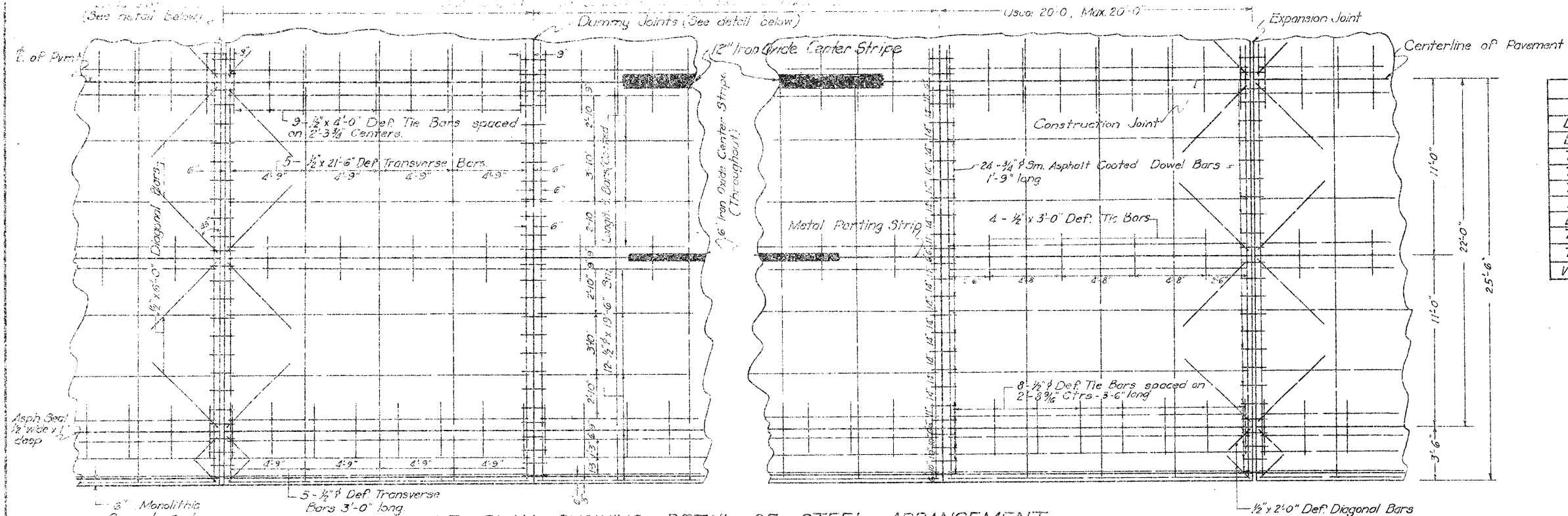
ESTIMATED QUANTITIES			
DESCRIPTION	Unclass. Struct. Excav. Cu. Yds.	Class "A" Conc. Cu. Yds.	Reinf. Steel Lbs.
6 - 6' x 5' x 79' MBC-12-79-F	342	260.39	38,219
Totals	342	260.39	38,219

Beg. Bridge Sta. 14+35
 Fin. Gr. El. = 74.1
 Subgr. El. = 6.91
 6 - 6' x 5' x 79' MBC-12-79-F
 Overall Length = 40'-11"
 End Bridge Sta. 14+75.08
 Fin. Gr. El. = 76.1
 Subgr. El. = 7.17



LAYOUT
 FOR BRIDGE AT
 STA. 14+35 - STA. 14+75.08
 6 - 6' x 5' x 79' MBC-12-79-F

FED. RD. DIST. NO.	STATE	FEDERAL AID PROJ. NO.	SHEET NO.
6	TEXAS		10
STATE DIST. NO.	COUNTY	CONT. NO.	SHEET NO.
15	WHEELER	326	3



HALF PLAN SHOWING DETAIL OF STEEL ARRANGEMENT
 To be used between the following Stations:
 24+60.7 - 43+64.3

ment

BILL OF STEEL FOR 51' PAVEMENT

100'-0" SLAB

DESCRIPTION	No.	SIZE	LENGTH	TOT LGTH	UNIT WT.	TOT. WT.	
Diagonal Bars	16	1/2" Def	6'-0"	96'-0"	.668	64.1	
Diagonal Bars	8	1/2" Def	2'-0"	16'-0"	.668	10.7	
Tie Bars	45	1/2" Def	4'-0"	180'-0"	.668	120.2	
Tie Bars	40	1/2" Def	3'-0"	120'-0"	.668	80.2	
Tie Bars	80	1/2" Def	3'-6"	280'-0"	.668	187.0	
Dowel Bars	240	3/4" Sm	1'-9"	420'-0"	1.502	630.8	
Longitudinal Bars	120	1/2" Sm	19'-6"	2340'-0"	.668	1563.1	
Transverse Bars	50	1/2" Def	21'-6"	1075'-0"	.668	718.1	
Transverse Bars	50	1/2" Def	3'-0"	150'-0"	.668	100.2	
Weight per Sq. Yd.	6.13130 Lbs.					TOTAL	3474.4

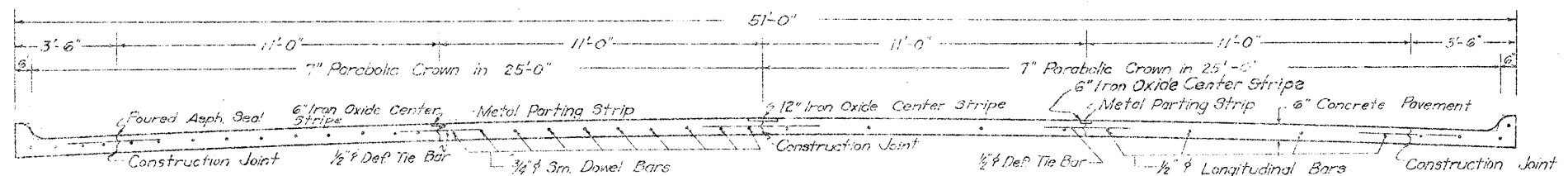
GENERAL NOTES

See Specifications for Construction Methods, Mix, Curing Methods and Material Requirements. Oil Asphalt "OA-30 Spl." shall be used for coating dowels, painting Construction Joints, and sealing Dummy and Construction Joints. Expansion Joints shall be sealed with "Hot Poured Rubber Joint Sealing Filler."

One 12" and two 6" Traffic Stripes shall be applied along the pavement for its entire length as shown on "Detail of Steel Arrangement," and shall consist of treating the stripes along the surface of the concrete as prescribed in the governing specifications. This stripe is a patented installation, and provisions have been made by the State for its use free of royalty charges to the Contractor.

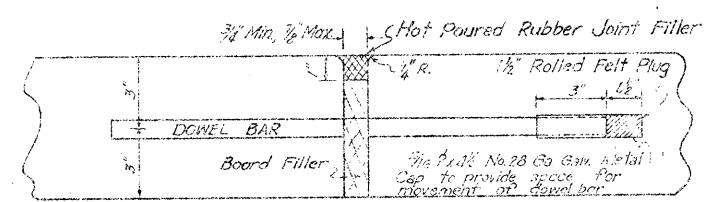
REINFORCING STEEL NOTES

Tie bars and dowels shall be placed with center 3" below top of pavement. Transverse bars shall also be placed 3" below top except those adjacent to expansion and dummy joints which shall be placed immediately below the dowels. Longitudinal bars shall be placed immediately below the transverse bars. Diagonal bars shall be placed immediately above the dowels.



HALF SECTION NEAR DUMMY OR EXPANSION JOINT

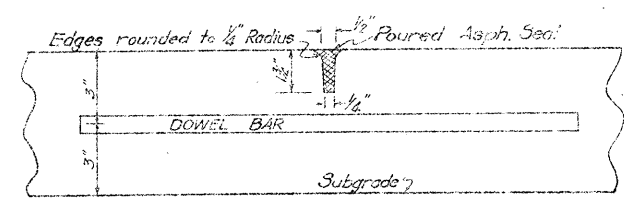
HALF SECTION NEAR MIDDLE OF SLAB



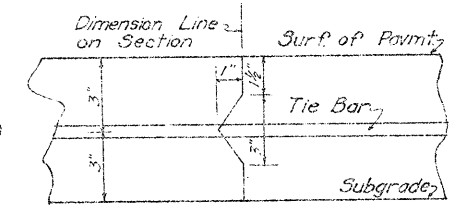
EXPANSION JOINT IN SLAB

NOTE: A metal cap similar to that shown which will provide equivalent facilities for movement of the dowel bar may be used when approved by the Engineer.

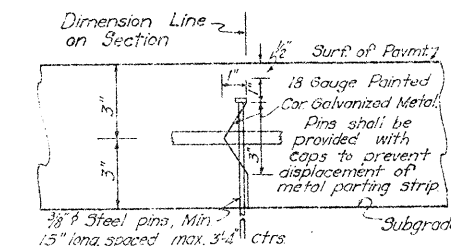
NOTE: This Expansion Joint (except dowel bar and cap) is a patented installation. Provision has been made for its use by the State free of royalty charges to the Contractor.



DUMMY JOINT IN SLAB



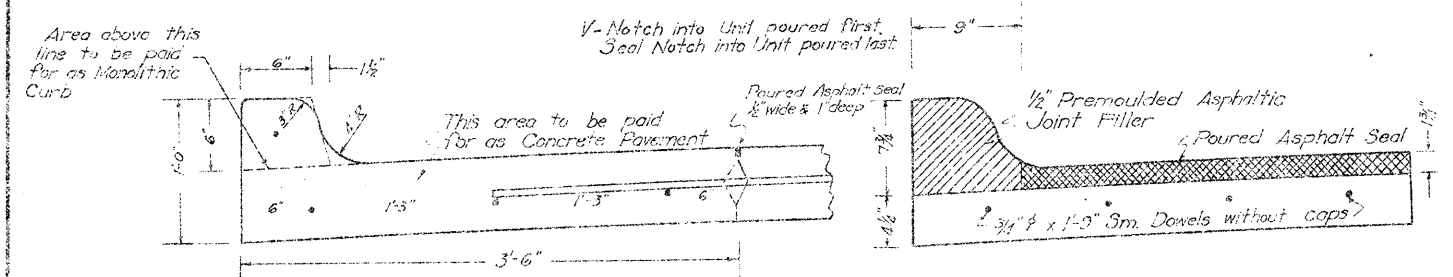
CONSTRUCTION JOINT



NOTE: When approved by the Engineer, a metal parting strip and pin similar and equivalent to that shown may be used.

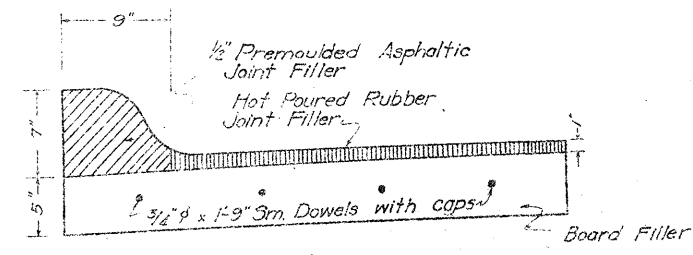
METAL PARTING STRIP

NOTE: No additional compensation shall be allowed for this item, the cost of which shall be included in the contract unit price bid for "Concrete Pavement." (H.E.S.)



DIMENSIONS AND REINFORCING DETAILS

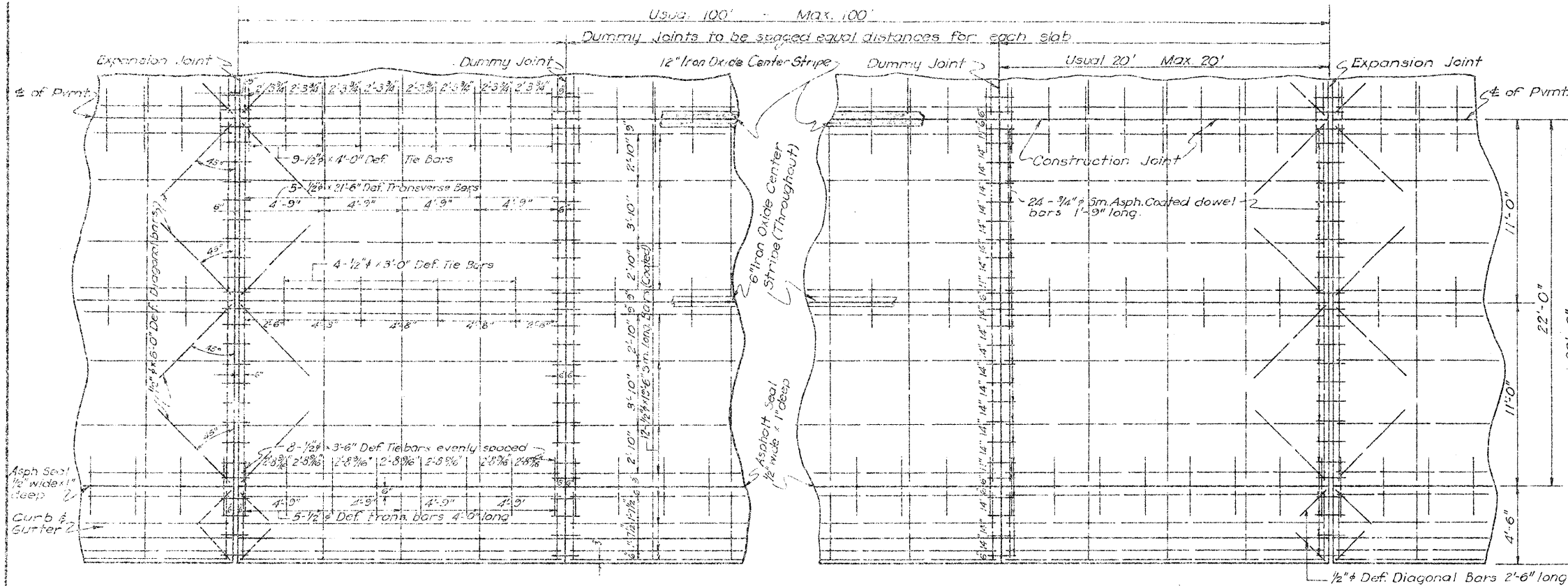
DUMMY JOINT



EXPANSION JOINT

DETAILS FOR 51'-0" CONCRETE PAVEMENT WITH MONOLITHIC CURB

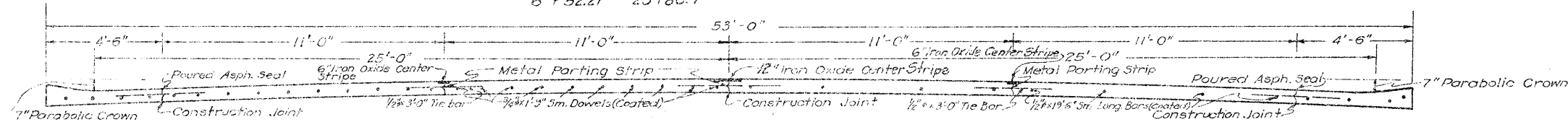
DATE	BY	CHECKED	APPROVED
10/1/50	JG	NUECES	386



HALF PLAN SHOWING DETAIL OF STEEL ARRANGEMENT

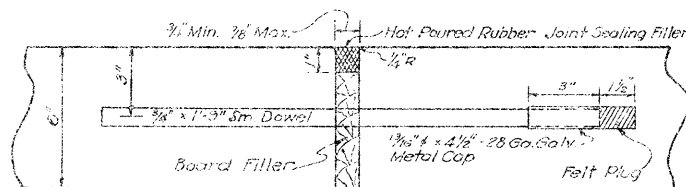
To be used between the following stations

0+00 - 1+37.62
2+07 - 6+41.8
6+52.21 - 23+80.7

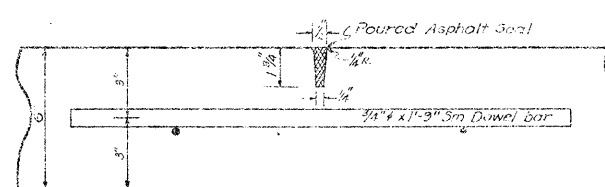


HALF SECTION NEAR DUMMY OR EXPANSION JOINT

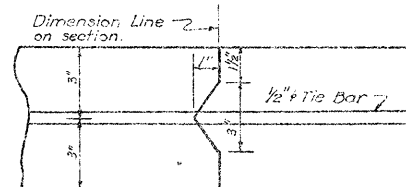
HALF SECTION NEAR MIDDLE OF SLAB



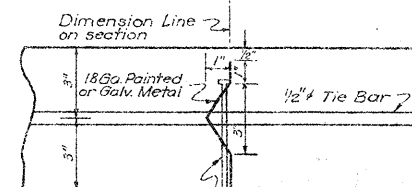
EXPANSION JOINT IN SLAB
(For notes see Sheet No. 11)



DUMMY JOINT IN SLAB

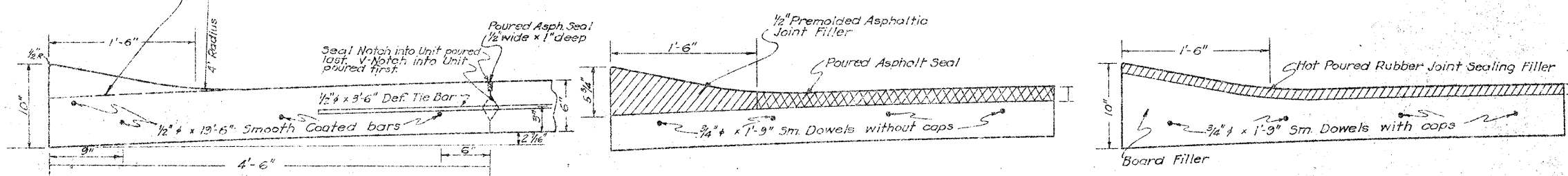


CONSTRUCTION JOINT



METAL PARTING STRIP
(For notes see Sheet No. 11)

Payment for area above this line to be included in unit price bid per sq. yd. for concrete pavement (H.E.S.)



DIMENSIONS AND REINFORCING DETAILS

DUMMY JOINT

EXPANSION JOINT

CURB AND GUTTER DETAILS

BILL OF STEEL FOR 53' PAVEMENT

100'-0" SLAB						
DESCRIPTION	NO.	SIZE	LENGTH	TOT. LGTH.	UNIT WT.	TOT. WT.
Diagonal Bars	16	1/2" Def.	6'-0"	96'	.668	64.1
Diagonal Bars	8	1/2" Def.	2'-6"	20'	.668	13.4
Tie Bars	45	1/2" Def.	4'-0"	180'	.668	120.2
Tie Bars	40	1/2" Def.	3'-0"	120'	.668	80.2
Tie Bars	80	1/2" Def.	3'-6"	280'	.668	187.0
Dowel Bars	240	3/4" x 5m.	1'-9"	420'	1.502	630.8
Longitudinal Bars	120	1/2" x 5m.	19'-6"	2340'	.668	1563.1
Transverse Bars	50	1/2" Def.	21'-6"	1075'	.668	716.1
Transverse Bars	50	1/2" Def.	4'-0"	200'	.668	133.6
Weight per Sq. Yd.				5.96123	Total Lbs.	
					3510.5	

GENERAL NOTES

See Specifications for Construction Methods, Mix, Curing Methods and Material Requirements. Oil Asphalt "OA-30 Sp." shall be used for coating dowels and longitudinal bars, painting Construction Joints and sealing Dummy and Construction Joints. Expansion Joints shall be sealed with "Hot Poured Rubber Joint Sealing Filler." One 12" and two 6" Traffic Stripes shall be applied along the pavement for its entire length, as shown on "Detail of Steel Arrangement," and shall consist of treating the strip along the surface of the concrete as prescribed in the governing specifications. This stripe is a patented installation and provisions for its use have been made by the State free of royalty charges to the Contractor.

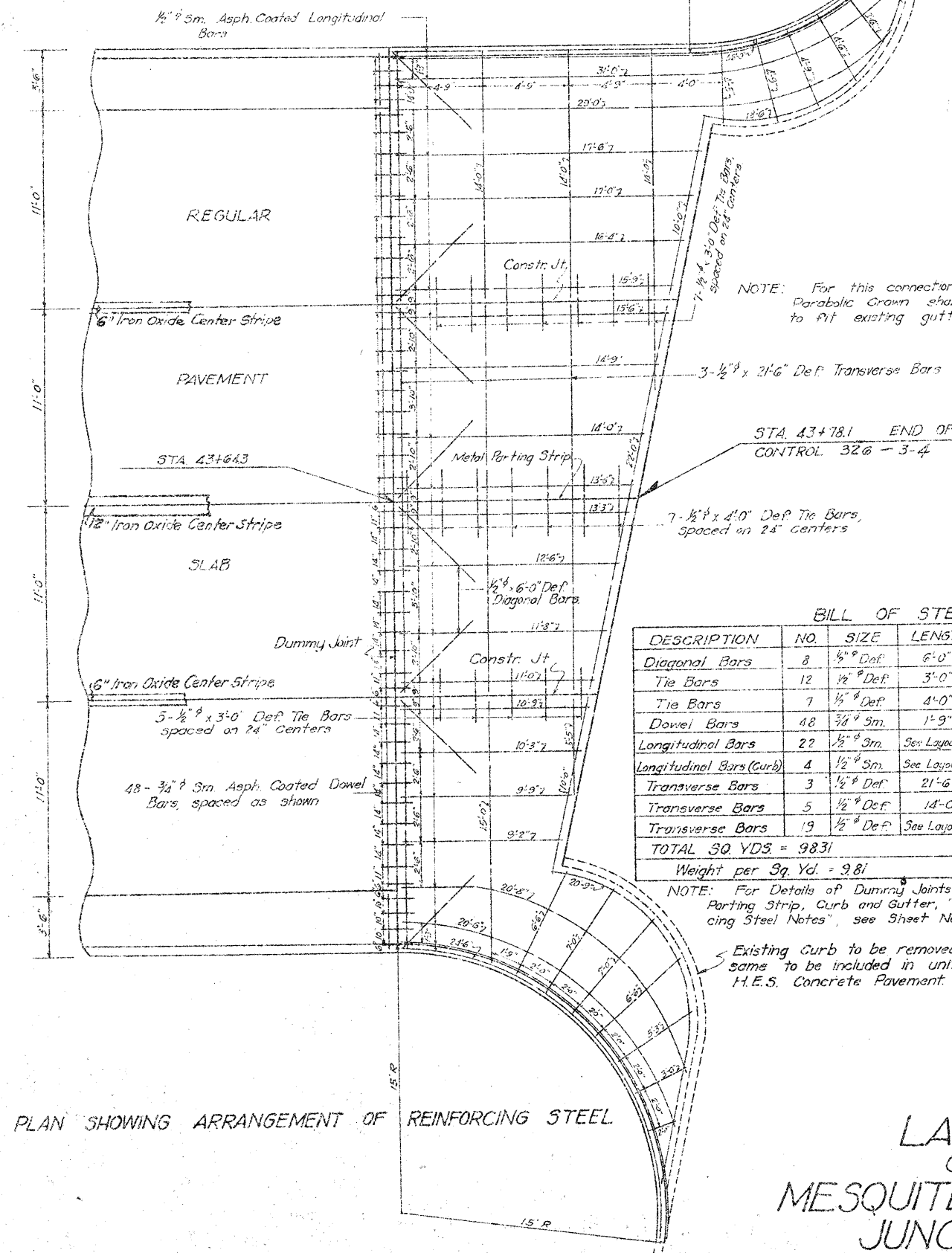
REINFORCING STEEL NOTES

Tie bars and dowels shall be placed with center 3" below top of pavement. Transverse bars shall also be placed 3" below top, except those adjacent to expansion and dummy joints which shall be placed immediately below the dowels. Longitudinal bars shall be placed immediately below the transverse bars. Diagonal bars shall be placed immediately above the dowels.

DETAILS FOR 53'-0" CONCRETE PAVEMENT

12

NO.	DATE	REVISION	BY	CHKD.
1	10/1/78	1	WUEGES	WUEGES
2	10/1/78	2	WUEGES	WUEGES
3	10/1/78	3	WUEGES	WUEGES
4	10/1/78	4	WUEGES	WUEGES

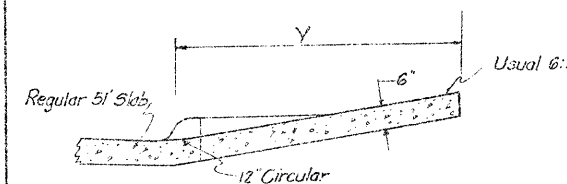
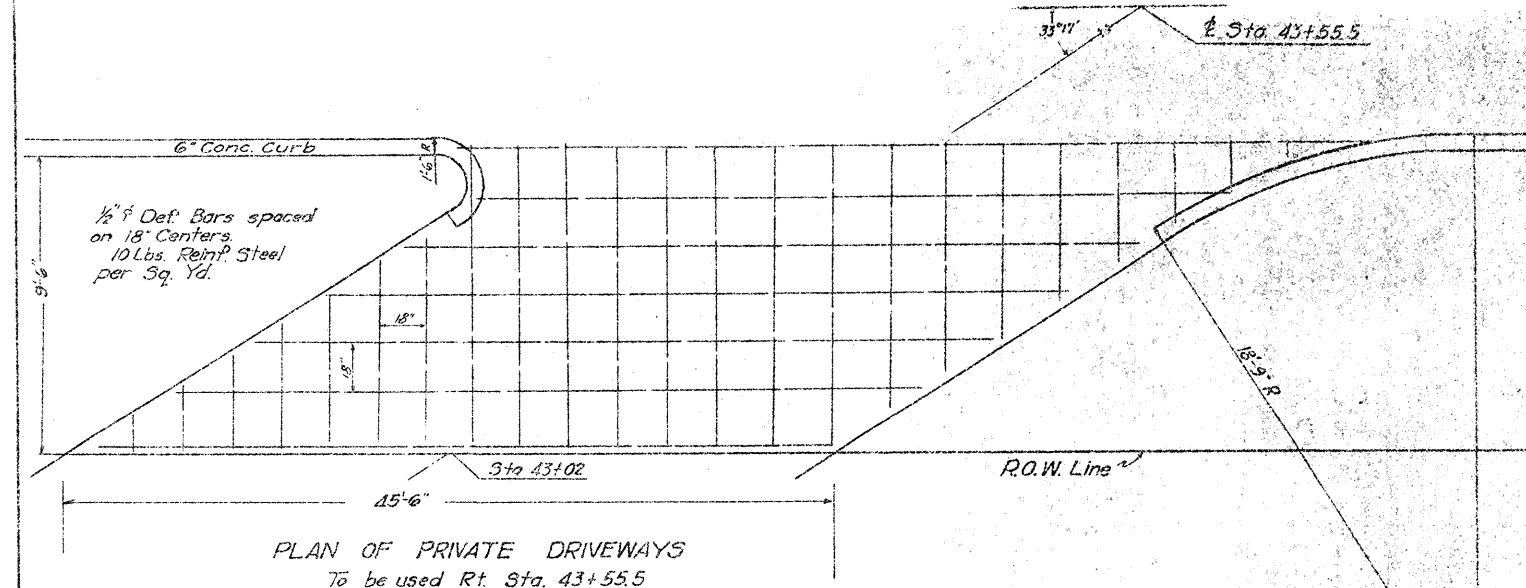


BILL OF STEEL						
DESCRIPTION	NO.	SIZE	LENGTH	TOT LGTH.	UNIT WT.	TOT WT.
Diagonal Bars	8	1/2" Def.	6'-0"	48'-0"	.668	32.1
Tie Bars	12	1/2" Def.	3'-0"	36'-0"	.668	24.1
Tie Bars	7	1/2" Def.	4'-0"	28'-0"	.668	18.7
Dowel Bars	48	3/4" Sm.	1'-9"	84'-0"	1.502	126.2
Longitudinal Bars	22	1/2" Sm.	See Layout	353'-1"	.668	235.9
Longitudinal Bars (Curb)	4	1/2" Sm.	See Layout	121'-0"	.668	80.8
Transverse Bars	3	1/2" Def.	21'-6"	64'-6"	.668	43.1
Transverse Bars	5	1/2" Def.	14'-0"	70'-0"	.668	46.8
Transverse Bars	19	1/2" Def.	See Layout	129'-5"	.668	86.4
TOTAL SQ YDS = 9831				TOTAL WEIGHT-LBS = 694		
Weight per Sq. Yd. = 9.81						

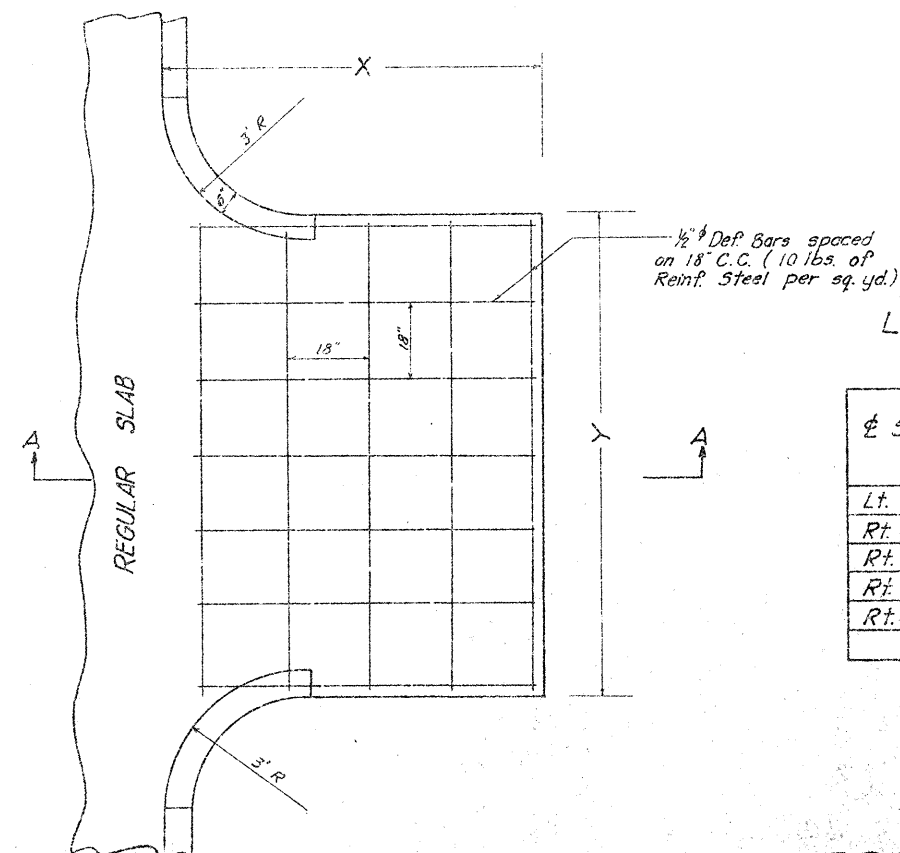
NOTE: For Details of Dummy Joints, Construction Joints, Metal Parting Strip, Curb and Gutter, "General Notes", and "Reinforcing Steel Notes", see Sheet No. 11.

Existing Curb to be removed, payment for same to be included in unit price bid for H.E.S. Concrete Pavement.

LAYOUT OF MESQUITE STREET JUNCTION



SECTION A-A



Lt. 29+35
Rt. 29+66
Rt. 36+08.5
Rt. 41+49

LOCATIONS, DIMENSIONS AND QUANTITIES FOR PRIVATE DRIVES

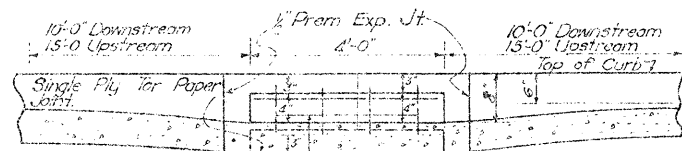
STATION	DIMENSIONS		H.E.S.	REINF. STEEL FOR
	X	Y	CONC. PAV'T Sq. Yd.	PAVEMENTS Lb.
Lt. 29+35	3	31	8.8	88
Rt. 29+66	6	12	7.5	75
Rt. 36+08.5	8	13	10.8	108
Rt. 41+49	3	14	3.9	39
Rt. 43+55.5			48.5	450
TOTALS			79.5	760

DETAILS OF PRIVATE DRIVEWAYS

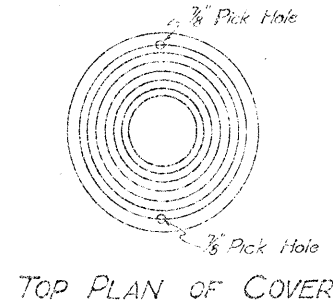
PLAN
NOTES:
1. ALL DIMENSIONS ARE IN FEET AND INCHES.
2. ALL REINFORCING STEEL SHALL BE CLASS "A".
3. ALL CONCRETE SHALL BE CLASS "A".
4. ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE LATEST EDITIONS OF THE STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION, AS APPLICABLE.

430

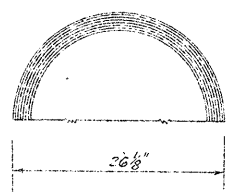
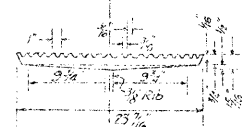
PROFILE
NOTES:
1. ALL DIMENSIONS ARE IN FEET AND INCHES.
2. ALL REINFORCING STEEL SHALL BE CLASS "A".
3. ALL CONCRETE SHALL BE CLASS "A".
4. ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE LATEST EDITIONS OF THE STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION, AS APPLICABLE.



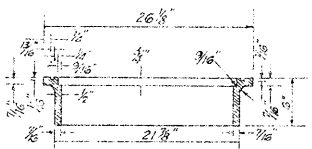
SECTION C-C



SECTION OF COVER ON E



SECTION OF FRAME



GENERAL NOTES

All Concrete in inlets shall be Class "A". Dimensions relating to reinforcing steel are to center of bars.
The Unit Price Bid for Type "A" & "B" Inlets shall include the cost of Forms, Class "A" Concrete, Reinforcing Steel, Expansion Joints, Frame, Cover, and all incidentals, necessary to satisfactorily complete the work except Concrete Pipe and Structural Excavation.
Manhole Frames and Covers shown are the standard type used by the City of Dallas.

BILL OF REINFORCING STEEL

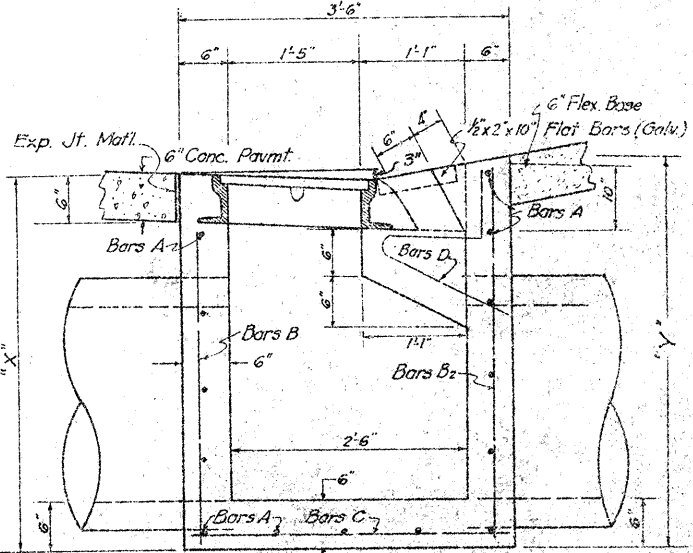
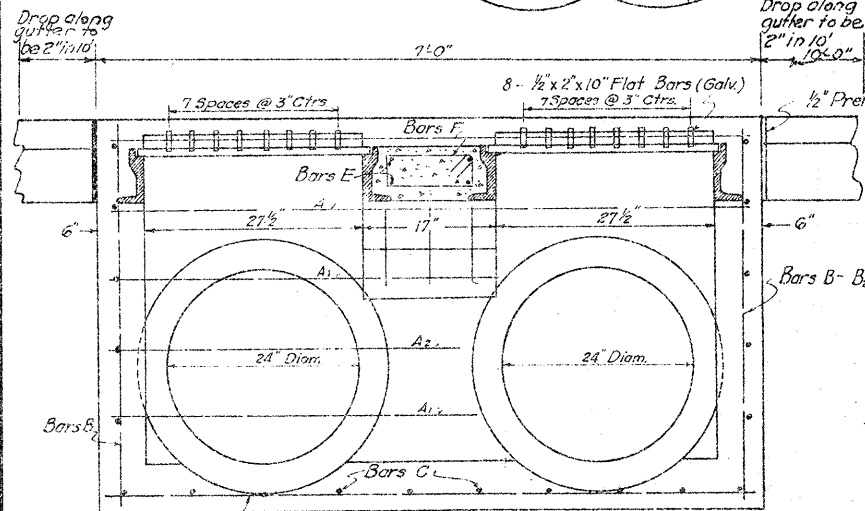
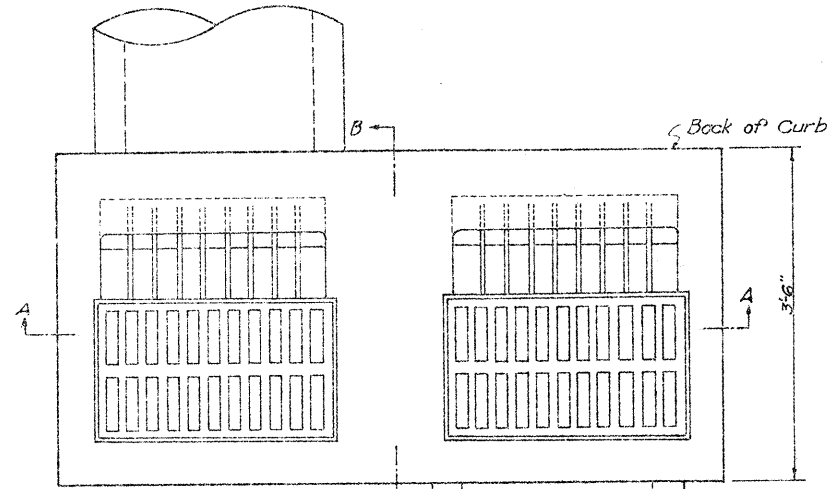
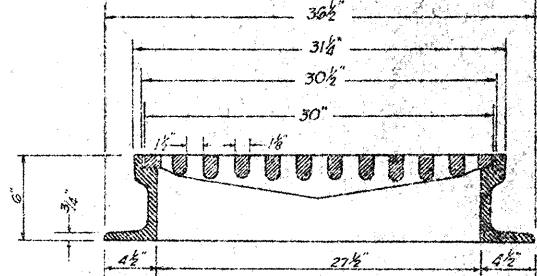
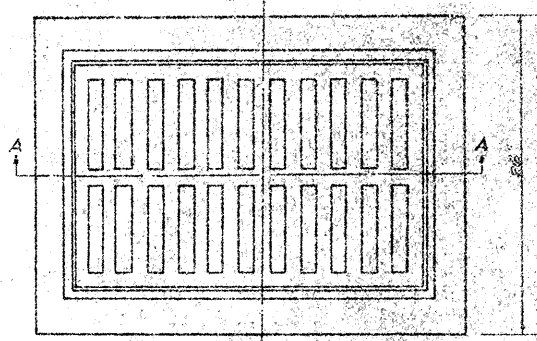
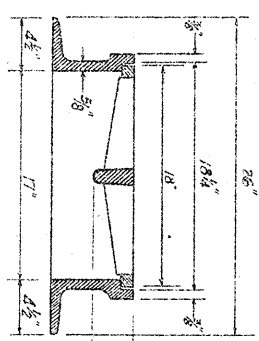
BAR	NO.	SIZE	SPACING	LENGTH
A	4	1/2" Ø	—	—
B	6	—	5" Ctrs	—
C	2	—	2 1/2"	—
D	13	—	9"	—
E	4	—	9"	—
F	15	—	12"	—
G	6	—	12"	—
H	4	3/4" Ø	12"	—
I	4	3/4" Ø	14"	—

LOCATION OF INLETS

STA. NO.	SIDE	DIM. "X"	DIM. "Y"
39+35	Rt.	3'-0"	2'-0"
41+05	Lt.	2'-8 1/8"	1'-8 1/8"
43+70	Lt.	4'-0"	3'-0"
43+70	Rt.	2'-4 1/8"	1'-11 7/8"
43+87.5	Lt.	3'-0"	2'-0"

LOCATION OF INLETS

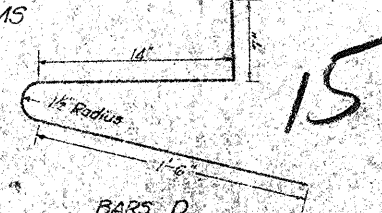
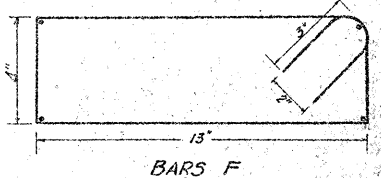
STA. NO.	SIDE	DIM. "X"	DIM. "Y"
1+55	Rt.	3'-7 1/4"	3'-9 1/4"
1+55	Lt.	3'-9 3/4"	3'-11 3/4"
5+89	Rt.	3'-8"	3'-10"
5+89	Lt.	3'-10 1/4"	4'-0 1/4"
7+02	Rt.	3'-7"	3'-9"
7+02	Lt.	3'-8 1/4"	3'-10 1/4"



BILL OF REINFORCING STEEL

BAR	NO.	SIZE	SPACING	LENGTH
A	8	1/2" Ø	—	6'-8"
A1	4	—	Variable	4'-1"
A2	2	—	Variable	3'-9"
B	11	—	9"	X-10"
B1	2	—	—	X-4"
B2	7	—	9"	Y-4"
C	10	—	9"	3'-2"
D	3	3/4" Ø	6 1/2"	3'-7"
E	4	1/2" Ø	—	3'-2"
F	5	—	9"	3'-5"

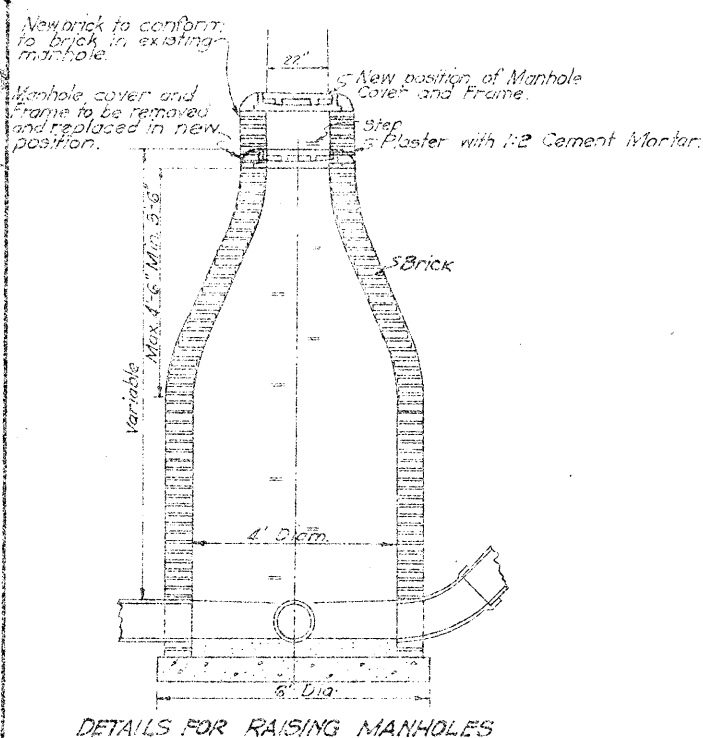
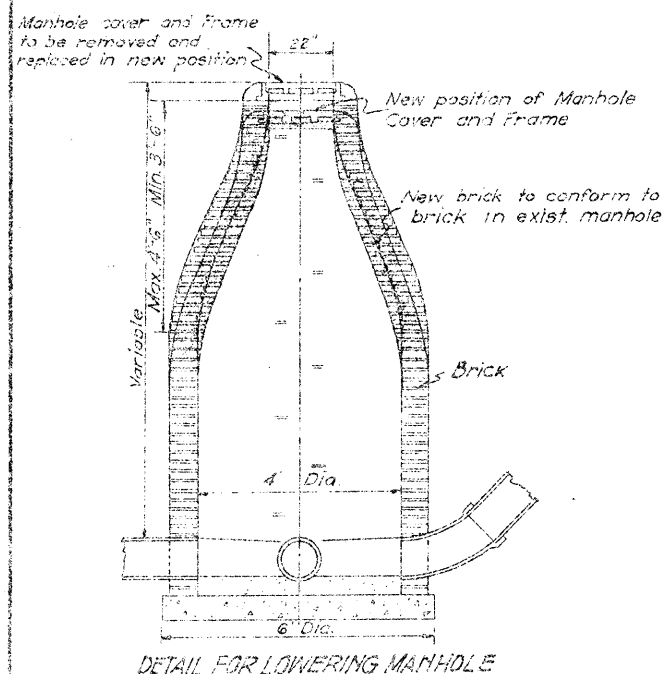
STEEL BENDING DIAGRAM



DETAILS OF TYPE "A" INLET

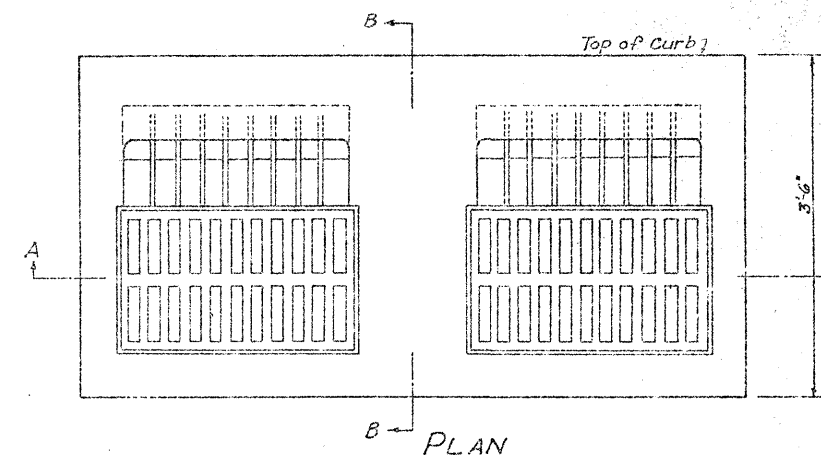
DETAILS OF TYPE "B" INLET

FED. ROAD DIST. NO.	STATE	FEDERAL AID PROJECT NO.	SHEET NO.
16	TEXAS	322A-1-3	4

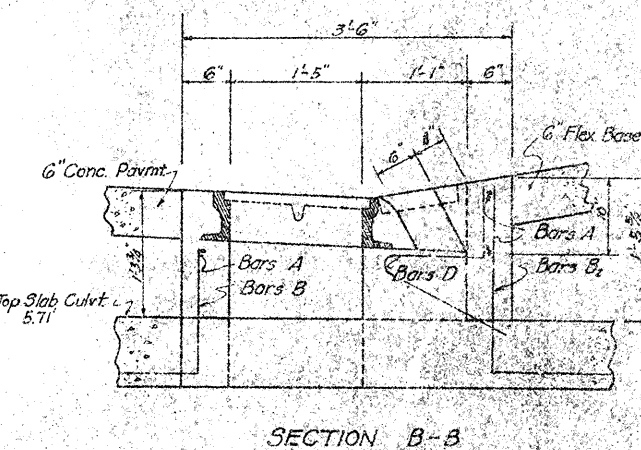
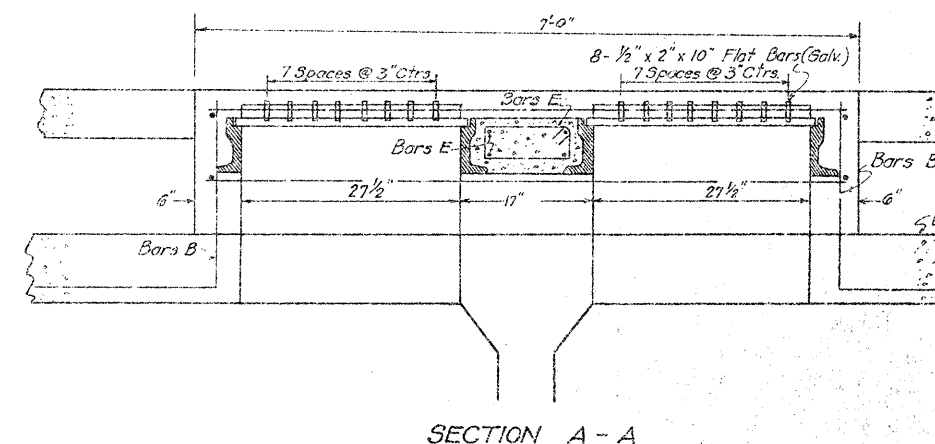


LOCATION OF MANHOLES TO BE ADJUSTED

STATION	PRES. ELEV. TOP OF COVER	PROP. ELEV. TOP OF COVER	ADJUSTMENT
LT. 23+85	10.31	12.17	RAISE 1.86'
LT. 29+35	14.20	13.00	LOWER 1.20'
LT. 34+96	11.23	11.81	RAISE 0.58'



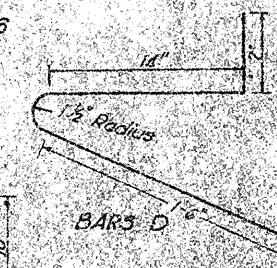
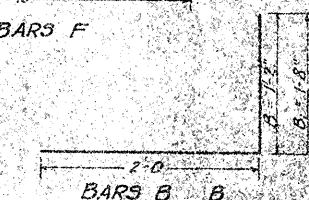
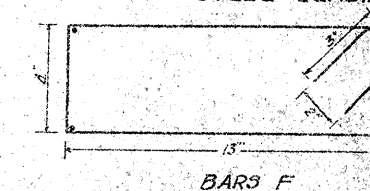
NOTE: For General Notes and details of Frames and Grates see Sheet No. 15



BILL OF REINFORCING STEEL

BAR	NO.	SIZE	SPACING	LENGTH
A	3	1/2" Ø	9"	6'-8"
B	11	1/2" Ø	9"	3'-2"
B ₁	2	1/2" Ø	~	3'-8"
B ₂	7	1/2" Ø	9"	3'-10"
D	3	3/4" Ø	6 1/2"	3'-7"
E	4	1/2" Ø	9"	3'-2"
F	5	1/2" Ø	9"	3'-5"

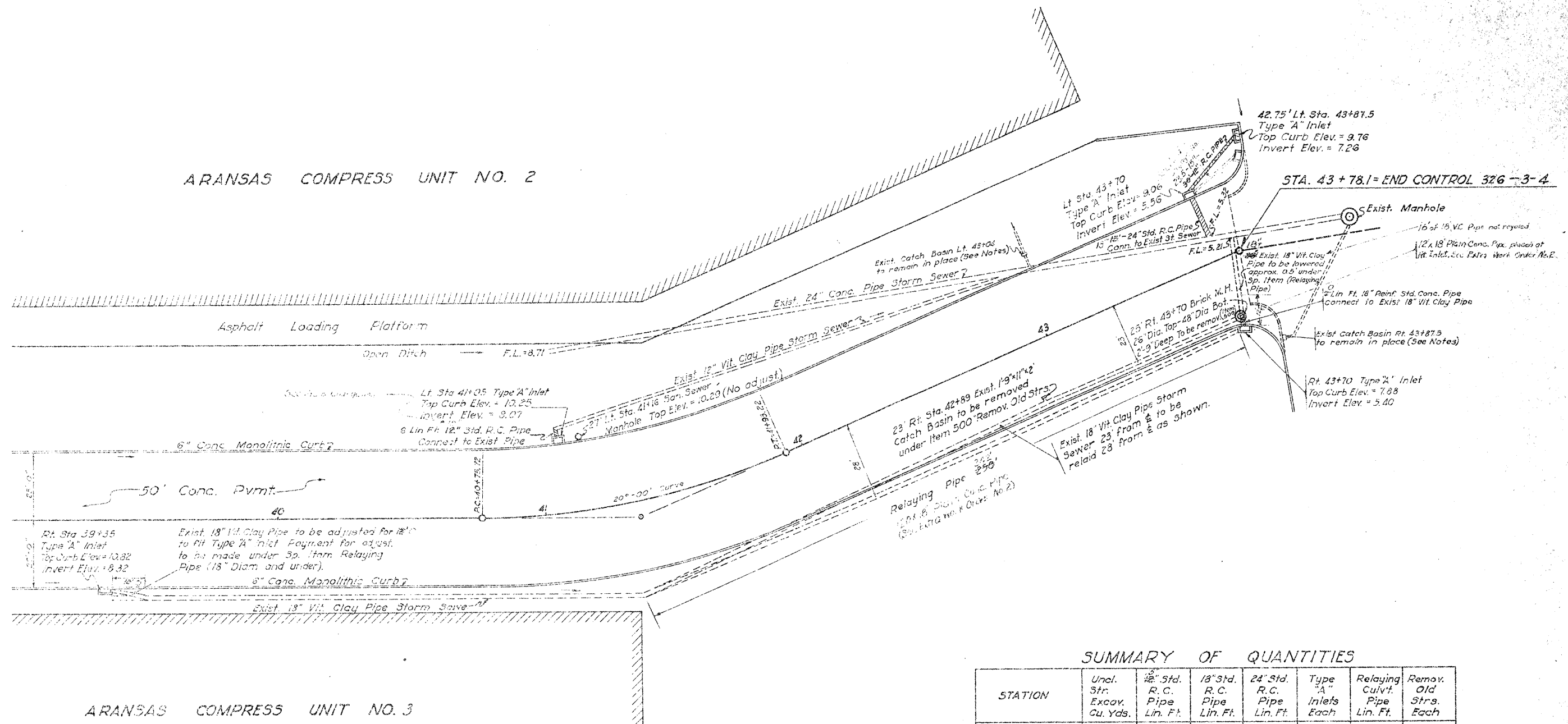
STEEL BENDING DIAGRAM



DETAILS OF TYPE "B" INLET (MOD.)
STA. 14+55.04

DATE	BY	CHECKED	APPROVED
10/1/00	TECH	FORN	FORN
10/1/00	WUEGES	10/1/00	10/1/00

ARANSAS COMPRESS UNIT NO. 2



ARANSAS COMPRESS UNIT NO. 3

GENERAL NOTES

After removal of the curb over the existing inlet at Right Sta. 43+87.5 the open area around the existing grate shall be filled with concrete approx. six inches thick. A six inch layer of concrete shall be placed over the existing inlet at Left Sta. 43+04. Payment for the above shall be included in the unit bid price per Sq. Yd. for High Early Strength Concrete Pavement.

SUMMARY OF QUANTITIES

STATION	Uncl. Str. Excav. Cu. Yds.	18\" Std. R.C. Pipe Lin. Ft.	18\" Std. R.C. Pipe Lin. Ft.	24\" Std. R.C. Pipe Lin. Ft.	Type \"A\" Inlets Each	Relaying Culvert Pipe Lin. Ft.	Remov. Old Strs. Each
Rt. 39+35	4				1	12.0	
Lt. 41+05	6	6			1		
Rt. 42+89				15-13	1		1
Lt. 43+70	16				1	276.20	1
Rt. 43+70	7		7-0		1		
Lt. 43+87.5	38	30-235			1		
TOTALS	71	36-235	7-0	15-13	5	290.20	2

LAYOUT OF SPECIAL DRAINAGE FACILITIES

STA. 39+35 ~ STA. 43+87.5

SCALE ~ 1\" = 20'

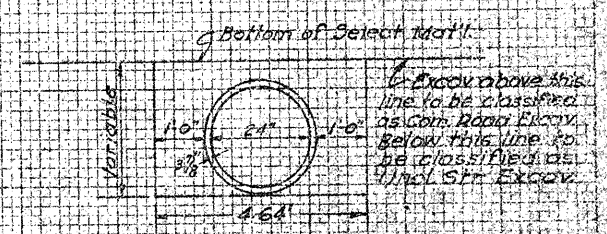
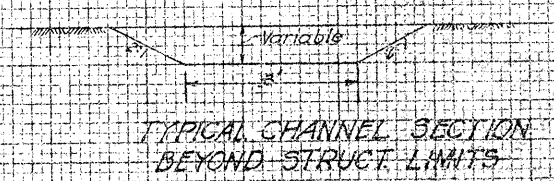
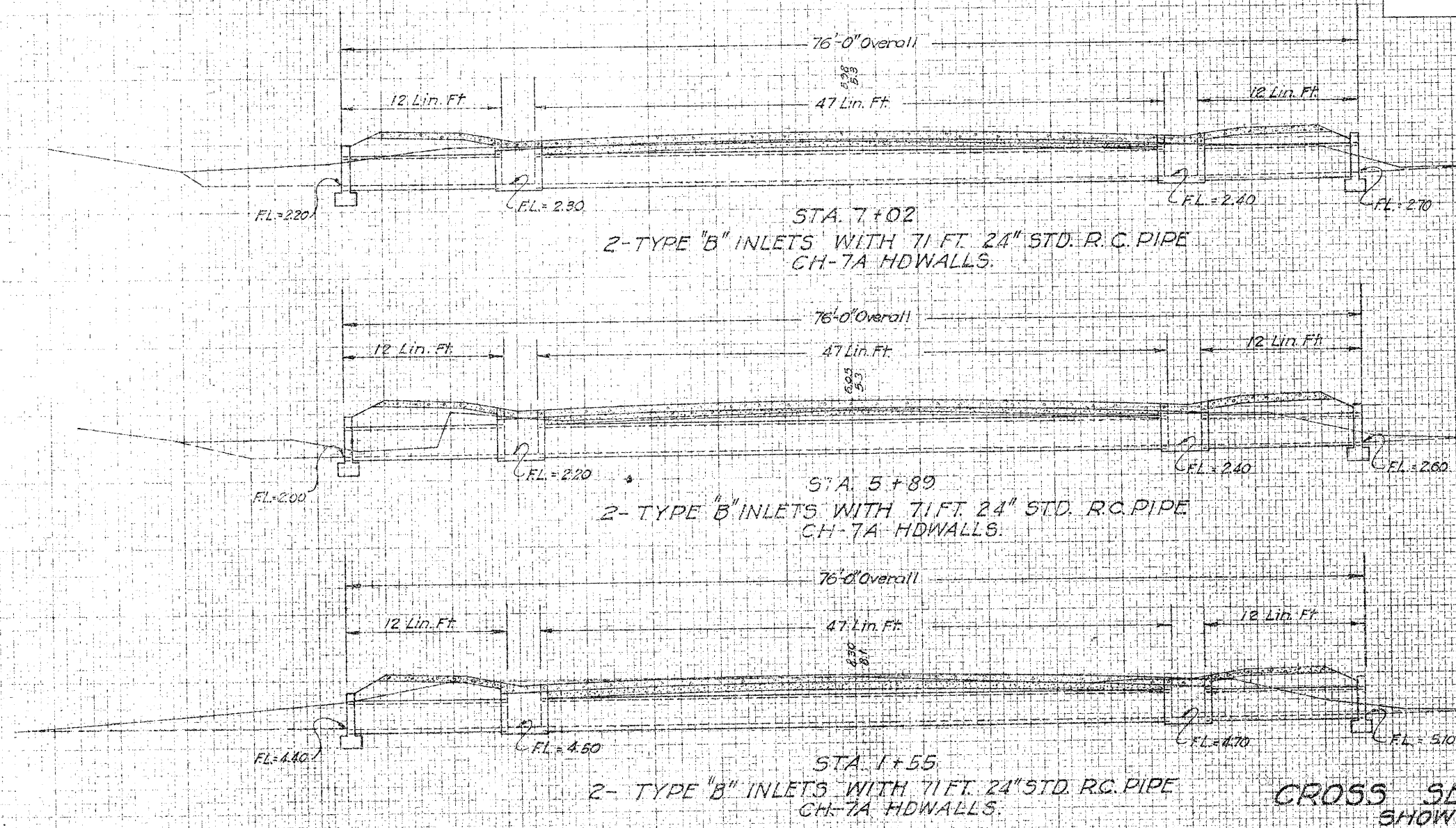
DATE	BY	REVISION	DATE	BY	REVISION
10/1/55	W.E.	1	10/1/55	W.E.	1
10/1/55	W.E.	2	10/1/55	W.E.	2
10/1/55	W.E.	3	10/1/55	W.E.	3
10/1/55	W.E.	4	10/1/55	W.E.	4
10/1/55	W.E.	5	10/1/55	W.E.	5
10/1/55	W.E.	6	10/1/55	W.E.	6
10/1/55	W.E.	7	10/1/55	W.E.	7
10/1/55	W.E.	8	10/1/55	W.E.	8
10/1/55	W.E.	9	10/1/55	W.E.	9
10/1/55	W.E.	10	10/1/55	W.E.	10

1744
CHECKED
NOTED

DATE
SUBMIT
NOTED

SUMMARY OF QUANTITIES

STATION	DESCRIPTION	Unclass. Struct. Excav. Cu. Yds.	Class "A" Conc. Cu. Yds.	Reinf. Steel Lbs.	24" Std. RC. Pipe Lin. Ft.	Comm. Chan. Exc. Cu. Yds.
1 + 55	2 Type "B" Inlets	27	2.46	118	71	5
5 + 89	" "	25	2.46	118	71	4
7 + 02	" "	28	2.46	118	71	4
Totals		80	7.38	354	213	13

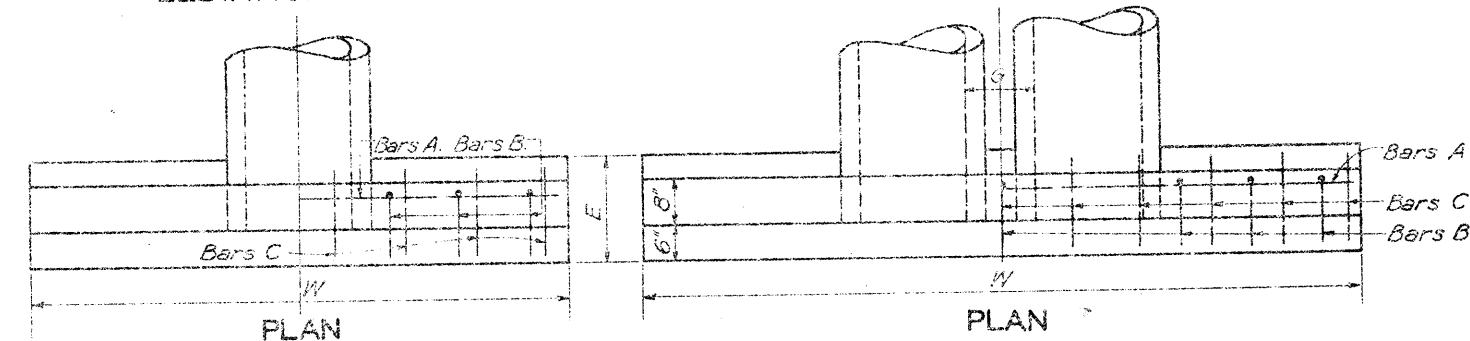
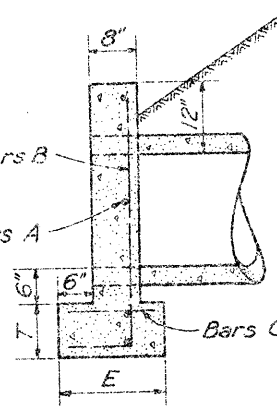
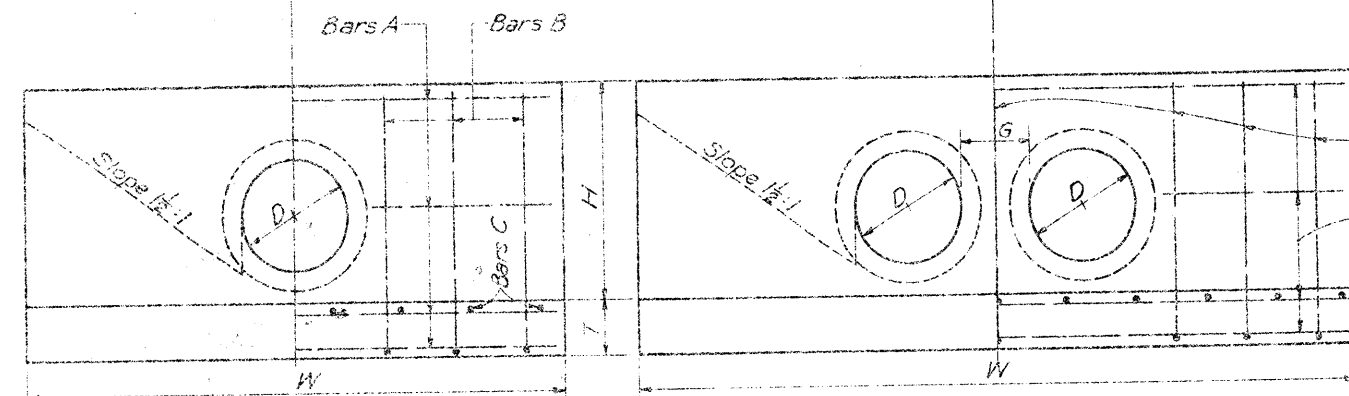


CROSS SECTIONS SHOWING SPECIAL DRAINAGE FACILITIES

19

NO. 10
COUNTY
10
NUECES 326.13 4.1

TYPE A



DESIGN NO.	NO. OF PIPE	DIAM. OF PIPE	TABLE OF DIMENSIONS					BILL OF REINFORCING STEEL AND QUANTITIES FOR ONE HEADWALL									
			W	H	E	T	G	%BARS @ 18" c-c					%BARS @ 22" c-c				
								NO.	LENGTH	NO.	LENGTH	NO.	LENGTH	NO.	LENGTH	STEEL	CONCRETE
1	1	18"	7'-8"	3'-0"	1'-6"	9"	—	3	7'-4"	2	2'-6"	6	4'-5"	8	1'-3"	42	.83
2	2	"	10'-4"	"	"	"	1'-2"	"	10'-0"	"	"	7	"	11	"	51	1.07
3	3	"	13'-0"	"	"	"	1'-2"	"	12'-8"	"	"	8	"	13	"	60	1.33
4	4	"	15'-8"	"	"	"	1'-2"	"	15'-4"	"	"	9	"	16	"	70	1.58
5	1	24"	9'-8"	3'-6"	1'-10"	9"	—	3	9'-4"	2	3'-3"	8	4'-11"	10	1'-7"	59	1.23
6	2	"	13'-1"	"	"	"	1'-5"	"	12'-9"	"	"	9	"	13	"	71	1.59
7	3	"	16'-6"	"	"	"	1'-5"	"	16'-2"	"	"	10	"	17	"	85	1.96
8	4	"	19'-11"	"	"	"	1'-5"	"	19'-7"	"	"	11	"	20	"	97	2.31
9	1	30"	11'-8"	4'-0"	2'-0"	9"	—	3	11'-4"	4	3'-11"	8	5'-5"	12	1'-9"	74	1.65
10	2	"	15'-10"	"	"	"	1'-8"	"	15'-6"	"	"	9	"	16	"	88	2.12
11	3	"	20'-0"	"	"	"	1'-8"	"	19'-8"	"	"	10	"	20	"	104	2.60
12	4	"	24'-2"	"	"	"	1'-8"	"	23'-10"	"	"	11	"	24	"	120	3.09
13	1	36"	13'-8"	4'-6"	2'-4"	12"	—	3	13'-4"	4	4'-7"	10	6'-2"	14	2'-1"	99	2.46
14	2	"	16'-7"	"	"	"	1'-11"	"	18'-3"	"	"	11	"	19	"	120	3.19
15	3	"	23'-6"	"	"	"	1'-11"	"	23'-2"	"	"	12	"	24	"	138	3.92
16	4	"	28'-5"	"	"	"	1'-11"	"	28'-1"	"	"	13	"	29	"	158	4.65
17	1	42"	15'-8"	5'-0"	2'-6"	12"	—	3	15'-4"	4	5'-2"	12	6'-8"	16	2'-3"	124	3.07
18	2	"	21'-4"	"	"	"	2'-2"	"	21'-0"	"	"	13	"	22	"	148	3.96
19	3	"	27'-0"	"	"	"	2'-2"	"	26'-8"	"	"	14	"	27	"	169	4.87
20	4	"	32'-8"	"	"	"	2'-2"	"	32'-4"	"	"	15	"	33	"	192	5.76
21	1	48"	17'-8"	5'-6"	2'-10"	12"	—	3	17'-4"	6	5'-10"	12	7'-2"	18	2'-7"	145	3.83
22	2	"	24'-1"	"	"	"	2'-5"	"	23'-9"	"	"	13	"	24	"	172	4.95
23	3	"	30'-6"	"	"	"	2'-5"	"	30'-2"	"	"	14	"	31	"	200	6.03
24	4	"	36'-11"	"	"	"	2'-5"	"	36'-7"	"	"	15	"	37	"	226	7.20

GENERAL NOTES

All concrete shall be Class A. All exposed corners shall be chamfered $\frac{3}{4}$ inch.
Reinforcing steel shall be placed with the center of the outside layer of bars $\frac{1}{2}$ inches from the surface of the concrete. Where reinforcing bars are spliced a 40 diameter lap shall be used.
Dimension "G" shown is for concrete pipe and may be shortened if desired when metal pipe is used.

TYPE B

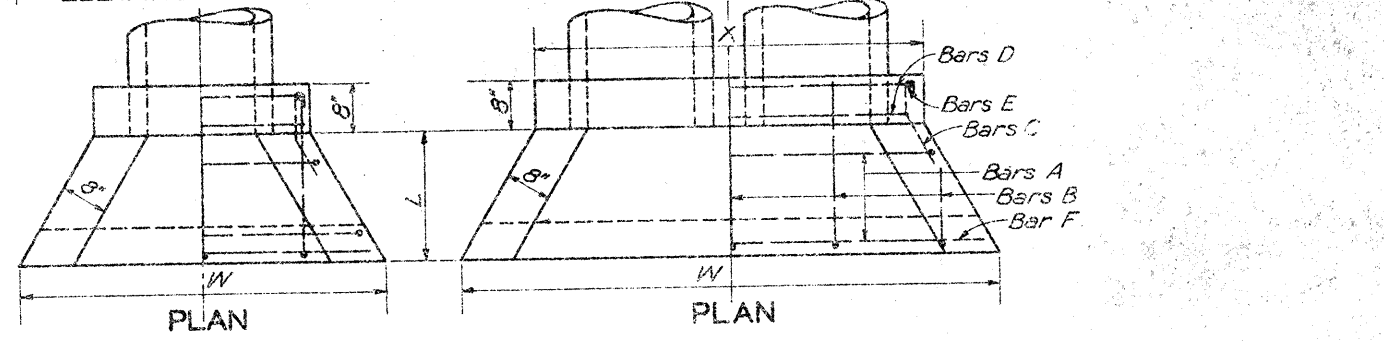
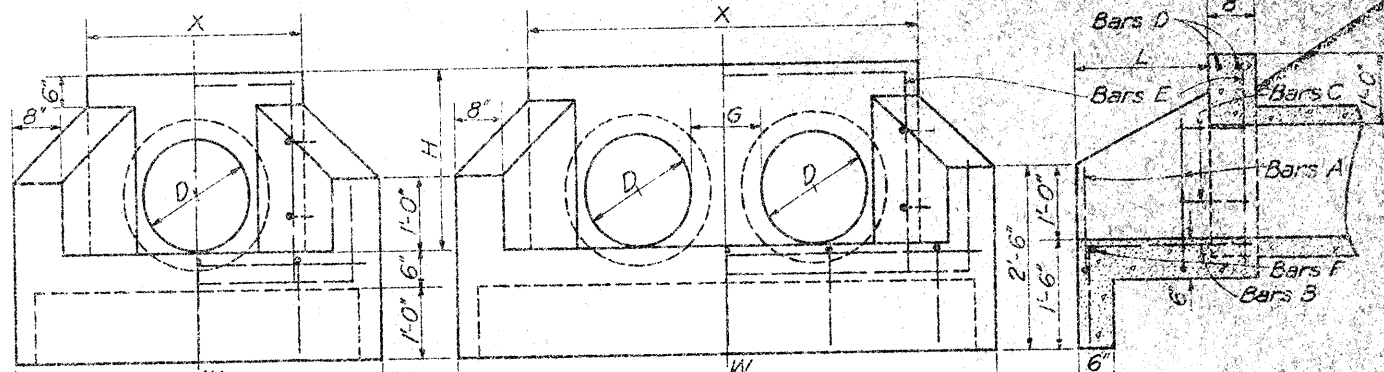


TABLE OF DIMENSIONS AND QUANTITIES FOR TYPE B HEADWALLS																							
DESIGN	NO OF PIPE	DIAM. OF PIPE	TABLE OF DIMENSIONS					BILL OF REINFORCING STEEL AND QUANTITIES FOR ONE HEADWALL															
			W	X	H	L	G	1" BARS A @ 12" c-c		3/4" BARS B @ 18" c-c		3/4" BARS C @ 12" c-c		3/4" BARS D @ 18" c-c		3" BARS E @ 18" c-c		STEEL QUANTITIES					
								NO.	LENGTH	NO.	LENGTH	NO.	LENGTH	NO.	LENGTH	NO.	LENGTH		NO.	LENGTH			
1	1	18"	4'-10"	3'-0"	2'-6"	1'-7"	~	1	6'-8"	6'-10"	3	3'-3"			2	2'-8"	2	2'-8"	2	2'-8"	4'-6"	26	.49
2	2	"	7'-6"	5'-8"	"	"	1'-2"	"	9'-4"	9'-6"	5	"			"	"	"	5'-4"	"	7'-2"	35	.76	
3	3	"	10'-2"	8'-4"	"	"	"	"	12'-0"	12'-2"	7	"			"	"	"	8'-0"	"	9'-10"	45	1.03	
4	4	"	12'-10"	11'-0"	"	"	"	"	14'-8"	14'-10"	9	"			"	"	"	10'-8"	"	12'-6"	55	1.28	
5	1	24"	6'-3"	3'-6"	3'-0"	2'-4"	~	"	8'-1"	8'-3"	8'-5"	4	4'-0"		"	3'-0"	"	3'-2"	"	3'-2"	5'-11"	38	.76
6	2	"	9'-8"	6'-11"	"	"	1'-5"	"	11'-6"	11'-8"	11'-10"	7	"		"	"	"	6'-7"	"	9'-4"	57	1.15	
7	3	"	13'-1"	10'-4"	"	"	"	"	14'-11"	15'-1"	15'-3"	9	"		"	"	"	10'-0"	"	12'-9"	73	1.56	
8	4	"	16'-6"	13'-9"	"	"	"	"	18'-4"	18'-6"	18'-8"	11	"		"	"	"	13'-5"	"	16'-2"	88	1.91	
9	1	30"	7'-7"	4'-0"	3'-6"	3'-1"	~	"	9'-5"	9'-7"	9'-9"	5	4'-9"		4	"	"	3'-8"	"	3'-6"	7'-3"	50	1.05
10	2	"	11'-9"	8'-2"	"	"	1'-8"	"	13'-7"	13'-9"	13'-11"	7	"		"	"	"	7'-10"	"	11'-5"	70	1.62	
11	3	"	15'-11"	12'-4"	"	"	"	"	17'-9"	17'-11"	18'-1"	8	"	2	2'-9"	"	"	12'-0"	"	15'-7"	67	2.19	
12	4	"	20'-1"	16'-6"	"	"	"	"	21'-11"	22'-1"	22'-3"	10	"	2	2'-7"	"	"	16'-2"	"	19'-9"	107	2.40	
13	1	36"	8'-10"	4'-6"	4'-0"	3'-10"	~	"	10'-8"	11'-2"	11'-4"	4	5'-6"	2	2'-1"	"	"	4'-2"	"	4'-2"	8'-7"	65	1.39
14	2	"	13'-10"	9'-5"	"	"	1'-11"	"	15'-7"	16'-1"	16'-3"	7	"	2	2'-5"	"	"	9'-1"	"	10'-6"	94	2.13	
15	3	"	18'-9"	14'-4"	"	"	"	"	20'-8"	21'-0"	21'-2"	10	"	2	2'-9"	"	"	12'-0"	"	18'-5"	125	2.85	
16	4	"	23'-8"	19'-3"	"	"	"	"	25'-7"	25'-11"	26'-1"	13	"	2	3'-3"	"	"	18'-11"	"	23'-4"	152	3.63	
17	1	42"	10'-4"	5'-0"	4'-6"	4'-7"	~	"	12'-5"	12'-6"	12'-8"	4	6'-3"	2	3'-4"	6	"	4'-8"	"	4'-8"	10'-0"	77	1.77
18	2	"	16'-0"	10'-8"	"	"	2'-2"	"	18'-8"	18'-2"	18'-4"	8	"	2	3'-3"	"	"	10'-4"	"	15'-8"	111	2.75	
19	3	"	21'-8"	16'-4"	"	"	"	"	23'-8"	23'-10"	24'-0"	12	"	2	2'-8"	"	"	16'-0"	"	21'-4"	145	3.71	
20	4	"	27'-4"	22'-0"	"	"	"	"	29'-8"	29'-6"	29'-8"	16	"	2	2'-5"	"	"	21'-8"	"	27'-0"	181	4.61	
21	1	48"	11'-8"	5'-6"	5'-0"	5'-4"	~	"	13'-8"	13'-10"	14'-2"	5	7'-0"	2	3'-3"	"	"	5'-2"	"	5'-2"	11'-4"	98	2.25
22	2	"	18'-1"	11'-11"	"	"	2'-5"	"	20'-8"	20'-8"	20'-7"	9	"	2	3'-5"	"	"	11'-7"	"	17'-9"	143	3.44	
23	3	"	24'-6"	18'-4"	"	"	"	"	26'-8"	26'-8"	27'-0"	12	"	2	5'-4"	"	"	18'-0"	"	24'-2"	188	4.65	
24	4	"	30'-11"	24'-9"	"	"	"	"	32'-11"	33'-5"	33'-5"	17	"	2	4'-4"	"	"	24'-5"	"	30'-7"	233	5.66	

TEXAS STATE HIGHWAY DEPARTMENT
CONCRETE HEADWALLS
FOR
PIPE CULVERTS
18 TO 48 INCHES IN DIAMETERS

20

CH-7

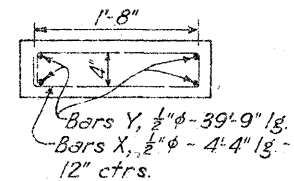
DESIGNED BY	CHECKED BY	DATE	REVISIONS	NO. OF SHEETS	TOTAL NO. OF SHEETS
DW. C.F.S.	W.B.P.	JUNE 1939		16	326
DR. C.F.S.	W.B.P.				
CK. L.B.					

PROFILE	SURVEYED	59	DATE
NOTES BOOK	PLOTTED		
NO.	GRAPH CHECKED		
	BY M.S. MOORE		
	NO STRUCTURE NOTATION IN FIELD		

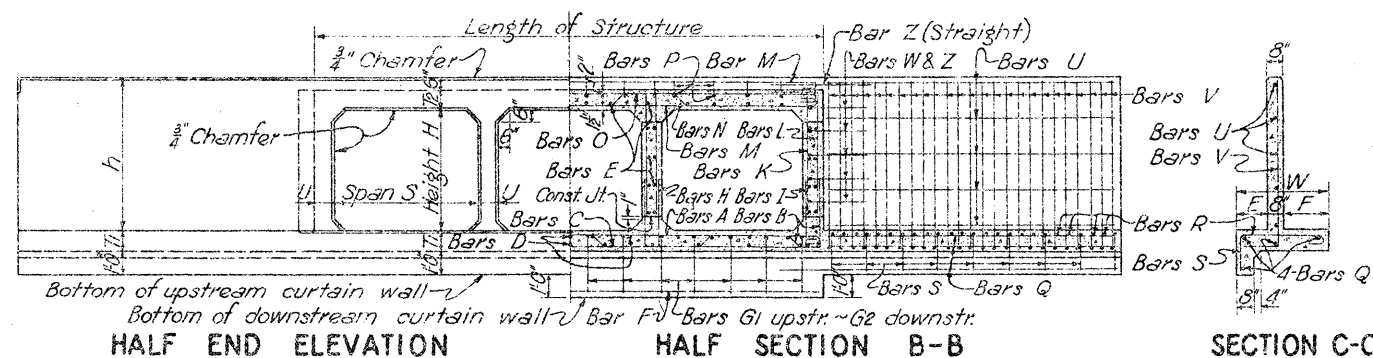
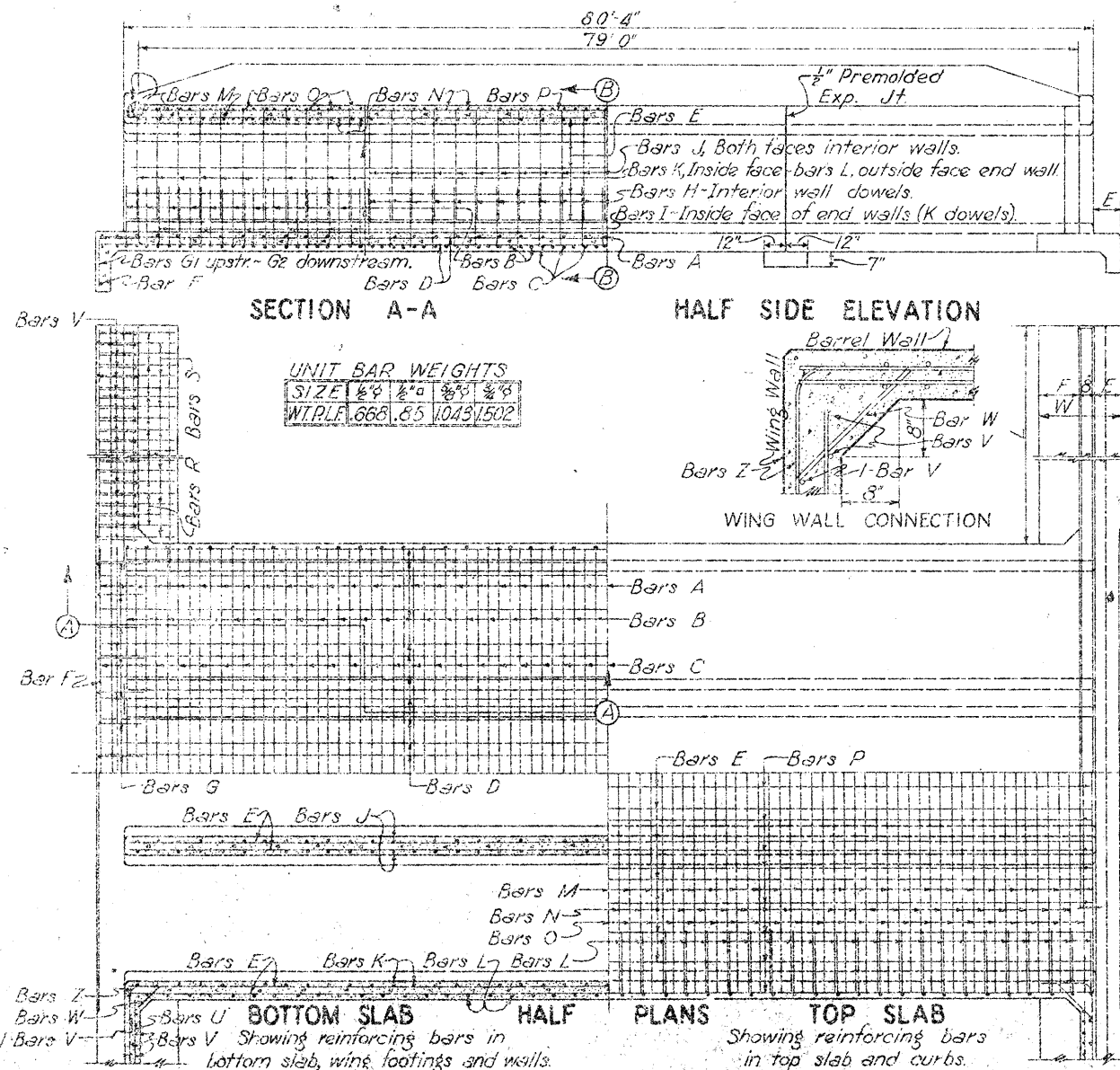
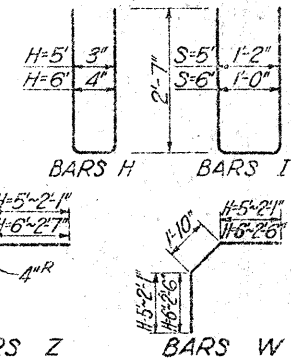
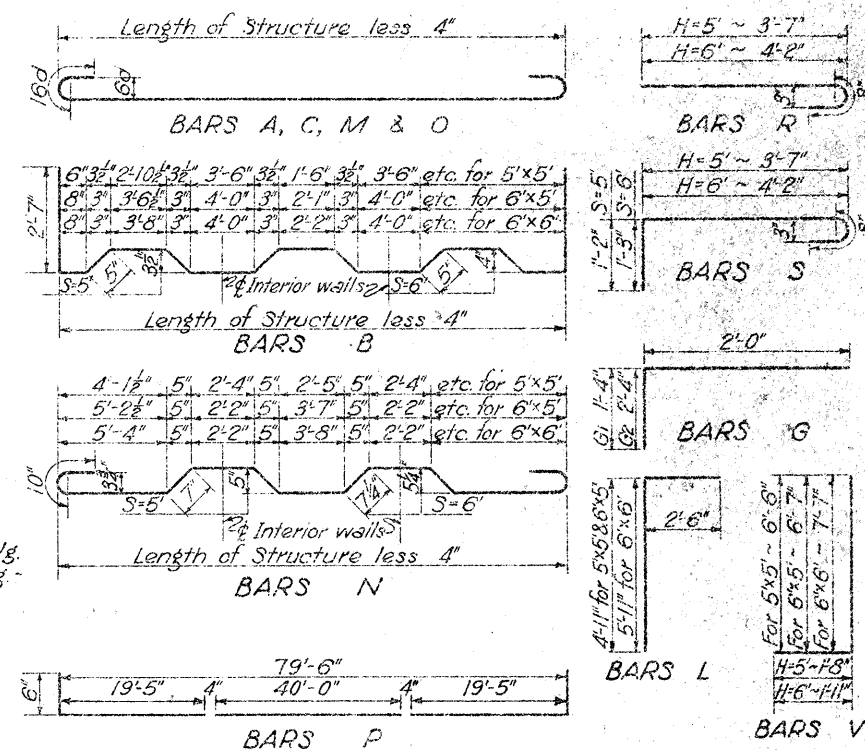
BARREL BARS VARYING WITH NUMBER OF SPANS

WING BARS

2 SPANS 5'x5'																	2 SPANS 6'x5'															2 SPANS 6'x5'																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																
MARK	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	Z																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																								
NUMBER	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																				
SIZE	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"



AUXILIARY SLAB
Quantities ~ 2 Slabs
Concrete 3.46 Cu.Yds.
Reinf. Steel 444 Lbs.



GENERAL NOTES

These structures are designed (1) as rigid frames and (2) as continuous haunched slabs freely supported (a) for a direct live load of 2-15 ton trucks with 25% impact distributed in accordance with 1931 A.A.S.H.O. specifications or (b) for the maximum earth fill specified with superimposed live load without impact. The maximum allowable earth fill is 6'. Wings are designed for an equivalent fluid pressure of 30* with a surcharge equal to 25% of the total height of the wall.

Dimensions relating to reinforcing steel are to centers of bars. The center of the outside layer of bars shall be placed 2" from the concrete surface except in top slab as shown. Splices of 40 bar diameter laps are included in lengths shown in the tables for all bars over 40' in length. Main reinforcing bars over 40' in length shall have the splices alternated over interior walls.

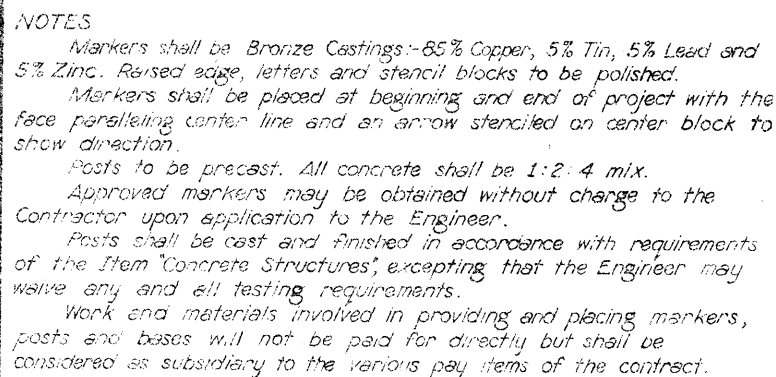
The column headed "Conc. for 1' Toe Wall" gives the quantity of concrete for an additional one foot depth of toe wall across one end of the barrel only.

DIMENSIONS									
SIZE	T ₁	T ₂	U	V	E	F	W	L	h
5'x5'	7½"	8½"	7"	8"	1'4"	1'11"	3'11"	12'5"	6'2½"
6'x5'	8"	8¾"	7"	8"	1'4"	1'11"	3'11"	12'5½"	6'2¾"
6'x6'	8"	8¾"	8"	8"	1'7"	2'3"	4'6"	14'5½"	7'2¾"

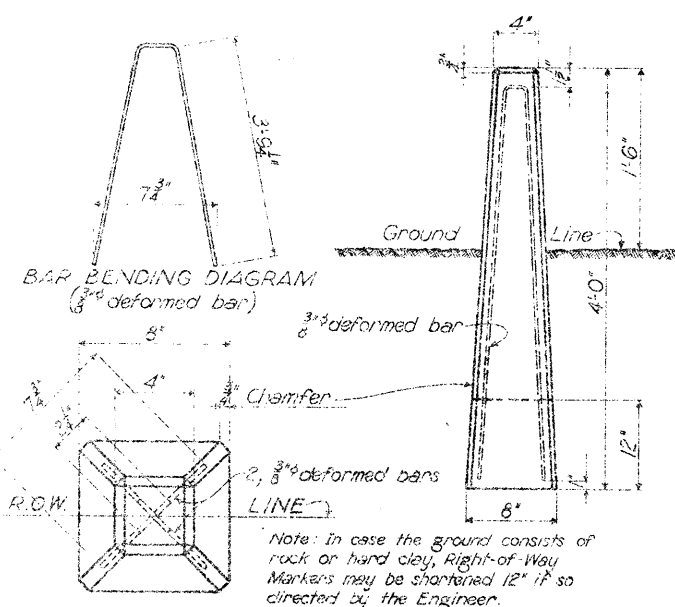
QUANTITIES		TOTALS		CONC. FOR
SIZE OF	LENGTH OF	CONCRETE	STEEL	10% WASTE
S H	SPAN STRUCT.	CU. YDS.	LBS.	ONE END
5'x5'	2 11'-9"			0.29
	3 17'-4"			0.43
	4 22'-11"			0.57
	5 28'-6"			0.70
	6 34'-1"			0.84
	7 39'-5"			0.98
6'x5'	2 13'-9"			0.34
	3 20'-4"			0.50
	4 26'-11"			0.66
	5 33'-6"			0.83
	6 40'-1"	260.39	38,219	0.99
6'x6'	2 14'-0"			0.35
	3 20'-8"			0.51
	4 27'-2"			0.67
	5 34'-0"			0.84
	6 40'-8"			1.00

TEXAS STATE HIGHWAY DEPARTMENT
MULTIPLE BOX CULVERTS
 SIZES 5'x5', 6'x5' & 6'x6'
 79' ROADWAY - LOW FILL TYPE •
 MBC 12-79-F

UN. CL	REVISED	PAC. MONO CST. NO.	STATE	FEDERAL AID PROJECT NO.	SHEET
UN. JRS		6	TEXAS		21
CK. MS		STATE DIV. NO.	COUNTY	STATE PROJECT NO.	WATER P.C.
UN. 2 C F		16	MIFFLES	326-3-4	5
CK. JRS					

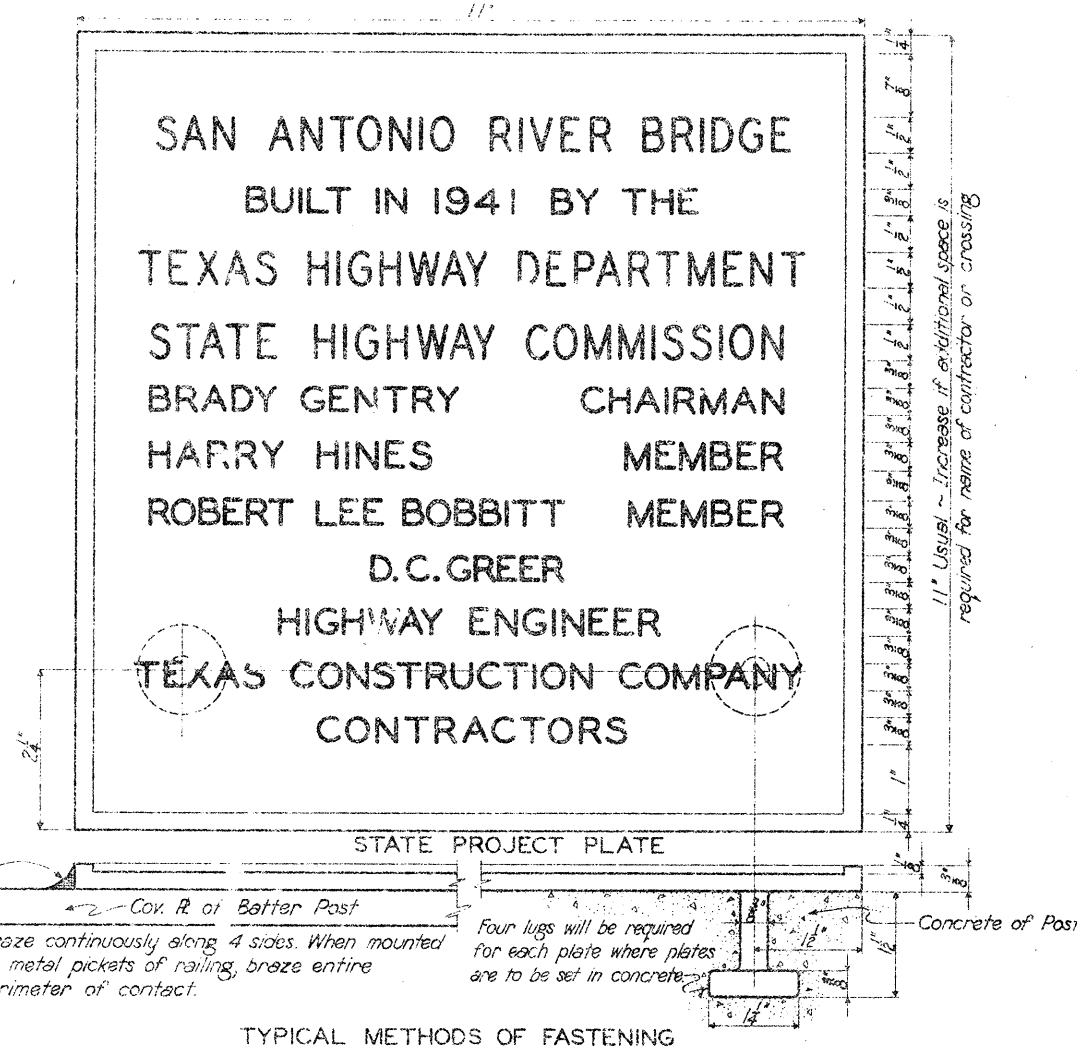


FEDERAL AID MARKERS



CONCRETE RIGHT-OF-WAY MARKERS

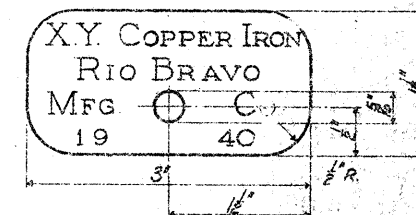
R.O.W. Markers shall be precast of Class A Concrete conforming to the requirements of Item 403 - "Concrete for Structures."



NAME PLATES

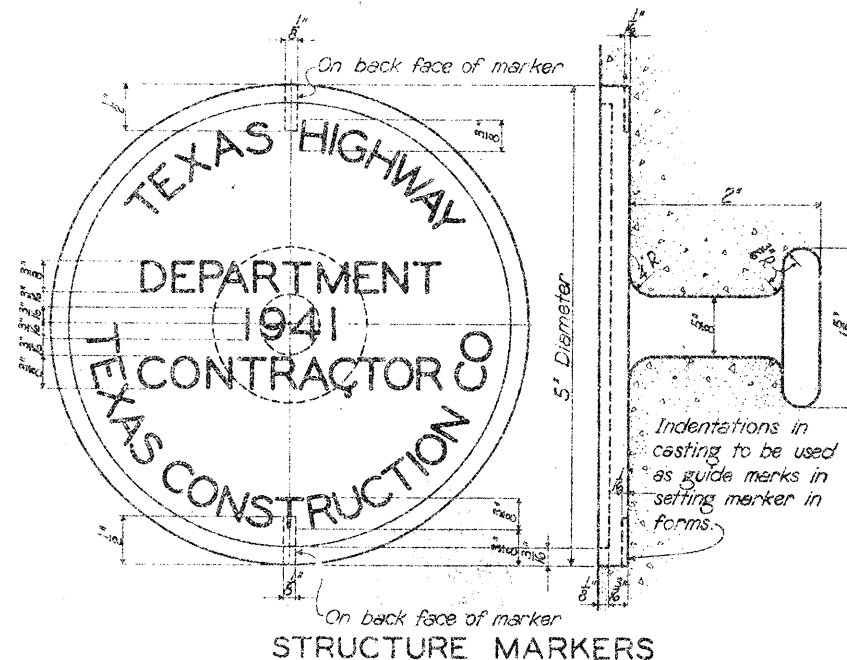
Unless otherwise provided, one Name Plate shall be installed at each end of all bridges of 100 feet or over in length which are provided with railing. In general the plates shall be placed on the right hand side of the structure as approached, the exact location being as shown on structural plans.

Letters for "Name Plates" and "Structure Markers" shall be of the "Condensed Tablet" style, 8" thick, as listed in Catalogue No 27 of H.W. Knight and Son and illustrated below, or of a similar style.



MARKERS FOR METAL CULVERTS

Markers for metal culverts shall contain the year installed, name of manufacturer and trade name of material. One plate shall be used for each metal culvert, located on the metal surface near the downstream headwall. Metal culverts will require only this marker.



STRUCTURE MARKERS

NOTES.

Markers shall be installed on all culverts and bridges less than 100 feet in length except corrugated metal pipe culverts. For concrete structures without railing one marker shall be installed on the outside of curb, downstream side and at the approximate center of the structure. For concrete structures with railing, markers shall be placed one on each end rail post, roadway face, on the right hand side of the structure as approached. Marker should be embedded in concrete posts until face is flush with surface of concrete or fastened to steel posts by brazing around the perimeter.

Markers shall conform to the requirements for material and finish as specified for "Federal Aid Markers."

SAN ANTONIO RIVER BRIDGE
BUILT IN 1941 BY THE
TEXAS HIGHWAY DEPARTMENT
FEDERAL WORKS AGENCY
PUBLIC ROADS ADMINISTRATION
STATE HIGHWAY COMMISSION
BRADY GENTRY CHAIRMAN
HARRY HINES MEMBER
ROBERT LEE BOBBITT MEMBER
D.C. GREER
HIGHWAY ENGINEER
TEXAS CONSTRUCTION COMPANY
CONTRACTORS

FEDERAL PROJECT PLATE

TEXAS STATE HIGHWAY DEPARTMENT

MARKERS

22 AND NAME PLATES

M-1-41

Dn	G.W.	REV. 7-22-40	STATE	FEDERAL MAIL PERMIT NO.	TOTAL
DW	R.B.	Changed to M-1-41	6	TEXAS	33
Ck		12-18-40			63
Tr	R.B.				
Ck					
April 5 1940			76	NUECES	385 3 4 1

