DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RO. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB0405	1	29
				(2)	OKLAHOMA STATE LINE-HWY. 71(S)			

"A FULLY CONTROLLED ACCESS FACILITY"

ARKANSAS STATE HIGHWAY AND TRANSPORTATION DEPARTMENT

CONSTRUCTION PLANS FOR STATE HIGHWAY

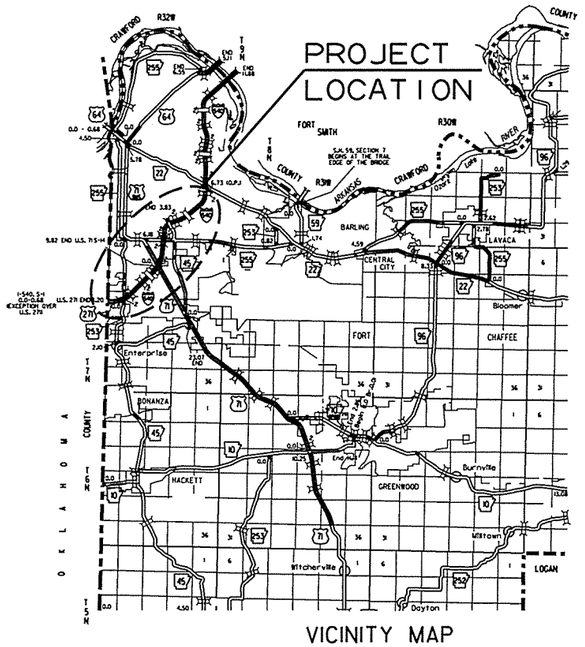
OKLAHOMA STATE LINE-HWY. 71 (S)

SEBASTIAN COUNTY

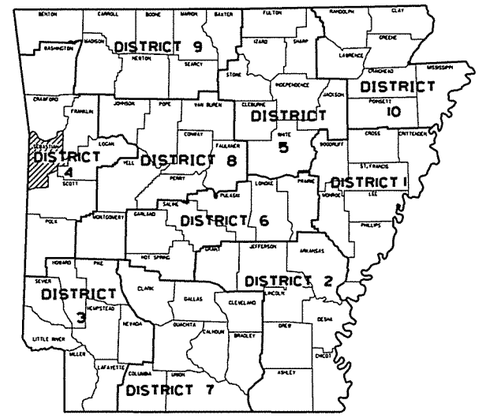
ROUTES 271 & 540 SECTIONS 1 & 1

JOB NO. BB0405

FED. AID PROJ. BIM-B540(201) & NHPP-9150(28)



VICINITY MAP



ARK. HWY. DIST. NO. 4

DESIGN TRAFFIC DATA

DESIGN YEAR	2015
2015 ADT	32500
2035 ADT	47000
2035 DHV	5170
DIRECTIONAL DISTRIBUTION	0.60
TRUCKS	5%
DESIGN SPEED	70 MPH

EXCEPTIONS TO JOB NO. BB0405 (BRIDGES)

1. STA. 34+50.24 BR. END
   185.58' BRIDGE NO. 5103B
   41'-6" CLEAR ROADWAY
   STA. 36+35.82 BR. END
2. STA. 34+73.13 BR. END
   185.58' BRIDGE NO. 5103A
   41'-6" CLEAR ROADWAY
   STA. 36+58.71 BR. END
3. STA. 87+66.28 BR. END
   78.09' BRIDGE NO. 5629A
   41'-6" CLEAR ROADWAY
   STA. 88+44.37 BR. END
4. STA. 87+66.28 BR. END
   78.09' BRIDGE NO. 5629B
   41'-6" CLEAR ROADWAY
   STA. 88+44.37 BR. END
5. STA. 135+47.18 BR. END
   347.38' BRIDGE NO. 5102B
   41'-6" CLEAR ROADWAY
   STA. 138+94.56 BR. END
6. STA. 135+69.42 BR. END
   347.39' BRIDGE NO. 5102A
   41'-6" CLEAR ROADWAY
   STA. 139+16.81 BR. END

TOTAL LENGTH OF EXCEPTIONS
611.05' MEASURED ALONG CENTERLINE

STRUCTURES OVER 20'-0" SPAN

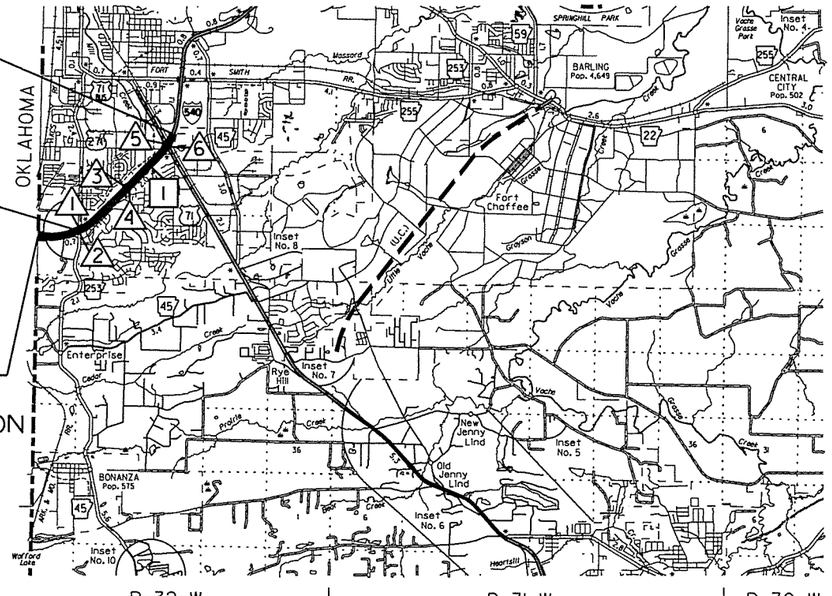
[1] STA. 125+62 IN PLACE
TRIPLE 7' X 4' X 311' R.C. BOX CULV'T
10°42' LT. FWD. SKEW
WITH TYPE A DROP INLET 2.7' LT.
RETAIN

STA. 145+38.52
END JOB BB0405
END I-540 SECTION
LOG MILE 2.75

STA. 34+50.24
END HWY. 271 SECTION
BEGIN I-540 SECTION
LOG MILE 0.65

STA. 0+05.00
BEGIN JOB BB0405
BEGIN HWY. 271 SECTION
LOG MILE 3.20

"NOT TO SCALE"



LENGTH OF PROJECT CALCULATED ALONG C.L.

GROSS LENGTH OF	PROJECT	14533.52	FEET	OR	2.753	MILES
NET	"	"	ROADWAY	13922.47	"	"	2.637	"
NET	"	"	BRIDGES	0.00	"	"	0.000	"
NET	"	"	PROJECT	13922.47	"	"	2.637	"

BEGINNING OF PROJECT	MID POINT OF PROJECT	END OF PROJECT
LATITUDE = N 35°17'31" LONGITUDE = W 94°26'06"	LATITUDE = N 35°17'59" LONGITUDE = W 94°24'51"	LATITUDE = N 35°18'51" LONGITUDE = W 94°23'52"

APPROVED

STATE OF ARKANSAS
M. E. BANKS
REGISTERED PROFESSIONAL ENGINEER
No. 7836
M.E. BANKS

12-19-14

DEPUTY DIRECTOR AND CHIEF ENGINEER

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
1-15-15				6	ARK.			
				JOB NO.		BB0405	2	29

(2) INDEX OF SHEETS, GOV. SPECS. & GEN. NOTES

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
1-15-15

INDEX OF SHEETS

GENERAL NOTES

1. ALL PIPE LINES, POWER, TELEPHONE, AND TELEGRAPH LINES TO BE MOVED OR LOWERED BY THE RESPECTIVE OWNERS AS PER AGREEMENT WITH SUCH OWNERS.

2. ANY EQUIPMENT OR APPURTENANCE THAT INTERFERES WITH THE PROPOSED CONSTRUCTION AND WHICH MAY BE THE PROPERTY OF UTILITY SERVICE ORGANIZATIONS SHALL BE MOVED BY THE OWNERS UNLESS OTHERWISE PROVIDED.

3. ALL LAND MONUMENTS LOCATED WITHIN THE CONSTRUCTION AREA SHALL BE PROTECTED IN ACCORDANCE WITH SECTION 107.12 OF THE STANDARD SPECIFICATIONS.

GOVERNING SPECIFICATIONS

ARKANSAS STATE HIGHWAY COMMISSION STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION, EDITION OF 2014, AND THE FOLLOWING SPECIAL PROVISIONS AND SUPPLEMENTAL SPECIFICATIONS:

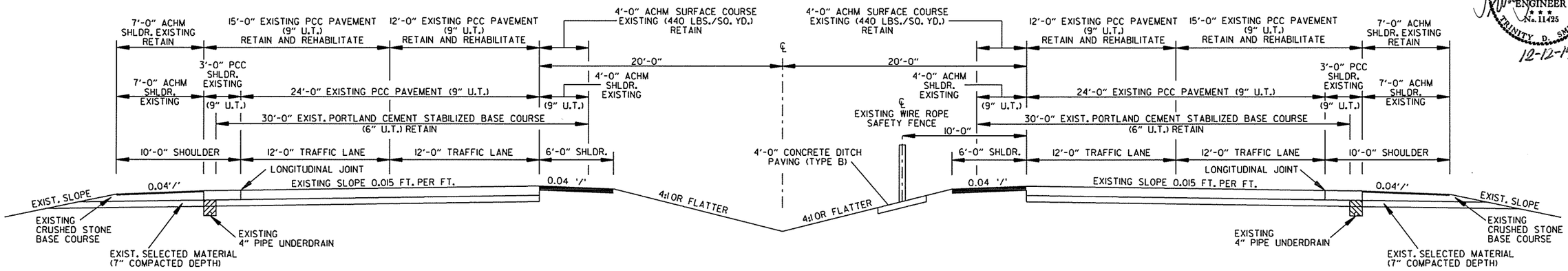
NUMBER	TITLE
ERRATA	ERRATA FOR THE BOOK OF STANDARD SPECIFICATIONS
FHWA-1273	REQUIRED CONTRACT PROVISIONS FEDERAL-AID CONSTRUCTION CONTRACTS
FHWA-1273	SUPPLEMENT - EQUAL EMPLOYMENT OPPORTUNITY - NOTICE TO CONTRACTORS
FHWA-1273	SUPPLEMENT - SPECIFIC EQUAL EMPLOYMENT OPPORTUNITY RESPONSIBILITIES (23 U.S.C. 140)
FHWA-1273	SUPPLEMENT - EQUAL EMPLOYMENT OPPORTUNITY - GOALS AND TIMETABLES
FHWA-1273	SUPPLEMENT - EQUAL EMPLOYMENT OPPORTUNITY - FEDERAL STANDARDS
FHWA-1273	SUPPLEMENT - POSTERS AND NOTICES REQUIRED FOR FEDERAL-AID PROJECTS
FHWA-1273	SUPPLEMENT - WAGE RATE DETERMINATION
108-1	LIQUIDATED DAMAGES
604-1	RETROREFLECTIVE SHEETING FOR TRAFFIC CONTROL DEVICES IN CONSTRUCTION ZONES
JOB BB0405	DISADVANTAGED BUSINESS ENTERPRISE BIDDER'S RESPONSIBILITIES
JOB BB0405	EMPLOYMENT REPORTING
JOB BB0405	GOALS FOR DISADVANTAGED BUSINESS ENTERPRISE PARTICIPATION
JOB BB0405	HIGH PERFORMANCE PAVEMENT MARKING
JOB BB0405	MAINTENANCE OF TRAFFIC
JOB BB0405	MANDATORY USE OF INTERNET BIDDING
JOB BB0405	NESTING SITES OF MIGRATORY BIRDS
JOB BB0405	OFF-SITE RESTRAINING CONDITIONS FOR AMERICAN BURYING BEETLE
JOB BB0405	PARTNERING REQUIREMENTS
JOB BB0405	REMOVAL AND DISPOSAL OF PORTLAND CEMENT CONCRETE PAVEMENT GRINDING RESIDUE
JOB BB0405	SEQUENCE OF CONSTRUCTION
JOB BB0405	SITE USE (A + C METHOD)
JOB BB0405	TEMPORARY PORTABLE RUMBLE STRIPS
JOB BB0405	TRAFFIC CONTROL DEVICES IN CONSTRUCTION ZONES
JOB BB0405	UTILITY ADJUSTMENTS
JOB BB0405	VALUE ENGINEERING
JOB BB0405	VERY EARLY STRENGTH CONCRETE

RBB0405.DGN 1/15/2015

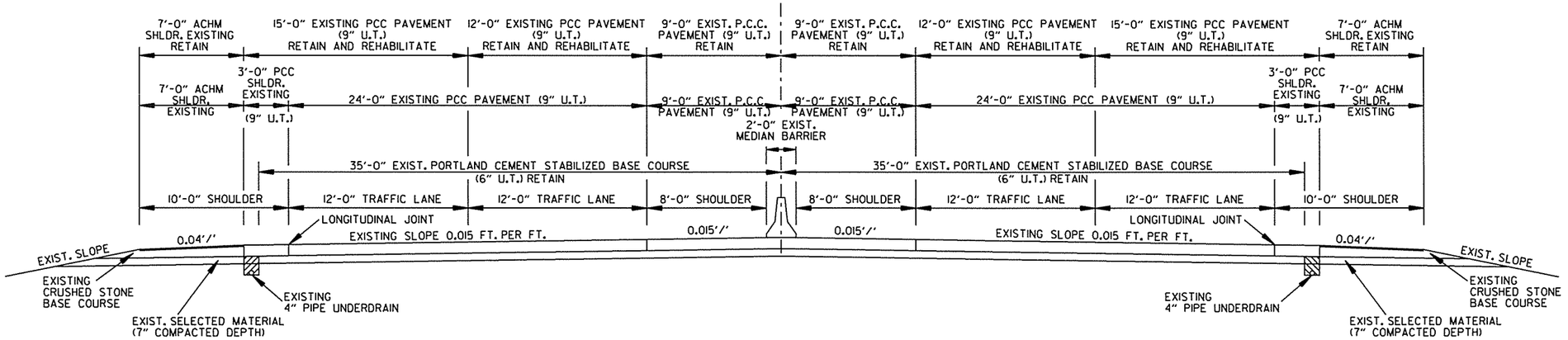
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB0405	3	29

(2) TYPICAL SECTIONS OF IMPROVEMENT

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
12-12-14



PCC PAVEMENT REHABILITATION - DEPRESSED MEDIAN



PCC PAVEMENT REHABILITATION - CONCRETE BARRIER WALL

12/9/2014

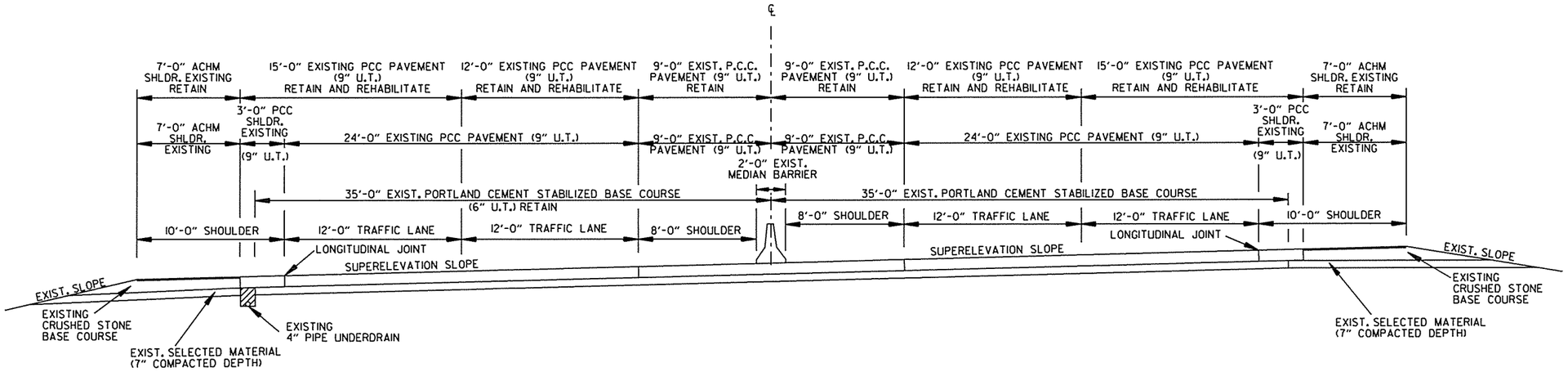
RBB0405.DGN

TYPICAL SECTIONS OF IMPROVEMENT

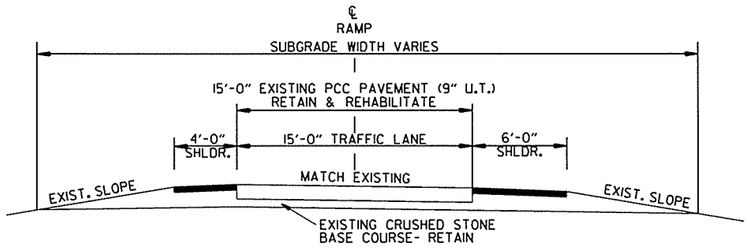
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB0405	4	29

(2) TYPICAL SECTIONS OF IMPROVEMENT

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
12-12-14

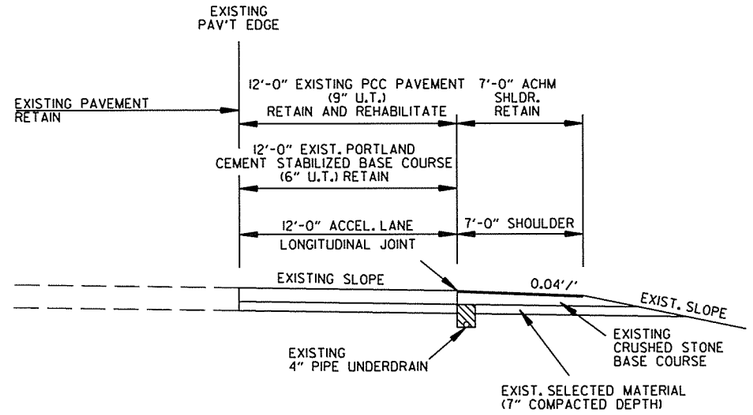


PCC PAVEMENT REHABILITATION - CONCRETE BARRIER WALL (SUPERELEVATION)



TYPICAL RAMP - PAVEMENT REHABILITATION

(SHOWN IN DIRECTION OF TRAFFIC)



PCC PAVEMENT REHABILITATION - ACCELERATION LANE

(SHOWN IN DIRECTION OF TRAFFIC)

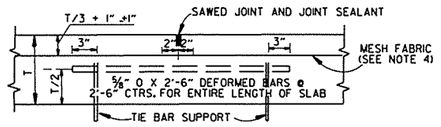
12/10/2014

RBB0405.DGN

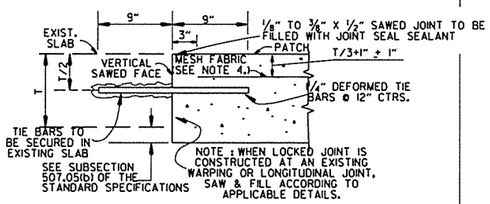
TYPICAL SECTIONS OF IMPROVEMENT

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB0405	5	29

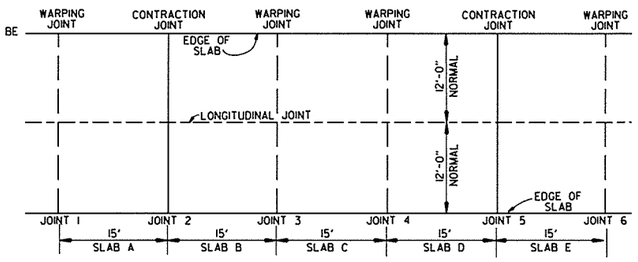
(2) SPECIAL DETAILS



SECTION A-A
TIED LONGITUDINAL JOINT



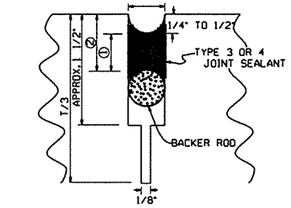
SECTION D-D
LOCKED JOINT



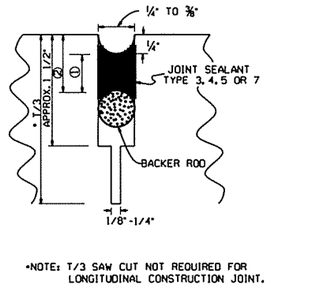
PLAN OF PAVEMENT REPAIR
(FULL SLABS)

TYPICAL SLAB REPLACEMENT EXAMPLES

SLAB(S) TO BE RECONSTRUCTED	TYPE OF JOINT TO BE CONSTRUCTED					
	JOINT 1	JOINT 2	JOINT 3	JOINT 4	JOINT 5	JOINT 6
A OR D	LOCKED	FREE		LOCKED	FREE	
B OR E		FREE	LOCKED		FREE	LOCKED
A & B OR D & E	LOCKED	CONTRACTION	LOCKED	LOCKED	CONTRACTION	LOCKED
B & C		FREE	WARPING	LOCKED		
B, C & D		FREE	WARPING	WARPING	FREE	
C			LOCKED	LOCKED		

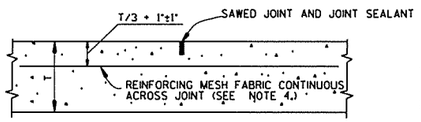


DETAIL OF SAWED CONTRACTION JOINT



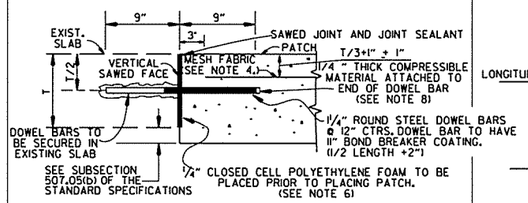
*NOTE: T/3 SAW CUT NOT REQUIRED FOR LONGITUDINAL CONSTRUCTION JOINT.

DETAIL OF SAWED
TIED LONGITUDINAL JOINT
AND WARPING JOINT



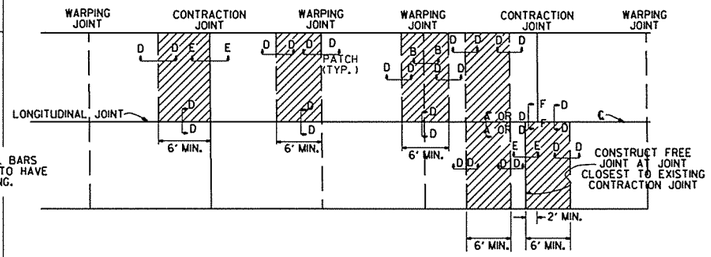
SECTION B-B

WARPING JOINT

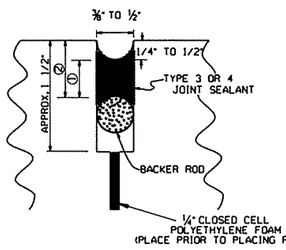


SECTION E-E

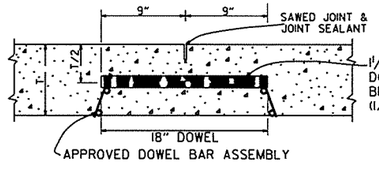
FREE TRANSVERSE JOINT

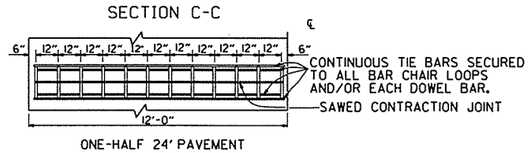


PLAN OF PAVEMENT REPAIR
(PARTIAL SLABS)



DETAIL OF SAWED FREE TRANSVERSE &
FREE LONGITUDINAL JOINT

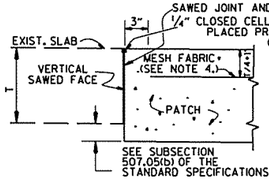




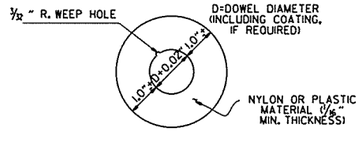
ONE-HALF 24' PAVEMENT
12 DOWELS
PLAN - CONTRACTION JOINT

NOTE: FOR 20' PAVEMENT USE 20 DOWELS @ 12" CTRS. WITH 6" SPACING FROM C.L. AND EDGE OF SLAB TO FIRST BAR. FOR 15' PAVEMENT USE 15 DOWELS @ 12" CTRS. WITH 6" SPACING FROM C.L. AND EDGE OF SLAB TO FIRST BAR. FOR 26' PAVEMENT USE 26 DOWELS @ 12" CTRS. WITH 6" SPACING FROM C.L. AND EDGE OF SLAB TO FIRST BAR. FOR PAVEMENT WIDTHS OTHER THAN THOSE SHOWN ABOVE, USE DOWELS AT 12" CTRS. WITH 6" MAX. SPACING FROM C.L. TO FIRST BAR. DISTANCE FROM EDGE OF SLAB TO FIRST BAR SHALL BE ADJUSTED TO MAINTAIN 12" DOWEL BAR SPACING

CONTRACTION JOINT DETAILS



SECTION F-F
FREE LONGITUDINAL JOINT



DETAIL OF EPOXY
RETENTION DISK

NOTE: EPOXY RETENTION DISK SHALL BE SLIPPED TIGHTLY OVER TIE BARS AND FIRMLY AGAINST THE SLAB FACE AFTER INSERTING TIE BAR AND EPOXY INTO HOLE

JOINT CONFIGURATION FOR
TYPE 3 OR 4 JOINT SEALANT

JOINT WIDTH	SEALANT THICKNESS ①	BACKER ROD DIAMETER	BACKER ROD PLACEMENT DEPTH ②
INCHES			
1/4	1/4	3/8	1/2
3/8	1/4	1/2	1/2
1/2	1/4	5/8	1/2

JOINT CONFIGURATION FOR
TYPE 5 OR 7 JOINT SEALANT

JOINT WIDTH	SEALANT THICKNESS ①	BACKER ROD DIAMETER	BACKER ROD PLACEMENT DEPTH ②
INCHES			
1/4	1/2	3/8	3/4
3/8	3/4	1/2	1

NOTES FOR PAVEMENT REPAIR

1. EXACT SIZE AND LOCATION OF AREA TO BE REPAIRED SHALL BE DETERMINED BY THE ENGINEER. ALL PATCHES SHALL EXTEND ACROSS THE FULL WIDTH OF THE SLAB AS SHOWN IN THESE DETAILS.
2. THE FINAL SURFACE FINISH FOR PATCHES SHALL MATCH THAT OF THE EXISTING PAVEMENT.
3. WHEN AREA TO BE REPAIRED INCLUDES AN EXISTING JOINT, THE JOINT SHALL BE RECONSTRUCTED TO THE CONFIGURATION SHOWN IN THESE DETAILS.
4. ALL REPAIRED AREAS SHALL BE REINFORCED WITH MESH FABRIC AS SHOWN. DEPTH OF MESH PLACEMENT SHALL HAVE A TOLERANCE OF ±1INCH. MESH FABRIC SHALL BE 12 x 12 - W4 x W4 WELDED WIRE FABRIC (MINIMUM WIRE SIZE). LAPS SHALL BE MINIMUM 6" IN EACH DIRECTION.
5. FORMS FOR PAVEMENT REPAIR SHALL BE METAL UNLESS OTHERWISE APPROVED BY THE ENGINEER.
6. CLOSED CELL POLYETHYLENE FOAM SHALL BE SECURED TO SAWED FACE OF EXISTING P.C.C. PAVEMENT WITH ADHESIVE OR ADHESIVE TAPE AS APPROVED BY THE ENGINEER AND TRIMMED FLUSH WITH TOP OF EXISTING SLAB TO PREVENT DISPLACEMENT WHEN THE PATCH IS BEING PLACED.
7. WHEN THE PATCH IS PLACED OVER GRANULAR BASE, REMOVE ANY LOOSE BASE MATERIAL, COMPACT REMAINING BASE AS NECESSARY AND PLACE PATCH. WHEN PATCH IS PLACED OVER TREATED BASE, REMOVE ANY LOOSE BASE MATERIAL AND PLACE PATCH.
8. 1/4" THICK COMPRESSIBLE MATERIAL SHALL BE ATTACHED TO THE ENDS OF DOWEL BARS AT ALL FREE TRANSVERSE JOINTS (SEE SECTION E-E). THE MATERIAL SHALL BE THE SAME DIAMETER AS THE DOWEL BAR. A PLASTIC CAP OR OTHER TYPE OF DEVICE MAY BE USED WITH THE APPROVAL OF THE ENGINEER.
9. DOWEL BARS SHALL BE PLACED IN ACCORDANCE WITH THE DIMENSIONS SHOWN. A TOLERANCE OF PLUS OR MINUS 1" WILL BE ALLOWED FOR VERTICAL AND LATERAL PLACEMENT AND A TOLERANCE OF PLUS OR MINUS 1/4" WILL BE ALLOWED FOR THE TILT AND SKEW.

DETAILS OF PORTLAND CEMENT
CONCRETE PAVEMENT PATCHING
(MAIN LANES)

SPECIAL DETAILS

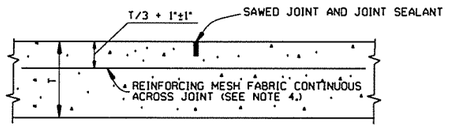
STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
12-12-14

12/8/2014

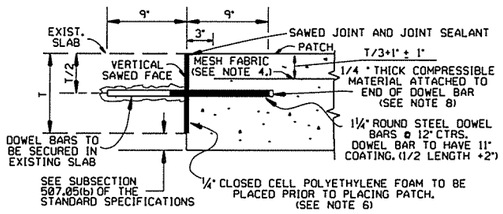
RBB0405.DGN

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RO. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB0405	6	29

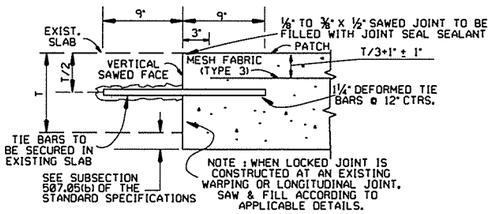
(2) SPECIAL DETAILS



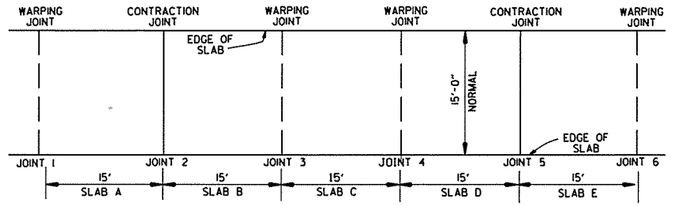
SECTION B-B
WARPING JOINT



SECTION E-E
FREE TRANSVERSE JOINT



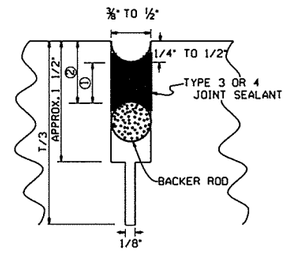
SECTION D-D



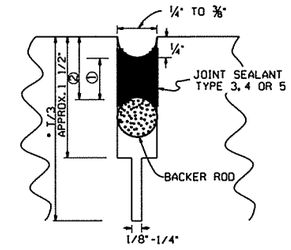
PLAN OF PAVEMENT REPAIR
(FULL SLABS)

TYPICAL SLAB REPLACEMENT EXAMPLES

SLAB(S) TO BE RECONSTRUCTED	TYPE OF JOINT TO BE CONSTRUCTED					
	JOINT 1	JOINT 2	JOINT 3	JOINT 4	JOINT 5	JOINT 6
A OR D	LOCKED	FREE		LOCKED	FREE	
B OR E		FREE	LOCKED		FREE	LOCKED
A & B OR D & E	LOCKED	CONTRACTION	LOCKED	LOCKED	CONTRACTION	LOCKED
B & C		FREE	WARPING	LOCKED		
B, C & D		FREE	WARPING	WARPING	FREE	
C			LOCKED	LOCKED		

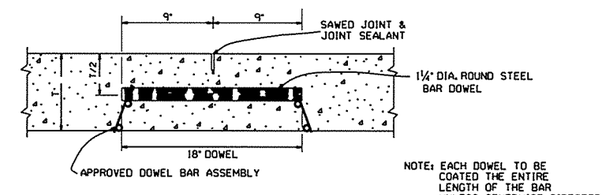


DETAIL OF SAWED CONTRACTION JOINT



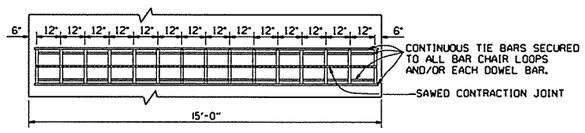
*NOTE: T/3 SAW CUT NOT REQUIRED FOR LONGITUDINAL CONSTRUCTION JOINT.

DETAIL OF SAWED
WARPING JOINT



NOTE: EACH DOWEL TO BE COATED THE ENTIRE LENGTH OF THE BAR UNLESS OTHERWISE DIRECTED BY THE ENGINEER.

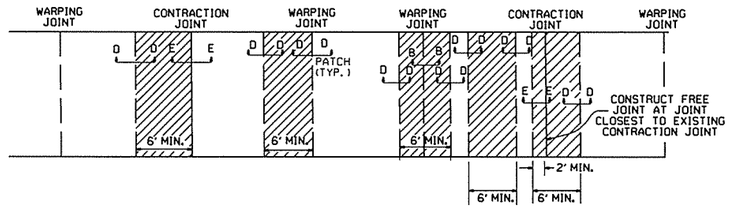
SECTION C-C



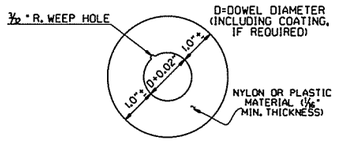
15' PAVEMENT
15 DOWELS
PLAN - CONTRACTION JOINT

NOTE: FOR 15' PAVEMENT USE 15 DOWELS @ 12" CTRS. WITH 6" SPACING FROM C.L. AND EDGE OF SLAB TO FIRST BAR. FOR PAVEMENT WIDTHS OTHER THAN THOSE SHOWN ABOVE, USE DOWELS AT 12" CTRS. WITH 6" MAX. SPACING FROM C.L. TO FIRST BAR. DISTANCE FROM EDGE OF SLAB TO FIRST BAR SHALL BE ADJUSTED TO MAINTAIN 12" DOWEL BAR SPACING

CONTRACTION JOINT DETAILS



PLAN OF PAVEMENT REPAIR
(PARTIAL SLABS)



DETAIL OF EPOXY
RETENTION DISK

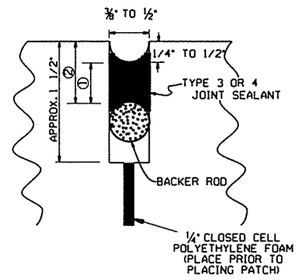
NOTE: EPOXY RETENTION DISK SHALL BE SLIPPED TIGHTLY OVER TIE BARS AND FIRMLY AGAINST THE SLAB FACE AFTER INSERTING TIE BAR AND EPOXY INTO HOLE

JOINT CONFIGURATION FOR
TYPE 3 OR 4 JOINT SEALANT

JOINT WIDTH	SEALANT THICKNESS ①	BACKER ROD DIAMETER	BACKER ROD PLACEMENT DEPTH ②
INCHES			
¼	¼	⅜	½
⅜	¼	½	½
½	¼	⅝	½

JOINT CONFIGURATION FOR
TYPE 5 JOINT SEALANT

JOINT WIDTH	SEALANT THICKNESS ①	BACKER ROD DIAMETER	BACKER ROD PLACEMENT DEPTH ②
INCHES			
¼	½	⅜	¾
⅜	¾	½	1



DETAIL OF SAWED FREE
TRANSVERSE JOINT

NOTES FOR PAVEMENT REPAIR

1. EXACT SIZE AND LOCATION OF AREA TO BE REPAIRED SHALL BE DETERMINED BY THE ENGINEER. ALL PATCHES SHALL EXTEND ACROSS THE FULL WIDTH OF THE SLAB AS SHOWN IN THESE DETAILS.
2. THE FINAL SURFACE FINISH FOR PATCHES SHALL MATCH THAT OF THE EXISTING PAVEMENT.
3. WHEN AREA TO BE REPAIRED INCLUDES AN EXISTING JOINT, THE JOINT SHALL BE RECONSTRUCTED TO THE CONFIGURATION SHOWN IN THESE DETAILS.
4. ALL REPAIRED AREAS SHALL BE REINFORCED WITH MESH FABRIC AS SHOWN. DEPTH OF MESH PLACEMENT SHALL HAVE A TOLERANCE OF +1INCH. MESH FABRIC SHALL BE 12 x 12 - W4 x W4 WELDED WIRE FABRIC (MINIMUM WIRE SIZE). LAPS SHALL BE MINIMUM 6" IN EACH DIRECTION. MINIMUM COVER AT EDGES SHALL BE 2".
5. FORMS FOR PAVEMENT REPAIR SHALL BE METAL UNLESS OTHERWISE APPROVED BY THE ENGINEER.
6. CLOSED CELL POLYETHYLENE FOAM SHALL BE SECURED TO SAWED FACE OF EXISTING P.C.C. PAVEMENT WITH ADHESIVE OR ADHESIVE TAPE AS APPROVED BY THE ENGINEER AND TRIMMED FLUSH WITH TOP OF EXISTING SLAB TO PREVENT DISPLACEMENT WHEN THE PATCH IS BEING PLACED.
7. WHEN THE PATCH IS PLACED OVER GRANULAR BASE, REMOVE ANY LOOSE BASE MATERIAL, COMPACT REMAINING BASE AS NECESSARY AND PLACE PATCH. WHEN PATCH IS PLACED OVER TREATED BASE, REMOVE ANY LOOSE BASE MATERIAL AND PLACE PATCH.
8. ¼" THICK COMPRESSIBLE MATERIAL SHALL BE ATTACHED TO THE ENDS OF DOWEL BARS AT ALL FREE TRANSVERSE JOINTS (SEE SECTION E-E). THE MATERIAL SHALL BE THE SAME DIAMETER AS THE DOWEL BAR. A PLASTIC CAP OR OTHER TYPE OF DEVICE MAY BE USED WITH THE APPROVAL OF THE ENGINEER.
9. DOWEL BARS SHALL BE PLACED IN ACCORDANCE WITH THE DIMENSIONS SHOWN. A TOLERANCE OF PLUS OR MINUS ONE INCH WILL BE ALLOWED FOR VERTICAL AND LATERAL PLACEMENT AND A TOLERANCE OF PLUS OR MINUS ¼" WILL BE ALLOWED FOR THE TILT AND SKEW.

DETAILS OF PORTLAND CEMENT
CONCRETE PAVEMENT PATCHING
(RAMPS)

STATE OF ARKANSAS
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12-12-14

12/8/2014

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SPECIAL DETAILS

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				6	ARK.			
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(2) SPECIAL DETAILS

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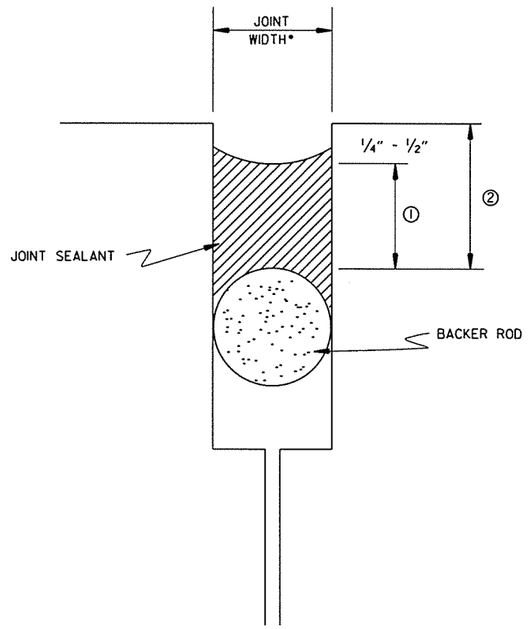
JOINT CONFIGURATION FOR TYPE 3 & 4 JOINT SEALANT

JOINT WIDTH	SEALANT THICKNESS (1)	BACKER ROD DIAMETER	BACKER ROD PLACEMENT DEPTH (2)
	INCHES		
1/4	1/4	3/8	1/2
3/8	1/4	1/2	1/2
1/2	1/4	5/8	1/2
5/8	5/16	3/4	9/16
3/4	3/8	7/8	7/8
7/8	7/16	1	11/16
1	1/2	1 1/4	3/4
1 TO 1 1/2	1/2	1 1/4 +	3/4

NOTE: JOINTS GREATER THAN 1 1/2" IN WIDTH SHALL BE SEALED WITH TYPE 5 JOINT SEALANT.



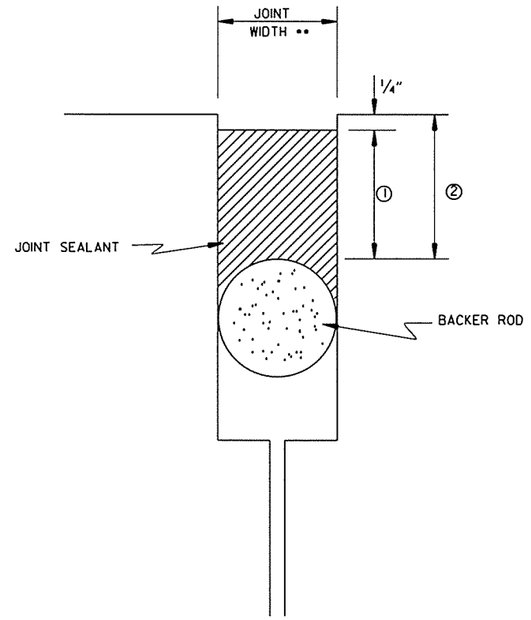
* CONTRACTION JOINTS SHALL BE SAWED TO MIN. WIDTH OF 3/8".

WARPING & LONGITUDINAL JOINTS SHALL BE SAWED TO MIN. WIDTH OF EXISTING WIDTH +1/8" (1/16" ON EACH SIDE).

DETAILS OF TYPE A OR TYPE B JOINT REHABILITATION

JOINT CONFIGURATION FOR TYPE 5 JOINT SEALANT

JOINT WIDTH	APPROX. WIDTH TO DEPTH RATIO	SEALANT THICKNESS (1)	BACKER ROD DIAMETER	BACKER ROD PLACEMENT DEPTH (2)
INCHES		INCHES		
1/4	1:2	1/2	3/8	3/4
3/8		3/4	1/2	1
1/2		1	5/8	1 1/4
5/8		1 1/4	3/4	1 1/2
3/4	1:1.75	1 3/8	7/8	1 5/8
7/8		1 1/2	1	1 3/4
1	1:1.6	1 5/8	1 1/4	1 7/8
1 TO 3		1 5/8 +	1 1/4 +	1 7/8 +



** WARPING & LONGITUDINAL JOINTS SHALL BE SAWED TO MIN. WIDTH OF EXISTING WIDTH +1/8" (1/16" ON EACH SIDE).

NOTE:

FOR JOINTS WIDER THAN 1 1/2", THE CONTRACTOR SHALL HAVE THE OPTION OF COMPLETELY FILLING THE JOINT IN LIEU OF USING A BACKER ROD.

REFER TO SECTION 509 OF THE STANDARD SPECIFICATIONS FOR ADDITIONAL INFORMATION.

DETAILS OF TYPE B JOINT REHABILITATION

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SPECIAL DETAILS

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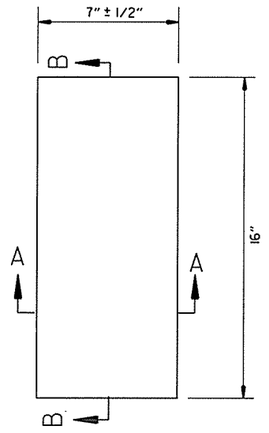
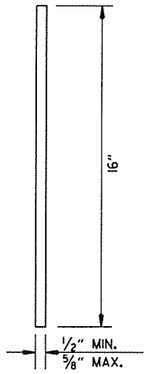
				6	ARK.			
				JOB NO.		BB0405	8	29

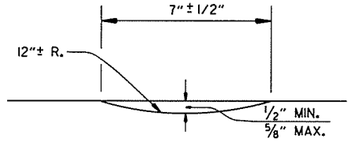
(2) SPECIAL DETAILS



PLAN

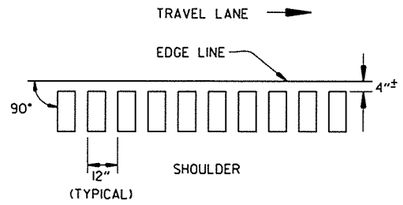


SECTION B-B

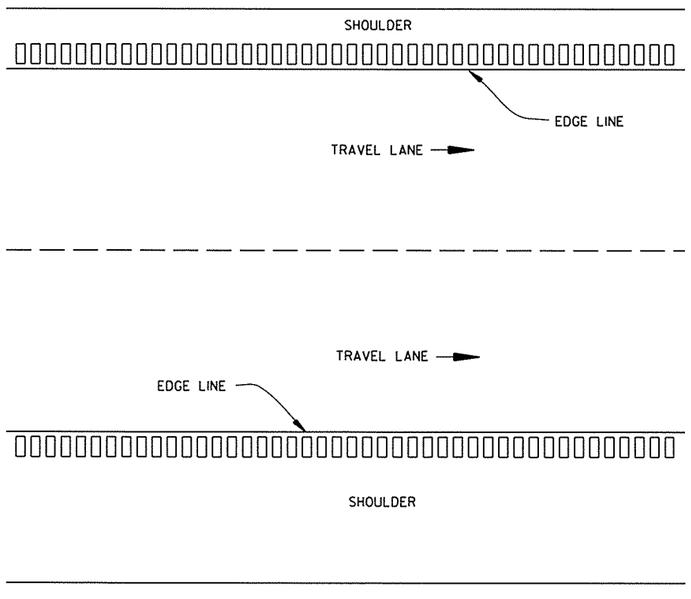


SECTION A-A

DETAILS OF RUMBLE STRIPS



LOCATION PLAN OF RUMBLE STRIPS
LEFT OR RIGHT SHOULDER



PLAN VIEW

NOTES:

1. ALIGNMENT OF RUMBLE STRIPS SHALL GENERALLY BE STRAIGHT AND OFFSET APPROXIMATELY 4" FROM THE OUTER EDGE OF THE EDGE LINE. THIS OFFSET MAY BE ADJUSTED TO ACCOMMODATE VARIATIONS IN THE EDGE LINE.
2. THE 1/2" DEPTH SHALL GENERALLY APPLY FOR THE ENTIRE 16" LENGTH. SOME VARIATION TO SUIT SHOULDER SLOPE BREAKS MAY BE NECESSARY.
3. RUMBLE STRIPS SHALL NOT BE INSTALLED ON BRIDGE DECKS, APPROACH SLABS, OR ACROSS TRANSVERSE JOINTS OF CONCRETE SHOULDERS.

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12-12-14

SPECIAL DETAILS

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(2) SPECIAL DETAILS

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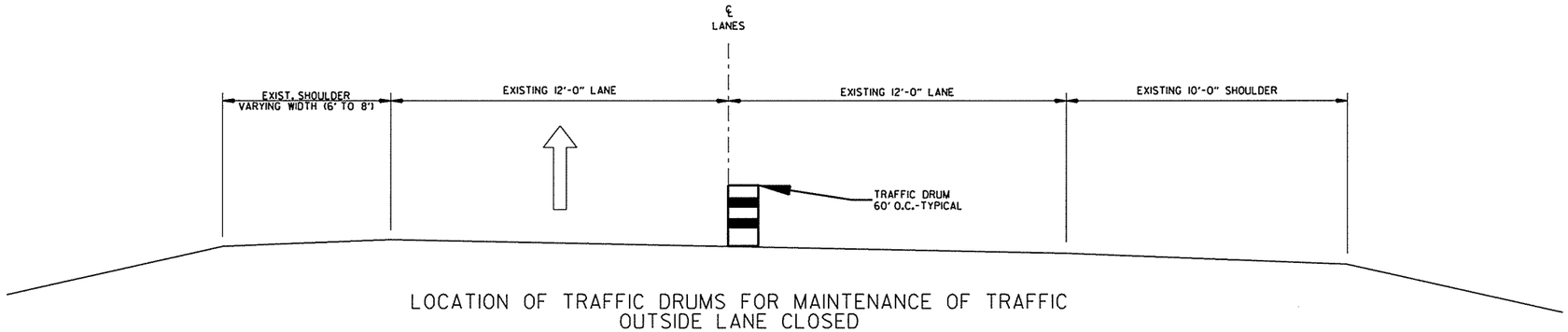
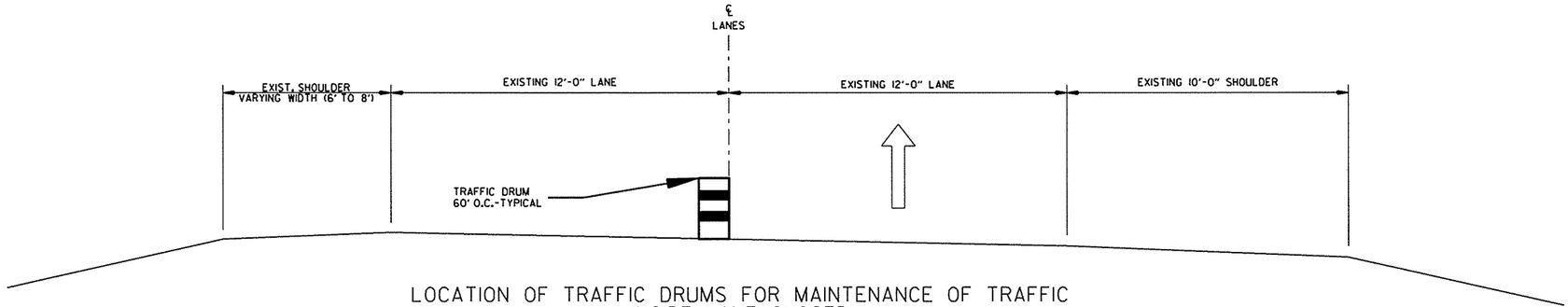


LOCATION OF TRAFFIC DRUMS FOR MAINTENANCE OF TRAFFIC
OUTSIDE LANE CLOSED
(SHOWN IN DIRECTION OF TRAFFIC)



LOCATION OF TRAFFIC DRUMS FOR MAINTENANCE OF TRAFFIC
INSIDE LANE CLOSED
(SHOWN IN DIRECTION OF TRAFFIC)

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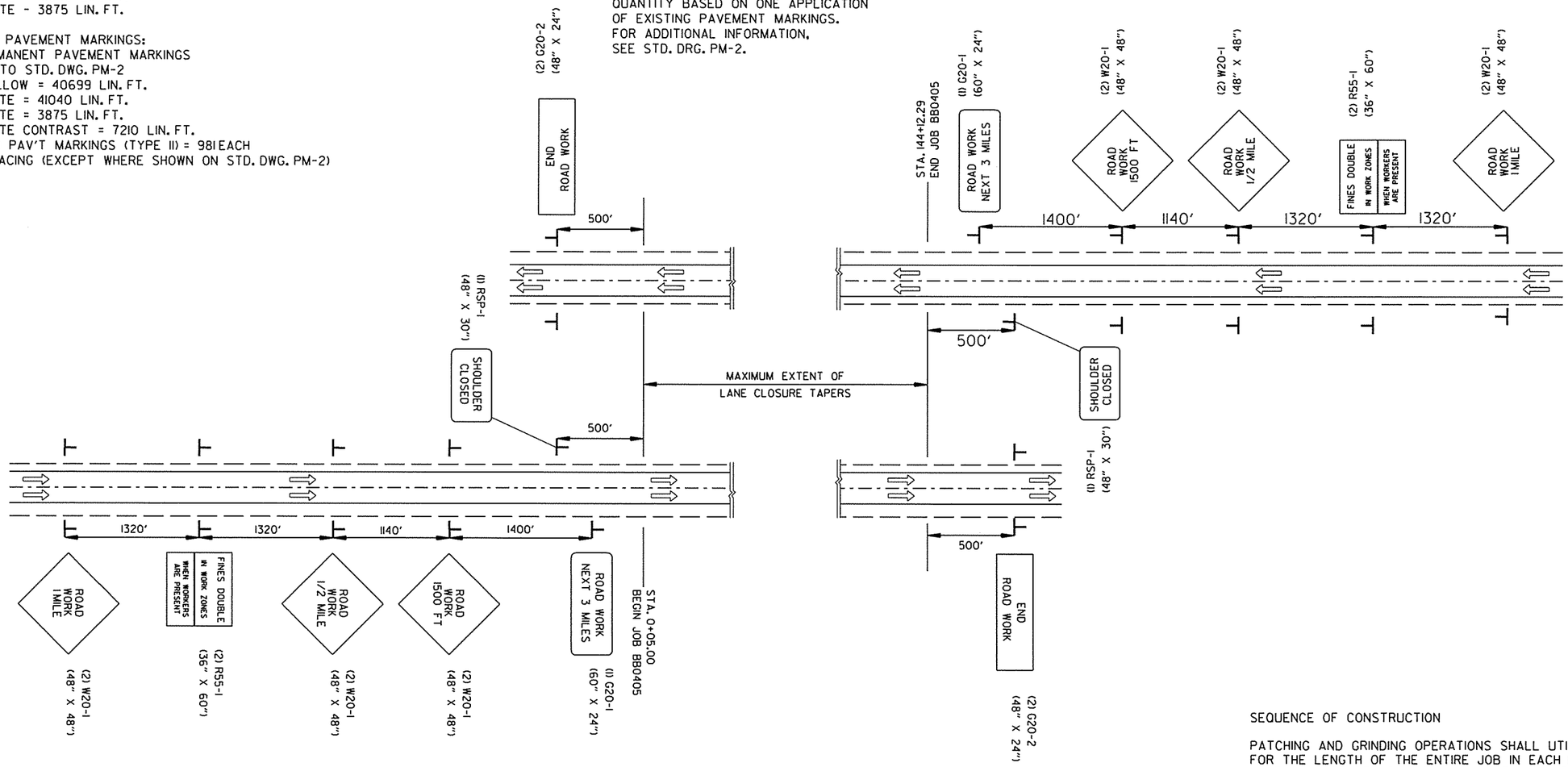
				6	ARK.			
				JOB NO.		BB0405	10	29

(2) MAINTENANCE OF TRAFFIC

CONSTRUCTION PAVEMENT MARKINGS:
APPLY CONSTRUCTION PAVEMENT MARKINGS
ACCORDING TO STD. DWG. PM-2
- 4" YELLOW - 40699 LIN. FT.
- 4" (SKIP LINE) WHITE - 7210 LIN. FT.
- 4" WHITE - 41040 LIN. FT.
- 8" WHITE - 3875 LIN. FT.

PERMANENT PAVEMENT MARKINGS:
APPLY PERMANENT PAVEMENT MARKINGS
ACCORDING TO STD. DWG. PM-2
- 4" YELLOW = 40699 LIN. FT.
- 4" WHITE = 41040 LIN. FT.
- 8" WHITE = 3875 LIN. FT.
- 4" WHITE CONTRAST = 7210 LIN. FT.
- RAISED PAV'T MARKINGS (TYPE II) = 9816 EACH
- 80' SPACING (EXCEPT WHERE SHOWN ON STD. DWG. PM-2)

NOTE:
CONSTRUCTION PAVEMENT MARKINGS QUANTITY BASED ON ONE APPLICATION OF EXISTING PAVEMENT MARKINGS. FOR ADDITIONAL INFORMATION, SEE STD. DRG. PM-2.



PORTABLE CHANGEABLE MESSAGE SIGN
PLACED AS DIRECTED BY THE ENGINEER

PORTABLE CHANGEABLE MESSAGE SIGN
PLACED AS DIRECTED BY THE ENGINEER

STATE OF ARKANSAS
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SEQUENCE OF CONSTRUCTION

PATCHING AND GRINDING OPERATIONS SHALL UTILIZE A LANE CLOSURE FOR THE LENGTH OF THE ENTIRE JOB IN EACH DIRECTION. ONLY ONE LANE CLOSURE PER DIRECTION WILL BE ALLOWED AT ANY GIVEN TIME. NO LANE CLOSURE MAY EXCEED THE ACTIVE WORK AREA BY MORE THAN ONE QUARTER (1/4) MILE. REFER TO THE MAINTENANCE OF TRAFFIC SPECIAL PROVISION.

MAINTENANCE OF TRAFFIC ADVANCE SIGNS AT JOB ENDS

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				6	ARK.			
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(2) MAINTENANCE OF TRAFFIC

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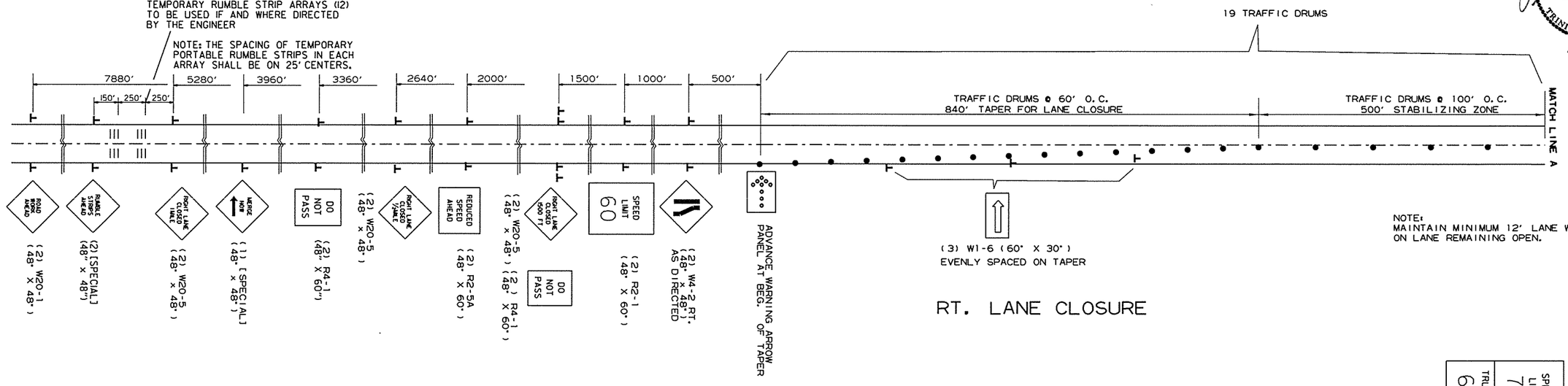
PORTABLE CHANGEABLE MESSAGE SIGN TO BE USED IF AND WHERE DIRECTED BY THE ENGINEER

TEMPORARY RUMBLE STRIP ARRAYS (12) TO BE USED IF AND WHERE DIRECTED BY THE ENGINEER

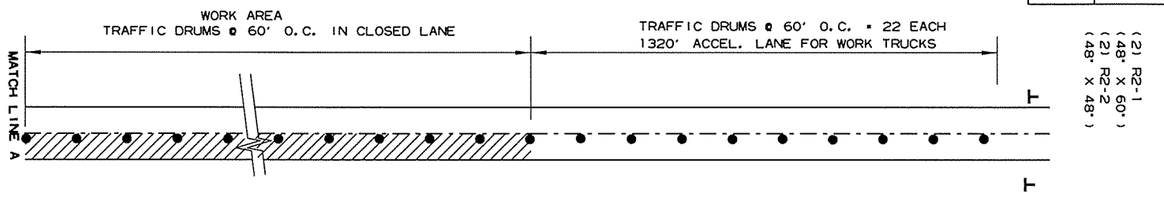
NOTE: THE SPACING OF TEMPORARY PORTABLE RUMBLE STRIPS IN EACH ARRAY SHALL BE ON 25' CENTERS.



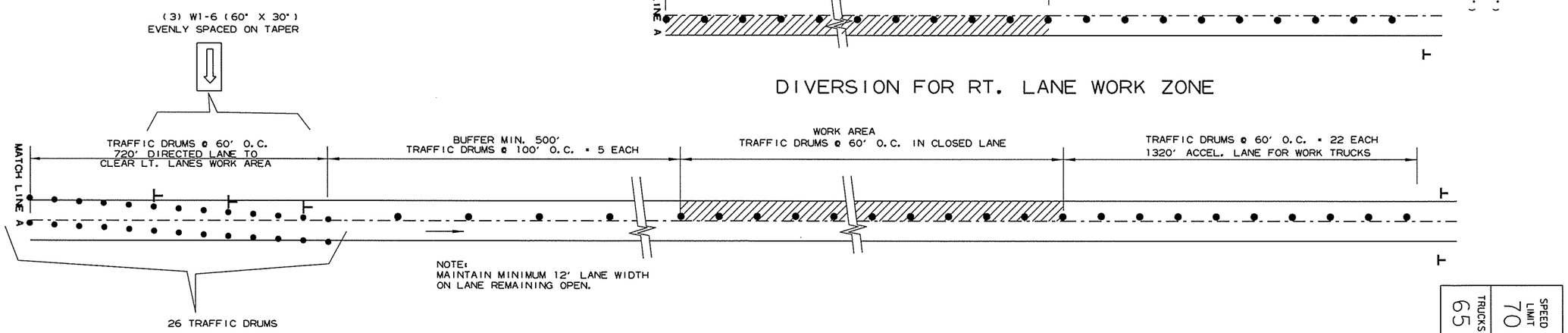
NOTE:
MAINTAIN MINIMUM 12' LANE WIDTH ON LANE REMAINING OPEN.

RT. LANE CLOSURE

SPEED LIMIT SIGNS ARE ALSO PROVIDED FOR PLACEMENT PAST ENTRANCE RAMPS WITHIN THE WORK ZONE.



DIVERSION FOR RT. LANE WORK ZONE



NOTE:
MAINTAIN MINIMUM 12' LANE WIDTH ON LANE REMAINING OPEN.

DIVERSION FOR LT. LANE WORK ZONE

LANE CLOSURE MAINTENANCE OF TRAFFIC

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ADVANCE WARNING SIGNS FOR ENTRANCE AND EXIT RAMPS
ROAD WORK AHEAD (5) = 80 SQ. FT.
END ROAD WORK (5) = 40 SQ. FT.

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(2) MAINTENANCE OF TRAFFIC

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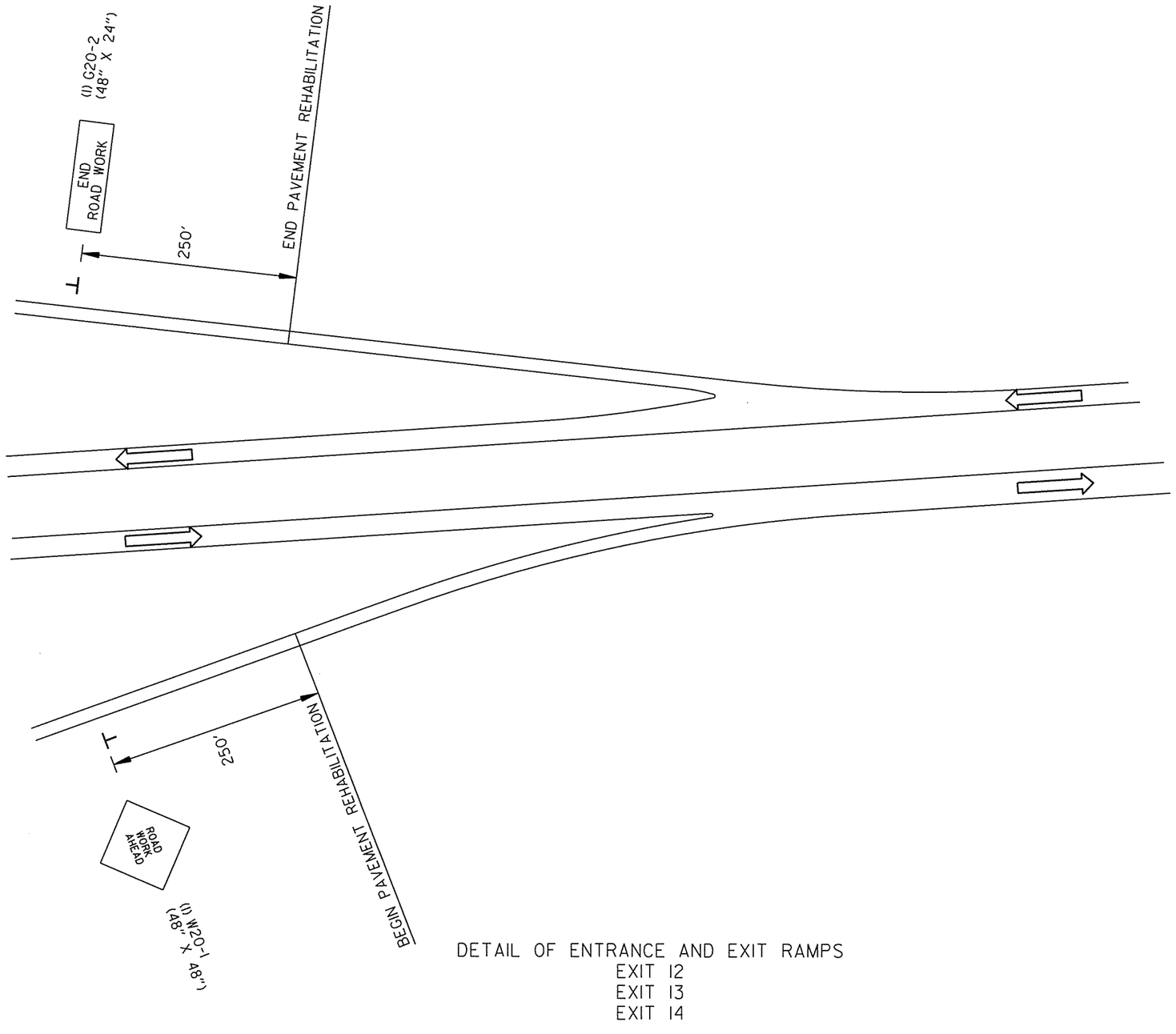

DETAIL OF ENTRANCE AND EXIT RAMPS
EXIT 12
EXIT 13
EXIT 14

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MAINTENANCE OF TRAFFIC
DETAIL OF RAMPS

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
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(2) MAINTENANCE OF TRAFFIC

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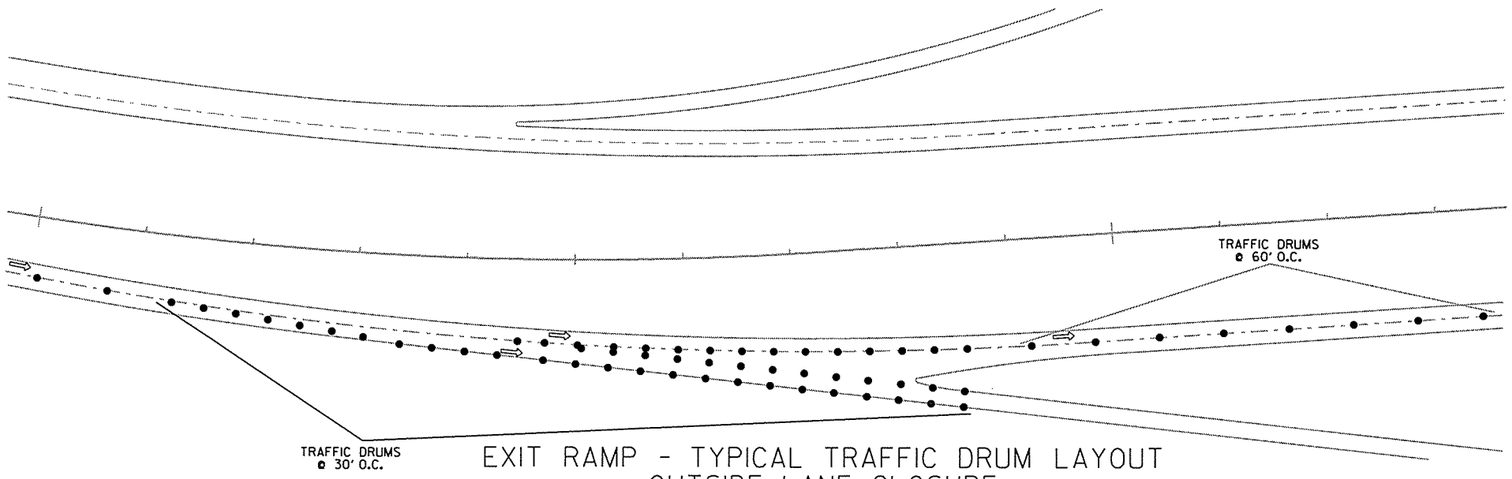
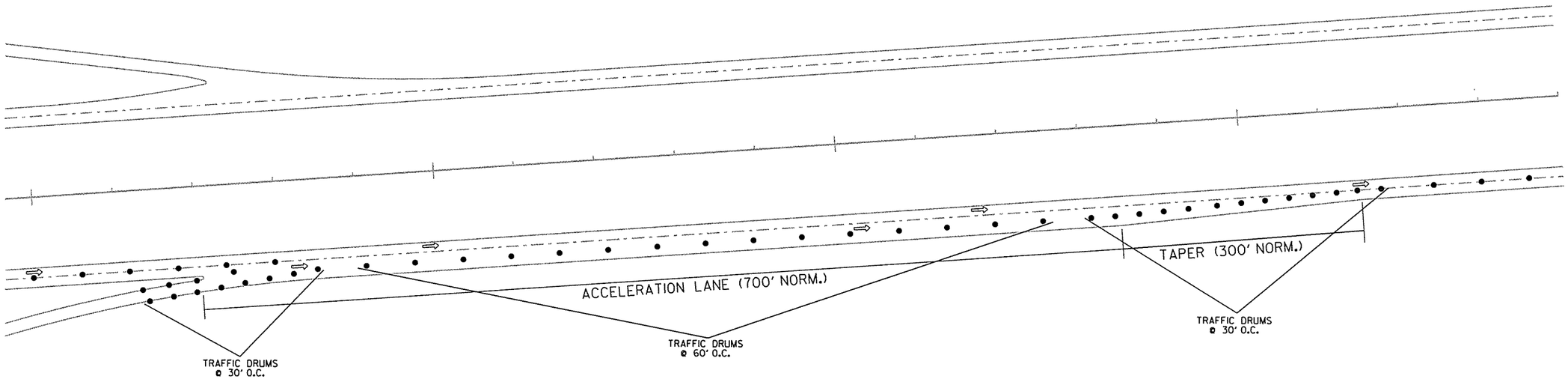


EXIT RAMP - TYPICAL TRAFFIC DRUM LAYOUT
OUTSIDE LANE CLOSURE



ENTRANCE RAMP - TYPICAL TRAFFIC DRUM LAYOUT
ACCELERATION LANE CLOSURE

EXIT 12:
NORTHBOUND EXIT = 40 TRAFFIC DRUMS

SOUTHBOUND ENTRANCE = 17 TRAFFIC DRUMS

EXIT 13:
NORTHBOUND EXIT = 40 TRAFFIC DRUMS
NORTHBOUND ENTRANCE = 17 TRAFFIC DRUMS

SOUTHBOUND EXIT = 40 TRAFFIC DRUMS
SOUTHBOUND ENTRANCE = 17 TRAFFIC DRUMS

EXIT 14:
NORTHBOUND ENTRANCE = 17 TRAFFIC DRUMS
NORTHBOUND EXIT = 40 TRAFFIC DRUMS

SOUTHBOUND EXIT = 40 TRAFFIC DRUMS
SOUTHBOUND ENTRANCE = 17 TRAFFIC DRUMS

MAINTENANCE OF TRAFFIC
DETAIL OF RAMPS WITH LANE CLOSURE

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(2) QUANTITIES

STATE OF ARKANSAS
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12-12-14

CONSTRUCTION PAVEMENT MARKINGS AND PERMANENT PAVEMENT MARKINGS

DESCRIPTION	HWY. 271	I-540	CONSTRUCTION PAVEMENT MARKINGS	RAISED PAVEMENT MARKERS	HIGH PERFORMANCE CONTRAST PAVEMENT MARKING	HIGH PERFORMANCE PAVEMENT MARKING		
				TYPE II (WHITE/RED)	4" WHITE	4" WHITE	4" YELLOW	8" WHITE
	LIN. FT. - EACH		LIN. FT.	EACH	LIN. FT.	LIN. FT.		
CONSTRUCTION PAVEMENT MARKINGS	20705	72119	92824					
RAISED PAVEMENT MARKERS TYPE II (WHITE/RED)	211	770		981				
HIGH PERFORMANCE CONTRAST PAVEMENT MARKING WHITE (4")	1730	5480			7210			
HIGH PERFORMANCE PAVEMENT MARKING WHITE (4")	9128	31912				41040		
HIGH PERFORMANCE PAVEMENT MARKING YELLOW (4")	9072	31627					40699	
HIGH PERFORMANCE PAVEMENT MARKING WHITE (8")	775	3100						3875
TOTALS:			**92824**	**981**	**7210**	**41040**	**40699**	**3875**

NOTE: THIS IS A HIGH TRAFFIC VOLUME ROAD AS DEFINED IN SECTION 604.03, STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION, 2014 EDITION.

ADVANCE WARNING SIGNS AND DEVICES

SIGN NUMBER	DESCRIPTION	SIGN SIZE	ENTIRE PROJECT	MAXIMUM NUMBER REQUIRED	TOTAL SIGNS REQUIRED		TRAFFIC DRUMS	ADVANCE WARNING ARROW PANEL	PORTABLE CHANGEABLE MESSAGE SIGN	TEMPORARY PORTABLE RUMBLE STRIPS
			LIN. FT. - EACH		NO.	SQ. FT.	EACH	DAY	WEEK	EACH
W20-1	ROAD WORK 1 MILE	48"x48"	4	4	4	64.0				
W20-1	ROAD WORK 1/2 MILE	48"x48"	4	4	4	64.0				
W20-1	ROAD WORK 1500 FT.	48"x48"	4	4	4	64.0				
W20-1	ROAD WORK AHEAD	48"x48"	9	9	9	144.0				
G20-2	END ROAD WORK	48"x24"	9	9	9	72.0				
G20-1	ROAD WORK NEXT XX MILES	60"x24"	2	2	2	20.0				
R55-1	FINES DOUBLE IN WORK ZONES	36"X60"	4	4	4	60.0				
W20-5	RIGHT LANE CLOSED 1 MILE	48"x48"	4	4	4	64.0				
W20-5	RIGHT LANE CLOSED 1/2 MILE	48X48"	4	4	4	64.0				
W20-5	RIGHT LANE CLOSED 1500 FT.	48"x48"	4	4	4	64.0				
SPECIAL	MERGE NOW W/ ARROW	48"x48"	2	2	2	32.0				
R2-5A	REDUCED SPEED AHEAD	48"X60"	4	4	4	80.0				
W1-6	LARGE ARROW	48X24"	12	12	12	96.0				
R4-1	DO NOT PASS	48"X60"	8	8	8	160.0				
RSP-1	SHOULDER CLOSED	48"X30"	2	2	2	20.0				
R2-1	SPEED LIMIT 60 MPH	48"X60"	4	4	4	80.0				
R2-1	SPEED LIMIT 70 MPH	48"X60"	4	4	4	80.0				
R2-2	TRUCKS SPEED LIMIT 65 MPH	48"X60"	4	4	4	80.0				
W4-2 RT.	MERGE RIGHT	48"X48"	4	4	4	64.0				
SPECIAL	RUMBLE STRIPS AHEAD	48"x48"	4	4	4	64.0				
	TRAFFIC DRUMS		913	913			913			
	ADVANCE WARNING ARROW PANEL		2	2				80		
	PORTABLE CHANGEABLE MESSAGE SIGN		4	4					56	
	TEMPORARY PORTABLE RUMBLE STRIPS		24	24						24
TOTALS:						**1436.0**	**913**	**80**	**56**	**24**

NOTE: THIS IS A HIGH TRAFFIC VOLUME ROAD AS DEFINED IN SECTION 604.03, STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION.

NOTE: THE QUANTITY OF TRAFFIC DRUMS PROVIDED IS FOR BOTH SIDES OF THE ROADWAY FOR THE FULL LENGTH OF THE JOB. HOWEVER, THE INSTALLATION OF TRAFFIC DRUMS SHALL NEVER EXCEED THE ACTUAL WORK AREA BY MORE THAN 1/4 MILE, UNLESS APPROVED BY THE ENGINEER.

12/8/2014

RBB0405.DGN

QUANTITIES

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB0405	15	29

(2) QUANTITIES

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
12-12-14

PCCP PATCHING (HWY. 271 SOUTHBOUND) - BOX 1 OF 5

LOG MILE	LOG MILE	LOCATION	LENGTH	WIDTH	REM. & DISP. CONC. PVMT.	P.C.C.P. PATCHING (9" U.T.)
			FEET	FEET	SQ. YD.	SQ. YD.
2.750	2.752	HWY. 271 SOUTHBOUND - OUTSIDE LANE JOINT	6	12	8.0	8.0
2.801	2.803	HWY. 271 SOUTHBOUND - OUTSIDE LANE JOINT	6	12	8.0	8.0
2.851	2.853	HWY. 271 SOUTHBOUND - OUTSIDE LANE JOINT	6	12	8.0	8.0
SUBTOTALS BOX 1:					24.0	24.0

PCCP PATCHING (HWY. 271 NORTHBOUND) - BOX 2 OF 5

LOG MILE	LOG MILE	LOCATION	LENGTH	WIDTH	REM. & DISP. CONC. PVMT.	P.C.C.P. PATCHING (9" U.T.)
			FEET	FEET	SQ. YD.	SQ. YD.
2.997	2.995	HWY. 271 NORTHBOUND - OUTSIDE LANE JOINT	6	15	10.0	10.0
SUBTOTALS BOX 2:					10.0	10.0

PCCP PATCHING (I-540 NORTHBOUND) - BOX 3 OF 5

LOG MILE	LOG MILE	LOCATION	LENGTH	WIDTH	REM. & DISP. CONC. PVMT.	P.C.C.P. PATCHING (9" U.T.)
			FEET	FEET	SQ. YD.	SQ. YD.
0.815	0.817	I-540 NORTHBOUND - OUTSIDE LANE JOINT	8	15	13.3	13.3
0.894	0.896	I-540 NORTHBOUND - OUTSIDE LANE JOINT	6	12	8.0	8.0
0.944	0.946	I-540 NORTHBOUND - OUTSIDE LANE JOINT	8	12	10.7	10.7
1.029	1.031	I-540 NORTHBOUND - OUTSIDE LANE JOINT	6	15	10.0	10.0
1.098	1.100	I-540 NORTHBOUND - OUTSIDE LANE	15	15	25.0	25.0
1.198	1.200	I-540 NORTHBOUND - OUTSIDE LANE JOINT	6	15	10.0	10.0
1.374	1.376	I-540 NORTHBOUND - OUTSIDE LANE JOINT	6	15	10.0	10.0
1.587	1.589	I-540 NORTHBOUND - OUTSIDE LANE JOINT	6	15	10.0	10.0
1.848	1.850	I-540 NORTHBOUND - OUTSIDE LANE JOINT	6	15	10.0	10.0
1.936	1.938	I-540 NORTHBOUND - OUTSIDE LANE JOINT	6	15	10.0	10.0
1.954	1.956	I-540 NORTHBOUND - OUTSIDE LANE JOINT	6	15	10.0	10.0
2.100	2.102	I-540 NORTHBOUND - OUTSIDE LANE JOINT	6	15	10.0	10.0
2.660	2.662	I-540 NORTHBOUND - OUTSIDE LANE JOINT	6	15	10.0	10.0
2.666	2.668	I-540 NORTHBOUND - OUTSIDE LANE JOINT	6	15	10.0	10.0
2.720	2.726	I-540 NORTHBOUND - INSIDE LANE	30	12	40.0	40.0
2.729	2.735	I-540 NORTHBOUND - INSIDE LANE	30	12	40.0	40.0
SUBTOTALS BOX 3:					237.0	237.0

PCCP PATCHING (I-540 SOUTHBOUND) - BOX 4 OF 5

LOG MILE	LOG MILE	LOCATION	LENGTH	WIDTH	REM. & DISP. CONC. PVMT.	P.C.C.P. PATCHING (9" U.T.)
			FEET	FEET	SQ. YD.	SQ. YD.
2.675	2.667	I-540 SOUTHBOUND - OUTSIDE LANE JOINT	45	15	75.0	75.0
2.442	2.440	I-540 SOUTHBOUND - BOTH LANES JOINT	6	27	18.0	18.0
2.433	2.431	I-540 SOUTHBOUND - INSIDE LANE JOINT	6	12	8.0	8.0
2.208	2.206	I-540 SOUTHBOUND - OUTSIDE LANE JOINT	6	12	8.0	8.0
2.158	2.156	I-540 SOUTHBOUND - OUTSIDE LANE JOINT	6	15	10.0	10.0
2.112	2.110	I-540 SOUTHBOUND - OUTSIDE LANE JOINT	6	15	10.0	10.0
2.083	2.081	I-540 SOUTHBOUND - INSIDE LANE	15	12	20.0	20.0
2.080	2.078	I-540 SOUTHBOUND - OUTSIDE LANE	15	15	25.0	25.0
2.039	2.037	I-540 SOUTHBOUND - INSIDE LANE JOINT	6	12	8.0	8.0
2.002	2.000	I-540 SOUTHBOUND - INSIDE LANE JOINT	8	12	10.7	10.7
1.903	1.901	I-540 SOUTHBOUND - INSIDE LANE JOINT	6	12	8.0	8.0
1.872	1.870	I-540 SOUTHBOUND - INSIDE LANE JOINT	6	12	8.0	8.0
1.662	1.660	I-540 SOUTHBOUND - OUTSIDE LANE JOINT	6	15	10.0	10.0
1.609	1.607	I-540 SOUTHBOUND - OUTSIDE LANE JOINT	6	15	10.0	10.0
1.434	1.432	I-540 SOUTHBOUND - INSIDE LANE JOINT	6	12	8.0	8.0
1.332	1.330	I-540 SOUTHBOUND - OUTSIDE LANE JOINT	6	12	8.0	8.0
1.326	1.324	I-540 SOUTHBOUND - OUTSIDE LANE JOINT	6	12	8.0	8.0
1.264	1.262	I-540 SOUTHBOUND - OUTSIDE LANE JOINT	6	15	10.0	10.0
1.240	1.238	I-540 SOUTHBOUND - OUTSIDE LANE	15	15	25.0	25.0
1.172	1.170	I-540 SOUTHBOUND - OUTSIDE LANE JOINT	6	12	8.0	8.0
1.055	1.053	I-540 SOUTHBOUND - OUTSIDE LANE JOINT	6	15	10.0	10.0
0.953	0.951	I-540 SOUTHBOUND - OUTSIDE LANE JOINT	6	15	10.0	10.0
0.928	0.926	I-540 SOUTHBOUND - OUTSIDE LANE JOINT	6	12	8.0	8.0
SUBTOTALS BOX 4:					323.7	323.7

PCCP PATCHING (INTERCHANGE RAMPS) - BOX 5 OF 5

LOG MILE	LOG MILE	LOCATION	LENGTH	WIDTH	REM. & DISP. CONC. PVMT.	P.C.C.P. PATCHING (9" U.T.)
			FEET	FEET	SQ. YD.	SQ. YD.
ENTIRE	PROJECT	AS DIRECTED BY THE ENGINEER	VARIES	15	920.0	920.0
SUBTOTALS BOX 5:					920.0	920.0

PCCP PATCHING TOTAL

	LOCATION	REM. & DISP. CONC. PVMT.	P.C.C.P. PATCHING (9" U.T.)
		SQ. YD.	SQ. YD.
SUBTOTALS BOX 1	HWY. 271 SOUTHBOUND	24.0	24.0
SUBTOTALS BOX 2	HWY. 271 NORTHBOUND	10.0	10.0
SUBTOTALS BOX 3	I-540 NORTHBOUND	237.0	237.0
SUBTOTALS BOX 4	I-540 SOUTHBOUND	323.7	323.7
SUBTOTALS BOX 5	INTERCHANGE RAMPS	920.0	920.0
TOTALS:		1514.7	1514.7

12/8/2014

RBB0405.DGN

QUANTITIES

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB0405	16	29

(2) QUANTITIES

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
12-12-14

GRINDING PORTLAND CEMENT CONCRETE PAVEMENT (HWY. 271 SOUTHBOUND) - BOX 1 OF 5

STATION	STATION	LOCATION	LENGTH	WIDTH	GRINDING PORTLAND CEMENT CONCRETE
			FEET	FEET	SQ. YD.
00+05.00	13+88.31	HWY. 271 SOUTHBOUND LANES	1383.31	27	4149.9
13+88.31	23+00.36	HWY. 271 SOUTHBOUND LANES	912.05	24	2432.1
23+00.36	34+36.63	HWY. 271 SOUTHBOUND LANES	1136.27	27	3408.8
ADDITIONAL FOR ENTRANCE RAMP					
13+88.31	24+03.59	EXIT 14 S.B. LANES - ACCELERATION LANE AND TAPER	1015.28	VARIES	1120.3
24+03.59	35+98.59	EXIT 14 - RAMP 4	1195.00	15	1991.7
SUBTOTAL BOX 1:					13102.8

NOTE: THE REMOVAL AND DISPOSAL OF PLOWABLE PAVEMENT MARKERS WILL NOT BE PAID FOR DIRECTLY, BUT WILL BE CONSIDERED INCLUDED IN THE PRICE BID FOR "GRINDING PORTLAND CEMENT CONCRETE PAVEMENT."

GRINDING PORTLAND CEMENT CONCRETE PAVEMENT (HWY. 271 NORTHBOUND) - BOX 2 OF 5

STATION	STATION	LOCATION	LENGTH	WIDTH	GRINDING PORTLAND CEMENT CONCRETE
			FEET	FEET	SQ. YD.
00+05.00	18+78.37	HWY. 271 NORTHBOUND LANES	1873.37	27	5620.1
18+78.37	22+62.98	HWY. 271 NORTHBOUND LANES	384.61	24	1025.6
22+62.98	34+13.74	HWY. 271 NORTHBOUND LANES	1150.76	27	3452.3
ADDITIONAL FOR EXIT RAMP					
18+78.37	25+38.60	EXIT 14 N.B. LANES - TURN OUT	660.23	VARIES	899.5
25+38.60	34+58.60	EXIT 14 - RAMP 1	920.00	15	1533.3
SUBTOTAL BOX 2:					12530.8

NOTE: THE REMOVAL AND DISPOSAL OF PLOWABLE PAVEMENT MARKERS WILL NOT BE PAID FOR DIRECTLY, BUT WILL BE CONSIDERED INCLUDED IN THE PRICE BID FOR "GRINDING PORTLAND CEMENT CONCRETE PAVEMENT."

GRINDING PORTLAND CEMENT CONCRETE PAVEMENT (I-540 SOUTHBOUND) - BOX 3 OF 5

STATION	STATION	LOCATION	LENGTH	WIDTH	GRINDING PORTLAND CEMENT CONCRETE
			FEET	FEET	SQ. YD.
36+95.03	47+75.66	I-540 SOUTHBOUND LANES	1080.63	27	3241.9
47+75.66	50+50.71	I-540 SOUTHBOUND LANES	275.05	24	733.5
50+50.71	67+53.06	I-540 SOUTHBOUND LANES	1702.35	27	5107.1
67+53.06	75+99.23	I-540 SOUTHBOUND LANES	846.17	24	2256.5
75+99.23	87+29.78	I-540 SOUTHBOUND LANES	1130.55	27	3391.7
88+44.37	100+64.30	I-540 SOUTHBOUND LANES	1219.93	27	3659.8
100+64.30	103+10.33	I-540 SOUTHBOUND LANES	246.03	24	656.1
103+10.33	115+14.46	I-540 SOUTHBOUND LANES	1204.13	27	3612.4
115+14.46	123+47.14	I-540 SOUTHBOUND LANES	832.68	24	2220.5
123+47.14	135+32.92	I-540 SOUTHBOUND LANES	1185.78	27	3557.3
139+53.30	144+12.29	I-540 SOUTHBOUND LANES	458.99	27	1377.0
ADDITIONAL FOR ENTRANCE AND EXIT RAMPS					
37+19.33	45+49.33	EXIT 14 - RAMP 3	830.00	15	1383.3
45+49.33	50+50.71	EXIT 14 S.B. LANES - TURN OUT	501.38	VARIES	607.6
67+53.06	76+54.17	EXIT 13 S.B. LANES - ACCELERATION LANE AND TAPER	901.11	VARIES	1032.4
76+54.17	88+09.17	EXIT 13 - RAMP 4	1155.00	15	1925.0
87+90.16	98+40.16	EXIT 13 - RAMP 3	1050.00	15	1750.0
98+40.16	103+10.33	EXIT 13 S.B. LANES - TURN OUT	470.17	VARIES	536.3
115+14.46	124+15.97	EXIT 12 S.B. LANES - ACCELERATION LANE AND TAPER	901.51	VARIES	1028.0
124+15.97	137+65.97	EXIT 12 - RAMP 4	1350.00	15	2250.0
SUBTOTAL BOX 3:					40326.4

NOTE: THE REMOVAL AND DISPOSAL OF PLOWABLE PAVEMENT MARKERS WILL NOT BE PAID FOR DIRECTLY, BUT WILL BE CONSIDERED INCLUDED IN THE PRICE BID FOR "GRINDING PORTLAND CEMENT CONCRETE PAVEMENT."

GRINDING PORTLAND CEMENT CONCRETE PAVEMENT (I-540 NORTHBOUND) - BOX 4 OF 5

STATION	STATION	LOCATION	LENGTH	WIDTH	GRINDING PORTLAND CEMENT CONCRETE
			FEET	FEET	SQ. YD.
36+72.14	46+25.94	I-540 NORTHBOUND LANES	953.80	27	2861.4
46+25.94	57+44.94	I-540 NORTHBOUND - BOTH LANES	1119.00	24	2984.0
57+44.94	73+18.90	I-540 NORTHBOUND - INSIDE LANE	1573.96	27	4721.9
73+18.90	75+65.11	I-540 NORTHBOUND - OUTSIDE LANE	246.21	24	656.6
75+65.11	87+29.78	I-540 NORTHBOUND - OUTSIDE LANE	1164.67	27	3494.0
88+80.87	99+18.14	I-540 NORTHBOUND - INSIDE LANE	1037.27	27	3111.8
99+18.14	107+70.81	I-540 NORTHBOUND - ACCEL. LANE	852.67	24	2273.8
107+70.81	117+19.73	I-540 NORTHBOUND - OUTSIDE LANE	948.92	27	2846.8
117+19.73	119+64.66	I-540 NORTHBOUND - OUTSIDE LANE	244.93	24	653.1
119+64.66	135+10.68	I-540 NORTHBOUND - BOTH LANES	1546.02	27	4638.1
139+31.06	144+12.29	I-540 NORTHBOUND - OUTSIDE LANE	481.23	27	1443.7
ADDITIONAL FOR ENTRANCE AND EXIT RAMPS					
34+96.97	45+61.97	EXIT 14 - RAMP 2	1065.00	15	1775.0
45+61.97	57+44.94	EXIT 14 N.B. LANES - ACCELERATION LANE AND TAPER	1182.97	VARIES	1279.6
73+18.90	77+88.65	EXIT 13 N.B. LANES - TURN OUT	469.75	VARIES	537.5
77+88.65	88+03.65	EXIT 13 - RAMP 1	1015.00	15	1691.7
87+89.98	98+69.98	EXIT 13 - RAMP 2	1080.00	15	1800.0
98+69.98	107+70.81	EXIT 13 N.B. LANES - ACCELERATION LANE AND TAPER	900.83	VARIES	1027.7
117+19.73	122+42.91	EXIT 12 N.B. LANES - TURN OUT	523.18	VARIES	5680.2
122+42.91	135+47.91	EXIT 12 - RAMP 1	1305.00	15	2175.0
135+38.52	145+38.52	EXIT 12 - RAMP 2	1000.00	15	1666.7
SUBTOTAL BOX 4:					47318.6

NOTE: THE REMOVAL AND DISPOSAL OF PLOWABLE PAVEMENT MARKERS WILL NOT BE PAID FOR DIRECTLY, BUT WILL BE CONSIDERED INCLUDED IN THE PRICE BID FOR "GRINDING PORTLAND CEMENT CONCRETE PAVEMENT."

GRINDING PORTLAND CEMENT CONCRETE PAVEMENT TOTAL

	LOCATION	GRINDING PORTLAND CEMENT CONCRETE PAVEMENT
		SQ. YD.
SUBTOTAL BOX 1	HWY. 271 SOUTHBOUND	13102.8
SUBTOTAL BOX 2	HWY. 271 NORTHBOUND	12530.8
SUBTOTAL BOX 3	I-540 SOUTHBOUND	40326.4
SUBTOTAL BOX 4	I-540 NORTHBOUND	47318.6
TOTAL:		113278.6

NOTE: THE REMOVAL AND DISPOSAL OF PLOWABLE PAVEMENT MARKERS WILL NOT BE PAID FOR DIRECTLY, BUT WILL BE CONSIDERED INCLUDED IN THE PRICE BID FOR "GRINDING PORTLAND CEMENT CONCRETE PAVEMENT."

12/8/2014

RBB0405.DGN

QUANTITIES

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB0405	17	29

(2) QUANTITIES

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
12-12-14

RUMBLE STRIPS IN ASPHALT SHOULDERS

STATION	STATION	LOCATION	* RUMBLE STRIPS IN ASPHALT SHOULDERS
			LIN.FT.
00+05	18+78	RT. OF HWY. 271 NORTHBOUND LANES	1873
22+63	34+14	RT. OF HWY. 271 NORTHBOUND LANES	1151
36+72	46+26	RT. OF I-540 NORTHBOUND LANES	954
57+45	73+19	RT. OF I-540 NORTHBOUND LANES	1574
75+65	87+30	RT. OF I-540 NORTHBOUND LANES	1165
88+81	99+18	RT. OF I-540 NORTHBOUND LANES	1037
107+71	117+20	RT. OF I-540 NORTHBOUND LANES	949
119+65	135+11	RT. OF I-540 NORTHBOUND LANES	1546
139+31	144+12	RT. OF I-540 NORTHBOUND LANES	481
00+05	13+88	LT. OF HWY. 271 SOUTHBOUND LANES	1383
23+00	34+37	LT. OF HWY. 271 SOUTHBOUND LANES	1137
36+95	47+76	LT. OF I-540 SOUTHBOUND LANES	1081
50+51	67+53	LT. OF I-540 SOUTHBOUND LANES	1702
75+99	87+30	LT. OF I-540 SOUTHBOUND LANES	1131
88+81	100+64	LT. OF I-540 SOUTHBOUND LANES	1183
103+10	115+14	LT. OF I-540 SOUTHBOUND LANES	1204
123+47	135+33	LT. OF I-540 SOUTHBOUND LANES	1186
139+53	144+12	LT. OF I-540 SOUTHBOUND LANES	459
TOTAL:			21196

* QUANTITY ESTIMATED.
SEE SECTION 104.03 OF THE STD. SPECS.
TO BE USED IF AND WHERE DIRECTED BY THE ENGINEER.

JOINT REHABILITATION

LOG MILE	LOG MILE	LOCATION	JOINT REHABILITATION			
			NUMBER OF JOINTS	LENGTH LIN. FT.	TYPE A LIN. FT.	TYPE B LIN. FT.
3.200	2.547	HWY. 271 NORTHBOUND	230	24	5520	3448
3.200	2.543	HWY. 271 SOUTHBOUND	231	24	5544	3469
0.688	1.660	I-540 NORTHBOUND	342	24	8208	5132
1.675	2.566	I-540 NORTHBOUND	314	24	7536	4704
2.632	2.738	I-540 NORTHBOUND	37	24	888	560
0.692	1.659	I-540 SOUTHBOUND	340	24	8160	5106
1.674	2.569	I-540 SOUTHBOUND	315	24	7560	4726
2.635	2.738	I-540 SOUTHBOUND	36	24	864	544
TOTALS:					44280	27689

12/8/2014

RBB0405.DGN

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
1-15-15				6	ARK.			
				JOB NO.		BB0405	18	29

(2) SUMMARY OF QUANTITIES AND REVISIONS

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
1-15-15

SUMMARY OF QUANTITIES

	ITEM NUMBER	ITEM		NHPP-9150(28)	BIM-B540(201)	QUANTITY	UNIT
	507	REMOVAL AND DISPOSAL OF CONCRETE PAVEMENT FOR PATCHING		34	1481	1515	SQ. YD.
	SP & 507	PORTLAND CEMENT CONCRETE PAVEMENT PATCHING (9" UNIFORM THICKNESS)		34	1481	1515	SQ. YD.
	509	JOINT REHABILITATION (TYPE A)		11064	33216	44280	LIN. FT.
	509	JOINT REHABILITATION (TYPE B)		6917	20772	27689	LIN. FT.
	SP & 510	GRINDING PORTLAND CEMENT CONCRETE PAVEMENT		25634	87645	113279	SQ. YD.
	601	MOBILIZATION			1.00	1.00	LUMP SUM
	SP & 603	MAINTENANCE OF TRAFFIC			1.00	1.00	LUMP SUM
	SS & 604	SIGNS			1436	1436	SQ. FT.
	SS & 604	TRAFFIC DRUMS			913	913	EACH
	604	CONSTRUCTION PAVEMENT MARKINGS		20705	72119	92824	LIN. FT.
	604	ADVANCE WARNING ARROW PANEL			80	80	DAY
	SP & 604	PORTABLE CHANGEABLE MESSAGE SIGN			56	56	WEEK
	635	ROADWAY CONSTRUCTION CONTROL			1.00	1.00	LUMP SUM
	642	RUMBLE STRIPS IN ASPHALT SHOULDERS		5544	15652	21196	LIN. FT.
*	SP & 719	INVERTED PROFILE THERMOPLASTIC PAVEMENT MARKING WHITE (4")	(ALTERNATE NO. 1)	9128	31912	41040	LIN. FT.
*	SP	HIGH PERFORMANCE MARKING TAPE WHITE (4")	(ALTERNATE NO. 2)	9128	31912	41040	LIN. FT.
*	SP & 719	INVERTED PROFILE THERMOPLASTIC PAVEMENT MARKING WHITE (8")	(ALTERNATE NO. 1)	775	3100	3875	LIN. FT.
*	SP	HIGH PERFORMANCE MARKING TAPE WHITE (8")	(ALTERNATE NO. 2)	775	3100	3875	LIN. FT.
*	SP & 719	INVERTED PROFILE THERMOPLASTIC PAVEMENT MARKING YELLOW (4")	(ALTERNATE NO. 1)	9072	31627	40699	LIN. FT.
*	SP	HIGH PERFORMANCE MARKING TAPE YELLOW (4")	(ALTERNATE NO. 2)	9072	31627	40699	LIN. FT.
*	SP & 719	INVERTED PROFILE THERMOPLASTIC CONTRAST PAVEMENT MARKING WHITE (4")	(ALTERNATE NO. 1)	1730	5480	7210	LIN. FT.
*	SP	HIGH PERFORMANCE CONTRAST MARKING TAPE WHITE (4")	(ALTERNATE NO. 2)	1730	5480	7210	LIN. FT.
	721	RAISED PAVEMENT MARKERS (TYPE II)		211	770	981	EACH
	SP	TEMPORARY PORTABLE RUMBLE STRIPS			24	24	EACH

* DENOTES ALTERNATE BID ITEMS.

REVISIONS

DATE	REVISION	SHEET NUMBER
01/15/15	REVISED "MANDATORY USE OF INTERNET BIDDING" SPECIAL PROVISION; REVISED "GOALS FOR DISADVANTAGED BUSINESS ENTERPRISE PARTICIPATION" SPECIAL PROVISION; ADDED "DISADVANTAGED BUSINESS ENTERPRISE BIDDER'S RESPONSIBILITIES" SPECIAL PROVISION	2 & 18

1/15/2015

RBB0405.DGN

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB0405	19	29

(2) PLAN SHEETS

STA. 0+15 IN PLACE
TYPE R DROP INLET IN MEDIAN
(4' X 3' X H = 3'-0") WITH
18" X 70' R.C. PIPE OUTLET
TO LT. WITH F.E.S.
RETAIN

STA. 8+15 IN PLACE
TYPE R DROP INLET IN MEDIAN
(4' X 3' X H = 4'-0") WITH
18" X 75' R.C. PIPE OUTLET
TO LT. WITH F.E.S.
RETAIN

STA. 10+48 - IN PLACE
IMPACT ATTENUATION BARRIER
RETAIN

PI = 14+47.49
Δ = 10°27'57" LT.
D = 1°38'13"
T = 320.18'
L = 638.58'
PC = 11+27.69
PT = 17+66.26

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
12-12-14

EXIST. R/W

LT. FRONTAGE RD.

EXIST. C OF A

POBO+00.00

PC11+27.69

EXIST. C OF A

5

10

15

S 79°50'49" E

N 89°41'14" E

STA. 0+05.00
BEGIN JOB BB0405
BEGIN HWY. 271 SECTION
LOG MILE 3.20

EXIST. C OF A

RT. FRONTAGE RD.

24" PIPE
RETAIN

Tower

PI14+47.86

EXIST. C O

RT. FRONTAGE RD.

STA. 15+14 IN PLACE
TYPE A DROP INLET 2.7' RT.
(3' X 2'-1" X H = 10'-0") WITH
18" X 88' R.C. PIPE OUTLET
TO LT. WITH F.E.S.
IN PLACE TYPE A DROP INLET
2.7" LT. (3' X 2'-1" X H = 3'-0")
WITH 18" X 4' R.C. PIPE OUTLET
CONN. TO DROP INLET ON RT.
RETAIN

STA. 19+11 IN PLACE
TYPE A DROP INLET 2.7' RT.
(3' X 2'-1" X H = 4'-0") WITH
18" X 69' R.C. PIPE OUTLET
TO LT. WITH F.E.S.
RETAIN

STA. 26+11 IN PLACE
TYPE A DROP INLET 2.7' RT.
(3' X 2'-1" X H = 13'-0") WITH
18" X 115' R.C. PIPE OUTLET
TO LT. WITH F.E.S.
RETAIN

PI = 14+47.49
Δ = 10°27'57" LT.
D = 1°38'13"
T = 320.18'
L = 638.58'
PC = 11+27.69
PT = 17+66.26

PI = 36+62.72
Δ = 36°52'16" LT.
D = 1°00'00"
T = 1909.93'
L = 3687.12'
PC = 17+52.79
PT = 54+39.90

30" PIPE
RETAIN

EXIST. R/W & C OF A

PT17+66.26

PC17+90.02

15

20

25

30

N 89°41'14" E

N 89°41'14" E

30" PIPE
RETAIN

T. C OF A

RD.

EXIST. C OF A

RT. FRONTAGE RD.

18" PIPE
RETAIN

12/8/2014

RBB0405.DGN

PLAN SHEETS

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB0405	20	29

(2) PLAN SHEETS

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
12-12-14

STA. 30+09 IN PLACE
TYPE A DROP INLET 2.7' RT.
(3' X 2'-1" X H = 11'-0") WITH
18" X 78' R.C. PIPE OUTLET
TO LT. WITH F.E.S.
IN PLACE TYPE A DROP INLET
2.7" LT. (3' X 2'-1" X H = 3'-0")
WITH 18" X 4' R.C. PIPE OUTLET
CONN. TO DROP INLET ON RT.
RETAIN

STA. 34+08 IN PLACE
TYPE A DROP INLET 2.7' RT.
(3' X 2'-1" X H = 18'-0") WITH
18" X 119' R.C. PIPE (CL IV)
TO LT. WITH F.E.S.
IN PLACE TYPE A DROP INLET
2.7" LT. (3' X 2'-1" X H = 3'-0")
WITH 18" X 4' R.C. PIPE OUTLET
CONN. TO DROP INLET ON RT.
RETAIN

STA. 38+75 IN PLACE
TRIPLE 6' X 5' X 38' R.C. BOX
(19° LT. FWD. SKEW) WITH
TYPE A DROP INLET 2.7' RT.
(3' X 2'-1" X H = 19'-4")
D.A. = 619 AC., Q_{50} = 650 CFS
RETAIN

STA. 43+11 IN PLACE
TYPE A DROP INLET 2.7' RT.
(3' X 2'-1" X H = 9'-0") WITH
18" X 117' R.C. PIPE OUTLET
TO LT. WITH F.E.S.
IN PLACE TYPE A DROP INLET
2.7" LT. (3' X 2'-1" X H = 3'-0")
WITH 18" X 4' R.C. PIPE OUTLET
CONN. TO DROP INLET ON RT.
RETAIN

EXIST. R/W & C OF A

HWY. 271

18" R.C.P. RETAIN

18" R.C.P. RETAIN

GATE

N

R-4

R-3

R-2

R-1

PI = 36+62.72
Δ = 36°52'16" LT.
D = 1°00'00"
T = 1909.93'
L = 3687.12'
PC = 17+52.79
PT = 54+39.90

BR. NO. 5103A AND 5103B ARE EXCEPTIONS TO JOB BB0405.

BR. END STA. 34+73.13

BR. END STA. 36+58.71

BR. NO. 5103A

BR. NO. 5103B

BR. END STA. 34+50.24

BR. END STA. 36+35.82

HWY. 253

STA. 34+50.24
END HWY. 271 SECTION
BEGIN I-540 SECTION
LOG MILE 0.65

N 89°41'14" E

N 53°05'01" E

30

35

40

45

STA. 47+12 IN PLACE
TYPE A DROP INLET 2.7' RT.
(3' X 2'-1" X H = 8'-0") WITH
18" X 90' R.C. PIPE OUTLET
TO LT. WITH F.E.S.
RETAIN

STA. 49+66 IN PLACE
48" X 166' R.C. PIPE CULVERT
WITH F.E.S. LT & RT.
D. A. 68 AC., Q_{50} =88CFS
RETAIN

STA. 51+11 IN PLACE
TYPE A DROP INLET 2.7' RT.
(3' X 2'-1" X H = 10'-0") WITH
18" X 84' R.C. PIPE OUTLET
TO LT. WITH F.E.S.
IN PLACE TYPE A DROP INLET
2.7" LT. (3' X 2'-1" X H = 3'-0")
WITH 18" X 4' R.C. PIPE OUTLET
CONN. TO DROP INLET ON RT.
RETAIN

STA. 55+11 IN PLACE
TYPE A DROP INLET 2.7' RT.
(3' X 2'-1" X H = 7'-0") WITH
18" X 72' R.C. PIPE OUTLET
TO LT. WITH F.E.S.
IN PLACE TYPE A DROP INLET
2.7" LT. (3' X 2'-1" X H = 3'-0")
WITH 18" X 4' R.C. PIPE OUTLET
CONN. TO DROP INLET ON RT.
RETAIN

PI = 36+62.72
Δ = 36°52'16" LT.
D = 1°00'00"
T = 1909.93'
L = 3687.12'
PC = 17+52.79
PT = 54+39.90

N

EXIST. R/W & C OF A.

PT54+50.38

N 53°05'01" E

45

50

55

60

EXIST. R/W & C OF A

12/8/2014

RBB0405.DGN

PLAN SHEETS

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB0405	21	29

(2) PLAN SHEETS

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
12-12-14

STA. 64+67 IN PLACE
5' X 5' X 142' R.C. BOX CULVERT
D.A. = 120 AC., Q_{50} = 173 C.F.S.
RETAIN

EXIST. R/W & C. OF A.

GATE

60 65 70 75

N 53°05'01" E

GATE

EXIST. R/W & C. OF A.

EXIST. R/W & C. OF A.

RAMP-4

18" R.C. PIPE
RETAIN

JENNY LIND RD.

BR. NO. 5629A AND 5629B ARE EXCEPTIONS TO JOB BB0405.

BR. END STA. 87+66.28

BR. END STA. 88+44.37

80 85 90

N 53°05'01" E

BR. NO. 5629A

BR. NO. 5629B

BR. END STA. 87+66.28

BR. END STA. 88+44.37

STA. 83+49 IN PLACE
4' X 3' X 432' R.C. BOX CULVERT
(16° 10' LT. FWD. SKEW) WITH
TYPE T DROP INLET 40' LT. OF
STA. 83+00 R-1
D.A. = 55 AC., Q_{50} = 99 C.F.S.
RETAIN

GATE

RAMP-1

PLAN SHEETS

12/8/2014

RBB0405.DGN

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB0405	22	29

(2) PLAN SHEETS

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
12-12-14

EXIST. R/W & C. OF A.

RAMP-3

STA. 97+04 IN PLACE
5' X 34' X 265' R.C. BOX CULVERT
(21° LT. FWD. SKEW)
D.A. = 101 AC., Q_{50} = 158 C.F.S.
RETAIN

GATE

90 95 100 105

N 53°05'01" E

18" R.C. PIPE
RETAIN

RAMP-2

GATE

EXIST. R/W

STA. 113+73 IN PLACE
7' X 5' X 170' R.C. BOX CULVERT
(8° LT. FWD. SKEW)
DBL. 48" X 170' R.C. PIPE
D.A. = 440 AC., Q_{50} = 598 C.F.S.
RETAIN

EXIST. R/W

S. 28TH ST.

EXIST. R/W & C. OF A.

T. R/W & C. OF A.

105 110 115 120

N 53°05'01" E

BR. NO. 5654

EXIST. C. OF A.

EXIST. R/W & C. OF A.

T. R/W

EXIST. R/W

PLAN SHEETS

12/8/2014

RBB0405.DGN

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB0405	23	29

(2) PLAN SHEETS

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
12-12-14

P.O.S.T. STA. 125+62 IN PLACE
TRIPLE 7' X 4' X 311' R.C. BOX CULVERT
(10° 42' LT. FWD. SKEW ON P.O.S.T.)
WITH TYPE A DROP INLET 2.7' LT.
(3' X 2'-1" X H = 13'-4")
D.A. = 482 AC., Q_{50} = 540 C.F.S.
RETAIN

EXIST. R/W
EXIST. R/W & C. OF A.
EXIST. R/W & C. OF A.

PC 124+69.57

120 125 130 135

N 53°05'01" E

PI = 144+96.70
Δ = 39°14'08" LT.
D = 1°00'00"
T = 2042.21'
L = 3923.55'
PC = 124+54.48
PT = 163+78.03

R-4 R-1 R-5

18" R.C. PIPE RETAIN
18" R.C. PIPE RETAIN
18" R.C. PIPE RETAIN
18" R.C. PIPE RETAIN

STA. 129+08 IN PLACE
TYPE A DROP INLET 2.7' RT.
(3' X 2'-1" X H = 12'-6") WITH
18" X 90' R.C. PIPE OUTLET
TO RT. WITH F.E.S.
RETAIN

STA. 132+05 IN PLACE
TYPE A DROP INLET 2.7' RT.
(3' X 2'-1" X H = 16'-6") WITH
18" X 105' R.C. PIPE OUTLET
TO RT. WITH F.E.S.
IN PLACE TYPE A DROP INLET
2.7" LT. (3' X 2'-1" X H = 3'-0")
WITH 18" X 4' R.C. PIPE OUTLET
CONN. TO DROP INLET ON RT.
RETAIN

STA. 135+07 IN PLACE
TYPE A DROP INLET 2.7' RT.
(3' X 2'-1" X H = 16'-6") WITH
18" X 102' R.C. PIPE OUTLET
TO RT. WITH F.E.S.
RETAIN

24" R.C. PIPE RETAIN

STA. 135+07 IN PLACE
TYPE A DROP INLET 2.7' RT.
(3' X 2'-1" X H = 16'-6") WITH
18" X 102' R.C. PIPE OUTLET
TO RT. WITH F.E.S.
RETAIN

18" R.C. PIPE RETAIN

HWY. 71

PI = 144+96.70
Δ = 39°14'08" LT.
D = 1°00'00"
T = 2042.21'
L = 3923.55'
PC = 124+54.48
PT = 163+78.03

STA 144+12.29
END MAIN LANES

BR. END STA. 135+69.42
BR. END STA. 139+16.81
BR. NO. 5102A
BR. NO. 5102B
BR. END STA. 135+47.18
BR. END STA. 138+94.56

135 140 145 150

BR. NO. 5102A AND 5102B ARE EXCEPTIONS TO JOB BB0405.

STA. 145+38.52
END JOB BB0405

STA. 148+15 IN PLACE
TYPE F DROP INLET 2.7' RT.
(3' X 2'-0" X H = 9'-6") WITH
18" X 108' R.C. PIPE OUTLET
TO RT.
RETAIN

N 53°05'01" E

STA. 139+49 IN PLACE
TYPE A DROP INLET 2.7' LT.
(3' X 2'-1" X H = 19'-6") WITH
18" X 90' CL. IV R.C. PIPE OUTLET
TO LT. WITH F.E.S.
RETAIN

STA. 141+13 IN PLACE
7' X 4' X 350' R.C. BOX CULVERT
(30° LT. FWD. SKEW)
RETAIN

STA. 145+03 IN PLACE
TYPE F DROP INLET 2.7' RT.
(3' X 2'-0" X H = 23'-0") WITH
18" X 117' R.C. PIPE OUTLET
TO LT. WITH F.E.S.
RETAIN

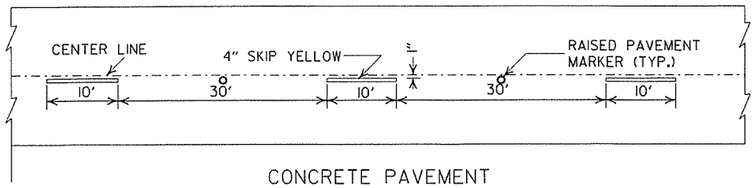
C. OF A.

N 13°51'03" E

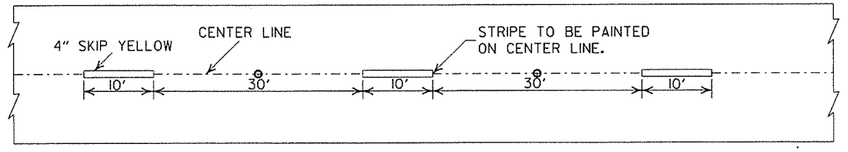
PLAN SHEETS

12/8/2014

RBB0405.DGN

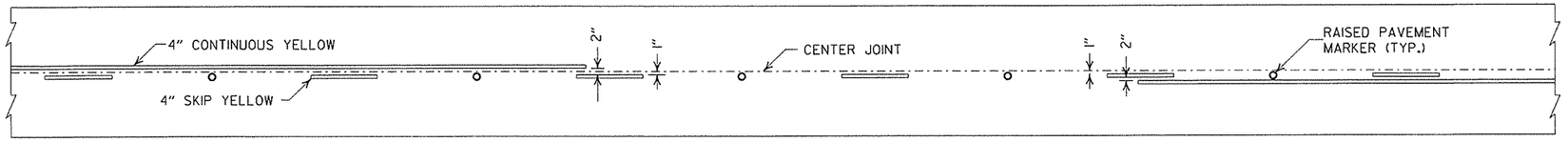


CONCRETE PAVEMENT

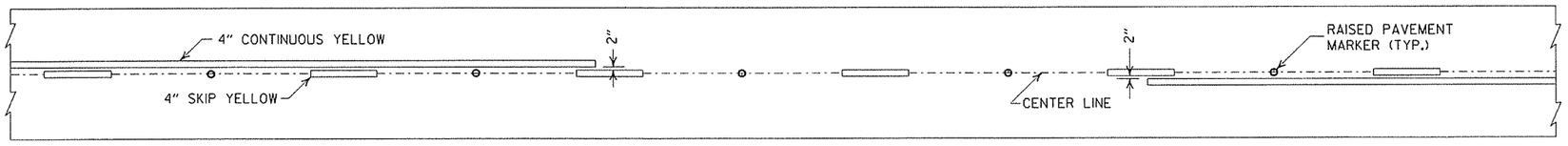


ASPHALT PAVEMENT

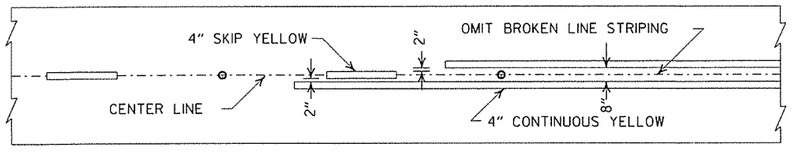
BROKEN LINE STRIPING



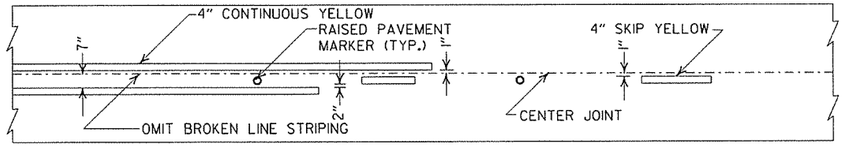
SOLID LINE STRIPING ON CONCRETE PAVEMENT



SOLID LINE STRIPING ON ASPHALT PAVEMENT

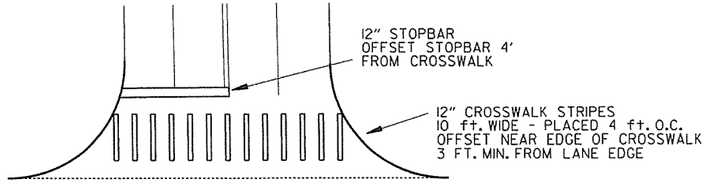


ASPHALT PAVEMENT



CONCRETE PAVEMENT

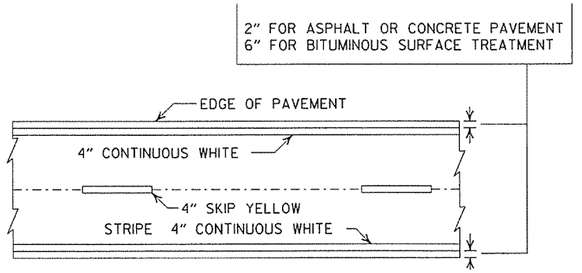
STRIPING AT ADJACENT NO PASSING LANES



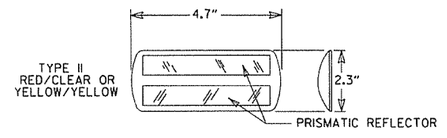
CROSSWALK AND STOPBAR DETAILS

NOTES:

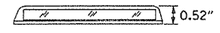
1. ALL LINES SHALL HAVE A WIDTH OF 4 INCHES.
2. THE THICKNESS AND RATE OF PAINT APPLICATION SHALL BE AS SPECIFIED IN SECTION 718 OF THE STANDARD SPECIFICATIONS.
3. THIS DRAWING SHALL BE USED IN CONJUNCTION WITH THE LATEST REVISED ADDITION OF THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES."
4. RAISED PAVEMENT MARKERS SHALL BE CENTERED BETWEEN SKIP LINES ON 40 FEET SPACING UNLESS OTHERWISE SHOWN ON THE PLANS.



PAVEMENT EDGE LINE MARKING



NOTE:
THE RED LENS OF THE TYPE II R.P.M. SHALL FACE THE INCORRECT TRAFFIC MOVEMENT.



DETAIL OF STANDARD RAISED PAVEMENT MARKERS

GENERAL NOTES:

THIS DRAWING SHOULD BE CONSIDERED AS TYPICAL ONLY AND THE FINAL LOCATION OF THE STRIPING AND RAISED PAVEMENT MARKERS SHALL BE DETERMINED BY THE ENGINEER.

THIS DRAWING SHOULD BE USED IN CONJUNCTION WITH THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES", LATEST REVISION.

NOTE:
DIMENSIONS SHOWN FOR RAISED PAVEMENT MARKERS ARE TYPICAL. THE CONTRACTOR MAY SUBSTITUTE SIMILAR MARKERS WITH THE APPROVAL OF THE ENGINEER. REQUESTING APPROVAL FOR SIMILAR MARKERS MAY BE MADE BY REFERRING TO THE AHTD QUALIFIED PRODUCTS LIST.

DATE	REVISION	FILMED
9-12-13	REVISED DETAIL OF STANDARD RAISED PAVEMENT MARKERS	
11-17-10	REVISED GENERAL NOTES & REMOVED PLOWABLE PVMT MRKRS	
11-18-04	REVISED NOTE 2 & GENERAL NOTES	
8-22-02	ADDED CROSSWALK & STOPBAR DTLS.	
7-02-98	ADDED DETAILS OF STD. RAISED PAV'T. MARKERS	
4-26-96	REV. NOTES 3&4; ADDED R.P.M.	
9-30-80	DRAWN	1-9-30-80

ARKANSAS STATE HIGHWAY COMMISSION

PAVEMENT MARKING DETAILS

STANDARD DRAWING PM-1

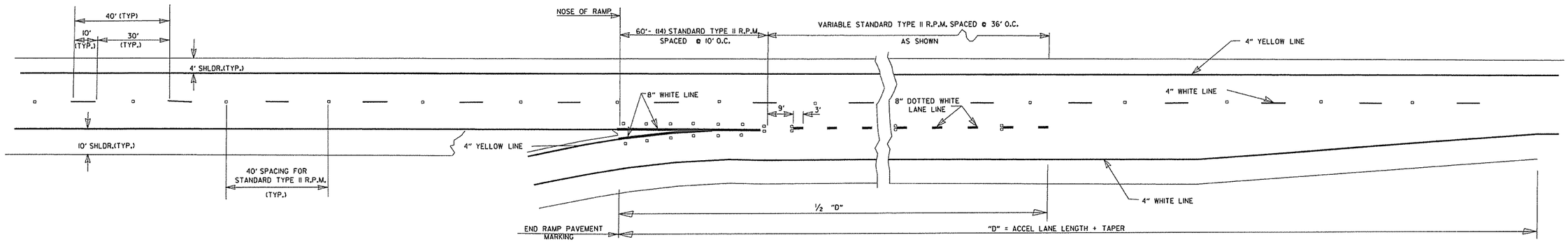
PAVEMENT MARKING QUANTITIES
(BASED ON 700' ACCEL. LANE + 300' TAPER)

ENTRANCE RAMP

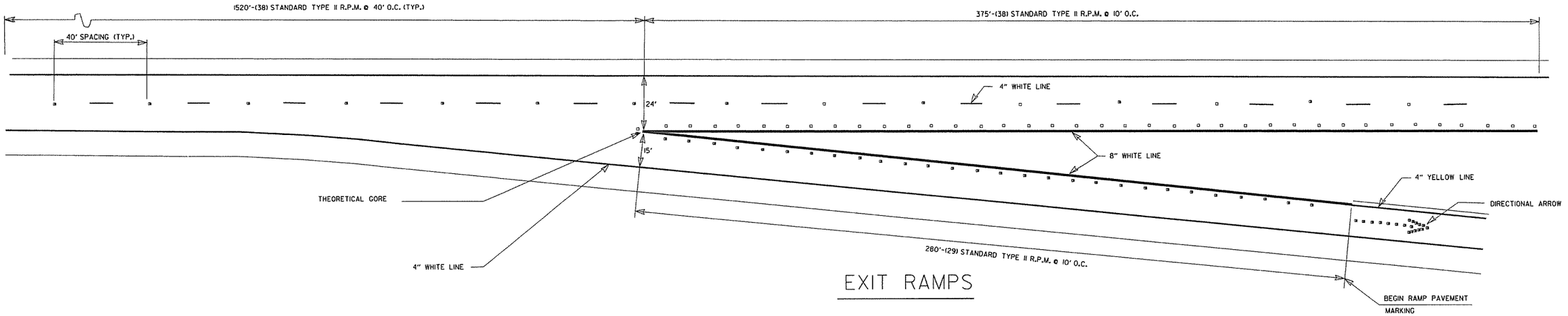
8" WHITE = 228 LIN. FT.
RAISED PAVEMENT MARKERS TYPE II (WHITE/RED) = 38 EACH

EXIT RAMP

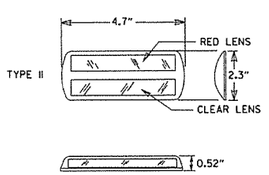
4" WHITE = 280 LIN. FT.
8" WHITE = 655 LIN. FT.
RAISED PAVEMENT MARKERS TYPE II (WHITE/RED) = 38 EACH
RAISED PAVEMENT MARKERS TYPE II (WHITE/RED) = 48 EACH
RAISED PAVEMENT MARKERS TYPE II (WHITE/RED) = 38 EACH



ENTRANCE RAMPS

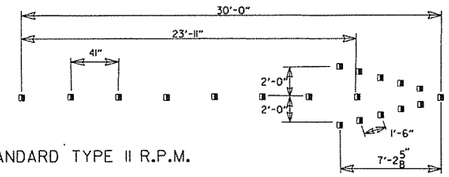


EXIT RAMPS



DETAIL OF
STANDARD
RAISED PAVEMENT MARKERS

NOTE:
THE RED LENS OF THE TYPE II R.P.M. SHALL FACE THE INCORRECT TRAFFIC MOVEMENT.



(19) STANDARD TYPE II R.P.M.

DIRECTIONAL ARROWS

GENERAL NOTES:

THIS DRAWING SHOULD BE CONSIDERED AS TYPICAL ONLY AND THE FINAL LOCATION OF THE STRIPING AND PAVEMENT MARKERS SHALL BE DETERMINED BY THE ENGINEER.

THIS DRAWING SHOULD BE USED IN CONJUNCTION WITH THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES", LATEST REVISION.

NOTE:
DIMENSIONS SHOWN FOR RAISED PAVEMENT MARKERS ARE TYPICAL. THE CONTRACTOR MAY SUBSTITUTE SIMILAR MARKERS WITH THE APPROVAL OF THE ENGINEER. REQUESTING APPROVAL FOR SIMILAR MARKERS MAY BE MADE BY REFERRING TO THE AHTD QUALIFIED PRODUCTS LIST.

DATE	REVISION	FILMED
9-12-13	REVISED DETAIL OF STANDARD RAISED PAVEMENT MARKERS	
7-26-12	REVISED RPM NOTATION	
12-15-11	REVISED RPMs ACCORDING TO LATEST POLICY	
11-17-10	REMOVED PLOWABLE PAVEMENT MARKERS	
6-3-10	REVISED PER 2009 MUTCD	
11-18-04	REVISED NOTES	
8-22-02	ADDED & REVISED NOTES; REV. ENTRANCE & EXIT RAMPS	
5-18-00	REMOVED HASHMARKS	
7-02-98	CHANGED TYPES TO ROMAN NUMERALS	
4-26-96	ADDED DIMENSIONS & QUANTITIES; REVISED LANE WIDTH ON EXIT RAMP	
2-2-95	PLACED IN USE	2-2-95

ARKANSAS STATE HIGHWAY COMMISSION

PERMANENT PAVEMENT MARKING
ON ACCESS CONTROLLED ROADWAYS

STANDARD DRAWING PM-2

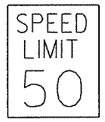
R1-1

STANDARD 30"X30"
EXPRESSWAY 36"X36"
SPECIAL 48"X48"

R1-2

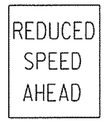
STD. 36"X36"X36"
EXPWY. 48"X48"X48"
FWY. 60"X60"X60"

R2-1



STD. 24"X30"
EXPWY. 36"X48"
FWY. 48"X60"

R2-5A



STD. 24"X30"
EXPWY. 36"X48"
FWY. 48"X60"

R2-5C

STD. 24"X30"
EXPWY. 36"X48"
FWY. 48"X60"

R4-1

STD. 24"X30"
EXPWY. 36"X48"
FWY. 48"X60"

R4-2

STD. 24"X30"
EXPWY. 36"X48"
FWY. 48"X60"

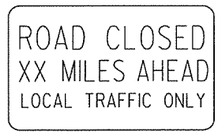
R5-1

STD. 30"X30"
EXPWY. 36"X36"
SPECIAL 48"X48"

RII-2

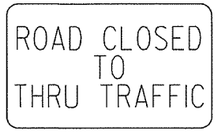
48"X30"

RII-3A



60"X30"

RII-4

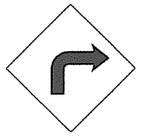


60"X30"

RSP-1

48"X30"

WI-1



STD. 36"X36"
FWY. 48"X48"

WI-2

STD. 36"X36"
FWY. 48"X48"

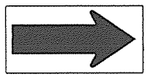
WI-3

STD. 48"X48"

WI-4

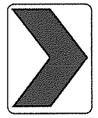
STD. 48"X48"

WI-6



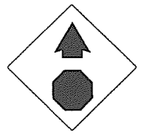
STD. 48"X24"
SPECIAL 60"X30"

WI-8



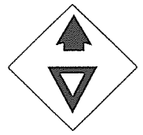
STD. 18"X24"
SPECIAL 24"X30"
EXPWY. 30"X36"
FWY. 36"X48"

W3-1



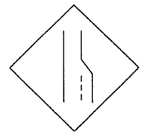
STD. 36"X36"
SPECIAL 48"X48"

W3-2



STD. 36"X36"
SPECIAL 48"X48"

W4-2



STD. 36"X36"
FWY. 48"X48"

W5-1

STD. 36"X36"
SPECIAL 48"X48"

W6-3

EXPWY. 36"X36"
SPECIAL 48"X48"

W8-7

EXPWY. 36"X36"
FWY. 48"X48"

W9-2

STD. 36"X36"
FWY. 48"X48"

WI3-1

STD. 24"X24"

W20-1

STD. 48"X48"

W20-2

STD. 48"X48"

W20-3

STD. 48"X48"

W20-4

STD. 48"X48"

W20-5

STD. 48"X48"

W20-7a

STD. 36"X36"
FWY. 48"X48"

W21-2

STD. 30"X30"
SPECIAL 36"X36"

W21-5

STD. 30"X30"
SPECIAL 36"X36"

W24-1

STD. 36"X36"

WI-4b

STD. 48"X48"

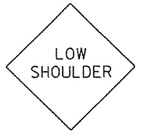
R56-1

STD. 18"X18"

W8-11

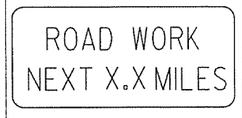
STD. 36"X36"
FWY. 48"X48"

W8-9



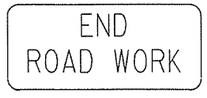
STD. 36"X36"
FWY. 48"X48"

G20-1



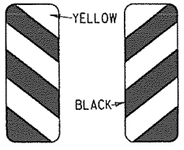
60"X24"

G20-2



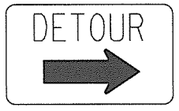
48"X24"

OM-3L OM-3R



12"X36"

M4-9



STD. 30"X24"
SPECIAL 48"X36"
SPECIAL 60"X48"

M4-10

48"X18"

R55-1

FINES DOUBLE
IN WORK ZONES *

WHEN WORKERS
ARE PRESENT **

36"X60"

* USE 6" C LETTERS
** USE 4" D LETTERS

ADVANCE DISTANCES
(XXXX)

500 FT	1/2 MILE
1000 FT	3/4 MILE
1500 FT	1 MILE
	AHEAD

GENERAL NOTES:

1. ALL TRAFFIC CONTROL DEVICES USED ON ROAD CONSTRUCTION SHALL CONFORM TO THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, LATEST EDITION, AND TO THE STANDARD HIGHWAY SIGNS, LATEST EDITION, OR AS APPROVED BY THE FEDERAL HIGHWAY ADMINISTRATION.

2. TRAFFIC CONTROL DEVICES SHALL BE SET UP JUST BEFORE THE START OF CONSTRUCTION OPERATIONS AND SHALL BE PROPERLY MAINTAINED DURING THE TIME SUCH CONDITIONS EXIST. THEY SHALL REMAIN IN PLACE ONLY AS LONG AS NEEDED AND REMOVED THEREAFTER.

3. EXISTING SIGNS AND CONSTRUCTION SIGNS SHALL BE KEPT IN PROPER POSITION, AND BE CLEAN AND LEGIBLE AT ALL TIMES. SIGNS THAT DO NOT APPLY TO EXISTING CONDITIONS SHALL BE REMOVED. SIGNS THAT ARE DAMAGED, DEFACED, OR THAT ACCUMULATE DIRT DURING CONSTRUCTION SHALL BE CLEANED, REPAIRED, OR REPLACED.

• 4. SIGNS ARE USUALLY MOUNTED ON A SINGLE POST, ALTHOUGH THOSE WIDER THAN 36" OR LARGER THAN 10 SQ. FT. SHALL BE MOUNTED ON TWO POSTS OR ABOVE A TYPE III BARRICADE.

• 5. SIGN POSTS DIRECT BURIED IN SOIL SHALL BE 2 LB. MINIMUM CHANNEL POST OR 4"x4" WOOD POSTS. CHANNEL POSTS SHALL BE PAINTED GREEN. WOOD POSTS SHALL BE PAINTED WHITE. ALL POSTS SHALL BE NEATLY CONSTRUCTED, AND SHALL BE REPLUMBED, CLEANED, OR REPAIRED AS NEEDED FOR THE DURATION OF THE JOB. THERE SHALL NOT BE MORE THAN 2 POSTS IN A 7' PATH FOR WOOD OR CHANNEL POSTS. ANY CHANNEL POST SPLICE SHALL BE IN ACCORDANCE WITH STANDARD DRAWING TC-3.

6. POST MOUNTED SIGNS IN RURAL AREAS SHALL BE CONSTRUCTED WITH THE NEAR EDGE OF THE SIGN FROM 6 TO 12 FEET FROM THE PAVEMENT EDGE. SIGNS IN URBAN AREAS AND BARRICADE MOUNTED SIGNS SHALL BE MOUNTED A MINIMUM OF 2 FEET FROM THE PAVEMENT EDGE.

7. ALL POST AND BARRICADE MOUNTED SIGNS MOUNTED IN URBAN AREAS SHALL BE MOUNTED A MINIMUM DISTANCE OF 7' FROM THE BOTTOM OF THE SIGN TO THE ROADWAY SURFACE. ALL POST AND BARRICADE MOUNTED SIGNS MOUNTED IN RURAL AREAS SHALL BE MOUNTED A MINIMUM DISTANCE OF 7' FROM THE BOTTOM OF THE SIGN TO THE ROADWAY SURFACE, EXCEPT A MINIMUM OF 6' SHALL BE USED WHEN MOUNTING AN ADVISORY SIGN BELOW A WARNING SIGN. TEMPORARY SIGNS MAY BE MOUNTED ON PORTABLE SUPPORTS FOR INTERMEDIATE TERM STATIONARY WORK CONDITIONS. THE SIGNS MINIMUM MOUNTING HEIGHT SHALL BE 5'. RETROREFLECTIVE DEVICES SHALL BE USED. TEMPORARY SIGNS MAY BE MOUNTED ON PORTABLE SUPPORTS FOR SHORT-TERM, SHORT DURATION, AND MOBILE CONDITIONS. THEY SHALL BE NO LESS THAN ONE (1) FOOT ABOVE THE TRAVELED WAY. LONG-TERM STATIONARY SIGNS SHALL BE DIRECT BURIED IN SOIL, UNLESS CONDITIONS NECESSITATE THE USE OF PORTABLE SIGNS, OR AS APPROVED BY THE ENGINEER. CONCRETE PADS, CONCRETE OR ROCK BALLAST, OR OTHER SOLID MATERIALS SHALL NOT BE UTILIZED WITH PORTABLE SIGN SUPPORTS.

8. FLAGGERS SHALL USE REFLECTORIZED STOP-SLOW PADDLES. FLAGS MAY BE USED ONLY FOR EMERGENCY SITUATIONS.

9. MOST OF THE SIGNS SHOWN ARE ORIENTED TO THE RIGHT. HOWEVER, THIS DOES NOT PRECLUDE THE USE OF MIRROR IMAGES OF THESE SIGNS WHERE THE REVERSE ORIENTATION MIGHT BETTER CONVEY TO MOTORISTS THE PROPER DIRECTION OF MOVEMENT.

10. R55-1 SIGNS SHALL BE PLACED AT LEAST 1500' BUT NOT MORE THAN 1 MILE IN ADVANCE OF THE WORK ZONE. IF A SPEED LIMIT REDUCTION IS IN EFFECT, THE SIGN SHALL BE PLACED A MINIMUM OF 500' IN ADVANCE OF THE "REDUCED SPEED AHEAD" SIGN.

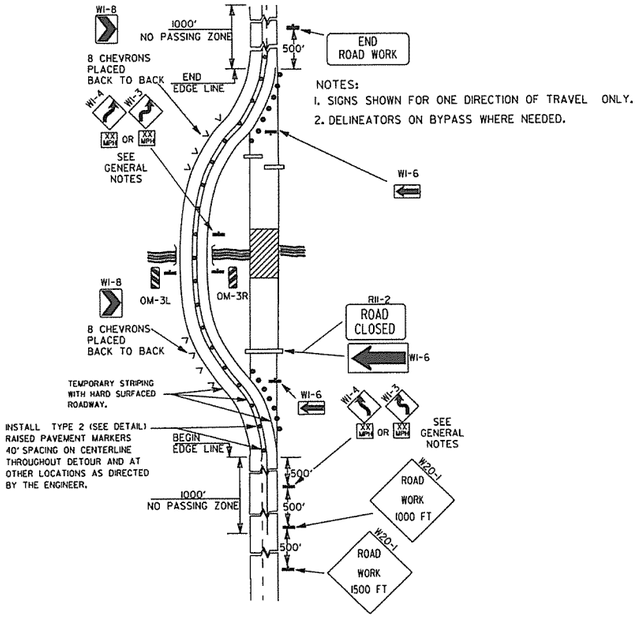
• NOTE: SUPPORTS FOR SIGNS, BARRICADES, AND VERTICAL PANELS THAT ARE DIFFERENT FROM THE REQUIREMENTS SHOWN IN NOTES 4 & 5, BUT MEET THE REQUIREMENTS OF NCHRP-350 OR MANUAL FOR ASSESSING SAFETY HARDWARE (MASH), WILL BE ACCEPTED. COMPLIANCE WITH THE REQUIREMENTS OF NCHRP-350 OR MANUAL FOR ASSESSING SAFETY HARDWARE (MASH) IS REQUIRED FOR ALL PROJECTS.

DATE	REVISION	FILMED
12-15-11	REVISED W24-1	
11-17-10	DELETED W8-9a & ADDED W8-9	
10-15-09	ADDED REFERENCE TO MASH & ADDED SIGN W24-1	
4-17-08	REVISED SIGN DESIGNATIONS	
11-18-04	REVISED NOTES	
10-9-03	REVISED NOTE 1	
1-16-01	REVISED NOTE 7	
9-28-00	REVISED NOTE	
11-18-98	ADDED NOTE	
6-26-97	REVISED NOTE 5	
4-03-97	REVISED NOTE 5	
10-18-96	ADDED CONTROLLED ACCESS HWY. SIGN & TO NOTE 7	
10-12-95	ADDED R55-1	
6-8-95	REVISED TO CORRECT SIGN ILLUSTRATIONS	6-8-95
2-2-95	REVISED PER PART VI, MUTCD SEPT. 3, 1993	
8-15-91	DRAWN AND PLACED IN USE	

ARKANSAS STATE HIGHWAY COMMISSION

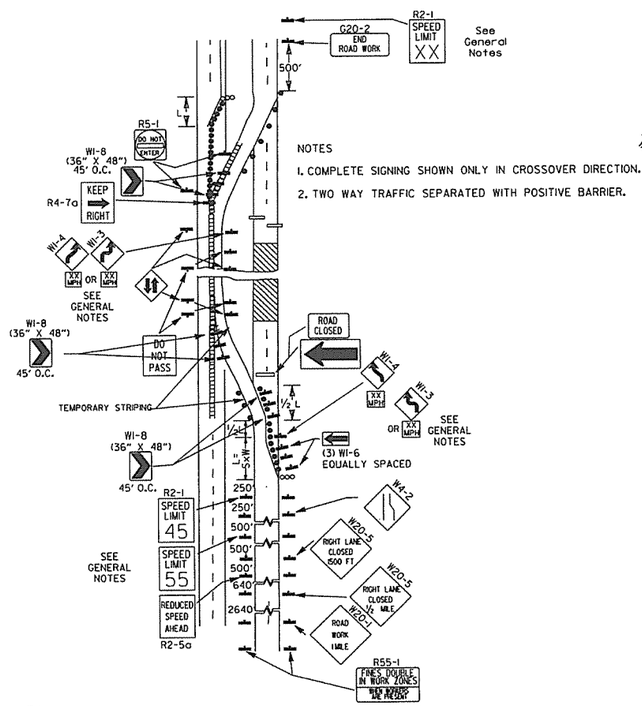
STANDARD TRAFFIC CONTROLS FOR HIGHWAY CONSTRUCTION

STANDARD DRAWING TC-1



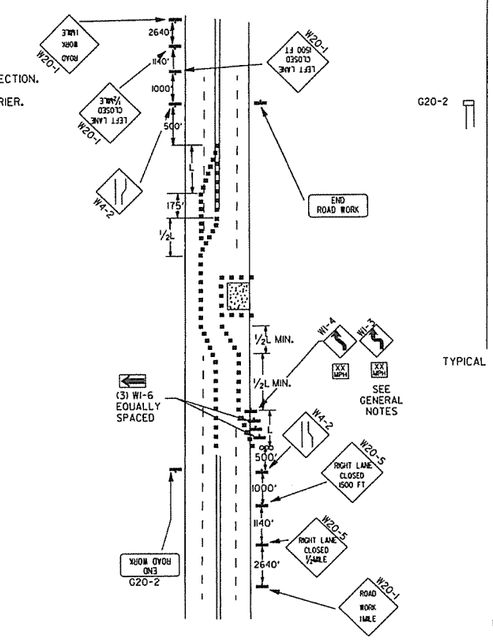
NOTES:
1. SIGNS SHOWN FOR ONE DIRECTION OF TRAVEL ONLY.
2. DELINEATORS ON BYPASS WHERE NEEDED.

(A) TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES ON A 2-LANE HIGHWAY WHERE THE ENTIRE ROADWAY IS CLOSED AND A BYPASS DETOUR IS PROVIDED.

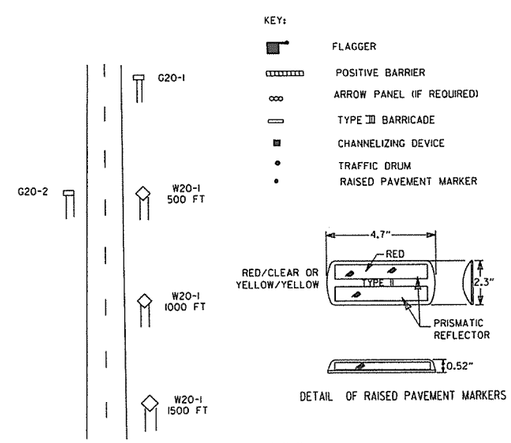


NOTES
1. COMPLETE SIGNING SHOWN ONLY IN CROSSOVER DIRECTION.
2. TWO WAY TRAFFIC SEPARATED WITH POSITIVE BARRIER.

(B) TYPICAL APPLICATION - 4-LANE DIVIDED ROADWAY WHERE ONE ROADWAY IS CLOSED.



(C) TYPICAL APPLICATION - 4-LANE UNDIVIDED ROADWAY WHERE HALF OF THE ROADWAY IS CLOSED.



DETAIL OF RAISED PAVEMENT MARKERS

TYPICAL ADVANCE WARNING SIGN PLACEMENT

TAPER FORMULAE:

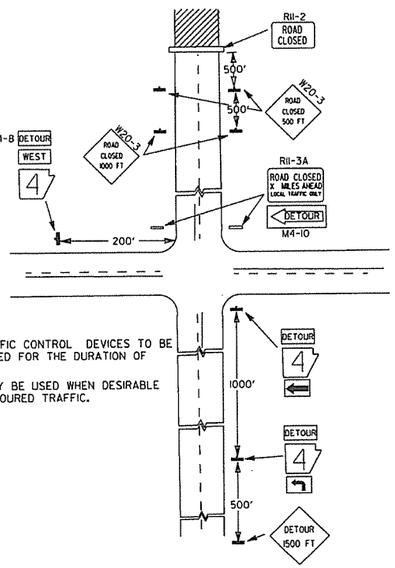
L=SXW FOR SPEEDS OF 45MPH OR MORE.

$L = \frac{WS^2}{60}$ FOR SPEEDS OF 40MPH OR LESS.

WHERE:
L= MINIMUM LENGTH OF TAPER.
S= NUMERICAL VALUE OF POSTED SPEED LIMIT PRIOR TO WORK OR 85TH PERCENTILE SPEED.
W= WIDTH OF OFFSET.

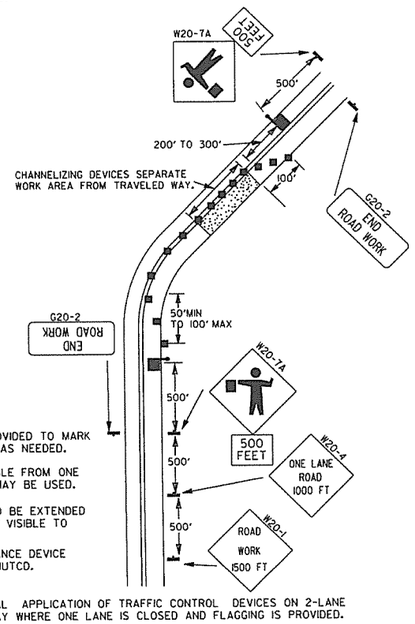
GENERAL NOTES:

1. ADVISORY SPEED POSTED ON WI-3 OR WI-4 CURVE WARNING SIGNS TO BE DETERMINED AT SITE. USE WI-4 WHEN SPEED IS GREATER THAN 30MPH AND WI-3 WHEN 30MPH OR LESS.
2. WHEN THE EXISTING SPEED LIMIT IS 55MPH AND THE PLANS REQUIRE A SPEED LIMIT OF 45MPH, THE R2-1(55) SHALL BE OMITTED AND THE R2-5A SHALL BE INSTALLED AT THAT LOCATION. ADDITIONAL R2-1 45MPH SPEED LIMIT SIGNS SHALL BE INSTALLED AT A MAXIMUM OF 1MILE INTERVALS. AT THE END OF THE WORK AREA A R2-1(XX) SHALL BE INSTALLED TO MATCH ORIGINAL SPEED LIMIT.
3. WHEN THE EXISTING SPEED LIMIT IS 65MPH AND THE PLANS REQUIRE A SPEED LIMIT OF 55MPH, THE R2-1(45) SHALL BE OMITTED. ADDITIONAL R2-1 55MPH SPEED LIMIT SIGNS SHALL BE INSTALLED AT A MAXIMUM OF 1MILE INTERVALS. AT THE END OF THE WORK AREA A R2-1(XX) SHALL BE INSTALLED TO MATCH ORIGINAL SPEED LIMIT.
4. THE MAXIMUM SPACING BETWEEN CHANNELIZING DEVICES IN A TAPER SHOULD BE APPROXIMATELY EQUAL IN FEET TO THE SPEED LIMIT. BEYOND THE TAPER, MAXIMUM SPACING SHALL BE TWO TIMES THE SPEED LIMIT, OR AS DIRECTED BY THE ENGINEER.
5. WARNING LIGHTS AND/OR FLAGS MAY BE MOUNTED TO SIGNS OR CHANNELIZING DEVICES AT NIGHT AS NEEDED.
6. PAVEMENT MARKINGS NO LONGER APPLICABLE WHICH MIGHT CREATE CONFUSION IN THE MINDS OF VEHICLE OPERATORS SHALL BE REMOVED OR OBLITERATED AS SOON AS PRACTICABLE.
7. TRAILER MOUNTED DEVICES SUCH AS ARROW PANELS AND PORTABLE CHANGEABLE MESSAGE SIGNS SHALL BE DELINEATED BY AFFIXING CONSPICUITY MATERIAL IN A CONTINUOUS LINE ON THE FACE OF THE TRAILER. WHEN PLACED ON OR ADJACENT TO THE SHOULDER AND NOT BEHIND A POSITIVE BARRIER, THESE DEVICES SHALL BE DELINEATED BY PLACING FIVE (5) TRAFFIC DRUMS, EQUALLY SPACED ALONG THE TRAFFIC SIDE OF THE DEVICE.



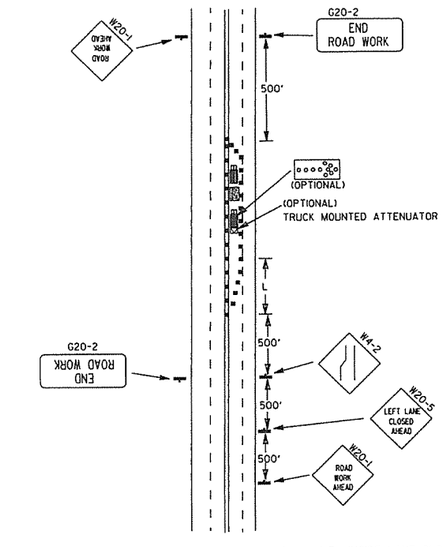
NOTES:
1. REGULATORY TRAFFIC CONTROL DEVICES TO BE MODIFIED AS NEEDED FOR THE DURATION OF THE DETOUR.
2. STREET NAMES MAY BE USED WHEN DESIRABLE FOR DIRECTING DETOURED TRAFFIC.

(D) TYPICAL APPLICATION - ROADWAY CLOSED BEYOND DETOUR POINT.



NOTES:
1. FLOOD LIGHTS SHOULD BE PROVIDED TO MARK FLAGGER STATIONS AT NIGHT AS NEEDED.
2. IF ENTIRE WORK AREA IS VISIBLE FROM ONE STATION, A SINGLE FLAGGER MAY BE USED.
3. CHANNELIZING DEVICES ARE TO BE EXTENDED TO A POINT WHERE THEY ARE VISIBLE TO APPROACHING TRAFFIC.
4. AUTOMATED FLAGGER ASSISTANCE DEVICE (AFAD) OPTIONAL. REFER TO MUTCD.

(E) TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES ON 2-LANE HIGHWAY WHERE ONE LANE IS CLOSED AND FLAGGING IS PROVIDED.



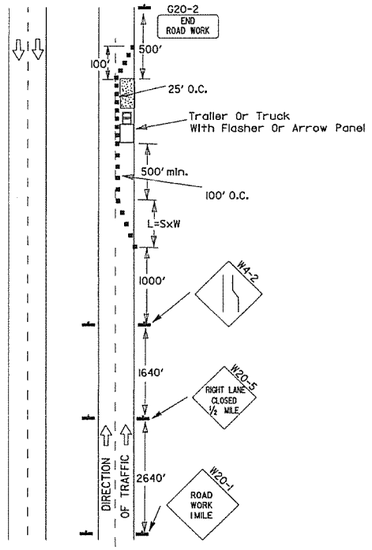
(F) TYPICAL APPLICATION - 4-LANE UNDIVIDED ROADWAY WITH INSIDE LANE CLOSED.

DATE	REVISION	FILMED
9-12-13	REVISED DETAIL OF RAISED PAVEMENT MARKERS	
3-11-10	ADDED (AFAD)	
11-20-08	REVISED SIGN DESIGNATIONS	
11-18-04	ADDED GENERAL NOTE	
10-18-96	ADDED R55-1	
4-26-96	CORRECTED (a) BEHIND G20-2	
6-8-95	CORRECTED SIGN IDENT. ON WI-4A	6-8-95
2-2-95	REVISED PER PART VI, MUTCD, SEPT. 3, 1993	
8-15-91	DRAWN AND PLACED IN USE	

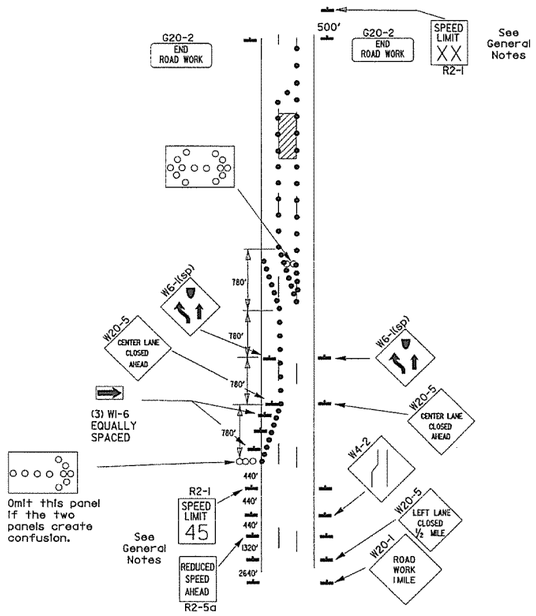
ARKANSAS STATE HIGHWAY COMMISSION

STANDARD TRAFFIC CONTROLS FOR HIGHWAY CONSTRUCTION

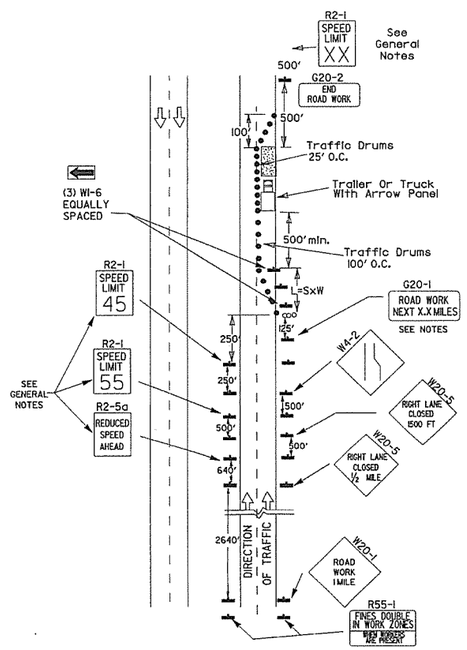
STANDARD DRAWING TC-2



(A) Typical application - daytime maintenance operations of short duration on a 4-lane divided roadway where half of the roadway is closed.



(B) Typical application - 3-lane oneway roadway where center lane is closed.



(C) Typical application - construction operations of intermediate to long term duration on a 4-lane divided roadway where half of the roadway is closed.

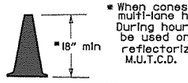
KEY:

- ○○○ Arrow Panel (if Required)
- ■ Channelizing Device
- ● Traffic drum

GENERAL NOTES:

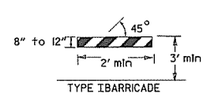
1. A speed limit reduction may be implemented ONLY when designated in the plan or when recommended by the Roadway Design Division.
2. When the existing speed limit is 55mph and the plans require a speed limit of 45mph, the R2-1(55) shall be omitted and the R2-5A shall be installed at that location. Additional R2-1 45mph speed limit signs shall be installed at a maximum of 1 mile intervals. At the end of the work area a R2-1(XX) shall be installed to match original speed limit.
3. When the existing speed limit is 65mph and the plans require a speed limit of 55mph, the R2-1(45) shall be omitted. Additional R2-1 55mph speed limit signs shall be installed at a maximum of 1 mile intervals. At the end of the work area a R2-1(XX) shall be installed to match original speed limit.
4. The maximum spacing between channelizing devices in a taper should be approximately equal in feet to the speed limit. Beyond the taper, maximum spacing shall be two times the speed limit or as directed by the Engineer.
5. Warning lights and/or flags may be mounted to signs or channelizing devices at night as needed.
6. Pavement markings no longer applicable which might create confusion in the minds of vehicle operators shall be removed or obliterated as soon as practicable.
7. The G20-1 sign will be required on jobs of over two miles in length. When the lane closure is not at the beginning of the project, the G20-1 sign shall be erected 125' in advance of the job limit. Additional W20-1 (1 MILE) signs are not required in advance of lane closures that begin inside the project limits.
8. Flaggers shall use STOP/SLOW paddles for controlling traffic through work zones. Flags may be used only for emergency situations.
9. All plastic drums and cones shall meet the requirements of NCHRP-350 or Manual For Assessing Safety Hardware (MASH).
10. Trailer mounted devices such as arrow panels and portable changeable message signs shall be delineated by affixing conspicuity material in a continuous line on the face of the trailer. When placed on or adjacent to the shoulder and not behind a positive barrier, these devices shall be delineated by placing five (5) traffic drums, equally spaced along the traffic side of the device.

Channelizing devices



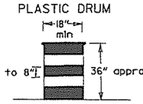
* When cones are used on freeways and multi-lane highways, they shall be 28" min. During hours of darkness, 28" cones shall be used on all roadways, and shall be reflectorized in accordance with the M.U.T.C.D.

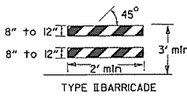
CONES



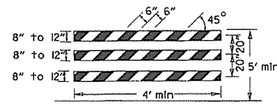
TYPE I BARRICADE

PLASTIC DRUM



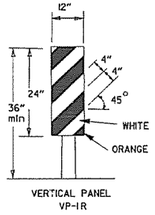


TYPE II BARRICADE



TYPE III BARRICADE

NOTE: For all road closures, the Type III barricades shall be of sufficient length to extend across entire roadway.



VERTICAL PANEL
VP-1R

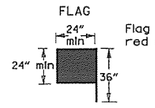
TRAFFIC CONTROL DEVICES
FOR
VERTICAL PAVEMENT DIFFERENTIALS

VERTICAL DIFFERENTIAL	LOCATIONS	TRAFFIC CONTROL
1" to 3"	Centerline, lane lines	W8-11
1" to 3"	Edge of shoulder	W8-9
Greater than 3"	Lane lines	Standard lane closure required
Greater than 3"	Edge of traveled lane	*RSP-1 and vertical panels, drums or concrete barrier
Greater than 3"	Edge of shoulder	*Vertical panels, drums or concrete barrier

* When shown on the plans concrete barrier will be used.

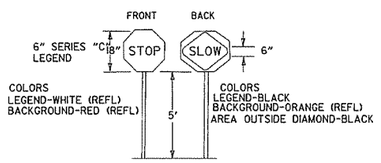
When the shoulder area is used as part of the traveled lane and there is insufficient width to place drums on the remaining shoulder width, then vertical panels shall be used.

FLAG

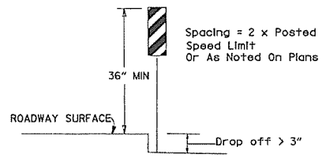


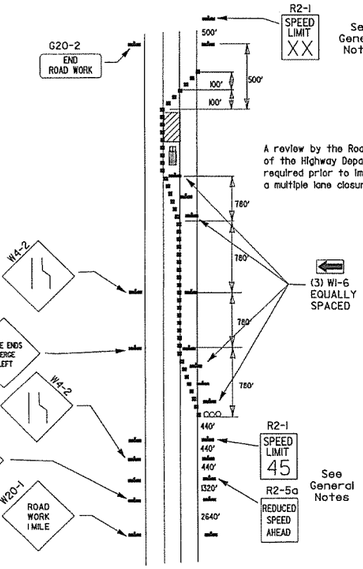
Flag shall be of good grade red material

STOP SLOW PADDLE



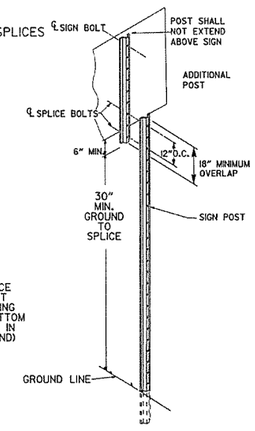
VERTICAL PANEL PLACEMENT





(D) Typical application - closing multiple lanes of a multilane highway.

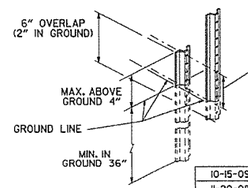
DETAIL OF SPLICES



NOTES: USE SPLICES ONLY WHEN NECESSARY FOR INSTALLATION. TYPICAL INSTALLATION SHOULD HAVE NO SPLICES (SEE STD. DRAWING NO. SHS-2)

NORMAL INSTALLATIONS WILL REQUIRE 1/4" DIA. BOLTS TO MOUNT SIGNS TO POST AND 5/16" DIA. BOLTS TO ASSEMBLE THE VARIOUS POST SUPPORTS. EACH OF THESE BOLTS SHALL BE CARRIAGE BOLTS.

SIGN POSTS SHALL BE PAINTED GREEN; SIGNS SHALL NOT BE PAINTED, AND ALL SIGN POSTS SHALL BE PLUMB.

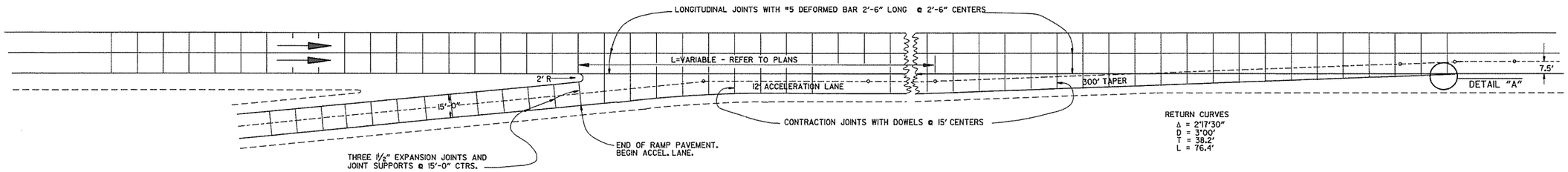


DATE	REVISION	FILMED
10-15-09	ADDED REFERENCE TO MASH	
11-20-08	REVISED SIGN DESIGNATIONS	
11-18-04	ADDED NOTE	
10-1-98	ADDED NOTE	
4-03-97	ADDED (SP) TO W6-1 & REVISED TRAFFIC CONTROL DEVICES NOTE	
10-18-96	ADDED R55-1	
10-12-95	MOVED UPPER SPLICE	
6-8-95	REVISED SPLICE DETAIL, TEXT	6-8-95
2-2-95	REVISED PER PART VI, MUTCD, SEPT. 3, 1993	
8-15-91	DRAWN AND PLACED IN USE	

ARKANSAS STATE HIGHWAY COMMISSION

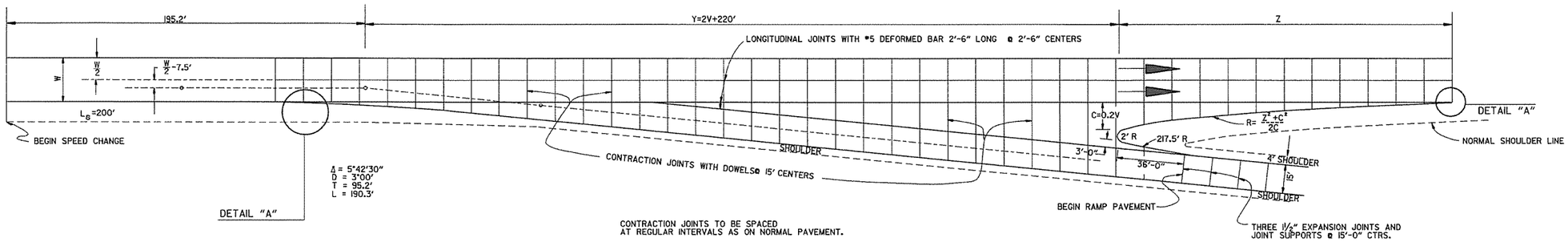
STANDARD TRAFFIC CONTROLS FOR HIGHWAY CONSTRUCTION

STANDARD DRAWING TC-3



ENTRANCE RAMP

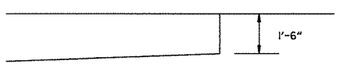
NOTE: JOINT SPACING ON THE MAIN LANES SHALL BE ADJUSTED AS NECESSARY TO CONFORM TO THESE JOINT LAYOUTS. THE MAIN LANE JOINT SPACING MAY BE REDUCED TO A 12' MINIMUM.



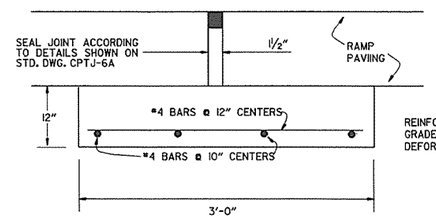
EXIT RAMP

EXIT RAMP

DESIGN SPEED V	Y	NOSE OFFSET C	LENGTH NOSE TAPER Z	RETURN RADIUS R	ADDITIONAL SURFACING SQ. YDS.
40	300.0	8.0	96.0	580.0	602.43
50	320.0	10.0	120.0	725.0	687.29
60	340.0	12.0	168.0	1182.0	790.55
70	360.0	14.0	210.0	1582.0	902.27



DETAIL "A"



DETAIL OF EXPANSION JOINT & JOINT SUPPORT

NOTE: THE EXPANSION JOINTS SHALL BE MEASURED AND PAID FOR AS P.C.C. PAVEMENT (RAMP THICKNESS). WHEN RAMP PAVING IS ASPHALT, EXPANSION JOINT IS NOT REQUIRED. THE JOINT SUPPORT MAY BE CONSTRUCTED WITH CLASS "A", "S", OR PAVING CONCRETE. PAYMENT FOR THE JOINT SUPPORT SHALL BE FOR THE CONTRACT UNIT PRICE BID FOR THE CLASS OF CONCRETE USED. ALL OTHER WORK AND MATERIALS REQUIRED FOR THE CONSTRUCTION OF THE JOINT SUPPORT SHALL BE INCLUDED IN THE PRICE BID FOR THE ABOVE ITEMS.

DATE	REVISION	DATE FILM'D
8-22-02	DELETED NOTE	
11-16-01	CORRECTED SPELLING ON ENTRANCE RAMP NOTE	
5-13-99	ADDED, EDITED AND DELETED NOTES	
11-03-94	ADDED NOTE RE: REINF. BARS	
10-1-92	ADDED DETAIL A & OTHER MINOR CHANGES	10-1-92
1-25-90	REVISED EXPANSION JOINT	1-25-90
7-15-88	CONFORM'D TO 1988 SPECIFICATIONS	65C-7-15-88
3-2-81	ISSUED	511-10-2-72

ARKANSAS STATE HIGHWAY COMMISSION

DETAILS OF STANDARD TURNOUT FOR ENTRANCE & EXIT RAMPS (NON-REINFORCED)

STANDARD DRAWING TR-1A