MADISON COUNTY and CITY OF RIDGELAND
RICE ROAD EXTENSION
RIDGELAND, MISSISSIPPI

BOARD OF SUPERVISORS

LOUISE N. SPIVEY ..... DISTRICT I
LUTHER WALDRUP ..... DISTRICT II
DAVID H. RICHARDSON ..... DISTRICT III
KARL M. BANKS ..... DISTRICT IV
J. L. McCULLOUGH ..... DISTRICT V
STEVE DUNCAN ..... CHANCERY CLERK

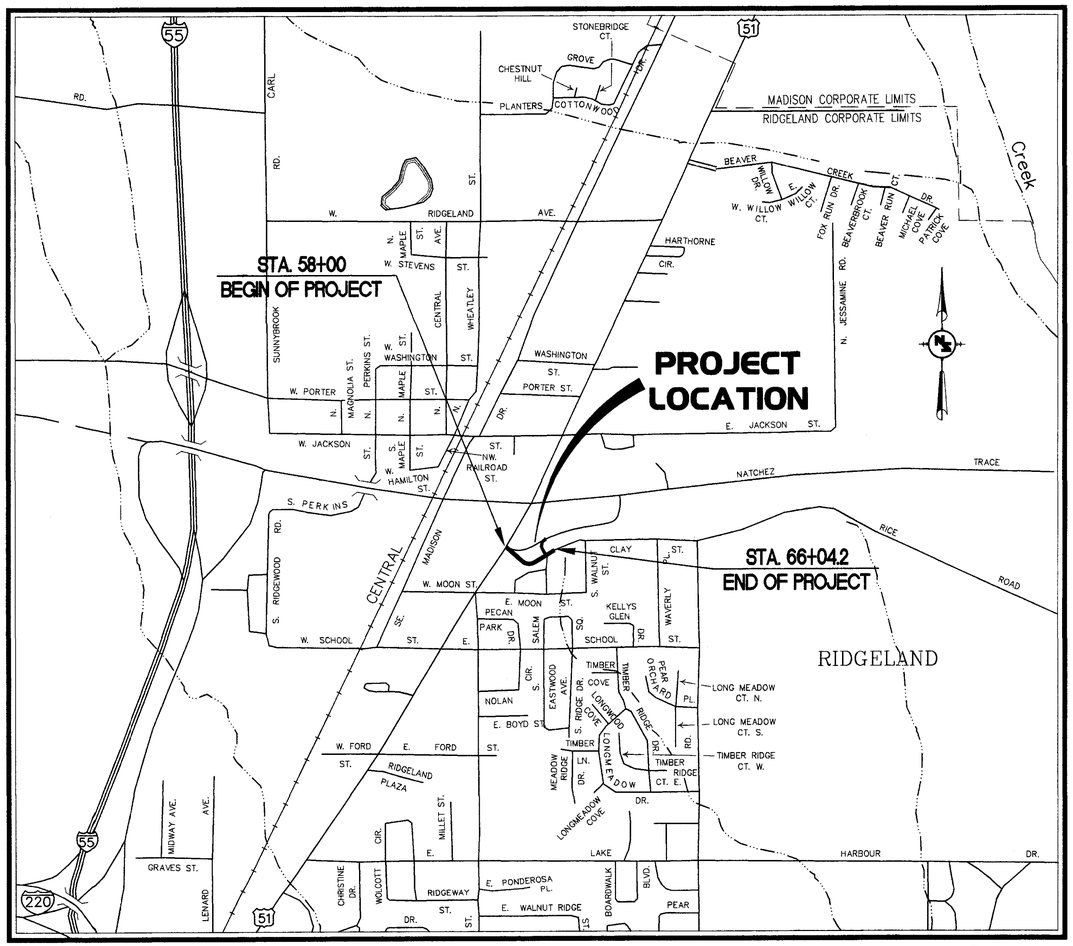
MAYOR
Gene McGee

ALDERMEN

ANN HURD ..... WARD 1
LISA WALTERS ..... WARD 2
CAROLE DAVIS ..... WARD 3
LARRY ROBERTS ..... WARD 4
SCOTT JONES ..... WARD 5
LINDA TRUNZLER ..... WARD 6
GERALD STEEN ..... AT-LARGE

UTILITIES

A. T. & T.
BELLSOUTH TELEPHONE
ENTERGY CORP.
MISSISSIPPI VALLEY GAS
KOCHE-GATEWAY GAS
CITY OF RIDGELAND
CAPITOL CABLEVISION

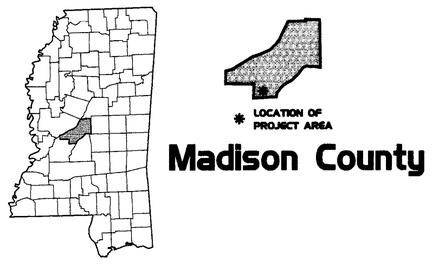


VICINITY MAP
NOT TO SCALE

PWP-1837

PROJECT LENGTH 804.2 FT. (0.1523 MI.)

LOCATION MAP



APPROVALS

Karl Banks, President
Madison County Board of Supervisors
Madison County, Mississippi
Approved _____ Date _____

Gene McGee, Mayor
City of Ridgeland, Mississippi
Approved _____ Date _____

PREPARED BY

NEEL-SCHAFFER, INC.
ENGINEERS • PLANNERS
Jackson, Mississippi

FRANK L. O'KEEFE, JR. REGISTERED PROFESSIONAL ENGINEER #11097 STATE OF MISSISSIPPI

Approved _____ Date 9/15/98
FRANK L. O'KEEFE, Jr. P.E.
Mississippi License No. 11097

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GENERAL NOTES

1. THE STANDARD SPECIFICATIONS FOR CONSTRUCTION OF ROADS AND BRIDGES ON FEDERAL HIGHWAY PROJECTS, FP-92, AND THE MISSISSIPPI STANDARD SPECIFICATION FOR ROAD AND BRIDGE CONSTRUCTION, 1990 EDITION, SHALL BE THE STANDARD SPECIFICATIONS FOR THE CONSTRUCTION OF THIS PROJECT UNLESS OTHERWISE INDICATED OR AMENDED IN THE SPECIAL PROVISIONS, PROPOSAL AND CONTRACT DOCUMENTS.

2. ANY ADJUSTMENTS OF EXISTING TELEPHONE MANHOLES SHALL BE PERFORMED BY OTHERS. ADJUSTMENTS OF SANITARY SEWER MANHOLES, WATER VALVE BOXES, ETC. WILL BE PERFORMED AS NECESSARY BY THE CONTRACTOR. WATER METER ADJUSTMENTS WILL BE PERFORMED BY THE CITY OF RIDGELAND.

3. THE EXISTING UTILITIES SHOWN ON THE PLANS ARE APPROXIMATE AND WERE LOCATED BASED UPON FIELD SURVEYS, "AS BUILT PLANS" PROVIDED BY THE UTILITY OWNERS AND FIELD LOCATIONS BY THE UTILITY OWNERS. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY, OR HAVE VERIFIED, THE EXACT LOCATION OF ALL EXISTING UTILITIES, WHETHER INDICATED ON THE PLANS OR NOT, PRIOR TO ANY EXCAVATION IN THE AREA(S) OF UNDERGROUND UTILITIES.

4. THE CONTRACTOR WILL BE REQUIRED TO PERFORM CONSTRUCTION STAKE-OUT WORK IN ADVANCE OF MODIFICATIONS BY OTHERS OF EXISTING UTILITIES AND FACILITIES. THE PURPOSE OF THIS REQUIREMENT IS TO INSURE THAT NO CONFLICT REMAINS AFTER REQUIRED MODIFICATIONS HAVE BEEN MADE TO EXISTING UTILITIES (GAS, ELECTRIC, TELEPHONE, WATER, ETC.)

5. EXCEPT IN AREAS WHERE "HAND PLACEMENT" IS DICTATED DUE TO LIMITATIONS IMPOSED BY THE DESIGNED PAVING LANE WIDTH, ALL BITUMINOUS MATERIAL SHALL BE PLACED VIA AN APPROVED BITUMINOUS PAVER. THE INITIAL LIFT MAY BE PLACED ON A DEPTH BASIS. ALL REMAINING BITUMINOUS BASE COURSE AND ALL BITUMINOUS SURFACE COURSE SHALL BE PLACED UTILIZING AUTOMATIC SCREED CONTROL DEVICES SENSING A STRING LINE SET TO GRADE (OR A REFERENCE GRADE) PER THE CONTRACT SPECIFICATIONS. NO DEVIATION FROM THESE PROCEDURES SHALL BE MADE UNLESS SPECIFICALLY AUTHORIZED BY THE ENGINEER.

6. BACKFILL OF ALL EXCAVATED AREAS UNDER AREAS TO BE PAVED AND OF ALL EXCAVATED AREAS WITHIN 5 FEET OF AREAS TO BE PAVED SHALL BE COMPACTED TO AT LEAST 95% STANDARD PROCTOR DENSITY.

7. NO UNCLASSIFIED EXCAVATION SHALL BE USED FOR BACKFILL AROUND ANY STORM DRAIN SYSTEM COMPONENT. BORROW EXCAVATION ONLY SHALL BE USED TO BACKFILL AROUND THESE COMPONENTS.

8. CONTRACTOR IS REQUIRED TO FIELD SURVEY AND VERIFY ANY ELEVATIONS BEFORE ORDERING STORM DRAINAGE COMPONENTS, ETC. ELEVATIONS SHOWN ON THE PLANS ARE APPROXIMATE. CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY OF ANY AND ALL ELEVATION DISCREPANCIES FOUND IN FIELD SURVEYS. CONTRACTOR IS REQUIRED TO RECORD, MAINTAIN AND MAKE AVAILABLE ALL FIELD SURVEY NOTES TO ENGINEER UPON REQUEST.

9. THE COUNTY WILL BE RESPONSIBLE FOR THE ROADWAY CONSTRUCTION UP TO AND INCLUDING THE SUBBASE. THE COUNTY WILL FURNISH ALL THE MATERIAL FOR THE SUBBASE AND SHOULDERS.

10. THE PAVING CONTRACTOR WILL FURNISH AND CONSTRUCT THE ASPHALT BASE AND WEARING COURSE TO THE SPECIFIED LINE AND GRADE.

11. THE PAVING CONTRACTOR WILL PROVIDE THE TEMPORARY PAVEMENT STRIPING. IT MAY BE PAINT OR TAPE. AFTER THE APPROPRIATE TIME AS INDICATED IN THE SPECIFICATIONS HAS ELAPSED FOLLOWING PLACEMENT OF FINAL WEARING COURSE, THE PAVING CONTRACTOR WILL INSTALL THE PERMANENT STRIPING, SIGNING, AND RAISED REFLECTIVE MARKERS.

12. THE CONTRACTOR IS TO PERFORM THE CONSTRUCTION STAKING FOR ALL ASPHALT COURSES TO THE LINE AND GRADE SHOWN ON THE PLANS. THE COST IS TO BE PAID FOR UNDER PAY ITEM NO. 907-627-A, CONSTRUCTION STAKING.

13. THE PAVING CONTRACTOR SHALL OBTAIN PAVEMENT SAMPLES FOR TESTING IN ACCORDANCE WITH M.D.O.T.'S CURRENT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION.

14. THE TESTING OF THE ASPHALT IS TO BE DONE AT THE PAVING CONTRACTOR'S EXPENSE IN ACCORDANCE WITH M.D.O.T.'S STANDARD OPERATING PROCEDURES FOR FIELD TESTING HOT-MIX ASPHALT.

LIST OF UTILITY CONTACTS

UTILITY	CONTACT	TELEPHONE NUMBER
BELLSOUTH TELEPHONE COMPANY	GENE GREY	(601) 961-1563
MS POWER & LIGHT CO. (ENTERGY)	DAREK ASHLEY	(601) 351-4367
MISSISSIPPI VALLEY GAS COMPANY	JAMES MULLIN	(601) 961-6792
CAPITOL CABLEVISION	VIOLET WHITEHEAD	(601) 982-0922
RIDGELAND DEPARTMENT OF PUBLIC WORKS, WATER AND SEWER DIVISION		(601) 856-3938
KOCH GATEWAY GAS PIPELINE		1-800-850-0051 (939-4602, JACKSON)
ENTEX GAS COMPANY		(601) 936-0222
FOR UTILITY LOCATION: MISSISSIPPI ONE CALL		(601) 362-4374

INDEX TO DRAWINGS

RICE ROAD
RIDGELAND, MISSISSIPPI

GENERAL NOTES
and
INDEX TO DRAWINGS

MADISON COUNTY BOARD OF SUPERVISORS
AND CITY OF RIDGLAND

DSGN: G.P.	7/97	NEEL-SCHAFFER, INC. ENGINEERS • PLANNERS Jackson, Mississippi (601)948-3071	CAD REF. 3072-IND
DRWN: B.G.B.	7/97		DRAWING NO. GN-1
CHKD: K.O.	7/97		
SCALE: N/A			

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SUMMARY OF QUANTITIES

	ITEM NO.	DESCRIPTION	UNITS	TOTAL ESTIMATED	TOTAL FINAL
(1)	201-A	CLEARING AND GRUBBING	L. F.	1	
(1)	202-B	REMOVAL OF CURB AND GUTTER (ALL TYPES)	L. F.	106	
(1)	202-B	REMOVAL OF ASPHALT PAVEMENT (ALL THICKNESS)	S. Y.	2,451	
(1)	202-B	REMOVAL OF BASE MATERIAL	C. Y.	816	
(1)	202-B	REMOVAL OF CONCRETE PAVEMENT	S. Y.	40	
(1)	203-A	UNCLASSIFIED EXCAVATION (FM) (A.H.)	C. Y.	4,735	
(1)	203-E	BORROW EXCAVATION (CLASS 9) (CONTR. FURN.) (L.V.M.) (A.H.)	C. Y.	500	
(1)	203-G	EXCESS EXCAVATION	C. Y.	4,568	
(1)	211-E	TOP SOIL FOR SEEDING	C. Y.	953	
(1)	212-A	LIGHT GROUND PREPARATION	S. Y.	2,000	
(1)	213-B	FERTILIZER (13-13-13)	TON	0.84	
(1)	213-D	AMMONIUM NITRATE	TON	0.17	
(1)	214-A	SEEDING	ACRE	1.67	
(1)	219-A	WATERING	M/GAL	0.25	
(1)	233-C	STRAW MULCH	TON	3.5	
(1)	234-A	TEMPORARY SILT FENCE	L. F.	300	
(1)	235-A	TEMPORARY EROSION CHECK	BALES	224	
(2)	S-301-A	PLANT MIX BITUMINOUS BASE COURSE (BB-1)	TON	1,935	
(2)	304-A	GRANULAR MATERIAL (CLASS 5, GROUP C)	C. Y.	3,186	
(2)	S-403-C	HOT BITUMINOUS PAVEMENT SURFACE COURSE (SC-1) (TYPE 8)	TON	719	
(2)	S-407-A	AC-10 ASPHALT CONCRETE HOT TACK COAT	GAL.	364	
(2)	501-B	CONCRETE DRIVEWAY PAVEMENT (6")	S. Y.	40	
(2)	907-221-A	PORTLAND CEMENT CONCRETE PAVED DITCH	S. Y.	63	
(2)	603-MA	12" ALUMINUM COATED CORR. METAL PIPE	L. F.	62	
(2)	603-C-A	18" REINFORCED CONCRETE PIPE , CLASS III	L. F.	50	
(2)	603-C-B	18" REINFORCED CONCRETE PIPE, FLARED END SECTION	EACH	2	
(2)	609-D	TYPE 3A CONCRETE CURB AND GUTTER	L. F.	195	
(2)	609-E	CONCRETE FLUME	C. Y.	1.5	
(2)	618-A	MAINTENANCE OF TRAFFIC	L. S.	1	
(2)	618-B	ADDITIONAL SIGNS	EACH	2	
(2)	626-A	4" THERMOPLASTIC TRAFFIC STRIPE (SKIP WHITE) 90 MIL	MILE	0.025	
(2)	626-C	4" THERMOPLASTIC TRAFFIC STRIPE (CONTINUOUS WHITE) 90 MIL	MILE	0.417	
(2)	626-D	4" THERMOPLASTIC TRAFFIC STRIPE (CONTINUOUS YELLOW) 90 MIL	MILE	2,930	
(2)	626-E	4" THERMOPLASTIC TRAFFIC DETAIL STRIPE (4" EQUIV. LENGTH) (WHITE) (60 MIL)	L. F.	1,780	
(2)	626-F	THERMOPLASTIC LEGEND (WHITE) (120 MIL)	S. F.	181	
(2)	626-G	4" THERMOPLASTIC DETAIL STRIP (4" EQUIP. LENGTH) (WHITE) (90 MIL)	L. F.	2,895	
(2)	907-627-K	RED-CLEAR REFLECTIVE HIGH PERFORMANCE RAISED MARKERS	EACH	26	
(2)	907-627-O	YELLOW-YELLOW REFLECTIVE HIGH PERFORMANCE RAISED MARKERS	EACH	114	
(2)	907-627-A	CONSTRUCTION STAKES	L. S.	1	

	ITEM NO.	DESCRIPTION	UNITS	TOTAL ESTIMATED	TOTAL FINAL
(2)	630-A	STANDARD SIGN, R1-102	EACH	1	
(2)	630-A	STANDARD SIGN, R2-102	EACH	1	
(2)	630-A	STANDARD SIGN, W1-2R	EACH	1	
(2)	630-A	STANDARD SIGN, W3-1A	EACH	1	
(2)	630-A	STANDARD SIGN, W3-3	EACH	1	
(2)	630-A	STANDARD SIGN, W1-2L	EACH	1	
(2)	630-A	W14-1, DEAD END SIGN	EACH	1	
(2)	630-A	END OF ROAD MARKERS (RED W/RED REFLECTORS)	EACH	6	
(2)	630-B	SPECIAL, "NATCHEZ TRACE PARKWAY" (BROWN AND WHITE)	EACH	4	
(2)	630-C	REMOVE AND RELOCATE EXISTING ROAD SIGN	EACH	1	

(1) Items to be installed by County force – material, labor, equipment and incidentals.

(2) Items to be provided and installed by Paving Contractor – material, labor, equipment and incidentals.

NOTE:
Quantities shown for pay items in which County forces will provide and install (items numbered (1) above) are for information proposes only.

FRANK L. O'KEEFE, JR. REGISTERED PROFESSIONAL ENGINEER #11097 STATE OF MISSISSIPPI

Approved _____ Date _____

FRANK L. O'KEEFE, JR. P.E.
Mississippi License No. 11097

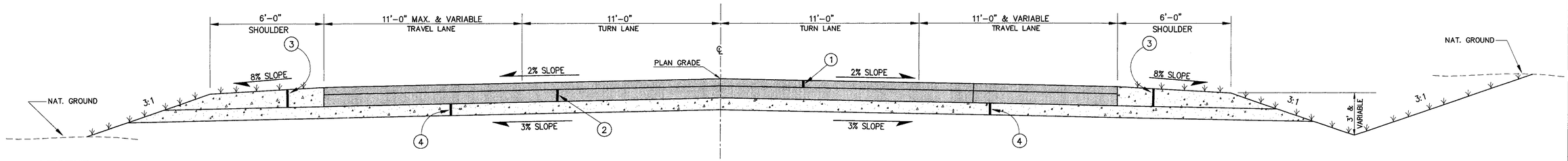
RICE ROAD EXTENSION
RIDGELAND, MISSISSIPPI

SUMMARY OF QUANTITIES

MADISON COUNTY BOARD OF SUPERVISORS
AND CITY OF RIDGELAND

DSGN: G.P.	3/98	CAD REF. 3072-Q
DRWN: B.G.B.	3/98	DRAWING NO.
CHKD: K.O.	3/98	SQ-1
SCALE: N/A		

NEEL-SCHAFFER, INC.
ENGINEERS • PLANNERS
Jackson, Mississippi
(601)948-3071

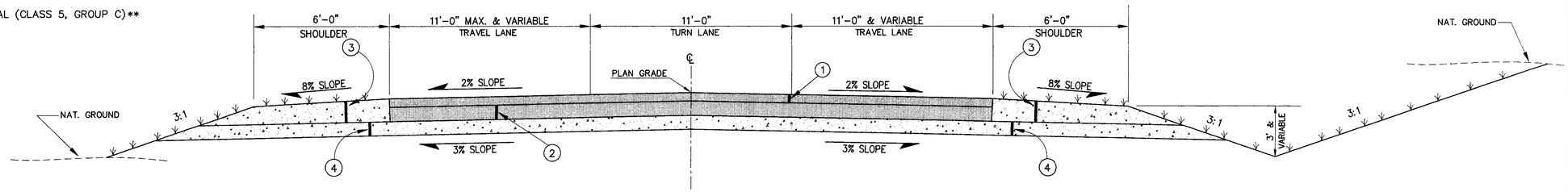


LEGEND

1. 2" HOT BITUMINOUS PAVEMENT SURFACE COURSE (SC-1) *
2. 8" PLANT MIX BITUMINOUS BASE COURSE (BB-1)*
3. 10" MIN. & VARIABLE DEPTH GRANULAR MATERIAL (CLASS 5, GROUP C)**
4. 8" MIN. & VARIABLE DEPTH GRANULAR MATERIAL (CLASS 5, GROUP C)**

vvvvvvv SEEDING REQUIRED. **

RICE ROAD
STA. 58+95 - STA. 60+62

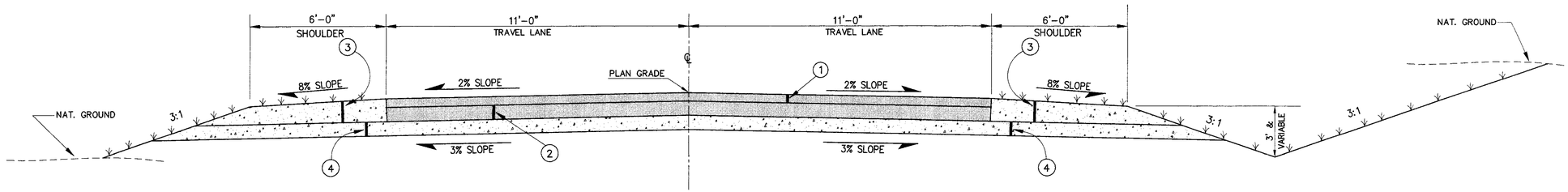


NOTE:

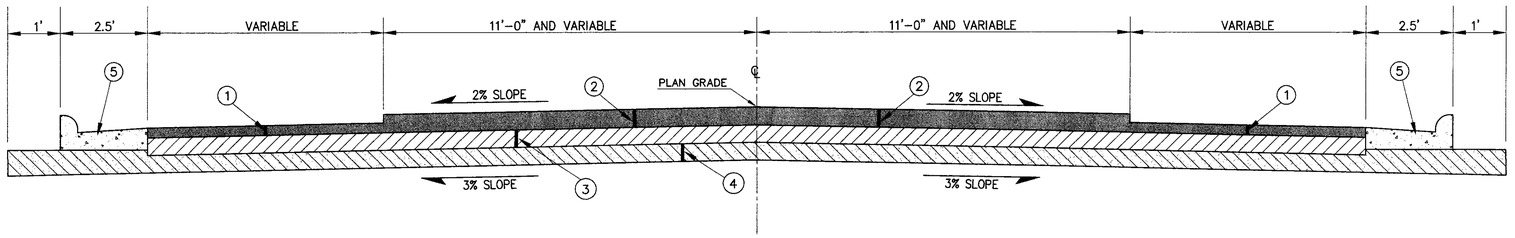
* – TO BE FURNISHED AND INSTALLED BY THE PAVING CONTRACTOR.

** – TO BE FURNISHED AND INSTALLED BY THE COUNTY.

RICE ROAD
STA. 60+62 - STA. 66+04.2



CONNECTOR STREET TO N.T.P.
STA. 10+00 - STA. 12+90



LEGEND

1. 4 1/2" HOT BITUMINOUS PAVEMENT (3 @ 1 1/2" BINDER COURSES) *
2. 6" HOT BITUMINOUS PAVEMENT (1 @ 1 1/2" SURFACE COURSE, 3 @ 1 1/2" BINDER COURSES)*
3. 6" PLANT MIX BITUMINOUS BASE *
4. 6" AND VARIABLE DEPTH GRANULAR MATERIAL (CLASS 5, GROUP C)**
5. TYPE 3A CURB AND GUTTER **

RICE ROAD
STA. 58+23 - STA. 58+95

NOTE:

* – TO BE FURNISHED AND INSTALLED BY THE PAVING CONTRACTOR.

** – TO BE FURNISHED AND INSTALLED BY THE COUNTY.

RICE ROAD EXTENSION
RIDGELAND, MISSISSIPPI

TYPICAL SECTION

MADISON COUNTY BOARD OF SUPERVISORS
AND CITY OF RIDGELAND

DSGN: G.P.	4/98	NEEL-SCHAFFER, INC. ENGINEERS • PLANNERS Jackson, Mississippi (601)948-3071
DRWN: B.G.B.	4/98	
CHKD: K.O.	4/98	
SCALE: N.T.S.		

CAD REF. 3072-TYP
DRAWING NO. TYP-1

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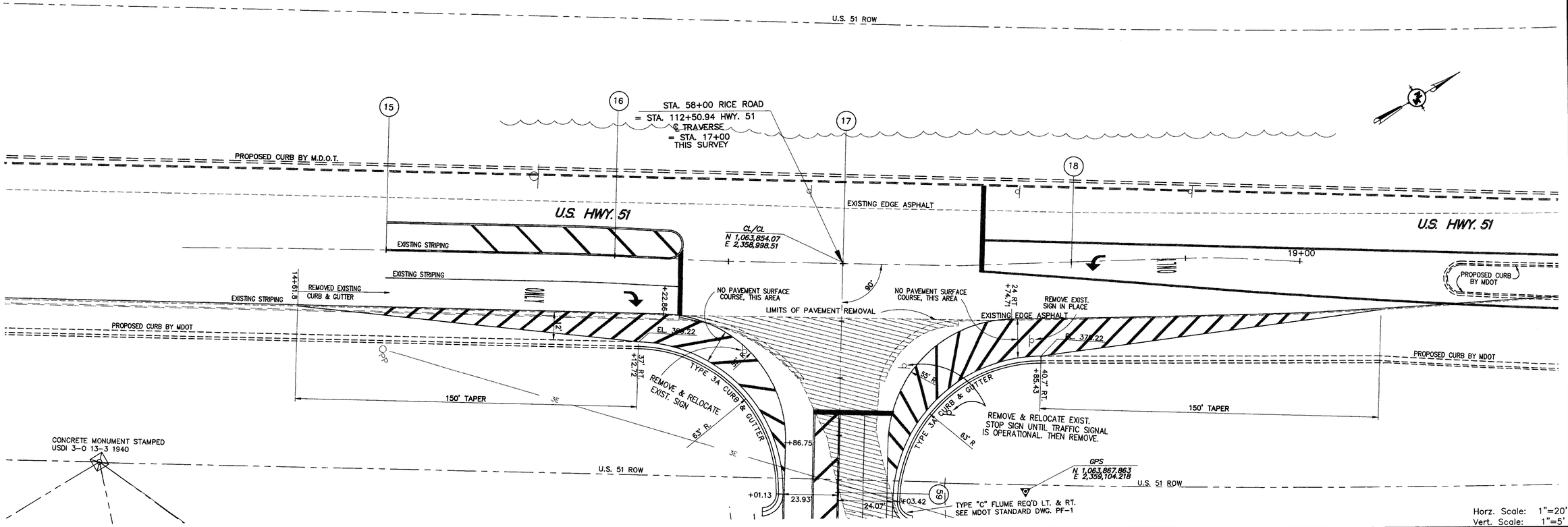

NO.	REVISIONS	BY	DATE
2	MDOT ADDED EXTRA LANES TO HWY. 51	B.B.	8/98
1	MDOT CHANGES TO HWY. 51	B.B.	5/98

MADISON COUNTY BOARD OF SUPERVISORS

RICE ROAD EXTENSION
RIDGELAND, MISSISSIPPI

PLAN/PROFILE HWY. 51 EXISTING
STA. 15+00 THRU STA. 19+00

DSGN:	G.P.	8/97
DRWN:	B.B.	8/97
CHKD:	K.O.	8/97
SCALE:	AS SHOWN	

NEEL-SCHAFFER, INC.
ENGINEERS • PLANNERS
Jackson, Mississippi
(601)948-3071

ACAD FILE: 3072-PP1
DRAWING NO.
PP-1

SHEET 5

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STA. 58+00 RICE ROAD
= STA. 112+50.94 HWY. 51
℄ TRAVERSE
= STA. 17+00
THIS SURVEY

CL/CL
N 1,063,854.07
E 2,358,998.51

PROPOSED CURB & GUTTER BY MDOT

EXISTING EDGE ASPHALT

NO PAVEMENT SURFACE COURSE THIS AREA

LIMITS OF PAVEMENT REMOVAL

REMOVE EXIST. SIGN IN PLACE

PROPOSED CURB BY MDOT UNDER WIDENING OF U.S. HWY 51

U.S. 51 ROW

GPS
N 1,063,867.863
E 2,359,104.218

REMOVE & RELOCATE EXIST. SIGN UNTIL TRAFFIC SIGNAL IS OPERATIONAL. THEN REMOVE.

TYPE "C" FLUM REQ'D L.T. & RT. SEE MDOT STANDARD DWG. PF-1

SIGN
INTERSTATE LASER CABLE ROUTE
1-800-227-6477

CENTER LINE CURVE DATA
Δ = 47°41'14"
D = 25°00'
R = 229.18'
L = 190.75'
T = 101.29'

TYPE 3A CURB & GUTTER

REMOVE & RELOCATE EXIST. SIGN

PROPOSED DITCH BOTTOM

LIMITS OF CONSTRUCTION

NOTE:
THE INSIDE STRIPED OUT LANE WILL BE CONVERTED TO A SECOND LEFT TURN LANE UPON THE COMPLETION OF WIDENING OF HWY. 51 TO 5 LANES.

SIR #2
#5 REBAR
N 1,063,904.720
E 2,359,418.871
ELEV. 367.57

30"OAK
24"OAK
28"OAK

EXISTING DITCH

(EXT.) NATCHEZ TRACE RAMP

TO REMOVE EXIST. ASPHALT PAVEMENT & BASE WITHIN LIMITS SHOWN. THE AREA SHALL BE GRADED TO FILLED IN WITH BELOW ORIGINAL GROUND CONTOUR. FERTILIZER AND MULCH SOIL APPLY GRASS SEED

CONC. DITCH REQ'D

STA. 10+31.6
50 LF-18" RCP
@ 2.00% GRADE

EXIST. SIGNS

END OF ROAD MARKERS DIAMOND SHAPED W/ RED REFLECTORS REQ'D

EXTEND EXIST. DRIVEWAY CULVERT 12" CMP ±40' @ 0.50% SLOPE (MATCH EXISTING PIPE F.L.)

CONNECT WITH CONC COLLAR OR CMP BAND

REMOVE EXIST. BOLLARDS

SAW-CUT

CONC. DR.

EXIST. 12" CMP

CHERRY STREET

SAW-CUT AND REMOVE EXISTING DRIVEWAY. ±22 SQ.YD. CONC. REQ'D.

TOM MILLER & LINDA ANN MORRIS
DEED BOOK 219, PAGE 702

Horz. Scale: 1"=20'
Vert. Scale: 1"=5'

RIGHT, LEFT EDGE PAVEMENT

STA. 58+15 EDGE PAVEMENT ELEV. 370.23

VPT = STA. 59+55 ELEV. 369.99

STA. 59+07 UG FIBER OPTIC CABLE DEPTH ±5'

VPI = STA. 59+30 ELEV. 369.55

STA. 59+41 UG CABLE DEPTH ±5'

STA. 59+53 TWO UG CABLES DEPTH ±4'

VPT = STA. 61+05 ELEV. 368.40

VPC STA. 61+00 ELEV. 366.96

VPI STA. 62+00 ELEV. 365.44

VPT STA. 63+00 ELEV. 362.38

STA. 63+41.62 RICE RD.

-0.5955%

-1.5204%

-3.0601%

150' VERTICAL CURVE

200' VERTICAL CURVE

PROPOSED CENTER LINE GRADE

EXISTING CENTER LINE GROUND

NO.	REVISIONS	BY	DATE
2	MDOT ADDED EXTRA LANES TO HWY. 51	B.B.	8/98
1	MDOT CHANGES TO HWY. 51	B.B.	5/98

MADISON COUNTY BOARD OF SUPERVISORS

RICE ROAD EXTENSION
RIDGELAND, MISSISSIPPI

PLAN/PROFILE RICE ROAD
STA. 58+00 THRU STA. 63+00

DSGN: G.P.	8/97	NEEL-SCHAFFER, INC. ENGINEERS • PLANNERS Jackson, Mississippi (601)948-3071
DRWN: B.B.	8/97	
CHKD: K.D.	8/97	
SCALE: AS SHOWN		

ACAD FILE: 3072-PP1
DRAWING NO. PP-2

SHEET 6

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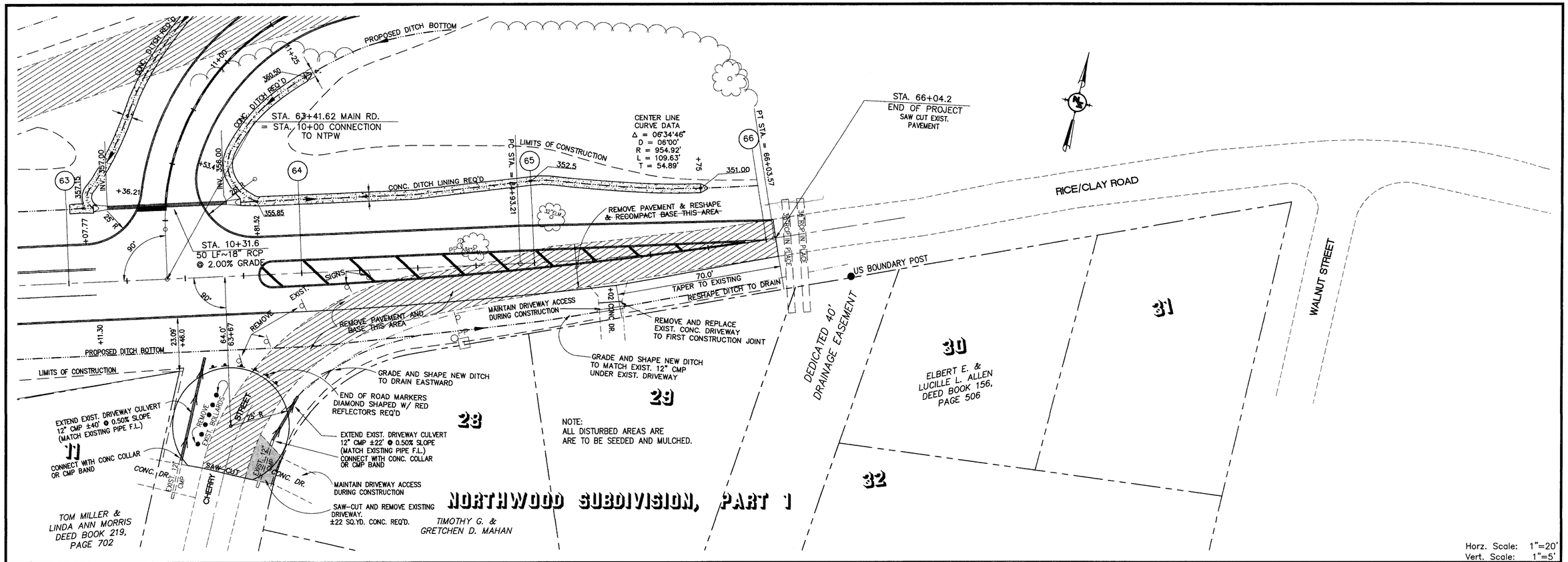

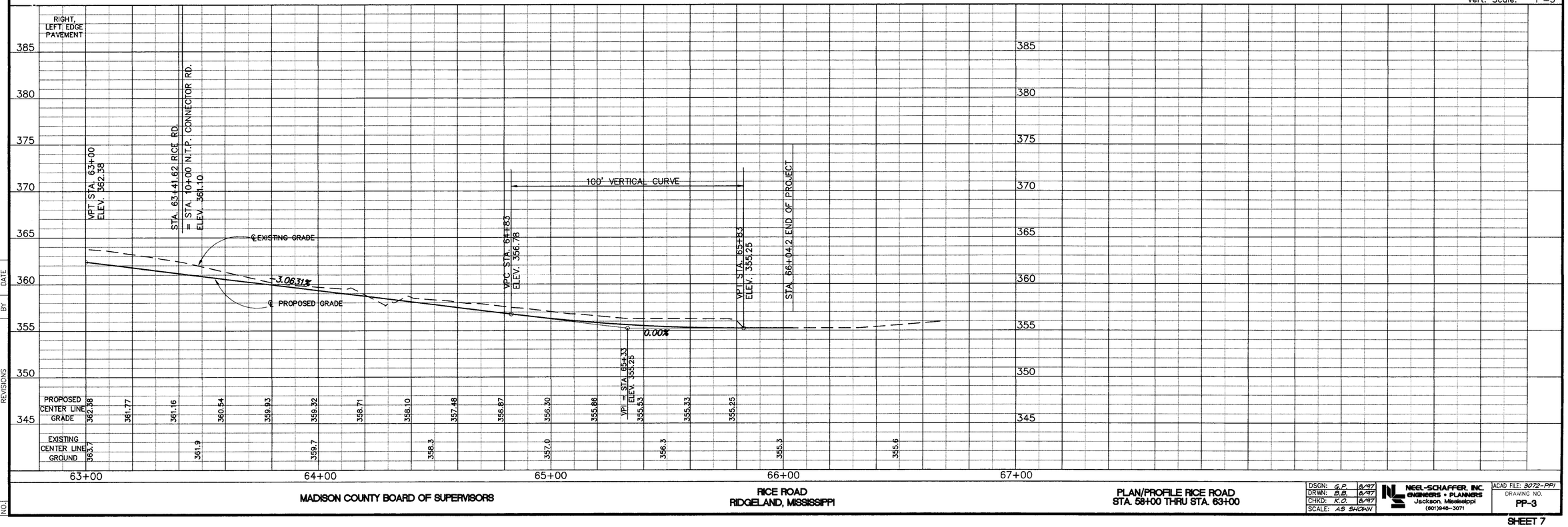

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1	MDOT CHANGES TO HWY. 51	B.B.	5/98

MADISON COUNTY BOARD OF SUPERVISORS

RICE ROAD
RIDGELAND, MISSISSIPPI

PLAN/PROFILE RICE ROAD
STA. 58+00 THRU STA. 63+00

DSGN:	G.P.	8/97
DRWN:	B.B.	8/97
CHKD:	K.D.	8/97
SCALE:	AS SHOWN	

NEEL-SCHAFFER, INC.
ENGINEERS • PLANNERS
Jackson, Mississippi
(601)948-3071

ACAD FILE: 3072-PP1
DRAWING NO.
PP-3

SHEET 7

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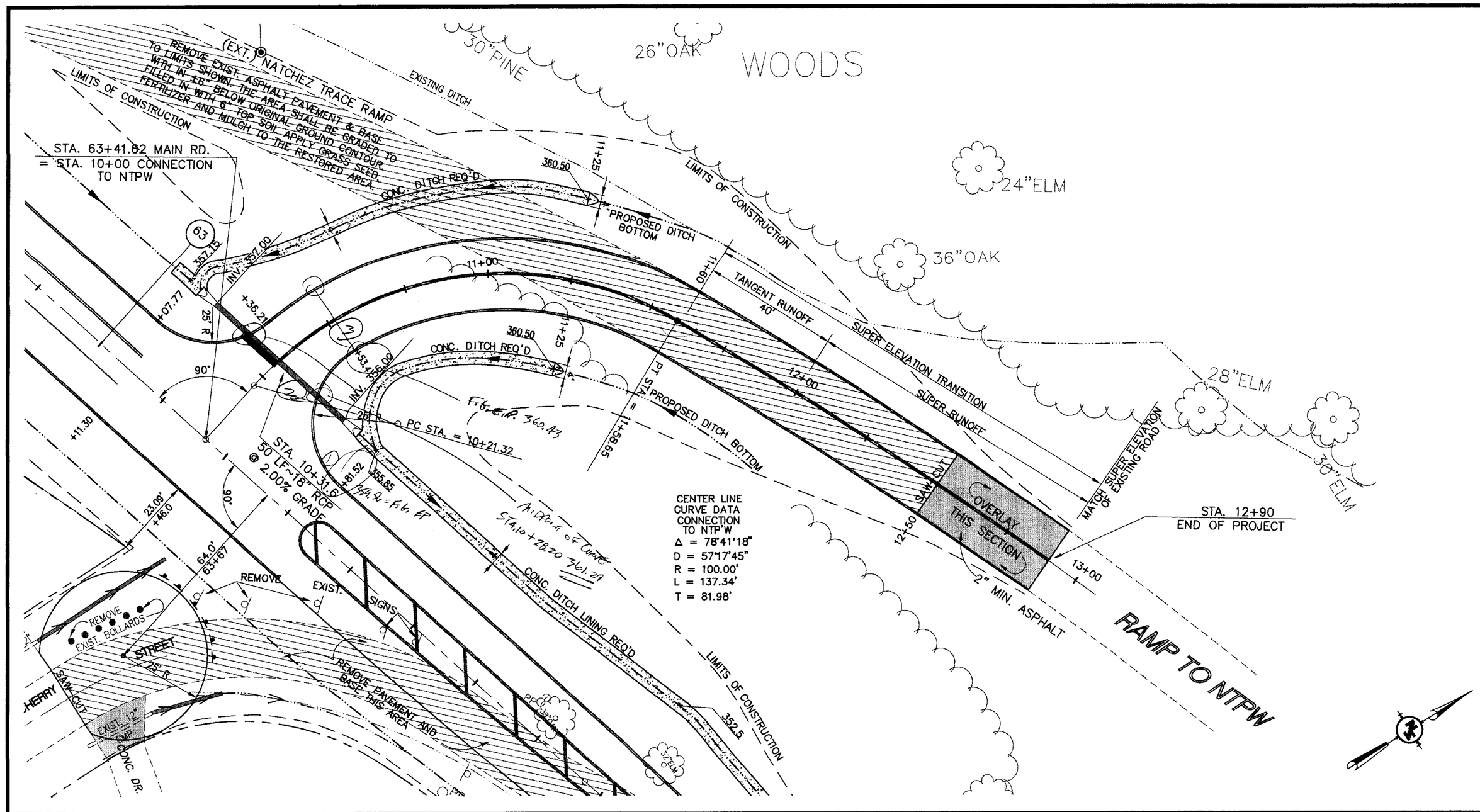
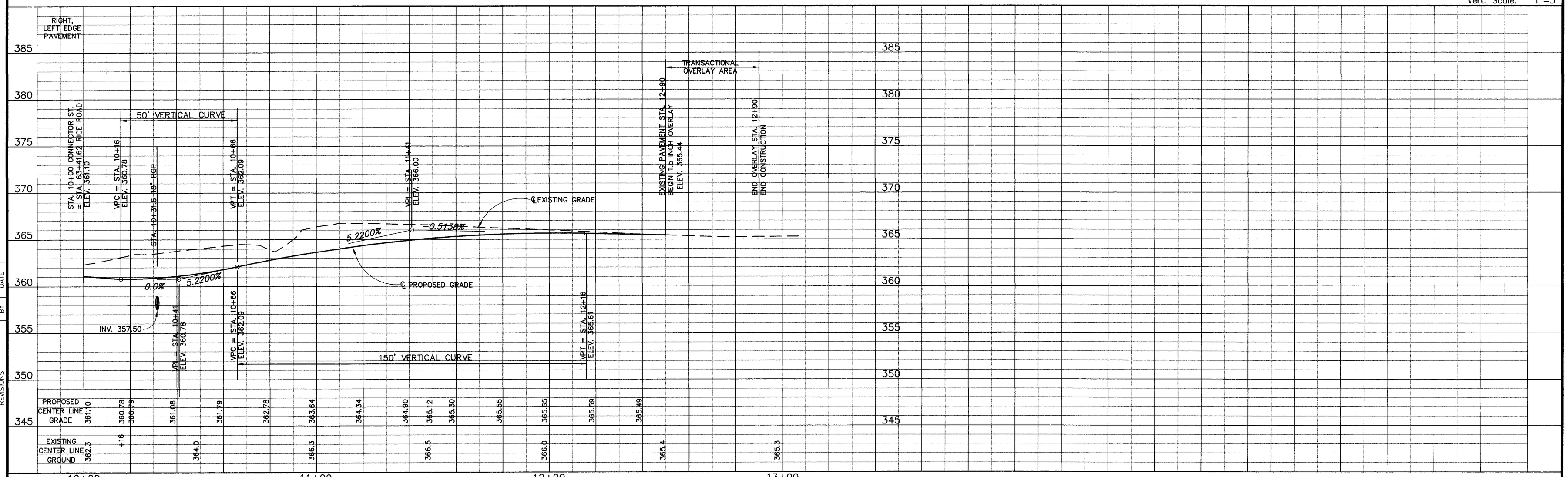


Horz. Scale: 1"=20'
Vert. Scale: 1"=5'



NO.	REVISIONS	BY	DATE
2	MDOT ADDED EXTRA LANES TO HWY. 51	B.B.	8/98
1	MDOT CHANGES TO HWY. 51	B.B.	5/98

MADISON COUNTY BOARD OF SUPERVISORS

RICE ROAD
RIDGELAND, MISSISSIPPI

PLAN/PROFILE N.T. CONNECTOR ST.
STA. 10+00 THRU STA. 13+00

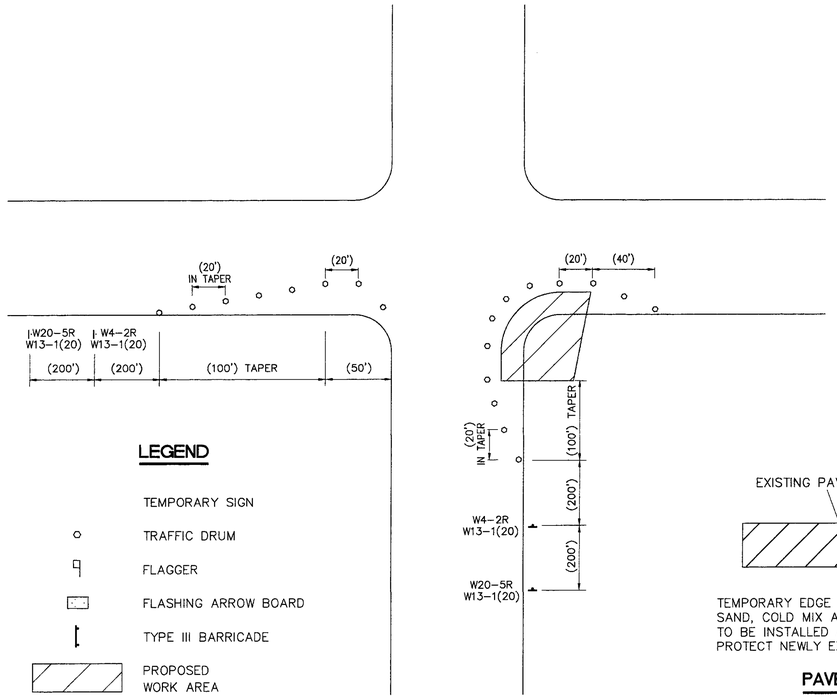
DSGN: G.E.	8/97	
DRWN: B.B.	8/97	
CHKD: K.O.	8/97	
SCALE: AS SHOWN		

NEEL-SCHAFFER, INC.
ENGINEERS • PLANNERS
Jackson, Mississippi
(601)948-3071

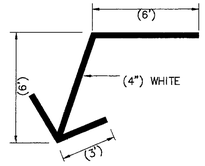
ACAD FILE: 3072-PP1
DRAWING NO. PP-4

SHEET 8

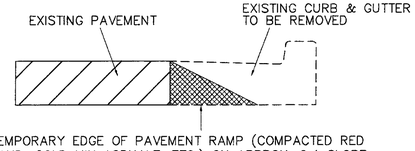
D:\KEITH\3072-01\3072-PP1.dwg Wed Sep 02 11:48:14 1998 Billy B.



TYPICAL TRAFFIC CONTROL FOR RIGHT-LANE CLOSURE AT INTERSECTION

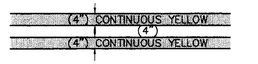


TEMPORARY LEFT TURN ARROW DETAIL

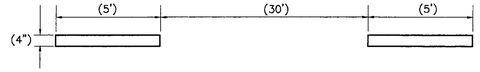


TEMPORARY EDGE OF PAVEMENT RAMP (COMPACTED RED SAND, COLD MIX ASPHALT, ETC.) ON APPROX. 2:1 SLOPE. TO BE INSTALLED AT THE END OF EACH WORK DAY TO PROTECT NEWLY EXPOSED EDGE OF PAVEMENT DROP-OFF.

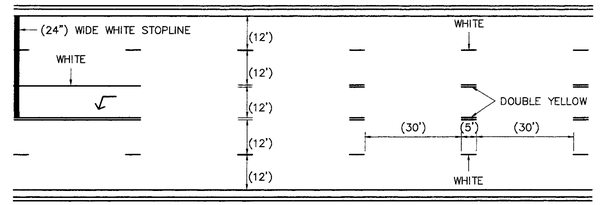
PAVEMENT RAMP DETAIL



TEMPORARY SOLID DOUBLE YELLOW CENTERLINE STRIPE

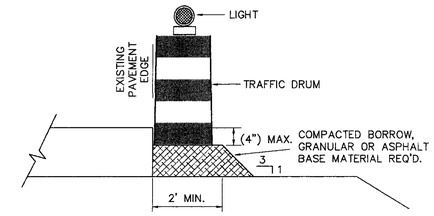


LINE SPACING TEMPORARY SKIP YELLOW CENTERLINE STRIPE OR WHITE LANE LINE STRIPE



TYPICAL TEMPORARY PAVEMENT MARKINGS

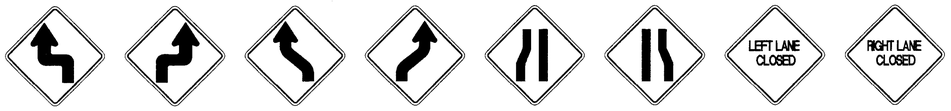
(SEE NOTES 2 AND 3)



DRUM PLACEMENT ON LOW SHOULDERS OR WIDENING

DRUMS REQUIRED WHERE WORK ZONE INCLUDES UNDERCUT SHOULDER AND REMOVAL OF CURB & GUTTER. DRUMS TO BE PLACED AS SHOWN IN DETAIL, LEFT FOR NIGHT TIME OPERATION OR SUSPENSIONS OF WORK. COST TO BE ABSORBED (PAY ITEM SP 54-A).

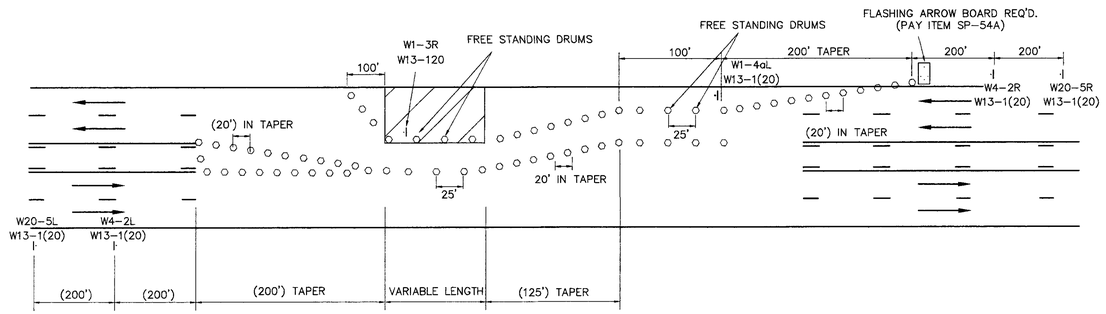
SIGNS



W1-3L 30" x 30"
W1-3R 30" x 30"
W1-4aL 30" x 30"
W1-4aR 30" x 30"
W4-2L 36" x 36"
W4-2R 36" x 36"
W20-5L 48" x 48"
W20-5R 48" x 48"

W13-1(20)

(18" x 18") (w < 36")
(24" x 24") (w < 36")



TRAFFIC CONTROL DURING OVERLAY OPERATIONS AND INSTALLATION OF STORM SEWER

GENERAL NOTES

1. CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING TEMPORARY RIDING SURFACE IN SATISFACTORY CONDITION AND REMOVING ALL MATERIALS REQUIRED FOR TEMPORARY LANE ASSIGNMENTS, UNLESS OTHERWISE NOTED.
2. TEMPORARY PAVEMENT MARKINGS AS REQUIRED FOLLOWING APPLICATION OF THE BASE COURSE IN NEW CONSTRUCTION OR RECONSTRUCTION AREAS SHALL COMPLIMENT THE PAVEMENT MARKING PLANS. TEMPORARY MARKINGS DO NOT INCLUDE LEGENDS AND CROSS-WALKS. THEY DO INCLUDE LANE LINES, STOP-LINES, TEMPORARY ARROWS AND GORES.
3. TEMPORARY PAVEMENT STRIPING (SEMI-PERMANENT FILM OR TAPE) SHALL BE EASY TO REMOVE WITHOUT DAMAGING THE FINAL SURFACE COURSE.
4. TAPER LENGTHS SHOWN ARE FOR A 32.2km/h (20 MPH) SPEED.
5. CONTRACTOR SHALL COORDINATE RELOCATION AND ADJUSTMENTS TO TRAFFIC SIGNAL SYSTEMS WITH CITY TRAFFIC ENGINEERING DIVISION. CITY WILL ADJUST ALL TRAFFIC SIGNALS.
6. SIGNS SHOWN ON PLANS SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR UNLESS OTHERWISE NOTED.
7. TEMPORARY STRIPING SHALL BE PROVIDED IN ACCORDANCE WITH THE FINAL PAVEMENT STRIPING PLAN FOLLOWING APPLICATION OF EACH 91.44m (300) FEET OF ASPHALT BASE.
8. IN ORDER TO MINIMIZE LANE CLOSURES, WORK WILL BE SCHEDULED IN ORDER TO CLOSE ONLY A SINGLE LANE OF TRAFFIC, BUT AS A MINIMUM, ONE LANE OF TRAFFIC WILL ALWAYS BE OPEN IN EACH DIRECTION. THE CONTRACTOR SHALL NOTIFY THE ENGINEER AT LEAST 72 HOURS PRIOR TO CLOSURE OF MORE THAN ONE TRAFFIC LANE.
9. THE CONTRACTOR SHALL USE CONCRETE BARRIERS TO SEPARATE ADJACENT TRAFFIC FROM CONSTRUCTION AREAS WHERE THE UNDERCUT IS 6m (2'-0") OR GREATER IN DEPTH. FOR SHALLOWER AREAS THE CONTRACTOR MAY MAY USE THE DRUM PLACEMENT ON LOW SHOULDERS OR WIDENING DETAIL (SHOWN AT RIGHT) TO PROTECT THE EDGE OF PAVEMENT DROP-OFF. THE DRUM PLACEMENT IS REQUIRED UNTIL THE NEW CONSTRUCTION IS WITHIN FOUR 4 INCHES OF EXISTING PAVEMENT.
10. CONTRACTOR SHALL INSTALL TRAFFIC CONTROL DEVICES SUCH AS CONES, DRUMS, FLASHERS, BARRICADES, SIGNS, ECT., TO SAFELY CHANNEL TRAFFIC. WHEN NECESSARY, FLAGGERS SHALL BE USED IN CONJUNCTION WITH TRAFFIC CONTROL DEVICES. (FLAGGER AHEAD SIGN REQUIRED EXCEPT DURING BRIEF PERIODS OR EMERGENCY SITUATIONS).
11. TRAFFIC CONTROL DEVICES SHALL BE INSTALLED WHENEVER NECESSARY, REMAIN IN PLACE ONLY AS LONG AS THEY ARE NEEDED, AND BE REMOVED IMMEDIATELY THEREAFTER.
12. TRAFFIC CONTROL DEVICES SHALL CONFORM TO APPLICABLE SPECIFICATIONS OF THE "MANUAL ON UNIFORM TRAFFIC CONTROL", LATEST EDITION.
13. THESE ARE THE MINIMUM REQUIREMENTS AND IN NO WAY RELIEVE THE CONTRACTOR OF HIS OBLIGATION TO MAINTAIN TRAFFIC IN A SAFE MANNER.

RICE ROAD EXTENSION
RIDGELAND, MISSISSIPPI

TRAFFIC CONTROL STANDARDS

CITY OF RIDGELAND AND MADISON COUNTY
BOARD OF SUPERVISORS

DSGN: G.P.	3/98	NEEL-SCHAFFER, INC. ENGINEERS • PLANNERS Jackson, Mississippi (601)948-3071
DRWN: B.G.B.	3/98	CAD REF. STD-TC1
CHKD: K.O.	3/98	DRAWING NO. STD-TC1
SCALE: N/A		

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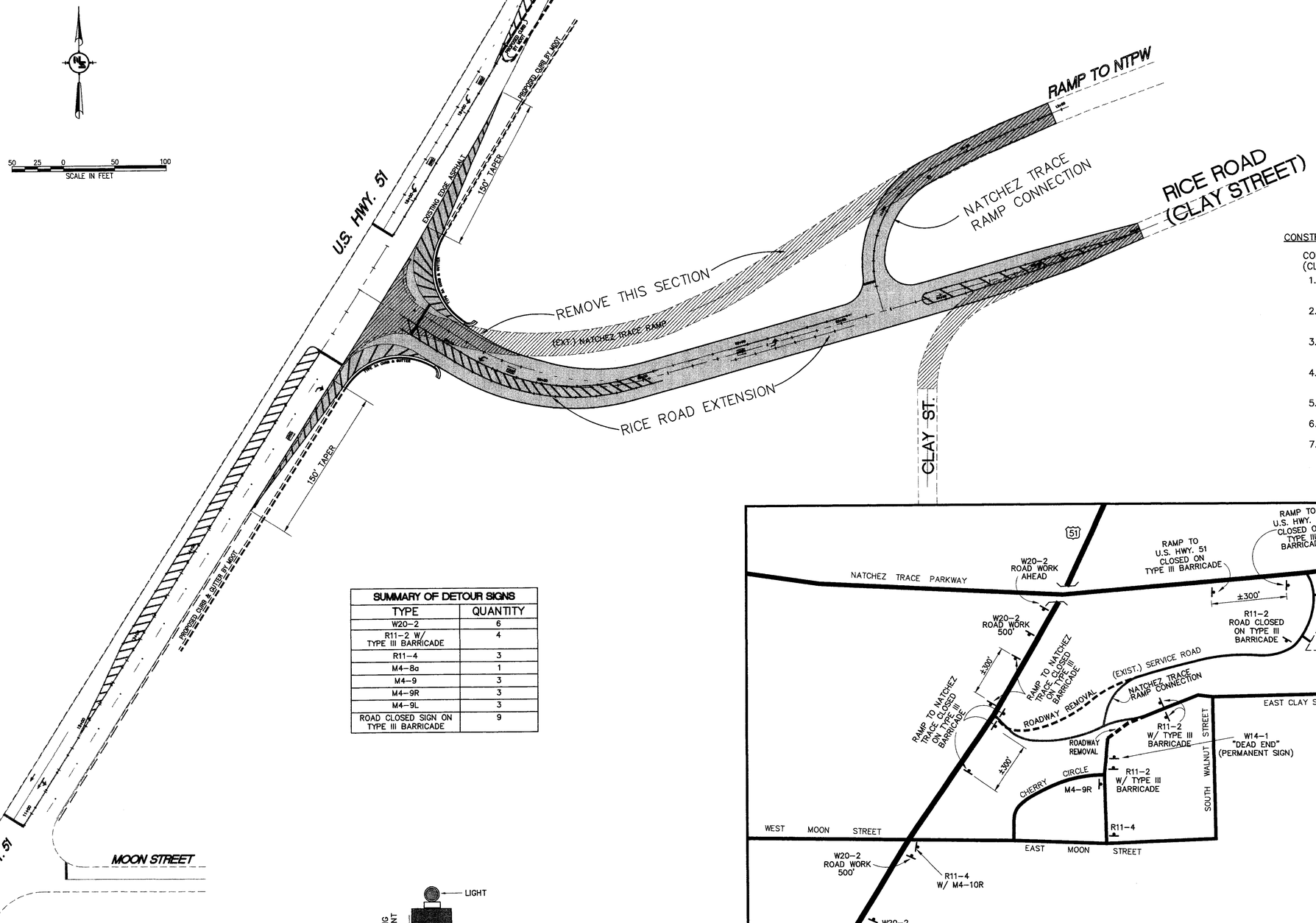
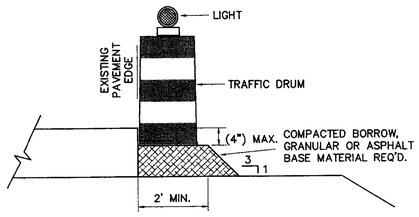


SUMMARY OF DETOUR SIGNS	
TYPE	QUANTITY
W20–2	6
R11–2 W/ TYPE III BARRICADE	4
R11–4	3
M4–8a	1
M4–9	3
M4–9R	3
M4–9L	3
ROAD CLOSED SIGN ON TYPE III BARRICADE	9



DRUM PLACEMENT ON LOW SHOULDERS OR WIDENING

DRUMS REQUIRED WHERE WORK ZONE INCLUDES UNDERCUT SHOULDER AND REMOVAL OF CURB & GUTTER. DRUMS TO BE PLACED AS SHOWN IN DETAIL, LEFT FOR NIGHT TIME OPERATION OR SUSPENSIONS OF WORK.

CONSTRUCTION SEQUENCE

CONSTRUCT ROADWAY FROM U.S. HWY. 51 TO EXISTING RICE ROAD (CLAY STREET) AND NATCHEZ TRACE CONNECTION RAMP.

1. PLACE RAMP CLOSURE SIGNS ALONG NATCHEZ TRACE PARKWAY, ON RAMP, AND ON U.S. HWY. 51.
2. SETUP TEMPORARY DETOUR FOR LOCAL TRAFFIC UTILIZING PEAR ORCHARD ROAD AND SCHOOL STREET.
3. REMOVE SHOULDER AT U.S. HWY. 51 FOR LENGTH OF CONSTRUCTION LIMITS.
4. REMOVE THE INDICATED SECTIONS OF ROADWAY FOR NATCHEZ TRACE RAMP AND CLAY STREET.
5. INSTALL THE TURNAROUND ON CLAY STREET.
6. CONSTRUCT ENTIRE SEGMENT OF ROADWAY AND RAMP CONNECTOR.
7. REOPEN RAMP AND RICE ROAD EXTENSION.

DETOUR ROUTES AND SIGNING
N.T.S.

MADISON COUNTY BOARD OF SUPERVISORS
AND CITY OF RIDGELAND

RICE ROAD EXTENSION
RIDGELAND, MISSISSIPPI

TRAFFIC CONTROL
CONSTRUCTION SEQUENCE AND DETOUR PLAN
revised: 5/98

DSGN:	G.P.	4/98
DRWN:	B.B.	4/98
CHKD:	K.C.	4/98
SCALE:	AS SHOWN	

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(601)948-3071

ACAD FILE: 3072-TC
DRAWING NO.
TC-1

SHEET 10

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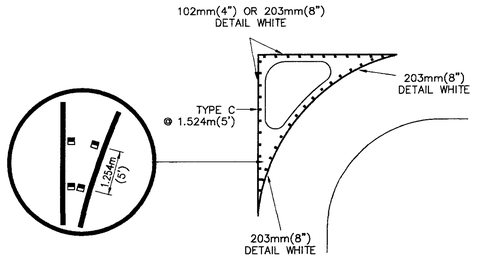
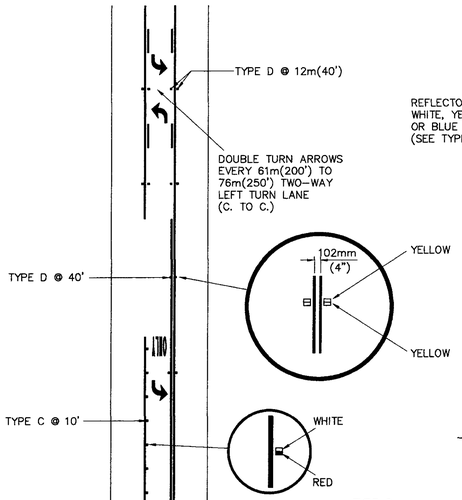
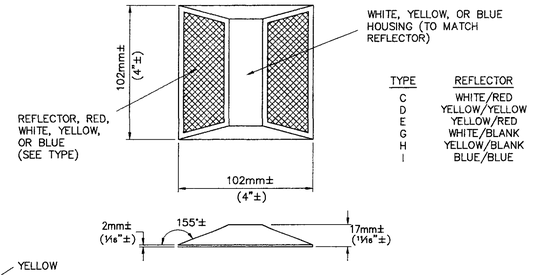


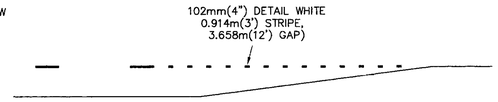
CHANNELIZING ISLAND DETAIL
(NOT TO SCALE)



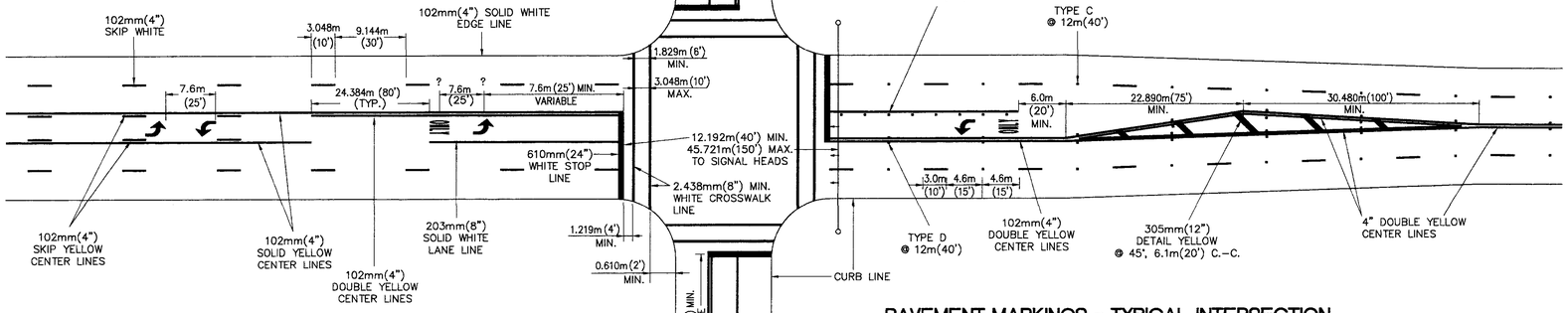


TYPE	REFLECTOR
C	WHITE/RED
D	YELLOW/YELLOW
E	YELLOW/RED
G	WHITE/BLANK
H	YELLOW/BLANK
I	BLUE/BLUE

REFLECTIVE RAISED MARKER
(NOT TO SCALE)

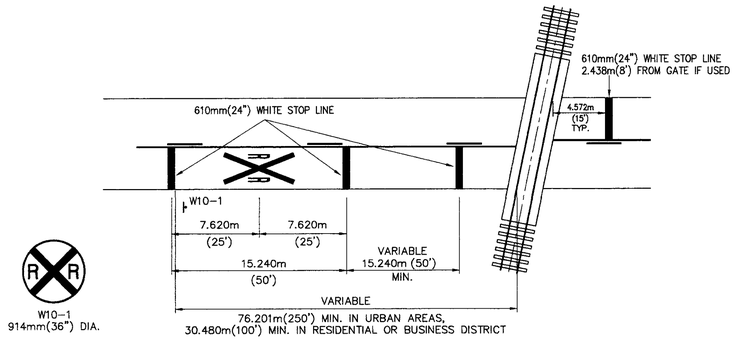


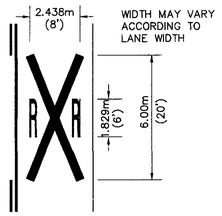
LANE DROP DETAIL
(NOT TO SCALE)



PAVEMENT MARKINGS - TYPICAL INTERSECTION
(NOT TO SCALE)

NOTES:
1. ALL PAVEMENT MARKING INSTALLATIONS SHALL CONFORM TO THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (1988 EDITION AND LATEST REVISIONS).
2. CROSSWALKS TO LINE UP WITH SIDEWALKS AND AVOID OBSTACLES WHERE POSSIBLE.

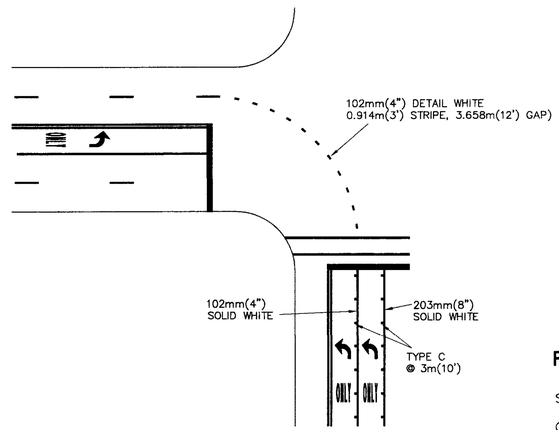




R X R SYMBOL
(WHITE - 62.5 S.F.)

NOTES:
1. THE DISTANCE FROM THE RAILROAD CROSSING MARKING TO THE NEAREST TRACK WILL VARY ACCORDING TO THE APPROACH SPEED AND SIGHT DISTANCE OF THE VEHICULAR TRAFFIC APPROACHING, BUT PROBABLY SHOULD NOT BE LESS THAN 15.240m(50').
2. A THREE-LANE AND FIVE-LANE ROADWAY SHOULD BE MARKED WITH A CENTERLINE FOR TWO-LANE APPROACH OPERATION ON THE APPROACH TO A CROSSING.
3. ON MULTI-LANE ROADS THE TRANSVERSE BANDS SHOULD EXTEND ACROSS ALL APPROACH LANES, AND INDIVIDUAL R X R SYMBOLS SHOULD BE USED IN EACH APPROACH LANE.
4. REFER TO STANDARD ALPHABET FOR HIGHWAY SIGNS AND MARKINGS FOR R X R SYMBOL DETAILS.

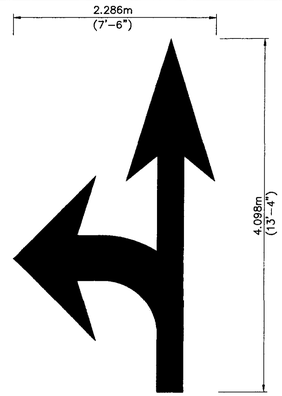
RAILROAD GRADE CROSSING
(NOT TO SCALE)



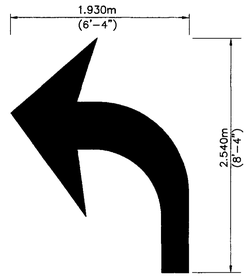
DUAL TURN LANE MARKINGS
(NOT TO SCALE)

REQUIRED PAVEMENT MARKING THICKNESS

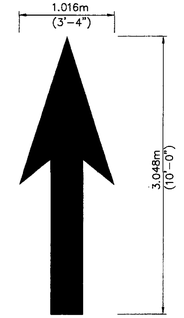
STOP LINES AND LEGENDS	3.00mm(120 MILS)
CROSSWALKS, CENTER LINES, LANE LINES AND DETAIL STRIPES	2.25mm(90 MILS)
EDGE LINES	1.50mm(60 MILS)



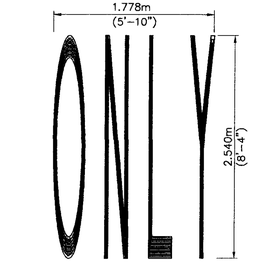
COMBINATION ARROW - (WHITE)
2.555m² (27.5 S.F.)



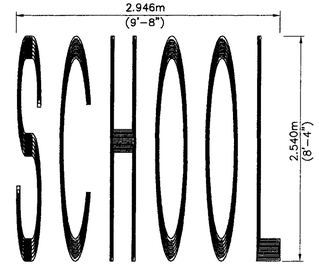
TURN ARROW - (WHITE)
1.524m² (16.4 S.F.)



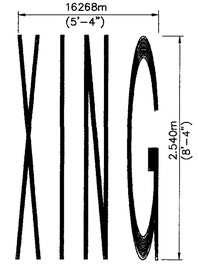
THRU ARROW - (WHITE)
1.143m² (12.3 S.F.)



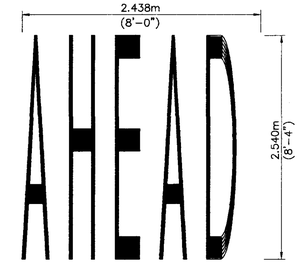
ONLY - (WHITE)
2.044m² (22.0 S.F.)



SCHOOL - (WHITE)
3.298m² (35.5 S.F.)



XING - (WHITE)
1.719m² (18.5 S.F.)



AHEAD - (WHITE)
3.001m² (32.3 S.F.)

PAVEMENT MARKING LEGENDS
(NOT TO SCALE)

RICE ROAD EXTENSION
RIDGELAND, MISSISSIPPI

PAVEMENT MARKING STANDARD DETAILS

MADISON COUNTY BOARD OF SUPERVISORS
AND CITY OF RIDGELAND

DSGN: G.P.	7/97	CAD REF. 3072-PM
DRWN: B.G.B.	7/97	DRAWING NO.
CHKD: K.O.	7/97	STD-PM
SCALE: N.T.S.		

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(601)948-3071

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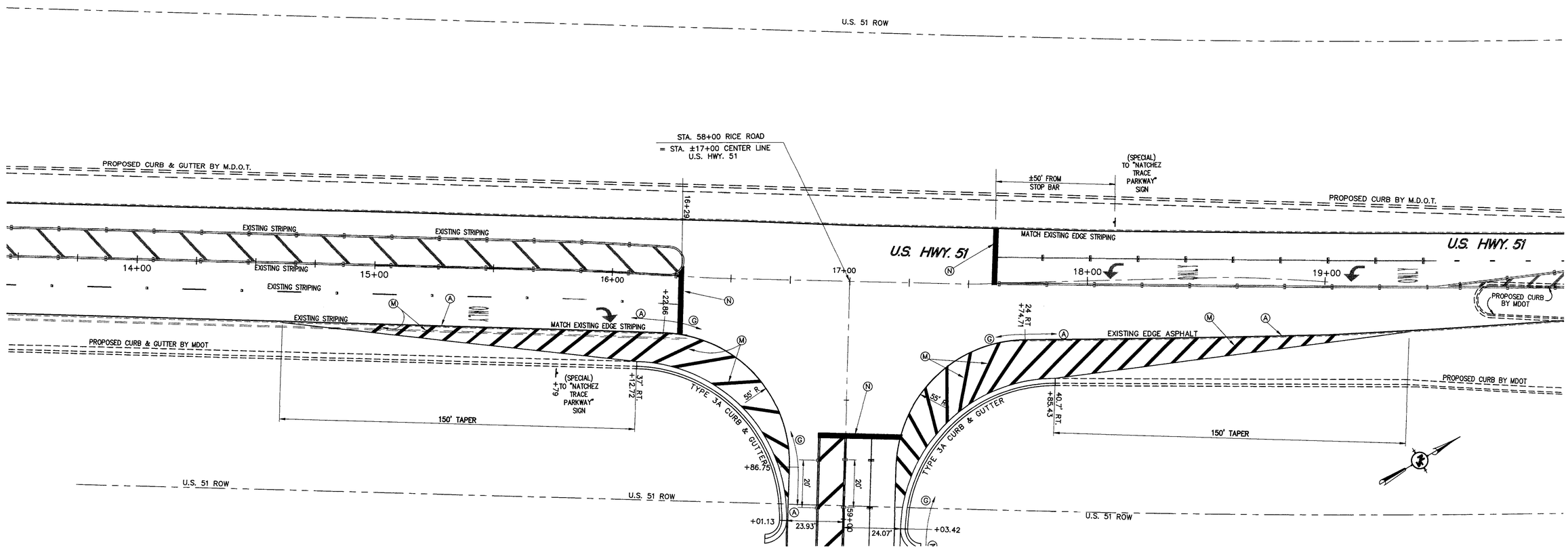


STRIPING LEGEND

- (A) 4" Continuous Edge White (1.50 mm Min.)
- (B) 4" Continuous Skip White (3' Strip 12' Gap) (2.25 mm Min.)
- (C) 4" Continuous White (2.25 mm Min.)
- (D) 4" Continuous Skip Yellow (10' Strip, 30' Gap) (2.25 mm Min.)
- (E) 4" Continuous Yellow (2.25 mm Min.)
- (F) 4" Continuous Double Yellow (2.25 mm Min.)
- (G) 4" Detail Edge White (1.50 mm Min.)
- (H) 4" Detail White (2.25 mm Min.)
- (I) 4" Detail Edge Yellow (1.53 mm Min.)
- (J) 4" Detail Yellow (2.25 mm Min.)
- (K) 4" Detail Double Yellow (2.25 mm Min.)
- (L) 8" Detail White (2.25 mm Min.)
- (M) 12" Detail Diagonal White (45° AT 20' O.C.) (2.25 mm Min.)
- (N) 24" Stop Line Legend White (3.00 mm Min.)
- Reflective Markers (Yellow–Yellow)
- Reflective Markers (Red–Clear)
- ONLY — Only Ledge White (3.00 mm Min.)
- Left Arrow Legend White (3.00 mm Min.)
- Right Arrow Legend White (3.00 mm Min.)
- Combination Arrow Legend White (3.00 mm Min.)

20 10 0 20 40
SCALE IN FEET

MADISON COUNTY BOARD OF SUPERVISORS
AND CITY OF RIDGELAND

RICE ROAD
RIDGELAND, MISSISSIPPI

PAVEMENT MARKING AND
SIGNING PLAN

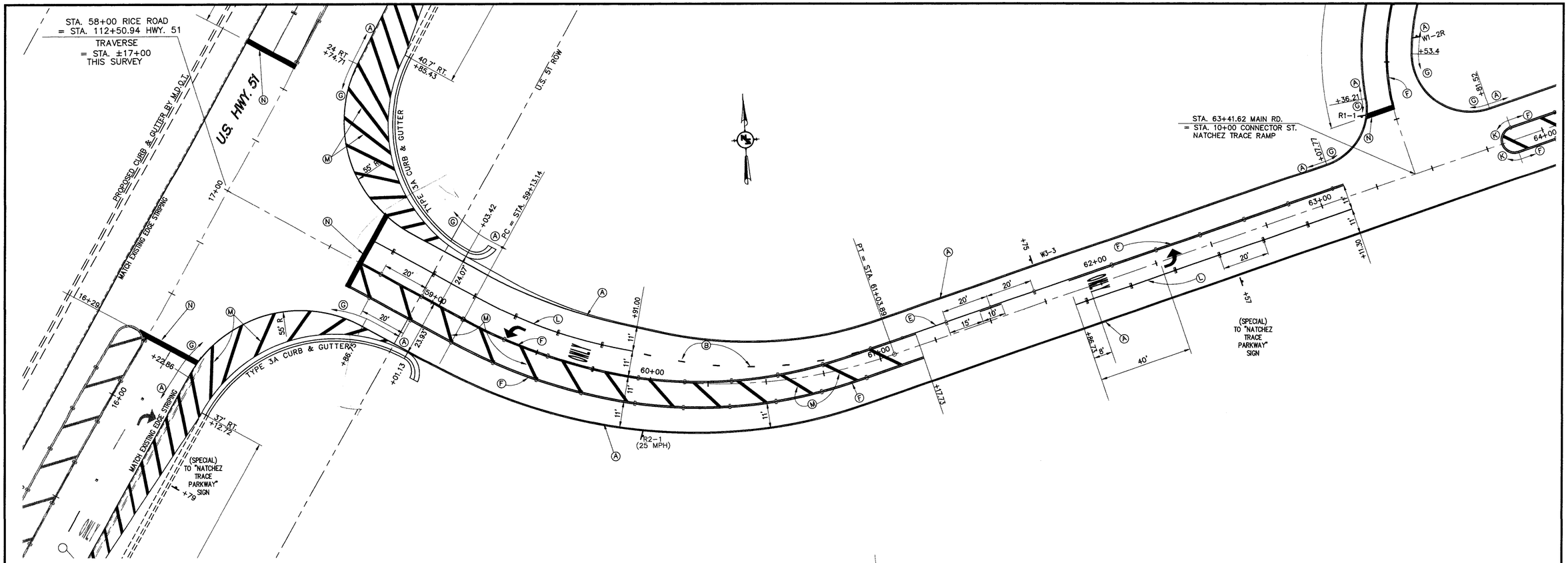
DSGN:	G.P.	4/98
DRWN:	B.B.	4/98
CHKD:	K.C.	4/98
SCALE:	AS SHOWN	

REVISED: 5/98

NEEL-SCHAFFER, INC.
ENGINEERS • PLANNERS
Jackson, Mississippi
(601)948-3071

ACAD FILE: 3072-PM1
DRAWING NO.
PM-1
SHEET 12

D:\NEITH\3072-01\3072-PM1.dwg Fri Sep 04 11:22:23 1998 Billy B.



Text No.	Text or Standard Number	LOCATION		PANEL SIZE					NUMERALS, LETTERS				Color Comb.	Quantity	Total Area Sq. Ft.	Post Length
		Station	Side	W. In.	W. In.	Area Sq. Ft.	Corner Radii In.	Border Width In.	Margin Width In.	Num. In.	Upper Case In.	Lower Case In.	Series				
Special	Natchez Trace Parkway ⇨	See Plans	LT. RT.	W_1=150 W_2=120	42	39.6	6	1	6	9	9	6	Modified Clarendon	White on Brown (Brown on Backside)	4	79.2	112

STRIPING LEGEND

- Ⓐ 4" Continuous Edge White (1.50 mm Min.)
- Ⓑ 4" Continuous Skip White (3' Strip 12' Gap) (2.25 mm Min.)
- Ⓒ 4" Continuous White (2.25 mm Min.)
- Ⓓ 4" Continuous Skip Yellow (10' Strip, 30' Gap) (2.25 mm Min.)
- Ⓔ 4" Continuous Yellow (2.25 mm Min.)
- Ⓕ 4" Continuous Double Yellow (2.25 mm Min.)
- Ⓖ 4" Detail Edge White (1.50 mm Min.)
- Ⓗ 4" Detail White (2.25 mm Min.)
- Ⓘ 4" Detail Edge Yellow (1.53 mm Min.)
- Ⓙ 4" Detail Yellow (2.25 mm Min.)
- Ⓚ 4" Detail Double Yellow (2.25 mm Min.)
- Ⓛ 8" Detail White (2.25 mm Min.)
- Ⓜ 12" Detail Diagonal White (45° AT 20' O.C.) (2.25 mm Min.)
- Ⓝ 24" Stop Line Legend White (3.00 mm Min.)
- Reflective Markers (Yellow–Yellow)
- Reflective Markers (Red–Clear)
- ONLY Only Ledge White (3.00 mm Min.)
- Left Arrow Legend White (3.00 mm Min.)
- Right Arrow Legend White (3.00 mm Min.)
- Combination Arrow Legend White (3.00 mm Min.)

20 10 0 20 40
SCALE IN FEET

MADISON COUNTY BOARD OF SUPERVISORS
AND CITY OF RIDGELAND

RICE ROAD
RIDGELAND, MISSISSIPPI

PAVEMENT MARKING AND
SIGNING PLAN

REVISED: 5/98

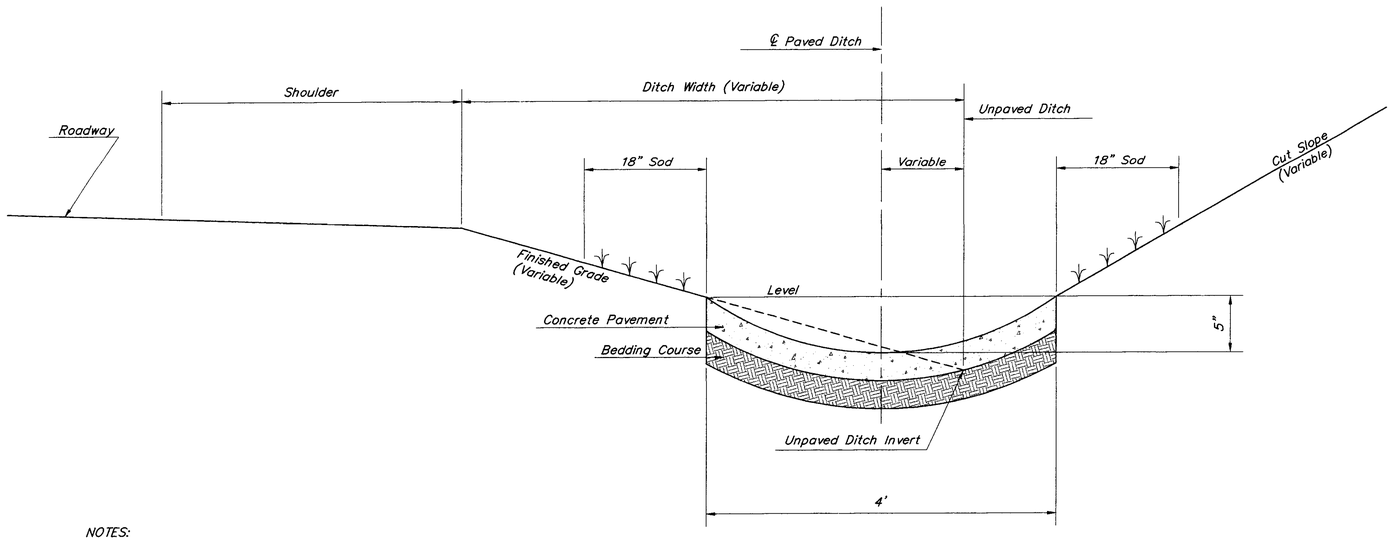
DSGN:	G.P.	4/98
DRWN:	B.B.	4/98
CHKD:	K.O.	4/98
SCALE:	AS SHOWN	

NEEL-SCHAFFER, INC.
ENGINEERS • PLANNERS
Jackson, Mississippi
(601)948-3071

ACAD FILE: 3072-PM1
DRAWING NO.
PM-2

SHEET 13

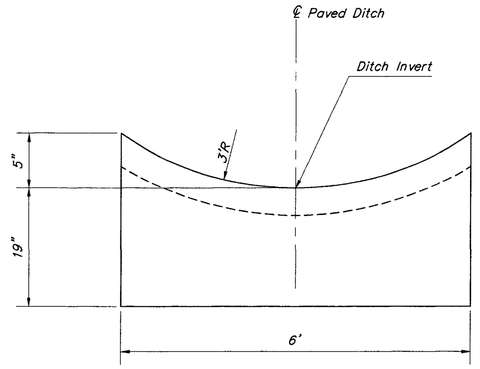
D:\MKLITH\3072-01\3072-PM1.dwg Fri Sep 04 11:22:54 1998 Billy B.



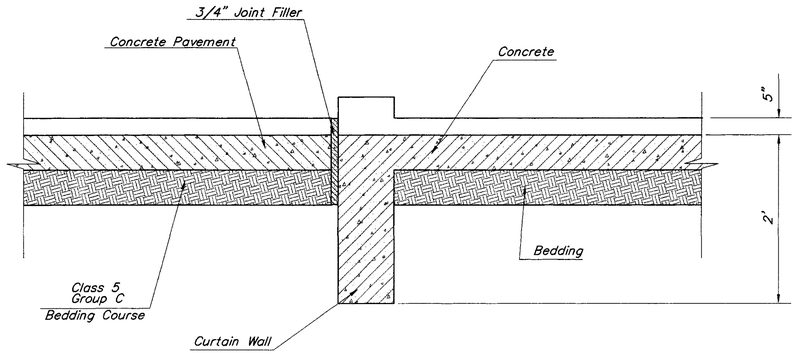
PAVED WATERWAY

NOTES:

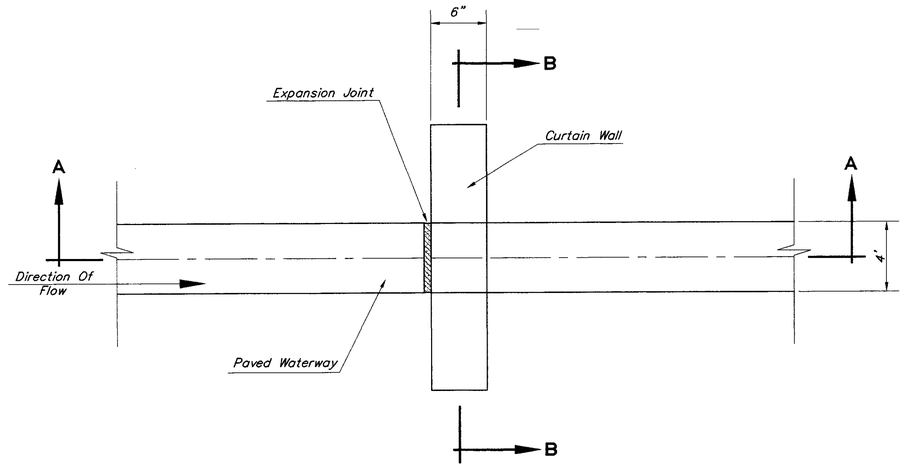
1. *The approximate shape of the paved waterway is an arc with a radius of 3 feet.*
2. *At inlets and other special locations, widen and shape paved waterway to drain.*
3. *Construct concrete paved waterway in uniform sections 20 feet in length, except closure sections as required not to be less than 5 feet in length, with expansion joints at 100 feet intervals.*
4. *At the outlet end of each concrete paved waterway, construct A curtain wall on the downstream end of the last section of waterway.*



SECTION B-B
CURTAIN WALL



SECTION A-A



PLAN

EXPANSION JOINT FOR CONCRETE PAVED WATERWAY

Pavement Type	Pavement Thickness In Inches	Bedding Course Thickness In Inches
Asphalt	3	4
Concrete	4	4
Mortared Rubble	4 to 6	4

U.S. DEPARTMENT OF TRANSPORTION
FEDERAL HIGHWAY ADMINISTRATION
EASTERN FEDERAL LANDS HIGHWAY DIVISION

PAVED WATERWAY

MADISON COUNTY BOARD OF SUPERVISORS
AND CITY OF RIDGELAND

DSGN:		CAD REF. 3072V-D
DRWN: B.G.B.	8/98	DRAWING NO. M608-A
CHKD:		
SCALE: N/A		

NEEL-SCHAFFER, INC.
ENGINEERS • PLANNERS
Jackson, Mississippi
(601)948-3071

SHEET 14

STATE	PROJECT NO.
MISS.	

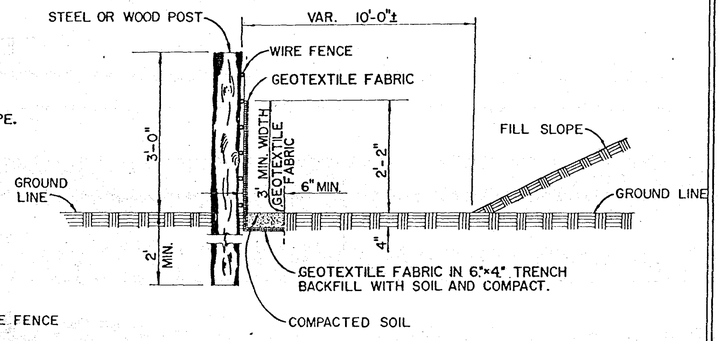
NOTE:

WIRE SHALL BE A MINIMUM OF 32 INCHES IN WIDTH AND SHALL HAVE A MINIMUM OF 6 LINE WIRES WITH 12" STAY SPACING.

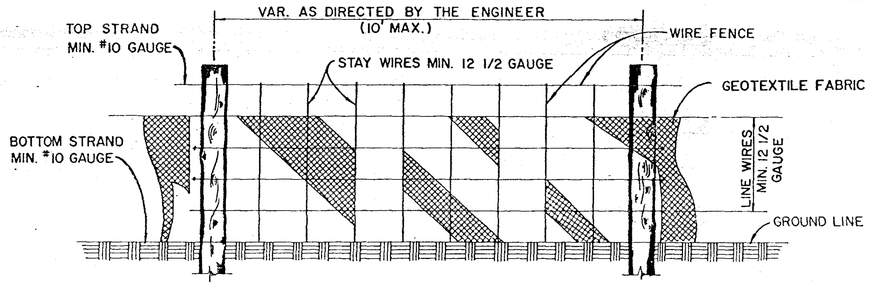
GEOTEXTILE FABRIC SHALL BE A MINIMUM OF 36" IN WIDTH AND SHALL BE FASTENED ADEQUATELY TO THE WIRE AS DIRECTED BY THE ENGINEER.

STEEL POST SHALL BE 5'-0" IN HEIGHT AND OF THE SELF-FASTENER ANGLE STEEL TYPE. WOOD POST SHALL BE A MINIMUM OF 5' IN HEIGHT AND 3" OR MORE IN DIAMETER. WIRE FENCE SHALL BE FASTENED TO WOODEN POST WITH NOT LESS THAN #9 WIRE STAPLES 1 1/2 INCHES LONG.

GEOTEXTILE FABRIC MEETING THE TYPE II MATERIAL REQUIREMENTS AND INSTALLED ACCORDING TO SPECIFICATIONS MAY BE USED WITHOUT WIRE FENCE.



SIDE ELEVATION



FRONT ELEVATION

TEMPORARY SILT FENCE

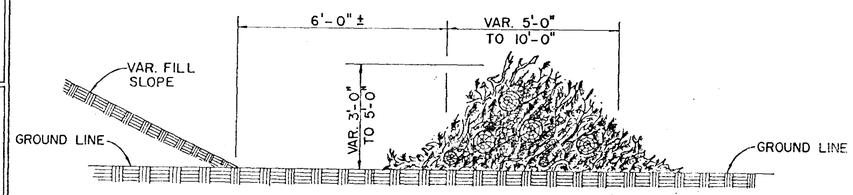
NOTE:

BRUSH BARRIER TO BE USED WHEN NATURAL GROUND IS LEVEL OR SLOPING AWAY FROM PROJECT.

PLACE BRUSH, LOG AND TREE LAPS APPROXIMATELY PARALLEL TO TOE OF FILL SLOPE WITH SOME OF THE HEAVIER MATERIALS BEING PLACED ON TOP TO PROPERLY SECURE THE BARRIER AS DETAILED AT LOCATIONS SHOWN ON PLANS OR AS DIRECTED BY THE ENGINEER.

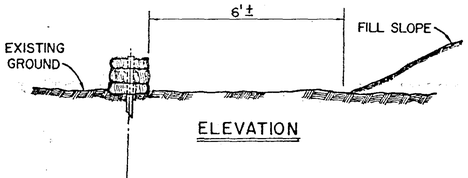
TO ALLOW WATER TO FLOW THROUGH BRUSH BARRIER, INTERMINGLE THE BRUSH, LOG AND TREE LAPS SO AS NOT TO FORM A SOLID DAM.

FRONT ELEVATION

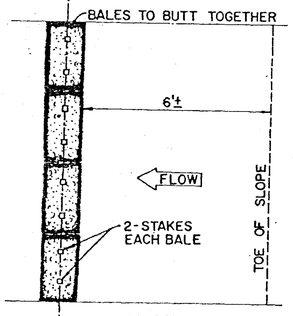


SIDE ELEVATION

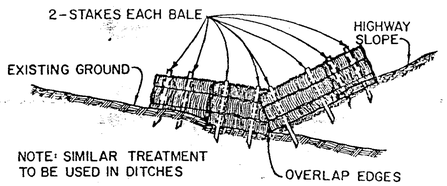
TEMPORARY BRUSH BARRIER



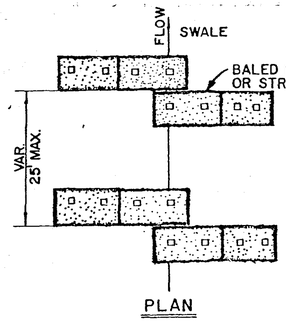
ELEVATION



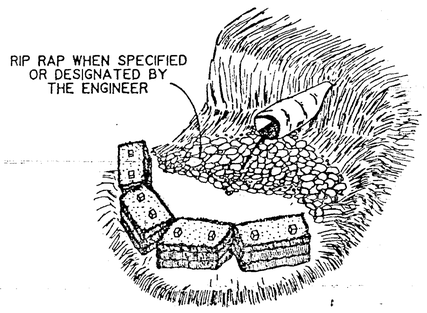
PLAN



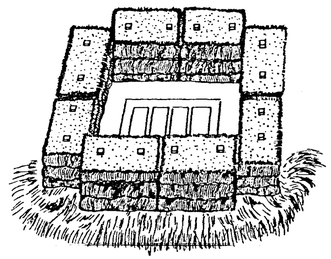
ELEVATION



PLAN



CULVERT



DROP INLET

NOTE: EMBED ALL BALES 3" MINIMUM INTO GROUND AND STAKE (2"x 2"x 3') SECURELY.

TEMPORARY EROSION CHECKS
HAY OR STRAW BALES

1. THE CONTRACTOR SHALL BE REQUIRED TO FURNISH ALL MATERIALS, PERFORM ALL WORK FOR THE PROPER INSTALLATION, MAINTENANCE AND REMOVAL OF TEMPORARY EROSION CONTROL MEASURES NECESSARY TO CONTROL SILTATION.
2. TEMPORARY BRUSH BARRIERS SHALL BE USED AS REQUIRED BUT WILL NOT BE MEASURED FOR SEPARATE PAYMENT.
3. THE USE OF THE OTHER TEMPORARY EROSION CONTROL MEASURES SHOWN ON THIS SHEET WILL ONLY BE REQUIRED AND MEASURED FOR SEPARATE PAYMENT WHEN APPROPRIATE PAY ITEM (S) IS INCLUDED IN THE BID SCHEDULE OF THE PROPOSAL.

BY | REVISIONS | DATE

MISSISSIPPI STATE HIGHWAY DEPARTMENT

TYPICAL TEMPORARY EROSION CONTROL MEASURES

(SILT FENCE, HAY BALES, & BRUSH BARRIER)

DESIGNED ____ DETAILED ____ TRACED ____

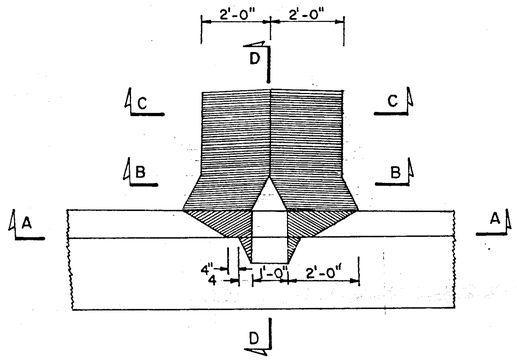
CHECKED ____ ISSUED ____ DATE ____

WORKING NUMBER TEC-1

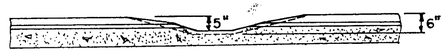
SHEET NUMBER 15

ING 44-141 29869

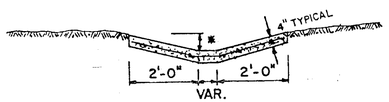
STATE	PROJECT NO.
MISS.	



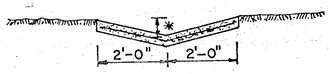
PLAN VIEW



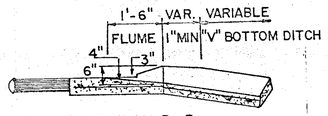
SECTION A-A



SECTION B-B
TRANSITION SECTION

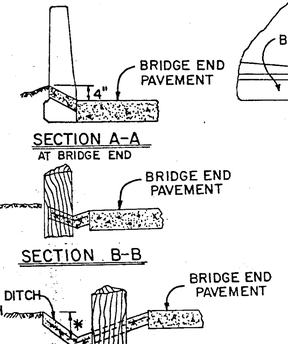


SECTION C-C
DITCH SECTION



SECTION D-D

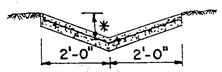
FLUME-TYPE "A"
INTERMEDIATE RUNOFF THROUGH CURB & GUTTER



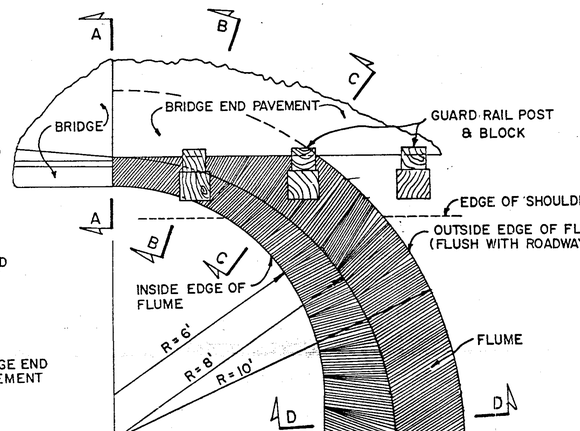
SECTION A-A
AT BRIDGE END

SECTION B-B

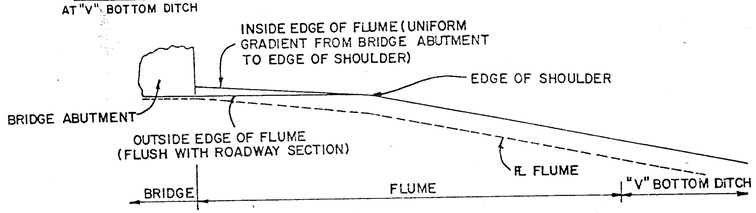
SECTION C-C
AT EDGE OF SHOULDER



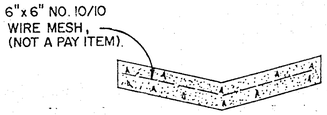
SECTION D-D
AT "V" BOTTOM DITCH



PLAN VIEW

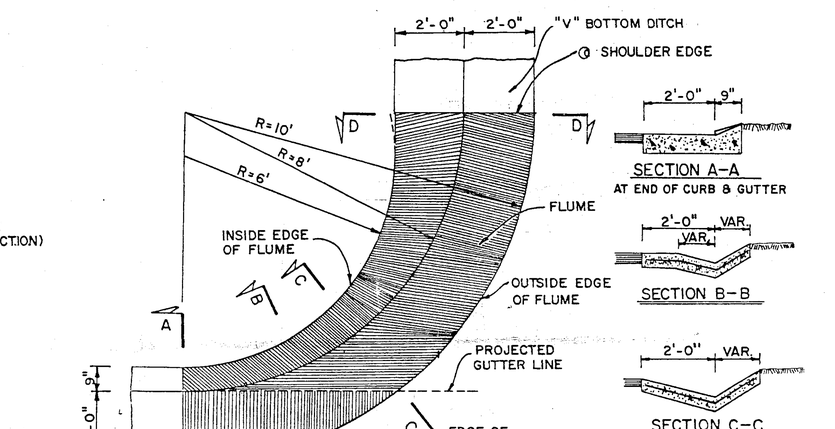


FLUME- TYPE "B"
FOR END OF BRIDGES



TYPICAL SECTION OF PAVED FLUME SHOWING WIRE MESH REQUIRED.

NOTE:
6" FOR 4:1 SLOPES
8" FOR 3:1 SLOPES

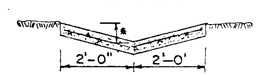


PLAN VIEW

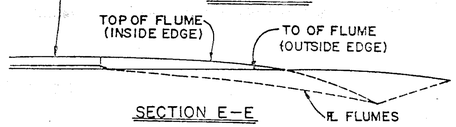
SECTION A-A
AT END OF CURB & GUTTER

SECTION B-B

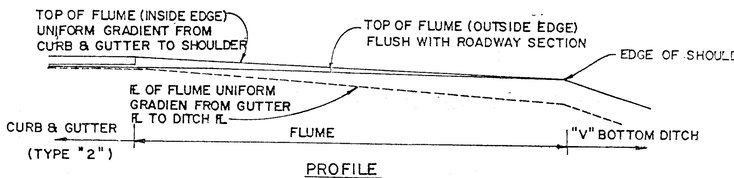
SECTION C-C
AT EDGE OF PROJECTED GUTTER LINE



SECTION D-D
AT EDGE OF SHOULDER



SECTION E-E



PROFILE

FLUME- TYPE "C"
AT END OF CURB & GUTTER

BRUNING 44-141 39869

BY	REVISIONS	DATE
		DESIGNED DETAILED TRACED
		CHECKED ISSUED DATE

MISSISSIPPI STATE HIGHWAY DEPARTMENT

DETAILS OF PAVED FLUMES

WORKING NUMBER PF-1
SHEET NUMBER 16

STATE	PROJECT NO.
MISS.	

INSTRUCTIONS FOR COMPLETING THE VEGETATION SCHEDULE

TOPSOIL - THE NEED FOR TOPSOIL IS DETERMINED FROM THE ORIGINAL SOIL PROFILE BORINGS OR FIELD INSPECTION. IF NOT NEEDED TOPSOIL WILL NOT APPEAR ON THE SCHEDULE. IF EXTREMELY ACID SOILS ARE ENCOUNTERED 8" THICK TOPSOIL IS NORMALLY REQUIRED. PROPOSAL QUANTITIES (EST.) ARE DETERMINED USING A PERCENTAGE OF THE TOTAL ACREAGE OR WITHIN CERTAIN STATION LIMITS.

AGRICULTURAL LIMESTONE - THE 3 TON/ACRE RATE LISTED BELOW IS FOR URBAN GRADE, DRAIN AND BRIDGE PROJECTS; ALL OTHER PROJECTS REQUIRE 2 TON/ACRE.

SOLID SODDING - WHEN CONSTRUCTION IS ADJACENT TO LAWNS THE PAY ITEM NO. 216-B MAY NEED TO BE SPECIFIED. TO REQUIRE THE SAME KIND OF GRASS BE FURNISHED AND PLANTED THAT IS GROWING IN THE ADJACENT LAWNS.

VEGETATION SCHEDULE

EROSION CONTROL ITEMS		SEASONAL APPLICATIONS-DATES & RATES				REQUIREMENTS
		SPRING & SUMMER		FALL & WINTER		
PAY ITEM NO.	ITEMS	RATES	DATES	RATES	DATES	
⑦ 211-B	TOPSOIL FOR SLOPE TREATMENT (LVM)	4" THICK	MARCH 1 TO SEPTEMBER 1	4" THICK	SEPTEMBER 1 TO MARCH 1	TOPSOIL REQUIRED ON SLOPES DETERMINED BY THE ENGINEER DURING CONSTRUCTION.
212-B	STANDARD GROUND PREPARATION	PER SQ.YD.	MARCH 1 TO SEPTEMBER 1	PER SQ.YD.	SEPTEMBER 1 TO MARCH 1	GROUND PREPARATION REQUIRED ON AREAS TO RECEIVE SOLID SODDING OR SEEDING, AS APPLICABLE.
213-A	AGRICULTURAL LIMESTONE	3 TONS/ACRE	MARCH 1 TO SEPTEMBER 1	3 TONS/ACRE	SEPTEMBER 1 TO MARCH 1	LIMESTONE SHALL BE MECHANICALLY SPREAD UNIFORMLY AND INCORPORATED INTO THE SOIL PRIOR TO PLANTING.
213-B	COMBINATION FERTILIZER (13-13-13)	1000 LBS./ACRE	MARCH 1 TO SEPTEMBER 1	1000 LBS./ACRE	SEPTEMBER 1 TO MARCH 1	FERTILIZER SHALL BE MECHANICALLY SPREAD UNIFORMLY AND INCORPORATED INTO THE SOIL PRIOR TO PLANTING.
① 213-C	SUPERPHOSPHATE	0.5 TONS/ACRE (EST.)	MARCH 1 TO DECEMBER 1			SUPERPHOSPHATE (FOR BID ITEM PURPOSES).
② 214-A	SEEDING (BERMUDAGRASS)	20 LBS./ACRE	MARCH 1 TO SEPTEMBER 1	20 LBS./ACRE	SEPTEMBER 1 TO MARCH 1	SEED REQUIRED ON DISTURBED AREAS. UNHULLED SEED MAY BE REQUIRED DURING THE DORMANT SEASON AS DIRECTED.
③⑤ 214-A	SEEDING (TALL FESCUE)			20 LBS./ACRE	AUGUST 1 TO APRIL 1	SEED REQUIRED ON DISTURBED AREAS.
③⑤ 214-A	SEEDING (CRIMSON CLOVER)			20 LBS./ACRE	AUGUST 1 TO APRIL 1	SEED REQUIRED ON DISTURBED AREAS.
⑥ 215-A	VEGETATIVE MATERIAL FOR MULCH	2 TONS ACRE (EST.)	MARCH 1 TO SEPTEMBER 1	2 TONS/ACRE (EST.)	SEPTEMBER 1 TO MARCH 1	THE ENGINEER WILL DESIGNATE THE RATES OF APPLICATION (SEE SUBSECTION 215.03.3).
216-A	SOLID SODDING	PER SQ.YD.	MARCH 1 TO SEPTEMBER 1	PER SQ. YD.	SEPTEMBER 1 TO MARCH 1	SOLID SOD REQUIRED ON AREAS SPECIFIED IN THE CONTRACT OR BY THE ENGINEER.
219-A	WATERING	20 GALS./S.Y. (EST.)	MARCH 1 TO SEPTEMBER 1	20 GALS. S.Y. (EST.)	SEPTEMBER 1 TO MARCH 1	TO BE USED AS DIRECTED IN THE PLANTING AND ESTABLISHING SOLID SOD.
④ 220-A	INSECT PEST CONTROL	PER ACRE		PER ACRE		SEE SECTION 220.

① ALL AREAS THAT HAVE BEEN VEGETATED, UNDER THIS CONTRACT FOR AT LEAST (60) SIXTY DAYS, SHALL RECEIVE ADDITIONAL APPLICATION(S) OF FERTILIZER(S) OF THE TYPE(S) AND RATE(S) OF APPLICATIONS AS DETERMINED BY SOIL TESTS OR AS DIRECTED DURING THE GROWING SEASONS THE CONTRACT IS IN FORCE. GROUND PREPARATION WILL NOT BE REQUIRED FOR THE ADDITIONAL APPLICATIONS. PAYMENT FOR ALL FERTILIZERS ACCEPTABLY APPLIED AS AN ADDITIONAL APPLICATION(S) WILL BE MADE IN ACCORDANCE WITH SUPERPHOSPHATE BID ITEM 213-C.

② PROPOSAL QUANTITIES ESTIMATED ON THE BASIS THAT 100% OF THE ACREAGE WILL BE SEEDED.

③ PROPOSAL QUANTITIES ESTIMATED ON THE BASIS THAT 50% OF THE ACREAGE WILL BE SEEDED.

④ QUANTITY ESTIMATED ON THE BASIS 50% OF THE ACREAGE VEGETATED MAY REQUIRE TREATMENT.

⑤ THIS ITEM TO BE OMITTED ON AREAS SELECTED BY THE ENGINEER.

⑥ BAHIAGRASS WILL NOT BE PERMITTED AS A MULCH MATERIAL.

⑦ PROPOSAL QUANTITIES ESTIMATED ON THE BASIS THAT 75% OF THE ACREAGE SEEDED MAY REQUIRE TOPSOIL.

DEPARTMENT OF TRANSPORTATION DD

REVISION | BY | DATE

MISSISSIPPI DEPARTMENT OF TRANSPORTATION
DISTRICT 3 OR 5
VEGETATION SCHEDULE
URBAN - ALL TYPES, EXCLUDING MS DELTA

PROJECT NO. 2-3072-01
COUNTY MADISON
FILENAME: VEG.SCH.
DESIGN TEAM _____ CHECKED _____ DATE _____

WORKING NUMBER VS-1
SHEET NUMBER 17

SIGN NUMBER	R1-1	R1-101	R1-2	R1-102	R2-1	R2-101	R2-102	R2-104	R3-1	R3-2	R3-3	R3-4	R3-5	R4-103
ALUMINUM (6061-T6) SIGN BLANK THICKNESS	0.080"	0.125"	0.125"	0.125"	0.080"	0.125"	0.125"	0.125"	0.080"	0.080"	0.080"	0.080"	0.080"	0.125"
LEGEND	STOP		YIELD R=2" R=4"		SPEED LIMIT 70 R=1½" R=3"		TRUCKS 60 R=3"	MINIMUM SPEED PASS. VEHICLES 40 R=3"	R=1 7/8"	R=1 7/8"	NO TURNS R=1½"	R=1 7/8"	ONLY R=1⅞"	SLOWER TRAFFIC KEEP RIGHT R=3"
LETTER & NUMERAL SERIES	10" Series "C"	16" Series "C"	3" Series "C"	5" Series "C"	4" Series "E" 4" Series "E" 10" Series "E"	8" Series "E" 8" Series "E" 16" Series "E"	8" Series "D" 16" Series "E"	8" Series "C" 6" Series "C" 4" Series "C" 12" Series "D"			6" Series "D" 5" Series "D"		6" Series "D"	8" Series "D"
WIDTH OF BORDER INSIDE OUTSIDE	¾" WHITE	1¼" WHITE	5" RED ¾" WHITE	8" RED 1½" WHITE	⅝" BLACK ⅜" WHITE	1¼" BLACK ¾" WHITE	1 ¼" BLACK ¾" WHITE	⅞" BLACK ¾" WHITE	¾" BLACK ½" WHITE	¾" BLACK ½" WHITE	⅝" BLACK ⅜" WHITE	¾" BLACK ½" WHITE	¾" BLACK ½" WHITE	1¼" BLACK ¾" WHITE
SIZE (WIDTH X HEIGHT)	30" OCTAGON	48" OCTAGON	36" EQUILATERAL TRIANGLE	60" EQUILATERAL TRIANGLE	24" x 30"	48" x 60"	48" x 48"	48" x 48"	30" x 30"	30" x 30"	24" x 24"	30" x 30"	30" x 36"	48" x 60"
COLORS COPY BACKGROUND	WHITE RED	WHITE RED	RED WHITE	RED WHITE	BLACK WHITE	BLACK WHITE	BLACK WHITE	BLACK WHITE	BLACK & RED WHITE	BLACK & RED WHITE	BLACK WHITE	BLACK & RED WHITE	BLACK WHITE	BLACK WHITE
REFLECTORIZATION	ALL	ALL	ALL	ALL	B'GROUND	B'GROUND	BACKGROUND	BACKGROUND	BACKGROUND, CIRCLE, & DIAGONAL	BACKGROUND, CIRCLE, & DIAGONAL	BACKGROUND	BACKGROUND, CIRCLE, & DIAGONAL	BACKGROUND	BACKGROUND
NUMBER OF POSTS FOR MOUNTING	1	1	1	1	1	1	–	–	1	1	1	1	1	1
NUMBER OF HOLES TO BE PUNCHED (⅜"Ø)	2	4	2	4	2	6	4	4	2	2	2	2	2	6
PUNCHING DISTANCE FROM EACH VERTICAL EDGE	15" (VERTICAL CENTER)	10"	18" (VERTICAL CENTER)	20"	12" (VERTICAL CENTER)	10"	10"	10"	15" (VERTICAL CENTER)	15" (VERTICAL CENTER)	12" (VERTICAL CENTER)	15" (VERTICAL CENTER)	15" (VERTICAL CENTER)	10"
PUNCHING DISTANCE FROM TOP EDGE	3"; 27"	10"; 38"	2"; 26"	3"; 27"	3"; 27"	4"; 30"; 56"	4"; 44"	4"; 44"	3"; 27"	3"; 27"	3"; 21"	3"; 27"	3"; 33"	4"; 30"; 56"

SIGN NUMBER	R4-7	R4-107	R4-8	R5-1	R5-101	⚠ R5-1a	R6-1L, R6-1R	R6-2L, R6-2R	R8-104	R11-101	
ALUMINUM (6061-T6) SIGN BLANK THICKNESS	0.080"	0.125"	0.080"	0.080"	0.125"	0.125"	0.125"	0.080"	0.125"	0.125"	
LEGEND	R=1½" R=2¼"		R=1½"	DO NOT ENTER R=1⅞" R=3"		WRONG WAY R=2¼"	ONE WAY R=1½"	ONE WAY R=1½"	EMERGENCY PARKING ONLY R=2¼"	KEEP OFF MEDIAN R=3"	
LETTER & NUMERAL SERIES				4" Series "D"	6" Series "D"	8" Series "D"	4" Series "D"	5" Series "D"	6" Series "D"	10" Series "C"	
WIDTH OF BORDER INSIDE OUTSIDE	⅝" BLACK ⅜" WHITE	⅞" BLACK ⅝" WHITE	⅝" BLACK ⅜" WHITE	WHITE OUTSIDE BORDER	WHITE OUTSIDE BORDER	1" WHITE	½" WHITE	⅝" BLACK ⅜" WHITE	⅞" BLACK ⅝" WHITE	1¼" BLACK ¾" WHITE	
SIZE (WIDTH X HEIGHT)	24" x 30"	36" x 48"	24" x 30"	30" x 30"	42" x 42"	42" x 36"	36" x 12"	18" x 24"	48" x 36"	48" x 60"	
COLORS COPY BACKGROUND	BLACK WHITE	BLACK WHITE	BLACK WHITE	WHITE RED	WHITE RED	WHITE RED	BLACK (WHITE ARROW) BLACK	BLACK WHITE	BLACK WHITE	BLACK WHITE	
REFLECTORIZATION	BACKGROUND	BACKGROUND	BACKGROUND	ALL	ALL	ALL	ARROW & BORDER	BACKGROUND	BACKGROUND	BACKGROUND	
NUMBER OF POSTS FOR MOUNTING	1	1	1	1	1	1	1	1	2	1	
NUMBER OF HOLES TO BE PUNCHED (⅜"Ø)	2	4	2	2	4	4	2	2	4	6	
PUNCHING DISTANCE FROM EACH VERTICAL EDGE	12" (VERTICAL CENTER)	5"	12" (VERTICAL CENTER)	15" (VERTICAL CENTER)	8"	8"	18" (VERTICAL CENTER)	9" (VERTICAL CENTER)	10"	10"	
PUNCHING DISTANCE FROM TOP EDGE	3"; 27"	4"; 44"	3"; 27"	3"; 27"	4"; 38"	3"; 33"	1½"; 10½"	3"; 21"	6"; 30"	4"; 30"; 56"	

NOTES

The quantities listed on the SUMMARY OF QUANTITIES sheet for the signs shown on this sheet will be used as the basis for final payment, except where signs are modified from that shown.

The speed limits required on signs R2-1 and R2-101 will be shown on individual plan sheets.

⚠ REVISIONS	BY	DATE
	ANK	5-5-80

MISSISSIPPI STATE HIGHWAY DEPARTMENT

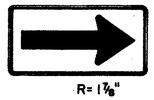
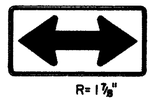
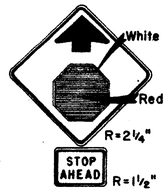
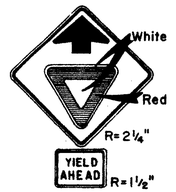
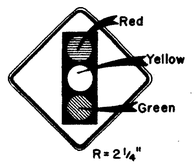
STD. ROADSIDE SIGNS

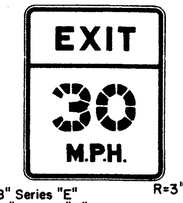
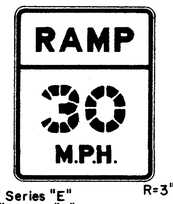
WORKING NUMBER SN-3A

SHEET NUMBER 182.1

DESIGNED ____ DETAILED ____ TRACED ____

CHECKED ____ ISSUED D.B.J. DATE 11-1-79

SIGN NUMBER	W1-1L W1-1R	W1-2L W1-2R	W1-3L W1-3R	W1-4L W1-4R	W1-6L W1-6R	W1-7	W3-1a	W3-1P	W3-2a	W3-2P	W3-3	W4-1L W4-1R	W4-101L W4-101R
ALUMINUM (6061-T6) SIGN BLANK THICKNESS	0.125"	0.125"	0.125"	0.125"	0.125"	0.125"	0.125"	0.080"	0.125"	0.080"	0.125"	0.125"	0.125"
LEGEND													
LETTER & NUMERAL SERIES								4" Series "D"		4" Series "D"			
WIDTH OF BORDER INSIDE / OUTSIDE	3/4" BLACK 1/2" YELLOW	3/4" BLACK 1/2" YELLOW	3/4" BLACK 1/2" YELLOW	3/4" BLACK 1/2" YELLOW	3/4" BLACK 1/2" YELLOW	3/4" BLACK 1/2" YELLOW	7/8" BLACK 5/8" YELLOW	5/8" BLACK 3/8" YELLOW	7/8" BLACK 5/8" YELLOW	5/8" BLACK 3/8" YELLOW	7/8" BLACK 5/8" YELLOW	3/4" BLACK 1/2" YELLOW	1 1/4" BLACK 3/4" YELLOW
SIZE (WIDTH X HEIGHT)	30" x 30"	30" x 30"	30" x 30"	30" x 30"	48" x 24"	48" x 24"	36" x 36"	24" x 18"	36" x 36"	24" x 18"	36" x 36"	30" x 30"	48" x 48"
COLORS COPY / BACKGROUND	BLACK YELLOW	BLACK YELLOW	BLACK YELLOW	BLACK YELLOW	BLACK YELLOW	BLACK YELLOW	BLACK YELLOW	BLACK YELLOW	BLACK YELLOW	BLACK YELLOW	BLACK YELLOW	BLACK YELLOW	BLACK YELLOW
REFLECTORIZATION	BACKGROUND	BACKGROUND	BACKGROUND	BACKGROUND	BACKGROUND	BACKGROUND	BACKGROUND & SYMBOL	BACKGROUND	BACKGROUND & SYMBOL	BACKGROUND	BACKGROUND & "LIGHTS"	BACKGROUND	BACKGROUND
NUMBER OF POSTS FOR MOUNTING	1	1	1	1	2	2	1	—	1	—	1	1	1
NUMBER OF HOLES TO BE PUNCHED (3/8" Ø)	2	2	2	2	4	4	2	2	2	2	2	2	4
PUNCHING DISTANCE FROM EACH VERTICAL EDGE	VERTICAL CENTER	VERTICAL CENTER	VERTICAL CENTER	VERTICAL CENTER	6"	6"	VERTICAL CENTER	VERTICAL CENTER	VERTICAL CENTER	VERTICAL CENTER	VERTICAL CENTER	VERTICAL CENTER	14 1/2" FROM VERT. CENTER
PUNCHING DISTANCE FROM TOP EDGE	15" FROM HORIZONTAL CENTER	15" FROM HORIZONTAL CENTER	15" FROM HORIZONTAL CENTER	15" FROM HORIZONTAL CENTER	3";21"	3";21"	18" FROM HORIZ. CENTER	3";15"	18" FROM HORIZ. CENTER	3";15"	18" FROM HORIZONTAL CENTER	15" FROM HORIZ. CENTER	14 1/2" FROM HORIZ. CENTER

SIGN NUMBER	W4-2	W5-1	W6-1	W6-2	W6-3	W13-1	W13-2	W13-3	W10-1	W10-101	
ALUMINUM (6061-T6) SIGN BLANK THICKNESS	0.125"	0.125"	0.125"	0.125"	0.125"	0.080"	0.125"	0.125"	0.125"	0.125"	
LEGEND	NOTE: See plan sheets for ideogram required on individual signs. 										
LETTER & NUMERAL SERIES		6" Series "D"				8" Series "E" 3" Series "E"	8" Series "E" 16" Series "E" 6" Series "E" (See note)	8" Series "E" 16" Series "E" 6" Series "E" (See note)	8" Series "E"	10" Series "E"	
WIDTH OF BORDER INSIDE / OUTSIDE	7/8" BLACK 5/8" YELLOW	7/8" BLACK 5/8" YELLOW	7/8" BLACK 5/8" YELLOW	7/8" BLACK 5/8" YELLOW	3/4" BLACK 1/2" YELLOW	5/8" BLACK 3/8" YELLOW	1 1/4" BLACK 3/4" YELLOW	1 1/4" BLACK 3/4" YELLOW	3/4" BLACK 1/2" YELLOW	1 1/4" BLACK 3/4" YELLOW	
SIZE (WIDTH X HEIGHT)	36" x 36"	36" x 36"	36" x 36"	36" x 36"	30" x 30"	18" x 18"	48" x 60"	48" x 60"	36" DIAMETER	48" DIAMETER	
COLORS COPY / BACKGROUND	BLACK YELLOW	BLACK YELLOW	BLACK YELLOW	BLACK YELLOW	BLACK YELLOW	BLACK YELLOW	BLACK YELLOW	BLACK YELLOW	BLACK YELLOW	BLACK YELLOW	
REFLECTORIZATION	BACKGROUND	BACKGROUND	BACKGROUND	BACKGROUND	BACKGROUND	BACKGROUND	BACKGROUND	BACKGROUND	BACKGROUND	BACKGROUND	
NUMBER OF POSTS FOR MOUNTING	1	1	1	1	11	1	1	1	1	1	
NUMBER OF HOLES TO BE PUNCHED (3/8" Ø)	2	2	2	2	2	2	6	6	2	4	
PUNCHING DISTANCE FROM EACH VERTICAL EDGE	VERTICAL CENTER	VERTICAL CENTER	VERTICAL CENTER	VERTICAL CENTER	VERTICAL CENTER	9" (VERTICAL CENTER)	10"	10"	15"	15" (VERTICAL CENTER)	
PUNCHING DISTANCE FROM TOP EDGE	18" FROM HORIZONTAL CENTER	18" FROM HORIZONTAL CENTER	18" FROM HORIZONTAL CENTER	18" FROM HORIZONTAL CENTER	15" FROM HORIZONTAL CENTER	3" ; 15"	4" ; 30" ; 56"	4" ; 30" ; 56"	3" ; 33"	5" ; 43"	

NOTES

The quantities listed on the SUMMARY OF QUANTITIES sheet for the signs shown on this sheet will be used as the basis for final payment, except where signs are modified from that shown.

Signs W13-2 and W13-3— The stroke width of the letters and numerals shall be widened to one-fifth(1/5) of the letter or numeral height.

The speeds required on signs W13-1, W13-2 and W13-3 will be shown on individual plan sheets.

REVISIONS BY DATE

MISSISSIPPI STATE HIGHWAY DEPARTMENT

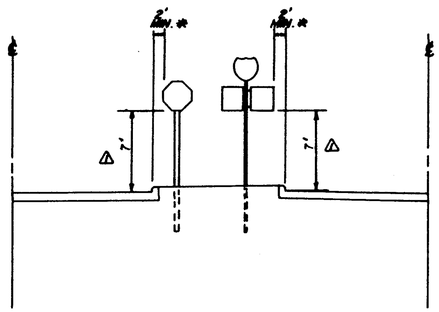
STD. ROADSIDE SIGNS

WORKING NUMBER SN-38

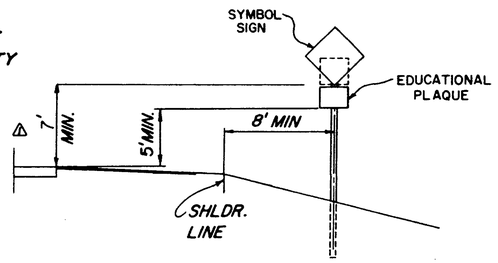
SHEET NUMBER 182.2

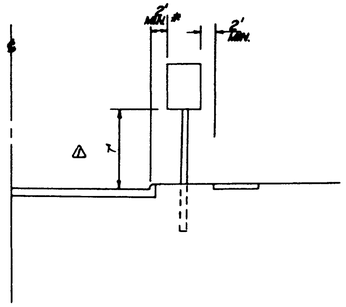
DESIGNED _____ DETAILED _____ TRACED _____

CHECKED _____ ISSUED _____ DATE _____



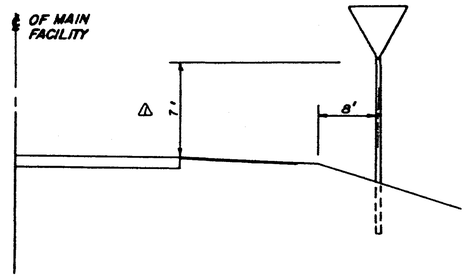
TYPICAL INSTALLATION IN ISLANDS OFF OF (OR ADJACENT TO) INTERSTATE MAIN FACILITY

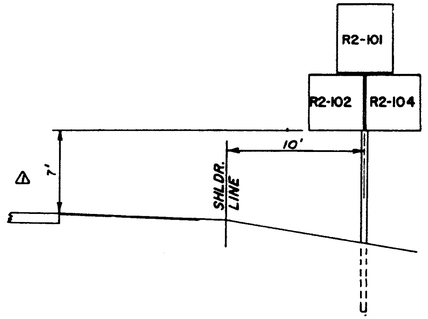


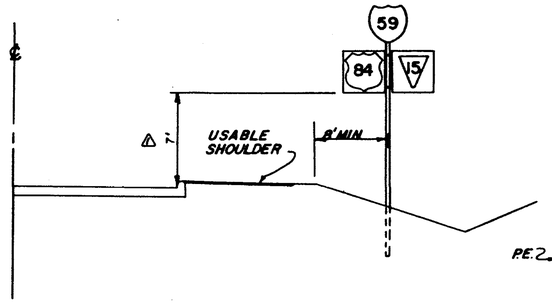


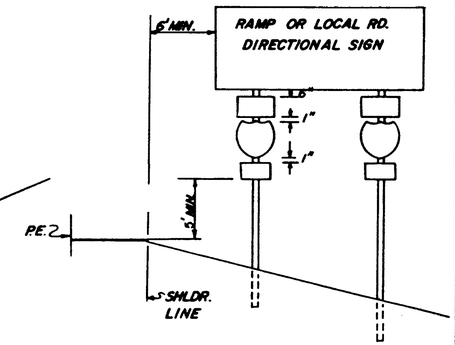
TYPICAL INSTALLATION ALONG FRONTAGE ROAD, RAMP, OR STREET WHERE THERE IS NOT A USABLE SHOULDER

* THE 2' MINIMUM OFFSET APPLIES ONLY TO STANDARD SIGNS MOUNTED ON U-SECTION POSTS. ALL STANDARD SIGNS MOUNTED ON PIPE WILL BE OFFSET A MINIMUM OF 4'. RAMP DESTINATION SIGNS WILL BE OFFSET 4' FROM SHOULDERS.









TYPICAL INSTALLATION ALONG THE INTERSTATE MAIN FACILITY AND ALONG RAMPS, FRONTAGE ROADS, AND HIGHWAYS

DATE	REVISIONS	BY	
11-6-85		AWK	

MISSISSIPPI STATE HIGHWAY DEPARTMENT

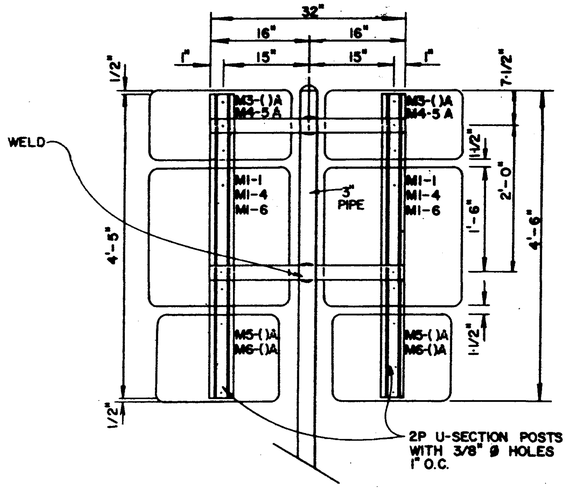
STD. ROADSIDE SIGN ASSEMBLY AND INSTALLATION

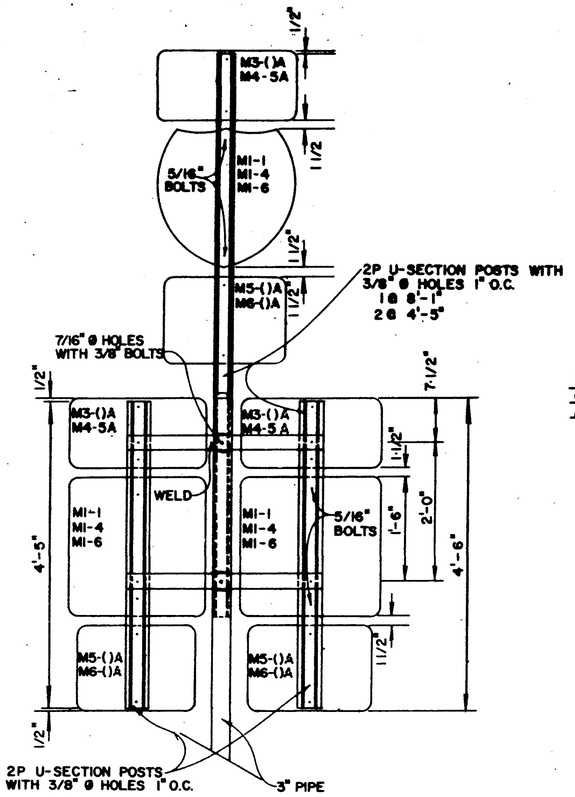
WORKING NUMBER: SN-4

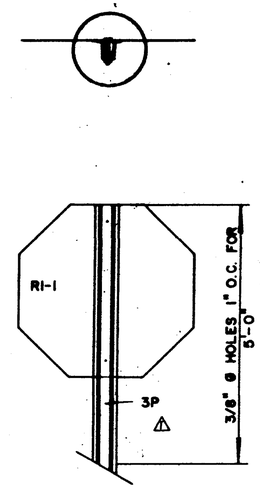
SHEET NUMBER: 183

DESIGNED _____ DETAILED _____ TRACED _____

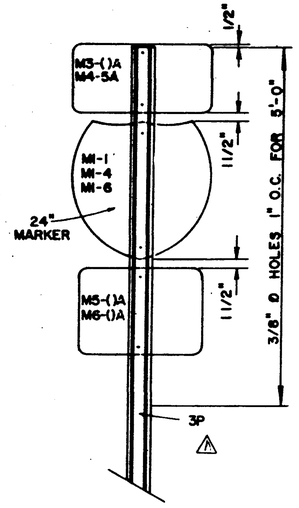
CHECKED _____ ISSUED _____ DATE _____

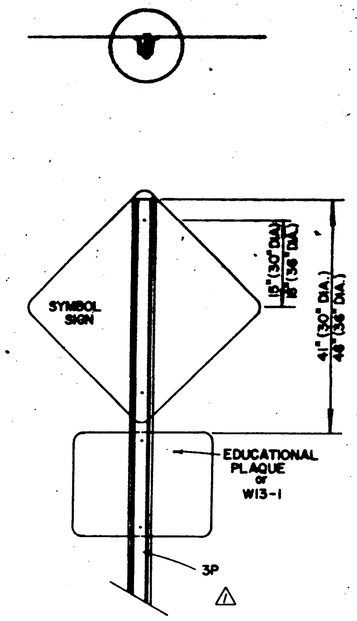


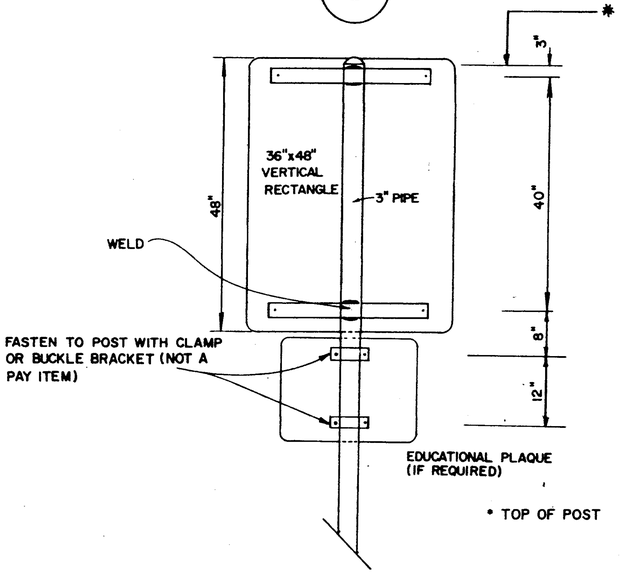


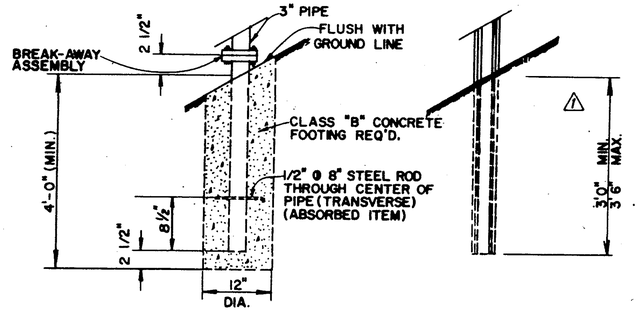


TYPICAL ASSEMBLY OF "FLAT-TOPPED" REGULATORY OR WARNING SIGN MOUNTED ON A SINGLE U-SECTION POST









FOOTING DETAIL FOR 3" PIPE

FOOTING DETAIL FOR U-SECTION POSTS

NOTES:

UNLESS OTHERWISE SPECIFIED, HORIZONTAL BRACES ARE 7/16" x 2 1/2" x VARIABLE LENGTH FLAT STEEL BARS. BARS ARE WELDED TO PIPE AS SHOWN. WHEN FABRICATION IS COMPLETE, POST SHALL BE GALVANIZED AS PER SECTION 630 OF THE STANDARD SPECIFICATION.

HOLES IN FLAT BARS ARE 3/8" DIAMETER.

SIGNS ARE FASTENED TO FLAT BARS AND U-SECTION POST WITH 5/16" BOLTS, WITH FLAT WASHER AND LOCK-NUTS.

⚠ GROUND PLATE NOT REQUIRED ON U-SECTION POST.

BY	REVISIONS	DATE
JJS	⚠	7-1-80
AWK	⚠	4-1-81

MISSISSIPPI STATE HIGHWAY DEPARTMENT

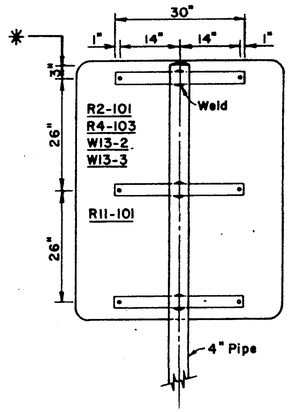
STD. ROADSIDE SIGN ASSEMBLY AND INSTALLATION

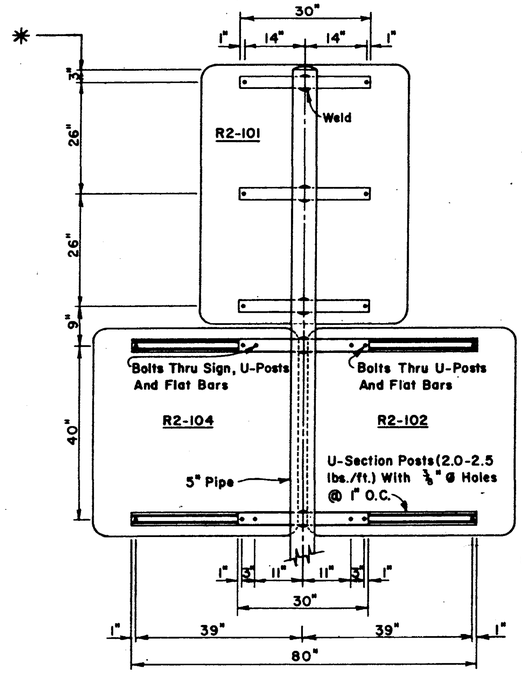
WORKING NUMBER: SN-4A

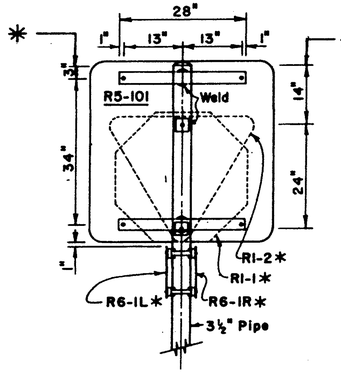
SHEET NUMBER: 183.1

DESIGNED ____ DETAILED ____ TRACED ____

CHECKED ____ ISSUED ____ DATE ____

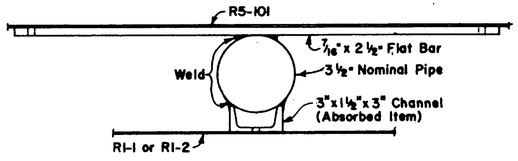




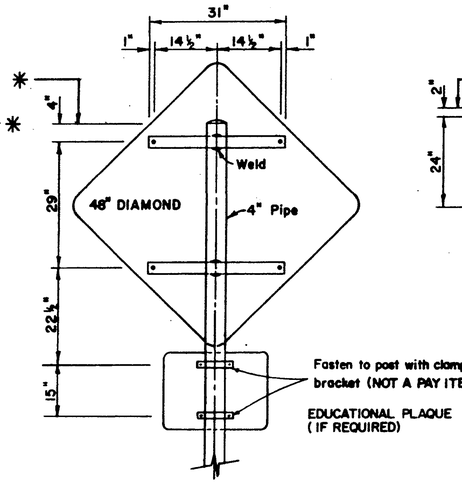


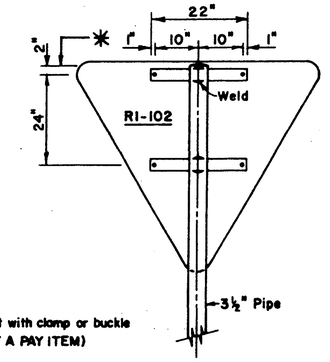
See Plan View Below

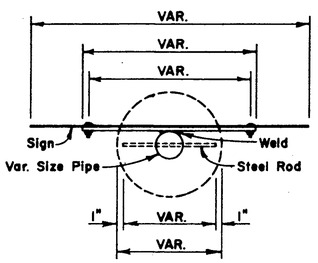
*When required



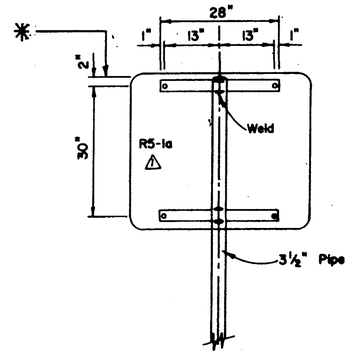
PLAN VIEW OF DOUBLE MOUNTING OF SIGNS

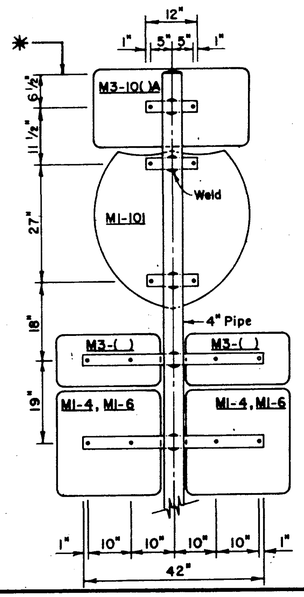


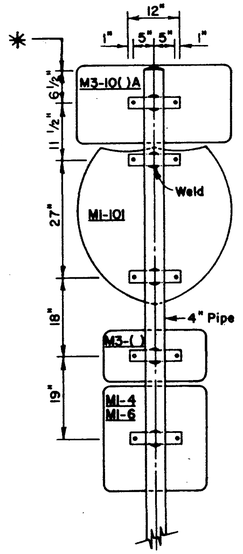


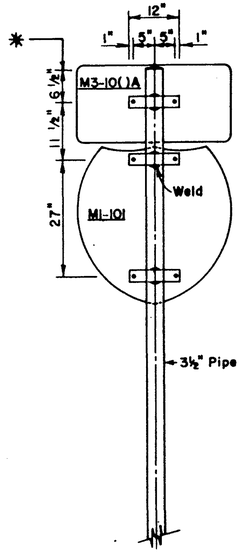


TYPICAL PLAN VIEW

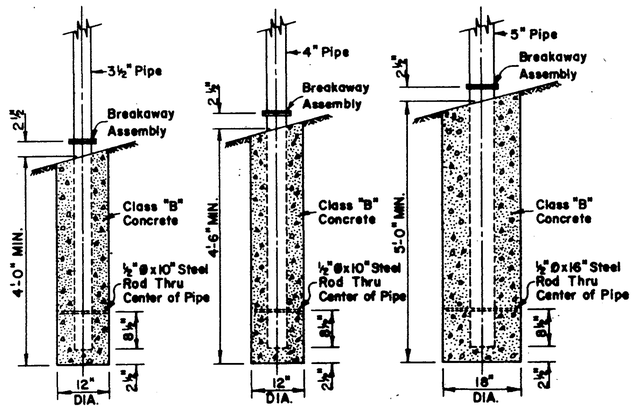








*TOP OF POST



FOOTING DETAILS △3

NOTES

Unless otherwise specified, horizontal braces are 7/16"x 2½"x variable length flat steel bars. Bars are welded to pipe as shown. When fabrication is complete, posts shall be galvanized as per Section 630 of the Standard Specification.

Holes in flat bars are 3/8" diameter.

Signs are fastened to the flat bars and U-section posts with 5/16" bolts, with flat washers, and lock nuts.

When required, signs, R6-1L and R6-1R, are to be mounted on pipes with clamps or buckle brackets (NOT A PAY ITEM).

△2 All welds shall be 3/16" fillet.

MISSISSIPPI STATE HIGHWAY DEPARTMENT

STD. ROADSIDE SIGN ASSEMBLY AND INSTALLATION

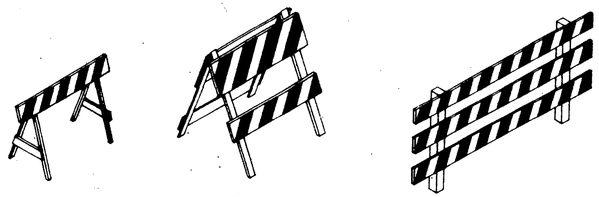
REVISIONS	BY	DATE
△3	JHS	7-1-80
△2	JHS	2-1-80
△1	ANK	3-3-80

DESIGNED ____ DETAILED ____ TRACED ____

CHECKED ____ ISSUED D.E.J. DATE 11-1-79

WORKING NUMBER SN-48

SHEET NUMBER 183.2



Type I Type II Type III

Standard Barricades

A Type I Barricade consists of one(1) horizontal rail supported by a demountable frame or a light "A" frame.

A Type II Barricade consists of two(2) horizontal rails on a light "A" frame.

A Type III Barricade consists of three (3) horizontal rails supported by fixed posts, a rigid skid, a heavy demountable frame or a heavy, hinged, "A" frame.

Type I and Type II Barricade are intended for use where the hazard is relatively small as, for example, on city streets, or for the more or less continuous delimiting of a restricted roadway, or for temporary daytime use.

NOTE: Do not place sandbags or other weighting devices on the bottom rail that will block view of rail face.

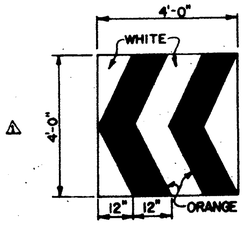
Type III Barricades are intended for use on construction and maintenance projects as wing barricades and at road closures, where they must remain in place for extended periods.

The marking for barricade rails shall be orange and white (sloping downward at an angle of 45 degrees in the direction traffic is to pass).

△4

FOR ADDITIONAL INFORMATION OR DETAILS SEE MUTCD SECTION 6-C.

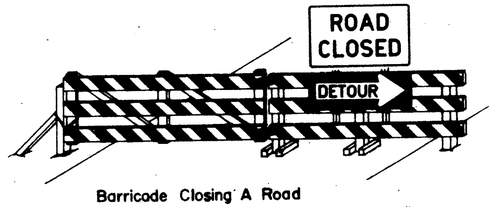
CHEVRON PANEL DETAIL



A Chevron Panel consists of chevron type markings of alternate orange and white and shall point in the direction of traffic flow.

The complete Chevron Panel shall be mounted on fixed post or rigid skid.

Chevron Panels may be used to supplement other standard devices when closing one or more lanes for construction or maintenance. They shall be placed approximately 2 feet behind lane transition stripe.



Barricade Closing A Road

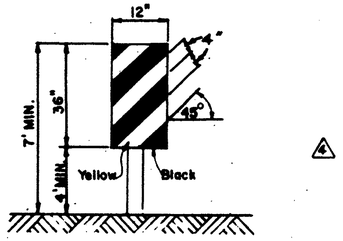
Barricade Characteristics

	I	II	III
Width of rail **	8" min. - 12" max.	8" min. - 12" max.	8" min - 12" max.
Length of rail **	2' min	2' min. △2	4' min
Width of stripe	6" **	6" **	6"
Height	3' min	3' min	5' min
Number of reflectorized rail faces	2(one each direction)	4(two each direction) △3	3 if facing traffic in one direction 6 if facing traffic in two directions
Type of frame	light	light "A" frame	post or skid

** For rails less than 3 feet long, 4 inch wide stripes shall be used.

△*** Barricades intended for use on expressway, freeways and other high speed roadways, shall have a minimum of 270 square inches of reflective area facing traffic.

TYPE 3 OBJECT MARKER
(OM-3R)

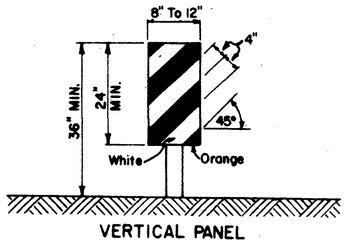


△4

Type 3 Object Markers shall be used at all exposed bridge abutments and at other locations as deemed necessary by the engineer.

The OM-3R is shown. The OM-3L is similar except the stripes slope downward from the upper left side to the lower right side and shall be placed on the left side of the object.

The inside edge of the marker shall be in line with the inner edge of the obstruction.



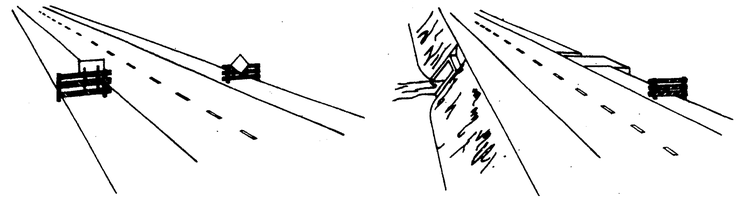
VERTICAL PANEL

Vertical panels consist of at least one panel 8" to 12" in width and a minimum of 24" in height. The diagonal stripes shall slope downward in the direction that traffic is to pass the panel. The panels shall be mounted with the top a minimum of 36" above the roadway on a single lightweight post.

NOTE: △5

Markings on all devices shown on this sheet shall be high intensity reflective sheeting.

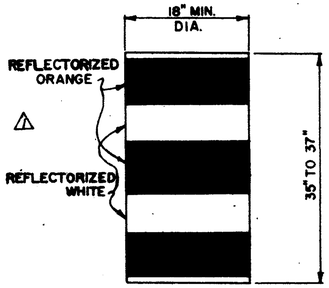
The Traffic Control Plan will list the various Traffic Control Devices required for each project.



Wing Barricades △5

△5

1. Wing barricades are Type III barricades erected on the shoulder on one or both sides of the pavement to give the sensation of a narrowing or restricted roadway. Wing barricades may be used as a mounting for the advance warning signs or flashers.
2. Wing barricades should be used
   a. In advance of a construction project even when no part of the roadway is actually closed.
   b. In advance of all bridge or culvert widening operations.



PLASTIC DRUM STRIPING DETAIL

△1 Plastic drums shall be on end and used as an expedient method for traffic channelization. The color and marking of drums shall be consistent with marking standards for barricade. The predominant color on drums shall be orange with four (4) reflectorized, horizontal, circumferential stripes (2 orange & 2 white) 6" wide.

△5 Drums should never be placed in the roadway without warning signs.

Where practical plastic drums shall be placed no closer than three (3) feet from the edge of traveled lane.

BY	REVISIONS	DATE
JJS		7-1-80
AWK		12-2-80
AWK		4-28-81
AWK		11-12-81
AWK		12-22-81

MISSISSIPPI STATE HIGHWAY DEPARTMENT

HIGHWAY SIGN AND BARRICADE DETAILS FOR CONSTRUCTION PROJECT

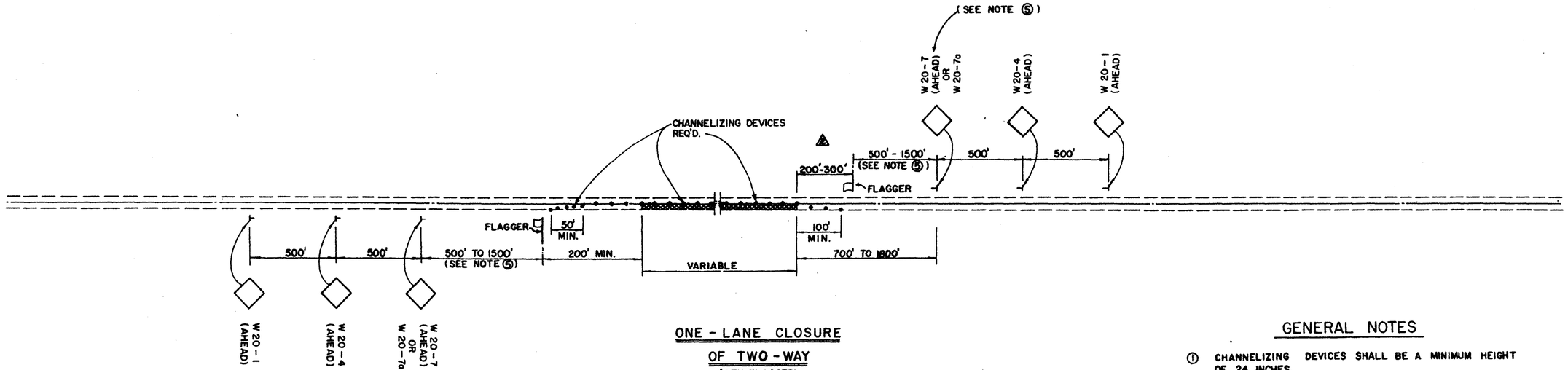
WORKING NUMBER SN-10

SHEET NUMBER 189

DESIGNED ____ DETAILED ____ TRACED ____

CHECKED ____ ISSUED D.B.V. DATE 2-2-82

STATE	PROJECT NO.
MISS.	



ONE - LANE CLOSURE

OF TWO - WAY

(WITH FLAGGER)

GENERAL NOTES

① CHANNELIZING DEVICES SHALL BE A MINIMUM HEIGHT OF 24 INCHES.

△3 ② DIAMOND SHAPED TRAFFIC CONTROL SIGNS SHALL BE A MINIMUM OF 48" x 48".

③ SPACING OF CHANNELIZING DEVICES ALONG LANE LINE AND WORK ZONE TO BE EQUAL TO THE POSTED SPEED (M.P.H.) IN FEET.

④ WHEN THERE IS NO EXISTING HAZARD OR AT THE END OF THE WORK DAY, ALL SIGNS SHALL BE COVERED OR REMOVED AND ALL CHANNELIZING DEVICES SHALL BE MOVED TO THE SHOULDER EDGE.

⑤ WHEN THE WORK ZONE IS STATIONARY, THE W20-7 OR W20-7a SIGN SHOULD BE PLACED 500' IN ADVANCE OF THE FLAGGER AND SHOULD INDICATE (500') AS THE DISTANCE.

△ ⑥ ALL TRAFFIC CONTROL ITEMS SHOWN ON THIS SHEET WILL NOT BE MEASURED FOR SEPARATE PAYMENT. THIS WORK IS TO BE INCLUDED IN THE PRICE BID FOR MAINTENANCE OF TRAFFIC.

BY	REVISIONS	DATE
JNS		7-7-86
AWK		6-18-86
AWK		6-18-86

MISSISSIPPI STATE HIGHWAY DEPARTMENT

TRAFFIC CONTROL PLAN

(ONE-LANE CLOSURE OF TWO-WAY TRAFFIC)

DESIGNED _____ DETAILED _____ TRACED _____

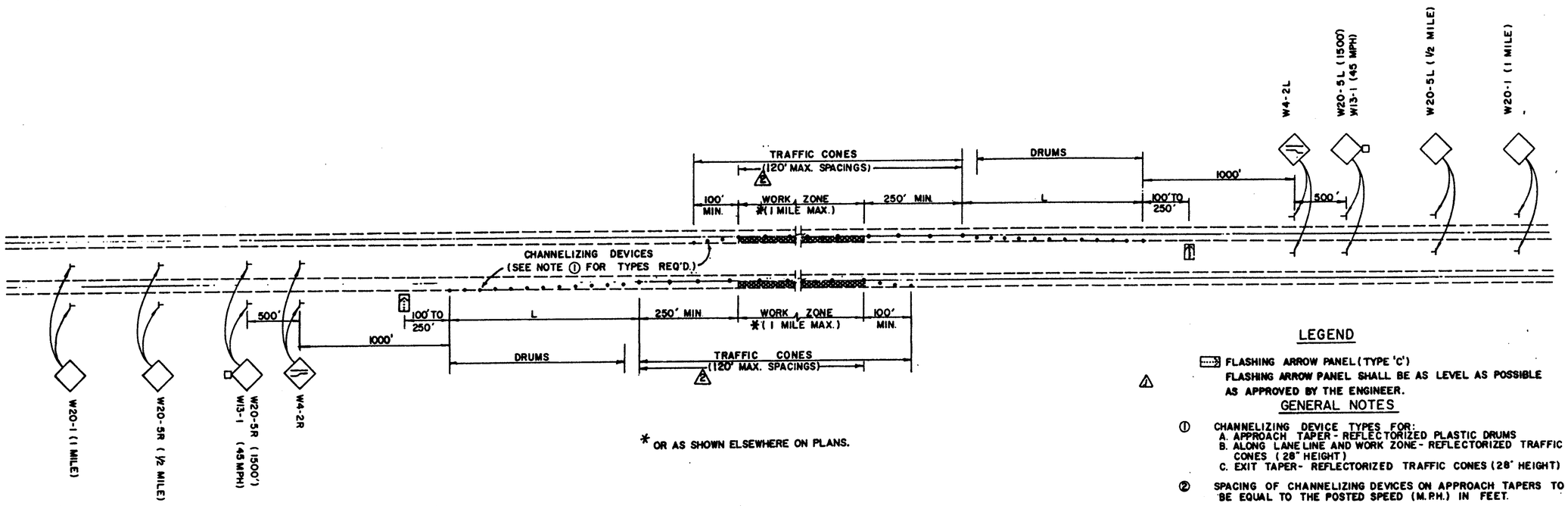
CHECKED _____ ISSUED _____ DATE 6-18-86

WORKING NUMBER TCP-1

SHEET NUMBER 190

BUILDING 44-141 30M69

STATE	PROJECT NO.
MISS.	



* OR AS SHOWN ELSEWHERE ON PLANS.

LEGEND

FLASHING ARROW PANEL (TYPE 'C')
FLASHING ARROW PANEL SHALL BE AS LEVEL AS POSSIBLE AS APPROVED BY THE ENGINEER.

GENERAL NOTES

① CHANNELIZING DEVICE TYPES FOR:
A. APPROACH TAPER - REFLECTORIZED PLASTIC DRUMS
B. ALONG LANE LINE AND WORK ZONE - REFLECTORIZED TRAFFIC CONES (28" HEIGHT)
C. EXIT TAPER - REFLECTORIZED TRAFFIC CONES (28" HEIGHT)

② SPACING OF CHANNELIZING DEVICES ON APPROACH TAPERS TO BE EQUAL TO THE POSTED SPEED (M.P.H.) IN FEET.

③ WHEN THERE IS NO EXISTING HAZARD, THE LANE CLOSURE (W20-5), LANE TRANSITION (W4-2), AND NO PASSING (R4-1) SIGNS ARE TO BE COVERED OR REMOVED AND THE DRUMS SHALL BE MOVED TO THE SHOULDER EDGE AT THE END OF THE WORK DAY.

④ $L = W \times S$ FOR SPEEDS OF 45 M.P.H. OR GREATER
$L = \frac{W \times S^2}{60}$ FOR SPEEDS OF 40 M.P.H. OR LESS

WHERE: L = MIN. LENGTH OF TAPER
W = WIDTH OF OFFSET (NORMALLY LANE WIDTH)
S = NUMERICAL VALUE OF POSTED SPEED LIMIT PRIOR TO WORK OR 85th PERCENTILE SPEED.

⑤ FOR MOVING OPERATIONS (PAVING), THE CONTRACTOR SHALL HAVE TWO (2) SETS OF ADVANCE WARNING SIGNS, PLASTIC DRUMS, AND ARROW BOARDS. WHEN THE CONSTRUCTION ZONE IS MOVED AHEAD, ALL SIGNS, PLASTIC DRUMS, AND ARROW BOARD SHALL BE IN PLACE ON THE SECOND ZONE BEFORE REMOVING ANY SIGNS, PLASTIC DRUMS, AND ARROW BOARD ON THE FIRST ZONE.

⚠ ⑥ ALL TRAFFIC CONTROL ITEMS SHOWN ON THIS SHEET WILL NOT BE MEASURED FOR SEPARATE PAYMENT. THIS WORK IS TO BE INCLUDED IN THE PRICE BID FOR MAINTENANCE OF TRAFFIC.

⚠ ⑦ DIAMOND SHAPED TRAFFIC CONTROL SIGNS SHALL BE A MINIMUM OF 48"x48". SPEED PLATES SHALL BE 24"x24".

MISSISSIPPI STATE HIGHWAY DEPARTMENT

TRAFFIC CONTROL PLAN

(4-LANE: MEDIAN LANE OR OUTSIDE LANE CLOSURE) (WORK DAY ONLY)

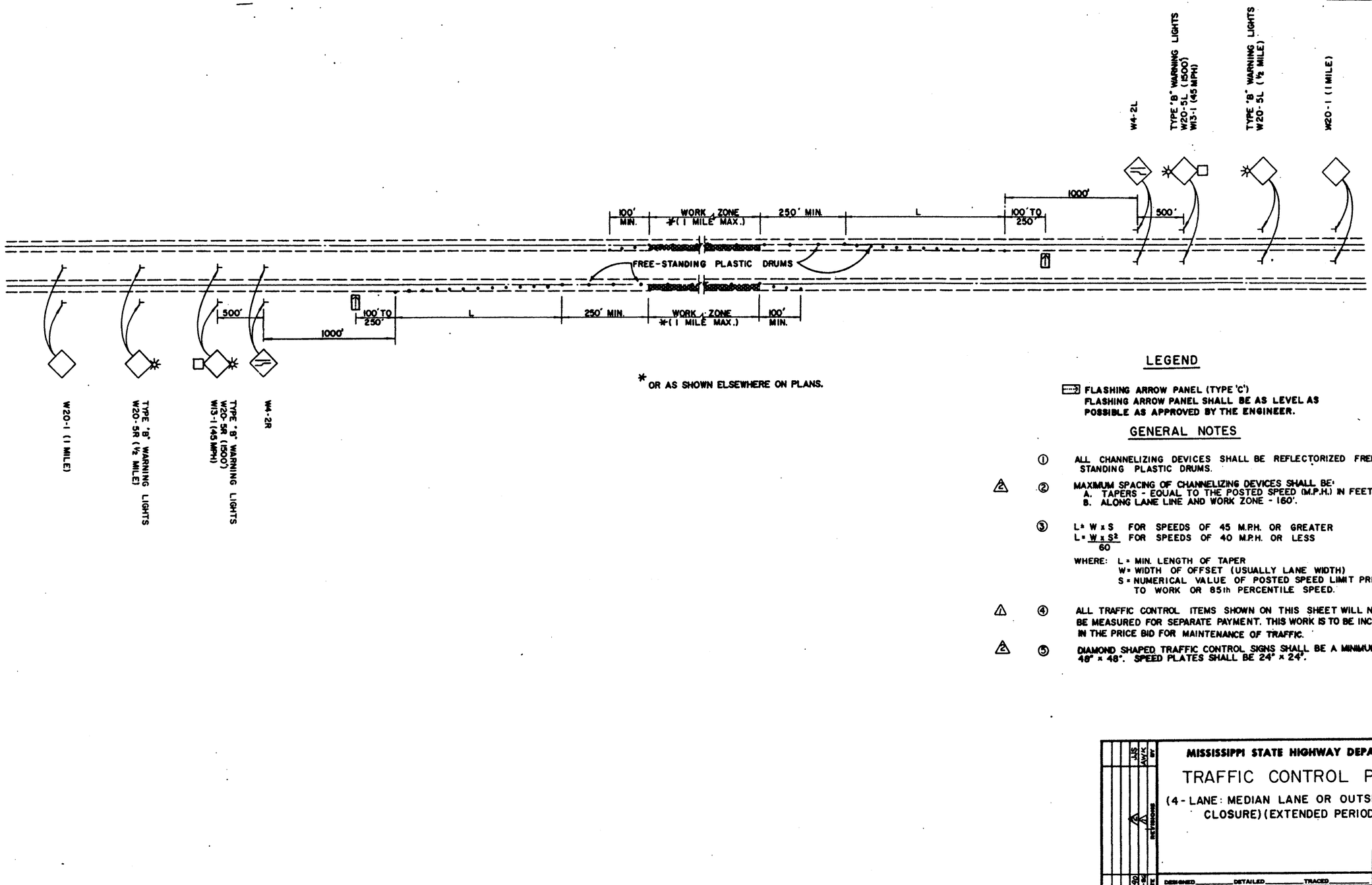
BY	DATE	REVISIONS
LHS	7-7-86	⚠
AWK	12-4-86	⚠

WORKING NUMBER	SHEET NUMBER
TCP-2	191

DESIGNED _____ DETAILED _____ TRACED _____
CHECKED _____ ISSUED _____ DATE 6-18-86

DRAWING 45-141 2M89

STATE	PROJECT NO.
MISS.	



* OR AS SHOWN ELSEWHERE ON PLANS.

LEGEND

FLASHING ARROW PANEL (TYPE 'C')
FLASHING ARROW PANEL SHALL BE AS LEVEL AS POSSIBLE AS APPROVED BY THE ENGINEER.

GENERAL NOTES

① ALL CHANNELIZING DEVICES SHALL BE REFLECTORIZED FREE-STANDING PLASTIC DRUMS.

② MAXIMUM SPACING OF CHANNELIZING DEVICES SHALL BE:
A. TAPERS - EQUAL TO THE POSTED SPEED (M.P.H.) IN FEET.
B. ALONG LANE LINE AND WORK ZONE - 160'.

③ $L = W \times S$ FOR SPEEDS OF 45 M.P.H. OR GREATER
$L = \frac{W \times S^2}{60}$ FOR SPEEDS OF 40 M.P.H. OR LESS

WHERE: L = MIN. LENGTH OF TAPER
W = WIDTH OF OFFSET (USUALLY LANE WIDTH)
S = NUMERICAL VALUE OF POSTED SPEED LIMIT PRIOR TO WORK OR 85th PERCENTILE SPEED.

④ ALL TRAFFIC CONTROL ITEMS SHOWN ON THIS SHEET WILL NOT BE MEASURED FOR SEPARATE PAYMENT. THIS WORK IS TO BE INCLUDED IN THE PRICE BID FOR MAINTENANCE OF TRAFFIC.

⑤ DIAMOND SHAPED TRAFFIC CONTROL SIGNS SHALL BE A MINIMUM OF 48" x 48". SPEED PLATES SHALL BE 24" x 24".

BY	DATE	REVISIONS
JHS	7-1-90	
AWK	8-1-96	

MISSISSIPPI STATE HIGHWAY DEPARTMENT

TRAFFIC CONTROL PLAN

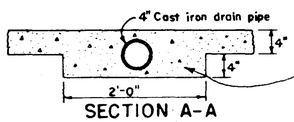
(4-LANE: MEDIAN LANE OR OUTSIDE LANE CLOSURE)(EXTENDED PERIOD)

DESIGNED _____ DETAILED _____ TRACED _____
CHECKED _____ ISSUED _____ DATE 6-18-96

WORKING NUMBER TCP-3

SHEET NUMBER 192

4" Cast iron drain pipe placed where designated elsewhere on plans or by the engineer. Payment for the pipe shall be made on a separate basis.



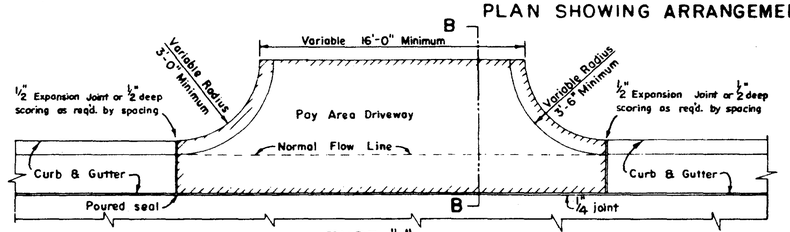
SECTION A-A

4" Extra depth shall be placed full width of sidewalk, where drain pipe passes through sidewalk. Payment shall be included in compensation for pipe.

NOTE- DRIVEWAY REINFORCEMENT SHALL BE ⚠ 6"x6" NO. 10/10 WIRE MESH WHEN REQ'D.

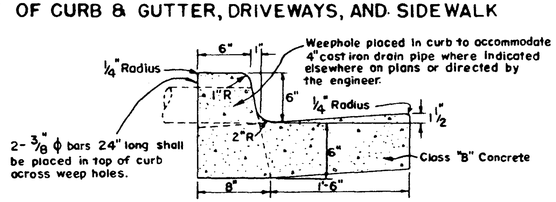
½" Expansion joint required at the ends of all radius returns, both sides of structures, and at 60' nominal spacing on straight runs. When curb and gutter is used with panel concrete pavement, spacing of expansion joints shall be adjusted to match joints in the pavement. The joints shall be formed of premolded joint filler cut to full cross-section and shall extend the full depth, width, and length of the construction. 1/2" deep scoring required at 20' spacing and on both sides of driveways.

PLAN SHOWING ARRANGEMENT OF CURB & GUTTER, DRIVEWAYS, AND SIDEWALK

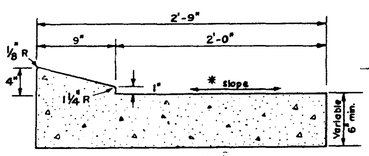


TYPE "1"
PLAN OF CONCRETE DRIVEWAY

11'-0" Length of curb returns
Driveway Area
11.058 Sq. Yds. for driveway 16'-0" in width
0.574 Sq. Yds. for each added or subtracted foot of width
Note: Above area is computed on basis of 3'-0" radius. Payment for curb return shall be included in compensation for driveway.

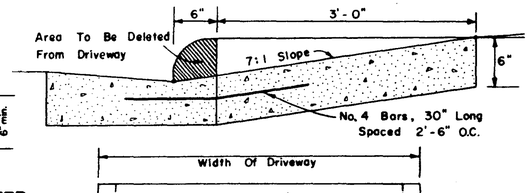


DETAIL OF COMBINATION CONCRETE CURB & GUTTER (TYPE "1")



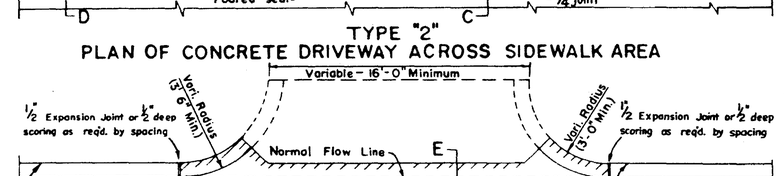
* As Applicable – 3/16"/Ft.; ¼"/Ft.; ½"/Ft; or S.E.

DETAIL OF COMBINATION CURB AND GUTTER (TYPE "2")



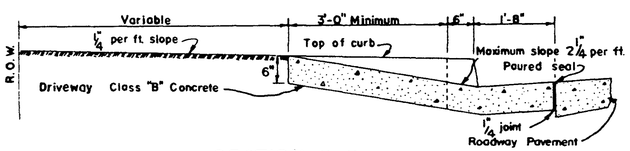
TYPE "2"
PLAN OF CONCRETE DRIVEWAY ACROSS SIDEWALK AREA

½" Expansion joint. The expansion joints shall be formed of premolded joint filler cut to full cross-section and shall extend to the full width and depth of construction.

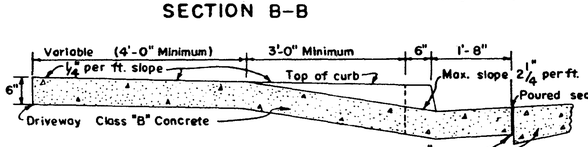


TYPE "3"
PLAN – CURB OMITTED FOR FUTURE DRIVEWAY CONSTRUCTION

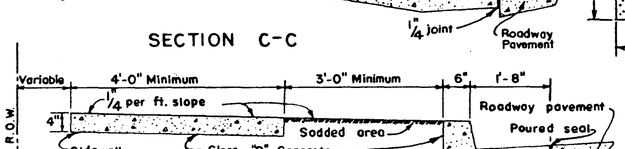
Note: This type construction shall be used where designated elsewhere on plans or by the engineer.



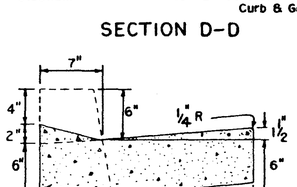
SECTION B-B



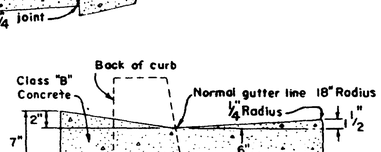
SECTION C-C



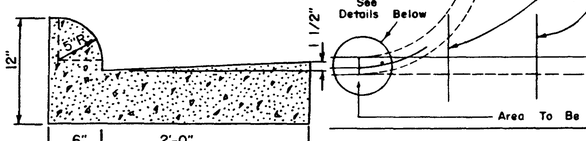
SECTION D-D



SECTION E-E

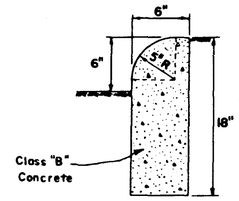


DETAIL OF VALLEY GUTTER



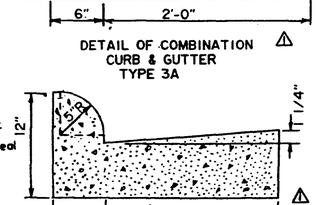
½" Joints formed with premolded filler, cut to cross-section (not a pay item).

ISOMETRIC HEADER CURB DETAIL SHOWING JOINTS



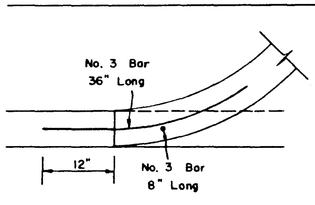
DETAIL OF HEADER CURB

Contraction joints required at 20' o.c.
Expansion joints required at 60' o.c.
Unless otherwise directed by engineer



DETAIL OF COMBINATION CURB & GUTTER TYPE 3A

DETAIL OF COMBINATION CURB & GUTTER TYPE 3B



PLAN | SECTIONAL ELEVATION

PERMISSIBLE DRIVEWAY CONSTRUCTION METHOD FOR SLIP-FORM PLACEMENT OF CURB & GUTTER

General Note: The standard specifications adopted by the Mississippi State Highway Department shall, unless otherwise specified herein, apply to all items included on this drawing.

MISSISSIPPI DEPARTMENT OF TRANSPORTATION ⚠

DRIVEWAYS, CURB & GUTTER, & SIDEWALK

REVISIONS	BY	DATE
⚠	S.H.R.	1-5-94

DESIGNED _____ DETAILED _____ TRACED _____
CHECKED _____ ISSUED D.B.J. DATE 11-1-72

WORKING NUMBER SD-1
SHEET NUMBER 213

CORRUGATED STEEL AND ALUMINUM PIPE (ROUND)

H-20 LOADING

PIPE[1] DIAMETERS (INCHES)	MINIMUM COVER TOP OF PIPE TO TOP OF SUBGRADE (INCHES)	MAXIMUM FILL HEIGHT ABOVE TOP OF PIPE (FEET) — METAL THICKNESS IN INCHES AND EQUIVALENT PIPE GAGE: 0.064 STEEL 0.060 ALUM. 16 GAGE	0.079 STEEL 0.075 ALUM. 14 GAGE	0.109 STEEL 0.105 ALUM. 12 GAGE	0.138 STEEL 0.135 ALUM. 10 GAGE	0.168 STEEL 0.164 ALUM. 8 GAGE
		2-2/3 INCH BY 1/2 INCH CORRUGATED STEEL RIVETED, WELDED, OR HELICAL / 3"x1" OR 5"x1" ⚠ CORRUGATED STEEL RIVETED, WELDED, HELICAL, OR BOLTED / 2-2/3-INCH BY 1/2 INCH CORRUGATED ALUMINUM RIVETED OR HELICAL				
12	12	84 / - / 45	91 / - / 45	- / - / 78	- / - / 81	- / - / 84
15	12	67 / - / -	73 / - / -	- / - / -	- / - / -	- / - / -
18	12	56 / - / 30	61 / - / 30	- / - / 52	- / - / 54	- / - / 56
24	12	42 / - / 22	46 / - / 22	59 / - / 39	- / - / 41	- / - / 42
30	12	34 / - / 18	36 / - / 18	47 / - / 31	- / - / 32	- / - / 34
36	12	28 / 48 / 15	30 / 60 / 15	39 / 78 / 26	41 / 89 / 27	- / 101 / 28
42	12	31 / 41 / -	43 / 51 / 26	46 / 64 / 43	48 / 71 / 43	50 / 79 / 44
48	12	27 / 36 / -	37 / 45 / -	45 / 57 / 40	46 / 61 / 41	47 / 66 / 43
54	12	- / 32 / -	33 / 40 / -	43 / 52 / 35	44 / 55 / 37	45 / 59 / 38
60	12	- / 29 / -	- / 36 / -	43 / 49 / -	43 / 51 / 33	44 / 54 / 34
66	12	- / 26 / -	- / 33 / -	42 / 47 / -	43 / 49 / 30	43 / 51 / 31
72	12	- / 24 / -	- / 30 / -	- / 44 / -	41 / 47 / -	43 / 49 / 29
78	12	- / 22 / -	- / 28 / -	- / 41 / -	- / 46 / -	39 / 47 / -
84	12	- / 21 / -	- / 26 / -	- / 38 / -	- / 45 / -	35 / 46 / -
90	12	- / 19 / -	- / 24 / -	- / 35 / -	- / 43 / -	- / 45 / -
96	12	- / 18 / -	- / 22 / -	- / 33 / -	- / 40 / -	- / 44 / -
102	24	- / 17 / -	- / 21 / -	- / 31 / -	- / 38 / -	- / 42 / -
108	24	- / - / -	- / 20 / -	- / 30 / -	- / 35 / -	- / 39 / -
114	24	- / - / -	- / 19 / -	- / 28 / -	- / 34 / -	- / 37 / -
120	24	- / - / -	- / - / -	- / 27 / -	- / 32 / -	- / 35 / -

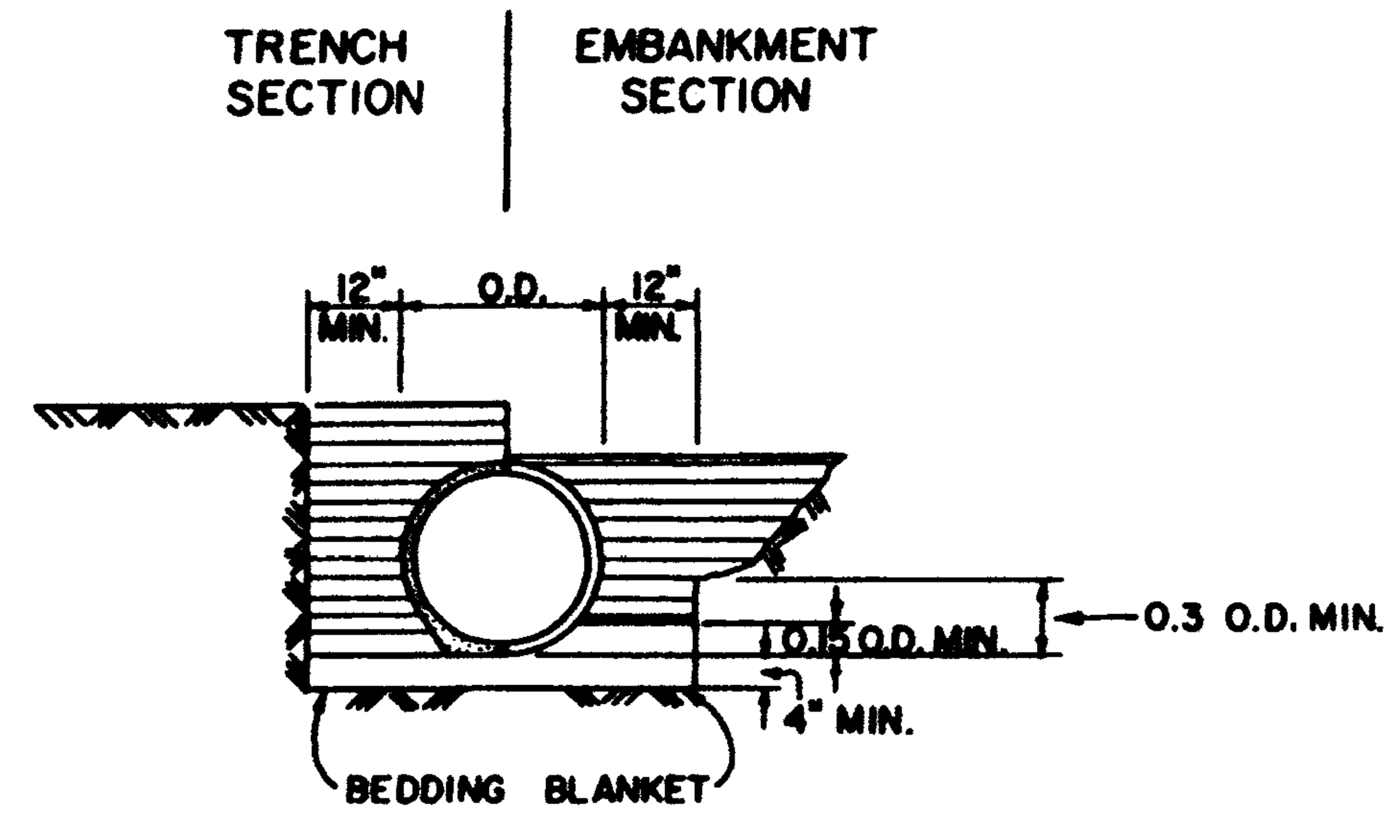
1. THE AVERAGE INSIDE DIAMETER SHALL NOT VARY MORE THAN ONE (1) PERCENT OR ONE-HALF INCH, WHICHEVER IS GREATER, FROM THE NOMINAL DIAMETER WHEN MEASURED ON THE INSIDE CREST OF THE CORRUGATIONS. AASHTO M36 & M196.

CORRUGATED METAL PIPE ARCHES H-20 LOADING

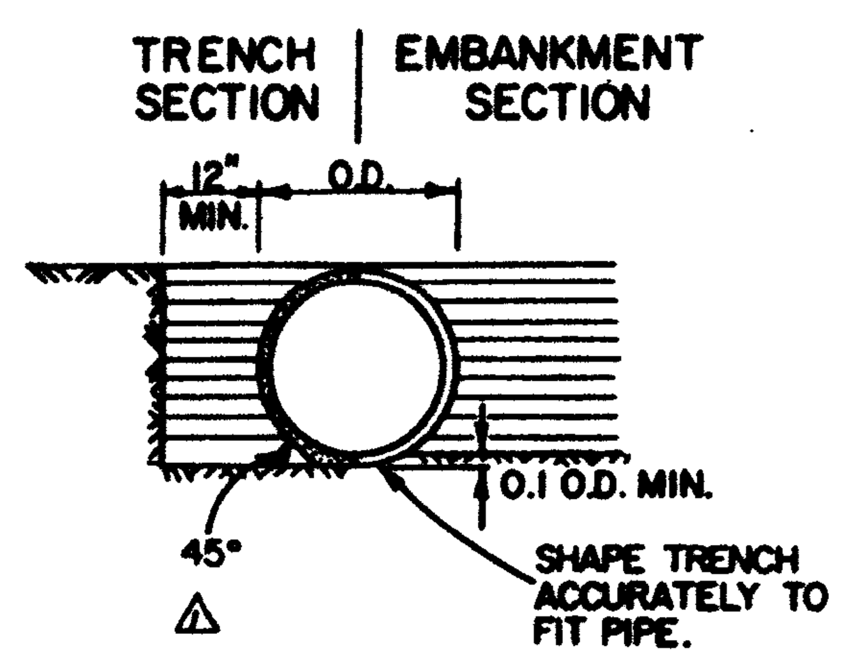
EQUIV. DIAMETER (INCHES)	PIPE DIMENSION (SPAN X RISE) (INCHES)	MINIMUM CORNER RADIUS (INCHES)	MINIMUM COVER (TOP OF PIPE TO TOP OF SUBGRADE FOR TWO (2) TONS PER SQ. FT.) (INCHES)	STEEL: MINIMUM THICKNESS REQUIRED	STEEL: MAXIMUM FILL HEIGHTS ABOVE TOP OF PIPE (IN FT.) FOR THE FOLLOWING CORNER BEARING PRESSURE IN TONS PER SQ. FT.: 2 TONS	3 TONS[2]	ALUMINUM: MINIMUM THICKNESS REQUIRED	ALUMINUM: MAX. FILL HEIGHTS ABOVE TOP OF PIPE (IN FT.) FOR THE FOLLOWING CORNER BEARING PRESSURE IN TONS PER SQ. FT.: 2 TONS	3 TONS[2]
			2-2/3-INCH BY 1/2 INCH CORRUGATION RIVETED, WELDED, OR HELICAL				2-2/3-INCH BY 1/2 INCH CORRUGATION RIVETED OR HELICAL		
15	17 x 13	3	18	0.064	13	15+	0.060	15	-
18	21 x 15	3	18	0.064	12	15+	0.060	14	-
24	28 x 20	3	18	0.064	10	15	0.060	10	15+
30	35 x 24	3	18	0.079	9	14	0.060	9	14
36	42 x 29	3.5	18	0.079	9	13	0.075	9	13
42	49 x 33	4	18	0.079	8	12	0.105	8	12
48	57 x 38	5	18	0.109	8	12	0.135	8	12
54	64 x 43	6	18	0.109	8	12	0.135	8	12
60	71 x 47	7	18	0.138	8	12	0.164	8	12
66	77 x 52	8	18	0.168	8	12			
72	83 x 57	9	18	0.168	9	13			
			5 INCH BY 1 INCH OR 3-INCH BY 1 INCH CORRUGATION RIVETED, WELDED, OR HELICAL ⚠						
36	40 x 31	5	18	0.079	12	15+			
42	46 x 36	6	18	0.079	12	15+			
48	53 x 41	7	18	0.079	12	15+			
54	60 x 46	8	18	0.079	12	15+			
60	66 x 51	9	18	0.079	12	15+			
66	73 x 55	12	18	0.079	15+	-			
72	81 x 59	14	18	0.079	15	-			
78	87 x 63	14	18	0.079	14	15+			
84	95 x 67	16	18	0.109	13	15+			
90	103 x 71	16	24	0.109	12	15+			
96	112 x 75	18	24	0.109	11	15+			
102	117 x 79	18	24	0.109	10	15			
108	128 x 83	18	24	0.138	9	14			

1. A tolerance of plus or minus one inch or two (2) per cent of equivalent diameter, whichever is greater, is permissible in span and rise. AASHTO M36 and M 196.

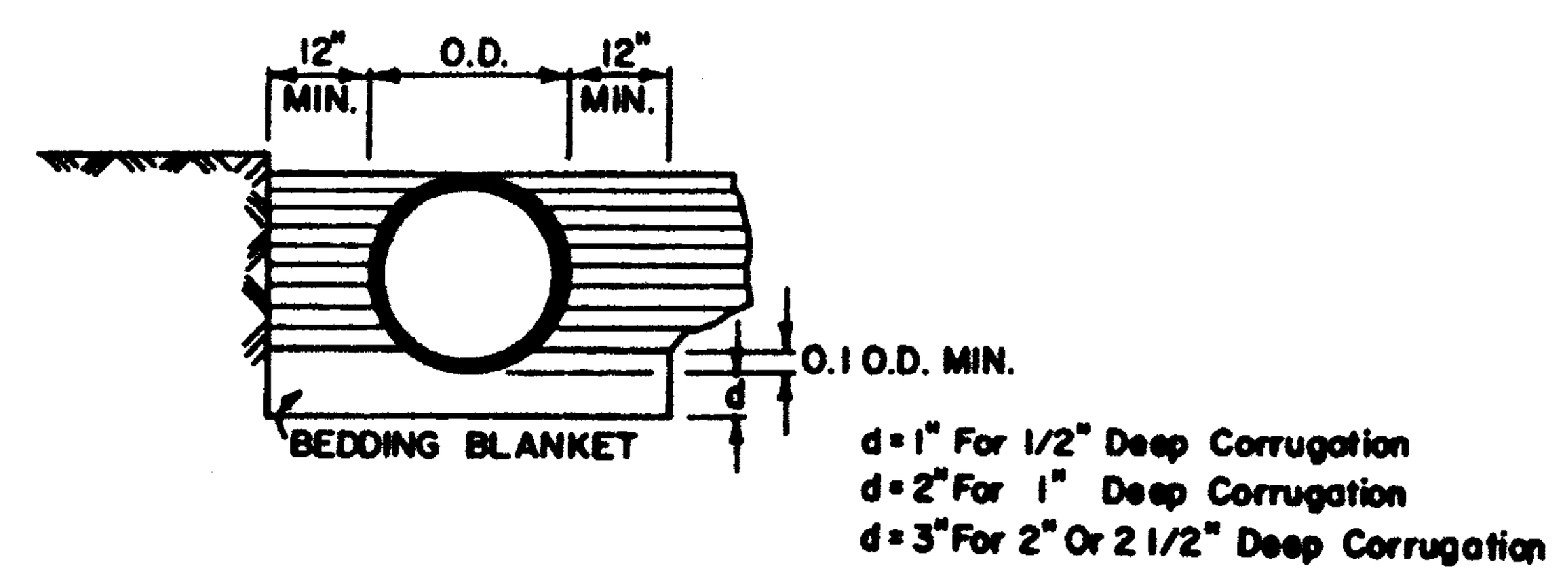
2. Bearing pressures exceeding two (2) tons per square foot required for given fill height shall have foundation material investigated to determine bearing capacity.



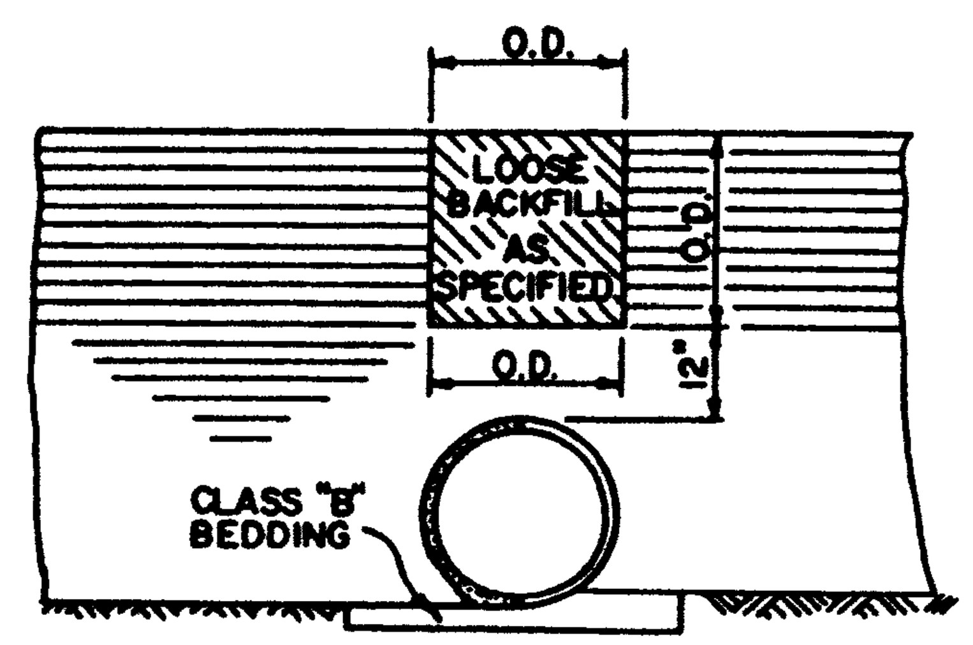
CLASS B



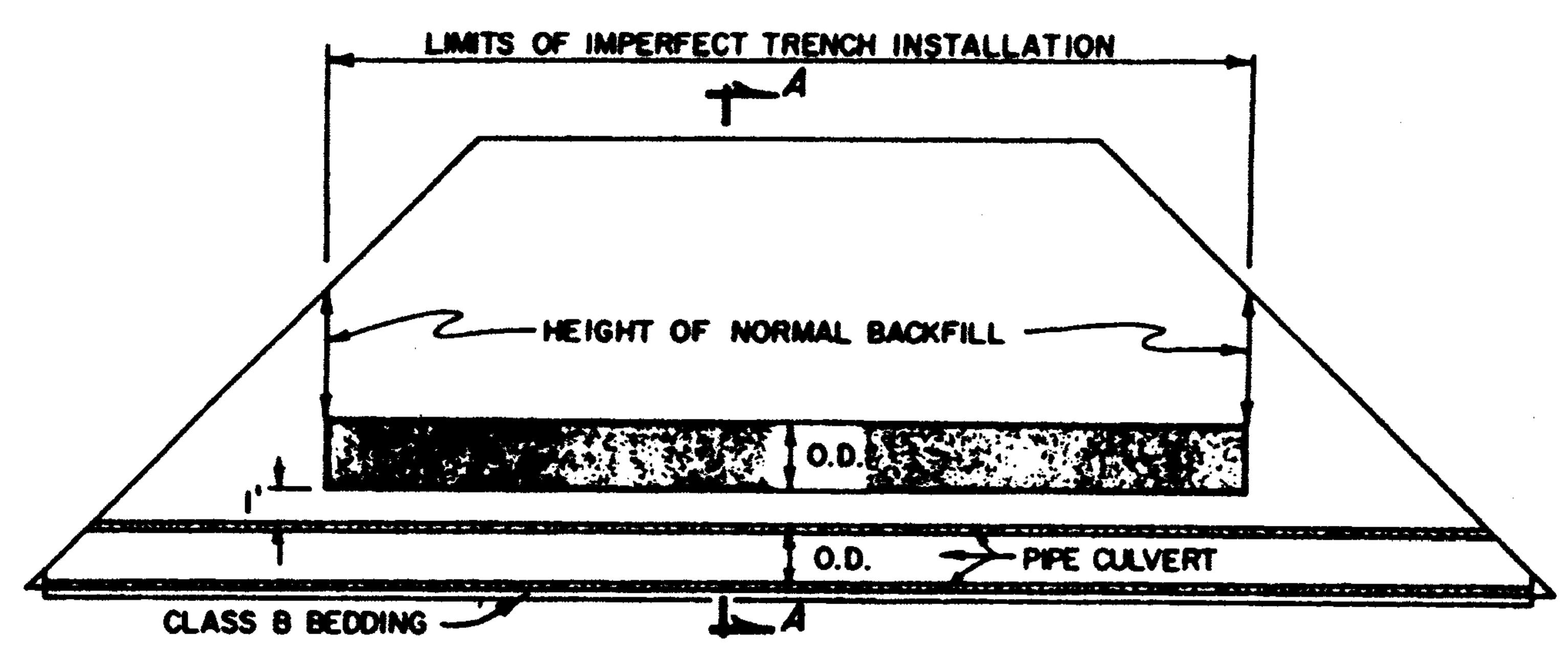
CLASS C



CLASS C MODIFIED



SECTION A-A
IMPERFECT TRENCH INSTALLATION



IMPERFECT TRENCH INSTALLATION

MAXIMUM HEIGHT OF FILL OVER REINFORCED CONCRETE PIPE

CLASS OF PIPE	TYPE OF BACKFILL	MAXIMUM COVER (FEET): CLASS "C" BEDDING	CLASS "B" BEDDING
III	NORMAL	16	
IV	NORMAL	23	28
V	NORMAL	30	36
IV	IMPERFECT		90
V	IMPERFECT		115

CLASS OF PIPE AND BEDDING TO BE CONSISTENT THROUGHOUT THE PIPE LENGTH.

MAXIMUM HEIGHT OF FILL OVER VITRIFIED CLAY PIPE (EXTRA STRENGTH ONLY)

PIPE SIZE (In.)	MAXIMUM COVER (FEET): CLASS "C" BEDDING	CLASS "B" BEDDING
15	11	13
18	11	13
24	13	14
30	13	14

MAXIMUM HEIGHT OF FILL OVER CLASS 2 NONREINFORCED CONCRETE PIPE, PERFORATED AND/OR PLAIN, FOR UNDERDRAINS

PIPE SIZE (In.)	MAXIMUM COVER (Feet) - BEDDING CLASS "C" / CLASS "B": TRENCH B_d (Ft)	TRENCH: SAND & GRAVEL	TRENCH: DAMP CLAY	PROJECTING POSITIVE p=0.7; r_{sd}=0.7
4	2.00	*	*	34 / 42
6	2.00	*	*	25 / 30
8	2.25	*	16 / *	19 / 24
10	2.50	*	12 / 20	16 / 19
12	2.75	*	12 / 18	14 / 17

*Indicates no limit of fill height (w = 130 lbs./ft.^{3}).
Trench width (B_d) no greater than 16 inches plus O.D. of pipe.
Factor of safety is 1.25 on minimum ultimate strength.
Minimum cover for highway loads is 18 inches.
Perforated pipe shall be Type 1.

GENERAL NOTES

1. MINIMUM SPACING BETWEEN MULTIPLE LINES OF PARALLEL PIPE SHALL BE THE DISTANCE REQUIRED FOR INSTALLING THE ADJACENT FLARED END SECTIONS OR AS SHOWN ON THE HEADWALL DRAWINGS FOR CONDUITS REQUIRING HEADWALLS.

2. MINIMUM PIPE COVER--UNLESS OTHERWISE INDICATED, THE TOP OF THE PIPE SHALL BE BELOW THE TOP OF THE SUBGRADE, AND A MINIMUM OF 12 INCHES OF COVER OVER THE TOP OF THE PIPE SHALL BE MAINTAINED BETWEEN THE SHOULDER LINES.

⚠ 3. WHEN PRE-BED PIPE IS INSTALLED, FLARED END SECTIONS FROM OTHER MANUFACTURERS MAY BE JOINED TO PRE-BED PIPE PROVIDED A CONCRETE COLLAR IS PLACED AT THE CONTRACTOR'S EXPENSE, AND A DEFORMATION TO THE PIPE'S FLOWLINE IS NOT EVIDENT ON FINAL PLACEMENT.

REVISIONS		
⚠	AWK	BY
12-22-89		DATE

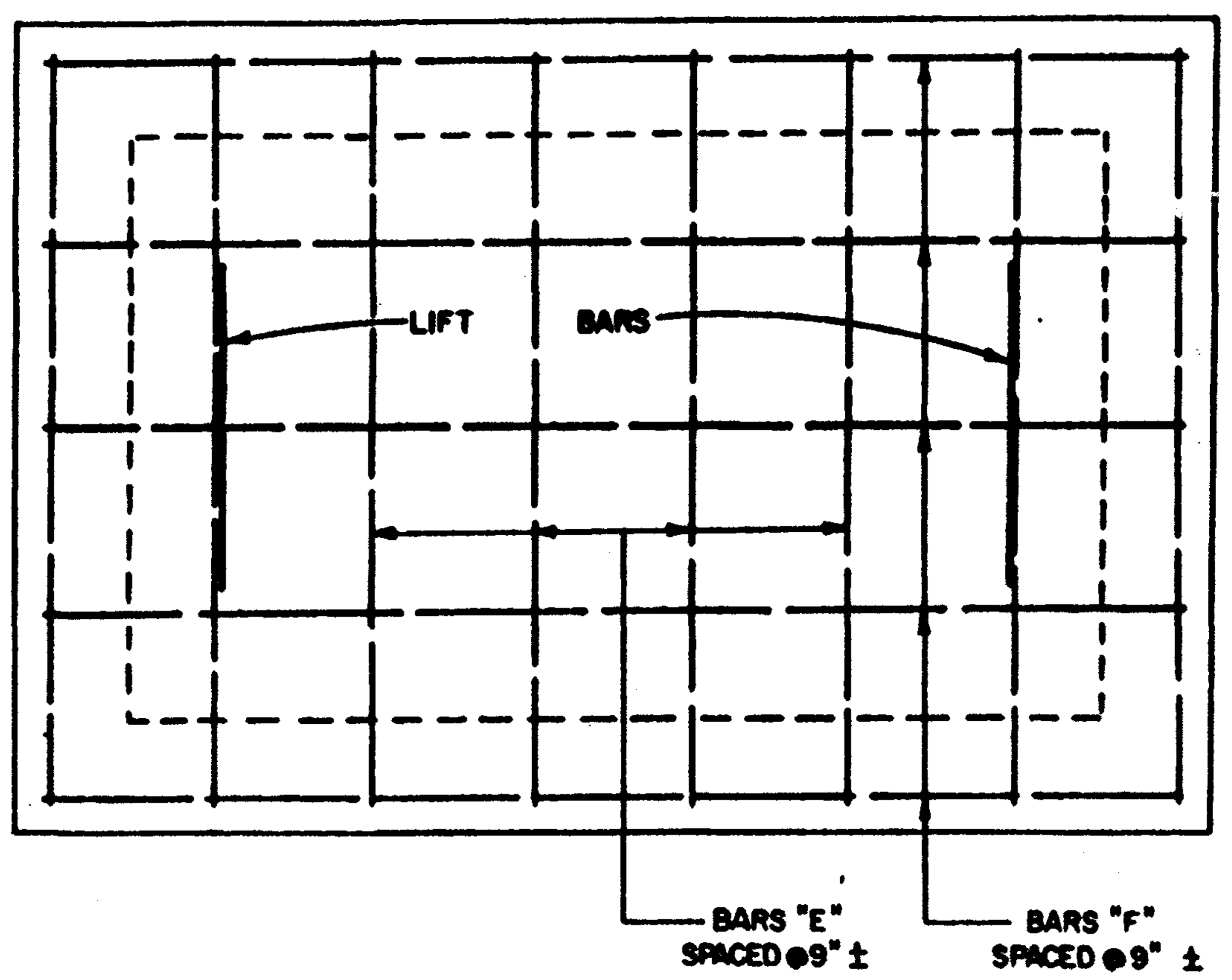
MISSISSIPPI STATE HIGHWAY DEPARTMENT

PIPE CULVERT INSTALLATION

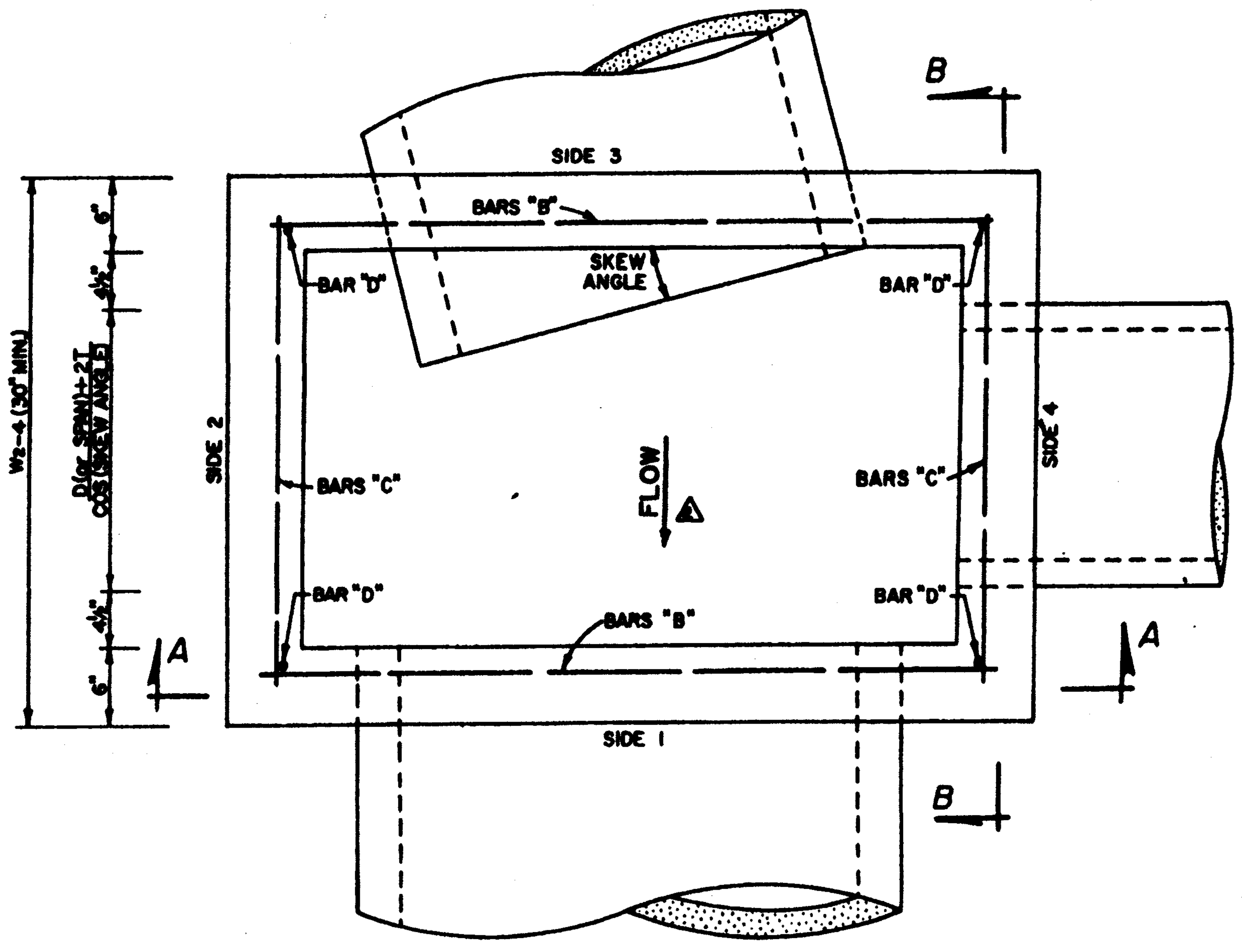
DESIGNED ______ DETAILED ______ TRACED ______
CHECKED ______ ISSUED D.B.J. DATE 11-1-79

WORKING NUMBER PI-1

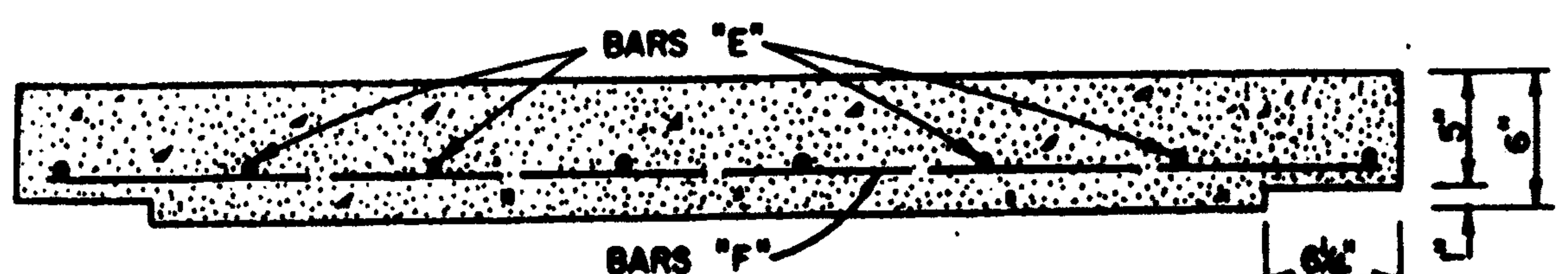
SHEET NUMBER 225



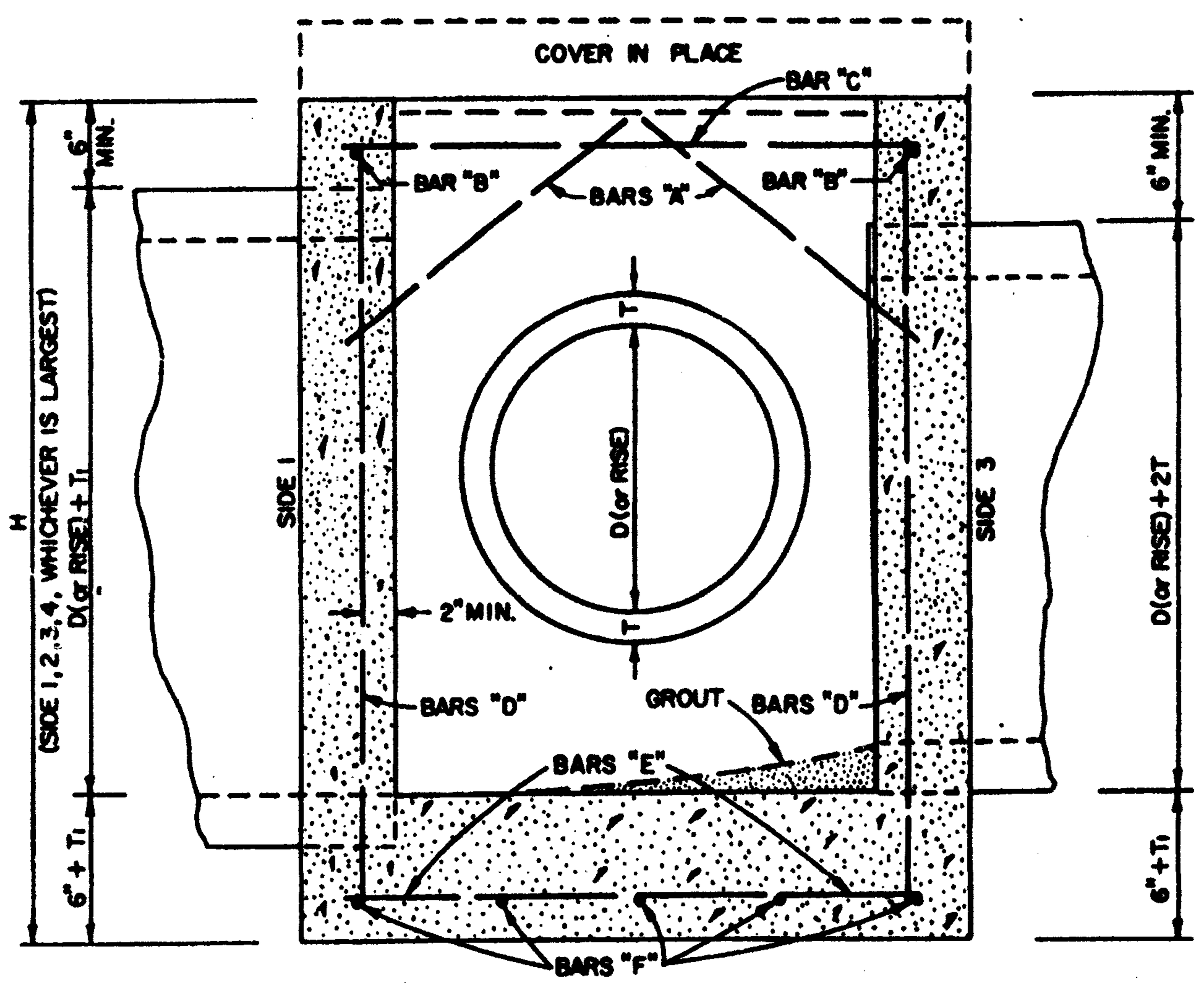
PLAN OF COVER



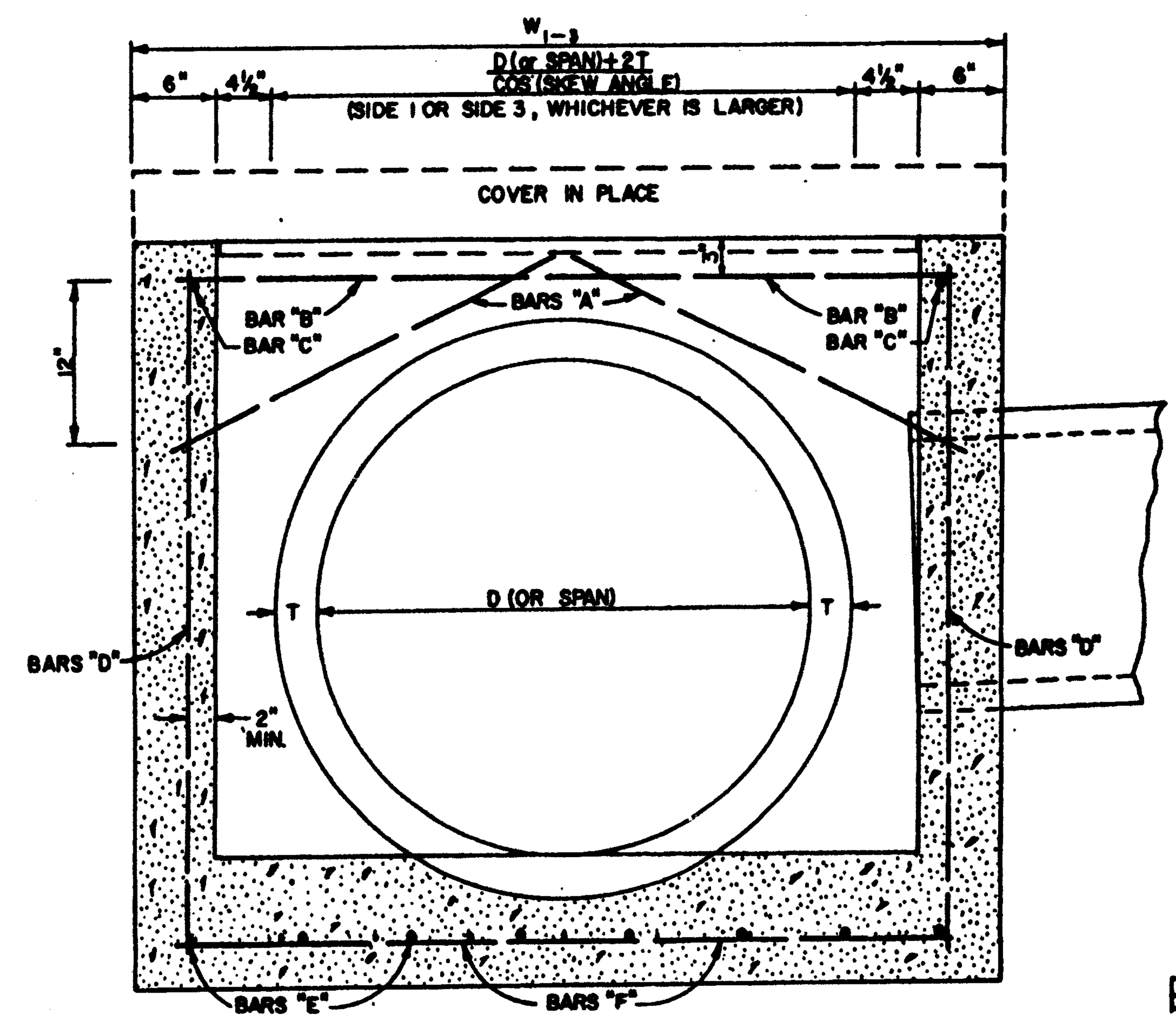
PLAN



ELEVATION OF COVER



SECTION B-B



SECTION A-A

BAR LIST		
BAR	NUMBER REQUIRED	LENGTH (INCHES)
A	2 PER PIPE OPENING	$\sqrt{196+\left(\frac{W_\phi}{2}+2\right)^2}$
B	2	$W_{1-3}-6$
C	2	$W_{2-4}-6$
D	4	$H-6$
E	$2\left[\left(\frac{W_{1-3}}{9}\right)^{**}+1\right]$	$W_{2-4}-4$
F	$2\left[\left(\frac{W_{2-4}}{9}\right)^{**}+1\right]$	$W_{1-3}-4$

WHERE: D (or SPAN) = PIPE DIAMETER (or SPAN) (INCHES)
W_{1-3} = WIDTH OF SIDE 1 & SIDE 3 (INCHES)
W_{2-4} = WIDTH OF SIDE 2 & SIDE 4 (INCHES)
W_ϕ = W_{1-3} OR W_{2-4} (SIDE OF ENTERING PIPE)
** ROUND TO NEAREST WHOLE NUMBER

$$\text{CL. "B" CONC. (CY)} = \frac{[5W_{1-3}W_{2-4}]+[(W_{1-3}-12.5)(W_{2-4}-12.5)]+[(T_1+6)W_{1-3}W_{2-4}]+12[H-(T_1+6)][(W_{1-3}-12)+W_{2-4}]}{46,656}$$

(MINUS) DEDUCTIONS FOR PIPE OPENINGS (C.Y.)

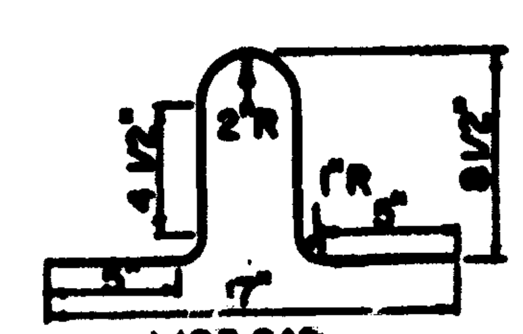
REINFORCING STEEL QUANTITIES TO BE COMPUTED FROM BAR LIST AND SHOWN ELSEWHERE ON THE PLANS.

REINFORCING STEEL FOR 2 LIFT BARS = 4 LBS.

COMMON PIPE SIZE					
CIRCULAR PIPE			ARCH PIPE		
PIPE SIZE	"T" THICKNESS INCHES	PIPE OPENING DEDUCTION (C.Y.)	PIPE SIZE	"T" THICKNESS INCHES	PIPE OPENING DEDUCTION (C.Y.)
18"	2 1/2	0.053	22"x13"	2½	0.063
24"	3	0.091	29"x18"	3	0.087
30"	3 1/2	0.138	36"x23"	3½	0.129
36"	4	0.196	44"x27"	4	0.185
42"	4 1/2	0.263	51"x31"	4½	0.245
48"	5	0.340	58"x36"	5	0.318
54"	5½	0.427	65"x40"	5½	0.394
60"	6	0.524	73"x45"	6	0.469
66"	6½	0.630			
72"	7	0.747			

GENERAL NOTES

1. QUANTITIES FOR JUNCTION BOXES SHOWN ON THE PLANS WILL BE THE BASIS FOR PAYMENT UNLESS AUTHORIZED MODIFICATIONS ARE MADE.
2. CONCRETE SHALL BE CLASS "B" AND REINFORCING STEEL SHALL BE DEFORMED BARS, SIZE #4.
3. SIDE 1 OF THE JUNCTION BOX WILL ALWAYS BE THE OUTFLOW SIDE.
4. IF PIPES ARE SKEWED MORE THAN 15° OR IF SKEWED PIPES PRODUCE CONFLICTS WITH ANOTHER OPENING, THE PIPE SHALL BE BROKEN BACK TO THE WALL OF THE JUNCTION BOX.



LIFT BAR
OVERALL LENGTH = 30"
2 REQ'D

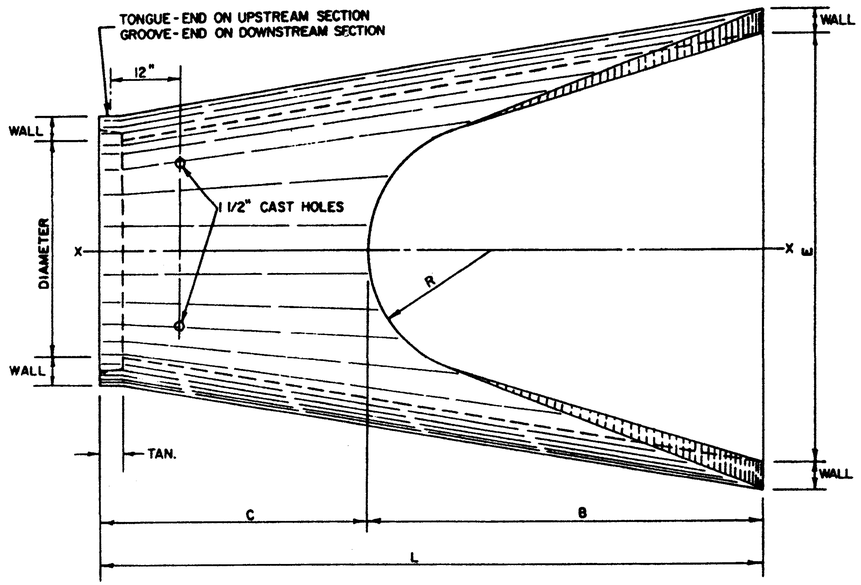
MISSISSIPPI DEPARTMENT OF TRANSPORTATION

JUNCTION BOX FOR PIPE CULVERTS

REVISIONS: GENERAL; BY: A.W.K.; AWK

DESIGNED ____ DETAILED ____ TRACED ____
CHECKED ____ ISSUED D.B.J. DATE 11-1-79

WORKING NUMBER JB-1
SHEET NUMBER 227



PLAN
(DRAWN FOR DOWNSTREAM SECTION)

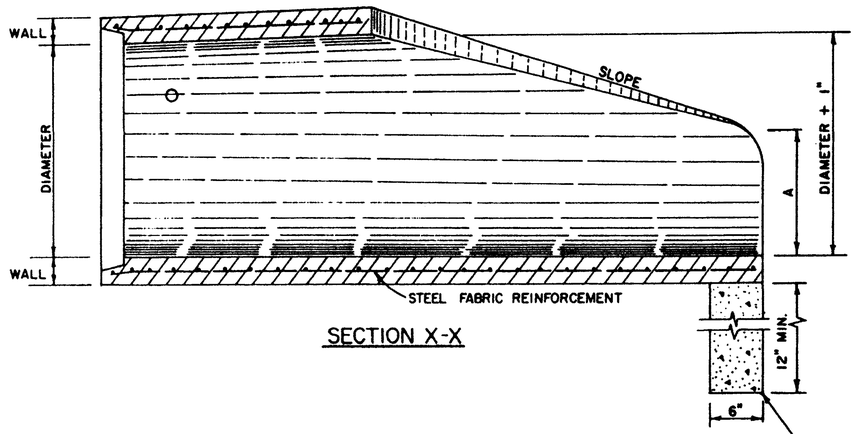
TABLE OF DIMENSIONS							
DIA.	WALL	SLOPE	A	B	C	E	L
15"	2 1/4"	3:1	6"	2'-3"	4'-1"	2'-8"	6'-1"
18"	2 1/2"	3:1	9"	2'-3"	3'-10"	3'-0"	6'-1"
24"	3"	3:1	10"	3'-8"	2'-6"	4'-0"	6'-2"
30"	⚠ 3 1/2"	3:1	1'-0"	4'-6"	1'-8"	5'-0"	6'-2"
36"	4"	3:1	1'-3"	5'-3"	2'-11"	6'-0"	8'-2"
42"	4 1/2"	3:1	1'-9"	5'-3"	2'-11"	6'-6"	8'-2"
48"	5"	3:1	2'-0"	6'-0"	2'-2"	7'-0"	8'-2"
54"	5 1/2"	3:1	2'-4"	6'-6"	1'-10"	7'-6"	8'-4"
② 60"	6"	3:1	2'-10"	6'-6"	1'-10"	8'-0"	8'-4"
② 66"	6 1/2"	3:1	3'-4"	6'-6"	1'-10"	8'-6"	8'-4"
② 72"	7"	3:1	3'-10"	6'-6"	1'-10	9'-0"	8'-4"

⚠ TOE WALL QUANTITY CL. "B" CONC. (C.Y.)
0.056
0.063
0.083
0.102
0.123
0.134
0.145
0.156
0.167
0.177
0.188

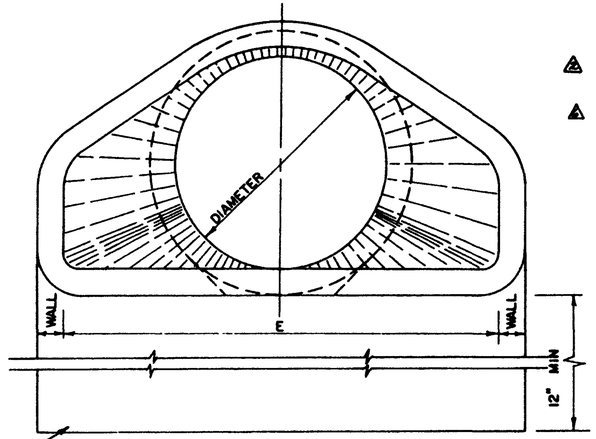
⚠

GENERAL NOTES

1. REINFORCEMENT SHALL CONFORM TO THE REQUIREMENTS OF REINFORCED CONCRETE PIPE OF LIKE DIAMETER PER AASHTO DESIGNATION M170, TABLE 2, WALL B.
2. 2-1 1/2" ϕ CAST HOLES REQUIRED AS SHOWN TO ACCOMMODATE 2-1" ϕ TIE BOLTS, USED IN TIEING SECTION TO PIPE CULVERT.
3. ⚠ LENGTH (L) OF A BELL-END OPTION MAY VARY BY A NOMINAL EXTENSION ON THE BELL END.
4. ⚠ FLARED END SECTIONS ARE NOT TO BE USED INSIDE THE CLEAR ZONE.



SECTION X-X



END ELEVATION

⚠ TOE WALL REQUIRED ON ALL DOWNSTREAM FLARED END SECTIONS. TOE WALL AT UPSTREAM END WILL BE CONSTRUCTED WHERE DIRECTED BY THE ENGINEER. TO BE PAID FOR AS CLASS "B" STRUCTURAL CONCRETE - MINOR STRUCTURES.

BY	REVISIONS	DATE
AWK	⚠ REVISED NOTE	1-5-96
AWK	ADDED 18"-912E	11-8-94
AWK	ADDED NOTE	7-1-91
AWK	GENERAL	11-4-87
AWK		8-5-85
AWK		9-5-80
JJS		1-8-79
SMB		

MISSISSIPPI DEPARTMENT OF TRANSPORTATION ⚠

FLARED END SECTION

FOR CONCRETE PIPE

WORKING NUMBER FE-1

SHEET NUMBER 244

DESIGNED ____ DETAILED ____ TRACED ____

CHECKED ____ ISSUED O.B.J. DATE 11-1-79

80-6-10 FXE 108 3918