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.		BB0801	1	54
				HWY. 164 - HWY. 352 (S)				

"A FULLY CONTROLLED ACCESS FACILITY"

ARKANSAS DEPARTMENT OF TRANSPORTATION

CONSTRUCTION PLANS FOR STATE HIGHWAY

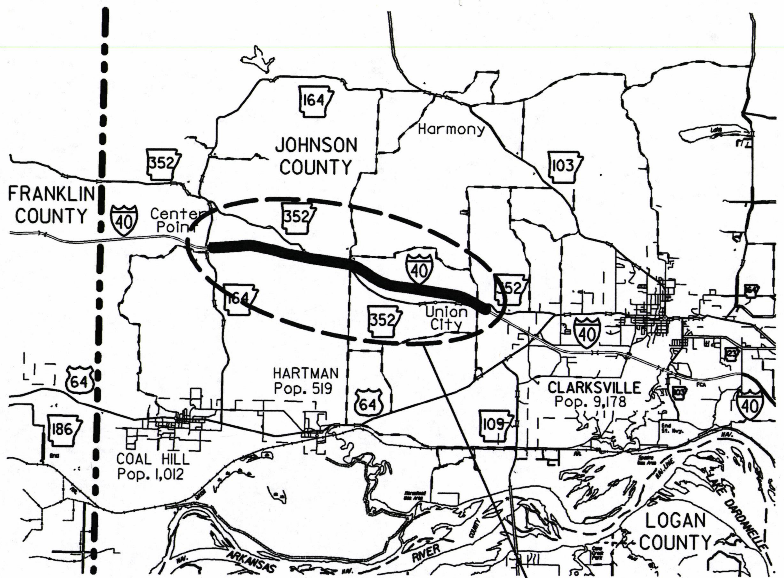
HWY. 164 - HWY. 352 (S)

JOHNSON COUNTY

ROUTE 40 SECTION 21

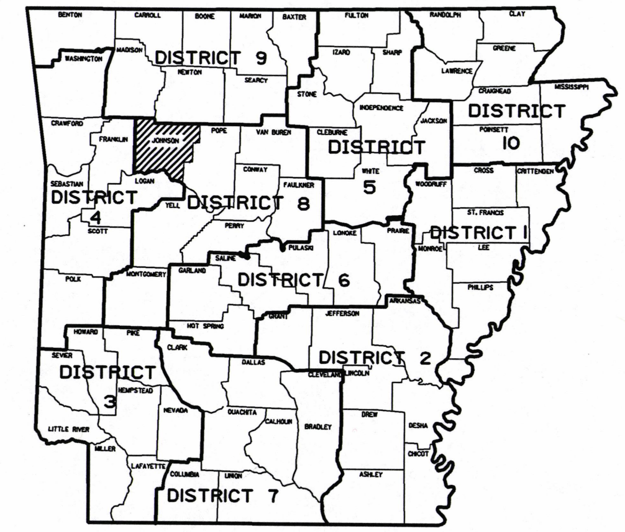
JOB BB0801

FED. AID PROJ. NO. NHPP-40-2(80)46



VICINITY MAP

PROJECT LOCATION



ARK. HWY. DIST. NO. 8

NOT TO SCALE

BRIDGE DATA

① STA. 2483+30.00 BR. END
140.00' BRIDGE NO. A5038
39'-0" CLEAR ROADWAY
STA. 2484+70.00 BR. END
REHABILITATE BRIDGE DECK-HYDRODEMOLITION

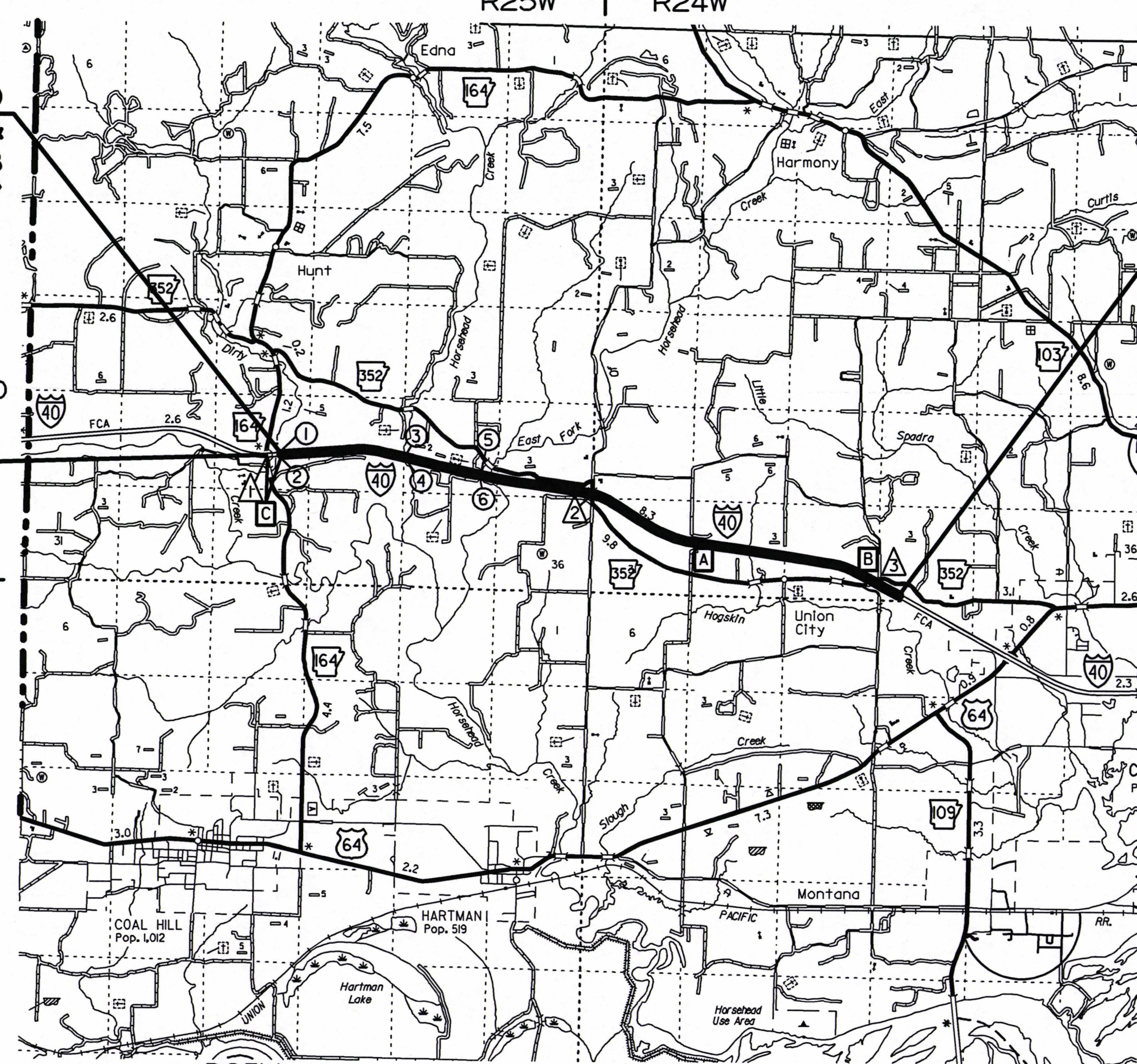
② STA. 2483+30.00 BR. END
140.00' BRIDGE NO. B5038
47'-0" CLEAR ROADWAY
STA. 2484+70.00 BR. END
REHABILITATE BRIDGE DECK-HYDRODEMOLITION

③ STA. 2557+94.79 BR. END
218.18' BRIDGE NO. A5039
39'-0" CLEAR ROADWAY
STA. 2560+12.97 BR. END
REHABILITATE BRIDGE DECK-HYDRODEMOLITION

④ STA. 2558+35.97 BR. END
203.17' BRIDGE NO. B5039
39'-0" CLEAR ROADWAY
STA. 2560+39.14 BR. END
REHABILITATE BRIDGE DECK-HYDRODEMOLITION

⑤ STA. 2601+98.03 BR. END
313.09' BRIDGE NO. A5040
39'-0" CLEAR ROADWAY
STA. 2605+11.12 BR. END
REHABILITATE BRIDGE DECK-HYDRODEMOLITION

⑥ STA. 2601+98.03 BR. END
313.09' BRIDGE NO. B5040
39'-0" CLEAR ROADWAY
STA. 2605+11.12 BR. END
REHABILITATE BRIDGE DECK-HYDRODEMOLITION



DESIGN TRAFFIC DATA

DESIGN YEAR	2040
2020 ADT	28,000
2040 ADT	38,000
2040 DHV	4,180
DIRECTIONAL DISTRIBUTION	0.60
TRUCKS	29%
DESIGN SPEED	70 MPH

BRIDGE DATA (OVERPASSES)

△1 STA. 13+56.94 BR. END
276.20' BRIDGE NO. 05037
34'-0" CLEAR ROADWAY
STA. 16+33.14 BR. END
REHABILITATE BRIDGE DECK-HYDRODEMOLITION

△2 STA. 13+04.89 BR. END
280.29' BRIDGE NO. 05016
28'-0" CLEAR ROADWAY
STA. 15+85.18 BR. END
REHABILITATE BRIDGE DECK-HYDRODEMOLITION

△3 STA. 10+60.14 BR. END
310.54' BRIDGE NO. 05017
34'-0" CLEAR ROADWAY
STA. 13+70.68 BR. END
REHABILITATE BRIDGE DECK-HYDRODEMOLITION

C.L. MEDIAN EQUATIONS

A 2733+85.40 BACK =
2733+61.40 AHEAD

B 2833+79.10 BACK =
2835+97.20 AHEAD

EXCEPTIONS TO JOB BB0801 (ROADWAY)

STA. 2481+77.60 TO STA. 2484+70.00

C TOTAL LENGTH OF EXCEPTION 292.40'
MEASURED ALONG CENTERLINE

CERTIFICATE OF AUTHORIZATION
CRAFTON, TULL & ASSOCIATES, INC.
No. 109
ARKANSAS ENGINEER

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 9620
HUBERT BURNS
1-28-2020

USER: fe513
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MODEL: TITLE SHEET
SCALE: 1:200

BEGINNING OF PROJECT	MID POINT OF PROJECT	END OF PROJECT
LATITUDE = N 35°29'51"	LATITUDE = N 35°29'27"	LATITUDE = N 35°28'28"
LONGITUDE = W 93°39'38"	LONGITUDE = W 93°35'59"	LONGITUDE = W 93°32'30"

LENGTH OF PROJECT CALCULATED ALONG C.L.

GROSS LENGTH OF PROJECT	36928.30	FEET OR	6.994	MILES
NET " " ROADWAY	35972.13	"	6.813	"
NET " " BRIDGES	663.77	"	0.126	"
NET " " PROJECT	36635.90	"	6.939	"

P.E. JOB BB0801

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STATE OF ARKANSAS REGISTERED PROFESSIONAL ENGINEER No. 9620 HUBERT BURNS 1-24-2020

INDEX OF SHEETS

SHEET NO.	TITLE	BRIDGE NO.	DRWG.NO.
1	TITLE SHEET		
2	INDEX OF SHEETS AND STANDARD DRAWINGS		
3	GOVERNING SPECIFICATIONS AND GENERAL NOTES		
4	TYPICAL SECTIONS OF IMPROVEMENT		
5 - 7	SPECIAL DETAILS		
8 - 20	TEMPORARY EROSION CONTROL DETAILS		
21 - 29	MAINTENANCE OF TRAFFIC DETAILS		
30 - 33	QUANTITIES		
34	SCHEDULE OF BRIDGE QUANTITIES	05016,05017,05037,A&B5038,A&B5039,A&B5040	61291
35	SUMMARY OF QUANTITIES AND REVISIONS		
36 - 48	PLAN SHEETS		
49	DETAILS OF LATEX MODIFIED CONCRETE OVERLAY (SHEET 1 OF 6)	5016	61292
50	DETAILS OF LATEX MODIFIED CONCRETE OVERLAY (SHEET 2 OF 6)	5017,5037	61293
51	DETAILS OF LATEX MODIFIED CONCRETE OVERLAY (SHEET 3 OF 6)	A5038	61294
52	DETAILS OF LATEX MODIFIED CONCRETE OVERLAY (SHEET 4 OF 6)	B5038	61295
53	DETAILS OF LATEX MODIFIED CONCRETE OVERLAY (SHEET 5 OF 6)	A&B5039,A&B5040	61296
54	DETAILS OF LATEX MODIFIED CONCRETE OVERLAY (SHEET 6 OF 6)	05016,05017,05037,A&B5038,A&B5039,A&B5040	61297

ROADWAY STANDARD DRAWINGS

DRWG.NO.	TITLE	DATE
GR-6	GUARD RAIL DETAILS	11-07-19
GR-7	GUARD RAIL DETAILS	11-07-19
GR-8	GUARD RAIL DETAILS	11-07-19
GR-9	GUARD RAIL DETAILS	11-07-19
GR-10	GUARD RAIL DETAILS	11-07-19
GR-11	GUARD RAIL DETAILS	11-07-19
GR-12	GUARD RAIL DETAILS	11-07-19
GRT-1	GUARD RAIL DETAILS	11-07-19
PM-1	PAVEMENT MARKING DETAILS	06-01-17
PM-2	PERMANENT PAVEMENT MARKING ON ACCESS CONTROLLED ROADWAYS	11-07-19
PU-1	DETAILS OF PIPE UNDERDRAIN	12-08-16
TC-1	STANDARD TRAFFIC CONTROLS FOR HIGHWAY CONSTRUCTION	11-07-19
TC-2	STANDARD TRAFFIC CONTROLS FOR HIGHWAY CONSTRUCTION	11-07-19
TC-3	STANDARD TRAFFIC CONTROLS FOR HIGHWAY CONSTRUCTION	11-07-19
TC-4	STANDARD TRAFFIC CONTROLS FOR HIGHWAY CONSTRUCTION-TEMPORARY PRECAST BARRIER	11-07-19
TC-5	STANDARD TRAFFIC CONTROLS FOR HIGHWAY CONSTRUCTION-TEMPORARY PRECAST BARRIER	11-07-19
TEC-1	TEMPORARY EROSION CONTROL DEVICES	11-16-17
TEC-2	TEMPORARY EROSION CONTROL DEVICES	06-02-94
TEC-3	TEMPORARY EROSION CONTROL DEVICES	11-03-94

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INDEX OF SHEETS AND STANDARD DRAWINGS

STATE OF ARKANSAS REGISTERED PROFESSIONAL ENGINEER No. 9620 HUBERT BURNS 02-19-2020

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.
4. ALL TREES THAT DO NOT DIRECTLY INTERFERE WITH THE PROPOSED CONSTRUCTION SHALL BE SPARED AS DIRECTED BY THE ENGINEER. CARE AND DISCRETION SHALL BE USED TO ENSURE THAT ALL TREES NOT TO BE REMOVED SHALL BE HARMED AS LITTLE AS POSSIBLE DURING THE CONSTRUCTION OPERATIONS.
5. ALL FLEXIBLE BASE AND ASPHALTIC PAVEMENTS REMOVED SHALL BE PAID FOR UNDER THE ITEM NO. 210 - UNCLASSIFIED EXCAVATION.
6. THE SEQUENCE AS SHOWN ON THE MAINTENANCE OF TRAFFIC PLANS IS A GENERAL OUTLINE FOR THE CONSTRUCTION OF THIS PROJECT, AND IN NO WAY IS IT INTENDED TO COVER EVERY ITEM IN THE PROJECT. ITEMS NOT CRITICAL TO THE CONSTRUCTION SEQUENCE MAY BE CONSTRUCTED IN ANY STAGE AS APPROVED BY THE RESIDENT ENGINEER.
7. THE EXISTING ASPHALT PAVEMENT TO BE REMOVED FROM THE REMAINING PAVEMENT SHALL BE SEPARATED BY SAWING ALONG A NEAT LINE. AFTER SAWING, THE PAVEMENT TO BE REMOVED SHALL BE CAREFULLY REMOVED IN A MANNER THAT WILL NOT DAMAGE THE PAVEMENT THAT IS TO REMAIN. ANY DAMAGE OF THE ASPHALT PAVEMENT THAT IS TO REMAIN IN PLACE SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE.

GOVERNING SPECIFICATIONS

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

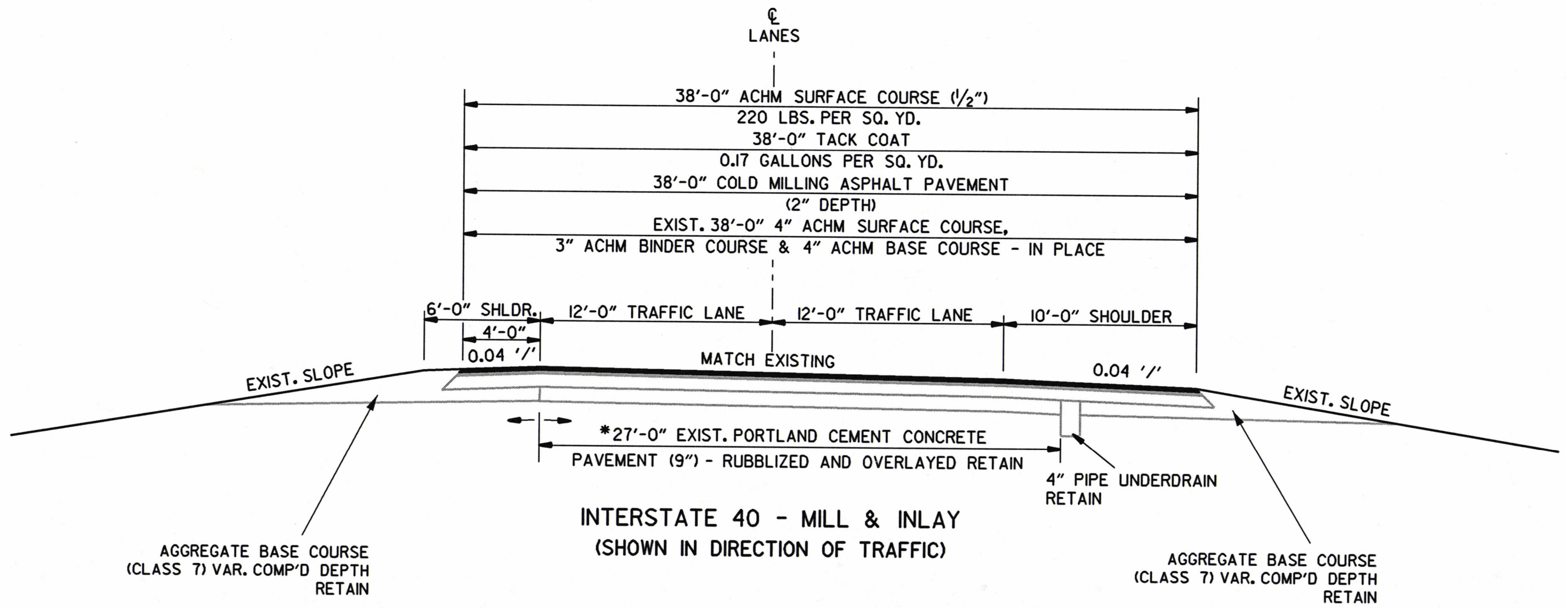
NUMBER	TITLE
ERRATA	ERRATA FOR THE BOOK OF STANDARD SPECIFICATIONS
FHWA-1273	REQUIRED CONTRACT PROVISIONS FEDERAL-AID CONSTRUCTION CONTRACTS
FHWA-1273	SUPPLEMENT - EQUAL EMPLOYMENT OPPORTUNITY - NOTICE TO CONTRACTORS
FHWA-1273	SUPPLEMENT - SPECIFIC EQUAL EMPLOYMENT OPPORTUNITY RESPONSIBILITIES (23 U.S.C. 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
100-3	CONTRACTOR'S LICENSE
100-4	DEPARTMENT NAME CHANGE
102-2	ISSUANCE OF PROPOSALS
108-1	LIQUIDATED DAMAGES
108-2	WORK ALLOWED PRIOR TO ISSUANCE OF WORK ORDER
110-1	PROTECTION OF WATER QUALITY AND WETLANDS
303-1	AGGREGATE BASE COURSE
306-1	QUALITY CONTROL AND ACCEPTANCE
400-1	TACK COATS
400-4	DESIGN AND QUALITY CONTROL OF ASPHALT MIXTURES
400-5	PERCENT AIR VOIDS FOR ACHM MIX DESIGNS
400-6	LIQUID ANTI-STRIP ADDITIVE
404-3	DESIGN OF ASPHALT MIXTURES
410-1	CONSTRUCTION REQUIREMENTS AND ACCEPTANCE OF ASPHALT CONCRETE PLANT MIX COURSES
410-2	DEVICES FOR MEASURING DENSITY FOR ROLLING PATTERNS
600-2	INCIDENTAL CONSTRUCTION
603-1	LANE CLOSURE NOTIFICATION
604-1	RETROREFLECTIVE SHEETING FOR TRAFFIC CONTROL DEVICES IN CONSTRUCTION ZONES
604-3	TRAFFIC CONTROL DEVICES IN CONSTRUCTION ZONES (MASH)
617-1	GUARDRAIL TERMINAL (TYPE 2)
620-1	MULCH COVER
621-1	FILTER SOCKS
800-1	STRUCTURES
804-2	REINFORCING STEEL FOR STRUCTURES
JOB BB0801	ASSESSMENT OF WORKING DAYS - MAINTENANCE OF TRAFFIC
JOB BB0801	BIDDING REQUIREMENTS AND CONDITIONS
JOB BB0801	BRIDGE DECK REPAIR FOR LATEX MODIFIED CONCRETE OVERLAYS
JOB BB0801	BROADBAND INTERNET SERVICE FOR ASPHALT CONCRETE PLANT
JOB BB0801	BROADBAND INTERNET SERVICE FOR FIELD OFFICE
JOB BB0801	CARGO PREFERENCE ACT REQUIREMENTS
JOB BB0801	COLD MILLING ASPHALT PAVEMENT
JOB BB0801	DISADVANTAGED BUSINESS ENTERPRISE BIDDER'S RESPONSIBILITIES
JOB BB0801	EMPLOYMENT REPORTING
JOB BB0801	ENHANCED THERMOPLASTIC PAVEMENT MARKING
JOB BB0801	FLEXIBLE BEGINNING OF WORK – CALENDAR DAY CONTRACT
JOB BB0801	GOALS FOR DISADVANTAGED BUSINESS ENTERPRISE PARTICIPATION
JOB BB0801	HYDRODEMOLITION
JOB BB0801	JOINT REHABILITATION FOR BRIDGE DECKS
JOB BB0801	LATEX MODIFIED CONCRETE OVERLAY
JOB BB0801	LONGITUDINAL JOINT DENSITIES FOR ACHM SURFACE COURSES
JOB BB0801	MAINTENANCE OF TRAFFIC
JOB BB0801	MANAGEMENT OF HYDRODEMOLITION WASTEWATER
JOB BB0801	MANDATORY ELECTRONIC CONTRACT
JOB BB0801	MANDATORY ELECTRONIC DOCUMENT SUBMITTAL
JOB BB0801	NESTING SITES OF MIGRATORY BIRDS
JOB BB0801	PARTNERING REQUIREMENTS
JOB BB0801	PERCENT WITHIN LIMITS
JOB BB0801	PORTABLE TRAFFIC SIGNAL SYSTEM
JOB BB0801	PROSECUTION AND PROGRESS WITH BID SCHEDULE
JOB BB0801	RESTRICTIONS ON THE USE OF RECYCLED ASPHALT PAVEMENT MATERIAL
JOB BB0801	SEQUENCE OF CONSTRUCTION
JOB BB0801	SITE USE (A+C METHOD) - CALENDAR DAY CONTRACT
JOB BB0801	SPECIAL CLEARING
JOB BB0801	SPECIAL SAFETY REQUIREMENTS FOR BRIDGES
JOB BB0801	STORM WATER POLLUTION PREVENTION PLAN
JOB BB0801	SUBMISSION OF ASPHALT CONCRETE HOT MIX ACCEPTANCE TEST RESULTS
JOB BB0801	TRAFFIC CONTROL DEVICES IN CONSTRUCTION ZONES
JOB BB0801	TRENCHING AND SHOULDER PREPARATION FOR TEMPORARY WIDENING
JOB BB0801	UNDERDRAIN FLUSHING AND REHABILITATION
JOB BB0801	UTILITY ADJUSTMENTS
JOB BB0801	VALUE ENGINEERING
JOB BB0801	WARM MIX ASPHALT

GOVERNING SPECIFICATIONS AND GENERAL NOTES

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.		BB0801	4	54

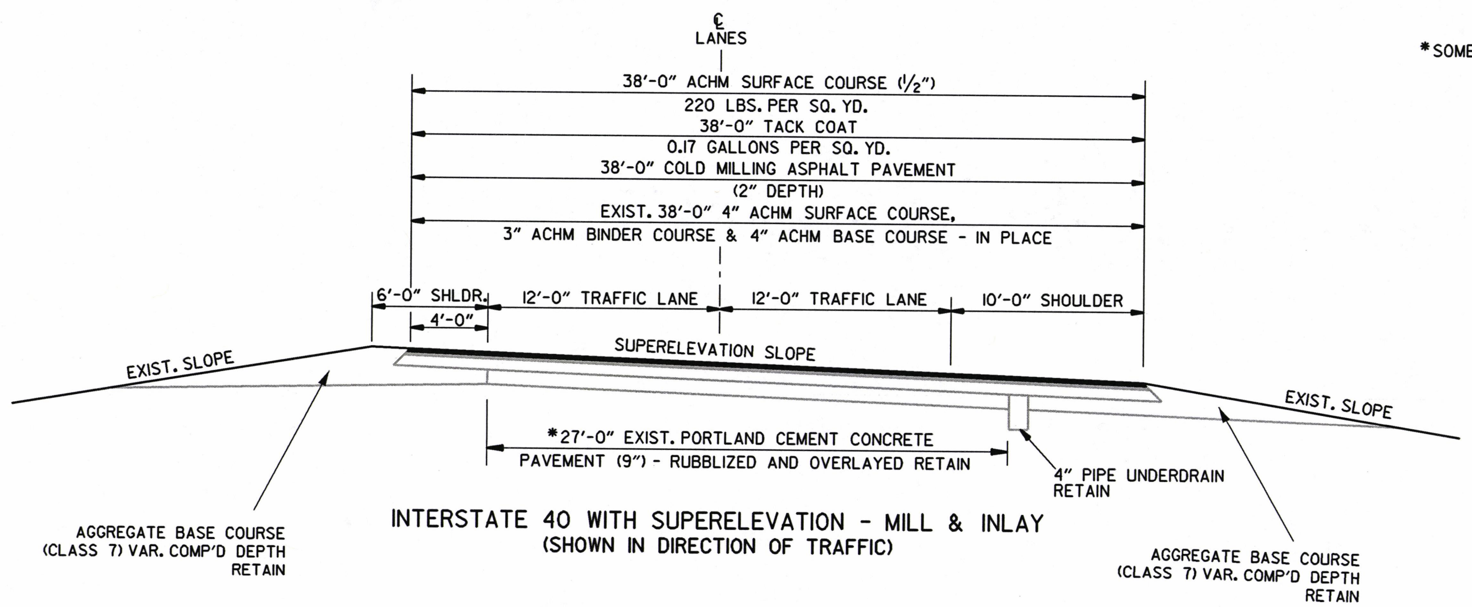
2 TYPICAL SECTIONS OF IMPROVEMENT

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 9620
HUBERT BURNS
1-24-2020

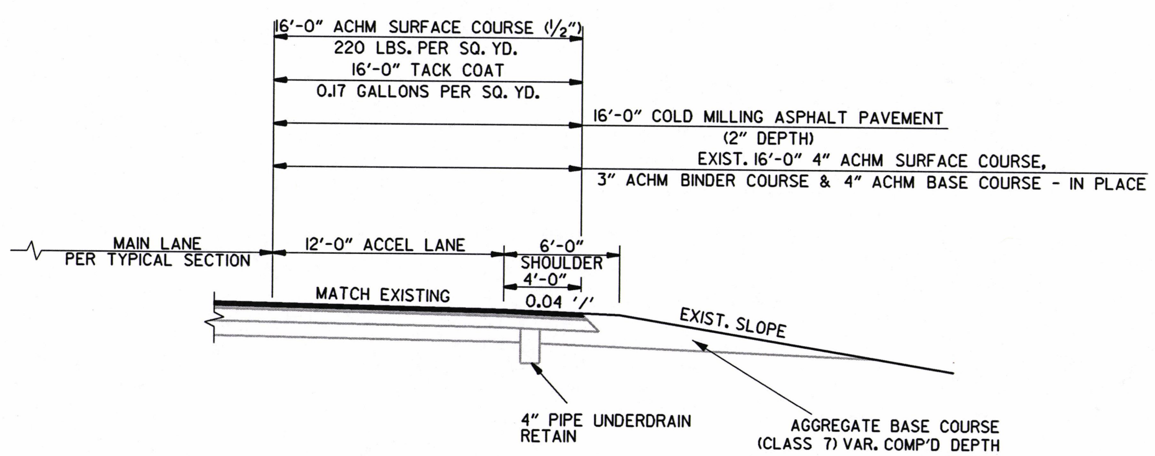


INTERSTATE 40 - MILL & INLAY
(SHOWN IN DIRECTION OF TRAFFIC)

*SOME LOCATIONS FULL DEPTH ASPHALT.



INTERSTATE 40 WITH SUPERELEVATION - MILL & INLAY
(SHOWN IN DIRECTION OF TRAFFIC)



INTERSTATE 40 - MILL & INLAY
W/AUXILIARY LANE
(SHOWN IN DIRECTION OF TRAFFIC)

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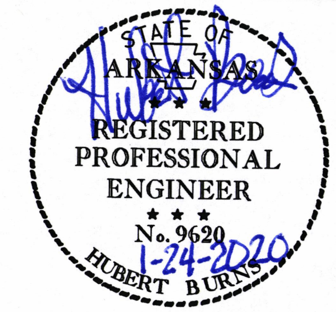
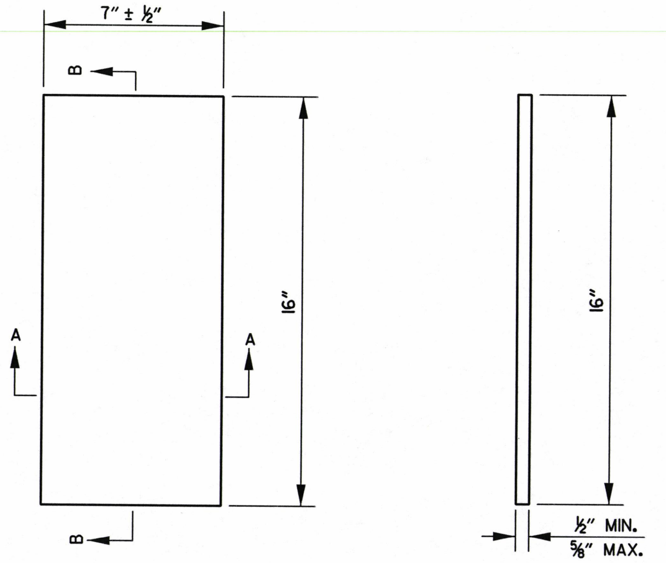
TYPICAL SECTIONS OF IMPROVEMENT

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.		BB0801	5	54
				(2)	SPECIAL DETAILS			

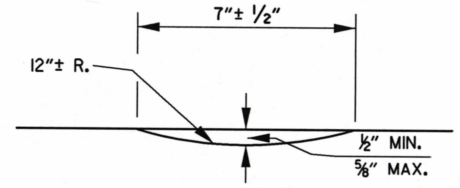




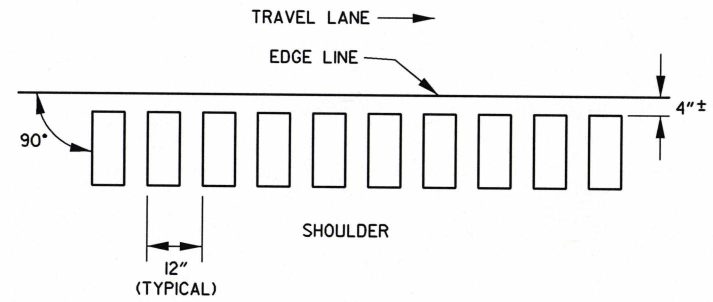
PLAN

SECTION B-B

DETAILS OF RUMBLE STRIPS



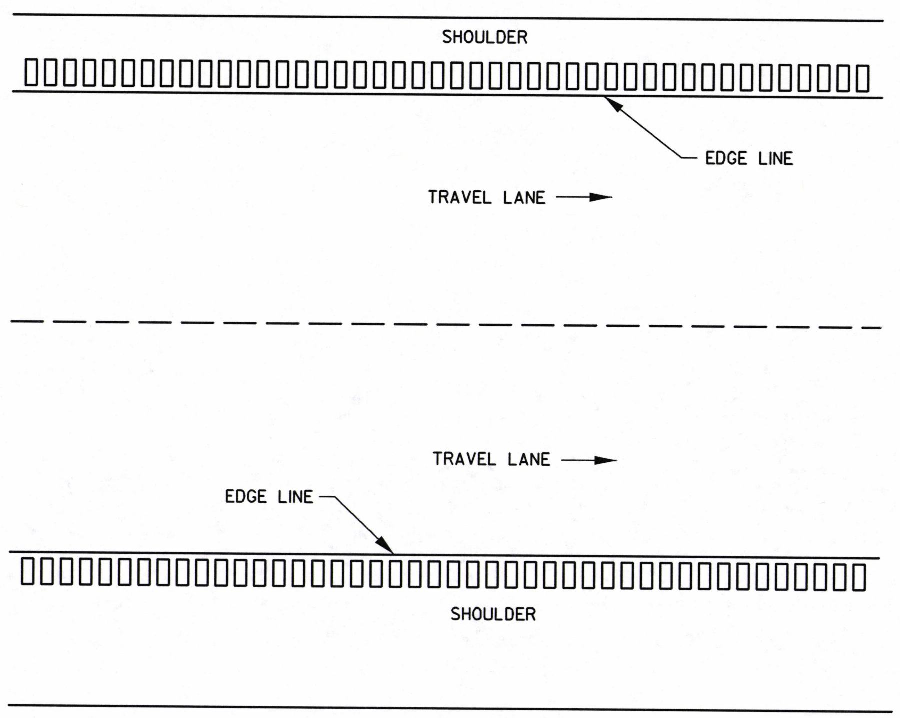
SECTION A-A



LOCATION PLAN OF RUMBLE STRIPS
LEFT OR RIGHT SHOULDER

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 ½" 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.



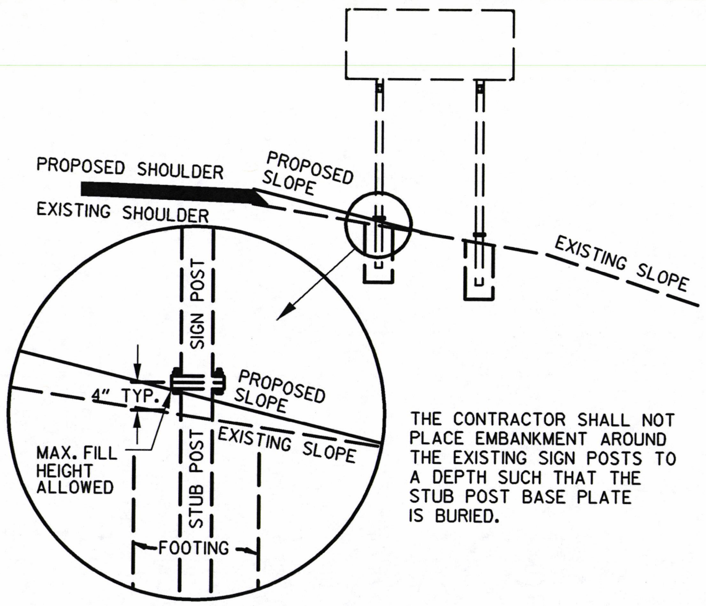
PLAN VIEW

SPECIAL DETAILS

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.		BB0801	6	54

2 SPECIAL DETAILS

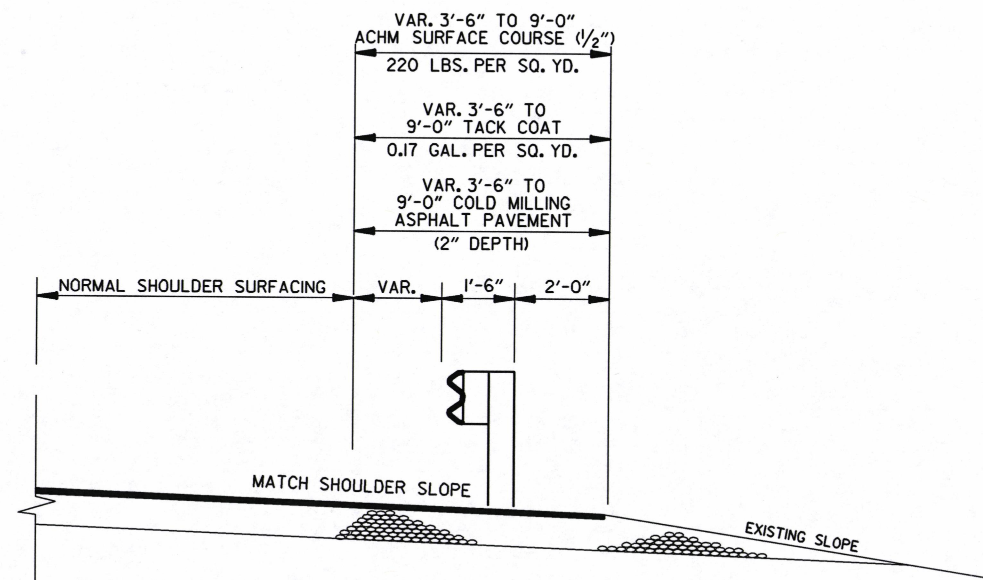
STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 9620
HUBERT BURNS
1-24-2020



THE CONTRACTOR SHALL NOT PLACE EMBANKMENT AROUND THE EXISTING SIGN POSTS TO A DEPTH SUCH THAT THE STUB POST BASE PLATE IS BURIED.

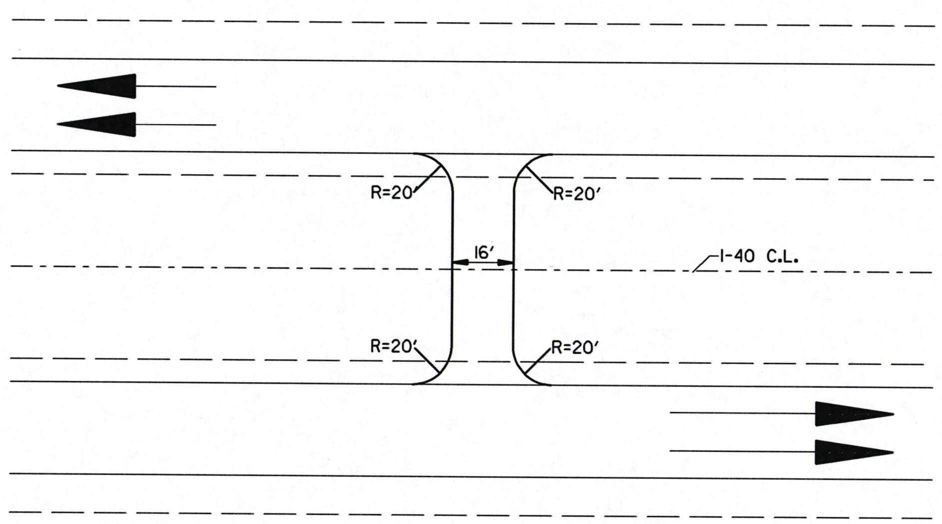
DETAIL FOR THE MAINTENANCE OF EXISTING BREAKAWAY SIGN STRUCTURES

NOT TO SCALE



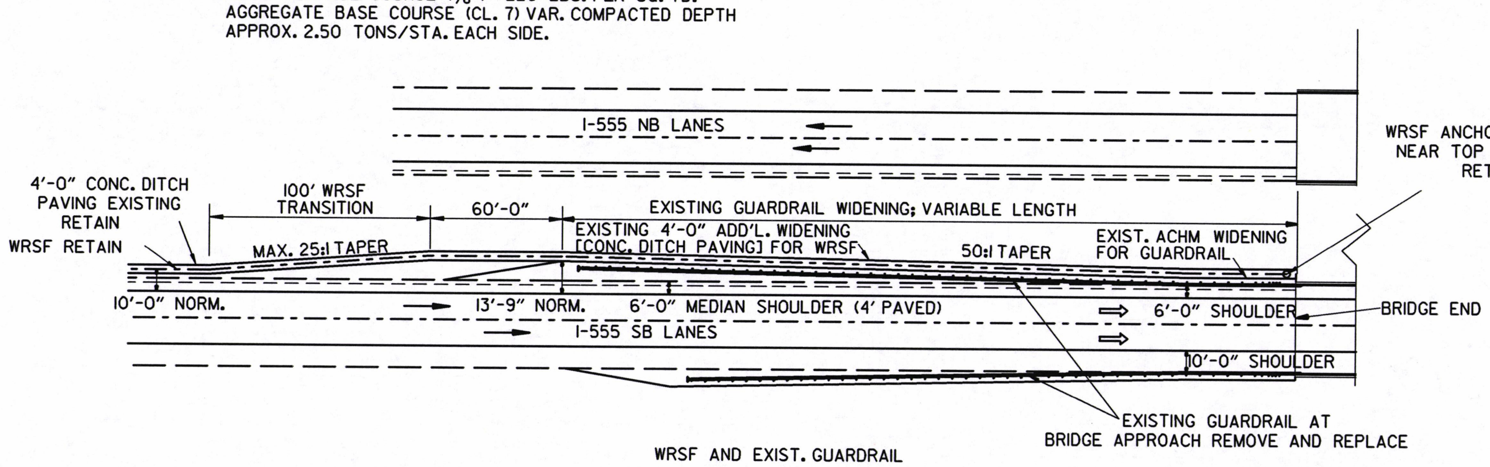
SECTION DETAIL OF WIDENING FOR GUARDRAIL

NOTE: REFER TO STANDARD DRAWINGS, GR-8, GR-8A, GR-9, GR-9A, GR-10, GR-11, GR-12, GR-13, GRT-1 FOR ADDITIONAL INFORMATION.

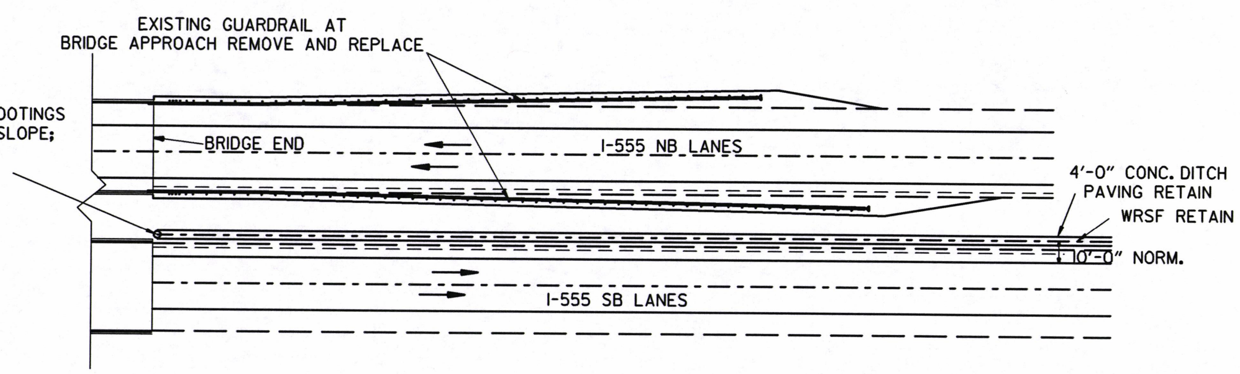


DETAIL OF PAVED MEDIAN CROSSING

NOTE:
EXISTNG MEDIAN CROSSING - OVERLAY WITH ACHM SURFACE COURSE (3/8")- 220 LBS. PER SQ. YD.
AGGREGATE BASE COURSE (CL. 7) VAR. COMPACTED DEPTH APPROX. 2.50 TONS/STA. EACH SIDE.



WRSF AND EXIST. GUARDRAIL ON SAME SIDE OF MEDIAN



WRSF AND EXIST. GUARDRAIL ON OPPOSITE SIDES OF MEDIAN

DETAIL OF EXISTING WIRE ROPE SAFETY FENCE AT EXISTING BRIDGE ENDS

REFER TO PLANS FOR RELATIVE PLACEMENT OF GUARDRAIL AT EACH BRIDGE END

SPECIAL DETAILS

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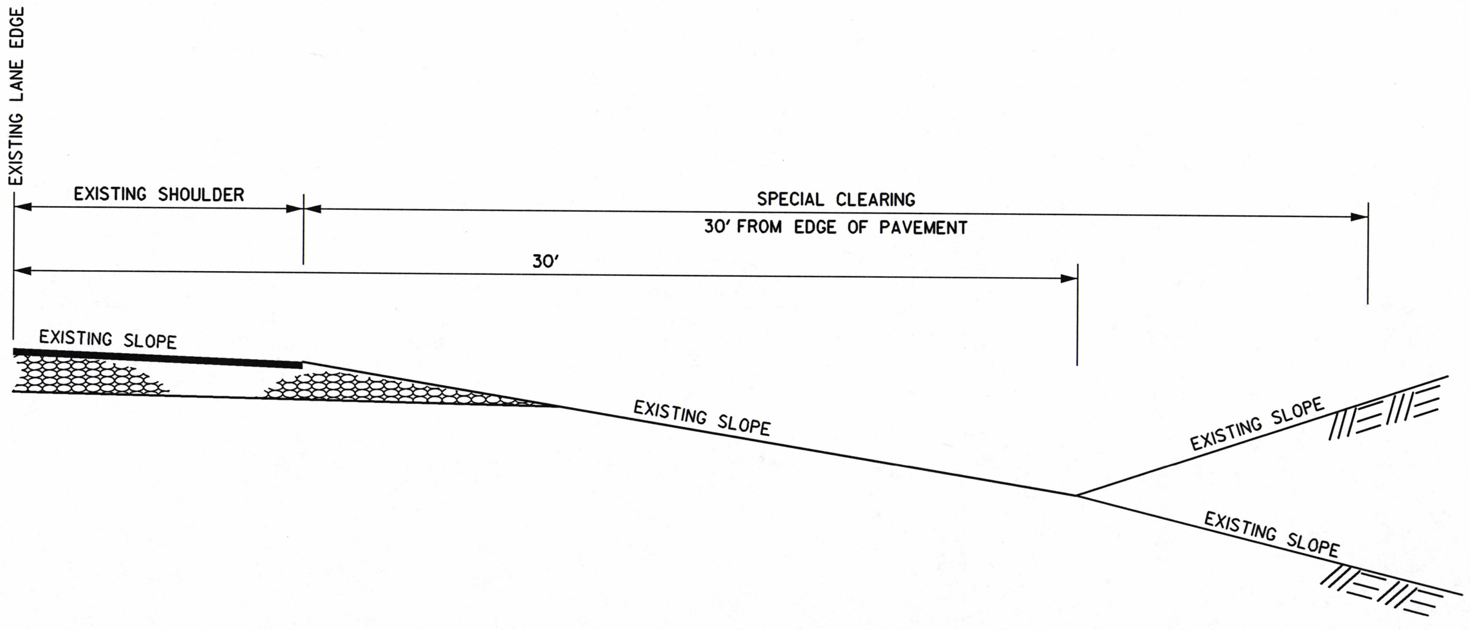
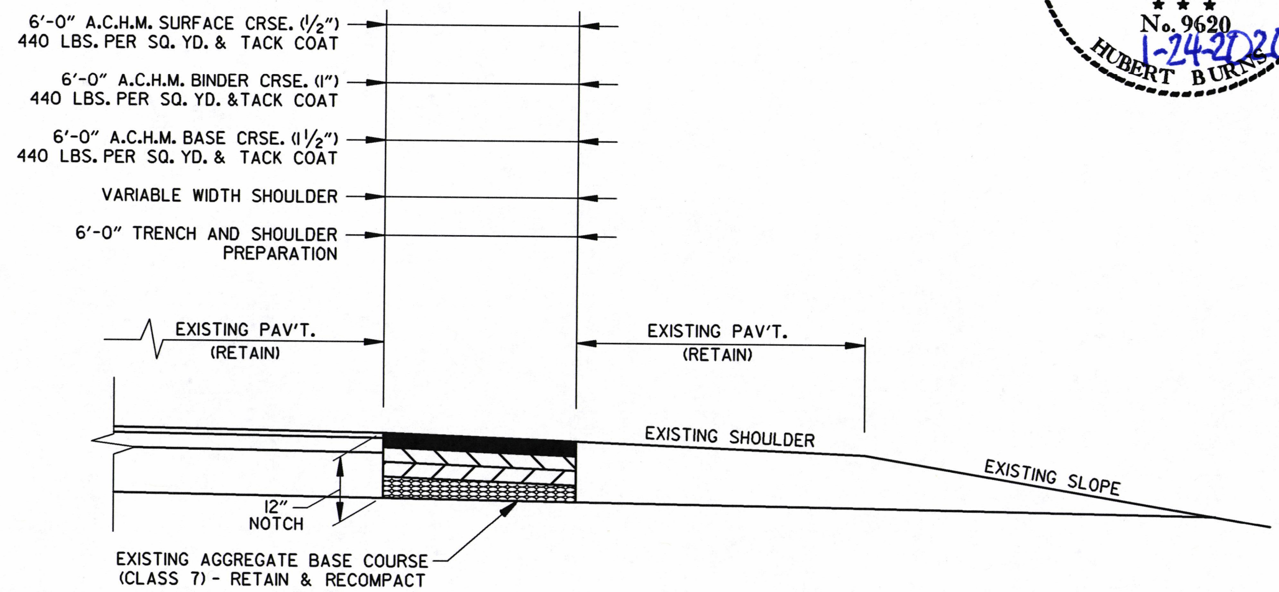
				6	ARK.			
				JOB NO.		BB0801	7	54

(2) SPECIAL DETAILS

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 9620
HUBERT BURNS
1-24-2020

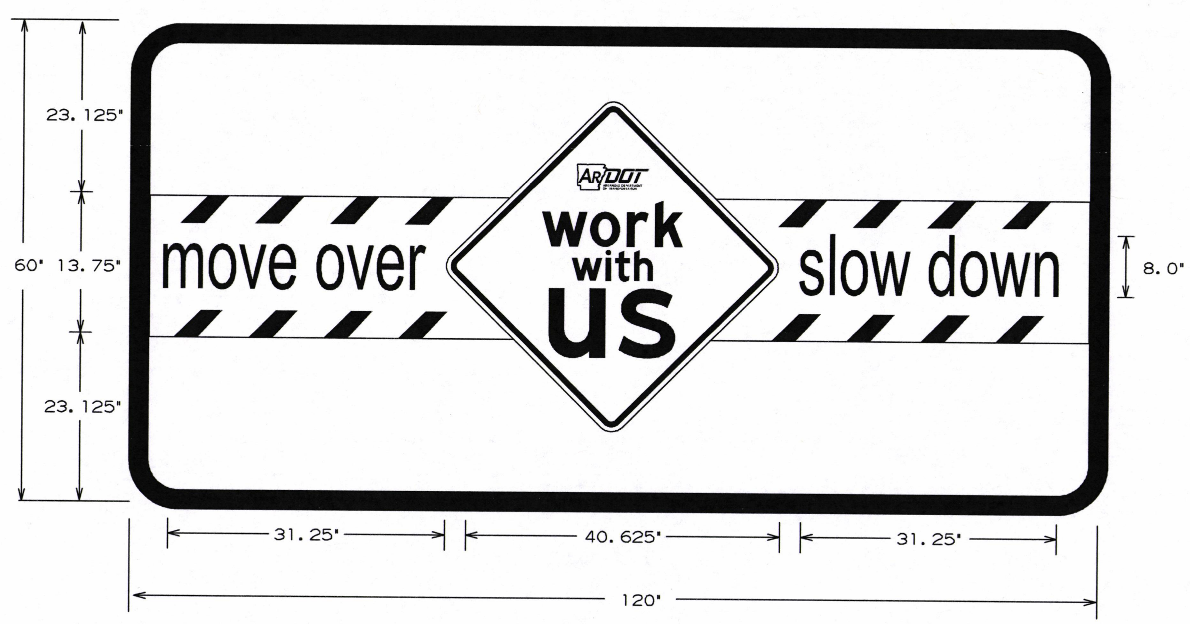


SPECIAL CLEARING



SHOULDER TRENCHING AND PREPARATION
OUTSIDE SHOULDER
(SHOWN IN DIRECTION OF TRAFFIC)
NOT TO SCALE

L.M.L. OUTSIDE SHOULDER	R.M.L. OUTSIDE SHOULDER
STA. 2485+05.00 TO STA. 2488+90.00	STA. 2554+00.00 TO STA. 2558+05.22
STA. 2553+50.00 TO STA. 2557+55.54	STA. 2560+78.39 TO STA. 2564+90.00
STA. 2560+43.72 TO STA. 2564+50.00	STA. 2597+65.00 TO STA. 2601+63.03
STA. 2597+65.00 TO STA. 2601+63.03	STA. 2605+46.12 TO STA. 2609+55.00
STA. 2605+46.12 TO STA. 2609+55.00	



2" WHITE BORDER, 2" RADII, GREEN BACKGROUND
'move over/slow down' 5.31" NIVEAU GROTESK, REGULAR FONT x 1.5Y
'work with us' FRUTIGER LT 75 BLACK FONT

NOTE: DIGITAL ART WORK FILE AVAILABLE FROM ARDOT MAINTENANCE DIVISION SIGN SHOP 501-569-2665.
THIS SIGN SHALL BE PLACED 2640' PRECEDING THE FIRST ADVANCE WARNING SIGN, IN THE DIRECTION OF TRAFFIC.

WORK WITH US SIGN

USER: fs513
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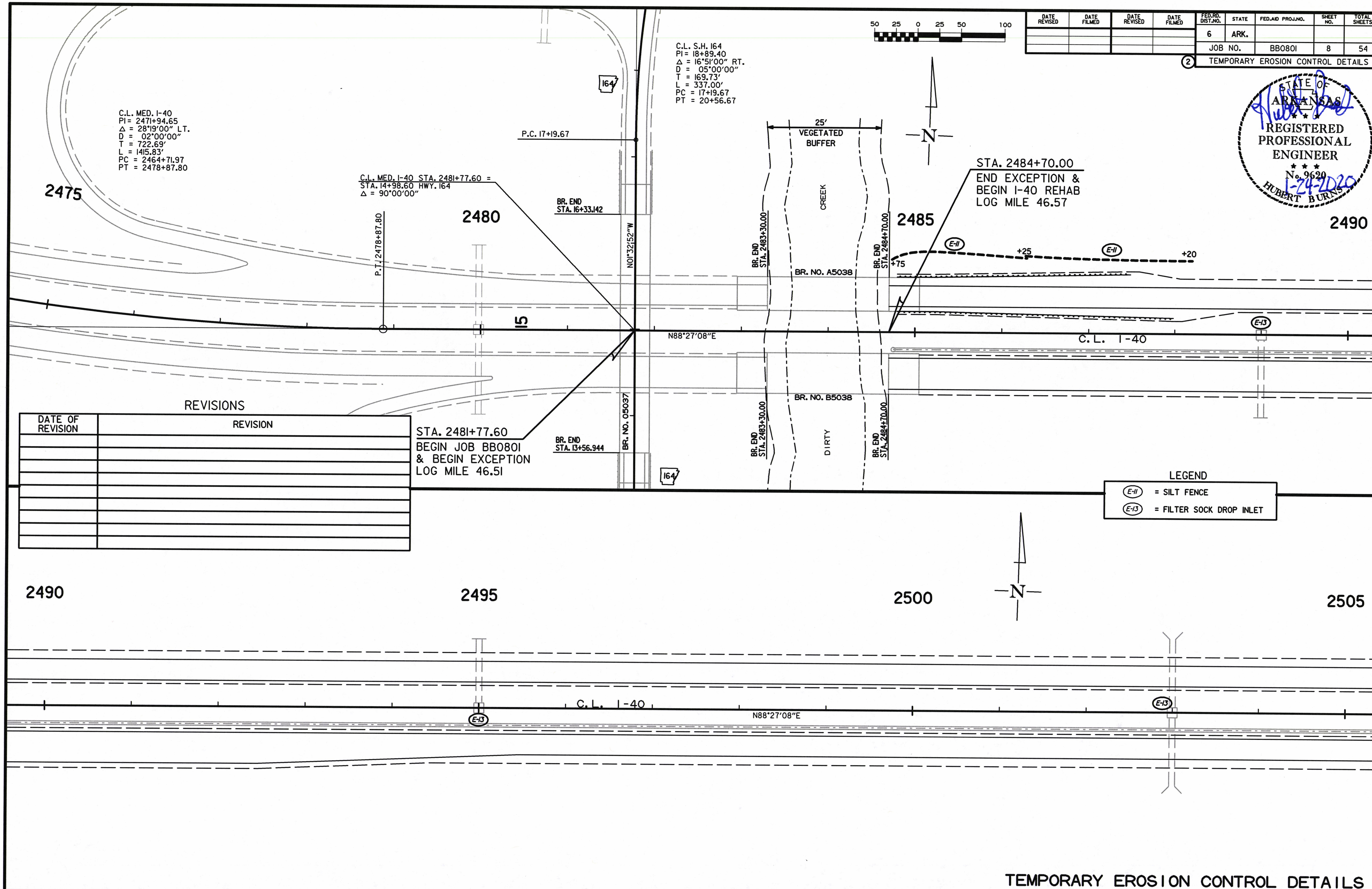
PLOTTED: 1/23/2020 11:31

SPECIAL DETAILS

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.		BB0801	8	54

(2) TEMPORARY EROSION CONTROL DETAILS



REVISIONS

DATE OF REVISION	REVISION

TEMPORARY EROSION CONTROL DETAILS

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SCALE: 1:100

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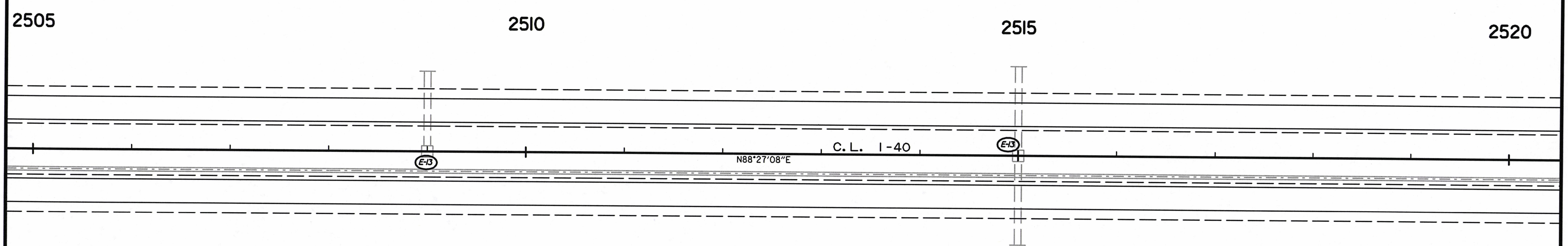
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB0801	9	54

(2) TEMPORARY EROSION CONTROL DETAILS

50 25 0 25 50 100

N

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 9620
HUBERT BURNS
1-24-2020



REVISIONS

DATE OF REVISION	REVISION

LEGEND

(E-13) = FILTER SOCK DROP INLET

N

C.L. MED. I-40
PI = 2539+40.00
Δ = 17°56'00" RT.
D = 01°00'00"
T = 904.06'
L = 1793.33'
PC = 2530+35.94
PT = 2548+29.27
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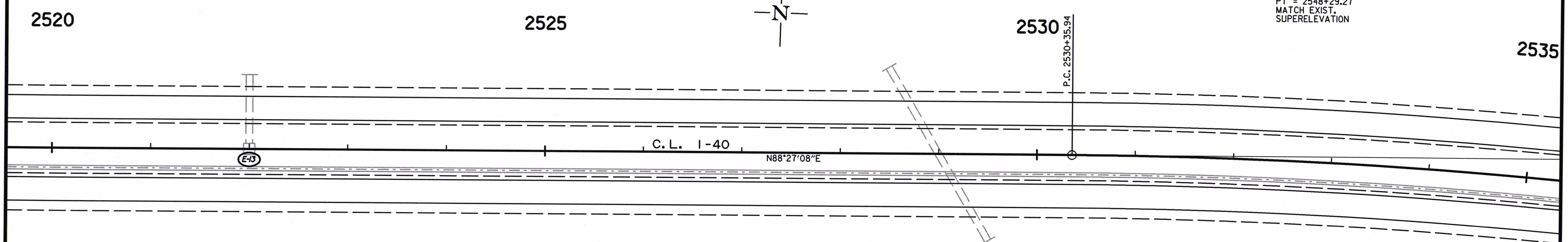
SUPERELEVATION



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PLOTTED: 1/23/2020 11:31

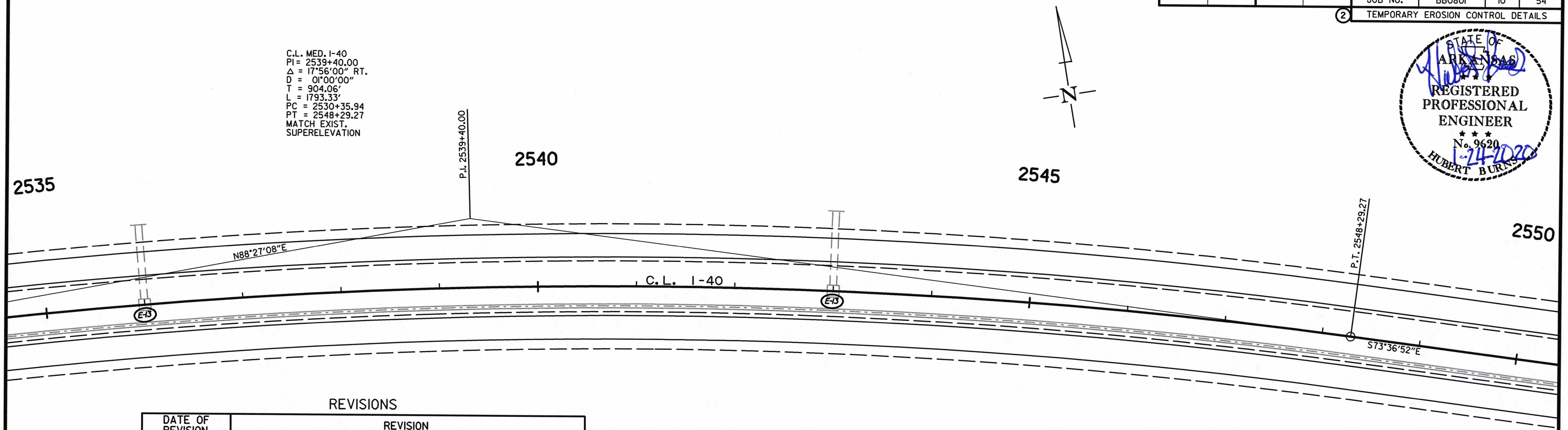
TEMPORARY EROSION CONTROL DETAILS

G:\1810870I_BB080I\TRANSP\dgn\erosion\rBB080IEC0I.dgn 1/23/2020 11:31

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.		BB0801	10	54

(2) TEMPORARY EROSION CONTROL DETAILS

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 9620
HUBERT BURNS
1-24-2020

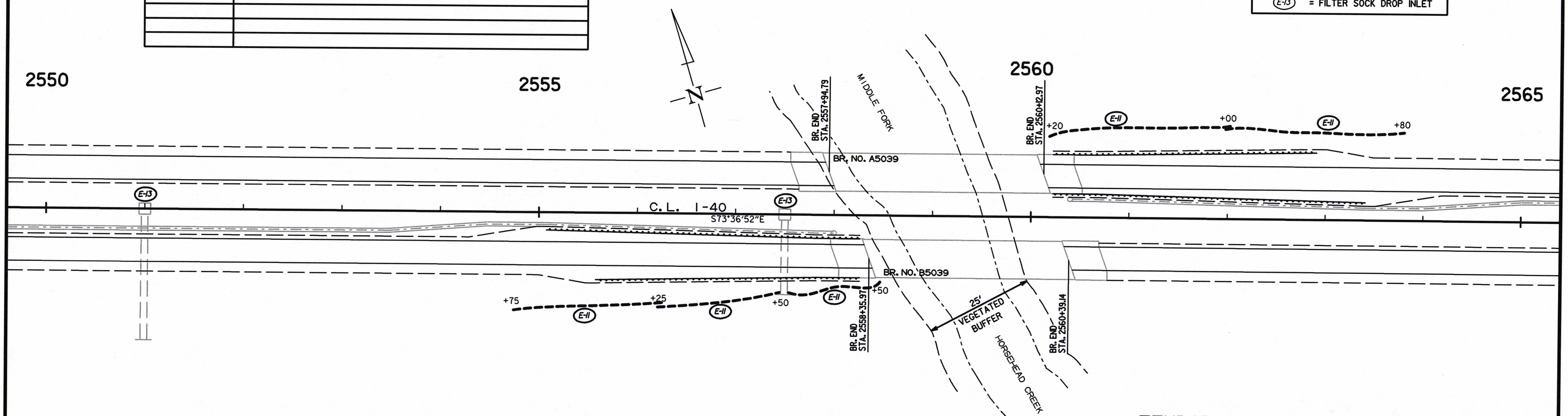


REVISIONS

DATE OF REVISION	REVISION

LEGEND

E-11	= SILT FENCE
E-13	= FILTER SOCK DROP INLET



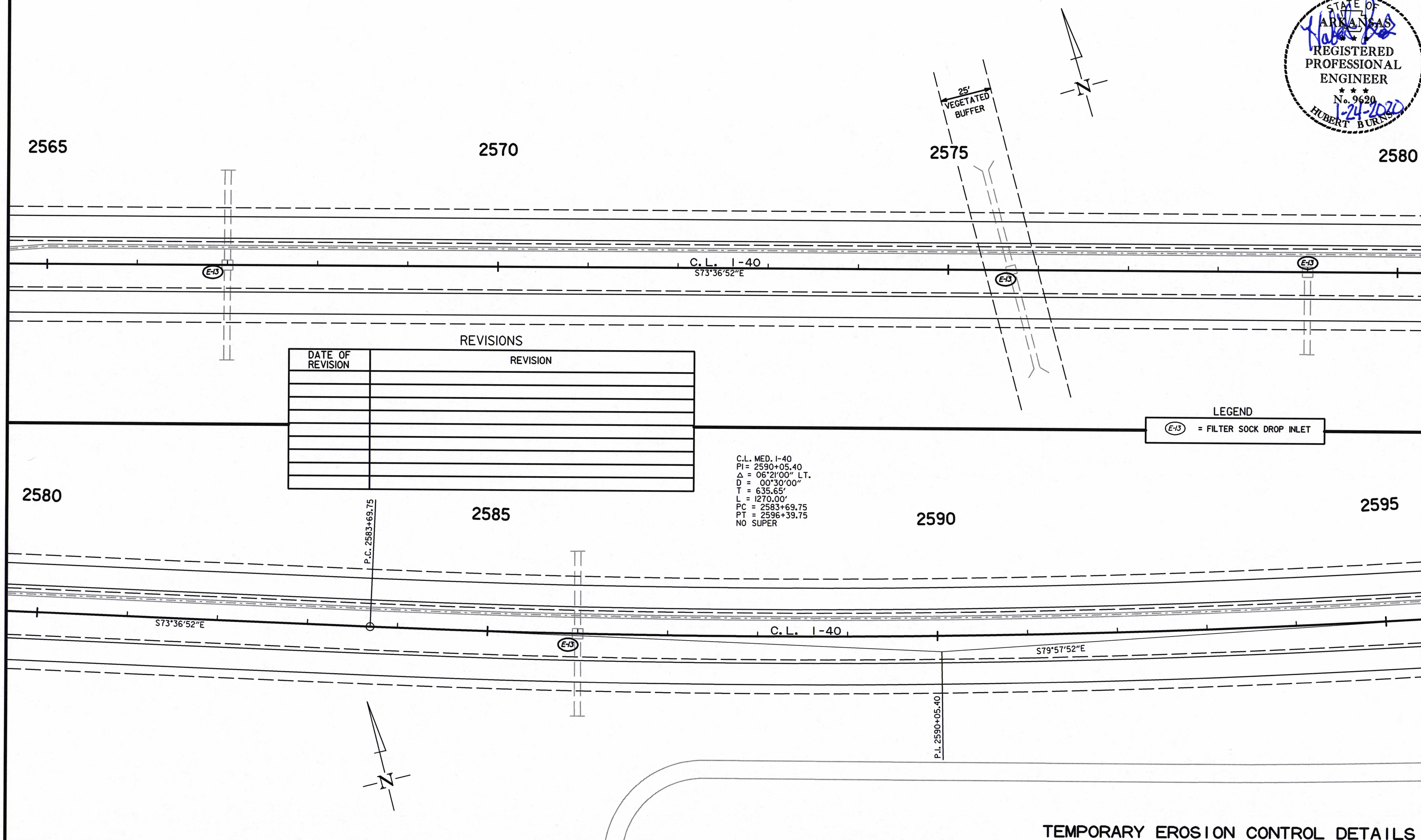
TEMPORARY EROSION CONTROL DETAILS

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.		BB0801	11	54

(2) TEMPORARY EROSION CONTROL DETAILS

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 9620
HUBERT BURNS
1-24-2020



REVISIONS

DATE OF REVISION	REVISION

TEMPORARY EROSION CONTROL DETAILS

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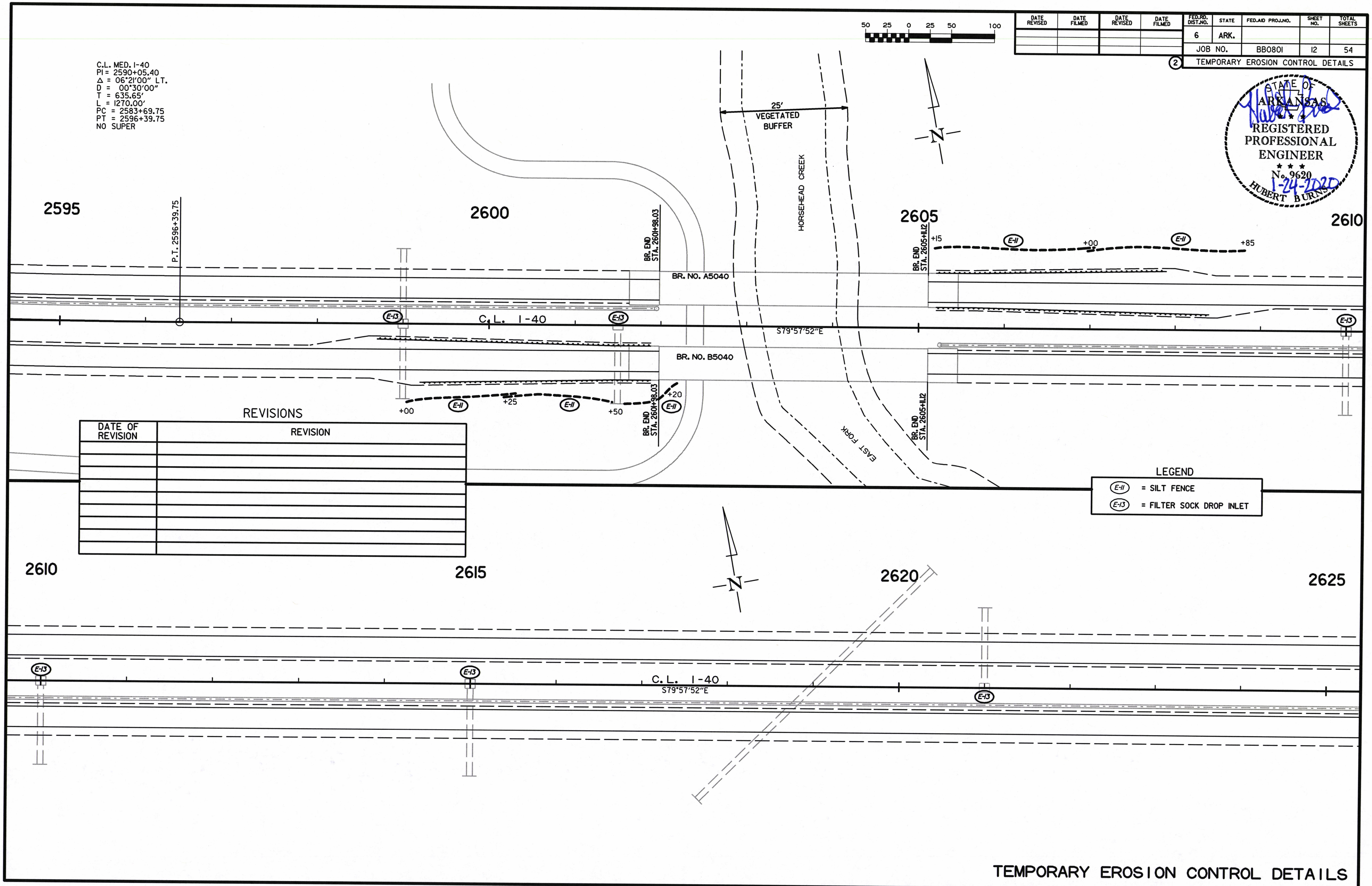

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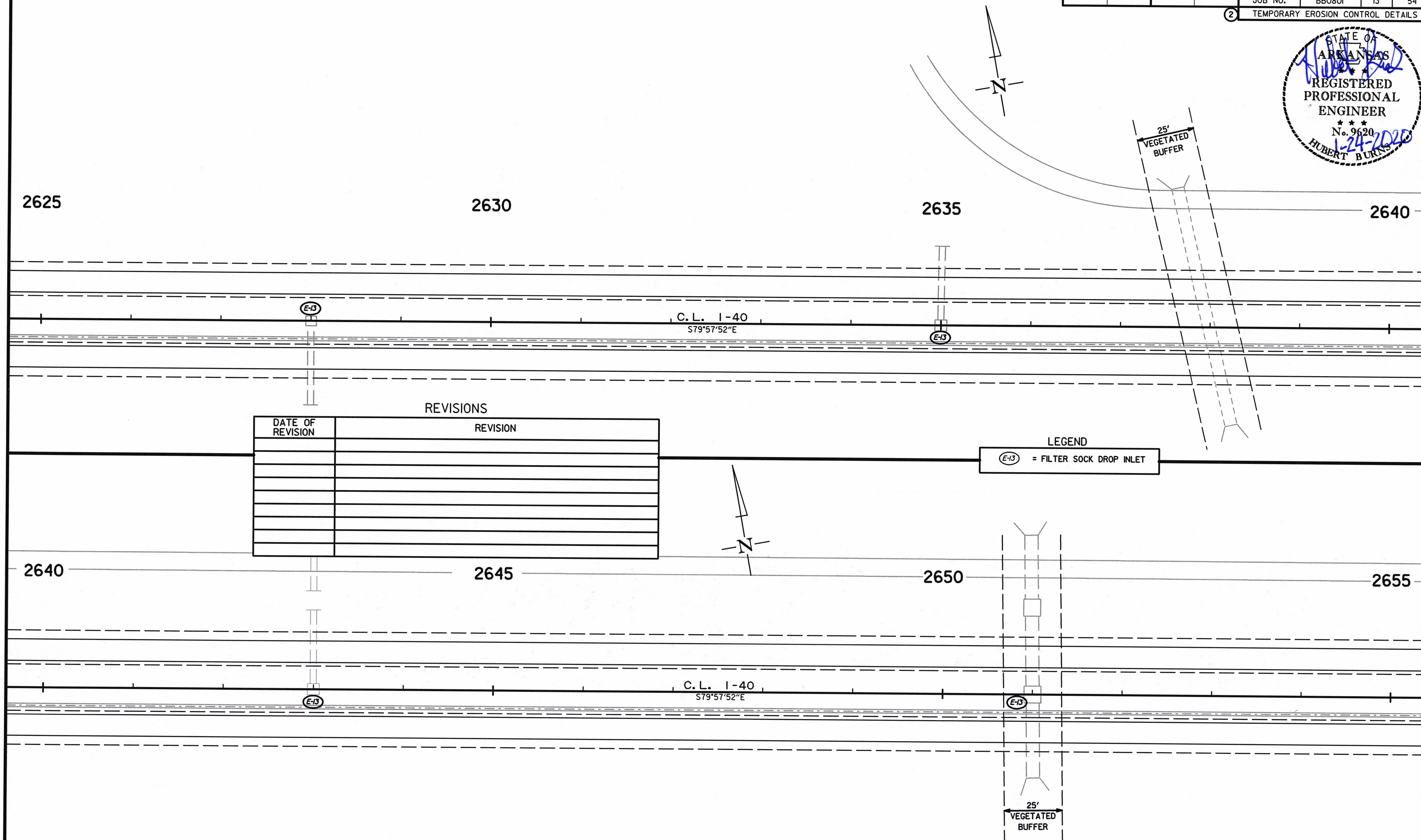
				JOB NO.		BB0801	13	54

(2) TEMPORARY EROSION CONTROL DETAILS

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 9620
HUBERT BURNS
1-24-2020



REVISIONS

DATE OF REVISION	REVISION

LEGEND

(E-13) = FILTER SOCK DROP INLET

TEMPORARY EROSION CONTROL DETAILS

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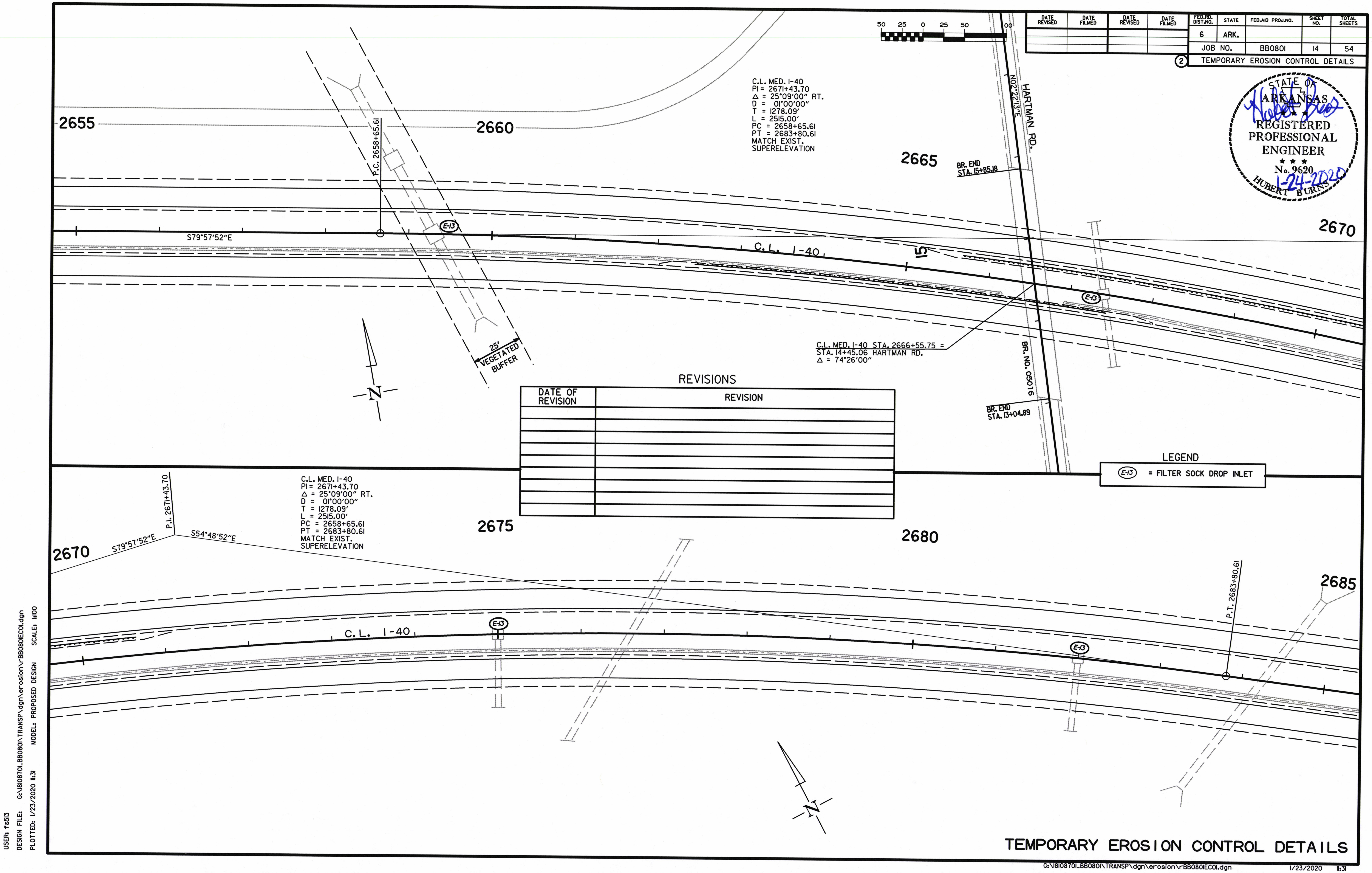
DATE REVISED
DATE FILMED
DATE REVISED
DATE FILMED
FED.RD. DIST.NO.
STATE
FED.AID PROJ.NO.
SHEET NO.
TOTAL SHEETS
6
ARK.
JOB NO.
BB0801
14
54
2
TEMPORARY EROSION CONTROL DETAILS
STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 9620
HUBERT BURNS
1-24-2020
C.L. MED. I-40
PI = 2671+43.70
Δ = 25°09'00" RT.
D = 01°00'00"
T = 1278.09'
L = 2515.00'
PC = 2658+65.61
PT = 2683+80.61
MATCH EXIST. SUPERELEVATION
2655
2660
2665
2670
P.C. 2658+65.61
S79°57'52"E
C.L. I-40
15
E-13
25' VEGETATED BUFFER
N
HARTMAN RD.
N02°22'13"E
BR. END STA. 15+85.18
BR. NO. 05016
BR. END STA. 13+04.89
C.L. MED. I-40 STA. 2666+55.75 = STA. 14+45.06 HARTMAN RD.
Δ = 74°26'00"
REVISIONS
DATE OF REVISION
REVISION
LEGEND
E-13 = FILTER SOCK DROP INLET
P.I. 2671+43.70
S79°57'52"E
S54°48'52"E
C.L. MED. I-40
PI = 2671+43.70
Δ = 25°09'00" RT.
D = 01°00'00"
T = 1278.09'
L = 2515.00'
PC = 2658+65.61
PT = 2683+80.61
MATCH EXIST. SUPERELEVATION
2670
2675
2680
2685
C.L. I-40
E-13
P.T. 2683+80.61
N
TEMPORARY EROSION CONTROL DETAILS
USER: t6513
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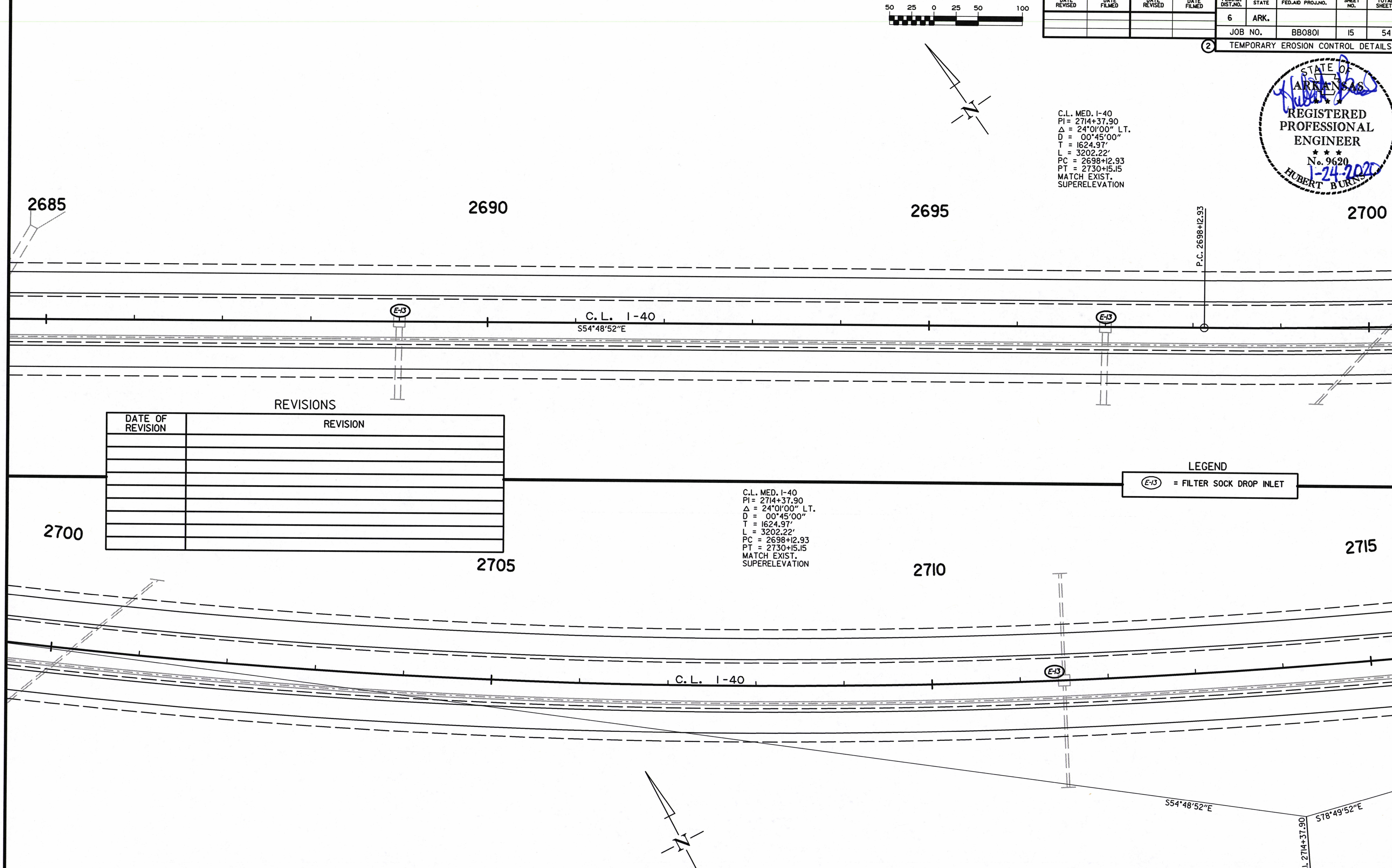
1/23/2020 11:31

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.		BB0801	15	54

(2) TEMPORARY EROSION CONTROL DETAILS

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 9620
HUBERT BURNS
1-24-2020



REVISIONS

DATE OF REVISION	REVISION

LEGEND

(E-13) = FILTER SOCK DROP INLET

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D = 00°45'00"
T = 1624.97'
L = 3202.22'
PC = 2698+12.93
PT = 2730+15.15
MATCH EXIST.
SUPERELEVATION

USER: f8513
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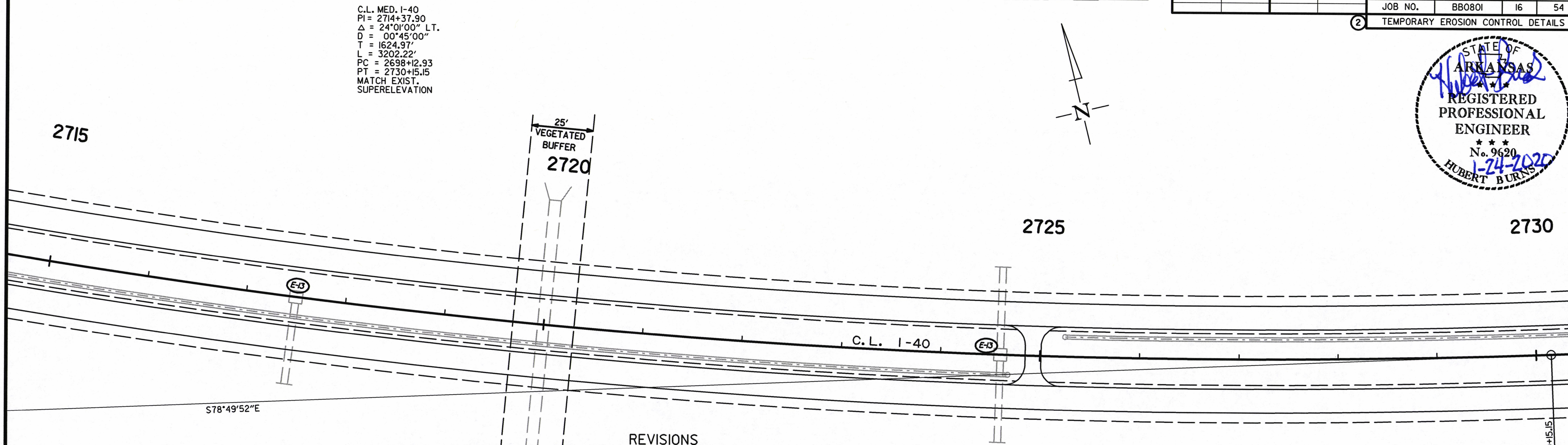
PLOTTED: 1/23/2020 11:31 MODEL: PROPOSED DESIGN SCALE: 1:100

TEMPORARY EROSION CONTROL DETAILS

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.		BB0801	16	54

(2) TEMPORARY EROSION CONTROL DETAILS

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 9620
HUBERT BURNS
1-24-2020

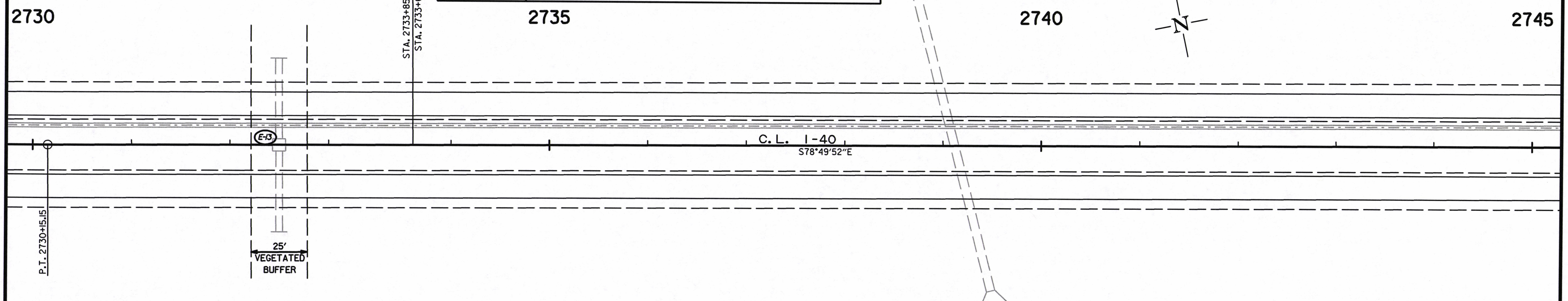


REVISIONS

DATE OF REVISION	REVISION

LEGEND

(E-13) = FILTER SOCK DROP INLET



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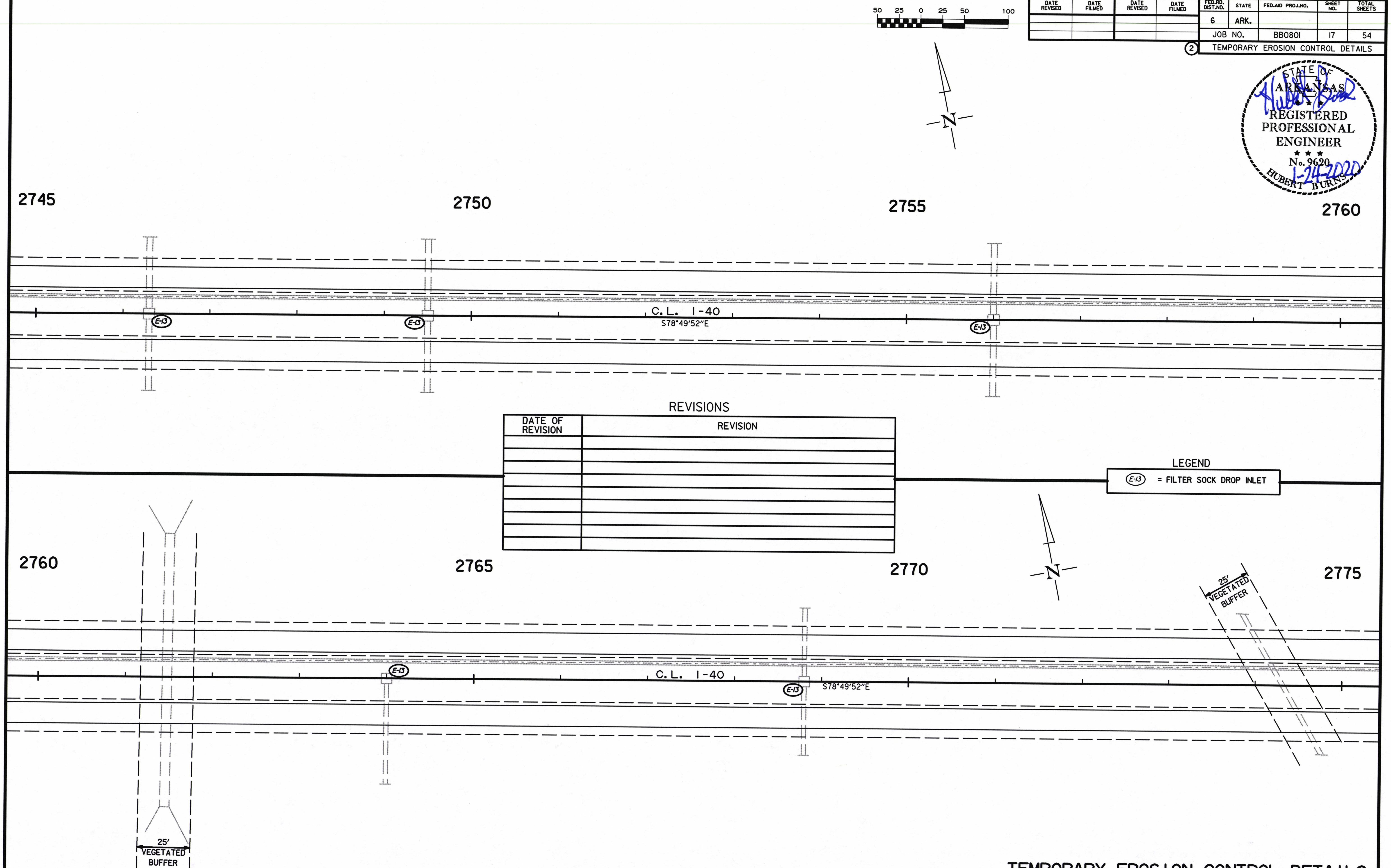
TEMPORARY EROSION CONTROL DETAILS

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.		BB0801	17	54

(2) TEMPORARY EROSION CONTROL DETAILS

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
★ ★ ★
No. 9620
HUBERT BURNS
1-24-2020



REVISIONS

DATE OF REVISION	REVISION

LEGEND

(E-13) = FILTER SOCK DROP INLET

TEMPORARY EROSION CONTROL DETAILS

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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.		BB0801	18	54

(2) TEMPORARY EROSION CONTROL DETAILS

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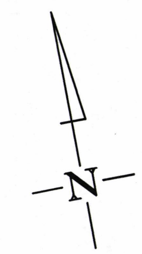
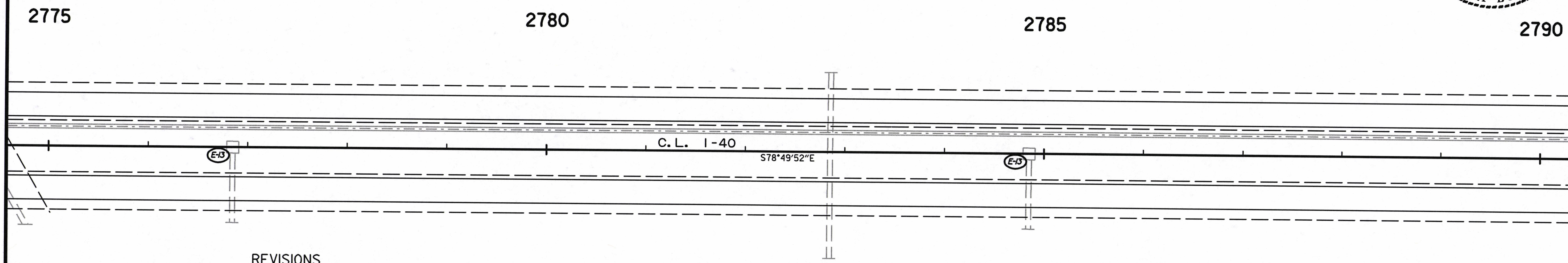
STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 9620
HUBERT BURNS
1-24-2020





REVISIONS

DATE OF REVISION	REVISION

LEGEND

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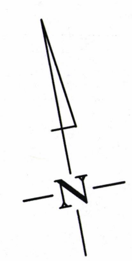

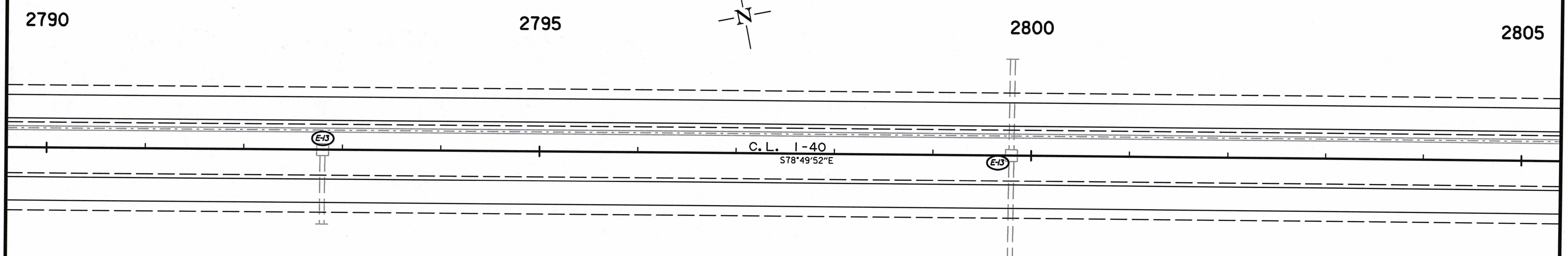

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TEMPORARY EROSION CONTROL DETAILS

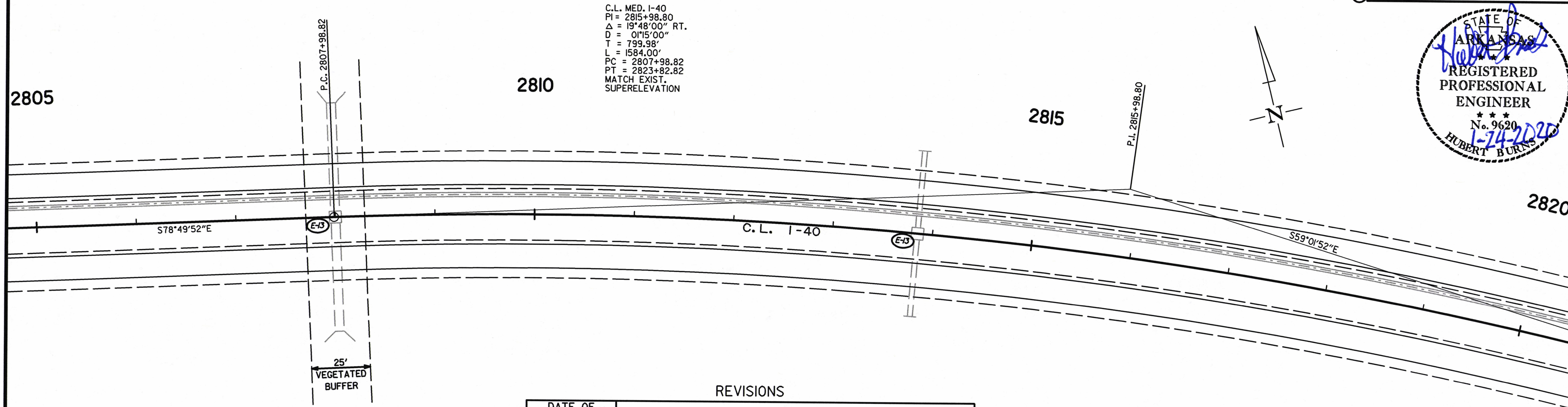
G:\1810870I_BB080I\TRANSP\dgn\erosion\rBB080IEC0I.dgn 1/23/2020 11:31

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.		BB0801	19	54

(2) TEMPORARY EROSION CONTROL DETAILS

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 9620
HUBERT BURNS
1-24-2020



REVISIONS

DATE OF REVISION	REVISION

LEGEND

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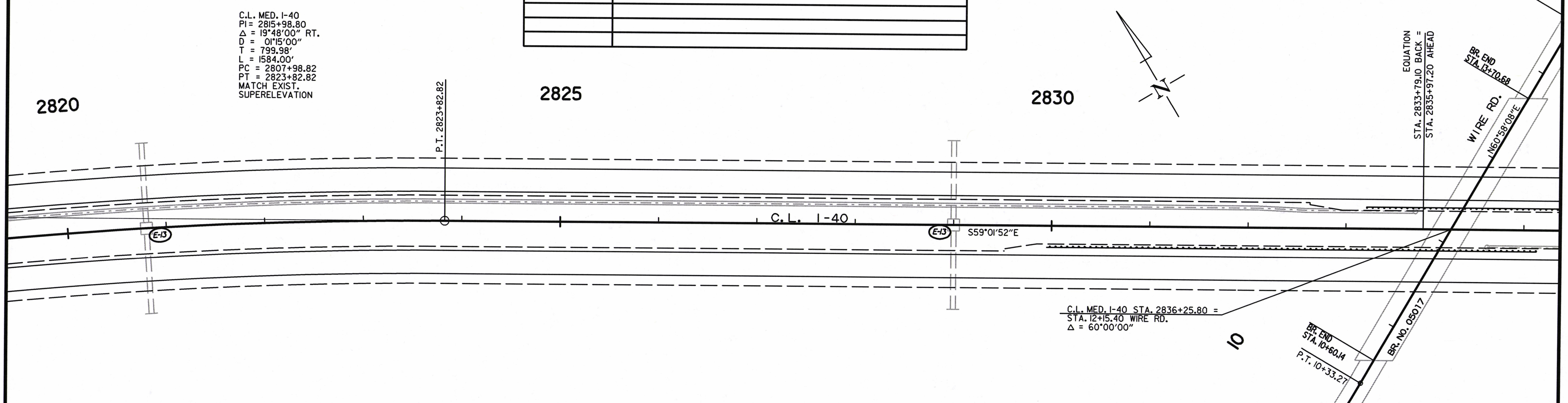
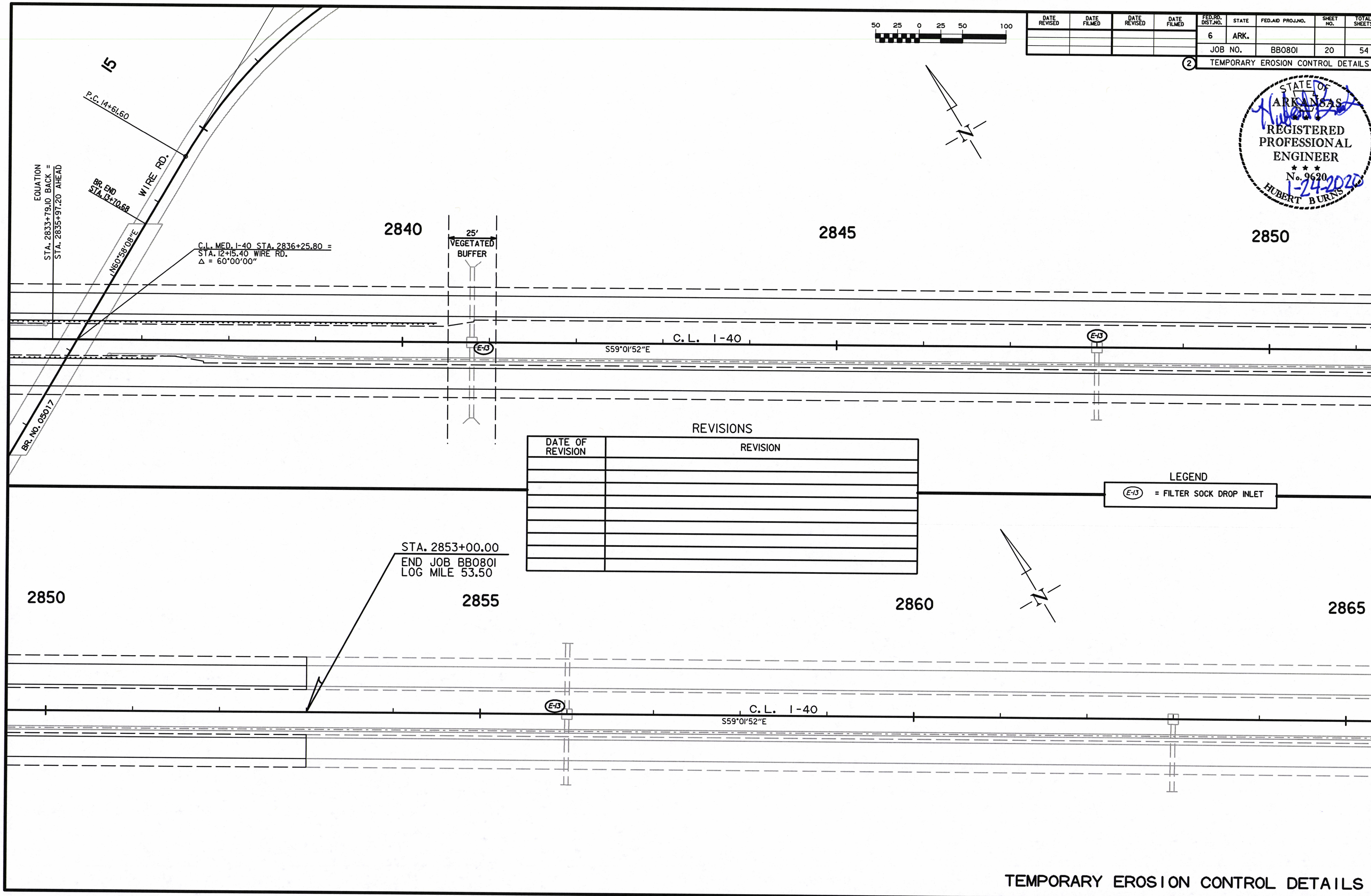


TEMPORARY EROSION CONTROL DETAILS

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.		BB0801	20	54

(2) TEMPORARY EROSION CONTROL DETAILS

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 9620
HUBERT BURNS
1-24-2020



REVISIONS

DATE OF REVISION	REVISION

LEGEND

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MODEL: PROPOSED DESIGN
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TEMPORARY EROSION CONTROL DETAILS

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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.		BB0801	21	54

(2) MAINTENANCE OF TRAFFIC DETAILS

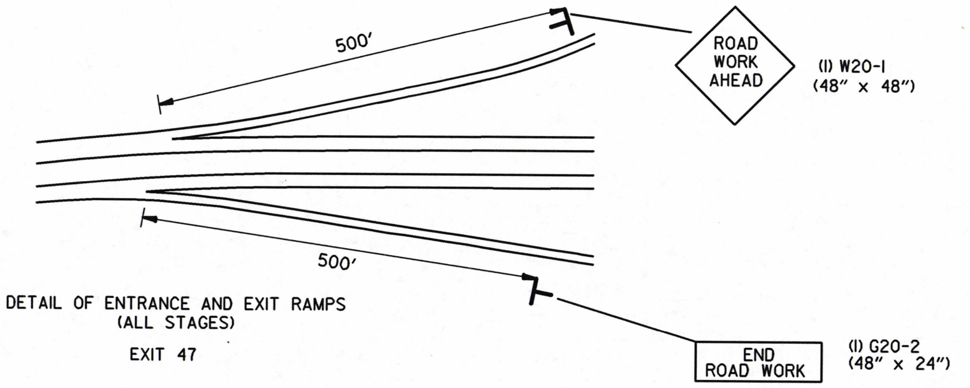
STATE OF ARKANSAS REGISTERED PROFESSIONAL ENGINEER No. 9620 HUBERT BURNS 1-24-2020

CONSTRUCTION SEQUENCE:

MILL AND INLAY OPERATIONS SHALL UTILIZE A SINGLE FOUR (4) MILE LANE CLOSURE IN ONE DIRECTION. NO LANE CLOSURE MAY EXCEED THE ACTIVE WORK AREA BY MORE THAN ONE QUARTER (1/4) MILE. REFER TO MAINTENANCE OF TRAFFIC SPECIAL PROVISION.

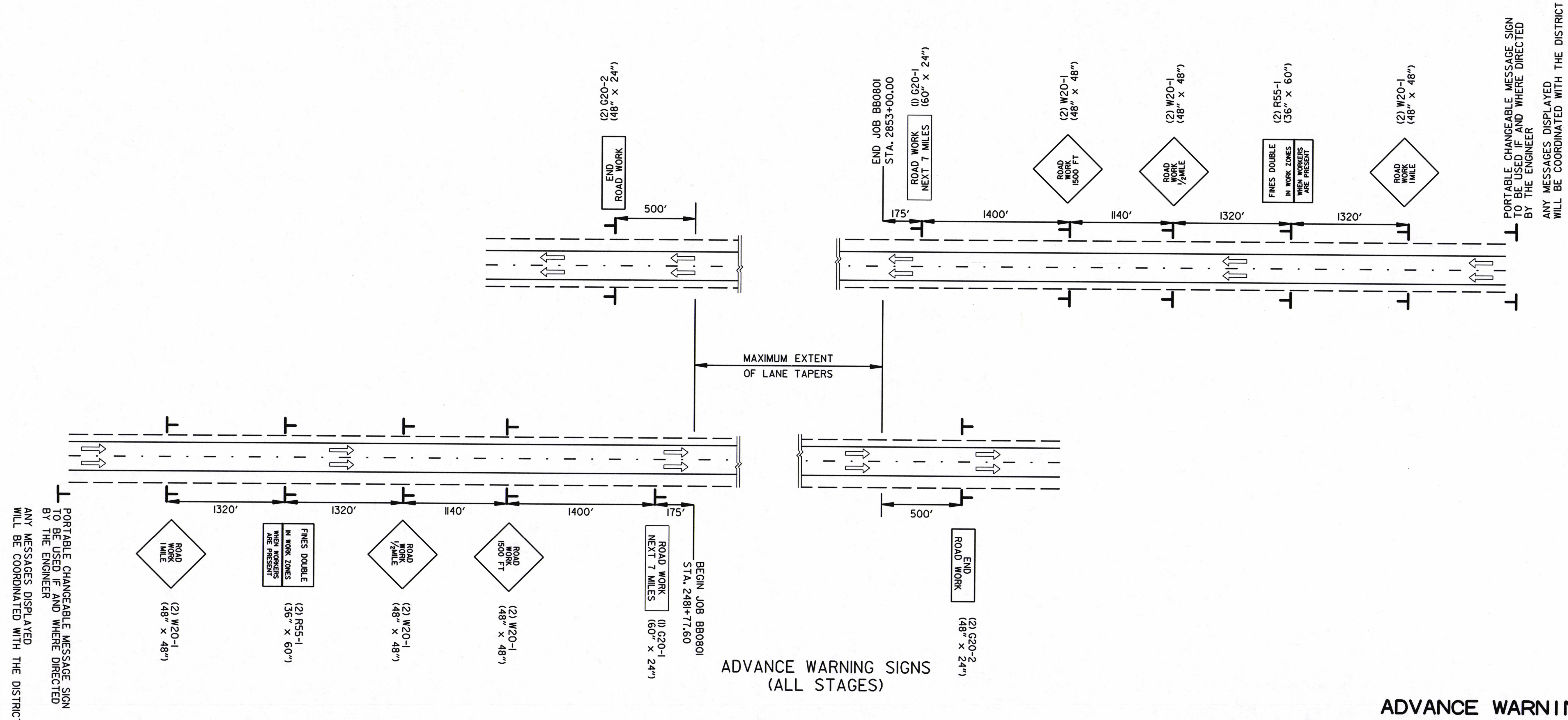
FOR BRIDGE DECK HYDRODEMOLITION, A SINGLE LANE CLOSURE OF NO MORE THAN TWO (2) MILES, WITH NO HOURLY RESTRICTIONS, WILL BE PERMITTED FOR A MAXIMUM OF FIFTEEN (15) CONSECUTIVE CALENDAR DAYS TO COMPLETE EACH BRIDGE DECK. ONLY ONE LANE CLOSURE PER SET OF MAIN LANES WILL BE ALLOWED AND SHALL NOT EXCEED THE ACTIVE WORK AREA BY MORE THAN ONE QUARTER (1/4) MILE. PRECAST CONCRETE BARRIER WALL WILL BE PROVIDED FOR BRIDGE DECK REHABILITATION AS SHOWN IN THE PLANS. REFER TO THE MAINTENANCE OF TRAFFIC SPECIAL PROVISION.

REMOVAL & DISPOSAL OF EXISTING GUARDRAIL AND INSTALLATION OF NEW GUARDRAIL SHALL UTILIZE LANE CLOSURES. ALL GUARDRAIL WORK SHALL BE PERFORMED AS DIRECTED BY THE ENGINEER.



DETAIL OF ENTRANCE AND EXIT RAMPS (ALL STAGES)

EXIT 47



ADVANCE WARNING SIGNS (ALL STAGES)

ADVANCE WARNING
MAINTENANCE OF TRAFFIC DETAILS

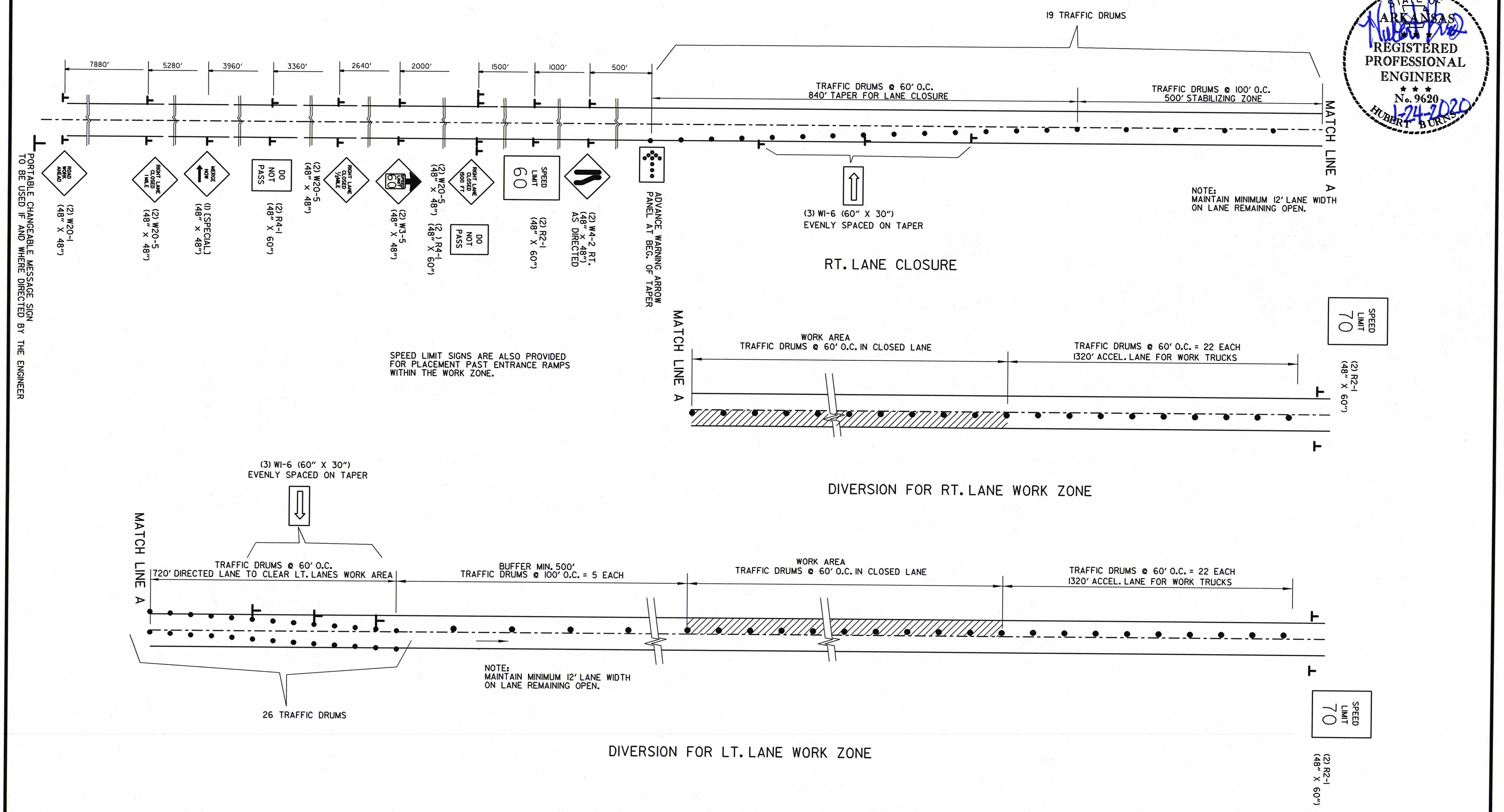
USER: t8513 DESIGN FILE: G:\1810870L.BB0801\TRANSP\dgn\maint_of_traffic\rbb0801mot.dgn PLOTTED: 1/23/2020 12:58 MODEL: MOT ALL STAGES DETAILS SCALE: 1:100

G:\1810870L.BB0801\TRANSP\dgn\maint_of_traffic\rbb0801mot.dgn 1/23/2020 12:58

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.		BB0801	22	54

(2) MAINTENANCE OF TRAFFIC DETAILS

STATE OF ARKANSAS REGISTERED PROFESSIONAL ENGINEER ★ ★ ★ No. 9620 HUBERT BURNS 1-24-2020

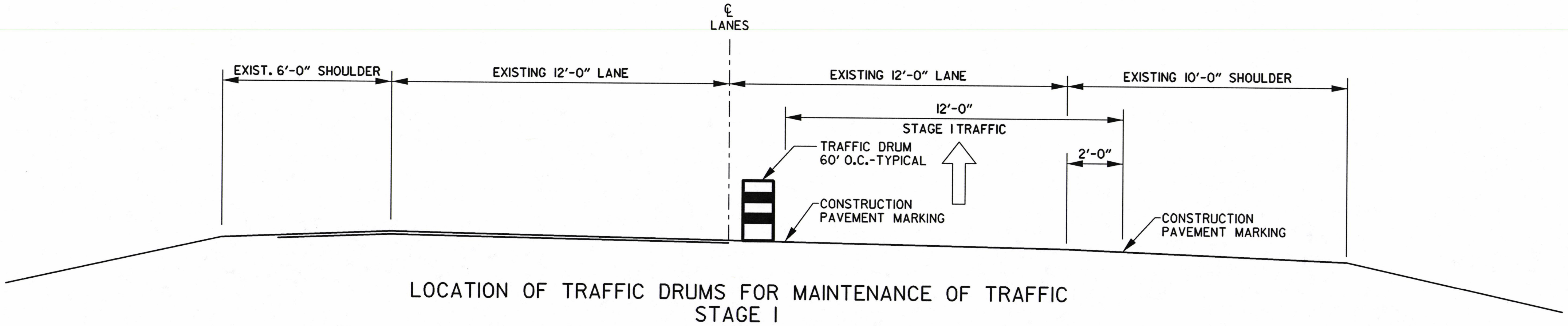


I-40
WORK ZONE - LANE CLOSURE
MAINTENANCE OF TRAFFIC DETAILS

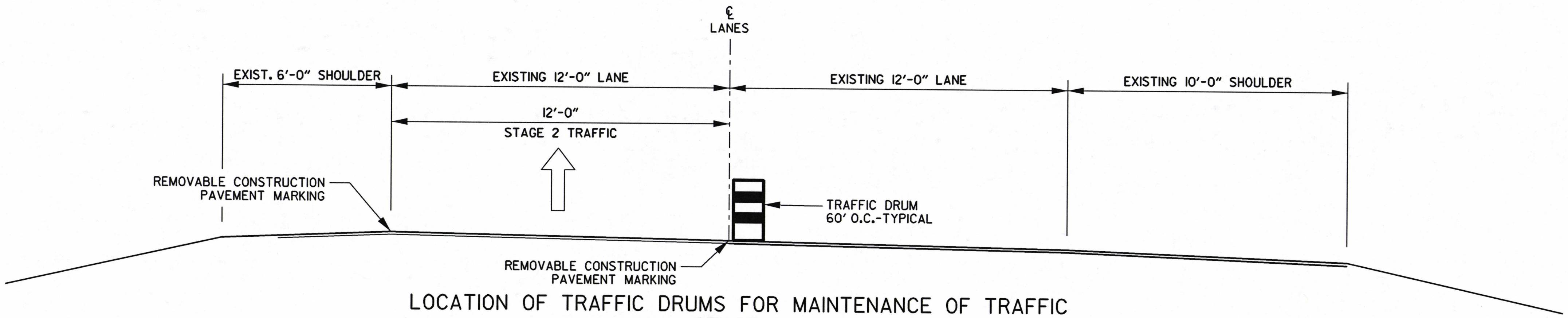
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB0801	23	54

(2) MAINTENANCE OF TRAFFIC DETAILS

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 9620
HUBERT BURNS
1-24-2020



LOCATION OF TRAFFIC DRUMS FOR MAINTENANCE OF TRAFFIC
STAGE I
(SHOWN IN DIRECTION OF TRAFFIC)



LOCATION OF TRAFFIC DRUMS FOR MAINTENANCE OF TRAFFIC
STAGE 2
(SHOWN IN DIRECTION OF TRAFFIC)

SEQUENCE OF CONSTRUCTION

STAGE I - MILL & ACHM INLAY INSIDE LANE AND SHOULDER AND INSTALL GUARDRAIL.

STAGE 2 - MILL & ACHM INLAY OUTSIDE LANE, SHOULDER, AND RAMPS AND INSTALL GUARDRAIL. INSTALL RUMBLE STRIPS & PERMANENT PAVEMENT MARKINGS.

NOTES:

MILL & ACHM INLAY OPERATIONS IN ONE DIRECTION SHALL UTILIZE A SINGLE FOUR (4) MILE LANE CLOSURE. 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.

FOR BRIDGE DECK REHABILITATION A SINGLE LANE CLOSURE OF NO MORE THAN TWO (2) MILES WILL BE PERMITTED. ONLY ONE LANE CLOSURE PER SET OF MAIN LANES WILL BE ALLOWED AND SHALL NOT EXCEED THE ACTIVE WORK AREA BY MORE THAN ONE QUARTER (1/4) MILE. REFER TO THE MAINTENANCE OF TRAFFIC SPECIAL PROVISION.

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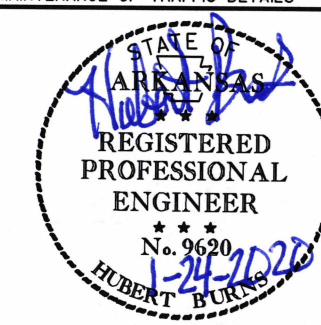
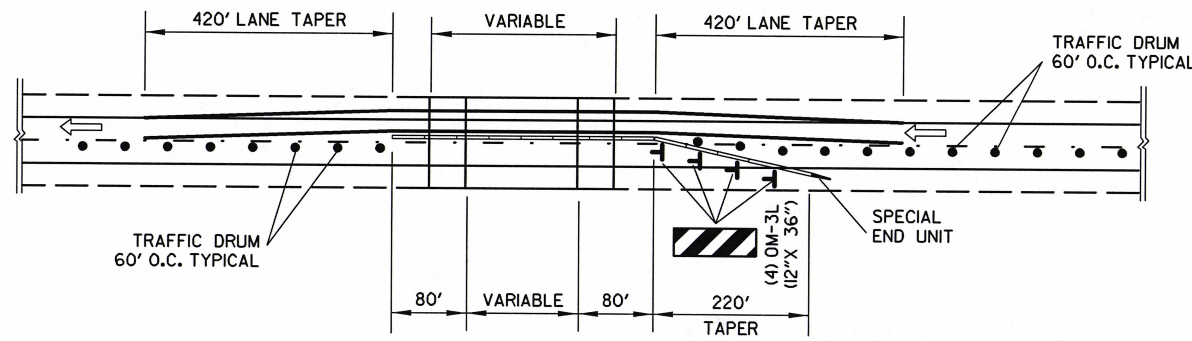
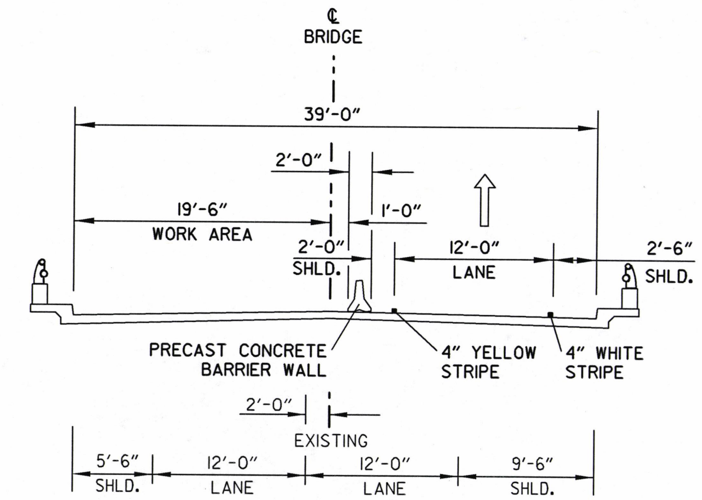
MAINTENANCE OF TRAFFIC DETAILS

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.		BB0801	24	54

(2) MAINTENANCE OF TRAFFIC DETAILS

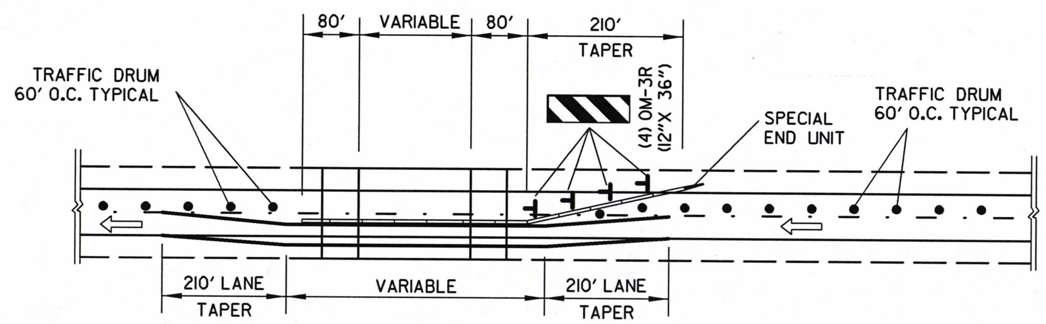


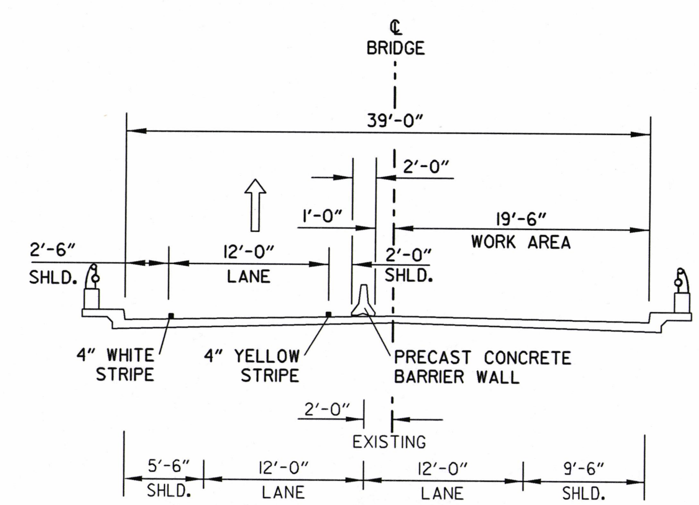




STAGE 1
(LOOKING IN DIRECTION OF TRAFFIC)

NOTE: SEE LANE CLOSURE DETAILS FOR TRAFFIC DRUM SPACING AND TAPERS.





STAGE 2
(LOOKING IN DIRECTION OF TRAFFIC)

STAGE 1

REMOVAL OF PERMANENT PAVEMENT MARKINGS = 5475 LIN. FT.
REMOVABLE CONSTRUCTION PAVEMENT MARKINGS = 11025 LIN. FT.
CONSTRUCTION PAVEMENT MARKINGS = 2505 LIN. FT.
FURNISH & INSTALL P.C.C.B. = 3315 LIN. FT.

STAGE 2

REMOVAL OF PERMANENT PAVEMENT MARKINGS = 1535 LIN. FT.
REMOVABLE CONSTRUCTION PAVEMENT MARKINGS = 5440 LIN. FT.
RELOCATE P.C.C.B. = 3185 LIN. FT.

QUANTITIES SHOWN INCLUDE STAGE TOTAL EXCEPT THE QUANTITIES REQUIRED AT MAINLINE BRIDGE NOS. B5038.

BRIDGES A5038, A5039, B5039, A5040, B5040
HYDRODEMOLITION, LATEX MODIFIED CONCRETE OVERLAY, AND RESURFACING I-40 BRIDGES
MAINTENANCE OF TRAFFIC DETAILS

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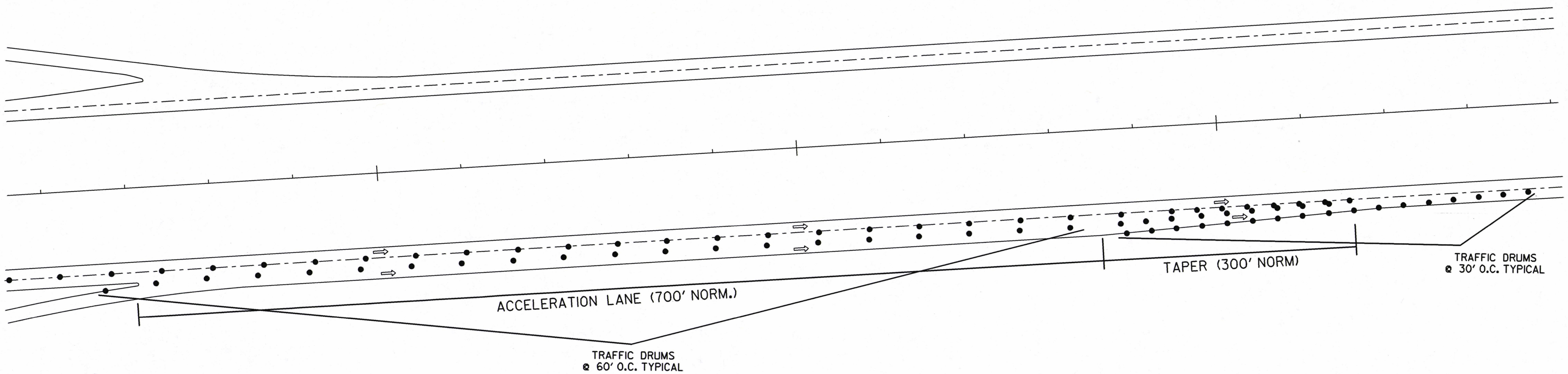
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB0801	25	54

2 MAINTENANCE OF TRAFFIC DETAILS

STATE OF ARKANSAS REGISTERED PROFESSIONAL ENGINEER No. 9620 HUBERT BURNS

1-24-2020



ENTRANCE RAMP - TYPICAL TRAFFIC DRUM LAYOUT OUTSIDE LANE CLOSURE

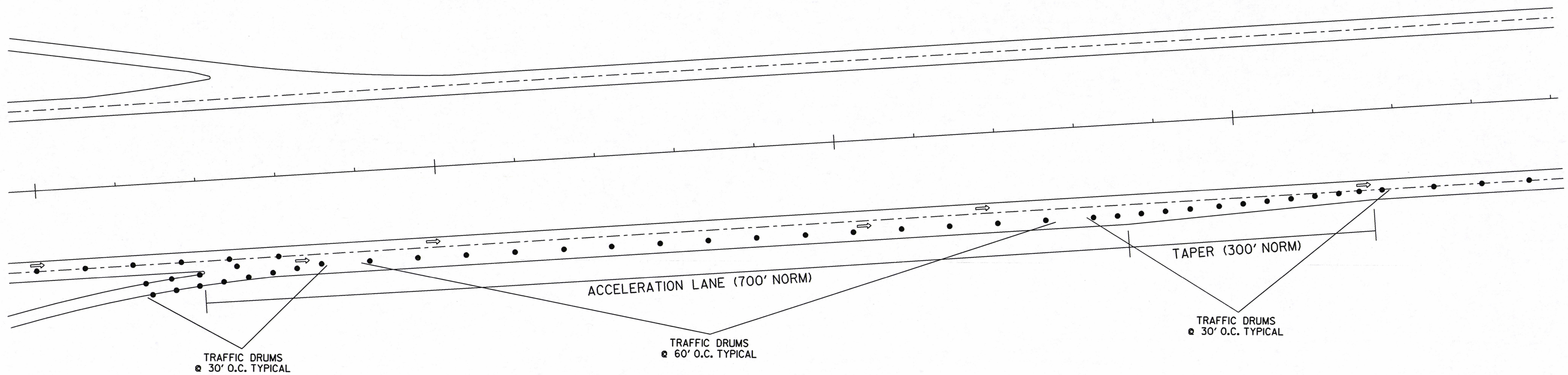
EXIT 47:
EASTBOUND ENTRANCE = 48 TRAFFIC DRUMS

DETAIL OF RAMPS WITH LANE CLOSURE MAINTENANCE OF TRAFFIC DETAILS

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.		BB0801	26	54

(2) MAINTENANCE OF TRAFFIC DETAILS

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 9620
HUBERT BURNS
1-24-2020



ENTRANCE RAMP - TYPICAL TRAFFIC DRUM LAYOUT
ACCELERATION LANE CLOSURE

EXIT 47:
EASTBOUND ENTRANCE = 48 TRAFFIC DRUMS

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DETAIL OF RAMPS WITH LANE CLOSURE
MAINTENANCE OF TRAFFIC DETAILS

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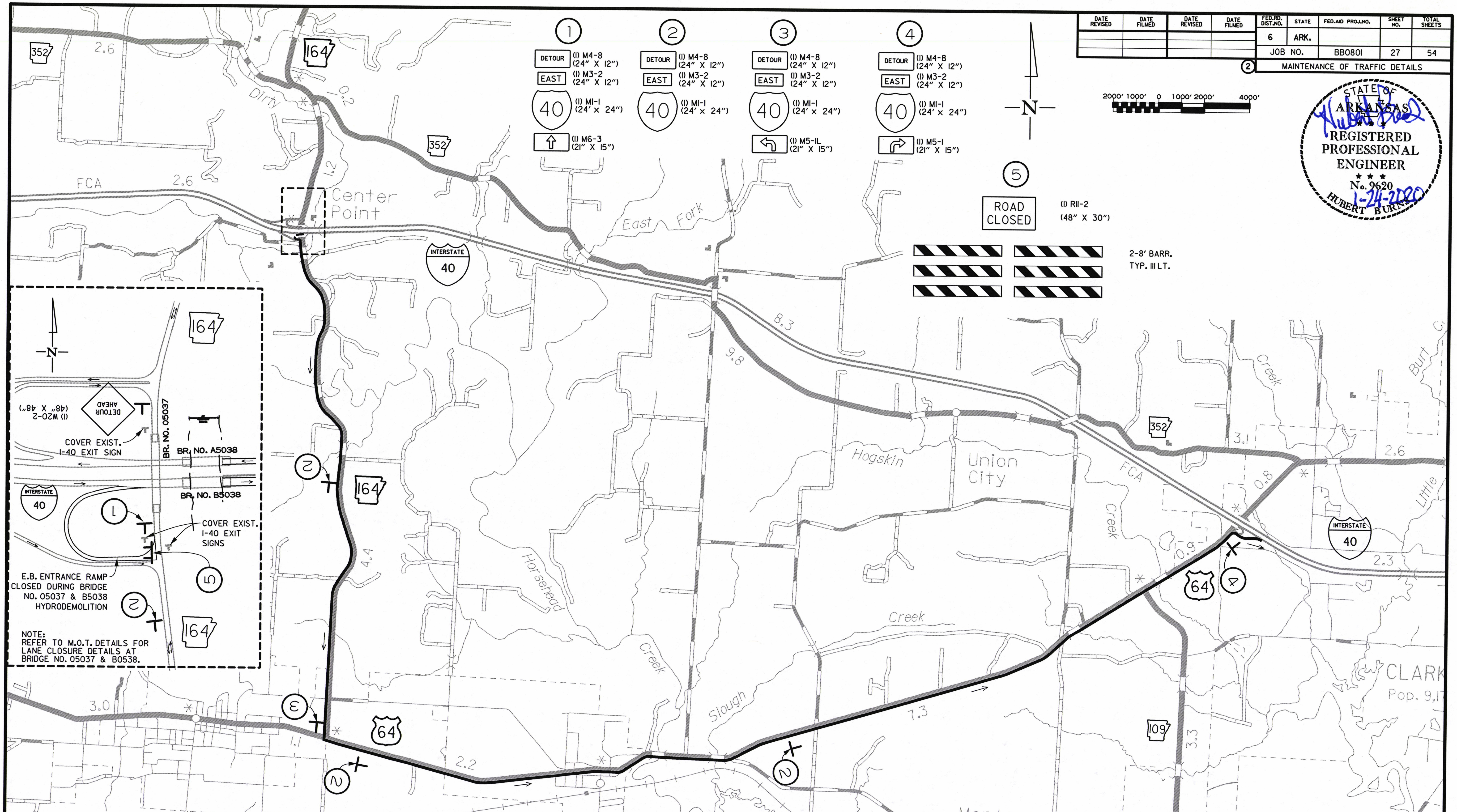
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB0801	27	54

(2) MAINTENANCE OF TRAFFIC DETAILS



STAGE 1: INSTALL DETOUR SIGNS. DETOUR TRAFFIC FROM EXIT 47 ENTRANCE RAMP AT EASTBOUND I-40 TO THE INTERSECTION OF HWY. 164 AND HWY. 64 FOR ACCESS TO I-40 EAST.

PERFORM HYDRODEMOLITION ON BRIDGES 05037 AND B5038 ONE SIDE.

STAGE 2: PERFORM HYDRODEMOLITION ON BRIDGE 05037 AND B5038 REMAINING LANES.

REMOVE TRAFFIC DETOUR SIGNS AND RETURN TRAFFIC TO ORIGINAL FLOW.

NOTE: REFER TO MOT SPECIAL PROVISION.

STAGE 1 & 2 - DETOUR MAP FOR EXIT 47 E.B. ENTRANCE RAMP DURING BRIDGE NO. 05037 & B5038 HYDRODEMOLITION MAINTENANCE OF TRAFFIC DETAILS

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PLOTTED: 1/23/2020 11:31
MODEL: Detour map - Exit 47 EB Entrance Ramp

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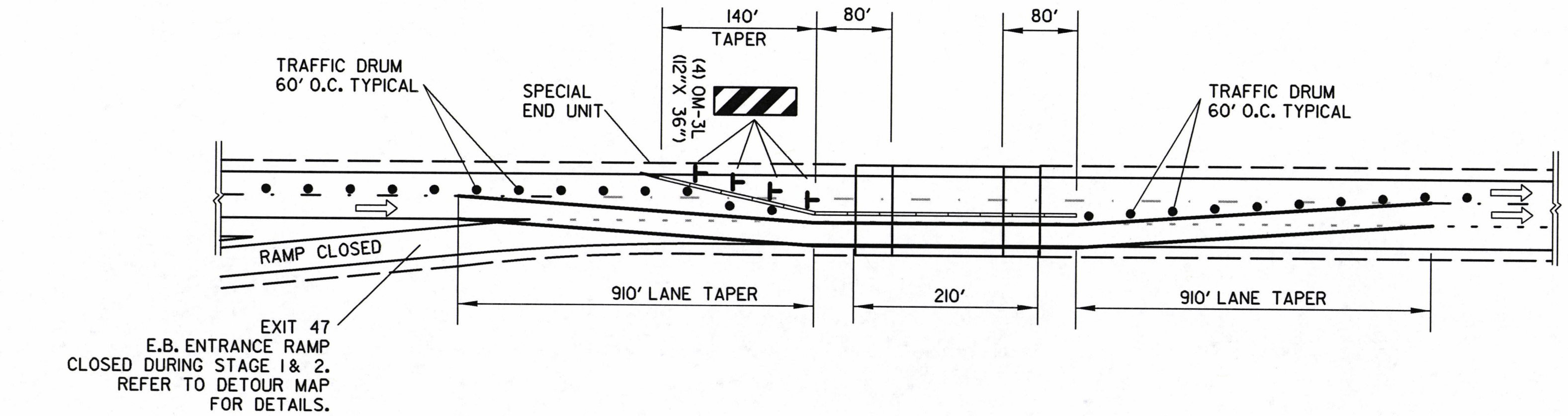
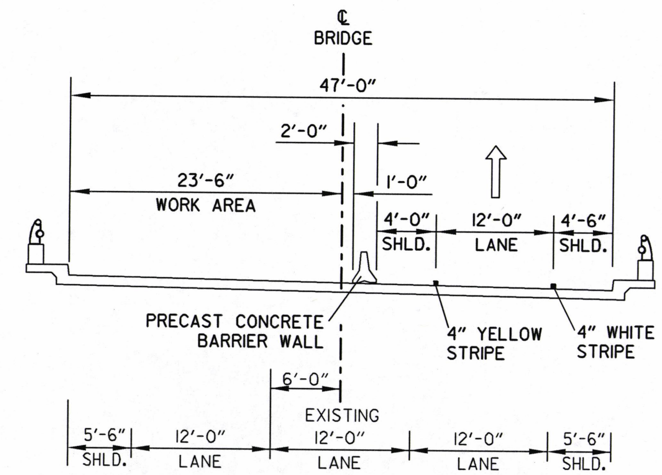
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB0801	28	54

(2) MAINTENANCE OF TRAFFIC DETAILS

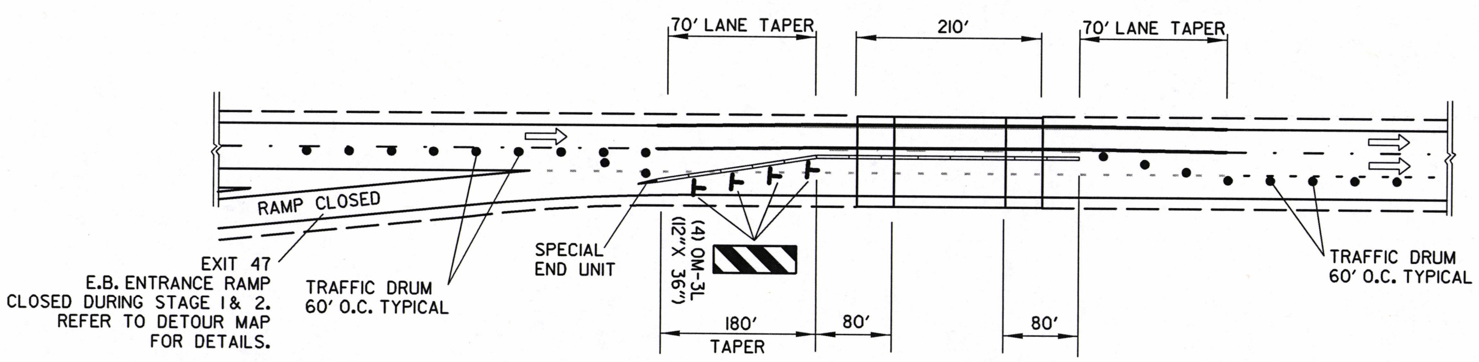
STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 9620
HUBERT BURNS
1-24-2020

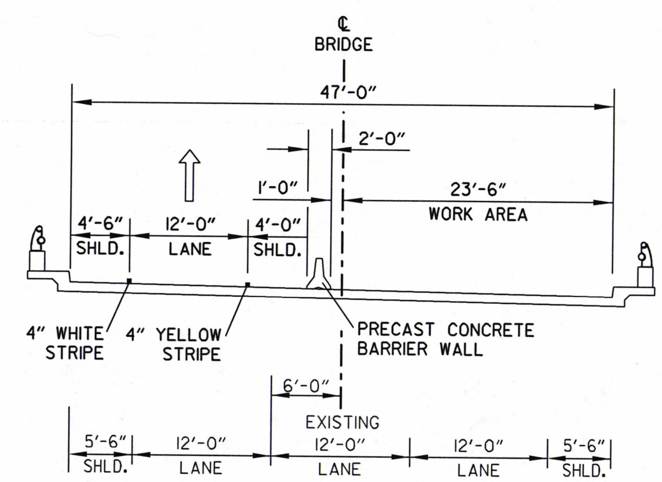




STAGE 1
(LOOKING IN DIRECTION OF TRAFFIC)

NOTE: SEE LANE CLOSURE DETAILS FOR TRAFFIC DRUM SPACING AND TAPERS.





STAGE 2
(LOOKING IN DIRECTION OF TRAFFIC)

STAGE 1

REMOVAL OF PERMANENT PAVEMENT MARKINGS = 3360 LIN. FT.
REMOVABLE CONSTRUCTION PAVEMENT MARKINGS = 3980 LIN. FT.
CONSTRUCTION PAVEMENT MARKINGS = 280 LIN. FT.
FURNISH & INSTALL P.C.C.B. = 453 LIN. FT.

STAGE 2

REMOVABLE CONSTRUCTION PAVEMENT MARKINGS = 2570 LIN. FT.
RELOCATE P.C.C.B. = 453 LIN. FT.
FURNISH & INSTALL P.C.C.B. = 40 LIN. FT.

QUANTITIES SHOWN ARE AT BRIDGE B5038 FOR STAGE 1 & 2.
EXIT 47 E.B. ENTRANCE RAMP TO BE CLOSED DURING STAGE 1 & 2.
THE HYDRODEMOLITION ON BRIDGE 05037 IS TO BE DONE AT THE SAME TIME AS B5038.

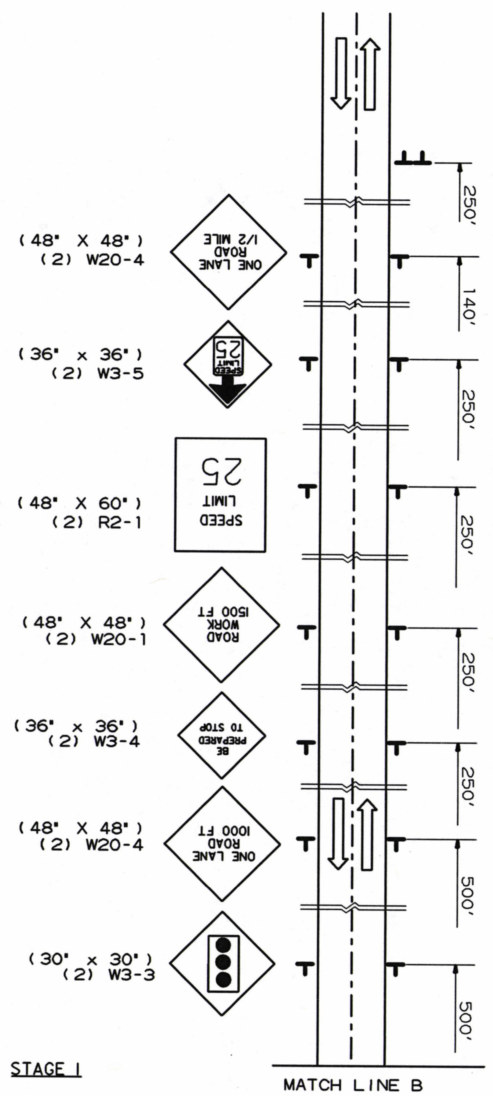
BRIDGE B5038
HYDRODEMOLITION, LATEX MODIFIED CONCRETE OVERLAY, AND RESURFACING I-40 BRIDGE
MAINTENANCE OF TRAFFIC DETAILS

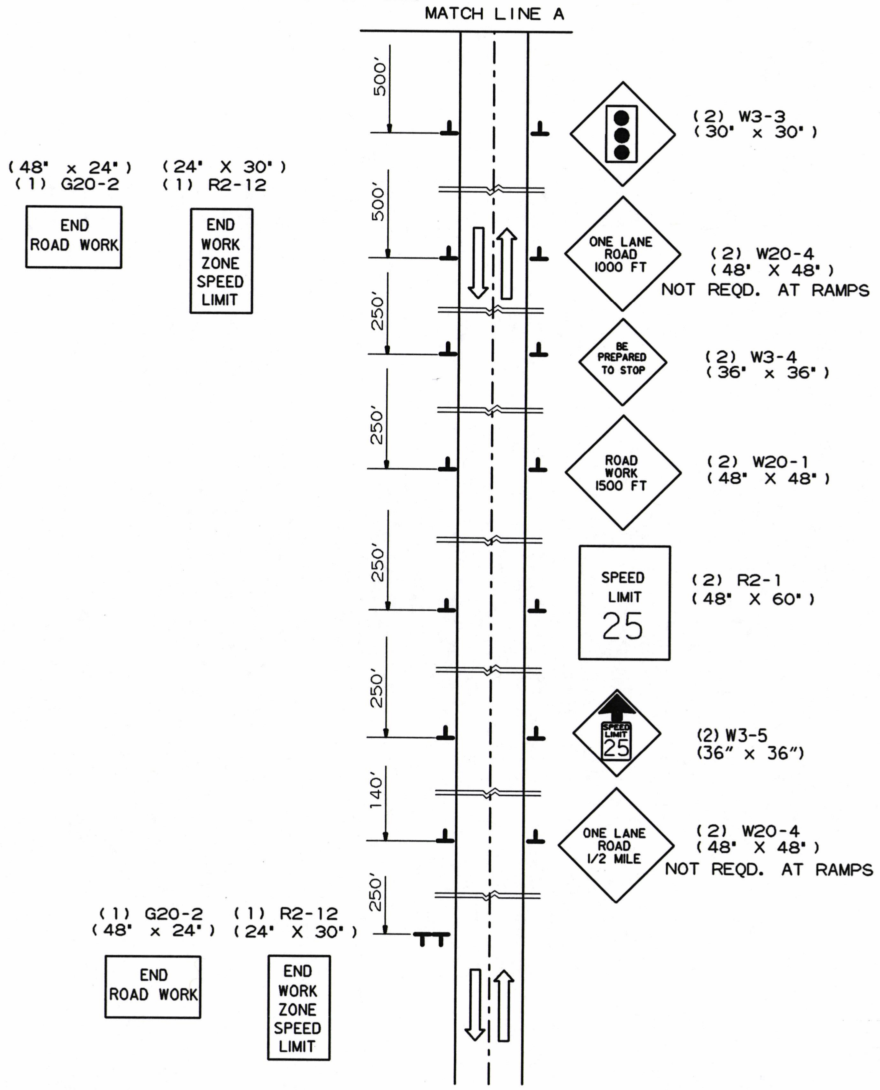
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		012340		

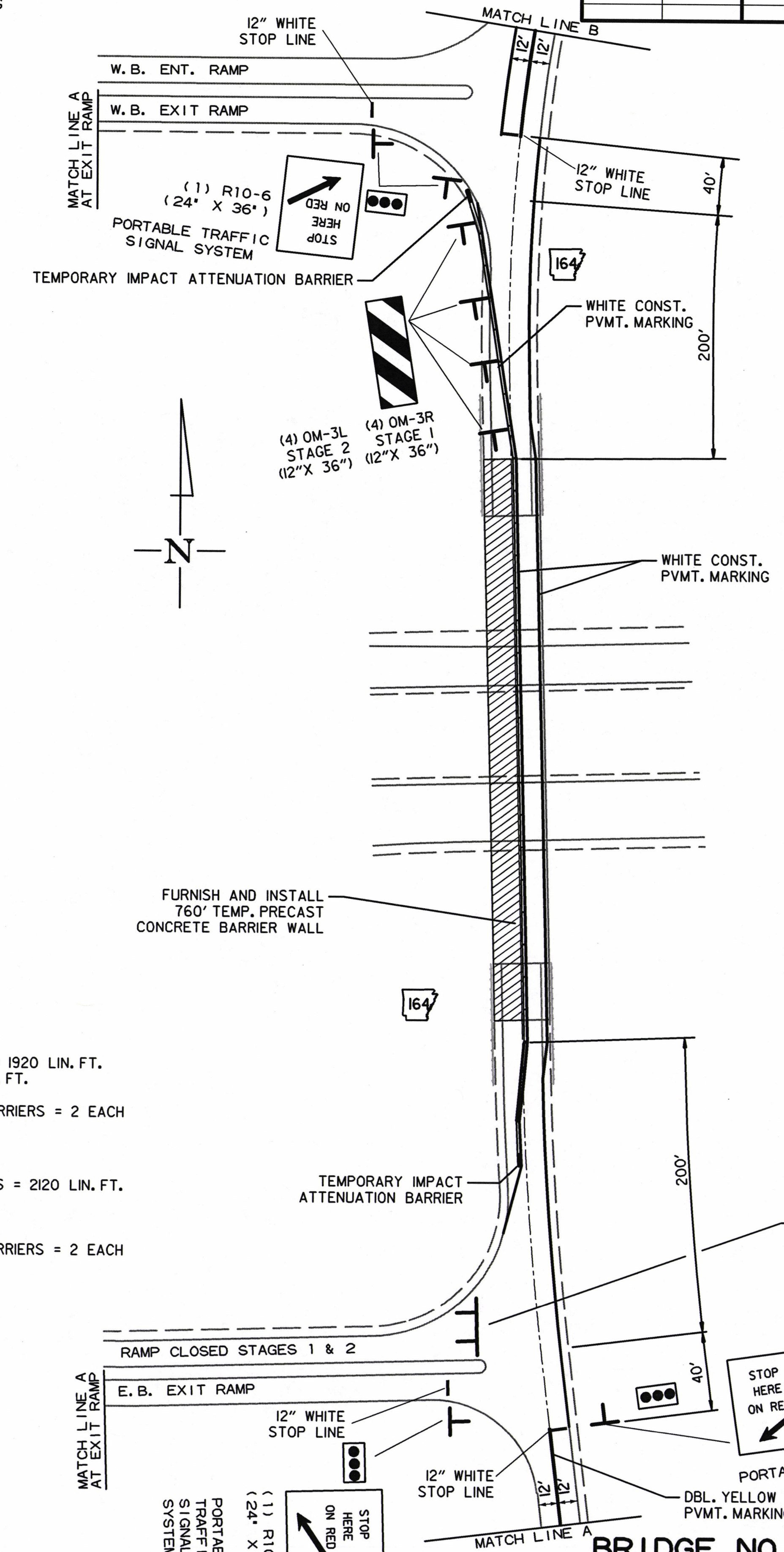
(2) MAINTENANCE OF TRAFFIC DETAILS

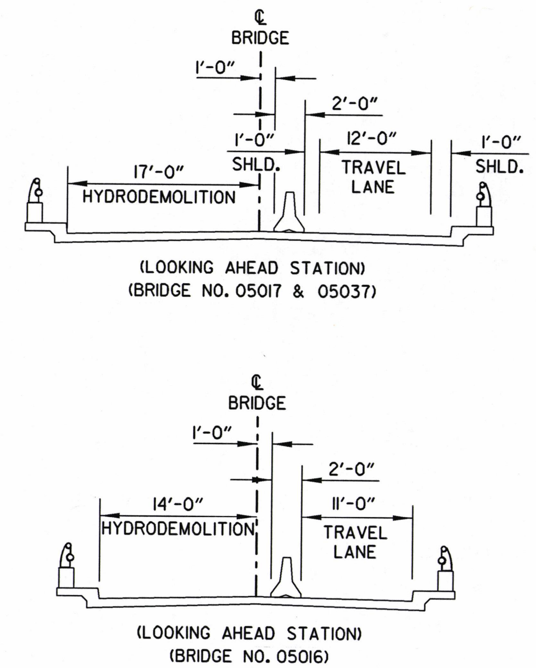
STATE OF ARKANSAS REGISTERED PROFESSIONAL ENGINEER No. 9620 HUBERT BURNS 1-24-2020

NOTE: STAGING ON HWY. 164 BRIDGE 05037 SHOULD COINCIDE WITH STAGING ON I-40 BRIDGE B5038. EXIT 47 E.B. ENTRANCE RAMP IS RECOMMENDED TO BE CLOSED DURING WORK ON BRIDGE B5038.
STAGING ON OVERPASSES 05016 & 05017 IS NOT DIRECTLY RELATED TO THE STAGING ON I-40 MAIN LANES. WORK ON THOSE OVERPASSES CAN BE COMPLETED ANY TIME DURING I-40 WORK.









STAGE 1

1) INSTALL ADVANCE WARNING SIGNS.

2) FURNISH & INSTALL P.C.C.B., TEMPORARY IMPACT ATTENUATION BARRIERS, & PORTABLE TRAFFIC SIGNAL SYSTEM.

3) REPAIR BRIDGE DECK - SOUTHBOUND (WEST SIDE).

STAGE 2

1) MAINTAIN ADVANCE WARNING SIGNS.

2) RELOCATE P.C.C.B. & TEMPORARY IMPACT ATTENUATION BARRIERS TO SHIFT TRAFFIC TO WEST SIDE OF BRIDGE. REMOVE CONFLICTING PAVEMENT MARKINGS AND INSTALL STAGE 2 CONSTRUCTION PAVEMENT MARKINGS.

3) REPAIR BRIDGE DECK - NORTHBOUND (EAST SIDE).

NOTE:

SETUP IS SHOWN FOR STAGE 1 AT BRIDGE 05037. ALL STAGES AND LOCATIONS FOR BRIDGE 05016 & 05017 SIMILAR.

CONTRACTOR SHALL MAINTAIN 1 (ONE) LANE OF TRAFFIC (MINIMUM WIDTH AS SHOWN) AT ALL TIMES. SHOWN FOR SOUTHBOUND (WEST SIDE) REPAIR. MIRROR FOR NORTHBOUND (EAST SIDE) REPAIR.

EXIT 47 E.B. ENTRANCE RAMP TO BE CLOSED DURING STAGE 1 & 2. THE HYDRODEMOLITION ON BRIDGE 05037 IS TO BE DONE AT THE SAME TIME AS B5038.

HALF OF CONSTRUCTION TO BE COMPLETED AT A TIME FOR ACCESS.

BRIDGE 05037 (SEE NOTES)

STAGE 1
REMOVAL OF PERMANENT PAVEMENT MARKINGS = 1920 LIN. FT.
CONSTRUCTION PAVEMENT MARKINGS = 2224 LIN. FT.
FURNISH & INSTALL P.C.C.B. = 760 LIN.FT.
TEMPORARY IMPACT ATTENUATION BARRIERS = 2 EACH

STAGE 2
REMOVAL OF CONSTRUCTION PAVEMENT MARKINGS = 2164 LIN. FT.
REMOVABLE CONSTRUCTION PAVEMENT MARKINGS = 2200 LIN. FT.
RELOCATE P.C.C.B. = 760 LIN.FT.
RELOCATE TEMPORARY IMPACT ATTENUATION BARRIERS = 2 EACH

REFER TO DETOUR MAP FOR ADDITIONAL DETAILS.

BRIDGE 05016

STAGE 1
REMOVAL OF PERMANENT PAVEMENT MARKINGS = 1920 LIN. FT.
CONSTRUCTION PAVEMENT MARKINGS = 2080 LIN. FT.
RELOCATE P.C.C.B. = 700 LIN.FT.
RELOCATE TEMPORARY IMPACT ATTENUATION BARRIERS = 2 EACH

STAGE 2
REMOVAL OF CONSTRUCTION PAVEMENT MARKINGS = 2080 LIN. FT.
REMOVABLE CONSTRUCTION PAVEMENT MARKINGS = 2080 LIN. FT.
RELOCATE P.C.C.B. = 700 LIN.FT.
RELOCATE TEMPORARY IMPACT ATTENUATION BARRIERS = 2 EACH

BRIDGE 05017

STAGE 1
REMOVAL OF PERMANENT PAVEMENT MARKINGS = 1920 LIN. FT.
CONSTRUCTION PAVEMENT MARKINGS = 2200 LIN. FT.
RELOCATE P.C.C.B. = 760 LIN.FT.
RELOCATE TEMPORARY IMPACT ATTENUATION BARRIERS = 2 EACH

STAGE 2
REMOVAL OF CONSTRUCTION PAVEMENT MARKINGS = 2120 LIN. FT.
REMOVABLE CONSTRUCTION PAVEMENT MARKINGS = 2200 LIN. FT.
RELOCATE P.C.C.B. = 760 LIN.FT.
RELOCATE TEMPORARY IMPACT ATTENUATION BARRIERS = 2 EACH

STAGE 1 & 2
BRIDGE NO. 05016, 05017 & 05037
MAINTENANCE OF TRAFFIC DETAILS

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.		BB0801	30	54

(2) QUANTITIES

ADVANCE WARNING SIGNS AND DEVICES

SIGN NUMBER	DESCRIPTION	SIGN SIZE	STAGE 1	STAGE 2	MAXIMUM NUMBER REQUIRED	TOTAL SIGNS REQUIRED		TRAFFIC DRUMS	BARRICADES (TYPE III)	FURNISHING & INSTALLING PRECAST CONC. BARRIER	RELOCATING PRECAST CONCRETE BARRIER	TEMPORARY IMPACT ATTENUATION BARRIER	TEMP. IMPACT ATTEN.BARR. (REPAIR)	TEMP. IMPACT ATTEN.BARR. (RELOCATION)	* ADVANCE WARNING ARROW PANEL	* PORTABLE CHANGEABLE MESSAGE SIGN	PORTABLE TRAFFIC SIGNAL SYSTEM-ACTUATED
			LIN. FT. - EACH			NO.	SQ. FT.	EACH	LEFT	LIN. FT.		EACH			DAY	WEEK	LUMP SUM
G20-1	ROAD WORK NEXT xx MILES	60"x24"	2	2	2	2	20.0										
G20-2	END ROAD WORK	48"x24"	10	10	10	10	80.0										
M1-1	INTERSTATE ROUTE SIGN (I-40)	24"x24"	7	7	7	7	28.0										
M3-2	DIRECTION (EAST)	24"x12"	7	7	7	7	14.0										
M4-8	DETOUR	24"x12"	7	7	7	7	14.0										
M5-1L	ARROW (LEFT)	21"x15"	1	1	1	1	2.2										
M5-1R	ARROW (RIGHT)	21"x15"	1	1	1	1	2.2										
M6-3	ARROW	21"x15"	1	1	1	1	2.2										
OM-3L	OBJECT MARKER	12"x36"	12		12	12	36.0										
OM-3R	OBJECT MARKER	12"x36"		12	12	12	36.0										
R2-1	SPEED LIMIT (70)	48"x60"	4	4	4	4	80.0										
R2-1	SPEED LIMIT (60)	48"x60"	4	4	4	4	80.0										
R2-1	SPEED LIMIT (25)	48"x60"	8	8	8	8	160.0										
R2-12	END WORK ZONE SPEED LIMIT	24"x30"	4	4	4	4	20.0										
R4-1	DO NOT PASS	48"x60"	8	8	8	8	40.0										
R10-6	STOP HERE ON RED	24"x36"	4	4	4	4	24.0										
R11-2	ROAD CLOSED	48"x30"	1	1	1	1	10.0										
R55-1	FINES DOUBLE IN WORK ZONES	60"x30"	4	4	4	4	50.0										
W1-6	LARGE ARROW	48"x24"	6	6	6	6	48.0										
W3-3	SIGNAL AHEAD	30"x30"	8	8	8	8	50.0										
W3-4	BE PREPARED TO STOP	36"x36"	8	8	8	8	72.0										
W3-5	REDUCED SPEED AHEAD (60)	48"x48"	4	4	4	4	64.0										
W3-5	REDUCED SPEED AHEAD (25)	48"x48"	4	4	4	4	64.0										
W4-2R	RIGHT LANE ENDS	48"x48"	4	4	4	4	64.0										
W20-1	ROAD WORK 1 MILE	48"x48"	4	4	4	4	64.0										
W20-1	ROAD WORK 1/2 MILE	48"x48"	8	8	8	8	128.0										
W20-1	ROAD WORK 1500 FT.	48"x48"	8	8	8	8	128.0										
W20-1	ROAD WORK 1000 FT.	48"x48"	4	4	4	4	64.0										
W20-1	ROAD WORK AHEAD	48"x48"	8	8	8	8	128.0										
W20-2	DETOUR AHEAD	48"x48"	1	1	1	1	16.0										
W20-4	ONE LANE ROAD 1/2 MILE	48"x48"	8	8	8	8	128.0										
W20-5	RIGHT LANE CLOSED 1 MILE	48"x48"	4	4	4	4	64.0										
W20-5	RIGHT LANE CLOSED 1/2 MILE	48"x48"	4	4	4	4	64.0										
W20-5	RIGHT LANE CLOSED 1500 FEET	48"x48"	4	4	4	4	64.0										
SPECIAL	MERGE NOW (LEFT)	48"x48"	2	2	2	2	32.0										
SPECIAL	WORK WITH US SIGN (MOVE OVER, SLOW DOWN)	120"x60"	2	2	2	2	10.0										
	TRAFFIC DRUMS		1360	1384	1384			1384									
	TYPE III BARRICADE-LT. (8')		2	2	2				16								
	FURNISHING AND INSTALLING PRECAST CONCRETE BARRIER		4398	40	4438					4438							
	RELOCATING PRECAST CONCRETE BARRIER		1460	5858	7318						7318						
	TEMPORARY IMPACT ATTENUATION BARRIER		2		2							2					
	TEMPORARY IMPACT ATTENUATION BARRIER (REPAIR)		6	4	10								10				
	TEMPORARY IMPACT ATTENUATION BARRIER (RELOCATION)		4	4	8									8			
	ADVANCE WARNING ARROW PANEL		2	2	2										140		
	PORTABLE CHANGEABLE MESSAGE SIGN		4	4	4											20	
	PORTABLE TRAFFIC SIGNAL SYSTEM - ACTUATED																1.00
TOTALS:							1950.6	1384	16	4438	7318	2	10	8	140	20	1.00

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.

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

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 9620
HUBERT BURNS
1-29-2020

QUANTITIES

USER: fe513 DESIGN FILE: G:\1810870I_BB080I\TRANSP\dgn\quantities\rbb080I Quantity.dgn PLOTTED: 1/23/2020 11:31 MODEL: QUANTITIES SCALE: 1:1

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.		BB0801	31	54

2 QUANTITIES

STATE OF ARKANSAS REGISTERED PROFESSIONAL ENGINEER No. 9620 HUBERT BURNS

1-24-2020

SPECIAL CLEARING

STATION	STATION	LOCATION	SPECIAL CLEARING STATION
2484+70	2833+79	OUTSIDE OF MAINLANES	350
2836+00	2853+00	OUTSIDE OF MAINLANES	17
TOTAL:			367

CONSTRUCTION PAVEMENT MARKINGS AND PERMANENT PAVEMENT MARKINGS

DESCRIPTION	STAGE 1	STAGE 2	END OF JOB	REMOVAL OF PERMANENT PAVEMENT MARKINGS	CONSTRUCTION PAVEMENT MARKINGS	REMOVAL OF CONSTRUCTION PAVEMENT MARKINGS	REMOVABLE CONSTRUCTION PAVEMENT MARKINGS	RAISED PAVEMENT MARKERS TYPE II (WHITE/RED)	RAISED PAVEMENT MARKERS TYPE II (YELLOW/YELLOW)	ENHANCED THERMOPLASTIC PAVEMENT MARKING 6" WHITE	ENHANCED THERMOPLASTIC PAVEMENT MARKING 6" YELLOW	ENHANCED THERMOPLASTIC PAVEMENT MARKING 8" WHITE	THERMOPLASTIC PAVEMENT MARKING 6" WHITE	THERMOPLASTIC PAVEMENT MARKING 6" YELLOW
	LIN. FT. - EACH			LIN. FT.		LIN. FT.		EACH		LIN. FT.				
REMOVAL OF PERMANENT PAVEMENT MARKINGS	87141	1535		88676										
CONSTRUCTION PAVEMENT MARKINGS	83016				83016									
REMOVAL OF CONSTRUCTION PAVEMENT MARKINGS		6364				6364								
REMOVABLE CONSTRUCTION PAVEMENT MARKINGS	10895	88347					99242							
RAISED PAVEMENT MARKERS TYPE II (WHITE/RED)			991					991						
RAISED PAVEMENT MARKERS TYPE II (YELLOW/YELLOW)			30						30					
ENHANCED THERMOPLASTIC PAVEMENT MARKING WHITE (6")			18745							18745				
ENHANCED THERMOPLASTIC PAVEMENT MARKING YELLOW (6")			74698								74698			
ENHANCED THERMOPLASTIC PAVEMENT MARKING WHITE (8")			246									246		
THERMOPLASTIC PAVEMENT MARKING WHITE (6")			4748										4748	
THERMOPLASTIC PAVEMENT MARKING YELLOW (6")			4761											4761
TOTALS:				88676	83016	6364	99242	991	30	18745	74698	246	4748	4761

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

NOTE: THE 6" YELLOW STRIPING QUANTITY HAS BEEN ESTIMATED BASED ON A DOUBLE YELLOW CENTERLINE STRIPE FOR THE ENTIRE PROJECT. THE PROJECT MUST BE MARKED FOR PASSING/NO PASSING ZONES PRIOR TO THE PLACEMENT OF ANY FINAL STRIPING. CONTACT THE MAINTENANCE DIVISION AFTER THE FINAL LIFT OF SURFACE COURSE HAS BEEN PLACED TO SCHEDULE THE ZONING OF THE PROJECT.

NOTE: NO PERMANENT PAVEMENT MARKINGS SHALL BE PLACED UNTIL A MINIMUM OF 3 DAYS AFTER ALL MAIN LANE PAVING HAS BEEN COMPLETED. IN ADDITION, NO PERMANENT PAVEMENT MARKINGS SHALL BE PLACED DURING THE TIME PERIOD FROM DECEMBER 21 TO MARCH 15, INCLUSIVE.

EROSION CONTROL

STATION	STATION	LOCATION	PERMANENT EROSION CONTROL: SEEDING	PERMANENT EROSION CONTROL: LIME	PERMANENT EROSION CONTROL: MULCH COVER	PERMANENT EROSION CONTROL: WATER	PERMANENT EROSION CONTROL: SECOND SEEDING APPLICATION	TEMPORARY EROSION CONTROL: TEMPORARY SEEDING	TEMPORARY EROSION CONTROL: MULCH COVER	TEMPORARY EROSION CONTROL: WATER	TEMPORARY EROSION CONTROL: SILT FENCE (E-11)	TEMPORARY EROSION CONTROL: FILTER SOCK (18") (E-13)	TEMPORARY EROSION CONTROL: SEDIMENT BASIN (E-14)	TEMPORARY EROSION CONTROL: OBLITERATION OF SEDIMENT BASIN	TEMPORARY EROSION CONTROL: *SEDIMENT REMOVAL & DISPOSAL
			ACRE	TON	ACRE	M.GAL.	ACRE	ACRE	ACRE	M.GAL.	LIN. FT.	LIN. FT.	CU.YD.	CU.YD.	CU. YD.
ENTIRE PROJECT ALL STAGES.			16.52	33.04	16.52	1685.0	16.52	16.52	16.52	337.0	1790	1764			164
*ENTIRE PROJECT TO BE USED IF AND WHERE DIRECTED BY THE ENGINEER.											750	200	250	250	289
TOTALS:			16.52	33.04	16.52	1685.0	16.52	16.52	16.52	337.0	2540	1964	250	250	453

BASIS OF ESTIMATE:
LIME ....2 TONS / ACRE OF SEEDING
WATER...102.0 M.G. / ACRE OF SEEDING
WATER...20.4 M.G. / ACRE OF TEMPORARY SEEDING
FILTER SOCK INLET PROTECTION......36 LIN. FT./ LOCATION

NOTE: THE TEMPORARY EROSION CONTROL DEVICES SHOWN ABOVE AND ON THE PLANS SHALL BE INSTALLED IN SUCH A SEQUENCE AS TO DETER EROSION AND SEDIMENTATION ON U.S. WATERWAYS AS EXPLAINED BY THE NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM PERMIT.

*QUANTITIES ESTIMATED.
SEE SECTION 104.03 OF THE STD. SPECS.

QUANTITIES

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 9620
HUBERT BURNS
1-24-2020

REMOVAL AND DISPOSAL OF GUARDRAIL

STATION	STATION	LOCATION	GUARDRAIL
			LIN. FT.
2484+79	2487+48	I-40 LML LT.	269
2484+79	2487+98	I-40 LML RT.	319
2555+08	2558+27	I-40 RML LT.	319
2555+58	2558+27	I-40 RML RT.	269
2560+22	2562+91	I-40 LML LT.	269
2560+22	2563+41	I-40 LML RT.	319
2598+70	2601+89	I-40 RML LT.	319
2599+20	2601+89	I-40 RML RT.	269
2605+21	2607+89	I-40 LML LT.	269
2605+21	2608+39	I-40 LML RT.	319
2662+46	2667+46	I-40 RML LT.	500
2665+66	2670+66	I-40 LML RT.	500
2829+95	2837+13	I-40 RML LT.	500
2833+21	2840+39	I-40 LML RT.	500
TOTAL:			4940

NOTE: THE QUANTITY SHOWN ABOVE FOR THE REMOVAL AND DISPOSAL OF GUARDRAIL SHALL INCLUDE THE REMOVAL AND DISPOSAL OF ALL GUARDRAIL TERMINALS AND TERMINAL ANCHOR POSTS.

GUARDRAIL

STATION	STATION	LOCATION	GUARDRAIL (TYPE A)	THRIE BEAM GUARDRAIL TERMINAL	GUARDRAIL TERMINAL (TYPE 2)	TERMINAL ANCHOR POSTS (TYPE 1)
			LIN. FT.		EACH	
2484+79.40	2487+48.15	I-40 LML LT.	200	1	1	
2484+79.40	2487+98.15	I-40 LML RT.	250	1	1	
2555+07.82	2558+26.57	I-40 RML LT.	250	1	1	
2555+57.82	2558+26.57	I-40 RML RT.	200	1	1	
2560+22.37	2562+91.12	I-40 LML LT.	200	1	1	
2560+22.37	2563+41.12	I-40 LML RT.	250	1	1	
2598+69.88	2601+88.63	I-40 RML LT.	250	1	1	
2599+19.88	2601+88.63	I-40 RML RT.	200	1	1	
2605+20.52	2607+89.27	I-40 LML LT.	200	1	1	
2605+20.52	2608+39.27	I-40 LML RT.	250	1	1	
2662+46.00	2667+46.00	I-40 RML LT.	450		1	1
2665+66.00	2670+66.00	I-40 LML RT.	450		1	1
2829+94.90	2837+13.00	I-40 RML LT.	450		1	1
2833+21.00	2840+39.10	I-40 LML RT.	450		1	1
TOTALS:			4050	10	14	4

ACHM PATCHING OF EXISTING ROADWAY

DESCRIPTION	TON
ENTIRE PROJECT - TO BE USED IF AND WHERE DIRECTED BY THE ENGINEER	300
TOTAL:	300

NOTE: QUANTITY ESTIMATED.
SEE SECTION 104.03 OF THE STD. SPECS.

ASPHALT CONCRETE PATCHING FOR MAINTENANCE OF TRAFFIC

LOCATION	TON	TACK COAT
		GALLON
ENTIRE PROJECT - TO BE USED IF AND WHERE DIRECTED BY THE ENGINEER	170	340
TOTALS:	170	340

BASIS OF ESTIMATE:
ASPHALT CONCRETE PATCHING FOR MAINTENANCE OF TRAFFIC...25 TON/MILE
TACK COAT FOR MAINTENANCE OF TRAFFIC.................................50 GAL./MILE

PAVEMENT REPAIR OVER CULVERTS (ASPHALT)

DESCRIPTION	TON
ENTIRE PROJECT - TO BE USED IF AND WHERE DIRECTED BY THE ENGINEER	200
TOTAL:	200

NOTE: QUANTITY ESTIMATED.
SEE SECTION 104.03 OF THE STD. SPECS.

RUMBLE STRIPS IN ASPHALT SHOULDERS

STATION	STATION	LOCATION	* RUMBLE STRIPS IN ASPHALT SHOULDERS
			LIN.FT.
2485+05	2557+56	I-40 LML LT.	7251
2560+44	2601+63	I-40 LML LT.	4119
2605+46	2853+00	I-40 LML LT.	24560
2485+05	2557+64	I-40 LML RT.	7259
2560+52	2601+63	I-40 LML RT.	4111
2605+46	2853+00	I-40 LML RT.	24560
2485+05	2557+97	I-40 RML LT.	7292
2560+70	2601+63	I-40 RML LT.	4093
2605+46	2853+00	I-40 RML LT.	24560
2485+05	2558+05	I-40 RML RT.	7300
2560+78	2601+63	I-40 RML RT.	4085
2605+46	2853+00	I-40 RML RT.	24560
TOTAL:			143750

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

COLD MILLING ASPHALT PAVEMENT

STATION	STATION	LOCATION	AVG. WIDTH	COLD MILLING ASPHALT PAVEMENT
			FEET	SQ. YD.
2485+05.00	2557+59.79	I-40 LML	38.00	30631.34
2485+05.00	2492+45.00	I-40 RML WITH AUX. LANE	44.00	3617.78
2492+45.00	2495+45.00	I-40 RML WITH AUX. LANE TAPER	41.00	1366.67
2495+45.00	2558+00.97	I-40 RML	38.00	26414.10
2560+47.97	2601+63.03	I-40 LML	38.00	17374.70
2560+74.14	2601+63.03	I-40 RML	38.00	17264.20
2605+46.12	2733+85.00	I-40 LML	38.00	54208.60
2733+61.00	2833+79.10	I-40 LML	38.00	42298.64
2835+97.20	2853+00.00	I-40 LML	38.00	7189.60
2605+46.12	2733+85.00	I-40 RML	38.00	54208.60
2733+61.00	2833+79.10	I-40 RML	38.00	42298.64
2835+97.20	2853+00.00	I-40 RML	38.00	7189.60
ENTIRE PROJECT		ADD'L. AT GUARDRAIL WIDENING	VAR.	4448.30
TOTAL:				308510.77

NOTE: AVERAGE MILLING DEPTH 2".

FLUSHING UNDERDRAIN

DESCRIPTION	LIN. FT.
ENTIRE PROJECT - TO BE USED IF AND WHERE DIRECTED BY THE ENGINEER	64750
TOTAL:	64750

NOTE: WORK INCLUDES 4" MARKERS SHOWN IN STANDARD PLANS.

QUANTITY ESTIMATED.
SEE SECTION 104.03 OF THE STD. SPECS.

USER: t6513
DESIGN FILE: G:\1810870I_BB080I\TRANSP\dgn\quantities\rbb080I Quantity.dgn MODEL: QUANTITIES SCALE: 1:1
PLOTTED: 1/23/2020 11:32

QUANTITIES

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
★ ★ ★
No. 9620
HUBERT BURNS
1-24-2020

BASE AND SURFACING

STATION	STATION	LOCATION	LENGTH	AGGREGATE BASE COURSE (CLASS 7)		TACK COAT (0.17 GAL. PER SQ. YD.)			ACHM SURFACE COURSE (1/2")			
			FEET	TON / STATION	TON	TOTAL WID. FEET	SQ.YD.	GALLON	AVG. WID. FEET	SQ.YD.	POUND / SQ.YD.	PG 76-22 TON
MAIN LANES												
2485+05.00	2557+59.79	I-40 LML MILL & INLAY	7254.79			38.00	30631.34	5207.33	38.00	30631.34	220.00	3369.45
2560+47.97	2601+63.03	I-40 LML MILL & INLAY	4115.06			38.00	17374.70	2953.70	38.00	17374.70	220.00	1911.22
2605+46.12	2733+85.40	I-40 LML MILL & INLAY	12839.28			38.00	54210.29	9215.75	38.00	54210.29	220.00	5963.13
2733+61.40	2833+79.10	I-40 LML MILL & INLAY	10017.70			38.00	42296.96	7190.48	38.00	42296.96	220.00	4652.67
2835+97.20	2853+00.00	I-40 LML MILL & INLAY	1702.80			38.00	7189.60	1222.23	38.00	7189.60	220.00	790.86
2485+05.00	2558+00.97	I-40 RML MILL & INLAY	7295.97			38.00	30805.21	5236.89	38.00	30805.21	220.00	3388.57
2560+74.14	2601+63.03	I-40 RML MILL & INLAY	4088.89			38.00	17264.20	2934.91	38.00	17264.20	220.00	1899.06
2605+46.12	2733+85.40	I-40 RML MILL & INLAY	12839.28			38.00	54210.29	9215.75	38.00	54210.29	220.00	5963.13
2733+61.40	2833+79.10	I-40 RML MILL & INLAY	10017.70			38.00	42296.96	7190.48	38.00	42296.96	220.00	4652.67
2835+97.20	2853+00.00	I-40 RML MILL & INLAY	1702.80			38.00	7189.60	1222.23	38.00	7189.60	220.00	790.86
2485+05.00	2492+45.00	I-40 RML AUX. LANE MILL & INLAY	740.00			6.00	493.33	83.87	6.00	493.33	220.00	54.27
2492+45.00	2495+45.00	I-40 RML AUX. LANE TAPER MILL & INLAY	300.00			3.00	100.00	17.00	3.00	100.00	220.00	11.00
2724+93.00		I-40 MEDIAN CROSSING	52.00	5.00	2.60	18.96	109.55	18.62	18.96	109.55	220.00	12.05
ADDITIONAL FOR GUARDRAIL WIDENING												
2484+79.40	2488+06.15	I-40 LML LT.	326.75			5.53	200.77	34.13	5.53	200.77	220.00	22.08
2484+79.40	2488+74.15	I-40 LML RT.	394.75			7.39	324.13	55.10	7.39	324.13	220.00	35.65
2554+28.92	2558+26.57	I-40 RML LT.	397.65			7.62	336.68	57.24	7.62	336.68	220.00	37.03
2554+99.82	2558+26.57	I-40 RML RT.	326.75			5.26	190.97	32.46	5.26	190.97	220.00	21.01
2560+22.37	2563+49.13	I-40 LML LT.	326.76			5.26	190.97	32.46	5.26	190.97	220.00	21.01
2560+22.37	2564+19.26	I-40 LML RT.	396.89			7.56	333.39	56.68	7.56	333.39	220.00	36.67
2597+91.74	2601+88.63	I-40 RML LT.	396.89			7.58	334.27	56.83	7.58	334.27	220.00	36.77
2598+61.87	2601+88.63	I-40 RML RT.	326.76			5.26	190.97	32.46	5.26	190.97	220.00	21.01
2605+20.55	2608+47.31	I-40 LML LT.	326.76			5.26	190.97	32.46	5.26	190.97	220.00	21.01
2605+20.55	2609+17.44	I-40 LML RT.	396.89			7.58	334.27	56.83	7.58	334.27	220.00	36.77
2662+03.00	2668+04.07	I-40 RML LT.	601.07			5.83	389.36	66.19	5.83	389.36	220.00	42.83
2665+23.14	2671+08.97	I-40 LML RT.	585.83			7.22	469.97	79.89	7.22	469.97	220.00	51.70
2829+51.90	2833+79.10	I-40 RML LT.	427.20			7.29	346.03	58.83	7.29	346.03	220.00	38.06
2835+97.20	2837+71.00	I-40 RML LT.	173.80			6.98	134.79	22.91	6.98	134.79	220.00	14.83
2832+63.00	2833+79.10	I-40 LML RT.	116.10			6.72	86.69	14.74	6.72	86.69	220.00	9.54
2835+97.20	2840+82.10	I-40 LML RT.	484.90			7.31	393.85	66.95	7.31	393.85	220.00	43.32
TOTALS:					2.60		308620.11	52465.40		308620.11		33948.23

BASIS OF ESTIMATE:
ACHM SURFACE COURSE (1/2")....................94.5% MIN. AGGR.................5.5% ASPHALT BINDER
MAXIMUM NUMBER OF GYRATIONS = 205 FOR PG 76-22
TACK COAT QUANTITIES WERE CALCULATED USING THE EMULSIFIED ASPHALT RATES. REFER TO SS-400-1 FOR THE RESIDUAL ASPHALT APPLICATION RATES.

TRENCHING AND SHOULDER PREPARATION

STATION	STATION	LOCATION	LENGTH	TRENCHING AND SHOULDER PREPARATION	TACK COAT (0.05 GAL. PER SQ. YD.)			ACHM BASE COURSE (1 1/2")				ACHM BINDER COURSE (1")				ACHM SURFACE COURSE (1/2")			
			FEET	STATION	TOTAL WID. FEET	SQ.YD.	GALLON	AVG. WID. FEET	SQ.YD.	POUND / SQ.YD.	PG 76-22 TON	AVG. WID. FEET	SQ.YD.	POUND / SQ.YD.	PG 76-22 TON	AVG. WID. FEET	SQ.YD.	POUND / SQ.YD.	PG 76-22 TON
M.O.T. STAGE 1																			
2485+05.00	2488+90.00	I-40 LML OUTSIDE SHOULDER	385.00	3.85	18.00	770.00	38.50	6.00	256.67	440.00	56.47	6.00	256.67	440.00	56.47	6.00	256.67	440.00	56.47
2553+50.00	2557+55.54	I-40 LML OUTSIDE SHOULDER	405.54	4.06	18.00	811.08	40.55	6.00	270.36	440.00	59.48	6.00	270.36	440.00	59.48	6.00	270.36	440.00	59.48
2560+43.72	2564+50.00	I-40 LML OUTSIDE SHOULDER	406.28	4.06	18.00	812.56	40.63	6.00	270.85	440.00	59.59	6.00	270.85	440.00	59.59	6.00	270.85	440.00	59.59
2597+65.00	2601+63.03	I-40 LML OUTSIDE SHOULDER	398.03	3.98	18.00	796.06	39.80	6.00	265.35	440.00	58.38	6.00	265.35	440.00	58.38	6.00	265.35	440.00	58.38
2605+46.12	2609+55.00	I-40 LML OUTSIDE SHOULDER	408.88	4.09	18.00	817.76	40.89	6.00	272.59	440.00	59.97	6.00	272.59	440.00	59.97	6.00	272.59	440.00	59.97
2554+00.00	2558+05.22	I-40 RML OUTSIDE SHOULDER	405.22	4.05	18.00	810.44	40.52	6.00	270.15	440.00	59.43	6.00	270.15	440.00	59.43	6.00	270.15	440.00	59.43
2560+78.39	2564+90.00	I-40 RML OUTSIDE SHOULDER	411.61	4.12	18.00	823.22	41.16	6.00	274.41	440.00	60.37	6.00	274.41	440.00	60.37	6.00	274.41	440.00	60.37
2597+65.00	2601+63.03	I-40 RML OUTSIDE SHOULDER	398.03	3.98	18.00	796.06	39.80	6.00	265.35	440.00	58.38	6.00	265.35	440.00	58.38	6.00	265.35	440.00	58.38
2605+46.12	2609+55.00	I-40 RML OUTSIDE SHOULDER	408.88	4.09	18.00	817.76	40.89	6.00	272.59	440.00	59.97	6.00	272.59	440.00	59.97	6.00	272.59	440.00	59.97
TOTALS:				36.28		7254.94	362.74		2418.32		532.04		2418.32		532.04		2418.32		532.04

BASIS OF ESTIMATE:
ACHM SURFACE COURSE (1/2")...................94.5% MIN. AGGR.................5.5% ASPHALT BINDER
ACHM BINDER COURSE (1")...........................95.6% MIN. AGGR.................4.4% ASPHALT BINDER
ACHM BASE COURSE (1 1/2")..........................96.0% MIN. AGGR.................4.0% ASPHALT BINDER
MAXIMUM NUMBER OF GYRATIONS = 205 FOR PG 76-22
TACK COAT QUANTITIES WERE CALCULATED USING THE EMULSIFIED ASPHALT RATES. REFER TO SS-400-1 FOR THE RESIDUAL ASPHALT APPLICATION RATES.

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QUANTITIES

SCHEDULE OF BRIDGE QUANTITIES - JOB NO. BB0801

I-40 LOG MILE	UNIT OF STRUCTURE	ITEM NO.	SP & 509	SS & 802	803	803	SS & 804	SS & 809	821	SP JOB BB0801	SP JOB BB0801	SP JOB BB0801
		ITEM	JOINT REHABILITATION (TYPE A)	GROOVING	CLASS 1 PROTECTIVE SURFACE TREATMENT	CLASS 3 PROTECTIVE SURFACE TREATMENT	REINFORCING STEEL - BRIDGE (GRADE 60)	SILICONE JOINT SEALANT ②	MODIFICATION OF EXISTING BRIDGE STRUCTURE (BRIDGE NO.) ⑤	HYDRODEMOLITION	BRIDGE DECK REPAIR FOR LATEX MODIFIED CONCRETE OVERLAYS	LATEX MODIFIED CONCRETE OVERLAY (1½" THICK)
		UNIT	LIN. FT.	SQ. YD.	GAL.	LIN. FT.	LBS.	LIN. FT.	LUMP SUM	SQ. YD.	SQ. FT.	SQ. YD.
50.01	EXISTING BRIDGE NO. 05016			772.0	17.3	556	992	148		865	1168	868
53.19	EXISTING BRIDGE NO. 05017			1232.0 ③	26.6 ③	616	1335	199		1335 ③	1571	1338 ③
46.51	EXISTING BRIDGE NO. 05037			1115.0 ③	24.1 ③	548	1188	173		1206 ③	1397	1209 ③
46.54	EXISTING BRIDGE NO. A5038		234	782.0 ④	17.0 ④	280				852 ④		853 ④
46.54	EXISTING BRIDGE NO. B5038		282	1027.0 ④	21.9 ④	280				1097 ④		1098 ④
47.96	EXISTING BRIDGE NO. A5039			1086.0 ④	23.6 ④	432	1074	167	1	1181 ④	1264	1183 ④
47.96	EXISTING BRIDGE NO. B5039			1026.0 ④	22.3 ④	402	999	167	1	1116 ④	1176	1118 ④
48.79	EXISTING BRIDGE NO. A5040			1506.0 ④	32.7 ④	642	1596	316		1636 ④	1878	1639 ④
48.79	EXISTING BRIDGE NO. B5040			1466.0 ④	31.8 ④	622	1546	316		1593 ④	1819	1596 ④
	TOTALS FOR JOB NO. BB0801		516	10,012.0	217.3	4,378	8,730 ①	1486		10,881	10,273 ①	10,902

① QUANTITY SHOWN IS FOR ESTIMATING AND BIDDING PURPOSES ONLY. ACTUAL QUANTITY, IF ANY, WILL BE DETERMINED IN THE FIELD.

② SEE "POURED SILICONE JOINT SEAL DETAILS" DWG. NO. 61297 FOR DETAILS.

③ QUANTITY SHOWN INCLUDES APPROACH SLABS.

④ QUANTITY SHOWN INCLUDES APPROACH SLABS AND APPROACH GUTTERS.

⑤ MODIFICATION OF EXISTING BRIDGE STRUCTURE (BRIDGE NO.) INCLUDES:
BRIDGE NOS. A&B5039 - REPAIR OF BACKWALL. SEE DWG. NO. 61297.

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DESIGN FILE: G:\1810870I_BB080I\TRANSP\dgn\bridge\bbb080I_ql.dgn
PLOTTED: 1/23/2020 11:33 SCALE: 1:2

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11856
CHARLES A. WIPF

Charles A. Wipf
01/24/2020

SCHEDULE OF BRIDGE QUANTITIES
HWY. 164 - HWY. 352 (S)
JOHNSON COUNTY
ROUTE 40 SEC. 21
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: LDG DATE: 09-05-18 FILENAME: bbb0801_ql.dgn
CHECKED BY: KRM DATE: 09-27-18 SCALE: NO SCALE
DESIGNED BY: LDG DATE: 09-05-18

BRIDGE NOS. 05016, 05017, 05037, A&B5038, A&B5039, A&B5040 DRAWING NO. 61291

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.		BB0801	35	54

2 SUMMARY OF QUANTITIES AND REVISIONS

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 9620
HUBERT BURNS
02-06-2020

SUMMARY OF QUANTITIES

ITEM NUMBER	ITEM	QUANTITY	UNIT
SP	SPECIAL CLEARING	367	STATION
202	REMOVAL AND DISPOSAL OF GUARDRAIL	4940	LIN. FT.
SP & 215	TRENCHING AND SHOULDER PREPARATION	36	STATION
SS & 303	AGGREGATE BASE COURSE (CLASS 7)	3	TON
SS & 401	TACK COAT	53168	GAL.
SP, SS, & 405	MINERAL AGGREGATE IN ACHM BASE COURSE (1 1/2")	511	TON
SP, SS, & 405	ASPHALT BINDER (PG 76-22) IN ACHM BASE COURSE (1 1/2")	21	TON
SP, SS, & 406	MINERAL AGGREGATE IN ACHM BINDER COURSE (1")	509	TON
SP, SS, & 406	ASPHALT BINDER (PG 76-22) IN ACHM BINDER COURSE (1")	23	TON
SP, SS, & 407	MINERAL AGGREGATE IN ACHM SURFACE COURSE (1/2")	32584	TON
SP, SS, & 407	ASPHALT BINDER (PG 76-22) IN ACHM SURFACE COURSE (1/2")	1896	TON
SP & 412	COLD MILLING ASPHALT PAVEMENT	308511	SQ. YD.
SP, SS, & 414	ASPHALT CONCRETE PATCHING FOR MAINTENANCE OF TRAFFIC	170	TON
SP, SS, & 415	ACHM PATCHING OF EXISTING ROADWAY	300	TON
601	MOBILIZATION	1.00	LUMP SUM
SP & 602	FURNISHING FIELD OFFICE	1	EACH
SP, SS, & 603	MAINTENANCE OF TRAFFIC	1.00	LUMP SUM
SS & 604	SIGNS	1951	SQ. FT.
SS & 604	BARRICADES	16	LIN. FT.
SS & 604	TRAFFIC DRUMS	1384	EACH
604	FURNISHING AND INSTALLING PRECAST CONCRETE BARRIER	4438	LIN. FT.
604	RELOCATING PRECAST CONCRETE BARRIER	7318	LIN. FT.
604	CONSTRUCTION PAVEMENT MARKINGS	83016	LIN. FT.
604	REMOVABLE CONSTRUCTION PAVEMENT MARKINGS	99242	LIN. FT.
604	REMOVAL OF CONSTRUCTION PAVEMENT MARKINGS	6364	LIN. FT.
604	REMOVAL OF PERMANENT PAVEMENT MARKINGS	88676	LIN. FT.
SS & 604	ADVANCE WARNING ARROW PANEL	140	DAY
SP, SS, & 604	PORTABLE CHANGEABLE MESSAGE SIGN	20	WEEK
SP	FLUSHING UNDERDRAIN	64750	LIN. FT.
615	PAVEMENT REPAIR OVER CULVERTS (ASPHALT)	200	TON
SS & 617	GUARDRAIL (TYPE A)	4050	LIN. FT.
SS & 617	TERMINAL ANCHOR POSTS (TYPE 1)	4	EACH
SS & 617	GUARDRAIL TERMINAL (TYPE 2)	14	EACH
SS & 617	THRIE BEAM GUARDRAIL TERMINAL	10	EACH
620	LIME	33	TON
620	SEEDING	16.52	ACRE
SS & 620	MULCH COVER	33.04	ACRE
620	WATER	2022.0	M. GAL.
621	TEMPORARY SEEDING	16.52	ACRE
621	SILT FENCE	2540	LIN. FT.
621	SEDIMENT BASIN	250	CU. YD.
621	OBLITERATION OF SEDIMENT BASIN	250	CU. YD.
621	SEDIMENT REMOVAL AND DISPOSAL	453	CU. YD.
SS & 621	FILTER SOCK (18")	1964	LIN. FT.
623	SECOND SEEDING APPLICATION	16.52	ACRE
635	ROADWAY CONSTRUCTION CONTROL	1.00	LUMP SUM
642	RUMBLE STRIPS IN ASPHALT SHOULDERS	143750	LIN. FT.
SP	PORTABLE TRAFFIC SIGNAL SYSTEM - ACTUATED	1.00	LUMP SUM
719	THERMOPLASTIC PAVEMENT MARKING WHITE (6")	4748	LIN. FT.
719	THERMOPLASTIC PAVEMENT MARKING YELLOW (6")	4761	LIN. FT.
SP	ENHANCED THERMOPLASTIC PAVEMENT MARKING WHITE (6")	18745	LIN. FT.
SP	ENHANCED THERMOPLASTIC PAVEMENT MARKING WHITE (8")	246	LIN. FT.
SP	ENHANCED THERMOPLASTIC PAVEMENT MARKING YELLOW (6")	74698	LIN. FT.
721	RAISED PAVEMENT MARKERS (TYPE II)	1021	EACH
SS & 731	TEMPORARY IMPACT ATTENUATION BARRIER	2	EACH
SS & 731	TEMPORARY IMPACT ATTENUATION BARRIER (REPAIR)	10	EACH
SS & 731	TEMPORARY IMPACT ATTENUATION BARRIER (RELOCATION)	8	EACH
	STRUCTURES OVER 20' SPAN		
ITEM NUMBER	ITEM	QUANTITY	UNIT
SP & 509	JOINT REHABILITATION (TYPE A)	516	LIN. FT.
636	BRIDGE CONSTRUCTION CONTROL	1.00	LUMP SUM
SS & 802	GROOVING	10012.0	SQ. YD.
803	CLASS 1 PROTECTIVE SURFACE TREATMENT	217.3	GAL.
803	CLASS 3 PROTECTIVE SURFACE TREATMENT	4378	LIN. FT.
SS & 804	REINFORCING STEEL-BRIDGE (GRADE 60)	8730	POUND
SS & 809	SILICONE JOINT SEALANT	1486	LIN. FT.
821	MODIFICATION OF EXISTING BRIDGE STRUCTURE (BRIDGE NO. A5039)	1.00	LUMP SUM
821	MODIFICATION OF EXISTING BRIDGE STRUCTURE (BRIDGE NO. B5039)	1.00	LUMP SUM
SP	HYDRODEMOLITION	10881	SQ. YD.
SP	BRIDGE DECK REPAIR FOR LATEX MODIFIED CONCRETE OVERLAYS	10273	SQ. FT.
SP	LATEX MODIFIED CONCRETE OVERLAY (1 1/2" THICK)	10902	SQ. YD.

REVISIONS

DATE	REVISION	SHEET NUMBER

SUMMARY OF QUANTITIES AND REVISIONS

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.		BB0801	36	54

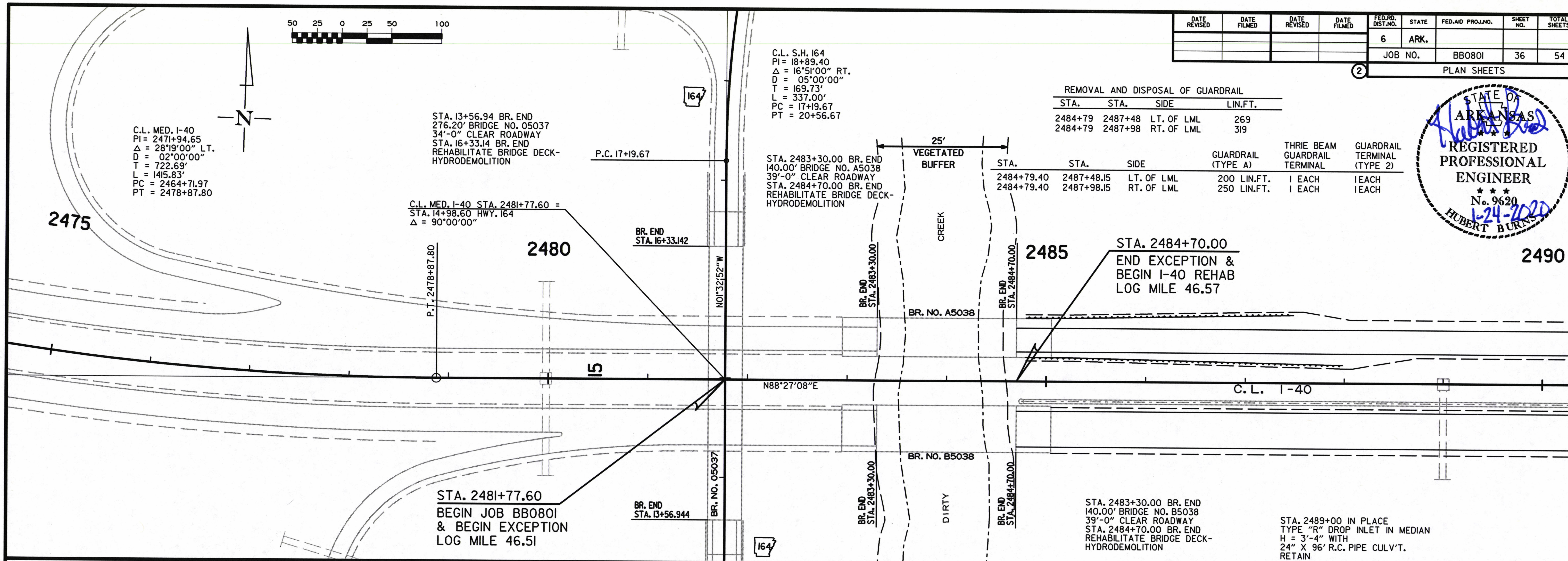
2 PLAN SHEETS

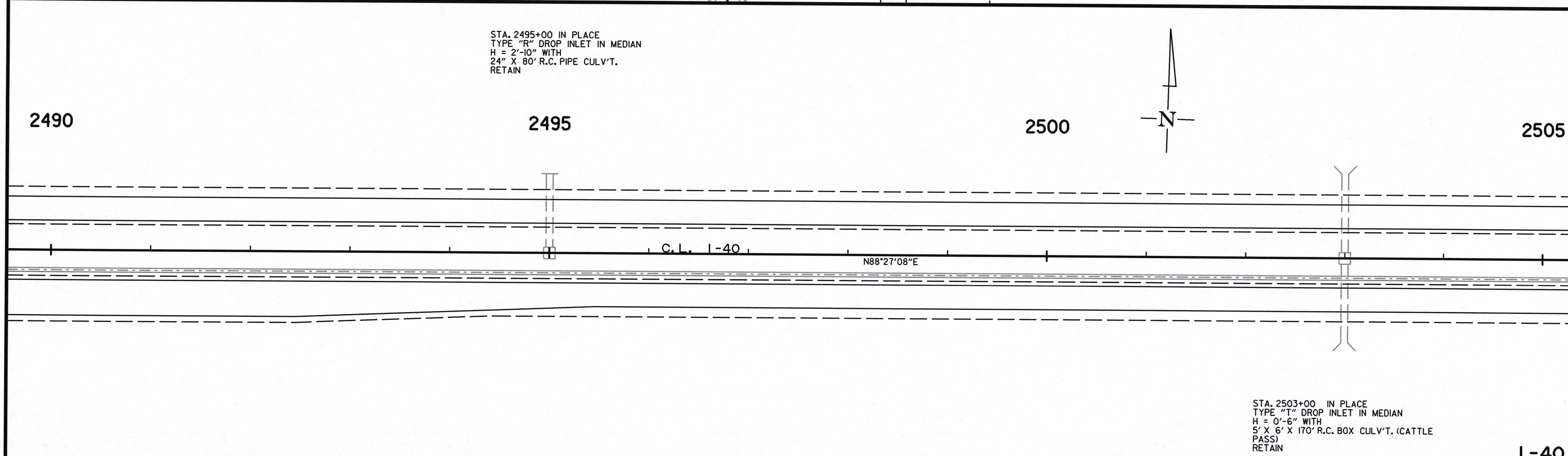
REMOVAL AND DISPOSAL OF GUARDRAIL

STA.	STA.	SIDE	LIN.FT.
2484+79	2487+48	LT. OF LML	269
2484+79	2487+98	RT. OF LML	319

STA.	STA.	SIDE	GUARDRAIL (TYPE A)	THRIE BEAM GUARDRAIL TERMINAL	GUARDRAIL TERMINAL (TYPE 2)
2484+79.40	2487+48.15	LT. OF LML	200 LIN.FT.	1 EACH	1 EACH
2484+79.40	2487+98.15	RT. OF LML	250 LIN.FT.	1 EACH	1 EACH

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 9620
HUBERT BURNS
1-24-2020





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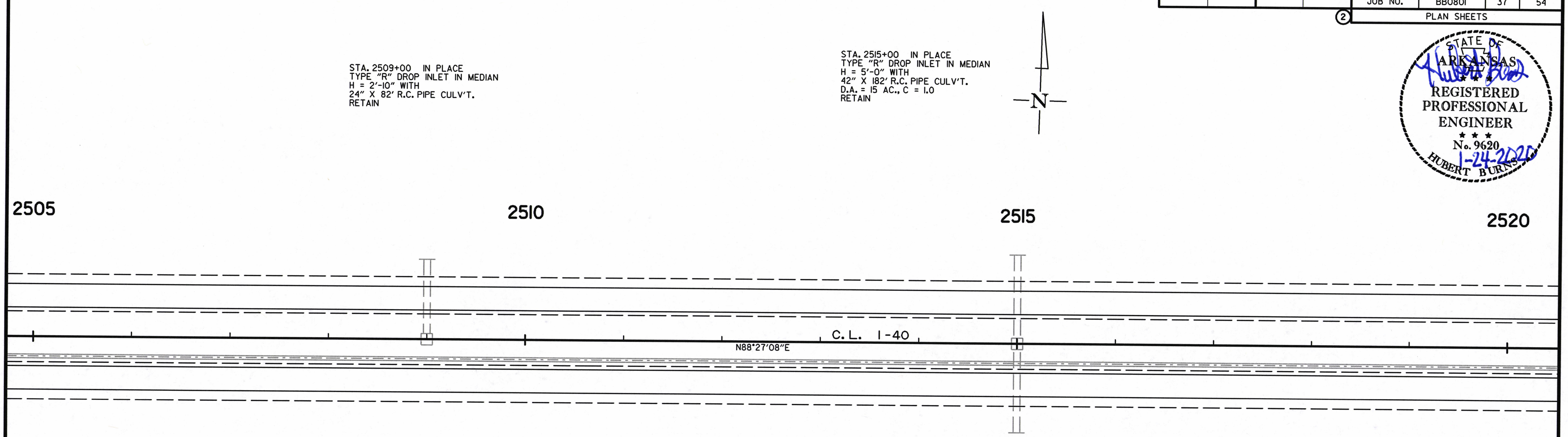
				6	ARK.			
				JOB NO.		BB0801	37	54
				2	PLAN SHEETS			

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 9620
HUBERT BURNS
1-24-2020

50 25 0 25 50 100

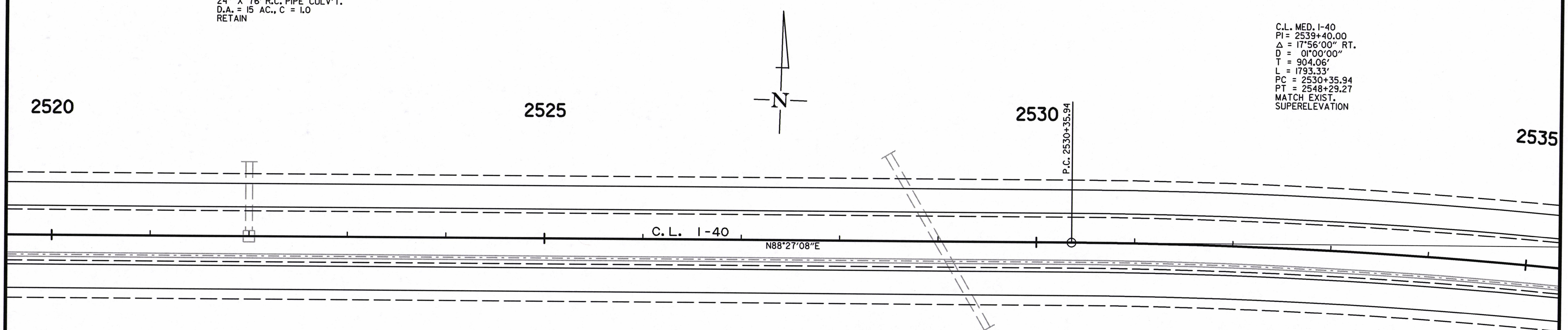
STA. 2509+00 IN PLACE
TYPE "R" DROP INLET IN MEDIAN
H = 2'-10" WITH
24" X 82' R.C. PIPE CULV'T.
RETAIN

STA. 2515+00 IN PLACE
TYPE "R" DROP INLET IN MEDIAN
H = 5'-0" WITH
42" X 182' R.C. PIPE CULV'T.
D.A. = 15 AC., C = 1.0
RETAIN



STA. 2522+00 IN PLACE
TYPE "R" DROP INLET IN MEDIAN
H = 2'-10" WITH
24" X 76' R.C. PIPE CULV'T.
D.A. = 15 AC., C = 1.0
RETAIN

C.L. MED. I-40
PI = 2539+40.00
Δ = 17°56'00" RT.
D = 01°00'00"
T = 904.06'
L = 1793.33'
PC = 2530+35.94
PT = 2548+29.27
MATCH EXIST.
SUPERELEVATION



STA. 2528+00 IN PLACE
30" X 204' R.C. PIPE CULV'T.
30° RT. FWD. SKEW
D.A. = 5 AC., C = 1.0
RETAIN

I-40

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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.		BB0801	38	54

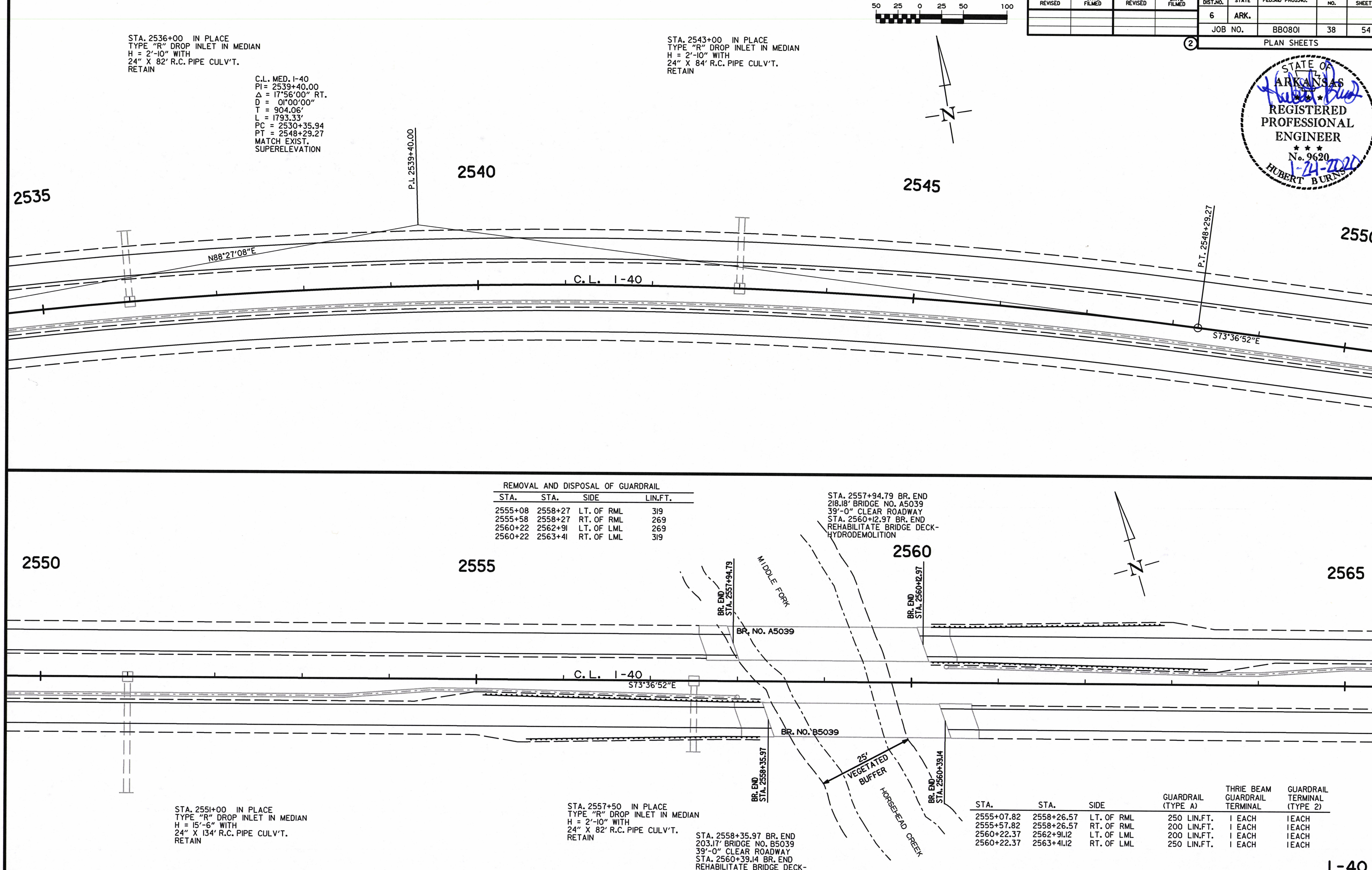
2 PLAN SHEETS

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 9620
HUBERT BURNS
1-24-2020

STA. 2536+00 IN PLACE
TYPE "R" DROP INLET IN MEDIAN
H = 2'-10" WITH
24" X 82' R.C. PIPE CULV'T.
RETAIN

C.L. MED. I-40
PI= 2539+40.00
Δ = 17°56'00" RT.
D = 01°00'00"
T = 904.06'
L = 1793.33'
PC = 2530+35.94
PT = 2548+29.27
MATCH EXIST.
SUPERELEVATION

STA. 2543+00 IN PLACE
TYPE "R" DROP INLET IN MEDIAN
H = 2'-10" WITH
24" X 84' R.C. PIPE CULV'T.
RETAIN



REMOVAL AND DISPOSAL OF GUARDRAIL

STA.	STA.	SIDE	LIN.FT.
2555+08	2558+27	LT. OF RML	319
2555+58	2558+27	RT. OF RML	269
2560+22	2562+91	LT. OF LML	269
2560+22	2563+41	RT. OF LML	319

STA. 2557+94.79 BR. END
218.18' BRIDGE NO. A5039
39'-0" CLEAR ROADWAY
STA. 2560+12.97 BR. END
REHABILITATE BRIDGE DECK-
HYDRODEMOLITION

STA. 2551+00 IN PLACE
TYPE "R" DROP INLET IN MEDIAN
H = 15'-6" WITH
24" X 134' R.C. PIPE CULV'T.
RETAIN

STA. 2557+50 IN PLACE
TYPE "R" DROP INLET IN MEDIAN
H = 2'-10" WITH
24" X 82' R.C. PIPE CULV'T.
RETAIN

STA. 2558+35.97 BR. END
203.17' BRIDGE NO. B5039
39'-0" CLEAR ROADWAY
STA. 2560+39.14 BR. END
REHABILITATE BRIDGE DECK-
HYDRODEMOLITION

STA.	STA.	SIDE	GUARDRAIL (TYPE A)	THRIE BEAM GUARDRAIL TERMINAL	GUARDRAIL TERMINAL (TYPE 2)
2555+07.82	2558+26.57	LT. OF RML	250 LIN.FT.	1 EACH	1 EACH
2555+57.82	2558+26.57	RT. OF RML	200 LIN.FT.	1 EACH	1 EACH
2560+22.37	2562+91.12	LT. OF LML	200 LIN.FT.	1 EACH	1 EACH
2560+22.37	2563+41.12	RT. OF LML	250 LIN.FT.	1 EACH	1 EACH

I-40

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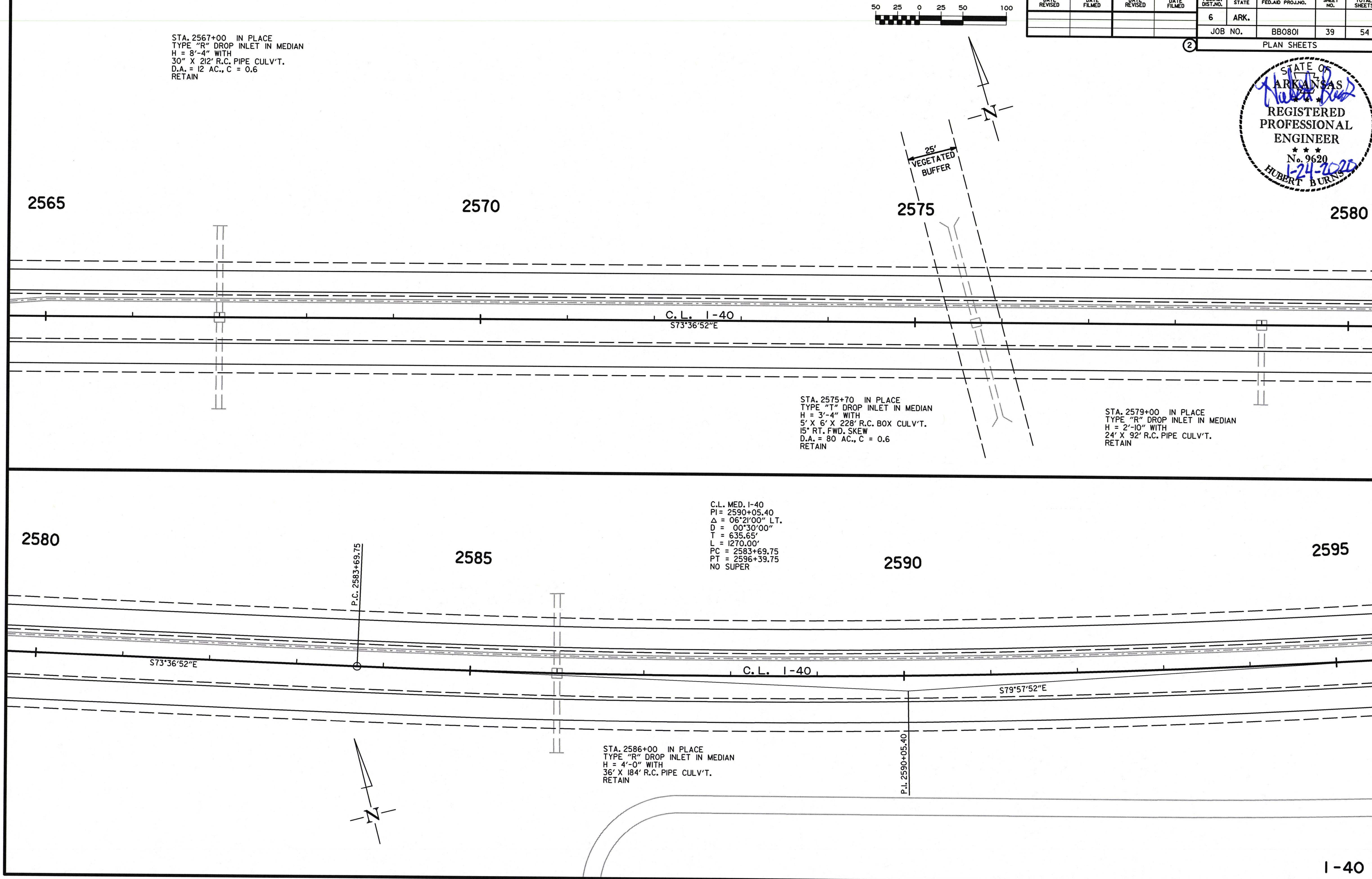
				6	ARK.			
				JOB NO.		BB0801	39	54
				2	PLAN SHEETS			

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 9620
HUBERT BURNS
1-24-2020



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				6	ARK.			
				JOB NO.		BB0801	40	54

PLAN SHEETS

STATE OF ARKANSAS REGISTERED PROFESSIONAL ENGINEER No. 9620 HUBERT BURNS 1-24-2020

C.L. MED. I-40
PI = 2590+05.40
Δ = 06°21'00" LT.
D = 00°30'00"
T = 635.65'
L = 1270.00'
PC = 2583+69.75
PT = 2596+39.75
NO SUPER

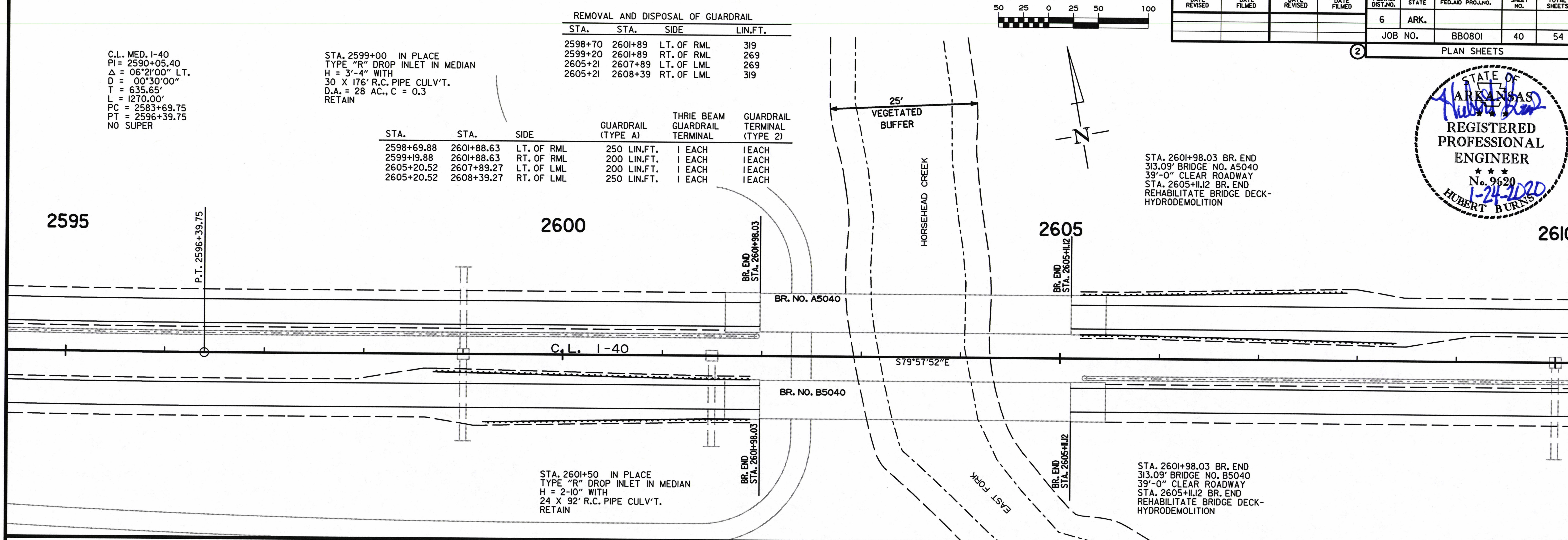
STA. 2599+00 IN PLACE
TYPE "R" DROP INLET IN MEDIAN
H = 3'-4" WITH
30 X 176' R.C. PIPE CULV'T.
D.A. = 28 AC., C = 0.3
RETAIN

REMOVAL AND DISPOSAL OF GUARDRAIL

STA.	STA.	SIDE	LIN.FT.
2598+70	2601+89	LT. OF RML	319
2599+20	2601+89	RT. OF RML	269
2605+21	2607+89	LT. OF LML	269
2605+21	2608+39	RT. OF LML	319

STA.	STA.	SIDE	GUARDRAIL (TYPE A)	THRIE BEAM GUARDRAIL TERMINAL	GUARDRAIL TERMINAL (TYPE 2)
2598+69.88	2601+88.63	LT. OF RML	250 LIN.FT.	1 EACH	1 EACH
2599+19.88	2601+88.63	RT. OF RML	200 LIN.FT.	1 EACH	1 EACH
2605+20.52	2607+89.27	LT. OF LML	200 LIN.FT.	1 EACH	1 EACH
2605+20.52	2608+39.27	RT. OF LML	250 LIN.FT.	1 EACH	1 EACH

STA. 2601+98.03 BR. END
313.09' BRIDGE NO. A5040
39'-0" CLEAR ROADWAY
STA. 2605+11.12 BR. END
REHABILITATE BRIDGE DECK-HYDRODEMOLITION

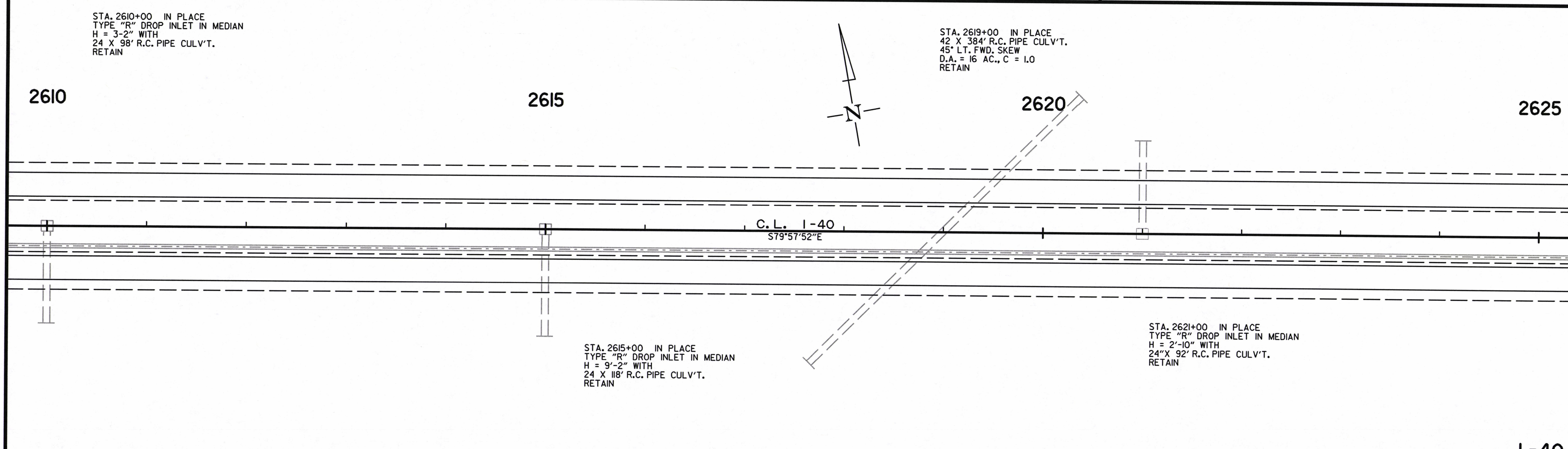


STA. 2601+50 IN PLACE
TYPE "R" DROP INLET IN MEDIAN
H = 2-10" WITH
24 X 92' R.C. PIPE CULV'T.
RETAIN

STA. 2601+98.03 BR. END
313.09' BRIDGE NO. B5040
39'-0" CLEAR ROADWAY
STA. 2605+11.12 BR. END
REHABILITATE BRIDGE DECK-HYDRODEMOLITION

STA. 2610+00 IN PLACE
TYPE "R" DROP INLET IN MEDIAN
H = 3-2" WITH
24 X 98' R.C. PIPE CULV'T.
RETAIN

STA. 2619+00 IN PLACE
42 X 384' R.C. PIPE CULV'T.
45° LT. FWD. SKEW
D.A. = 16 AC., C = 1.0
RETAIN



STA. 2615+00 IN PLACE
TYPE "R" DROP INLET IN MEDIAN
H = 9'-2" WITH
24 X 118' R.C. PIPE CULV'T.
RETAIN

STA. 2621+00 IN PLACE
TYPE "R" DROP INLET IN MEDIAN
H = 2'-10" WITH
24"X 92' R.C. PIPE CULV'T.
RETAIN

I-40

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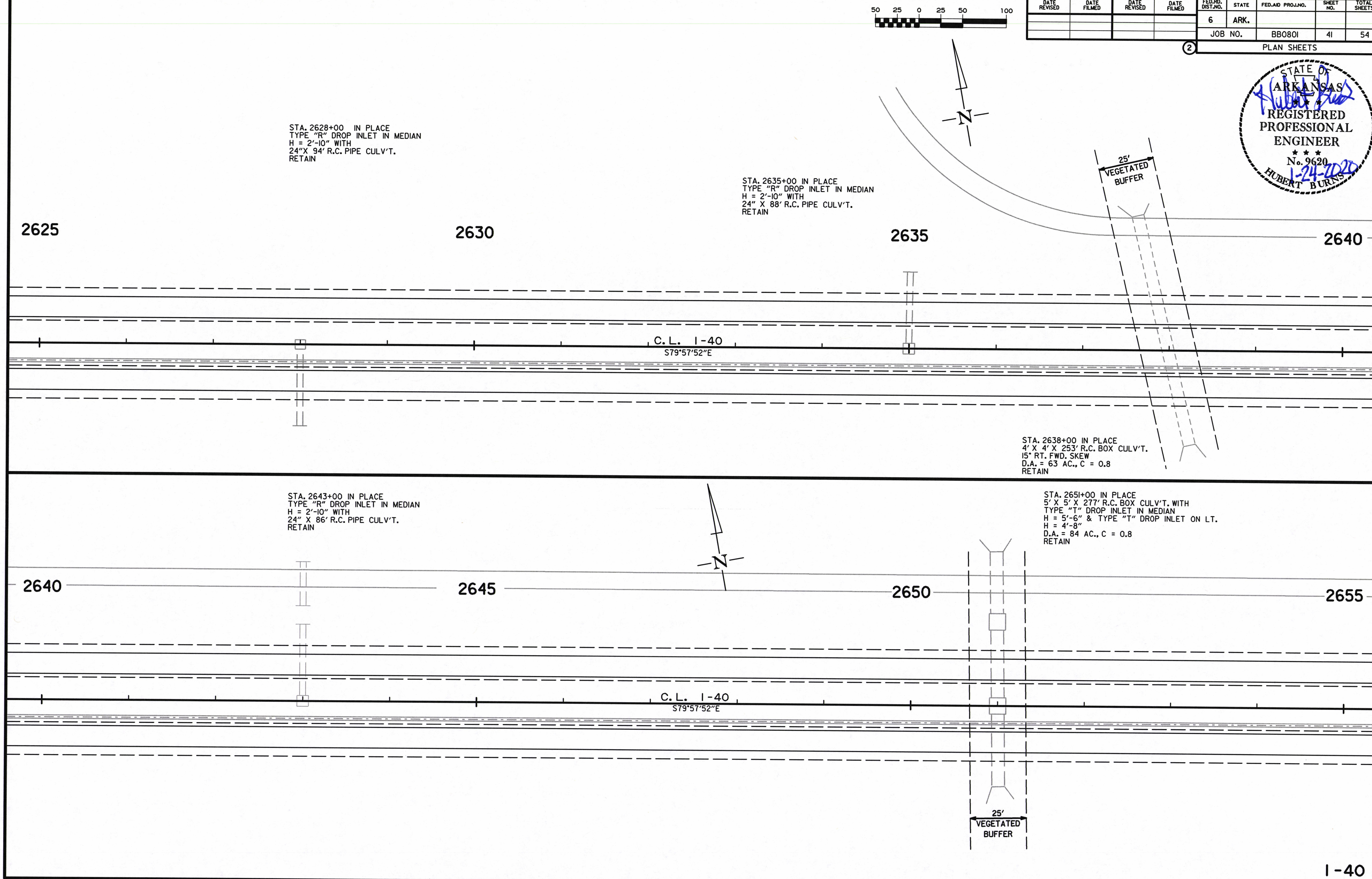
				6	ARK.			
				JOB NO.		BB0801	41	54

② PLAN SHEETS

STATE OF ARKANSAS REGISTERED PROFESSIONAL ENGINEER No. 9620 HUBERT BURNS 1-24-2020



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6	ARK.			
JOB NO.		BB0801	42	54

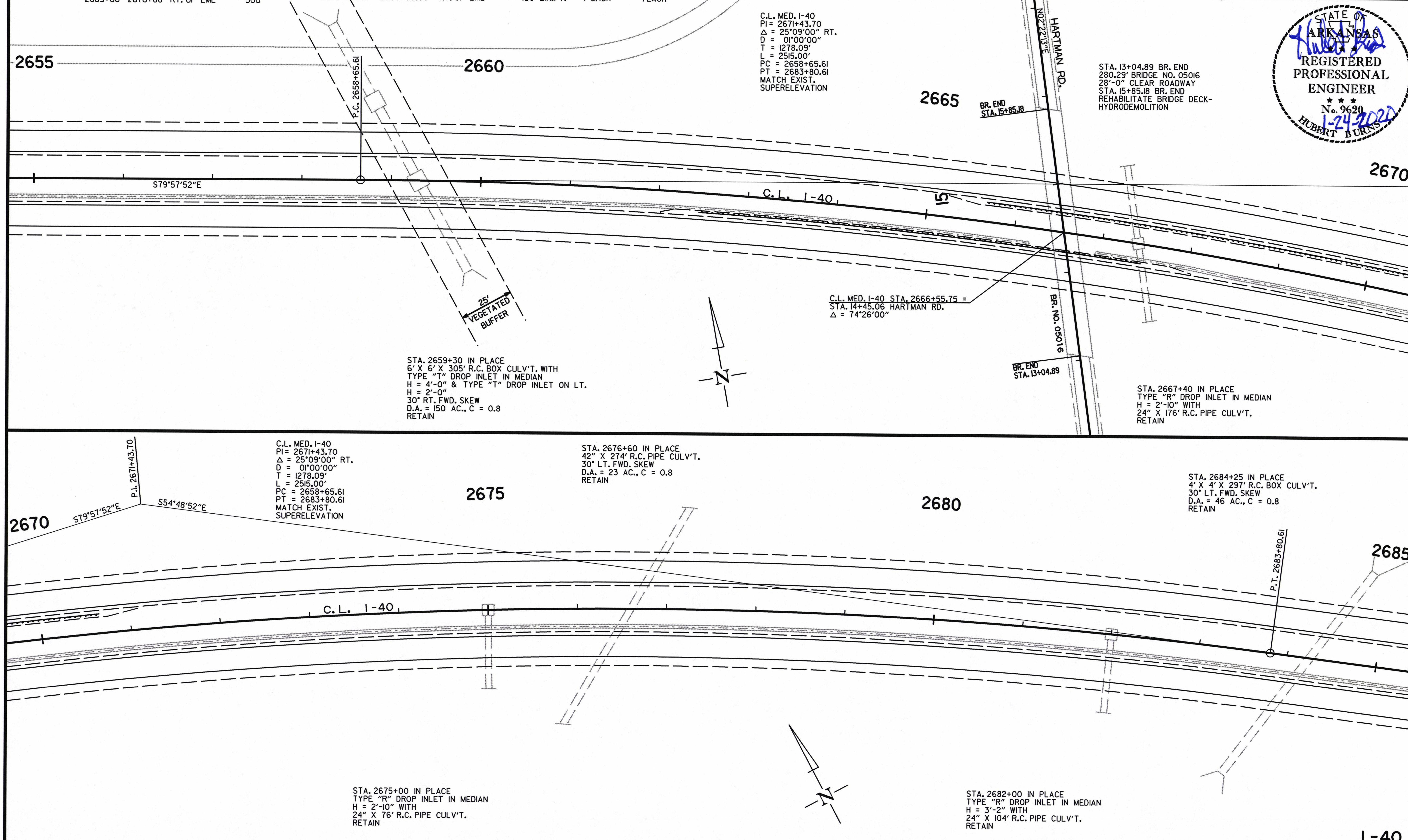
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED

② PLAN SHEETS

REMOVAL AND DISPOSAL OF GUARDRAIL

STA.	STA.	SIDE	LIN.FT.
2662+46	2667+46	LT. OF RML	500
2665+66	2670+66	RT. OF LML	500

STA.	STA.	SIDE	GUARDRAIL (TYPE A)	TERMINAL ANCHOR POST (TYPE 1)	GUARDRAIL TERMINAL (TYPE 2)
2662+46.00	2667+46.00	LT. OF RML	450 LIN.FT.	1 EACH	1 EACH
2665+66.00	2670+66.00	RT. OF LML	450 LIN.FT.	1 EACH	1 EACH



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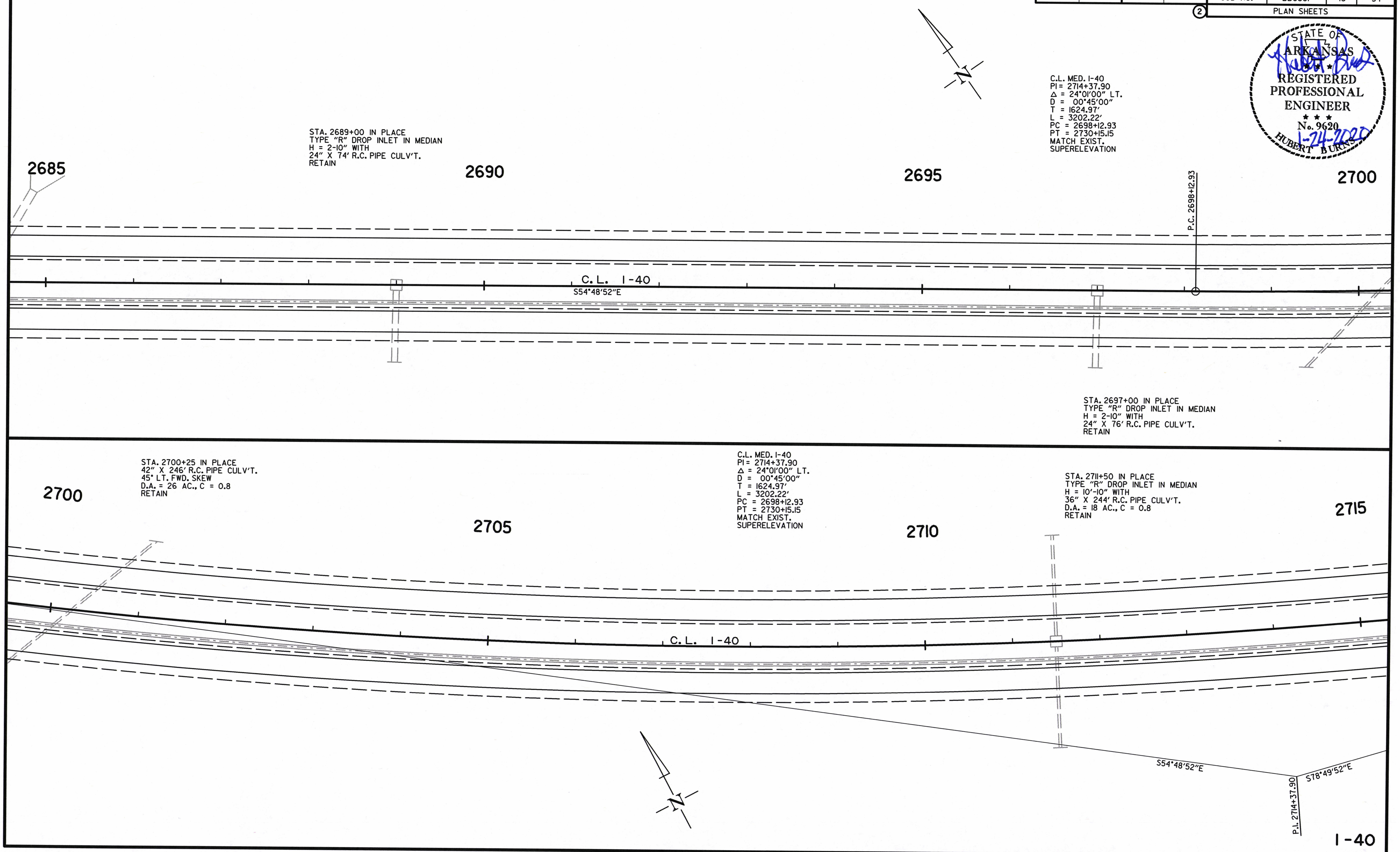
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB0801	43	54
				②	PLAN SHEETS			



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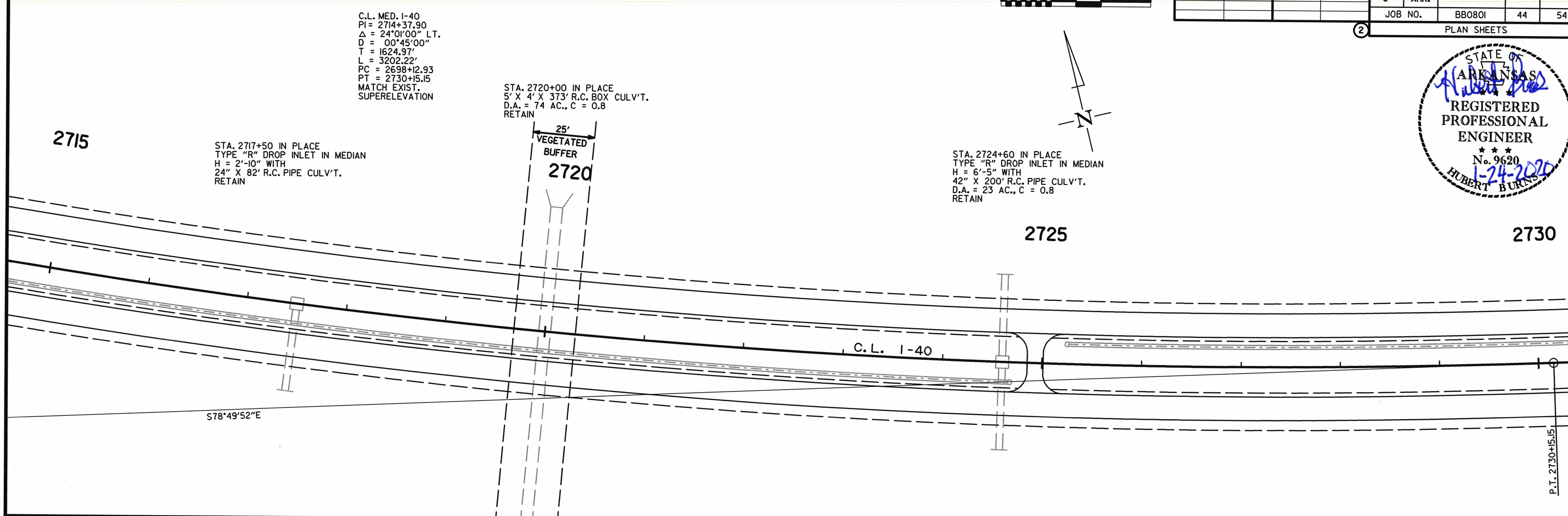
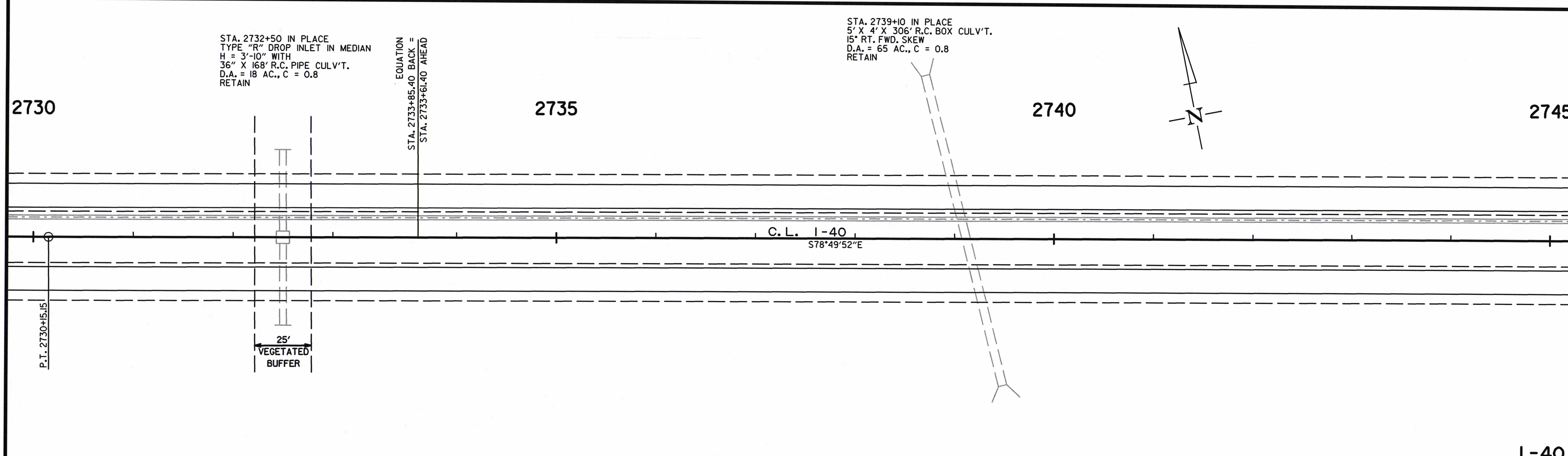
				6	ARK.			
				JOB NO.		BB0801	44	54

(2) PLAN SHEETS

STATE OF ARKANSAS REGISTERED PROFESSIONAL ENGINEER No. 9620 HUBERT BURNS 1-24-2020





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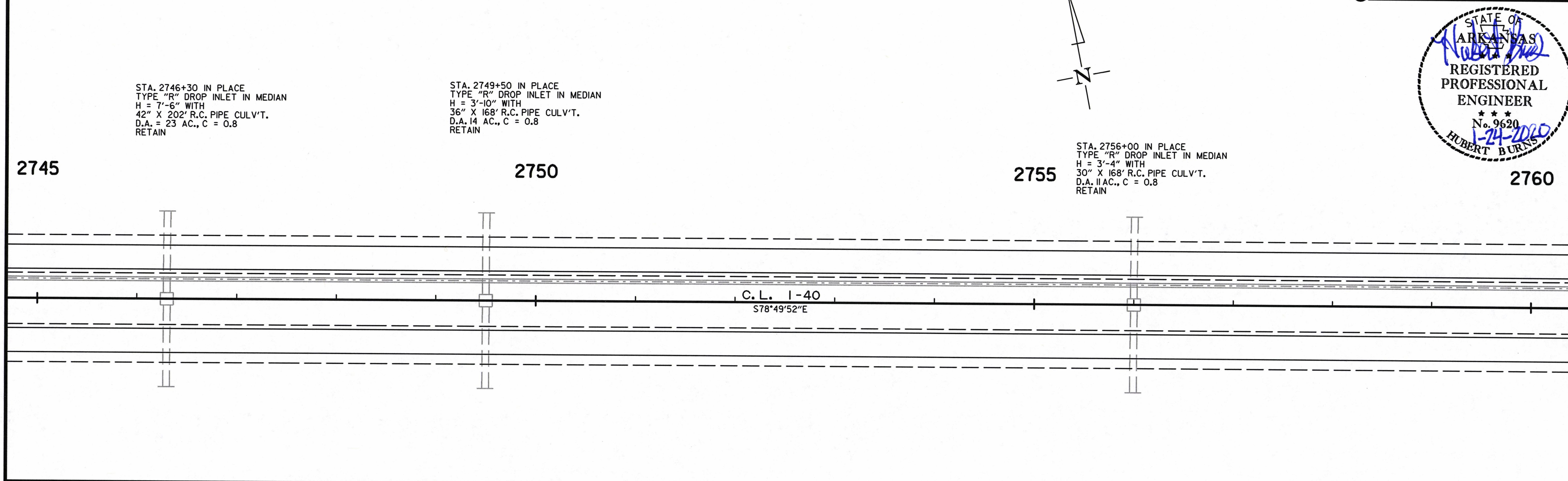
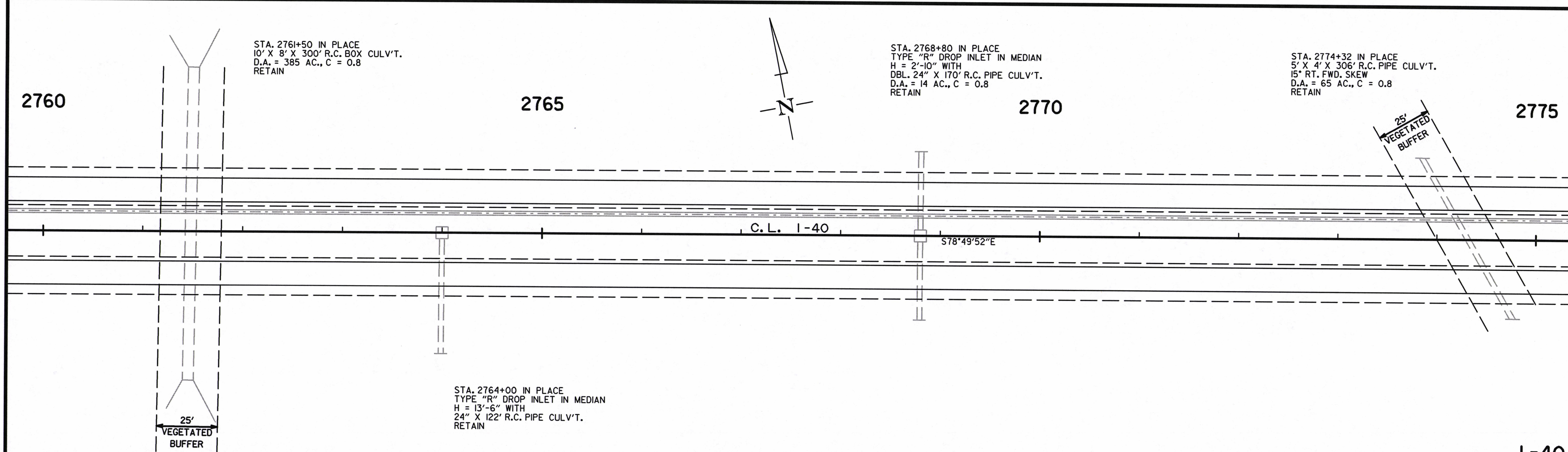
				6	ARK.			
				JOB NO.		BB0801	45	54

2 PLAN SHEETS





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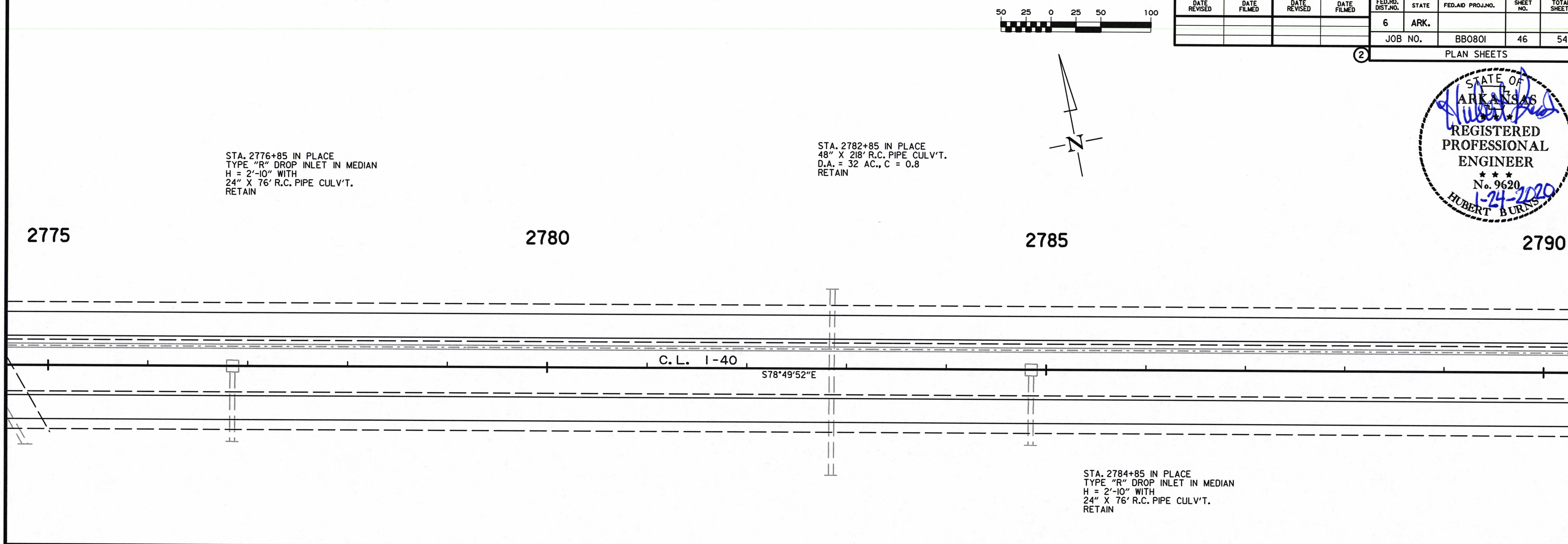
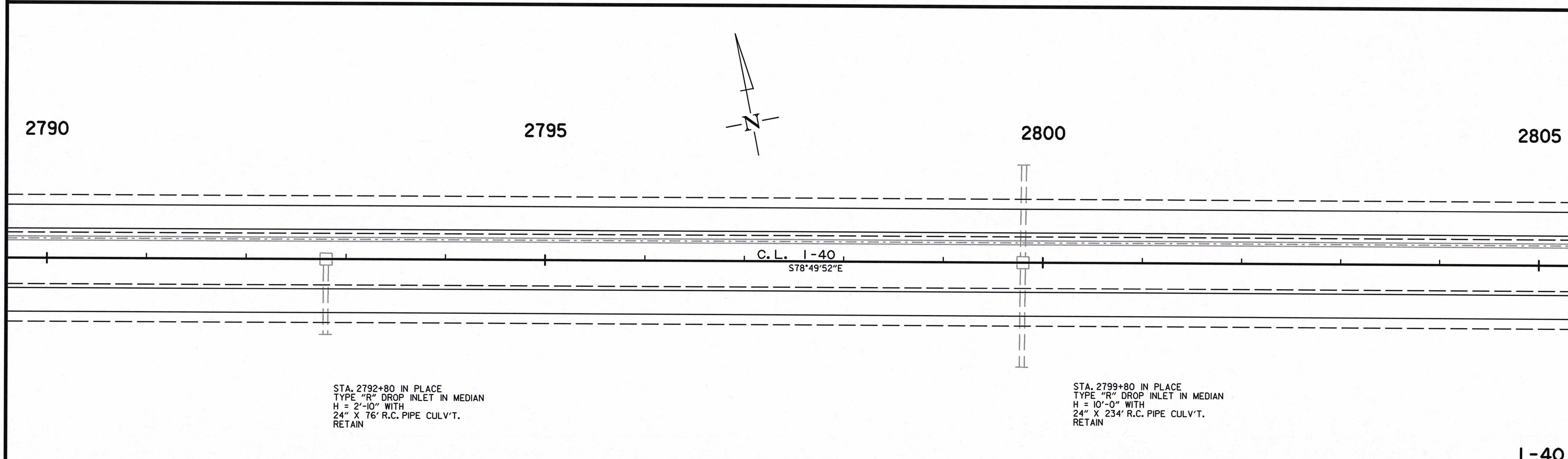
				6	ARK.			
				JOB NO.		BB0801	46	54

(2) PLAN SHEETS

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 9620
HUBERT BURNS
1-24-2020





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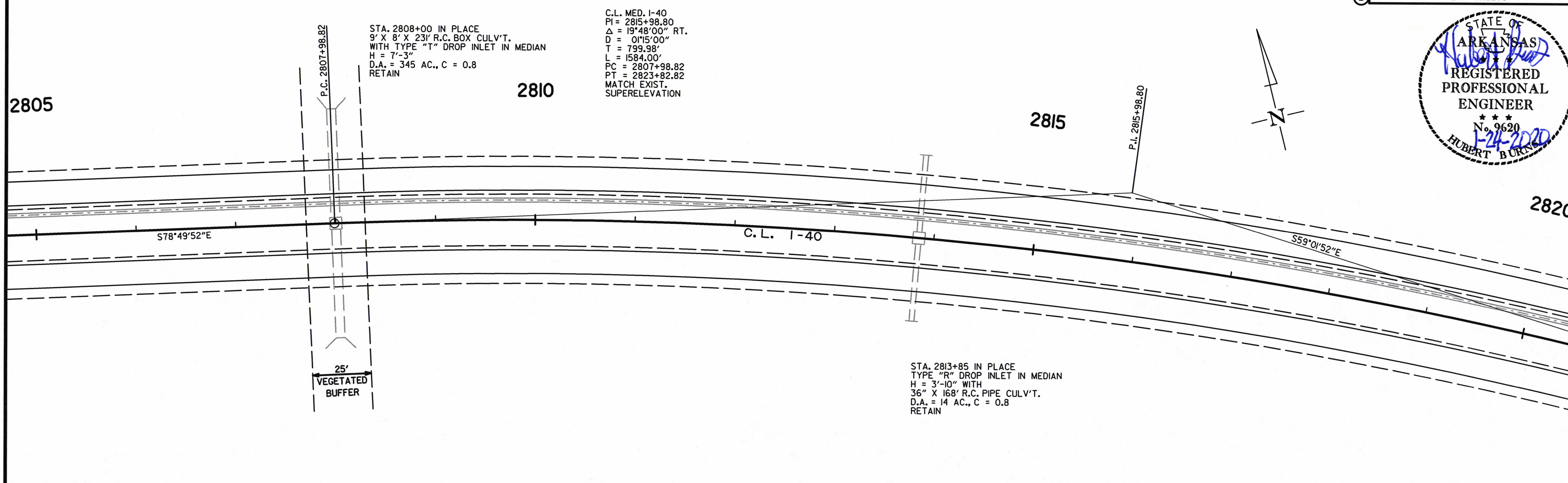
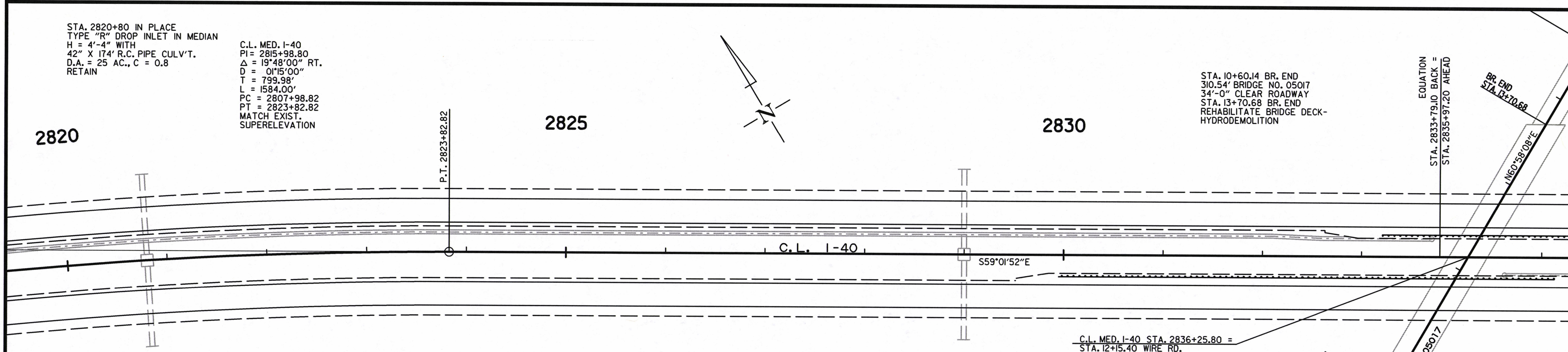
STATE OF ARKANSAS REGISTERED PROFESSIONAL ENGINEER No. 9620 HUBERT BURNS 1-24-2020





REMOVAL AND DISPOSAL OF GUARDRAIL

STA.	STA.	SIDE	LIN.FT.
2829+95	2837+13	LT. OF RML	500
2833+21	2840+39	RT. OF LML	500

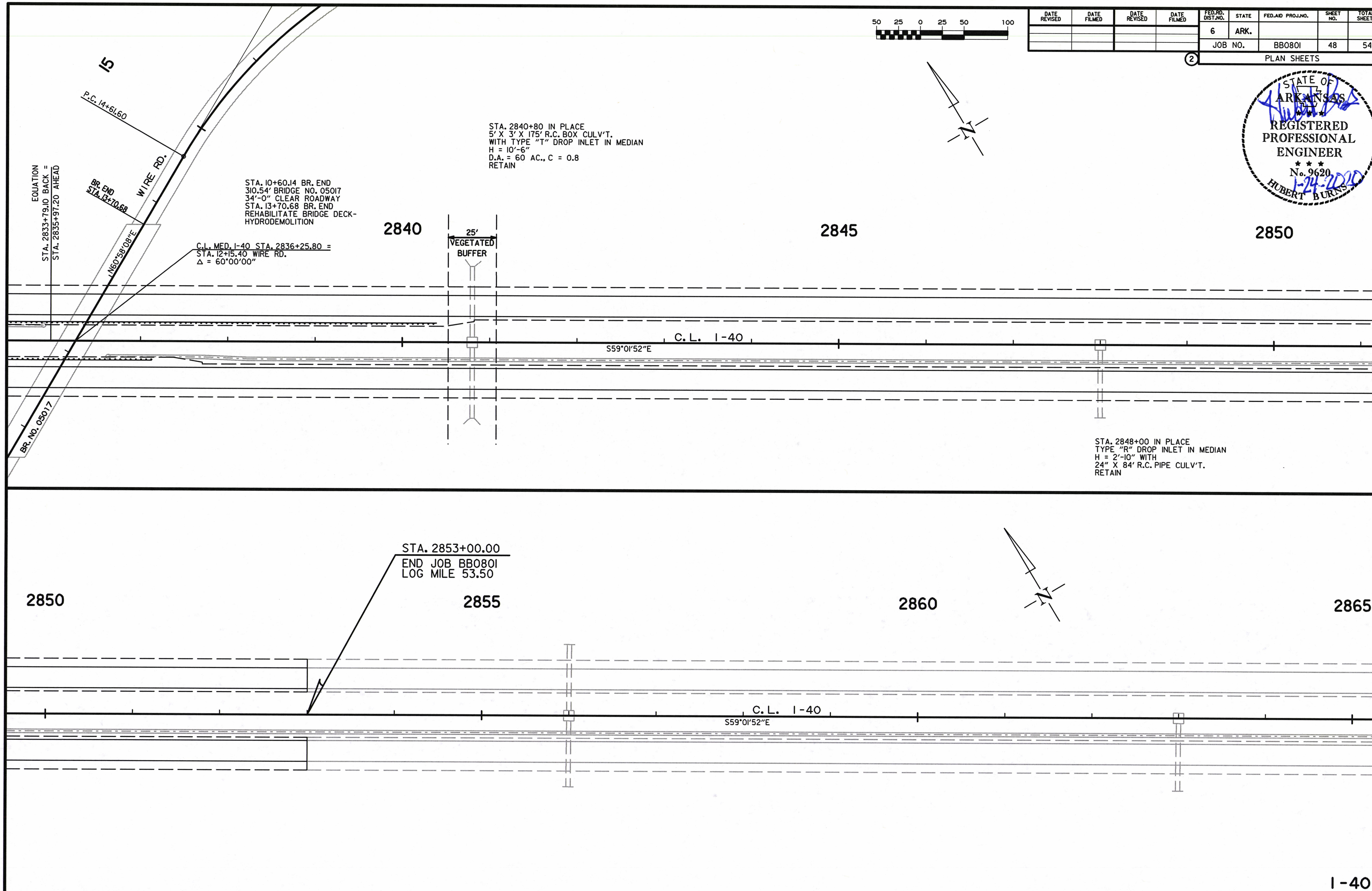
STA.	STA.	SIDE	GUARDRAIL (TYPE A)	GUARDRAIL TERMINAL (TYPE 1)	GUARDRAIL TERMINAL (TYPE 2)
2829+94.90	2837+13.00	LT. OF RML	450 LIN.FT.	1 EACH	1 EACH
2833+21.00	2840+39.10	RT. OF LML	450 LIN.FT.	1 EACH	1 EACH

I-40

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.		BB0801	48	54

2 PLAN SHEETS

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 9620
HUBERT BURNS
1-24-2020



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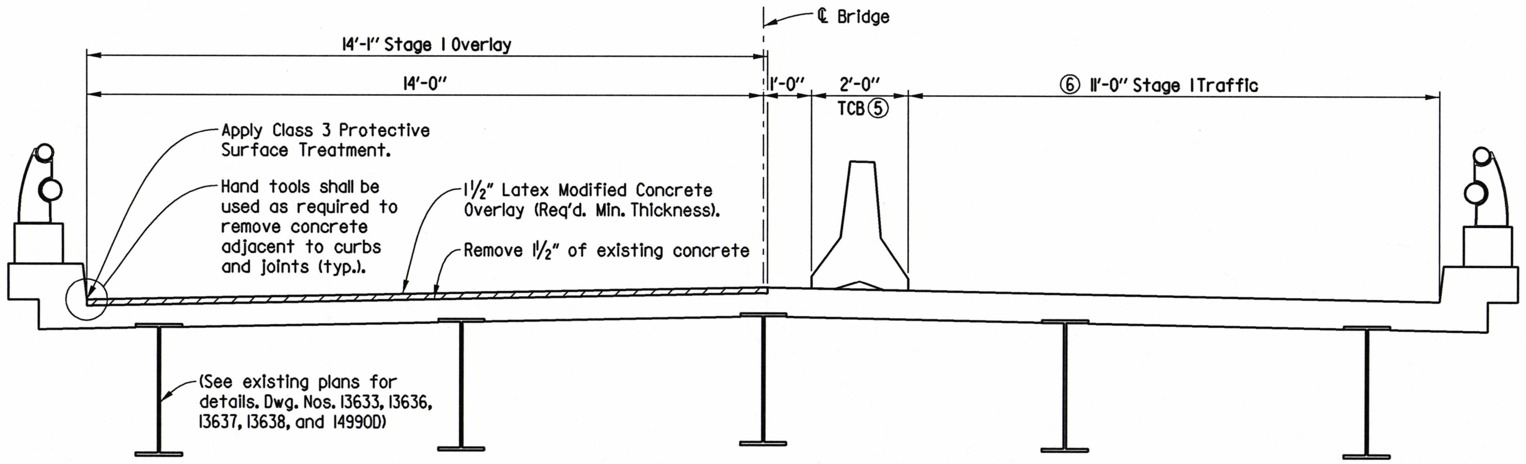
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
					JOB NO.	BB0801	49	54
				① 05016		LMC OVERLAY		61292

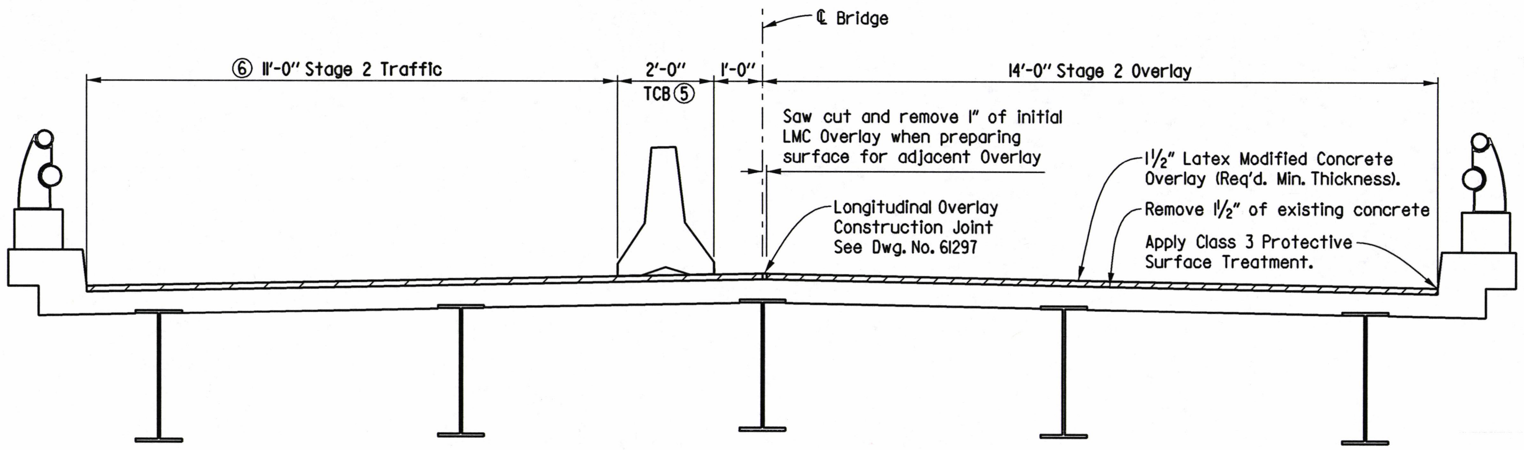
NOTE:
The minimum overlay placement length shall be a full span on simple span bridges and to an existing slab joint on continuous unit bridges. Refer to existing bridge drawings.

⑥ Refer to Bridge Rehabilitation work zones as shown in Maintenance of Traffic details. See Roadway Plans.

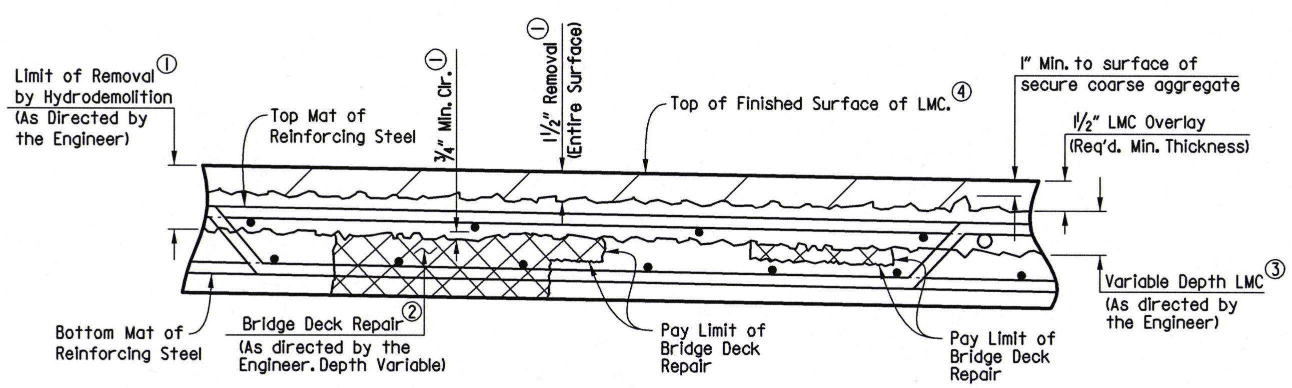


STAGE 1 LATEX MODIFIED CONCRETE OVERLAY
(Looking North)
Scale: ½" = 1'-0"

⑤ Temporary Construction Barrier shall not be connected to the surface of the bridge deck. See Std. Dwg. TC-4.



STAGE 2 LATEX MODIFIED CONCRETE OVERLAY
(Looking North)
Scale: ½" = 1'-0"



DETAILS OF HYDRODEMOLITION AND LATEX MODIFIED CONCRETE OVERLAY
No Scale

① Removal of unsound concrete beyond 1½" below the original surface shall be at the direction of the Engineer. If the bond between existing concrete and the top mat of reinforcing steel is destroyed, then the concrete shall be removed to a minimum of ¾" clearance below the bar.

② Areas requiring additional repair, as determined by the Engineer, shall be repaired in accordance with the SP Job BB0801 "Bridge Deck Repair for Latex Modified Concrete Overlays".

③ Depth Varies to achieve minimum clearance below top mat of reinforcing steel, where required.

④ Finished Surface of LMC Overlay shall match existing concrete deck surfaces unless increase is required to maintain minimum required LMC Overlay thickness and a minimum of 1½" cover to reinforcing steel and shear connectors.

GENERAL NOTES:

CONSTRUCTION SPECIFICATIONS: Arkansas State Highway Commission Standard Specifications for Highway Construction, Edition of 2014, with applicable Special Provisions and Supplemental Specifications. Unless otherwise noted in the plans, Section and Subsection refer to the Standard Specifications.

Drawing shows details and dimensions of existing structure based on the original bridge plans. The Contractor shall make check measurements in the field and make any adjustments necessary to meet the required clearances and fit the new work to the existing structures.

The operation or placement of vehicles, equipment and, or materials on the subject bridge necessary for the completion of this work shall be evaluated in accordance with Subsection 105.14. Certifications of the adequacy of all components for the anticipated loads shall address the capacity of the existing structure at all phases of this work.

Construction activities shall be in accordance with SP Job BB0801 "Special Safety Requirements for Bridges".

HYDRODEMOLITION: The entire area of the existing bridge deck shall receive hydrodemolition in accordance with the SP Job BB0801 "Hydrodemolition" to a planned depth of 1½" below the existing bridge deck surface. Deteriorated concrete in the bridge deck below this depth shall be removed at the direction of the Engineer up to the limits detailed. These areas shall be measured by the square yard and shall be paid for at the unit price bid for the item SP Job BB0801 "Hydrodemolition". Prior to hydrodemolition, cold milling of the concrete deck to a maximum depth of 1" will be allowed unless there will be a conflict with the existing reinforcing.

BRIDGE DECK REPAIR: After hydrodemolition, the deck surface shall be sounded and any areas of unsound, delaminated or otherwise deteriorated concrete shall be removed at the direction of the Engineer and in accordance with SP Job BB0801 "Bridge Deck Repair for Latex Modified Concrete Overlays".

LATEX MODIFIED CONCRETE OVERLAY: The entire area of the existing bridge deck shall receive a Latex Modified Concrete (LMC) Overlay with a required minimum thickness of 1½", in accordance with SP Job BB0801 "Latex Modified Concrete Overlay". These areas shall be measured by the square yard and shall be paid for at the unit price bid for the item SP Job BB0801 "Latex Modified Concrete Overlay (1½" Thick)". Areas of the existing bridge deck removed at the direction of the Engineer to a depth greater than 1½" below the existing bridge deck surface shall be filled with LMC concurrent to the placement of the 1½" LMC Overlay. This area shall be measured and paid for in accordance with SP Job BB0801 "Latex Modified Concrete Overlay".

SURFACE FINISH: The LMC Overlay surface of the bridge deck shall be given a grooved finish as specified for final finishing in Subsection 802.19 for Class 7 Grooved Bridge Roadway Surface Finish and in accordance with SP Job BB0801 "Latex Modified Concrete Overlay".

PROTECTIVE SURFACE TREATMENT: The longitudinal joint between the LMC Overlay and the adjacent existing concrete curb or rail shall be given a Class 3 Protective Surface Treatment as specified in Section 803 and in accordance with SP Job BB0801 "Latex Modified Concrete Overlay". Longitudinal and transverse construction joints separating adjacent overlay placements shall be prepared and sealed as shown on Dwg. No. 61297.

The roadway surface of the LMC Overlay shall be given a Class 1 Protective Surface Treatment as specified in Section 803.

EXPANSION JOINT REHABILITATION: After the placement of the LMC Overlay, the existing expansion joints shall be given a poured silicone joint sealant as specified in Section 809 and as shown in "Poured Silicone Joint Seal Details" on Dwg. No. 61297. See Dwg. No. 61297 for additional details.

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11856
CHARLES A. WIPF
Charles A. Wipf
01/24/2020

SHEET 1 OF 6
DETAILS OF LATEX MODIFIED CONCRETE OVERLAY
ROUTE SEC.
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY:	LDG	DATE:	09-06-18	FILENAME:	bbb0801_lmcl.dgn
CHECKED BY:	KRM	DATE:	09-27-18	SCALE:	SEE DETAILS
DESIGNED BY:	LDG	DATE:	09-05-18		

BRIDGE NO. 05016
DRAWING NO. 61292

USER: fs513 DESIGN FILE: G:\1810870I_BB080I\TRANSP\dgn\bridge\bbb080I_lmcl.dgn SCALE: 1:4
PLOTTED: 1/23/2020 11:33

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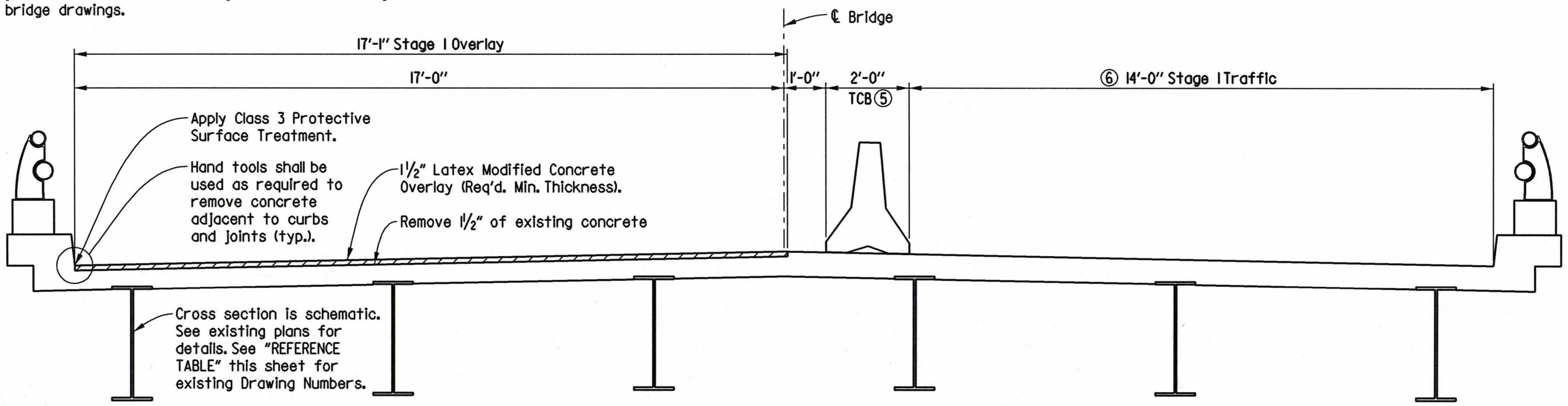
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB0801	50	54
				① 05017, 05037		LMC OVERLAY		61293

NOTE:
The minimum overlay placement length shall be a full span on simple span bridges and to an existing slab joint on continuous unit bridges. Refer to existing bridge drawings.

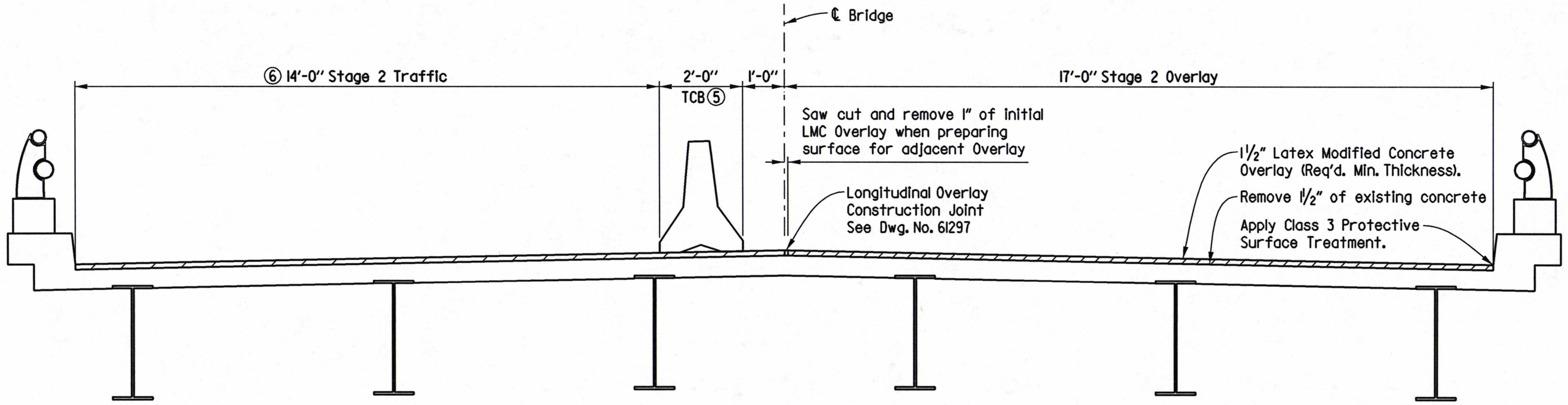
⑥ Refer to Bridge Rehabilitation work zones as shown in Maintenance of Traffic details. See Roadway Plans.



STAGE 1 LATEX MODIFIED CONCRETE OVERLAY

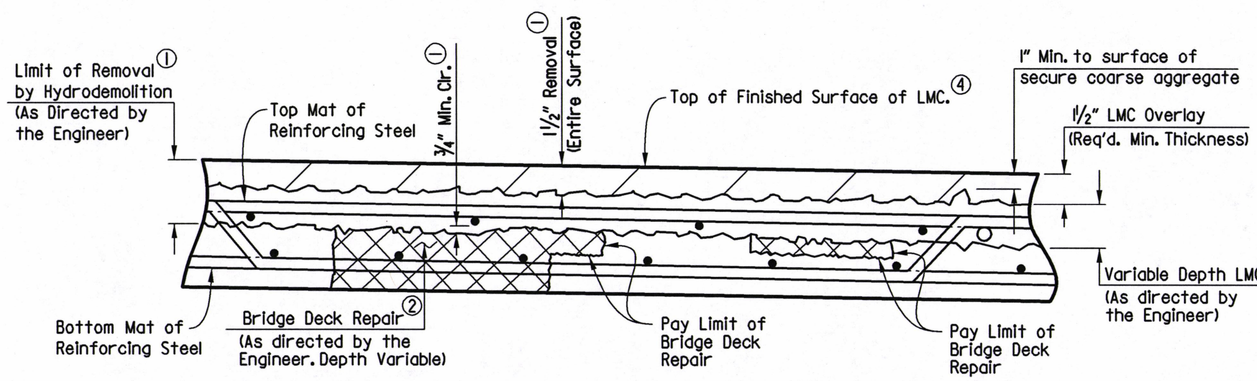
(Looking North)
Scale: ½" = 1'-0"

⑤ Temporary Construction Barrier shall not be connected to the surface of the bridge deck. See Std. Dwg. TC-4.



STAGE 2 LATEX MODIFIED CONCRETE OVERLAY

(Looking North)
Scale: ½" = 1'-0"



DETAILS OF HYDRODEMOLITION AND LATEX MODIFIED CONCRETE OVERLAY

No Scale

① Removal of unsound concrete beyond 1½" below the original surface shall be at the direction of the Engineer. If the bond between existing concrete and the top mat of reinforcing steel is destroyed, then the concrete shall be removed to a minimum of ¾" clearance below the bar.

② Areas requiring additional repair, as determined by the Engineer, shall be repaired in accordance with the SP Job BB0801 "Bridge Deck Repair for Latex Modified Concrete Overlays".

③ Depth Varies to achieve minimum clearance below top mat of reinforcing steel, where required.

④ Finished Surface of LMC Overlay shall match existing concrete deck surfaces unless increase is required to maintain minimum required LMC Overlay thickness and a minimum of 1½" cover to reinforcing steel and shear connectors.

GENERAL NOTES:

CONSTRUCTION SPECIFICATIONS: Arkansas State Highway Commission Standard Specifications for Highway Construction, Edition of 2014, with applicable Special Provisions and Supplemental Specifications. Unless otherwise noted in the plans, Section and Subsection refer to the Standard Specifications.

Drawing shows details and dimensions of existing structure based on the original bridge plans. The Contractor shall make check measurements in the field and make any adjustments necessary to meet the required clearances and fit the new work to the existing structures.

The operation or placement of vehicles, equipment and, or materials on the subject bridge necessary for the completion of this work shall be evaluated in accordance with Subsection 105.14. Certifications of the adequacy of all components for the anticipated loads shall address the capacity of the existing structure at all phases of this work.

Construction activities shall be in accordance with SP Job BB0801 "Special Safety Requirements for Bridges".

HYDRODEMOLITION: The entire area of the existing bridge deck and approach slabs shall receive hydrodemolition in accordance with the SP Job BB0801 "Hydrodemolition" to a planned depth of 1½" below the existing bridge deck surface. Deteriorated concrete in the bridge deck below this depth shall be removed at the direction of the Engineer up to the limits detailed. These areas shall be measured by the square yard and shall be paid for at the unit price bid for the item SP Job BB0801 "Hydrodemolition". Prior to hydrodemolition, cold milling of the concrete deck to a maximum depth of 1" will be allowed unless there will be a conflict with the existing reinforcing.

BRIDGE DECK REPAIR: After hydrodemolition, the deck surface shall be sounded and any areas of unsound, delaminated or otherwise deteriorated concrete shall be removed at the direction of the Engineer and in accordance with SP Job BB0801 "Bridge Deck Repair for Latex Modified Concrete Overlays".

LATEX MODIFIED CONCRETE OVERLAY: The entire area of the existing bridge deck and approach slabs shall receive a Latex Modified Concrete (LMC) Overlay with a required minimum thickness of 1½", in accordance with SP Job BB0801 "Latex Modified Concrete Overlay". These areas shall be measured by the square yard and shall be paid for at the unit price bid for the item SP Job BB0801 "Latex Modified Concrete Overlay (1½" Thick)". Areas of the existing bridge deck removed at the direction of the Engineer to a depth greater than 1½" below the existing bridge deck surface shall be filled with LMC concurrent to the placement of the 1½" LMC Overlay. This area shall be measured and paid for in accordance with SP Job BB0801 "Latex Modified Concrete Overlay".

SURFACE FINISH: The LMC Overlay surface of the bridge deck and approach slabs shall be given a grooved finish as specified for final finishing in Subsection 802.19 for Class 7 Grooved Bridge Roadway Surface Finish and in accordance with SP Job BB0801 "Latex Modified Concrete Overlay".

PROTECTIVE SURFACE TREATMENT: The longitudinal joint between the LMC Overlay and the adjacent existing concrete curb or rail shall be given a Class 3 Protective Surface Treatment as specified in Section 803 and in accordance with SP Job BB0801 "Latex Modified Concrete Overlay". Longitudinal and transverse construction joints separating adjacent overlay placements shall be prepared and sealed as shown on Dwg. No. 61297.

The roadway surface of the LMC Overlay shall be given a Class 1 Protective Surface Treatment as specified in Section 803.

EXPANSION JOINT REHABILITATION: After the placement of the LMC Overlay, the existing expansion joints shall be given a poured silicone joint sealant as specified in Section 809 and as shown in "Poured Silicone Joint Seal Details" on Dwg. No. 61297. See Dwg. No. 61297 for additional details.

REFERENCE TABLE

BR. NO.	EXISTING DRAWING NUMBERS
05017	13639, 13642, 13643, 14990D
05037	13980A, 13982A, 13982D, 14990D

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11856
CHARLES A. WIFF
01/24/2020

SHEET 2 OF 6

DETAILS OF LATEX MODIFIED CONCRETE OVERLAY

ROUTE SEC.

ARKANSAS STATE HIGHWAY COMMISSION

LITTLE ROCK, ARK.

DRAWN BY:	LDG	DATE:	09-06-18	FILENAME:	bbb0801_lmc2.dgn
CHECKED BY:	KRM	DATE:	09-27-18	SCALE:	SEE DETAILS
DESIGNED BY:	LDG	DATE:	09-05-18		

BRIDGE NOS. 05017, 05037 DRAWING NO. 61293

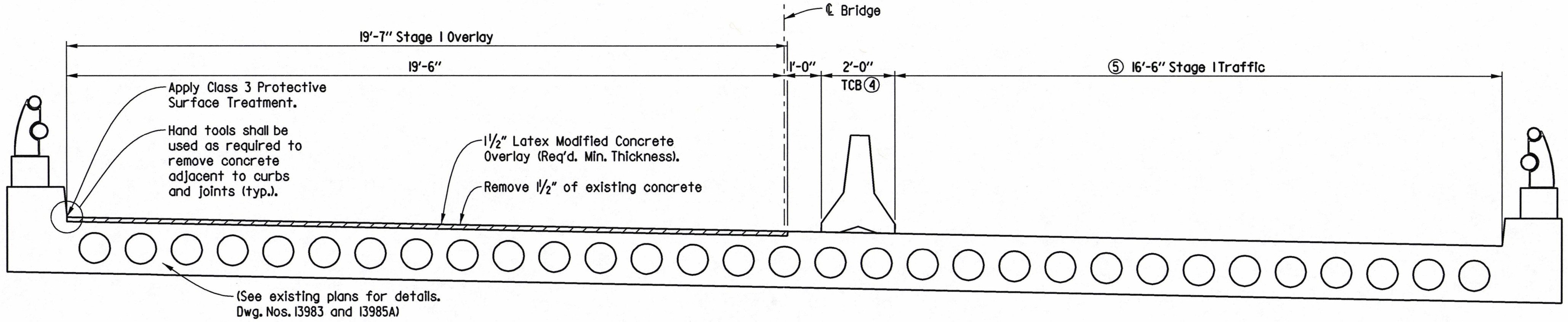
USER: fs513 DESIGN FILE: G:\1808701_BB0801\TRANSP\dgn\bridge\bbb0801_lmc2.dgn SCALE: 1:4
PLOTTED: 1/23/2020 11:33

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.		BB0801	51	54

(1) A5038 LMC OVERLAY 61294

NOTE:
The minimum overlay placement length shall be from joint to joint. Refer to existing bridge drawings.

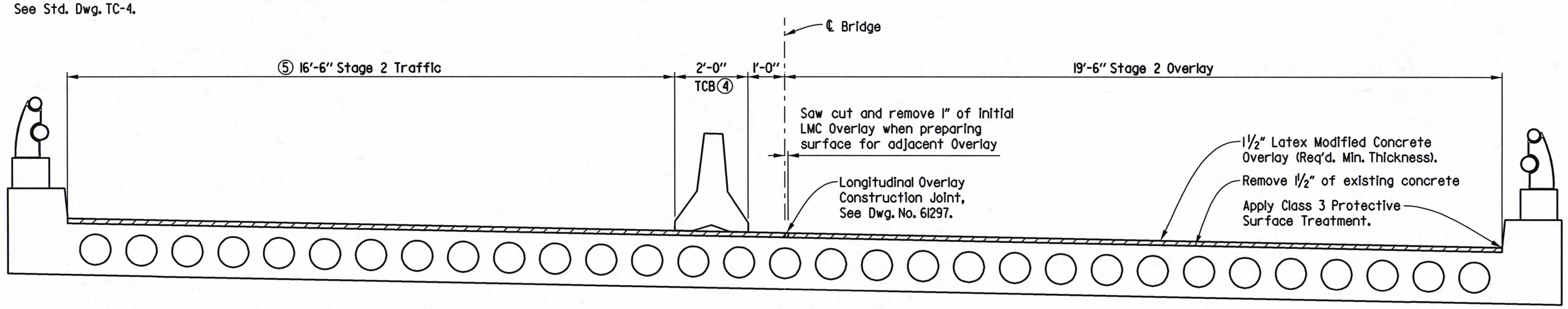
(5) Refer to Bridge Rehabilitation work zones as shown in Maintenance of Traffic details. See Roadway Plans.



STAGE 1 LATEX MODIFIED CONCRETE OVERLAY

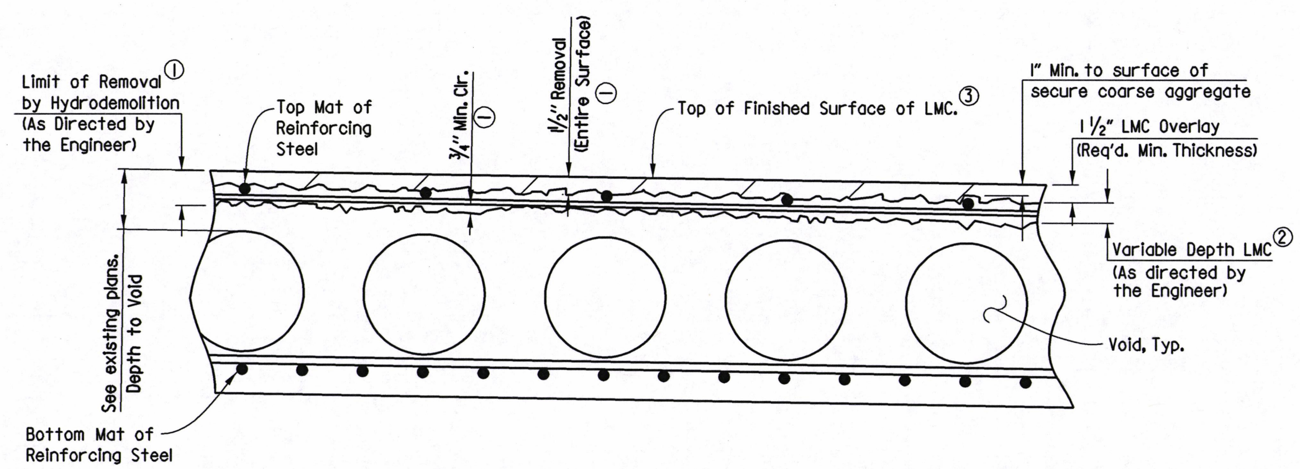
(Looking in direction of traffic)
Scale: ½" = 1'-0"

(4) Temporary Construction Barrier shall not be connected to the surface of the bridge deck. See Std. Dwg. TC-4.



STAGE 2 LATEX MODIFIED CONCRETE OVERLAY

(Looking in direction of traffic)
Scale: ½" = 1'-0"



DETAILS OF HYDRODEMOLITION AND LATEX MODIFIED CONCRETE OVERLAY

Scale: 1½" = 1'-0"

(1) Removal of unsound concrete beyond 1½" below the original surface shall be at the direction of the Engineer. If the bond between existing concrete and the top mat of reinforcing steel is destroyed, then the concrete shall be removed to a minimum of ¾" clearance below the bar.

(2) Depth Varies to achieve minimum clearance below top mat of reinforcing steel, where required.

(3) Finished Surface of LMC Overlay shall match existing concrete deck surfaces unless increase is required to maintain minimum required LMC Overlay thickness and a minimum of 1½" cover to reinforcing steel.

GENERAL NOTES:

CONSTRUCTION SPECIFICATIONS: Arkansas State Highway Commission Standard Specifications for Highway Construction, Edition of 2014, with applicable Special Provisions and Supplemental Specifications. Unless otherwise noted in the plans, Section and Subsection refer to the Standard Specifications.

Drawing shows details and dimensions of existing structure based on the original bridge plans. The Contractor shall make check measurements in the field and make any adjustments necessary to meet the required clearances and fit the new work to the existing structures.

The operation or placement of vehicles, equipment and, or materials on the subject bridge necessary for the completion of this work shall be evaluated in accordance with Subsection 105.14. Certifications of the adequacy of all components for the anticipated loads shall address the capacity of the existing structure at all phases of this work.

HYDRODEMOLITION: The entire area of the existing bridge deck, approach slabs, and approach gutters shall receive hydrodemolition in accordance with the SP Job BB0801 "Hydrodemolition" to a planned depth of 1½" below the existing bridge deck surface. Deteriorated concrete in the bridge deck below this depth shall be removed at the direction of the Engineer up to the limits detailed. These areas shall be measured by the square yard and shall be paid for at the unit price bid for the item SP Job BB0801 "Hydrodemolition". Prior to hydrodemolition, cold milling of the concrete deck to a maximum depth of 1" will be allowed unless there will be a conflict with the existing reinforcing.

If the Hydrodemolition equipment blows through the deck or into a deck void, that area shall be the responsibility of the Contractor and shall be repaired at the Contractor's expense. The Contractor shall provide a method of handling unexpected blow through of the deck or into deck void.

LATEX MODIFIED CONCRETE OVERLAY: The entire area of the existing bridge deck, approach slabs, and approach gutters shall receive a Latex Modified Concrete (LMC) Overlay with a required minimum thickness of 1½", in accordance with SP Job BB0801 "Latex Modified Concrete Overlay". These areas shall be measured by the square yard and shall be paid for at the unit price bid for the item SP Job BB0801 "Latex Modified Concrete Overlay (1½" Thick)". Areas of the existing bridge deck removed at the direction of the Engineer to a depth greater than 1½" below the existing bridge deck surface shall be filled with LMC concurrent to the placement of the 1½" LMC Overlay. This area shall be measured and paid for in accordance with SP Job BB0801 "Latex Modified Concrete Overlay".

SURFACE FINISH: The LMC Overlay surface of the bridge deck, approach slabs, and approach gutters shall be given a grooved finish as specified for final finishing in Subsection 802.19 for Class 7 Grooved Bridge Roadway Surface Finish and in accordance with SP Job BB0801 "Latex Modified Concrete Overlay".

PROTECTIVE SURFACE TREATMENT: The longitudinal joint between the LMC Overlay and the adjacent existing concrete curb or rail shall be given a Class 3 Protective Surface Treatment as specified in Section 803 and in accordance with SP Job BB0801 "Latex Modified Concrete Overlay". Longitudinal and transverse construction joints separating adjacent overlay placements shall be prepared and sealed as shown on Dwg. No. 61297.

The roadway surface of the LMC Overlay shall be given a Class 1 Protective Surface Treatment as specified in Section 803.

JOINT REHABILITATION: After the placement of the LMC Overlay, the existing joints shall be given a Type A Joint Rehabilitation as specified in Section 509 and SP Job BB0801 "Joint Rehabilitation for Bridge Decks".

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11856
CHARLES A. WILPF

Charles A. Wilpf
01/24/2020

SHEET 3 OF 6

DETAILS OF LATEX MODIFIED CONCRETE OVERLAY

ROUTE SEC.

ARKANSAS STATE HIGHWAY COMMISSION

LITTLE ROCK, ARK.

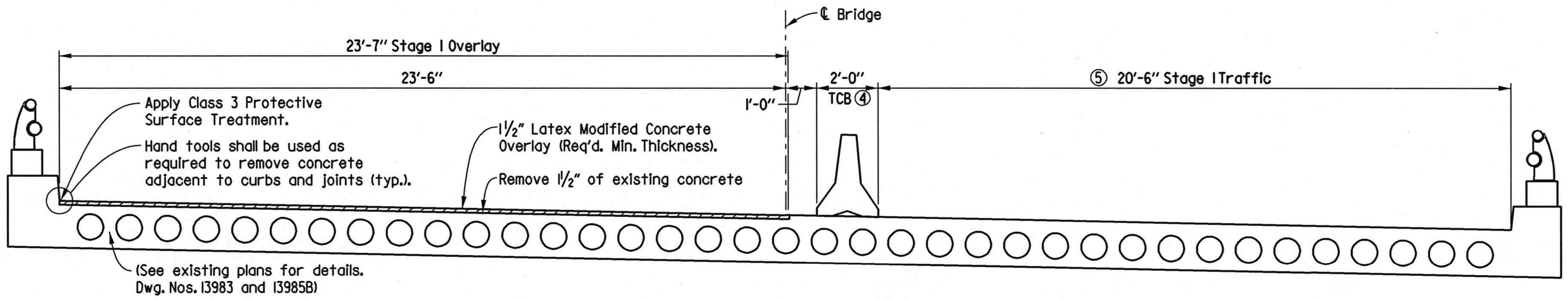
DRAWN BY:	LDG	DATE:	09-06-18	FILENAME:	bbb0801_lmc3.dgn
CHECKED BY:	KRM	DATE:	09-27-18	SCALE:	SEE DETAILS
DESIGNED BY:	LDG	DATE:	09-05-18		

BRIDGE NO. A5038 DRAWING NO. 61294

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.	BB0801	52	54
				B5038		LMC OVERLAY		61295

NOTE:
The minimum overlay placement length shall be from joint to joint. Refer to existing bridge drawings.

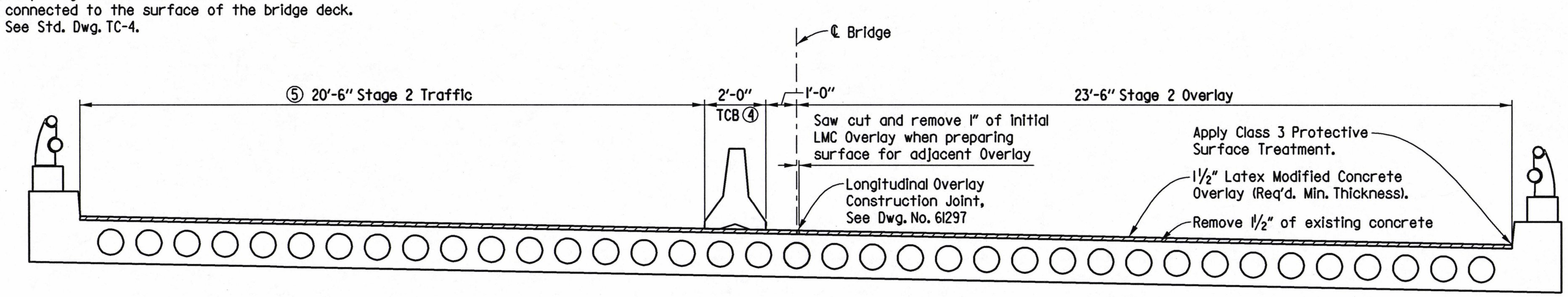
⑤ Refer to Bridge Rehabilitation work zones as shown in Maintenance of Traffic details. See Roadway Plans.



STAGE 1 LATEX MODIFIED CONCRETE OVERLAY

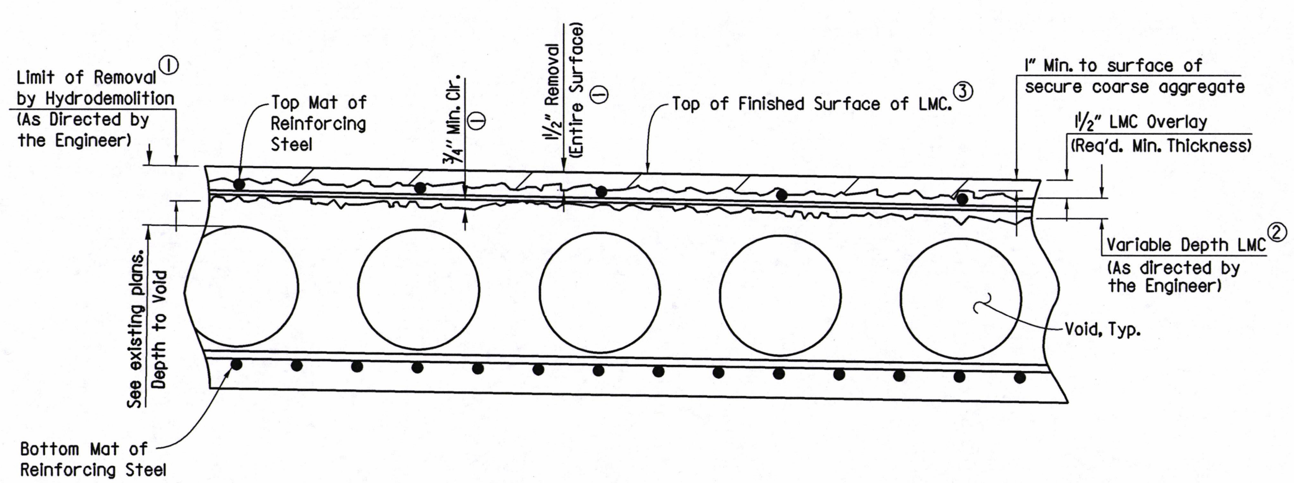
(Looking in direction of traffic)
Scale: ⅜" = 1'-0"

④ Temporary Construction Barrier shall not be connected to the surface of the bridge deck. See Std. Dwg. TC-4.



STAGE 2 LATEX MODIFIED CONCRETE OVERLAY

(Looking in direction of traffic)
Scale: ⅜" = 1'-0"



DETAILS OF HYDRODEMOLITION AND LATEX MODIFIED CONCRETE OVERLAY

Scale: 1½" = 1'-0"

① Removal of unsound concrete beyond 1½" below the original surface shall be at the direction of the Engineer. If the bond between existing concrete and the top mat of reinforcing steel is destroyed, then the concrete shall be removed to a minimum of ¾" clearance below the bar.

② Depth Varies to achieve minimum clearance below top mat of reinforcing steel, where required.

③ Finished Surface of LMC Overlay shall match existing concrete deck surfaces unless increase is required to maintain minimum required LMC Overlay thickness and a minimum of 1½" cover to reinforcing steel.

GENERAL NOTES:

CONSTRUCTION SPECIFICATIONS: Arkansas State Highway Commission Standard Specifications for Highway Construction, Edition of 2014, with applicable Special Provisions and Supplemental Specifications. Unless otherwise noted in the plans, Section and Subsection refer to the Standard Specifications.

Drawing shows details and dimensions of existing structure based on the original bridge plans. The Contractor shall make check measurements in the field and make any adjustments necessary to meet the required clearances and fit the new work to the existing structures.

The operation or placement of vehicles, equipment and, or materials on the subject bridge necessary for the completion of this work shall be evaluated in accordance with Subsection 105.14. Certifications of the adequacy of all components for the anticipated loads shall address the capacity of the existing structure at all phases of this work.

HYDRODEMOLITION: The entire area of the existing bridge deck, approach slabs, and approach gutters shall receive hydrodemolition in accordance with the SP Job BB0801 "Hydrodemolition" to a planned depth of 1½" below the existing bridge deck surface. Deteriorated concrete in the bridge deck below this depth shall be removed at the direction of the Engineer up to the limits detailed. These areas shall be measured by the square yard and shall be paid for at the unit price bid for the item SP Job BB0801 "Hydrodemolition". Prior to hydrodemolition, cold milling of the concrete deck to a maximum depth of 1" will be allowed unless there will be a conflict with the existing reinforcing.

If the Hydrodemolition equipment blows through the deck or into a deck void, that area shall be the responsibility of the Contractor and shall be repaired at the Contractor's expense. The Contractor shall provide a method of handling unexpected blow through of the deck or into deck void.

LATEX MODIFIED CONCRETE OVERLAY: The entire area of the existing bridge deck, approach slabs, and approach gutters shall receive a Latex Modified Concrete (LMC) Overlay with a required minimum thickness of 1½", in accordance with SP Job BB0801 "Latex Modified Concrete Overlay". These areas shall be measured by the square yard and shall be paid for at the unit price bid for the item SP Job BB0801 "Latex Modified Concrete Overlay (1½" Thick)". Areas of the existing bridge deck removed at the direction of the Engineer to a depth greater than 1½" below the existing bridge deck surface shall be filled with LMC concurrent to the placement of the 1½" LMC Overlay. This area shall be measured and paid for in accordance with SP Job BB0801 "Latex Modified Concrete Overlay".

SURFACE FINISH: The LMC Overlay surface of the bridge deck, approach slabs, and approach gutters shall be given a grooved finish as specified for final finishing in Subsection 802.19 for Class 7 Grooved Bridge Roadway Surface Finish and in accordance with SP Job BB0801 "Latex Modified Concrete Overlay".

PROTECTIVE SURFACE TREATMENT: The longitudinal joint between the LMC Overlay and the adjacent existing concrete curb or rail shall be given a Class 3 Protective Surface Treatment as specified in Section 803 and in accordance with SP Job BB0801 "Latex Modified Concrete Overlay". Longitudinal and transverse construction joints separating adjacent overlay placements shall be prepared and sealed as shown on Dwg. No. 61297.

The roadway surface of the LMC Overlay shall be given a Class 1 Protective Surface Treatment as specified in Section 803.

JOINT REHABILITATION: After the placement of the LMC Overlay, the existing joints shall be given a Type A Joint Rehabilitation as specified in Section 509 and SP Job BB0801 "Joint Rehabilitation for Bridge Decks".

STATE OF ARKANSAS REGISTERED PROFESSIONAL ENGINEER No. 11856 CHARLES A. WIPF

Charles A. Wipf
01/24/2020

SHEET 4 OF 6

DETAILS OF LATEX MODIFIED CONCRETE OVERLAY

ROUTE SEC.

ARKANSAS STATE HIGHWAY COMMISSION

LITTLE ROCK, ARK.

DRAWN BY:	LDG	DATE:	09-06-18	FILENAME:	bbb0801_lmc4.dgn
CHECKED BY:	KRM	DATE:	09-27-18	SCALE:	SEE DETAILS
DESIGNED BY:	LDG	DATE:	09-05-18		

BRIDGE NOS. B5038

DRAWING NO. 61295

USER: fs513 DESIGN FILE: G:\8108701_BB0801\TRANSP\dgn\bridge\bbb0801_lmc4.dgn SCALE: 1:5.3333 PLOTTED: 1/23/2020 11:33

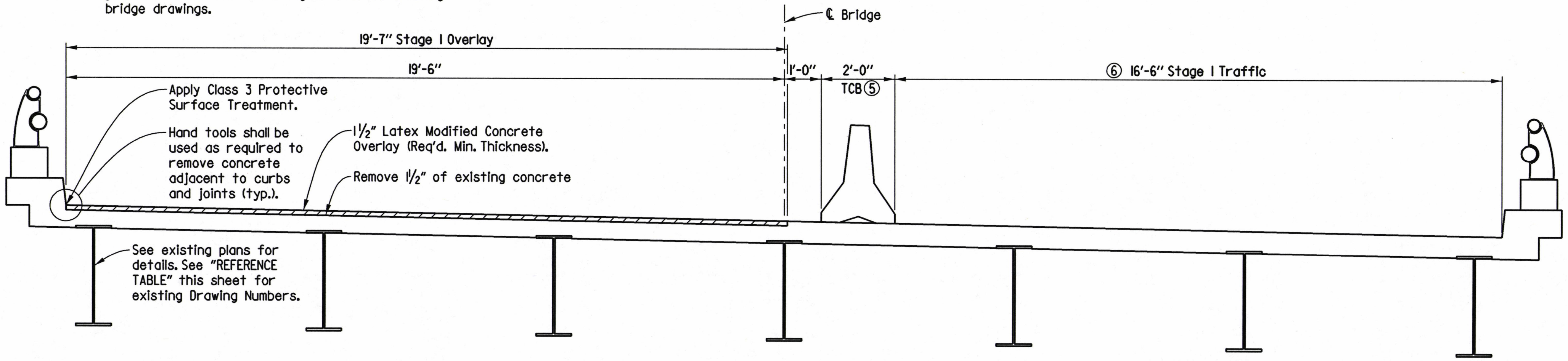
G:\8108701_BB0801\TRANSP\dgn\bridge\bbb0801_lmc4.dgn 1/23/2020 11:33

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.		BB0801	53	54

(1) A&B5039, A&B5040 LMC OVERLAY 61296

NOTE:
The minimum overlay placement length shall be a full span on simple span bridges and to an existing slab joint on continuous unit bridges. Refer to existing bridge drawings.

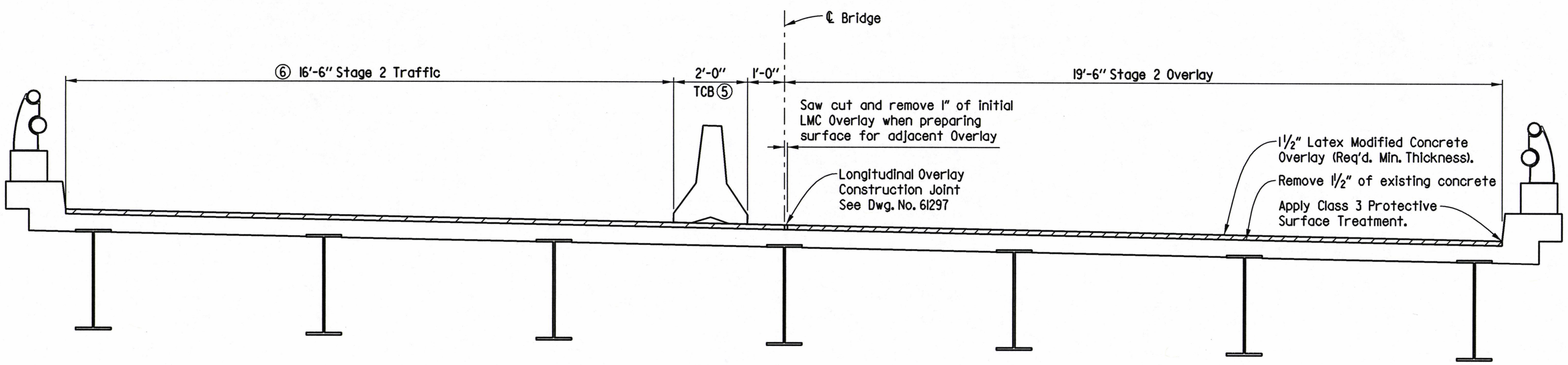
(6) Refer to Bridge Rehabilitation work zones as shown in Maintenance of Traffic details. See Roadway Plans.



STAGE I LATEX MODIFIED CONCRETE OVERLAY

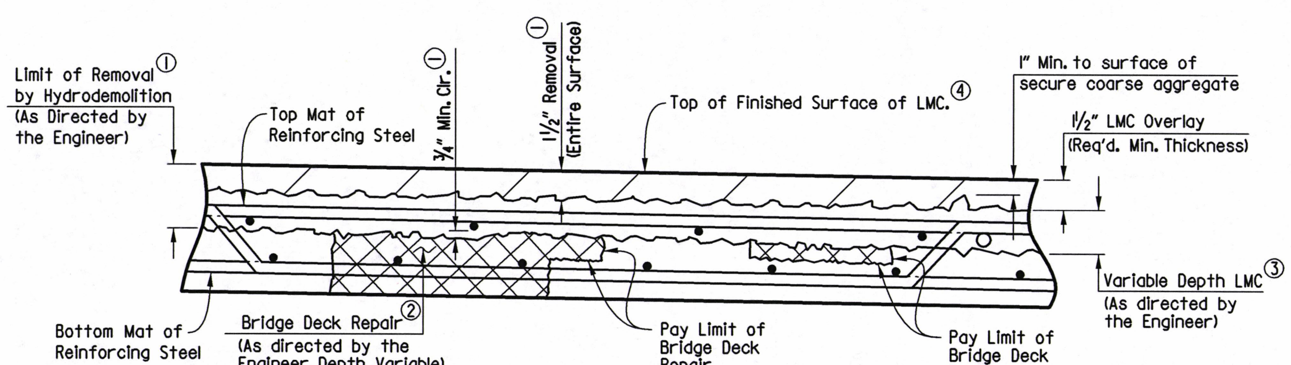
(Looking in direction of traffic. A5039 shown, others similar)
Scale: ½" = 1'-0"

(5) Temporary Construction Barrier shall not be connected to the surface of the bridge deck. See Std. Dwg. TC-4.



STAGE 2 LATEX MODIFIED CONCRETE OVERLAY

(Looking in direction of traffic. A5039 shown, others similar)
Scale: ½" = 1'-0"



DETAILS OF HYDRODEMOLITION AND LATEX MODIFIED CONCRETE OVERLAY

No Scale

(1) Removal of unsound concrete beyond 1½" below the original surface shall be at the direction of the Engineer. If the bond between existing concrete and the top mat of reinforcing steel is destroyed, then the concrete shall be removed to a minimum of ¾" clearance below the bar.

(2) Areas requiring additional repair, as determined by the Engineer, shall be repaired in accordance with the SP Job BB0801 "Bridge Deck Repair for Latex Modified Concrete Overlays".

(3) Depth Varies to achieve minimum clearance below top mat of reinforcing steel, where required.

(4) Finished Surface of LMC Overlay shall match existing concrete deck surfaces unless increase is required to maintain minimum required LMC Overlay thickness and a minimum of 1½" cover to reinforcing steel and shear connectors.

GENERAL NOTES:

CONSTRUCTION SPECIFICATIONS: Arkansas State Highway Commission Standard Specifications for Highway Construction, Edition of 2014, with applicable Special Provisions and Supplemental Specifications. Unless otherwise noted in the plans, Section and Subsection refer to the Standard Specifications.

Drawing shows details and dimensions of existing structure based on the original bridge plans. The Contractor shall make check measurements in the field and make any adjustments necessary to meet the required clearances and fit the new work to the existing structures.

The operation or placement of vehicles, equipment and, or materials on the subject bridge necessary for the completion of this work shall be evaluated in accordance with Subsection 105.14. Certifications of the adequacy of all components for the anticipated loads shall address the capacity of the existing structure at all phases of this work.

Construction activities for Bridge Nos. A&B5040 shall be in accordance with SP Job BB0801 "Special Safety Requirements for Bridges".

HYDRODEMOLITION: The entire area of the existing bridge deck, approach slabs, and approach gutters shall receive hydrodemolition in accordance with the SP Job BB0801 "Hydrodemolition" to a planned depth of 1½" below the existing bridge deck surface. Deteriorated concrete in the bridge deck below this depth shall be removed at the direction of the Engineer up to the limits detailed. These areas shall be measured by the square yard and shall be paid for at the unit price bid for the item SP Job BB0801 "Hydrodemolition". Prior to hydrodemolition, cold milling of the concrete deck to a maximum depth of 1" will be allowed unless there will be a conflict with the existing reinforcing.

BRIDGE DECK REPAIR: After hydrodemolition, the deck surface shall be sounded and any areas of unsound, delaminated or otherwise deteriorated concrete shall be removed at the direction of the Engineer and in accordance with SP Job BB0801 "Bridge Deck Repair for Latex Modified Concrete Overlays".

LATEX MODIFIED CONCRETE OVERLAY: The entire area of the existing bridge deck, approach slabs, and approach gutters shall receive a Latex Modified Concrete (LMC) Overlay with a required minimum thickness of 1½", in accordance with SP Job BB0801 "Latex Modified Concrete Overlay". These areas shall be measured by the square yard and shall be paid for at the unit price bid for the item SP Job BB0801 "Latex Modified Concrete Overlay (1½" Thick)". Areas of the existing bridge deck removed at the direction of the Engineer to a depth greater than 1½" below the existing bridge deck surface shall be filled with LMC concurrent to the placement of the 1½" LMC Overlay. This area shall be measured and paid for in accordance with SP Job BB0801 "Latex Modified Concrete Overlay".

SURFACE FINISH: The LMC Overlay surface of the bridge deck, approach slabs, and approach gutters shall be given a grooved finish as specified for final finishing in Subsection 802.19 for Class 7 Grooved Bridge Roadway Surface Finish and in accordance with SP Job BB0801 "Latex Modified Concrete Overlay".

PROTECTIVE SURFACE TREATMENT: The longitudinal joint between the LMC Overlay and the adjacent existing concrete curb or rail shall be given a Class 3 Protective Surface Treatment as specified in Section 803 and in accordance with SP Job BB0801 "Latex Modified Concrete Overlay". Longitudinal and transverse construction joints separating adjacent overlay placements shall be prepared and sealed as shown on Dwg. No. 61297.

The roadway surface of the LMC Overlay shall be given a Class 1 Protective Surface Treatment as specified in Section 803.

EXPANSION JOINT REHABILITATION: After the placement of the LMC Overlay, the existing expansion joints shall be given a poured silicone joint sealant as specified in Section 809 and as shown in "Poured Silicone Joint Seal Details" on Dwg. No. 61297. See Dwg. No. 61297 for additional details.

REFERENCE TABLE

BR. NO.	EXISTING DRAWING NUMBERS
A5039	13986, 13991, 13992, 14990D
B5039	13987, 13991, 13992, 14990D
A5040	13993, 13999, 14990D
B5040	13994, 13999, 14990D

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11856
CHARLES A. WIPF
01/24/2020

SHEET 5 OF 6

DETAILS OF LATEX MODIFIED CONCRETE OVERLAY

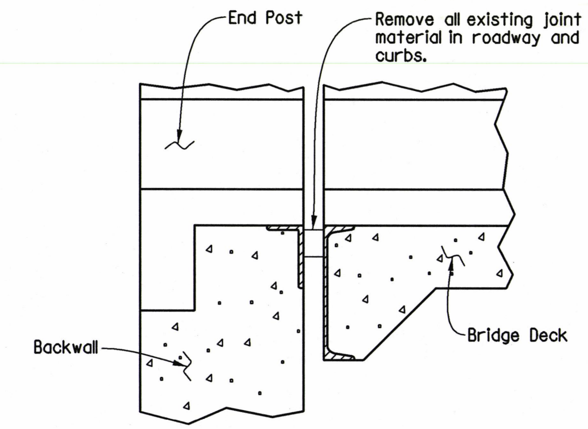
ROUTE SEC.

ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: LDG DATE: 09-06-18 FILENAME: bbb0801_lmc5.dgn
CHECKED BY: KRM DATE: 09-27-18 SCALE: SEE DETAILS
DESIGNED BY: LDG DATE: 09-05-18

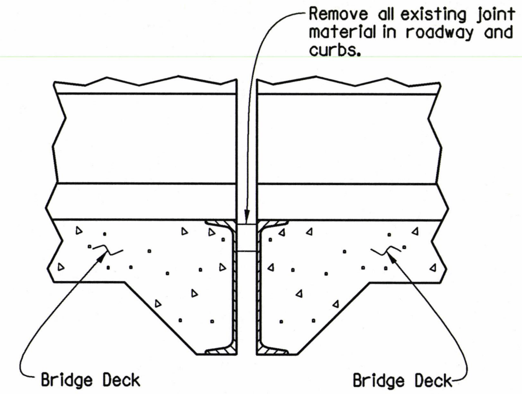
BRIDGE NOS. A&B5039, A&B5040 DRAWING NO. 61296

USER: te513 DESIGN FILE: G:\1810870I_BB080I\TRANSP\dgn\bridge\bbb080I_lmc5.dgn SCALE: 1:4
PLOTTED: 1/23/2020 11:33



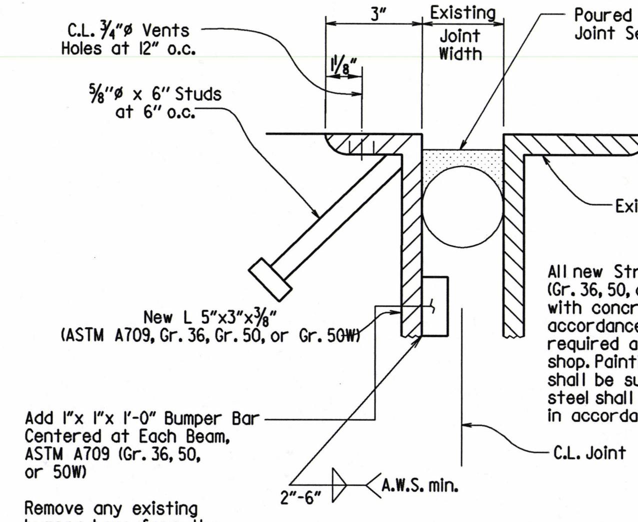
JOINT REMOVAL DETAILS AT END BENTS

(Only Applies to Bridges 05016, 05017, 05037, A&B5040)
No Scale



JOINT REMOVAL DETAILS AT INTERMEDIATE BENTS

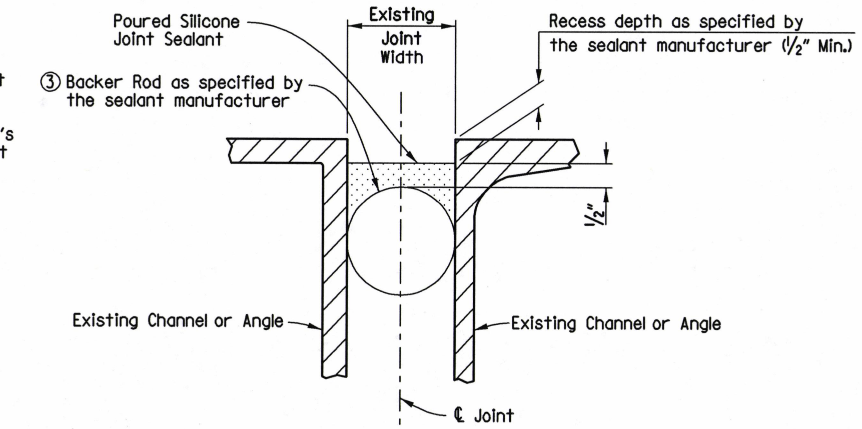
(Only Applies to Bridges 05016, 05017, 05037, A&B5039, A&B5040)
No Scale



All new Structural Steel shall be ASTM A709 (Gr. 36, 50, or 50W). The surfaces not in contact with concrete shall be cleaned and painted in accordance with Section 638. Only one coat is required and shall be applied in the fabricator's shop. Painting shall not be paid for directly, but shall be subsidiary to other items. Grade 50W steel shall not be painted, but shall be cleaned in accordance with Subsection 807.84(e).

DETAIL A

(Br. No. A5039 & B5039 only)
No Scale



NOTES:
Backer rods shall be extended beyond the length of the poured joint in the initial joint rehabilitation area so that the two pieces can be properly spliced together prior to installing sealant for the adjacent joint rehabilitaton. Manufacturer's recommendations shall be followed to prevent sealant leakage during rehabilitation work.

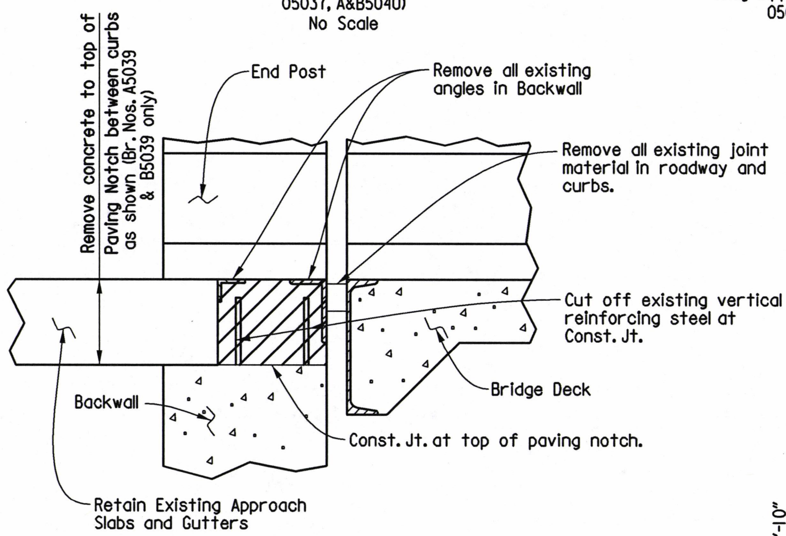
Existing Joint Seal shall be completely removed, backer rods placed, and Silicone Joint Sealant installed across the entire width of the bridge deck in accordance with these details and Manufacturer's instructions. Removal of existing Joint Seal will not be paid for directly, but shall be considered incidental to the item "Silicone Joint Sealant".

POURED SILICONE JOINT SEAL DETAILS

(Only Applies to Bridges 05016, 05017, 05037, A&B5039, A&B5040)
No Scale

(3) Backer rod shall be appropriately sized and set to the depth shown in the manufacturer's literature based on the joint width at the time of sealing. Except as noted, do not install more backer rod than can be sealed in the same day. The Contractor shall verify separation of the backer rod from the joint material after joint material has set.

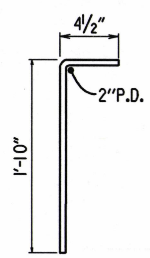
Backer rod shall be notched or otherwise fit around any existing seal supports or bumper plates to maintain its proper depth as defined above.



Removal shall be in accordance with Section 821 and all removed portions of the existing backwall and joint materials shall become the property of the Contractor and shall be disposed of in accordance with Section 205.

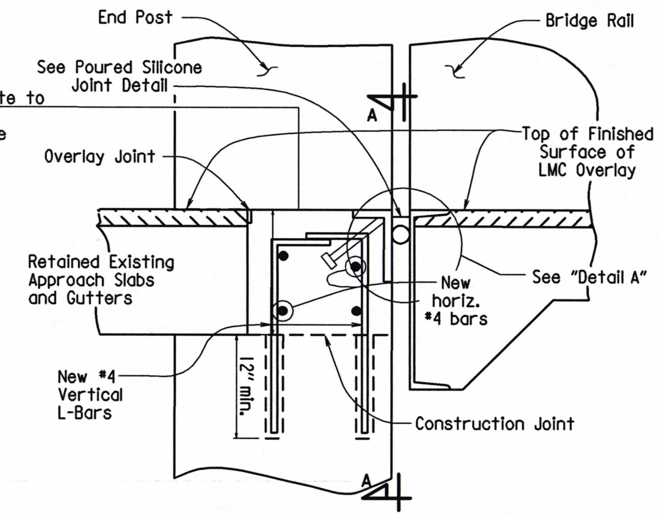
JOINT REMOVAL DETAILS AT END BENTS

(Br. No. A5039 & B5039 only)
No Scale



#4 L-BAR

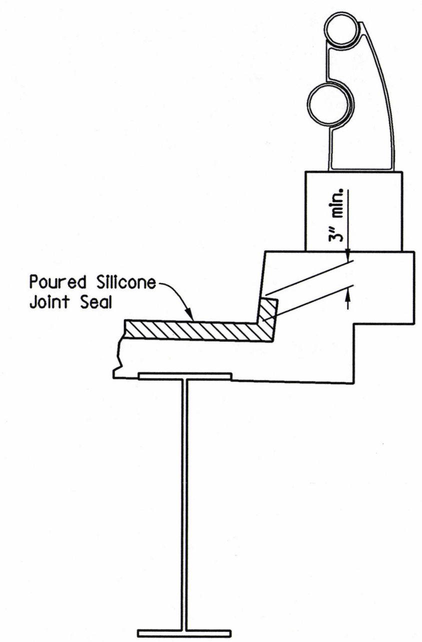
No Scale



DETAILS OF BACKWALL MODIFICATION

(Br. No. A5039 & B5039 only)
No Scale

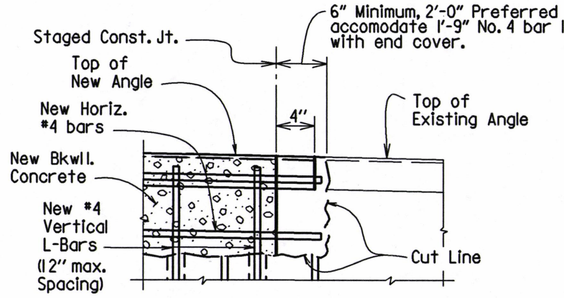
Grout new #4 L-bars into drilled holes spaced to avoid existing reinforcing steel (12" o.c. max.). Grout shall be an approved non-shrink or epoxy grout listed on the QPL. Hole diameter and installation procedure shall be as required by the grout manufacturer.



NOTE: Vertical joints may require forming. The clearance from deck surface to joint material shall be maintained.

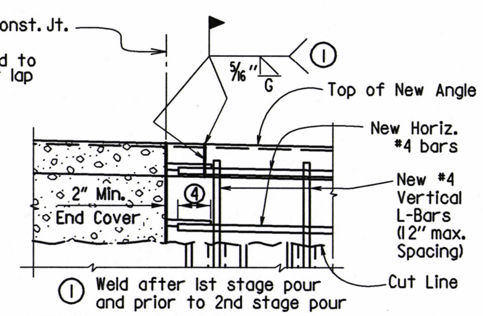
JOINT SEAL PLACEMENT AT CURB

(Only Applies to Bridges 05016, 05017, 05037, A&B5039, A&B5040)
No Scale



VIEW A-A FIRST STAGE

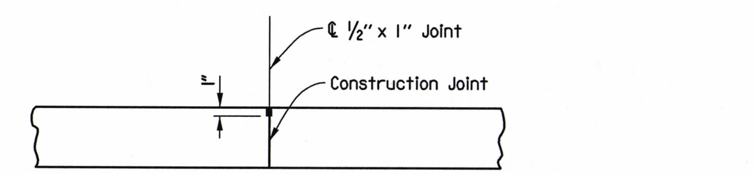
No Scale



VIEW A-A SECOND STAGE

No Scale

(4) Mechanical couplers may be required if a 1'-9" minimum lap is not obtained between the two stages of construction. Mechanical couplers shall be a QPL approved type and shall maintain a minimum concrete cover of 2". Mechanical couplers, if used, shall be considered incidental to the item "Modification of Existing Bridge Structure (Bridge No.)".



Use 1/2" X 1" Type 3 or 4 Joint Sealer. See Subsections 501.02(h) and 501.05(j). Backer Rod shall not be installed. Joint Sealer shall be measured and paid for as LMC Overlay. Sealant must be gray or other color similar to concrete.

LONGITUDINAL OVERLAY CONSTRUCTION JOINT DETAIL

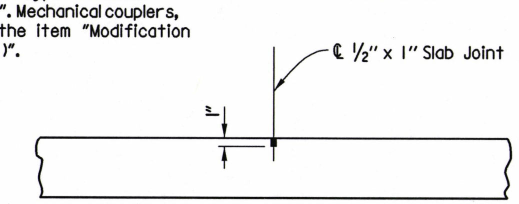
No Scale

Br. No.	Structural Steel (lb.)	Reinforcing Steel (lb.)	Class S(AE) Concrete (cu. yd.)
A5039	10	6	0.03
B5039	10	6	0.03

Quantities shown are per foot of repair and are for information only.

APPROXIMATE QUANTITIES FOR BACKWALL MODIFICATION (2)

(2) The Contractor shall make measurements at the locations designated by the Engineer for Backwall Repair prior to beginning work on the Bridge. Replacement concrete shall be high early strength Portland Cement Concrete Pavement per Subsection 501.08 or LMC (f'c = 4,000 psi). Reinforcing Steel shall conform to Section 804. Structural Steel and welding shall conform to Section 807. All Materials, Labor, Tools and Equipment shall not be paid for directly but shall be considered subsidiary to the item "Modification of Existing Bridge Structure (Bridge No.)".



Use 1/2" X 1" Type 3 or 4 Joint Sealer. See Subsections 501.02(h) and 501.05(j). Backer rod shall not be installed. Joint Sealer shall be measured and paid for as LMC Overlay. Slab joints shall extend from gutterline to gutterline. Slab joints shall be placed at all pouring sequence construction joints and are required at existing slab joint locations. Sealant must be gray or other color similar to concrete. Slab joints and longitudinal construction joints shall be sawed as soon as the concrete has sufficiently set to allow sawing of the joint without damage to the Overlay.

TRANSVERSE OVERLAY JOINT DETAIL

No Scale

STATE OF ARKANSAS REGISTERED PROFESSIONAL ENGINEER No. 11856 CHARLES A. WIPF

Charles A. Wipf 01/24/2020

SHEET 6 OF 6

DETAILS OF LATEX MODIFIED CONCRETE OVERLAY

ROUTE SEC.

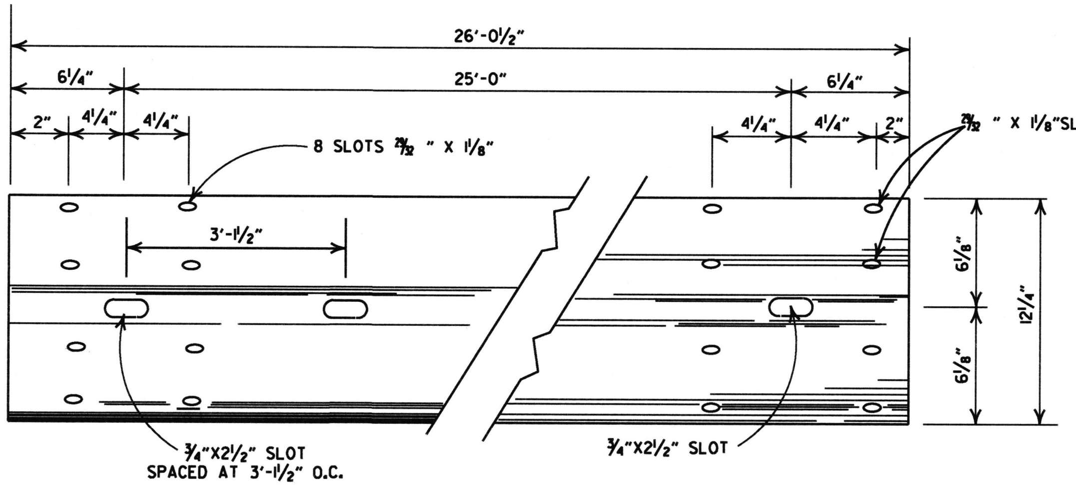
ARKANSAS STATE HIGHWAY COMMISSION

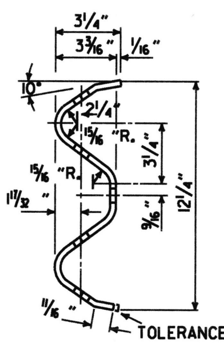
LITTLE ROCK, ARK.

DRAWN BY:	LDG	DATE:	09-06-18	FILENAME:	bbb0801_lmc6.dgn
CHECKED BY:	KRM	DATE:	09-27-18	SCALE:	NO SCALE
DESIGNED BY:	LDG	DATE:	09-05-18		

BRIDGE NOS. 05016, 05017, 05037, A&B5038, A&B5039, A&B5040

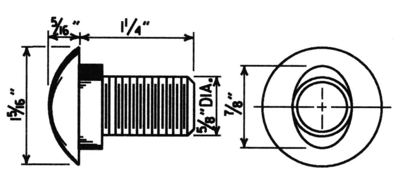
DRAWING NO. 61297



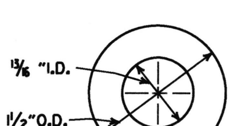


DETAILS OF W-BEAM GUARDRAIL

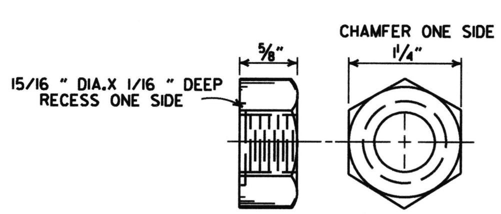
RAIL SECTION OF CLOSELY SIMILAR DIMENSIONS AND COMPARABLE STRENGTH MAY BE SUBSTITUTED IF APPROVED BY THE ENGINEER.



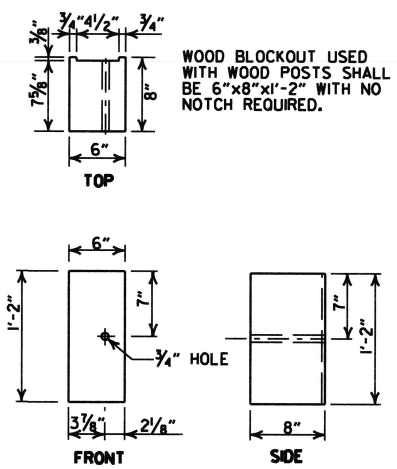
SPLICE BOLT
POST BOLT - SAME EXCEPT LENGTH



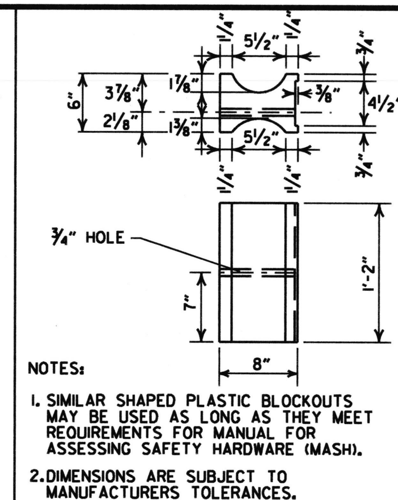
CUT STEEL WASHER



NUT



WOOD BLOCKOUT (W-BEAM)

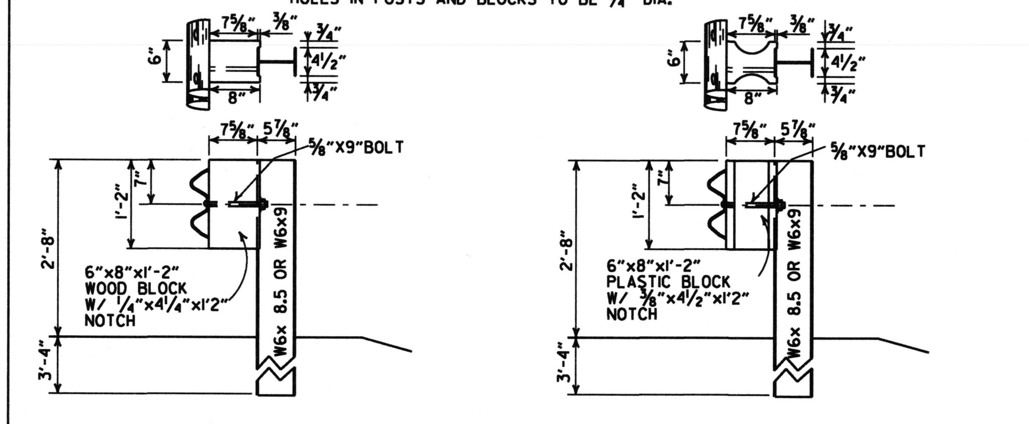


NOTES:

1. SIMILAR SHAPED PLASTIC BLOCKOUTS MAY BE USED AS LONG AS THEY MEET REQUIREMENTS FOR MANUAL FOR ASSESSING SAFETY HARDWARE (MASH).
2. DIMENSIONS ARE SUBJECT TO MANUFACTURERS TOLERANCES.

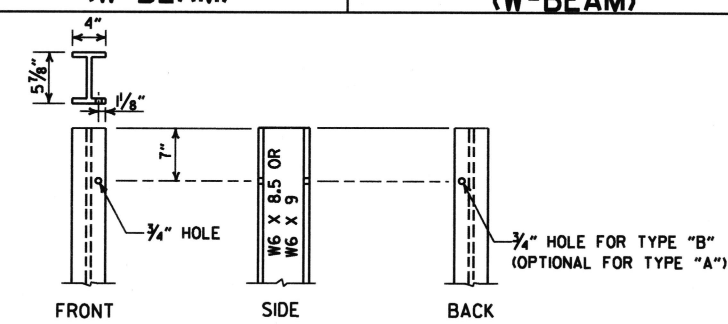
PLASTIC BLOCKOUT (W-BEAM)

HOLES IN POSTS AND BLOCKS TO BE ¾" DIA.

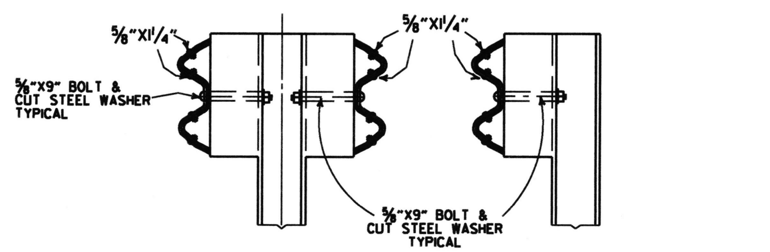


WOOD BLOCKOUT CONNECTIONS PLASTIC BLOCKOUT CONNECTIONS

DETAILS OF STEEL LINE POST CONNECTIONS (W-BEAM)

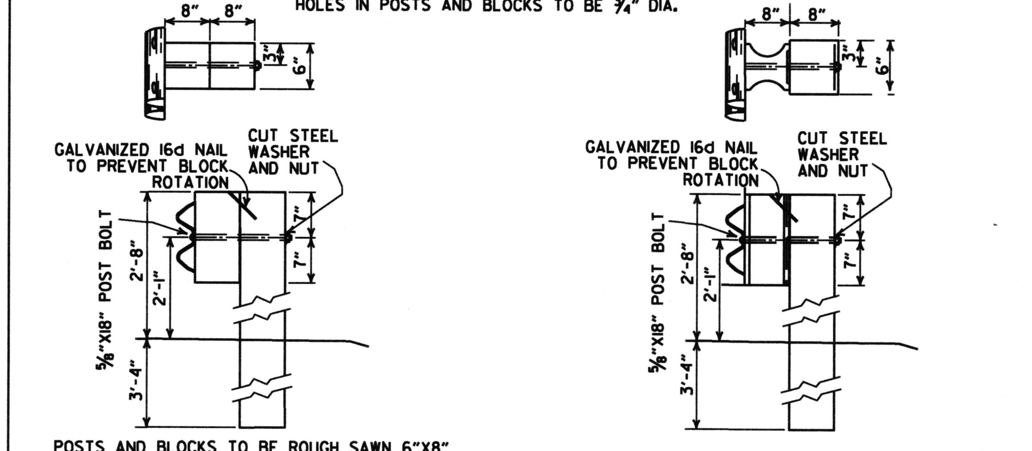


STEEL POST



DETAILS OF STEEL LINE POST CONNECTIONS (W-BEAM)

HOLES IN POSTS AND BLOCKS TO BE ¾" DIA.



POSTS AND BLOCKS TO BE ROUGH SAWN 6"X8" WITH A TOLERANCE OF + OR - ¼".

WOOD BLOCKOUT CONNECTIONS PLASTIC BLOCKOUT CONNECTIONS

DETAILS OF WOOD LINE POST CONNECTIONS (W-BEAM)

-GENERAL NOTES-

ALL BOLTS SHALL BE SUFFICIENT LENGTH TO EXTEND THROUGH THE FULL THICKNESS OF THE NUT AND NO MORE THAN ¾" BEYOND IT.

WHERE W-BEAM GUARDRAIL CONTINUES, THE INTERMEDIATE SECTIONS SHALL HAVE A POST SPACING OF 6'-3" UNLESS OTHERWISE NOTED.

W-BEAM GUARDRAIL REPRESENTING INTERMEDIATE SECTIONS WILL BE MEASURED ALONG THE ROADWAY FACE FROM CENTERLINE OF POST TO CENTERLINE OF POST.

USE W-BEAM GUARDRAIL COMPONENTS OF SAME MATERIAL FOR ENTIRE JOB. FOR EXTENSIONS OR MODIFICATION OF EXISTING GUARDRAIL, W-BEAM GUARDRAIL COMPONENTS OF THE SAME TYPE AS THOSE EXISTING SHALL BE USED.

ANY BACKFILLING UNDER OR AROUND POST SHALL BE DAMP SAND THOROUGHLY TAMPED IN PLACE.

WOOD POSTS & WOOD BLOCKS SHALL BE EITHER DENSE NO. 1 STRUCTURAL OR BETTER 9.7f (1400 f) OR NO. 1 1350 f SOUTHERN PINE.

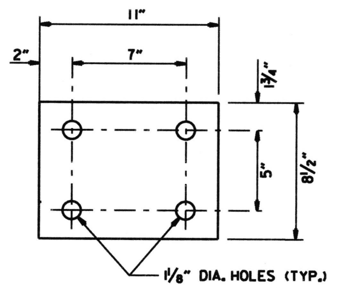
CONTRACTOR SHALL HAVE THE OPTION OF USING WOOD BLOCKOUTS FOR W-BEAM GUARDRAIL OR PLASTIC BLOCKOUTS, AS LONG AS BLOCKOUT USED MEETS REQUIREMENTS FOR MANUAL FOR ASSESSING SAFETY HARDWARE (MASH) FOR W-BEAM GUARDRAIL.

DATE	REVISION	FILMED
11-07-19	RENUMBERED AND RENAMED	
11-16-17	REVISED GENERAL NOTES AND RAISED GUARDRAIL HEIGHT 3"	
07-14-10	RAISED HEIGHT OF GUARDRAIL 1"	
10-15-09	ADDED REFERENCE TO MASH	
04-10-03	REVISED GENERAL NOTES	
08-22-02	REVISED DIMENSION ON WOOD & PLASTIC BLOCKOUT CONNECTIONS & STEEL POST	
11-16-01	REVISED WOOD BLOCKOUT & DETAILS OF WOOD LINE POST CONNECTIONS	
03-30-00	REMOVED GUARDRAIL AT BRIDGE ENDS	
01-12-00	ADDED PLASTIC BLOCKOUT	
08-12-98	REV. BLOCKOUTS TO WOOD, DELETED CONC. POST & REV. GENERAL NOTE, DELETED DET. OF GUARDRAIL REPLACE. BEHIND CURB & DET. OF POST PLACE. IN SOLID ROCK, & ADDED DETAILS OF STEEL LINE POST CONN. REMOVED BACK-UP PLATE, REVISED HOLES IN STEEL POLES	
04-03-97	REMOVED "LAP IN DIRECTION OF TRAFFIC" NOTE & PLACED ARROWS ON WASHERS	
10-18-96	REVISED WOOD POST NOTE	
06-02-94	ADDED ALT. STEEL POST SIZE	
08-05-93	REVISED STEEL POST SIZE	8-5-93
10-01-92	REDRAWN & REVISED	10-1-92
08-15-91	REVISED WASHER NOTE	8-15-91
08-02-90	REV. GEN. NOTE & DEPTH OF ANC. POST IN ROCK	8-2-90
07-15-88	REVISED SECTION 3 & GENERAL NOTES	
03-04-88	REV. ANCHOR POST, ELEV. NOTES & POST IN ROCK	780-3-4-88
10-30-87	REVISED WOOD LINE POST DETAIL	546-10-30-87
10-09-87	REDRAWN & REVISED	802-10-9-87

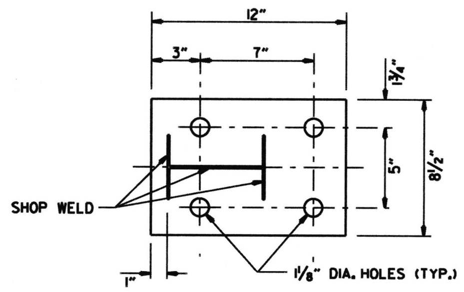
ARKANSAS STATE HIGHWAY COMMISSION

GUARDRAIL DETAILS

STANDARD DRAWING GR-6

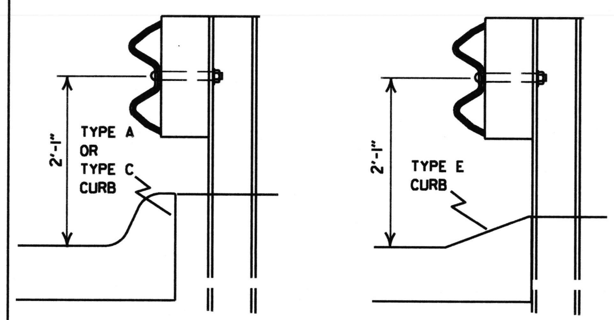


WASHER PLATE



BASE PLATE

Note: Bolts, nuts, washers and plates shall be galvanized in accordance with Section 807 of the Standard Specifications.



FOR DESIGN SPEEDS OF 50 MPH OR LESS

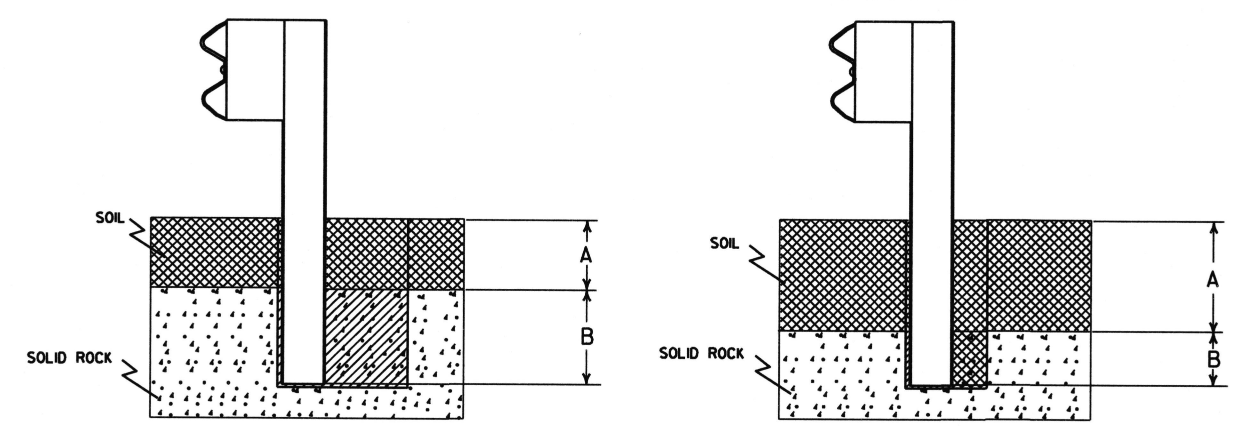
ALIGN FACE OF GUARDRAIL WITH FACE OF CURB.

FOR DESIGN SPEEDS OF 55 MPH OR MORE

PLACE GUARDRAIL POSTS AGAINST BACK OF CURB.

DETAIL OF GUARDRAIL PLACEMENT BEHIND CURB (W-BEAM)

FOR DESIGN SPEEDS OF 50 MPH OR LESS ALL CURB FACES, AS SHOWN ON STD. DRWG. CG-1, MAY BE USED. FOR DESIGN SPEEDS OF 55 MPH OR MORE TYPE "E" CURB FACE SHALL BE USED.

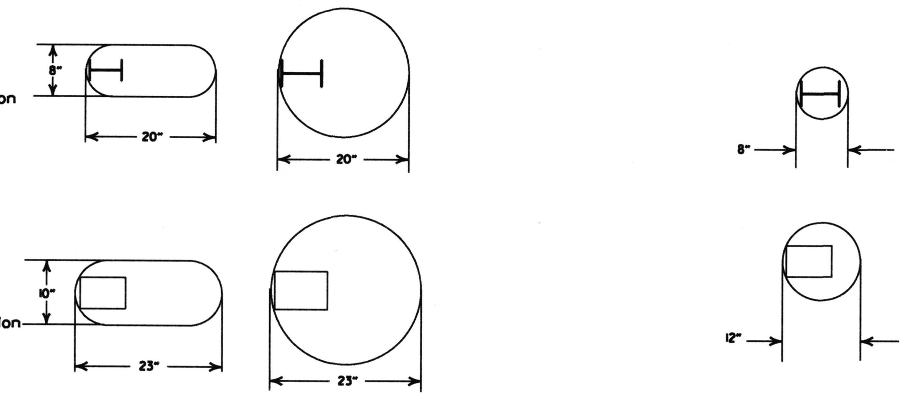


Plan View Steel Posts

Either hole configuration acceptable

Plan View Wood Posts

Either hole configuration acceptable



Notes: For overlying soil depths (A) ranging from 0 to 18", the depth of required drilling (B) is equal to 24".

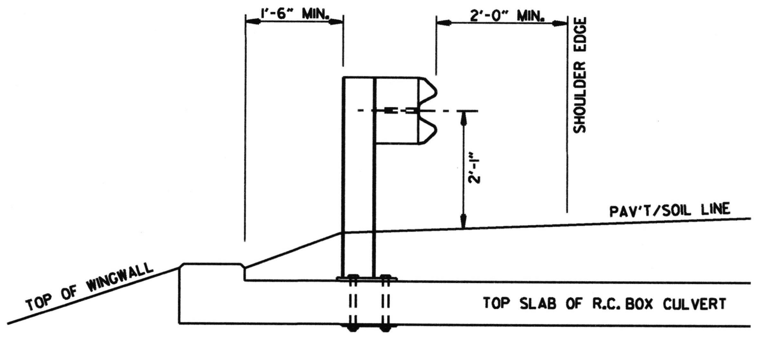
Zone A:
Backfill according to Section 617.03(a).

Zone B:
Backfill hole in 6" lifts with material meeting the requirements of Section 802.02(c) - Alternate gradation. Compact to 95% maximum dry density per ASTM D-698.

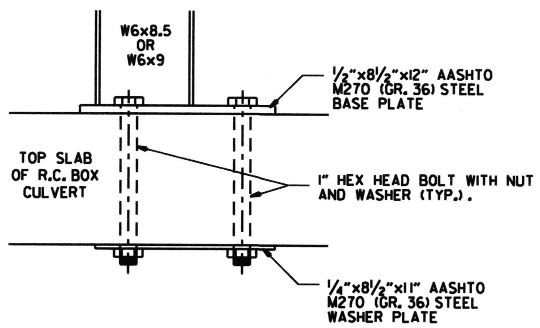
Notes: For overlying soil depths (A) ranging from 18" to 44", the depth of required drilling (B) is equal to either 12" or 44" minus the depth of soil whichever is less.

Zone A & B:
Backfill according to Section 617.03(a).

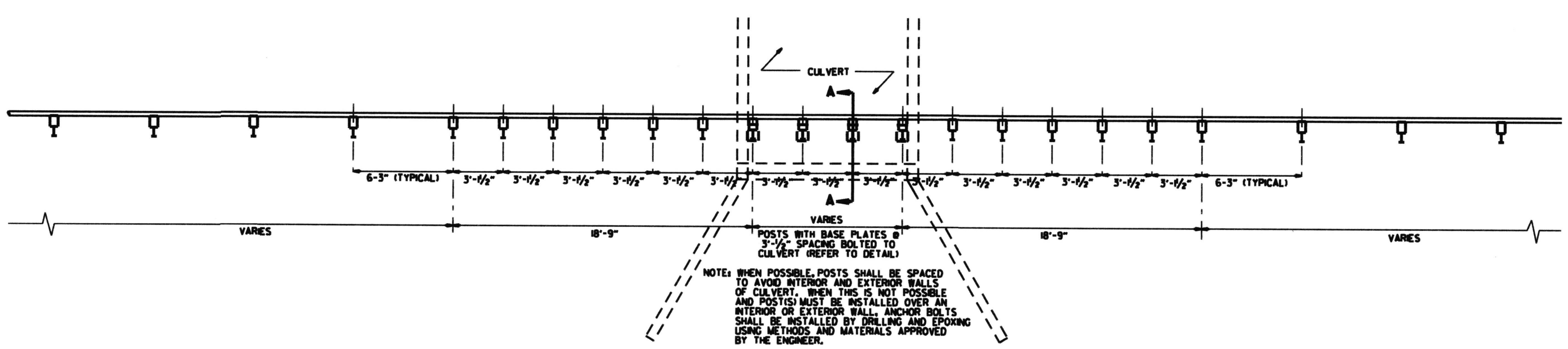
DETAIL OF POST PLACEMENT IN SOLID ROCK (W-BEAM)



SECTION A-A



DETAIL OF CONNECTION



PLAN LAYOUT OF TYPE A GUARDRAIL AT LOW-FILL CULVERTS

NOTE: THIS DETAIL IS TO BE USED ONLY WHEN THE COVER OVER THE CULVERT DOES NOT PERMIT FULL EMBEDMENT OF GUARDRAIL POSTS AS SHOWN ON STD. DWG. GR-6.

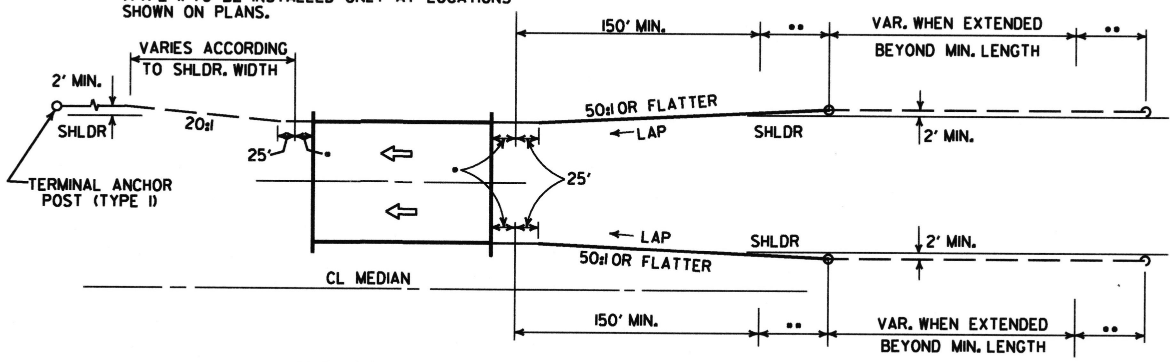
DATE	REVISION	FILMED
11-07-19	RENUMBERED, RENAMED, REVISED REFERENCE	
11-16-17	REVISED GUARDRAIL HEIGHT	
07-14-10	RAISED HEIGHT OF GUARDRAIL 1"	
04-12-07	REVISED DETAIL OF GUARDRAIL PLACEMENT BEHIND CURB	
11-10-05	ADDED GUARDRAIL PLACEMENT BEHIND CURB; REVISED DETAIL OF CONNECTION	
11-18-04	REVISED POST PLACEMENT IN ROCK & CULVERT CONNECTION DETAILS. ADDED DETAIL FOR GUARDRAIL PLACEMENT AT LOW-FILL CULVERTS	
03-30-00	REMOVED CONCRETE INSERT ANCHOR	
08-12-98	CHANGED STEEL SPACER BLOCK TO WOOD BLOCKOUT, ADDED DET. OF GUARDRAIL CONNECTION TO R.C. BOX CULV'T., DELETED DET. OF STEEL LINE POST CONN. & ADDED DET. OF GUARDRAIL PLACE. BEHIND CURB & DET. OF POSTPLACE. IN SOLID ROCK	
04-03-96	PLACED ARROWS AT CUT STEEL WASHERS	4-3-96
10-18-96	REV. ASTM REF. TO AASHTO	
11-22-95	ADDED OPTIONAL HOLES	
06-02-94	REVISED ALTERNATE POST SIZE	
08-05-93	REVISED STEEL POST SIZE	
10-01-92	REDRAWN & REVISED	10-1-92
08-02-90	DEL. WASHER ON ANCHOR ASSEMBLY	8-2-90
07-15-88	CONFORMED TO 1988 SPECS	
03-04-88	REVISED ANCHOR NOTE	
10-30-87	REVISED ANCHOR ASSEMBLY	712-10-30-87
10-30-87	REVISED PLACEMENT BEHIND CURB	547-10-30-87
10-09-87	REDRAWN & REVISED	803-10-9-87

ARKANSAS STATE HIGHWAY COMMISSION

GUARDRAIL DETAILS

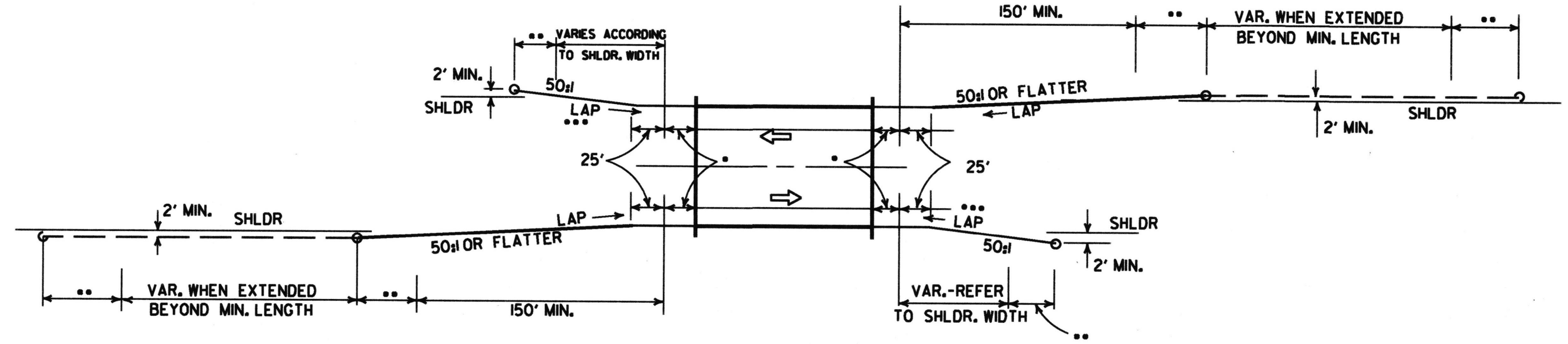
STANDARD DRAWING GR-7

NOTE: GUARDRAIL WITH GUARDRAIL TERMINAL (TYPE 1) TO BE INSTALLED ONLY AT LOCATIONS SHOWN ON PLANS.



ONE-WAY TRAFFIC

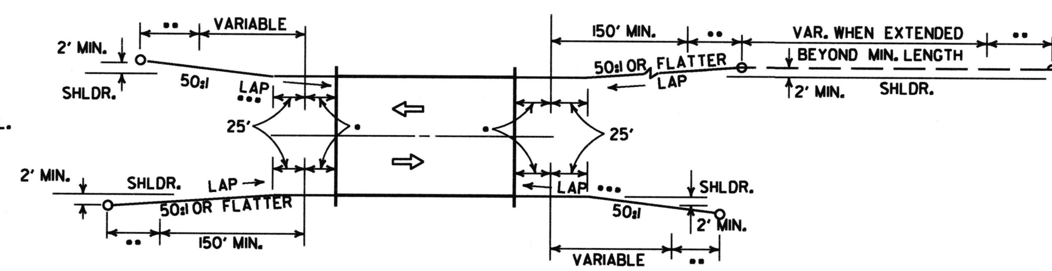
••• LAP OF GUARDRAIL SHALL BE AS SHOWN FOR A DISTANCE OF UP TO 200'. CHANGE TO LAP IN DIRECTION OF TRAVEL.



TWO-WAY TRAFFIC

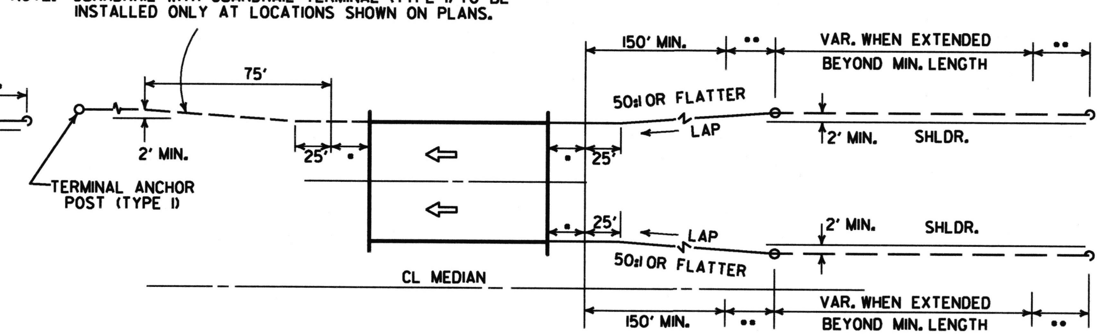
METHODS OF INSTALLATION OF GUARDRAIL AT LESS THAN FULL SHOULDER WIDTH BRIDGES USING GUARDRAIL TERMINAL (TYPE 2)

••• LAP OF GUARDRAIL SHALL BE AS SHOWN FOR A DISTANCE OF UP TO 200'. CHANGE TO LAP IN DIRECTION OF TRAVEL.



TWO-WAY TRAFFIC

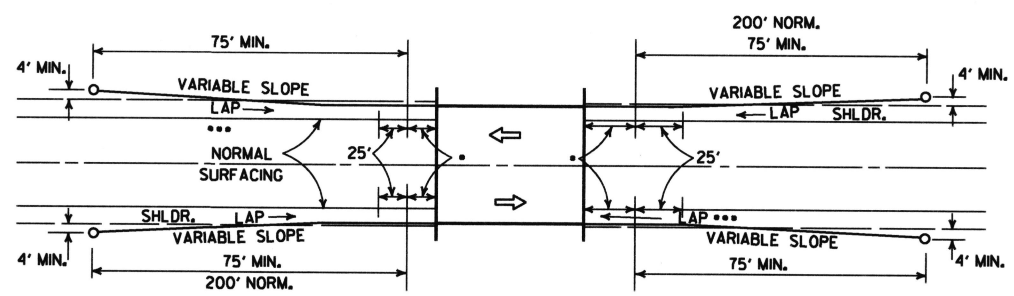
NOTE: GUARDRAIL WITH GUARDRAIL TERMINAL (TYPE 1) TO BE INSTALLED ONLY AT LOCATIONS SHOWN ON PLANS.



ONE-WAY TRAFFIC

METHOD OF INSTALLATION OF GUARDRAIL AT FULL SHOULDER WIDTH BRIDGES USING GUARDRAIL TERMINAL (TYPE 2)

••• LAP OF GUARDRAIL SHALL BE AS SHOWN FOR A DISTANCE OF UP TO 200'. CHANGE TO LAP IN DIRECTION OF TRAVEL.



LEGEND

- • THRIE BEAM GUARDRAIL TERMINAL
- •• GUARDRAIL TERMINAL (TYPE 2)

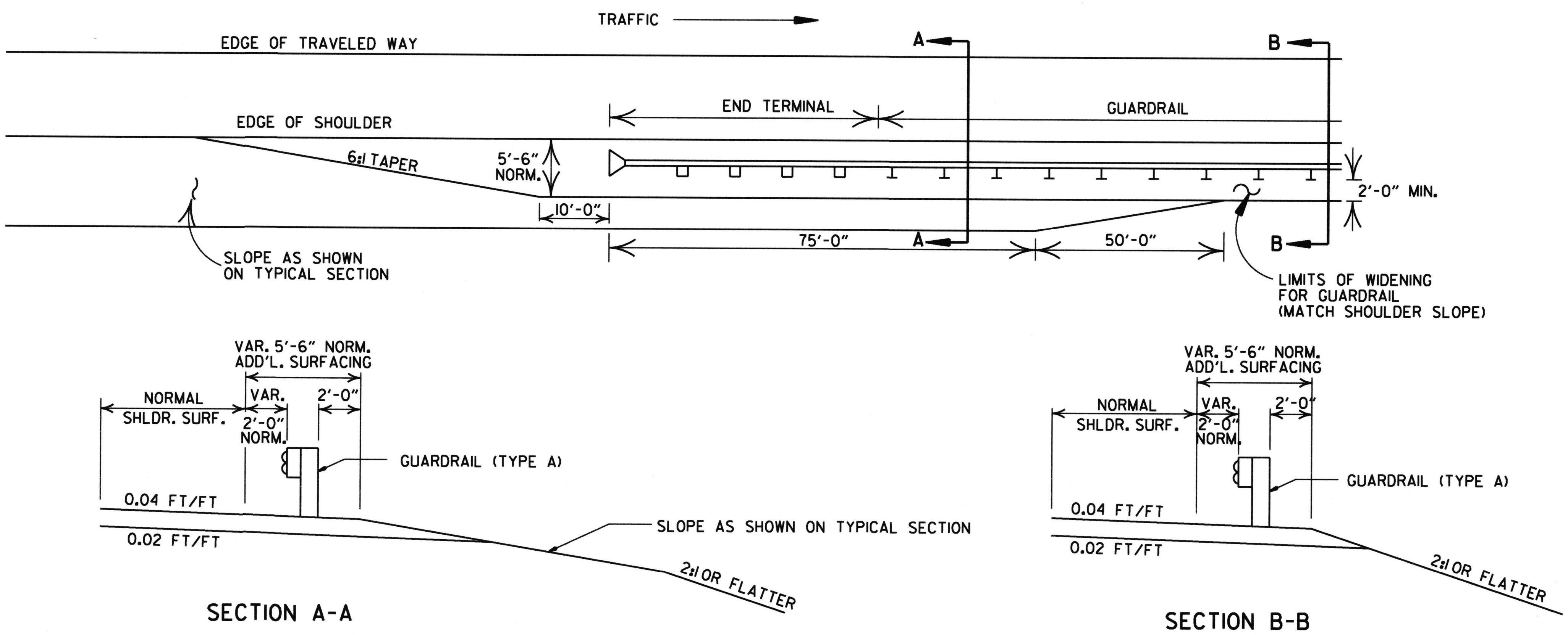
METHOD OF INSTALLATION OF GUARDRAIL USING GUARDRAIL TERMINAL (TYPE 1) (FULL SHOULDER WIDTH OR LESS BRIDGES)

DATE	REVISION	DATE FILM
11-07-19	RENUMBERED AND RENAMED	
4-17-08	REVISED LAYOUTS	
11-10-05	REMOVED GUARDRAIL NOTES AND DETAILS	
11-16-01	DELETED NOTE-METHOD OF INSTALLATION OF GUARDRAIL USING GUARDRAIL TERM. (TY. 1)	
1-12-00	ADDED CONSTRUCTION NOTE	1-12-00
6-26-97	REVISED LAYOUT	
10-1-92	REDRAWN & REVISED	10-1-92
	ADDED NOTE	
10-9-87	REDRAWN & REVISED	

ARKANSAS STATE HIGHWAY COMMISSION

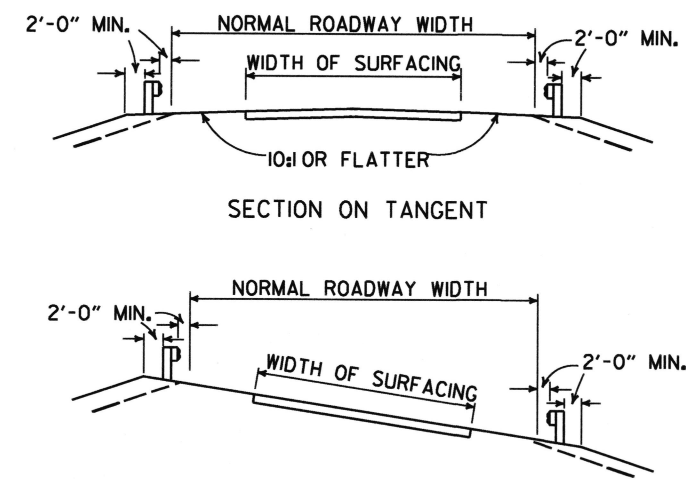
GUARDRAIL DETAILS

STANDARD DRAWING GR-8

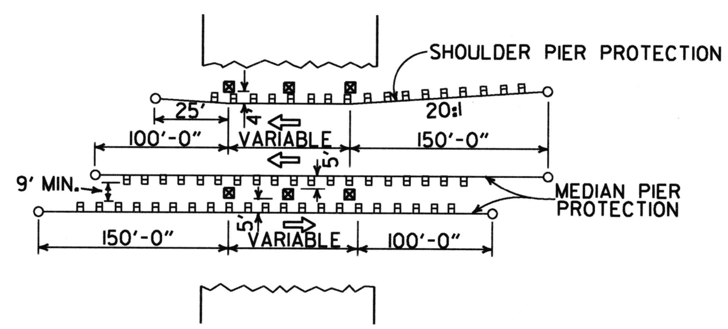


DETAILS OF WIDENING FOR GUARDRAIL

NOTE: NORMAL SECTION TO BE WIDENED APPROX. 5'-6" EACH SIDE TO SUPPORT GUARDRAIL.



DETAILS SHOWING POSITION OF GUARDRAIL ON HIGHWAY



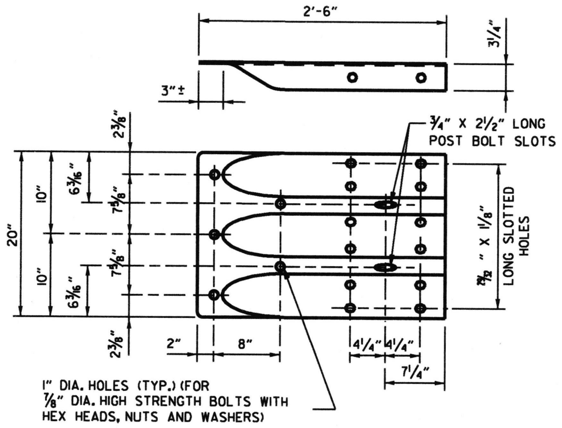
METHOD OF INSTALLATION OF GUARDRAIL AT FIXED OBSTACLE

DATE	REVISION	DATE FILM
11-07-19	RENUMBERED AND RENAMED	
4-17-08	MINOR REVISION	
11-10-05	DRAWN	

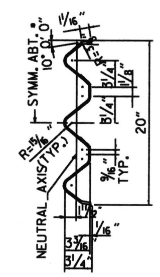
ARKANSAS STATE HIGHWAY COMMISSION

GUARDRAIL DETAILS

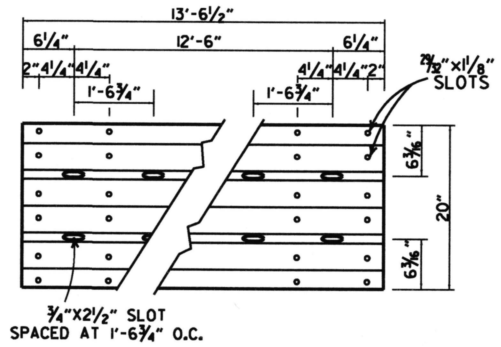
STANDARD DRAWING GR-9



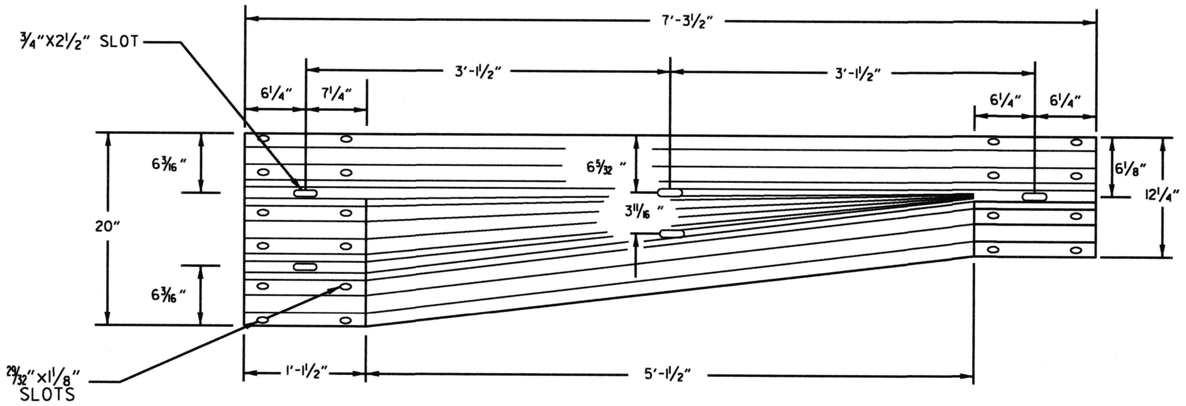
SPECIAL END SHOE



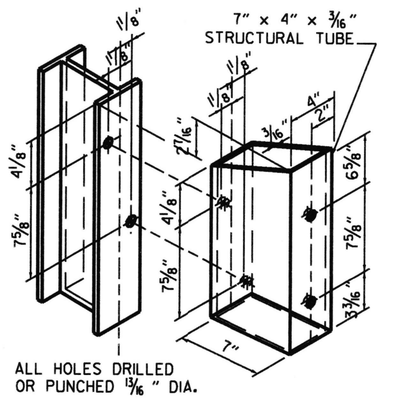
SECTION THRU THRIE BEAM RAIL



THRIE BEAM RAIL

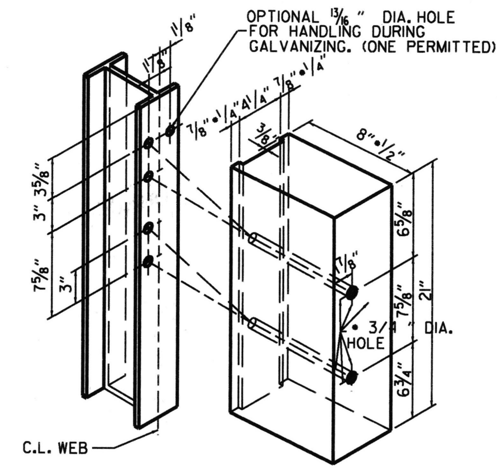


TRANSITION SECTION



ATTACH BLOCKOUT TO POST USING 5/8" DIA. HEX HEAD BOLTS WITH 1 1/2" O.D. CUT STEEL WASHERS AND NUT.

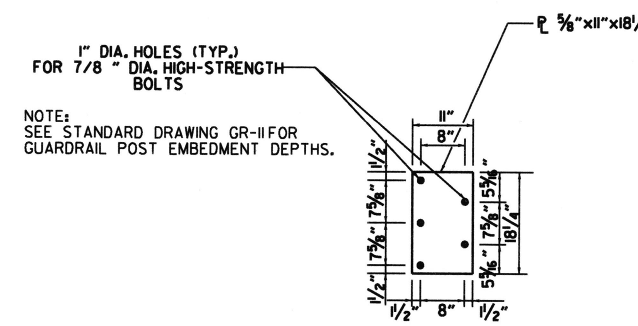
STRUCTURAL STEEL TUBING BLOCKOUT DETAIL



ALL HOLES 13/16" DIAMETER EXCEPT AS NOTED

HOLE PUNCHING DETAIL FOR STEEL POST & WOOD OR PLASTIC BLOCKOUTS

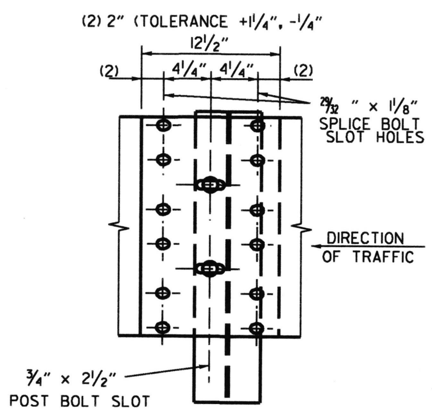
NOTE: BLOCKS SHALL BE THE SAME TYPE THROUGHOUT THE PROJECT LIMITS.



NOTE: SEE STANDARD DRAWING GR-11 FOR GUARDRAIL POST EMBEDMENT DEPTHS.

CONNECTOR PLATE

CONNECTOR PLATE SHALL BE AASHTO M270, GR. 36 AND SHALL BE GALVANIZED AFTER FABRICATION. GALVANIZING SHALL CONFORM TO SUBSECTION 807.19 OF THE STANDARD SPECIFICATIONS. CONNECTOR PLATE TO BE BOLTED TO SPECIAL END SHOE USING 7/8" DIA. HIGH STRENGTH BOLTS, WITH THE HEADS PLACED ON THE TRAFFIC FACE. WASHERS SHALL BE USED UNDER THE HEAD AND NUT. BOLTS, NUTS AND WASHERS SHALL BE GALVANIZED AND SHALL CONFORM TO SUBSECTION 807.06.



THRIE BEAM RAIL SPLICE AT POST

GENERAL NOTES:

THE THRIE BEAM RAIL, SPECIAL END SHOE, AND THE TRANSITION SECTION SHALL BE MADE OF STEEL AND SHALL BE 12 GAGE. ZINC COATING SHALL BE TYPE I.

RAIL POSTS SHALL BE SET PERPENDICULAR TO THE ROADWAY PROFILE GRADE AND VERTICALLY IN CROSS SECTION.

ALL BOLTS SHALL BE SUFFICIENT LENGTH TO EXTEND THROUGH THE FULL THICKNESS OF THE NUT AND NO MORE THAN 3*4" BEYOND IT.

ALL LAP SPLICES, INCLUDING SPECIAL END SHOES, SHALL BE MADE IN THE DIRECTION SHOWN ON STANDARD DRAWINGS GR-8 & GR-13.

REFER TO STD. DRWG. GR-11 FOR POST DETAILS.

USE THRIE BEAM GUARDRAIL COMPONENTS OF SAME MATERIAL FOR ENTIRE JOB.

THRIE BEAM POSTS SHALL BE SAME MATERIAL AS W-BEAM POSTS FOR ENTIRE JOB.

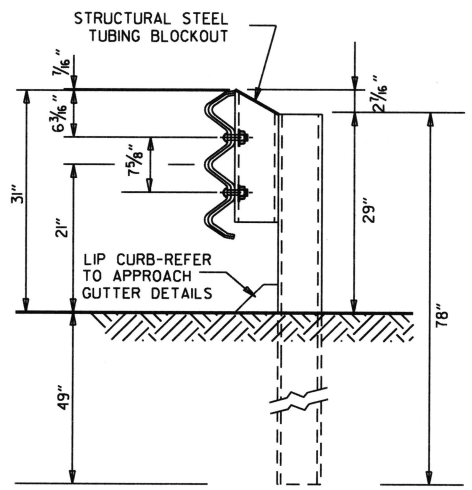
WOOD POSTS & WOOD BLOCKS SHALL BE EITHER DENSE NO. 1 STRUCTURAL OR BETTER 9.7f (1400 f) OR NO. 1 1350 f SOUTHERN PINE.

DATE	REVISION	FILMED
11-07-19	RENAMED AND REVISED REFERENCES	
11-16-17	REVISED TRANSITION SECTION, GUARD RAIL HEIGHT, AND GENERAL NOTES; MOVED THRIE BEAM GUARD RAIL CONNECTIONS AT BRIDGES ENDS TO STD. DRWG. GR-12	
07-14-10	RAISED HEIGHT OF W-BEAM 1"	
11-29-07	ADDED PLASTIC BLOCKOUTS	
11-10-05	ADDED NOTE FOR ATTACHING STEEL BLOCKOUT	
11-18-04	REVISED GENERAL NOTES	
10-9-03	REVISED GENERAL NOTES	
04-10-03	REVISED GENERAL NOTES	
08-22-02	REVISED NOTE (2)	
06-29-00	MOVED DIMENSION LINES	
05-18-00	ADDED NOTE	
03-30-00	DRAWN & ISSUED	

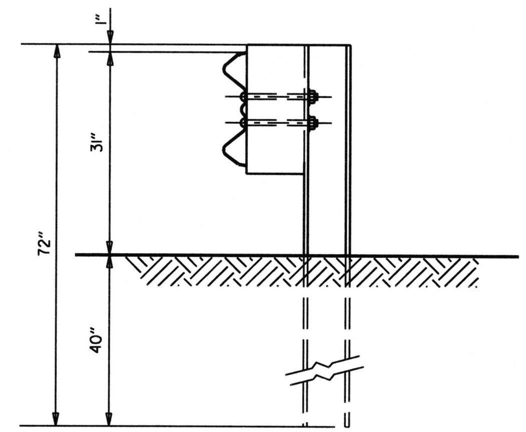
ARKANSAS STATE HIGHWAY COMMISSION

GUARDRAIL DETAILS

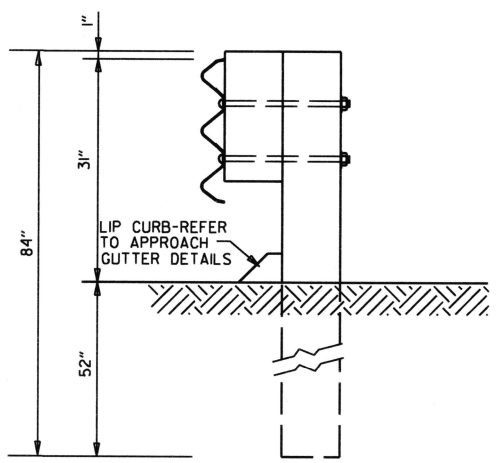
STANDARD DRAWING GR-10



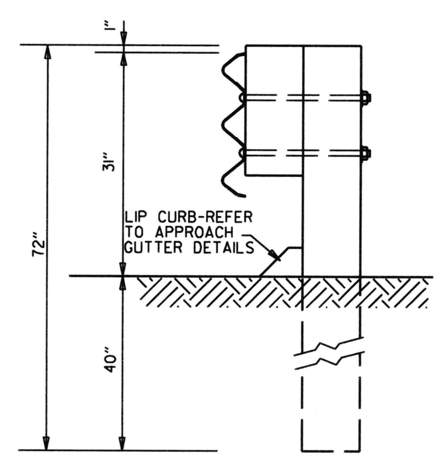
THRIE BEAM RAIL WITH STEEL TUBING BLOCKOUT
AND STEEL POST
POSTS 1-7



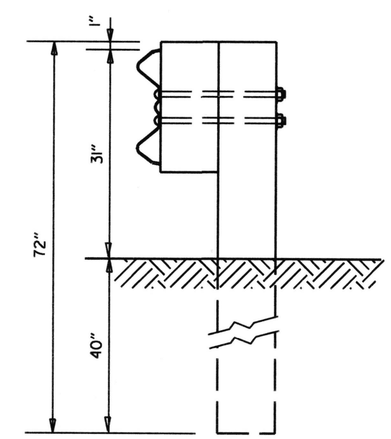
W-BEAM TO THRIE BEAM TRANSITION RAIL
WITH WOOD OR PLASTIC BLOCKOUT AND STEEL POST
POST 8



THRIE BEAM RAIL
WITH WOOD OR PLASTIC
BLOCKOUTS & WOOD POSTS
POSTS 1-6



THRIE BEAM RAIL
WITH WOOD OR PLASTIC
BLOCKOUT & WOOD POST
POST 7



W-BEAM TO THRIE BEAM
TRANSITION RAIL WITH WOOD OR
PLASTIC BLOCKOUT & WOOD POST
POST 8

GENERAL NOTES:

RAIL POSTS SHALL BE SET PERPENDICULAR TO THE ROADWAY PROFILE GRADE AND VERTICALLY IN CROSS SECTION.

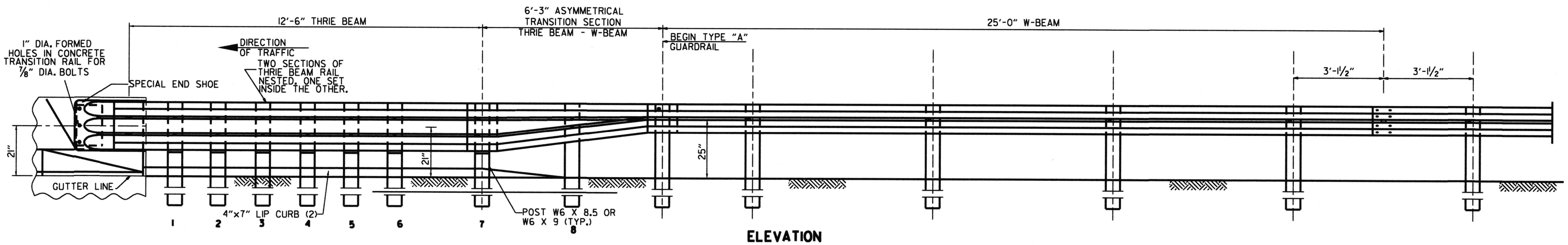
WOOD POSTS & WOOD BLOCKS SHALL BE EITHER DENSE NO. 1STRUCTURAL OR BETTER 9.7f (1400 f) OR NO. 1 1350 f SOUTHERN PINE.

DATE	REVISION	FILMED
11-07-19	RENAMED	
11-16-17	REVISED GUARDRAIL HEIGHT, CHANGED STD. DWG. NUMBER FROM GR-10A TO GR-11	
07-14-10	REVISED POST 8 DIMENSIONS	
11-29-07	ADDED PLASTIC BLOCKOUTS	
08-22-02	REVISED LIP CURB NOTE	
03-30-00	DRAWN & ISSUED	

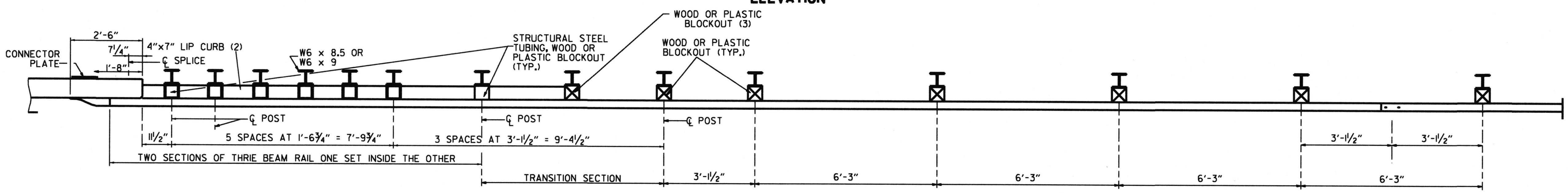
ARKANSAS STATE HIGHWAY COMMISSION

GUARDRAIL DETAILS

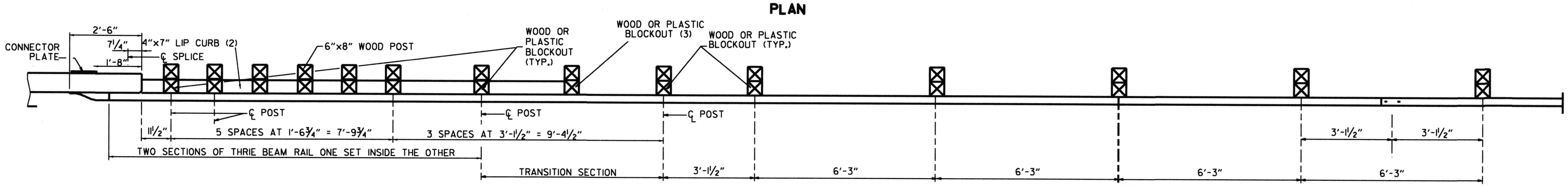
STANDARD DRAWING GR-11



ELEVATION



PLAN



PLAN

(1) VERIFY BOLT SPACING FROM RAIL TRANSITION PRODUCER.
(2) REFER TO APPROACH GUTTER DETAILS.
(3) LENGTH OF BLOCKOUT ON POST 8 TO BE MODIFIED TO FIT RAIL WIDTH.

THRIE BEAM GUARDRAIL CONNECTION AT BRIDGE ENDS

GENERAL NOTES:

THE THRIE BEAM RAIL, SPECIAL END SHOE, AND THE TRANSITION SECTION SHALL BE MADE OF STEEL AND SHALL BE 12 GAGE. ZINC COATING SHALL BE TYPE I.

RAIL POSTS SHALL BE SET PERPENDICULAR TO THE ROADWAY PROFILE GRADE AND VERTICALLY IN CROSS SECTION.

ALL BOLTS SHALL BE SUFFICIENT LENGTH TO EXTEND THROUGH THE FULL THICKNESS OF THE NUT AND NO MORE THAN 3/4" BEYOND IT.

ALL LAP SPLICES, INCLUDING SPECIAL END SHOES, SHALL BE MADE IN THE DIRECTION SHOWN ON STANDARD DRAWINGS GR-8 & GR-13.

REFER TO STD. DRWG. GR-11 FOR POST DETAILS.

USE THRIE BEAM GUARDRAIL COMPONENTS OF SAME MATERIAL FOR ENTIRE JOB.

THRIE BEAM POSTS SHALL BE SAME MATERIAL AS W-BEAM POSTS FOR ENTIRE JOB.

POSTS SHALL BE PLACED AT THE MID-SPAN OF THE W-BEAM.

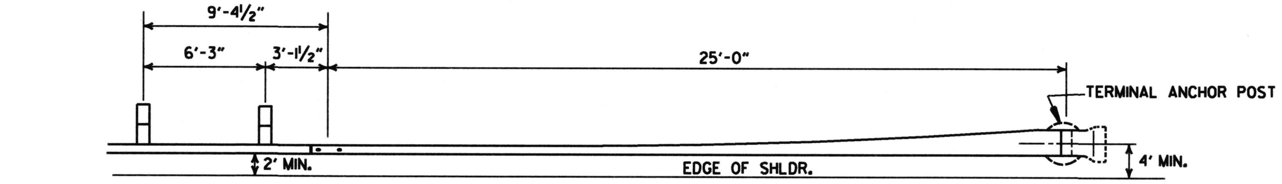
WOOD POSTS & WOOD BLOCKS SHALL BE EITHER DENSE NO. 1 STRUCTURAL OR BETTER 9.7f (1400 f) OR NO. 1 1350 f SOUTHERN PINE.

DATE	REVISION	FILMED
11-07-19	RENAMED & REVISED REFERENCES	
11-16-17	RE-DRAWN FROM STD. DWG. GR-10 & ISSUED	

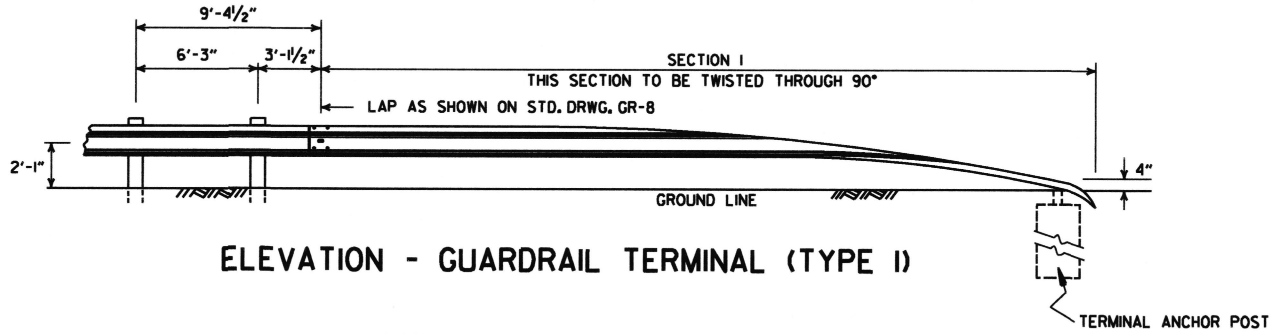
ARKANSAS STATE HIGHWAY COMMISSION

GUARDRAIL DETAILS

STANDARD DRAWING GR-12

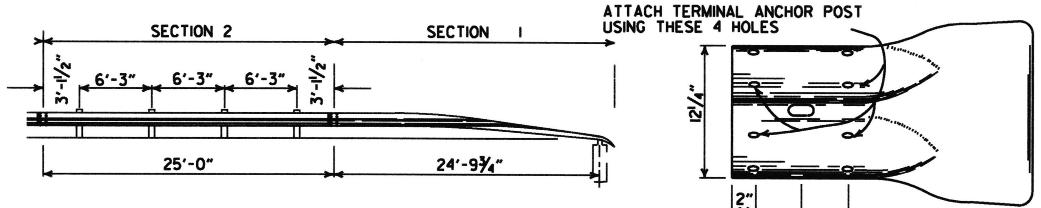


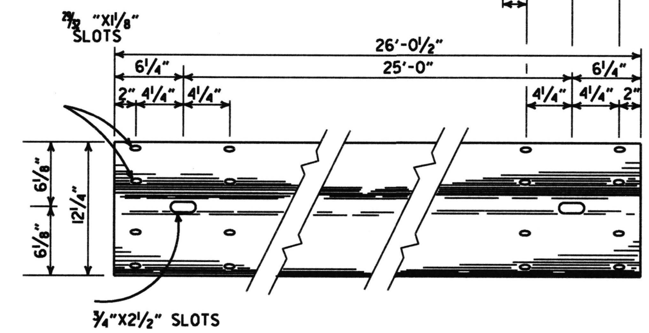
PLAN - GUARDRAIL TERMINAL (TYPE I)



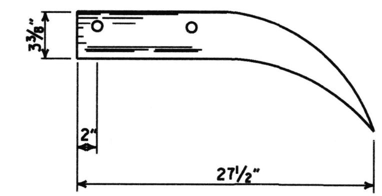
ELEVATION - GUARDRAIL TERMINAL (TYPE I)

NOTE:
SECTIONS I AND 2 OF GUARDRAIL TERMINAL SHALL BE PAID FOR AT THE PRICE BID PER LINEAR FOOT OF THE TYPE OF GUARDRAIL SPECIFIED.

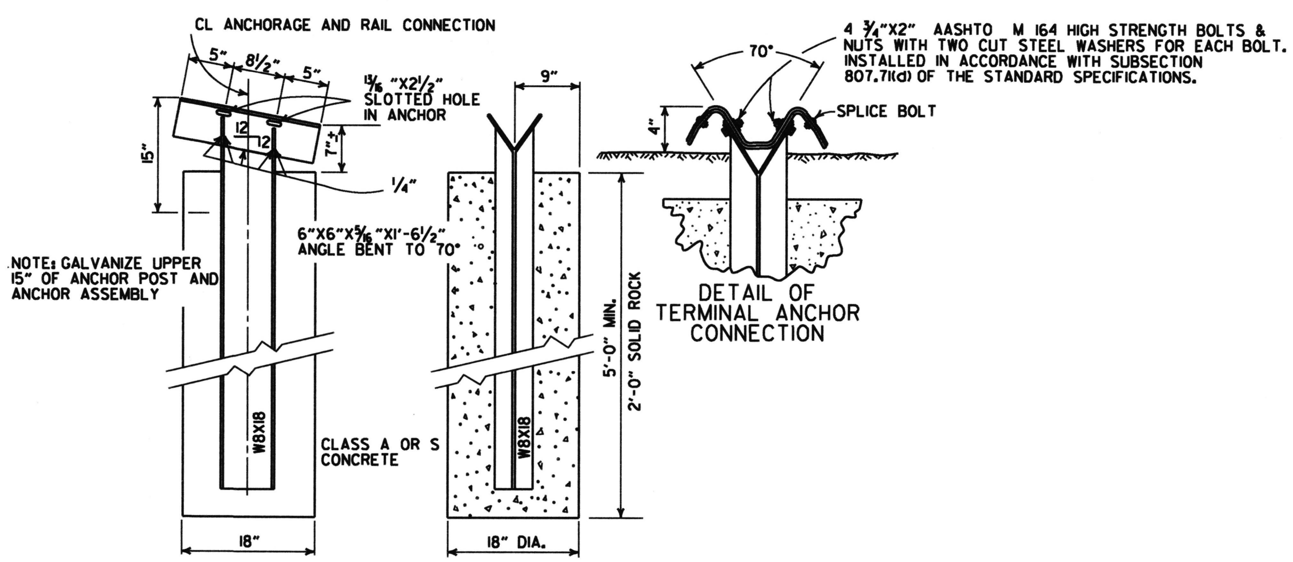




SECTION I



TERMINAL SECTION



NOTE: RAIL MEMBERS MAY BE BOLTED TO ANGLE AT TERMINAL ANCHOR AND THE TWO ASSEMBLIES POSITIONED TO PROPER ALIGNMENT PRIOR TO PLACING CONCRETE AROUND 8 WF 17 POST IF CONTRACTOR SO DESIRES.

DETAIL OF TERMINAL ANCHOR POST (TYPE I)

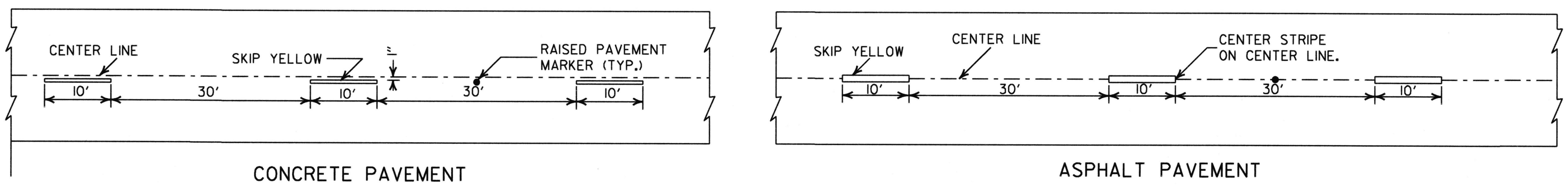
DATE	REVISION	FILMED
11-07-19	RENAMED & REVISED REFERENCE.	
11-16-17	REVISED GUARDRAIL HEIGHT AND LOCATION OF POSTS	
07-14-10	RAISED HEIGHT OF GUARDRAIL 1"	
06-26-97	REVISED LAP NOTE	
10-18-96	REVISED ASTM REF. TO AASHTO	
11-03-94	DIMENSION TERMINAL DETAIL	
11-11-92	ADDED NOTE FOR PAYMENT	11-11-92
10-01-92	DRAWN & ISSUED	10-1-92

ARKANSAS STATE HIGHWAY COMMISSION

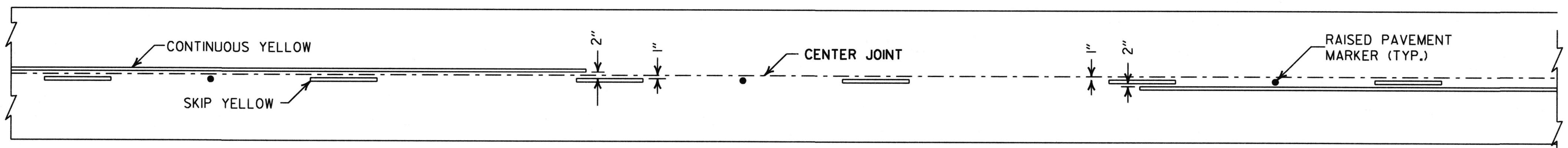
GUARDRAIL DETAILS

STANDARD DRAWING GRT-1

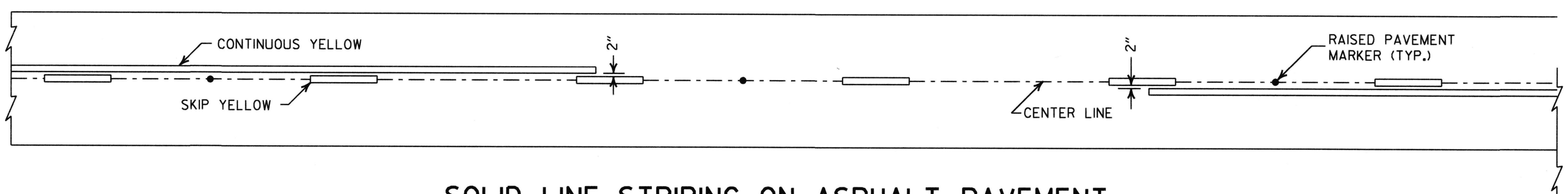
NOTES:
1. REFER TO THE STRIPING DETAILS FOR PAVEMENT MARKING LINE WIDTHS.
2. THIS DRAWING SHALL BE USED IN CONJUNCTION WITH THE LATEST REVISED ADDITION OF THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES."
3. RAISED PAVEMENT MARKERS SHALL BE PLACED ON AN 80 FEET SPACING UNLESS OTHERWISE SHOWN IN THE PLANS.



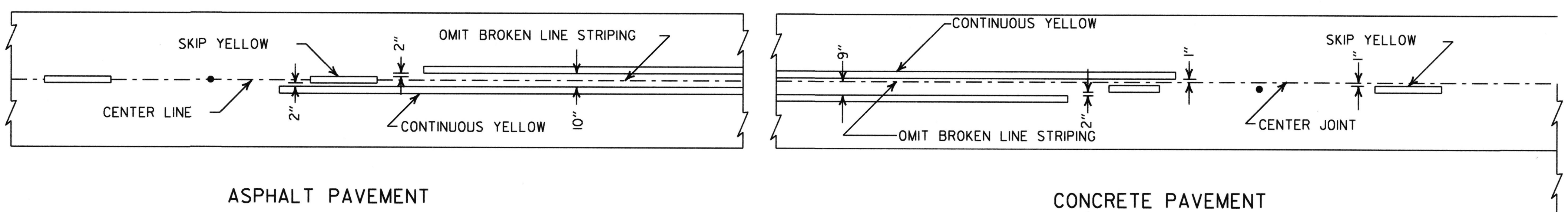
BROKEN LINE STRIPING



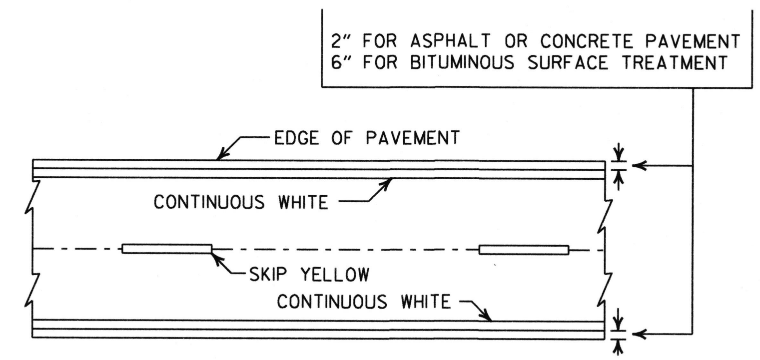
SOLID LINE STRIPING ON CONCRETE PAVEMENT



SOLID LINE STRIPING ON ASPHALT PAVEMENT

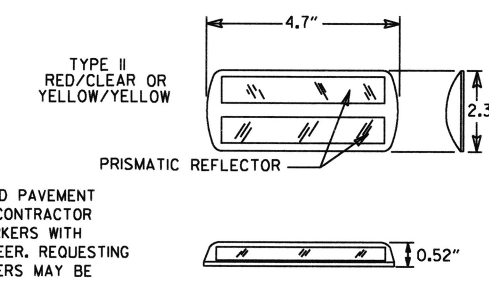


STRIPING AT ADJACENT NO PASSING LANES



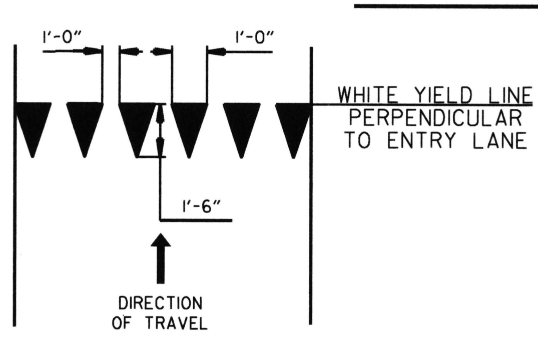
PAVEMENT EDGE LINE MARKING

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

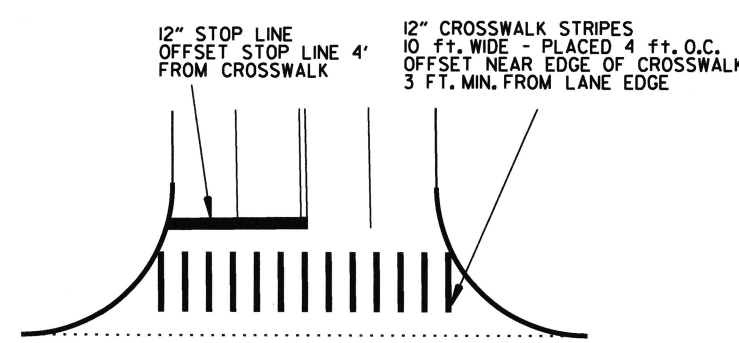


NOTE:
DIMENSIONS SHOWN FOR RAISED PAVEMENT MARKERS ARE TYPICAL. THE CONTRACTOR MAY SUBSTITUTE SIMILAR MARKERS WITH THE APPROVAL OF THE ENGINEER. REQUESTING APPROVAL FOR SIMILAR MARKERS MAY BE MADE BY REFERRING TO THE ARDOT QUALIFIED PRODUCTS LIST.

DETAIL OF STANDARD RAISED PAVEMENT MARKERS



YIELD LINE DETAIL



CROSSWALK AND STOP LINE DETAILS

DATE	REVISION	FILMED
2-27-20	REVISED STOP LINE DETAILS	
6-1-17	ADDED YIELD LINE DETAIL	
5-12-16	REVISED LINE WIDTHS, SPACING, & NOTES	
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

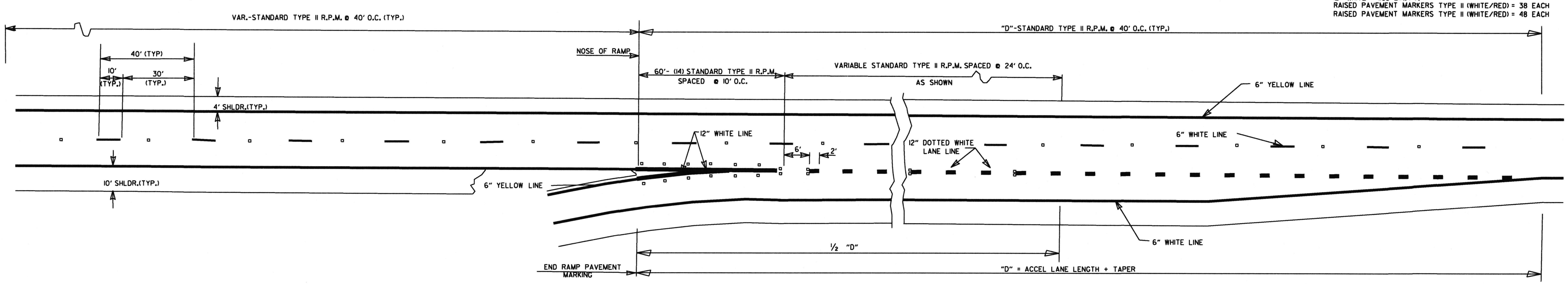
PAVEMENT MARKING QUANTITIES
(BASED ON 700' ACCEL. LANE + 300' TAPER)

ENTRANCE RAMP

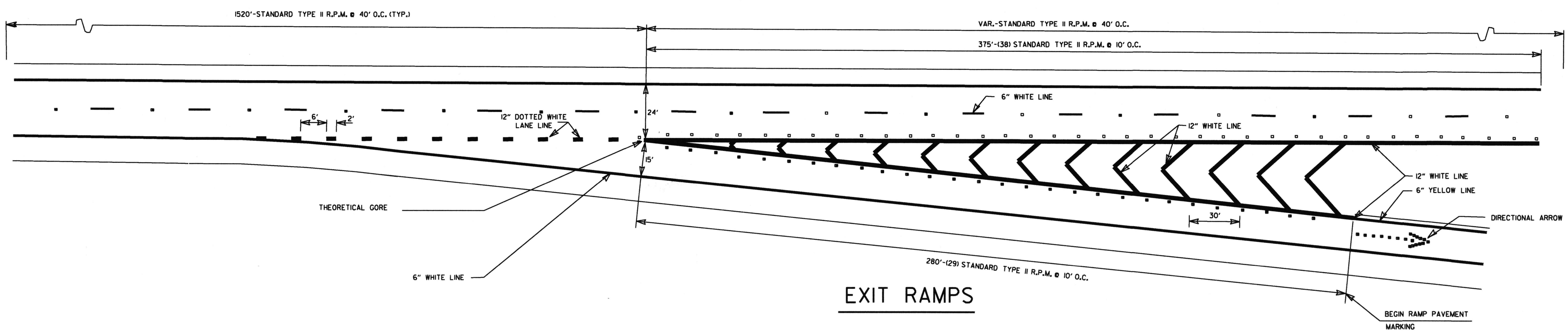
12" WHITE = 370 LIN. FT.
RAISED PAVEMENT MARKERS TYPE II (WHITE/RED) = 38 EACH

EXIT RAMP

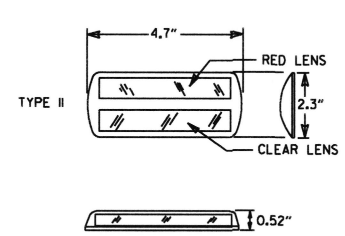
6" WHITE = 280 LIN. FT.
12" WHITE = 1195 LIN. FT.
RAISED PAVEMENT MARKERS TYPE II (WHITE/RED) = 38 EACH
RAISED PAVEMENT MARKERS TYPE II (WHITE/RED) = 48 EACH



ENTRANCE RAMPS

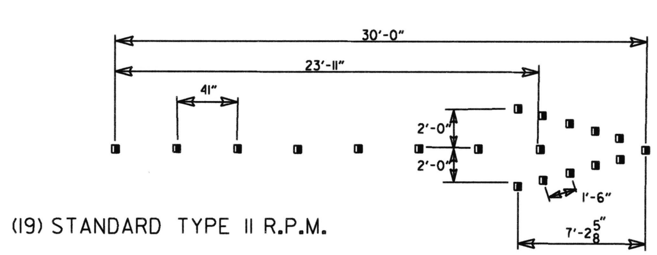


EXIT RAMPS



DETAIL OF
STANDARD
RAISED PAVEMENT MARKERS

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



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 ARDOT QUALIFIED PRODUCTS LIST.

DATE	REVISION	FILMED
11-07-19	REVISED DOTTED PAV'T MARKINGS; ADDED CROSSHATCH MARKINGS ON EXIT RAMPS	
12-8-16	REVISED RAISED PAV'T MARKERS FOR 80' SPACING; REVISED WIDTH OF STRIPING	
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

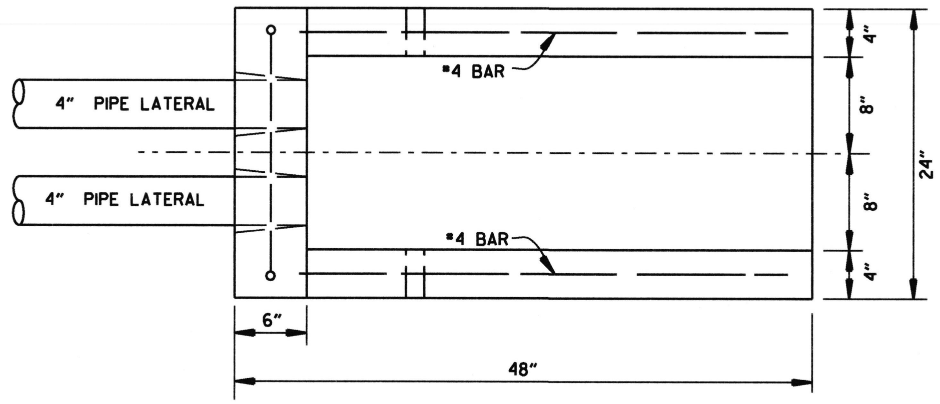
PAVEMENT MARKING DETAILS ON ACCESS CONTROLLED ROADWAYS

STANDARD DRAWING PM-2

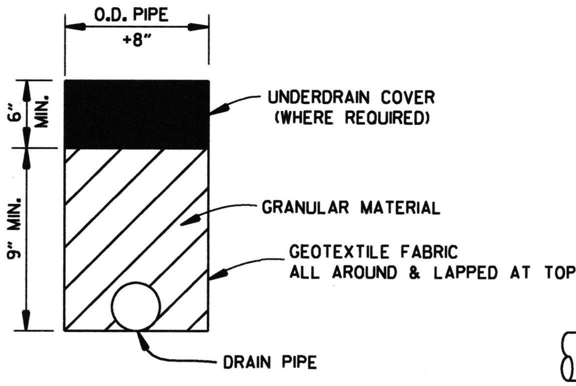
NOTE:

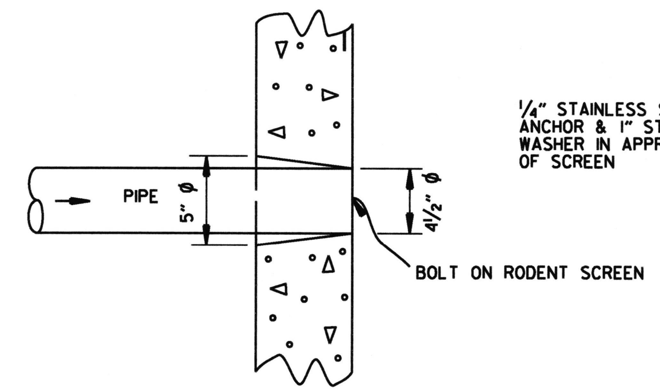
1. UNLESS OTHERWISE SPECIFIED ON THE PLANS, THE UNDERDRAIN COVER SHALL BE THOROUGHLY COMPACTED EARTH AND SHALL BE SUBSIDIARY TO PIPE UNDERDRAIN.

2. GRANULAR MATERIAL SHALL BE WRAPPED WITH GEOTEXTILE FABRIC. LAP FABRIC 12" OR THE WIDTH OF THE TRENCH AT THE TOP.

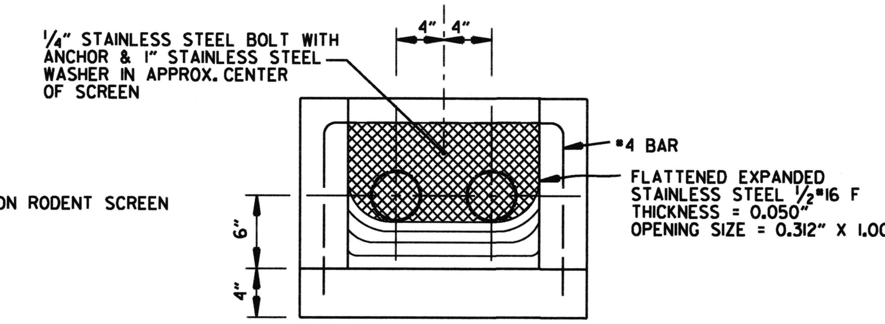


PLAN VIEW

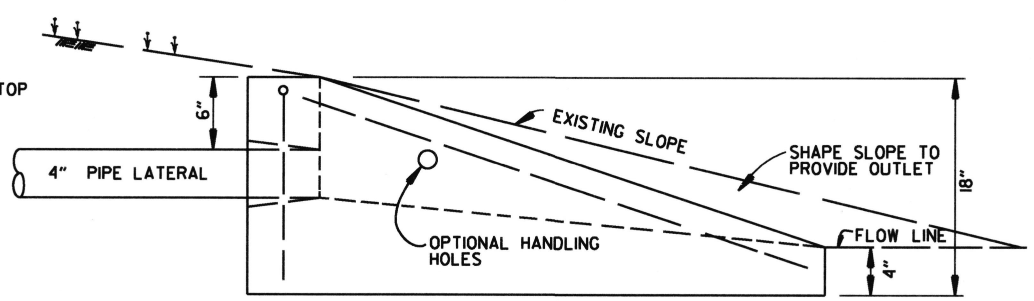




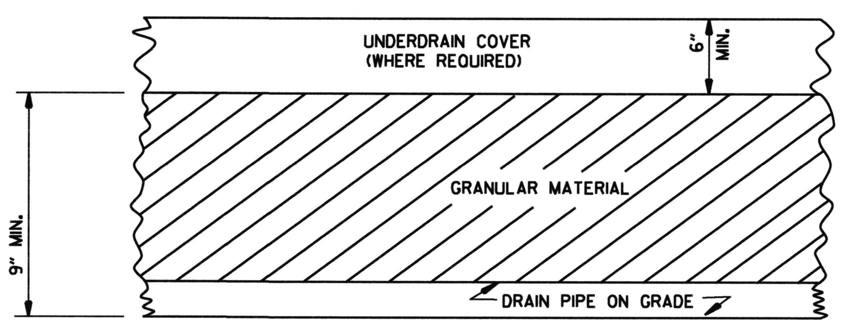
DETAIL OF HOLE FOR 4" PIPE



FRONT VIEW
(DETAIL OF RODENT SCREEN)

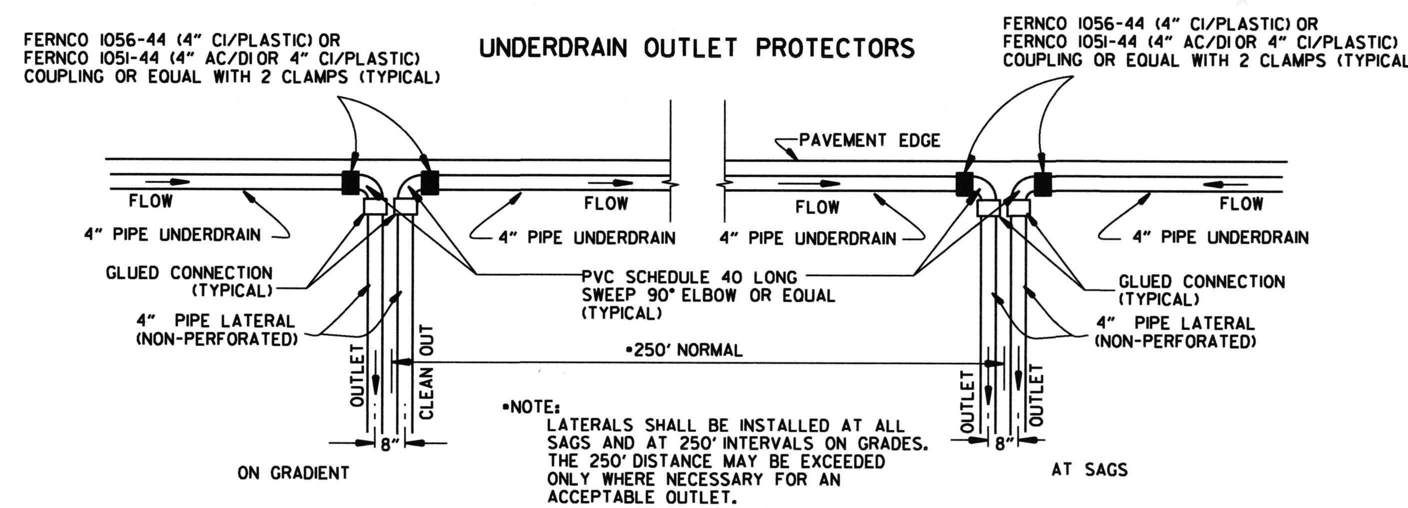


SIDE VIEW



DETAILS OF PIPE UNDERDRAIN

UNDERDRAIN OUTLET PROTECTORS



DETAIL OF PIPE UNDERDRAIN LATERALS WHEN PLACED ALONG PAVEMENT EDGE

NOTE: PVC PIPE FOR LATERALS SHALL MEET THE REQUIREMENTS OF ASTM D 1785 (LATEST REVISION) FOR SCHEDULE 40 PIPE.

NOTES FOR PIPE UNDERDRAINS

1. GEOTEXTILE FABRIC SHALL MEET THE REQUIREMENTS OF SECTION 625 FOR TYPE 1. PAYMENT FOR GEOTEXTILE FABRIC AND GRANULAR FILTER MATERIAL SHALL BE INCLUDED IN THE PRICE BID PER LIN. FT. FOR "4" PIPE UNDERDRAINS" IN ACCORDANCE WITH SECTION 611 OF THE STANDARD SPECIFICATIONS.

2. 4" NON-PERFORATED SCHEDULE 40 PVC PIPE LATERALS WITH OUTLET PROTECTORS SHALL BE INSTALLED AS SHOWN HEREON. LATERALS WILL BE MEASURED AND PAID FOR AS "4" PIPE UNDERDRAINS." UNDERDRAIN OUTLET PROTECTORS WILL BE MEASURED AND PAID FOR BY THE UNIT IN ACCORDANCE WITH SECTION 611 OF THE STANDARD SPECIFICATIONS.

3. EXISTING 4" PIPE UNDERDRAINS MAY BE CONNECTED TO PROPOSED DROP INLETS OR EXTENDED WHERE DIRECTED BY THE ENGINEER. PAYMENT FOR CONNECTING TO DROP INLETS SHALL BE CONSIDERED INCLUDED IN THE PRICE BID FOR "4" PIPE UNDERDRAINS."

4. THE LOCATION OF ALL LATERALS SHALL BE MARKED WITH 4" X 12" PERMANENT PAVEMENT MARKING TAPE (TYPE III WHITE) AT THE OUTSIDE EDGE OF THE SHOULDER, PLACED TRANSVERSE TO TRAFFIC. PAYMENT FOR THIS WORK SHALL BE INCLUDED IN THE PRICE BID FOR THE VARIOUS CONTRACT ITEMS.

5. PAYMENT FOR THE RODENT SCREEN SHALL BE INCLUDED IN THE PRICE BID PER EACH FOR "UNDERDRAIN OUTLET PROTECTORS."

6. ANY EXISTING UNDERDRAINS THAT INTERFERE WITH INSTALLATION OF THE NEW UNDERDRAIN SYSTEM SHALL BE REMOVED AND DISPOSED OF AS DIRECTED BY THE ENGINEER. PAYMENT WILL BE CONSIDERED INCLUDED IN THE PRICE BID FOR THE VARIOUS CONTRACT ITEMS. EXISTING UNDERDRAIN OUTLET PROTECTORS SHALL BE REMOVED UNDER THE ITEM "REMOVAL AND DISPOSAL OF UNDERDRAIN OUTLET PROTECTORS."

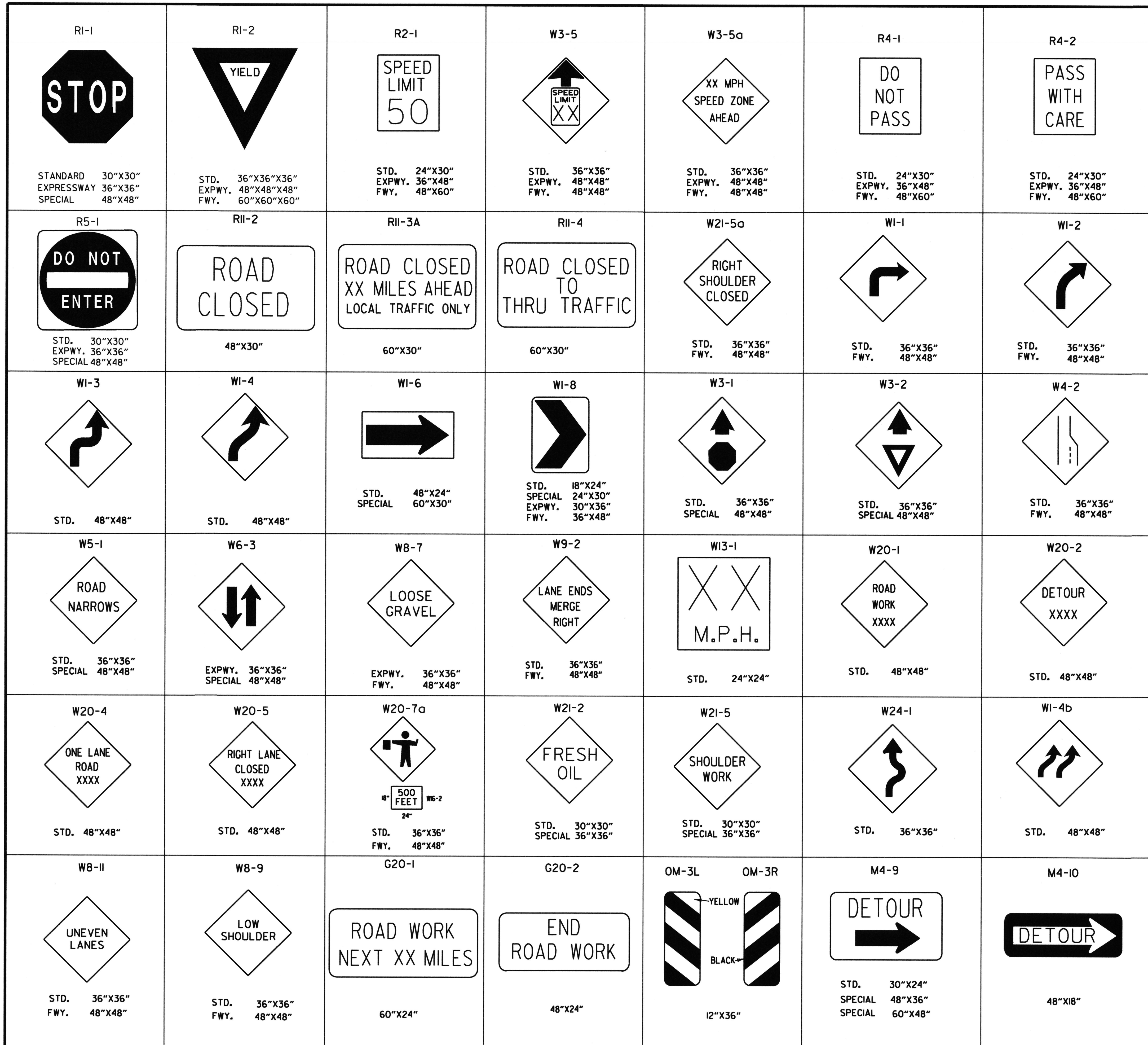
7. AT LOCATIONS WHERE A SINGLE LATERAL IS USED THE CONTRACTOR SHALL HAVE THE FOLLOWING OPTIONS: 1. INSTALL OUTLET PROTECTOR AS SHOWN ON STANDARD DRAWING PU-1 AND GROUT THE UNUSED HOLE OR 2. INSTALL AN OUTLET PROTECTOR WITH A SINGLE HOLE.

12-8-16	ADDED NOTES FOR PIPE UNDERDRAINS, REVISED RODENT SCREEN DETAIL AND NOTES, REMOVED NOTE 1 FOR GRANULAR MATERIAL, ADDED NOTE FOR GEOTEXTILE FABRIC	
4-10-03	REVISED NOTE 3	
1-12-00	REVISED DETAIL OF UNDERDRAIN LATERALS	
11-18-98	REVISED NOTE	
10-18-96	REVISED MIN. DEPTH & GEOTEXTILE FABRIC	
4-26-96	ADDED LATERAL NOTE: 5 1/2" TO 5"	
11-22-95	REVISED LATERALS	
7-20-95	REVISED LATERALS & ADDED NOTE	
11- 3-94	REVISED FOR DUAL LATERALS	11- 3-94
10- 1-92	SUBSTITUTED GEOTEXTILE	10- 1-92
8-15-91	ADDED POLYEDTHYLENE PIPE	8-15-91
11- 8-90	DELETED ALTERNATE NOTE	11- 8-90
1-25-90	ADDED 4" SNAP ADAPTER	1-25-90
11-30-89	DEL. (SUBGRADE); ADDED (WHERE REQUIRED)	11-30-89
7-15-88	ISSUED P.L.M.	647-7-15-88
DATE	REVISION	DATE FILMED

ARKANSAS STATE HIGHWAY COMMISSION

DETAILS OF PIPE UNDERDRAIN

STANDARD DRAWING PU-1



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.

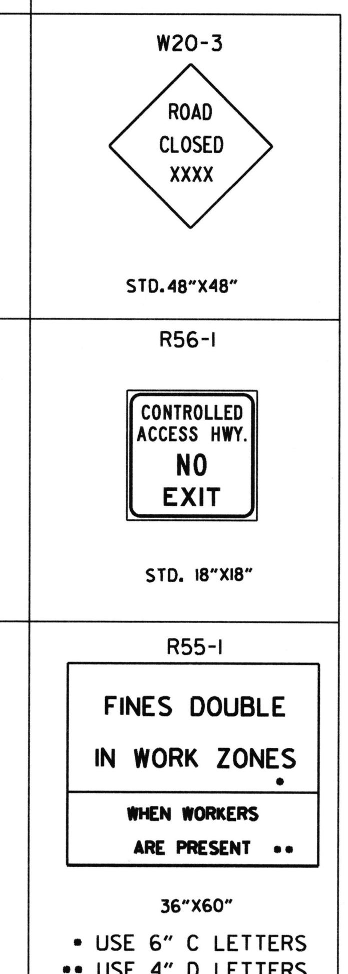
3. EXISTING SIGNS AND CONSTRUCTION SIGNS SHALL BE KEPT IN PROPER POSITION, AND BE CLEAN AND LEGIBLE AT ALL TIMES. SIGNS THAT DO NOT APPLY TO EXISTING CONDITIONS SHALL BE REMOVED. SIGNS THAT ARE DAMAGED, DEFACED, OR THAT ACCUMULATE DIRT DURING CONSTRUCTION SHALL BE CLEANED, REPAIRED, OR REPLACED.

• 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.

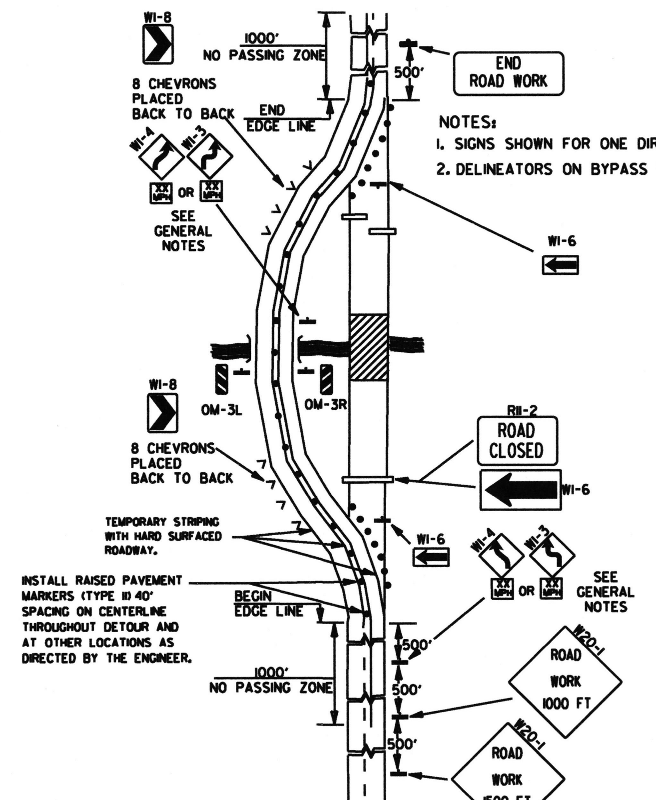
• NOTE: SUPPORTS FOR SIGNS, BARRICADES, AND VERTICAL PANELS THAT ARE DIFFERENT FROM THE REQUIREMENTS SHOWN IN NOTES 4 & 5, BUT MEET THE REQUIREMENTS OF MANUAL FOR ASSESSING SAFETY HARDWARE (MASH), WILL BE ACCEPTED. COMPLIANCE WITH THE REQUIREMENTS OF MANUAL FOR ASSESSING SAFETY HARDWARE (MASH) IS REQUIRED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

DATE	REVISION	FILMED
11-07-19	REVISED FOR MASH	
4-13-17	DELETED RSP-1 & ADDED W21-5a	
9-2-15	REVISED REDUCED SPEED LIMIT AHEAD SIGNS REVISED ROAD WORK NEXT XX MILES	
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	
11-16-01	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

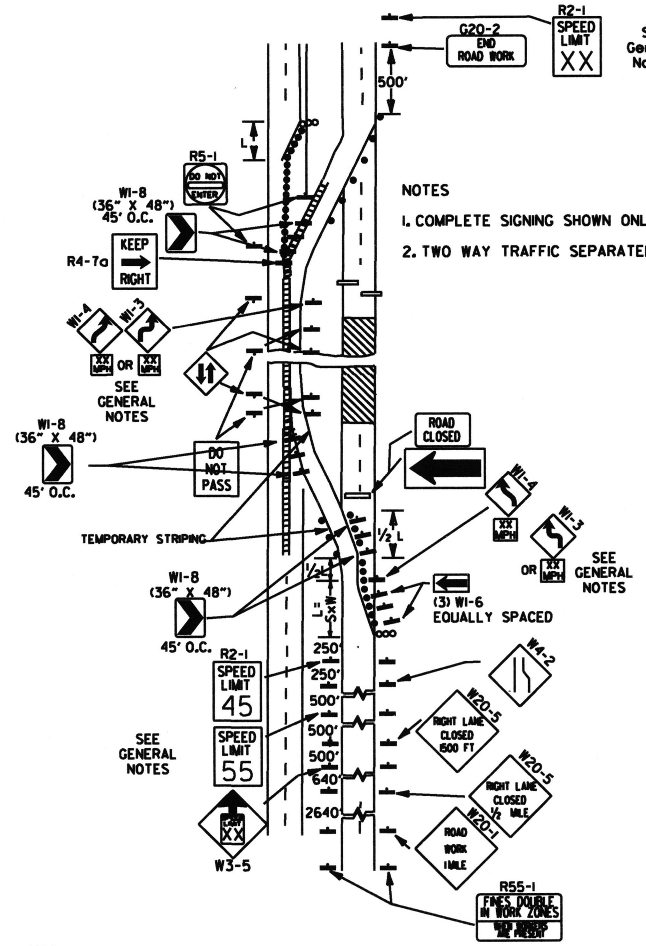
STANDARD TRAFFIC CONTROLS FOR HIGHWAY CONSTRUCTION

STANDARD DRAWING TC-1



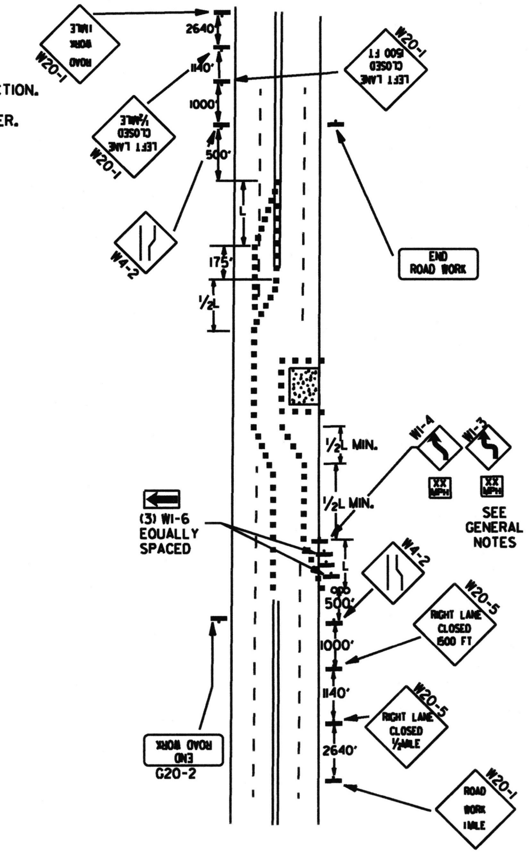
NOTES:
1. SIGNS SHOWN FOR ONE DIRECTION OF TRAVEL ONLY.
2. DELINEATORS ON BYPASS WHERE NEEDED.

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

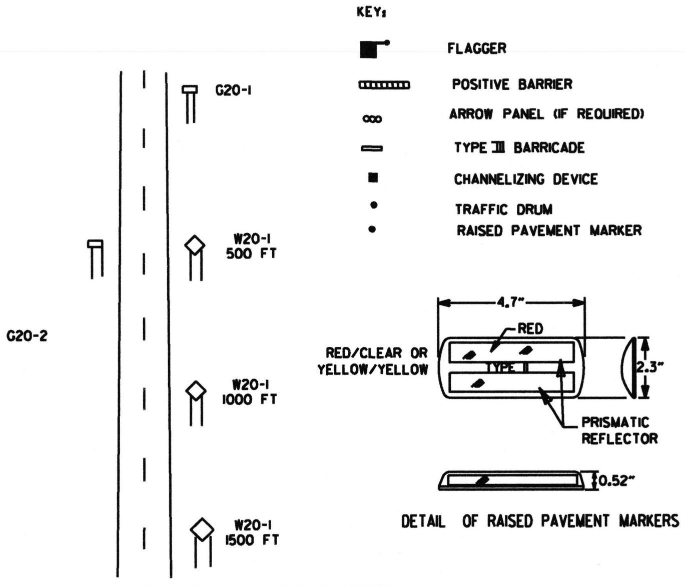


NOTES
1. COMPLETE SIGNING SHOWN ONLY IN CROSSOVER DIRECTION.
2. TWO WAY TRAFFIC SEPARATED WITH POSITIVE BARRIER.

(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.



TYPICAL ADVANCE WARNING SIGN PLACEMENT

DETAIL OF RAISED PAVEMENT MARKERS

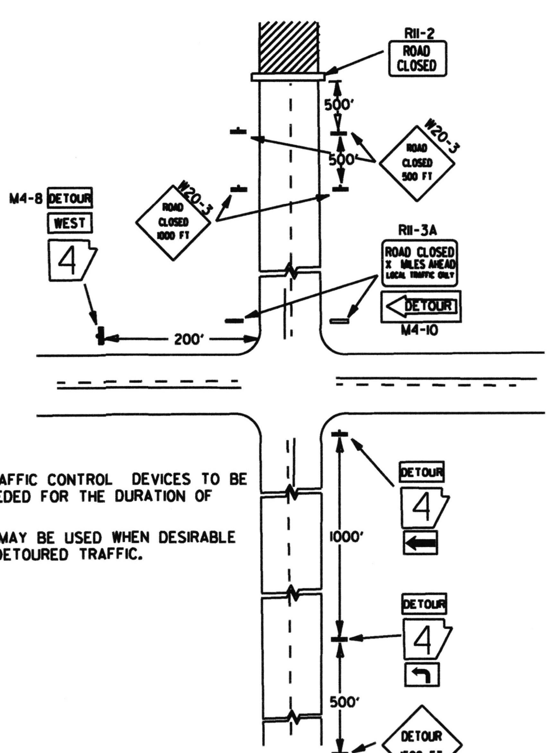
TAPER FORMULAE:

$L = S \times W$ FOR SPEEDS OF 45MPH OR MORE.

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

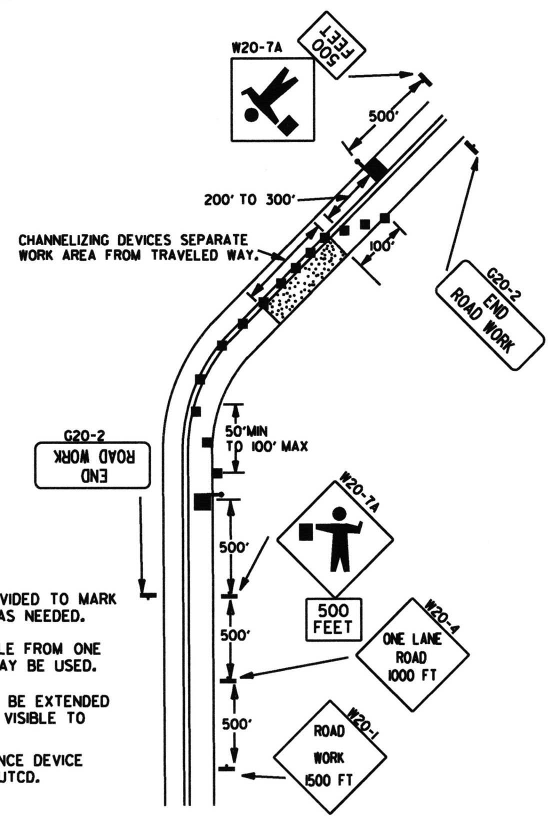
WHERE:
L= MINIMUM LENGTH OF TAPER.
S= NUMERICAL VALUE OF POSTED SPEED LIMIT PRIOR TO WORK OR 85TH PERCENTILE SPEED.
W= WIDTH OF OFFSET.

GENERAL NOTES:
1. THE MAINTENANCE DIVISION SHALL CONDUCT A BALL BANK STUDY TO DETERMINE THE ADVISORY SPEED LIMIT PRIOR TO OPENING TO TRAFFIC. THE ADVISORY SPEED WILL BE POSTED ON W1-3 OR W1-4 CURVE WARNING SIGNS. USE W1-4 WHEN SPEED IS GREATER THAN 30MPH AND W1-3 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 W3-5 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.
8. 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 ARDOT QUALIFIED PRODUCTS LIST.
9. ALL TRAILER MOUNTED DEVICES SUCH AS ARROW PANELS AND PORTABLE CHANGEABLE MESSAGE SIGNS SHALL MEET THE REQUIREMENTS OF THE MANUAL FOR ASSESSING SAFETY HARDWARE (MASH).



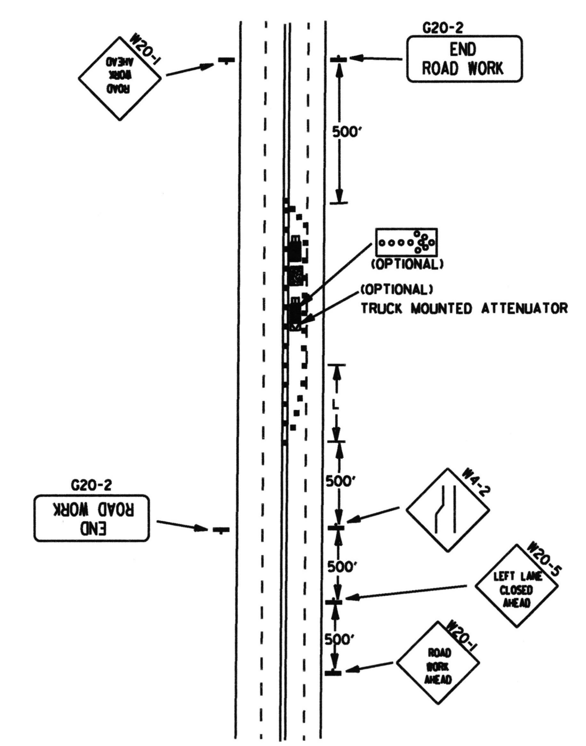
NOTES:
1. REGULATORY TRAFFIC CONTROL DEVICES TO BE MODIFIED AS NEEDED FOR THE DURATION OF THE DETOUR.
2. STREET NAMES MAY BE USED WHEN DESIRABLE FOR DIRECTING DETOURED TRAFFIC.

(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.



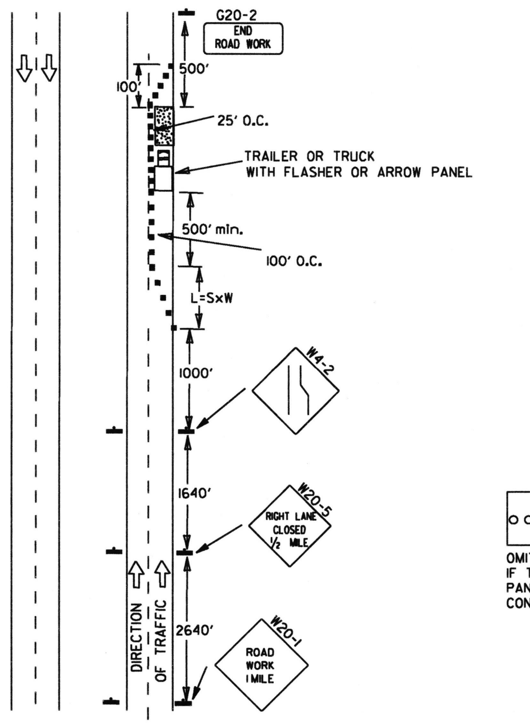
(F) TYPICAL APPLICATION - 4-LANE UNDIVIDED ROADWAY WITH INSIDE LANE CLOSED.

DATE	REVISION	FILMED
11-07-19	REVISED NOTE 1, ADDED NOTE 9	
9-2-15	REVISED NOTE 2, ADDED NOTE 8, REVISED DRAWING (A) & REPLACED R2-5A WITH W3-5	
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 W1-4A	6-8-95
2-2-95	REVISED PER PART VI, MUTCD, SEPT. 3, 1993	
8-15-91	DRAWN AND PLACED IN USE	

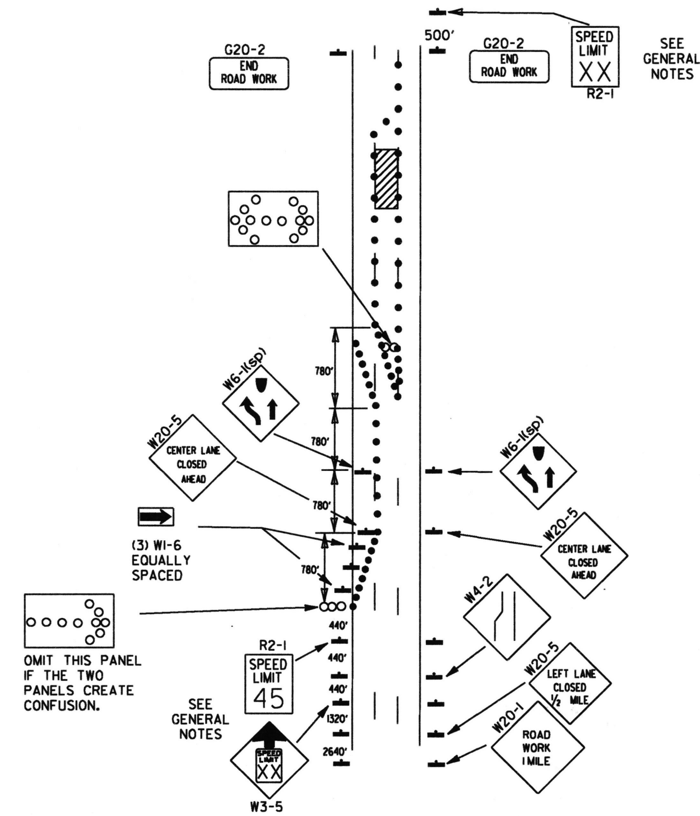
ARKANSAS STATE HIGHWAY COMMISSION

STANDARD TRAFFIC CONTROLS FOR HIGHWAY CONSTRUCTION

STANDARD DRAWING TC-2

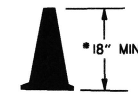


(A) TYPICAL APPLICATION - DAYTIME MAINTENANCE OPERATIONS OF SHORT DURATION ON A 4-LANE DIVIDED ROADWAY WHERE HALF OF THE ROADWAY IS CLOSED.



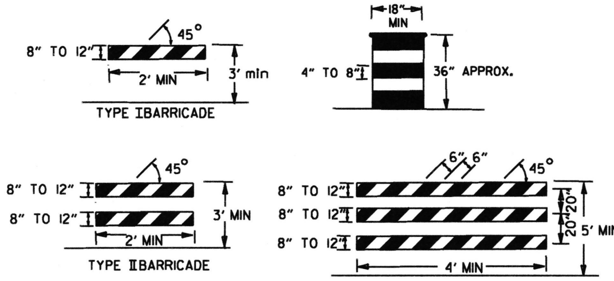
(B) TYPICAL APPLICATION - 3-LANE ONEWAY ROADWAY WHERE CENTER LANE IS CLOSED.

CHANNELIZING DEVICES

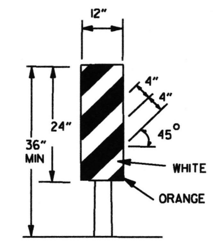


- WHEN CONES ARE USED ON FREEWAYS AND MULTI-LANE HIGHWAYS, THEY SHALL BE 28" MIN. DURING HOURS OF DARKNESS, 28" CONES SHALL BE USED ON ALL ROADWAYS, AND SHALL BE REFLECTORIZED IN ACCORDANCE WITH THE M.U.T.C.D.

CONES

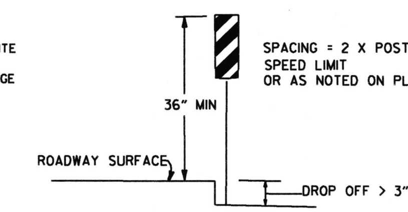


NOTE:
FOR ALL ROAD CLOSURES, THE TYPE III BARRICADES SHALL BE OF SUFFICIENT LENGTH TO EXTEND ACROSS ENTIRE ROADWAY.

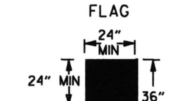


VERTICAL PANEL
VP-1R

VERTICAL PANEL PLACEMENT



FLAG



FLAG SHALL BE OF GOOD GRADE RED MATERIAL

TRAFFIC CONTROL DEVICES

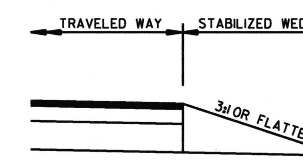
NON-INTERSTATE			
VERTICAL DIFFERENTIAL	LOCATION	TRAFFIC CONTROL	
		≤ 45 MPH	> 45 MPH
≤ 2"	CENTERLINE	W8-11 AND LANE STRIPING	W8-11 AND LANE STRIPING
> 2"	CENTERLINE	STANDARD LANE CLOSURE	STANDARD LANE CLOSURE
≤ 3"	EDGE OF TRAVELED LANE OR EDGE OF SHOULDER	W8-9, EDGE LINE STRIPING, AND VERTICAL PANELS	W8-9, EDGE LINE STRIPING, AND VERTICAL PANELS
> 3" ≤ 6"	EDGE OF TRAVELED LANE OR EDGE OF SHOULDER	W8-17, EDGE LINE STRIPING, AND VERTICAL PANELS	W8-17, EDGE LINE STRIPING, AND VERTICAL PANELS
> 6" ≤ 18"	EDGE OF TRAVELED LANE OR EDGE OF SHOULDER	W8-17, EDGE LINE STRIPING, AND TRAFFIC DRUMS(1)	W8-17, EDGE LINE STRIPING, AND TRAFFIC DRUMS(2)
> 18" ≤ 24"	EDGE OF TRAVELED LANE OR EDGE OF SHOULDER	W8-17, EDGE LINE STRIPING, AND TRAFFIC DRUMS(1)	A STABILIZED WEDGE, W8-17, EDGE LINE STRIPING, AND TRAFFIC DRUMS(3)
> 24"	EDGE OF TRAVELED LANE OR EDGE OF SHOULDER	PRECAST CONCRETE BARRIER(4) & EDGE LINES	PRECAST CONCRETE BARRIER(4) & EDGE LINES

INTERSTATE		
VERTICAL DIFFERENTIAL	LOCATION	TRAFFIC CONTROL
≤ 2"	CENTERLINE	W8-11 AND LANE STRIPING
≤ 2"	EDGE OF TRAVELED LANE OR EDGE OF SHOULDER	W8-9, EDGE LINE STRIPING, AND TRAFFIC DRUMS(2)
> 2" ≤ 6"	EDGE OF TRAVELED LANE OR EDGE OF SHOULDER	W8-17, EDGE LINE STRIPING, AND TRAFFIC DRUMS(2)
> 6"	EDGE OF TRAVELED LANE OR EDGE OF SHOULDER	PRECAST CONCRETE BARRIER & EDGE LINES

INTERSTATE AND NON-INTERSTATE		
FORESLOPE	HEIGHT	TRAFFIC CONTROL
1:1	> 2 FT	PRECAST CONCRETE BARRIER
2:1	≤ 5 FT	TRAFFIC DRUMS
2:1	> 5 FT	PRECAST CONCRETE BARRIER
Flatter than 2:1	N/A	TRAFFIC DRUMS

GENERAL NOTES:

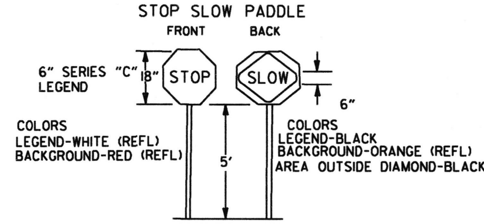
1. WHEN THE SHOULDER AREA IS USED AS PART OF THE TRAVELED LANE AND THERE IS INSUFFICIENT WIDTH TO PLACE TRAFFIC DRUMS ON THE REMAINING SHOULDER WIDTH, THEN VERTICAL PANELS SHALL BE USED.
2. WHEN THERE IS INSUFFICIENT WIDTH TO PLACE TRAFFIC DRUMS ON THE REMAINING SHOULDER WIDTH, A STABILIZED WEDGE SHALL BE USED.
3. PRECAST CONCRETE BARRIER WALL CAN BE USED IN LIEU OF A STABILIZED WEDGE, W8-17 SIGN, EDGE LINE STRIPING, AND TRAFFIC DRUMS, IF AND WHERE DIRECTED BY THE ENGINEER.
4. A STABILIZED WEDGE, W8-17 SIGN, EDGE LINE STRIPING, AND TRAFFIC DRUMS CAN BE USED IN LIEU OF PRECAST CONCRETE BARRIER WALL, IF AND WHERE DIRECTED BY THE ENGINEER.
5. W21-5, W21-5a, AND/OR W21-5b SIGNS SHALL BE USED WHERE THE ROADWAY IS UNOBSTRUCTED IF AND WHERE DIRECTED BY THE ENGINEER.



STABILIZED WEDGE

NOTE:
MATERIALS FOR THE STABILIZED WEDGE SHALL MEET THE REQUIREMENTS PROVIDED IN SECTION 603.02 OF THE STANDARD SPECIFICATIONS.

STOP SLOW PADDLE



COLORS
LEGEND-WHITE (REFL)
BACKGROUND-RED (REFL)

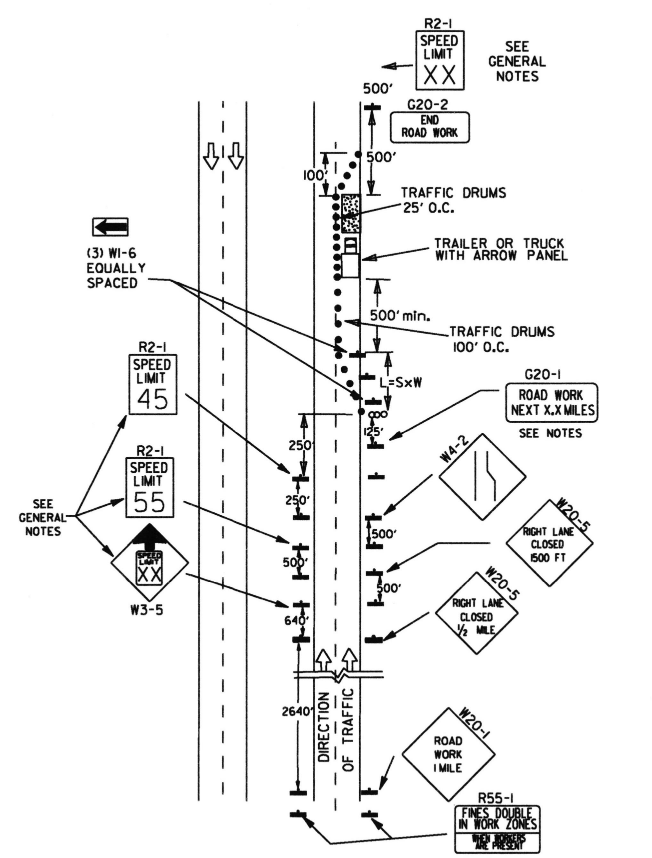
COLORS
LEGEND-BLACK
BACKGROUND-ORANGE (REFL)
AREA OUTSIDE DIAMOND-BLACK

KEY:

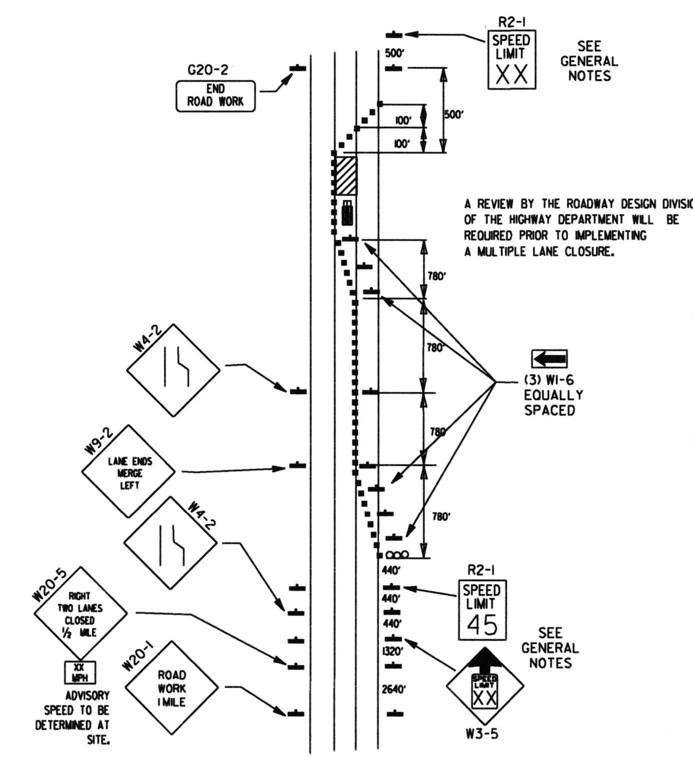
- ARROW PANEL (IF REQUIRED)
- CHANNELIZING DEVICE
- TRAFFIC DRUM

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 W3-5 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. 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 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.
11. ALL TRAILER MOUNTED DEVICES SUCH AS ARROW PANELS AND PORTABLE CHANGEABLE MESSAGE SIGNS SHALL MEET THE REQUIREMENTS OF THE MANUAL FOR ASSESSING SAFETY HARDWARE (MASH).

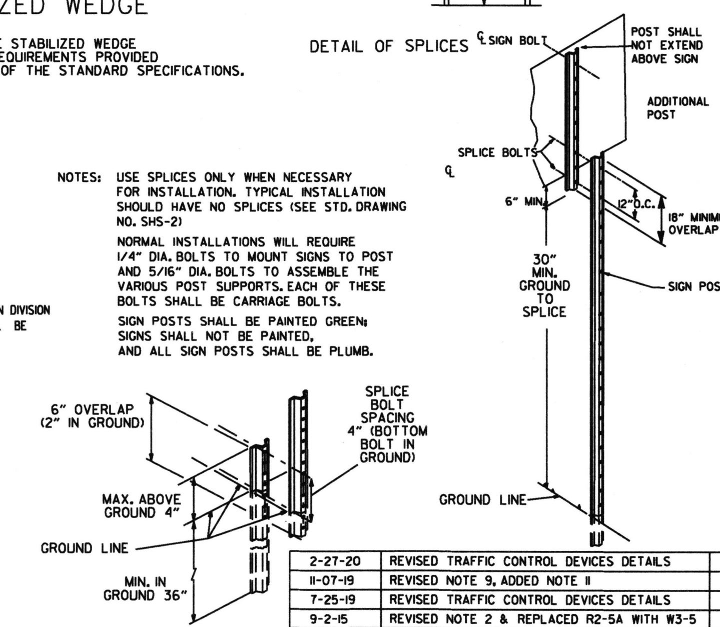


(C) TYPICAL APPLICATION - CONSTRUCTION OPERATIONS OF INTERMEDIATE TO LONG TERM DURATION ON A 4-LANE DIVIDED ROADWAY WHERE HALF OF THE ROADWAY IS CLOSED.



(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.

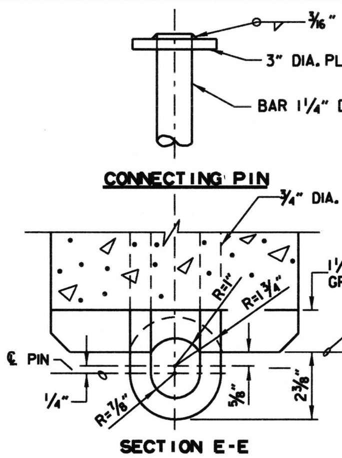
DATE	REVISION	FILMED
2-27-20	REVISED TRAFFIC CONTROL DEVICES DETAILS	
11-07-19	REVISED NOTE 9, ADDED NOTE 11	
7-25-19	REVISED TRAFFIC CONTROL DEVICES DETAILS	
9-2-15	REVISED NOTE 2 & REPLACED R2-5A WITH W3-5	
10-15-09	ADDED REFERENCE TO MASH	
11-20-08	REVISED SIGN DESIGNATIONS	
11-18-04	ADDED NOTE	
10-1-98	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

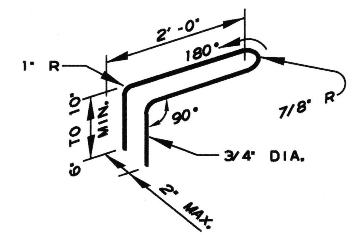
STANDARD TRAFFIC CONTROLS FOR HIGHWAY CONSTRUCTION

STANDARD DRAWING TC-3

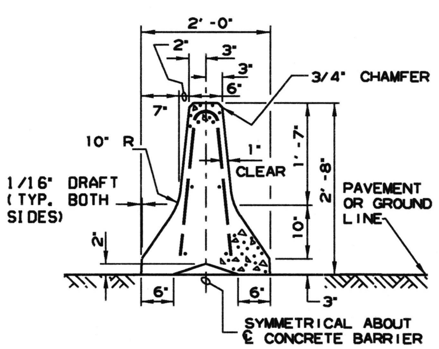
REINFORCING BAR TABLE PER BARRIER UNIT				
MARK	LOCATION	BAR SIZE	(NO. BARS)	SKETCH
H-1	HORIZONTAL IN BARRIER TIED INSIDE V-1 BARS	#5	(6)	19'-3"
H-2	CENTERED ABOVE DRAIN SLOTS LONG. & TRANSVERSELY	#5	(6)	6'-6"
H-3	TIED ABOVE H-1 BARS TO SUPPORT H-2, TIED TO V-1	#4	(2)	1'-6"
S-1	OVER LIFT HOLES	#4	(2)	2'-5" LIFTING HOLE 90° 3 3/8" R
S-2	HORIZ. AROUND SLOTS BETWEEN V-1'S @ DRAIN SLOTS	#4	(2)	1 1/2" R SLOTS 7" 1" MIN. CLEAR TO BAR 5'-1" BAR W/(4) 1 1/2" R BENDS & MIN. 1'-0" OVERLAP 1'-6"
V-1	VERTICAL IN BARRIER (3) EACH END & (2) AT EACH DRAIN SLOTS	#5	(16)	TOTAL LENGTH 4'-9" 2 3/16" R 12" 9 1/2" 2'-1 3/8" 4 3/8"



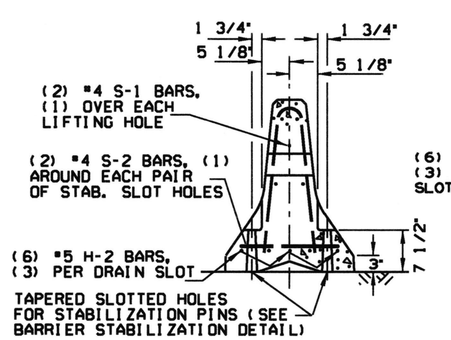
CONNECTION DETAILS



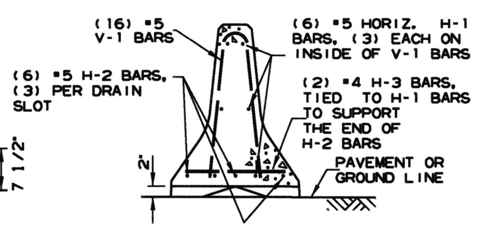
CONNECTION LOOP



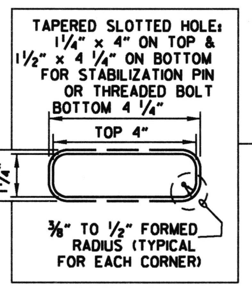
SECTION A-A

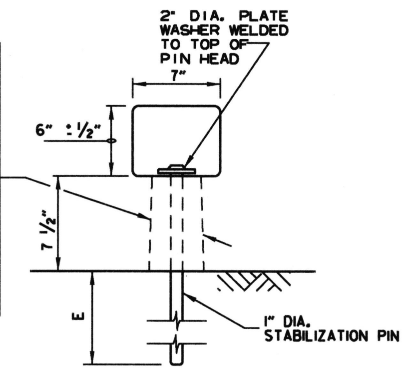


SECTION B-B



SECTION C-C

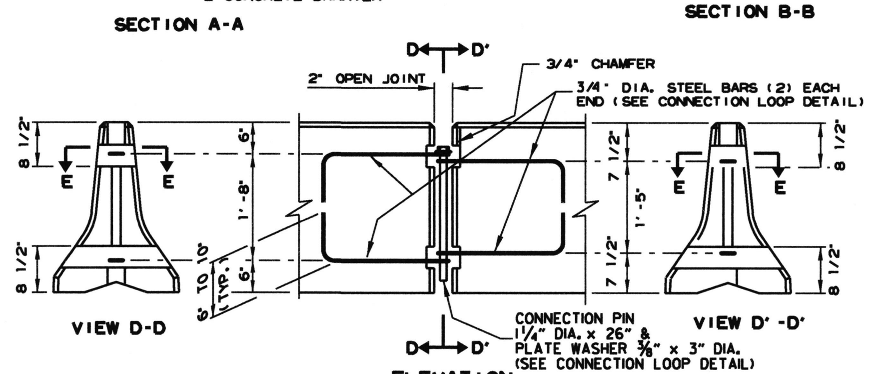




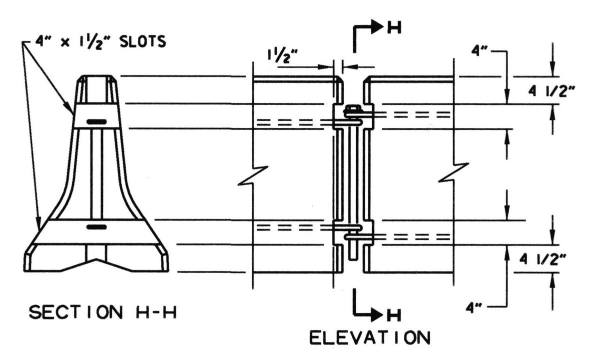
BARRIER STABILIZATION DETAIL

ROADWAY SECTION

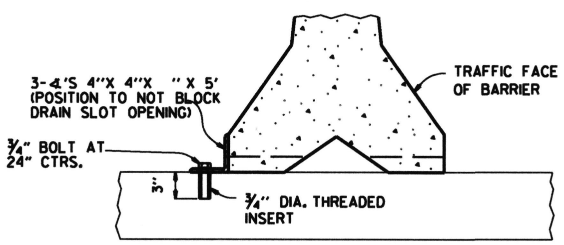
(E) 4" - CONCRETE PAVEMENT
8" - ASPHALT PAVEMENT
12" - SHOULDER AREAS



ELEVATION



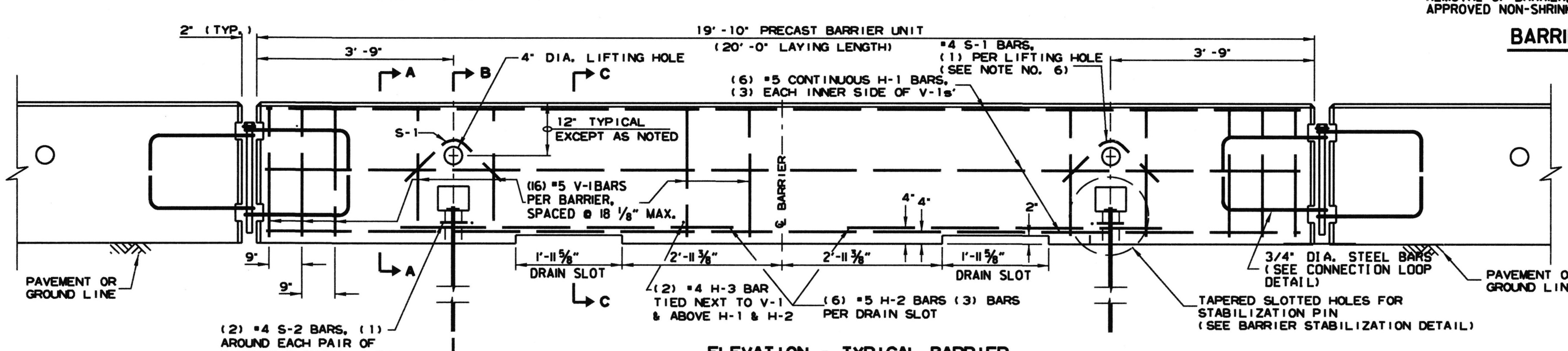
BARRIER REMOVAL SLOT DETAILS



NOTE: " THREADED INSERTS SHALL BE CAST IN PLACE FOR ALL NEW BRIDGE DECKS AND DRILLED AND GROUTED FOR EXISTING BRIDGE DECKS. INSERTS SHALL HAVE A MINIMUM ULTIMATE LOAD CAPACITY OF 8000 LBS. IN TENSION. AFTER REMOVAL OF BARRIER, BOLTS, AND ANGLES, THE INSERTS SHALL BE FILLED WITH APPROVED NON-SHRINK EPOXY.

BARRIER STABILIZATION DETAIL

BRIDGE DECKS



ELEVATION - TYPICAL BARRIER

MASS: 3.9 tons PER PANEL

GENERAL NOTES

1. THE CONTRACTOR SHALL FURNISH THE PRECAST CONCRETE BARRIER UNITS AND SHALL BE RESPONSIBLE FOR THE MANUFACTURE, SHIPMENT, STORAGE, PLACEMENT AND REMOVAL. AT THE COMPLETION OF THE PROJECT, THE PRECAST UNITS WILL REMAIN THE PROPERTY OF THE CONTRACTOR.

2. MATERIALS SHALL MEET THE FOLLOWING MINIMUM REQUIREMENTS:
   CONCRETE: 2500 PSI COMPRESSIVE STRENGTH AT 28 DAYS.
   REINFORCING STEEL: AASHTO M 31 OR M 53, GRADE 60
   STRUCTURAL STEEL: AASHTO-M270 GRADE 36 SHALL BE USED FOR THE CONNECTION PIN, CONNECTION LOOPS, AND STABILIZATION PINS. A ONE PIECE PIN WITH A 3" ROUNDED TOP MAY BE USED IN PLACE OF THE DETAILED CONNECTION PIN.
   DELINEATORS: DELINEATORS SHALL BE MOUNTED AT 10' SPACING ON TOP OF PRECAST BARRIER.

   IN APPLICATIONS WHERE BARRIER WALL IS WITHIN 6 FEET OF A TRAFFIC LANE, ADDITIONAL DELINEATORS SHALL BE PLACED ON THE BARRIER AT 10' SPACING APPROXIMATELY ONE (1) FOOT FROM THE TOP OF THE BARRIER. DELINEATORS SHALL BE ON THE ARDOT QUALIFIED PRODUCTS LIST FOR CONSTRUCTION CONCRETE BARRIER MARKERS.
   DELINEATOR COLOR SHALL BE IN ACCORDANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.
   PAYMENT FOR DELINEATORS SHALL BE CONSIDERED INCLUDED IN THE PRICE BID PER LIN. FT. FOR "FURNISHING AND INSTALLING PRECAST CONCRETE BARRIER". THE CONTRACTOR SHALL CERTIFY TO THE ENGINEER THAT THE MATERIAL AND THE DESIGN USED IN THE PRECAST BARRIER UNITS MEETS THE REQUIREMENTS AS SHOWN ON THIS STANDARD DRAWING.

3. OTHER PRECAST CONCRETE BARRIERS THAT HAVE BEEN CRASH TESTED AND APPROVED BY THE FEDERAL HIGHWAY ADMINISTRATION TO MEET THE REQUIREMENTS OF MANUAL FOR ASSESSING SAFETY HARDWARE (MASH) WILL BE ACCEPTED IN LIEU OF THE BARRIER SHOWN. DRAIN SLOTS SHALL BE PROVIDED AS NEEDED OR AS DIRECTED BY THE ENGINEER. THE CONTRACTOR SHALL FURNISH A CERTIFICATION OF MANUAL FOR ASSESSING SAFETY HARDWARE (MASH) COMPLIANCE FOR ANY OTHER TYPES OF PRECAST BARRIER TO BE USED. THE CERTIFICATION SHALL STATE THAT THE PRECAST CONCRETE BARRIER MEETS THE REQUIREMENTS OF MANUAL FOR ASSESSING SAFETY HARDWARE (MASH). MIXING OF SHAPES WILL NOT BE ALLOWED IN A CONTINUOUS LINE OF UNITS.

4. DOWEL HOLES IN PAVEMENT OR BRIDGE SLABS THAT ARE TO REMAIN IN PLACE SHALL BE FILLED. HOLES IN CONCRETE PAVEMENT AND BRIDGE SLABS SHALL BE FILLED WITH AN APPROVED NON-SHRINK EPOXY GROUT. HOLES IN ASPHALT PAVEMENT SHALL BE FILLED WITH AN APPROVED ASPHALT JOINT FILLER. PAYMENT FOR DRILLING AND FILLING HOLES TO BE INCLUDED IN THE PRICE FOR VARIOUS BARRIER ITEMS.

5. ATTACH UNITS TO ROADWAY SURFACE WITH STABILIZATION PINS AND TO DECK SLABS USING BOLTS WHEN REQUIRED.

6. A 4" WHITE PVC SLEEVE MAY BE USED TO FORM THE LIFTING HOLE AND IF USED THE SLEEVE IS TO BE LEFT IN PLACE.

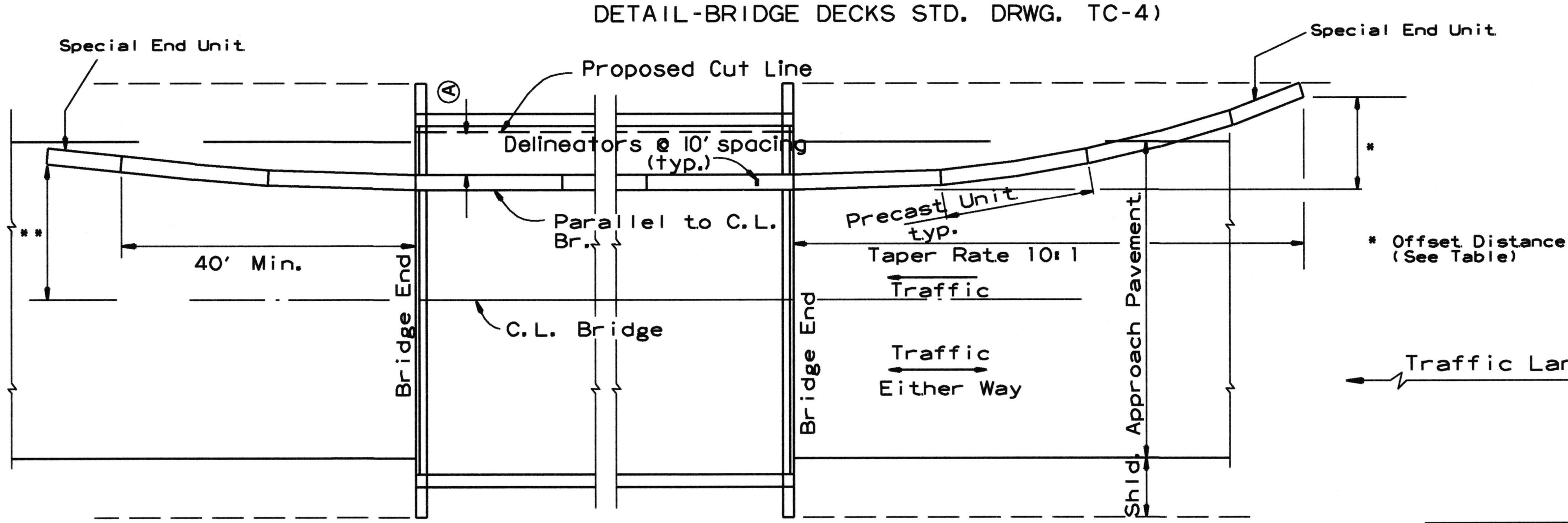
DATE	REVISION	FILMED
11-07-19	REVISED NOTE 3	
2-27-14	REVISED BARRIER STABILIZATION DETAIL	
10-15-09	ADDED REFERENCE TO MASH	
8-5-09	REV. NOTE 3 CONCERNING DRAIN SLOTS	
11-29-07	REVISED NOTE 3	
5-25-06	DELETED GENERAL NOTE 7	
11-18-04	REVISED BARRIER STABILIZATION DETAIL BRIDGE DECKS	
4-10-03	REVISED GENERAL NOTE 2	
8-22-02	ISSUED NEW DRAWING	

ARKANSAS STATE HIGHWAY COMMISSION

STANDARD TRAFFIC CONTROLS FOR HIGHWAY CONSTRUCTION - TEMPORARY PRECAST BARRIER

STANDARD DRAWING TC-4

Ⓐ 4 feet or greater preferred. If less than 4 feet, Precast Units shall be connected to slab (SEE BARRIER STABILIZATION DETAIL-BRIDGE DECKS STD. DRWG. TC-4)

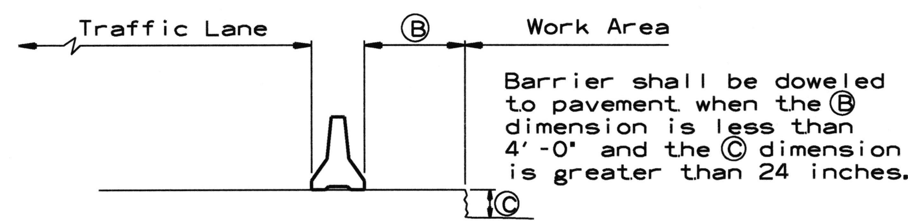


BARRIER PLACEMENT ALONG BRIDGE WITH OFFSET

No Scale

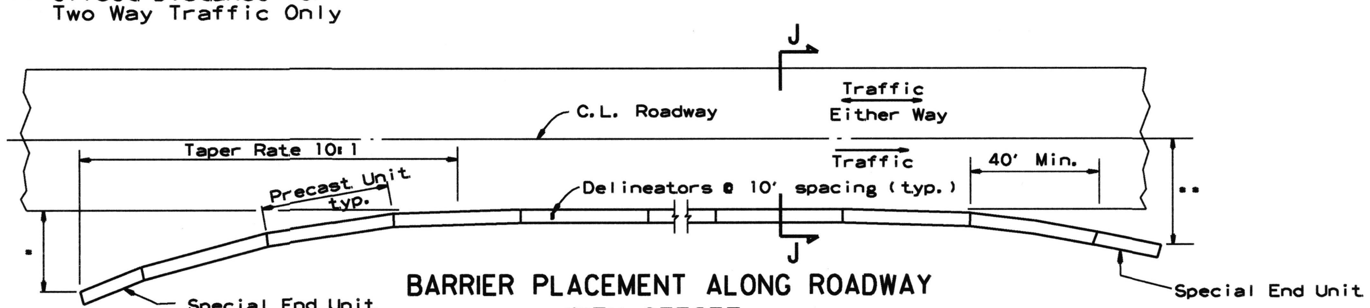
* Offset Distance (See Table)

** Offset Distance for Two Way Traffic Only



SECTION J-J

No Scale



BARRIER PLACEMENT ALONG ROADWAY WITH OFFSET

No Scale

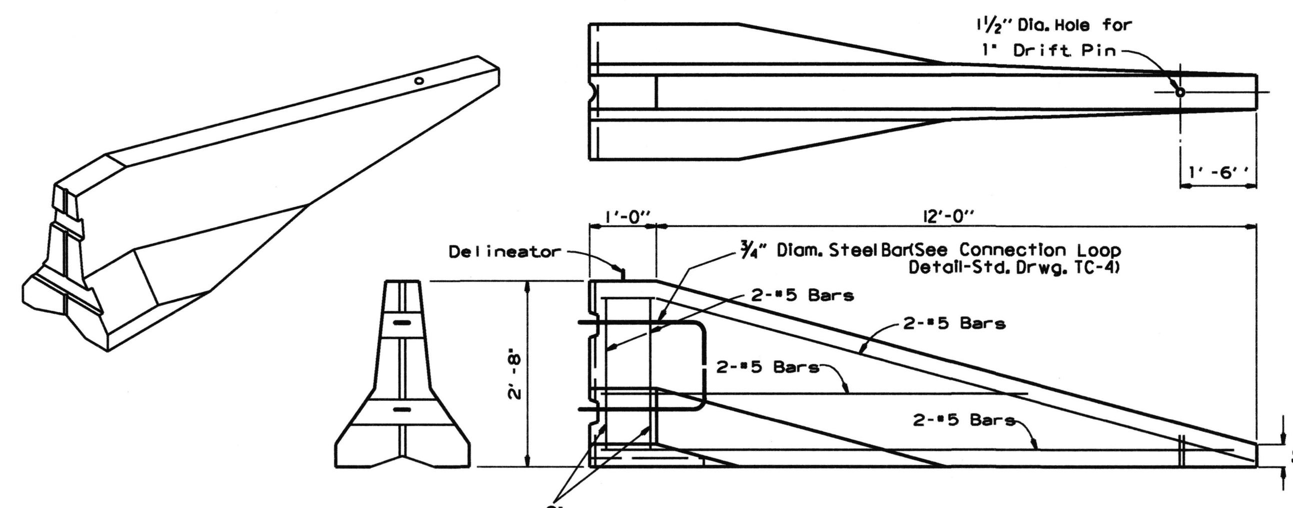
** Offset Distance For Two Way Traffic Only

* Offset Distance (See Table)

Offset Distance Table

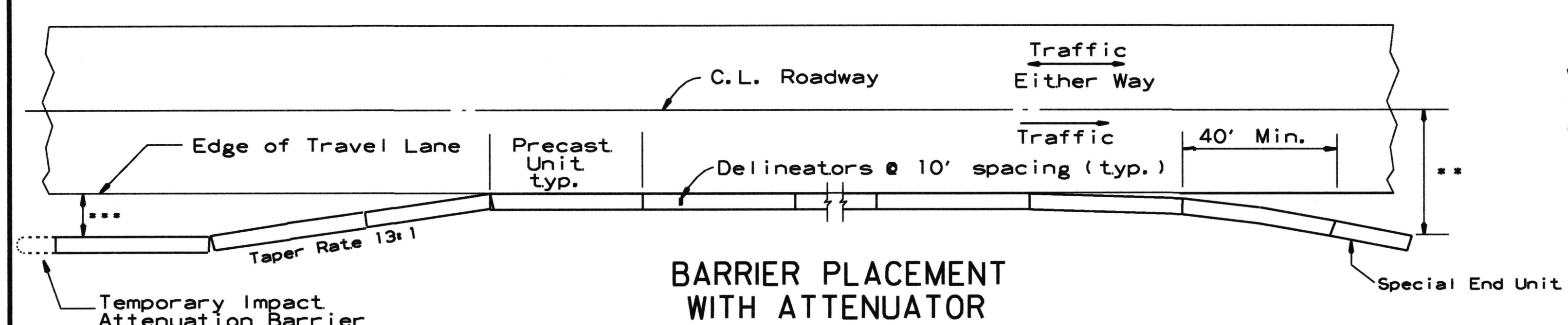
Speed (MPH)	Offset Distance (FT.)
≤ 45	12
> 45	18

If offset distance is not attainable, then see "Barrier Placement With Attenuator" Detail shown below.



SPECIAL END UNIT

No Scale



BARRIER PLACEMENT WITH ATTENUATOR

No Scale

*** Min. 3'-0" From Edge of Travel Lane to Nearest Edge of Attenuator

** Offset Distance For Two Way Traffic Only

General Notes

When shown on the Plans, the ends of the Temporary Precast Concrete Barrier shall be protected with a Manual For Assessing Safety Hardware (MASH) approved Crash Cushion. Payment for Crash Cushions shall be made under the item of "Temporary Impact Attenuation Barrier."

DATE	REVISION	FILMED
11-07-19	REVISED NOTE	
10-15-09	ADDED REFERENCE TO MASH	
5-25-06	REVISED BARRIER PLACEMENT	
8-22-02	ISSUED NEW DRAWING	

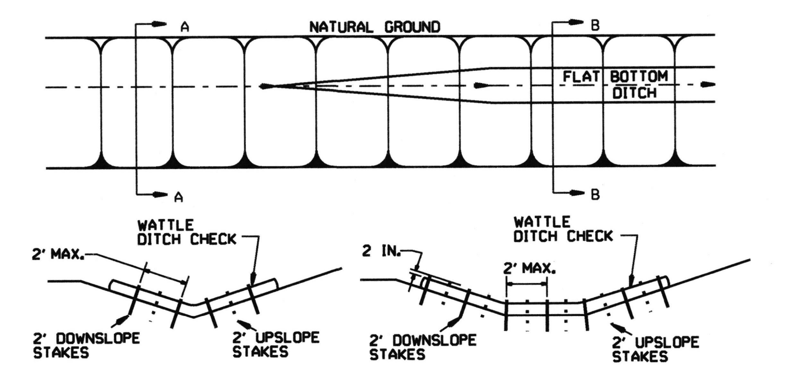
ARKANSAS STATE HIGHWAY COMMISSION

STANDARD TRAFFIC CONTROLS FOR HIGHWAY CONSTRUCTION - TEMPORARY PRECAST BARRIER

STANDARD DRAWING TC-5

GENERAL NOTES

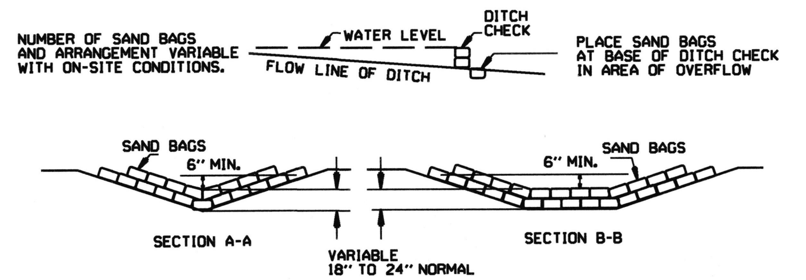
INSTALL A MINIMUM OF 2 UPSLOPE STAKES AND 4 DOWNSLOPE STAKES AT AN ANGLE TO WEDGE WATTLE TO BOTTOM OF DITCH.



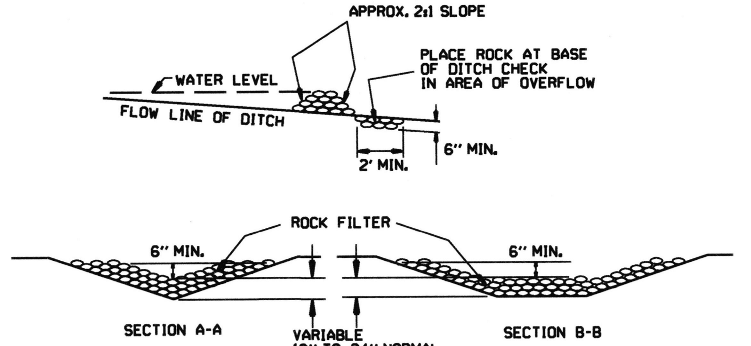
SECTION A-A
ROADSIDE DITCHES
(V-TYPE)

SECTION B-B
ROADSIDE DITCHES
(FLAT-BOTTOM TYPE)

WATTLE DITCH CHECK (E-1)



SAND BAG DITCH CHECK (E-5)

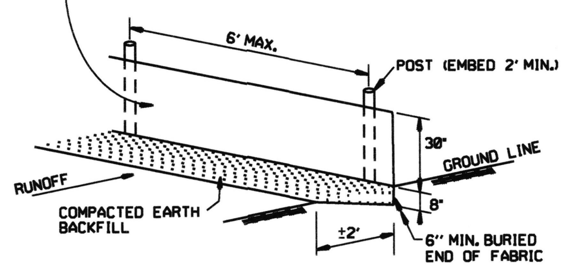


ROCK DITCH CHECK (E-6)

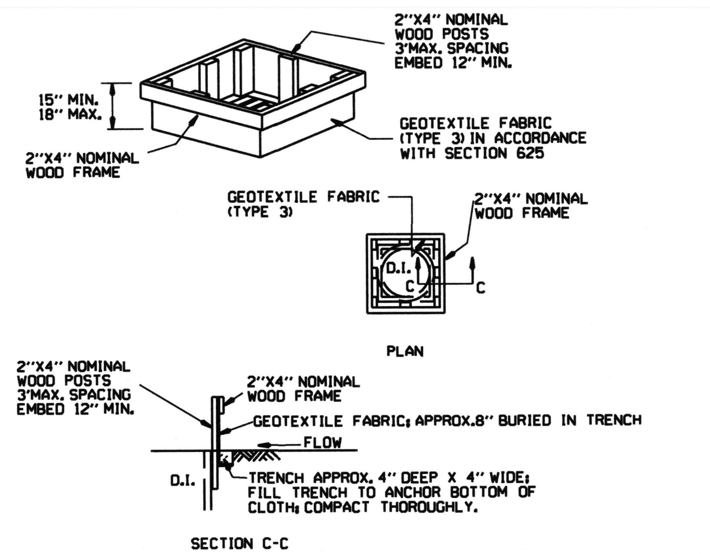
GENERAL NOTES

GEOTEXTILE FABRIC (TYPE 4) IN ACCORDANCE WITH SECTION 625

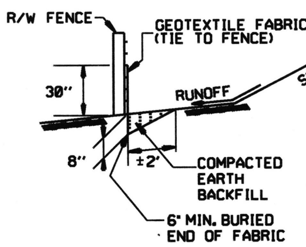
GEOTEXTILE FABRIC SHALL BE SPLICED TOGETHER WITH A SEWN SEAM ONLY AT A SUPPORT POST OR TWO SECTIONS OF FENCE MAY BE OVERLAPPED INSTEAD. PAYMENT OF ADDITIONAL MATERIAL FOR OVERLAP WILL NOT BE MADE.



SILT FENCE (E-11)

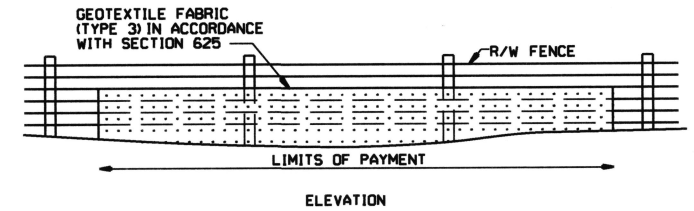


DROP INLET SILT FENCE (E-7)



GENERAL NOTES

GEOTEXTILE FABRIC SHALL BE SPLICED TOGETHER WITH A SEWN SEAM ONLY AT A SUPPORT POST, OR TWO SECTIONS OF FENCE MAY BE OVERLAPPED INSTEAD. PAYMENT OF ADDITIONAL MATERIAL FOR OVERLAP WILL NOT BE MADE.



ELEVATION

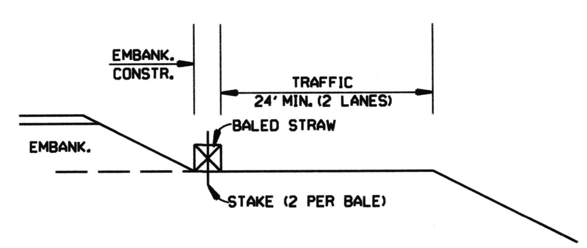
SILT FENCE ON R/W FENCE (E-4)

GENERAL NOTES

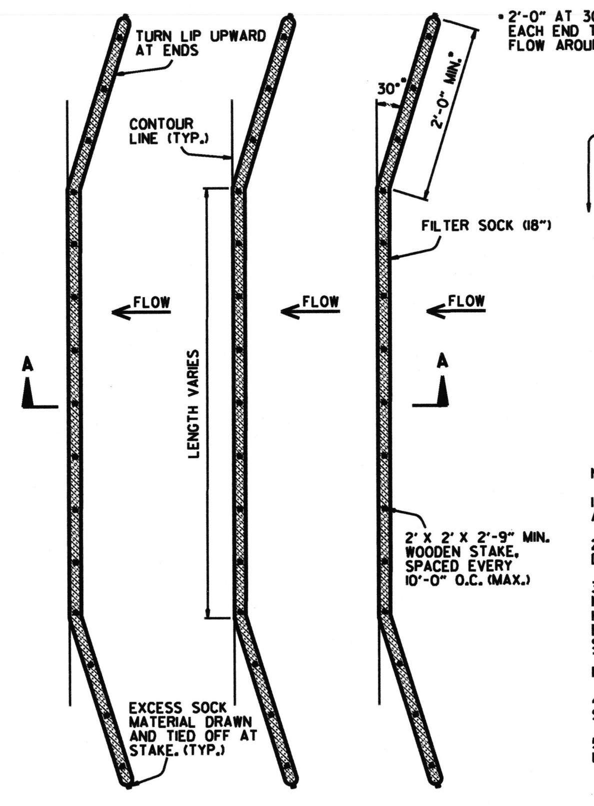
1. STRAW BALES SHALL BE INSTALLED SO THAT THE BINDINGS ARE ORIENTED AROUND THE SIDES RATHER THAN ALONG THE TOPS AND BOTTOMS OF THE BALES. THE BALES SHALL BE A MINIMUM OF 30 INCHES IN LENGTH.

2. NO GAPS SHALL BE LEFT BETWEEN BALES.

3. BALED STRAW FILTER BARRIERS COMPLETED AND ACCEPTED WILL BE MEASURED BY THE BALE IN PLACE AS AUTHORIZED BY THE ENGINEER AND WILL BE PAID FOR AT THE CONTRACT UNIT PRICE BID PER BALE FOR BALED STRAW DITCH CHECKS.

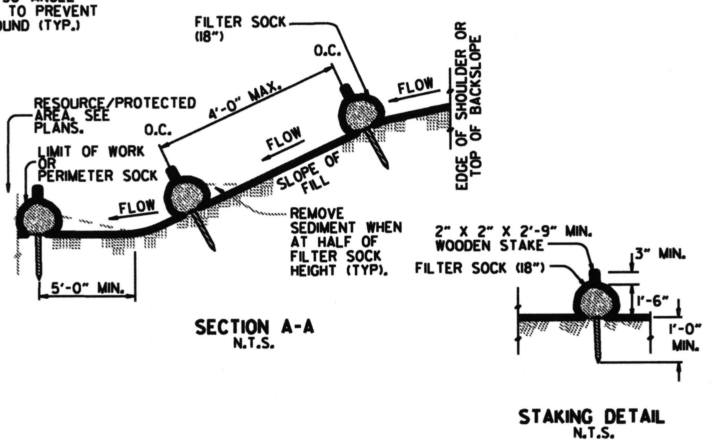


BALED STRAW FILTER BARRIER (E-2)



PLAN VIEW
N.T.S.

* 2'-0" AT 30° ANGLE EACH END TO PREVENT FLOW AROUND (TYP.)



SECTION A-A
N.T.S.

STAKING DETAIL
N.T.S.

NOTES:

1. FILTER SOCKS CAN BE PLACED AT THE TOP, ON THE FACE, AND AT THE TOE OF SLOPES AS SEDIMENT-TRAPPING DEVICES FOR SHEET FLOW RUNOFF.

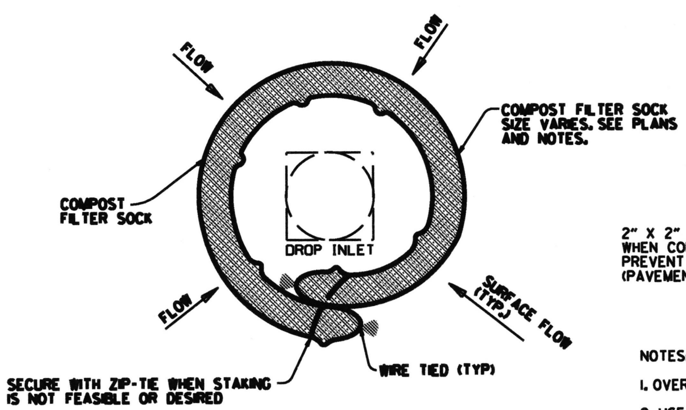
2. FILTER SOCKS ARE TYPICALLY SUPPLIED AND INSTALLED WITH 18 INCH DIAMETERS. DIAMETER TOLERANCE IS 2 INCHES, AS FILTER SOCKS TEND TO FLATTEN OUT WHEN PLACED.

3. STEEL POSTS MAY BE USED AND SHALL BE ROLLED FROM HIGH CARBON STEEL AND HAVE A MINIMUM OF 1.25 LB./FT. POSTS SHALL BE HOT-DIPPED GALVANIZED OR PAINTED WITH HIGH-GRADE WEATHER RESISTANT BROWN OR BLACK STEEL PAINT. STEEL POSTS SHALL BE EQUIPPED WITH ANCHOR PLATE HAVING A MINIMUM AREA OF 14 SQUARE INCHES. POSTS SHALL BE STUDDED, EMBOSSED, OR PUNCHED. POSTS AND ANCHOR PLATES SHALL CONFORM TO THE REQUIREMENTS OF ASTM A702. NO ADDITIONAL PAYMENT WILL BE PROVIDED FOR STEEL POSTS, BUT PRICE WILL BE CONSIDERED SUBIDIARY TO "FILTER SOCK (18")."

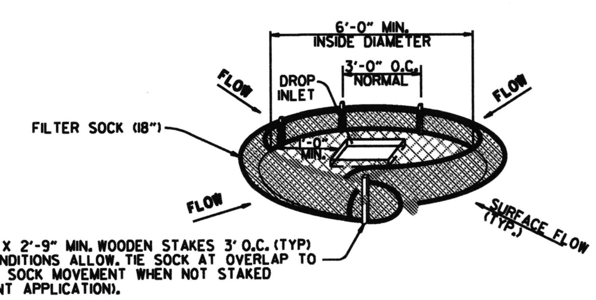
4. FILTER SOCKS MAY BE UP TO 250 FEET LONG. WHEN USED ON LONG SLOPES, FILTER SOCKS MAY BE JOINTED OR STAGGERED AS SHOWN IN DETAILS.

5. INSPECT FILTER SOCKS AFTER EACH RUNOFF EVENT. REMOVE AND REPLACE IF SIGNS OF UNDERCUTTING OR DOWNSTREAM RILLS ARE OBSERVED.

FILTER SOCK ALONG SLOPE (E-3)



DROP INLET PLAN VIEW
N.T.S.



DROP INLET PERSPECTIVE VIEW
N.T.S.

NOTES:

1. OVERLAP ENDS OF SOCK (1' MIN. 3' MAX.).

2. USE 18" DIA. SOCK IN NON-TRAFFIC AREAS OR AREAS WHERE SAFETY IS NOT A CONCERN.

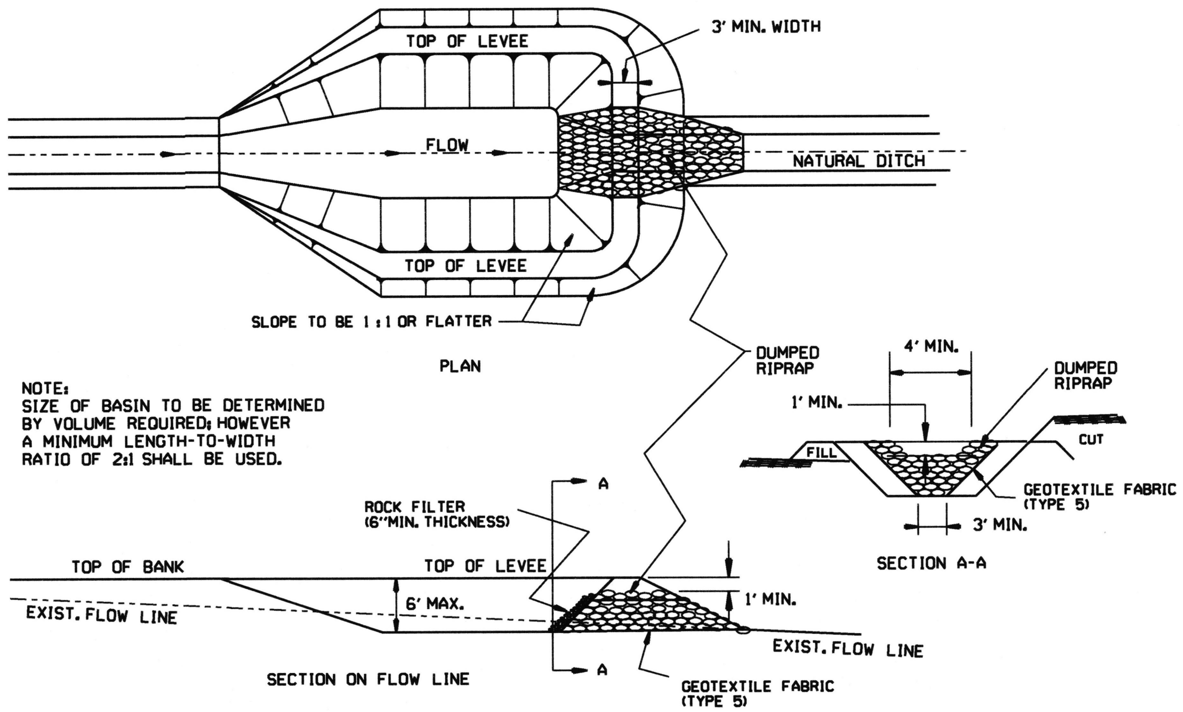
COMPOST FILTER SOCK DROP INLET PROTECTION (E-13)

DATE	REVISION	FILMED
11-16-17	ADDED FILTER SOCK E-3 AND E-13	
12-15-11	DELETED BALED STRAW DITCH CHECK & ADDED WATTLE DITCH CHECK	
11-18-98	ADDED NOTES	
07-02-98	ADDED BALED STRAW FILTER BARRIER (E-2)	
07-20-95	REVISED SILT FENCE E-4 AND E-11	7-20-95
07-15-94	REV. E-4 & E-11 MIN. 13" BURIED END OF FABRIC	
06-02-94	REVISED E-1,4,7 & 11; DELETED E-2 & 3	6-2-94
04-01-93	REDRAWN	
10-01-92	REDRAWN	
08-02-76	ISSUED R.D.M.	298-7-28-76

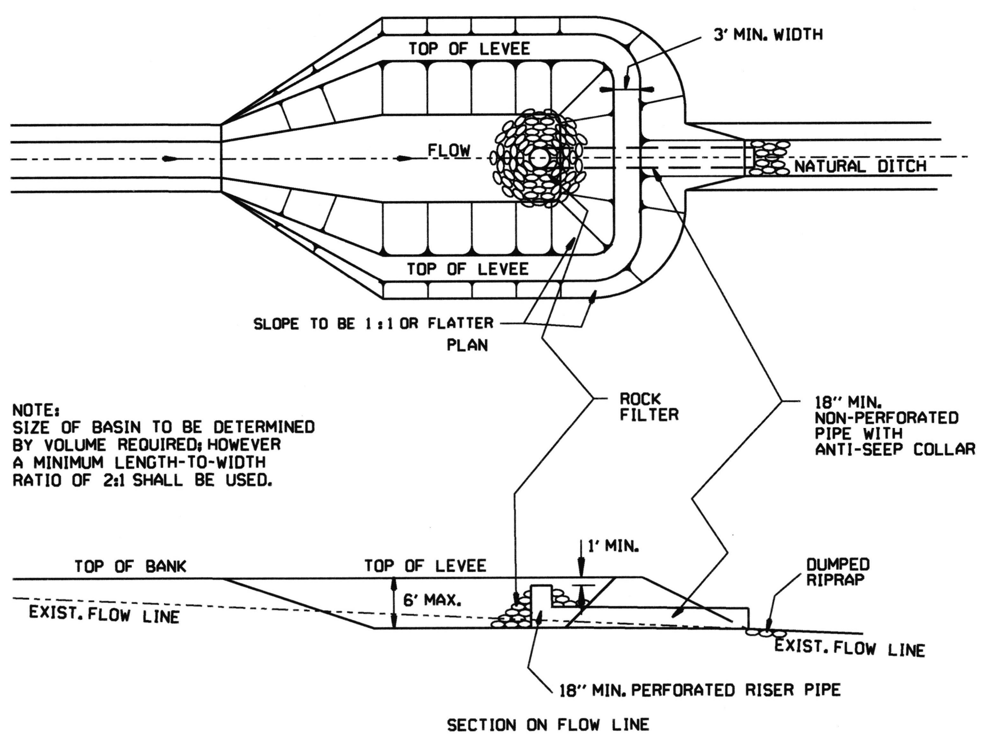
ARKANSAS STATE HIGHWAY COMMISSION

TEMPORARY EROSION CONTROL DEVICES

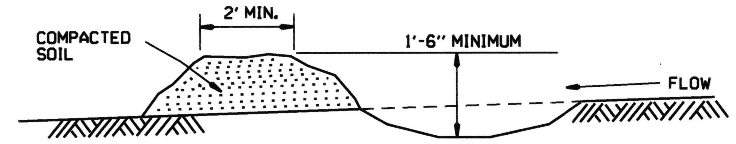
STANDARD DRAWING TEC-1



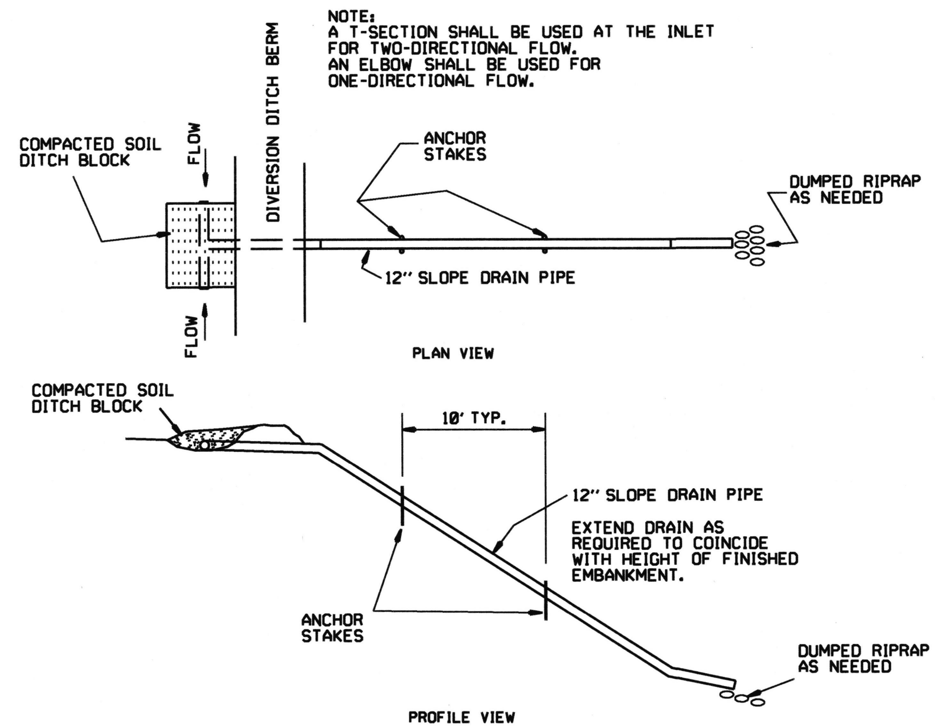
SEDIMENT BASIN WITH RIPRAP OUTLET (E-9)



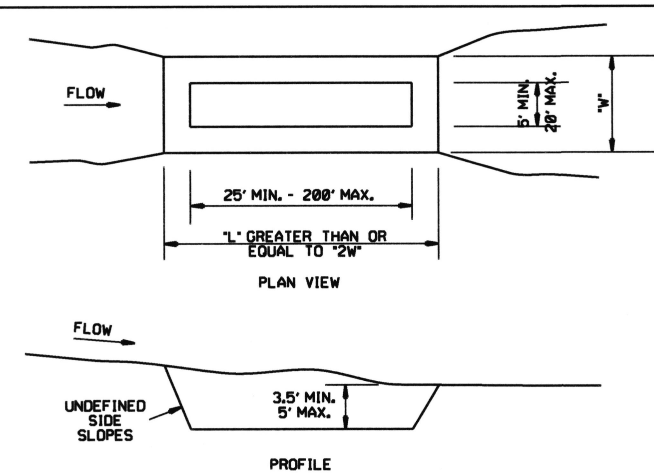
SEDIMENT BASIN WITH PIPE OUTLET (E-10)



DIVERSION DITCH (E-8)



SLOPE DRAIN (E-12)



SEDIMENT BASIN (E-14)

DATE	REVISION	FILMED
6-2-94	Revised E-8 & E-12; Added E-14 & Deleted E-13	
4-1-93	ISSUED	

ARKANSAS STATE HIGHWAY COMMISSION

TEMPORARY EROSION CONTROL DEVICES

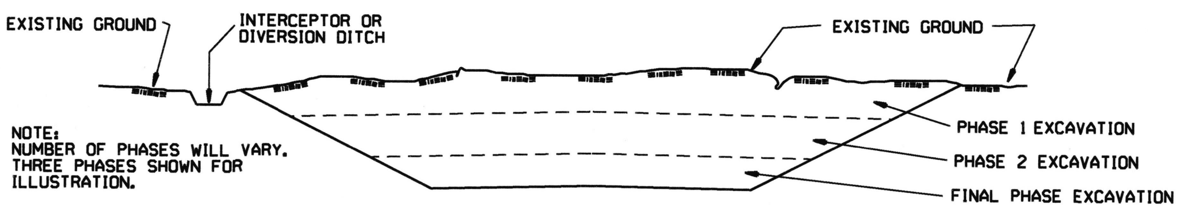
STANDARD DRAWING TEC-2

CLEARING AND GRUBBING

CONSTRUCTION SEQUENCE

1. PLACE PERIMETER CONTROLS (I.E. SILT FENCES , DIVERSION DITCHES, SEDIMENT BASINS, ETC.)
2. PERFORM CLEARING AND GRUBBING OPERATION.

EXCAVATION



NOTE:
NUMBER OF PHASES WILL VARY.
THREE PHASES SHOWN FOR ILLUSTRATION.

GENERAL NOTE

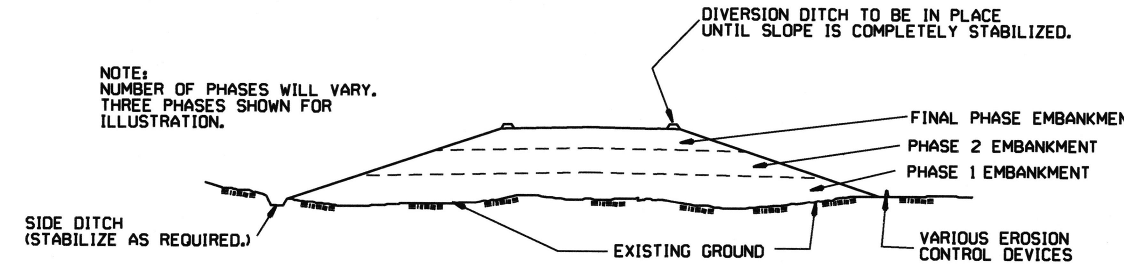
ALL CUT SLOPES SHALL BE DRESSED, PREPARED, SEEDED, AND MULCHED AS THE WORK PROGRESSES. SLOPES SHALL BE EXCAVATED AND STABILIZED IN EQUAL INCREMENTS NOT TO EXCEED 25 FEET, MEASURED VERTICALLY.

CONSTRUCTION SEQUENCE

1. EXCAVATE AND STABILIZE INTERCEPTOR AND/OR DIVERSION DITCHES.
2. PERFORM PHASE 1 EXCAVATION. PLACE PERMANENT OR TEMPORARY SEEDING.
3. PERFORM PHASE 2 EXCAVATION. PLACE PERMANENT OR TEMPORARY SEEDING.
4. PERFORM FINAL PHASE OF EXCAVATION. PLACE PERMANENT OR TEMPORARY SEEDING. STABILIZE DITCHES, CONSTRUCT DITCH CHECKS, DIVERSION DITCHES, SEDIMENT BASINS, OR OTHER EROSION CONTROL DEVICES AS REQUIRED.

EMBANKMENT

NOTE:
NUMBER OF PHASES WILL VARY.
THREE PHASES SHOWN FOR ILLUSTRATION.



GENERAL NOTE

ALL EMBANKMENT SLOPES SHALL BE DRESSED, PREPARED, SEEDED, AND MULCHED AS THE WORK PROGRESSES. SLOPES SHALL BE CONSTRUCTED AND STABILIZED IN EQUAL INCREMENTS NOT TO EXCEED 25 FEET, MEASURED VERTICALLY.

CONSTRUCTION SEQUENCE

1. CONSTRUCT DIVERSION DITCHES, DITCH CHECKS, SEDIMENT BASINS, SILT FENCES, OR OTHER EROSION CONTROL DEVICES AS SPECIFIED.
2. PLACE PHASE 1 EMBANKMENT WITH PERMANENT OR TEMPORARY SEEDING. PROVIDE DIVERSION DITCHES AND SLOPE DRAINS IF EMBANKMENT CONSTRUCTION IS TO BE TEMPORARILY ABANDONED FOR A PERIOD OF GREATER THAN 21 DAYS.
3. PLACE PHASE 2 EMBANKMENT WITH PERMANENT OR TEMPORARY SEEDING. PROVIDE DIVERSION DITCHES AND SLOPE DRAINS IF EMBANKMENT CONSTRUCTION IS TO BE TEMPORARILY ABANDONED FOR A PERIOD OF GREATER THAN 21 DAYS.
4. PLACE FINAL PHASE OF EMBANKMENT WITH PERMANENT OR TEMPORARY SEEDING. PLACE DIVERSION DITCHES AND SLOPE DRAINS AND MAINTAIN UNTIL ENTIRE SLOPE IS STABILIZED.

DATE	REVISION	FILMED
11-03-94	CORRECTED SPELLING	
6-2-94	Drawn & Issued	6-2-94

ARKANSAS STATE HIGHWAY COMMISSION

TEMPORARY EROSION CONTROL DEVICES

STANDARD DRAWING TEC-3