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.		080426	1	271
				(2)	BONO-HWY. 124 (REHAB.) (S)			

ARKANSAS STATE HIGHWAY AND TRANSPORTATION DEPARTMENT

CONSTRUCTION PLANS FOR STATE HIGHWAY

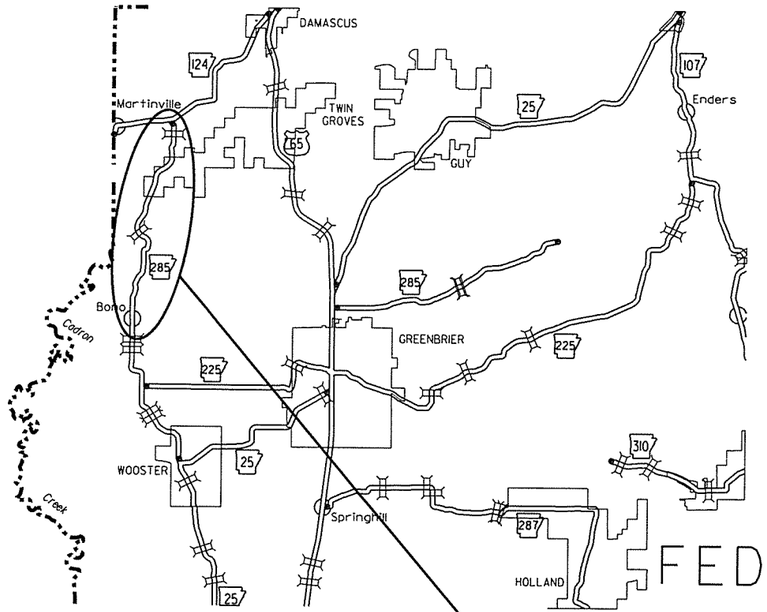
BONO-HWY. 124 (REHAB.) (S)

FAULKNER COUNTY

ROUTE 285 SECTION 1

JOB 080426

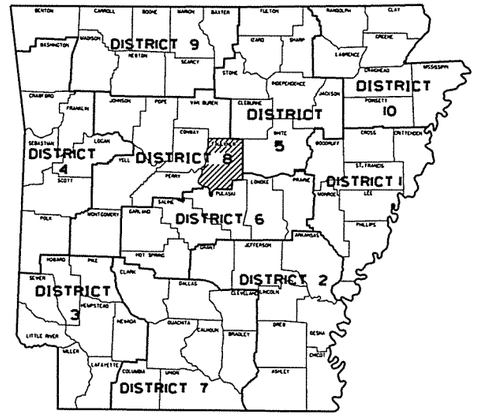
FED. AID PROJ. STPR-0023(48)



VICINITY MAP

PROJECT LOCATION

NOT TO SCALE



ARK. HWY. DIST. NO. 8

STA. 407+50.00
END SITE 4 JOB 080426

STA. 391+45.00
BEGIN SITE 4 LOG MILE 9.60

STA. 378+99.91
END SITE 3

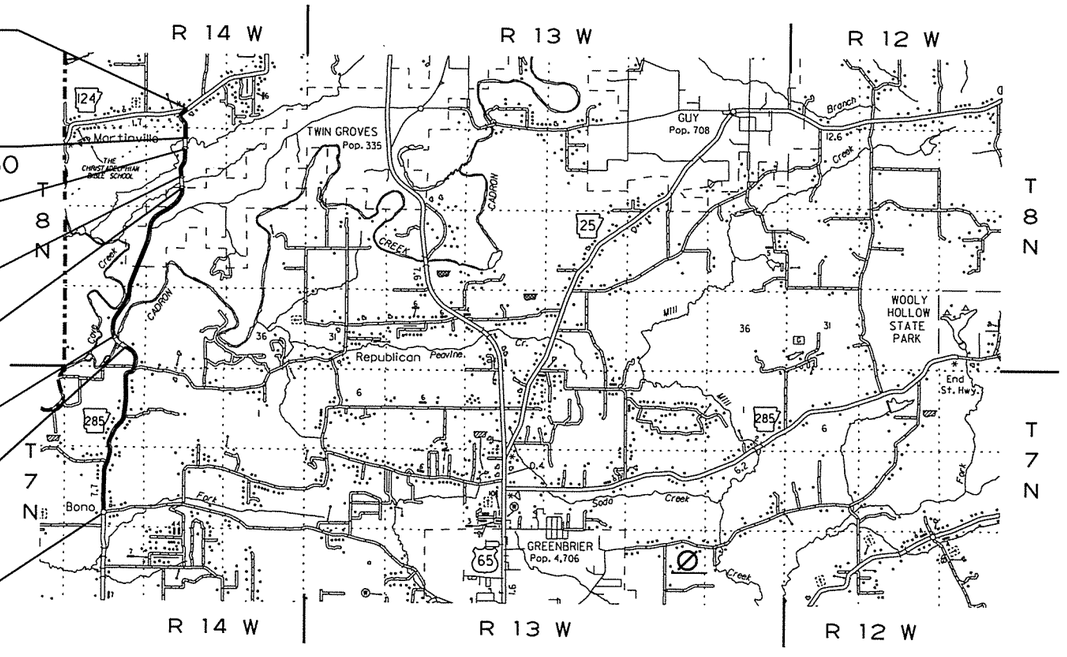
STA. 363+00.00
BEGIN SITE 3 LOG MILE 9.07

STA. 353+73.14
END SITE 2

STA. 246+85.00
BEGIN SITE 2 LOG MILE 6.86

STA. 226+97.47
END SITE 1

STA. 111+40.00
BEGIN JOB 080426 - SITE 1
LOG MILE = 4.30



DESIGN TRAFFIC DATA

DESIGN YEAR	2035
2016 ADT	550
2036 ADT	800
2036 DHV	88
DIRECTIONAL DISTRIBUTION	0.60
TRUCKS	3%
DESIGN SPEED	40 MPH

N

APPROVED

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

12-9-15

DEPUTY DIRECTOR AND CHIEF ENGINEER

BEGINNING OF PROJECT	MID POINT OF PROJECT	END OF PROJECT
LATITUDE = N 35°15'17" LONGITUDE = W 92°28'35"	LATITUDE = N 35°17'30" LONGITUDE = W 92°28'17"	LATITUDE = N 35°19'39" LONGITUDE = W 92°27'21"

GROSS LENGTH OF	PROJECT	25450.52	FEET	OR	4.820	MILES
NET	" "	ROADWAY	25450.52	"	"	4.820	"
NET	" "	BRIDGES	0.00	"	"	0.000	"
NET	" "	PROJECT	25450.52	"	"	4.820	"

P.E. 080426

7/24/2015

R080426.DGN

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
1/21/16				6	ARK.			
1/28/16				JOB NO.		080426	2	271
2/3/16								

(2) INDEX OF SHEETS, GOVERNING SPECIFICATIONS, & GENERAL NOTES

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
2-3-16

INDEX OF SHEETS

SHEET NO.	TITLE	DRWG.NO.	DATE
1	TITLE SHEET		
2	INDEX OF SHEETS, GOVERNING SPECIFICATIONS, AND GENERAL NOTES		
3 - 5	TYPICAL SECTIONS OF IMPROVEMENT		
6 - 9	SPECIAL DETAILS		
10 - 32	TEMPORARY EROSION CONTROL DETAILS		
33 - 49	MAINTENANCE OF TRAFFIC DETAILS		
50 - 57	QUANTITIES		
58	SUMMARY OF QUANTITIES AND REVISIONS		
59 - 73	SURVEY CONTROL DETAILS		
74	SOIL LOG		
75 - 99	PLAN AND PROFILE SHEETS		
100	CONCRETE DITCH PAVING	CDP-1	11-17-10
101	DETAILS OF DRIVEWAYS & ISLANDS	DR-1	2-27-14
102	FLARED END SECTION	FES-1	10-18-96
103	FLARED END SECTION	FES-2	10-18-96
104	GUARD RAIL DETAILS	GR-8	7-14-10
105	GUARD RAIL DETAILS	GR-8A	7-14-10
106	GUARD RAIL DETAILS	GR-9A	4-17-08
107	GUARD RAIL DETAILS	GR-10A	7-14-10
108	MAILBOX DETAILS	MB-1	11-18-04
109	CONCRETE PIPE CULVERT FILL HEIGHTS & BEDDING	PCC-1	2-27-14
110	METAL PIPE CULVERT FILL HEIGHTS & BEDDING	PCM-1	2-27-14
111	PLASTIC PIPE CULVERT (HIGH DENSITY POLYETHYLENE)	PCP-1	2-27-14
112	PLASTIC PIPE CULVERT (PVC F949)	PCP-2	2-27-14
113	PAVEMENT MARKING DETAILS	PM-1	9-12-13
114	DETAILS OF PIPE UNDERDRAIN	PU-1	4-10-03
115	REINFORCED CONCRETE BOX CULVERT DETAILS	RCB-1	7-26-12
116	EXCAVATION PAY LIMITS, BACKFILL, & SOLID SODDING FOR BOX CULVERTS	RCB-2	11-20-03
117	METHOD OF EXTENDING EXISTING R.C. BOX CULVERTS	RCB-3	10-12-95
118	TABLES AND METHOD OF SUPERELEVATION FOR TWO-WAY TRAFFIC	SE-2	10-18-96
119	DETAILS OF SPECIAL ITEMS	SI-1	9-12-13
120	REINFORCED CONCRETE RETAINING WALL (WITHOUT LIVE LOAD SURCHARGE)	SI-2	2-27-14
121	STANDARD TRAFFIC CONTROLS FOR HIGHWAY CONSTRUCTION	TC-1	9-02-15
122	STANDARD TRAFFIC CONTROLS FOR HIGHWAY CONSTRUCTION	TC-2	9-02-15
123	STANDARD TRAFFIC CONTROLS FOR HIGHWAY CONSTRUCTION	TC-3	9-02-15
124	STANDARD TRAFFIC CONTROLS FOR HIGHWAY CONSTRUCTION - TEMPORARY PRECAST BARRIER	TC-4	2-27-14
125	STANDARD TRAFFIC CONTROLS FOR HIGHWAY CONSTRUCTION - TEMPORARY PRECAST BARRIER	TC-5	10-15-09
126	TEMPORARY EROSION CONTROL DEVICES	TEC-1	12-15-11
127	TEMPORARY EROSION CONTROL DEVICES	TEC-2	6-02-94
128	TEMPORARY EROSION CONTROL DEVICES	TEC-3	11-03-94
129	WIRE FENCE WATER GAPS	WF-2	4-20-79
130	CHAIN LINK FENCE	WF-3	11-17-10
131	WIRE FENCE TYPE C AND D	WF-4	8-22-02
132 - 271	CROSS SECTIONS		

NOTE: CROSS SECTIONS NOT NORMALLY INCLUDED IN PLANS SOLD TO PROSPECTIVE BIDDERS, BUT MAY BE HAD UPON REQUEST.

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 - TRAINING PROGRAM - JOB 080426
FHWA-1273	SUPPLEMENT - POSTERS AND NOTICES REQUIRED FOR FEDERAL-AID PROJECTS
FHWA-1273	SUPPLEMENT - WAGE RATE DETERMINATION
100-3	CONTRACTOR'S LICENSE
108-1	LIQUIDATED DAMAGES
400-1	TACK COATS
410-1	CONSTRUCTION REQUIREMENTS AND ACCEPTANCE OF ASPHALT CONCRETE PLANT MIX COURSES
604-1	RETROREFLECTIVE SHEETING FOR TRAFFIC CONTROL DEVICES IN CONSTRUCTION ZONES
606-1	PIPE CULVERTS FOR SIDE DRAINS
620-1	MULCH COVER
JOB 080426	BIDDING REQUIREMENTS AND CONDITIONS
JOB 080426	BROADBAND INTERNET SERVICE FOR ASPHALT CONCRETE PLANT
JOB 080426	BROADBAND INTERNET SERVICE FOR FIELD OFFICE
JOB 080426	CARGO PREFERENCE ACT REQUIREMENTS
JOB 080426	DISADVANTAGED BUSINESS ENTERPRISE BIDDER'S RESPONSIBILITIES
JOB 080426	EXTENSION FOR PIPE CULVERTS
JOB 080426	GOALS FOR DISADVANTAGED BUSINESS ENTERPRISE PARTICIPATION
JOB 080426	MANDATORY ELECTRONIC CONTRACT
JOB 080426	PARTNERING REQUIREMENTS
JOB 080426	PLASTIC PIPE
JOB 080426	ROCK FILL
JOB 080426	SHORING FOR CULVERTS
JOB 080426	SOIL STABILIZATION
JOB 080426	STORM WATER POLLUTION PREVENTION PLAN
JOB 080426	SUBMISSION OF ASPHALT CONCRETE HOT MIX ACCEPTANCE TEST RESULTS
JOB 080426	UTILITY ADJUSTMENTS
JOB 080426	VALUE ENGINEERING
JOB 080426	WARM MIX ASPHALT

GENERAL NOTES

1. GRADE LINE DENOTES FINISHED GRADE WHERE SHOWN ON PLANS.
2. ALL PIPE LINES, POWER, TELEPHONE, AND TELEGRAPH LINES TO BE MOVED OR LOWERED BY THE RESPECTIVE OWNERS AS PER AGREEMENT WITH SUCH OWNERS.
3. 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.
4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING U. S. MAILBOXES WITHIN THE PROJECT LIMITS IN SUCH A MANNER THAT THE PUBLIC MAY RECEIVE CONTINUED MAIL SERVICE. PAYMENT WILL BE CONSIDERED INCLUDED IN THE PRICE BID FOR THE VARIOUS BID ITEMS.
5. ALL LAND MONUMENTS LOCATED WITHIN THE CONSTRUCTION AREA SHALL BE PROTECTED IN ACCORDANCE WITH SECTION 107.12 OF THE STANDARD SPECIFICATIONS.
6. 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 INSURE THAT ALL TREES NOT TO BE REMOVED SHALL BE HARMED AS LITTLE AS POSSIBLE DURING THE CONSTRUCTION OPERATIONS.
7. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING A FENCE TO CONTROL LIVESTOCK IN AREAS WHERE PASTURES ARE SEVERED. WIRE FENCE MAY BE CONSTRUCTED INITIALLY, OR IN LIEU THEREOF, THE CONTRACTOR AT HIS OWN EXPENSE, MAY ELECT TO PROVIDE TEMPORARY FENCING SUITABLE TO CONTAIN LIVESTOCK.
8. THIS PROJECT IS COVERED UNDER A SECTION 404 NATIONWIDE 14 PERMIT. REFER TO SECTION 110 OF THE STANDARD SPECIFICATIONS, EDITION OF 2014, FOR PERMIT REQUIREMENTS.
9. ALL FLEXIBLE BASE AND ASPHALTIC PAVEMENTS REMOVED SHALL BE PAID FOR UNDER THE ITEM NO. 210 - UNCLASSIFIED EXCAVATION.
10. 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.

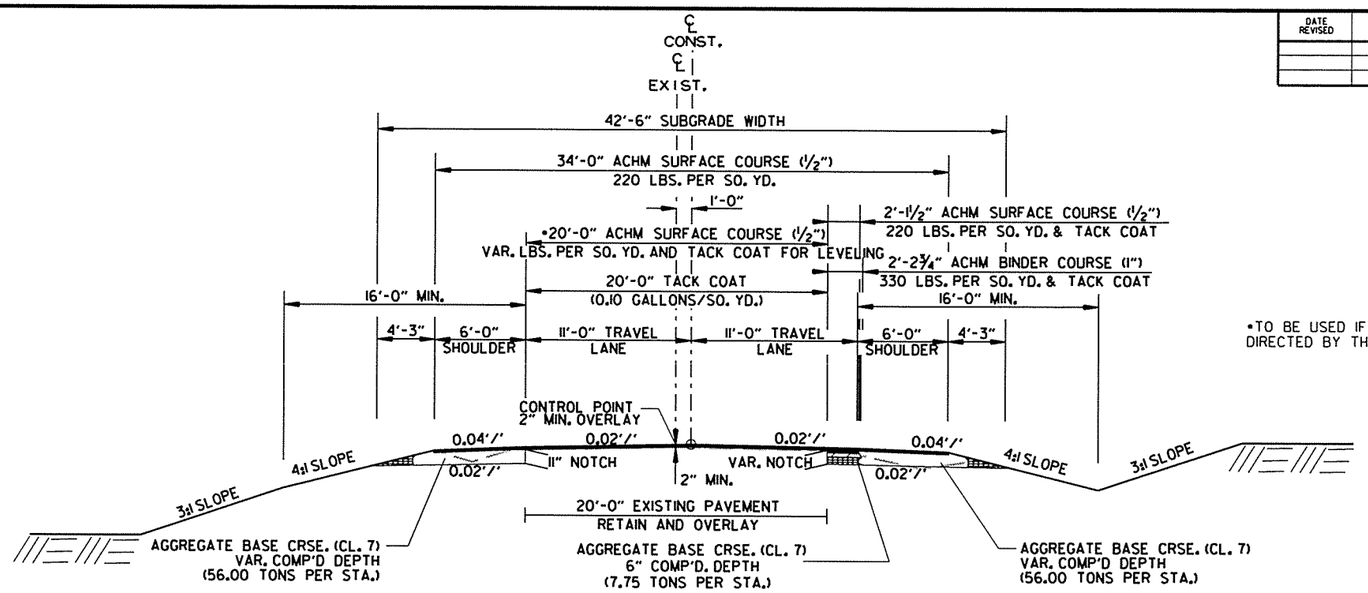
R080426.DGN 2/2/2016

INDEX OF SHEETS, GOVERNING SPECIFICATIONS, & 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.		080426	3	271

(2) TYPICAL SECTIONS OF IMPROVEMENT

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
12-4-15



•TO BE USED IF AND WHERE DIRECTED BY THE ENGINEER

HWY. 285 - NOTCH & WIDEN

SITE 1
STA. 111+40.00 TO STA. 173+35.24
STA. 181+74.44 TO STA. 206+98.15
STA. 212+89.19 TO STA. 226+95.81

SITE 2
STA. 246+85.00 TO STA. 280+13.64
STA. 284+84.85 TO STA. 287+48.99
STA. 290+78.44 TO STA. 291+85.25
STA. 294+92.60 TO STA. 298+72.26
STA. 295+43.40 TO STA. 296+97.79
STA. 300+53.83 TO STA. 304+28.53
STA. 308+37.73 TO STA. 310+83.15
STA. 312+45.72 TO STA. 317+95.66
STA. 342+77.29 TO STA. 353+73.14

SITE 3
STA. 363+00.00 TO STA. 378+99.91

SITE 4
STA. 391+45.00 TO STA. 396+78.25
STA. 404+61.19 TO STA. 407+50.00
STA. 499+12.51 TO STA. 502+06.00

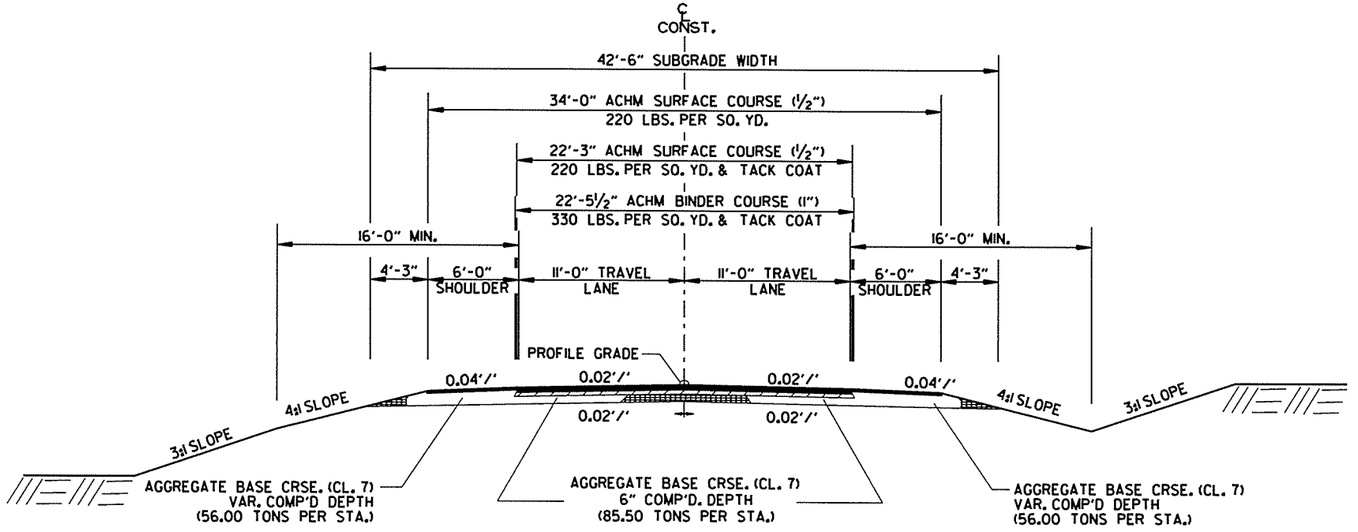
NOTES:

THE THICKNESS OF AGGREGATE BASE COURSE SHALL BE WITHIN PLUS OR MINUS ONE INCH OF THE PLAN THICKNESS SHOWN. THE CONTRACTOR WILL CORRECT ANY DEFICIENT THICKNESS THAT DOES NOT MEET TOLERANCE INDICATED. PAYMENT WILL NOT BE MADE FOR MATERIAL PLACED IN EXCESS OF THE TOLERANCE INDICATED.

REFER TO CROSS SECTIONS FOR DEVIATION FROM THE NORMAL SLOPES. NO CHANGES SHALL BE MADE FROM THE PLANNED SLOPES WITHOUT THE APPROVAL OF THE ENGINEER.

ASPHALT FOR LEVELING OF EXISTING PAVEMENT SHALL BE PLACED ONLY IF AND WHERE DIRECTED BY THE ENGINEER. CALCULATIONS FOR THE AMOUNT OF LEVELING AND/OR LEVELING OPERATIONS SHALL BE PERFORMED BEFORE CONSTRUCTING NOTCH AND WIDEN. CALCULATIONS WILL NOT BE PAID FOR DIRECTLY BUT PAYMENT WILL BE CONSIDERED INCLUDED IN THE VARIOUS PAY ITEMS.

THE FINAL 2" OF SURFACE COURSE IS TO BE PLACED AFTER ALL OTHER COURSES HAVE BEEN LAID. LONGITUDINAL JOINTS SHALL BE AT LANE LINES.



HWY. 285 - FULL DEPTH

SITE 1
STA. 173+35.24 TO STA. 181+74.44
STA. 206+98.15 TO STA. 212+89.19

SITE 2
STA. 280+13.64 TO STA. 284+84.85
STA. 287+48.99 TO STA. 290+78.44
STA. 291+85.25 TO STA. 295+43.40
STA. 296+97.79 TO STA. 300+53.83
STA. 304+28.53 TO STA. 308+37.73
STA. 310+83.15 TO STA. 312+45.72
STA. 317+95.66 TO STA. 342+77.29

SITE 4
STA. 396+78.25 TO STA. 404+61.19
STA. 502+06.00 TO STA. 505+16.14

11/30/2015

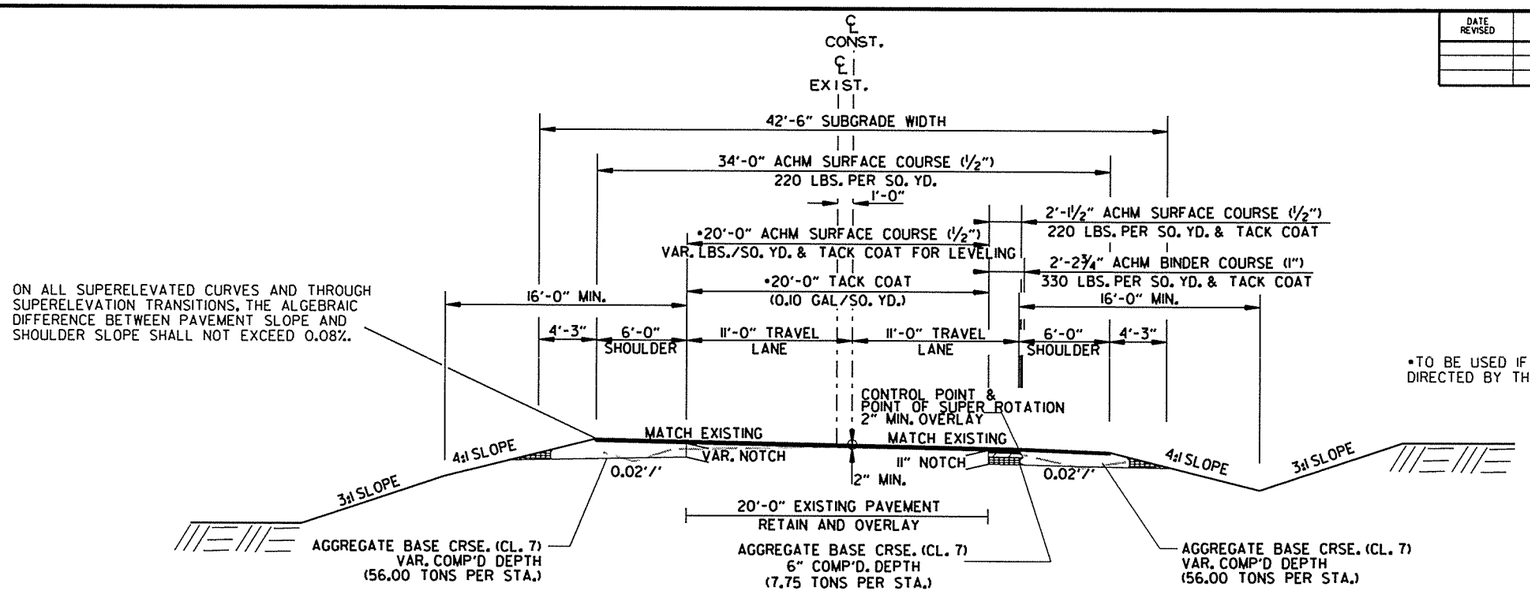
R080426.DGN

TYPICAL SECTIONS OF IMPROVEMENT

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		080426	4	271

(2) TYPICAL SECTIONS OF IMPROVEMENT

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
12-4-15



HWY. 285 - NOTCH & WIDEN
SUPERELEVATION SECTION

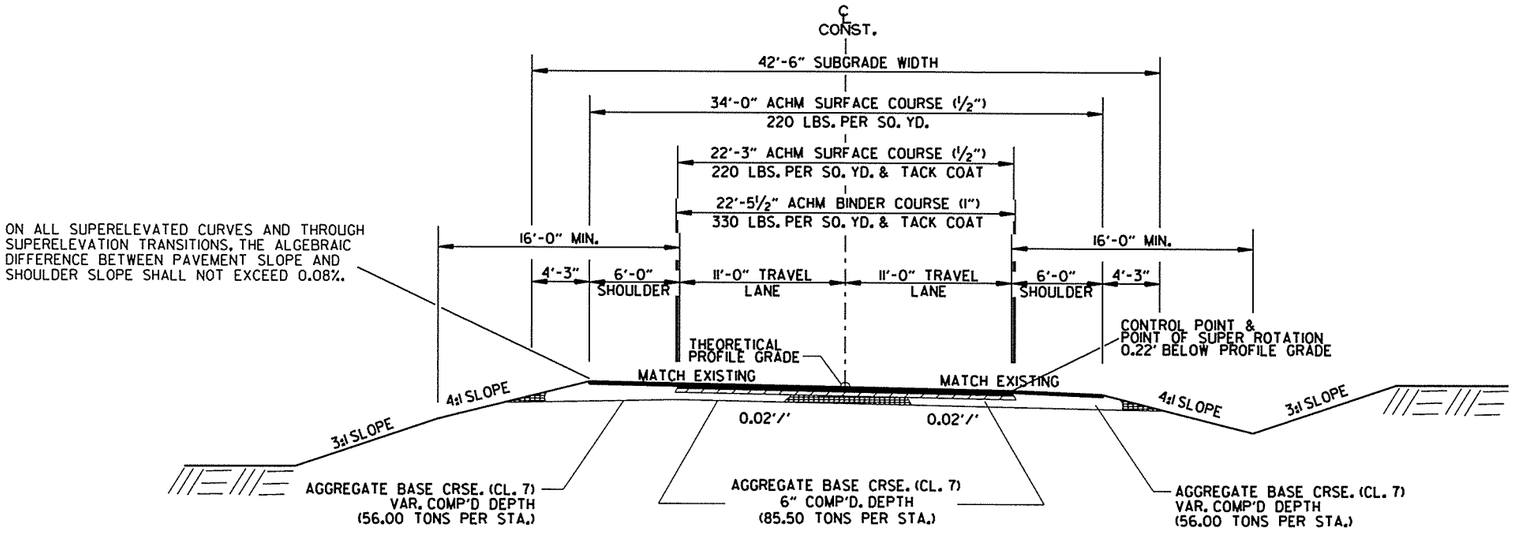
NOTES:

THE THICKNESS OF AGGREGATE BASE COURSE SHALL BE WITHIN PLUS OR MINUS ONE INCH OF THE PLAN THICKNESS SHOWN. THE CONTRACTOR WILL CORRECT ANY DEFICIENT THICKNESS THAT DOES NOT MEET TOLERANCE INDICATED. PAYMENT WILL NOT BE MADE FOR MATERIAL PLACED IN EXCESS OF THE TOLERANCE INDICATED.

REFER TO CROSS SECTIONS FOR DEVIATION FROM THE NORMAL SLOPES. NO CHANGES SHALL BE MADE FROM THE PLANNED SLOPES WITHOUT THE APPROVAL OF THE ENGINEER.

ASPHALT FOR LEVELING OF EXISTING PAVEMENT SHALL BE PLACED ONLY IF AND WHERE DIRECTED BY THE ENGINEER. CALCULATIONS FOR THE AMOUNT OF LEVELING AND/OR LEVELING OPERATIONS SHALL BE PERFORMED BEFORE CONSTRUCTING NOTCH AND WIDEN. CALCULATIONS WILL NOT BE PAID FOR DIRECTLY BUT PAYMENT WILL BE CONSIDERED INCLUDED IN THE VARIOUS PAY ITEMS.

THE FINAL 2" OF SURFACE COURSE IS TO BE PLACED AFTER ALL OTHER COURSES HAVE BEEN LAID. LONGITUDINAL JOINTS SHALL BE AT LANE LINES.



HWY. 285 - FULL DEPTH
SUPERELEVATION SECTION

11/30/2015

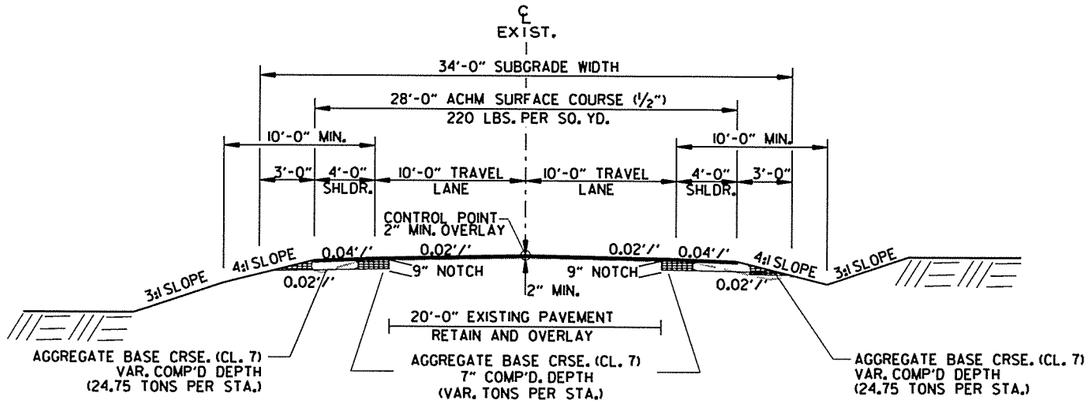
R080426.DGN

TYPICAL SECTIONS OF IMPROVEMENT

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		080426	5	271

(2) TYPICAL SECTIONS OF IMPROVEMENT

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
12-4-15



WEST REPUBLICAN RD. & WEST REPUBLICAN DETOUR - FULL DEPTH

WEST REPUBLICAN RD.
STA. 605+96.73 TO STA. 608+53.66

WEST REPUBLICAN DETOUR
STA. 699+75.31 TO STA. 700+96.07
STA. 706+13.76 TO STA. 708+30.00

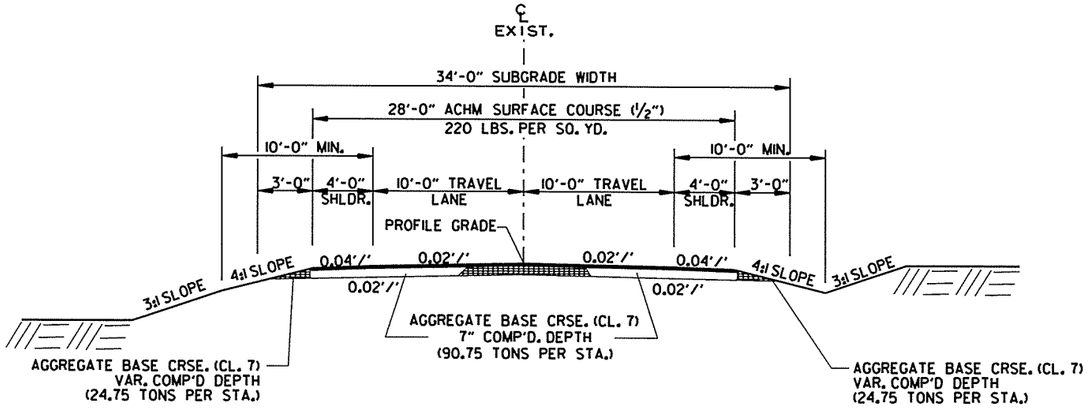
NOTES:

THE THICKNESS OF AGGREGATE BASE COURSE SHALL BE WITHIN PLUS OR MINUS ONE INCH OF THE PLAN THICKNESS SHOWN. THE CONTRACTOR WILL CORRECT ANY DEFICIENT THICKNESS THAT DOES NOT MEET TOLERANCE INDICATED. PAYMENT WILL NOT BE MADE FOR MATERIAL PLACED IN EXCESS OF THE TOLERANCE INDICATED.

REFER TO CROSS SECTIONS FOR DEVIATION FROM THE NORMAL SLOPES. NO CHANGES SHALL BE MADE FROM THE PLANNED SLOPES WITHOUT THE APPROVAL OF THE ENGINEER.

ASPHALT FOR LEVELING OF EXISTING PAVEMENT SHALL BE PLACED ONLY IF AND WHERE DIRECTED BY THE ENGINEER. CALCULATIONS FOR THE AMOUNT OF LEVELING AND/OR LEVELING OPERATIONS SHALL BE PERFORMED BEFORE CONSTRUCTING NOTCH AND WIDEN. CALCULATIONS WILL NOT BE PAID FOR DIRECTLY BUT PAYMENT WILL BE CONSIDERED INCLUDED IN THE VARIOUS PAY ITEMS.

THE FINAL 2" OF SURFACE COURSE IS TO BE PLACED AFTER ALL OTHER COURSES HAVE BEEN LAID. LONGITUDINAL JOINTS SHALL BE AT LANE LINES.



WEST REPUBLICAN RD., WEST REPUBLICAN DETOUR, & MALLETT TOWN RD. - FULL DEPTH

WEST REPUBLICAN RD.
STA. 600+89.21 TO STA. 605+96.73

WEST REPUBLICAN DETOUR
STA. 700+96.07 TO STA. 706+13.76

MALLETT TOWN RD.
STA. 800+90.00 TO STA. 803+56.98

11/30/2015

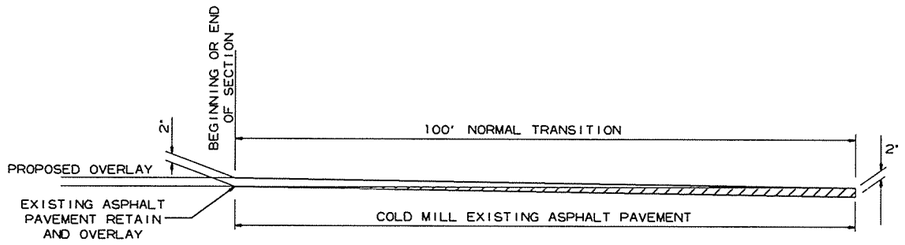
R080426.DGN

TYPICAL SECTIONS OF IMPROVEMENT

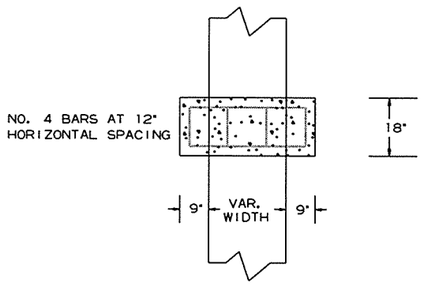
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		080426	6	271

(2) SPECIAL DETAILS

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
12-4-15

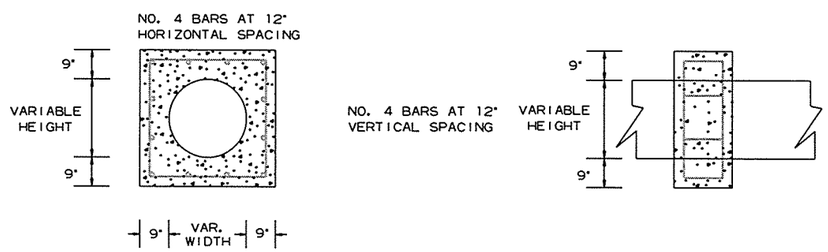


DETAIL FOR TRANSITIONS



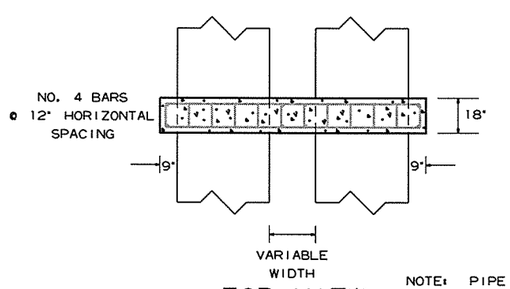
TOP VIEW

MIN 3" COVER



FRONT VIEW SIDE VIEW

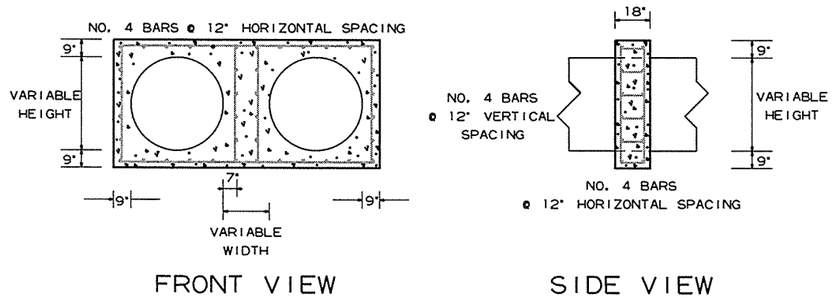
PIPE EXTENSION
REINFORCED CONCRETE COLLAR DETAIL



TOP VIEW

NOTE: PIPE COLLAR TO BE UTILIZED AS APPROVED BY THE ENGINEER.

MIN. 3" COVER



FRONT VIEW SIDE VIEW

PIPE EXTENSION
REINFORCED CONCRETE COLLAR DETAIL

8/25/2015

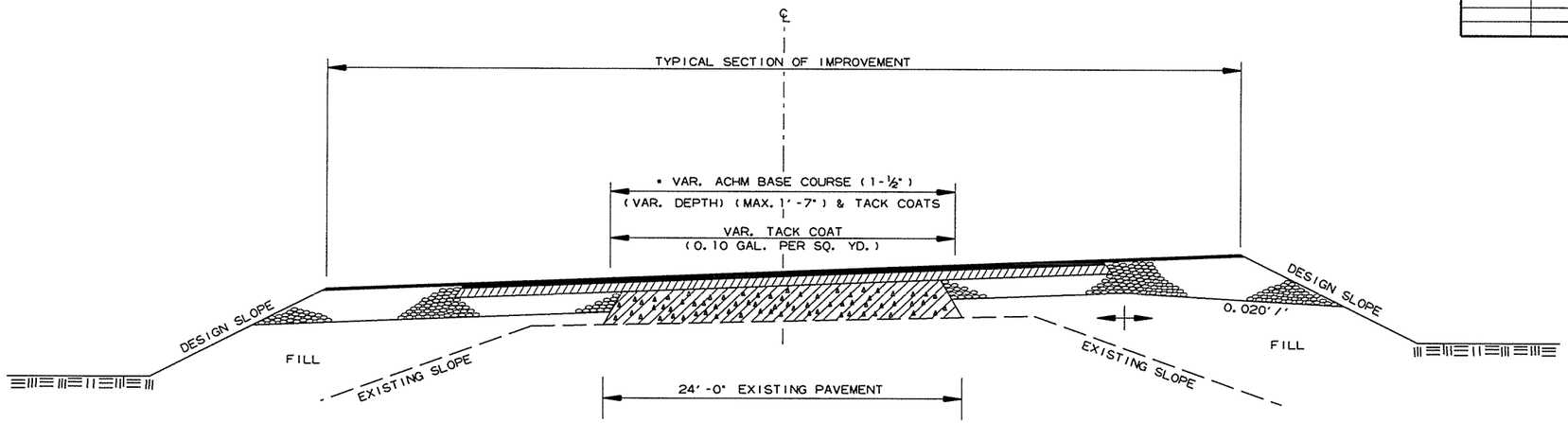
R080426.DGN

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.		080426	7	271

(2) SPECIAL DETAILS

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
12-4-15



* 7" AGGREGATE BASE COURSE (CLASS 7) TO BE REPLACED WITH ACHM BASE COURSE (1-½")

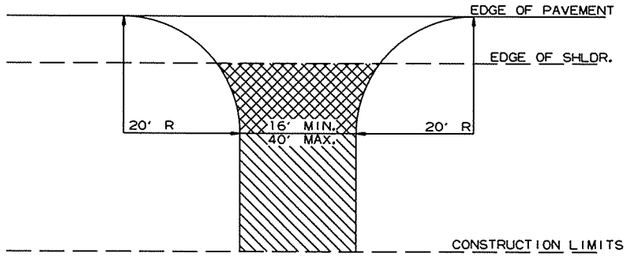
METHOD OF RAISING GRADE

NOTES:

(1) THIS DETAIL TO BE USED ONLY WHERE DIRECTED BY THE ENGINEER.

(2) QUANTITIES FOR METHOD OF GRADE RAISE USING ASPHALT WERE CALCULATED ON THIS PROJECT AT LOCATIONS WHERE THE DISTANCE BETWEEN THE EXISTING ASPHALT ROADWAY AND THE PROPOSED SUBGRADE WAS ONE FOOT OR LESS.

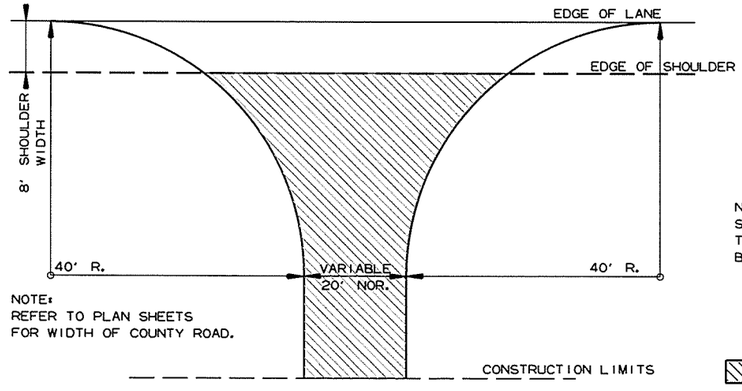
(3) IN LOCATIONS WHERE THE DISTANCE BETWEEN THE PROPOSED SUBGRADE AND THE EXISTING ASPHALT ROADWAY IS MORE THAN ONE FOOT, SCARIFICATION OF THE EXISTING ASPHALT ROADWAY WILL BE REQUIRED AS STATED IN SECTION 210, SUBSECTION 210.09, OF THE STANDARD SPECIFICATIONS.



ASPHALT CONCRETE HOT MIX SURFACE COURSE (220 LBS. PER SQ. YD.)
AGGREGATE BASE COURSE (CLASS 7)
7" COMP. DEPTH IF ASPHALT DRIVE EXISTING OR
6" CONCRETE IF CONCRETE DRIVE EXISTING.

AGGREGATE BASE COURSE (CLASS 7)
9" COMP. DEPTH OR CONFORM TO EXISTING DRIVEWAY.

DETAIL FOR DRIVEWAY TURNOUTS (COLLECTORS)



NOTE: REFER TO PLAN SHEETS FOR WIDTH OF COUNTY ROAD.

NOTE: TURNOUTS AND PRIVATE DRIVES SHALL BE MODIFIED WHERE NECESSARY TO MEET LOCAL CONDITIONS AS DIRECTED BY THE ENGINEER.

ACHM SURFACE COURSE (1/2") (220 LBS. PER SQ. YD.) AND AGGREGATE BASE COURSE (CLASS 7) 7" COMP. DEPTH IF ASPHALT OR GRAVEL DRIVE EXISTING, OR 6" CONCRETE IF CONCRETE DRIVE EXISTING.

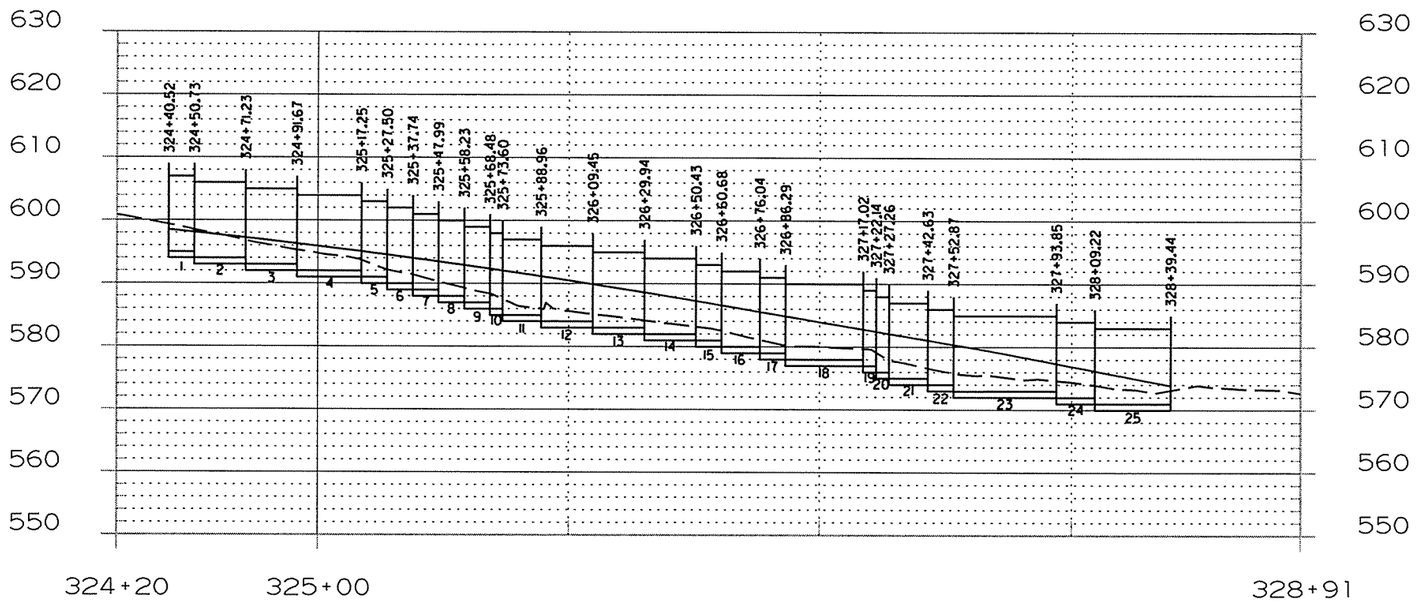
DETAIL FOR COUNTY ROAD TURNOUTS OPEN SHOULDER SECTION

8/25/2015

R080426.DGN

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		080426	8	271
				(2)	SPECIAL DETAILS			

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
12-4-15



ELEVATION OF RETAINING WALL
HWY. 285 ON LT.

CLASS S CONCRETE - ROADWAY	REINFORCING STEEL - ROADWAY (GRADE 60)	UNCLASSIFIED EXCAVATION FOR STRUCTURES - ROADWAY
CU. YD.	POUND	CU. YD.
FOR INFORMATION ONLY		
185.10	15549	1157

NOTE: REFER TO STANDARD DRAWING NO. SI-2 FOR ADDITIONAL RETAINING WALL DETAILS.

SECTION	STATION	STATION	FOOTING ELEVATION	LENGTH	MAX. HEIGHT
1	324+40.52	324+50.73	594.00	10.21	4.50
2	324+50.73	324+71.23	593.00	20.50	5.00
3	324+71.23	324+91.67	592.00	20.44	5.25
4	324+91.67	325+17.25	591.00	25.58	5.25
5	325+17.25	325+27.50	590.00	10.25	5.00
6	325+27.50	325+37.74	589.00	10.24	4.50
7	325+37.74	325+47.99	588.00	10.25	5.00
8	325+47.99	325+58.23	587.00	10.24	6.50
9	325+58.23	325+68.48	586.00	10.25	7.00
10	325+68.48	325+73.60	585.00	5.12	7.25
11	325+73.60	325+88.96	584.00	15.36	8.00
12	325+88.96	326+09.45	583.00	20.49	8.00
13	326+09.45	326+29.94	582.00	20.49	8.00
14	326+29.94	326+50.43	581.00	20.49	7.50
15	326+50.43	326+60.68	580.00	10.25	8.00
16	326+60.68	326+76.04	579.00	15.36	6.50
17	326+76.04	326+86.29	578.00	10.25	6.50
18	326+86.29	327+17.02	577.00	30.73	8.00
19	327+17.02	327+22.14	576.00	5.12	6.75
20	327+22.14	327+27.26	575.00	5.12	7.50
21	327+27.26	327+42.63	574.00	15.37	8.00
22	327+42.63	327+52.87	573.00	10.24	8.00
23	327+52.87	327+93.85	572.00	40.98	8.25
24	327+93.85	328+09.22	571.00	15.37	6.25

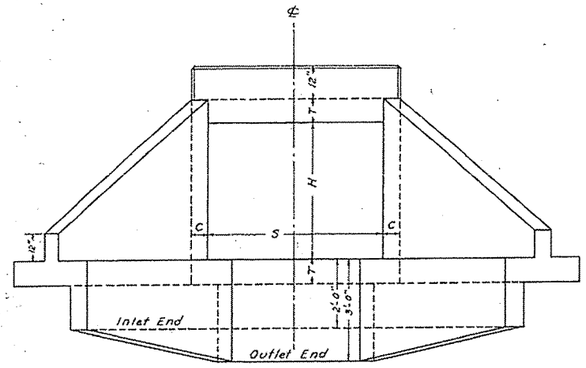
8/25/2015

R080426.DGN

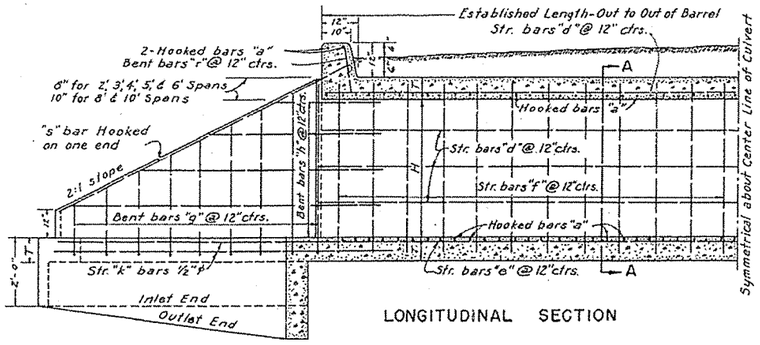
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		080426	9	271

(2) SPECIAL DETAILS

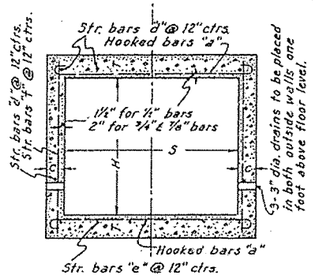
STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
12-4-15



END ELEVATION



LONGITUDINAL SECTION

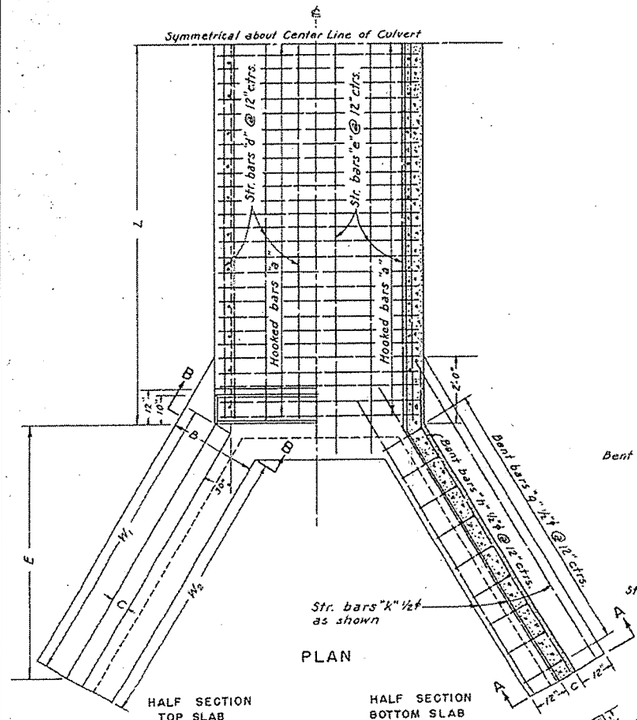


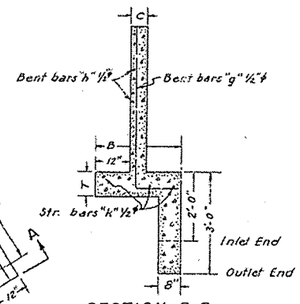
SECTION A-A

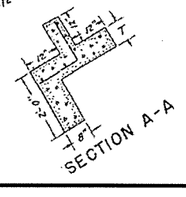
DIMENSIONS & QUANTITIES

SPAN	HEIGHT	AREA OF OPENING SQ. FT.	MINIMUM DEPTH OF COVER	THICKNESS OF TOP & BOTTOM SLAB	THICKNESS OF SIDE & WING WALLS	WIDTH OF FOOTING	LENGTH OF FOOTING	LENGTH OF WING WALLS	LENGTH OF WINGS FROM FACE OF HEADWALL	CONCRETE CU. YD. HEADWALLS WINGWALLS & FOOTINGS	CONCRETE CU. YD. PER LINEAR FT. OF BARREL	STEEL LB. HEADWALLS WINGWALLS & FOOTING	STEEL LB. PER LINEAR FT. OF BARREL	STEEL LB. ADD STEEL FOR LAPS
S	H	A	D	T	C	B	W_2	W_1	E					
2	2	4	20'-0"	6½"	6"	2'-6"	3'-6⅝"	3'-10"	3'-4"	2.36	.194	155	17.91	8.9
3	2	6	20'-0"	7"	6"	2'-6"	3'-6⅝"	3'-10"	3'-4"	2.65	.247	164	22.77	11.1
	3	9			6"		5'-10⅜"	6'-2"	5'-4"	4.10	.284	243	25.43	13.4
4	2	8	16'-0"	7½"	6"	2'-6"	3'-6⅝"	3'-10"	3'-4"	2.90	.306	173	28.28	13.4
	3	12			6"		5'-10⅜"	6'-2"	5'-4"	4.36	.343	251	30.94	15.6
	4	16			6"		8'-2"	8'-5⅝"	7'-4"	5.98	.380	352	33.60	17.8
5	2	10	10'-0"	8"	6"	2'-6"	3'-6⅝"	3'-10"	3'-4"	3.15	.370	189	34.56	15.6
	3	15			6"		5'-10⅜"	6'-2"	5'-4"	4.60	.407	267	37.22	17.8
	4	20			6"		8'-2"	8'-5⅝"	7'-4"	6.29	.446	370	39.89	20.0
	5	25			7"	2'-9"	10'-8"	10'-9⅛"	9'-4"	8.78	.521	478	42.55	22.3
6	3	18	7'-0"	8½"	6"	2'-6"	5'-10⅜"	6'-2"	5'-4"	4.94	.478	278	41.86	20.0
	4	24			6"		8'-2"	8'-5⅝"	7'-4"	6.61	.515	383	44.54	22.3
	5	30			7"	2'-9"	10'-8"	10'-9⅛"	9'-4"	9.14	.592	492	47.20	26.5
	6	36			7"	3'-0"	13'1"	13'1"	11'-4"	11.58	.635	611	49.86	26.7
8	3	24	5'-0"	10½"	7"	2'-7"	6'-3⅝"	6'-6⅝"	5'-6"	6.28	.784	336	60.81	24.5
	4	32			7"	2'-7"	8'-7⅛"	8'-10⅜"	7'-8"	8.25	.767	429	63.47	26.7
	5	40			7"	2'-9"	11'-0⅛"	11'-2"	9'-8"	10.52	.810	536	66.13	28.9
	6	48			7"	3'-0"	13'-5⅝"	13'-5⅝"	11'-8"	13.08	.853	673	68.80	31.2
	7	56			7"	3'-4"	16'-0"	15'-9⅝"	13'-8"	16.03	.897	976	71.46	33.4
	8	64			8"	3'-10"	18'-6"	18'-1"	15'-8"	20.69	1.000	1168	74.81	35.6
10	4	40	4'-0"	11¾"	7"	2'-7"	8'-7⅝"	8'-10⅜"	7'-8"	8.97	.983	505	90.62	31.2
	5	50			7"	2'-9"	11'-0⅛"	11'-2"	9'-8"	11.33	1.026	611	93.26	33.4
	6	60			7"	3'-0"	13'-5⅝"	13'-5⅝"	11'-8"	13.99	1.061	749	95.94	35.6
	7	70			7"	3'-4"	16'-0"	15'-9⅝"	13'-8"	17.27	1.112	1060	98.60	37.9
	8	80			8"	3'-10"	18'-6"	18'-1"	15'-8"	21.86	1.217	1253	101.26	40.1
	9	90			9"	4'-3"	21'-2"	20'-4⅝"	17'-8"	27.53	1.336	1740	111.86	42.3
	10	100			10"	4'-9"	23'-9⅝"	22'-8½"	19'-8"	34.76	1.463	2181	115.27	44.5

LAP NOTE:
In computing quantities of steel from the above table add one lap for culverts up to 50' in length and one lap for each additional 25' in length.







NOTE:-
Angle of Wingwalls may be varied to conform to the natural or proposed inlet or outlet channel.

STEEL SCHEDULE

For Culvert 32' in Length Out to Out of Barrel

LENGTH OF SPAN	HEIGHT	"a" bars: 3" for 2, 3, 4, 5, 6, & 8' Span, 6" for 10' Span; 2 in each headwall Balance in Top and bottom slab of barrel — SIZE	"a" bars — SPACING	"a" bars — NUMBER	"a" bars — LENGTH	"a" bars — X	"d" bars: ½" ϕ bars spaced at 12" Centers STRAIGHT — Top slab and Sidewalls — NUMBER	"d" bars — LENGTH	"e" bars: Top of Bottom Slab — NUMBER	"e" bars — LENGTH	"f" bars: STRAIGHT Vertical bars in Sidewalls — SIZE	"f" bars — SPACING	"f" bars — NUMBER	"f" bars — LENGTH	"g" bars: Vertical bars in Wingwalls — SIZE	"g" bars — SPACING	"g" bars — NUMBER	"g" bars — W1 LENGTH	"g" bars — X Min.	"g" bars — X Max.	"h" bars: ½" ϕ bars @ 12" Ctrs. Horizontal bars in Wingwalls — Y Min.	"h" bars — Y Max.	"k" bars: ½" ϕ bars STRAIGHT Top of Wing Footings — NUMBER	"k" bars — LENGTH	"l" bars: ½" ϕ BENT Dowel Bar in Headwall — NUMBER	"l" bars — LENGTH	"s" bars: ½" ϕ one in Top of each Wingwall — NUMBER	"s" bars — LENGTH
S	H	SIZE	SPACING	NUMBER	LENGTH	X	NUMBER	LENGTH	NUMBER	LENGTH	SIZE	SPACING	NUMBER	LENGTH	SIZE	SPACING	NUMBER	W1 LENGTH	X Min.	X Max.	Y Min.	Y Max.	NUMBER	LENGTH	NUMBER	LENGTH	NUMBER	LENGTH
2	2	½" ϕ	6¾"	132	3'-7"	2'-9"	5		5		½" ϕ	12"	64	2'-10"	½" ϕ	12"	16	3'-4"	1'-4"	2'-9"	1'-3"	1'-3"	12	4'-7"	2'-4"	3'-6"	12	5'-4"	6	5'-2"	4	5'-3"
3	2	½" ϕ	6"	132	4'-7"	3'-9"	6		4		½" ϕ	12"	64	3'-11"	½" ϕ	12"	16	3'10½"	1'-6⅝"	2'-9½"	1'-3"	1'-3"	12	4'-7"	2'-4"	3'-6"	12	5'-4"	8	3'-2"	4	5'-3"
	3			132	4'-7"	3'-9"	8		4								24	3'10½"	1'-6⅝"	3'-9⅝"	1'-3"	1'-3"	16	5'-11"	2'-4"	6'-0"	12	7'-8"	8	3'-2"	4	7'-9"
4	2	½" ϕ	5½"	144	5'-7"	4'-9"	7		5		½" ϕ	12"	64	3'-0"	½" ϕ	12"	16	3'-5"	1'-5"	2'-10"	1'-3"	1'-3"	12	4'-7"	2'-4"	3'-8"	12	5'-4"	10	3'-2"	4	5'-3"
	3			144	5'-7"	4'-9"	9		5								24	3'-11"	1'-7"	3'-10"	1'-3"	1'-3"	16	5'-11"	2'-4"	6'-0"	12	7'-8"	10	3'-2"	4	7'-9"
	4			144	5'-7"	4'-9"	11		5								36	4'-5"	1'-5"	4'-10"	1'-3"	1'-3"	20	7'-2"	2'-4"	8'-6"	12	10'-0"	10	3'-2"	4	10'-3"
5	2	½" ϕ	5"	158	6'-7"	5'-9"	8		6		½" ϕ	12"	64	5'-1"	½" ϕ	12"	16	3'-6"	1'-7"	2'-11"	1'-3"	1'-3"	12	4'-7"	2'-4"	3'-8"	12	5'-4"	12	3'-6"	4	5'-3"
	3			158	6'-7"	5'-9"	10		6								24	3'-11"	1'-5"	3'-11"	1'-3"	1'-3"	16	5'-11"	2'-4"	6'-0"	12	7'-8"	14	3'-6"	4	7'-9"
	4			158	6'-7"	5'-9"	12		6								36	4'-6"	1'-6"	4'-11"	1'-3"	1'-3"	20	7'-2"	2'-4"	8'-6"	12	10'-0"	14	3'-6"	4	10'-3"
	5			158	6'-7"	5'-9"	14		6								44	5'-2"	1'-7"	5'-11"	1'-4"	1'-6"	24	8'-5"	2'-4"	10'-8"	12	12'-4"	14	3'-6"	4	12'-9"
6	3	½" ϕ	5"	158	7'-7"	6'-9"	11		7		½" ϕ	12"	64	4'-2"	½" ϕ	12"	24	4'-1"	1'-5"	4'-3"	1'-3"	1'-3"	16	5'-11"	2'-4"	6'-0"	12	7'-8"	16	3'-6"	4	7'-9"
	4			158	7'-7"	6'-9"	13		7								36	4'-8"	1'-6"	5'-3"	1'-3"	1'-3"	20	7'-2"	2'-4"	8'-6"	12	10'-0"	16	3'-6"	4	10'-3"
	5			158	7'-7"	6'-9"	15		7								44	5'-2"	1'-7"	6'-3"	1'-4"	1'-6"	24	8'-5"	2'-4"	10'-8"	12	12'-4"	16	3'-6"	4	12'-9"
	6			158	7'-7"	6'-9"	17		7								52	5'-11"	1'-8"	7'-3"	1'-4"	1'-9"	28	9'-8"	2'-4"	13'-0"	12	14'-1"	16	3'-6"	4	15'-3"
8	3	⅝" ϕ	6"	132	9'-6"	8'-10"	13	3'-1.9" for 32'-0" Length	9	3'-3.9" for 32'-0" Length	½" ϕ	12"	64	4'-5"	½" ϕ	12"	28	4'-1"	1'-8"	4'-6"	1'-4"	1'-6"	16	6'-6"	1'-8"	6'-5"	12	9'-0"	20	3'-6"	4	8'-9"
	4			132	9'-8"	8'-10"	15		9					5'-5"			36	4'-11"	1'-8"	5'-4"	1'-4"	1'-6"	20	7'-6"	1'-8"	8'-9"	12	10'-4"	20	3'-6"	4	10'-9"
	5			132	9'-8"	8'-10"	17		9					6'-5"			44	5'-8"	1'-8"	6'-4"	1'-4"	1'-6"	24	8'-9"	1'-8"	11'-0"	12	12'-0"	20	3'-6"	4	13'-3"
	6			132	9'-8"	8'-10"	19		9					7'-5"			56	6'-0"	1'-7"	7'-2"	1'-2"	1'-9"	28	10'-0"	1'-8"	13'-4"	12	15'-0"	20	3'-6"	4	15'-9"
	7			132	9'-8"	8'-10"	21		9					8'-5"			72	7'-5"	1'-7"	9'-2"	1'-2"	2'-1"	32	11'-2"	1'-8"	15'-8"	12	17'-9"	20	3'-6"	4	18'-3"
	8			132	9'-10"	9'-0"	23		9					9'-5"			64	6'-9"	1'-9"	8'-4"	1'-4"	2'-1"	32	11'-2"	1'-8"	15'-8"	12	17'-9"	20	3'-6"	4	18'-3"
	4			86	12'-4"	10'-10"	17		11					5'-7"			64	7'-5"	1'-9"	9'-4"	1'-5"	2'-5"	36	12'-5"	1'-8"	17'-11"	12	19'-8"	20	3'-6"	4	20'-9"
	5			86	12'-4"	10'-10"	19		11					6'-7"			36	5'-0"	1'-10"	5'-6"	1'-4"	1'-8"	20	7'-7"	1'-8"	8'-8"	12	10'-4"	24	3'-6"	4	10'-9"
	6			86	12'-4"	10'-10"	21		11					7'-7"			44	5'-6"	1'-8"	6'-6"	1'-4"	1'-8"	24	8'-5"	1'-8"	11'-0"	12	12'-8"	24	3'-6"	4	13'-3"
10	7	⅞" ϕ	9½"	86	12'-4"	10'-10"	23		11		⅝" ϕ	12"	64	8'-7"	½" ϕ	12"	56	6'-1"	1'-8"	7'-6"	1'-4"	1'-8"	28	10'-0"	1'-8"	13'-4"	12	15'-0"	24	3'-6"	4	15'-9"
	8			86	12'-6"	11'-0"	25		11					9'-7"			64	6'-11"	1'-10"	8'-6"	1'-4"	2'-1"	32	11'-2"	1'-8"	15'-8"	12	17'-9"	24	3'-6"	4	18'-3"
	9			86	12'-8"	11'-2"	27		11					10'-7"			72	7'-7"	1'-8"	9'-6"	1'-5"	2'-5"	36	12'-5"	1'-8"	17'-11"	12	19'-8"	24	3'-6"	4	20'-9"
	10			86	12'-10"	11'-4"	29		11					11'-7"			8"	136	9'-3"	1'-10"	11'-6"	1'-7"	3'-6"	44	14'-9"	1'-8"	22'-6"	12	24'-4"	24	3'-6"	4	25'-9"

NOTE: Lengths given above do not include lap.

SPECIFICATIONS:- Arkansas Standard Road and Bridge Specifications.

REINFORCING STEEL:- To be deformed bars of structural or intermediate grade.

CHAMFER:- All exposed corners to have ¾" Chamfer.

CONCRETE:- All Concrete to be Class "S"

8/25/2015

R080426.DGN

REINFORCED CONCRETE BOX CULVERTS 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.		080426	10	271

(2) TEMPORARY EROSION CONTROL DETAILS

REVISIONS

DATE OF REVISION	REVISION

LEGEND

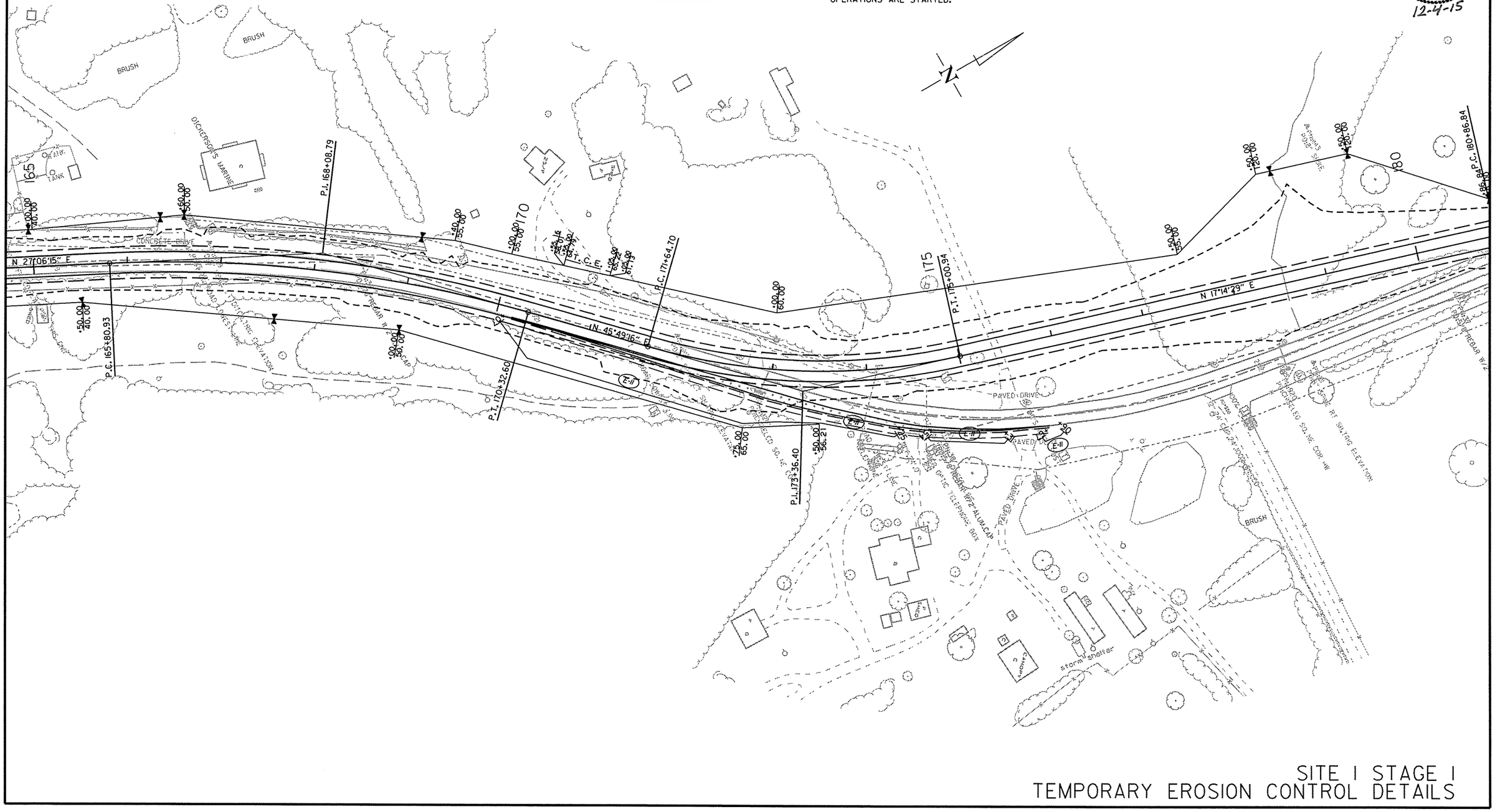
(E-5) = SAND BAG DITCH CHECKS

(E-6) = ROCK DITCH CHECKS

(E-11) = SILT FENCE

NOTE: PERIMETER CONTROLS SHALL BE PLACED AS CLEARING AND GRUBBING OPERATIONS ARE STARTED.

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
12-4-15



11/20/2015

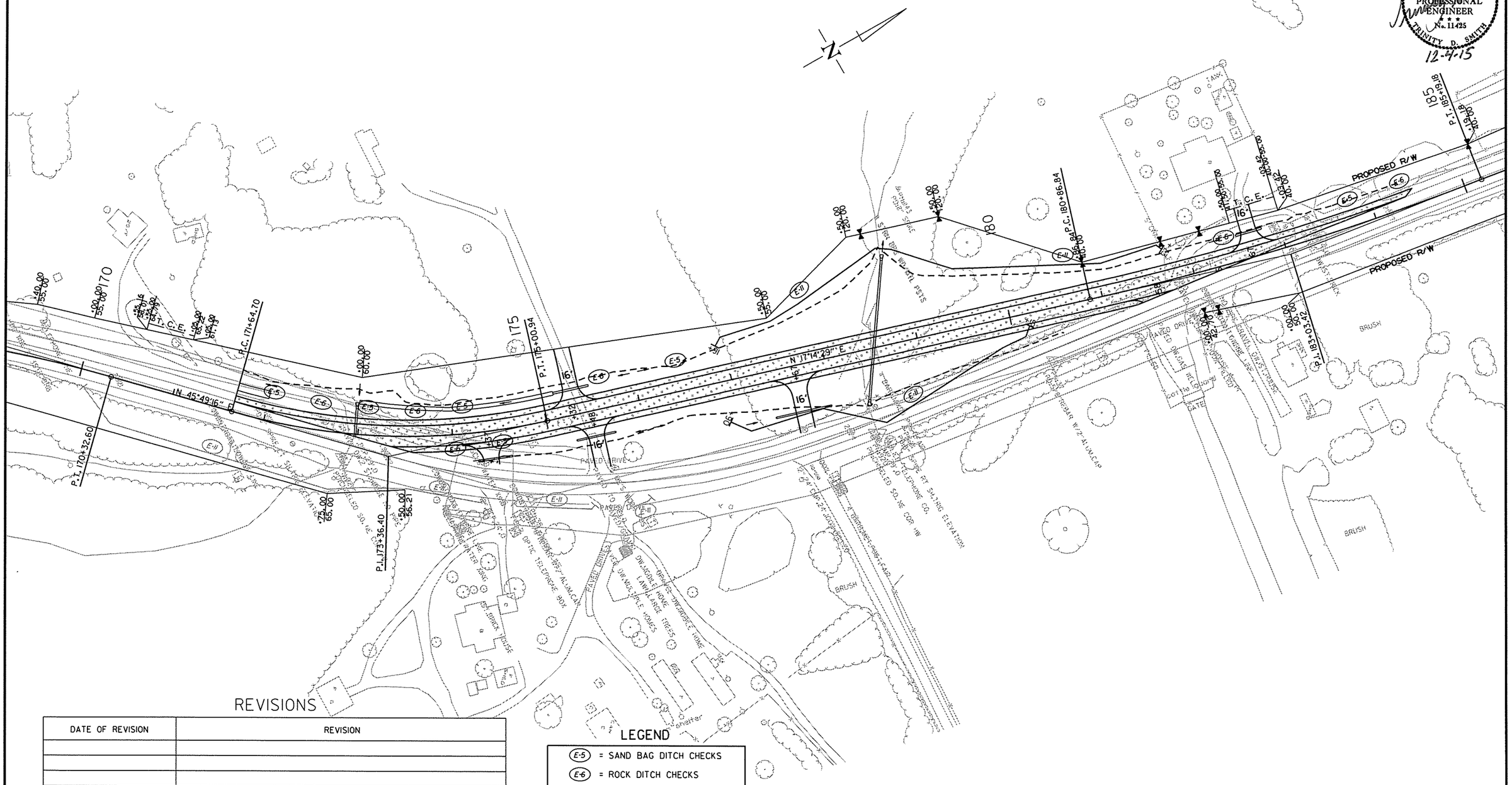
R080426.DGN

SITE I STAGE I
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.		080426	11	271

(2) TEMPORARY EROSION CONTROL DETAILS

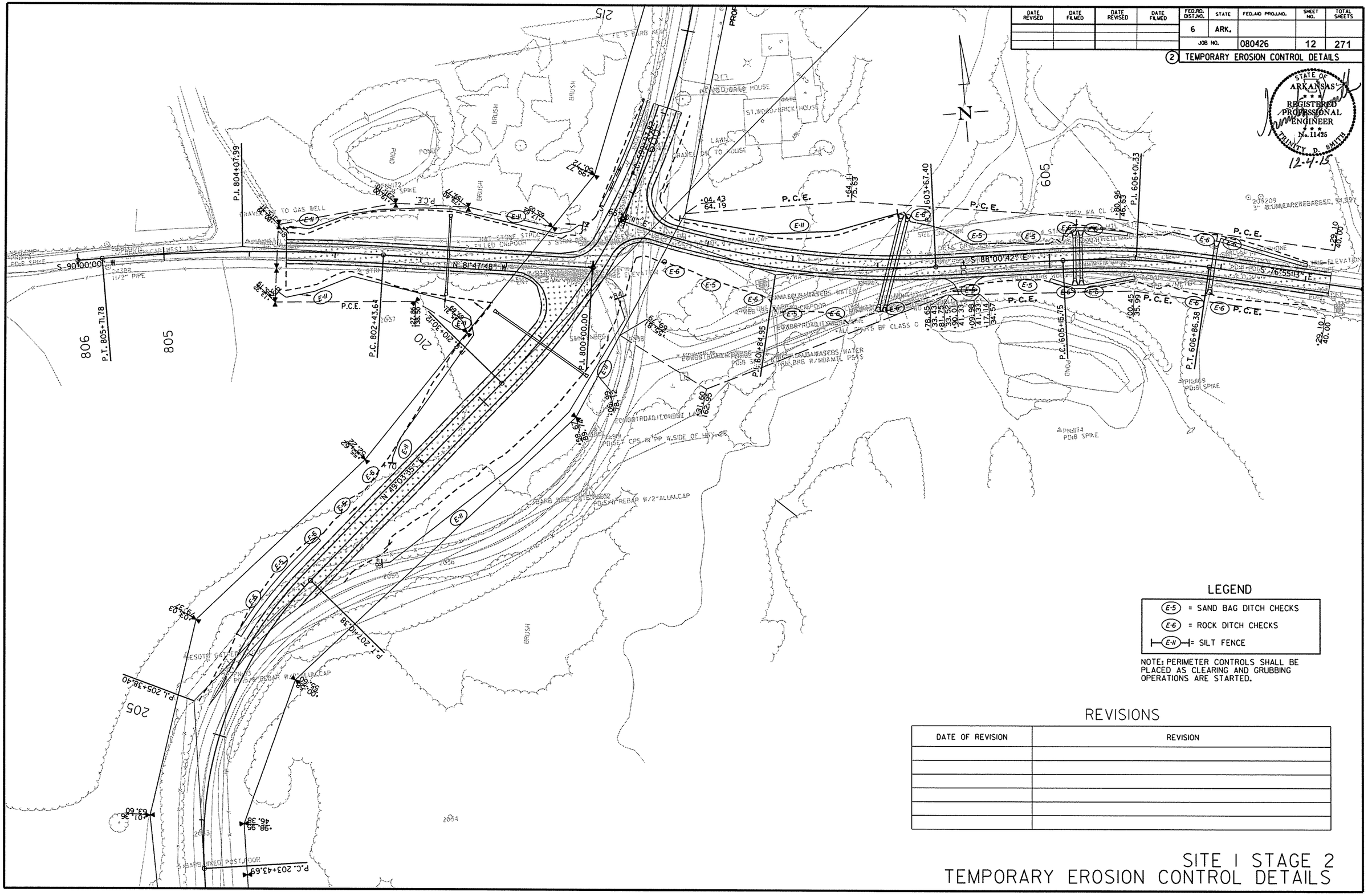
STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
12-4-15


N
PROPOSED R/W
P.T. 185+19.18
P.C. 180+86.84
P.C. 171+64.70
P.T. 175+00.94
P.T. 170+32.60
P.T. 173+36.40
N 45°49'16" E
N 17°14'29" E
E-5
E-6
E-11
16'
BRUSH
TANK
SILT FENCE
DRIVE
CONCRETE DRIVE
ASPHALT DRIVE
GRAVEL DRIVE
TELEPHONE BOX
CONCRETE PAD
CHIMNEY
GAS METER
WELL HOUSE
SEPTIC TANK
SEPTIC TELEPHONE BOX
BRICK HOUSE
DW-MOBILE HOME
LAWN
LARGE TREES
SMALL TREES
SHED
GARAGE
CARPORT
BARN
CHICKEN HOUSE
DOG HOUSE
SWING SET
SLIDE
SEESAW
SANDBOX
CLOTHES LINE POST
FENCE
BARBED WIRE FENCE
WOVEN WIRE FENCE
CHAIN LINK FENCE
WOOD FENCE
WIRE FENCE
GUY WIRE
POWER POLE
TELEPHONE PEDESTAL
TELEPHONE MANHOLE
TELEPHONE RISER
TELEPHONE LINE
UNDERGROUND TELEPHONE LINE
OVERHEAD TELEPHONE LINE
UNDERGROUND POWER LINE
OVERHEAD POWER LINE
GAS LINE
WATER LINE
WATER VALVE
WATER METER
FIRE HYDRANT
CULVERT
DITCH
CREEK
POND
ROCK
TREE
SHRUB
BUSH
STUMP
CONCRETE
ASPHALT
GRAVEL
DIRT
PAVED DRIVE
PAVED ROAD
GRAVEL ROAD
DIRT ROAD
ROAD
STREET
HIGHWAY
RAILROAD
RAILROAD CROSSING
RAILROAD SIGNAL
RAILROAD SIGNAL POST
RAILROAD SIGNAL BOX
RAILROAD SIGNAL LIGHT
RAILROAD SIGNAL GATE
RAILROAD SIGNAL BELL
RAILROAD SIGNAL BELL POST
RAILROAD SIGNAL BELL BOX
RAILROAD SIGNAL BELL LIGHT
RAILROAD SIGNAL BELL GATE

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.		080426	12	271

(2) TEMPORARY EROSION CONTROL DETAILS

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
12-4-15


N
S 90°00'00" W
N 81°47'48" W
S 88°00'42" E
S 76°55'13" E
N 49°03'35" E
P.I. 804+07.99
P.C.E.
P.C. 802+43.64
P.I. 800+00.00
P.I. 800+84.95
P.I. 801+60.92
P.C. 605+15.75
P.I. 606+01.33
P.T. 606+86.38
P.T. 805+71.78
P.C. 203+43.69
P.I. 207+40.38
P.I. 205+38.40
PROP. CL
EXIST. CL
EXIST. EDGE OF PAVEMENT
EXIST. GRAVEL DRIVE TO GAS WELL
EXIST. GRAVEL DRIVE TO HOUSE
ST.WOOD/BRICK HOUSE
POND
BRUSH
LAWN
FENCE
POWER CPS W/PP W.SIDE OF HWY-25
POWER
CONSTRUCTION LIMITS
PROP. SWPPP LIMITS
PROP. CONSTRUCTION LIMITS
PROP. R/W
EXIST. R/W
PROP. CULVERT
PROP. DITCH
PROP. SLOPE
PROP. SLOPE TO BE SEEDED
PROP. SLOPE TO BE SODDED
PROP. SLOPE TO BE MULCHED
PROP. SLOPE TO BE SEEDED & MULCHED
PROP. SLOPE TO BE SODDED & MULCHED
PROP. SLOPE TO BE SEEDED & MULCHED W/ EROSION CONTROL BLANKET
PROP. SLOPE TO BE SODDED & MULCHED W/ EROSION CONTROL BLANKET
PROP. SLOPE TO BE SEEDED & MULCHED W/ TURF REINFORCEMENT MAT
PROP. SLOPE TO BE SODDED & MULCHED W/ TURF REINFORCEMENT MAT
PROP. SLOPE TO BE SEEDED & MULCHED W/ EROSION CONTROL BLANKET & TURF REINFORCEMENT MAT
PROP. SLOPE TO BE SODDED & MULCHED W/ EROSION CONTROL BLANKET & TURF REINFORCEMENT MAT
PROP. SLOPE TO BE SEEDED & MULCHED W/ TURF REINFORCEMENT MAT & EROSION CONTROL BLANKET
PROP. SLOPE TO BE SODDED & MULCHED W/ TURF REINFORCEMENT MAT & EROSION CONTROL BLANKET
PROP. SLOPE TO BE SEEDED & MULCHED W/ TURF REINFORCEMENT MAT & EROSION CONTROL BLANKET & TURF REINFORCEMENT MAT
PROP. SLOPE TO BE SODDED & MULCHED W/ TURF REINFORCEMENT MAT & EROSION CONTROL BLANKET & TURF REINFORCEMENT MAT
PROP. SLOPE TO BE SEEDED & MULCHED W/ EROSION CONTROL BLANKET & TURF REINFORCEMENT MAT & EROSION CONTROL BLANKET
PROP. SLOPE TO BE SODDED & MULCHED W/ EROSION CONTROL BLANKET & TURF REINFORCEMENT MAT & EROSION CONTROL BLANKET
PROP. SLOPE TO BE SEEDED & MULCHED W/ TURF REINFORCEMENT MAT & EROSION CONTROL BLANKET & TURF REINFORCEMENT MAT & EROSION CONTROL BLANKET
PROP. SLOPE TO BE SODDED & MULCHED W/ TURF REINFORCEMENT MAT & EROSION CONTROL BLANKET & TURF REINFORCEMENT MAT & EROSION CONTROL BLANKET
PROP. SLOPE TO BE SEEDED & MULCHED W/ EROSION CONTROL BLANKET & TURF REINFORCEMENT MAT & EROSION CONTROL BLANKET & TURF REINFORCEMENT MAT
PROP. SLOPE TO BE SODDED & MULCHED W/ EROSION CONTROL BLANKET & TURF REINFORCEMENT MAT & EROSION CONTROL BLANKET & TURF REINFORCEMENT MAT
PROP. SLOPE TO BE SEEDED & MULCHED W/ TURF REINFORCEMENT MAT & EROSION CONTROL BLANKET & TURF REINFORCEMENT MAT & EROSION CONTROL BLANKET & TURF REINFORCEMENT MAT
PROP. SLOPE TO BE SODDED & MULCHED W/ TURF REINFORCEMENT MAT & EROSION CONTROL BLANKET & TURF REINFORCEMENT MAT & EROSION CONTROL BLANKET & TURF REINFORCEMENT MAT
PROP. SLOPE TO BE SEEDED & MULCHED W/ EROSION CONTROL BLANKET & TURF REINFORCEMENT MAT & EROSION CONTROL BLANKET & TURF REINFORCEMENT MAT & EROSION CONTROL BLANKET
PROP. SLOPE TO BE SODDED & MULCHED W/ EROSION CONTROL BLANKET & TURF REINFORCEMENT MAT & EROSION CONTROL BLANKET & TURF REINFORCEMENT MAT & EROSION CONTROL BLANKET
PROP. SLOPE TO BE SEEDED & MULCHED W/ TURF REINFORCEMENT MAT & EROSION CONTROL BLANKET & TURF REINFORCEMENT MAT & EROSION CONTROL BLANKET & TURF REINFORCEMENT MAT & EROSION CONTROL BLANKET
PROP. SLOPE TO BE SODDED & MULCHED W/ TURF REINFORCEMENT MAT & EROSION CONTROL BLANKET & TURF REINFORCEMENT MAT & EROSION CONTROL BLANKET & TURF REINFORCEMENT MAT & EROSION CONTROL BLANKET
PROP. SLOPE TO BE SEEDED & MULCHED W/ EROSION CONTROL BLANKET & TURF REINFORCEMENT MAT & EROSION CONTROL BLANKET & TURF REINFORCEMENT MAT & EROSION CONTROL BLANKET & TURF REINFORCEMENT MAT & EROSION CONTROL BLANKET
PROP. SLOPE TO BE SODDED & MULCHED W/ EROSION CONTROL BLANKET & TURF REINFORCEMENT MAT & EROSION CONTROL BLANKET & TURF REINFORCEMENT MAT & EROSION CONTROL BLANKET & TURF REINFORCEMENT MAT & EROSION CONTROL BLANKET
PROP. SLOPE TO BE SEEDED & MULCHED W/ TURF REINFORCEMENT MAT & EROSION CONTROL BLANKET & TURF REINFORCEMENT MAT & EROSION CONTROL BLANKET & TURF REINFORCEMENT MAT & EROSION CONTROL BLANKET & TURF REINFORCEMENT MAT & EROSION CONTROL BLANKET
PROP. SLOPE TO BE SODDED & MULCHED W/ TURF REINFORCEMENT MAT & EROSION CONTROL BLANKET & TURF REINFORCEMENT MAT & EROSION CONTROL BLANKET & TURF REINFORCEMENT MAT & EROSION CONTROL BLANKET & TURF REINFORCEMENT MAT & EROSION CONTROL BLANKET
PROP. SLOPE TO BE SEEDED & MULCHED W/ EROSION CONTROL BLANKET & TURF REINFORCEMENT MAT & EROSION CONTROL BLANKET & TURF REINFORCEMENT MAT & EROSION CONTROL BLANKET & TURF REINFORCEMENT MAT & EROSION CONTROL BLANKET & TURF REINFORCEMENT MAT & EROSION CONTROL BLANKET
PROP. SLOPE TO BE SODDED & MULCHED W/ EROSION CONTROL BLANKET & TURF REINFORCEMENT MAT & EROSION CONTROL BLANKET & TURF REINFORCEMENT MAT & EROSION CONTROL BLANKET & TURF REINFORCEMENT MAT & EROSION CONTROL BLANKET & TURF REINFORCEMENT MAT & EROSION CONTROL BLANKET
PROP. SLOPE TO BE SEEDED & MULCHED W/ TURF REINFORCEMENT MAT & EROSION CONTROL BLANKET & TURF REINFORCEMENT MAT & EROSION CONTROL BLANKET & TURF REINFORCEMENT MAT & EROSION CONTROL BLANKET & TURF REINFORCEMENT MAT & EROSION CONTROL BLANKET & TURF REINFORCEMENT MAT & EROSION CONTROL BLANKET
PROP. SLOPE TO BE SODDED & MULCHED W/ TURF REINFORCEMENT MAT & EROSION CONTROL BLANKET & TURF REINFORCEMENT MAT & EROSION CONTROL BLANKET & TURF REINFORCEMENT MAT & EROSION CONTROL BLANKET & TURF REINFORCEMENT MAT & EROSION CONTROL BLANKET & TURF REINFORCEMENT MAT & EROSION CONTROL BLANKET
PROP. SLOPE TO BE SEEDED & MULCHED W/ EROSION CONTROL BLANKET & TURF REINFORCEMENT MAT & EROSION CONTROL BLANKET & TURF REINFORCEMENT MAT & EROSION CONTROL BLANKET & TURF REINFORCEMENT MAT & EROSION CONTROL BLANKET & TURF REINFORCEMENT MAT & EROSION CONTROL BLANKET & TURF REINFORCEMENT MAT & EROSION CONTROL BLANKET
PROP. SLOPE TO BE SODDED & MULCHED W/ EROSION CONTROL BLANKET & TURF REINFORCEMENT MAT & EROSION CONTROL BLANKET & TURF REINFORCEMENT MAT & EROSION CONTROL BLANKET & TURF REINFORCEMENT MAT & EROSION CONTROL BLANKET & TURF REINFORCEMENT MAT & EROSION CONTROL BLANKET & TURF REINFORCEMENT MAT & EROSION CONTROL BLANKET
PROP. SLOPE TO BE SEEDED & MULCHED W/ TURF REINFORCEMENT MAT & EROSION CONTROL BLANKET & TURF REINFORCEMENT MAT & EROSION CONTROL BLANKET & TURF REINFORCEMENT MAT & EROSION CONTROL BLANKET & TURF REINFORCEMENT MAT & EROSION CONTROL BLANKET & TURF REINFORCEMENT MAT & EROSION CONTROL BLANKET & TURF REINFORCEMENT MAT & EROSION CONTROL BLANKET
PROP. SLOPE TO BE SODDED & MULCHED W/ TURF REINFORCEMENT MAT & EROSION CONTROL BLANKET & TURF REINFORCEMENT MAT & EROSION CONTROL BLANKET & TURF REINFORCEMENT MAT & EROSION CONTROL BLANKET & TURF REINFORCEMENT MAT & EROSION CONTROL BLANKET & TURF REINFORCEMENT MAT & EROSION CONTROL BLANKET & TURF REINFORCEMENT MAT & EROSION CONTROL BLANKET
PROP. SLOPE TO BE SEEDED & MULCHED W/ EROSION CONTROL BLANKET & TURF REINFORCEMENT MAT & EROSION CONTROL BLANKET & TURF REINFORCEMENT MAT & EROSION CONTROL BLANKET & TURF REINFORCEMENT MAT & EROSION CONTROL BLANKET & TURF REINFORCEMENT MAT & EROSION CONTROL BLANKET & TURF REINFORCEMENT MAT & EROSION CONTROL BLANKET & TURF REINFORCEMENT MAT & EROSION CONTROL BLANKET
PROP. SLOPE TO BE SODDED & MULCHED W/ EROSION CONTROL BLANKET & TURF REINFORCEMENT MAT & EROSION CONTROL BLANKET & TURF REINFORCEMENT MAT & EROSION CONTROL BLANKET & TURF REINFORCEMENT MAT & EROSION CONTROL BLANKET & TURF REINFORCEMENT MAT & EROSION CONTROL BLANKET & TURF REINFORCEMENT MAT & EROSION CONTROL BLANKET & TURF REINFORCEMENT MAT & EROSION CONTROL BLANKET
PROP. SLOPE TO BE SEEDED & MULCHED W/ TURF REINFORCEMENT MAT & EROSION CONTROL BLANKET & TURF REINFORCEMENT MAT & EROSION CONTROL BLANKET & TURF REINFORCEMENT MAT & EROSION CONTROL BLANKET & TURF REINFORCEMENT MAT & EROSION CONTROL BLANKET & TURF REINFORCEMENT MAT & EROSION CONTROL BLANKET & TURF REINFORCEMENT MAT & EROSION CONTROL BLANKET & TURF REINFORCEMENT MAT & EROSION CONTROL BLANKET
PROP. SLOPE TO BE SODDED & MULCHED W/ TURF REINFORCEMENT MAT & EROSION CONTROL BLANKET & TURF REINFORCEMENT MAT & EROSION CONTROL BLANKET & TURF REINFORCEMENT MAT & EROSION CONTROL BLANKET & TURF REINFORCEMENT MAT & EROSION CONTROL BLANKET & TURF REINFORCEMENT MAT & EROSION CONTROL BLANKET & TURF REINFORCEMENT MAT & EROSION CONTROL BLANKET & TURF REINFORCEMENT MAT & EROSION CONTROL BLANKET
PROP. SLOPE TO BE SEEDED & MULCHED W/ EROSION CONTROL BLANKET & TURF REINFORCEMENT MAT & EROSION CONTROL BLANKET & TURF REINFORCEMENT MAT & EROSION CONTROL BLANKET & TURF REINFORCEMENT MAT & EROSION CONTROL BLANKET & TURF REINFORCEMENT MAT & EROSION CONTROL BLANKET & TURF REINFORCEMENT MAT & EROSION CONTROL BLANKET & TURF REINFORCEMENT MAT & EROSION CONTROL BLANKET & TURF REINFORCEMENT MAT & EROSION CONTROL BLANKET
PROP. SLOPE TO BE SODDED & MULCHED W/ EROSION CONTROL BLANKET & TURF REINFORCEMENT MAT & EROSION CONTROL BLANKET & TURF REINFORCEMENT MAT & EROSION CONTROL BLANKET & TURF REINFORCEMENT MAT & EROSION CONTROL BLANKET & TURF REINFORCEMENT MAT & EROSION CONTROL BLANKET & TURF REINFORCEMENT MAT & EROSION CONTROL BLANKET & TURF REINFORCEMENT MAT & EROSION CONTROL BLANKET & TURF REINFORCEMENT MAT & EROSION CONTROL BLANKET
PROP. SLOPE TO BE SEEDED & MULCHED W/ TURF REINFORCEMENT MAT &

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.		080426	13	271

(2) TEMPORARY EROSION CONTROL DETAILS

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11435
12-4-15
TRINITY D. SMITH

REDEFINED CURVE FROM ROW PLANS JOB# 8570

36" CMP AT STA 328+88 WAS USED FOR STATIONING ON CONSTRUCTION PLANS FOR JOB# 8570

ROW FROM STA 336+21.45 NORTH JOB# 8570

P.I. 112+40.00

PROPOSED R/W

N 1°54'28" E

N 0°57'35" E

PROPOSED R/W

P.I. 115+54.04

P.I. 117+14.62

P.I. 123+67.23

P.I. 125+73.73

P.I. 129+94.89

N 1°11'35" E

N 1°31'50" E

N 2°23'18" E

N 2°49'43" E

PROPOSED R/W

LEGEND

- (E-5) = SAND BAG DITCH CHECKS
- (E-6) = ROCK DITCH CHECKS
- (E-11) = SILT FENCE

NOTE: PERIMETER CONTROLS SHALL BE PLACED AS CLEARING AND GRUBBING OPERATIONS ARE STARTED.

REVISIONS

DATE OF REVISION	REVISION

11/20/2015

R080426.DGN

SITE 1 STAGE 3
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.		080426	14	271

(2) TEMPORARY EROSION CONTROL DETAILS

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
12-9-15
TRINITY D. SMITH

REVISIONS

DATE OF REVISION	REVISION

LEGEND

- (E-5) = SAND BAG DITCH CHECKS
- (E-6) = ROCK DITCH CHECKS
- (E-11) = SILT FENCE

NOTE: PERIMETER CONTROLS SHALL BE PLACED AS CLEARING AND GRUBBING OPERATIONS ARE STARTED.

11/20/2015

R080426.DGN

SITE I STAGE 3
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.		080426	15	271

(2) TEMPORARY EROSION CONTROL DETAILS

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
12-4-15
TRINITY D. SMITH

REVISIONS

DATE OF REVISION	REVISION

LEGEND

- (E-5) = SAND BAG DITCH CHECKS
- (E-6) = ROCK DITCH CHECKS
- (E-11) = SILT FENCE

NOTE: PERIMETER CONTROLS SHALL BE PLACED AS CLEARING AND GRUBBING OPERATIONS ARE STARTED.

11/20/2015

R080426.DGN

SITE 1 STAGE 3
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.		080426	16	271

(2) TEMPORARY EROSION CONTROL DETAILS

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
12-4-15

LEGEND

- (E-5) = SAND BAG DITCH CHECKS
- (E-6) = ROCK DITCH CHECKS
- (E-11) = SILT FENCE

NOTE: PERIMETER CONTROLS SHALL BE PLACED AS CLEARING AND GRUBBING OPERATIONS ARE STARTED.

REVISIONS

DATE OF REVISION	REVISION

11/20/2015

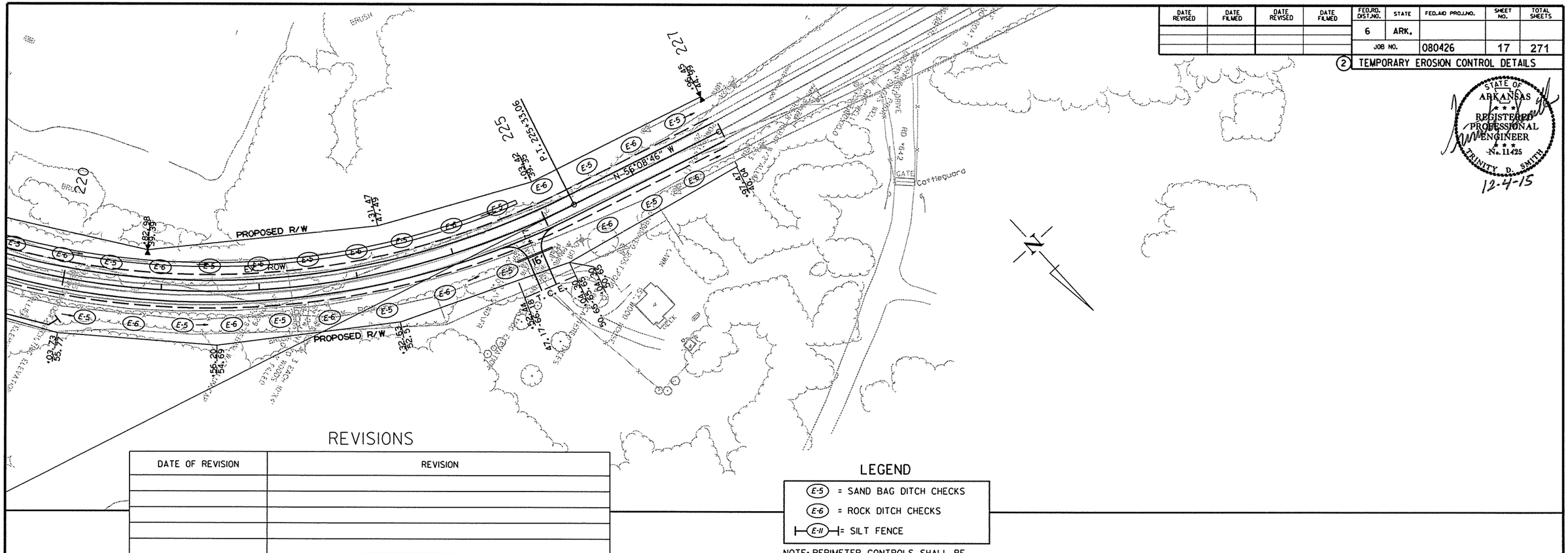
R080426.DGN

SITE I STAGE 3
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.		080426	17	271

(2) TEMPORARY EROSION CONTROL DETAILS

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
12-4-15



REVISIONS

DATE OF REVISION	REVISION

LEGEND

- (E-5) = SAND BAG DITCH CHECKS
- (E-6) = ROCK DITCH CHECKS
- (E-11) = SILT FENCE

NOTE: PERIMETER CONTROLS SHALL BE PLACED AS CLEARING AND GRUBBING OPERATIONS ARE STARTED.

11/20/2015

R080426.DGN

SITE I STAGE 3
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.		080426	18	271

(2) TEMPORARY EROSION CONTROL DETAILS

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
12-4-15

REVISIONS

DATE OF REVISION	REVISION

LEGEND

- (E-5) = SAND BAG DITCH CHECKS
- (E-6) = ROCK DITCH CHECKS
- (E-11) = SILT FENCE

NOTE: PERIMETER CONTROLS SHALL BE PLACED AS CLEARING AND GRUBBING OPERATIONS ARE STARTED.

11/20/2015

R080426.DGN

SITE 2 STAGE I
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.		080426	19	271

(2) TEMPORARY EROSION CONTROL DETAILS

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
12-4-15

LEGEND

(E-5) = SAND BAG DITCH CHECKS
(E-6) = ROCK DITCH CHECKS
(E-11) = SILT FENCE

NOTE: PERIMETER CONTROLS SHALL BE PLACED AS CLEARING AND GRUBBING OPERATIONS ARE STARTED.

REVISIONS

DATE OF REVISION	REVISION

11/20/2015

R080426.DGN

SITE 2 STAGE 2
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.		080426	20	271

(2) TEMPORARY EROSION CONTROL DETAILS

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11435
12-9-15
TRINITY D. SMITH

REVISIONS

DATE OF REVISION	REVISION

LEGEND

- (E-5) = SAND BAG DITCH CHECKS
- (E-6) = ROCK DITCH CHECKS
- (E-11) = SILT FENCE

NOTE: PERIMETER CONTROLS SHALL BE PLACED AS CLEARING AND GRUBBING OPERATIONS ARE STARTED.

11/20/2015

R080426.DGN

SITE 2 STAGE 2
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.		080426	21	271

(2) TEMPORARY EROSION CONTROL DETAILS

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
12-4-15

REVISIONS

DATE OF REVISION	REVISION

LEGEND

- (E-5) = SAND BAG DITCH CHECKS
- (E-6) = ROCK DITCH CHECKS
- (E-11) = SILT FENCE

NOTE: PERIMETER CONTROLS SHALL BE PLACED AS CLEARING AND GRUBBING OPERATIONS ARE STARTED.

11/20/2015

R080426.DGN

SITE 2 STAGE 2
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.		080426	22	271

(2) TEMPORARY EROSION CONTROL DETAILS

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11495
11-4-15
TRINITY D. SMITH

11/20/2015

R080426.DGN

REVISIONS

DATE OF REVISION	REVISION

LEGEND

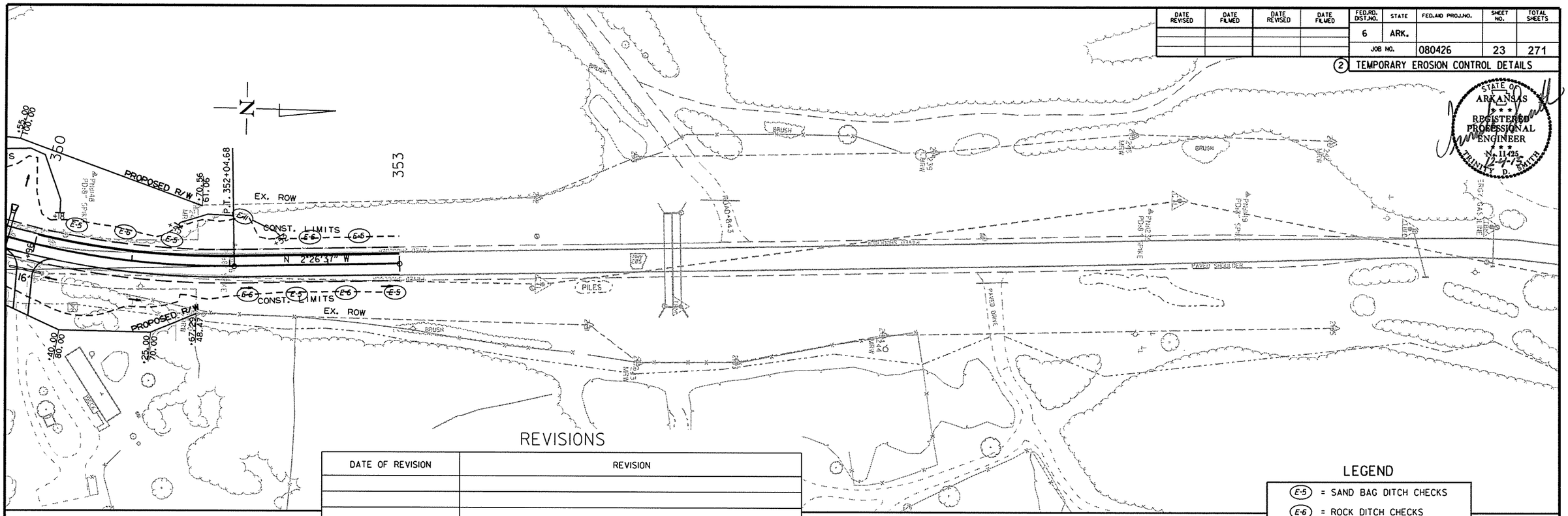
- (E-5) = SAND BAG DITCH CHECKS
- (E-6) = ROCK DITCH CHECKS
- (E-11) = SILT FENCE

NOTE: PERIMETER CONTROLS SHALL BE PLACED AS CLEARING AND GRUBBING OPERATIONS ARE STARTED.

SITE 2 STAGE 2
TEMPORARY EROSION CONTROL DETAILS

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AND PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		080426	23	271

(2) TEMPORARY EROSION CONTROL DETAILS



STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11435
12-4-15
TRINITY D. SMITH

REVISIONS

DATE OF REVISION	REVISION

LEGEND

- E-5 = SAND BAG DITCH CHECKS
- E-6 = ROCK DITCH CHECKS
- E-11 = SILT FENCE

NOTE: PERIMETER CONTROLS SHALL BE PLACED AS CLEARING AND GRUBBING OPERATIONS ARE STARTED.

11/20/2015

R080426.DGN

SITE 2 STAGE 2
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.		080426	24	271

(2) TEMPORARY EROSION CONTROL DETAILS

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
12-4-15

REVISIONS

DATE OF REVISION	REVISION

LEGEND

- (E-5) = SAND BAG DITCH CHECKS
- (E-6) = ROCK DITCH CHECKS
- (E-11) = SILT FENCE

NOTE: PERIMETER CONTROLS SHALL BE PLACED AS CLEARING AND GRUBBING OPERATIONS ARE STARTED.

11/20/2015

R080426.DGN

SITE 2 STAGE 3
TEMPORARY EROSION CONTROL DETAILS

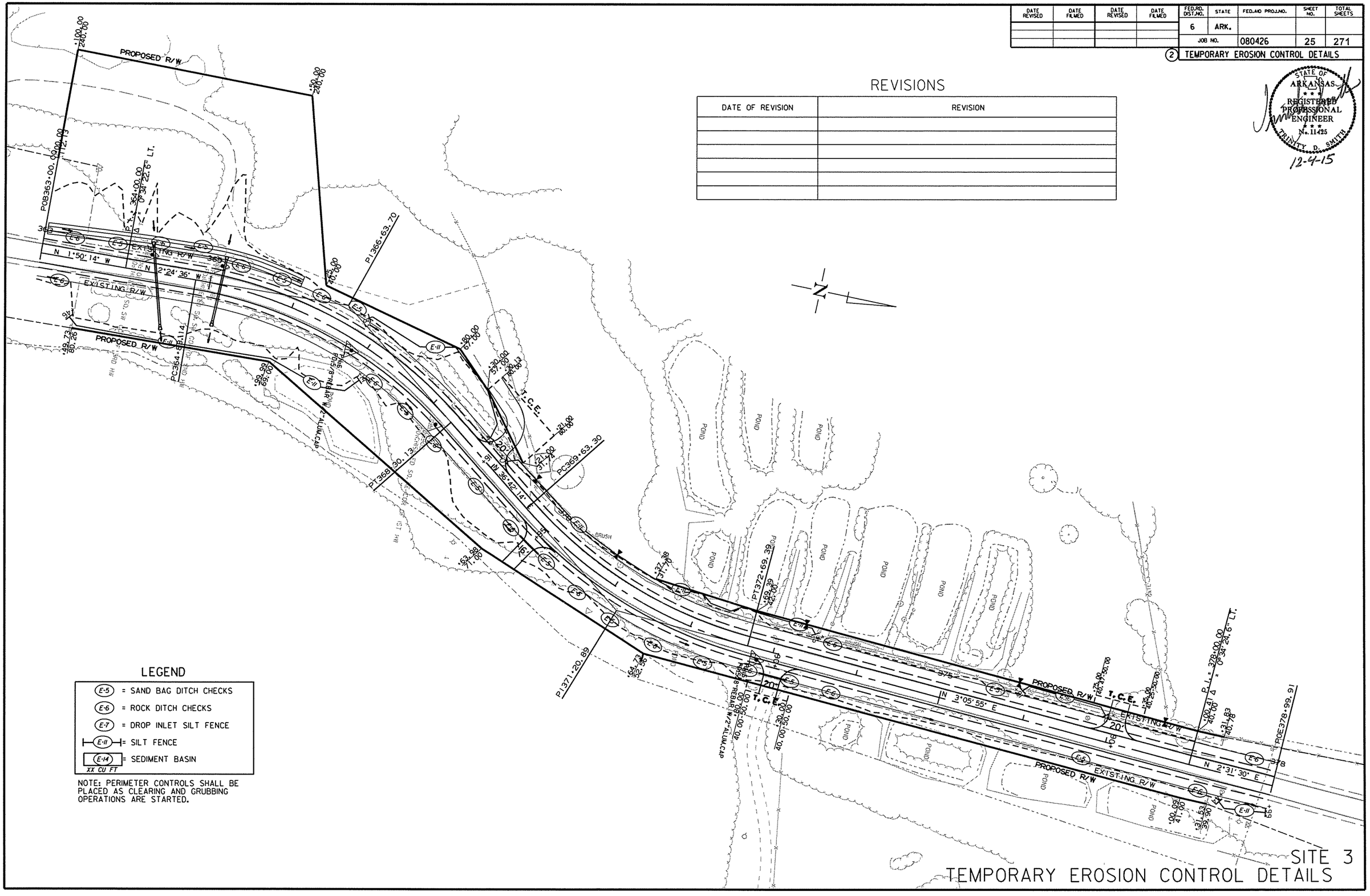
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		080426	25	271

(2) TEMPORARY EROSION CONTROL DETAILS

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
12-4-15

REVISIONS

DATE OF REVISION	REVISION



LEGEND

- (E-5) = SAND BAG DITCH CHECKS
- (E-6) = ROCK DITCH CHECKS
- (E-7) = DROP INLET SILT FENCE
- (E-11) = SILT FENCE
- (E-14) XX CU FT = SEDIMENT BASIN

NOTE: PERIMETER CONTROLS SHALL BE PLACED AS CLEARING AND GRUBBING OPERATIONS ARE STARTED.

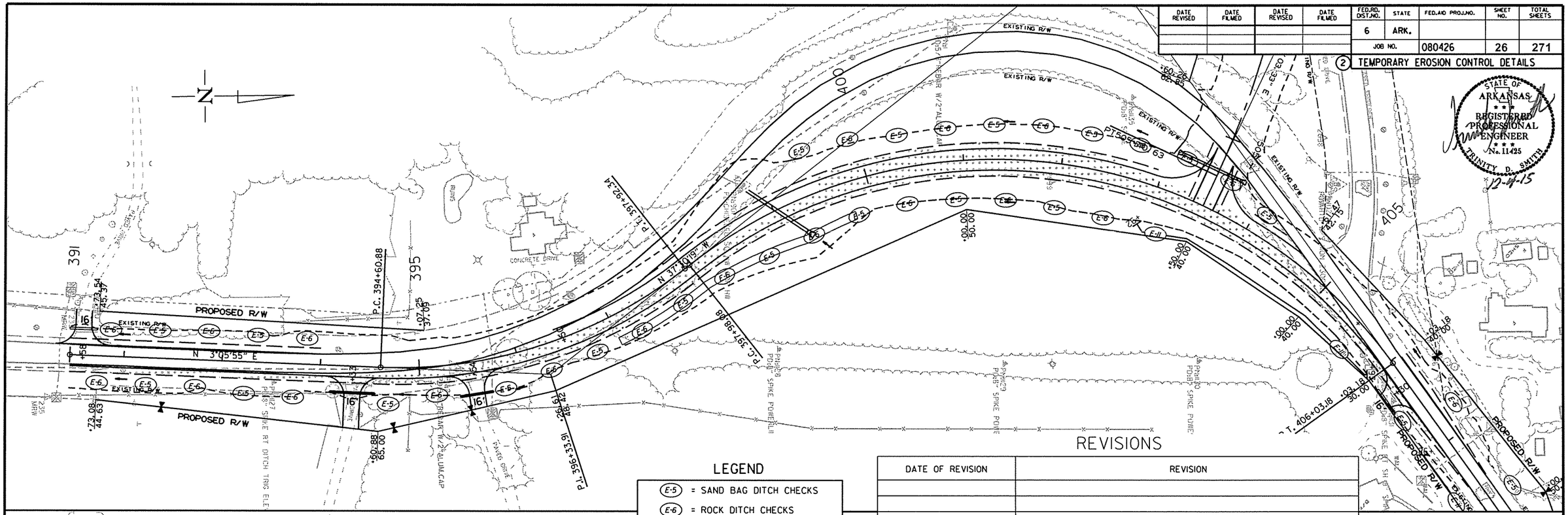
11/20/2015

R080426.DGN

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		080426	26	271

(2) TEMPORARY EROSION CONTROL DETAILS

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
12-4-15


EXISTING R/W
PROPOSED R/W
EXISTING R/W
PROPOSED R/W
P.C. 394+60.88
P.T. 397+92.34
P.C. 397+98.15
P.T. 396+33.61
N 3°05'55" E
N 37°30'15" W
N 55°04'55" E
P.T. 406+03.18
P.I. 406+03.18
EXISTING R/W
PROPOSED R/W
PROPOSED R/W
EXISTING R/W
PROPOSED R/W
CONCRETE DRIVE
SHED
CONCRETE PADS, ABANDONED
CARDEN
BRUSH
BRUSH
BRUSH
391
395
405
410
PINHOOD
PINHOOD
PINHOOD

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.		080426	27	271

(2) TEMPORARY EROSION CONTROL DETAILS

LEGEND

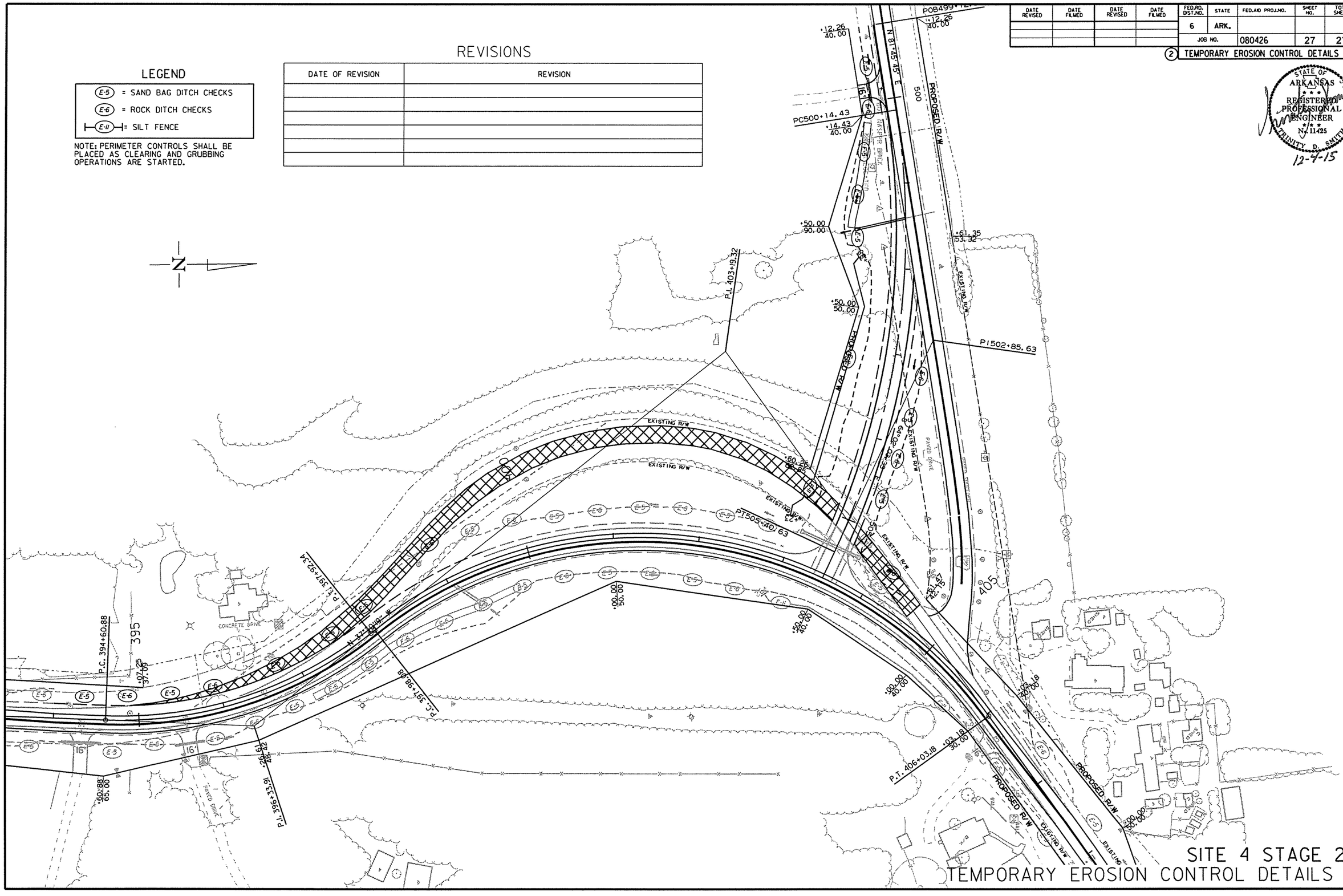
- (E-5) = SAND BAG DITCH CHECKS
- (E-6) = ROCK DITCH CHECKS
- (E-11) = SILT FENCE

NOTE: PERIMETER CONTROLS SHALL BE PLACED AS CLEARING AND GRUBBING OPERATIONS ARE STARTED.

REVISIONS

DATE OF REVISION	REVISION

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
NO. 11425
TRINITY D. SMITH
12-4-15



SITE 4 STAGE 2
TEMPORARY EROSION CONTROL DETAILS

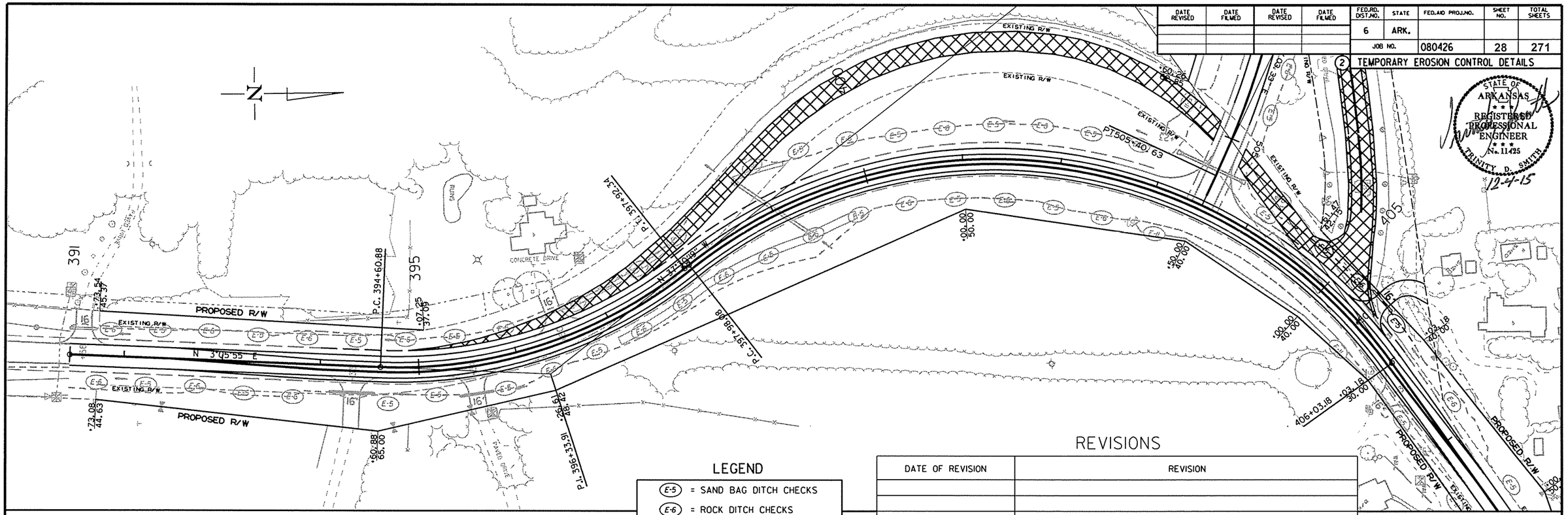
11/20/2015

R080426.DGN

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED

FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
6	ARK.			
JOB NO.		080426	28	271

TEMPORARY EROSION CONTROL DETAILS



STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
12-4-15

LEGEND

- (E-5) = SAND BAG DITCH CHECKS
- (E-6) = ROCK DITCH CHECKS
- (E-11) = SILT FENCE

NOTE: PERIMETER CONTROLS SHALL BE PLACED AS CLEARING AND GRUBBING OPERATIONS ARE STARTED.

REVISIONS

DATE OF REVISION	REVISION

11/20/2015

R080426.DGN

SITE 4 STAGE 3
TEMPORARY EROSION CONTROL DETAILS

REVISIONS

DATE OF REVISION	REVISION

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.		080426	29	271

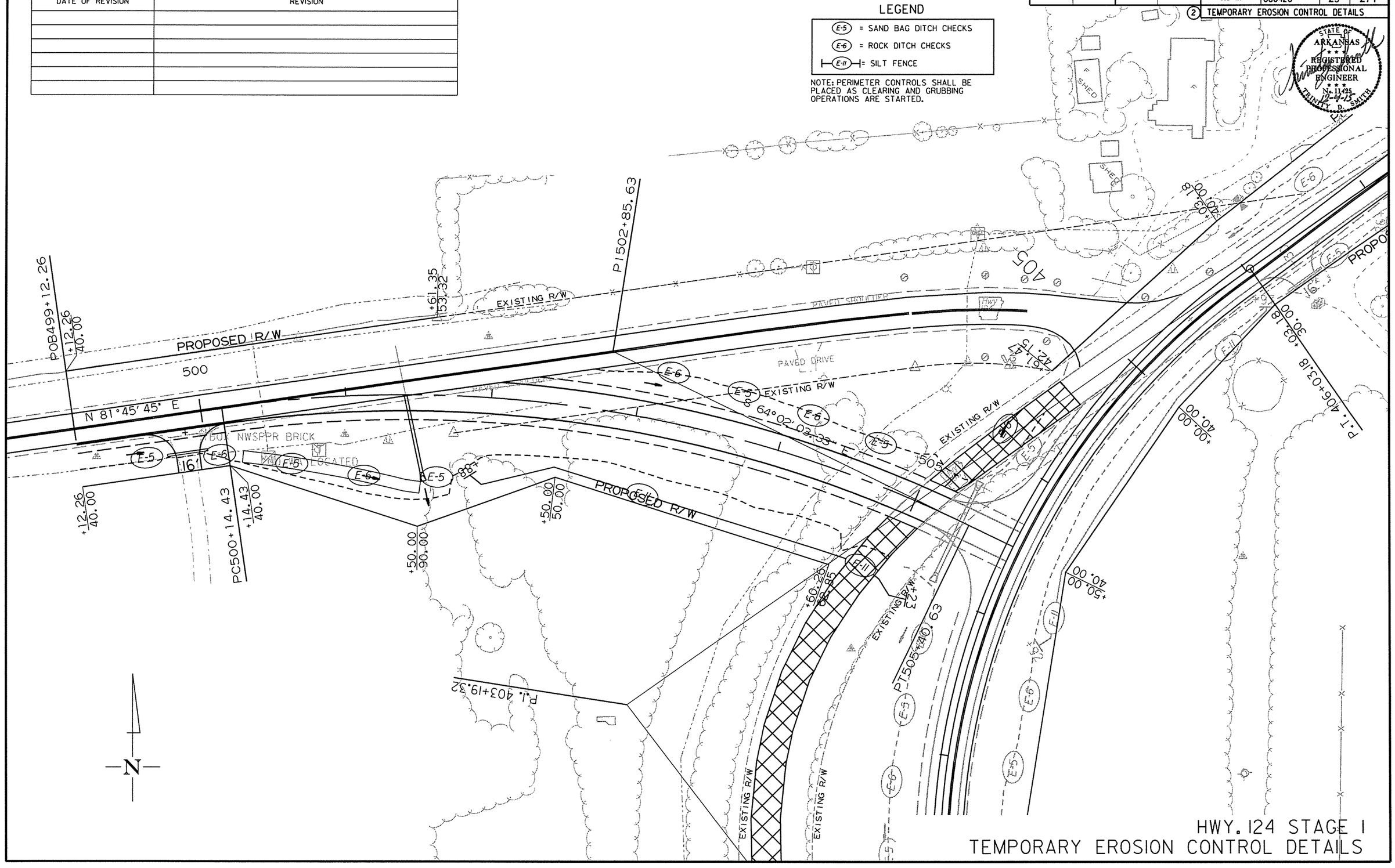
(2) TEMPORARY EROSION CONTROL DETAILS

LEGEND

(E-5) = SAND BAG DITCH CHECKS
(E-6) = ROCK DITCH CHECKS
(E-11) = SILT FENCE

NOTE: PERIMETER CONTROLS SHALL BE PLACED AS CLEARING AND GRUBBING OPERATIONS ARE STARTED.

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
11-4-15
TRINITY D. SMITH



HWY. 124 STAGE I
TEMPORARY EROSION CONTROL DETAILS

11/20/2015

R080426.DGN

REVISIONS

DATE OF REVISION	REVISION

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.		080426	30	271

(2) TEMPORARY EROSION CONTROL DETAILS

LEGEND

- (E-5) = SAND BAG DITCH CHECKS
- (E-6) = ROCK DITCH CHECKS
- (E-11) = SILT FENCE

NOTE: PERIMETER CONTROLS SHALL BE PLACED AS CLEARING AND GRUBBING OPERATIONS ARE STARTED.

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11495
12-4-15
TRINITY D. SMITH

POB499+12.26
+12.26 / 40.00
N 81°45'45" E
PROPOSED R/W
EXISTING R/W
+61.35
53.32
P1502+85.63
PAVED DRIVE
S 64°02'03.33" E
PC500+14.43
+14.43 / 40.00
+12.26 / 40.00
+50.00 / 50.00
+50.00 / 90.00
P.I. 403+19.32
+50.26
82.85
PT505+240.63
+50.00 / 40.00
P.I. 406+03.18
+00.00 / 40.00
SHED
F
505
16'
E-5
E-6
E-11

HWY. 124 STAGE 2
TEMPORARY EROSION CONTROL DETAILS

11/20/2015

R080426.DGN

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		080426	31	271

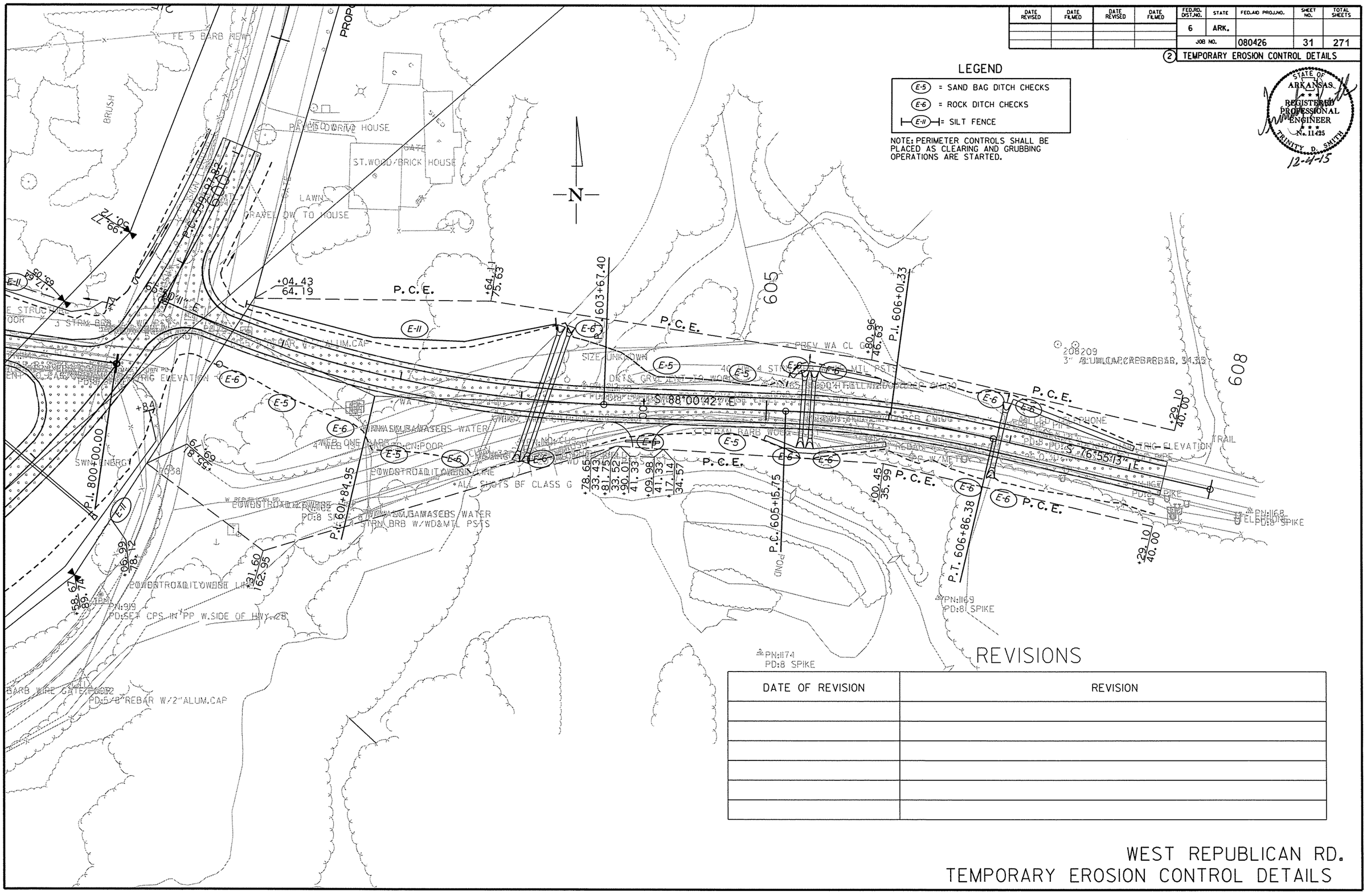
(2) TEMPORARY EROSION CONTROL DETAILS

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
12-4-15

LEGEND

- (E-5) = SAND BAG DITCH CHECKS
- (E-6) = ROCK DITCH CHECKS
- (E-11) = SILT FENCE

NOTE: PERIMETER CONTROLS SHALL BE PLACED AS CLEARING AND GRUBBING OPERATIONS ARE STARTED.



REVISIONS

DATE OF REVISION	REVISION

WEST REPUBLICAN RD.
TEMPORARY EROSION CONTROL DETAILS

11/20/2015

R080426.DGN

REVISIONS

DATE OF REVISION	REVISION

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		080426	32	271

(2) TEMPORARY EROSION CONTROL DETAILS

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
12-4-15

LEGEND

- (E-5) = SAND BAG DITCH CHECKS
- (E-6) = ROCK DITCH CHECKS
- (E-11) = SILT FENCE

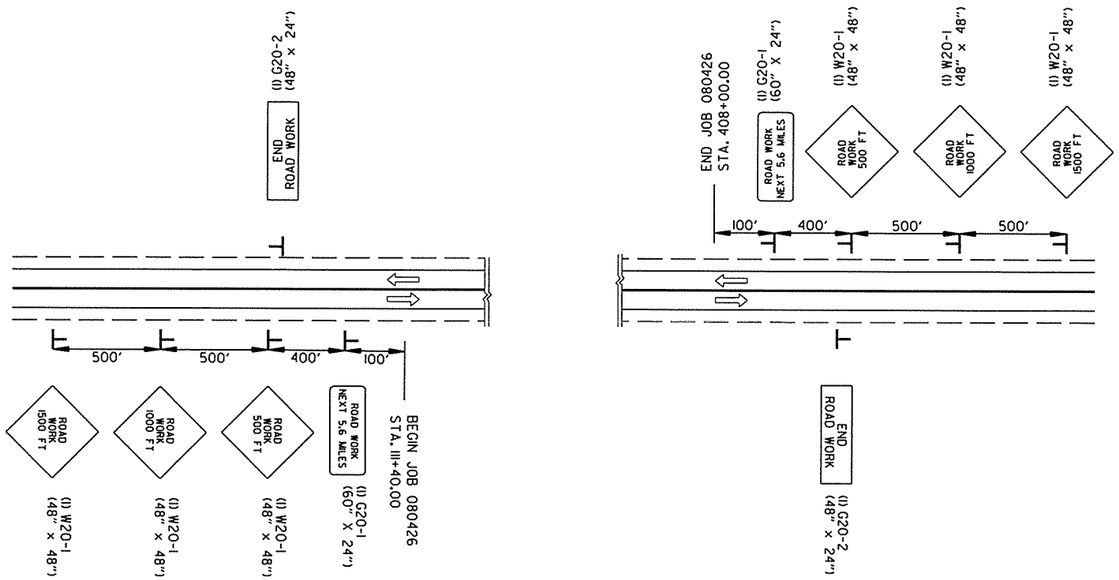
11/20/2015

R080426.DGN

MALLETT TOWN RD.
TEMPORARY EROSION CONTROL DETAILS

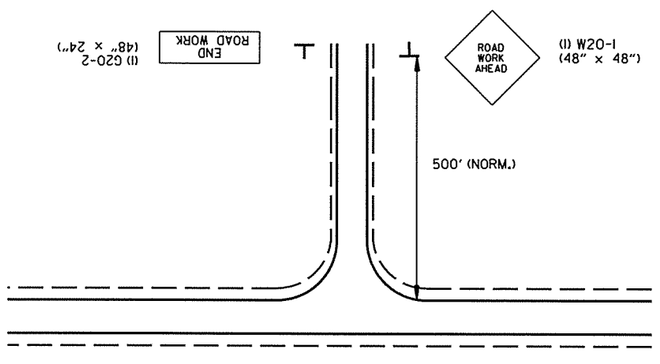
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		080426	33	271
				(2) MAINTENANCE OF TRAFFIC DETAILS				

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
12-4-15



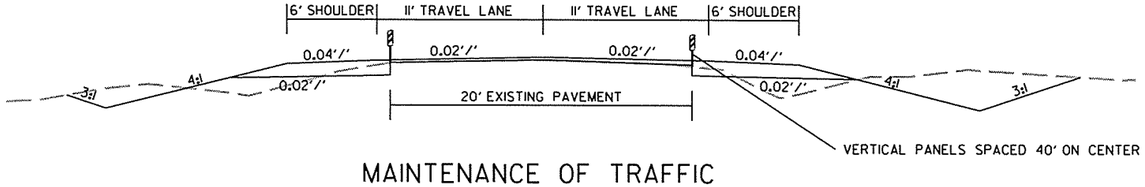
ADVANCE WARNING (ALL STAGES)

SHOULDER CLOSED	(20) RSP-1 (48" X 30")	ALL STAGES TO BE USED IF AND WHERE DIRECTED BY THE ENGINEER
DO NOT PASS	(8) R4-1 (24" X 30")	ALL STAGES TO BE USED IF AND WHERE DIRECTED BY THE ENGINEER
BUMP	(8) W8-1 (30" X 30")	ALL STAGES TO BE USED IF AND WHERE DIRECTED BY THE ENGINEER

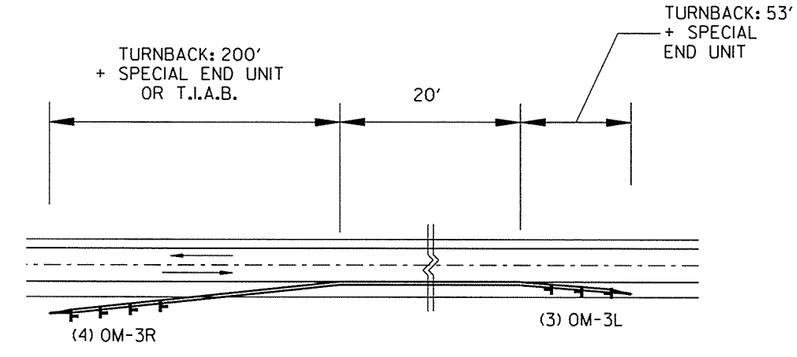


ADVANCE WARNING - SIDE ROADS (ALL STAGES)

- STA. 111+05.00, BURKETT FLAT ROAD
- STA. 143+75.00, SLATEY GAP ROAD
- STA. 803+56.98, MALLETT TOWN ROAD
- STA. 607+61.00, W. REPUBLICAN ROAD
- STA. 316+20.00, SOLOMAN GROVE ROAD
- STA. 499+12.26, HWY 124
- STATIONS BASED OFF HWY. 285.



MAINTENANCE OF TRAFFIC NOTCH AND WIDEN



REFER ALSO TO STANDARD DRAWING TC-5 FOR DETAILS OF PLACEMENT OF PCCB TURNBACKS.

NOTE: OM-3L & OM-3R SIGNS SHALL BE EQUALLY SPACED ALONG P.C.C.B. TURNBACK.

DETAIL OF OBJECT MARKERS AT PRECAST CONCRETE BARRIER TURNBACKS

11/20/2015

R080426.DGN

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.		080426	34	271

(2) MAINTENANCE OF TRAFFIC DETAILS

SITE I- STAGE I CONSTRUCTION SEQUENCE

INSTALL ADVANCE WARNING SIGNS, END ROAD WORK SIGNS, AND ROAD WORK AHEAD (W20-1) SIGN AS SHOWN ON THE MAINTENANCE OF TRAFFIC - ADVANCE WARNING SHEET.

USE VERTICAL PANELS AND TRAFFIC DRUMS SPACED 40' ON CENTER TO DELINEATE THE WORK ZONE. USE TRAFFIC DRUMS TO DELINEATE DRIVEWAYS.

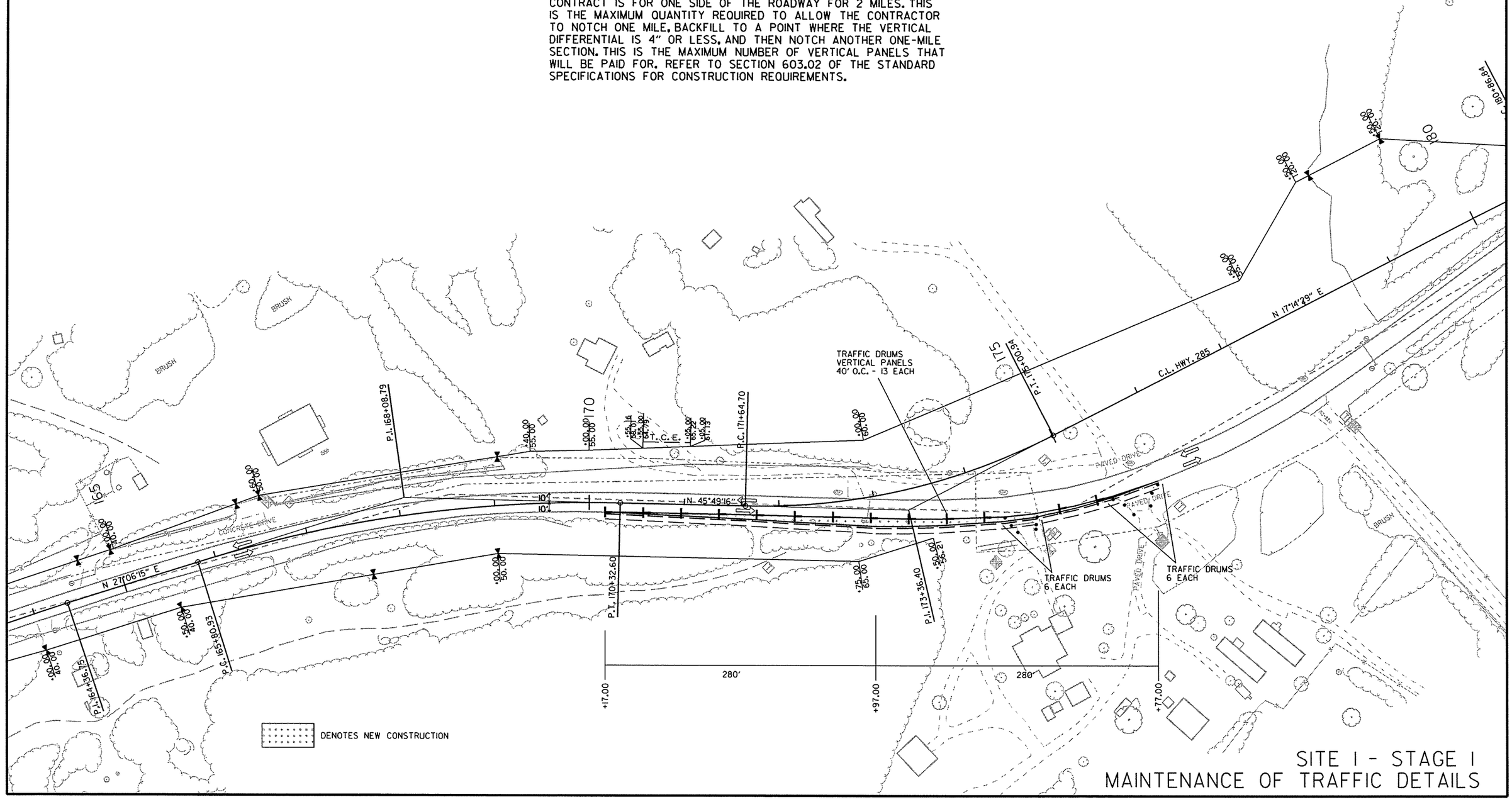
CONSTRUCT TEMPORARY WIDENING RIGHT OF EXISTING HWY. 285 FOR STA. 170+17.00 TO STA. 175+77.00.

STAGE I QUANTITIES

SIGNS = 296 SQ. FT.
TRAFFIC DRUMS = 12 EACH
VERTICAL PANELS = 13 EACH

NOTE: THE QUANTITY OF VERTICAL PANELS PROVIDED IN THE CONTRACT IS FOR ONE SIDE OF THE ROADWAY FOR 2 MILES. THIS IS THE MAXIMUM QUANTITY REQUIRED TO ALLOW THE CONTRACTOR TO NOTCH ONE MILE, BACKFILL TO A POINT WHERE THE VERTICAL DIFFERENTIAL IS 4" OR LESS, AND THEN NOTCH ANOTHER ONE-MILE SECTION. THIS IS THE MAXIMUM NUMBER OF VERTICAL PANELS THAT WILL BE PAID FOR. REFER TO SECTION 603.02 OF THE STANDARD SPECIFICATIONS FOR CONSTRUCTION REQUIREMENTS.

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
12-4-15



SITE I - STAGE I
MAINTENANCE OF TRAFFIC DETAILS

11/20/2015

R080426.DGN

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		080426	35	271

(2) MAINTENANCE OF TRAFFIC DETAILS

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
12-4-15

SITE I- STAGE 2 CONSTRUCTION SEQUENCE

INSTALL ADVANCE WARNING SIGNS AS SHOWN ON THE MAINTENANCE OF TRAFFIC - ADVANCE WARNING SHEET.

APPLY LEVELING COURSE TO EXISTING LANES IF AND WHERE DIRECTED BY THE ENGINEER.

APPLY CONSTRUCTION PAVEMENT MARKINGS AS SHOWN IN THE STAGE 2 MAINTENANCE OF TRAFFIC DETAILS AND SHIFT TRAFFIC ONTO THE TEMPORARY WIDENING CONSTRUCTED IN STAGE I.

USE VERTICAL PANELS AND TRAFFIC DRUMS SPACED 40' ON CENTER TO DELINEATE THE WORK ZONE. USE TRAFFIC DRUMS TO DELINEATE DRIVEWAYS.

CONSTRUCT PORTIONS OF HWY. 285 AND CROSS DRAINS AS SHOWN: LT. OF C.L. FROM STA. 171+64.70 TO STA. 184+47.02 AND STA. 205+76.04 TO STA. 213+78.98.

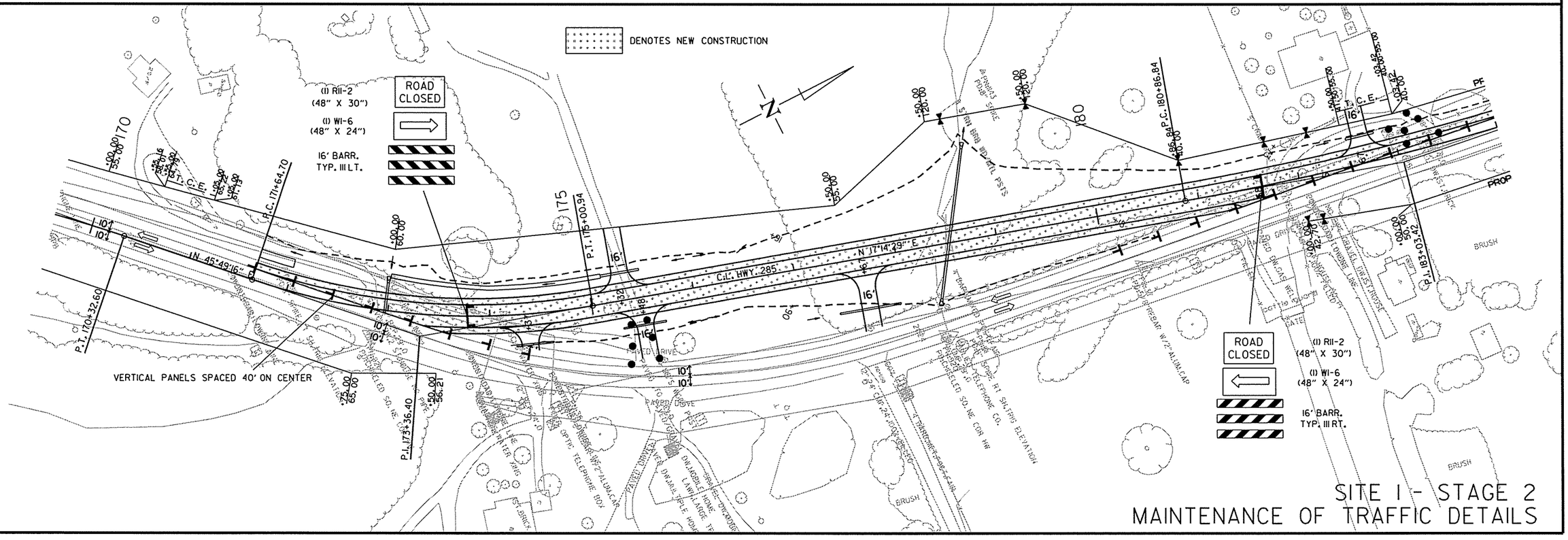
CONSTRUCT NEW LOCATION OF W. REPUBLICAN RD. UNDER TRAFFIC WHILE MAINTAINING CONNECTION TO HWY. 285.

RAISE THE GRADE OF MALLETT TOWN RD. UNDER TRAFFIC AND MAINTAIN CONNECTION TO HWY. 285.

SITE I- STAGE 2 QUANTITIES

SIGNS = 510.5 SQ. FT.
TRAFFIC DRUMS = 782 EACH
VERTICAL PANELS = 264 EACH
TYPE III BARRICADE - RT. (16') = 64 LIN. FT.
TYPE III BARRICADE - LT. (16') = 64 LIN. FT.
CONSTRUCTION PAVEMENT MARKINGS = 46696 LIN. FT.

NOTE: THE QUANTITY OF VERTICAL PANELS PROVIDED IN THE CONTRACT IS FOR ONE SIDE OF THE ROADWAY FOR 2 MILES. THIS IS THE MAXIMUM QUANTITY REQUIRED TO ALLOW THE CONTRACTOR TO NOTCH ONE MILE, BACKFILL TO A POINT WHERE THE VERTICAL DIFFERENTIAL IS 4" OR LESS, AND THEN NOTCH ANOTHER ONE-MILE SECTION. THIS IS THE MAXIMUM NUMBER OF VERTICAL PANELS THAT WILL BE PAID FOR. REFER TO SECTION 603.02 OF THE STANDARD SPECIFICATIONS FOR CONSTRUCTION REQUIREMENTS.



SITE I - STAGE 2
MAINTENANCE OF TRAFFIC DETAILS

11/20/2015

R080426.DGN

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		080426	36	271

(2) MAINTENANCE OF TRAFFIC DETAILS

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
12-4-15

NOTE: MALLETT TOWN RD. WILL BE CONSTRUCTED WHILE MAINTAINING CONNECTION TO HWY. 285.

ROAD CLOSED

(1) RII-2 (48" X 30")

(1) WI-6 (48" X 24")

16' BARR. TYP. III RT.

ROAD CLOSED

(1) RII-2 (48" X 30")

(1) WI-6 (48" X 24")

16' BARR. TYP. III LT.

TRAFFIC DRUMS 40' O.C.

TRAFFIC DRUMS 40' O.C.

4" DOUBLE YELLOW CONSTRUCTION PAVEMENT MARKING

4" WHITE CONSTRUCTION PAVEMENT MARKING

NOTE: W. REPUBLICAN RD. WILL BE CONSTRUCTED WHILE MAINTAINING CONNECTION TO HWY. 285.

DENOTES NEW CONSTRUCTION

DENOTES DEMOLITION OF EXISTING ROADWAY

SITE I - STAGE 2
MAINTENANCE OF TRAFFIC DETAILS

11/20/2015

R080426.DGN

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		080426	37	271
				(2)	MAINTENANCE OF TRAFFIC DETAILS			

SITE I- STAGE 3 CONSTRUCTION SEQUENCE

INSTALL ADVANCE WARNING SIGNS AS SHOWN ON THE MAINTENANCE OF TRAFFIC - ADVANCE WARNING SHEET.

APPLY LEVELING COURSE TO EXISTING LANES IF AND WHERE DIRECTED BY THE ENGINEER.

APPLY CONSTRUCTION PAVEMENT MARKINGS AS SHOWN IN THE STAGE 3 MAINTENANCE OF TRAFFIC DETAILS AND SHIFT TRAFFIC ONTO THE PROPOSED ROADWAY CONSTRUCTED IN STAGE 2.

USE VERTICAL PANELS AND TRAFFIC DRUMS SPACED 40' ON CENTER TO DELINEATE THE WORK ZONE. USE TRAFFIC DRUMS TO DELINEATE DRIVEWAYS.

NOTCH AND WIDEN PORTIONS RIGHT OF HWY. 285 AND CONSTRUCT CROSS DRAINS AS SHOWN; STA. 111+40.00 TO STA. 171+90.01, STA. 182+96.71 TO STA. 205+77.64 AND STA. 213+70.00 TO STA. 226+97.47

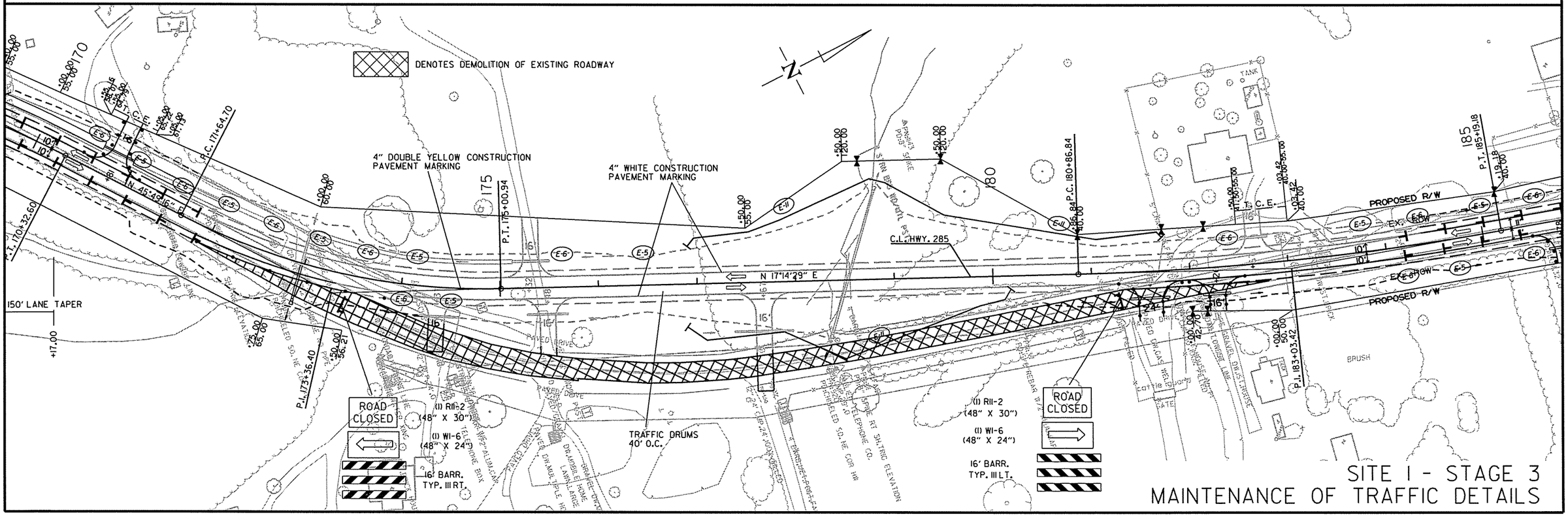
NOTCH AND WIDEN PORTIONS LEFT OF HWY. 285 AND CONSTRUCT CROSS DRAINS AS SHOWN; STA. 111+40.00 TO STA. 171+64.70, STA. 184+37.29 TO STA. 205+76.04, AND STA. 213+81.70 TO STA. 226+97.47

REMOVE PORTIONS OF EXISTING HWY. 285 AS SHOWN; STA.

SITE I- STAGE 3 QUANTITIES

SIGNS = 426.5 SQ. FT.
TRAFFIC DRUMS = 143 EACH
VERTICAL PANELS = 12 EACH
TYPE III BARRICADE RT. = 48 LIN. FT.
TYPE III BARRICADE LT. = 48 LIN. FT.
CONSTRUCTION PAVEMENT MARKINGS = 48509 LIN. FT.
REMOVAL OF CONSTRUCTION PAVEMENT MARKINGS = 4176 LIN. FT.

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
12-4-15



SITE I - STAGE 3
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.		080426	38	271

(2) MAINTENANCE OF TRAFFIC DETAILS

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
12-4-15

N

S 90°00'00" W

P.I. 804+07.99

P.I. 805+71.78

P.C.E.

P.C. 802+43.64

P.C. 598+87.82

P.C.E.

P.I. 800+00.00

P.I. 601+87.38

P.C. 210+30.22

P.C. 207+40.38

P.T. 207+40.38

P.C. 203+43.69

P.I. 205+38.40

N 49°03'35" E C.L. HWY. 285

S 88°00'42" E C.L. W. REPUBLIC RD.

P.C.E.

P.C. 603+67.40

P.I. 606+01.33

P.C. 605+15.75

P.T. 606+86.38

S 76°55'13" E

PROPOSED R/W

VERTICAL PANELS 40' O.C.

ROAD CLOSED

(1) RII-2 (48" X 30")

(1) WI-6 (48" X 24")

16' BARR. TYP. III RT.

ROAD CLOSED

(1) RII-2 (48" X 30")

(1) WI-6 (48" X 24")

16' BARR. TYP. III LT.

DENOTES DEMOLITION OF EXISTING ROADWAY

11/20/2015

R080426.DGN

SITE I - STAGE 3
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.		080426	39	271
				(2) MAINTENANCE OF TRAFFIC DETAILS				

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
12-4-15

SITE 2 - STAGE I CONSTRUCTION SEQUENCE

INSTALL ADVANCE WARNING SIGNS, END ROAD WORK SIGNS, AND ROAD WORK AHEAD (W20-1) SIGN AS SHOWN ON THE MAINTENANCE OF TRAFFIC - ADVANCE WARNING SHEET.

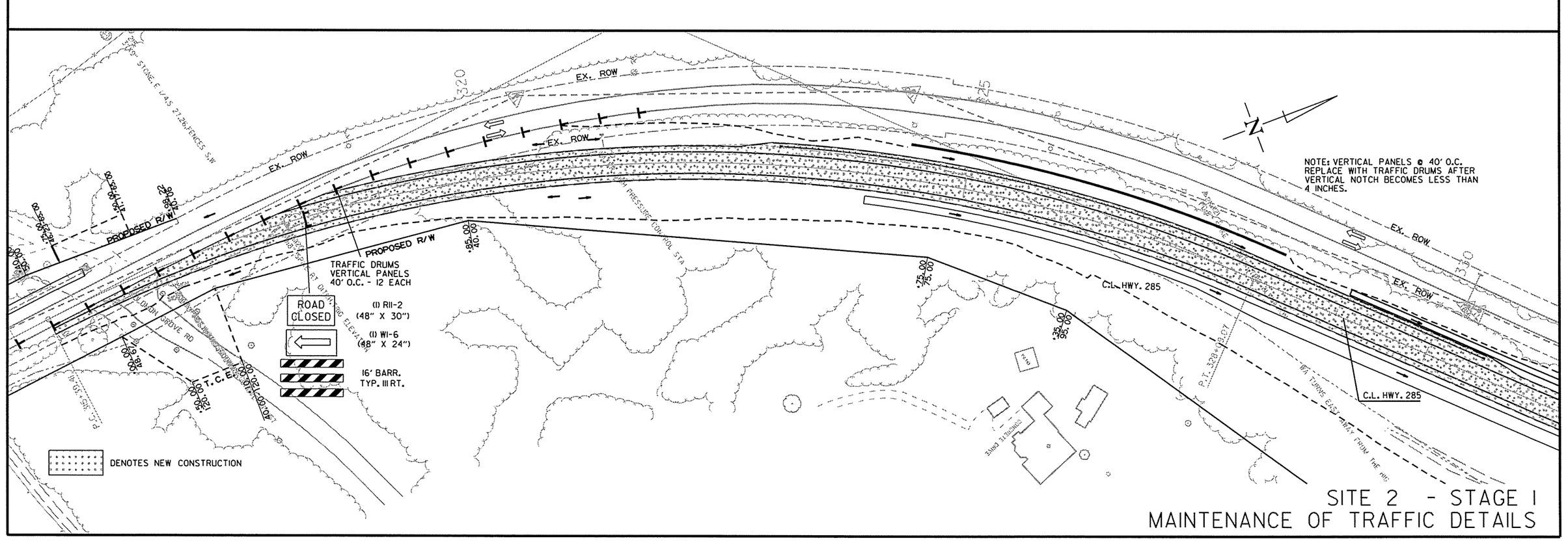
USE VERTICAL PANELS AND TRAFFIC DRUMS SPACED 40' ON CENTER TO DELINEATE THE WORK ZONE. USE TRAFFIC DRUMS TO DELINEATE DRIVEWAYS.

CONSTRUCT PORTIONS OF HWY. 285 AND CROSS DRAINS AS SHOWN: RT. OF C.L. FROM STA. 315+39.41 TO STA. 345+00.00

SITE 2 - STAGE I QUANTITIES

SIGNS = 324.5 SQ. FT.
TRAFFIC DRUMS = 28 EACH
VERTICAL PANELS = 22 EACH
TYPE III BARRICADE - RT. (16') = 32 LIN. FT.
TYPE III BARRICADE - LT. (16') = 32 LIN. FT.

NOTE: THE QUANTITY OF VERTICAL PANELS PROVIDED IN THE CONTRACT IS FOR ONE SIDE OF THE ROADWAY FOR 2 MILES. THIS IS THE MAXIMUM QUANTITY REQUIRED TO ALLOW THE CONTRACTOR TO NOTCH ONE MILE, BACKFILL TO A POINT WHERE THE VERTICAL DIFFERENTIAL IS 4" OR LESS, AND THEN NOTCH ANOTHER ONE-MILE SECTION. THIS IS THE MAXIMUM NUMBER OF VERTICAL PANELS THAT WILL BE PAID FOR. REFER TO SECTION 603.02 OF THE STANDARD SPECIFICATIONS FOR CONSTRUCTION REQUIREMENTS.

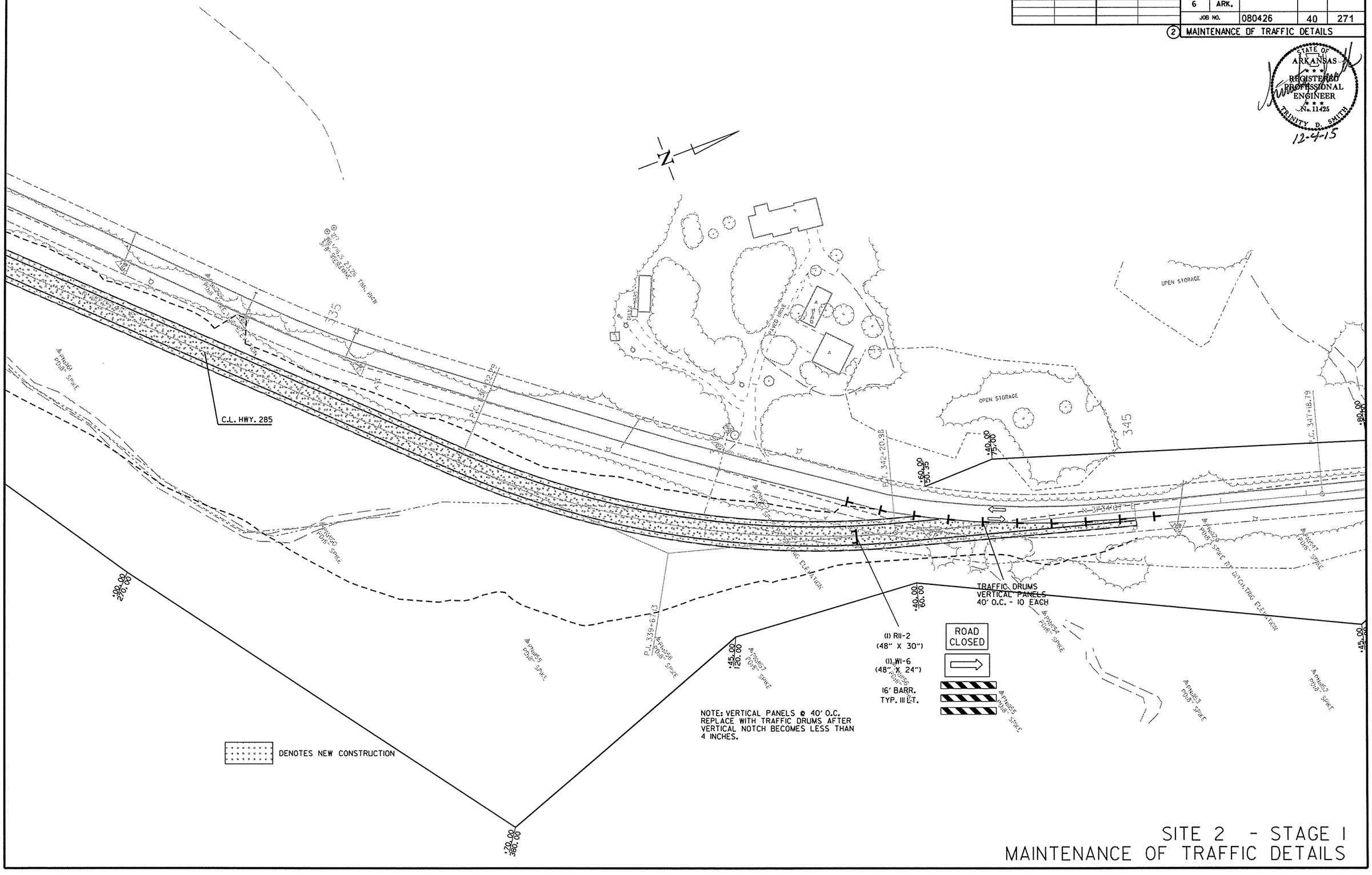


11/20/2015
R080426.DGN

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		080426	40	271

(2) MAINTENANCE OF TRAFFIC DETAILS

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
12-4-15



SITE 2 - STAGE I
MAINTENANCE OF TRAFFIC DETAILS

11/20/2015

R080426.DGN

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		080426	41	271

(2) MAINTENANCE OF TRAFFIC DETAILS

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
12-4-15

SITE 2 - STAGE 2 CONSTRUCTION SEQUENCE

INSTALL ADVANCE WARNING SIGNS AS SHOWN ON THE MAINTENANCE OF TRAFFIC - ADVANCE WARNING SHEET.

APPLY LEVELING COURSE TO EXISTING LANES IF AND WHERE DIRECTED BY THE ENGINEER.

APPLY CONSTRUCTION PAVEMENT MARKINGS AS SHOWN IN THE STAGE 2 MAINTENANCE OF TRAFFIC DETAILS AND SHIFT TRAFFIC ONTO THE PROPOSED ROADWAY CONSTRUCTED IN STAGE 1.

USE VERTICAL PANELS AND TRAFFIC DRUMS SPACED 40' ON CENTER TO DELINEATE THE WORK ZONE. USE TRAFFIC DRUMS TO DELINEATE DRIVEWAYS.

CONSTRUCT PORTIONS OF HWY. 285 AND CROSS DRAINS AS SHOWN: LT. AND RT. OF C.L. FROM STA. 246+85.00 TO STA. 315+39.41 AND LT. AND RT. OF C.L. STA. 345+00.00.

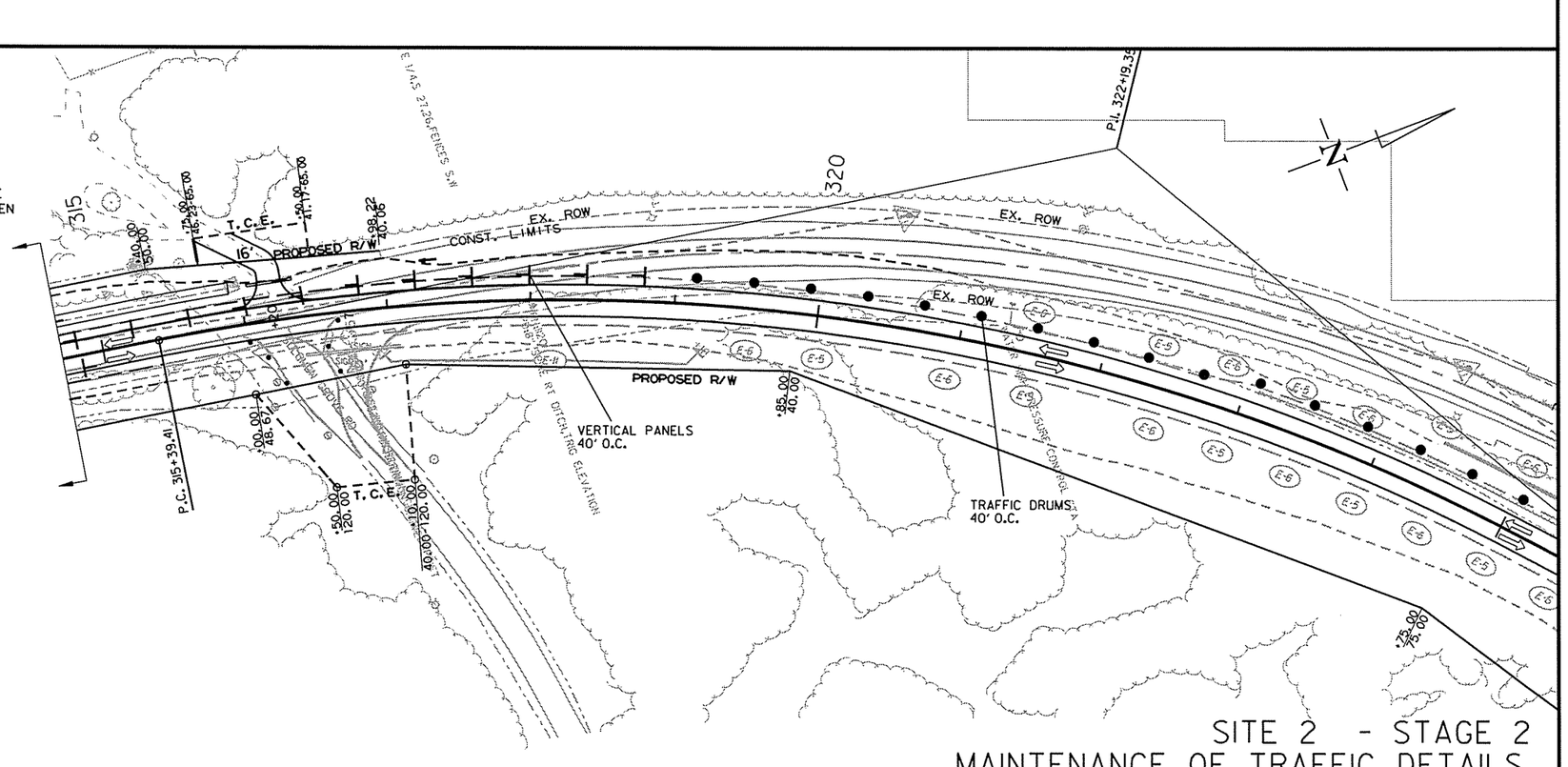
SITE 2 - STAGE 2 QUANTITIES

SIGNS = 682.5 SQ. FT.
TRAFFIC DRUMS = 134 EACH
VERTICAL PANELS = 407 EACH
TYPE III BARRICADE RT. = 64 LIN. FT.
TYPE III BARRICADE LT. = 64 LIN. FT.
CONSTRUCTION PAVEMENT MARKINGS = 42752

NOTE: THE QUANTITY OF VERTICAL PANELS PROVIDED IN THE CONTRACT IS FOR ONE SIDE OF THE ROADWAY FOR 2 MILES. THIS IS THE MAXIMUM QUANTITY REQUIRED TO ALLOW THE CONTRACTOR TO NOTCH ONE MILE, BACKFILL TO A POINT WHERE THE VERTICAL DIFFERENTIAL IS 4" OR LESS, AND THEN NOTCH ANOTHER ONE-MILE SECTION. THIS IS THE MAXIMUM NUMBER OF VERTICAL PANELS THAT WILL BE PAID FOR. REFER TO SECTION 603.02 OF THE STANDARD SPECIFICATIONS FOR CONSTRUCTION REQUIREMENTS.

CONTINUE WITH MAINTENANCE OF TRAFFIC NOTCH AND WIDEN (SEE SHEET 34)

CONTINUE WITH MAINTENANCE OF TRAFFIC NOTCH AND WIDEN (SEE SHEET 34)



SITE 2 - STAGE 2
MAINTENANCE OF TRAFFIC DETAILS

11/20/2015

R080426.DGN

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		080426	42	271

(2) MAINTENANCE OF TRAFFIC DETAILS

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11495
12-4-15
TRINITY D. SMITH

N

EX. ROW

330

335

340

EX. ROW

EX. ROW

P.C. 337+02.29

N 60°05'47" E

4" WHITE CONSTRUCTION PAVEMENT MARKING

4" DOUBLE YELLOW CONSTRUCTION PAVEMENT MARKING

TRAFFIC DRUMS 40' O.C.

P.T. 328+09.07

P.I. 339+61.13

PROPOSED R/W

PROPOSED R/W

Z

OPEN STORAGE

345

P.T. 342+20.98

TRAFFIC DRUMS 40' O.C.

4" WHITE CONSTRUCTION PAVEMENT MARKING

PROPOSED R/W

CONST. LIMITS

N 31°34'07" E

EX. ROW

P.C. 347+18.79

4" DOUBLE YELLOW CONSTRUCTION PAVEMENT MARKING

350

353

PROPOSED R/W

PROPOSED R/W

CONST. LIMITS

VERTICAL PANELS 40' O.C.

P.T. 352+04.68

EX. ROW

CONST. LIMITS

N 2°26'37" W

EX. ROW

CONST. LIMITS

EX. ROW

CONST. LIMITS

PROPOSED R/W

PROPOSED R/W

VERTICAL PANELS 40' O.C.

19+69.13

SITE 2 - STAGE 2
MAINTENANCE OF TRAFFIC DETAILS

11/20/2015

R080426.DGN

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		080426	43	271

(2) MAINTENANCE OF TRAFFIC DETAILS

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
12-4-15

SITE 2 - STAGE 3 CONSTRUCTION SEQUENCE

INSTALL ADVANCE WARNING SIGNS AS SHOWN ON THE MAINTENANCE OF TRAFFIC - ADVANCE WARNING SHEET.

APPLY FINAL SURFACE COURSE TO HWY. 285.

APPLY PERMANENT PAVEMENT MARKINGS ACCORDING TO STD. DWG. PM-2.

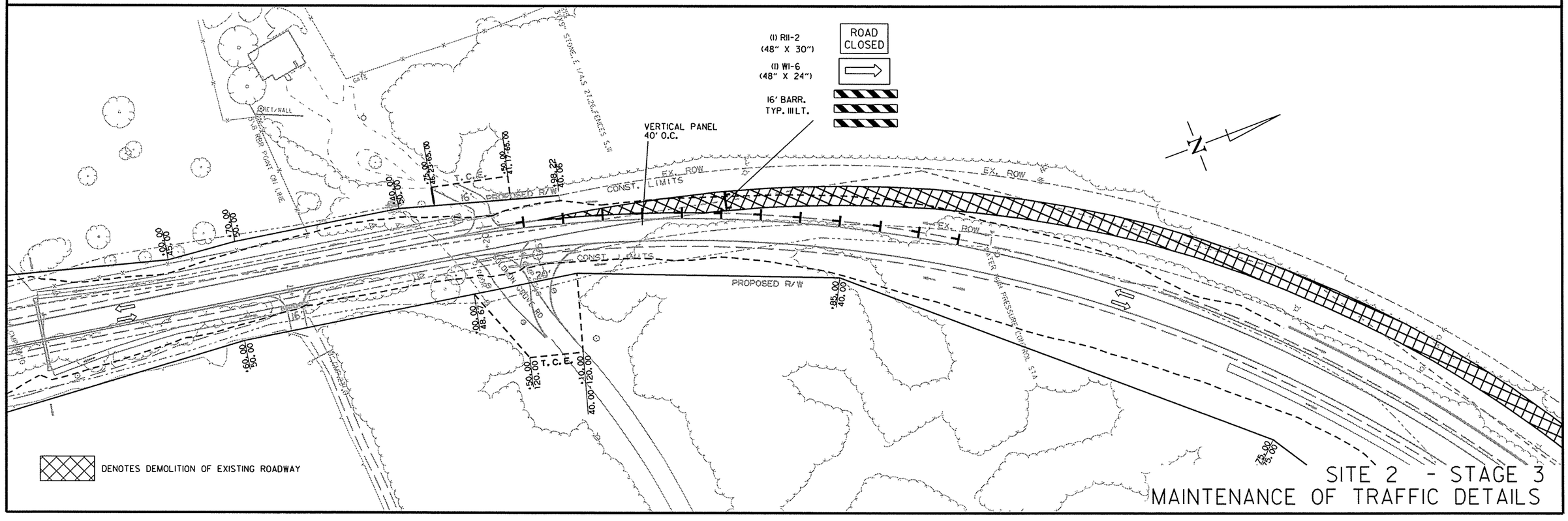
USE VERTICAL PANELS AND TRAFFIC DRUMS 40' ON CENTER TO DELINEATE THE WORK ZONE.

REMOVE PORTONS OF HWY. 285 AS SHOWN IN PLANS.

SITE 2 - STAGE 3 QUANTITIES

SIGNS = 344.5 SQ. FT.
TRAFFIC DRUMS = 18 EACH
TYPE III BARRICADE RT. = 16 LIN. FT.
TYPE III BARRICADE LT. = 16 LIN. FT.

NOTE: THE QUANTITY OF VERTICAL PANELS PROVIDED IN THE CONTRACT IS FOR ONE SIDE OF THE ROADWAY FOR 2 MILES. THIS IS THE MAXIMUM QUANTITY REQUIRED TO ALLOW THE CONTRACTOR TO NOTCH ONE MILE, BACKFILL TO A POINT WHERE THE VERTICAL DIFFERENTIAL IS 4" OR LESS, AND THEN NOTCH ANOTHER ONE-MILE SECTION. THIS IS THE MAXIMUM NUMBER OF VERTICAL PANELS THAT WILL BE PAID FOR. REFER TO SECTION 603.02 OF THE STANDARD SPECIFICATIONS FOR CONSTRUCTION REQUIREMENTS.



SITE 2 - STAGE 3
MAINTENANCE OF TRAFFIC DETAILS

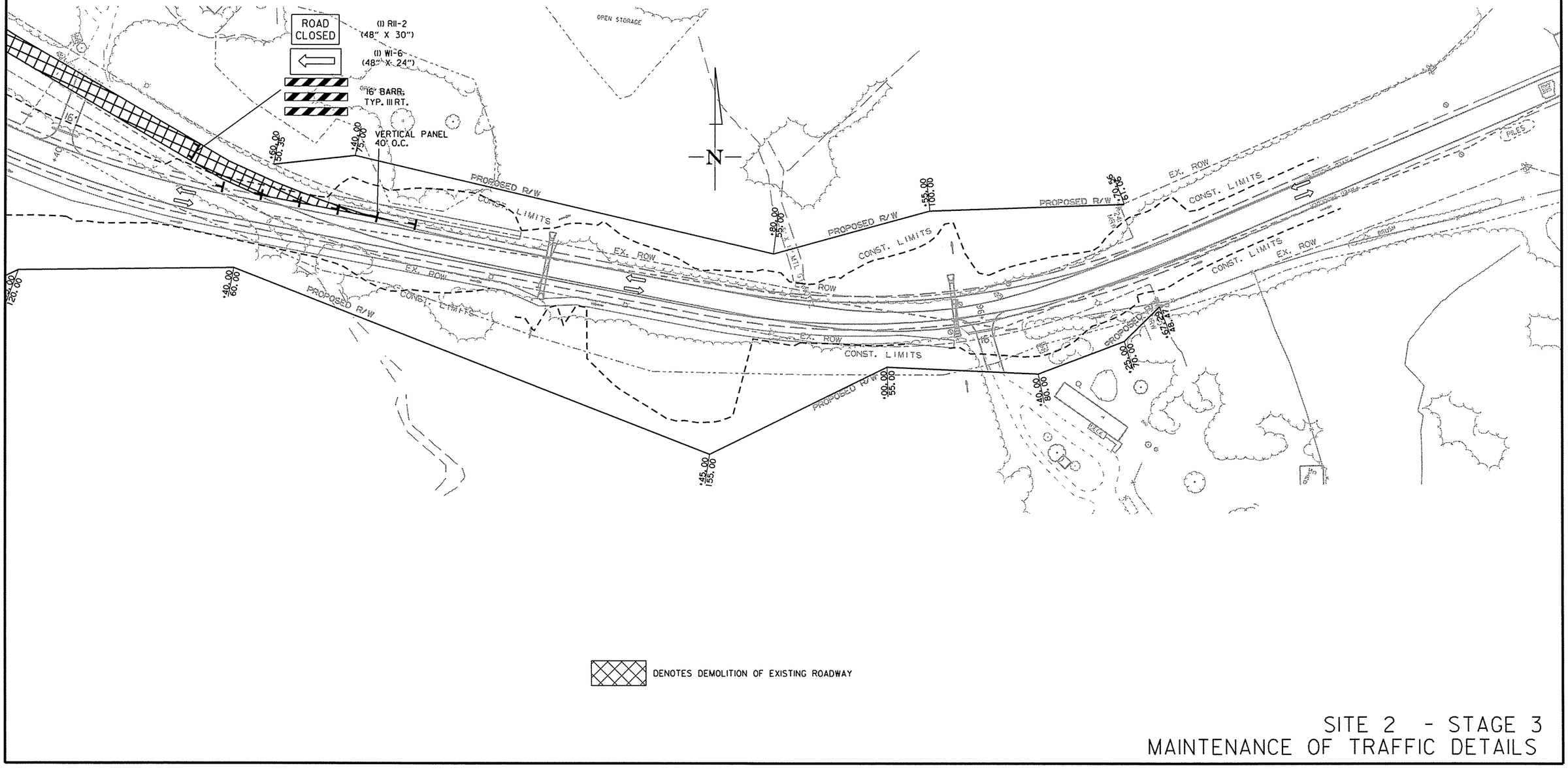
11/20/2015

R080426.DGN

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		080426	44	271

(2) MAINTENANCE OF TRAFFIC DETAILS

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
12-4-15


ROAD CLOSED
(1) R11-2 (48" X 30")
(1) W1-6 (48" X 24")
16' BARR; TYP. III RT.
VERTICAL PANEL 40' O.C.
OPEN STORAGE
N
PROPOSED R/W
CONST. LIMITS
EX. ROW
EX. BDW
PROPOSED R/W
CONST. LIMITS
EX. ROW
CONST. LIMITS
EX. ROW
PROPOSED R/W
CONST. LIMITS
EX. ROW
PROPOSED R/W
CONST. LIMITS
EX. ROW
PROPOSED R/W

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.		080426	45	271

(2) MAINTENANCE OF TRAFFIC DETAILS

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
12-4-15

SITE 4 - STAGE I CONSTRUCTION SEQUENCE

INSTALL ADVANCE WARNING SIGNS AS SHOWN ON THE MAINTENANCE OF TRAFFIC - ADVANCE WARNING SHEET.

APPLY LEVELING COURSE TO EXISTING LANES IF AND WHERE DIRECTED BY THE ENGINEER.

APPLY CONSTRUCTION PAVEMENT MARKINGS AS SHOWN IN THE STAGE I MAINTENANCE OF TRAFFIC DETAILS.

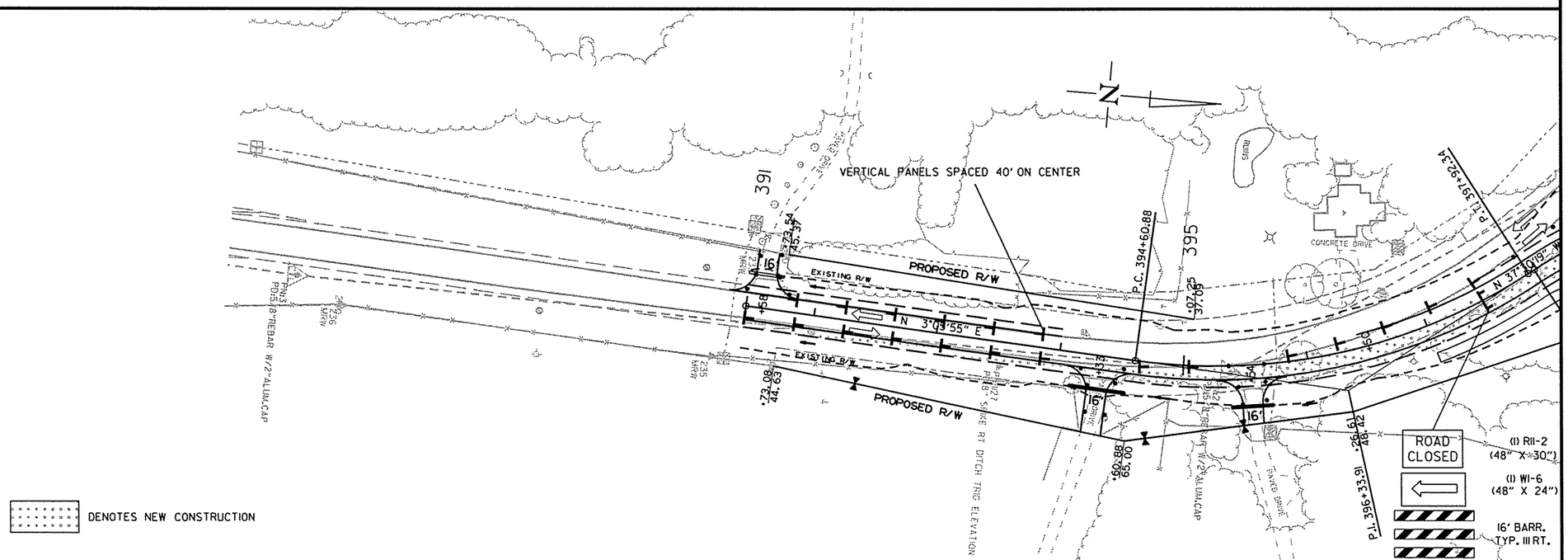
USE VERTICAL PANELS AND TRAFFIC DRUMS SPACED 40' ON CENTER TO DELINEATE THE WORK ZONE. USE TRAFFIC DRUMS TO DELINEATE DRIVEWAYS.

CONSTRUCT PORTIONS OF HWY. 285 AND CROSS DRAINS AS SHOWN; LT. AND RT. OF C.L. FROM STA. 391+45 TO STA. 394+00, RT. OF C.L. FROM STA. 394+00 TO STA. 399+50, LT. AND RT. OF C.L. FROM STA. 399+50 TO STA. 402+53.61, RT. OF C.L. FROM STA. 402+53.61 TO STA. 406+03.18, AND LT. AND RT. OF C.L. FROM STA. 406+03.18 TO STA. 408+00.

SITE 4 - STAGE I QUANTITIES

SIGNS = 374.5 SQ. FT.
TRAFFIC DRUMS = 109 EACH
VERTICAL PANELS = 32 EACH
TYPE III BARRICADE RT. = 16 LIN. FT.
TYPE III BARRICADE LT. = 16 LIN. FT.

NOTE: THE QUANTITY OF VERTICAL PANELS PROVIDED IN THE CONTRACT IS FOR ONE SIDE OF THE ROADWAY FOR 2 MILES. THIS IS THE MAXIMUM QUANTITY REQUIRED TO ALLOW THE CONTRACTOR TO NOTCH ONE MILE, BACKFILL TO A POINT WHERE THE VERTICAL DIFFERENTIAL IS 4" OR LESS, AND THEN NOTCH ANOTHER ONE-MILE SECTION. THIS IS THE MAXIMUM NUMBER OF VERTICAL PANELS THAT WILL BE PAID FOR. REFER TO SECTION 603.02 OF THE STANDARD SPECIFICATIONS FOR CONSTRUCTION REQUIREMENTS.



SITE 4 - STAGE I
MAINTENANCE OF TRAFFIC DETAILS

11/20/2015

R080426.DGN

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		080426	46	271

(2) MAINTENANCE OF TRAFFIC DETAILS

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
12-4-15

POB 499+12.26
12.26
40.00
N 81°45'45" E
500
PROPOSED R/W
EXISTING R/W
PC 500+14.43
14.43
40.00
P.I. 403+19.32
P.I. 402+85.63
(1) RII-2
(48" X 30")
(1) WI-6
(48" X 24")
16' BARR.
TYP. III LT.
ROAD CLOSED
405
410
400
VERTICAL PANELS SPACED 40' ON CENTER
TRAFFIC DRUMS SPACED 40' ON CENTER
S 64°02'03.33" E
475.42
P.T. 406+03.18
N 55°04'55" E
PT 505+40.63
P.C. 397+98.08
P.T. 397+92.34
37°30'19" W
DENOTES NEW CONSTRUCTION
CARDEN
BRUSH
CONC. BLOCK ABANDONED
ANCHOR POST SPIKE POWERLINE RW TRIG ELEVATION
PK NAIL
PK NAIL/BRASS DISK
PK NAIL/BRASS DISK W/2" ALUM.CAP
ANCHOR POST SPIKE
PK NAIL/BRASS DISK W/5/8"-REBAR W/2" ALUM.CAP
PK NAIL POST SPIKE

11/20/2015

R080426.DGN

SITE 4 - STAGE I
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.		080426	47	271
				(2) MAINTENANCE OF TRAFFIC DETAILS				

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
12-4-15

SITE 4 - STAGE 2 CONSTRUCTION SEQUENCE

INSTALL ADVANCE WARNING SIGNS AS SHOWN ON THE MAINTENANCE OF TRAFFIC - ADVANCE WARNING SHEET.

APPLY LEVELING COURSE TO EXISTING LANES IF AND WHERE DIRECTED BY THE ENGINEER.

APPLY CONSTRUCTION PAVEMENT MARKINGS AS SHOWN IN THE STAGE 2 MAINTENANCE OF TRAFFIC DETAILS AND SHIFT TRAFFIC ONTO THE ROADWAY CONSTRUCTED IN STAGE 1.

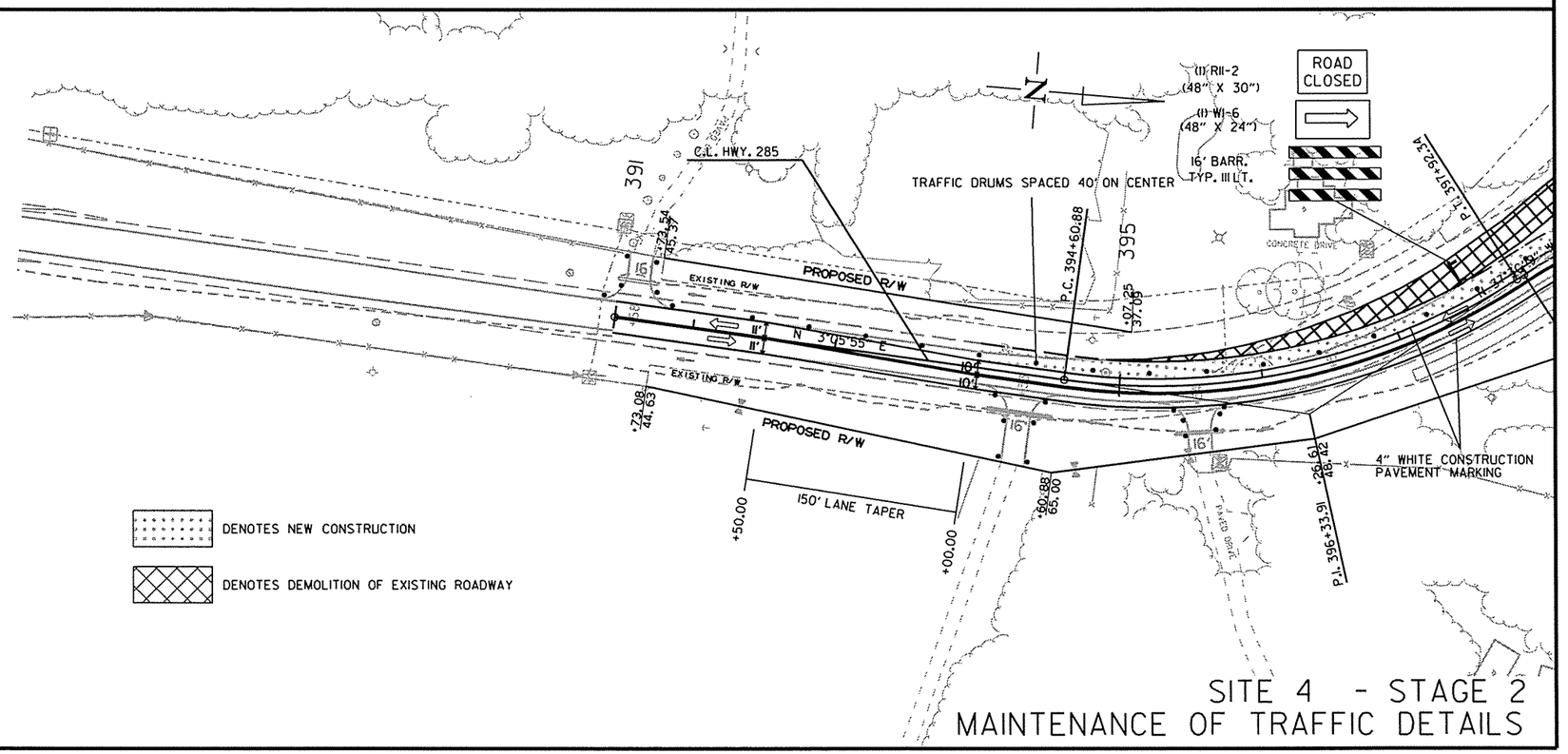
USE VERTICAL PANELS AND TRAFFIC DRUMS SPACED 40' ON CENTER TO DELINEATE THE WORK ZONE. USE TRAFFIC DRUMS TO DELINEATE DRIVEWAYS.

CONSTRUCT PORTIONS OF HWY. 285 AND CROSS DRAINS AS SHOWN; LT. OF C.L. FROM STA. 394+00 TO STA. 399+50.

CONSTRUCT PORTIONS OF HWY. 124 AND CROSS DRAINS AS SHOWN; RT. OF C.L. FROM STA. 499+12.26 TO STA. 503+00 AND LT. AND RT. OF C.L. 503+00 TO STA. 505+63.17.

SITE 4 - STAGE 2 QUANTITIES

SIGNS = 370.5 SQ. FT.
TRAFFIC DRUMS = 57 EACH
TYPE III BARRICADE RT. = 32 LIN. FT.
TYPE III BARRICADE LT. = 32 LIN. FT.



SITE 4 - STAGE 2
MAINTENANCE OF TRAFFIC DETAILS

11/20/2015

R080426.DGN

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		080426	48	271

(2) MAINTENANCE OF TRAFFIC DETAILS

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
12-4-15

ROAD CLOSED
(1) RII-2 (48" X 30")
(1) WI-6 (48" X 24")
16' BARR. TYP. III RT.

ROAD CLOSED
(1) RII-2 (48" X 30")
16' BARR. TYP. III RT.
16' BARR. TYP. III LT.

ROAD CLOSED
(1) RII-2 (48" X 30")
(1) WI-6 (48" X 24")
16' BARR. TYP. III RT.

TRAFFIC DRUMS SPACED 40' ON CENTER

TRAFFIC DRUMS SPACED 40' ON CENTER

4" DOUBLE YELLOW CONSTRUCTION PAVEMENT MARKING

4" WHITE CONSTRUCTION PAVEMENT MARKING

C.L. HWY. 124

C.L. HWY. 285

PROPOSED R/W

EXISTING R/W

N 81°45'45" E

N 55°04'55" E

S 64°02'05" E

150' LANE TAPER

P.T. 406+03.18

P.I. 403+19.32

P.C. 397+98.08

P.I. 397+92.34

P.C.500+14.43

P.O.B.499+12.26

P.I.502+85.63

PT505+40.63

DENOTES NEW CONSTRUCTION

DENOTES DEMOLITION OF EXISTING ROADWAY

11/20/2015

R080426.DGN

SITE 4 - STAGE 2
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.		080426	49	271

(2) MAINTENANCE OF TRAFFIC DETAILS

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
12-4-15

SITE 4 - STAGE 3 CONSTRUCTION SEQUENCE

INSTALL ADVANCE WARNING SIGNS AS SHOWN ON THE MAINTENANCE OF TRAFFIC - ADVANCE WARNING SHEET.

APPLY LEVELING COURSE TO EXISTING LANES IF AND WHERE DIRECTED BY THE ENGINEER.

APPLY CONSTRUCTION PAVEMENT MARKINGS AS SHOWN IN THE STAGE 3 MAINTENANCE OF TRAFFIC DETAILS AND SHIFT TRAFFIC ONTO THE ROADWAY CONSTRUCTED IN STAGE 2.

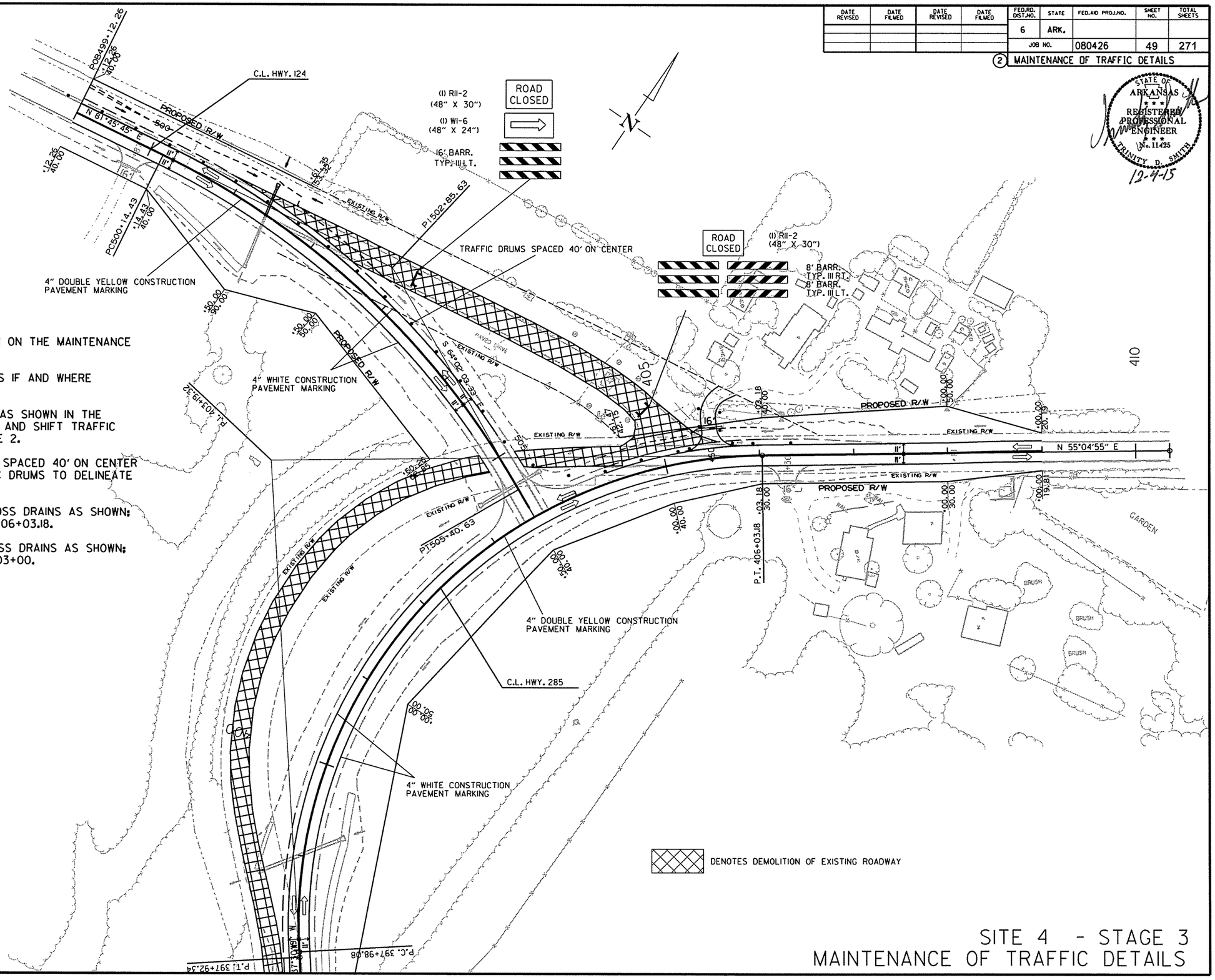
USE VERTICAL PANELS AND TRAFFIC DRUMS SPACED 40' ON CENTER TO DELINEATE THE WORK ZONE. USE TRAFFIC DRUMS TO DELINEATE DRIVEWAYS.

CONSTRUCT PORTIONS OF HWY. 285 AND CROSS DRAINS AS SHOWN: LT. OF C.L. FROM STA. 404+37.06 TO STA. 406+03.18.

CONSTRUCT PORTIONS OF HWY. 124 AND CROSS DRAINS AS SHOWN: LT. OF C.L. FROM STA. 499+12.26 TO STA. 503+00.

SITE 4 - STAGE 3 QUANTITIES

SIGNS = 334.5 SQ. FT.
TRAFFIC DRUMS = 29 EACH
TYPE III BARRICADE RT. = 16 LIN. FT.
TYPE III BARRICADE LT. = 16 LIN. FT.



SITE 4 - STAGE 3
MAINTENANCE OF TRAFFIC DETAILS

11/20/2015

R080426.DGN

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		080426	50	271

(2) QUANTITIES

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
12-4-15

CONSTRUCTION PAVEMENT MARKINGS AND PERMANENT PAVEMENT MARKINGS

DESCRIPTION	SITE 1		SITE 2			SITE 3	SITE 4		CONSTRUCTION PAVEMENT MARKINGS	REFLECTORIZED PAINT PAVEMENT MARKING	
	STAGE 2	STAGE 3	STAGE 1	STAGE 2	STAGE 3		STAGE 2	STAGE 3		4"	
									LIN. FT.	WHITE	YELLOW
										LIN. FT.	
CONSTRUCTION PAVEMENT MARKINGS	11682	38464	10874	31971		6400		9535	108926		
REFLECTORIZED PAINT PAVEMENT MARKING WHITE (4")		25316			21469	3200		4723		54708	
REFLECTORIZED PAINT PAVEMENT MARKING YELLOW (4")		24830			21376	3200		4812			54218
TOTALS:									**108926**	**54708**	**54218**

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

NOTE: THE 4" YELLOW STRIPING QUANTITY HAS BEEN ESTIMATED BASED ON A DOUBLE YELLOW CENTERLINE STRIPE FOR THE ENTIRE PROJECT. THE PROJECT MUST BE MARKED FOR PASSING/NOT 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.

ADVANCE WARNING SIGNS AND DEVICES

SIGN NUMBER	DESCRIPTION	SIGN SIZE	SITE 1			SITE 2			SITE 3	SITE 4			MAXIMUM NUMBER REQUIRED	TOTAL SIGNS REQUIRED		VERTICAL PANELS	TRAFFIC DRUMS	BARRICADES (TYPE III)		FURNISHING AND INSTALLING PRECAST CONCRETE BARRIER	RELOCATING PRECAST CONCRETE BARRIER
			STAGE 1	STAGE 2	STAGE 3	STAGE 1	STAGE 2	STAGE 3		STAGE 1	STAGE 2	STAGE 3		NO.	SQ. FT.			RIGHT	LEFT		
			LIN. FT. - EACH													EACH				LIN. FT.	
W20-1	ROAD WORK 1500 FT.	48"x48"	2	2	2	2	2	2	2	2	2	2	2	2	32.0						
W20-1	ROAD WORK 1000 FT.	48"x48"	2	2	2	2	2	2	2	2	2	2	2	2	32.0						
W20-1	ROAD WORK 500 FT.	48"x48"	2	2	2	2	2	2	2	2	2	2	2	2	32.0						
W20-1	ROAD WORK AHEAD	48"x48"	6	6	6	6	6	6	6	6	6	6	6	6	96.0						
G20-2	END ROAD WORK	48"x24"	8	8	8	8	8	8	8	8	8	8	8	8	64.0						
G20-1	ROAD WORK NEXT 5.6 MILES	60"x24"	2	2	2	2	2	2	2	2	2	2	2	2	20.0						
W1-4AR	REVERSE CURVE RT.	48"x48"											8	8	128.0						
W1-4AL	REVERSE CURVE LT.	48"x48"											6	6	96.0						
R11-2	ROAD CLOSED	48"x30"		4	5	2	2	2		2	4	2	13	13	130.0						
OM-3L	OBJECT MARKER	12"x36"			3								3	3	9.0						
OM-3R	OBJECT MARKER	12"x36"			4								4	4	12.0						
W1-6	LARGE ARROW	48"x24"		4	5	2	2	2		2	4	2	13	13	104.0						
R4-1	DO NOT PASS	24"x30"	2	2	2				2	2	2	2	8	8	40.0						
RSP-1	SHOULDER CLOSED	48"x30"	1	3		2	2	2	2	4			20	20	200.0						
W8-1	BUMP	30"x30"		2		2	2	2	2	2	2	2	8	8	50.0						
	VERTICAL PANELS		13	33	448	22	264	26	80	32			264			264					
	TRAFFIC DRUMS		12	35	277	78	470	214	80	109	57	29	470				470				
	TYPE III BARRICADE-RT. (16')			2	3	2	2	2		1	2	1	7					112			
	TYPE III BARRICADE-LT. (16')			2	3	2	2	2		1	2	1	7						112		
	FURNISHING AND INSTALLING PRECAST CONCRETE BARRIER			286									286							286	
	RELOCATING PRECAST CONCRETE BARRIER			286									286								286
TOTALS:															**1045.0**	**264**	**470**	**112**	**112**	**286**	**286**

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

THE QUANTITY OF VERTICAL PANELS PROVIDED IN THE CONTRACT IS FOR ONE SIDE OF THE ROADWAY FOR 2 MILES. THIS IS THE MAXIMUM QUANTITY REQUIRED TO ALLOW THE CONTRACTOR TO NOTCH ONE MILE, BACKFILL TO A POINT WHERE THE VERTICAL DIFFERENTIAL IS 4" OR LESS, AND THEN NOTCH ANOTHER ONE-MILE SECTION. THIS IS THE MAXIMUM NUMBER OF VERTICAL PANELS THAT WILL BE PAID FOR. REFER TO SECTION 603.02 OF THE STANDARD SPECIFICATIONS FOR CONSTRUCTION REQUIREMENTS.

7/7/2015

R080426.DGN

QUANTITIES

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		080426	51	271

(2) QUANTITIES

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
12-4-15

CLEARING AND GRUBBING

STATION	STATION	LOCATION	CLEARING	GRUBBING
			STATION	
		SITE 1		
112+00	114+00	RT. OF HWY. 285	2	2
114+00	119+00	LT. & RT. OF HWY. 285	5	5
119+00	120+00	RT. OF HWY. 285	1	1
120+00	124+00	LT. & RT. OF HWY. 285	4	4
124+00	129+00	RT. OF HWY. 285	5	5
130+00	131+00	RT. OF HWY. 285	1	1
137+00	140+00	RT. OF HWY. 285	3	3
141+00	143+00	RT. OF HWY. 285	2	2
143+00	144+00	LT. & RT. OF HWY. 285	1	1
144+00	145+00	RT. OF HWY. 285	1	1
148+00	149+00	LT. & RT. OF HWY. 285	1	1
149+00	153+00	RT. OF HWY. 285	4	4
153+00	170+00	LT. & RT. OF HWY. 285	17	17
170+00	173+00	RT. OF HWY. 285	3	3
173+00	174+00	LT. OF HWY. 285	1	1
175+00	176+00	RT. OF HWY. 285	1	1
177+00	188+00	LT. & RT. OF HWY. 285	11	11
188+00	190+00	RT. OF HWY. 285	2	2
190+00	203+00	LT. & RT. OF HWY. 285	13	13
203+00	204+00	LT. OF HWY. 285	1	1
204+00	210+00	LT. & RT. OF HWY. 285	6	6
211+00	213+00	LT. & RT. OF HWY. 285	2	2
213+00	214+00	LT. OF HWY. 285	1	1
214+00	223+00	LT. & RT. OF HWY. 285	9	9
223+00	224+00	LT. OF HWY. 285	1	1
224+00	225+00	LT. & RT. OF HWY. 285	1	1
225+00	227+00	LT. OF HWY. 285	2	2
601+00	602+00	RT. OF W. REPUBLICAN RD.	1	1
602+00	606+00	LT. & RT. OF W. REPUBLICAN RD.	4	4
606+00	609+00	LT. OF W. REPUBLICAN RD.	3	3
800+00	805+00	LT. & RT. OF MALLETT TOWN RD.	5	5
		SITE 2		
247+00	248+00	RT. OF HWY. 285	1	1
248+00	257+00	LT. & RT. OF HWY. 285	9	9
257+00	258+00	LT. OF HWY. 285	1	1
258+00	259+00	LT. & RT. OF HWY. 285	1	1
259+00	261+00	LT. OF HWY. 285	2	2
261+00	263+00	LT. & RT. OF HWY. 285	2	2
263+00	267+00	LT. OF HWY. 285	4	4
267+00	269+00	LT. & RT. OF HWY. 285	2	2
269+00	270+00	RT. OF HWY. 285	1	1
270+00	271+00	LT. & RT. OF HWY. 285	1	1
271+00	276+00	RT. OF HWY. 285	5	5
276+00	277+00	LT. & RT. OF HWY. 285	1	1
277+00	279+00	RT. OF HWY. 285	2	2
279+00	281+00	LT. & RT. OF HWY. 285	2	2
281+00	286+00	RT. OF HWY. 285	5	5
286+00	289+00	LT. & RT. OF HWY. 285	3	3
289+00	298+00	RT. OF HWY. 285	9	9
298+00	299+00	LT. & RT. OF HWY. 285	1	1
300+00	304+00	LT. OF HWY. 285	4	4
304+00	309+00	RT. OF HWY. 285	5	5
309+00	311+00	LT. & RT. OF HWY. 285	2	2
311+00	314+00	RT. OF HWY. 285	3	3
314+00	316+00	LT. & RT. OF HWY. 285	2	2
316+00	318+00	RT. OF HWY. 285	2	2
318+00	352+00	LT. & RT. OF HWY. 285	34	34
		SITE 3		
363+00	366+00	LT. & RT. OF HWY. 285	3	3
366+00	367+00	RT. OF HWY. 285	1	1
367+00	373+00	LT. & RT. OF HWY. 285	6	6
373+00	377+00	RT. OF HWY. 285	4	4
377+00	378+00	LT. OF HWY. 285	1	1
		SITE 4		
391+00	394+00	LT. OF HWY. 285	3	3
394+00	395+00	RT. OF HWY. 285	1	1
395+00	397+00	LT. & RT. OF HWY. 285	2	2
397+00	398+00	RT. OF HWY. 285	1	1
398+00	406+00	LT. & RT. OF HWY. 285	8	8
407+00	408+00	LT. OF HWY. 285	1	1
499+00	503+00	LT. OF HWY. 124	4	4
503+00	506+00	LT. & RT. OF HWY. 124	3	3
TOTALS:			256	256

BENCH MARKS

STATION	LOCATION	BENCH MARKS
		EACH
114+94	LT. SIDE HWY. 285	1
TOTAL:		1

NOTE: SHOWN FOR INFORMATION ONLY. BENCH MARKS SHALL BE FURNISHED AND PLACED BY STATE FORCES.

ASPHALT CONCRETE PATCHING FOR MAINTENANCE OF TRAFFIC

LOCATION	TON	TACK COAT
		GALLON
ENTIRE PROJECT - TO BE USED IF AND WHERE	150	300
DIRECTED BY THE ENGINEER		
TOTALS:	150	300

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

MAILBOXES

LOCATION	MAILBOXES	MAILBOX SUPPORTS	
		(SINGLE)	(DOUBLE)
		EACH	
SITE 1			
ENTIRE SECTION	26	18	4
SITE 2			
ENTIRE SECTION	8	6	1
SITE 3			
ENTIRE SECTION	2	2	
SITE 4			
ENTIRE SECTION	5	3	1
TOTALS:	41	29	6

SELECTED PIPE BEDDING

LOCATION	SELECTED PIPE BEDDING
	CU.YD.
ENTIRE PROJECT TO BE USED IF	
AND WHERE DIRECTED BY THE	250
ENGINEER	
TOTAL:	250

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.
		SITE 1	
111+40	226+97	HWY. 285 - ON RT.	9693
111+40	226+97	HWY. 285 - ON LT.	8705
226+96	246+85	HWY. 285 - ON RT.	1597
226+96	246+85	HWY. 285 - ON LT.	1597
		SITE 2	
246+85	353+73	HWY. 285 - ON RT.	10014
246+85	353+73	HWY. 285 - ON LT.	10156
353+73	363+00	HWY. 285 - ON RT.	927
353+73	363+00	HWY. 285 - ON LT.	927
		SITE 3	
363+00	379+00	HWY. 285 - ON RT.	1464
363+00	379+00	HWY. 285 - ON LT.	1460
379+00	391+45	HWY. 285 - ON RT.	993
379+00	391+45	HWY. 285 - ON LT.	993
		SITE 4	
391+45	409+00	HWY. 285 - ON RT.	1425
391+45	409+00	HWY. 285 - ON LT.	1374
499+12	505+74	HWY. 124 - ON RT.	692
499+12	505+74	HWY. 124 - ON LT.	698
TOTAL:			52715

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

7/7/2015

R080426.DGN

QUANTITIES

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		080426	52	271

(2) QUANTITIES

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
12-4-15

REMOVAL AND DISPOSAL OF FENCE

STATION	STATION	LOCATION	FENCE LIN. FT.
SITE 1			
111+40	114+97	HWY. 285 ON LT.	357
119+12	119+95	HWY. 285 ON RT.	101
120+18	123+97	HWY. 285 ON RT.	430
124+30	127+91	HWY. 285 ON RT.	291
128+09	130+00	HWY. 285 ON RT.	223
128+14	129+14	HWY. 285 ON LT.	110
129+26	132+45	HWY. 285 ON LT.	375
130+00	137+35	HWY. 285 ON RT.	720
136+32	137+72	HWY. 285 ON LRT.	140
136+88	138+47	HWY. 285 ON RT.	160
136+36	137+73	HWY. 285 ON LT.	154
139+76	140+50	HWY. 285 ON LT.	92
143+90	148+57	HWY. 285 ON RT.	506
155+00	161+95	HWY. 285 ON LT.	195
155+00	170+00	HWY. 285 ON RT.	1500
164+65	169+15	HWY. 285 ON LT.	458
178+47	182+17	HWY. 285 ON LT.	572
183+27	187+07	HWY. 285 ON LT.	415
186+00	187+29	HWY. 285 ON RT.	156
187+64	193+86	HWY. 285 ON RT.	767
188+54	208+43	HWY. 285 ON LT.	2071
197+30	200+29	HWY. 285 ON RT.	352
201+66	207+03	HWY. 285 ON RT.	555
211+38	211+48	HWY. 285 LEFT OF EXISTING	172
211+96	222+73	HWY. 285 ON LT.	1091
213+80	214+12	HWY. 285 ON RT.	143
216+85	222+48	HWY. 285 ON RT.	581
222+72	224+66	HWY. 285 ON RT.	226
800+61	803+57	MALLETT TOWN RD. ON RT.	294
800+91	803+57	MALLETT TOWN RD. ON LT.	264
601+54	608+35	W. REPUBLICAN RD. ON RT	726
604+21	604+93	W. REPUBLICAN RD. ON LT.	74
SITE 2			
247+54	276+56	HWY. 285 ON RT.	2940
248+20	251+05	HWY. 285 ON LT.	341
252+63	260+55	HWY. 285 ON LT.	805
277+00	279+87	HWY. 285 ON LT.	313
277+13	277+17	HWY. 285 ON RT.	25
300+64	302+25	HWY. 285 ON LT.	177
307+43	310+78	HWY. 285 ON LT.	353
311+47	314+50	HWY. 285 ON LT.	319
350+96	351+67	HWY. 285 ON RT.	109
SITE 3			
367+52	368+12	HWY. 285 ON LT.	65
368+26	369+03	HWY. 285 ON LT.	77
368+54	369+21	HWY. 285 ON LT. IN T.C.E.	74
369+45	369+72	HWY. 285 ON LT.	32
369+79	377+78	HWY. 285 ON LT.	788
SITE 4			
391+45	394+24	HWY. 285 ON RT.	320
394+40	395+40	HWY. 285 ON RT.	148
406+33	408+03	HWY. 124 ON LT.	190
TOTALS:			21347

REMOVAL AND DISPOSAL OF CULVERTS

STATION	DESCRIPTION	PIPE CULVERTS EACH	BOX CULVERTS EACH
SITE 1			
113+52	18" X 25' CM PIPE CULV'T - RT. SIDE	1	
114+62	18" X 40' CM PIPE CULV'T - RT. SIDE	1	
118+40	24" X 25' PLASTIC PIPE CULV'T - RT. SIDE	1	
120+04	24" X 25' CM PIPE CULV'T - RT. SIDE	1	
124+04	24" X 22' RC PIPE CULV'T - RT. SIDE	1	
128+00	30" X 42' RC PIPE CULV'T	1	
129+96	24" X 22' CM PIPE CULV'T - RT. SIDE	1	
132+61	24" X 25' CM PIPE CULV'T - LT. SIDE	1	
134+12	36" X 9' R.C. PIPE CULV'T - LT. SIDE	1	
135+43	36" X 24' CM PIPE CULV'T - LT. SIDE	1	
137+45	24" X 24' CM PIPE CULV'T - RT. SIDE	1	
138+69	36" X 25' CM PIPE CULV'T - LT. SIDE	1	
138+73	24" X 24' CM PIPE CULV'T - RT. SIDE	1	
140+29	24" X 25' RC PIPE CULV'T - RT. SIDE	1	
140+81	24" X 24' CM PIPE CULV'T	1	
143+09	24" X 24' CM PIPE CULV'T - RT. SIDE	1	
148+69	18" X 26' RC PIPE CULV'T - RT. SIDE	1	
150+36	18" X 20' CM PIPE CULV'T - RT. SIDE	1	
154+02	18" X 23' CM PIPE CULV'T - RT. SIDE	1	
155+17	12" X 29' CM PIPE CULV'T	1	
164+63	12" X 24' CM PIPE CULV'T - LT. SIDE	1	
166+50	24" X 30' PLASTIC PIPE CULV'T - LT. SIDE	1	
172+97	18" X 29' RC PIPE CULV'T	1	
174+55	12" X 24' RC PIPE CULV'T - RT. SIDE	1	
177+84	12" X 24' CM PIPE CULV'T - RT. SIDE	1	
178+53	18" X 29' CM PIPE CULV'T	1	
181+83	24" X 60' CM PIPE CULV'T - RT SIDE	1	
183+53	18" X 24' CM PIPE CULV'T - LT. SIDE	1	
185+78	DBL. 18" X 32' CM PIPE CULV'T - RT. SIDE	2	
187+47	18" X 24' CM PIPE CULV'T - RT. SIDE	1	
187+73	12" X 26' CM PIPE CULV'T - LT. SIDE	1	
191+14	24" X 34' RC PIPE CULV'T	1	
194+18	18" X 41' RC PIPE CULV'T - RT. SIDE	1	
196+76	18" X 31' CM PIPE CULV'T - RT. SIDE	1	
200+40	18" X 18' CM PIPE CULV'T - RT. SIDE	1	
216+52	18" X 24' CM PIPE CULV'T - RT. SIDE	1	
224+71	18" X 20' CM PIPE CULV'T - RT. SIDE	1	
603+18	5' X 3' X 31' RC BOX CULV'T		1
605+65	4' X 3' X 27' RC BOX CULV'T		1
607+25	3' X 3' X 26' RC BOX CULV'T		1
SITE 2			
257+29	12" X 20' CM PIPE CULV'T - LT. SIDE	1	
281+00	24" X 26' RC PIPE CULV'T	1	
283+00	24" X 26' CM PIPE CULV'T	1	
298+80	18" X 31' CM PIPE CULV'T	1	
299+40	18" X 24' CM PIPE CULV'T - LT. SIDE	1	
300+22	18" X 22' CM PIPE CULV'T - RT. SIDE	1	
303+81	18" X 24' CM PIPE CULV'T - RT. SIDE	1	
306+65	18" X 28' CM PIPE CULV'T	1	
311+14	18" X 30' CM PIPE CULV'T - LT. SIDE	1	
311+60	12" X 31' RC PIPE CULV'T	1	
314+34	18" X 23' CM PIPE CULV'T - RT. SIDE	1	
316+32	18" X 50' CM PIPE CULV'T - RT. SIDE	1	
330+70	18" X 36' CM PIPE CULV'T	1	
333+03	30" X 41' RC PIPE CULV'T	1	
334+58	18" X 33' RC PIPE CULV'T	1	
335+84	18" X 36' RC PIPE CULV'T	1	
339+25	24" X 40' RC PIPE CULV'T	1	
345+52	24" X 52' CM PIPE CUVL'T	1	
349+70	30" X 30' CM PIPE CULV'T	1	
SITE 3			
364+36	18" X 24' CM PIPE CULV'T	1	
365+13	18" X 41' CM PIPE CULV'T	1	
369+95	18" X 41' CM PIPE CULV'T - RT. SIDE	1	
373+18	18" X 41' CM PIPE CULV'T - RT. SIDE	1	
SITE 4			
391+58	24" X 24' CM PIPE CULV'T - LT. SIDE	1	
394+35	18" X 30' CM PIPE CULV'T - RT. SIDE	1	
396+50	18" X 24' CM PIPE CULV'T - LT. SIDE	1	
399+03	24" X 30' CM PIPE CULV'T	1	
395+54	18" X 24' CM PIPE CULV'T - RT. SIDE	1	
405+50	18" X 24' CM PIPE CULV'T - RT. SIDE	1	
406+30	18" X 40' CM PIPE CULV'T - RT. SIDE	1	
TOTALS:		68	3

NOTE: QUANTITIES SHOWN ABOVE SHALL INCLUDE REMOVAL & DISPOSAL OF ALL HEADWALLS AND FLARED END SECTIONS IF APPLICABLE.

EROSION CONTROL MATTING

STATION	STATION	LOCATION	LENGTH LIN. FT.	CLASS 3 SQ. YD.
SITE 1				
131+00	136+00	HWY. 285 ON RT.	500.0	444.4
131+00	132+43	HWY. 285 ON LT.	143.0	127.1
132+77	135+31	HWY. 285 ON LT.	254.0	225.8
135+61	137+00	HWY. 285 ON LT.	139.0	123.6
168+00	169+53	HWY. 285 ON LT.	153.0	136.0
181+59	182+53	HWY. 285 ON RT.	94.0	83.6
182+40	185+64	HWY. 285 ON LT.	324.0	288.0
182+81	185+00	HWY. 285 ON LT.	219.0	194.7
191+11	192+00	HWY. 285 ON RT.	89.0	79.1
195+00	196+00	HWY. 285 ON RT.	100.0	88.9
213+00	214+00	HWY. 285 ON RT.	100.0	88.9
604+00	606+00	W. REPUBLICAN RD. ON RT.	200.0	177.8
SITE 2				
249+00	250+00	HWY. 285 ON RT.	100.0	88.9
253+00	254+00	HWY. 285 ON RT.	100.0	88.9
253+50	255+00	HWY. 285 ON RT.	150.0	133.3
256+00	257+00	HWY. 285 ON RT.	100.0	88.9
256+00	257+15	HWY. 285 ON LT.	115.0	102.2
263+00	264+00	HWY. 285 ON RT.	100.0	88.9
264+00	270+00	HWY. 285 ON LT.	600.0	533.3
279+00	280+00	HWY. 285 ON RT.	100.0	88.9
281+00	284+00	HWY. 285 ON RT.	300.0	266.7
304+28	305+00	HWY. 285 ON LT.	72.0	64.0
305+00	310+00	HWY. 285 ON RT.	500.0	444.4
318+00	321+00	HWY. 285 ON LT.	300.0	266.7
318+60	324+00	HWY. 285 ON RT.	540.0	480.0
350+00	351+00	HWY. 285 ON RT.	100.0	88.9
SITE 3				
373+22	375+00	HWY. 285 ON RT.	178.0	158.2
SITE 4				
393+50	394+90	HWY. 285 ON LT.	140.0	124.4
407+00	408+11	HWY. 285 ON RT.	111.0	98.7
TOTAL:				5263.2

NOTE: AVERAGE WIDTH = 8'-0"

7/7/2015

R080426.DGN

QUANTITIES

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		080426	53	271

(2) QUANTITIES

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
12-4-15

COLD MILLING ASPHALT PAVEMENT

STATION	STATION	LOCATION	AVG. WIDTH	COLD MILLING ASPHALT PAVEMENT
			FEET	SQ. YD.
SITE 1				
110+40	111+40	HWY. 285 - SITE 1	20	222.22
226+97	227+97	HWY. 285 - SITE 1	20	222.22
607+29	608+29	W. REPUBLICAN RD.	20	222.22
SITE 2				
245+85	246+85	HWY. 285 - SITE 2	20	222.22
353+73	354+73	HWY. 285 - SITE 2	20	222.22
SITE 3				
362+00	363+00	HWY. 285 - SITE 3	20	222.22
378+99	379+99	HWY. 285 - SITE 3	20	222.22
SITE 4				
390+45	391+45	HWY. 285 - SITE 4	20	222.22
408+00	409+00	HWY. 285 - SITE 4	20	222.22
498+12	499+12	HWY. 124	20	222.22
TOTAL:				2222.20

NOTE: AVERAGE MILLING DEPTH 2".

ACHM PATCHING OF EXISTING ROADWAY

DESCRIPTION	TON
ENTIRE PROJECT - TO BE USED IF AND WHERE	150
DIRECTED BY THE ENGINEER	
TOTAL:	150

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

DUMPED RIPRAP AND FILTER BLANKET

STATION	LOCATION	DUMPED RIPRAP	FILTER BLANKET
		CU. YDS.	SQ. YDS.
ENTIRE PROJECT	TO BE USED IF AND WHERE	834	1667
	DIRECTED BY THE ENGINEER		
TOTALS:		834	1667

*NOTE: QUANTITIES ESTIMATED.
SEE SECTION 104.03 OF THE STANDARD SPECIFICATIONS

NOTE: FILTER BLANKET SHALL BE GEOTEXTILE FABRIC (TYPE 5).

PAVEMENT REPAIR OVER CULVERTS (ASPHALT)

STATION	LOCATION	WIDTH	LENGTH	TON
		FEET		
SITE 1				
129+96	HWY. 285	14.00	20	21
140+81	HWY. 285	8.50	20	12
155+17	HWY. 285	8.50	20	12
SITE 2				
281+00	HWY. 285	15.67	20	23
283+00	HWY. 285	10.83	20	16
345+52	HWY. 285	10.83	20	16
349+70	HWY. 285	10.83	20	16
SITE 3				
364+36	HWY. 285	9.08	20	13
365+13	HWY. 285	9.08	20	13
TOTAL:				142

AVG. DEPTH = 12"

GUARDRAIL

STATION	STATION	LOCATION	GUARDRAIL (TYPE A)	GUARDRAIL TERMINAL (TYPE 2)
			LIN. FT.	EACH
323+11.60	330+55.00	HWY. 285 - LEFT	650	2
TOTALS:			650	2

RETAINING WALL

STATION	STATION	LOCATION	CLASS S CONCRETE - ROADWAY	REINF. STEEL - ROADWAY (GRADE 60)	UNCL. EXC. FOR STR. - ROADWAY
			CU. YDS.	POUNDS	CU. YDS.
324+40	328+35	HWY. 285 - ON LT.	185.10	15549	1157
TOTALS:			185.10	15549	1157

EROSION CONTROL

STATION	STATION	LOCATION	PERMANENT EROSION CONTROL					TEMPORARY EROSION CONTROL								
			SEEDING	LIME	MULCH COVER	WATER	SECOND SEEDING APPLICATION	TEMPORARY SEEDING	MULCH COVER	WATER	SAND BAG DITCH CHECKS (E-5)	ROCK DITCH CHECKS (E-6)	SILT FENCE (E-11)	SEDIMENT BASIN (E-14)	OBLITERATION OF SEDIMENT BASIN	*SEDIMENT REMOVAL & DISPOSAL
			ACRE	TON	ACRE	M.GAL.	ACRE	ACRE	ACRE	M.GAL.	BAG	CU.YD.	LIN. FT.	CU.YD.	CU.YD.	CU. YD.
ENTIRE	PROJECT	HWY. 285 - SITE 1	13.93	27.86	13.93	1420.9	13.93	21.72	21.72	443.1						
111+40.00	226+97.47	SITE 1 STAGE 1									132	39	827			31
111+40.00	226+97.47	SITE 1 STAGE 2									7	8	1588			438
111+40.00	226+97.47	SITE 1 STAGE 3									122	120	1847			68
ENTIRE	PROJECT	HWY. 285 - SITE 2	17.83	35.66	17.83	1818.7	17.83	28.07	28.07	572.6						15
246+85.00	353+73.14	SITE 2 STAGE 1											2331			86
246+85.00	353+73.14	SITE 2 STAGE 2									3102	417	1653			339
246+85.00	353+73.14	SITE 2 STAGE 3									528	66	309			57
ENTIRE	PROJECT	HWY. 285 - SITE 3	2.34	4.68	2.34	238.7	2.34	4.02	4.02	82.0						
363+00.00	378+99.91	SITE 3									264	45	1196			71
ENTIRE	PROJECT	HWY. 285 - SITE 4	2.02	4.04	2.02	206.0	2.02	5.00	5.00	102.0						
391+45.00	410+36.34	SITE 4 STAGE 1									440	63	470			58
391+45.00	410+36.34	SITE 4 STAGE 2									154	21	323			26
391+45.00	410+36.34	SITE 4 STAGE 3									132	12				10
*ENTIRE PROJECT TO BE USED IF AND WHERE DIRECTED BY THE ENGINEER.			9.03	18.06	9.03	921.1	9.03	14.70	14.70	299.9	1220	198	2636	222	222	320
TOTALS:			45.15	90.30	45.15	4605.4	45.15	73.51	73.51	1499.6	6101	989	13180	222	222	1519

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
SAND BAG DITCH CHECKS.....22 BAGS / LOCATION
ROCK DITCH CHECKS.....3 CU.YD./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.

7/7/2015

R080426.DGN

QUANTITIES

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		080426	54	271

(2) QUANTITIES

FENCING

STATION	STATION	LOCATION	WIRE FENCE (TYPE C)	WIRE FENCE (TYPE D)	WIRE FENCE (TYPE D-1)	WIRE FENCE (TYPE D-2)	* 4' CHAIN LINK FENCE	* 12'-0" GATE	* 16'-0" GATE
			LIN. FT.					EACH	
		SITE 1							
111+04	114+98	HWY. 285 ON LT.				393			
119+12	119+98	HWY. 285 ON RT.	86						
120+14	120+82	HWY. 285 ON RT.					68		
120+82	123+51	HWY. 285 ON RT.	269						
123+51	123+93	HWY. 285 ON RT.					41		
125+00	128+17	HWY. 285 ON RT.		568					
128+17	137+17	HWY. 285 ON RT.			900				1
137+17	138+47	HWY. 285 ON RT.	114						1
144+04	148+57	HWY. 285 ON RT.			464				
155+15	161+85	HWY. 285 ON LT.	677						
155+22	169+79	HWY. 285 ON RT.	1399						
164+96	166+22	HWY. 285 ON LT.	127						
166+22	166+74	HWY. 285 ON LT.					30	2	
166+74	169+06	HWY. 285 ON LT.	240						
178+62	181+73	HWY. 285 ON LT.		328					
181+73	182+16	HWY. 285 ON LT.					43		
182+42	182+88	HWY. 285 ON LT.					31		1
183+27	187+07	HWY. 285 ON LT.		377					1
186+00	187+29	HWY. 285 ON RT.	130						
187+64	190+00	HWY. 285 ON RT.			242				
188+54	803+68	HWY. 285 ON LT. TO MALLETT TOWN RD. ON LT.		2886					
190+22	193+86	HWY. 285 ON RT.	364						
197+29	200+29	HWY. 285 ON RT.		300					
201+66	207+03	HWY. 285 ON RT.		494					
803+66	222+75	MALLETT TOWN RD. ON RT. TO HWY. 285 ON LT.		1323					
216+84	224+63	HWY. 285 ON RT.	1135						
601+53	608+35	W. REPUBLICAN RD. ON RT.		715					
		SITE 2							
246+85	276+56	HWY. 285 ON RT.		3391					1
248+20	251+05	HWY. 285 ON LT.		300					
252+63	260+55	HWY. 285 ON LT.		797					1
300+64	302+23	HWY. 285 ON LT.		160					
351+24	352+49	HWY. 285 ON LT.		136					
		SITE 3							
368+54	369+21	HWY. 285 ON LT.		74					
369+45	377+78	HWY. 285 ON LT.		810					1
		SITE 4							
391+45	395+40	HWY. 285 ON RT.			406				
406+33	408+03	HWY. 285 ON LT.	170						
TOTALS:			4711	12659	2012	393	213	2	7

* DENOTES ALTERNATE BID ITEM.

4" PIPE UNDERDRAIN

STATION	STATION	LOCATIONS	4" PIPE UNDERDRAINS	UNDERDRAIN OUTLET PROTECTORS
			LIN. FT.	EACH
* ENTIRE PROJECT TO BE USED IF AND WHERE DIRECTED BY THE ENGINEER			2000	9
TOTALS:			2000	9

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

CONCRETE DITCH PAVING

STATION	STATION	LOCATION	LENGTH	"W"	"B"	CONC. DITCH PAVING (TYPE A)	CONC. DITCH PAVING (TYPE B)	SOLID SODDING	WATER
			LIN. FT.	FEET	FEET	SQ. YD.	SQ. YD.	SQ. YD.	M. GAL.
		SITE 1							
127+93	129+00	HWY. 285 ON RT.	107.00	8			95.11	47.56	0.60
136+00	137+29	HWY. 285 ON RT.	129.00	8			114.67	57.33	0.72
137+61	138+57	HWY. 285 ON RT.	96.00	8			85.33	42.67	0.54
138+87	140+20	HWY. 285 ON RT.	133.00	8			118.22	59.11	0.74
140+48	142+95	HWY. 285 ON RT.	247.00	6			164.67	109.78	1.38
141+80	142+38	HWY. 285 ON LT.	58.00	8			51.56	25.78	0.32
147+00	148+65	HWY. 285 ON RT.	165.00	4			73.33	73.33	0.92
148+93	150+24	HWY. 285 ON RT.	131.00	6			87.33	58.22	0.73
150+52	153+86	HWY. 285 ON RT.	334.00	4			148.44	148.44	1.87
154+78	155+15	HWY. 285 ON RT.	37.00	8			32.89	16.44	0.21
155+19	162+50	HWY. 285 ON RT.	731.00	4			324.89	324.89	4.09
161+00	164+60	HWY. 285 ON LT.	360.00	8			320.00	160.00	2.02
166+00	167+90	HWY. 285 ON RT.	190.00	4			84.44	84.44	1.06
169+53	170+64	HWY. 285 ON LT.	111.00	8			98.67	49.33	0.62
170+98	172+00	HWY. 285 ON LT.	102.00	8			90.67	45.33	0.57
172+99	175+13	HWY. 285 ON LT.	214.00	4			95.11	95.11	1.20
185+92	187+33	HWY. 285 ON RT.	141.00	8			125.33	62.67	0.79
187+61	188+29	HWY. 285 ON RT.	68.00	8			60.44	30.22	0.38
187+87	190+06	HWY. 285 ON LT.	219.00	4			97.33	97.33	1.23
190+28	191+11	HWY. 285 ON RT.	83.00	4			36.89	36.89	0.46
198+00	200+24	HWY. 285 ON RT.	224.00	8			199.11	99.56	1.25
199+47	202+90	HWY. 285 ON LT.	343.00	6			228.67	152.44	1.92
200+56	205+00	HWY. 285 ON RT.	444.00	4			197.33	197.33	2.49
206+12	207+52	HWY. 285 ON LT.	140.00	6			93.33	62.22	0.78
212+70	214+37	HWY. 285 ON LT.	167.00	8			148.44	74.22	0.94
217+44	224+80	HWY. 285 ON LT.	736.00	8			654.22	327.11	4.12
603+18	604+00	W. REPUBLICAN RD. ON RT.	82.00	4			36.44	36.44	0.46
604+99	606+00	W. REPUBLICAN RD. ON RT.	101.00	4			44.89	44.89	0.57
605+18	605+90	W. REPUBLICAN RD. ON LT.	72.00	4			32.00	32.00	0.40
606+95	608+00	W. REPUBLICAN RD. ON LT.	105.00	4			46.67	46.67	0.59
		SITE 2							
247+00	248+00	HWY. 285 ON RT.	100.00	8			88.89	44.44	0.56
254+00	265+00	HWY. 285 ON RT.	1100.00	8			977.78	488.89	6.16
270+00	275+00	HWY. 285 ON LT.	500.00	4			222.22	222.22	2.80
270+44	276+76	HWY. 285 ON RT.	632.00	8			561.78	280.89	3.54
277+13	279+88	HWY. 285 ON RT.	275.00	8			244.44	122.22	1.54
283+04	283+93	HWY. 285 ON LT.	89.00	4			39.56	39.56	0.50
284+59	287+15	HWY. 285 ON RT.	256.00	8			227.56	113.78	1.43
285+72	292+23	HWY. 285 ON LT.	651.00	8			578.67	289.33	3.65
294+40	296+43	HWY. 285 ON RT.	203.00	8			180.44	90.22	1.14
295+64	298+00	HWY. 285 ON LT.	236.00	8			209.78	104.89	1.32
298+82	299+26	HWY. 285 ON LT.	44.00	8			39.11	19.56	0.25
299+54	302+60	HWY. 285 ON LT.	306.00	8			272.00	136.00	1.71
302+90	304+28	HWY. 285 ON LT.	138.00	8			122.67	61.33	0.77
303+95	305+20	HWY. 285 ON RT.	125.00	6			83.33	55.56	0.70
311+62	315+92	HWY. 285 ON LT.	430.00	8			382.22	191.11	2.41
311+62	314+03	HWY. 285 ON RT.	241.00	6			160.67	107.11	1.35
324+00	328+35	HWY. 285 ON RT.	435.00	8			386.67	193.33	2.44
328+35	340+70	HWY. 285 ON RT.	1235.00	13	5	1783.89		548.89	6.92
329+05	333+98	HWY. 285 ON LT.	493.00	6			328.67	219.11	2.76
340+70	349+66	HWY. 285 ON LT.	896.00	8			796.44	398.22	5.02
343+22	345+20	HWY. 285 ON LT.	198.00	8			176.00	88.00	1.11
		SITE 3							
363+00	366+00	HWY. 285 ON LT.	300.00	13	5	433.33		133.33	1.68
		SITE 4							
396+65	398+00	HWY. 285 ON LT.	135.00	4			60.00	60.00	0.76
397+00	399+79	HWY. 285 ON RT.	279.00	8			248.00	124.00	1.56
398+80	399+28	HWY. 285 ON LT.	48.00	4			21.33	21.33	0.27
500+24	501+52	HWY. 124 ON RT.	128.00	8			113.78	56.89	0.72
TOTALS:						2217.22	10508.43	6907.96	87.04

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
12-4-15

7/7/2015

R080426.DGN

QUANTITIES

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		080426	55	271

(2) QUANTITIES

EARTHWORK

STATION	STATION	LOCATION / DESCRIPTION	UNCLASSIFIED EXCAVATION	COMPACTED EMBANKMENT	ROCK FILL	* SOIL STABILIZATION
			CU. YD.			TON
ENTIRE	PROJECT	HWY. 285 - SITE-1, STAGE 2	1792	26032		
ENTIRE	PROJECT	HWY. 285 - SITE-1, STAGE 3A	3918	4039		
ENTIRE	PROJECT	HWY. 285 - SITE-1, STAGE 3B	8727	3938		
ENTIRE	PROJECT	HWY. 285 - SITE-2, STAGE 1	111198	2778		
ENTIRE	PROJECT	HWY. 285 - SITE-2, STAGE 2A	5918	7388		
ENTIRE	PROJECT	HWY. 285 - SITE-2, STAGE 2B	9541	11375		
ENTIRE	PROJECT	HWY. 285 - SITE 3, STAGE 1A	1355	1167		
ENTIRE	PROJECT	HWY. 285 - SITE 3, STAGE 1B	815	2410		
ENTIRE	PROJECT	HWY. 285 - SITE 4, STAGE 1	800	6282		
ENTIRE	PROJECT	HWY. 285 - SITE 4, STAGE 2A	149	414		
ENTIRE	PROJECT	HWY. 285 - SITE 4, STAGE 2B	106	765		
ENTIRE	PROJECT	HWY. 124 - SITE 4, STAGE 2	14	3288		
ENTIRE	PROJECT	HWY. 124 - SITE 4, STAGE 3A	26	161		
ENTIRE	PROJECT	HWY. 124 - SITE 4, STAGE 3B	203	371		
ENTIRE	PROJECT	W. REPUBLIC RD.	3941	9926		
ENTIRE	PROJECT	MALLETT TOWN RD.	25	3734		
ENTIRE	PROJECT	EXIST W. REPUBLIC RD. REMOVAL	95			
ENTIRE	PROJECT	APPROACHES	300	3380		
ENTIRE	PROJECT	W. REPUBLIC RD.-MAINTENANCE OF TRAFFIC		4834		
* 192+00		HWY. 285 - SITE 1			750	
* 321+00	342+00	**HWY. 285 - SITE 2			2500	
363+00	346+20	**HWY. 285 - SITE 3			215	
ENTIRE	PROJECT	CHANNEL EXCAVATION	25			
* ENTIRE	PROJECT	TO BE USED IF AND WHERE				200
		DIRECTED BY THE ENGINEER				
TOTALS:			148948	92282	3465	200

* QUANTITY ESTIMATED.
SEE SECTION 104.03 OF THE STD. SPECS.
** 2:1 BACK SLOPE AREAS - TO BE USED IF AND WHERE DIRECTED BY THE ENGINEER

REMOVAL AND DISPOSAL OF ITEMS

STATION	LOCATION	STORM CELLAR	CONCRETE DRIVEWAYS	FRAME SHED	BRICK WALLS	ROCK WALLS	SIGNS	SIGN FOUNDATIONS
		EACH	SQ. YD.	EACH	LIN. FT.	LIN. FT.	EACH	EACH
SITE 1								
135+43	HWY. 285 LT. SIDE		53					
139+12	HWY. 285 RT. SIDE	1						
166+48	HWY. 285 LT. SIDE		58					
187+47	HWY. 285 LT. SIDE	1						
193+99	HWY. 285 RT. SIDE			1				
SITE 2								
276+60	HWY. 285 RT. SIDE						1	2
316+70	HWY. 285 RT. SIDE						2	
317+70	HWY. 285 RT. SIDE				8			
SITE 4								
404+60	HWY. 285 LT. SIDE					8		
406+99	HWY. 285 LT. SIDE	1						
TOTALS:		3	111	1	8	8	3	2

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
12-4-15

STRUCTURES

STATION	DESCRIPTION	*REINFORCED CONCRETE PIPE CULVERT ALTERNATES						*METAL AND PLASTIC PIPE CULVERT ALTERNATES						*FLARED END SECTIONS FOR PIPE CULVERT ALTERNATES						TEMPORARY CULVERT	SPAN	HEIGHT	LENGTH	CLASS S CONCRETE-ROADWAY	REINF. STEEL-ROADWAY (GRADE 60)	UNCL.EXC. FOR STR.-ROADWAY	SOLID SODDING	WATER	STD. DWG. NOS.
		24"	30"	36"	48"	29"X18"	51"X31"	24"	30"	36"	48"	28"X20"	49"X33"	24"	30"	36"	48"	29"X18"	51"X31"	24"									
		LIN. FT.												EACH						LIN. FT.	LIN. FT.			CU.YD.	POUND	CU.YD.	SQ.YD.	M.GAL.	
SITE 1																													
114+94	R.C.BOX RETAIN & EXTEND																				8	3	40	35.24	2766	22	11	0.14	RCB-1, RCB-2, RCB-3
128+00	CONST. DBL. ARCH PIPE CULVERT					59					64							4											
140+81	CONST. PIPE CULVERT	58						62						2													18	0.23	PCC-1, PCM-1, PCP-1, PCP-2, FES-1, FES-2
154+02	CONST. PIPE CULVERT	54						58						2													16	0.20	PCC-1, PCM-1, PCP-1, PCP-2, FES-1, FES-2
172+97	CONST. PIPE CULVERT	64						68						2													16	0.20	PCC-1, PCM-1, PCP-1, PCP-2, FES-1, FES-2
178+53	CONST. PIPE CULVERT	141						145						2													16	0.20	PCC-1, PCM-1, PCP-1, PCP-2, FES-1, FES-2
191+14	CONST. DBL. R.C. PIPE CULVERT		116						122						2												16	0.20	PCC-1, PCM-1, PCP-1, PCP-2, FES-1, FES-2
210+94	CONST. PIPE CULVERT	116						120						2													28	0.35	PCC-1, PCM-1, PCP-1, PCP-2, FES-1, FES-2
603+16	CONST. DBL. PIPE CULVERT			200						212						4											16	0.20	PCC-1, PCM-1, PCP-1, PCP-2, FES-1, FES-2
605+33	CONST. DBL. PIPE CULVERT				80						92						4										36	0.45	PCC-1, PCM-1, PCP-1, PCP-2, FES-1, FES-2
606+91	CONST. PIPE CULVERT						36						42						2								58	0.73	PCC-1, PCM-1, PCP-1, PCP-2, FES-1, FES-2
801+68	CONST. PIPE CULVERT	81						85						2													58	0.73	PCC-1, PCM-1, PCP-1, PCP-2, FES-1, FES-2
																											16	0.20	PCC-1, PCM-1, PCP-1, PCP-2, FES-1, FES-2
SITE 2																													
281+00	CONST. DBL. PIPE CULVERT		130						138						4												28	0.35	PCC-1, PCM-1, PCP-1, PCP-2, FES-1, FES-2
283+00	CONST. PIPE CULVERT				56						60						2										58	0.73	PCC-1, PCM-1, PCP-1, PCP-2, FES-1, FES-2
283+00	INSTALL TEMP. PIPE CULVERT																			28									
298+80	CONST. PIPE CULVERT		57						61						2												26	0.33	PCC-1, PCM-1, PCP-1, PCP-2, FES-1, FES-2
306+65	CONST. PIPE CULVERT		68						72						2												26	0.33	PCC-1, PCM-1, PCP-1, PCP-2, FES-1, FES-2
311+60	CONST. PIPE CULVERT		62						66						2												26	0.33	PCC-1, PCM-1, PCP-1, PCP-2, FES-1, FES-2
334+00	CONST. PIPE CULVERT		60						62						2												26	0.33	PCC-1, PCM-1, PCP-1, PCP-2, FES-1, FES-2
338+80	CONST. PIPE CULVERT		54						58						2												26	0.33	PCC-1, PCM-1, PCP-1, PCP-2, FES-1, FES-2
345+52	CONST. PIPE CULVERT				58						62						2										58	0.73	PCC-1, PCM-1, PCP-1, PCP-2, FES-1, FES-2
349+70	CONST. PIPE CULVERT				54						60						2										58	0.73	PCC-1, PCM-1, PCP-1, PCP-2, FES-1, FES-2
SITE 3																													
364+36	CONST. PIPE CULVERT		87						91						2												26	0.33	PCC-1, PCM-1, PCP-1, PCP-2, FES-1, FES-2
365+13	CONST. PIPE CULVERT		72						76						2												26	0.33	PCC-1, PCM-1, PCP-1, PCP-2, FES-1, FES-2
SITE 4																													
399+03	CONST. PIPE CULVERT			73						77						2											34	0.43	PCC-1, PCM-1, PCP-1, PCP-2, FES-1, FES-2
501+41	CONST. PIPE CULVERT	80						84						2													16	0.20	PCC-1, PCM-1, PCP-1, PCP-2, FES-1, FES-2
505+35	CONST. PIPE CULVERT		116						120						2												26	0.33	PCC-1, PCM-1, PCP-1, PCP-2, FES-1, FES-2
TOTALS:		594	822	273	248	59	36	622	866	289	274	64	42	14	22	6	10	4	2	28				35.24	2766	22	765	9.64	

BASIS OF ESTIMATE:
WATER.....12.6 GAL. / SQ. YD. OF SOLID SODDING.

NOTE: FOR R.C. PIPE CULVERT INSTALLATIONS USE TYPE 3 BEDDING UNLESS OTHERWISE SPECIFIED.
NOTE: FOR C.M. PIPE CULVERT INSTALLATIONS USE TYPE 2 BEDDING UNLESS OTHERWISE SPECIFIED.
*DENOTES ALTERNATE BID ITEM

7/7/2015

R080426.DGN

DRIVEWAYS & TURNOUTS

STATION	SIDE	LOCATION	WIDTH	PORTLAND CEMENT CONCRETE DRIVEWAY	ACHM SURFACE COURSE (1/2") 220 LBS. PER SQ. YD. (PG 64-22)		AGGREGATE BASE COURSE (CLASS 7)	SIDE DRAINS		STANDARD DRAWINGS
								18"	24"	
			FEET	SQ. YD.	SQ. YD.	TON	TON	LIN. FT.		
					SITE 1					
113+56	RT.	DRIVE ON MAIN LANES	20		66.20	7.28	27.03	34		PCC-1, PCM-1, PCP-1, PCP-2
114+56	RT.	DRIVE ON MAIN LANES	20		67.10	7.38	27.40	34		PCC-1, PCM-1, PCP-1, PCP-2
118+38	RT.	DRIVE ON MAIN LANES	16		61.00	6.71	24.91		30	PCC-1, PCM-1, PCP-1, PCP-2
120+06	RT.	DRIVE ON MAIN LANES	16		30.40	3.34	29.53		30	PCC-1, PCM-1, PCP-1, PCP-2
124+01	RT.	DRIVE ON MAIN LANES	16		30.40	3.34	31.37		30	PCC-1, PCM-1, PCP-1, PCP-2
126+86	LT.	DRIVE ON MAIN LANES	16		64.00	7.04	26.13		28	PCC-1, PCM-1, PCP-1, PCP-2
129+96	RT.	DRIVE ON MAIN LANES	16		30.40	3.34	30.84		32	PCC-1, PCM-1, PCP-1, PCP-2
132+60	LT.	DRIVE ON MAIN LANES	20		36.70	4.04	36.83		68	PCC-1, PCM-1, PCP-1, PCP-2
135+46	LT.	DRIVE ON MAIN LANES	16	64.00					60	PCC-1, PCM-1, PCP-1, PCP-2
137+45	RT.	DRIVE ON MAIN LANES	16		30.40	3.34	29.79		32	PCC-1, PCM-1, PCP-1, PCP-2
138+69	LT.	DRIVE ON MAIN LANES	16		98.80	10.87	40.34		88	PCC-1, PCM-1, PCP-1, PCP-2
138+73	RT.	DRIVE ON MAIN LANES	16		30.40	3.34	31.21		30	PCC-1, PCM-1, PCP-1, PCP-2
140+34	RT.	DRIVE ON MAIN LANES	16		30.40	3.34	23.18		28	PCC-1, PCM-1, PCP-1, PCP-2
142+59	LT.	DRIVE ON MAIN LANES	24		81.40	8.95	33.24	40		PCC-1, PCM-1, PCP-1, PCP-2
143+09	RT.	DRIVE ON MAIN LANES	16		63.30	6.96	25.85		28	PCC-1, PCM-1, PCP-1, PCP-2
143+75	LT.	CO. RD. ON MAIN LANES	20		137.60	15.14	56.19			
148+79	RT.	DRIVE ON MAIN LANES	16		117.70	12.95	48.06	28		PCC-1, PCM-1, PCP-1, PCP-2
150+38	RT.	DRIVE ON MAIN LANES	16		90.80	9.99	37.08	28		PCC-1, PCM-1, PCP-1, PCP-2
154+03	RT.	DRIVE ON MAIN LANES	16		58.40	6.42	23.85	36		PCC-1, PCM-1, PCP-1, PCP-2
154+61	RT.	DRIVE ON MAIN LANES	16		30.40	3.34	27.01	34		PCC-1, PCM-1, PCP-1, PCP-2
164+75	LT.	DRIVE ON MAIN LANES	16		30.40	3.34	20.45	30		PCC-1, PCM-1, PCP-1, PCP-2
166+48	LT.	DRIVE ON MAIN LANES	24	86.60					38	PCC-1, PCM-1, PCP-1, PCP-2
170+80	LT.	DRIVE ON MAIN LANES	16		30.40	3.34	43.97	34		PCC-1, PCM-1, PCP-1, PCP-2
174+37	RT.	DRIVE ON MAIN LANES	16		30.40	3.34	44.28	46		PCC-1, PCM-1, PCP-1, PCP-2
175+32	LT.	DRIVE ON MAIN LANES	16		101.00	11.11	41.24		38	PCC-1, PCM-1, PCP-1, PCP-2
175+48	RT.	DRIVE ON MAIN LANES	16		99.00	10.89	40.43	42		PCC-1, PCM-1, PCP-1, PCP-2
177+67	RT.	DRIVE ON MAIN LANES	16		170.80	18.79	69.74	60		PCC-1, PCM-1, PCP-1, PCP-2
181+59	RT.	DRIVE ON MAIN LANES	24		89.00	9.79	36.34		40	PCC-1, PCM-1, PCP-1, PCP-2
182+26	RT.	DRIVE ON MAIN LANES	16		30.40	3.34	24.33		28	PCC-1, PCM-1, PCP-1, PCP-2
182+67	LT.	DRIVE ON MAIN LANES	16		30.40	3.34	34.83		28	PCC-1, PCM-1, PCP-1, PCP-2
185+78	RT.	DRIVE ON MAIN LANES	16		30.40	3.34	23.28		28	PCC-1, PCM-1, PCP-1, PCP-2
186+66	LT.	DRIVE ON MAIN LANES	16		30.40	3.34	26.80		28	PCC-1, PCM-1, PCP-1, PCP-2
187+15	LT.	DRIVE ON MAIN LANES	16		30.40	3.34	28.48		28	PCC-1, PCM-1, PCP-1, PCP-2
187+47	RT.	DRIVE ON MAIN LANES	16		30.40	3.34	23.91		28	PCC-1, PCM-1, PCP-1, PCP-2
187+73	LT.	DRIVE ON MAIN LANES	16		68.30	7.51	27.89		30	PCC-1, PCM-1, PCP-1, PCP-2
190+10	RT.	DRIVE ON MAIN LANES	16		30.40	3.34	39.82		36	PCC-1, PCM-1, PCP-1, PCP-2
194+18	RT.	DRIVE ON MAIN LANES	16		170.80	18.79	69.74	32		PCC-1, PCM-1, PCP-1, PCP-2
196+76	RT.	DRIVE ON MAIN LANES	16		117.50	12.93	47.98	32		PCC-1, PCM-1, PCP-1, PCP-2
200+40	RT.	DRIVE ON MAIN LANES	16		30.40	3.34	30.11	32		PCC-1, PCM-1, PCP-1, PCP-2
214+38	RT.	DRIVE ON MAIN LANES	16		49.10	5.40	20.05	38		PCC-1, PCM-1, PCP-1, PCP-2
216+54	RT.	DRIVE ON MAIN LANES	16		30.40	3.34	30.89	34		PCC-1, PCM-1, PCP-1, PCP-2
224+77	RT.	DRIVE ON MAIN LANES	16		91.50	10.07	37.36	38		PCC-1, PCM-1, PCP-1, PCP-2
604+00	LT.	DRIVE ON W. REPUBLICAN RD.	16		43.60	4.80	17.80	28		PCC-1, PCM-1, PCP-1, PCP-2
					SITE 2					
251+29	LT.	DRIVE ON MAIN LANES	20		72.10	7.93	29.44			
252+80	RT.	DRIVE ON MAIN LANES	20		36.70	4.04	26.38	30		PCC-1, PCM-1, PCP-1, PCP-2
257+29	LT.	DRIVE ON MAIN LANES	16		30.40	3.34	26.22	28		PCC-1, PCM-1, PCP-1, PCP-2
276+95	RT.	DRIVE ON MAIN LANES	24		97.00	10.67	39.61	36		PCC-1, PCM-1, PCP-1, PCP-2
279+61	LT.	DRIVE ON MAIN LANES	16		102.40	11.26	41.81	32		PCC-1, PCM-1, PCP-1, PCP-2
291+06	RT.	DRIVE ON MAIN LANES	20		71.30	7.84	29.11			
299+40	LT.	DRIVE ON MAIN LANES	16		64.20	7.06	26.22	28		PCC-1, PCM-1, PCP-1, PCP-2
300+22	RT.	DRIVE ON MAIN LANES	16		126.30	13.89	51.57	28		PCC-1, PCM-1, PCP-1, PCP-2
302+75	LT.	DRIVE ON MAIN LANES	16		55.30	6.08	22.58	30		PCC-1, PCM-1, PCP-1, PCP-2
303+81	RT.	DRIVE ON MAIN LANES	16		64.20	7.06	26.22	28		PCC-1, PCM-1, PCP-1, PCP-2
305+34	RT.	DRIVE ON MAIN LANES	16		67.10	7.38	27.40	28		PCC-1, PCM-1, PCP-1, PCP-2
311+09	LT.	DRIVE ON MAIN LANES	16		188.60	20.75	77.01	32		PCC-1, PCM-1, PCP-1, PCP-2
314+17	RT.	DRIVE ON MAIN LANES	16		30.40	3.34	30.11	56		PCC-1, PCM-1, PCP-1, PCP-2
316+20	LT.	DRIVE ON MAIN LANES	16		117.50	12.93	47.98	32		PCC-1, PCM-1, PCP-1, PCP-2
316+57	RT.	CO. RD. ON MAIN LANES	20		177.40	19.51	72.44	50		PCC-1, PCM-1, PCP-1, PCP-2
340+40	LT.	DRIVE ON MAIN LANES	16		127.50	14.03	52.06	28		PCC-1, PCM-1, PCP-1, PCP-2
349+96	RT.	DRIVE ON MAIN LANES	16		30.40	3.34	48.01	32		PCC-1, PCM-1, PCP-1, PCP-2
					SITE 3					
368+93	LT.	DRIVE ON MAIN LANES	20		132.30	14.55	54.02			
369+95	RT.	DRIVE ON MAIN LANES	16		30.40	3.34	38.66	30		PCC-1, PCM-1, PCP-1, PCP-2
373+06	RT.	DRIVE ON MAIN LANES	20		36.70	4.04	25.49	32		PCC-1, PCM-1, PCP-1, PCP-2
377+06	LT.	DRIVE ON MAIN LANES	20		36.70	4.04	36.83			
					SITE 4					
391+58	LT.	DRIVE ON MAIN LANES	16		57.80	6.36	23.60		28	PCC-1, PCM-1, PCP-1, PCP-2
394+33	RT.	DRIVE ON MAIN LANES	16		30.40	3.34	45.54	46		PCC-1, PCM-1, PCP-1, PCP-2
395+54	RT.	DRIVE ON MAIN LANES	16		30.40	3.34	26.80	34		PCC-1, PCM-1, PCP-1, PCP-2
396+50	LT.	DRIVE ON MAIN LANES	16		30.40	3.34	29.48	28		PCC-1, PCM-1, PCP-1, PCP-2
405+50	LT.	DRIVE ON MAIN LANES	16		101.50	11.17	41.45		28	PCC-1, PCM-1, PCP-1, PCP-2
406+30	RT.	DRIVE ON MAIN LANES	16		30.60	3.37	12.50	28		PCC-1, PCM-1, PCP-1, PCP-2
499+87	RT.	DRIVE ON HWY. 124	16		30.40	3.34	20.81	28		PCC-1, PCM-1, PCP-1, PCP-2
* ENTIRE PROJECT TEMPORARY DRIVES							2000.00			
TOTALS:				**150.60**	**4527.60**	**497.95**	**4418.91**	**1404**	**890**	

BASIS OF ESTIMATE:
ACHM SURFACE COURSE (1/2").....94.6% MIN. AGGR.....5.4% ASPHALT BINDER
MAXIMUM NUMBER OF GYRATIONS = 115 FOR PG 64-22

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

NOTE: FOR R.C. PIPE CULVERT INSTALLATIONS USE TYPE 3 BEDDING UNLESS OTHERWISE SPECIFIED.
NOTE: FOR C.M. PIPE CULVERT INSTALLATIONS USE TYPE 2 BEDDING UNLESS OTHERWISE SPECIFIED.

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
TIMOTHY R. SMITH
No. 11795
12-4-15

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED

(2) QUANTITIES

FED.ROD. DIST./NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
6	ARK.		56	271

JOB NO. 080426

QUANTITIES

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
2/3/16				6	ARK.			
				JOB NO.		080426	57	271

(2) QUANTITIES

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11435
TRINITY D. SMITH
2-3-16

BASE AND SURFACING

STATION	STATION	LOCATION	LENGTH	AGGREGATE BASE COURSE (CLASS 7)		TACK COAT							ACHM BINDER COURSE (1")				ACHM SURFACE COURSE (1/2")								
						(0.10 GAL. PER SQ. YD.)			(0.03 GAL. PER SQ.YD.)																
				TON / STATION	TON	TOTAL WID.	SQ. YD.	GALLONS	TOTAL WID.	SQ.YD.	GALLONS	TOTAL GALLON	AVG. WID.	SQ.YD.	POUND / SQ.YD.	PG 64-22	AVG. WID.	SQ.YD.	POUND / SQ.YD.	PG 64-22	AVG. WID.	SQ.YD.	POUND / SQ.YD.	PG 64-22	TOTAL PG 64-22
			FEET			FEET			FEET				FEET			TON	FEET			TON	FEET			TON	TON
MAIN LANES - SITE 1																									
110+40.00	111+40.00	TRANSITION	100.00	VAR.	112.00	27.00	300.00	30.00				30.00									27.00	300.00	220.00	33.00	33.00
111+40.00	173+35.24	NOTCH AND WIDEN SECTION	6195.24	VAR.	7638.73				VAR.	3613.12	108.39	108.39	VAR.	1815.34	330.00	299.53	VAR.	1797.78	220.00	197.76	34.00	23404.24	220.00	2574.47	2772.23
173+35.24	181+74.44	FULL DEPTH SECTION	839.20	197.50	1657.42				44.71	4168.96	125.07	125.07	22.46	2094.27	330.00	345.55	22.25	2074.69	220.00	228.22	34.00	3170.31	220.00	348.73	576.95
181+74.44	206+98.28	NOTCH AND WIDEN SECTION	2523.84	VAR.	3154.28				VAR.	1718.04	51.54	51.54	VAR.	861.75	330.00	142.19	VAR.	856.29	220.00	94.19	34.00	9534.51	220.00	1048.80	1142.99
206+98.28	212+89.19	FULL DEPTH SECTION	590.91	197.50	1167.05				44.71	2935.51	88.07	88.07	22.46	1474.65	330.00	243.32	22.25	1460.86	220.00	160.69	34.00	2232.33	220.00	245.56	406.25
212+89.19	226+97.47	NOTCH AND WIDEN SECTION	1408.28	VAR.	1883.54				VAR.	1633.70	49.01	49.01	VAR.	819.02	330.00	135.14	VAR.	814.68	220.00	89.61	34.00	5320.17	220.00	585.22	674.83
226+97.47	227+97.47	TRANSITION	100.00	VAR.	112.00	27.00	300.00	30.00	27.00	300.00	9.00	39.00									27.00	300.00	220.00	33.00	33.00
MAIN LANES - SITE 2																									
245+85.00	246+85.00	TRANSITION	100.00	VAR.	112.00	27.00	300.00	30.00				30.00									27.00	300.00	220.00	33.00	33.00
246+85.00	280+13.64	NOTCH AND WIDEN SECTION	3328.64	VAR.	2253.18				VAR.	1308.13	39.24	39.24	VAR.	107.77	330.00	17.78	VAR.	1200.36	220.00	132.04	34.00	12574.86	220.00	1383.23	1515.27
280+13.64	284+84.85	FULL DEPTH SECTION	471.21	112.00	527.76				44.71	2340.87	70.23	70.23	22.46	1175.93	330.00	194.03	22.25	1164.94	220.00	128.14	34.00	1780.13	220.00	195.81	323.95
284+84.85	287+48.99	NOTCH AND WIDEN SECTION	264.14	VAR.	190.24				VAR.	218.63	6.56	6.56	VAR.	109.75	330.00	18.11	VAR.	108.88	220.00	11.98	34.00	997.86	220.00	109.76	121.74
287+48.99	290+78.44	FULL DEPTH SECTION	329.45	112.00	368.98				44.71	1636.63	49.10	49.10	22.46	822.16	330.00	135.66	22.25	814.47	220.00	89.59	34.00	1244.59	220.00	136.90	226.49
290+78.44	291+85.25	NOTCH AND WIDEN SECTION	106.81	VAR.	79.98				VAR.	103.40	3.10	3.10	VAR.	51.92	330.00	8.57	VAR.	51.48	220.00	5.66	34.00	403.50	220.00	44.39	50.05
291+85.25	295+43.40	FULL DEPTH SECTION	358.15	112.00	401.13				44.71	1779.21	53.38	53.38	22.46	893.78	330.00	147.47	22.25	885.43	220.00	97.40	34.00	1353.01	220.00	148.83	246.23
295+43.40	296+97.79	NOTCH AND WIDEN SECTION	154.39	VAR.	205.65				VAR.	163.30	4.90	4.90	VAR.	82.09	330.00	13.54	VAR.	81.21	220.00	8.93	34.00	583.25	220.00	64.16	73.09
296+97.79	300+53.83	FULL DEPTH SECTION	356.04	112.00	396.76				44.71	1768.73	53.06	53.06	22.46	888.52	330.00	146.61	22.25	880.21	220.00	96.82	34.00	1345.04	220.00	147.95	244.77
300+53.83	304+26.53	NOTCH AND WIDEN SECTION	374.70	VAR.	479.04				VAR.	306.64	9.20	9.20	VAR.	153.93	330.00	25.40	VAR.	152.71	220.00	16.80	34.00	1415.53	220.00	155.71	172.51
304+26.53	308+37.73	FULL DEPTH SECTION	409.20	112.00	458.30				44.71	2032.81	60.98	60.98	22.46	1021.18	330.00	168.49	22.25	1011.63	220.00	111.28	34.00	1545.87	220.00	170.05	281.33
308+37.73	310+83.15	NOTCH AND WIDEN SECTION	245.42	VAR.	461.89				VAR.	1004.90	30.15	30.15	VAR.	503.64	330.00	83.10	VAR.	501.26	220.00	55.14	34.00	927.14	220.00	101.99	157.13
310+83.15	312+45.72	FULL DEPTH SECTION	162.57	112.00	182.08				44.71	807.61	24.23	24.23	22.46	405.70	330.00	66.94	22.25	401.91	220.00	44.21	34.00	614.15	220.00	67.56	111.77
312+45.72	317+95.66	NOTCH AND WIDEN SECTION	549.94	VAR.	847.82				VAR.	1240.52	37.22	37.22	VAR.	620.89	330.00	102.45	VAR.	619.63	220.00	68.16	34.00	2077.55	220.00	228.53	296.69
317+95.66	342+77.29	FULL DEPTH SECTION	2481.63	197.50	4901.22				44.71	12328.19	369.85	369.85	22.46	6193.05	330.00	1021.85	22.25	6135.14	220.00	674.87	34.00	9375.05	220.00	1031.26	1706.13
342+77.29	353+73.14	NOTCH AND WIDEN SECTION	1095.85	VAR.	1337.30				VAR.	560.10	16.80	16.80	VAR.	281.27	330.00	46.41	VAR.	278.83	220.00	30.67	34.00	4139.88	220.00	455.39	486.06
353+73.14	354+73.14	TRANSITION	100.00	VAR.	112.00	27.00	300.00	30.00				30.00									27.00	300.00	220.00	33.00	33.00
MAIN LANES - SITE 3																									
362+00.00	363+00.00	TRANSITION	100.00	VAR.	112.00	27.00	300.00	30.00				30.00									27.00	300.00	220.00	33.00	33.00
363+00.00	378+99.91	NOTCH AND WIDEN SECTION	1599.91	VAR.	1074.90				VAR.	922.75	27.68	27.68	VAR.	463.24	330.00	76.43	VAR.	459.51	220.00	50.55	34.00	6044.10	220.00	664.85	715.40
378+99.91	379+99.91	TRANSITION	100.00	VAR.	112.00	27.00	300.00	30.00				30.00									27.00	300.00	220.00	33.00	33.00
MAIN LANES - SITE 4																									
390+45.00	391+45.00	TRANSITION	100.00	VAR.	112.00	27.00	300.00	30.00				30.00									27.00	300.00	220.00	33.00	33.00
391+45.00	396+78.25	NOTCH AND WIDEN SECTION	533.25	VAR.	454.62				VAR.	857.74	25.73	25.73	VAR.	429.50	330.00	70.87	VAR.	428.24	220.00	47.11	34.00	2014.50	220.00	221.60	268.71
396+78.25	404+61.19	FULL DEPTH SECITON	782.94	197.50	1546.31				44.71	3889.47	116.68	116.68	22.46	1953.87	330.00	322.39	22.25	1935.60	220.00	212.92	34.00	2957.77	220.00	325.35	538.27
404+61.19	407+50.00	NOTCH AND WIDEN SECTION	288.81	VAR.	211.03				VAR.	263.81	7.91	7.91	VAR.	132.24	330.00	21.82	VAR.	131.57	220.00	14.47	34.00	1091.06	220.00	120.02	134.49
407+50.00	408+50.00	TRANSITION	100.00	VAR.	112.00	27.00	300.00	30.00				30.00									27.00	300.00	220.00	33.00	33.00
ADDITIONAL FOR LEVELING AND GRADE RAISE																									
ENTIRE	PROJECT	SITE 1 - LEVELING & GRADE RAISE				20.00	VAR.	856.11	20.00	VAR.	46.67	902.78	20.00	VAR.	VAR.	856.40	20.00	VAR.	VAR.	2421.50					2421.50
ENTIRE	PROJECT	SITE 2 - LEVELING & GRADE RAISE				20.00	VAR.	791.71	20.00	VAR.	319.42	1111.13	20.00	VAR.	VAR.	4261.55	20.00	VAR.	VAR.	2937.33					2937.33
ENTIRE	PROJECT	SITE 3 - LEVELING & GRADE RAISE				20.00	VAR.	118.51				118.51					20.00	VAR.	VAR.	772.60					772.60
ENTIRE	PROJECT	SITE 4 - LEVELING & GRADE RAISE				20.00	VAR.	118.89	20.00	VAR.	20.00	138.89	20.00	VAR.	VAR.	241.40	20.00	VAR.	VAR.	143.20					143.20
ENTIRE	PROJECT	HWY. 124 - LEVELING & GRADE RAISE				20.00	VAR.	21.74	20.00	VAR.	10.00	31.74	20.00	VAR.	VAR.	87.70	20.00	VAR.	VAR.	29.10					29.10
ENTIRE	PROJECT	W. REPUBLICAN RD.	275.00	VAR.	4922.00																				
ADDITIONAL FOR SUPERELEVATION																									
ENTIRE	PROJECT	SITE 1		VAR.	11557.72																				
ENTIRE	PROJECT	SITE 2		VAR.	10185.48																				
ENTIRE	PROJECT	SITE 3		VAR.	1918.51																				
ENTIRE	PROJECT	SITE 4		VAR.	2948.02																				
ENTIRE	PROJECT	HWY. 124		VAR.	1164.80																				
W. REPUBLICAN ROAD																									
600+03.93	600+54.56	TURNOUT	50.63	VAR.	147.06																VAR.	274.67	220.00	30.21	30.21
600+54.56	602+92.01	FULL DEPTH SECTION	237.45	140.25	333.02																28.00	738.73	220.00	81.26	81.26
602+92.01	607+85.00	NOTCH AND WIDEN SECTION	492.99	VAR.	635.90																VAR.	168.54	220.00	18.54	18.54
607+85.00	608+35.00	TRANSITION	50.00																		23.00	127.78	220.00	14.06	14.06
MALLETT TOWN ROAD																									
800+11.74	800+90.67	TURNOUT	78.93	VAR.	198.00																VAR.	337.97	220.00	37.18	37.18
800+90.67	803+56.98	FULL DEPTH SECTION	266.31	140.25	373.50																28.00	628.52	220.00	91.14	91.14
HWY. 124																									
498+12.51	499+12.51	TRANSITION	100.00			27.00	300.00	30.00				30.00									27.00	300.00	220.00	33.00	33.00
499+12.51	502+06.00	NOTCH AND WIDEN SECTION	293.49	VAR.	397.00				VAR.	372.00	11.16	11.16	VAR.	186.34	330.00	30.75	VAR.	185.66	220.00	20.42	34.00	1108.74	220.00	121.96	142.38
502+06.00	505+16.14	FULL DEPTH SECTION	310.14	197.50	612.53				44.71	1540.71	46.22	46.22	22.46	773.97	330.00	127.71	22.25	766.74	220.00	84.34	34.00	1171.64	220.00	128.88	213.22
505+16.14	505+63.17	TURNOUT	47.03	VAR.	161.62				VAR.	433.34	13.00	13.00	VAR.	216.84	330.00	35.78	VAR.	216.50	220.00	23.82	VAR.	305.32	220.00	33.59	57.41
TEMPORARY WIDENING																									
170+17.00	175+77.00	SITE 1 - RIGHT OF EXISTING HWY. 285	560.00	VAR.	300.91																VAR.	410.31	220.00	45.13	45.13
TOTALS:					**68633.28**		**2700.00**	**2176.96**		**50248.82**	**1903.55**	**4080.51**		**24532.61**		**9494.94**		**25416.21**		**9099.52**		**104318.62**		**11475.07**	**20574.59**

BASIS OF ESTIMATE:
ACHM SURFACE COURSE (1/2").....94.6% MIN. AGGR.....5.4% ASPHALT BINDER
ACHM BINDER COURSE (1").....95.6% MIN. AGGR.....4.4% ASPHALT BINDER
MAXIMUM NUMBER OF GYRATIONS = 115 FOR PG 64-22

2/2/2016

R080426.DGN

QUANTITIES

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
1/21/16				6	ARK.			
1/28/16				JOB NO.		080426	58	271
2/3/16								

(2) SUMMARY OF QUANTITIES & REVISIONS

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
2-3-16

SUMMARY OF QUANTITIES (BOX 1 OF 2)

ITEM NUMBER	ITEM		QUANTITY	UNIT
SP & 201	CLEARING		256	STATION
201	GRUBBING		256	STATION
202	REMOVAL AND DISPOSAL OF FRAME SHED		1	EACH
202	REMOVAL AND DISPOSAL OF FENCE		21347	LIN. FT.
202	REMOVAL AND DISPOSAL OF BRICK WALLS		8	LIN. FT.
202	REMOVAL AND DISPOSAL OF ROCK WALLS		8	LIN. FT.
202	REMOVAL AND DISPOSAL OF CONCRETE DRIVEWAYS		111	SQ. YD.
202	REMOVAL AND DISPOSAL OF SIGN FOUNDATIONS		2	EACH
202	REMOVAL AND DISPOSAL OF PIPE CULVERTS		68	EACH
202	REMOVAL AND DISPOSAL OF BOX CULVERTS		3	EACH
202	REMOVAL AND DISPOSAL OF STORM CELLAR		3	EACH
202	REMOVAL AND DISPOSAL OF SIGNS		3	EACH
210	UNCLASSIFIED EXCAVATION		148948	CU. YD.
210	COMPACTED EMBANKMENT		92262	CU. YD.
SP & 210	ROCK FILL		3465	CU. YD.
SP & 210	SOIL STABILIZATION		200	TON
303	AGGREGATE BASE COURSE (CLASS 7)		73052	TON
SS & 401	TACK COAT		4381	GAL.
SP, SS, & 406	MINERAL AGGREGATE IN ACHM BINDER COURSE (1")		9077	TON
SP, SS, & 406	ASPHALT BINDER (PG 64-22) IN ACHM BINDER COURSE (1")		418	TON
SP, SS, & 407	MINERAL AGGREGATE IN ACHM SURFACE COURSE (1/2")		19935	TON
SP, SS, & 407	ASPHALT BINDER (PG 64-22) IN ACHM SURFACE COURSE (1/2")		1138	TON
412	COLD MILLING ASPHALT PAVEMENT		2222	SQ. YD.
SP & 414	ASPHALT CONCRETE PATCHING FOR MAINTENANCE OF TRAFFIC		150	TON
SP & 415	ACHM PATCHING OF EXISTING ROADWAY		150	TON
505	PORTLAND CEMENT CONCRETE DRIVEWAY		150.60	SQ. YD.
601	MOBILIZATION		1.00	LUMP SUM
SP & 602	FURNISHING FIELD OFFICE		1	EACH
603	MAINTENANCE OF TRAFFIC		1.00	LUMP SUM
603	24" TEMPORARY CULVERT		28	LIN. FT.
SS & 604	SIGNS		1045	SQ. FT.
SS & 604	BARRICADES		224	LIN. FT.
SS & 604	TRAFFIC DRUMS		470	EACH
604	FURNISHING AND INSTALLING PRECAST CONCRETE BARRIER		286	LIN. FT.
604	RELOCATING PRECAST CONCRETE BARRIER		286	LIN. FT.
604	CONSTRUCTION PAVEMENT MARKINGS		108926	LIN. FT.
SS & 604	VERTICAL PANELS		264	EACH
605	CONCRETE DITCH PAVING (TYPE A)		2217	SQ. YD.
605	CONCRETE DITCH PAVING (TYPE B)		10508	SQ. YD.
* 606	24" REINFORCED CONCRETE PIPE CULVERTS (CLASS III)	(ALTERNATE NO. 1)	594	LIN. FT.
* 606	24" ASPHALT COATED CORRUGATED STEEL PIPE CULVERTS (16 GAUGE)	(ALTERNATE NO. 2)	622	LIN. FT.
* 606	24" ALUMINUM COATED CORRUGATED STEEL PIPE CULVERTS (16 GAUGE)	(ALTERNATE NO. 3)	622	LIN. FT.
* 606	24" POLYMER PRECOATED METALLIC COATED CORRUGATED STEEL PIPE CULVERTS (16 GAUGE)	(ALTERNATE NO. 4)	622	LIN. FT.
* SP & 606	24" HIGH DENSITY POLYETHYLENE PIPE	(ALTERNATE NO. 5)	622	LIN. FT.
* SP & 606	24" PVC PIPE	(ALTERNATE NO. 6)	622	LIN. FT.
* 606	30" REINFORCED CONCRETE PIPE CULVERTS (CLASS III)	(ALTERNATE NO. 1)	822	LIN. FT.
* 606	30" ASPHALT COATED CORRUGATED STEEL PIPE CULVERTS (16 GAUGE)	(ALTERNATE NO. 2)	866	LIN. FT.
* 606	30" ALUMINUM COATED CORRUGATED STEEL PIPE CULVERTS (16 GAUGE)	(ALTERNATE NO. 3)	866	LIN. FT.
* 606	30" POLYMER PRECOATED METALLIC COATED CORRUGATED STEEL PIPE CULVERT (16 GAUGE)	(ALTERNATE NO. 4)	866	LIN. FT.
* SP & 606	30" HIGH DENSITY POLYETHYLENE PIPE	(ALTERNATE NO. 5)	866	LIN. FT.
* SP & 606	30" PVC PIPE	(ALTERNATE NO. 6)	866	LIN. FT.
* 606	36" REINFORCED CONCRETE PIPE CULVERTS (CLASS III)	(ALTERNATE NO. 1)	273	LIN. FT.
* 606	36" ASPHALT COATED CORRUGATED STEEL PIPE CULVERTS (14 GAUGE)	(ALTERNATE NO. 2)	289	LIN. FT.
* 606	36" ALUMINUM COATED CORRUGATED STEEL PIPE CULVERTS (14 GAUGE)	(ALTERNATE NO. 3)	289	LIN. FT.
* 606	36" POLYMER PRECOATED METALLIC COATED CORRUGATED STEEL PIPE CULVERT (14 GAUGE)	(ALTERNATE NO. 4)	289	LIN. FT.
* SP & 606	36" HIGH DENSITY POLYETHYLENE PIPE	(ALTERNATE NO. 5)	289	LIN. FT.
* SP & 606	36" PVC PIPE	(ALTERNATE NO. 6)	289	LIN. FT.
* 606	48" REINFORCED CONCRETE PIPE CULVERTS (CLASS III)	(ALTERNATE NO. 1)	248	LIN. FT.
* 606	48" ASPHALT COATED CORRUGATED STEEL PIPE CULVERTS (14 GAUGE)	(ALTERNATE NO. 2)	274	LIN. FT.
* 606	48" ALUMINUM COATED CORRUGATED STEEL PIPE CULVERTS (14 GAUGE)	(ALTERNATE NO. 3)	274	LIN. FT.
* 606	48" POLYMER PRECOATED METALLIC COATED CORRUGATED STEEL PIPE CULVERT (14 GAUGE)	(ALTERNATE NO. 4)	274	LIN. FT.
* SP & 606	48" HIGH DENSITY POLYETHYLENE PIPE	(ALTERNATE NO. 5)	274	LIN. FT.
* 606	29" X 18" REINFORCED CONCRETE ARCH PIPE CULVERTS (CLASS III)	(ALTERNATE NO. 1)	59	LIN. FT.
* 606	28" X 20" ASPHALT COATED CORRUGATED STEEL ARCH PIPE CULVERTS (16 GAUGE)	(ALTERNATE NO. 2)	64	LIN. FT.
* 606	28" X 20" ALUMINUM COATED CORRUGATED STEEL ARCH PIPE CULVERTS (16 GAUGE)	(ALTERNATE NO. 3)	64	LIN. FT.
* 606	28" X 20" POLYMER PRECOATED METALLIC COATED CORRUGATED STEEL ARCH PIPE CULVERT (16 GAUGE)	(ALTERNATE NO. 4)	64	LIN. FT.
* 606	51" X 31" REINFORCED CONCRETE ARCH PIPE CULVERTS (CLASS III)	(ALTERNATE NO. 1)	36	LIN. FT.
* 606	49" X 33" ASPHALT COATED CORRUGATED STEEL ARCH PIPE CULVERTS (14 GAUGE)	(ALTERNATE NO. 2)	42	LIN. FT.
* 606	49" X 33" ALUMINUM COATED CORRUGATED STEEL ARCH PIPE CULVERTS (14 GAUGE)	(ALTERNATE NO. 3)	42	LIN. FT.
* 606	49" X 33" POLYMER PRECOATED METALLIC COATED CORRUGATED STEEL ARCH PIPE CULVERT (14 GAUGE)	(ALTERNATE NO. 4)	42	LIN. FT.
* 606	49" X 33" SMOOTH LINED POLYMER PRECOATED METALLIC COATED CORRUGATED STEEL ARCH PIPE	(ALTERNATE NO. 5)	42	LIN. FT.
SP, SS, & 606	18" SIDE DRAIN		1404	LIN. FT.
SP, SS, & 606	24" SIDE DRAIN		890	LIN. FT.
* 606	24" FLARED END SECTIONS FOR REINFORCED CONCRETE PIPE CULVERTS	(ALTERNATE NO. 1)	14	EACH
* 606	24" FLARED END SECTIONS FOR CORRUGATED STEEL PIPE CULVERTS	(ALTERNATE NO. 2)	14	EACH
* 606	30" FLARED END SECTIONS FOR REINFORCED CONCRETE PIPE CULVERTS	(ALTERNATE NO. 1)	22	EACH
* 606	30" FLARED END SECTIONS FOR CORRUGATED STEEL PIPE CULVERTS	(ALTERNATE NO. 2)	22	EACH
* 606	36" FLARED END SECTIONS FOR REINFORCED CONCRETE PIPE CULVERTS	(ALTERNATE NO. 1)	6	EACH
* 606	36" FLARED END SECTIONS FOR CORRUGATED STEEL PIPE CULVERTS	(ALTERNATE NO. 2)	6	EACH
* 606	48" FLARED END SECTIONS FOR REINFORCED CONCRETE PIPE CULVERTS	(ALTERNATE NO. 1)	10	EACH
* 606	48" FLARED END SECTIONS FOR CORRUGATED STEEL PIPE CULVERTS	(ALTERNATE NO. 2)	10	EACH
* 606	29" X 18" FLARED END SECTIONS FOR REINFORCED CONCRETE ARCH PIPE CULVERTS	(ALTERNATE NO. 1)	4	EACH
* 606	28" X 20" FLARED END SECTIONS FOR CORRUGATED STEEL ARCH PIPE CULVERT	(ALTERNATE NO. 2)	4	EACH
* 606	51" X 31" FLARED END SECTIONS FOR REINFORCED CONCRETE ARCH PIPE CULVERTS	(ALTERNATE NO. 1)	2	EACH
* 606	49" X 33" FLARED END SECTIONS FOR CORRUGATED STEEL ARCH PIPE CULVERTS	(ALTERNATE NO. 2)	2	EACH
606	SELECTED PIPE BEDDING		250	CU. YD.

* DENOTES ALTERNATE BID ITEMS.

SUMMARY OF QUANTITIES (BOX 2 OF 2)

ITEM NUMBER	ITEM		QUANTITY	UNIT
611	UNDERDRAIN OUTLET PROTECTORS		9	EACH
611	4" PIPE UNDERDRAINS		2000	LIN. FT.
615	PAVEMENT REPAIR OVER CULVERTS (ASPHALT)		142	TON
617	GUARDRAIL (TYPE A)		650	LIN. FT.
617	GUARDRAIL TERMINAL (TYPE 2)		2	EACH
619	WIRE FENCE (TYPE C)		4711	LIN. FT.
619	WIRE FENCE (TYPE D)		12659	LIN. FT.
619	WIRE FENCE (TYPE D-1)		2012	LIN. FT.
619	WIRE FENCE (TYPE D-2)		393	LIN. FT.
* 619	4' STEEL CHAIN LINK FENCE	(ALTERNATE NO. 1)	213	LIN. FT.
* 619	4' ALUMINUM CHAIN LINK FENCE	(ALTERNATE NO. 2)	213	LIN. FT.
* 619	12' STEEL GATES	(ALTERNATE NO. 1)	2	EACH
* 619	12' ALUMINUM GATES	(ALTERNATE NO. 2)	2	EACH
* 619	16' STEEL GATES	(ALTERNATE NO. 1)	7	EACH
* 619	16' ALUMINUM GATES	(ALTERNATE NO. 2)	7	EACH
620	LIME		90	TON
620	SEEDING		45.15	ACRE
SS & 620	MULCH COVER		118.66	ACRE
620	WATER		6201.7	M.GAL.
621	TEMPORARY SEEDING		73.51	ACRE
621	SILT FENCE		13180	LIN. FT.
621	SAND BAG DITCH CHECKS		6101	BAG
621	SEDIMENT BASIN		222	CU. YD.
621	OBLITERATION OF SEDIMENT BASIN		222	CU. YD.
621	SEDIMENT REMOVAL AND DISPOSAL		1519	CU. YD.
621	ROCK DITCH CHECKS		989	CU. YD.
623	SECOND SEEDING APPLICATION		45.15	ACRE
624	SOLID SODDING		7673	SQ. YD.
626	EROSION CONTROL MATTING (CLASS 3)		5263	SQ. YD.
635	ROADWAY CONSTRUCTION CONTROL		1.00	LUMP SUM
637	MAILBOXES		41	EACH
637	MAILBOX SUPPORTS (SINGLE)		29	EACH
637	MAILBOX SUPPORTS (DOUBLE)		6	EACH
642	RUMBLE STRIPS IN ASPHALT SHOULDERS		52715	LIN. FT.
718	REFLECTORIZED PAINT PAVEMENT MARKING WHITE (4")		54708	LIN. FT.
718	REFLECTORIZED PAINT PAVEMENT MARKING YELLOW (4")		54218	LIN. FT.
801	UNCLASSIFIED EXCAVATION FOR STRUCTURES-ROADWAY		1179	CU. YD.
802	CLASS S CONCRETE-ROADWAY		220.34	CU. YD.
804	REINFORCING STEEL-ROADWAY (GRADE 60)		18315	POUND
816	FILTER BLANKET		1667	SQ. YD.
816	DUMPED RIPRAP		834	CU. YD.

* DENOTES ALTERNATE BID ITEMS.

REVISIONS

DATE	REVISION	SHEET NUMBER
1/21/2016	REMOVED "OFF-SITE RESTRAINING CONDITIONS FOR BATS" SPECIAL PROVISION.	2, 58
1/28/2016	REMOVED "PERCENT WITHIN LIMITS/PAVEMENT SMOOTHNESS" SPECIAL PROVISION	2, 58
2/3/2016	REVISED QUANTITIES FOR AGGREGATE BASE COURSE (CLASS 7), TACK COAT, MINERAL AGGREGATE IN ACHM BINDER COURSE (1"), ASPHALT BINDER (PG 64-22) IN ACHM BINDER COURSE (1"), MINERAL AGGREGATE IN ACHM SURFACE COURSE (1/2"), ASPHALT BINDER (PG 64-22) IN ACHM SURFACE COURSE (1/2"). REMOVED "SPECIAL CLEARING REQUIREMENTS" SPECIAL PROVISION.	2, 57, 58

2/2/2016

R080426.DGN

SUMMARY OF QUANTITIES & 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.		080426	59	271

(2) SURVEY CONTROL DETAILS

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
12-4-15

SURVEY CONTROL COORDINATES

Project Name: s080426
Date: 11/14/2012
Coordinate System: ARKANSAS STATE PLANE - NORTH/SOUTH ZONE BASED ON GPS CONTROL. PROJECTED TO GROUND.
Units: U.S. SURVEY FOOT

Point Name	Northing	Easting	Elev	Feature	Description
1	361669.2119	1175901.1460	407.51	CTL	•5/8" REBAR W/2" ALUM. CAP
2	361159.6155	1176240.5702	365.22	CTL	•5/8" REBAR W/2" ALUM. CAP
3	360405.4898	1176226.0832	333.59	CTL	•5/8" REBAR W/2" ALUM. CAP
4	359652.3071	1176181.0589	330.49	CTL	•5/8" REBAR W/2" ALUM. CAP
5	358907.4400	1176133.1435	332.14	CTL	•5/8" REBAR W/2" ALUM. CAP
6	358372.9818	1175879.4664	357.50	CTL	•5/8" REBAR W/2" ALUM. CAP
7	357886.8892	1175796.4435	394.14	CTL	•5/8" REBAR W/2" ALUM. CAP, 34.5'W. OF EP
8	357242.6353	1175898.8488	394.60	CTL	•5/8" REBAR W/2" ALUM. CAP
9	356732.4159	1175901.9490	424.33	CTL	•5/8" REBAR W/2" ALUM. CAP
10	356075.0540	1175531.4556	477.62	CTL	•5/8" REBAR W/2" ALUM. CAP
11	355657.8453	1174982.4805	517.88	CTL	•5/8" REBAR W/2" ALUM. CAP
12	355402.5161	1174528.9612	550.43	CTL	•5/8" REBAR W/2" ALUM. CAP
13	355073.9766	1174005.8919	592.77	CTL	•5/8" REBAR W/2" ALUM. CAP
14	354746.9333	1173768.7360	614.75	CTL	•5/8" REBAR W/2" ALUM. CAP
15	354080.6758	1173627.1489	580.03	CTL	•5/8" REBAR W/2" ALUM. CAP
16	353502.0556	1173499.9728	562.46	CTL	•5/8" REBAR W/2" ALUM. CAP
17	353044.5379	1173332.9179	552.96	CTL	•5/8" REBAR W/2" ALUM. CAP
18	352490.5144	1173068.2640	521.78	CTL	•5/8" REBAR W/2" ALUM. CAP
19	351948.7858	1172835.1384	480.98	CTL	•5/8" REBAR W/2" ALUM. CAP
20	351461.3521	1172656.7187	456.06	CTL	•5/8" REBAR W/2" ALUM. CAP
21	350870.0329	1172373.8855	433.92	CTL	•5/8" REBAR W/2" ALUM. CAP
22	350300.3963	1172235.9077	408.63	CTL	•5/8" REBAR W/2" ALUM. CAP
23	349650.3049	1172114.3400	387.86	CTL	•5/8" REBAR W/2" ALUM. CAP
24	349125.2865	1171738.9822	377.89	CTL	•5/8" REBAR W/2" ALUM. CAP
25	348687.1823	1171387.1212	370.05	CTL	•5/8" REBAR W/2" ALUM. CAP
26	348275.2069	1171161.6101	361.77	CTL	•5/8" REBAR W/2" ALUM. CAP
27	346898.7048	1171509.0338	311.62	CTL	•5/8" REBAR W/2" ALUM. CAP
28	346576.8678	1171989.1221	339.61	CTL	•5/8" REBAR W/2" ALUM. CAP
29	346200.5040	1172441.0443	373.56	CTL	•5/8" REBAR W/2" ALUM. CAP
30	345750.0269	1172581.3543	400.03	CTL	•5/8" REBAR W/2" ALUM. CAP
31	345275.1100	1172485.8035	418.42	CTL	•5/8" REBAR W/2" ALUM. CAP
32	344984.6303	1172370.5183	414.29	CTL	•5/8" REBAR W/2" ALUM. CAP
33	344814.7762	1171936.1653	438.47	CTL	•5/8" REBAR W/2" ALUM. CAP
34	344208.1079	1171865.2912	482.54	CTL	•5/8" REBAR W/2" ALUM. CAP
35	343665.6863	1171878.8672	501.07	CTL	•5/8" REBAR W/2" ALUM. CAP
36	342831.3448	1171829.9267	545.05	CTL	•5/8" REBAR W/2" ALUM. CAP
37	342279.6294	1171749.8120	556.14	CTL	•5/8" REBAR W/2" ALUM. CAP
38	341731.6964	1171602.3255	561.29	CTL	•5/8" REBAR W/2" ALUM. CAP
39	341284.6575	1171135.7352	533.06	CTL	•5/8" REBAR W/2" ALUM. CAP
40	340665.4034	1170795.1809	497.62	CTL	•5/8" REBAR W/2" ALUM. CAP
41	340259.1294	1170643.5341	471.94	CTL	•5/8" REBAR W/2" ALUM. CAP
42	339746.4318	1170738.9279	435.06	CTL	•5/8" REBAR W/2" ALUM. CAP
43	339126.8947	1170544.8951	392.58	CTL	•5/8" REBAR W/2" ALUM. CAP
44	338450.6064	1170320.5691	364.19	CTL	•5/8" REBAR W/2" ALUM. CAP
45	337644.5200	1170249.5871	344.00	CTL	•5/8" REBAR W/2" ALUM. CAP
46	337017.7613	1170211.4643	335.74	CTL	•5/8" REBAR W/2" ALUM. CAP
47	336222.8806	1170227.3485	328.81	CTL	•5/8" REBAR W/2" ALUM. CAP
48	335495.6388	1170178.5110	319.85	CTL	•5/8" REBAR W/2" ALUM. CAP
49	334776.0105	1170137.3510	319.99	CTL	•5/8" REBAR W/2" ALUM. CAP
100	334136.6399	1170159.6656	313.84	GPS	•AHTD GPS MON 230017
101	332311.5047	1170129.4375	307.43	GPS	•AHTD GPS MON 230017A
102	362056.3455	1176065.2547	436.03	GPS	•AHTD GPS MON 230032
103	361923.8280	1174701.9805	443.17	GPS	•AHTD GPS MON 230032A
104	347503.1549	1171092.7182	330.75	GPS	•AHTD GPS MON 230033
105	346516.5747	1171748.5139	324.70	GPS	•AHTD GPS MON 230033A
900	361461.4080	1170091.0207	404.71	TBM	•CHISELED SQ. SW COR HEADWALL
901	361452.4644	1176056.8861	389.24	TBM	•CHISELED SQ. NW COR HEADWALL
902	359984.9728	1176193.9429	338.21	TBM	•AHTD 3.75" ALUM. CAP
903	358486.4309	1175943.1870	345.15	TBM	•CHISELED SQ. NE COR OF 1ST HEADWALL
904	358205.4989	1175814.5338	369.76	TBM	•CHISELED SQ. SW COR OF 2ND HEADWALL
905	358122.2320	1175818.8021	371.53	TBM	•CHISELED SQ. SW COR OF 3RD HEADWALL
906	357382.9593	1175917.3251	386.93	TBM	•AHTD 3.75" ALUM. CAP SET IN NE
907	356690.8989	1175891.2953	425.23	TBM	•CHISELED SQ. NW COR OF HEADWALL
908	356309.3907	1175698.4425	452.88	TBM	•CHISELED SQ. NE COR HEADWALL
909	355583.6810	1174857.7286	528.32	TBM	•CHISELED SQ. NE COR HEADWALL
910	355508.9106	1174724.8591	538.35	TBM	•CHISELED SQ. NE COR HEADWALL
911	355396.3656	1174518.7384	552.73	TBM	•CHISELED SQ. NE COR HEADWALL
912	353858.4410	1173590.0502	566.58	TBM	•CHISELED SQ. SW COR HEADWALL
913	353386.0563	1173449.7422	560.07	TBM	•CHISELED SQ. ON TOP OF HEADWALL
914	352664.6819	1173141.3132	526.24	TBM	•W. SIDE OF HEADWALL, Y. 285
915	351819.4376	1172782.0876	472.58	TBM	•CHISELED SQ. ON TOP OF HEADWALL
916	351200.8905	1172544.6037	435.88	TBM	•CHISELED SQ. ON TOP OF HEADWALL
917	351029.0652	1172444.5895	434.44	TBM	•CHISELED SQ. ON TOP OF HEADWALL
918	346901.6610	1171494.9518	315.33	TBM	•CHISELED SQ. ON TOP OF
919	345052.9382	1172386.8904	412.58	TBM	•SET CPS IN PP W. SIDE OF HWY. 28
920	342079.0031	1171722.3051	551.82	TBM	•CHISELED SQ. NE COR HEADWALL
921	341579.3635	1171465.3947	548.70	TBM	•CHISELED SQ. NE COR HEADWALL
922	340070.1679	1170696.5649	460.10	TBM	•CHISELED SQ. ON TOP OF HEADWALL
923	338693.5868	1170367.4435	373.82	TBM	•CHISELED SQ. ON TOP OF HEADWALL
924	336119.6103	1170201.1576	328.92	TBM	•CHISELED SQ. ON TOP OF HEADWALL
925	333188.9013	1170187.2436	297.06	TBM	•AHTD 3.75" ALUM. CAP SET
926	366534.4367	1181743.8606	474.45	TBM	•CHISELED SQ. NW COR HEADWALL
927	364443.8997	1181145.7039	501.17	TBM	•CHISELED SQ. ON TOP OF HEADWALL
928	364370.7735	1180450.6074	504.20	TBM	•CHISELED SQ. ON TOP OF HEADWALL
990	359961.9641	1167484.0449	339.05	BM	•USCGS CAP STAMPED "M209 1962"
991	369599.1832	1183048.1715	587.20	BM	•USCGS CAP STAMPED "D12 1934"

•Note - Rebar and Cap - Standard -•" Rebar with 2" Aluminum Cap stamped
•(standard markings common to all caps), or as indicated
(other markings indicated in the point description of the individual point).
ALL DISTANCES ARE GROUND.
USE CAF = 1.0 FOR STAKEOUT FOR THIS PROJECT.
A PROJECT CAF OF 0.999928703 2 HAS BEEN USED TO COMPUTE THE ABOVE LISTED GROUND COORDINATES.
THIS CAF IS INTENDED FOR USE WITHIN THE PROJECT LIMITS.
GRID DISTANCE = GROUND DISTANCE X CAF.
GROUND COORDINATES ARE PROJECTED FROM AR. STATE PLANE GRID COORDINATES BY SCALING ALL X,Y COORDINATE VALUES WITH THE INVERSE (1/X) OF THE COMBINED AJUSTMENT FACTOR (CAF) ABOUT X=0, Y=0.

GRID COORDINATES ARE STORED UNDER FILE NAME. s080426GI.CTL
HORIZONTAL DATUM: NAD 83 (1997)
VERTICAL DATUM: NAVD 88 ELEVATIONS FOR POINTS 1-49, 100-105, AND 900-928 & 990-991 WERE ESTABLISHED BY 3-WIRE LEVEL TECHNIQUES FROM NGS BENCH-MARKS.

POSITIONAL ACCURACY:

HORIZONTAL-GPS(POINTS 100-105): 1.0 CM 10 PPM, PRIMARY CONTROL(POINTS 1-49): 2.0 CM 20 PPM

VERTICAL-POSITIONAL ACCURACY IS THIRD ORDER, UNLESS SPECIFIED OTHERWISE AT A SPECIFIC POINT

BASIS OF BEARING:
ARKANSAS STATE PLANE GRID BEARINGS - 0301-NORTH ZONE
DETERMINED FROM GPS CONTROL POINTS: 230017 - 230017A, 230032 - 230032A, 230033 - 230033A
CONVERGENCE ANGLE: 00 16 25 LEFT AT PN: 23
GRID AZIMUTH = ASTRONOMICAL AZIMUTH - CONVERGENCE ANGLE.

LT: 35-05-52.49 LG: 092-02-48.65

GRID NORTHING: 349625.3760 GRID EASTING: 1172030.7720

GROUND NORTHING: 349650.3049 GROUND EASTING: 1172114.3400

HWY. 285
SITE 1

POINT NO.	TYPE	STATION	NORTHING	EASTING
1	POB	111•40.00	335763.5272	1170206.0199
8000	PI	112•40.00	335863.4767	1170209.3491
8001	PI	115•54.04	336177.4724	1170214.6098
8002	PI	117•14.62	336338.0092	1170217.9527
8003	PI	123•57.23	336980.3912	1170235.1169
8042	PI	125•73.73	337196.7045	1170244.1390
8043	PI	129•94.89	337617.3548	1170264.9229
8044	PI	136•86.96	338308.5260	1170300.2125
8045	PC	138•47.98	338469.2808	1170309.4038
8046	PT	141•70.30	338777.7584	1170394.2291
8047	PC	143•79.39	338963.2624	1170490.7059
8048	PT	146•63.16	339227.4615	1170592.6425
8049	PC	151•14.83	339664.3074	1170707.3973
8050	PT	154•72.17	340017.2001	1170701.9072
8051	PC	155•48.30	340090.1963	1170680.2833
8052	PT	159•25.60	340457.6237	1170710.9047
8053	PI	164•36.75	340916.9257	1170935.2105
8054	PC	165•80.93	341045.2704	1171000.8991
8055	PT	170•32.60	341406.9113	1171268.1346
8056	PC	171•64.70	341498.9746	1171362.8757
8057	PT	175•00.94	341782.6026	1171536.8965
8058	PC	180•86.84	342342.1727	1171710.5558
8059	PT	185•19.18	342763.1799	1171807.1180
8060	PC	187•47.85	342989.2811	1171841.2901
8061	PT	190•59.60	343299.8612	1171864.6968
8062	PI	193•76.04	343616.2948	1171864.8370
8063	PI	197•56.38	343996.5181	1171874.5260
8064	PI	199•37.08	344177.1341	1171879.8346
8126	PC	203•43.69	344583.6263	1171889.6990
8128	PT	207•10.38	344905.8641	1172041.5042
8129	PC	210•30.12	345115.3783	1172283.0316
8131	PT	225•33.06	346413.4173	1172202.6606
8074	POE	226•97.47	346505.0097	1172066.1202

HWY. 285
SITE 2

POINT NO.	TYPE	STATION	NORTHING	EASTING
8075	POB	246•85.00	347956.3765	1171124.0503
8076	PI	247•84.99	348055.6117	1171136.3481
8077	PC	248•36.51	348106.7347	1171142.6828
8078	PT	253•66.65	348594.1449	1171336.2182
8079	PC	265•60.46	349556.8913	1172042.1169
8080	PT	270•32.54	349991.2597	1172213.3319
8081	PC	275•18.80	350474.1246	1172270.7082
8082	PT	278•48.64	350791.5789	1172355.9453
8083	PI	284•44.09	351338.5372	1172591.3067
8084	PI	299•03.71	352680.9697	1173164.3452
8085	PI	303•54.39	353094.9323	1173342.5302
8086	PC	307•88.26	353494.0611	1173512.6470
8087	PT	310•63.99	353758.2101	1173589.3766
8088	PC	315•39.41	354227.3659	1173666.2892
8089	PT	328•09.07	355237.3290	1174365.7074
8090	PC	337•02.29	355682.6386	1175140.0142
8091	PT	342•20.98	356040.3191	1175508.2426
8092	PC	347•18.79	356464.4573	1175768.8527
8093	PT	352•04.68	356927.8608	1175889.2358
8094	POE	353•73.14	357096.1699	1175882.0531

HWY. 285
SITE 3

POINT NO.	TYPE	STATION	NORTHING	EASTING
8095	POB	363•00.00	357995.3391	1175843.4519
8096	PI	364•00.00	358095.2927	1175840.2458
8097	PC	364•83.14	358178.3502	1175836.7499
8098	PT	368•30.13	358503.5233	1175937.0776
8099	PC	369•63.30	358610.2868	1176016.6680
8100	PT	372•69.39	358893.9891	1176119.3737
8101	PI	378•00.00	359423.8297	1176148.0557
8102	POE	378•99.91	359523.6416	1176152.4574

HWY. 285
SITE 4

POINT NO.	TYPE	STATION	NORTHING	EASTING
8103	POB	391•45.00	360766.8214	1176219.7548
8104	PC	394•60.88	361082.2395	1176236.8294
8105	PT	397•92.34	361392.2867	1176140.8337
8106	PC	397•98.08	361396.8377	1176137.3409
8107	PT	406•03.18	362108.7039	1176247.3949
8108	POE	410•36.34	362356.6460	1176602.5730

HWY. 124
SITE 4

POINT NO.	TYPE	STATION	NORTHING	EASTING
8109	POB	499•12.26	361998.2483	1175441.1494
8110	PC	500•14.43	362012.8857	1175542.2579
8111	PT	505•40.63	361933.0005	1176054.4905
8112	POE	505•74.17	361918.3136	1176084.6490

W. REPUBLICAN ROAD

POINT NO.	TYPE	STATION	NORTHING	EASTING
8114	POB	599•94.33	345292.7471	1172436.2795
8115	PC	599•97.82	345291.3198	1172439.4608
8132	PT	603•67.40	345208.2247	1172797.2202
8133	PC	605•15.75	345203.0775	1172945.4766
8135	PT	606•86.38	345180.7394	1173114.3750
8136	POE	608•68.03	345139.6319	1173291.3075

MALLETT TOWN RD.

POINT NO.	TYPE	STATION	NORTHING	EASTING
8113	PI	800•00.00	345240.7793	1172399.2219

11/20/2015

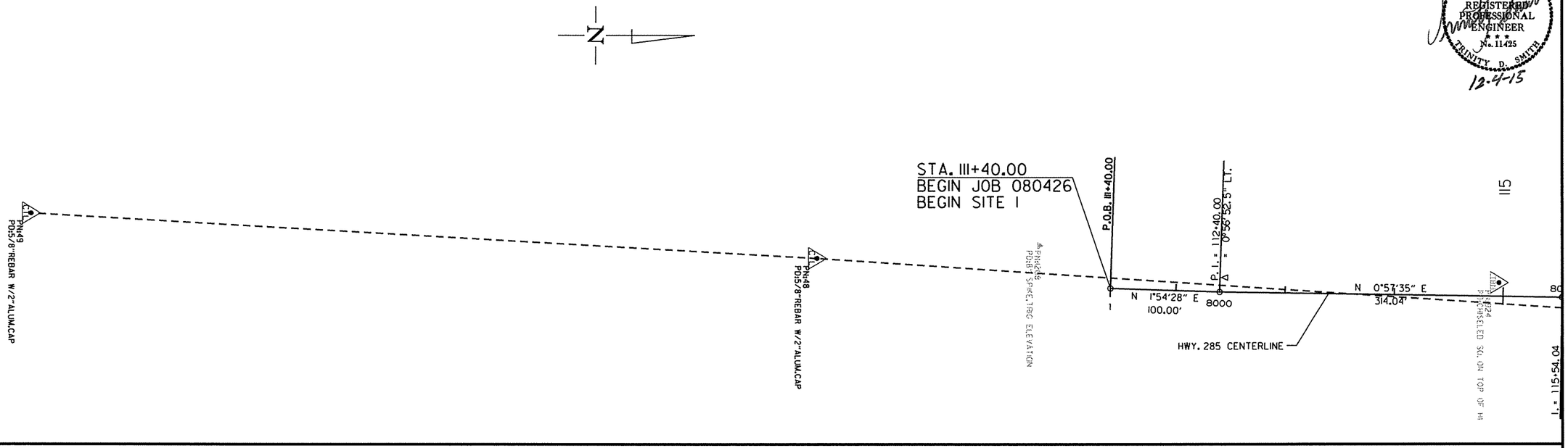
R080426.DGN

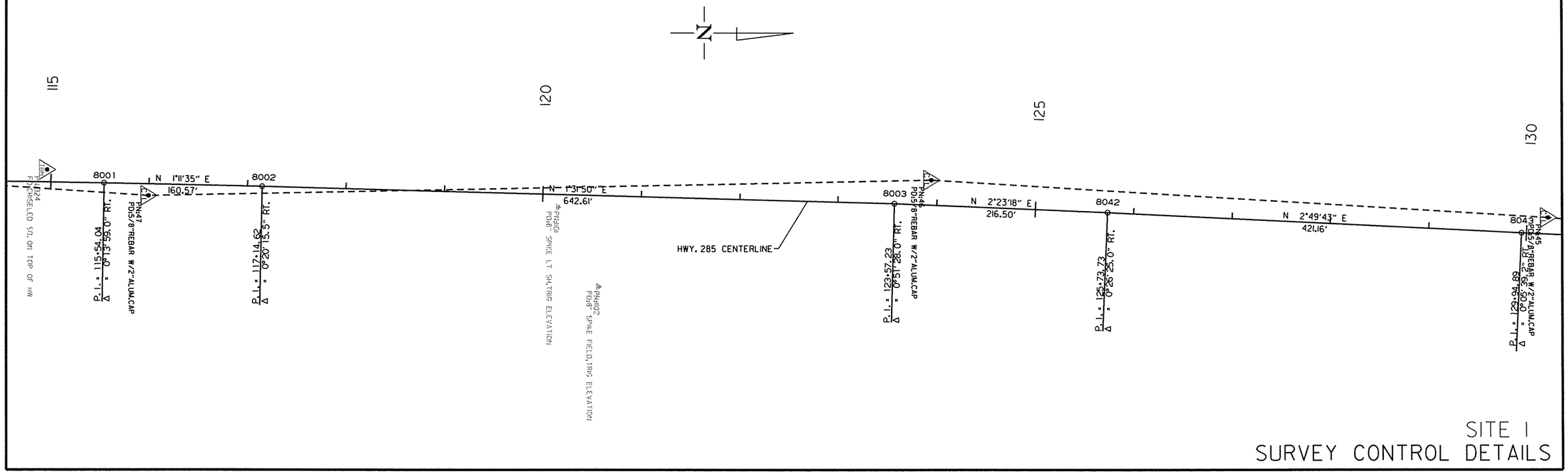
SURVEY CONTROL DETAILS

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.		080426	60	271

(2) SURVEY CONTROL DETAILS

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
12-4-15





11/20/2015

R080426.DGN

SITE 1
SURVEY 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.		080426	61	271

(2) SURVEY CONTROL DETAILS

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
12-4-15

130

135

140

145

8044

8045

8046

8047

N 2°55'22" E
692.07'

HWY. 285 CENTERLINE

N 3°16'21" E
161.02'

N 27°28'41" E
209.09'

P.I. 136+86.96
Δ = 0°20'58.3" RT.

PK#44
PD5/8"REBAR W/2"ALUM.CAP

P.C. 138+47.98

P.I. 140+11.58

P.T. 141+70.30

P.C. 143+79.39

P.I. 145+21.87

PK#45
PD5/8"REBAR W/2"ALUM.CAP

HWY. 285
PI = 140+11.58
Δ = 24°12'20"RT.
D = 7°30'35"
T = 163.60'
L = 322.32'
PC = 138+47.98
PT = 141+70.30
e = 0.081'/'
Ls = 250'

HWY. 285
PI = 145+21.87
Δ = 12°45'35"LT.
D = 4°29'47"
T = 142.47'
L = 283.77'
PC = 143+79.39
PT = 146+63.16
e = 0.056'/'
Ls = 200'

145

150

151

160

8048

8049

8050

8051

8052

N 14°43'06" E
451.67'

HWY. 285 CENTERLINE

P.I. 145+21.87

P.T. 146+63.16

P.C. 151+14.83

P.I. 152+98.05

P.T. 154+72.17

P.I. 157+46.12

P.T. 159+25.60

PK#42
PD5/8"REBAR W/2"ALUM.CAP

PK#43
PD5/8"REBAR W/2"ALUM.CAP

PK#41
PD5/8"REBAR W/2"ALUM.CAP

HWY. 285
PI = 145+21.87
Δ = 12°45'35"LT.
D = 4°29'47"
T = 142.47'
L = 283.77'
PC = 143+79.39
PT = 146+63.16
e = 0.056'/'
Ls = 200'

HWY. 285
PI = 152+98.05
Δ = 31°13'10"LT.
D = 8°44'12"
T = 183.23'
L = 357.34'
PC = 151+14.83
PT = 154+72.17
e = 0.088'/'
Ls = 250'

HWY. 285
PI = 157+46.12
Δ = 42°31'49"RT.
D = 11°16'20"
T = 197.82'
L = 377.30'
PC = 155+48.30
PT = 159+25.60
e = 0.098'/'
Ls = 250'

11/20/2015

R080426.DGN

SITE I
SURVEY 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.		080426	62	271

(2) SURVEY CONTROL DETAILS

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
12-2-15

160 | 165 | 170 | 175

8053 N 27°06'15" E 144.18' 8054

N 26°01'45" E 511.15'

P.I. 164+36.75 Δ = 1°04'23.6" RT.

P.C. 165+80.93

P.I. 168+08.79

HWY. 285
PI = 168+08.79
Δ = 18°43'02"RT.
D = 4°08'38"
T = 227.87'
L = 451.67'
PC = 165+80.93
PT = 170+32.60
e = 0.053'/'
Ls = 200'

8055 N 45°48'16" E 132.10' 8056

P.T. 170+32.60

P.C. 171+64.70

HWY. 285
PI = 173+36.40
Δ = 28°38'47"LT.
D = 8°30'00"
T = 171.69'
L = 336.23'
PC = 171+64.70
PT = 175+00.94
e = 0.087'/'
Ls = 250'

P.T. 175+00.94

8057

P.I. 173+36.40

HWY. 285 CENTERLINE

PN39 PD5/8"REBAR W/2"ALUM.CAP

PN40 PD5/8"REBAR W/2"ALUM.CAP

PN38 PD5/8"REBAR W/2"ALUM.CAP

PN320 PD6"HOSELED SQ. NE COR HH

PN321 PD4"HOSELED SQ. NE COR HH

PK NAIL PD3" SPIKE

PK NAIL PD3" SPIKE LT SNTRRG ELEVATION

PK NAIL PD3" SPIKE RT SNTRRG ELEVATION

175 | 180 | 185 | 190

8057 N 17°14'29" E 585.90' 8058

P.T. 175+00.94

P.C. 180+86.84

HWY. 285
PI = 183+03.42
Δ = 8°38'49"LT.
D = 2°00'00"
T = 216.59'
L = 432.35'
PC = 180+86.84
PT = 185+19.18
e = 0.028'/'
Ls = 250'

8059 N 8°35'40" E 228.67' 8060

P.T. 185+19.18

P.C. 187+47.85

HWY. 285
PI = 189+04.02
Δ = 8°34'09"LT.
D = 2°44'55"
T = 156.17'
L = 311.75'
PC = 187+47.85
PT = 190+59.60
e = 0.037'/'
Ls = 200'

P.I. 183+03.42

HWY. 285 CENTERLINE

P.I. 189+04.02

PN38 PD5/8"REBAR W/2"ALUM.CAP

PN320 PD6"HOSELED SQ. NE COR HH

PN37 PD5/8"REBAR W/2"ALUM.CAP

PK NAIL PD3" SPIKE PT SNTRRG ELEVATION

PN36 PD5/8"REBAR W/2"ALUM.CAP

11/20/2015

R080426.DGN

SITE I
SURVEY 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.		080426	63	271

(2) SURVEY CONTROL DETAILS

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
12-4-15

190 | 195 | 200

P.T. 190+59.60

8061

N 0°01'31" E
316.43'

8062

PK NAIL
PD38 SPIKE RT STA TRAV

PN35
PD5/8"REBAR W/2"ALUM.CAP

P.I. = 193+76.04
Δ = 1°28'03.6" RT.

N 1°27'35" E
380.39'

HWY. 285 CENTERLINE

8063

PK NAIL
PD38 SPIKE RT STA TRAV

P.I. = 197+56.38
Δ = 0°13'25.7" RT.

N 1°41'01" E
180.69'

P.I. = 199+37.08
Δ = 0°14'36.3" LT.

PN34
PD5/8"REBAR W/2"ALUM.CAP

8064

N 1°23'24" E
406.61'

8126

PK NAIL
PD38 SPIKE RT STA TRAV

P.C. 203+43.69

HWY. 285
PI = 205+38.40
Δ = 47°40'11"RT.
D = 13°00'00"
T = 194.71'
L = 366.69'
PC = 203+43.69
PT = 207+10.38
e = 0.100'/'
Ls = 250'

205 | 210 | 215 | 220

P.I. 205+38.40

PN33
PD5/8"REBAR W/2"ALUM.CAP

8128

P.T. 207+10.38

N 49°03'35" E
319.74'

8129

P.C. 210+30.12

HWY. 285 CENTERLINE

P.I. 804+01.

PK NAIL
PD38 SPIKE
ROAD ELEVATION

P.C. 802+43.64

PK NAIL
PD38 SPIKE

N 81°47'48" W
243.64'

MALLETT TOWN RD.

PK NAIL
PD38 SPIKE RT STA TRAV

STA. 212+01.87 HWY. 285
= STA. 799+99.16 MALLETT TOWN ROAD
=64°31'12.06"

STA. 212+01.95 HWY. 285
= STA. 600+00.88 W REPUBLICAN RD
=60°00'00.00"

N 81°47'48" W
81.14

S 65°59'11" E
3.48'

P.I. 800+00.00

P.C. 599+97.82

PK NAIL
PD38 SPIKE
ROAD ELEVATION

PN32
PD5/8"REBAR W/2"ALUM.CAP

PK NAIL
PD38 SPIKE
CL PS IN PP IN SIDE OF HWY. 28

PN31
PD5/8"REBAR W/2"ALUM.CAP

PK NAIL
PD38 SPIKE

DETOUR WEST REPUBLICAN RD.

P.I. 601+84.95

WEST REPUBLICAN RD.

PN30
PD5/8"REBAR W/2"ALUM.CAP

PK NAIL
PD38 SPIKE LT DITCH TRAV ELEVATION

HWY. 285
PI = 221+00.80
Δ = 105°12'21"LT.
D = 7°00'00"
T = 1070.68'
L = 1502.94'
PC = 210+30.12
PT = 225+33.06
e = 0.078'/'
Ls = 250'

11/20/2015

R080426.DGN

SITE I
SURVEY 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.		080426	64	271

(2) SURVEY CONTROL DETAILS

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
12-4-15

HWY. 285
PI = 221+00.80
Δ = 105°12'21"LT.
D = 7°00'00"
T = 1070.68'
L = 1502.94'
PC = 210+30.12
PT = 225+33.06
e = 0.078'/'
Ls = 250'

220

225

P.T. 225+33.06

N 56°08'46" W
164.42'

8131

8074

P.O.E. 226+91.47

STA. 226+97.47
END SITE I

HWY. 285 CENTERLINE

PK NAIL & WASHER W/ALUM.CAP

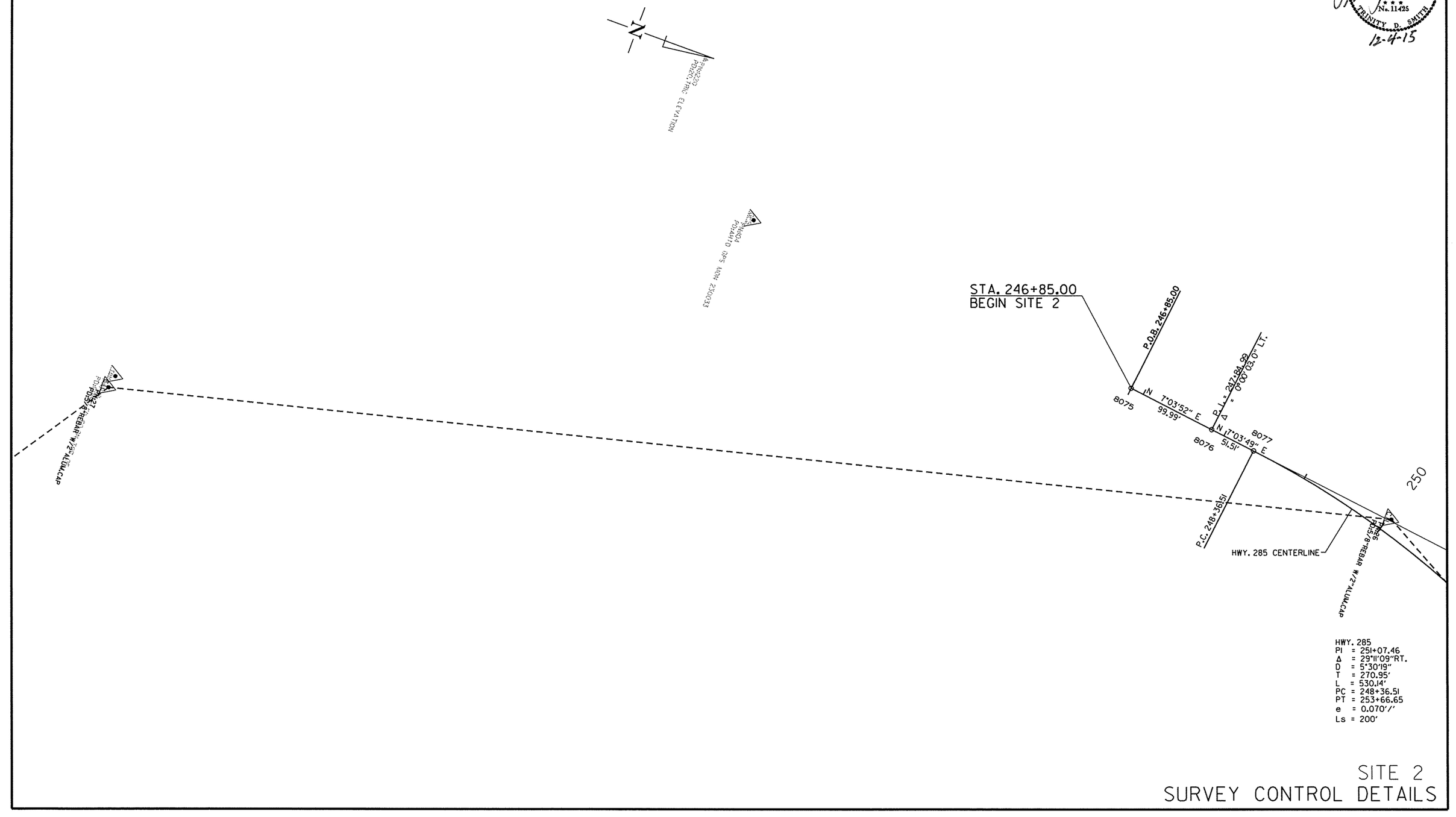
PK NAIL & WASHER W/ALUM.CAP

PK NAIL & WASHER W/ALUM.CAP

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.		080426	65	271

(2) SURVEY CONTROL DETAILS

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
12-4-15



HWY. 285
PI = 251+07.46
Δ = 29°11'09"RT.
D = 5°30'19"
T = 270.95'
L = 530.14'
PC = 248+36.51
PT = 253+66.65
e = 0.070'/'
Ls = 200'

SITE 2
SURVEY CONTROL DETAILS

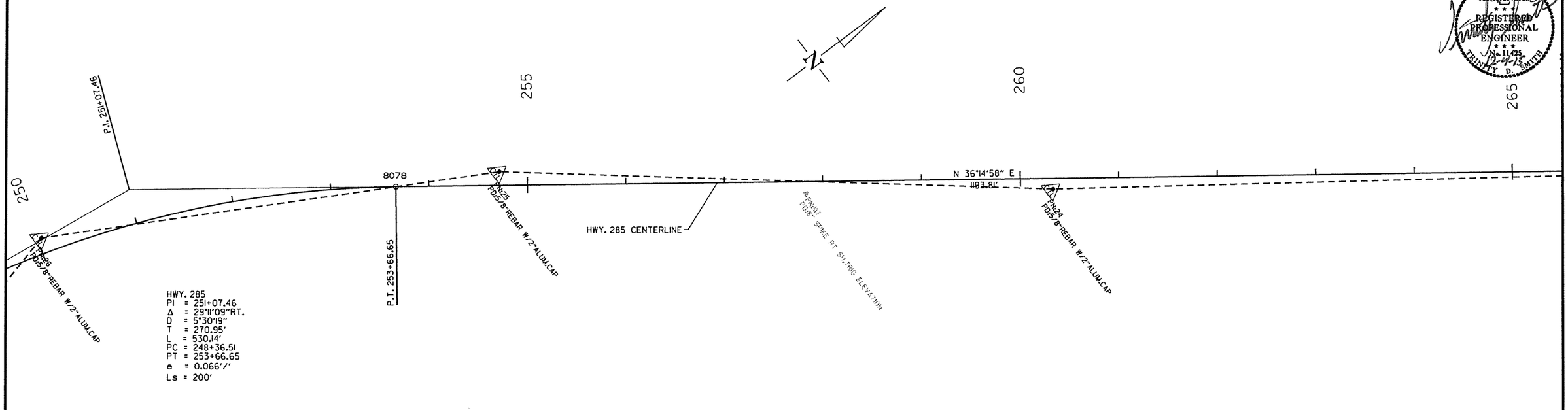
11/20/2015

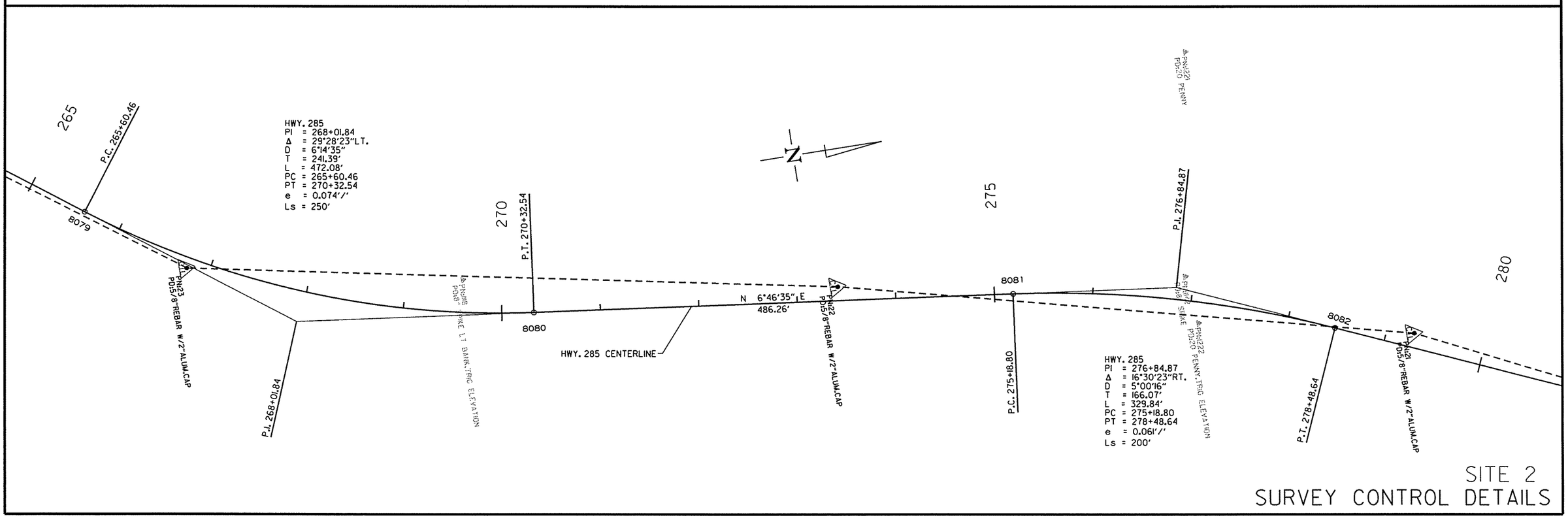
R080426.DGN

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		080426	66	271

(2) SURVEY CONTROL DETAILS

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11495
12-09-15
TRINITY D. SMITH





11/20/2015

R080426.DGN

SITE 2
SURVEY 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.		080426	67	271

(2) SURVEY CONTROL DETAILS

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
12-4-15

280 285 290 295

N 23°16'58" E
595.45'

P.I. = 284+44.09
Δ = 0°10'00.1" LT.

8083

PNZ0 PD5/8"REBAR W/2" ALUM.CAP

HWY. 285 CENTERLINE

PNZ5 PD5/8"REBAR W/2" ALUM.CAP

N 23°06'58" E
1459.62'

295 300 305 310

N 23°17'20" E
450.68'

P.I. = 293+03.71
Δ = 0°10'22.3" RT.

8084

PNU8 PD5/8"REBAR W/2" ALUM.CAP

HWY. 285 CENTERLINE

P.I. = 303+54.33
Δ = 0°12'15.0" LT.

8085

PNU7 PD5/8"REBAR W/2" ALUM.CAP

N 23°05'05" E
433.87'

P.C. 307+88.26

8086

PNU6 PD5/8"REBAR W/2" ALUM.CAP

HWY. 285
PI = 309+26.79
Δ = 13°46'28"LT.
D = 4°59'44"
T = 138.53'
L = 275.73'
PC = 307+88.26
PT = 310+63.99
e = 0.061'/'
Ls = 200'

P.I. 309+26.79

P.T. 310+63.99

11/20/2015

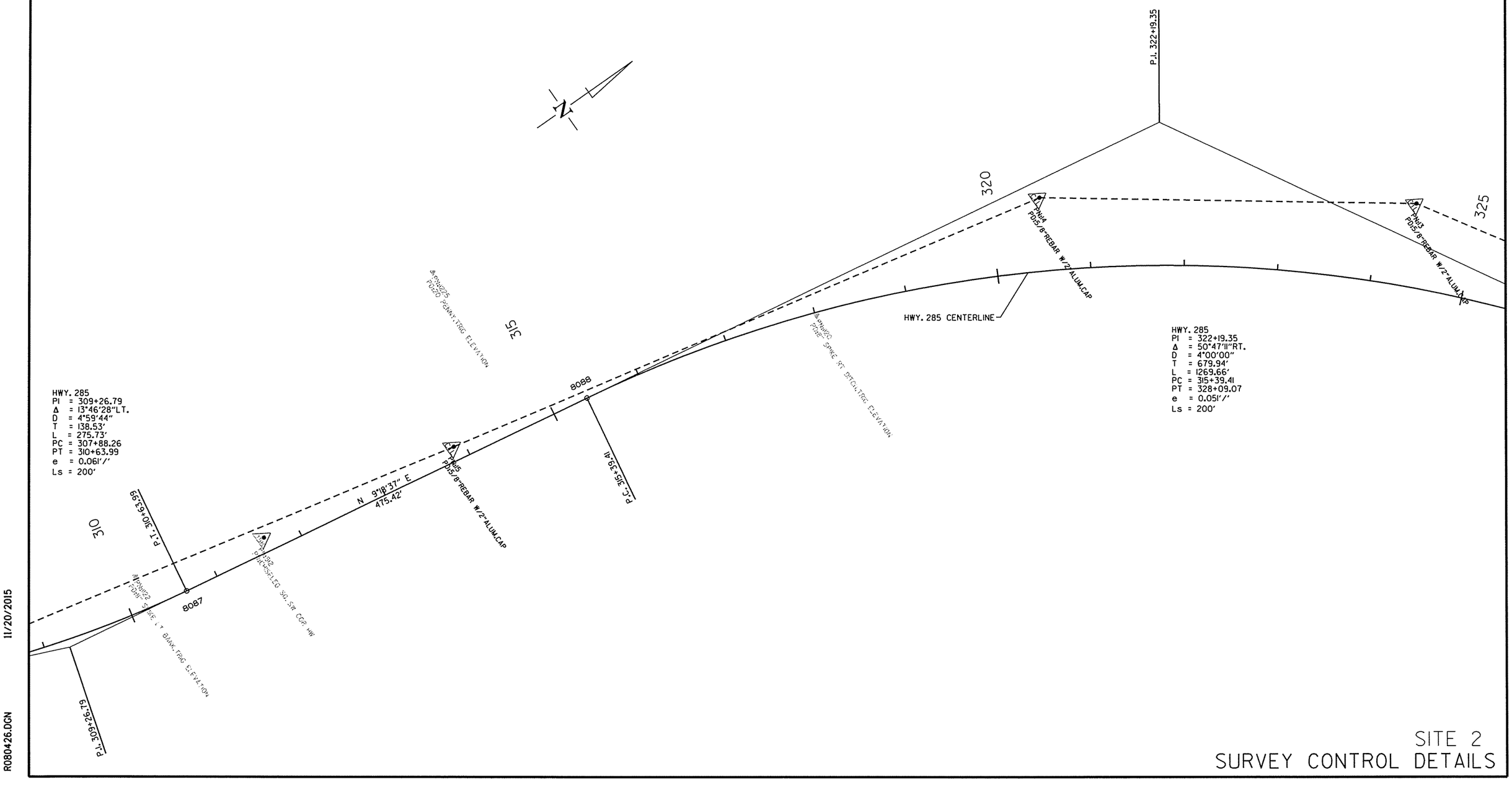
R080426.DGN

SITE 2
SURVEY 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.		080426	68	271

(2) SURVEY CONTROL DETAILS

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
12-4-15



SITE 2
SURVEY CONTROL DETAILS

11/20/2015

R080426.DGN

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		080426	69	271

(2) SURVEY CONTROL DETAILS

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
12-4-15

HWY. 285
PI = 339+67.13
Δ = 28°31'41"LT.
D = 5°30'00"
T = 264.84'
L = 518.69'
PC = 337+02.29
PT = 342+20.98
e = 0.066'/'
Ls = 200'

HWY. 285
PI = 322+19.35
Δ = 50°47'11"RT.
D = 4°00'00"
T = 679.94'
L = 1269.66'
PC = 315+39.41
PT = 328+09.07
e = 0.051'/'
Ls = 200'

HWY. 285
PI = 339+67.13
Δ = 28°31'41"LT.
D = 5°30'00"
T = 264.84'
L = 518.69'
PC = 337+02.29
PT = 342+20.98
e = 0.066'/'
Ls = 200'

HWY. 285
PI = 349+69.13
Δ = 34°00'44"LT.
D = 7°00'00"
T = 250.34'
L = 485.89'
PC = 347+18.79
PT = 352+04.68
e = 0.078'/'
Ls = 250'

STA. 353+73.14
END SITE 2

SITE 2
SURVEY CONTROL DETAILS

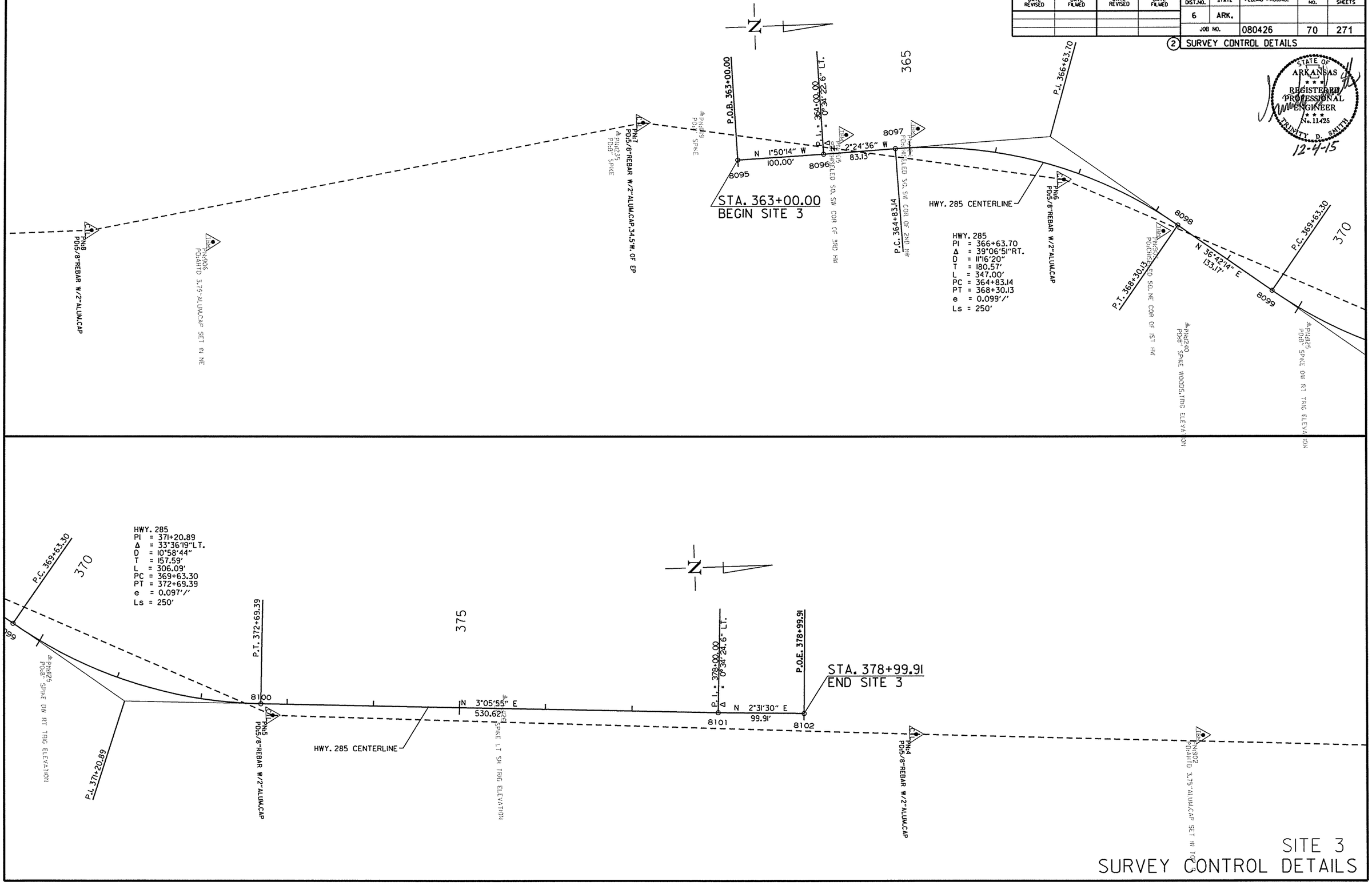
11/20/2015

R080426.DGN

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		080426	70	271

(2) SURVEY CONTROL DETAILS

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
12-4-15



SITE 3
SURVEY CONTROL DETAILS

11/20/2015

R080426.DGN

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		080426	71	271

(2) SURVEY CONTROL DETAILS

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
12-4-15

PNI1 FD5/8"REBAR W/2"ALUM.CAP

P.O.B. 391+45.00
STA. 391+45.00
BEGIN SITE 4

8103

N 3°05'55" E
315.88'

P.C. 394+60.88

8104

HWY. 285 CENTERLINE

PNI2 FD5/8"REBAR W/2"ALUM.CAP

HWY. 285
PI = 396+33.91
Δ = 40°36'14"LT.
D = 12°15'00"
T = 173.03'
L = 331.46'
PC = 394+60.88
PT = 397+92.34
e = 0.100'/'
Ls = 250'

P.T. 391+92.34

8105

N 37°30'19" W
55.74'

8106

P.C. 391+36.88

PNI3 FD5/8"REBAR W/2"ALUM.CAP

P.I. 396+33.91

PNI4 FD5/8"REBAR W/2"ALUM.CAP

395

400

405

410

HWY. 124 CENTERLINE

P.I. 403+19.32

505

PNI02 FD:4HTD GPS MON. 2500

505+40.63 P.T.

S 64°02'08" E
833.54'

8111

8112

STA. 505+74.17 ON HWY. 124 =
STA. 403+50.00 ON HWY. 285
Δ=90°00'00"

P.T. 406+03.18

HWY. 285
PI = 403+19.32
Δ = 92°35'14"RT.
D = 11°30'00"
T = 521.25'
L = 805.11'
PC = 397+98.08
PT = 406+03.18
e = 0.099'/'
Ls = 250'

PNI1 FD:5/8"REBAR W/2"ALUM.CAP

N 55°04'55" E
433.16'

8107

STA. 408+00.00
END JOB 080426
END SITE 4

P.O.E. 410+36.34

8108

HWY. 285 CENTERLINE

PNI500 FD:5/8"REBAR W/2"ALUM.CAP

PNI30 FD:2" SPIKE POWERLINE RW TRIG ELEVATION

PNI31 FD:2" SPIKE RT SA 9" SPIKE RT STAR

PNI32 FD:5" SPIKE

PNI33 FD:5" SPIKE

PNI34 FD:5" SPIKE

11/20/2015

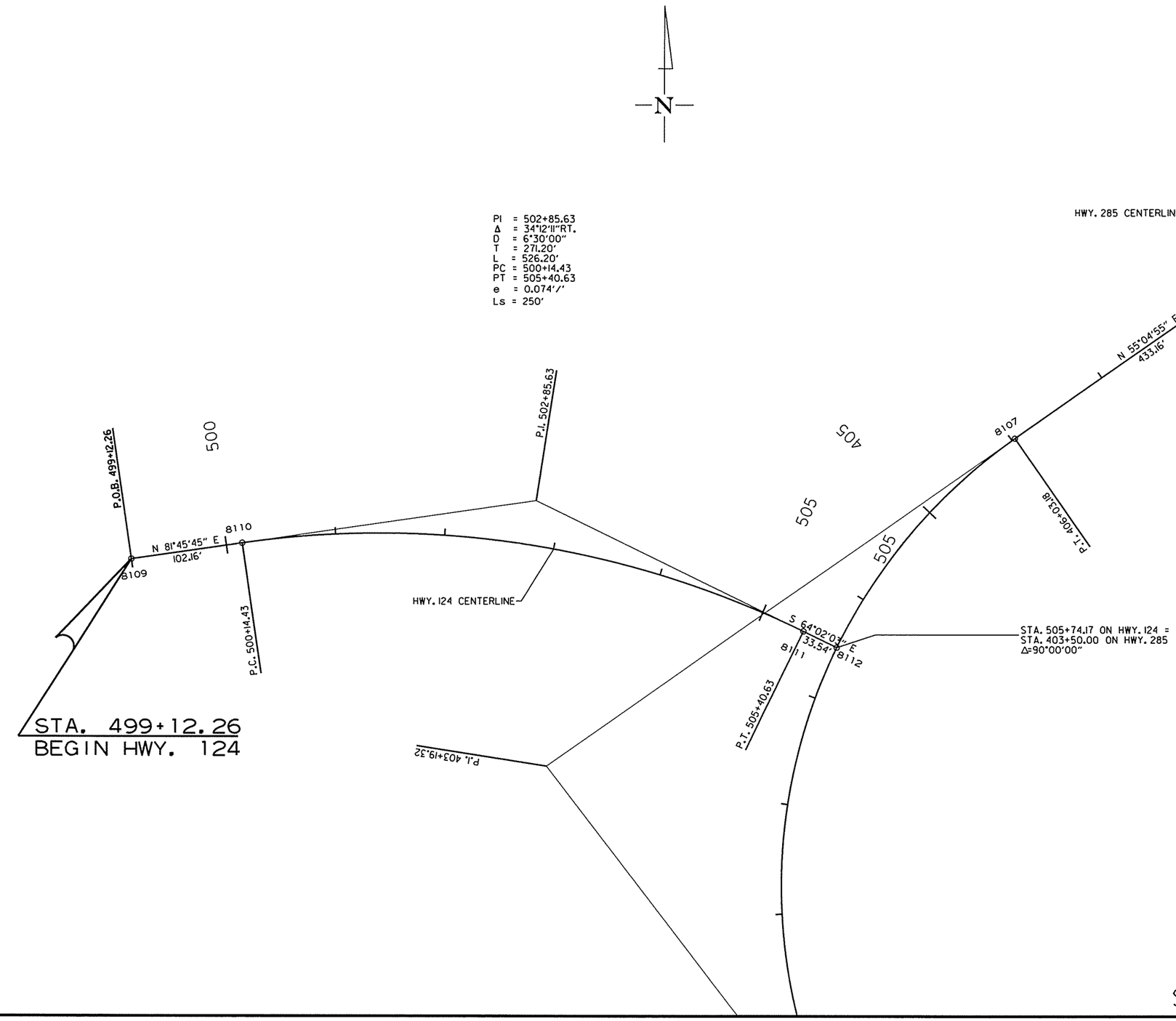
R080426.DGN

SITE 4
SURVEY 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.		080426	72	271

(2) SURVEY CONTROL DETAILS

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
12-4-15



SURVEY CONTROL DETAILS

11/20/2015

R080426.DGN

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		080426	73	271

(2) SURVEY CONTROL DETAILS

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
12-4-15

N

HWY. 285 CENTERLINE

215

P.O.E. 806+00.00

S 90°00'00" W
128.22'

P.I. 804+07.99

806

P.T. 805+71.78

805

PI = 804+07.99
Δ = 8°12'12"LT.
D = 2°30'00"
T = 164.35'
L = 328.13'
PC = 802+43.64
PT = 805+71.78
NO SUPER

MALLETT TOWN RD.

N 81°47'48" W
243.64'

P.C. 802+43.64

210

P.C. 210+30.12

8129

N 49°03'35" E
319.74'

8128

P.T. 207+40.38

P.I. 800+00.00

STA. 212+65.33 HWY. 285
= STA. 599+94.33 W REPUBLICAN RD
=81°34'06.54"

P.C. 599+97.82

S 65°[illegible]
3[illegible]
81[illegible]

N 81°47'48" W
0.04'

P.I. 601+84.95

STA. 212+01.87 HWY. 285
= STA. 799+99.16 MALLETT TOWN ROAD
=64°31'12.06"

PI = 601+84.95
Δ = 22°10'30"LT.
D = 6°00'00"
T = 187.13'
L = 369.59'
PC = 599+97.82
PT = 603+67.40
NO SUPER

P.T. 603+67.40

605

8132

S 88°00'42" E
148.35'

8133

P.I. 606+01.33

PI = 606+01.33
Δ = 11°05'29"RT.
D = 6°30'00"
T = 85.59'
L = 170.64'
PC = 605+15.75
PT = 606+86.38
e = 0.050'/'
Ls = 200'

P.C. 605+15.75

P.T. 606+86.38

WEST REPUBLICAN RD.

S 76°55'13" E
181.65'

P.O.E. 608+68.03

221+00.80

11/20/2015

R080426.DGN

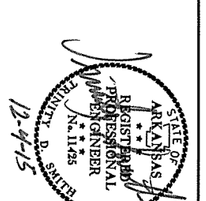
SURVEY CONTROL DETAILS

SOIL LOG

STATION	LATITUDE			LONGITUDE			LOCATION	DEPTH	LIQUID LIMIT	PLASTICITY INDEX	AASHTO CLASSIFICATION	COLOR
	DEG	MIN	SEC	DEG	MIN	SEC		FEET				
109+00	35	15	14.70	92	28	35.10	25' LT.	0-5'	30	15	A-6(10)	BROWN
174+00	35	16	15.40	92	28	19.80	18' LT.	0-5'	ND	NP	A-2-4(0)	BROWN
261+00	35	17	30.10	92	28	17.00	19' LT.	0-4'Z	21	6	A-4(0)	BROWN
317+00	35	18	21.70	92	27	53.60	21' RT.	0-5'	26	11	A-6(3)	BROWN
373+00	35	19	6.70	92	27	25.00	16' LT.	0-5'	25	6	A-4(1)	BROWN
397+00	35	19	30.60	92	27	24.40	20' RT.	0-5'	ND	NP	A-4(0)	BROWN
101+00	35	15	6.60	92	28	35.10	5' RT.	0-5'	31	4	A-6(10)	BROWN
101+00	35	15	6.50	92	28	35.00	14' RT.	0-5'	36	18	A-6(14)	BROWN
101+00	35	15	6.50	92	28	34.90	26' RT.	0-5'	32	15	A-6(10)	BROWN
109+00	35	15	14.70	92	28	34.90	5' LT.	0-5'	26	9	A-4(5)	BROWN
109+00	35	15	14.70	92	28	35.00	14' LT.	0-5'	39	18	A-6(15)	BROWN
109+00	35	15	14.70	92	28	35.10	25' LT.	0-5'	32	14	A-6(10)	BROWN
117+00	35	15	22.70	92	28	34.60	5' RT.	0-5'	22	6	A-4(2)	BR/GR
117+00	35	15	22.70	92	28	34.50	20' RT.	0-5'	28	17	A-6(6)	BR/GR
125+00	35	15	30.50	92	28	34.60	5' LT.	0-5'	25	9	A-4(3)	BROWN
125+00	35	15	30.50	92	28	34.70	16' LT.	0-5'	25	9	A-4(5)	BROWN
133+00	35	15	38.50	92	28	34.00	5' RT.	0-5'	25	9	A-4(3)	BR/GR
133+00	35	15	38.50	92	28	33.90	16' RT.	0-5'	28	13	A-6(5)	BROWN
142+00	35	15	46.80	92	28	33.00	5' LT.	0-5'	18	3	A-4(0)	BROWN
142+00	35	15	46.80	92	28	33.10	19' LT.	0-5'	ND	NP	A-4(0)	BROWN
149+00	35	15	54.20	92	28	29.60	5' RT.	0-5'	ND	NP	A-4(0)	RD/BR
149+00	35	15	54.20	92	28	29.40	14' RT.	0-5'	ND	NP	A-2-4(0)	RD/BR
157+00	35	16	1.90	92	28	29.60	5' LT.	0-4.5'Z	19	5	A-4(0)	BROWN
157+00	35	16	1.90	92	28	29.80	17' LT.	0-5'	ND	NP	A-2-4(0)	BROWN
165+00	35	16	8.90	92	28	25.90	4' RT.	0-5'	20	5	A-4(0)	BROWN
165+00	35	16	8.90	92	28	25.80	14' RT.	0-5'	32	15	A-6(7)	BROWN
174+00	35	16	15.30	92	28	19.70	5' LT.	0-5'	23	7	A-4(0)	BROWN
174+00	35	16	15.40	92	28	19.80	18' LT.	0-5'	ND	NP	A-2-4(0)	BROWN
181+00	35	16	21.80	92	28	16.70	5' RT.	0-4.5'Z	ND	NP	A-4(0)	BROWN
181+00	35	16	21.80	92	28	16.50	16' RT.	0-3'Z	23	6	A-4(0)	BROWN
189+00	35	16	29.90	92	28	15.40	6' LT.	0-4.5'Z	ND	NP	A-4(0)	RD/BR
189+00	35	16	30.00	92	28	15.50	20' LT.	0-2.5'Z	ND	NP	A-4(0)	BROWN
197+00	35	16	37.50	92	28	15.20	5' RT.	0-3'Z	26	8	A-4(3)	RD/BR
197+00	35	16	37.60	92	28	15.00	17' RT.	0-4'Z	ND	NP	A-4(0)	BROWN
205+00	35	16	46.00	92	28	14.80	5' LT.	0-2'Z	ND	NP	A-2-4(0)	BROWN
205+00	35	16	46.00	92	28	15.00	20' LT.	0-3'Z	ND	NP	A-2-4(0)	BROWN
213+00	35	16	50.80	92	28	8.20	5' RT.	0-5'	32	13	A-6(7)	BROWN
213+00	35	16	50.80	92	28	8.00	19' RT.	0-5'	26	8	A-4(1)	BROWN
221+00	35	16	58.60	92	28	7.50	4' LT.	0-5'	ND	NP	A-4(0)	BROWN
221+00	35	16	58.60	92	28	7.60	17' LT.	0-4'Z	ND	NP	A-4(0)	BROWN
229+00	35	17	4.10	92	28	13.80	6' RT.	0-5'	ND	NP	A-2-4(0)	BROWN
229+00	35	17	4.10	92	28	13.70	14' RT.	0-5'	ND	NP	A-4(0)	BR/GR
229+00	35	17	4.20	92	28	13.70	26' RT.	0-4.5'Z	ND	NP	A-2-4(0)	BR/GR
245+00	35	17	16.00	92	28	24.70	5' LT.	0-5'	ND	NP	A-4(0)	BR/GR
245+00	35	17	16.00	92	28	24.80	14' LT.	0-5'	26	9	A-4(0)	BR/GR
245+00	35	17	16.00	92	28	24.90	25' LT.	0-5'	22	6	A-4(0)	BR/GR
253+00	35	17	23.60	92	28	22.30	4' RT.	0-2.5'Z	19	6	A-6(4)	BROWN
253+00	35	17	23.60	92	28	22.20	17' RT.	0-4'Z	ND	NP	A-2-4(0)	BROWN
261+00	35	17	30.00	92	28	16.90	5' LT.	0-5'	23	8	A-4(3)	RD/BR
261+00	35	17	30.10	92	28	17.00	19' LT.	0-4'Z	21	6	A-4(1)	BROWN
269+00	35	17	36.70	92	28	11.70	5' RT.	0-3.5'Z	ND	NP	A-4(0)	BROWN
269+00	35	17	36.60	92	28	11.50	16' RT.	0-5'	20	5	A-4(0)	BR/GR
277+00	35	17	44.50	92	28	10.50	5' LT.	0-5'	ND	NP	A-2-4(0)	BROWN
277+00	35	17	44.60	92	28	10.70	16' LT.	0-4'Z	ND	NP	A-2-4(0)	BROWN
285+00	35	17	51.40	92	28	6.90	5' RT.	0-4'Z	ND	NP	A-4(0)	BROWN
285+00	35	17	51.40	92	28	6.80	17' RT.	0-2.5'Z	ND	NP	A-2-4(0)	BROWN
293+00	35	17	58.90	92	28	3.10	5' LT.	0-4.5'Z	ND	NP	A-2-4(1)	BROWN
293+00	35	18	28.90	92	28	3.30	19' LT.	0-4'Z	ND	NP	A-2-4(0)	BROWN
301+00	35	18	6.30	92	27	59.20	5' RT.	0-5'	23	8	A-4(1)	BROWN
301+00	35	18	6.30	92	27	59.10	20' RT.	0-4'Z	ND	NP	A-4(0)	BROWN
309+00	35	18	14.00	92	27	55.50	5' LT.	0-5'	23	7	A-4(0)	BROWN
309+00	35	18	14.00	92	27	55.60	16' LT.	0-5'	29	12	A-6(3)	BROWN
317+00	35	18	21.70	92	27	53.80	5' RT.	0-5'	16	2	A-4(0)	BROWN
317+00	35	18	21.70	92	27	53.60	21' RT.	0-5'	28	12	A-6(5)	BROWN
325+00	35	18	28.90	92	27	49.40	5' LT.	0-5'	ND	NP	A-4(0)	BROWN
325+00	35	18	29.00	92	27	49.50	10' LT.	0-5'	ND	NP	A-4(0)	BR/GR
333+00	35	18	32.90	92	27	41.40	5' RT.	0-5'	36	15	A-6(10)	BROWN
333+00	35	18	32.80	92	27	41.30	18' RT.	0-4'Z	43	22	A-7-6(18)	BROWN
341+00	35	18	37.30	92	27	33.60	5' LT.	0-5'	46	23	A-7-6(21)	BROWN
341+00	35	18	37.50	92	27	33.70	19' LT.	0-5'	47	23	A-7-6(19)	BROWN
349+00	35	18	43.70	92	27	27.80	5' RT.	0-5'	26	7	A-4(2)	BROWN
349+00	35	18	43.70	92	27	27.70	16' RT.	0-5'	21	5	A-4(0)	BROWN
358+00	35	18	52.30	92	27	27.80	5' LT.	0-5'	25	7	A-4(1)	BR/GR
358+00	35	18	52.30	92	27	28.00	14' LT.	0-5'	25	8	A-4(2)	BR/GR
358+00	35	18	52.30	92	27	28.20	30' LT.	0-5'	28	9	A-4(4)	BROWN
365+00	35	18	59.30	92	27	28.10	5' RT.	0-5'	30	10	A-4(6)	BROWN
365+00	35	18	59.30	92	27	27.80	33' RT.	0-3.5'Z	28	7	A-4(3)	BR/GR
373+00	35	19	6.70	92	27	24.80	5' LT.	0-5'	25	8	A-4(4)	BROWN
373+00	35	19	6.10	92	27	25.00	16' LT.	0-5'	24	6	A-4(2)	BROWN
381+00	35	19	14.50	92	27	24.20	6' RT.	0-5'	26	10	A-4(3)	BROWN
381+00	35	19	14.50	92	27	24.10	14' RT.	0-5'	26	11	A-6(3)	BROWN
381+00	35	19	14.50	92	27	23.90	30' RT.	0-5'	21	2	A-4(0)	BR/GR
389+00	35	19	23.00	92	27	23.90	6' LT.	0-5'	19	4	A-4(0)	BR/GR
389+00	35	19	23.00	92	27	24.00	14' LT.	0-4.5'Z	21	11	A-6(3)	BR/GR
389+00	35	19	24.20	92	27	30.60	30' LT.	0-3.5'Z	20	6	A-4(0)	BR/GR
397+00	35	19	30.60	92	27	24.60	5' RT.	0-4'Z	ND	NP	A-4(0)	BROWN
397+00	35	19	30.60	92	27	24.40	20' RT.	0-5'	ND	NP	A-4(0)	BROWN
405+00	35	19	37.00	92	27	25.50	5' LT.	0-5'	ND	NP	A-4(0)	BROWN
405+00	35	19	37.00	92	27	26.50	17' LT.	0-3.5'Z	ND	NP	A-2-4(0)	BROWN

SOIL CHARACTERISTICS TABULATED ABOVE ARE REPRESENTATIVE AT THE LOCATION OF THE SAMPLE, AND FROM SURFACE INDICATIONS ARE TYPICAL FOR THE LIMITS SHOWN. THESE DATA ARE SHOWN FOR INFORMATION ONLY. THE STATE WILL NOT BE RESPONSIBLE FOR VARIATIONS IN THE SOIL CHARACTERISTICS AND/OR EXTENT OF SAME DIFFERING FROM THE ABOVE TABULATIONS.

Z- AUGER REFUSAL
NP - NON-PLASTIC
ND - NOT DETERMINABLE



DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.ROD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.		74	271
				JOB NO.		080426		

(2) SOIL LOG

SOIL LOG

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		080426	75	271

(2) PLAN AND PROFILE SHEETS

WIRE FENCE

STA.	STA.	SIDE	TYPE	LIN. FT.
111+04	114+98	LT.	D-2	393

STA. 114+94 IN PLACE
8' X 3' X 24' R.C. BOX CULVERT
RETAIN AND EXTEND
15' LT. AND 15' RT.
FOR A COMPLETED LENGTH OF 54'
W/3:1 WINGS LT. AND RT.
025 = 26 CFS D.A. = 10 ACRES

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
12-7-15

STA. 111+40.00
BEGIN JOB 080426
BEGIN SITE ILOG MILE = 4.30

STA. 113+52 IN PLACE
18"×25' C.M. PIPE CULV'T.
RT. SIDE DRAIN
REMOVE AND INSTALL AT STA. 113+56
18"×34' PIPE CULV'T.
RT. SIDE DRAIN
CONST. APPR. ON RT. = 25 CU.YDS.

STA. 114+62 IN PLACE
18"×40' C.M. PIPE CULV'T.
RT. SIDE DRAIN
REMOVE AND INSTALL AT STA. 114+56
18"×34' PIPE CULV'T.
RT. SIDE DRAIN
CONST. APPR. ON RT. = 15 CU. YDS.

REFER TO SURVEY CONTROL DETAIL SHEETS FOR HORIZONTAL AND VERTICAL CONTROL DATA.

HWY. 285 SITE 1

11/20/2015

R080426.DGN

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED

FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
6	ARK.			
JOB NO.	080426		76	271

(2) PLAN AND PROFILE SHEETS

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
12-4-15

WIRE FENCE

STA.	STA.	SIDE	TYPE	LIN. FT.	16' GATE EA.
119+12	119+98	RT.	C	86	
120+14	120+82	RT.	4' CHAIN LINK	68	
120+82	123+51	RT.	C	269	
123+51	123+93	RT.	4' CHAIN LINK	41	
125+00	128+17	RT.	D	568	
128+17	137+17	RT.	D-1	900	1

STA. 126+86 INSTALL
24"x28' PIPE CULV'T.
LT. SIDE DRAIN
CONST. APPR. ON LT. = 20 CU. YDS.

STA. 127+93 TO STA. 129+00 LT. OF HWY. 285
CONCRETE DITCH PAVING (TYPE B) = 95.11 SQ. YD.

STA. 128+00 LT.
CHANNEL EXCAVATION = 20 CU. YD.

PROPOSED R/W
CONST. LIMITS
N 1°11'35" E
N 1°31'50" E
N 2°23'18" E
N 2°49'45" E
CONST. LIMITS
PROPOSED R/W

P.I. 115+54.04
Δ=0°13'59" RT.
50.00
45.00

P.I. 117+14.62
Δ=0°20'16" RT.

P.I. 123+57.23
Δ=0°51'28" RT.

P.I. 125+73.73
Δ=0°26'25" RT.
100.00
50.00

P.I. 129+94.89
Δ=0°05'39" RT.
94.97
50.00

16' GATE

STA. 118+40 IN PLACE
24"x25' PLASTIC PIPE CULV'T.
RT. SIDE DRAIN
REMOVE AND INSTALL AT STA. 118+38
24"x30' PIPE CULV'T.
RT. SIDE DRAIN
CONST. APPR. ON RT. = 20 CU. YDS.

STA. 120+04 IN PLACE
24"x25' C.M. PIPE CULV'T.
RT. SIDE DRAIN
REMOVE AND INSTALL AT STA. 120+06
24"x30' PIPE CULV'T.
RT. SIDE DRAIN
CONST. APPR. ON RT. = 20 CU. YDS.

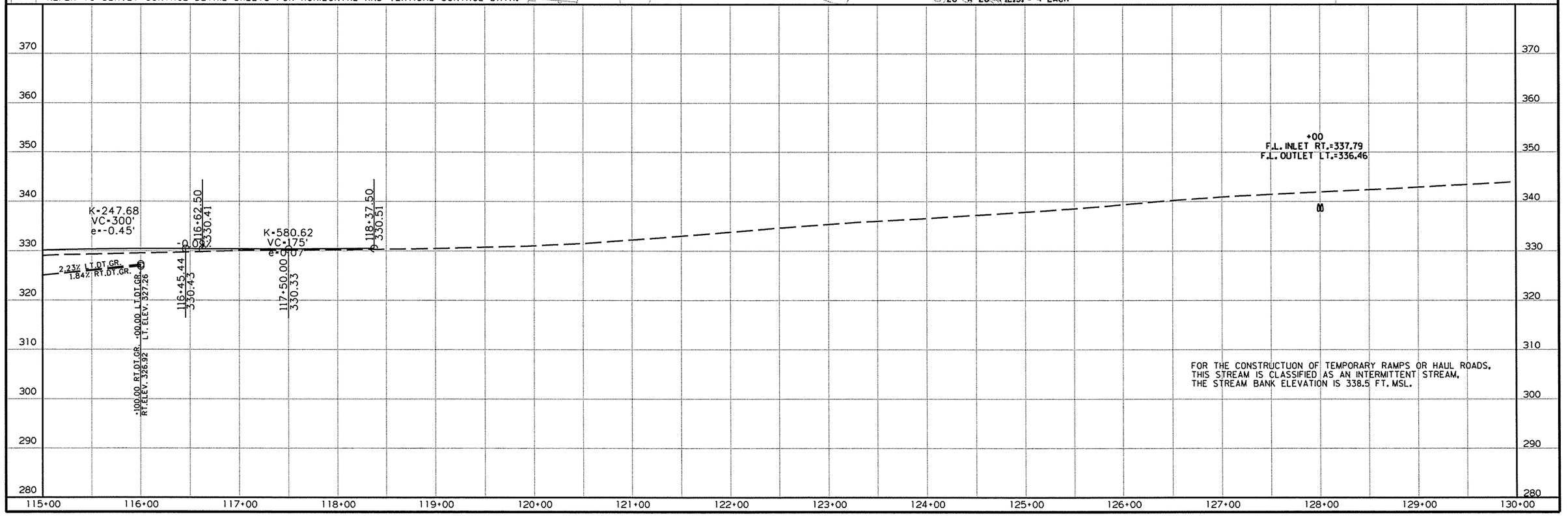
STA. 124+04 IN PLACE
24"x22' R.C. PIPE CULV'T.
RT. SIDE DRAIN
REMOVE AND INSTALL AT STA. 124+01
24"x30' PIPE CULV'T.
RT. SIDE DRAIN
CONST. APPR. ON RT. = 20 CU. YDS.

STA. 128+06 IN PLACE
30"X 42" R.C. PIPE CULVERT
REMOVE AND CONSTRUCT
DBL. 29" X 18" ARCH PIPE CULVERT
ON 25° RT. FWD. SKEW
W/FES LT. AND RT.
025 = 120 CFS D.A. = 65 ACRES
29" X 18" R.C. ARCH PIPE (CLASS IV) (TYPE 3 BEDDING) = 108 LIN. FT.
29" X 18" F.E.S. = 4 EACH
28" X 20" ACCS ARCH PIPE (TYPE 2 BEDDING) = 128 LIN. FT.
28" X 20" AICCS ARCH PIPE (TYPE 2 BEDDING) = 128 LIN. FT.
28" X 20" PCCS ARCH PIPE (TYPE 2 BEDDING) = 128 LIN. FT.
28" X 20" F.E.S. = 4 EACH

STA. 129+96 IN PLACE
24"x22' C.M. PIPE CULV'T.
RT. SIDE DRAIN
REMOVE AND INSTALL
24"x32" PIPE CULV'T.
RT. SIDE DRAIN
CONST. APPR. ON RT. = 20 CU. YDS.

REFER TO SURVEY CONTROL DETAIL SHEETS FOR HORIZONTAL AND VERTICAL CONTROL DATA.

HWY. 285 SITE 1



FOR THE CONSTRUCTUON OF TEMPORARY RAMPS OR HAUL ROADS, THIS STREAM IS CLASSIFIED AS AN INTERMITTENT STREAM, THE STREAM BANK ELEVATION IS 338.5 FT. MSL.

11/20/2015

RD080426.DGN

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		080426	77	271

(2) PLAN AND PROFILE SHEETS

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
12-4-15

STA. 132+61 IN PLACE
24"x 25' C.M. PIPE CULV'T.
LT. SIDE DRAIN
REMOVE AND INSTALL AT STA. 132+60
DBL. 24"x34' PIPE CULV'T.
LT. SIDE DRAIN
CONST. APPR. ON LT. = 25 CU. YDS.

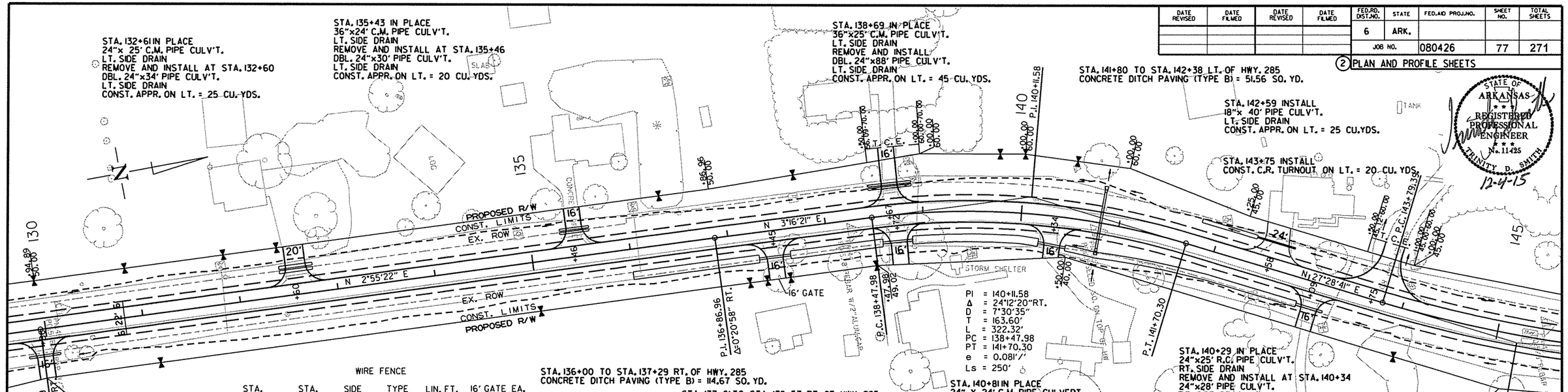
STA. 135+43 IN PLACE
36"x24' C.M. PIPE CULV'T.
LT. SIDE DRAIN
REMOVE AND INSTALL AT STA. 135+46
DBL. 24"x30' PIPE CULV'T.
LT. SIDE DRAIN
CONST. APPR. ON LT. = 20 CU. YDS.

STA. 138+69 IN PLACE
36"x25' C.M. PIPE CULV'T.
LT. SIDE DRAIN
REMOVE AND INSTALL
DBL. 24"x88' PIPE CULV'T.
LT. SIDE DRAIN
CONST. APPR. ON LT. = 45 CU. YDS.

STA. 141+80 TO STA. 142+38 LT. OF HWY. 285
CONCRETE DITCH PAVING (TYPE B) = 51.56 SQ. YD.

STA. 142+59 INSTALL
18"x 40' PIPE CULV'T.
LT. SIDE DRAIN
CONST. APPR. ON LT. = 25 CU.YDS.

STA. 143+75 INSTALL
CONST. C.R. TURNOUT ON LT. = 20 CU. YDS.



WIRE FENCE

STA.	STA.	SIDE	TYPE	LIN. FT.	16' GATE EA.
137+17	138+47	RT.	C	114	1
144+04	148+57	RT.	D-1	464	

STA. 129+96 IN PLACE
24"x22' C.M. PIPE CULV'T.
RT. SIDE DRAIN
REMOVE AND INSTALL
24"x32' PIPE CULV'T.
RT. SIDE DRAIN
CONST. APPR. ON RT. = 20 CU. YDS.

STA. 136+00 TO STA. 137+29 RT. OF HWY. 285
CONCRETE DITCH PAVING (TYPE B) = 114.67 SQ. YD.

STA. 137+61 TO STA. 138+57 RT. OF HWY. 285
CONCRETE DITCH PAVING (TYPE B) = 85.33 SQ. YD.

STA. 137+45 IN PLACE
24"x24' C.M. PIPE CULV'T.
RT. SIDE DRAIN
REMOVE AND INSTALL
24"x32' PIPE CULV'T.
RT. SIDE DRAIN
CONST. APPR. ON RT. = 20 CU. YDS.

STA. 138+73 IN PLACE
24"x24' C.M. PIPE CULV'T.
RT. SIDE DRAIN
REMOVE AND INSTALL
24"x30' PIPE CULV'T.
RT. SIDE DRAIN
CONST. APPR. ON RT. = 20 CU. YDS. COMB. EMB.
AND 5 CU. YDS. UNCL. EXC.

PI = 140+11.58
Δ = 24°12'20"RT.
D = 7°30'35"
T = 163.60'
L = 322.32'
PC = 138+47.98
PT = 141+70.30
e = 0.081'/'
Ls = 250'

STA. 140+81 IN PLACE
24" X 24' C.M. PIPE CULVERT
REMOVE & CONSTRUCT
24" PIPE CULVERT
W/FES LT. AND RT.
AND DITCH CHECK
Q25 = 14 CFS D.A. = 5 ACRES
24" R.C. PIPE (CLASS III) (TYPE 3 BEDDING) = 58 LIN. FT.
24" ACCS PIPE (TYPE 2 BEDDING) = 64 LIN. FT.
24" AICCS PIPE (TYPE 2 BEDDING) = 64 LIN. FT.
24" PCCS PIPE (TYPE 2 BEDDING) = 64 LIN. FT.
24" HDPE PIPE (TYPE 2 BEDDING) = 64 LIN. FT.
24" PVC PIPE (TYPE 2 BEDDING) = 64 LIN. FT.
24" F.E.S. = 2 EACH

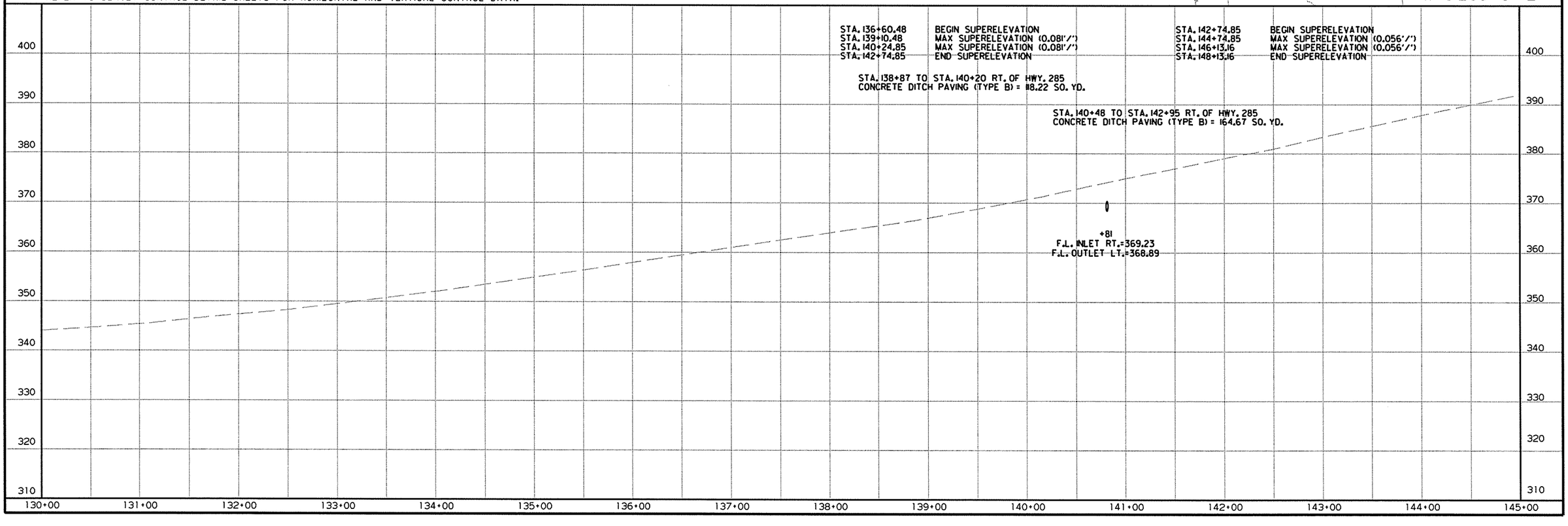
STA. 140+29 IN PLACE
24"x25' R.C. PIPE CULV'T.
RT. SIDE DRAIN
REMOVE AND INSTALL AT STA. 140+34
24"x28' PIPE CULV'T.
RT. SIDE DRAIN
CONST. APPR. ON RT. = 20 CU. YDS.

STA. 143+09 IN PLACE
24"x24' C.M. PIPE CULV'T.
RT. SIDE DRAIN
REMOVE AND INSTALL
24"x28' PIPE CULV'T.
RT. SIDE DRAIN
CONST. APPR. ON RT. = 20 CU. YDS.

PI = 145+21.87
Δ = 12°45'35"LT.
D = 4°29'47"
T = 142.47'
L = 283.77'
PC = 143+79.39
PT = 146+63.16
e = 0.056'/'
Ls = 200'

REFER TO SURVEY CONTROL DETAIL SHEETS FOR HORIZONTAL AND VERTICAL CONTROL DATA.

HWY. 285 SITE 1



11/20/2015

R080426.DGN

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		080426	78	271

(2) PLAN AND PROFILE SHEETS

PI = 145+21.87
Δ = 12°45'35"LT.
D = 4°29'47"
T = 142.47'
L = 283.77'
PC = 143+79.39
PT = 146+63.16
e = 0.056'/'
Ls = 200'

WIRE FENCE

STA.	STA.	SIDE	TYPE	LIN. FT.
155+15	161+85	LT.	C	677
155+22	169+79	RT.	C	1399

PI = 152+98.05
Δ = 31°13'10"LT.
D = 8°44'12"
T = 183.23'
L = 357.34'
PC = 151+14.83
PT = 154+72.17
e = 0.088'/'
Ls = 250'

PI = 157+46.12
Δ = 42°31'49"RT.
D = 11°16'20"
T = 197.82'
L = 377.30'
PC = 155+48.30
PT = 159+25.60
e = 0.098'/'
Ls = 250'

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
12-9-15

STA. 148+69 IN PLACE
18"x26' R.C. PIPE CULV'T.
RT. SIDE DRAIN
REMOVE AND INSTALL AT STA. 148+79
18"x28' PIPE CULV'T.
RT. SIDE DRAIN
CONST. APPR. ON RT. = 15 CU. YDS. COMB. EMB.
AND 35 CU. YDS. UNCL. EXC.

STA. 150+36 IN PLACE
18"x20' C.M. PIPE CULV'T.
RT. SIDE DRAIN
REMOVE AND INSTALL AT STA. 150+38
18"x28' PIPE CULV'T.
RT. SIDE DRAIN
CONST. APPR. ON RT. = 15 CU. YDS. COMB. EMB.
AND 5 CU. YDS. UNCL. EXC.

STA. 154+02 IN PLACE
18"x23' C.M. PIPE CULV'T.
RT. SIDE DRAIN
REMOVE AND INSTALL AT STA. 154+03
18"x36' PIPE CULV'T.
RT. SIDE DRAIN
CONST. APPR. ON RT. = 25 CU. YDS.

STA. 154+61 INSTALL
18"x34' PIPE CULV'T.
RT. SIDE DRAIN
CONST. APPR. ON RT. = 20 CU. YDS.

STA. 155+17 IN PLACE
12" X 29' C.M. PIPE CULVERT
REMOVE & CONSTRUCT
24" X 52' PIPE CULVERT
W/FES LT. AND RT.
025 = 13 CFS D.A. = 5 ACRES
24" R.C. PIPE (CLASS III) (TYPE 3 BEDDING) = 58 LIN. FT.
24" ACCS PIPE (TYPE 2 BEDDING) = 62 LIN. FT.
24" AICCS PIPE (TYPE 2 BEDDING) = 62 LIN. FT.
24" PCCS PIPE (TYPE 2 BEDDING) = 62 LIN. FT.
24" HDPE PIPE (TYPE 2 BEDDING) = 62 LIN. FT.
24" PVC PIPE (TYPE 2 BEDDING) = 62 LIN. FT.
24" F.E.S. = 2 EACH

STA. 155+19 TO STA. 162+50 RT. OF HWY. 285
CONCRETE DITCH PAVING (TYPE B) = 324.89 SQ. YD.

REFER TO SURVEY CONTROL DETAIL SHEETS FOR HORIZONTAL AND VERTICAL CONTROL DATA.

HWY. 285 SITE 1

STA. 142+74.85 BEGIN SUPERELEVATION
STA. 144+74.85 MAX SUPERELEVATION (0.056'/')
STA. 146+13.16 MAX SUPERELEVATION (0.056'/')
STA. 148+13.16 END SUPERELEVATION

STA. 147+00 TO STA. 148+65 RT. OF HWY. 285
CONCRETE DITCH PAVING (TYPE B) = 73.33 SQ. YD.

STA. 148+93 TO STA. 150+24 RT. OF HWY. 285
CONCRETE DITCH PAVING (TYPE B) = 87.33 SQ. YD.

STA. 149+27.33 BEGIN SUPERELEVATION
STA. 151+44.07 MAX SUPERELEVATION (0.076'/')
STA. 152+93.50 MAX SUPERELEVATION (0.076'/')
STA. 155+10.24 END SUPERELEVATION

STA. 150+52 TO STA. 153+86 RT. OF HWY. 285
CONCRETE DITCH PAVING (TYPE B) = 148.44 SQ. YD.

STA. 154+78 TO STA. 155+15 RT. OF HWY. 285
CONCRETE DITCH PAVING (TYPE B) = 32.89 SQ. YD.

STA. 155+10.24 BEGIN SUPERELEVATION
STA. 157+36.95 MAX SUPERELEVATION (0.089'/')
STA. 158+86.39 MAX SUPERELEVATION (0.089'/')
STA. 161+13.10 END SUPERELEVATION

0
+17
F.L. INLET RT.=454.33
F.L. OUTLET LT.=454.10

480 470 460 450 440 430 420 410 400 390

145+00 146+00 147+00 148+00 149+00 150+00 151+00 152+00 153+00 154+00 155+00 156+00 157+00 158+00 159+00 160+00

11/20/2015

R080426.DGN

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		080426	79	271

(2) PLAN AND PROFILE SHEETS

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
12-4-15

STA. 161+00 TO STA. 164+60 LT. OF HWY. 285
CONCRETE DITCH PAVING (TYPE B) = 320.00 SQ. YD.

STA. 164+63 IN PLACE
12"x24' C.M. PIPE CULV'T.
LT. SIDE DRAIN
REMOVE AND INSTALL AT STA. 164+75
18"x30' PIPE CULV'T.
LT. SIDE DRAIN
CONST. APPR. ON LT. = 20 CU. YDS.

STA. 166+50 IN PLACE
24"x30' PLASTIC PIPE CULV'T.
LT. SIDE DRAIN
REMOVE AND INSTALL AT STA. 166+48
24"x38' PIPE CULV'T.
LT. SIDE DRAIN
CONST. APPR. ON LT. = 30 CU. YDS.

STA. 169+53 TO STA. 170+64 LT. OF HWY. 285
CONCRETE DITCH PAVING (TYPE B) = 98.67 SQ. YD.

STA. 170+80 INSTALL
18"x34' PIPE CULV'T.
LT. SIDE DRAIN
CONST. APPR. ON LT. = 25 CU. YDS. COMB. EMB.
AND 20 CU. YDS. UNCL. EXC.

STA. 170+98 TO STA. 172+00 LT. OF HWY. 285
CONCRETE DITCH PAVING (TYPE B) = 90.67 SQ. YD.

WIRE FENCE

STA.	STA.	SIDE	TYPE	LIN. FT.	12' GATE EA.
164+96	166+22	LT.	C	127	
166+22	166+74	LT.	4' CHAIN LINK	30	2
166+74	169+06	LT.	C	240	

DENOTES OBLITERATION OF EXISTING ROADWAY

2-12' GATES

PROPOSED R/W
CONST. LIMITS
EX. ROW
N 26°01'45" E
N 27°06'15" E
EX. ROW
CONST. LIMITS
PROPOSED R/W

P.I. 168+08.79
P.C. 165+80.93
P.I. 164+36.75
Δ=18°04'30"RT.
P.T. 170+32.60
P.I. 171+64.70
P.I. 173+36.40
P.I. 175+00.94

PI = 168+08.79
Δ = 18°43'02"RT.
D = 4°08'38"
T = 227.87'
L = 451.67'
PC = 165+80.93
PT = 170+32.60
e = 0.053'/'
Ls = 200'

PI = 173+36.40
Δ = 28°34'47"LT.
D = 8°30'00"
T = 171.69'
L = 336.23'
PC = 171+64.70
PT = 175+00.94
e = 0.087'/'
Ls = 250'

STA. 166+00 TO STA. 167+90 RT. OF HWY. 285
CONCRETE DITCH PAVING (TYPE B) = 84.44 SQ. YD.

STA. 172+97 IN PLACE
18" X 29' R.C. PIPE CULVERT
REMOVE & CONSTRUCT
24" PIPE CULVERT
W/FES LT. AND RT.
AND DITCH CHECK
025 = 3 CFS D.A. = 1 ACRES
24" R.C. PIPE (CLASS III) (TYPE 3 BEDDING) = 68 LIN. FT.
24" ACCS PIPE (TYPE 2 BEDDING) = 62 LIN. FT.
24" AICCS PIPE (TYPE 2 BEDDING) = 62 LIN. FT.
24" PCCS PIPE (TYPE 2 BEDDING) = 62 LIN. FT.
24" HDPE PIPE (TYPE 2 BEDDING) = 62 LIN. FT.
24" PVC PIPE (TYPE 2 BEDDING) = 62 LIN. FT.
24" F.E.S. = 2 EACH

STA. 172+99 TO STA. 175+13 LT. OF HWY. 285
CONCRETE DITCH PAVING (TYPE B) = 95.11 SQ. YD.

STA. 174+55 IN PLACE
12"x24' R.C. PIPE CULV'T.
RT. SIDE DRAIN
REMOVE AND INSTALL AT STA. 174+37
18"x34' PIPE CULV'T.
RT. SIDE DRAIN
CONST. APPR. ON RT. = 70 CU. YDS.

REFER TO SURVEY CONTROL DETAIL SHEETS FOR HORIZONTAL AND VERTICAL CONTROL DATA.

HWY. 285 SITE I

STA. 164+30.93 BEGIN SUPERELEVATION
STA. 166+30.93 MAX SUPERELEVATION (0.053'/')
STA. 168+82.82 MAX SUPERELEVATION (0.053'/')
STA. 170+82.82 END SUPERELEVATION

STA. 170+82.82 BEGIN SUPERELEVATION
STA. 173+32.82 MAX SUPERELEVATION (0.087'/')
STA. 174+38.44 MAX SUPERELEVATION (0.087'/')
STA. 176+88.44 END SUPERELEVATION

P.V.I. 171+00.00
ELEV. 543.94
4.63%
+97
F.L. INLET LT.=548.03
F.L. OUTLET RT.=546.28
P.V.C. 173+91.59
ELEV. 557.45
K=51.18
VC=300'
e=-2.20'

570 560 550 540 530 520 510 500 490 480

160+00 161+00 162+00 163+00 164+00 165+00 166+00 167+00 168+00 169+00 170+00 171+00 172+00 173+00 174+00 175+00

11/20/2015
R080426.DGN

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		080426	80	271

(2) PLAN AND PROFILE SHEETS

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
12-4-15

STA. 175+32 INSTALL
24"x38' PIPE CULV'T.
LT. SIDE DRAIN
CONST. APPR. ON LT. = 20 CU. YDS.

DENOTES OBLITERATION OF EXISTING ROADWAY

P.T. 175+00.94

STA. 175+48 INSTALL
24"x42' PIPE CULV'T.
RT. SIDE DRAIN
CONST. APPR. ON RT. = 20 CU. YDS.

STA. 177+84 IN PLACE
12"x24' C.M. PIPE CULV'T.
RT. SIDE DRAIN
REMOVE AND INSTALL AT STA. 177+67
18"x60' PIPE CULV'T.
RT. SIDE DRAIN
CONST. APPR. = 395 CU. YDS.

STA. 178+53 IN PLACE
18" X 29' C.M. PIPE CULVERT
REMOVE & CONSTRUCT
24" PIPE CULVERT
ON 15° LT. FWD. SKEW.
W/EES LT. AND RT.
Q25 = 28 CFS D.A. = 10 ACRES
24" R.C. PIPE (CLASS IV) (TYPE 3 BEDDING) = 141 LIN. FT.
24" ACCS PIPE (TYPE 3 BEDDING) = 145 LIN. FT.
24" AICCS PIPE (TYPE 3 BEDDING) = 145 LIN. FT.
24" PCCS PIPE (TYPE 3 BEDDING) = 145 LIN. FT.
24" HDPE PIPE (TYPE 3 BEDDING) = 145 LIN. FT.
24" PVC PIPE (TYPE 3 BEDDING) = 145 LIN. FT.
24" F.E.S. = 2 EACH

PI = 183+03.42
Δ = 8°38'49"LT.
D = 2°00'00"
T = 216.59'
L = 432.35'
PC = 180+86.84
PT = 185+19.18
e = 0.028'/'
Ls = 200'

STA. 183+53 IN PLACE
18"x24' C.M. PIPE CULV'T.
LT. SIDE DRAIN
REMOVE AND INSTALL AT STA. 182+67
24"x28' PIPE CULV'T.
LT. SIDE DRAIN
CONST. APPR. ON LT. = 25 CU. YDS.

P.C. 180+86.84

STA. 181+83 IN PLACE
24"x60' C.M. PIPE CULV'T.
RT. SIDE DRAIN
REMOVE AND INSTALL AT STA. 181+59
24"x40' PIPE CULV'T.
RT. SIDE DRAIN
CONST. APPR. ON RT. = 35 CU. YDS.

P.I. 183+03.42

STA. 182+26 INSTALL
24"x28' PIPE CULV'T.
RT. SIDE DRAIN
CONST. APPR. ON RT. = 20 CU. YDS.

STA. 185+92 TO STA. 187+33 RT. OF HWY. 285
CONCRETE DITCH PAVING (TYPE B) = 125.33 SQ. YD.

STA. 186+66 INSTALL
24"x28' PIPE CULV'T.
LT. SIDE DRAIN
CONST. APPR. = 20 CU. YDS.

STA. 187+15 INSTALL
24"x28' PIPE CULV'T.
LT. SIDE DRAIN
CONST. APPR. = 20 CU. YDS.

STA. 187+73 IN PLACE
12"x26' C.M. PIPE CULV'T.
LT. SIDE DRAIN
REMOVE AND INSTALL
24"x30' PIPE CULV'T.
LT. SIDE DRAIN
CONST. APPR. ON LT. = 20 CU. YDS.

STA. 187+87 TO STA. 190+06 LT. OF HWY. 285
CONCRETE DITCH PAVING (TYPE B) = 97.33 SQ. YD.

PI = 189+04.02
Δ = 8°34'09"LT.
D = 2°44'55"
T = 156.17'
L = 311.75'
PC = 187+47.85
PT = 190+59.60
e = 0.037'/'
Ls = 200'

P.T. 185+19.18
P.C. 187+47.85
P.I. 187+03.42

STA. 185+78 IN PLACE
DBL. 18"x32' C.M. PIPE CULV'T.
RT. SIDE DRAIN
REMOVE AND INSTALL
24"x28' PIPE CULV'T.
RT. SIDE DRAIN
CONST. APPR. ON RT. = 20 CU. YDS.

STA. 187+47 IN PLACE
18"x24' C.M. PIPE CULV'T.
RT. SIDE DRAIN
REMOVE AND INSTALL
24"x28' PIPE CULV'T.
RT. SIDE DRAIN
CONST. APPR. ON RT. = 20 CU. YDS.

STA. 187+61 TO STA. 188+29 RT. OF HWY. 285
CONCRETE DITCH PAVING (TYPE B) = 60.44 SQ. YD.

WIRE FENCE

STA.	STA.	SIDE	TYPE	LIN. FT.	16' GATE EA.
178+62	181+73	LT.	D	328	
181+73	182+16	LT.	4' CHAIN LINK	43	
182+42	182+88	LT.	4' CHAIN LINK	31	1
183+27	187+07	LT.	D	377	1
186+00	187+29	RT.	C	130	
187+64	190+00	RT.	D-1	242	
188+54	803+68	LT.	D	2886	

REFER TO SURVEY CONTROL DETAIL SHEETS FOR HORIZONTAL AND VERTICAL CONTROL DATA.

HWY. 285 SITE 1

STA. 179+36.84 BEGIN SUPERELEVATION
STA. 181+36.84 MAX SUPERELEVATION (0.028'/')
STA. 184+33.52 MAX SUPERELEVATION (0.028'/')
STA. 186+33.52 END SUPERELEVATION

STA. 186+33.52 BEGIN SUPERELEVATION
STA. 188+33.52 MAX SUPERELEVATION (0.037'/')
STA. 190+09.60 MAX SUPERELEVATION (0.037'/')
STA. 192+09.60 END SUPERELEVATION

P.V.I. 175+41.59 ELEV. 564.40
4.63%
K=51.18
VC=300'
e=-2.20'
P.V.T. 176+91.59 ELEV. 562.56
-1.23%
+53
F.L. INLET RT.=546.50
F.L. OUTLET LT.=533.17
P.V.C. 180+26.24 ELEV. 558.46
P.V.I. 181+51.24 ELEV. 556.93
K=192.82
VC=250'
e=-0.41'
P.V.T. 182+76.24 ELEV. 553.77
P.V.I. 183+00.00 ELEV. 553.17
-2.52%
P.V.I. 188+50.00 ELEV. 530.19
8.44%
P.V.C. 188+77.60 ELEV. 527.87
K=67.14
VC=350'
e=2.28'

590 580 570 560 550 540 530 520 510 500

175+00 176+00 177+00 178+00 179+00 180+00 181+00 182+00 183+00 184+00 185+00 186+00 187+00 188+00 189+00 190+00

11/20/2015

R080426.DGN

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		080426	81	271

(2) PLAN AND PLOT SHEETS

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
12-4-15

WIRE FENCE

STA.	STA.	SIDE	TYPE	LIN. FT.
190+22	193+86	RT.	C	364
197+29	200+29	RT.	D	300
201+66	207+03	RT.	D	494

PI = 189+04.02
Δ = 8°34'09"LT.
D = 2°44'55"
T = 156.17'
L = 311.75'
PC = 187+47.85
PT = 190+59.60
e = 0.037'/'
Ls = 200'

STA. 199+47 TO STA. 202+90 LT. OF HWY. 285
CONCRETE DITCH PAVING (TYPE B) = 228.67 SQ. YD.

STA. 190+10 INSTALL
24"x36' PIPE CULV'T.
RT. SIDE DRAIN
CONST. APPR. ON RT. = 30 CU. YDS.

STA. 191+17 IN PLACE
24" X 34' R.C. PIPE CULVERT
REMOVE & CONSTRUCT
DBL. 30" PIPE CULVERT
W/FES LT. AND RT.
AND DITCH CHECK
Q25 = 54 CFS D.A. = 20 ACRES
30" R.C. PIPE (CLASS III) (TYPE 3 BEDDING) = 116 LIN. FT.
30" ACCS PIPE (TYPE 2 BEDDING) = 122 LIN. FT.
30" ACCS PIPE (TYPE 2 BEDDING) = 122 LIN. FT.
30" ACCS PIPE (TYPE 2 BEDDING) = 122 LIN. FT.
30" ACCS PIPE (TYPE 2 BEDDING) = 122 LIN. FT.
30" F.E.S. = 4 EACH

STA. 194+18 IN PLACE
18"x41' R.C. PIPE CULV'T.
RT. SIDE DRAIN
REMOVE AND INSTALL
18"X32' PIPE CULV'T.
RT. SIDE DRAIN
CONST. APPR. ON RT. = 25 CU. YDS. COMP. EMB.
AND 125 CU. YDS. UNCL. EXC.

STA. 196+76 IN PLACE
18"x31' C.M. PIPE CULV'T.
RT. SIDE DRAIN
REMOVE AND INSTALL
18"x32' PIPE CULV'T.
RT. SIDE DRAIN
CONST. APPR. = 25 CU. YDS. COMP. EMB.
AND 30 CU. YDS. UNCL. EXC.

STA. 198+00 TO STA. 200+24 RT. OF HWY. 285
CONCRETE DITCH PAVING (TYPE B) = 199.11 SQ. YD.

STA. 200+40 IN PLACE
18"x18' C.M. PIPE CULV'T.
RT. SIDE DRAIN
REMOVE AND INSTALL
18"x32' PIPE CULV'T.
RT. SIDE DRAIN
CONST. APPR. = 20 CU. YDS.

STA. 200+56 TO STA. 205+00 RT. OF HWY. 285
CONCRETE DITCH PAVING (TYPE B) = 197.33 SQ. YD.

PI = 205+38.40
Δ = 47°40'11"RT.
D = 13°00'00"
T = 194.71'
L = 366.69'
PC = 203+43.69
PT = 207+10.38
e = 0.100'/'
Ls = 250'

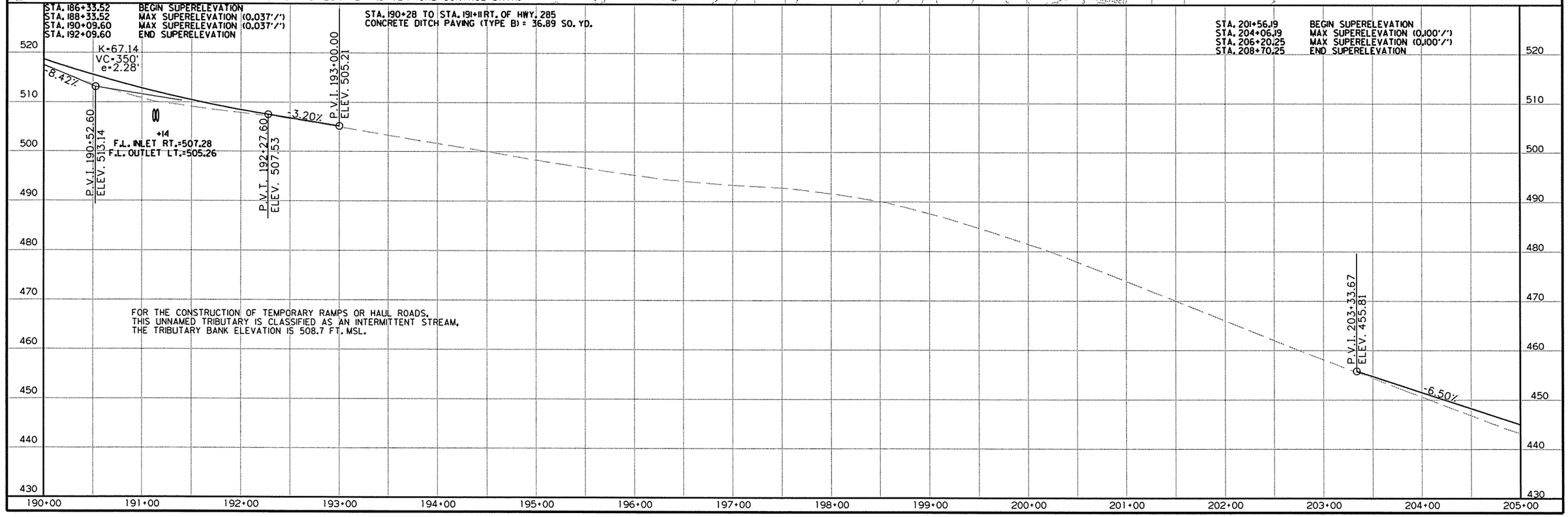
REFER TO SURVEY CONTROL DETAIL SHEETS FOR HORIZONTAL AND VERTICAL CONTROL DATA.

HWY. 285 SITE 1

STA. 186+33.52 BEGIN SUPERELEVATION
STA. 188+33.52 MAX SUPERELEVATION (0.037'/')
STA. 190+09.60 MAX SUPERELEVATION (0.037'/')
STA. 192+09.60 END SUPERELEVATION

STA. 190+28 TO STA. 191+11 RT. OF HWY. 285
CONCRETE DITCH PAVING (TYPE B) = 36.89 SQ. YD.

STA. 201+56.19 BEGIN SUPERELEVATION
STA. 204+06.19 MAX SUPERELEVATION (0.100'/')
STA. 206+20.25 MAX SUPERELEVATION (0.100'/')
STA. 208+70.25 END SUPERELEVATION



FOR THE CONSTRUCTION OF TEMPORARY RAMPS OR HAUL ROADS, THIS UNNAMED TRIBUTARY IS CLASSIFIED AS AN INTERMITTENT STREAM. THE TRIBUTARY BANK ELEVATION IS 508.7 FT. MSL.

11/20/2015
R080426.DGN

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		080426	82	271

(2) PLAN AND PROFILE SHEETS

WIRE FENCE

STA.	STA.	SIDE	TYPE	LIN. FT.
803+66	222+75	LT.	D	1323
216+84	224+63	RT.	C	1135
601+58	608+61	RT.	D	1135

STA. 206+12 TO STA. 207+52 LT. OF HWY. 285
CONCRETE DITCH PAVING (TYPE B) = 93.33 SQ. YD.

STA. 212+01.87 HWY. 285
= STA. 799+99.16 MALLETT TOWN ROAD
Δ=64°31'12.06"

STA. 217+44 TO STA. 224+80 LT. OF HWY. 285
CONCRETE DITCH PAVING (TYPE B) = 654.22 SQ. YD.

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
12-4-15

DENOTES OBLITERATION OF EXISTING ROADWAY

PI = 205+38.40
Δ = 47°40'11"RT.
D = 13°00'00"
T = 194.71'
L = 366.69'
PC = 203+43.69
PT = 207+10.38
e = 0.100'/'
Ls = 250'

PI = 221+00.80
Δ = 105°12'21"LT.
D = 7°00'00"
T = 1070.68'
L = 1502.94'
PC = 210+30.12
PT = 225+33.06
e = 0.078'/'
Ls = 250'

STA. 210+93 CONSTRUCT
24" X 116' PIPE CULVERT
W/FES LT. AND RT.
025 = 3 CFS D.A. = 1 ACRE
24" R.C. PIPE (CLASS IV) (TYPE 3 BEDDING) = 116 LIN. FT.
24" ACCS PIPE (TYPE 2 BEDDING) = 120 LIN. FT.
24" AICCS PIPE (TYPE 2 BEDDING) = 120 LIN. FT.
24" PCCS PIPE (TYPE 2 BEDDING) = 120 LIN. FT.
24" HDPE PIPE (TYPE 2 BEDDING) = 120 LIN. FT.
24" PVC PIPE (TYPE 2 BEDDING) = 120 LIN. FT.
24" F.E.S. = 2 EACH

STA. 212+01.95 HWY. 285
= STA. 600+00.88 W. REPUBLICAN RD.
Δ=60°00'00.00"

STA. 214+38 INSTALL
18"x38' PIPE CULV'T.
RT. SIDE DRAIN
CONST. APPR. ON RT. = 25 CU. YDS.

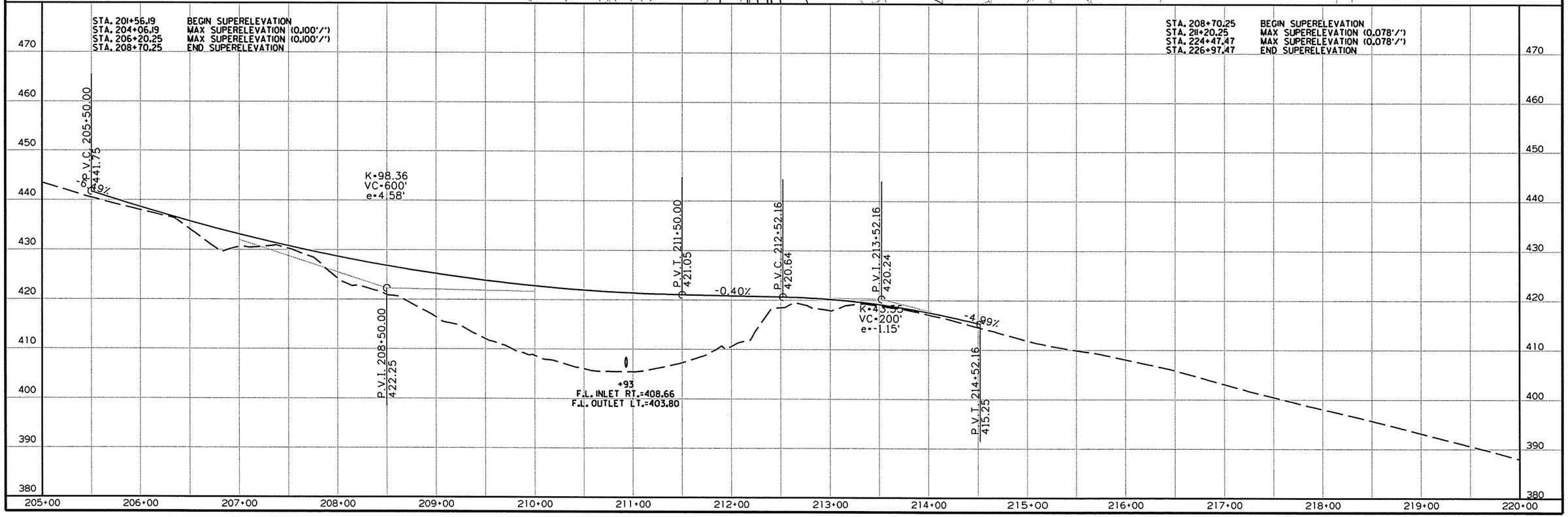
STA. 216+54 IN PLACE
18"x24' C.M. PIPE CULV'T.
RT. SIDE DRAIN
REMOVE AND INSTALL
18"x34' PIPE CULV'T.
RT. SIDE DRAIN
CONST. APPR. ON RT. = 30 CU. YDS.

REFER TO SURVEY CONTROL DETAIL SHEETS FOR HORIZONTAL AND VERTICAL CONTROL DATA.

HWY. 285 SITE 1

STA. 201+56.19 BEGIN SUPERELEVATION
STA. 204+06.19 MAX SUPERELEVATION (0.100'/')
STA. 206+20.25 MAX SUPERELEVATION (0.100'/')
STA. 208+70.25 END SUPERELEVATION

STA. 208+70.25 BEGIN SUPERELEVATION
STA. 211+20.25 MAX SUPERELEVATION (0.078'/')
STA. 224+47.47 MAX SUPERELEVATION (0.078'/')
STA. 226+97.47 END SUPERELEVATION



12/1/2015

R080426.DGN

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		080426	83	271

(2) PLAN AND PROFILE SHEETS

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
12-4-15

PI = 221+00.80
Δ = 105°12'21"LT.
D = 7°00'00"
T = 1070.68'
L = 1502.94'
PC = 210+30.12
PT = 225+33.06
e = 0.078'/'
Ls = 250'

220 225 227

PROPOSED R/W
CONST. LIMITS
EX. ROW
CONST. LIMITS
PROPOSED R/W

P.T. 225+33.06

100' TRANSITION

N 56°08'46" W

16'

T. C. E.

STA. 224+77 IN PLACE
18"x20' C.M. PIPE CULV'T.
RT. SIDE DRAIN
REMOVE AND INSTALL
18"x38' PIPE CULV'T.
RT. SIDE DRAIN
CONST. APPR. ON RT. = 35 CU. YDS.

STA. 226+97.47
END SITE I

HWY. 285 SITE I

REFER TO SURVEY CONTROL DETAIL SHEETS FOR HORIZONTAL AND VERTICAL CONTROL DATA.

STA. 208+70.25 BEGIN SUPERELEVATION
STA. 211+20.25 MAX SUPERELEVATION (0.078'/')
STA. 224+47.47 MAX SUPERELEVATION (0.078'/')
STA. 226+97.47 END SUPERELEVATION

420 410 400 390 380 370 360 350 340 330

220+00 221+00 222+00 223+00 224+00 225+00 226+00 227+00 228+00 229+00 230+00 231+00 232+00 233+00 234+00 235+00

11/20/2015

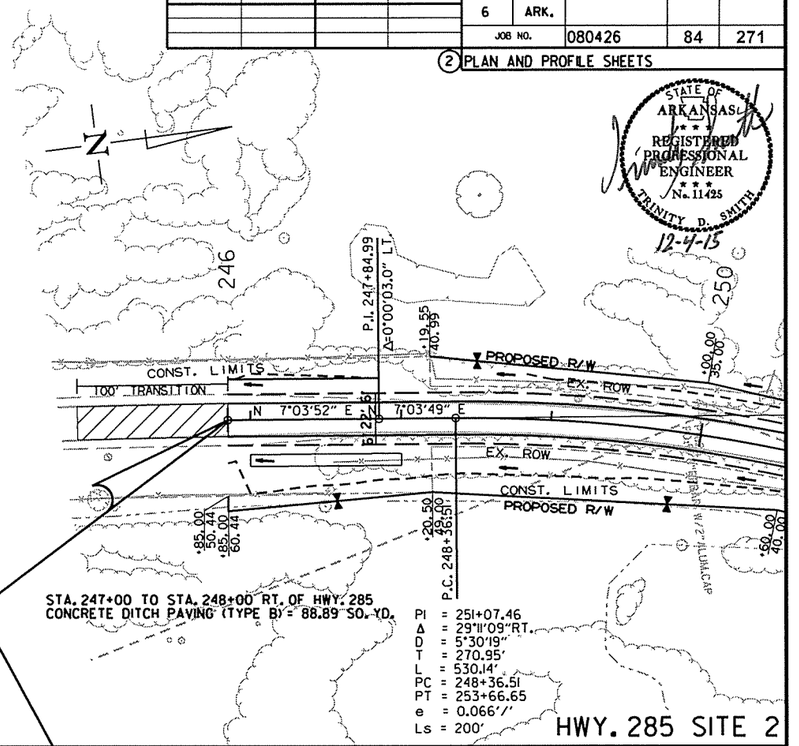
R080426.DGN

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RO. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		080426	84	271

(2) PLAN AND PROFILE SHEETS

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
12-4-15

STA. 246+85.00
BEGIN SITE 2



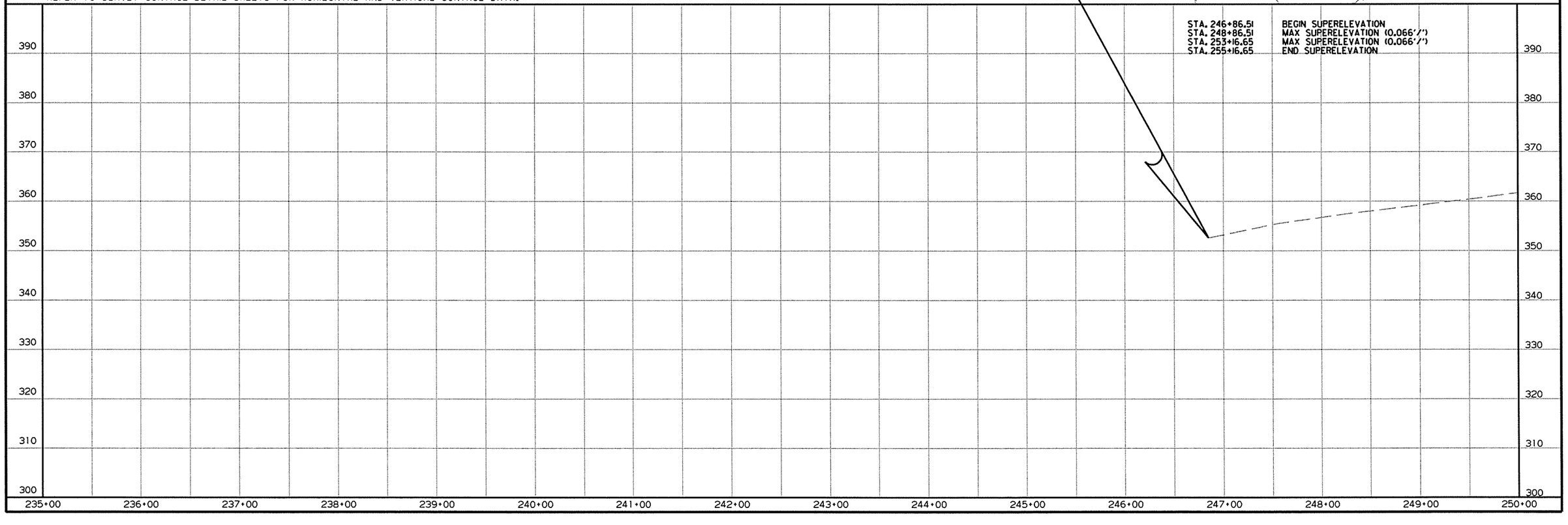
STA. 247+00 TO STA. 248+00 RT. OF HWY. 285
CONCRETE DITCH PAVING (TYPE B) = 88.89 SQ. YD.

PI = 251+07.46
Δ = 29°11'09"RT.
D = 5°30'19"
T = 270.95'
L = 530.14'
PC = 248+36.51
PT = 253+66.65
e = 0.066'/'
Ls = 200'

HWY. 285 SITE 2

REFER TO SURVEY CONTROL DETAIL SHEETS FOR HORIZONTAL AND VERTICAL CONTROL DATA.

STA. 246+86.51	BEGIN SUPERELEVATION
STA. 248+86.51	MAX SUPERELEVATION (0.066'/')
STA. 253+16.65	MAX SUPERELEVATION (0.066'/')
STA. 255+16.65	END SUPERELEVATION



12/1/2015
R080426.DGN

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		080426	85	271

(2) PLAN AND PROFILE SHEETS

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
12-4-13

STA. 251+29 INSTALL
18"x42' PIPE CULV'T.
LT. SIDE DRAIN
CONST. APPR. ON LT. = 30 CU. YDS.

STA. 257+29 IN PLACE
12"x20' C.M. PIPE CULV'T.
LT. SIDE DRAIN
REMOVE AND INSTALL
18"x28' PIPE CULV'T.
LT. SIDE DRAIN
CONST. APPR. ON LT. = 15 CU. YDS.

P.I. 251+07.46

PROPOSED R/W
CONST. LIMITS
EX. ROW

16' GATE

N 36°14'58" E

EX. ROW
CONST. LIMITS
PROPOSED R/W

16' GATE

P.T. 253+66.65

STA. 254+00 TO STA. 256+00 RT. OF HWY. 285
CONCRETE DITCH PAVING (TYPE B) = 177.78 SQ. YD.

STA. 252+80 INSTALL
18"x30' PIPE CULV'T.
RT. SIDE DRAIN
CONST. APPR. ON RT. = 15 CU. YDS.

PI = 251+07.46
Δ = 29°11'09"RT.
D = 5°30'19"
T = 270.95'
L = 530.14'
PC = 248+36.51
PT = 253+66.65
e = 0.066'/'
Ls = 200'

WIRE FENCE

STA.	STA.	SIDE	TYPE	LIN. FT.	16' GATE EA.
246+85	276+56	RT.	D	3391	1
248+20	251+05	LT.	D	300	1
252+63	260+55	LT.	D	797	1

REFER TO SURVEY CONTROL DETAIL SHEETS FOR HORIZONTAL AND VERTICAL CONTROL DATA.

HWY. 285 SITE 2

STA. 246+86.51 BEGIN SUPERELEVATION
STA. 248+86.51 MAX SUPERELEVATION (0.066'/')
STA. 253+16.65 MAX SUPERELEVATION (0.066'/')
STA. 255+16.65 END SUPERELEVATION

STA. 263+72.96 BEGIN SUPERELEVATION
STA. 266+22.96 MAX SUPERELEVATION (0.074'/')
STA. 269+70.04 MAX SUPERELEVATION (0.074'/')
STA. 272+20.04 END SUPERELEVATION

420 410 400 390 380 370 360 350 340 330

250+00 251+00 252+00 253+00 254+00 255+00 256+00 257+00 258+00 259+00 260+00 261+00 262+00 263+00 264+00 265+00

12/1/2015

R080426.DGN

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		080426	86	271

(2) PLAN AND PROFILE SHEETS

PI = 268+01.84
Δ = 29°28'23"LT.
D = 6°14'35"
T = 241.39'
L = 472.08'
PC = 265+60.46
PT = 270+32.54
e = 0.074'/'
Ls = 250'

STA. 270+00 TO STA. 275+00 LT. OF HWY. 285
CONCRETE DITCH PAVING (TYPE B) = 222.22 SQ. YD.

STA. 279+61 INSTALL
18"x32' PIPE CULV'T.
LT. SIDE DRAIN
CONST. APPR. ON LT.
= 20 CU. YDS. COMP. EMB.
AND 25 CU. YDS. UNCL. EXC.

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
12-4-15

P.C. 265+60.46
P.I. 268+01.84
P.T. 270+32.54
P.I. 276+84.87
P.C. 275+18.80
P.I. 278+48.64

PROPOSED R/W
CONST. LIMITS
EX. R/W
N 6°46'35"E
CONST. LIMIT
PROPOSED R/W
EX. R/W

STA. 270+44 TO STA. 276+76 RT. OF HWY. 285
CONCRETE DITCH PAVING (TYPE B) = 561.78 SQ. YD.

STA. 277+13 TO STA. 279+88 RT. OF HWY. 285
CONCRETE DITCH PAVING (TYPE B) = 244.44 SQ. YD.

PI = 276+84.87
Δ = 16°30'23"RT.
D = 5°00'16"
T = 166.07'
L = 329.84'
PC = 275+18.80
PT = 278+48.64
e = 0.061'/'
Ls = 200'

STA. 276+95 INSTALL
18"x36' PIPE CULV'T.
RT. SIDE DRAIN
CONST. APPR. ON RT. = 20 CU. YDS.

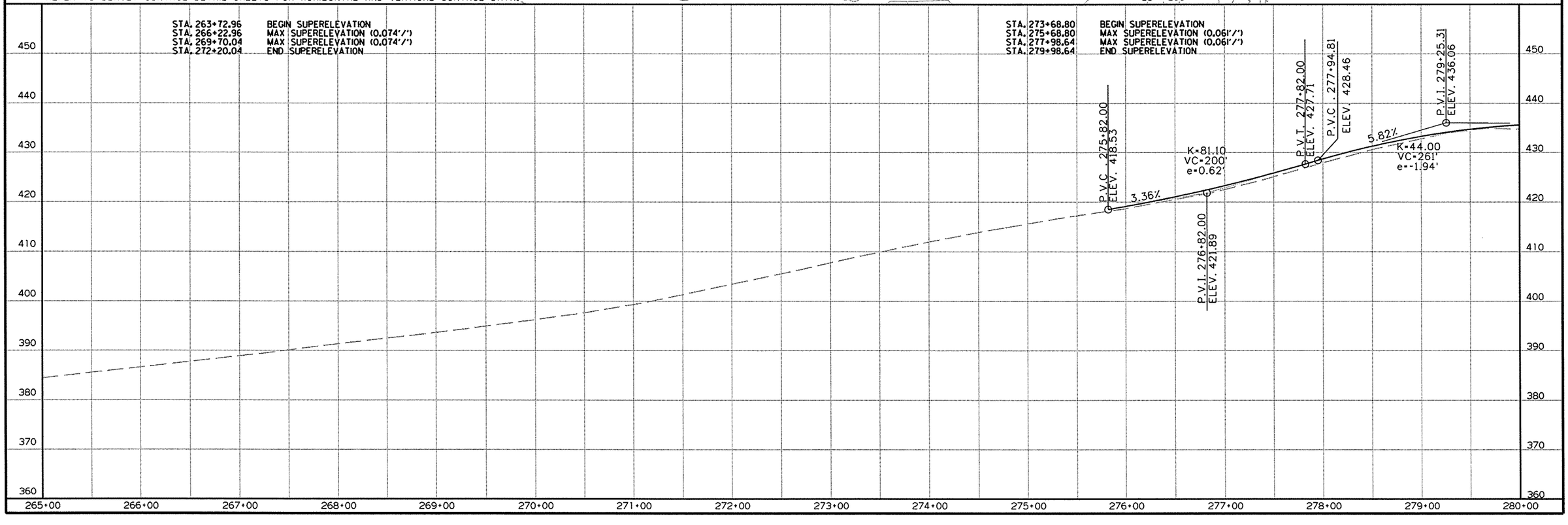
T.C.E.

REFER TO SURVEY CONTROL DETAIL SHEETS FOR HORIZONTAL AND VERTICAL CONTROL DATA.

HWY. 285 SITE 2

STA. 263+72.96 BEGIN SUPERELEVATION
STA. 266+22.96 MAX SUPERELEVATION (0.074'/')
STA. 269+70.04 MAX SUPERELEVATION (0.074'/')
STA. 272+20.04 END SUPERELEVATION

STA. 273+68.80 BEGIN SUPERELEVATION
STA. 275+68.80 MAX SUPERELEVATION (0.061'/')
STA. 277+98.64 MAX SUPERELEVATION (0.061'/')
STA. 279+98.64 END SUPERELEVATION



12/1/2015

R080426.DGN

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		080426	87	271

(2) PLAN AND PROFILE SHEETS

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
12-4-15

STA. 283+04 TO STA. 283+93 LT. OF HWY. 285
CONCRETE DITCH PAVING (TYPE B) = 39.56 SQ. YD.

STA. 285+72 TO STA. 292+23 LT. OF HWY. 285
CONCRETE DITCH PAVING (TYPE B) = 578.67 SQ. YD.

STA. 281+03 IN PLACE
24" X 26' R.C. PIPE CULVERT
REMOVE & CONSTRUCT
DBL. 30" PIPE CULVERT
W/FES LT. AND RT.
Q25 = 57 CFS D.A. = 10 ACRES
30" R.C. PIPE (CLASS III) (TYPE 3 BEDDING) = 130 LIN. FT.
30" ACCS PIPE (TYPE 2 BEDDING) = 138 LIN. FT.
30" AICCS PIPE (TYPE 2 BEDDING) = 138 LIN. FT.
30" PCCS PIPE (TYPE 2 BEDDING) = 138 LIN. FT.
30" HDPE PIPE (TYPE 2 BEDDING) = 138 LIN. FT.
30" PVC PIPE (TYPE 2 BEDDING) = 138 LIN. FT.
30" F.E.S. = 4 EACH

STA. 283+00 IN PLACE
24" X 26' C.M. PIPE CULVERT
REMOVE & CONSTRUCT
48" PIPE CULVERT
W/FES LT. AND RT.
Q25 = 99 CFS D.A. = 20 ACRES
48" R.C. PIPE (CLASS IV) (TYPE 3 BEDDING) = 56 LIN. FT.
48" ACCS PIPE (TYPE 2 BEDDING) = 60 LIN. FT.
48" AICCS PIPE (TYPE 2 BEDDING) = 60 LIN. FT.
48" PCCS PIPE (TYPE 2 BEDDING) = 60 LIN. FT.
48" HDEP PIPE (TYPE 2 BEDDING) = 60 LIN. FT.
48" F.E.S. = 4 EACH

STA. 284+59 TO STA. 287+15 RT. OF HWY. 285
CONCRETE DITCH PAVING (TYPE B) = 227.56 SQ. YD.

STA. 291+06 CONST.
APPR. ON RT. = 15/CU. YDS.

STA. 294+40 TO STA. 296+43 RT. OF HWY. 285
CONCRETE DITCH PAVING (TYPE B) = 180.44 SQ. YD.

REFER TO SURVEY CONTROL DETAIL SHEETS FOR HORIZONTAL AND VERTICAL CONTROL DATA.

HWY. 285 SITE 2

P.I. 284+44.09
Δ=010°00.1" LT.
N 23°16'58" E
N 23°06'58" E
PROPOSED R/W
CONST. LIMITS
EX. ROW
20'
-0.11%
8.2%
2.58%
K=44.00
VC=261'
e=-1.94'
K=64.10
VC=553'
e=5.96'
K=45.43
VC=270'
e=-2.01'
K=67.49
VC=380'
e=2.67'
K=48.98
VC=300'
e=-2.30'
P.V.C. 280+55.81 ELEV. 435.92
P.V.C. 280+56.07 ELEV. 435.92
P.V.I. 283+32.57 ELEV. 435.62
P.V.C. 286+09.81 ELEV. 459.24
P.V.T. 286+09.07 ELEV. 459.18
P.V.I. 287+44.81 ELEV. 470.74
P.V.T. 288+79.81 ELEV. 474.22
P.V.C. 289+16.21 ELEV. 475.16
P.V.I. 291+06.21 ELEV. 480.05
P.V.T. 292+96.21 ELEV. 495.64
P.V.C. 294+70.21 ELEV. 509.92
+00 F.L. INLET LT.=430.50 F.L. OUTLET RT.=426.41
+00 F.L. INLET LT.=433.34 F.L. OUTLET RT.=432.14

11/20/2015
R080426.DGN

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		080426	88	271

(2) PLAN AND PROFILE SHEETS

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
12-4-15

STA. 299+40 IN PLACE
18"x24' C.M. PIPE CULV'T.
LT. SIDE DRAIN
REMOVE AND INSTALL
18"x28' PIPE CULV'T.
LT. SIDE DRAIN
CONST. APPR. ON LT. = 15 CU.YDS.

STA. 295+64 TO STA. 298+00 LT. OF HWY. 285
CONCRETE DITCH PAVING (TYPE B) = 209.78 SQ. YD.

STA. 298+82 TO STA. 299+26 LT. OF HWY. 285
CONCRETE DITCH PAVING (TYPE B) = 39.11 SQ. YD.

STA. 299+54 TO STA. 302+60 LT. OF HWY. 285
CONCRETE DITCH PAVING (TYPE B) = 272.00 SQ. YD.

STA. 302+75 INSTALL
18"x30' PIPE CULV'T.
LT. SIDE DRAIN
CONST. APPR. ON LT. = 20 CU.YDS.

STA. 302+90 TO STA. 304+28 LT. OF HWY. 285
CONCRETE DITCH PAVING (TYPE B) = 122.67 SQ. YD.

WIRE FENCE

STA.	STA.	SIDE	TYPE	LIN. FT.
300+64	302+23	LT.	D	160

PI = 309+26.79
Δ = 13°46'28"LT.
D = 4°59'44"
T = 138.53'
L = 275.73'
PC = 307+88.26
PT = 310+63.99
e = 0.06'/'
Ls = 200'

295 | 300 | 305

PROPOSED R/W
CONST. LIMITS
EX. ROW
N 23°17'20" E
N 23°05'05" E
P.I. 303+54.39
Δ=0°12'15.0" LT.
P.C. 307+88.26
T. C. E.
8"REBAR W/2" ALUM.CAP
TOP OF BANK
BOTTOM OF DITCH
P.I. 309+26.79

STA. 298+80 IN PLACE
18" X 31' C.M. PIPE CULVERT
REMOVE & CONSTRUCT
30" PIPE CULVERT
W/FES LT. AND RT.
025 = 29 CFS D.A. = 5 ACRES
30" R.C. PIPE (CLASS IV) (TYPE 3 BEDDING) = 58 LIN. FT.
30" ACCS PIPE (TYPE 2 BEDDING) = 62 LIN. FT.
30" AICCS PIPE (TYPE 2 BEDDING) = 62 LIN. FT.
30" PCCS PIPE (TYPE 2 BEDDING) = 62 LIN. FT.
30" HDEP PIPE (TYPE 2 BEDDING) = 62 LIN. FT.
30" PVC PIPE (TYPE 2 BEDDING) = 62 LIN. FT.
30" F.E.S. = 2 EACH

P.I. 299+03.71
Δ=0°10'22.3" RT.

STA. 300+22 IN PLACE
18"x22' C.M. PIPE CULV'T.
RT. SIDE DRAIN
REMOVE AND INSTALL
18"x28' PIPE CULV'T.
RT. SIDE DRAIN
CONST. APPR. ON RT. = 100 CU. YDS.

STA. 303+95 TO STA. 305+20 RT. OF HWY. 285
CONCRETE DITCH PAVING (TYPE B) = 83.33 SQ. YD.

STA. 303+81 IN PLACE
18"x24' C.M. PIPE CULV'T.
RT. SIDE DRAIN
REMOVE AND INSTALL
18"x28' PIPE CULV'T.
RT. SIDE DRAIN
CONST. APPR. ON RT. = 20 CU. YDS.

STA. 305+34 INSTALL
18"x28' PIPE CULV'T.
RT. SIDE DRAIN
CONST. APPR. ON RT. = 20 CU. YDS.

STA. 306+65 IN PLACE
18" X 28' C.M. PIPE CULVERT
REMOVE & CONSTRUCT
30" PIPE CULVERT
W/FES LT. AND RT.
025 = 29 CFS D.A. = 5 ACRES
30" R.C. PIPE (CLASS III) (TYPE 3 BEDDING) = 68 LIN. FT.
30" ACCS PIPE (TYPE 2 BEDDING) = 72 LIN. FT.
30" AICCS PIPE (TYPE 2 BEDDING) = 72 LIN. FT.
30" PCCS PIPE (TYPE 2 BEDDING) = 72 LIN. FT.
30" HDEP PIPE (TYPE 2 BEDDING) = 72 LIN. FT.
30" PVC PIPE (TYPE 2 BEDDING) = 72 LIN. FT.
30" F.E.S. = 2 EACH

REFER TO SURVEY CONTROL DETAIL SHEETS FOR HORIZONTAL AND VERTICAL CONTROL DATA.

HWY. 285 SITE 2

STA. 306+38.26 BEGIN SUPERELEVATION
STA. 308+38.26 MAX SUPERELEVATION (0.06'/')
STA. 310+13.99 MAX SUPERELEVATION (0.06'/')
STA. 312+13.99 END SUPERELEVATION

P.V.I. 296+20.21 ELEV. 522.23
P.V.C. 297+97.62 ELEV. 525.92
P.V.T. 297+70.21 ELEV. 525.35
P.V.I. 299+77.62 ELEV. 529.67
P.V.T. 301+57.62 ELEV. 543.47
P.V.C. 302+42.49 ELEV. 549.97
P.V.I. 303+87.49 ELEV. 561.09
P.V.T. 305+32.49 ELEV. 562.67
P.V.C. 307+30.00 ELEV. 564.83
P.V.I. 308+50.00 ELEV. 566.14
P.V.T. 309+70.00 ELEV. 566.64
P.V.C. 309+80.66 ELEV. 566.68

K-48.98 VC-300' e=-2.30'
2.08%
K-64.47 VC-360' e=2.51'
7.67%
K-44.11 VC-290' e=-2.38'
1.09%
K-354.83 VC-240' e=-0.20'
0.42%

+80
F.L. INLET LT.=522.53
F.L. OUTLET RT.=521.73

+65
F.L. INLET LT.=558.78
F.L. OUTLET RT.=553.36

580 | 570 | 560 | 550 | 540 | 530 | 520 | 510 | 500 | 490

295+00 | 296+00 | 297+00 | 298+00 | 299+00 | 300+00 | 301+00 | 302+00 | 303+00 | 304+00 | 305+00 | 306+00 | 307+00 | 308+00 | 309+00 | 310+00

11/20/2015

R080426.DGN

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		080426	89	271

(2) PLAN AND PROFILE SHEETS

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
12-4-15

STA. 311+14 IN PLACE
18"x30' C.M. PIPE CULV'T.
LT. SIDE DRAIN REMOVE AND INSTALL AT
STA. 311+09
18"x32' PIPE CULV'T.
LT. SIDE DRAIN
CONST. APPR. ON LT.
= 20 CU. YDS. COMP. EMB.
AND 75 CU. YDS. UNCL. EXC.

PI = 309+26.79
Δ = 13°46'28"LT.
D = 4°59'44"
T = 138.53'
L = 275.73'
PC = 307+88.26
PT = 310+63.99
e = 0.06'/'
Ls = 200'

STA. 311+62 TO STA. 315+92 LT. OF HWY. 285
CONCRETE DITCH PAVING (TYPE B) = 382.22 SQ. YD.

STA. 316+20 INSTALL
18"x32" PIPE CULV'T.
LT. SIDE DRAIN
CONST. APPR. ON LT. = 70 CU. YDS.

DENOTES OBLITERATION OF EXISTING ROADWAY

STA. 311+60 IN PLACE
12" X 31' R.C. PIPE CULVERT
REMOVE & CONSTRUCT
30" PIPE CULVERT
W/FES LT. AND RT.
025 = 27 CFS D.A. = 5 ACRES
30" R.C. PIPE (CLASS III) (TYPE 3 BEDDING) = 64 LIN. FT.
30" ACCS PIPE (TYPE 2 BEDDING) = 66 LIN. FT.
30" AICCS PIPE (TYPE 2 BEDDING) = 66 LIN. FT.
30" PCCS PIPE (TYPE 2 BEDDING) = 66 LIN. FT.
30" HDPE PIPE (TYPE 2 BEDDING) = 66 LIN. FT.
30" PVC PIPE (TYPE 2 BEDDING) = 66 LIN. FT.
30" F.E.S. = 2 EACH

STA. 311+62 TO STA. 314+03 RT. OF HWY. 285
CONCRETE DITCH PAVING (TYPE B) = 160.67 SQ. YD.

STA. 314+34 IN PLACE
18"x23' C.M. PIPE CULV'T.
RT. SIDE DRAIN
REMOVE AND INSTALL AT STA. 314+17
DBL. 18"x28' PIPE CULV'T.
RT. SIDE DRAIN
CONST. APPR. ON RT. = 20 CU. YDS.

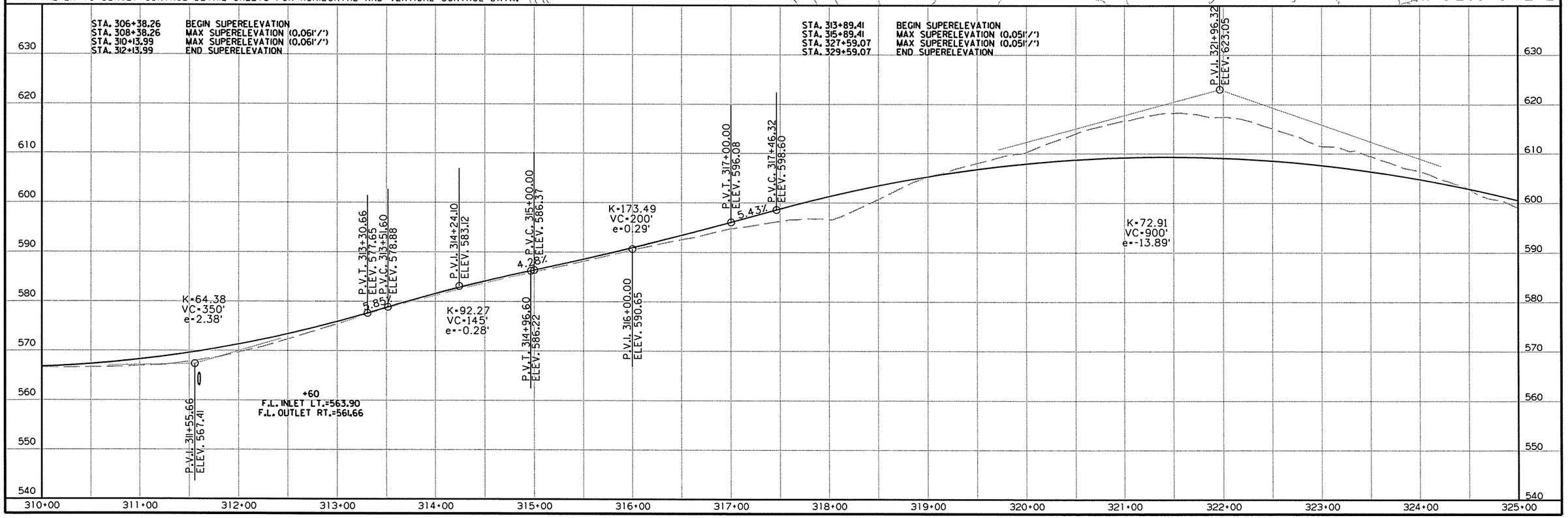
STA. 316+32 IN PLACE
18"x50' C.M. PIPE CULV'T.
RT. SIDE DRAIN
REMOVE AND INSTALL AT STA. 316+57
18"x50' PIPE CULV'T.
RT. SIDE DRAIN
CONST. APPR. ON RT. = 35 CU. YDS.

PI = 322+19.35
Δ = 50°47'11"RT.
D = 4°00'00"
T = 679.94'
L = 1269.66'
PC = 315+39.41
PT = 328+09.07
e = 0.05'/'
Ls = 200'

STA. 324+00 TO STA. 328+35 RT. OF HWY. 285
CONCRETE DITCH PAVING (TYPE B) = 386.67 SQ. YD.

REFER TO SURVEY CONTROL DETAIL SHEETS FOR HORIZONTAL AND VERTICAL CONTROL DATA.

HWY. 285 SITE 2



11/20/2015

R080426.DGN

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RO. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		080426	90	271

(2) PLAN AND PROFILE SHEETS

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
12-7-15

STA. 324+40 TO STA. 328+35 LT. OF HWY. 285
RETAINING WALL

STA. 329+05 TO STA. 333+98 LT. OF HWY. 285
CONCRETE DITCH PAVING (TYPE B) = 328.67 SQ. YD.

STA. 335+35 TO STA. 337+78 LT. OF HWY. 285
CONCRETE DITCH PAVING (TYPE B) = 219.43 SQ. YD.

EX. ROW
CONST. LIMITS
PROPOSED R/W
N 60°05'47" E
P.C. 337+02.29
P.T. 328+09.07
P.T. 339+67.13
DENOTES OBLITERATION OF EXISTING ROADWAY

PI = 322+19.35
Δ = 50°47'11"RT.
D = 4°00'00"
T = 679.94'
L = 1269.66'
PC = 315+39.41
PT = 328+09.07
e = 0.05'/'
Ls = 200'

PI = 339+67.13
Δ = 28°31'41"LT.
D = 5°30'00"
T = 264.84'
L = 518.69'
PC = 337+02.29
PT = 342+20.98
e = 0.066'/'
Ls = 200'

STA. 328+35 TO STA. 340+70 RT. OF HWY. 285
CONCRETE DITCH PAVING (TYPE A) = 1783.89 SQ. YD.

STA. 330+70 IN PLACE
18"x36' C.M. PIPE CULV'T.
CROSS DRAIN
W/F.E.S. LT. & RT.
REMOVE

STA. 334+58 IN PLACE
18"x33' R.C. PIPE CULV'T.
CROSS DRAIN
W/F.E.S. LT. & RT.
REMOVE

STA. 339+25 IN PLACE
24"x40' R.C. PIPE CULV'T.
CROSS DRAIN
W/F.E.S. LT. & RT.
REMOVE

STA. 333+03 IN PLACE
30"x41' R.C. PIPE CULV'T.
CROSS DRAIN
W/F.E.S. LT. & RT.
REMOVE

STA. 335+84 IN PLACE
18"x36' R.C. PIPE CULV'T.
CROSS DRAIN
W/F.E.S. LT. & RT.
REMOVE

STA. 334+00 CONSTRUCT
30" PIPE CULVERT
W/FES LT. AND RT.
AND DITCH CHECK
025 = 24 CFS D.A. = 5 ACRES
30" R.C. PIPE (CLASS III) (TYPE 3 BEDDING) = 68 LIN. FT.
30" ACCS PIPE (TYPE 2 BEDDING) = 72 LIN. FT.
30" AICCS PIPE (TYPE 2 BEDDING) = 72 LIN. FT.
30" PCCS PIPE (TYPE 2 BEDDING) = 72 LIN. FT.
30" HDPE PIPE (TYPE 2 BEDDING) = 72 LIN. FT.
30" PVC PIPE (TYPE 2 BEDDING) = 72 LIN. FT.
30" F.E.S. = 2 EACH

REFER TO SURVEY CONTROL DETAIL SHEETS FOR HORIZONTAL AND VERTICAL CONTROL DATA.

STA. 313+89.41 BEGIN SUPERELEVATION
STA. 315+89.41 MAX SUPERELEVATION (0.05'/')
STA. 327+59.07 MAX SUPERELEVATION (0.05'/')
STA. 329+59.07 END SUPERELEVATION

STA. 335+52.29 BEGIN SUPERELEVATION
STA. 337+52.29 MAX SUPERELEVATION (0.066'/')
STA. 341+70.98 MAX SUPERELEVATION (0.066'/')
STA. 343+70.98 END SUPERELEVATION

K=72.91
VC=900'
e=-13.89'
P.V.T. 326+46.32
ELEV. 591.95
-6.91%
-6.91%
+00
F.L. INLET LT.=534.90
F.L. OUTLET RT.=527.66

HWY. 285 SITE 2

11/20/2015
R080426.DGN

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		080426	91	271

(2) PLAN AND PROFILE SHEETS

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
12-4-15

PI = 339+67.13
Δ = 28°31'41"LT.
D = 5°30'00"
T = 264.84'
L = 518.69'
PC = 337+02.29
PT = 342+20.98
e = 0.066'/'
Ls = 200'

STA. 338+80 CONSTRUCT
30" PIPE CULVERT
W/FES LT. AND RT.
Q25 = 29 CFS D.A. = 5 ACRES
30" R.C. PIPE (CLASS IV) (TYPE 3 BEDDING) = 54 LIN. FT.
30" ACCS PIPE (TYPE 2 BEDDING) = 58 LIN. FT.
30" AICCS PIPE (TYPE 2 BEDDING) = 58 LIN. FT.
30" PCCS PIPE (TYPE 2 BEDDING) = 58 LIN. FT.
30" HDPE PIPE (TYPE 2 BEDDING) = 58 LIN. FT.
30" PVC PIPE (TYPE 2 BEDDING) = 58 LIN. FT.
30" F.E.S. = 2 EACH

DENOTES OBLITERATION OF EXISTING ROADWAY

STA. 340+40 INSTALL
18"x28" PIPE CULV'T.
LT. SIDE DRAIN
CONST. APPR. ON LT.
= 25 CU. YDS. COMP. EMB.
AND 45 CU. YDS. UNCL. EXC.

DENOTES OBLITERATION OF EXISTING ROADWAY

STA. 343+22 TO STA. 345+20 LT. OF HWY. 285
CONCRETE DITCH PAVING (TYPE B) = 176.00 SQ. YD.

PI = 349+69.13
Δ = 34°00'44"LT.
D = 7°00'00"
T = 250.34'
L = 485.89'
PC = 347+18.79
PT = 352+04.68
e = 0.078'/'
Ls = 250'

STA. 345+52 IN PLACE
24" X 52" C.M. PIPE CULVERT
REMOVE & CONSTRUCT
48" PIPE CULVERT
W/FES LT. AND RT.
Q25 = 80 CFS D.A. = 15 ACRES
48" R.C. PIPE (CLASS IV) (TYPE 3 BEDDING) = 58 LIN. FT.
48" ACCS PIPE (TYPE 2 BEDDING) = 62 LIN. FT.
48" AICCS PIPE (TYPE 2 BEDDING) = 62 LIN. FT.
48" PCCS PIPE (TYPE 2 BEDDING) = 62 LIN. FT.
48" HDPE PIPE (TYPE 2 BEDDING) = 62 LIN. FT.
48" F.E.S. = 2 EACH

STA. 340+70 TO STA. 349+66 RT. OF HWY. 285
CONCRETE DITCH PAVING (TYPE B) = 796.44 SQ. YD.

STA. 349+70 IN PLACE
30" X 30" C.M. PIPE CULVERT
REMOVE & CONSTRUCT
48" PIPE CULVERT
W/FES LT. AND RT.
Q25 = 80 CFS D.A. = 15 ACRES
48" R.C. PIPE (CLASS IV) (TYPE 3 BEDDING) = 54 LIN. FT.
48" ACCS PIPE (TYPE 2 BEDDING) = 60 LIN. FT.
48" AICCS PIPE (TYPE 2 BEDDING) = 60 LIN. FT.
48" PCCS PIPE (TYPE 2 BEDDING) = 60 LIN. FT.
48" HDPE PIPE (TYPE 2 BEDDING) = 60 LIN. FT.
48" F.E.S. = 2 EACH

STA. 349+96 INSTALL
18"x32" PIPE CULV'T.
RT. SIDE DRAIN
CONST. APPR. ON RT. = 45 CU. YDS.

HWY. 285 SITE 2

REFER TO SURVEY CONTROL DETAIL SHEETS FOR HORIZONTAL AND VERTICAL CONTROL DATA.

STA. 335+52.29 BEGIN SUPERELEVATION
STA. 337+52.29 MAX SUPERELEVATION (0.066'/')
STA. 341+70.98 MAX SUPERELEVATION (0.066'/')
STA. 343+70.98 END SUPERELEVATION

STA. 345+31.29 BEGIN SUPERELEVATION
STA. 347+81.29 MAX SUPERELEVATION (0.078'/')
STA. 351+42.18 MAX SUPERELEVATION (0.078'/')
STA. 353+92.18 END SUPERELEVATION

-6.91%
+90
F.L. INLET RT.=502.99
F.L. OUTLET LT.=499.89

P.V.C. 341+61.48
ELEV. 487.25

P.V.I. 343+11.48
ELEV. 476.88

K=329.04
VC=300'
e=-0.34'

-7.82%

P.V.T. 344+61.48
ELEV. 465.15

-7.82%
+52
F.L. INLET RT.=451.59
F.L. OUTLET LT.=450.57

P.V.I. 347+00.00
ELEV. 446.49

+70
F.L. INLET RT.=421.20
F.L. OUTLET LT.=417.34

336+00 337+00 338+00 339+00 340+00 341+00 342+00 343+00 344+00 345+00 346+00 347+00 348+00 349+00 350+00 351+00

11/20/2015

R080426.DGN

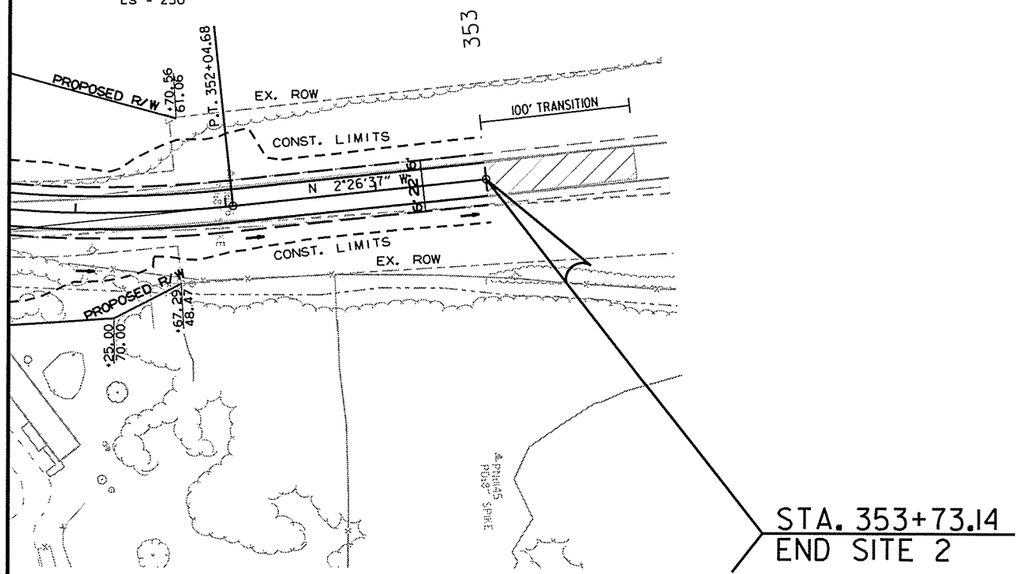
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		080426	92	271

(2) PLAN AND PROFILE SHEETS

PI = 349+69.13
Δ = 34°00'44"LT.
D = 7°00'00"
T = 250.34'
L = 485.89'
PC = 347+18.79
PT = 352+04.68
e = 0.078'/'
Ls = 250'

WIRE FENCE

STA.	STA.	SIDE	TYPE	LIN. FT.
351+24	352+49	LT.	D	136



STA. 353+73.14
END SITE 2

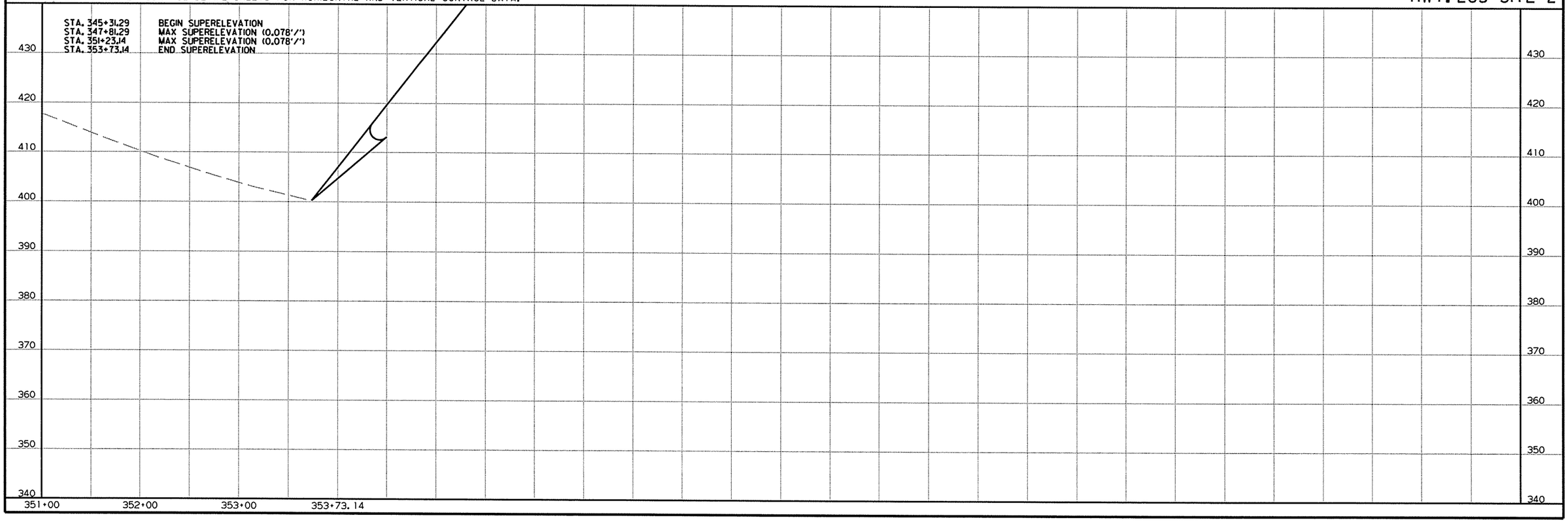
REFER TO SURVEY CONTROL DETAIL SHEETS FOR HORIZONTAL AND VERTICAL CONTROL DATA.

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
12-4-15

RT.

HWY. 285 SITE 2

STA. 345+31.29 BEGIN SUPERELEVATION
STA. 347+81.29 MAX SUPERELEVATION (0.078'/')
STA. 351+23.14 MAX SUPERELEVATION (0.078'/')
STA. 353+73.14 END SUPERELEVATION



11/20/2015

R080426.DGN

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		080426	93	271

(2) PLAN AND PROFILE SHEETS

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
12-4-15

WIRE FENCE

STA.	STA.	SIDE	TYPE	LIN. FT.
368+54	369+21	LT.	D	74

STA. 363+00 TO STA. 366+00 LT. OF HWY. 285
CONCRETE DITCH PAVING (TYPE A) = 433.33 SQ. YD.

STA. 364+36 IN PLACE
18" X 24' C.M. PIPE CULVERT
REMOVE & CONSTRUCT
30" PIPE CULVERT
ON 15° RT. FWD. SKEW
W/FES LT. AND RT.
AND DITCH CHECK
025 = 29 CFS D.A. = 5 ACRES
30" R.C. PIPE (CLASS IV) (TYPE 3 BEDDING) = 68 LIN. FT.
30" ACCS PIPE (TYPE 2 BEDDING) = 72 LIN. FT.
30" AICCS PIPE (TYPE 2 BEDDING) = 72 LIN. FT.
30" PCCS PIPE (TYPE 2 BEDDING) = 72 LIN. FT.
30" HDPE PIPE (TYPE 2 BEDDING) = 72 LIN. FT.
30" PVC PIPE (TYPE 2 BEDDING) = 72 LIN. FT.
30" F.E.S. = 2 EACH

STA. 363+00.00
BEGIN SITE 3

PI = 366+63.70
Δ = 39°06'51"RT.
D = 11°16'20"
T = 180.57'
L = 347.00'
PC = 364+83.14
PT = 368+30.13
e = 0.099'/'
Ls = 250'

STA. 369+95 IN PLACE
18"x41' C.M. PIPE CULV'T.
RT. SIDE DRAIN
REMOVE AND INSTALL
18"x30' PIPE CULV'T.
RT. SIDE DRAIN
CONST. APPR. ON RT. = 30 CU. YDS.

STA. 365+13 IN PLACE
18" X 41' C.M. PIPE CULVERT
REMOVE & CONSTRUCT
30" PIPE CULVERT
W/FES LT. AND RT.
AND DITCH CHECK
025 = 29 CFS D.A. = 5 ACRES
30" R.C. PIPE (CLASS III) (TYPE 3 BEDDING) = 66 LIN. FT.
30" ACCS PIPE (TYPE 2 BEDDING) = 70 LIN. FT.
30" AICCS PIPE (TYPE 2 BEDDING) = 70 LIN. FT.
30" PCCS PIPE (TYPE 2 BEDDING) = 70 LIN. FT.
30" HDPE PIPE (TYPE 2 BEDDING) = 70 LIN. FT.
30" PVC PIPE (TYPE 2 BEDDING) = 70 LIN. FT.
30" F.E.S. = 2 EACH

STA. 368+91 CONST.
APPR. ON LT. = 230 CU. YDS.

PI = 371+20.89
Δ = 33°36'19"LT.
D = 10°58'44"
T = 157.59'
L = 306.09'
PC = 369+63.30
PT = 372+69.39
e = 0.097'/'
Ls = 250'

HWY. 285 SITE 3

REFER TO SURVEY CONTROL DETAIL SHEETS FOR HORIZONTAL AND VERTICAL CONTROL DATA.

STA. 364+16.55 BEGIN SUPERELEVATION
STA. 366+56.63 MAX SUPERELEVATION (0.095'/')
STA. 366+56.64 MAX SUPERELEVATION (0.095'/')
STA. 368+96.72 END SUPERELEVATION

STA. 368+96.72 BEGIN SUPERELEVATION
STA. 371+16.34 MAX SUPERELEVATION (0.085'/')
STA. 371+16.35 MAX SUPERELEVATION (0.085'/')
STA. 373+35.97 END SUPERELEVATION

+36
F.L. INLET LT.=373.56
F.L. OUTLET RT.=364.49

+13
F.L. INLET LT.=368.79
F.L. OUTLET RT.=359.51

400 390 380 370 360 350 340 330 320 310

355+00 356+00 357+00 358+00 359+00 360+00 361+00 362+00 363+00 364+00 365+00 366+00 367+00 368+00 369+00 370+00

12/1/2015

R080426.DGN

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		080426	94	271

(2) PLAN AND PROFILE SHEETS

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
12-4-15

PI = 371+20.89
Δ = 33°36'19"LT.
D = 10°58'44"
T = 157.59'
L = 306.09'
PC = 369+63.30
PT = 372+69.39
e = 0.097'/'
Ls = 250'

STA. 377+06 CONST.
APPR. ON LT. = 40 CU. YDS.

WIRE FENCE

STA.	STA.	SIDE	TYPE	LIN. FT.	16' GATE EA.
369+45	377+78	LT.	D	810	1

PC369+63.30
PT372+69.39
P.I. = 378+00.00
Δ = 0°34'24.6" LT.
POE 378+99.91
16' GATE
T.C.E.
PROPOSED R/W
EXISTING R/W
100' TRANSITION
N 3°05'55" E
N 2°31'30" E
BRUSH
POND
P.I. 371+20.89
STA. 373+18 IN PLACE
18"x41' C.M. PIPE CULV'T.
RT. SIDE DRAIN
REMOVE AND INSTALL AT STA. 373+06
18"x32' PIPE CULV'T.
RT. SIDE DRAIN
CONST. APPR. ON RT. = 25 CU. YDS.
PIN 4 FD3/8" REBAR W/2" ALUM. CAP

REFER TO SURVEY CONTROL DETAIL SHEETS FOR HORIZONTAL AND VERTICAL CONTROL DATA.

STA. 378+99.91
END SITE 3

HWY. 285 SITE 3

STA. 368+96.72 BEGIN SUPERELEVATION
STA. 371+16.34 MAX SUPERELEVATION (0.085'/')
STA. 371+16.35 MAX SUPERELEVATION (0.085'/')
STA. 373+35.97 END SUPERELEVATION

380 370 360 350 340 330 320 310 300 290

370+00 371+00 372+00 373+00 374+00 375+00 376+00 377+00 378+00 379+00 380+00 381+00 382+00 383+00 384+00 385+00

12/1/2015

R080426.DGN

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		080426	95	271

(2) PLAN AND PROFILE SHEETS

STATE OF ARKANSAS
TIMOTHY D. SMITH
REGISTERED PROFESSIONAL ENGINEER
No. 11425
12-4-15

STA. 391+58 IN PLACE
24"x24' C.M. PIPE CULV'T.
LT. SIDE DRAIN
REMOVE AND INSTALL
24"x28' PIPE CULV'T.
LT. SIDE DRAIN
CONST. APPR. ON LT. = 20 CU. YDS.

WIRE FENCE

STA.	STA.	SIDE	TYPE	LIN. FT.
391+45	395+40	RT.	D-1	406

STA. 396+50 IN PLACE
18"x24' C.M. PIPE CULV'T.
LT. SIDE DRAIN
REMOVE AND INSTALL
24"x28' PIPE CULV'T.
LT. SIDE DRAIN
CONST. APPR. ON LT. = 10 CU. YDS.

PI = 396+33.91
Δ = 40°36'14"LT.
D = 12°15'00"
T = 173.03'
L = 331.46'
PC = 394+60.88
PT = 397+92.34
e = 0.100'/'
Ls = 250'

STA. 398+80 TO STA. 399+28 LT. OF HWY. 285
CONCRETE DITCH PAVING (TYPE B) = 213.33 SQ. YD.

STA. 505+74.17 ON HWY. 124 =
STA. 403+50.00 ON HWY. 285
Δ=90°00'00"

STA. 395+54 IN PLACE
18"x24' C.M. PIPE CULV'T.
RT. SIDE DRAIN
REMOVE AND INSTALL
18"x34' PIPE CULV'T.
RT. SIDE DRAIN
CONST. APPR. ON RT. = 50 CU. YDS.

PI = 403+19.32
Δ = 92°35'14"RT.
D = 11°30'00"
T = 521.25'
L = 805.11'
PC = 397+98.08
PT = 406+03.18
e = 0.099'/'
Ls = 250'

STA. 405+50 IN PLACE
18"x24' C.M. PIPE CULV'T.
LT. SIDE DRAIN
REMOVE AND INSTALL
24"x28' PIPE CULV'T.
LT. SIDE DRAIN
CONST. APPR. ON LT. = 200 CU. YDS.

STA. 397+00 TO STA. 399+79 RT. OF HWY. 285
CONCRETE DITCH PAVING (TYPE B) = 248.00 SQ. YD.

DENOTES OBLITERATION OF EXISTING ROADWAY

STA. 399+03 IN PLACE
24" X 30' C.M. PIPE CULVERT
REMOVE & CONSTRUCT
36" PIPE CULVERT
@ 30° RT. FWD. SKEW
W/FES LT. AND RT.
Q25 = 21 CFS D.A. = 5 ACRES
36" R.C. PIPE (CLASS III) (TYPE 3 BEDDING) = 74 LIN. FT.
36" ACCS PIPE (TYPE 2 BEDDING) = 78 LIN. FT.
36" AICCS PIPE (TYPE 2 BEDDING) = 78 LIN. FT.
36" PCCS PIPE (TYPE 2 BEDDING) = 78 LIN. FT.
36" HDPE PIPE (TYPE 2 BEDDING) = 78 LIN. FT.
36" PVC PIPE (TYPE 2 BEDDING) = 78 LIN. FT.
36" F.E.S. = 2 EACH

STA. 406+30 IN PLACE
18"x40' C.M. PIPE CULV'T.
RT. SIDE DRAIN
REMOVE AND CONST.
APPR. ON RT. = 5 CU. YDS.

STA. 394+33 IN PLACE
18"x30' C.M. PIPE CULV'T.
RT. SIDE DRAIN
REMOVE AND INSTALL
18" x 46' PIPE CULV'T.
RT. SIDE DRAIN
CONST. APPR. ON RT. = 100 CU. YDS.

STA. 391+45.00
BEGIN SITE 4

REFER TO SURVEY CONTROL DETAIL SHEETS FOR HORIZONTAL AND VERTICAL CONTROL DATA.

HWY. 285 SITE 4

STA. 393+34.43 BEGIN SUPERELEVATION
STA. 395+03.03 MAX SUPERELEVATION (0.067'/')
STA. 396+26.61 MAX SUPERELEVATION (0.067'/')
STA. 397+95.21 END SUPERELEVATION

STA. 397+95.21 BEGIN SUPERELEVATION
STA. 400+45.21 MAX SUPERELEVATION (0.099'/')
STA. 405+00.00 MAX SUPERELEVATION (0.099'/')
STA. 407+50.00 END SUPERELEVATION

P.V.I. 394+00.00
ELEV. 358.70
6.10%
P.V.C. 395+77.72
ELEV. 369.54
K=105.02
VC=200'
e=0.48'
P.V.I. 396+77.72
ELEV. 375.63
P.V.I. 397+77.72
ELEV. 383.63
-00.00 RT.DT.GR.
RT.ELEV. 382.45
-00.00 LT.DT.GR.
LT. ELEV. 382.64
1.13% LT.DT.GR.
-83.63 LT.DT.GR.
LT. ELEV. 383.58
4.29% RT.DT.GR.
-19.66 RT.DT.GR.
RT.ELEV. 387.59
14.92% LT.DT.GR.
-00.00 LT.DT.GR.
LT. ELEV. 400.94
10.55% RT.DT.GR.
-80.00 RT.DT.GR.
RT.ELEV. 404.51
8.00%
+03
F.L. INLET RT.=385.90
F.L. OUTLET LT.=384.23
P.V.I. 403+03.11
ELEV. 425.66
P.V.C. 404+53.11
ELEV. 437.66
K=52.56
VC=300'
e=-2.14'

12/1/2015
R080426.DGN

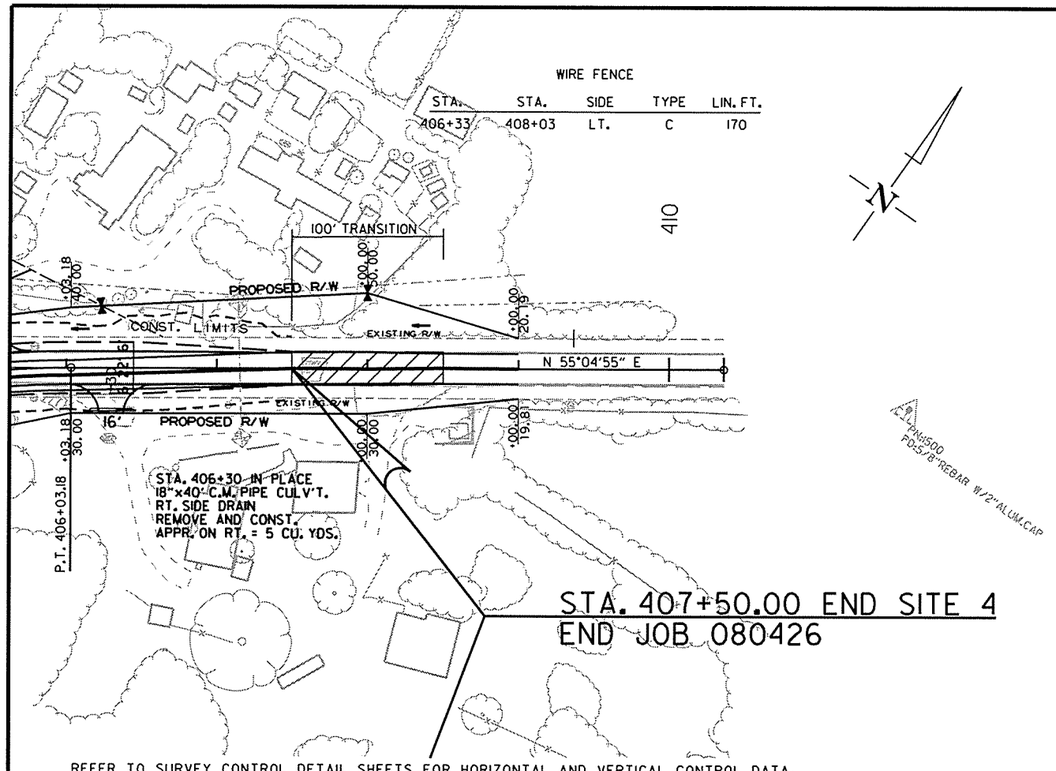
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		080426	96	271

(2) PLAN AND PROFILE SHEETS

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
12-4-15

WIRE FENCE

STA.	STA.	SIDE	TYPE	LIN. FT.
406+33	408+03	LT.	C	170



HWY. 285 SITE 4

STA. 397+95.21 BEGIN SUPERELEVATION
STA. 400+54.21 MAX SUPERELEVATION (0.098'/')
STA. 405+00.00 MAX SUPERELEVATION (0.098'/')
STA. 407+50.00 END SUPERELEVATION

K-52.56
VC-300'
e=-2.14'

2.29%

P.V.I. 407+50.00
ELEV. 444.47

P.V.T. 406+03.11
ELEV. 441.10

480 470 460 450 440 430 420 410 400 390

406+00 407+00 408+00 409+00 410+00 411+00 412+00 413+00 414+00 415+00 416+00 417+00 418+00 419+00 420+00 421+00

12/1/2015

R080426.DGN

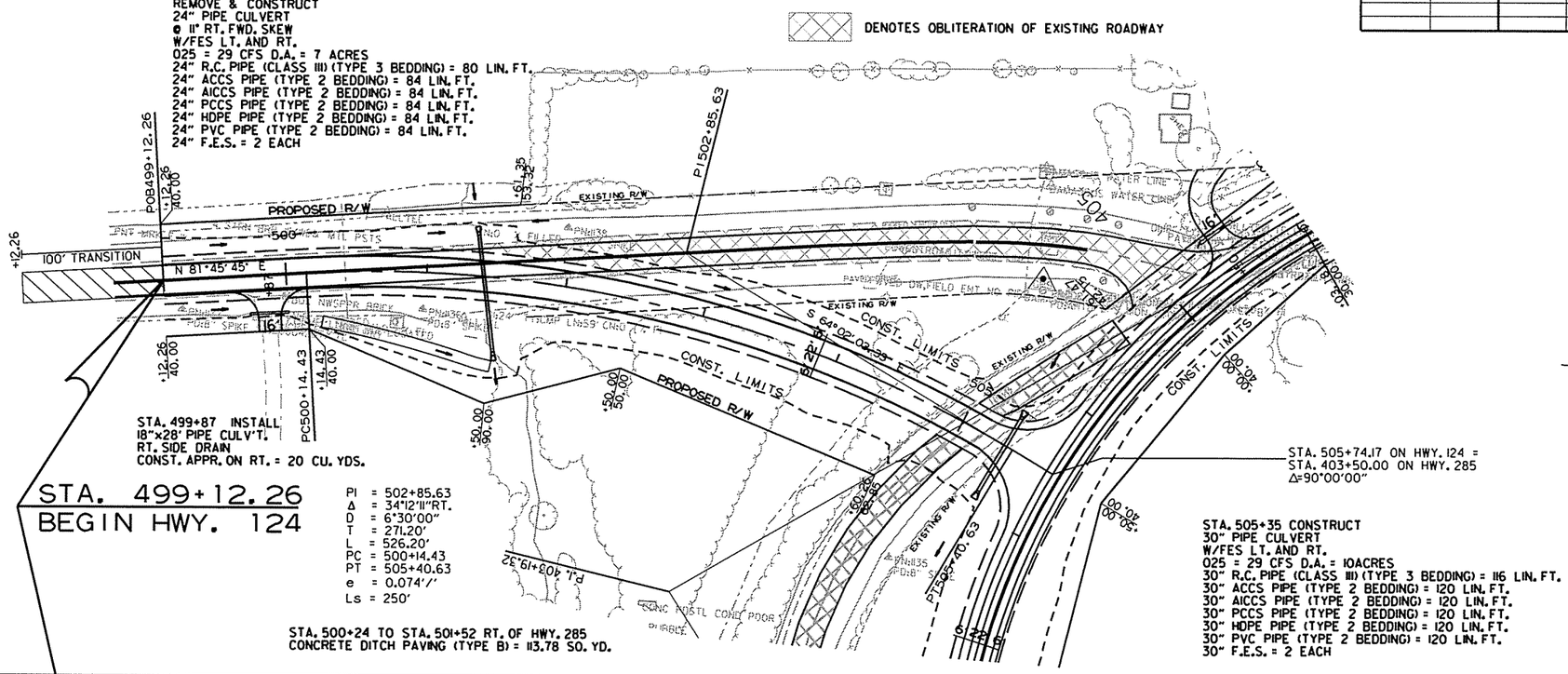
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		080426	97	271

(2) PLAN AND PROFILE SHEETS

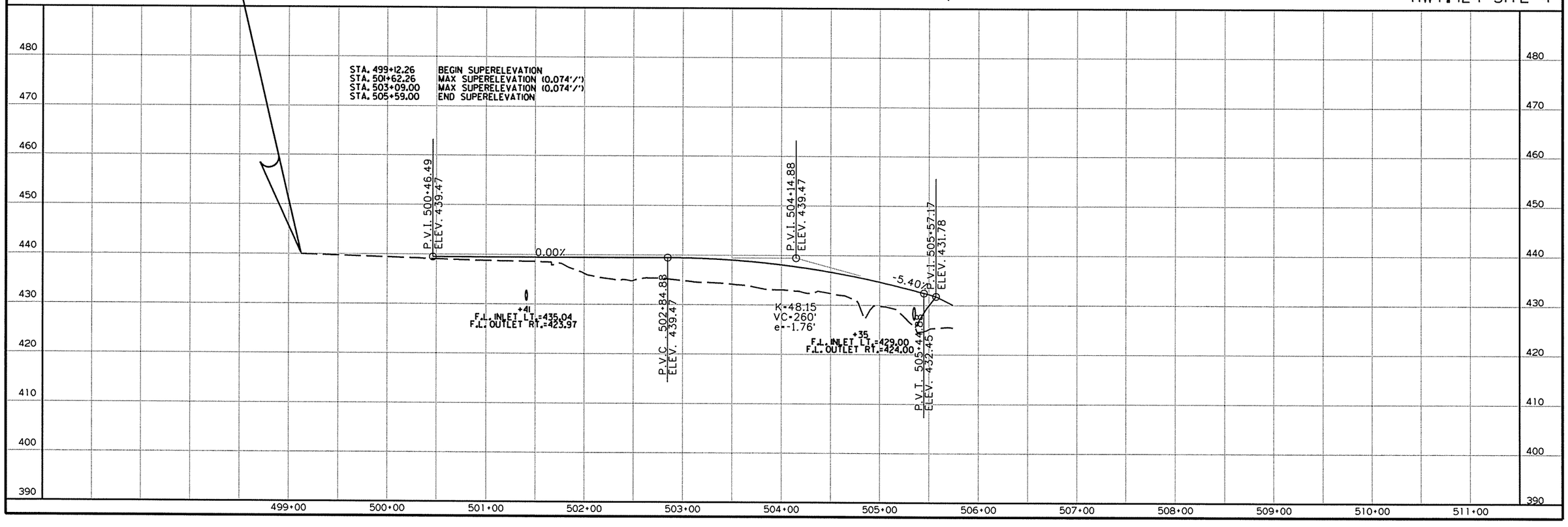
STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
12-4-15

STA. 501+41 IN PLACE
24" X 58' C.M. PIPE CULVERT
REMOVE & CONSTRUCT
24" PIPE CULVERT
@ 11° RT. FWD. SKEW
W/FES LT. AND RT.
025 = 29 CFS D.A. = 7 ACRES
24" R.C. PIPE (CLASS III) (TYPE 3 BEDDING) = 80 LIN. FT.
24" ACCS PIPE (TYPE 2 BEDDING) = 84 LIN. FT.
24" AICCS PIPE (TYPE 2 BEDDING) = 84 LIN. FT.
24" PCCS PIPE (TYPE 2 BEDDING) = 84 LIN. FT.
24" HDPE PIPE (TYPE 2 BEDDING) = 84 LIN. FT.
24" PVC PIPE (TYPE 2 BEDDING) = 84 LIN. FT.
24" F.E.S. = 2 EACH

DENOTES OBLITERATION OF EXISTING ROADWAY



HWY. 124 SITE 4



12/1/2015

R080426.DGN

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		080426	98	271

(2) PLAN AND PROFILE SHEETS

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
12-4-15

DENOTES OBLITERATION OF EXISTING ROADWAY

PI = 804+07.99
Δ = 8°12'12"LT.
D = 2°30'00"
T = 164.35'
L = 328.13'
PC = 802+43.64
PT = 805+71.78
NO SUPER

STA. 212+65.33 HWY. 285
= STA. 599+94.33 W REPUBLICAN RD
Δ = 81°34'06.54"

PI = 606+01.33
Δ = 11°05'29"RT.
D = 6°30'00"
T = 85.59'
L = 170.64'
PC = 605+15.75
PT = 606+86.38
e = 0.050'/'
Ls = 200'

PI = 601+84.95
Δ = 22°10'30"LT.
D = 6°00'00"
T = 187.13'
L = 369.59'
PC = 599+97.82
PT = 603+67.40
NO SUPER

STA. 604+00 - INSTALL
18" X 28' SIDE DRAIN
RT. SIDE DRAIN
CONSTRUCT APPR. = 25 CU. YD.

STA. 603+16 IN PLACE
5' X 3' X 31' R.C. BOX
REMOVE AND REPLACE
DBL. 36" PIPE CULVERT
@ 15° LT. FWD. SKEW
W/FES LT. & RT.
Q25 = 94 CFS D.A. = 45 ACRES
36" R.C. PIPE (CLASS IV) (TYPE 3 BEDDING) = 200 LIN.FT.
36" ACCS PIPE (TYPE 2 BEDDING) = 212 LIN. FT.
36" AICCS PIPE (TYPE 2 BEDDING) = 212 LIN. FT.
36" PCCS PIPE (TYPE 2 BEDDING) = 212 LIN. FT.
36" HDPE PIPE (TYPE 2 BEDDING) = 212 LIN. FT.
36" PVC PIPE (TYPE 2 BEDDING) = 212 LIN. FT.
36" F.E.S. - 4 EACH

STA. 605+33 IN PLACE
4' X 3' X 27' R.C. BOX
REMOVE AND REPLACE
DBL. 36" PIPE CULVERT
W/FES LT. & RT.
Q25 = 210 CFS D.A. = 105 ACRES
36" R.C. PIPE (CLASS IV) (TYPE 3 BEDDING) = 80 LIN.FT.
36" ACCS PIPE (TYPE 2 BEDDING) = 92 LIN. FT.
36" AICCS PIPE (TYPE 2 BEDDING) = 92 LIN. FT.
36" PCCS PIPE (TYPE 2 BEDDING) = 92 LIN. FT.
36" HDPE PIPE (TYPE 2 BEDDING) = 92 LIN. FT.
36" PVC PIPE (TYPE 2 BEDDING) = 92 LIN. FT.
36" F.E.S. - 4 EACH

STA. 606+91 IN PLACE
3' X 3' X 26' R.C. BOX
REMOVE AND CONSTRUCT
51" X 31" ARCH PIPE CULVERT
W/FES LT. & RT.
Q25 = 210 CFS D.A. = 105 ACRES
51" X 31" R.C. PIPE (CLASS IV) (TYPE 3 BEDDING) = 36 LIN. FT.
51" X 31" ACCS PIPE (TYPE 2 BEDDING) = 42 LIN. FT.
51" X 31" AICCS PIPE (TYPE 2 BEDDING) = 42 LIN. FT.
51" X 31" PCCS PIPE (TYPE 2 BEDDING) = 42 LIN. FT.
51" X 31" F.E.S. - 4 EACH

W. REPUBLICAN RD.

CONSTRUCTION LIMITS
100' TRANSITION
P.C.E.
P.C. 802+43.64
P.T. 805+71.78
P.I. 800+00.00
P.C. 605+15.75
P.T. 606+86.38
P.I. 603+67.40
P.I. 606+01.33
P.I. 601+84.95
S 88°00'42" E
S 76°59'43" E
N 49°03'35" E
N 13°47'48" W
WD:5" HT:12.5' LN:31.1' W/REBAR
WD:5" HT:12.5' LN:31.1' W/REBAR ONLY
PIDS:6" REBAR W/CAPS IN PP W.SIDE OF HWY 285
PIDS:6" REBAR W/CAP
CMP
605
608
210

BEGIN W. REPUBLICAN RD.
STA. 600+11.68

STA. 604+41.58 BEGIN SUPERELEVATION
STA. 606+01.06 MAX SUPERELEVATION (0.040'/')
STA. 606+75.52 MAX SUPERELEVATION (0.040'/')
STA. 608+35.00 END SUPERELEVATION

END W. REPUBLICAN RD.
STA. 608+35.00

P.V.C. 600+11.68
422.51
P.V.I. 600+61.68
422.51
K=10.85
VC=100'
e=-1.15'
-9.22%
P.V.T. 601+11.68
417.90
P.V.C. 603+61.16
394.90
K=21.58
VC=200'
e=2.32'
P.V.I. 604+61.16
385.69
P.V.T. 605+61.16
385.74
0.05%
608+35.00
385.90

•41
INLET F.L. RT. = 387.94
OUTLET F.L. LT. = 380.93

•33
INLET F.L. RT. = 379.47
OUTLET F.L. LT. = 380.81

•91
INLET F.L. RT. = 381.61
OUTLET F.L. LT. = 380.16

450 440 430 420 410 400 390 380 370 360

600+00 601+00 602+00 603+00 604+00 605+00 606+00 607+00 608+00 609+00 610+00

12/1/2015

R080426.DGN

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		080426	99	271

(2) PLAN AND PROFILE SHEETS

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
12-1-15

PI = 804+07.99
Δ = 8°12'12"LT.
D = 2°30'00"
T = 164.35'
L = 328.13'
PC = 802+43.64
PT = 805+71.78
NO SUPER

STA. 799+99.16 - MALLETT TOWN RD.
= STA. 212+01.87 - HWY. 285
Δ = 61°09'57.70"

PI = 601+84.95
Δ = 22°10'30"LT.
D = 6°00'00"
T = 187.13'
L = 369.59'
PC = 599+97.82
PT = 603+67.40
NO SUPER

PI = 606+01.33
Δ = 11°05'29"RT.
D = 6°30'00"
T = 85.59'
L = 170.64'
PC = 605+15.75
PT = 606+86.38
e = 0.050'/'
Ls = 200'

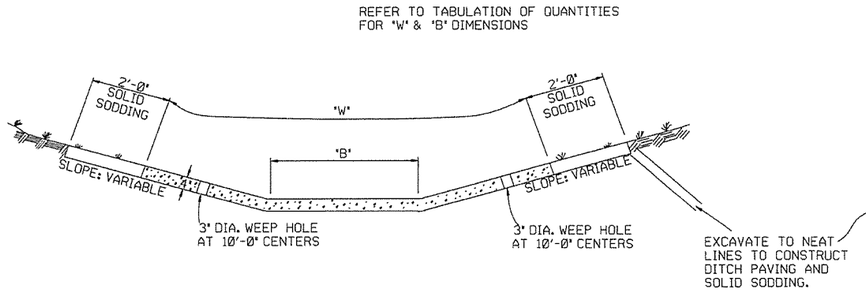
STA. 801+68 CONSTRUCT
24" PIPE CULVERT
W/FES LT. AND RT.
Q25 = 3 CFS D.A. = 1 ACRE
24" R.C. PIPE (CLASS III) (TYPE 3 BEDDING) = 86 LIN. FT.
24" ACCS PIPE (TYPE 2 BEDDING) = 90 LIN. FT.
24" AICCS PIPE (TYPE 2 BEDDING) = 90 LIN. FT.
24" PCCS PIPE (TYPE 2 BEDDING) = 90 LIN. FT.
24" HDPE PIPE (TYPE 2 BEDDING) = 90 LIN. FT.
24" PVC PIPE (TYPE 2 BEDDING) = 90 LIN. FT.
24" F.E.S. = 2 EACH

MALLETT TOWN RD.

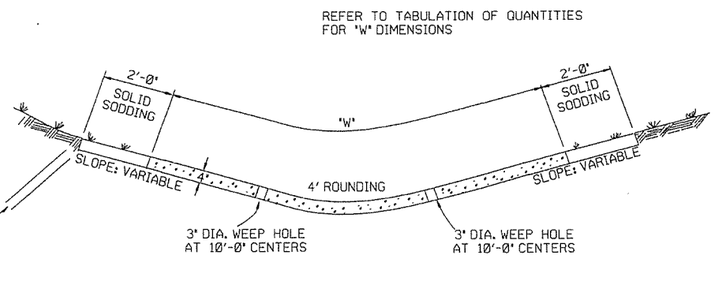
P.V.I. 803+56.98
ELEV. 412.49
P.V.C. 802+58.73
ELEV. 412.49
K=42.07
VC=227'
e=1.53'
P.V.I. 801+45.37
ELEV. 412.49
P.V.T. 800+32.00
ELEV. 418.60
P.V.I. 800+18.64
ELEV. 419.32
P.V.I. 799+99.16
ELEV. 420.84
0.00%
5.39%
BEGIN MALLETT TOWN RD.
STA. 600+11.68
INLET F.L. = 403.76
OUTLET F.L. = 399.43

804+00 803+00 802+00 801+00 800+00 799+00

11/20/2015
R080426.DGN

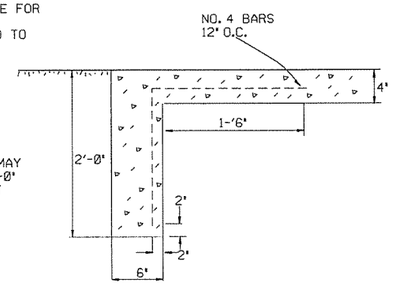


TYPE A



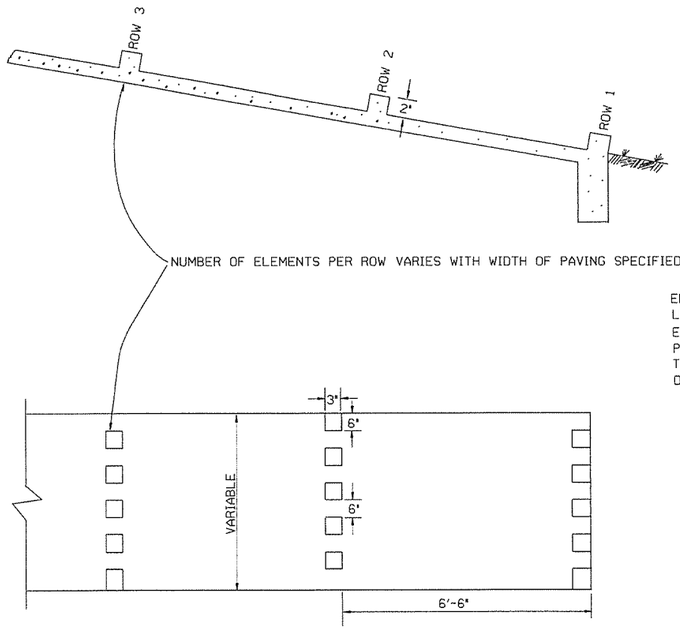
TYPE B

THE STEEL AND ADDITIONAL CONCRETE FOR THE WALLS SHALL NOT BE PAID FOR DIRECTLY, BUT SHALL BE CONSIDERED TO BE INCLUDED IN THE PRICE BID FOR 'CONCRETE DITCH PAVING.'



TOE WALL DEPTH MAY BE ALTERED TO 1'-0" WHEN DIRECTED BY THE ENGINEER IN ROCK EXCAVATION

TOE WALL DETAIL FOR CONCRETE DITCH PAVING



ENERGY DISSIPATORS TO BE USED FOR THE ENTIRE LENGTH OF DITCH WHEN SLOPE OF DITCH PAVING EXCEEDS 7%. THE DISSIPATORS WILL NOT BE PAID FOR DIRECTLY, BUT SHALL BE CONSIDERED TO BE UNCLUDED IN THE PRICE BID FOR CONCRETE DITCH PAVING.

ENERGY DISSIPATORS
(NO SCALE)

GENERAL NOTES:

THE FULL WIDTH OF EACH SECTION SHALL BE POURED MONOLITHICALLY.

TOE WALLS TO BE CONSTRUCTED FULL WIDTH AT EACH END OF DITCH PAVING, AND POURED MONOLITHICALLY.

SOLID SOD ALONG DITCH PAVING TO BE PLACED WITHIN 14 DAYS OF DITCH PAVING CONSTRUCTION.

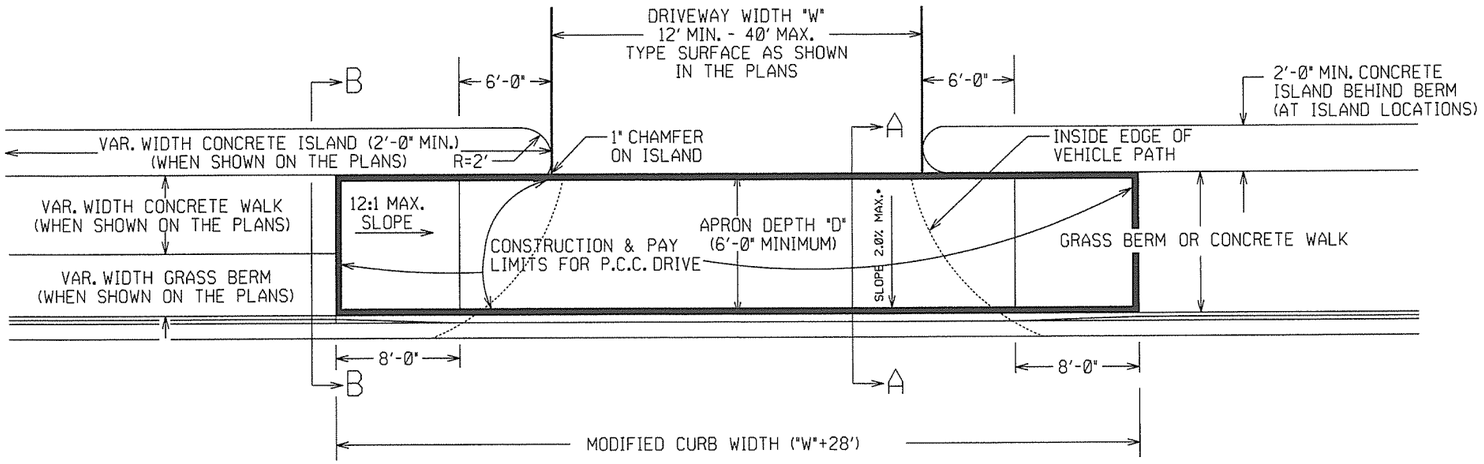
1" WIDE TRANSVERSE EXPANSION JOINTS SHALL BE PLACED IN CONCRETE DITCH PAVING AT 45' INTERVALS. THE SPACE SHALL BE FILLED WITH APPROVED JOINT FILLER COMPLYING WITH AASHTO M213.

DATE	REVISION	DATE FILM'D
11-17-10	ADDED GENERAL NOTE	
6-2-94	ADDED GENERAL NOTE ABOUT SOLID SODDING	
11-30-8	ELIMINATED MIN. ROWS OF ELEMENTS	111-30-89
7-15-88	REVISED DISSIPATOR NOTE	653-7-15-88
4-3-87	REVISED ENERGY DISSIPATOR	671-4-3-87
1-9-87	MODIFIED NOTE ON ENERGY DISS.	532-1-9-87
11-3-86	ADDED NOTE TO ENERGY DISS.	599-12-1-86
11-1-84	ENERGY DISSIPATOR DETAILS ADDED	508-11-1-84
11-1-84	EXCAVATION DETAILS ADDED TYPED A & B	
10-2-72	REVISED AND REDRAWN	508-10-2-72

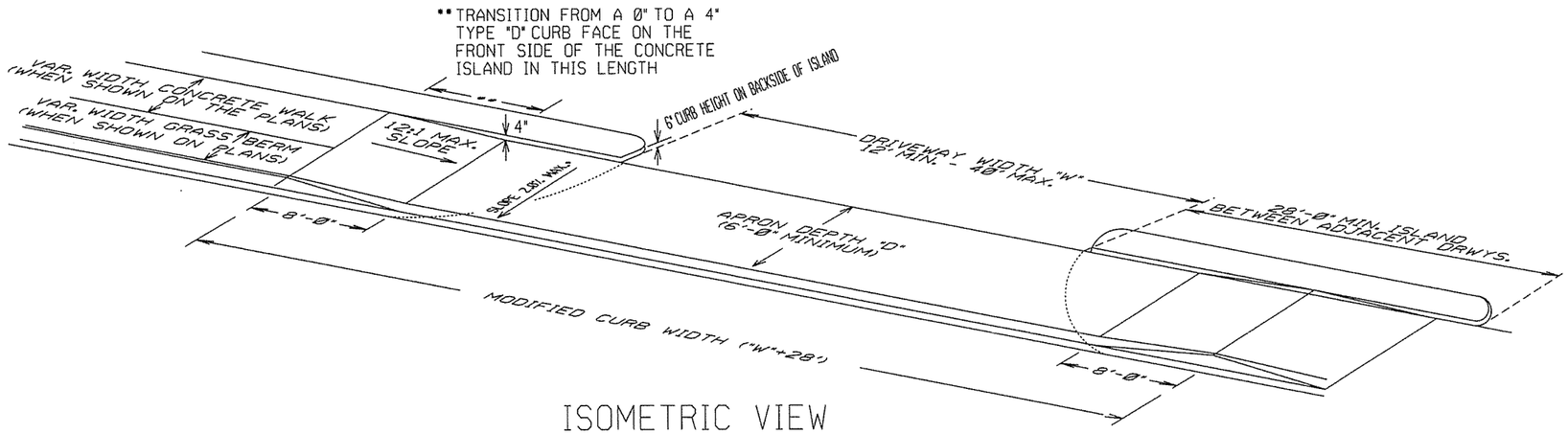
ARKANSAS STATE HIGHWAY COMMISSION

CONCRETE DITCH PAVING

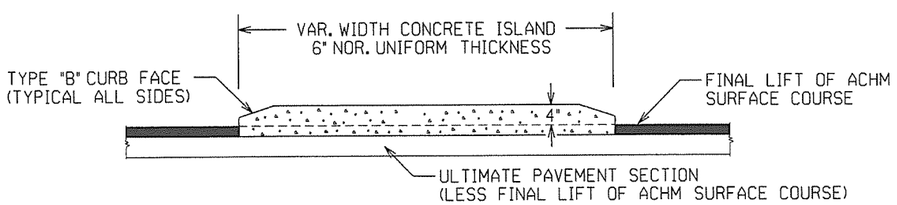
STANDARD DRAWING CDP-1



PLAN VIEW

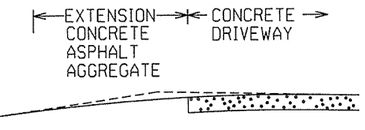


ISOMETRIC VIEW



CURBED ISLANDS FOR CHANNELIZATION

REFER TO PLANS FOR TYPE OF CURB FACE TO BE USED. NO DIRECT PAYMENT WILL BE MADE FOR THE CURB FACES SHOWN ON THE ISLAND DETAILS. PAYMENT FOR THE CURB FACE WILL BE INCLUDED IN THE UNIT PRICE BID FOR THE ITEM "CONCRETE ISLAND".



EXTENSION TYPICAL SECTIONS

1: CONCRETE - 6" P.C. CONCRETE DRIVEWAY

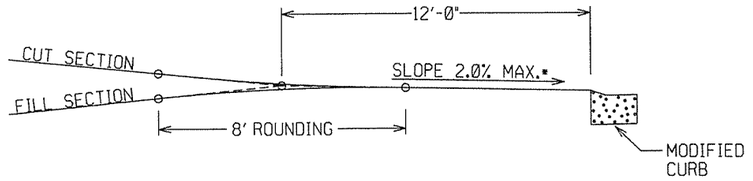
2: ASPHALT - 2" ACHM SURFACE COURSE (1/2")
4" ACHM BINDER COURSE.(1") OR
4" ACHM BASE COURSE (1-1/2")

3: ASPHALT - 2" ACHM SURFACE COURSE (1/2")
7" AGGREGATE BASE COURSE

4: AGGREGATE - 6" AGGREGATE BASE COURSE

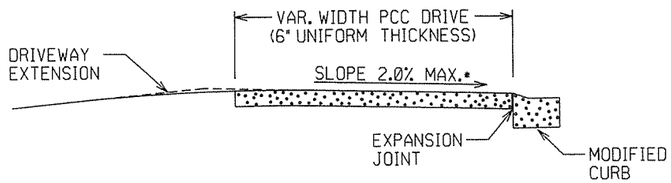
THE TYPE OF EXTENSION SHALL BE AS SHOWN IN THE PLANS. THE CONTRACTOR MAY, WITH THE APPROVAL OF THE ENGINEER, SUBSTITUTE A LOWER NUMBERED TYPE OF EXTENSION IN LIEU OF THE TYPE SPECIFIED IN THE PLANS, BUT AT NO ADDITIONAL COST TO THE DEPARTMENT.

DRIVEWAY EXTENSION DETAILS

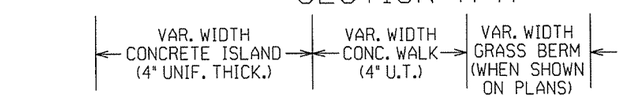


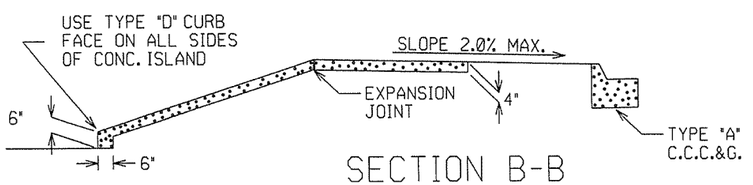
DRIVEWAY VERTICAL ALIGNMENT DETAILS

- NOTE: DRIVEWAYS MAY NOT BE SLOPED AWAY FROM THE ROADWAY UNLESS APPROVED BY THE ENGINEER.



SECTION A-A

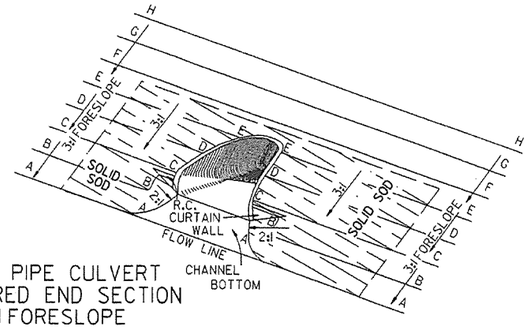




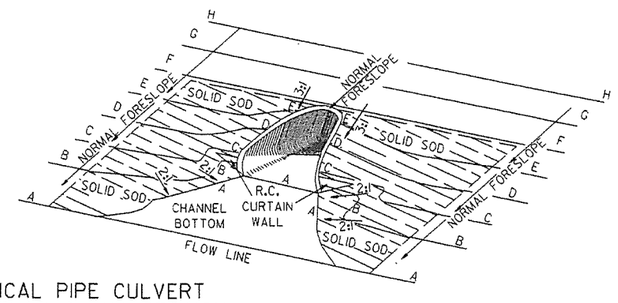
SECTION B-B
CURBED ISLAND BEHIND WALK

DATE REV	DATE FILMED	DESCRIPTION
2-27-14		REVISED PLAN & ISOMETRIC VIEW
11-29-07		ADDED CHANNELIZATION ISLAND WITH TYPE C CURB FACE & REVISED DRIVEWAY SLOPE NOTE & VERTICAL ALIGNMENT DETAIL
11-10-05		REV. APRON SLOPE & DEPTH OF AGG. BASE.
8-22-02		ADDED ISLAND DETAILS & NOTES
3-30-00		REV. MOD. CURB WIDTH & TRANS. NOTE
11-19-98		REVISED NOTES
11-18-98		REDRAWN AND REISSUED

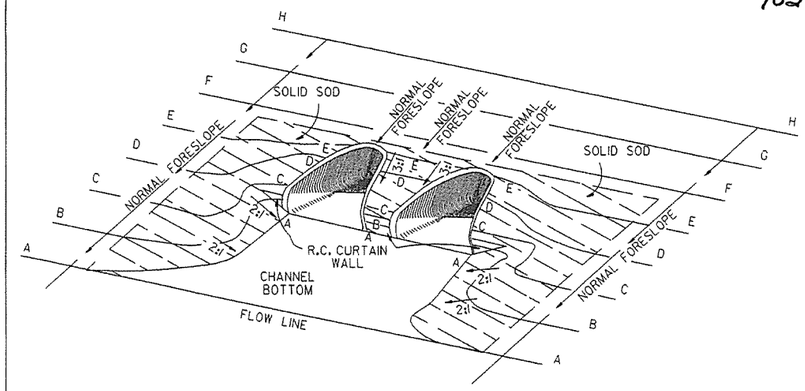
ARKANSAS STATE HIGHWAY COMMISSION
DETAILS OF DRIVEWAYS & ISLANDS
STANDARD DRAWING DR-1



TYPICAL PIPE CULVERT
WITH FLARED END SECTION
& 3:1 FORESLOPE



TYPICAL PIPE CULVERT
WITH FLARED END SECTION
& FLATTENED ADJACENT SLOPES



TYPICAL MULTIPLE PIPE CULVERT
WITH FLARED END SECTIONS
& FLATTENED ADJACENT SLOPES

R.C. CURTAIN WALL
DIMENSIONS & QUANTITIES

PIPE DIA.	H_1	L_1	L	L (DBL.) / 2	SINGLE R.C.P.C. CONC.	SINGLE R.C.P.C. REINF. STEEL	DOUBLE R.C.P.C. CONC.	DOUBLE R.C.P.C. REINF. STEEL
					CU. YDS.	LBS.	CU. YDS.	LBS.
18"	11½"	3'-5"	8'-0"	6'-3"	0.31	27.7	0.45	39.5
24"	1'-0½"	4'-6"	9'-6"	7'-6"	0.37	33.4	0.53	48.0
30"	1'-3½"	5'-7"	11'-0"	9'-0"	0.45	39.0	0.67	59.0
36"	1'-7"	6'-8"	13'-0"	10'-6"	0.58	52.6	0.83	73.9
42"	2'-1½"	7'-3"	15'-6"	12'-0"	0.82	77.1	1.10	100.7
48"	2'-5"	7'-10"	17'-0"	13'-0"	0.98	94.9	1.27	120.4
54"	2'-9½"	8'-5"	18'-6"	14'-0"	1.16	115.8	1.47	143.7
60"	3'-4"	9'-0"	20'-6"	15'-6"	1.47	149.7	1.84	180.3
72"	4'-5"	10'-2"	25'-6"	18'-6"	2.31	232.6	2.73	271.0

NOTE: QUANTITIES SHOWN ARE FOR ONE (1) CURTAIN WALL.

REINFORCING STEEL SCHEDULE

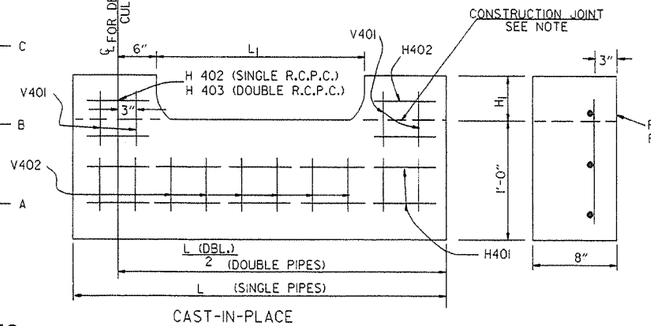
PIPE DIA.	SINGLE R.C. PIPE CULVERT H401 L	H401 NO.	H402 L	H402 NO.	V401 L	V401 NO.	V402 L	V402 NO.	DOUBLE R.C. PIPE CULVERT H401 L	H401 NO.	H402 L	H402 NO.	H403 L	H403 NO.	V401 L	V401 NO.	V402 L	V402 NO.
18"	7'-8"	2	1'-11½"	4	1'-7½"	8	8"	8	12'-2"	2	1'-11½"	4	8"	2	1'-7½"	10	8"	14
24"	9'-2"	2	2'-2"	4	1'-8½"	10	8"	9	14'-8"	2	2'-2"	4	8"	2	1'-8½"	12	8"	18
30"	10'-8"	2	2'-4½"	4	1'-11½"	10	8"	12	17'-8"	2	2'-4½"	4	8"	2	1'-11½"	14	8"	22
36"	12'-8"	2	2'-10"	6	2'-3"	12	8"	14	20'-8"	2	2'-10"	6	8"	3	2'-3"	14	8"	28
42"	15'-2"	2	3'-9½"	8	2'-9½"	16	8"	15	23'-8"	2	3'-9½"	8	8"	4	2'-9½"	18	8"	30
48"	16'-8"	2	4'-3"	10	3'-1"	18	8"	16	25'-8"	2	4'-3"	10	8"	5	3'-1"	20	8"	32
54"	18'-2"	2	4'-8½"	12	3'-5½"	20	8"	17	27'-8"	2	4'-9"	12	8"	6	3'-5½"	22	8"	34
60"	20'-2"	2	5'-5"	14	4'-0"	24	8"	18	30'-8"	2	5'-5"	14	8"	7	4'-0"	26	8"	36
72"	25'-2"	2	7'-4"	18	5'-1"	30	8"	20	36'-8"	2	7'-4"	18	8"	9	5'-1"	33	8"	40

ALL REINFORCING STEEL #4 BARS @ 6" O.C.

PLAN VIEW
3:1 FORESLOPES

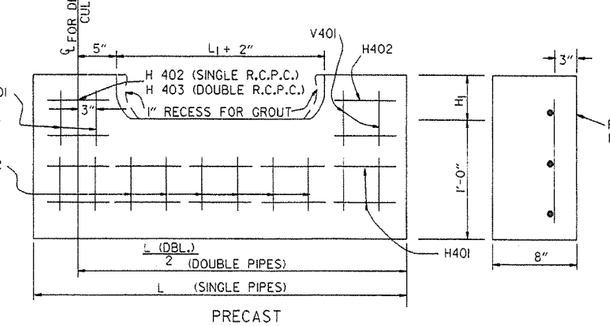
NOTE: THE CONFIGURATION OF CONTOURS WILL VARY WITH FORESLOPE VARIATIONS.

PLAN VIEW
FLATTENED FORESLOPES



CAST-IN-PLACE

NOTE: THE PORTION OF THE R.C. CURTAIN WALL BENEATH THE FLARED END SECTION (LOWER 1'-0") SHALL BE PLACED MONOLITHICALLY. THE FLARED END SECTION SHALL THEN BE SET IN PLACE & THE REMAINING PORTIONS OF THE R.C. CURTAIN WALL PLACED.



PRECAST

NOTE: THE PRECAST CURTAIN WALL WILL BE SET AND BACKFILLED WITH COMPACTED MATERIAL. THE FLARED END SECTION SHALL THEN BE SET IN PLACE AND THE 1" RECESS FILLED WITH GROUT. WHERE "L" EXCEEDS 11' THE CURTAIN WALL MAY BE CAST IN TWO (2) OR MORE SECTIONS. THE METHOD OF JOINING THE SECTIONS FOR INSTALLATION SHALL BE APPROVED BY THE ENGINEER.

R.C. CURTAIN WALL DETAILS

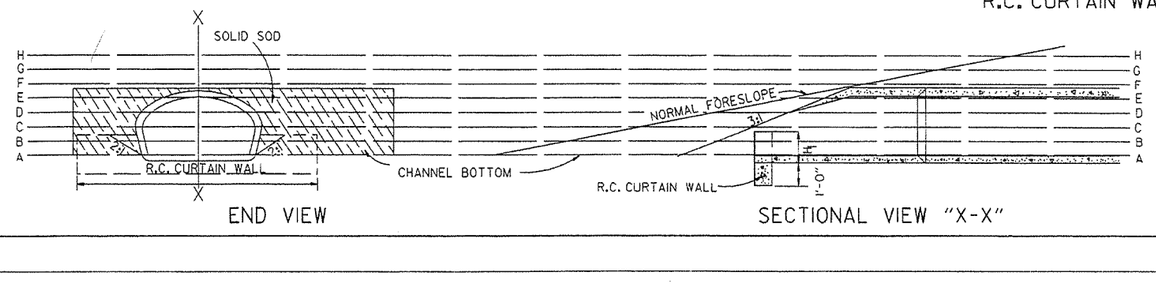
SOLID SODDING

PIPE DIA.	SINGLE R.C.P.C. 3:1	SINGLE R.C.P.C. 4:1	SINGLE R.C.P.C. 6:1	DOUBLE R.C.P.C. 3:1	DOUBLE R.C.P.C. 4:1	DOUBLE R.C.P.C. 6:1
	SQ. YDS.			SQ. YDS.		
18"	5	7	12	6	8	13
24"	8	12	19	9	13	20
30"	13	18	29	14	19	30
36"	17	26	41	18	28	43
42"	23	35	55	25	37	57
48"	29	46	68	31	48	70
54"	35	57	85	37	59	87
60"	45	62	104	48	65	107
72"	64	92	156	67	95	159

NOTE: QUANTITIES SHOWN ABOVE ARE FOR ONE (1) END OF F.E.S.

GENERAL NOTES

1. A CAST-IN-PLACE OR PRECAST CURTAIN WALL MAY BE USED. PAYMENT FOR THE CURTAIN WALL SHALL BE CONSIDERED TO BE INCLUDED IN THE UNIT PRICE BID EACH FOR FLARED END SECTIONS OF THE SEVERAL SIZES, WHICH PRICE SHALL BE FULL COMPENSATION FOR FURNISHING ALL MATERIALS INCLUDING REINFORCING STEEL AND CONCRETE: FOR FORMS, MIXING AND PLACING; FOR EXCAVATION AND BACKFILL, AND FOR ALL LABOR, TOOLS, EQUIPMENT AND INCIDENTALS NECESSARY TO COMPLETE THE WORK.
2. ALL EXPOSED EDGES SHALL BE CHAMFERED ¾".
3. CONCRETE FOR CURTAIN WALL SHALL MEET THE REQUIREMENTS FOR CLASS A OR S CONCRETE AS PROVIDED IN SECTION 802 OF THE STANDARD SPECIFICATIONS OR FOR PAVING CONCRETE AS PROVIDED IN SECTION 501 OF THE STANDARD SPECIFICATIONS.
4. WELDED WIRE MESH 3 x 3 W10 x W10 MAY BE USED IN LIEU OF REINFORCING BARS.



END VIEW

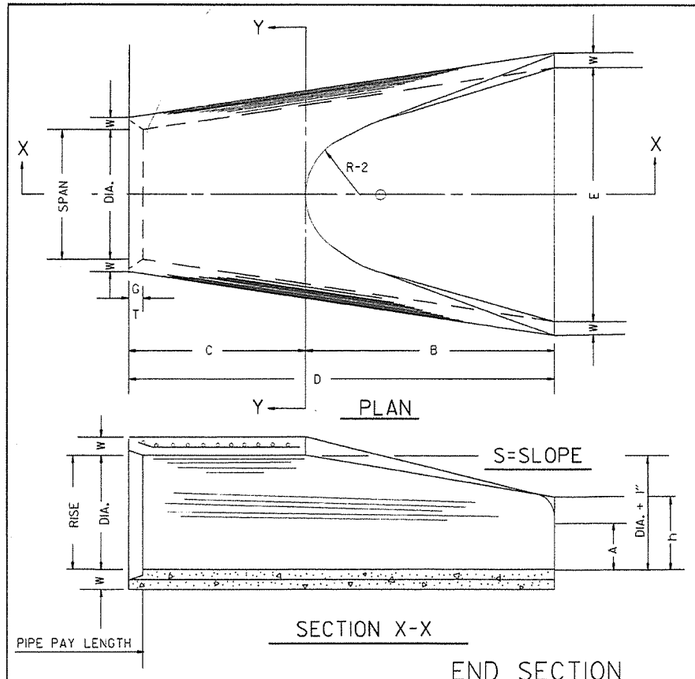
SECTIONAL VIEW "X-X"

DATE	REVISION	FILMED
10-18-96	ADDED NOTE TO SOLID SODDING	10-18-96
10-12-95	CORRECTED SPELLING	
11- 3-94	ADDED GENERAL NOTE NO. 4	
8-15-91	REV. CURTAIN WALL QUANT. STEEL SCH. & SOLID SOD QUANT.	
3-2-81	ALLOW PRECAST IN 2 OR MORE PIECES CHAMFER EDGES	
5-15-80	ADDED PRECAST WALL & GENERAL NOTES	
10-2-72	REVISED AND REDRAWN	

ARKANSAS STATE HIGHWAY COMMISSION

FLARED END SECTION

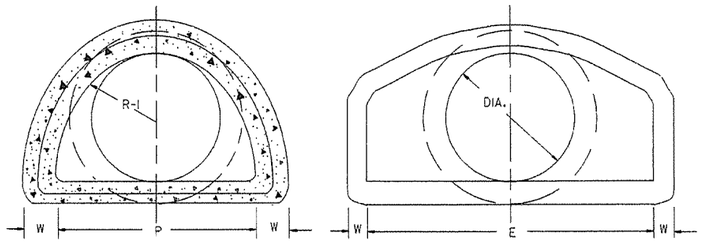
STANDARD DRAWING FES-1



END SECTION FOR REINFORCED CONCRETE PIPE CULVERTS

TABLE OF DIMENSIONS

DIA.	WALL	A	B	C	D	E	S	DIA. - 1"	P	R-1	R-2	G-T	WT.	h
18"	2½"	9"	2'-3"	3'-10"	6'-1"	3'-0"	3:1	19"	29"	15½"	12"	2"	1000	1'-0½"
24"	3"	9½"	3'-7½"	2'-6"	6'-11½"	4'-0"	3:1	25"	33 3/16"	16 11/16"	14"	2½"	1600	1'-1½"
30"	3½"	1'-0"	4'-6"	1'-7¾"	6'-1¾"	5'-0"	3:1	31"	37"	18½"	15"	3¼"	1940	1'-4⅜"
36"	4"	1'-3"	5'-3"	2'-10¾"	8'-1¾"	6'-0"	3:1	37"	47 1/16"	24 5/16"	20"	3½"	4100	1'-8"
42"	4½"	1'-9"	5'-3"	2'-11"	8'-2"	6'-6"	3:1	43"	53⅛"	27½"	22"	3½"	5380	2'-2½"
48"	5"	2'-0"	6'-0"	2'-2"	8'-2"	7'-0"	3:1	49"	56½"	28½"	22"	3½"	6550	2'-6"
54"	5½"	2'-4"	6'-6"	1'-10"	8'-4"	7'-6"	3:1	55"	65½"	33⅛"	24"	4"	8750	2'-10½"
60"	6"	2'-10"	6'-6"	1'-10"	8'-4"	8'-0"	3:1	61"	72½"	36 11/16"	24"	4"	9270	3'-5"
72"	7"	3'-10"	6'-6"	1'-10"	8'-4"	9'-0"	3:1	73"	77 13/16"	38 13/16"	24"	5"	13250	4'-6"

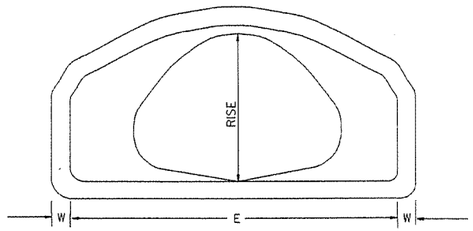


NOTE: TONGUE END ON UPSTREAM SECTION
GROOVE END ON DOWNSTREAM SECTION

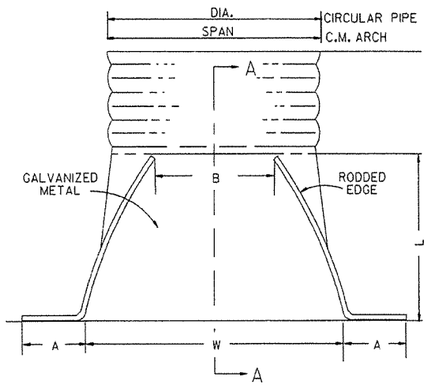
ARCH PIPE

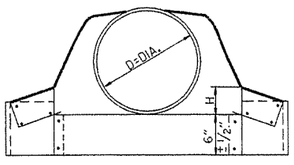
EQUIV. DIA.	• SPAN AASHTO M 206	• SPAN AHD NOMINAL	• RISE AASHTO M 206	• RISE AHD NOMINAL	W	A	B	C	D	E	P	R2	G-T	S
	INCHES													
15	18	18	11	11	2"	4"	2'-0"	4'-0"	6'-0"	3'-0"	29"	12"	1½"	2½:1
18	22	22	13½	14	2½"	5"	2'-0"	4'-1"	6'-1"	3'-6"	32⅛"	13"	2½"	2½:1
21	26	26	15½	16	2¾"	7"	2'-3"	3'-10"	6'-1"	4'-0"	34⅛"	14"	2½"	2½:1
24	28½	29	18	18	3"	9"	2'-3"	3'-10"	6'-1"	5'-0"	36 13/16"	15"	2½"	2½:1
30	36¼	36	22½	23	3½"	10"	3'-1"	3'-0½"	6'-1½"	6'-0"	47 13/16"	20"	3"	2½:1
36	43¾	44	26⅝	27	4"	10½"	4'-0"	2'-11½"	6'-1½"	6'-6"	54 3/16"	22"	3½"	2½:1
42	51⅛	51	31 5/16	31	4½"	11½"	4'-7"	1-10¼"	6'-5¼"	7'-2"	59½"	23"	3¾"	2½:1
48	58½	59	36	36	5"	1'-3"	5'-3"	2'-10¾"	8'-1¾"	7'-10"	70 5/16"	24"	4¼"	2½:1
54	65	65	40	40	5½"	1'-7"	5'-3"	2'-11"	8'-2"	8'-6"	72 1/16"	24"	4¾"	2¼:1
60	73	73	45	45	6"	1'-10"	5'-6"	2'-8"	8'-2"	9'-0"	77 1/16"	24"	5"	2¼:1

• THE MEASURED SPAN AND RISE SHALL NOT VARY MORE THAN ± 2 PER CENT FROM THE VALUES SPECIFIED BY AASHTO M 206.

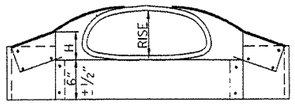


END VIEW
CONCRETE ARCH PIPE





CIRCULAR PIPE



C.M. ARCH PIPE

CIRCULAR PIPE

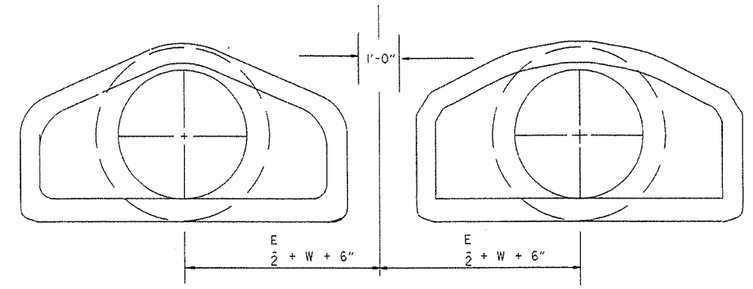
D. DIA.	GAUGE	A 1" ±	B. MAX.	H 1" ±	L 1½" ±	W 2" ±	S
		INCHES					
12	16	6	6	6	21	24	2½:1
15	16	7	8	6	26	30	2½:1
18	16	8	10	6	31	36	2½:1
21	16	9	12	6	36	42	2½:1
24	16	10	13	6	41	48	2½:1
30	14	12	16	8	51	60	2½:1
36	14	14	19	9	60	72	2½:1
42	12	16	22	11	69	84	2½:1
48	12	18	27	12	78	90	2½:1
54	12	18	30	12	84	102	2:1
60	12	18	33	12	87	114	1¾:1
66	12	18	36	12	87	120	1½:1
72	12	18	39	12	87	126	1 1/3:1

C.M. ARCH PIPE

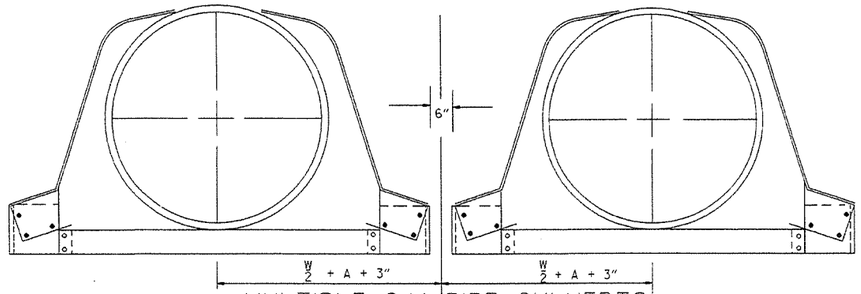
EQUIV. DIA.	SPAN	RISE	A 1" ±	B MAX.	H 1" ±	L 1½" ±	W 2" ±	S	GAUGE
	INCHES								
15"	17	13	7	9	6	19	30	2½:1	16
18"	21	15	7	10	6	23	36	2½:1	16
21"	24	18	8	12	6	28	42	2½:1	16
24"	28	20	9	14	6	32	48	2½:1	16
30"	35	24	10	16	6	39	60	2½:1	14
36"	42	29	12	18	8	46	75	2½:1	14
42"	49	33	13	21	9	53	85	2½:1	12
48"	57	38	18	26	12	63	90	2½:1	12
54"	64	43	18	30	12	70	102	2¼:1	12
60"	71	47	18	33	12	77	114	2¼:1	12

NOTE: ALTERNATE CONNECTIONS TO THE PIPE CULVERTS, IN ACCORDANCE WITH MANUFACTURER'S STANDARD PRACTICES, MAY BE MADE SUBJECT TO THE APPROVAL OF THE ENGINEER.

END SECTIONS FOR CORRUGATED METAL PIPE CULVERTS



MULTIPLE R.C. PIPE CULVERTS



MULTIPLE C.M. PIPE CULVERTS

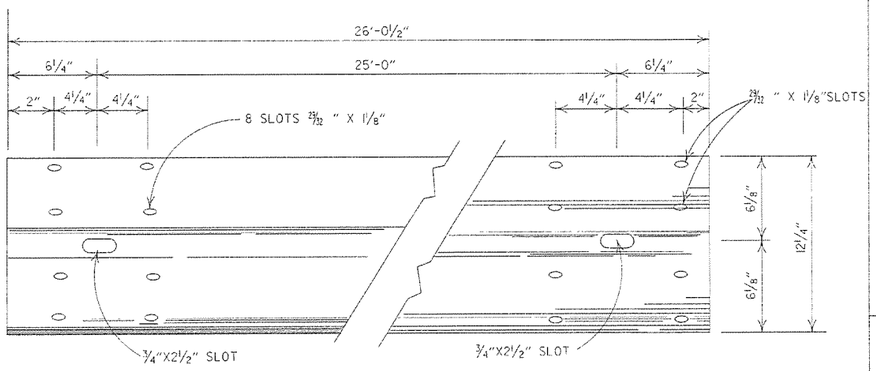
DATE	REVISION	FILMED
10-18-96	REVISED ASTM REF. TO AASHTO	16-18-96
5-15-80	REVISED DISTANCE BETWEEN MULTIPLE R.C.P. F.E.S.	664-5-15-80
7-14-78	C.M. ARCH SIZES TO CONFORM WITH AASHTO SIZES	752-7-14-78
8-22-75	ADDED MULTIPLE PIPE CULVERTS	517-8-22-75
12-5-74	REMOVED NOTE RE REINF. FOR R.C. F.E.S.	500-12-5-74
5-24-73	CMP END SECTION, SHOW PIPE PAY LENGTH	627-5-24-73
10-2-72	REVISED AND REDRAWN	760-10-2-72

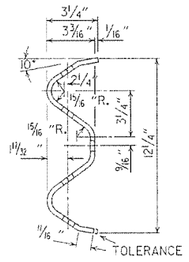
ARKANSAS STATE HIGHWAY COMMISION

FLARED END SECTION

STANDARD DRAWING FES-2

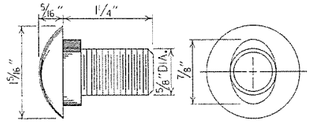
stdfes2.dgn



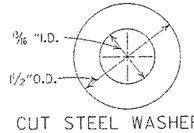


DETAILS OF W-BEAM GUARD RAIL

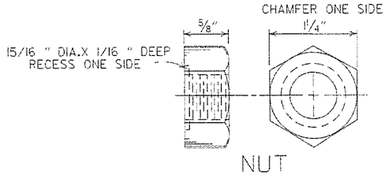
RAIL SECTION OF CLOSELY SIMILAR DIMENSIONS AND COMPARABLE STRENGTH MAY BE SUBSTITUTED IF APPROVED BY THE ENGINEER.



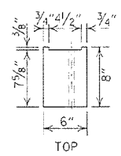
SPLICE BOLT
POST BOLT - SAME EXCEPT LENGTH



CUT STEEL WASHER

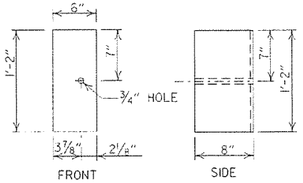


NUT

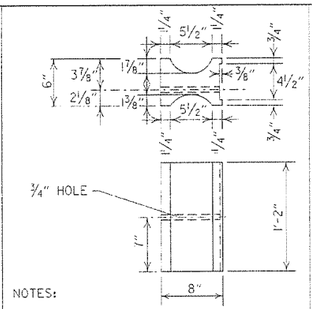


TOP

WOOD BLOCKOUT USED WITH WOOD POSTS SHALL BE 6"x8"x1'-2" WITH NO NOTCH REQUIRED.



WOOD BLOCKOUT (W-BEAM)

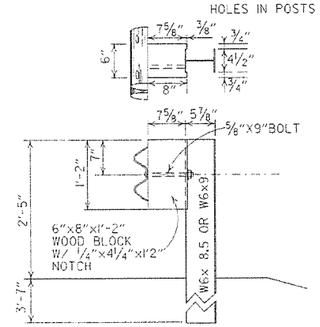


NOTES:

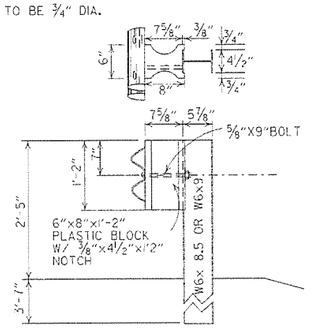
1. SIMILAR SHAPED PLASTIC BLOCKOUTS MAY BE USED AS LONG AS THEY MEET NCHRP-350 TEST LEVEL 3 SPECIFICATIONS OR REQUIREMENTS FOR MANUAL FOR ASSESSING SAFETY HARDWARE (MASH).
2. DIMENSIONS ARE SUBJECT TO MANUFACTURERS TOLERANCES.

PLASTIC BLOCKOUT (W-BEAM)

HOLES IN POSTS AND BLOCKS TO BE 3/4" DIA.

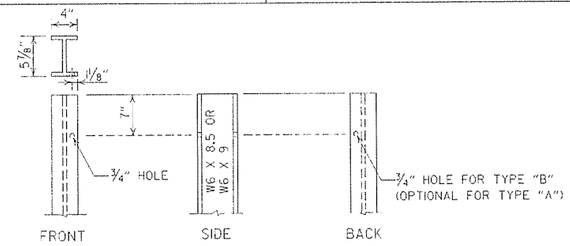


WOOD BLOCKOUT CONNECTIONS

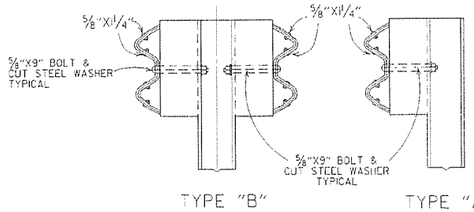


PLASTIC BLOCKOUT CONNECTIONS

DETAILS OF STEEL LINE POST CONNECTIONS (W-BEAM)



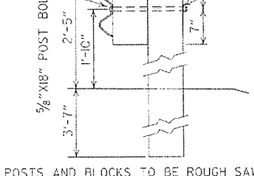
STEEL POST



TYPE "B" TYPE "A"

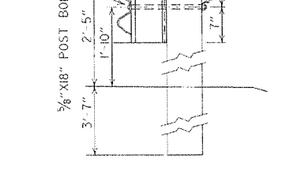
DETAILS OF STEEL LINE POST CONNECTIONS (W-BEAM)

HOLES IN POSTS AND BLOCKS TO BE 3/4" DIA.



POSTS AND BLOCKS TO BE ROUGH SAWN 6"X8" WITH A TOLERANCE OF + OR - 1/4".

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 3/4" BEYOND IT.

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

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

USE W-BEAM GUARD RAIL COMPONENTS OF SAME MATERIAL FOR ENTIRE JOB. FOR EXTENSIONS OR MODIFICATION OF EXISTING GUARD RAIL, W-BEAM GUARD RAIL 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 9.7# (1400 f) OR NO.1 1350 f SOUTHERN PINE.

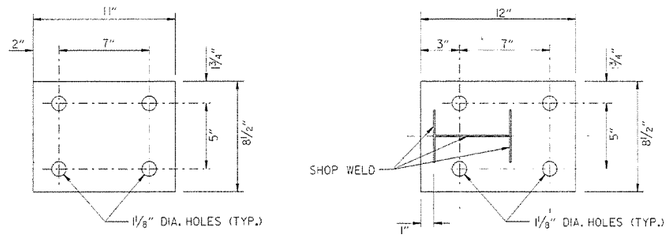
CONTRACTOR SHALL HAVE THE OPTION OF USING WOOD BLOCKOUTS FOR W-BEAM GUARD RAIL OR PLASTIC BLOCKOUTS, AS LONG AS BLOCKOUT USED MEETS NCHRP-350 TEST LEVEL 3 SPECIFICATIONS OR REQUIREMENTS FOR MANUAL FOR ASSESSING SAFETY HARDWARE (MASH) FOR W-BEAM GUARD RAIL.

DATE	REVISION	DATE FILM
7-14-10	RAISED HEIGHT OF GUARD RAIL 1"	
10-15-09	ADDED REFERENCE TO MASH	
4-10-03	REVISED GENERAL NOTES	
8-22-02	REVISED DIMENSION ON WOOD & PLASTIC BLOCKOUT CONNECTIONS & ON STEEL POST	
11-16-01	REVISED WOOD BLOCKOUT & DETAILS OF WOOD LINE POST CONNECTIONS	
3-30-00	REMOVED GUARD RAIL AT BRIDGE ENDS	
1-12-00	ADDED PLASTIC BLOCKOUT	
8-12-98	REV. BLOCKOUTS TO WOOD, DELETED CONC. POST & REV. GENERAL NOTE, DELETED DET. OF GUARD RAIL 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	
4-3-97	REMOVED "LAP IN DIRECTION OF TRAFFIC" NOTE & PLACED ARROWS ON WASHERS	
10-18-96	REVISED WOOD POST NOTE	
6-2-94	ADDED M.T. STEEL POST SIZE	
8-5-93	REVISED STEEL POST SIZE	8-5-93
10-1-92	REDRAWN & REVISED	10-1-92
8-15-91	REVISED WASHER NOTE	8-15-91
8-2-90	REV. GEN. NOTE & DEPHT OF ANC. POST IN ROCK	8-2-90
7-15-88	REVISED SECTION 3 & GENERAL NOTES	
3-4-88	REV. ANCHOR POST, ELEV. NOTES & POST IN ROCK	780-3-4-88
10-30-87	REVISED WOOD LINE POST DETAIL	546-10-30-87
10-9-87	REDRAWN & REVISED	802-10-9-87

ARKANSAS STATE HIGHWAY COMMISSION

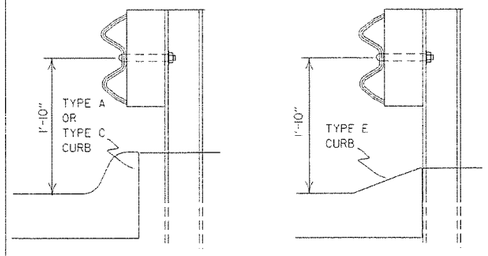
GUARD RAIL DETAILS

STANDARD DRAWING GR-8



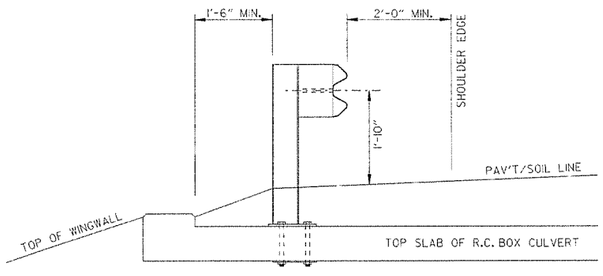
WASHER PLATE BASE PLATE

Note: Bolts, nuts, washers and plates shall be galvanized in accordance with Section 801 of the Standard Specifications.

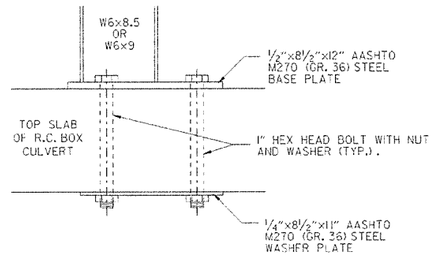


DETAIL OF GUARD RAIL PLACEMENT BEHIND CURB (W-BEAM)

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.

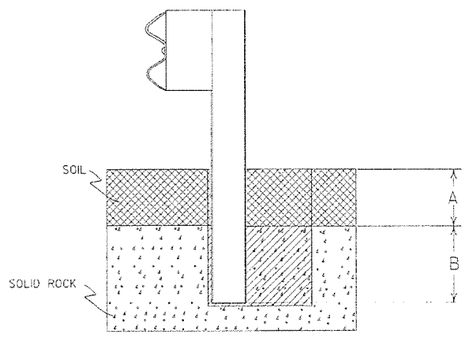


SECTION A-A

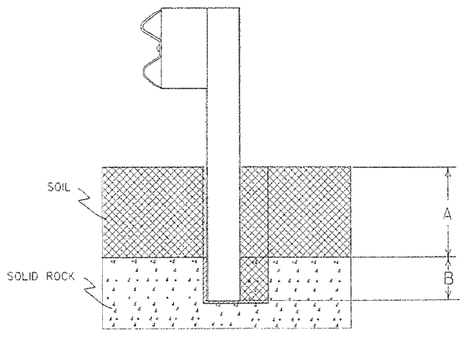


DETAIL OF CONNECTION

Case 1

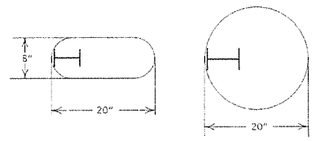


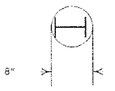
Case 2



Plan View Steel Posts

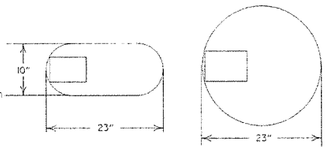
Either hole configuration acceptable

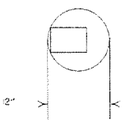




Plan View Wood Posts

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".

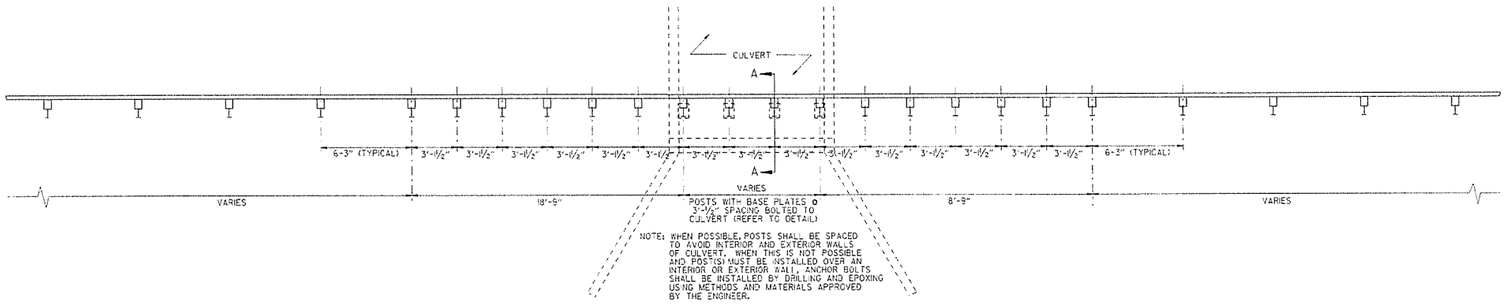
Zone A:
Backfill according to Section 617.03(a).

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)



PLAN LAYOUT OF TYPE A GUARD RAIL AT LOW-FILL CULVERTS

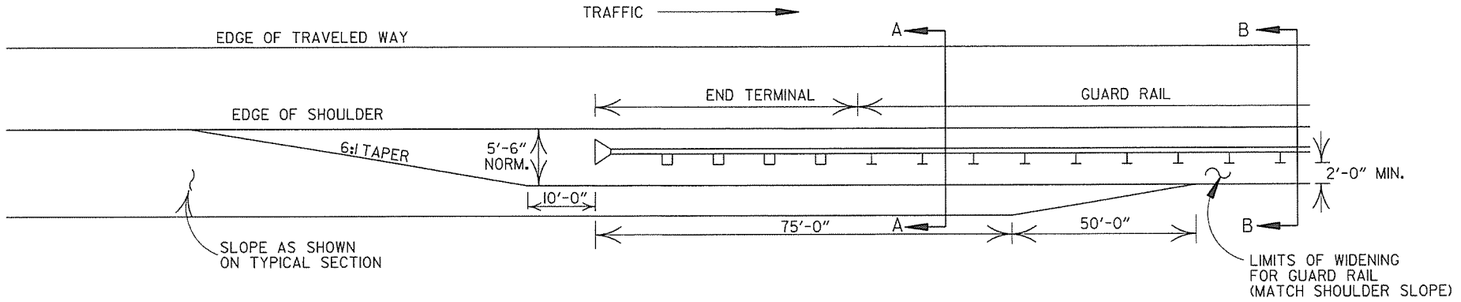
NOTE: THIS DETAIL IS TO BE USED ONLY WHEN THE COVER OVER THE CULVERT DOES NOT PERMIT FULL EMBEDMENT OF GUARD RAIL POSTS AS SHOWN ON STD. DWG. GR-8.

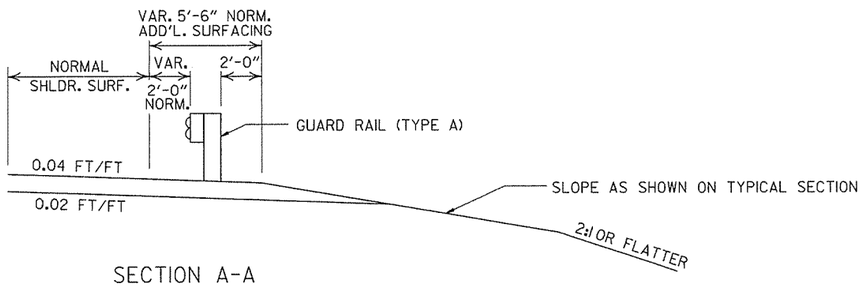
DATE	REVISION	DATE FILM
7-14-10	RAISED HEIGHT OF GUARD RAIL 1"	
4-12-07	REVISED DETAIL OF GUARD RAIL PLACEMENT BEHIND CURB	
11-10-05	ADDED GUARD RAIL PLACEMENT BEHIND CURB; REVISED DETAIL OF CONNECTION	
11-18-04	REVISED POST PLACEMENT IN ROCK & CULVERT CONNECTION DETAILS. ADDED DETAIL FOR GUARD RAIL PLACEMENT AT LOW-FILL CULVERTS	
3-30-00	REMOVED CONCRETE INSERT ANCHOR	
6-12-98	CHANGED STEEL SPACER BLOCK TO WOOD BLOCKOUT, ADD. DET. OF GUARD RAIL CONNECTION TO R.C. BOX CULV'T. DELETED DET. OF STEEL LINE POST CONN.& ADDED DET. OF GUARD RAIL PLACE. BEHIND CURB & DET. OF POST PLACE. IN SOLID ROCK	
4-3-96	PLACED ARROWS AT CUT STEEL WASHERS	4-3-96
10-18-96	REV. ASTM REF. TO AASHTO	
11-22-95	ADDED OPTIONAL HOLES	
6-2-94	REVISED ALTERNATE POST SIZE	
8-5-93	REVISED STEEL POST SIZE	
10-1-92	REDRAWN & REVISED	10-1-92
8-2-90	DEL. WASHER ON ANCHOR ASSEMBLY	8-2-90
7-15-88	CONFORMED TO 1988 SPECS	
3-4-88	REVISED ANCHOR NOTE	
10-30-87	REVISED ANCHOR ASSEMBLY	712-10-30-87
10-30-87	REVISED PLACEMENT BEHIND CURB	547-10-30-87
10-9-87	REDRAWN & REVISED	803-10-9-87

ARKANSAS STATE HIGHWAY COMMISSION

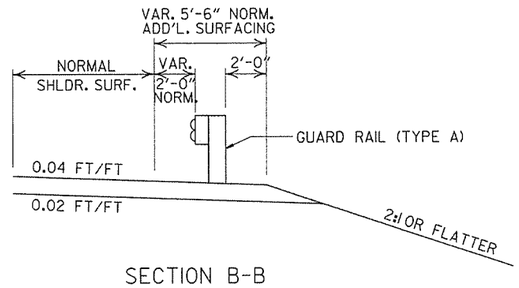
GUARD RAIL DETAILS

STANDARD DRAWING GR-8A





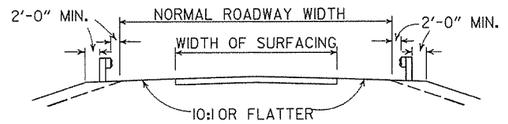
SECTION A-A



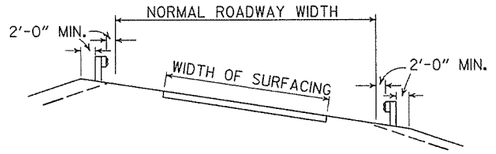
SECTION B-B

DETAILS OF WIDENING FOR GUARD RAIL

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

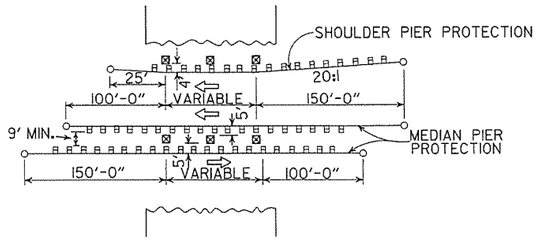


SECTION ON TANGENT



SECTION ON CURVE

DETAILS SHOWING POSITION OF GUARD RAIL ON HIGHWAY



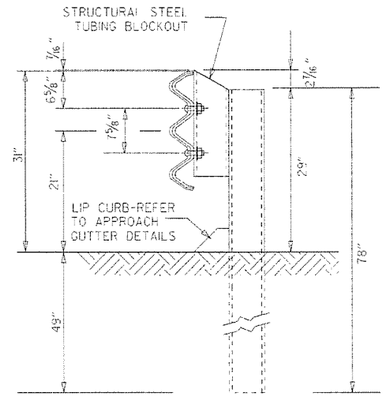
METHOD OF INSTALLATION OF GUARD RAIL AT FIXED OBSTACLE

DATE	REVISION	DATE FILM
4-17-08	MINOR REVISION	
11-10-05	DRAWN	

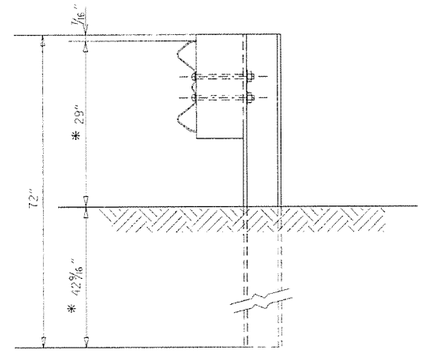
ARKANSAS STATE HIGHWAY COMMISSION

GUARD RAIL DETAILS

STANDARD DRAWING GR-9A

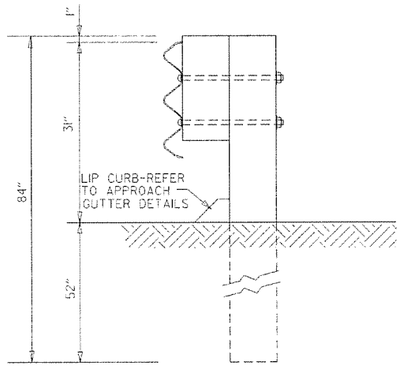


THRIE BEAM RAIL WITH STEEL TUBING BLOCKOUT
AND STEEL POST
POSTS 1-7

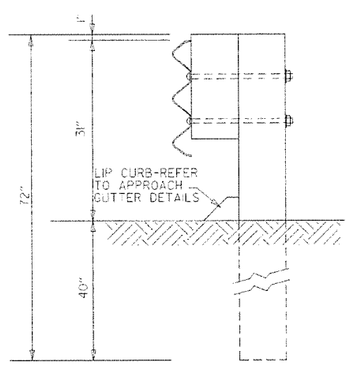


W-BEAM TO THRIE BEAM TRANSITION RAIL
WITH WOOD OR PLASTIC BLOCKOUT AND STEEL POST
POST 8

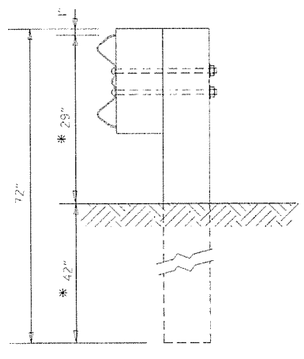
* NOTE:
THESE DIMENSIONS WILL NEED TO BE ADJUSTED IN THE FIELD TO MAKE THE TRANSITION FROM 21" MID POINT OF THRIE BEAM TO 22" MID POINT OF W-BEAM.



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.

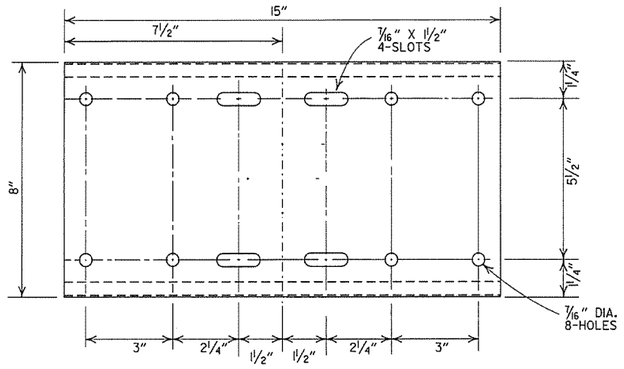
WOOD POSTS & WOOD BLOCKS SHALL BE EITHER DENSE NO. 1 STRUCTURAL OR BETTER 9.7 f (1400 f) OR NO. 1 1350 f SOUTHERN PINE.

DATE	REVISION	DATE FILM
7-14-10	REVISED POST 8 DIMENSIONS	
11-29-07	ADDED PLASTIC BLOCKOUTS	
8-22-02	REVISED LIP CURB NOTE	
3-30-00	DRAWN & ISSUED	

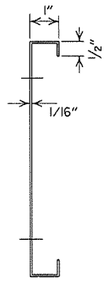
ARKANSAS STATE HIGHWAY COMMISSION

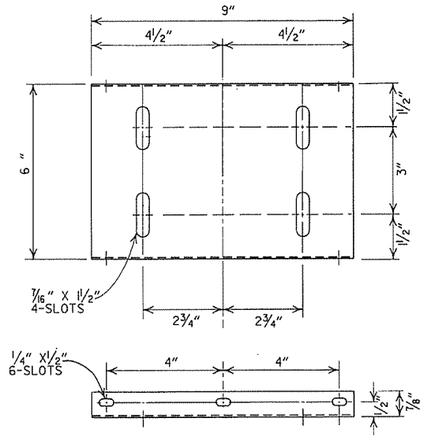
GUARD RAIL DETAILS

STANDARD DRAWING GR-10A

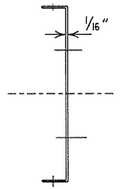


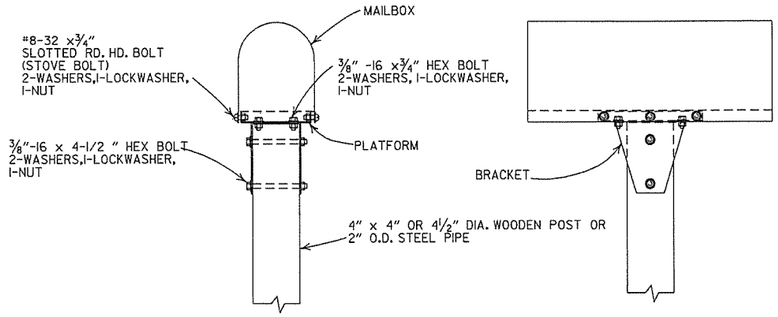
SHELF



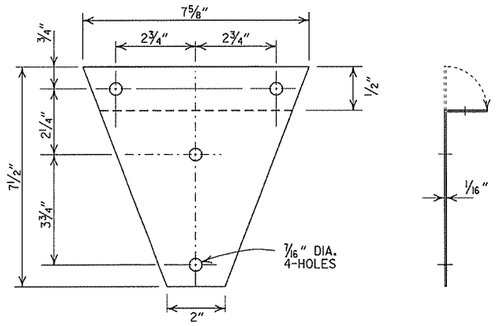


PLATFORM





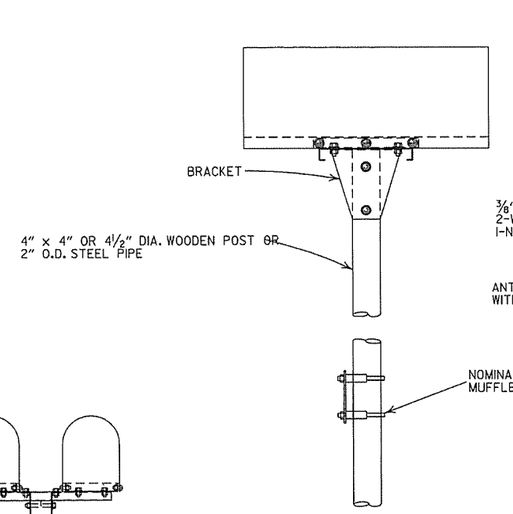
SINGLE INSTALLATION



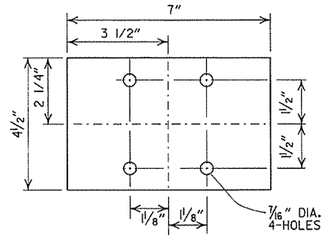
BRACKET

GENERAL NOTES

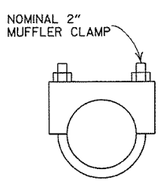
1. MAILBOX POSTS MAY BE WOOD OR METAL. WOOD POSTS SHALL BE PRESSURE TREATED FOR GROUND CONTACT IN ACCORDANCE WITH SECTION 637.02 OF THE STANDARD SPECIFICATIONS.
2. ANTI-TWIST PLATES SHALL BE USED ONLY ON METAL POSTS.
3. MAILBOX SHELF, BRACKET & PLATFORM SHALL BE GALVANIZED OR PAINTED STEEL, HOWEVER TREATED WOOD MAY BE USED WITH WOODEN POSTS. THE WOODEN SHELF, BRACKET & PLATFORM SHALL BE A MINIMUM OF ¾" THICK AND SHALL BE ASSEMBLED WITH BOLTS OF THE APPROPRIATE LENGTH WITH SIX 8 X¾" FLATHEAD WOOD SCREWS USED TO ATTACH THE MAILBOX TO THE PLATFORM.
4. THE MAILBOX SHELF AND PLATFORM THAT IS SHOWN IS FOR STANDARD SIZE MAILBOXES. THE SHELF AND PLATFORM SIZE SHALL BE MODIFIED TO FIT MAILBOXES OF A DIFFERENT SIZE.
5. METAL PIPE FOR MAILBOX SUPPORT SHALL BE 2" OUTSIDE DIAMETER STEEL WITH A WALL THICKNESS OF 0.145" AND A WEIGHT OF 2.72 LBS PER FT. OUTSIDE DIAMETER AND WEIGHT SHALL HAVE A TOLERANCE OF +/- 5% ACCORDING TO AASHTO M 181.
6. MAILBOX SUPPORT SYSTEM DIFFERING FROM THOSE SHOWN MAY BE USED, PROVIDED THEY ARE ON THE AHTD QUALIFIED PRODUCTS LIST FOR MAILBOX SUPPORTS.



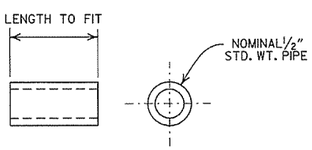
DOUBLE INSTALLATION



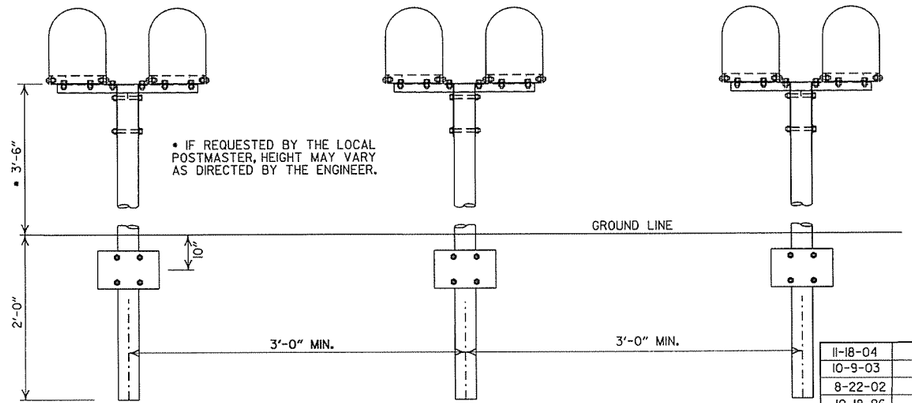
ANTI-TWIST PLATE



CLAMP



SPACER



SPACING FOR MULTIPLE POST INSTALLATION

DATE	FILMED	REVISION
11-18-04		REVISED NOTES
10-9-03		REVISED NOTE 6
8-22-02		REVISED NOTE 6
10-18-96		CORRECTED AASHTO
10-1-92		CORRECTED SPELLING
9-26-91		NEW PHONE NUMBER
8-15-91		ADDED NOTE
11-30-89		ADJUSTED HEIGHT & ADDED NOTE
2-16-89		DELETED SLOTS FROM SHELF & PLTF
11-17-88	10-1-92	ADJUSTED DIMENSIONS OF STEEL POSTS
7-15-88	20-7-15-88	ISSUED

ARKANSAS STATE HIGHWAY COMMISSION

MAILBOX DETAILS

STANDARD DRAWING MB-1

REINFORCED CONCRETE ARCH PIPE DIMENSIONS

EQUIV. DIA.	SPAN		RISE	
	AASHTO M 206	AHTD NOMINAL	AASHTO M 206	AHTD NOMINAL
INCHES	INCHES			
15	18	18	11	11
18	22	22	13½	14
21	26	26	15½	16
24	28½	29	18	18
30	36¼	36	22½	23
36	43⅜	44	26⅝	27
42	51⅛	51	31 5/16	31
48	58½	59	36	36
54	65	65	40	40
60	73	73	45	45
72	88	88	54	54
84	102	102	62	62
90	115	115	72	72
96	122	122	77½	77
108	138	138	87⅛	87
120	154	154	96⅞	97
132	168¾	169	106½	107

THE MEASURED SPAN AND RISE SHALL NOT VARY MORE THAN ± 2 PERCENT FROM THE VALUES SPECIFIED BY AASHTO M206.

REINFORCED CONCRETE HORIZONTAL ELLIPTICAL PIPE DIMENSIONS

EQUIV. DIA.	AASHTO M 207	
	SPAN	RISE
INCHES	INCHES	
18	23	14
24	30	19
27	34	22
30	38	24
33	42	27
36	45	29
39	49	32
42	53	34
48	60	38
54	68	43
60	76	48
66	83	53
72	91	58
78	98	63
84	106	68

THE MEASURED SPAN AND RISE SHALL NOT VARY MORE THAN ± 2 PERCENT FROM THE VALUES SPECIFIED BY AASHTO M207.

CONSTRUCTION SEQUENCE

1. PLACE STRUCTURAL BEDDING MATERIAL TO GRADE. DO NOT COMPACT.
2. INSTALL PIPE TO GRADE.
3. COMPACT STRUCTURAL BEDDING OUTSIDE THE MIDDLE THIRD OF THE PIPE.
4. PLACE AND COMPACT THE HAUNCH AREA UP TO THE MIDDLE OF THE PIPE.
5. COMPLETE BACKFILL ACCORDING TO SUBSECTION 606.03.(f)(1).

NOTE: HAUNCH AND STRUCTURAL BEDDING MATERIAL WILL NOT BE PAID FOR SEPARATELY, BUT COMPENSATION WILL BE CONSIDERED TO BE INCLUDED IN THE PRICE BID PER LINEAR FOOT OF CONCRETE PIPE.

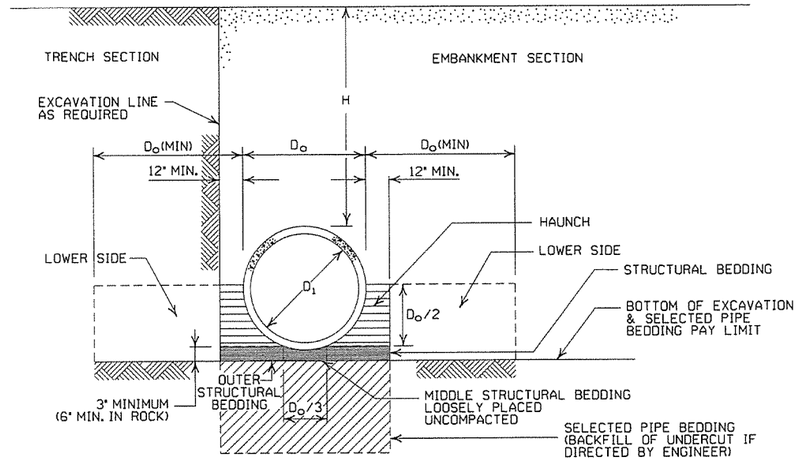
- LEGEND -

D_1 = NORMAL INSIDE DIAMETER OF PIPE
D_O = OUTSIDE DIAMETER OF PIPE
H = FILL COVER HEIGHT OVER PIPE (FEET)
MIN. = MINIMUM
▨ = UNDISTURBED SOIL

INSTALLATION TYPE	MATERIAL REQUIREMENTS FOR HAUNCH AND STRUCTURAL BEDDING
TYPE 1	AGGREGATE BASE COURSE (CLASS 5 OR CLASS 7)
TYPE 2	SELECTED MATERIALS (CLASS SM-1, SM-2, OR SM-4) OR TYPE 1 INSTALLATION MATERIAL*
TYPE 3**	AASHTO CLASSIFICATION A-1 THRU A-6 SOIL OR TYPE 1 OR 2 INSTALLATION MATERIAL

* SM-3 WILL NOT BE ALLOWED.

** MATERIALS SHALL NOT INCLUDE ORGANIC MATERIALS OR STONES LARGER THAN 3 INCHES.



EMBANKMENT AND TRENCH INSTALLATIONS

1. MATERIAL IN THE HAUNCH AND OUTER STRUCTURAL BEDDING SHALL BE COMPACTED TO 95% OF THE MAXIMUM DENSITY ACCORDING TO THE TYPE OR CLASS OF MATERIAL USED.
2. FOR TRENCHES WITH WALLS OF NATURAL SOIL, THE DENSITY OF THE SOIL IN THE LOWER SIDE ZONE SHALL BE AS FIRM AS THE 95% DENSITY REQUIRED FOR THE HAUNCH. IF THE EXISTING SOIL DOES NOT MEET THIS CRITERIA, IT SHALL BE REMOVED AND RECOMPACTED TO 95% OF THE MAXIMUM DENSITY ACCORDING TO THE TYPE OF MATERIAL USED.
3. FOR EMBANKMENTS, THE MATERIAL IN THE LOWER SIDE ZONE SHALL BE COMPACTED TO 95% OF THE MAXIMUM DENSITY ACCORDING TO THE TYPE OR CLASS OF MATERIAL USED.

GENERAL NOTES

1. CONCRETE PIPE CULVERT CONSTRUCTION SHALL CONFORM TO ARKANSAS STATE HIGHWAY AND TRANSPORTATION DEPARTMENT STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION (CURRENT EDITION), WITH APPLICABLE SUPPLEMENTAL SPECIFICATIONS AND SPECIAL PROVISIONS. UNLESS OTHERWISE NOTED IN THE PLANS, SECTION AND SUBSECTION REFER TO THE STANDARD CONSTRUCTION SPECIFICATIONS.
2. CONCRETE PIPE CULVERT DESIGN SHALL CONFORM TO AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, FIFTH EDITION (2010) WITH 2010 INTERIMS.
3. ALL PIPE SHALL CONFORM TO SECTION 606. CIRCULAR R.C. PIPE CULVERTS SHALL CONFORM TO AASHTO M170, R.C. ARCH PIPE CULVERTS SHALL CONFORM TO AASHTO M206 AND HORIZONTAL ELLIPTICAL PIPE CULVERTS SHALL CONFORM TO AASHTO M207.
4. ALL PIPE SHALL BE PROTECTED DURING CONSTRUCTION BY A COVER SUFFICIENT TO PREVENT DAMAGE FROM PASSAGE OF EQUIPMENT.
5. THE MINIMUM TRENCH WIDTH SHALL BE THE OUTSIDE DIAMETER OF THE PIPE PLUS 24 INCHES. THE MAXIMUM ALLOWABLE TRENCH WIDTH SHALL BE THE MINIMUM WIDTH PRACTICABLE FOR WORKING CONDITIONS.
6. MULTIPLE PIPE CULVERTS SHALL BE INSTALLED WITH A MINIMUM CLEARANCE OF 24 INCHES BETWEEN STRINGS OF PIPE. REFER TO STD. DWG. FES-2 FOR MINIMUM CLEARANCE WHERE FLARED END SECTIONS ARE USED.
7. IMPERVIOUS MATERIAL SHOULD BE PLACED AS DIRECTED BY THE ENGINEER AT THE ENDS OF THE CULVERT TO PREVENT LOSS OF STRUCTURAL BEDDING WHEN PERVIOUS MATERIAL IS USED FOR STRUCTURAL BEDDING AND/OR BACKFILL.
8. NOT MORE THAN ONE LIFTING HOLE MAY BE PROVIDED IN CONCRETE PIPE TO FACILITATE HANDLING. HOLE MAY BE CAST IN PLACE, CUT INTO THE FRESH CONCRETE AFTER FORMS ARE REMOVED, OR DRILLED. THE HOLE SHALL NOT BE MORE THAN TWO INCHES IN DIAMETER OR TWO INCHES SQUARE. CUTTING OR DISPLACEMENT OF REINFORCEMENT WILL NOT BE PERMITTED. SPALLED AREAS AROUND THE HOLE SHALL BE REPAIRED IN A WORKMANLIKE MANNER. LIFTING HOLE SHALL BE FILLED WITH MORTAR, CONCRETE, OR OTHER METHOD AS APPROVED BY THE ENGINEER.
9. WHEN DIRECTED BY THE ENGINEER, UNSUITABLE MATERIAL THAT IS ENCOUNTERED AT THE BOTTOM OF THE EXCAVATED TRENCH (BELOW THE AREA IDENTIFIED AS "STRUCTURAL BEDDING" ABOVE) WILL BE EXCAVATED AND REPLACED WITH SELECTED PIPE BEDDING. THE QUANTITY OF MATERIAL REQUIRED TO BACKFILL THE UNDERCUT AREA UP TO THE SELECTED PIPE BEDDING PAY LIMIT DESIGNATED ABOVE WILL BE MEASURED AND PAID FOR AS "SELECTED PIPE BEDDING."
10. WHEN THE EXISTING MATERIAL EXCAVATED FOR THE PIPE TRENCH IS DETERMINED BY THE ENGINEER TO BE UNSUITABLE FOR BACKFILLING THE PIPE (ABOVE THE AREA IDENTIFIED ABOVE AS THE HAUNCH), BORROW MATERIAL OR MATERIAL FROM THE ROADWAY EXCAVATION WILL BE USED TO BACKFILL THE PIPE. IF SUITABLE MATERIAL IS NOT AVAILABLE, THE ENGINEER MAY AUTHORIZE THE USE OF "SELECTED PIPE BACKFILL."

MINIMUM HEIGHT OF FILL "H" OVER CIRCULAR R.C. PIPE CULVERTS

INSTALLATION TYPE	CLASS OF PIPE			
	CLASS III		CLASS IV	CLASS V
	TYPE 1 OR 2	TYPE 3	ALL	ALL
PIPE ID (IN.)	FEET			
12-15	2	2.5	2	1
18-24	2.5	3	2	1
27-33	3	4	2	1
36-42	3.5	5	2	1
48	4.5	5.5	2	1
54-60	5	7	2	1
66-78	6	8	2	1
84-108	7.5	8	2	1

NOTE: FOR MINIMUM COVER VALUES, "H" SHALL INCLUDE A MINIMUM OF 12" OF PAVEMENT AND/OR BASE.

MAXIMUM HEIGHT OF FILL "H" OVER CIRCULAR R.C. PIPE CULVERTS

INSTALLATION TYPE	CLASS OF PIPE		
	CLASS III	CLASS IV	CLASS V
	FEET		
TYPE 1	21	32	50
TYPE 2	16	25	39
TYPE 3	12	20	30

NOTE: IF FILL HEIGHT EXCEEDS 50 FEET, A SPECIAL DESIGN CONCRETE PIPE WILL BE REQUIRED USING TYPE 1 INSTALLATION.

MINIMUM HEIGHT OF FILL "H" OVER R.C. ARCH & HORIZONTAL ELLIPTICAL PIPE CULVERTS

INSTALLATION TYPE	CLASS OF PIPE	
	CLASS III	CLASS IV
	FEET	
TYPE 2 OR TYPE 3	2.5	1.5

NOTE: TYPE 1 INSTALLATION WILL NOT BE ALLOWED FOR ARCH & HORIZONTAL ELLIPTICAL PIPE CULVERTS.

NOTE: FOR MINIMUM COVER VALUES, "H" SHALL INCLUDE A MINIMUM OF 12" OF PAVEMENT AND/OR BASE.

MAXIMUM HEIGHT OF FILL "H" OVER R.C. ARCH & HORIZONTAL ELLIPTICAL PIPE CULVERTS

INSTALLATION TYPE	CLASS OF PIPE	
	CLASS III	CLASS IV
	FEET	
TYPE 2	13	21
TYPE 3	10	16

NOTE: TYPE 1 INSTALLATION WILL NOT BE ALLOWED FOR ARCH & HORIZONTAL ELLIPTICAL PIPE CULVERTS.

DATE	REVISION	DATE FILMED
2-27-14	REVISED GENERAL NOTE 1.	
12-15-11	REVISED FOR LRFD DESIGN SPECIFICATIONS	
5-18-00	REVISED TYPE 3 BEDDING & ADDED NOTE	
3-30-00	REVISED INSTALLATIONS	
11-06-97	ISSUED	

ARKANSAS STATE HIGHWAY COMMISSION

CONCRETE PIPE CULVERT FILL HEIGHTS & BEDDING

STANDARD DRAWING PCC-1

CORRUGATED STEEL PIPE (ROUND)

PIPE DIAMETER (INCHES)	① MINUMUM COVER TOP OF PIPE TO TOP OF GROUND "H" (FEET)	MAX. FILL HEIGHT "H" ABOVE TOP OF PIPE (FEET)				
		METAL THICKNESS (INCHES)				
		0.064	0.079	0.109	0.138	0.168
2⅔ INCH BY ½ INCH CORRUGATION RIVETED, WELDED, OR HELICAL LOCK-SEAM						
12	1	84	91			
15	1	67	73			
18	1	56	61			
24	1	42	46	59		
30	2	34	36	47		
36	2		30	39	41	
42	2		43	67	70	73
48	2		37	58	61	64
② 3 INCH BY 1 INCH OR 5 INCH BY 1 INCH CORRUGATION RIVETED, WELDED, BOLTED, OR HELICAL LOCK-SEAM						
36	1	48	60	88	111	118
42	1	41	51	72	90	102
48	1	36	45	64	77	85
54	2	32	40	59	71	79
60	2	29	36	53	64	71
66	2	26	33	47	58	64
72	2	24	30	44	53	59
78	2		28	41	49	54
84	2		26	38	45	51
90	2		24	35	43	45
96	2		22	33	40	44
102	2			31	38	42
108	2			30	35	39
114	2			28	34	37
120	2			27	32	35

CORRUGATED ALUMINUM PIPE (ROUND)

PIPE DIAMETER (INCHES)	① MINUMUM COVER TOP OF PIPE TO TOP OF GROUND "H" (FEET)	MAX. FILL HEIGHT "H" ABOVE TOP OF PIPE (FEET)				
		METAL THICKNESS IN INCHES				
		0.060	0.075	0.105	0.135	0.164
		2 ⅔ INCH BY ½ INCH CORRUGATION RIVETED OR HELICAL LOCK-SEAM				
12	1	45	45			
18	2	30	30	52		
24	2	22	22	39	41	
30	2		18	31	32	34
36	2.5		15	26	27	28
42	2			43	43	44
48	2			40	41	43
54	2			35	37	38
60	2				33	34
66	2					31
72	2					29

CORRUGATED METAL PIPE ARCHES

EQUIV. DIA. (INCHES)	PIPE DIMENSION SPAN X RISE (INCHES)	MINUMUM CORNER RADIUS (INCHES)	STEEL				ALUMINUM			
			MIN. THICKNESS REQUIRED INCHES	① MIN. HEIGHT OF FILL, "H" (FT.)		MAX. HEIGHT OF FILL, "H" (FT.)	MIN. THICKNESS REQUIRED INCHES	① MIN. HEIGHT OF FILL, "H" (FT.)		MAX. HEIGHT OF FILL, "H" (FT.)
				INSTALLATION		INSTALLATION		INSTALLATION		INSTALLATION
				TYPE 1		TYPE 1		TYPE 1		TYPE 1
			2 ⅔ INCH BY ½ INCH CORRUGATION RIVETED, WELDED, OR HELICAL LOCK-SEAM				2 ⅔ INCH BY ½ INCH CORRUGATION RIVETED OR HELICAL LOCK-SEAM			
15	17x13	3	0.064	2		15	0.060	2		15
18	21x15	3	0.064	2		15	0.060	2		15
21	24x18	3	0.064	2.25		15	0.060	2.25		15
24	28x20	3	0.064	2.5		15	0.075	2.5		15
30	35x24	3	0.079	3		12	0.075	3		12
36	42x29	3½	0.079	3		12	0.105	3		12
42	49x33	4	0.079	3		12	0.105	3		12
48	57x38	5	0.109	3		13	0.135	3		13
54	64x43	6	0.109	3		14	0.135	3		14
60	71x47	7	0.138	3		15	0.164	3		15
66	77x52	8	0.168	3		15				
72	83x57	9	0.168	3		15				
			② 3 INCH BY 1 INCH OR 5 INCH BY 1 INCH CORRUGATION RIVETED, WELDED, OR HELICAL LOCK-SEAM							
				INSTALLATION		INSTALLATION				
				TYPE 2	TYPE 1	TYPE 2	TYPE 1			
36	40x31	5	0.079	3	2	12	15			
42	46x36	6	0.079	3	2	13	15			
48	53x41	7	0.079	3	2	13	15			
54	60x46	8	0.079	3	2	13	15			
60	66x51	9	0.079	3	2	13	15			
66	73x55	12	0.079	3	2	15	15			
72	81x59	14	0.079	3	2	15	15			
78	87x63	14	0.079	3	2	15	15			
84	95x67	16	0.109	3	2	15	15			
90	103x71	16	0.109	3	2	15	15			
96	112x75	18	0.109	3	2	15	15			
102	117x79	18	0.109	3	2	15	15			
108	128x83	18	0.138	3	2	15	15			

CONSTRUCTION SEQUENCE

1. PLACE STRUCTURAL BEDDING MATERIAL TO GRADE. DO NOT COMPACT.
2. INSTALL PIPE TO GRADE.
3. COMPACT STRUCTURAL BEDDING OUTSIDE THE MIDDLE THIRD OF THE PIPE.
4. COMPLETE STRUCTURAL BACKFILL OPERATION BY WORKING FROM SIDE TO SIDE OF THE PIPE. THE SIDE TO SIDE STRUCTURAL BACKFILL DIFFERENTIAL SHALL NOT EXCEED 24 INCHES OR 1/3 THE SIZE OF THE PIPE, WHICHEVER IS LESS.

NOTE: STRUCTURAL BACKFILL AND STRUCTURAL BEDDING MATERIAL WILL NOT BE PAID FOR SEPARATELY, BUT COMPENSATION WILL BE CONSIDERED TO BE INCLUDED IN THE PRICE BID PER LINEAR FOOT OF METAL PIPE.

INSTALLATION TYPE	MATERIAL REQUIREMENTS FOR STRUCTURAL BACKFILL AND STRUCTURAL BEDDING
TYPE 1	AGGREGATE BASE COURSE (CLASS 4, 5, 6, OR 7)
TYPE 2	SELECTED MATERIALS (CLASS SM-1, SM-2, OR SM-4) OR TYPE 1 INSTALLATION MATERIAL ③

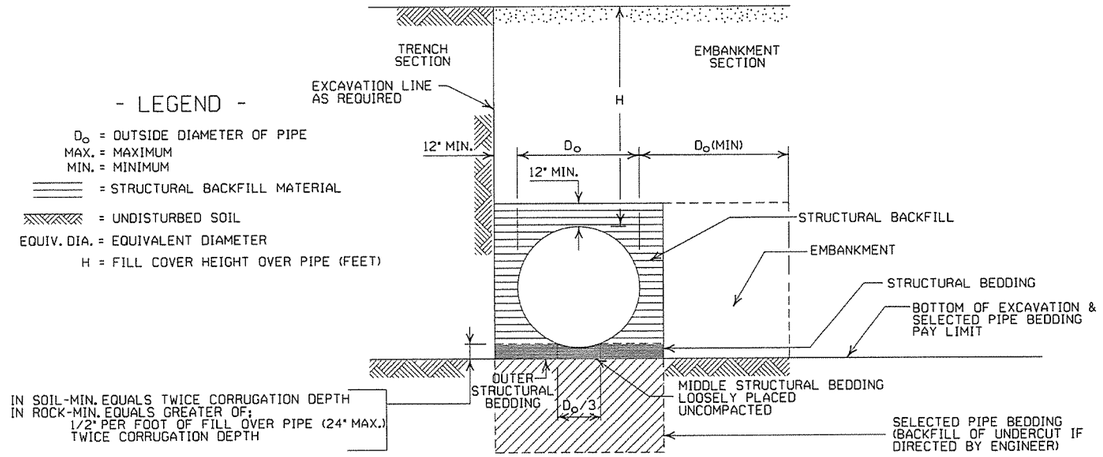
③ SM-3 WILL NOT BE ALLOWED.

EQUIVALENT METAL THICKNESSES AND GAUGES

METAL THICKNESS IN INCHES			GAUGE NUMBER
STEEL			
ZINC COATED	UNCOATED	ALUMINUM	
0.064	0.0598	0.060	16
0.079	0.0747	0.075	14
0.109	0.1046	0.105	12
0.138	0.1345	0.135	10
0.168	0.1644	0.164	8

- LEGEND -

D_o = OUTSIDE DIAMETER OF PIPE
MAX. = MAXIMUM
MIN. = MINIMUM
= STRUCTURAL BACKFILL MATERIAL
= UNDISTURBED SOIL
EQUIV. DIA. = EQUIVALENT DIAMETER
H = FILL COVER HEIGHT OVER PIPE (FEET)



EMBANKMENT AND TRENCH INSTALLATIONS

1. STRUCTURAL BACKFILL, EMBANKMENT, AND OUTER STRUCTURAL BEDDING MATERIAL SHALL BE COMPACTED TO 95% OF THE MAXIMUM DENSITY ACCORDING TO THE TYPE OR CLASS OF MATERIAL USED.
2. INSTALLATION TYPE 1 OR 2 MAY BE USED FOR CORRUGATED STEEL OR ALUMINUM PIPE (ROUND).
3. INSTALALTION TYPE 1 SHALL BE USED FOR CORRUGATED STEEL OR ALUMINUM PIPE ARCHES WITH 2⅔" X ½" CORRUGATION.
4. INSTALLATION TYPE 1 OR 2 MAY BE USED FOR CORRUGATED STEEL OR ALUMINUM PIPE ARCHES WITH 3" X 1" OR 5" X 1" CORRUGATION.

GENERAL NOTES

1. METAL PIPE CULVERT CONSTRUCTION SHALL CONFORM TO ARKANSAS STATE HIGHWAY AND TRANSPORTATION DEPARTMENT STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION (CURRENT EDITION), WITH APPLICABLE SUPPLEMENTAL SPECIFICATIONS AND SPECIAL PROVISIONS. UNLESS OTHERWISE NOTED IN THE PLANS, SECTION AND SUBSECTION REFER TO THE STANDARD CONSTRUCTION SPECIFICATIONS.
2. METAL PIPE CULVERT DESIGN SHALL CONFORM TO AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, FIFTH EDITION (2010) WITH 2010 INTERIMS.
3. METAL PIPE CULVERT MATERIALS AND INSTALLATIONS SHALL CONFORM TO SECTION 606 AND JOB SPECIAL PROVISION "METAL PIPE".
4. ALL PIPE SHALL BE PROTECTED DURING CONSTRUCTION BY A COVER SUFFICIENT TO PREVENT DAMAGE FROM PASSAGE OF EQUIPMENT.
5. THE MINIMUM TRENCH WIDTH SHALL BE THE OUTSIDE DIAMETER OF THE PIPE PLUS 24 INCHES. THE MAXIMUM ALLOWABLE TRENCH WIDTH SHALL BE THE MINIMUM WIDTH PRACTICABLE FOR WORKING CONDITIONS.
6. MULTIPLE PIPE CULVERTS SHALL BE INSTALLED WITH A MINIMUM CLEARANCE OF 24 INCHES BETWEEN STRINGS OF PIPE. REFER TO STD. DWG. FES-2 FOR MINIMUM CLEARANCE WHERE FLARED END SECTIONS ARE USED.
7. IMPERVIOUS MATERIAL SHOULD BE PLACED AS DIRECTED BY THE ENGINEER AT THE ENDS OF THE CULVERT TO PREVENT LOSS OF STRUCTURAL BEDDING WHEN PERVIOUS MATERIAL IS USED FOR STRUCTURAL BEDDING AND/OR BACKFILL.
8. WHEN DIRECTED BY THE ENGINEER, UNSUITABLE MATERIAL THAT IS ENCOUNTERED AT THE BOTTOM OF THE EXCAVATED TRENCH (BELOW THE AREA IDENTIFIED AS "STRUCTURAL BEDDING" ABOVE) WILL BE EXCAVATED AND REPLACED WITH SELECTED PIPE BEDDING. THE QUANTITY OF MATERIAL REQUIRED TO BACKFILL THE UNDERCUT AREA UP TO THE SELECTED PIPE BEDDING PAY LIMIT DESIGNATED ABOVE WILL BE MEASURED AND PAID FOR AS "SELECTED PIPE BEDDING."
9. WHEN THE EXISTING MATERIAL EXCAVATED FOR THE PIPE TRENCH IS DETERMINED BY THE ENGINEER TO BE UNSUITABLE FOR BACKFILLING THE PIPE (ABOVE THE AREA IDENTIFIED AS STRUCTURAL BACKFILL), BORROW MATERIAL OR MATERIAL FROM THE ROADWAY EXCAVATION WILL BE USED TO BACKFILL THE PIPE. IF SUITABLE MATERIAL IS NOT AVAILABLE, THE ENGINEER MAY AUTHORIZE THE USE OF "SELECTED PIPE BACKFILL."

① FOR MINIMUM COVER VALUES, "H" SHALL INCLUDE A MINIMUM 12" OF PAVEMENT AND/OR BASE.

② WHERE THE STANDARD 2 2/3"x ½" CORRUGATION AND GAUGE IS SPECIFIED FOR A GIVEN DIAMETER, A PIPE OF THE SAME DIAMETER WITH A 3" x 1" OR 5" x 1" CORRUGATION MAY BE SUBSTITUTED, PROVIDING IT IS GAUGED FOR A FILL HEIGHT CONDITION EQUAL TO OR GREATER THAN THE MAXIMUM FILL HEIGHT CONDITION FOR THE SPECIFIED GAUGE AND CORRUGATION.

DATE	REVISION	DATE FILMED
2-27-14	REVISED GENERAL NOTE 1.	
12-15-11	REVISED FOR LRFD DESIGN SPECS	
3-30-00	REVISED INSTALLATIONS	
11-06-97	ISSUED	

ARKANSAS STATE HIGHWAY COMMISSION

METAL PIPE CULVERT FILL HEIGHTS & BEDDING

STANDARD DRAWING PCM-1

INSTALLATION TYPE	•• MATERIAL REQUIREMENTS FOR STRUCTURAL BACKFILL AND STRUCTURAL BEDDING
TYPE 2	•SELECTED MATERIALS (CLASS SM-1, SM-2 OR SM-4)

• AGGREGATE BASE COURSE (CLASS 4, 5, 6, OR 7) MAY BE USED IN LIEU OF SELECTED MATERIAL.

SM3 WILL NOT BE ALLOWED.

•• STRUCTURAL BEDDING MATERIAL SHALL HAVE A MAXIMUM PARTICLE SIZE OF 1INCH. STRUCTURAL BACKFILL MATERIAL SHALL BE FREE OF ORGANIC MATERIAL, STONES LARGER THAN 1.50 INCH IN GREATEST DIMENSION, OR FROZEN LUMPS.

STRUCTURAL BACKFILL AND STRUCTURAL BEDDING MATERIAL WILL NOT BE PAID FOR SEPARATELY, BUT COMPENSATION WILL BE CONSIDERED TO BE INCLUDED IN THE PRICE BID PER LINEAR FOOT OF HDPE PIPE.

MULTIPLE INSTALLATION OF HIGH DENSITY POLYETHYLENE PIPES

PIPE DIAMETER	CLEAR DISTANCE BETWEEN PIPES
18"	1'-6"
24"	2'-0"
30"	2'-6"
36"	3'-0"
42"	3'-6"
48"	4'-0"

MINIMUM TRENCH WIDTH BASED ON FILL HEIGHT "H"

PIPE DIAMETER	TRENCH WIDTH (FEET)	
	"H" < 10'-0"	"H" >OR= 10'-0"
18"	4'-6"	4'-6"
24"	5'-0"	6'-0"
30"	5'-6"	7'-6"
36"	6'-0"	9'-0"
42"	7'-0"	10'-6"
48"	8'-0"	12'-0"

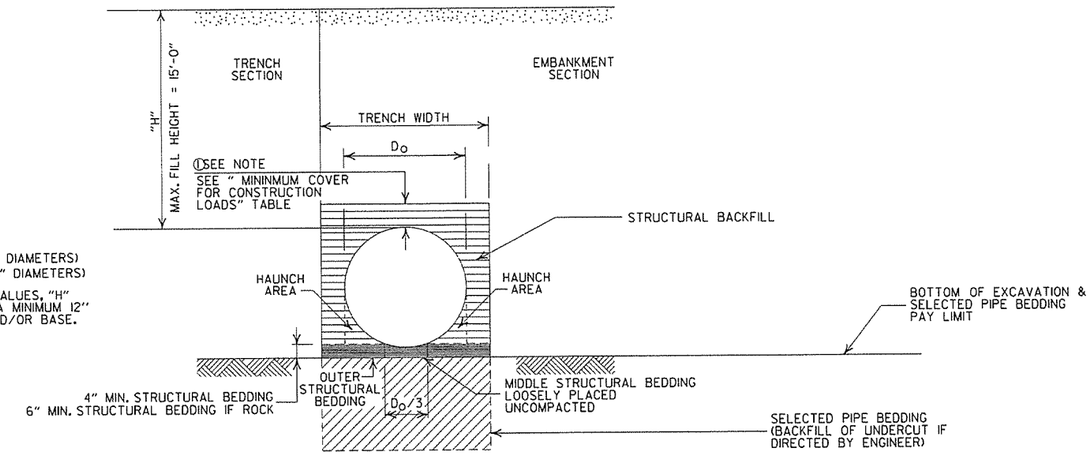
①NOTE:
18" MIN. (18" - 30" DIAMETERS)
24" MIN. (36" - 48" DIAMETERS)

MINIMUM COVER VALUES, "H" SHALL INCLUDE A MINIMUM 12" OF PAVEMENT AND/OR BASE.

MINIMUM COVER FOR CONSTRUCTION LOADS

PIPE DIAMETER	② MIN. COVER (FEET) FOR INDICATED CONSTRUCTION LOADS			
	18.0-50.0 (KIPS)	50.0-75.0 (KIPS)	75.0-110.0 (KIPS)	110.0-175.0 (KIPS)
36" OR LESS	2'-0"	2'-6"	3'-0"	3'-0"
42" OR GREATER	3'-0"	3'-0"	3'-6"	4'-0"

②MINIMUM COVER SHALL BE MEASURED FROM TOP OF PIPE TO TOP OF THE MAINTAINED CONSTRUCTION ROADWAY SURFACE. THE SURFACE SHALL BE MAINTAINED.



TYPE 2 EMBANKMENT AND TRENCH INSTALLATIONS

1. STRUCTURAL BACKFILL, EMBANKMENT, AND OUTER STRUCTURAL BEDDING MATERIAL SHALL BE COMPACTED TO 95% OF THE MAXIMUM DENSITY ACCORDING TO THE TYPE OR CLASS OF MATERIAL USED.

CONSTRUCTION SEQUENCE

1. PLACE STRUCTURAL BEDDING MATERIAL TO GRADE. DO NOT COMPACT.
2. INSTALL PIPE TO GRADE.
3. COMPACT STRUCTURAL BEDDING OUTSIDE THE MIDDLE THIRD OF THE PIPE.
4. THE STRUCTURAL BACKFILL SHALL BE PLACED AND COMPACTED IN LAYERS NOT EXCEEDING 8". THE LAYERS SHALL BE BROUGHT UP EVENLY AND SIMULTANEOUSLY TO THE ELEVATION OF THE MINIMUM COVER.
5. PIPE INSTALLATION MAY REQUIRE THE USE OF RESTRAINTS, WEIGHTING OR OTHER APPROVED METHODS IN ORDER TO HELP MAINTAIN GRADE AND ALIGNMENT.

GENERAL NOTES

1. PIPE SHALL CONFORM TO AASHTO M294, TYPE S. INSTALLATION SHALL CONFROM TO JOB SPECIAL PROVISION "PLASTIC PIPE" AND SECTION 606 OF THE STANDARD SPECIFICIATIONS FOR HIGHWAY CONSTRUCTION (CURRENT EDITION).
2. PLASTIC PIPE CULVERT DESIGN SHALL CONFORM TO AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, FIFTH EDITION (2010) WITH 2010 INTERIMS.
3. THE MAXIMUM ALLOWABLE TRENCH WIDTH SHALL BE THE MINIMUM WIDTH PLUS A SUFFICIENT WIDTH TO ENSURE WORKING ROOM TO PROPERLY AND SAFELY PLACE AND COMPACT HAUNCHING AND OTHER BACKFILL MATERIAL.
4. IMPERVIOUS MATERIAL SHOULD BE PLACED AS DIRECTED BY THE ENGINEER AT THE ENDS OF THE CULVERT TO PREVENT LOSS OF STRUCTURAL BEDDING WHEN PERVIOUS MATERIAL IS USED FOR STRUCTURAL BEDDING AND/OR BACKFILL.
5. WHEN DIRECTED BY THE ENGINEER, UNSUITABLE MATERIAL THAT IS ENCOUNTERED AT THE BOTTOM OF THE EXCAVATED TRENCH (BELOW THE AREA IDENTIFIED AS "STRUCTURAL BEDDING" ABOVE) WILL BE EXCAVATED AND REPLACED WITH SELECTED PIPE BEDDING. THE QUANTITY OF MATERIAL REQUIRED TO BACKFILL THE UNDERCUT AREA UP TO THE SELECTED PIPE BEDDING PAY LIMIT DESIGNATED ABOVE WILL BE MEASURED AND PAID FOR AS "SELECTED PIPE BEDDING."
6. WHEN THE EXISTING MATERIAL EXCAVATED FOR THE PIPE TRENCH IS DETERMINED BY THE ENGINEER TO BE UNSUITABLE FOR BACKFILLING THE PIPE (ABOVE THE AREA IDENTIFIED ABOVE AS STRUCTURAL BACKFILL), BORROW MATERIAL OR MATERIAL FROM THE ROADWAY EXCAVATION WILL BE USED TO BACKFILL THE PIPE. IF SUITABLE MATERIAL IS NOT AVAILABLE, THE ENGINEER MAY AUTHORIZE THE USE OF "SELECTED PIPE BACKFILL."
7. FOR PIPE TYPES THAT ARE NOT SMOOTH ON THE OUTSIDE (CORRUGATED OR PROFILE WALLS), BACKFILL GRADATIONS SHOULD BE SELECTED THAT WILL PERMIT THE FILLING OF THE CORRUGATION OR PROFILE VALLEY.
8. HIGH DENSITY POLYETHYLENE PIPES OF DIAMETERS OTHER THAN SHOWN WILL NOT BE ALLOWED.
9. JOINTS FOR HDPE PIPE SHALL MEET THE REQUIREMENTS FOR SOIL TIGHTNESS AS SPECIFIED IN AASHTO SECTION 26.4.2.4 AND 30.4.2 "AASHTO LRFD BRIDGE CONSTRUCTION SPECIFICATIONS." JOINTS SHALL BE INSTALLED PER MANUFACTURER'S RECOMMENDATIONS.

- LEGEND -

H = FILL HEIGHT (FT.)
Ø = OUTSIDE DIAMETER OF PIPE
MAX. = MAXIMUM
MIN. = MINIMUM

= STRUCTURAL BACKFILL MATERIAL

= UNDISTURBED SOIL

DATE	REVISION	DATE FILMED
2-27-14	REVISED GENERAL NOTE 1.	
12-15-11	REVISED GENERAL NOTES & MINIMUM COVER NOTE	
11-17-10	ISSUED	

ARKANSAS STATE HIGHWAY COMMISSION

PLASTIC PIPE CULVERT (HIGH DENSITY POLYETHYLENE)

STANDARD DRAWING PCP-1

INSTALLATION TYPE	•• MATERIAL REQUIREMENTS FOR STRUCTURAL BACKFILL AND STRUCTURAL BEDDING
TYPE 2	•SELECTED MATERIALS (CLASS SM-1, SM-2, OR SM-4)

• AGGREGATE BASE COURSE (CLASS 4, 5, 6, OR 7) MAY BE USED IN LIEU OF SELECTED MATERIAL.

SM3 WILL NOT BE ALLOWED.

•• STRUCTURAL BEDDING MATERIAL SHALL HAVE A MAXIMUM PARTICLE SIZE OF 1 INCH. STRUCTURAL BACKFILL MATERIAL SHALL BE FREE OF ORGANIC MATERIAL, STONES LARGER THAN 1.50 INCH IN GREATEST DIMENSION, OR FROZEN LUMPS.

STRUCTURAL BACKFILL AND STRUCTURAL BEDDING MATERIAL WILL NOT BE PAID FOR SEPARATELY, BUT COMPENSATION WILL BE CONSIDERED TO BE INCLUDED IN THE PRICE BID PER LINEAR FOOT OF PVC PIPE.

MINIMUM TRENCH WIDTH BASED ON FILL HEIGHT "H"

PIPE DIAMETER	TRENCH WIDTH (FEET)	
	"H" < 10'-0"	"H" >OR= 10'-0"
18"	4'-6"	4'-6"
24"	5'-0"	6'-0"
30"	5'-6"	7'-6"
36"	6'-0"	9'-0"

MULTIPLE INSTALLATION OF PVC PIPES

PIPE DIAMETER	CLEAR DISTANCE BETWEEN PIPES
18"	1'-6"
24"	2'-0"
30"	2'-6"
36"	3'-0"

MAXIMUM FILL HEIGHT BASED ON STRUCTURAL BACKFILL

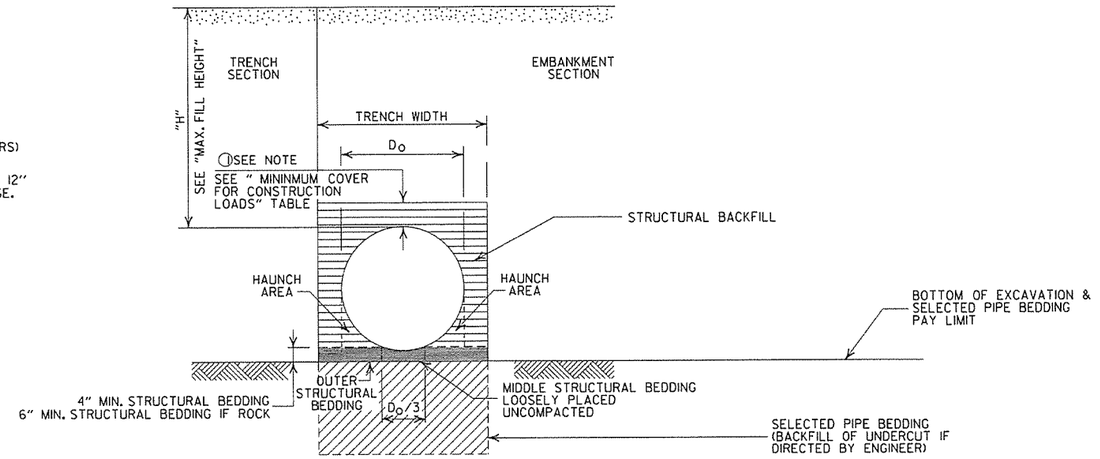
PIPE DIAMETER	"H"
18"	45'-0"
24"	45'-0"
30"	40'-0"
36"	40'-0"

① NOTE:
12" MIN. (18" - 36" DIAMETERS)
MINIMUM COVER VALUE, "H" SHALL INCLUDE A MINIMUM 12" OF PAVEMENT AND/OR BASE.

MINIMUM COVER FOR CONSTRUCTION LOADS

PIPE DIAMETER	② MIN. COVER (FEET) FOR INDICATED CONSTRUCTION LOADS			
	18.0-50.0 (KIPS)	50.0-75.0 (KIPS)	75.0-110.0 (KIPS)	110.0-175.0 (KIPS)
18" THRU 36"	2'-0"	2'-6"	3'-0"	3'-0"

②MINIMUM COVER SHALL BE MEASURED FROM TOP OF PIPE TO TOP OF THE MAINTAINED CONSTRUCTION ROADWAY SURFACE. THE SURFACE SHALL BE MAINTAINED.



TYPE 2 EMBANKMENT AND TRENCH INSTALLATIONS

1. STRUCTURAL BACKFILL, EMBANKMENT, AND OUTER STRUCTURAL BEDDING MATERIAL SHALL BE COMPACTED TO 95% OF THE MAXIMUM DENSITY ACCORDING TO THE TYPE OR CLASS OF MATERIAL USED.

CONSTRUCTION SEQUENCE

1. PLACE STRUCTURAL BEDDING MATERIAL TO GRADE. DO NOT COMPACT.
2. INSTALL PIPE TO GRADE.
3. COMPACT STRUCTURAL BEDDING OUTSIDE THE MIDDLE THIRD OF THE PIPE.
4. THE STRUCTURAL BACKFILL SHALL BE PLACED AND COMPACTED IN LAYERS NOT EXCEEDING 8". THE LAYERS SHALL BE BROUGHT UP EVENLY AND SIMULTANEOUSLY TO THE ELEVATION OF THE MINIMUM COVER.
5. PIPE INSTALLATION MAY REQUIRE THE USE OF RESTRAINTS, WEIGHTING OR OTHER APPROVED METHODS IN ORDER TO HELP MAINTAIN GRADE AND ALIGNMENT.

GENERAL NOTES

1. PIPE SHALL CONFORM TO ASTM F949, CELL CLASS 12454. INSTALLATION SHALL CONFROM TO JOB SPECIAL PROVISION "PLASTIC PIPE" AND SECTION 606 OF THE STANDARD SPECIFICIATIONS FOR HIGHWAY CONSTRUCTION (CURRENT EDITION).
2. PLASTIC PIPE CULVERT DESIGN SHALL CONFORM TO AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, FIFTH EDITION (2010) WITH 2010 INTERIMS.
3. THE MAXIMUM ALLOWABLE TRENCH WIDTH SHALL BE THE MINIMUM WIDTH PLUS A SUFFICIENT WIDTH TO ENSURE WORKING ROOM TO PROPERLY AND SAFELY PLACE AND COMPACT HAUNCHING AND OTHER BACKFILL MATERIAL.
4. IMPERVIOUS MATERIAL SHOULD BE PLACED AS DIRECTED BY THE ENGINEER AT THE ENDS OF THE CULVERT TO PREVENT LOSS OF STRUCTURAL BEDDING WHEN PERVIOUS MATERIAL IS USED FOR STRUCTURAL BEDDING AND/OR BACKFILL.
5. WHEN DIRECTED BY THE ENGINEER, UNSUITABLE MATERIAL THAT IS ENCOUNTERED AT THE BOTTOM OF THE EXCAVATED TRENCH (BELOW THE AREA IDENTIFIED AS "STRUCTURAL BEDDING" ABOVE) WILL BE EXCAVATED AND REPLACED WITH SELECTED PIPE BEDDING. THE QUANTITY OF MATERIAL REQUIRED TO BACKFILL THE UNDERCUT AREA UP TO THE SELECTED PIPE BEDDING PAY LIMIT DESIGNATED ABOVE WILL BE MEASURED AND PAID FOR AS "SELECTED PIPE BEDDING."
6. WHEN THE EXISTING MATERIAL EXCAVATED FOR THE PIPE TRENCH IS DETERMINED BY THE ENGINEER TO BE UNSUITABLE FOR BACKFILLING THE PIPE (ABOVE THE AREA IDENTIFIED ABOVE AS STRUCTURAL BACKFILL), BORROW MATERIAL OR MATERIAL FROM THE ROADWAY EXCAVATION WILL BE USED TO BACKFILL THE PIPE. IF SUITABLE MATERIAL IS NOT AVAILABLE, THE ENGINEER MAY AUTHORIZE THE USE OF "SELECTED PIPE BACKFILL."
7. FOR PIPE TYPES THAT ARE NOT SMOOTH ON THE OUTSIDE (CORRUGATED OR PROFILE WALLS), BACKFILL GRADATIONS SHOULD BE SELECTED THAT WILL PERMIT THE FILLING OF THE CORRUGATION OR PROFILE VALLEY.
8. PVC PIPES OF DIAMETERS OTHER THAN SHOWN WILL NOT BE ALLOWED.
9. JOINTS FOR PVC PIPE SHALL MEET THE REQUIREMENTS FOR SOIL TIGHTNESS AS SPECIFIED IN AASHTO SECTION 26.4.2.4 AND 30.4.2 "AASHTO LRFD BRIDGE CONSTRUCTION SPECIFICATIONS." JOINTS SHALL BE INSTALLED PER MANUFACTURER'S RECOMMENDATIONS.

- LEGEND -

H = FILL HEIGHT (FT.)
D_O = OUTSIDE DIAMETER OF PIPE
MAX. = MAXIMUM
MIN. = MINIMUM

= STRUCTURAL BACKFILL MATERIAL

= UNDISTURBED SOIL

DATE	REVISION	DATE FILMED
2-27-14	REVISED GENERAL NOTE 1.	
12-15-11	REV GENERAL NOTES & MINIMUM COVER NOTE; DELETED SM3 MATERIAL	
11-17-10	ISSUED	

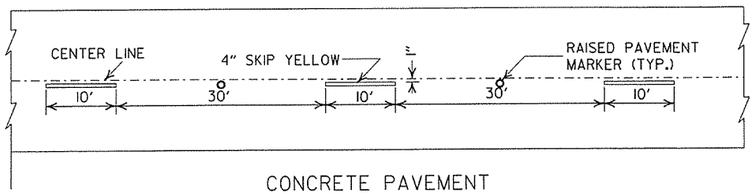
ARKANSAS STATE HIGHWAY COMMISSION

PLASTIC PIPE CULVERT (PVC F949)

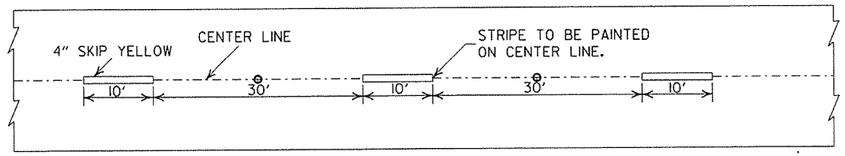
STANDARD DRAWING PCP-2

NOTES:

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

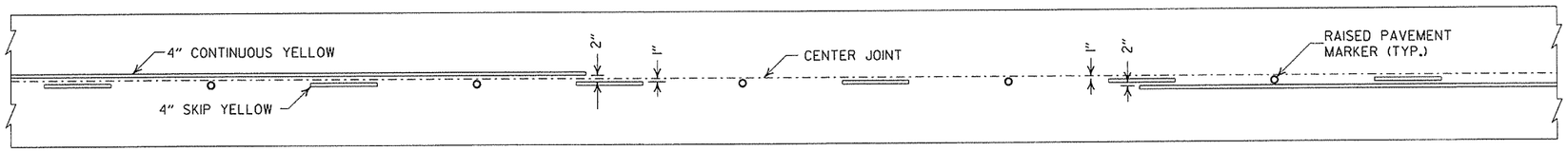


CONCRETE PAVEMENT

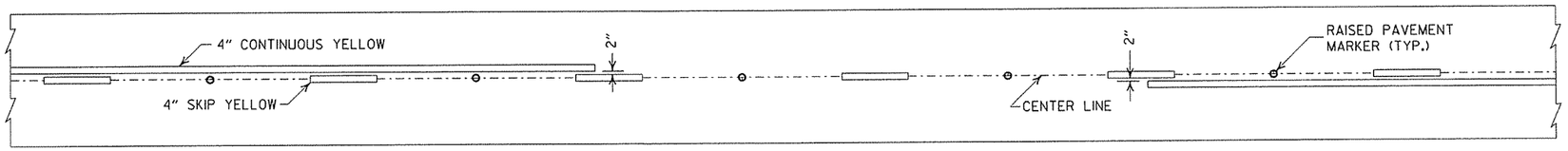


ASPHALT PAVEMENT

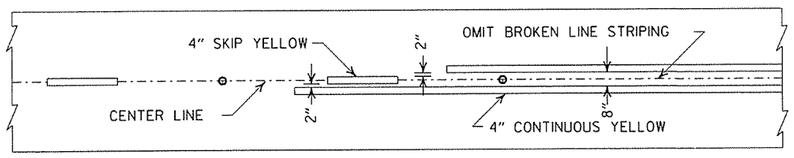
BROKEN LINE STRIPING



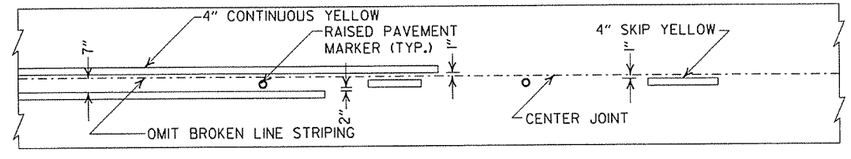
SOLID LINE STRIPING ON CONCRETE PAVEMENT



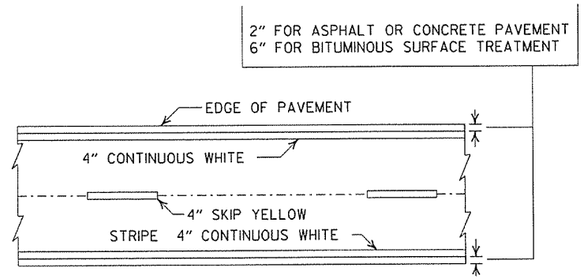
SOLID LINE STRIPING ON ASPHALT PAVEMENT



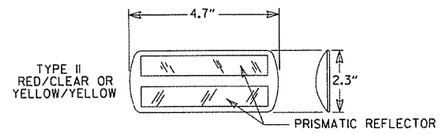
ASPHALT PAVEMENT



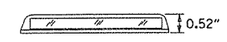
CONCRETE PAVEMENT



PAVEMENT EDGE LINE MARKING



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



DETAIL OF STANDARD RAISED PAVEMENT MARKERS

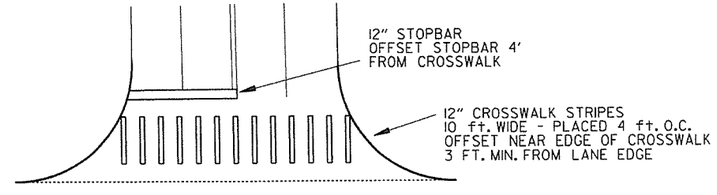
GENERAL NOTES:

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

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

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

STRIPING AT ADJACENT NO PASSING LANES



CROSSWALK AND STOPBAR DETAILS

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

ARKANSAS STATE HIGHWAY COMMISSION

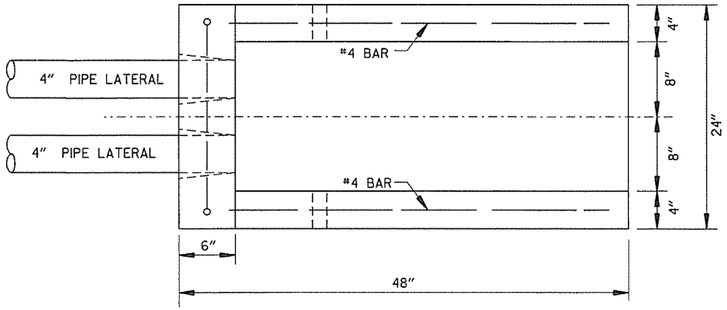
PAVEMENT MARKING DETAILS

STANDARD DRAWING PM-1

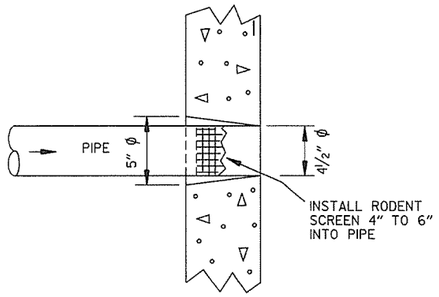
NOTE:
1. GRANULAR BACKFILL TO BE SUBSIDIARY TO PIPE UNDERDRAIN.

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

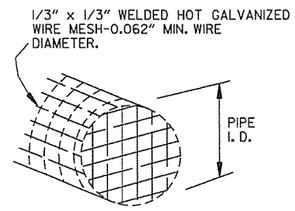
3. GRANULAR MATERIAL SHALL BE WRAPPED WITH GEOTEXTILE FABRIC. LAP FABRIC 12" OR THE WIDTH OF THE TRENCH AT THE TOP.



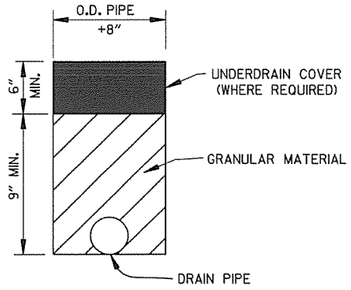
PLAN VIEW

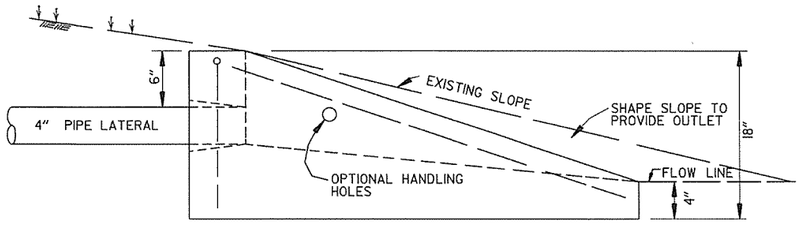


DETAIL OF HOLE FOR 4" PIPE

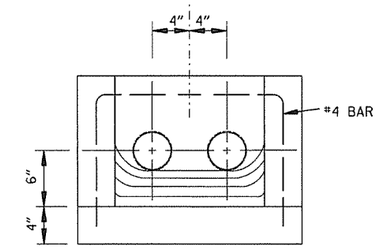


DETAIL OF RODENT SCREEN

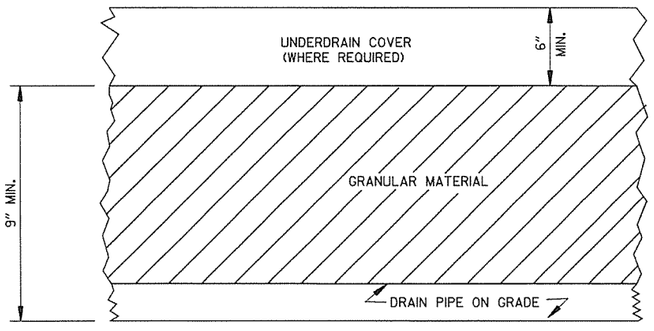




SIDE VIEW

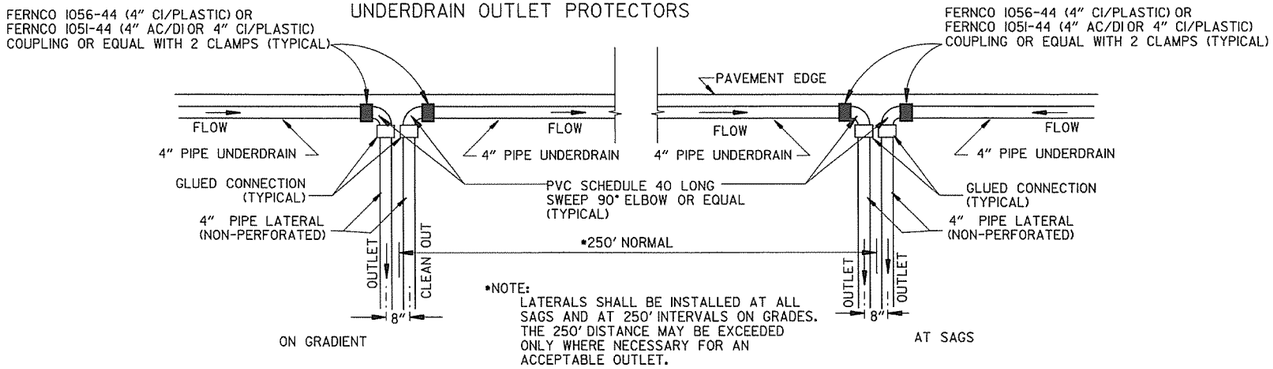


FRONT VIEW



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.

DATE	REVISION	DATE FILMED
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; 5½" 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

ARKANSAS STATE HIGHWAY COMMISSION

DETAILS OF PIPE UNDERDRAIN

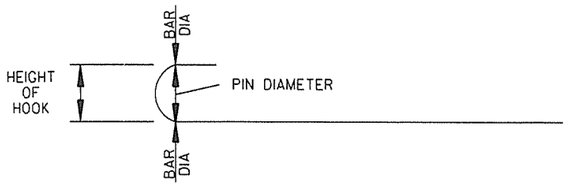
STANDARD DRAWING PU-1

7-20-95 INSTD.PUI

STEEL FABRICATION: REINFORCING STEEL FABRICATION SHALL CONFORM TO THE DIMENSIONS LISTED IN THE TABLE BELOW:

BAR SIZE	PIN DIAMETER	HOOK EXTENSION "K"
3	2¼"	4"
4	3 "	4½"
5	3¾"	5"
6	4½"	6"
7	5¼"	7"
8	6"	8"

IF THE OVERALL HEIGHT OF THE HOOK (SEE DIAGRAM BELOW) FOR A "b", "b1", "b2" or "b3" BENT BAR IS GREATER THAN THE CORRESPONDING TOP OR BOTTOM SLAB THICKNESS, LESS 2¾ INCHES, EACH BENT BAR SHALL BE REPLACED WITH ONE HOOKED BAR AND ONE STRAIGHT BAR, USING LENGTHS AS SHOWN IN THE TABLE BELOW. THE TWO BARS SHALL BE THE SAME DIAMETER AS, AND PLACED AT THE SAME SPACING AS, THE "b", "b1", "b2" OR "b3" BENT BARS THEY REPLACE.



NOTE: DIMENSIONS OF BARS ARE MEASURED OUT TO OUT OF BARS.

OVERALL HEIGHT OF HOOKED BAR DIAGRAM

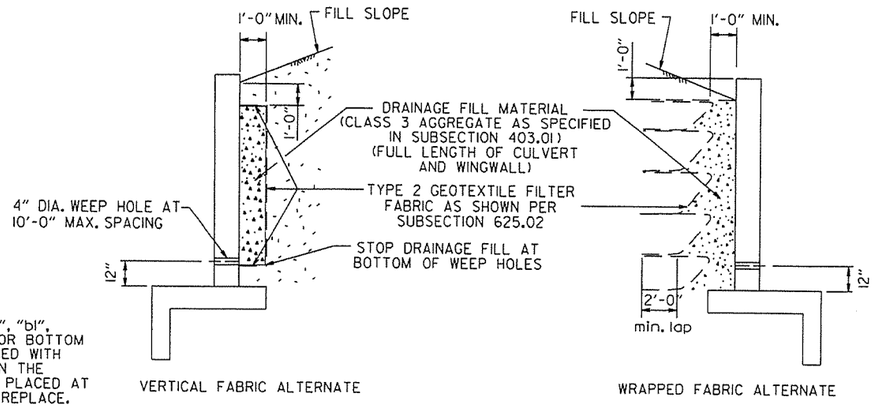
THE HOOKED BARS SHALL BE PLACED IN THE BOTTOM OF THE TOP SLAB AND THE TOP OF THE BOTTOM SLAB. THE STRAIGHT BARS SHALL BE PLACED IN THE TOP OF THE TOP SLAB AND THE BOTTOM OF THE BOTTOM SLAB. SEE TABLE BELOW FOR LENGTHS OF REPLACEMENT HOOKED AND STRAIGHT BARS.

FOR SKEWED CULVERTS, THE REPLACEMENT STRAIGHT BAR MAY HAVE TO BE CUT IN FIELD TO FIT.

REPLACEMENT BAR LENGTHS TABLE

BAR SIZE: "b", "b1", "b2" OR "b3"	LENGTH OF HOOKED BAR	LENGTH OF STRAIGHT BAR
#4	L + 1' - 0"	SEE "c" BAR LENGTH
#5	L + 1' - 2"	SEE "c" BAR LENGTH
#6	L + 1' - 4"	SEE "c" BAR LENGTH
#7	L + 1' - 8"	SEE "c" BAR LENGTH
#8	L + 1' - 10"	SEE "c" BAR LENGTH
#9	L + 2' - 6"	SEE "c" BAR LENGTH

L = "OW" - 3 INCHES



WINGWALL & CULVERT DRAINAGE DETAIL

REINFORCED CONCRETE BOX CULVERT GENERAL NOTES

CONCRETE SHALL BE CLASS S WITH A MINIMUM 28 DAY COMPRESSIVE STRENGTH OF 3500 PSI.

REINFORCING STEEL SHALL BE AASHTO M 31 OR M 53, GRADE 60.

CONSTRUCTION AND MATERIALS FOR WINGWALL & CULVERT DRAINAGE, INCLUDING WEEP HOLES AND GRANULAR MATERIAL, SHALL BE SUBSIDIARY TO THE BID ITEM, "CLASS S CONCRETE".

MEMBRANE WATERPROOFING SHALL CONFORM TO THE REQUIREMENTS OF SECTION 815 OF THE STANDARD SPECIFICATIONS.

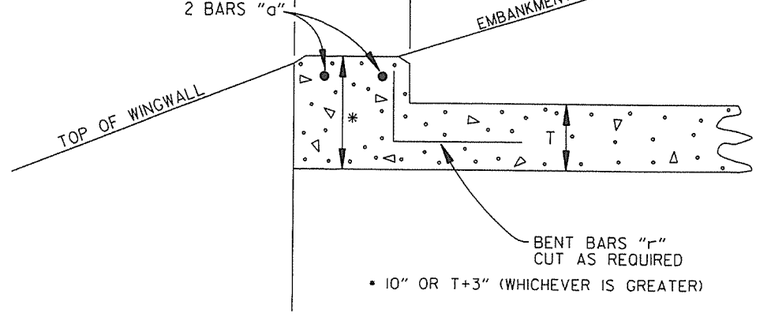
MEMBRANE WATERPROOFING SHALL BE APPLIED TO ALL CONSTRUCTION JOINTS IN THE TOP SLAB AND THE SIDEWALLS OF R.C. BOX CULVERTS AS DIRECTED BY THE ENGINEER. NO PAYMENT SHALL BE MADE FOR THIS ITEM, BUT PAYMENT WILL BE CONSIDERED TO BE INCLUDED IN THE VARIOUS ITEMS BID FOR THE R.C. BOX CULVERT.

REINFORCING STEEL TOLERANCES: THE TOLERANCES FOR REINFORCING STEEL SHALL MEET THOSE LISTED IN "MANUAL OF STANDARD PRACTICE" PUBLISHED BY CONCRETE REINFORCING STEEL INSTITUTE (CRSI) EXCEPT THAT THE TOLERANCE FOR TRUSS BARS SUCH AS FIGURE 3 ON PAGE 7-4 OF THE CRSI MANUAL SHALL BE MINUS ZERO TO PLUS ½ INCH.

WEEP HOLES IN BOX CULVERT WALLS SHALL HAVE A MAXIMUM HORIZONTAL SPACING OF 10'-0" AND SHALL BE SPACED TO CLEAR ALL REINFORCING STEEL. THE DRAIN OPENING SHALL BE 4" DIAMETER AND SHALL BE PLACED 12" ABOVE THE TOP OF THE BOTTOM SLAB.

WEEP HOLES IN WINGWALLS SHALL HAVE A MAXIMUM HORIZONTAL SPACING OF 10'-0" AND SHALL BE SPACED TO CLEAR ALL REINFORCING STEEL. THERE SHALL BE A MINIMUM OF TWO (2) WEEP HOLES IN EACH WINGWALL. THE DRAIN OPENING SHALL BE 4" DIAMETER AND SHALL BE PLACED 12" ABOVE THE TOP OF THE WINGWALL FOOTING.

THE REQUIREMENTS SHOWN ON THIS DRAWING SHALL SUPERCEDE THE CORRESPONDING REQUIREMENTS ON ALL REINFORCED CONCRETE BOX CULVERT STANDARD DRAWINGS.



NOTE: FOR ALL SKEWED R.C. BOX CULVERTS THE LENGTH "K" OF THE MODIFIED HEADWALL SHALL BE EQUAL TO THE ROADWAY LENGTH "RL". THE ENDS OF THE HEADWALL SHALL BE CONSTRUCTED PARALLEL TO THE SKEW ANGLE OF THE BOX CULVERT.

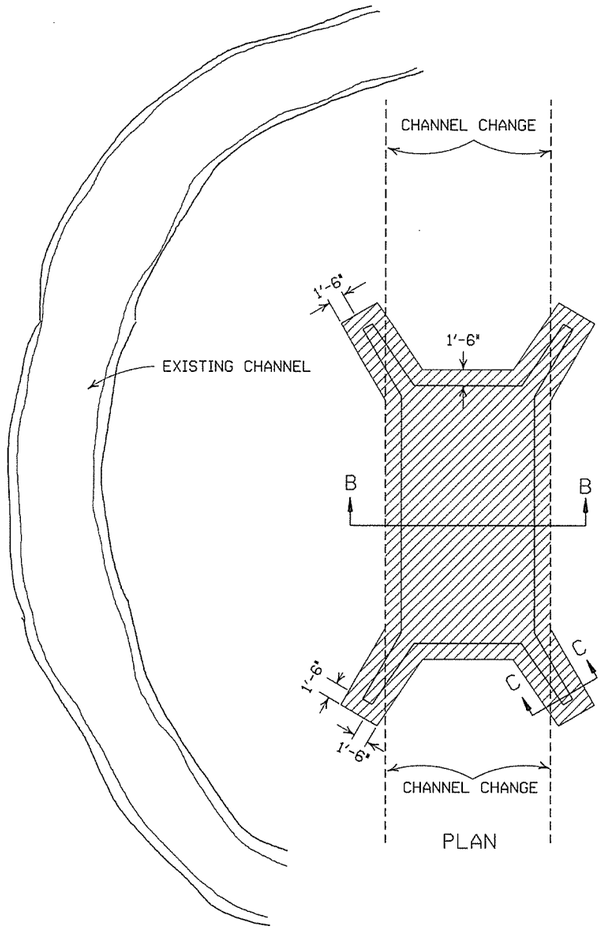
R.C. BOX CULVERT HEADWALL MODIFICATIONS

DATE	REVISION	DATE FILMED
7/26/12	REV. DRAINAGE FILL MATERIAL & DETAIL	
12/15/11	REQUIRE WEEP HOLES IN BOX CULVERT WALLS	
5-25-06	REV. GEN. NOTES AND DETAILS FOR WEEP HOLES; BAR DIAGRAM	
11-16-01	ADDED WINGWALL DRAINAGE DETAIL/EDITED GEN. NOTES	
10-18-96	REV. ASTM REF. TO AASHTO & ADDED BAR DIAGRAM	
10-12-95	MOVED SOLID SODDING DETAIL TO RCB-2	
6-2-94	ADDED SOLID SODDING PLAN DETAIL	
8-5-93	REVISED PIN DIAMETER TO SPECS.	
8-15-91	DRAWN AND ISSUED	

ARKANSAS STATE HIGHWAY COMMISSION

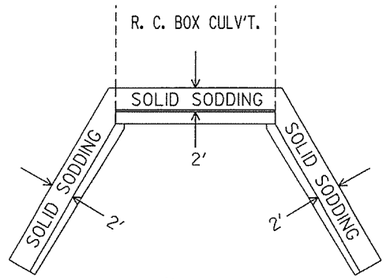
REINFORCED CONCRETE BOX CULVERT DETAILS

STANDARD DRAWING RCB-1



PLAN

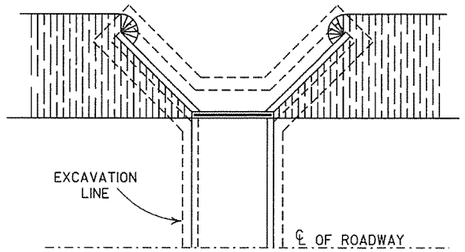
SOLID SODDING



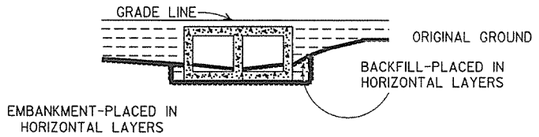
PLAN

PARTIAL SECTION SHOWING SOLID SODDING AT HEADWALLS AND WING WALLS

NOTE: LENGTH MEASURED ALONG THE CENTER OF 2' STRIP OF SOLID SODDING.

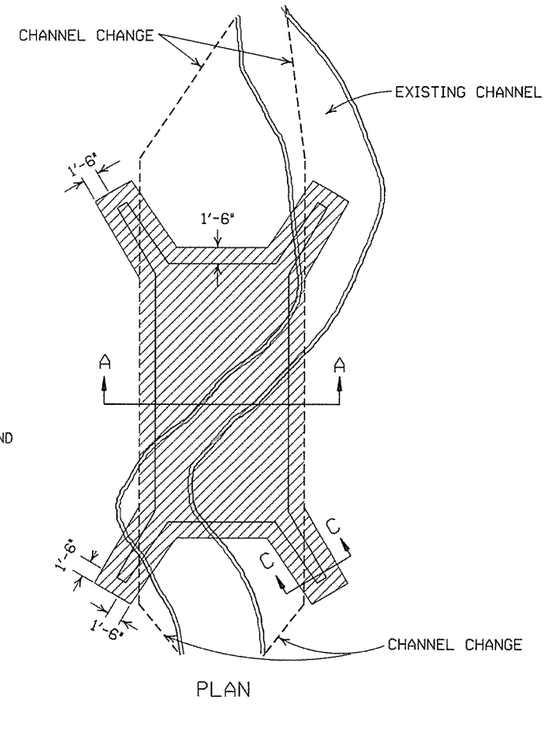


PLAN

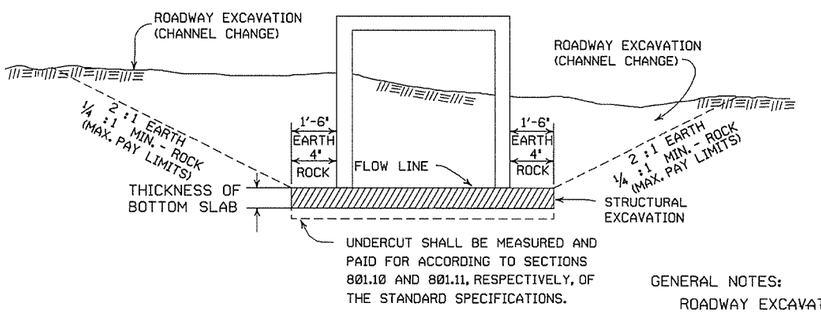


LONGITUDINAL SECTION

BACKFILL DETAILS FOR BOX CULVERT

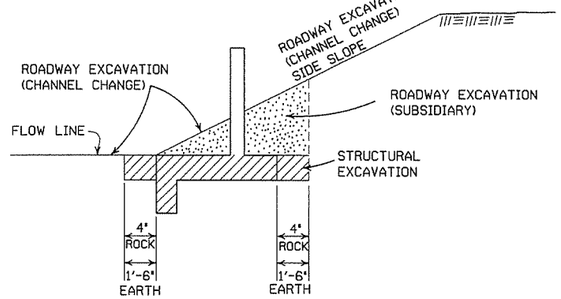


PLAN

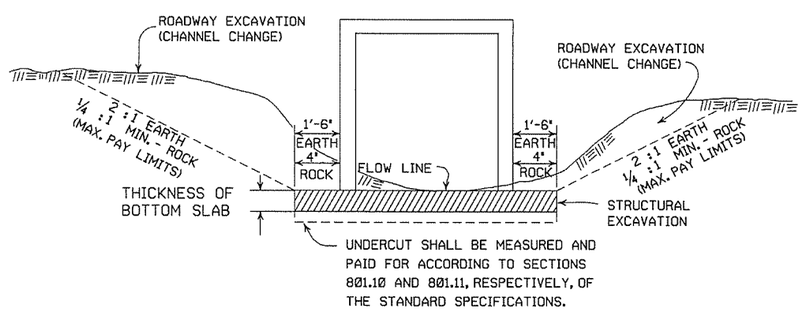


SECTION B-B

DETAILS FOR NEW CHANNELS



SECTION C-C



SECTION A-A

DETAILS THROUGH EXISTING CHANNELS

GENERAL NOTES:

ROADWAY EXCAVATION (CHANNEL CHANGE) WILL BE PAID FOR AT R.C. BOX CULVERT LOCATIONS. IT WILL BE PAID TO THE LIMITS ACTUALLY CUT AND WILL BE CONFINED TO THAT PORTION OF THE INDICATED AREA THAT IS ABOVE THE FLOW LINE. ROADWAY EXCAVATION (CHANNEL CHANGE) SHALL BE MEASURED BY CROSS SECTIONS AND VOLUMES COMPUTED BY AVERAGE END AREA METHOD. ALL CHANNEL CHANGES SHALL BE BROUGHT TO GRADE PRIOR TO MAKING ANY EXCAVATION FOR STRUCTURES.

EXCAVATION FOR STRUCTURES WILL BE PAID FOR AT ALL R.C. BOX CULVERT LOCATIONS. IT WILL BE PAID TO THE LIMITS SHOWN AND SHALL BE CONFINED TO THAT PORTION OF THE INDICATED AREA THAT IS BELOW THE CHANNEL FLOW LINE.

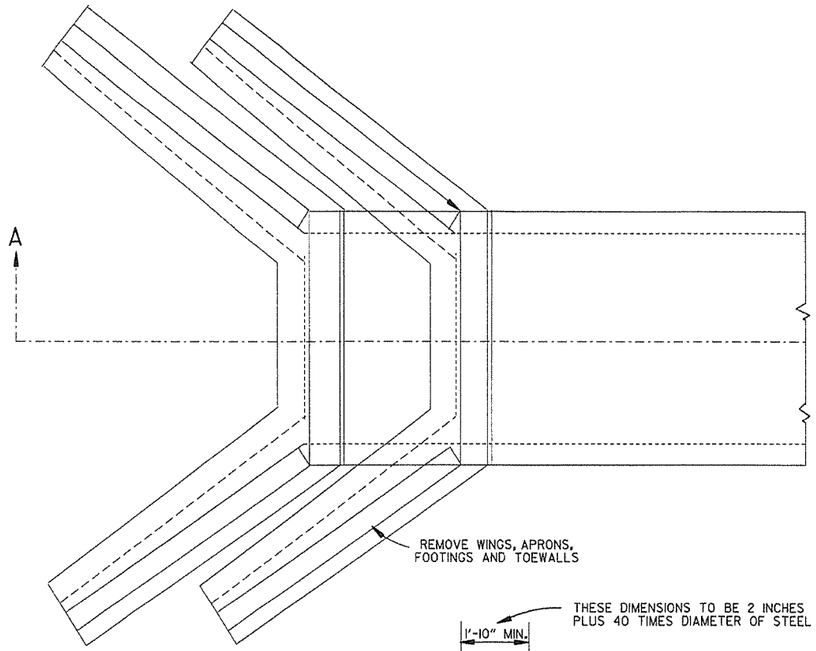
ROADWAY EXCAVATION SHOWN IN SECTION C-C ABOVE AS SUBSIDIARY WILL NOT BE MEASURED OR PAID FOR DIRECTLY, BUT PAYMENT WILL BE CONSIDERED TO BE INCLUDED IN THE VARIOUS ITEMS OF EXCAVATION.

DATE	REVISION	FILMED
11-20-03	REVISED SECTION A-A NOTE	
8-22-02	REVISED SECTION B-B NOTE	
10-12-95	COMBINED 1891B AND 1888A	
1-4-83	REVISED GENERAL NOTES	674-1-4-83
	AND ADDED MAXIMUM PAY	
	LIMIT NOTES.	
2-2-76	EXCAV. PAY LIMITS	917-2-2-76
10-2-72	REVISED AND REDRAWN	564-10-16-72

ARKANSAS STATE HIGHWAY COMMISSION

EXCAVATION PAY LIMITS, BACKFILL, & SOLID SODDING FOR BOX CULVERTS

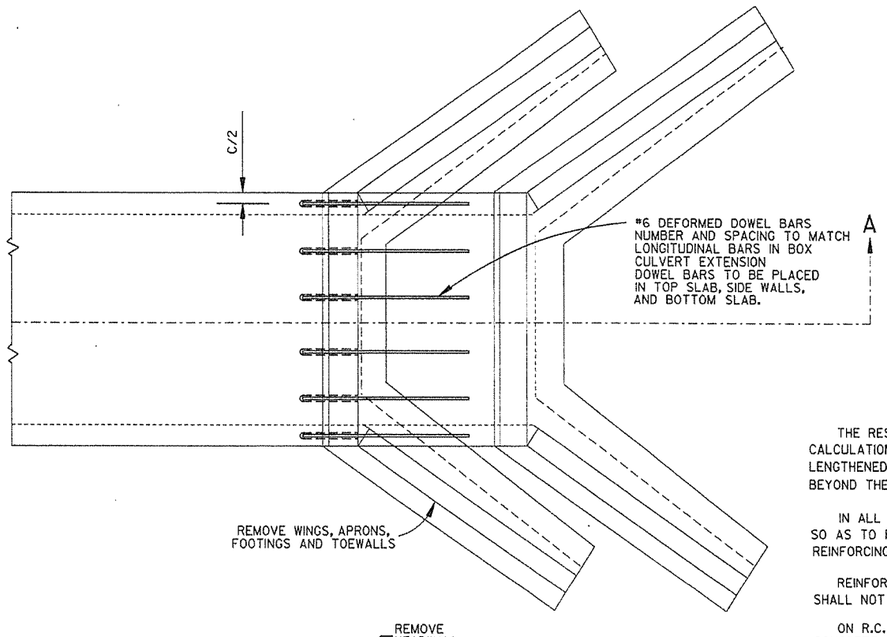
STANDARD DRAWING RCB-2



TOP VIEW
R.C. BOX CULVERT

SECTION A-A

METHOD 1



TOP VIEW
R.C. BOX CULVERT

SECTION A-A

METHOD 2

GENERAL NOTES

	USE FOR METHOD
THE RESIDENT ENGINEER WILL MAKE INDIVIDUAL CALCULATIONS OF QUANTITIES FOR EACH STRUCTURE LENGTHENED, MAKING NO ALLOWANCE FOR OVERBREAKAGE BEYOND THE LINES INDICATED.	1
IN ALL INSTANCES CONCRETE SHALL BE REMOVED SO AS TO PERMIT FULL 40 DIAMETER SPLICE OF REINFORCING STEEL.	1
REINFORCING STEEL REMOVED FROM EXISTING STRUCTURE SHALL NOT BE REUSED IN CONSTRUCTING EXTENSION.	1&2
ON R.C. BOX CULVERTS THAT HAVE AN EXISTING CONCRETE APRON; THE CONCRETE APRON SHALL BE REMOVED WITH THE WINGS. THE COST OF REMOVING ALL OLD CONCRETE WILL BE INCLUDED IN THE PRICE BID PER CUBIC YARD FOR NEW CONCRETE OF THE CLASS SPECIFIED AND NO ADDITIONAL COMPENSATION WILL BE ALLOWED.	1&2
MATERIALS FOR SECURING DOWEL BARS SHALL MEET THE REQUIREMENTS OF SECTION 507.02 OF THE STANDARD SPECIFICATIONS.	2
DOWEL BARS SHALL BE INSTALLED AS FOLLOWS: THE DRILLING PROCEDURE SHALL BE APPROVED BY THE ENGINEER, THE FILLING SYSTEM SHALL BE APPROVED BY THE ENGINEER. AND SHALL BE AN INJECTION-TYPE SYSTEM WHICH WILL INSURE THAT SUFFICIENT MATERIAL IS INJECTED SO IT COMPLETELY SURROUNDS THE BARS AND FILLS THE HOLES.	2
THE CONTRACTOR SHALL HAVE THE OPTION OF USING EITHER METHOD 1 OR METHOD 2. REGARDLESS OF WHICH METHOD IS USED, PAY QUANTITIES WILL BE CALCULATED BASED ON METHOD 1.	1&2

NOTE:
NO PART OF THIS STANDARD IS TO BE USED FOR ANY DETAILS RELATIVE TO NEW CONSTRUCTION.

SEE STANDARD DRAWING LISTED IN TABULATION OF STRUCTURES FOR ALL NEW CONSTRUCTION DETAILS.

DATE	REVISION	DATE FILM
10-12-95	CHANGED DRAWING # FROM 144-A	
4-1-93	ADDED GENERAL NOTE	
10-1-92	ADDED ALT. METHOD OF EXTENSION	
11-30-89	REDRAWN	
1-4-83	ELIMINATED CONCRETE CLASS	
12-20-56	RETRACED	

ARKANSAS STATE HIGHWAY COMMISSION

METHOD OF EXTENDING EXISTING R.C. BOX CULVERTS

STANDARD DRAWING RCB-3

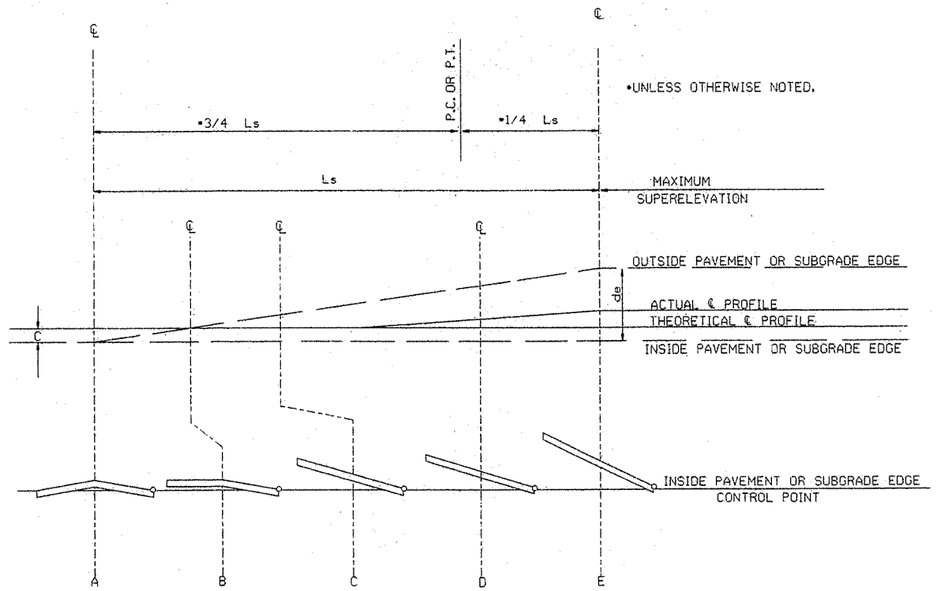
SUPERELEVATION TABLE FOR TWO - WAY TRAFFIC

DEGREE OF CURVE	30 MPH e	30 MPH Ls (FT) MINIMUM	30 MPH Ls (FT) DESIRABLE	40 MPH e	40 MPH Ls (FT) MINIMUM	40 MPH Ls (FT) DESIRABLE	50 MPH e	50 MPH Ls (FT) MINIMUM	50 MPH Ls (FT) DESIRABLE	55 MPH e	55 MPH Ls (FT) MINIMUM	55 MPH Ls (FT) DESIRABLE	60 MPH e	60 MPH Ls (FT) MINIMUM	60 MPH Ls (FT) DESIRABLE	70 MPH e	70 MPH Ls (FT) MINIMUM	70 MPH Ls (FT) DESIRABLE
0° 15′	N. C.			N. C.			N. C.			N. C.			N. C.			N. C.		
0° 30′	N. C.			N. C.			N. C.			N. C.			0.023			0.028		
0° 45′	N. C.			N. C.			R. C.			0.022			0.030			0.037		
1° 00′	N. C.			N. C.			0.021			0.026			0.037			0.046		
1° 15′	N. C.			R. C.			0.026			0.032			0.043			0.054		
1° 30′	N. C.			0.021			0.031			0.037			0.049			0.062		
1° 45′	N. C.			0.025	175		0.036	200		0.043	225		0.055	250		0.070	275	
2° 00′	R. C.			0.028			0.040			0.048			0.061			0.078		300
2° 15′	R. C.			0.031			0.045		250	0.053			0.067			0.085	300	
2° 30′	0.021			0.034			0.049			0.058			0.072			0.091	315	350
2° 45′	0.023			0.037		200	0.053			0.063			0.077	260		0.096	335	
3° 00′	0.025			0.040			0.057			0.067	230		0.082	275		0.098	350	
3° 15′	0.027	150		0.043			0.061			0.072	245		0.086	285		0.100	360	400
3° 30′	0.029			0.046			0.065	205		0.076	255		0.090	295		D MAX = 3° 30′		
3° 45′	0.031			0.049			0.069	215		0.080	265		0.093	305	350			
4° 00′	0.033			0.051			0.072	225		0.083	270		0.096	315				
4° 30′	0.037			0.056			0.078	240		0.087	280		0.098	320				
5° 00′	0.040			0.061			0.083	250		0.091	295	350	D MAX = 5° 15′					
5° 30′	0.043			0.066	185		0.088	260		0.094	300							
6° 00′	0.046			0.070	190		0.092	270		0.096	305							
6° 30′	0.050			0.074	200		0.096	280	300	0.100	315							
7° 00′	0.053			0.078	210		0.098	285		D MAX = 6° 30′								
7° 30′	0.056			0.081	215		0.099	290										
8° 00′	0.058			0.084	220	250	0.100	290										
8° 30′	0.061			0.087	225		D MAX = 8° 15′											
9° 00′	0.063			0.089	230													
10° 00′	0.068	160		0.094	235													
11° 00′	0.072	170		0.097	250													
12° 00′	0.076	175		0.099	250													
13° 00′	0.080	180		0.100	250													
14° 00′	0.083	190		D MAX = 13° 15′														
15° 00′	0.086	195																
16° 00′	0.089	200																
17° 00′	0.091	200																
18° 00′	0.093	205																
19° 00′	0.095	210																
20° 00′	0.097	215	250															
21° 00′	0.098	215																
22° 00′	0.099	215																
23° 00′	0.099	215																
24° 00′	0.100	220																

D MAX = 24° 45′

ABBREVIATIONS

NC - NORMAL CROWN
RC - REVERSE CROWN. SUPERELEVATION AT NORMAL CROWN SLOPE
e - RATE OF SUPERELEVATION (FT. PER FT.)
Ls - LENGTH OF SUPERELEVATION TRANSITION (FT.)
L - DISTANCE FROM BEGINNING OF SUPERELEVATION TRANSITION TO ANY POINT (FT.)
d - WIDTH OF PAVEMENT (FT.) OR WIDTH OF SUBGRADE (FT.)
C - NORMAL CROWN (FT.)



STANDARD METHOD WHEN SUPERELEVATION REVOLVES AROUND INNER SUBGRADE POINT OR INNER PAVEMENT EDGE

NOTE: MAINTAIN NORMAL CROWN ON INSIDE UNTIL SUPERELEVATION EXCEEDS 2C.

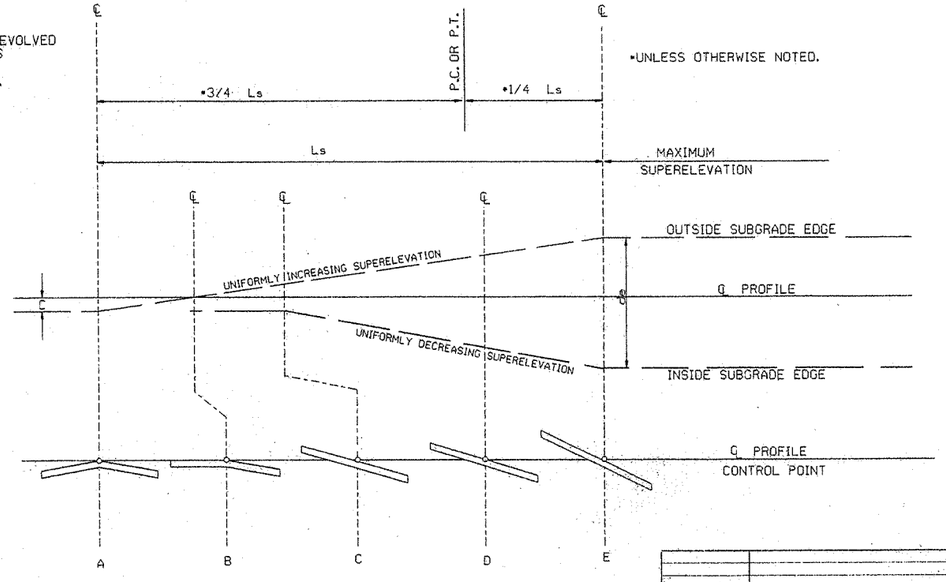
GENERAL NOTES

1. ON PAVEMENT WITH TWO-WAY TRAFFIC, THE SUPERELEVATION SHALL BE REVOLVED ON THE INSIDE PAVEMENT EDGE UNLESS OTHERWISE NOTED ON THE PLANS
2. SUPERELEVATION VALUES SHOWN ON THE CROSS SECTIONS ARE VALUES (+) OR (-) TO BE ADDED TO OR SUBTRACTED FROM THE POINT OF CONTROL.
3. LENGTHS FOR L MAY BE ROUNDED IN MULTIPLES OF 25 FT. OR 50 FT. TO PERMIT SIMPLER CALCULATIONS.
4. PAVEMENTS WIDER THAN 2 LANES SHALL HAVE ADDITIONAL TRANSITION LENGTHS AS FOLLOWS:

3 LANE UNDIVIDED - - - - - +20%
4 LANE UNDIVIDED - - - - - +50%
5 LANE UNDIVIDED - - - - - +80%
6 LANE UNDIVIDED - - - - - +100%

NOTE: MAINTAIN NORMAL CROWN ON INSIDE UNTIL SUPERELEVATION EXCEEDS 2C.

RATE OF SUPERELEVATION SHALL BE COMPUTED ON STRAIGHT LINE METHOD USING APPLICABLE Ls.



STANDARD METHOD WHEN SUPERELEVATION REVOLVES AROUND CENTER LINE

SUPERELEVATION FORMULA = $\frac{Lde}{Ls}$

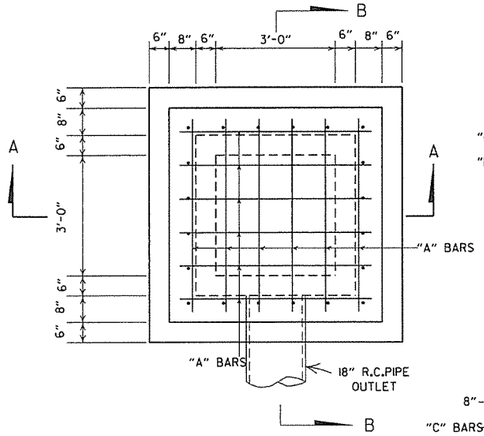
DATE	REVISION	DATE FILMED
10-18-96	ADDED FORMULA	10-18-96
01-09-87	ISSUED	534-1-9-87

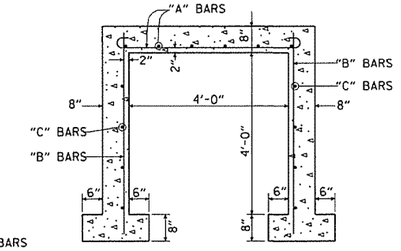
ARKANSAS STATE HIGHWAY COMMISSION

TABLES AND METHOD OF SUPERELEVATION FOR TWO-WAY TRAFFIC

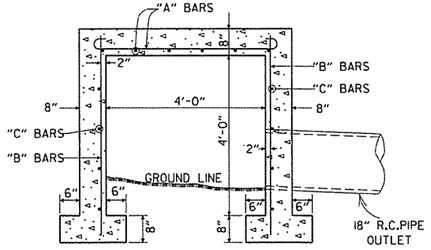
STANDARD DRAWING SE-2

FILE STDSE2.DGN





SEC A-A



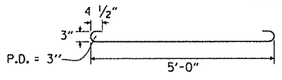
SEC B-B

NOTE: MAX FILL HEIGHT ABOVE TOP OF BOX = 13'-0".

STEEL SCHEDULE

BARS	NUMBER	LENGTH	SPACING
"A"	12	6'-0"	10"
"B"	20	5'-0"	10 ½"
"C"	16	5'-0"	12"

ALL STEEL TO BE #4 BARS

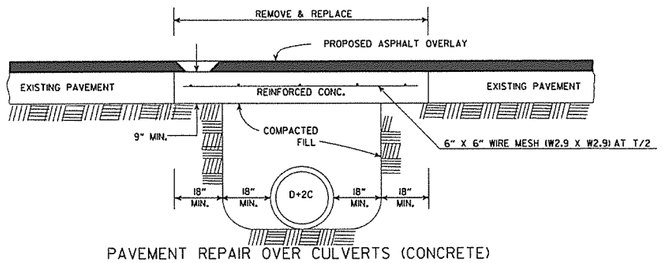


QUANTITIES

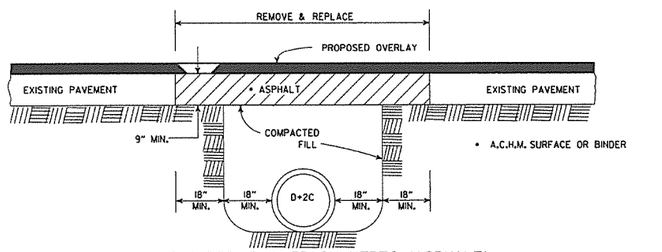
CONCRETE 3.31 CU. YDS.
REINFORCING STEEL 168 LB.

GENERAL NOTE:
THE PAY ITEMS FOR REINFORCED CONCRETE SPRING BOXES SHALL BE FOR THE QUANTITTIES OF CONCRETE OF THE CLASS SPECIFIED, REINFORCING STEEL, EXCAVATION FOR STRUCTURES AND 18" R.C. PIPE CULVERT.

REINFORCED CONCRETE SPRING BOX



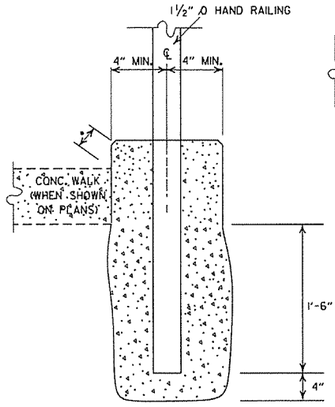
PAVEMENT REPAIR OVER CULVERTS (CONCRETE)



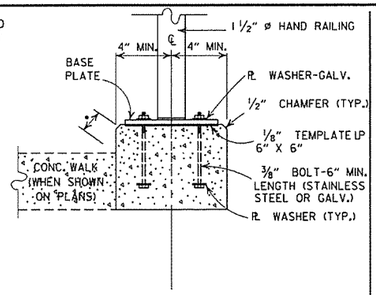
PAVEMENT REPAIR OVER CULVERTS (ASPHALT)

DETAIL SHOWING REPAIR OF EXISTING PAVEMENT AT CULVERT INSTALLATIONS

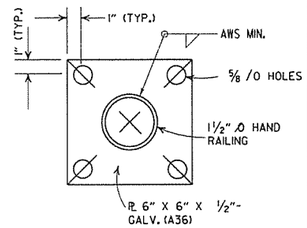
• A 2" MIN. HIGH CURB IS REQUIRED WHEN CONCRETE WALK IS ADJACENT TO THE HAND RAILING. PAYMENT FOR CURB SHALL BE CONSIDERED INCLUDED IN THE PRICE BID FOR CONCRETE WALKS.



DETAIL OF HAND RAILING SET IN CONCRETE

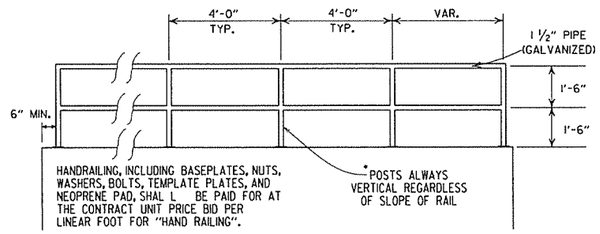


POST CONNECTION TO WALL

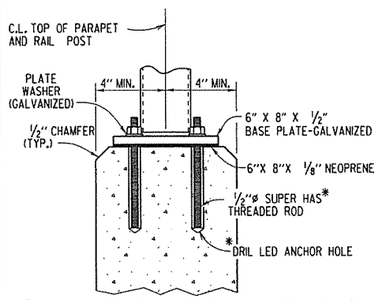


BASE PLATE

POST CONNECTION DETAILS



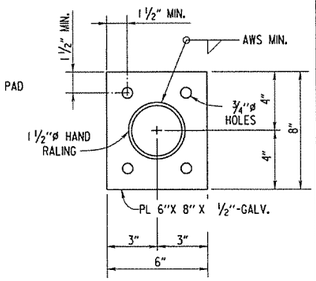
HAND RAILING SHAL L CONFORM TO SECTION 633.



*HILTI HIT RE 500 EPOXY ADHESIVE ANCHOR SYSTEM WITH 4 ½" EMBEDMENT OR APPROVED EQUAL.

THE ADHESIVE ANCHOR SYSTEM SHAL L BE INSTAL LED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.

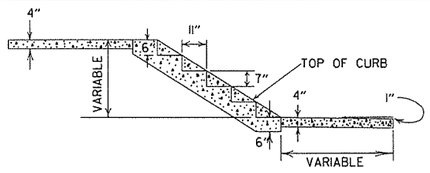
POST CONNECTION TO WALL

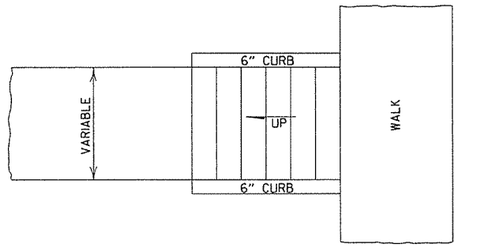


BASE PLATE

DETAILS OF ALTERNATE POST ANCHOR SYSTEM
(EPOXY ADHESIVE ANCHORS)

HAND RAILING DETAILS





GENERAL NOTES

1. RISE AND TREAD DIMENSIONS OF STEPS MAY BE VARIED AS DIRECTED BY THE ENGINEER, HOWEVER, TREAD WIDTHS SHALL BE 11" MIN. ALL STEPS IN A FLIGHT SHALL HAVE CONSISTENT TREAD & RISER DIMENSIONS.
2. 1" TRANSVERSE EXPANSION JOINTS SHALL BE PLACED IN CONCRETE WALKS AT 45' INTERVALS.

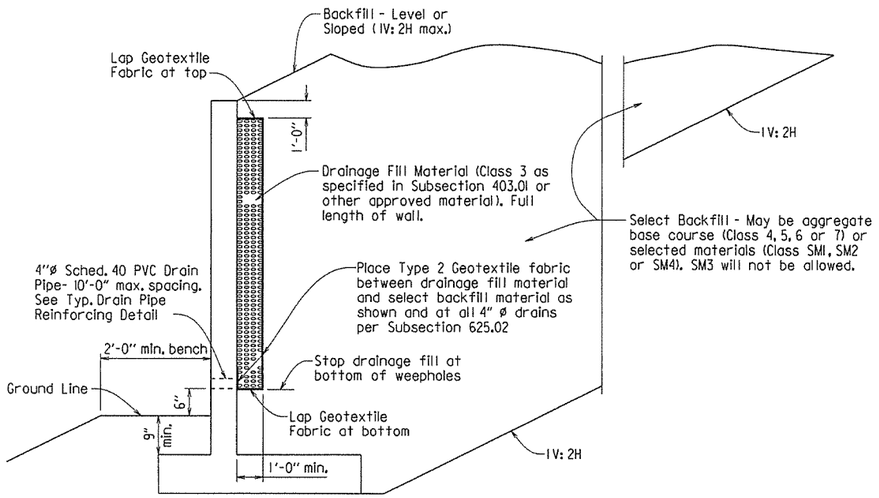
DETAILS OF CONCRETE STEPS & WALKS

DATE	REVISION	DATE FILMED
9-12-13	REVISED REINFORCED CONCRETE SPRING BOX	
7-26-12	REMOVED RETAINING WALL DETAILS & REVISED HAND RAILING DETAILS	
4-17-08	REV. JOINT & FOOTING STEP DETAILS	
11-29-07	REVISED RETAINING WALL DRAINAGE	
5-25-06	REVISED PVMT REPAIR OVER CULVERTS (CONC); REVISED REINFORCED CONC SPRING BOX	
10-9-03	REVISED PIPE RAILING DETAILS TO HAND RAILING DETAILS	
4-10-03	REVISED RETAINING WALL DRAWING	
8-22-02	ADDED HAND RAILING DETAIL	
11-16-01	REVISED PVMT REPAIR OVER CULVERTS (CONC); CORRECTED SPELLING IN GENERAL NOTES	
11-18-98	ADDED GENERAL NOTES TO CONCRETE STEPS & WALKS	
7-02-98	ENLARGED PIPE	
4-03-97	ADDED NOTE TO STEEL BAR SCHED.	
10-18-96	CORRECTED SPELLING	
4-26-96	ADD WEEP HOLE;REV. JOINT SPACING IN RET. WALL	
6-2-94	CHANGED CONST. TO CONTRACTION JOINT	
10-1-92	CHANGED MESH FABRIC TO WIRE MESH	10-1-92
8-15-91	DELETED HDWL MODIFICATION DETAIL	8-15-91
11-8-90	DELETED COLD MIX FROM CULV'T. REPAIR	11-8-90
11-30-89	REV. RETAINING WALL STEEL SCHEDULE	11-30-89
11-17-88	V. BARS BEHIND ARROW	665-11-17-88
7-15-88	REV. PAVEMENT REPAIR ADDED HDWL. MODS, DEL. PIPE UNDERDRAINS	649-7-15-88
11-1-84	REV. TRENCH FOR PIPE UNDERDRAIN	510-11-1-84
1-4-83	ELIMINATED CONC. CLASS & ADDED CHAMFER NOTE	682-1-4-83
3-2-81	SPELLING OF "UNDERDRAIN"	721-3-2-81
4-20-79	REV. UNDERDRAIN DETS& PAVEMENT REPAIR	674-4-20-79
2-2-76	12"MIN. GRAN. MAT'L. OVER PIPE	919-2-2-76
4-10-75	REM. SPECS. FOR GRAN. MAT'L.	568-4-10-75-853
5-22-74	GRANULAR MAT'L. TO BE SB-3	567-5-22-74-740
10-2-72	REVISED AND REDRAWN	564-10-16-72

ARKANSAS STATE HIGHWAY COMMISSION

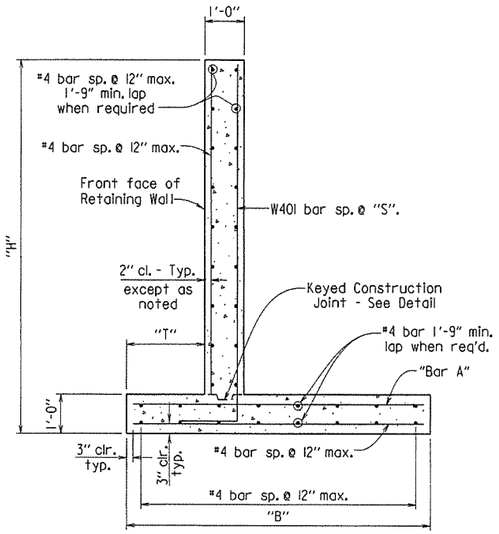
DETAILS OF SPECIAL ITEMS

STANDARD DRAWING SI-1



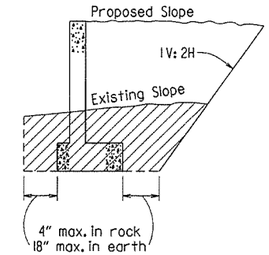
TYPICAL DRAINAGE & BACKFILL DETAILS

N.T.S

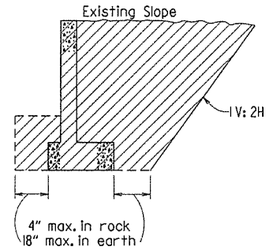


TYPICAL SECTION

N.T.S



In Embankment



In Excavation

NOTE: Hatched area denotes maximum limits of pay excavation.

DETAILS OF EXCAVATION

N.T.S

GENERAL NOTES

CONSTRUCTION SPECIFICATIONS: Arkansas state Highway and Transportation Department Standard Specifications for Highway Construction (Current Edition) with applicable supplemental specifications and special provisions. Unless otherwise noted in the plans, Section and Subsection refer to the Standard Construction Specifications.

DESIGN SPECIFICATIONS: AASHTO LRFD Bridge Design Specifications, Sixth Edition (2012).

LIVE LOAD: Live Load Surcharge is not included in the design of these walls. Vehicular Live Load shall not be allowed within a distance equal to one-half the height of the wall.

CONCRETE: Concrete shall be poured in the dry and all exposed corners to be chamfered ½". All concrete shall be Class S with a minimum 28 day compressive strength f'c = 3,500 psi. A Class 2 Surface finish shall be used on all surfaces of the concrete unless otherwise noted.

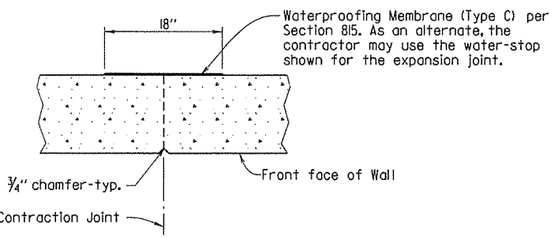
REINFORCING STEEL: All reinforcing steel shall conform to AASHTO M31 orM53, Grade 60.

Foundations for footings shall be prepared in accordance with subsection 801.04. Backfill for retaining walls shall be in accordance with subsection 801.08.

Waterproof Membrane (Type C), waterstops, preformed joints, weep holes & geotextile fabric shall not be paid for directly, but shall be considered subsidiary to Class S Concrete.

Drainage fill material (Class 3) and select backfill shall be measured and paid for as Compacted Embankment.

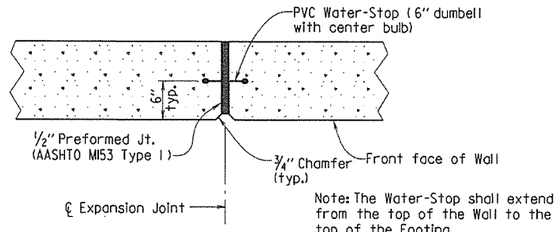
These details are not intended for use along streams or ditches without consideration for scour.



TYPICAL CONTRACTION JOINT DETAIL

N.T.S.

Note: 20'-0" Max. Spacing between Contraction Joints. Horizontal reinforcement shall be continuous through Contraction joints.

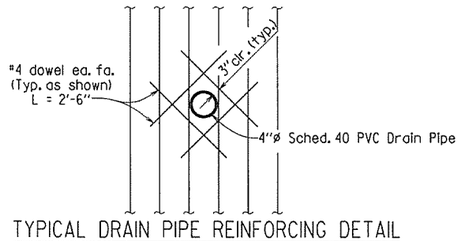


Note: The Water-Stop shall extend from the top of the Wall to the top of the Footing.

TYPICAL EXPANSION JOINT DETAIL

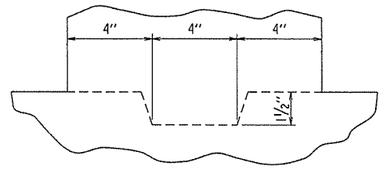
N.T.S.

Note: 60'-0" Max. Spacing between Expansion Joints. Horizontal reinforcing shall stop 2" from ℄ Expansion Joint.



TYPICAL DRAIN PIPE REINFORCING DETAIL

N.T.S



KEYED CONSTRUCTION JOINT DETAIL

N.T.S

SEISMIC ZONE: These walls have been designed for the following site adjusted peak ground accelerations (A_S):
Level Backfill - $A_S \leq .40g$
Sloped Backfill (1V: 2H max.) - $A_S \leq .30g$

TABLE OF RETAINING WALL VARIABLES (LEVEL BACKFILL)

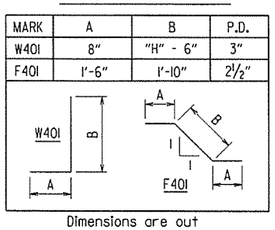
"H"	"T"	"B"	"S"	"Bar A" Size ø Spacing
3'-0"	9"	2'-6"	12"	#4 ø 12"
4'-0"	9"	3'-6"	12"	#4 ø 12"
5'-0"	9"	4'-0"	12"	#4 ø 12"
6'-0"	9"	4'-6"	12"	#4 ø 12"
7'-0"	9"	5'-6"	12"	#4 ø 10"
8'-0"	9"	6'-0"	12"	#5 ø 10"
9'-0"	1'-0"	7'-0"	12"	#5 ø 6½"

TABLE OF RETAINING WALL VARIABLES (SLOPED BACKFILL) (1V: 2H MAX.)

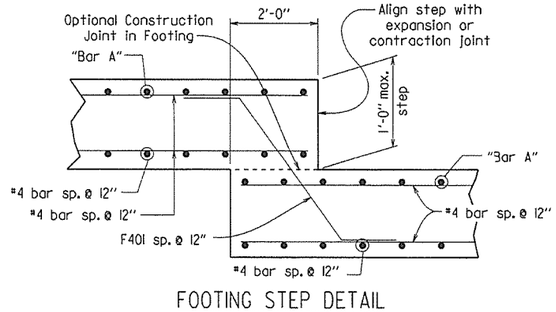
"H"	"T"	"B"	"S"	"Bar A" Size ø Spacing
3'-0"	9"	2'-6"	12"	#4 ø 12"
4'-0"	9"	3'-6"	12"	#4 ø 12"
5'-0"	9"	4'-6"	12"	#4 ø 12"
6'-0"	9"	5'-6"	12"	#4 ø 6"
7'-0"	9"	6'-6"	12"	#5 ø 6½"
8'-0"	1'-6"	8'-0"	7½"	#6 ø 6"
9'-0"	1'-11"	9'-6"	5"	#8 ø 6"

BENDING DIAGRAMS

MARK	A	B	P.D.
W401	8"	"H" - 6"	3"
F401	1'-6"	1'-10"	2½"



Dimensions are out to out of bars.



FOOTING STEP DETAIL

N.T.S.

DATE	REVISION	DATE FILMED
2-27-14	REVISED GENERAL NOTES.	
7-26-12	DRAWING ISSUED	

ARKANSAS STATE HIGHWAY COMMISSION

REINFORCED CONCRETE RETAINING WALL (WITHOUT LIVE LOAD SURCHARGE)

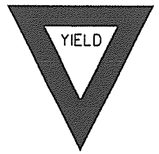
STANDARD DRAWING SI - 2

R1-1



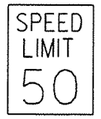
STANDARD 30"X30"
EXPRESSWAY 36"X36"
SPECIAL 48"X48"

R1-2



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

R2-1



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

W3-5



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

W3-5a



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

R4-1



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

R4-2



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

R5-1



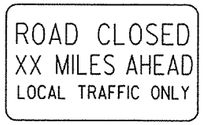
STD. 30"X30"
EXPWY. 36"X36"
SPECIAL 48"X48"

R11-2



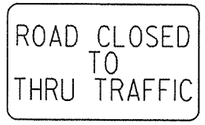
48"X30"

R11-3A



60"X30"

R11-4



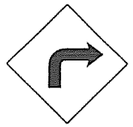
60"X30"

RSP-1



48"X30"

W1-1



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

W1-2



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

W1-3



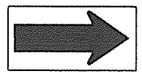
STD. 48"X48"

W1-4



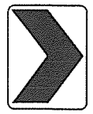
STD. 48"X48"

W1-6



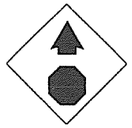
STD. 48"X24"
SPECIAL 60"X30"

W1-8



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

W3-1



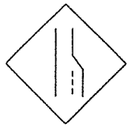
STD. 36"X36"
SPECIAL 48"X48"

W3-2



STD. 36"X36"
SPECIAL 48"X48"

W4-2



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

W5-1



STD. 36"X36"
SPECIAL 48"X48"

W6-3



EXPWY. 36"X36"
SPECIAL 48"X48"

W8-7



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

W9-2



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

W13-1



STD. 24"X24"

W20-1



STD. 48"X48"

W20-2



STD. 48"X48"

W20-3



STD. 48"X48"

W20-4



STD. 48"X48"

W20-5



STD. 48"X48"

W20-7a



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

W21-2



STD. 30"X30"
SPECIAL 36"X36"

W21-5



STD. 30"X30"
SPECIAL 36"X36"

W24-1



STD. 36"X36"

W1-4b



STD. 48"X48"

R56-1



STD. 18"X18"

W8-11



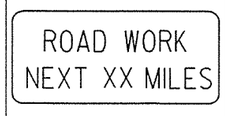
STD. 36"X36"
FWY. 48"X48"

W8-9



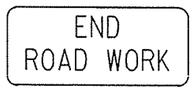
STD. 36"X36"
FWY. 48"X48"

G20-1



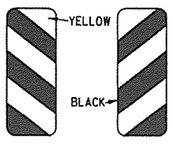
60"X24"

G20-2



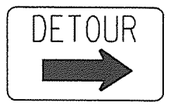
48"X24"

OM-3L OM-3R



12"X36"

M4-9



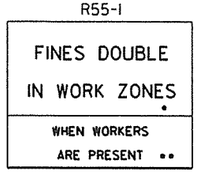
STD. 30"X24"
SPECIAL 48"X36"
SPECIAL 60"X48"

M4-10



48"X18"

R55-1



36"X60"

• USE 6" C LETTERS
•• USE 4" D LETTERS

ADVANCE DISTANCES
(XXXX)

500 FT	½ MILE
1000 FT	¾ MILE
1500 FT	1 MILE
	AHEAD

GENERAL NOTES:

1. ALL TRAFFIC CONTROL DEVICES USED ON ROAD CONSTRUCTION SHALL CONFORM TO THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, LATEST EDITION, AND TO THE STANDARD HIGHWAY SIGNS, LATEST EDITION, OR AS APPROVED BY THE FEDERAL HIGHWAY ADMINISTRATION.
2. TRAFFIC CONTROL DEVICES SHALL BE SET UP JUST BEFORE THE START OF CONSTRUCTION OPERATIONS AND SHALL BE PROPERLY MAINTAINED DURING THE TIME SUCH CONDITIONS EXIST. THEY SHALL REMAIN IN PLACE ONLY AS LONG AS NEEDED AND REMOVED THEREAFTER.
3. EXISTING SIGNS AND CONSTRUCTION SIGNS SHALL BE KEPT IN PROPER POSITION, AND BE CLEAN AND LEGIBLE AT ALL TIMES. SIGNS THAT DO NOT APPLY TO EXISTING CONDITIONS SHALL BE REMOVED. SIGNS THAT ARE DAMAGED, DEFACED, OR THAT ACCUMULATE DIRT DURING CONSTRUCTION SHALL BE CLEANED, REPAIRED, OR REPLACED.
- 4. SIGNS ARE USUALLY MOUNTED ON A SINGLE POST, ALTHOUGH THOSE WIDER THAN 36" OR LARGER THAN 10 SQ. FT. SHALL BE MOUNTED ON TWO POSTS OR ABOVE A TYPE III BARRICADE.
- 5. SIGN POSTS DIRECT BURIED IN SOIL SHALL BE 2 LB. MINIMUM CHANNEL POST OR 4"x4" WOOD POSTS. CHANNEL POSTS SHALL BE PAINTED GREEN. WOOD POSTS SHALL BE PAINTED WHITE. ALL POSTS SHALL BE NEATLY CONSTRUCTED, AND SHALL BE REPLUMBED, CLEANED, OR REPAIRED AS NEEDED FOR THE DURATION OF THE JOB. THERE SHALL NOT BE MORE THAN 2 POSTS IN A 7' PATH FOR WOOD OR CHANNEL POSTS. ANY CHANNEL POST SPLICE SHALL BE IN ACCORDANCE WITH STANDARD DRAWING TC-3.
6. POST MOUNTED SIGNS IN RURAL AREAS SHALL BE CONSTRUCTED WITH THE NEAR EDGE OF THE SIGN FROM 6 TO 12 FEET FROM THE PAVEMENT EDGE. SIGNS IN URBAN AREAS AND BARRICADE MOUNTED SIGNS SHALL BE MOUNTED A MINIMUM OF 2 FEET FROM THE PAVEMENT EDGE.
7. ALL POST AND BARRICADE MOUNTED SIGNS MOUNTED IN URBAN AREAS SHALL BE MOUNTED A MINIMUM DISTANCE OF 7' FROM THE BOTTOM OF THE SIGN TO THE ROADWAY SURFACE. ALL POST AND BARRICADE MOUNTED SIGNS MOUNTED IN RURAL AREAS SHALL BE MOUNTED A MINIMUM DISTANCE OF 7' FROM THE BOTTOM OF THE SIGN TO THE ROADWAY SURFACE, EXCEPT A MINIMUM OF 6' SHALL BE USED WHEN MOUNTING AN ADVISORY SIGN BELOW A WARNING SIGN. TEMPORARY SIGNS MAY BE MOUNTED ON PORTABLE SUPPORTS FOR INTERMEDIATE TERM STATIONARY WORK CONDITIONS. THE SIGNS MINIMUM MOUNTING HEIGHT SHALL BE 5'. RETROREFLECTIVE DEVICES SHALL BE USED. TEMPORARY SIGNS MAY BE MOUNTED ON PORTABLE SUPPORTS FOR SHORT-TERM, SHORT DURATION, AND MOBILE CONDITIONS. THEY SHALL BE NO LESS THAN ONE (1) FOOT ABOVE THE TRAVELED WAY. LONG-TERM STATIONARY SIGNS SHALL BE DIRECT BURIED IN SOIL, UNLESS CONDITIONS NECESSITATE THE USE OF PORTABLE SIGNS, OR AS APPROVED BY THE ENGINEER. CONCRETE PADS, CONCRETE OR ROCK BALLAST, OR OTHER SOLID MATERIALS SHALL NOT BE UTILIZED WITH PORTABLE SIGN SUPPORTS.
8. FLAGGERS SHALL USE REFLECTORIZED STOP-SLOW PADDLES. FLAGS MAY BE USED ONLY FOR EMERGENCY SITUATIONS.
9. MOST OF THE SIGNS SHOWN ARE ORIENTED TO THE RIGHT. HOWEVER, THIS DOES NOT PRECLUDE THE USE OF MIRROR IMAGES OF THESE SIGNS WHERE THE REVERSE ORIENTATION MIGHT BETTER CONVEY TO MOTORISTS THE PROPER DIRECTION OF MOVEMENT.
10. R55-1 SIGNS SHALL BE PLACED AT LEAST 1500' BUT NOT MORE THAN 1 MILE IN ADVANCE OF THE WORK ZONE. IF A SPEED LIMIT REDUCTION IS IN EFFECT, THE SIGN SHALL BE PLACED A MINIMUM OF 500' IN ADVANCE OF THE "REDUCED SPEED AHEAD" SIGN.

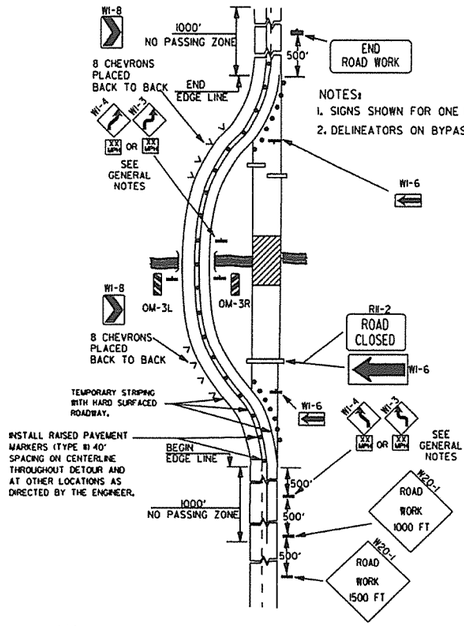
• NOTE: SUPPORTS FOR SIGNS, BARRICADES, AND VERTICAL PANELS THAT ARE DIFFERENT FROM THE REQUIREMENTS SHOWN IN NOTES 4 & 5, BUT MEET THE REQUIREMENTS OF NCHRP-350 OR MANUAL FOR ASSESSING SAFETY HARDWARE (MASH), WILL BE ACCEPTED. COMPLIANCE WITH THE REQUIREMENTS OF NCHRP-350 OR MANUAL FOR ASSESSING SAFETY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

DATE	REVISION	FILMED
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

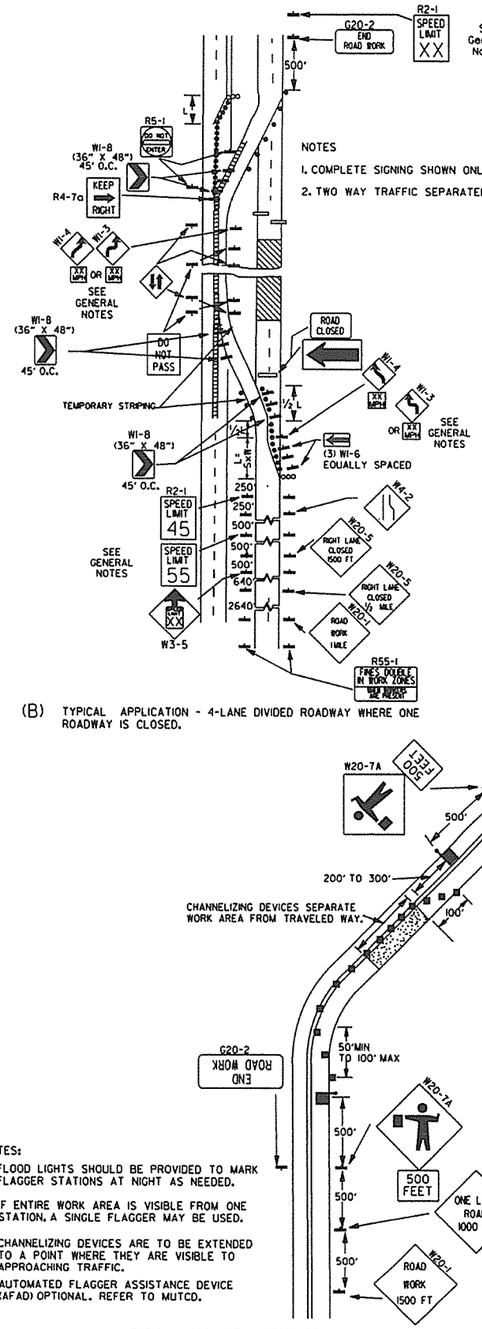
STANDARD TRAFFIC CONTROLS FOR HIGHWAY CONSTRUCTION

STANDARD DRAWING TC-1



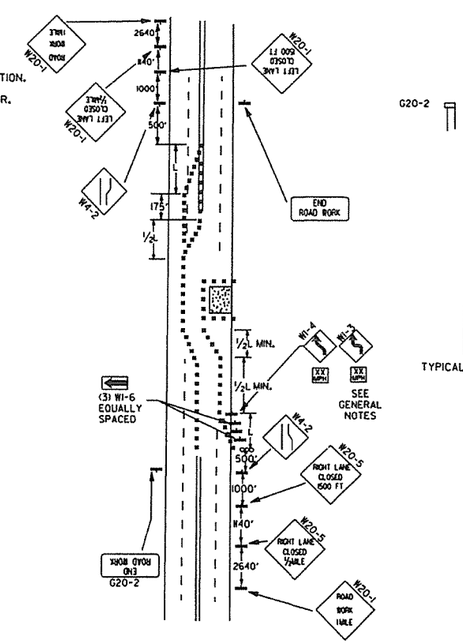
NOTES:
1. SIGNS SHOWN FOR ONE DIRECTION OF TRAVEL ONLY.
2. DELINEATORS ON BYPASS WHERE NEEDED.

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

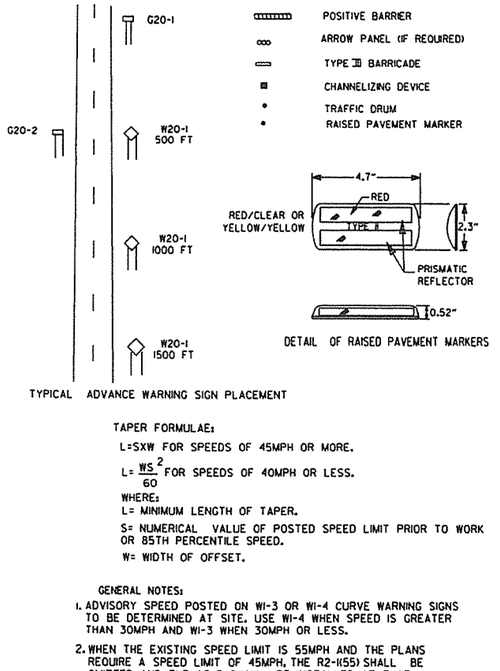


NOTES
1. COMPLETE SIGNING SHOWN ONLY IN CROSSOVER DIRECTION.
2. TWO WAY TRAFFIC SEPARATED WITH POSITIVE BARRIER.

(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

TAPER FORMULAE:

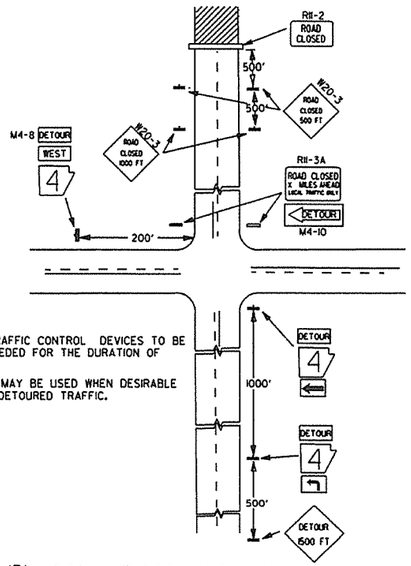
L=SXW FOR SPEEDS OF 45MPH OR MORE.

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

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

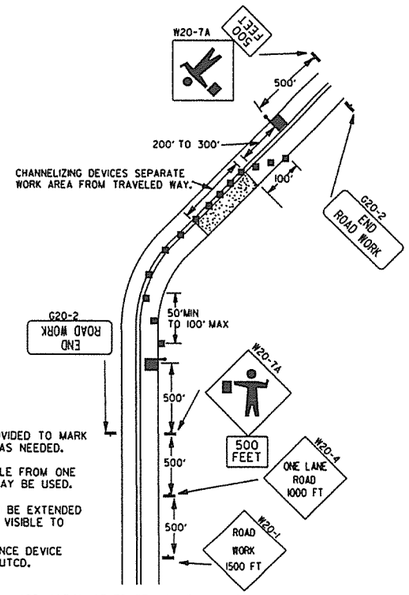
GENERAL NOTES:

1. ADVISORY SPEED POSTED ON W1-3 OR W1-4 CURVE WARNING SIGNS TO BE DETERMINED AT SITE. 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 AHTD QUALIFIED PRODUCTS LIST.



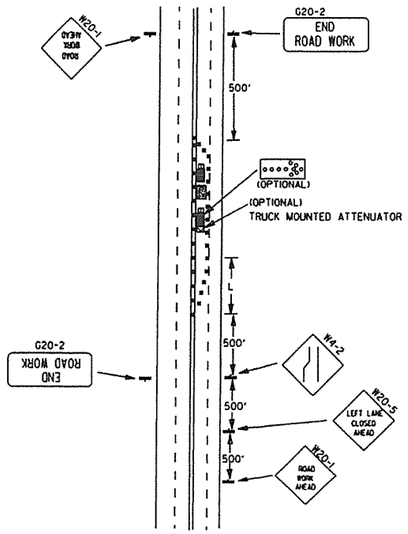
NOTES:
1. REGULATORY TRAFFIC CONTROL DEVICES TO BE MODIFIED AS NEEDED FOR THE DURATION OF THE DETOUR.
2. STREET NAMES MAY BE USED WHEN DESIRABLE FOR DIRECTING DETOURED TRAFFIC.

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



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

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



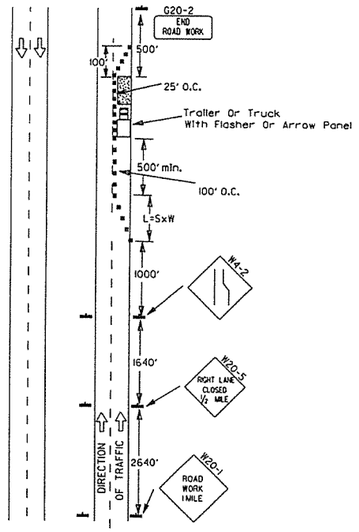
(F) TYPICAL APPLICATION - 4-LANE UNDIVIDED ROADWAY WITH INSIDE LANE CLOSED.

DATE	REVISION	FILMED
9-2-15	REVISED NOTE 2, ADDED NOTE 8, REVISED DRAWING (A) & REPLACED R2-5A WITH W3-5	
9-12-13	REVISED DETAIL OF RAISED PAVEMENT MARKERS	
3-8-10	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	

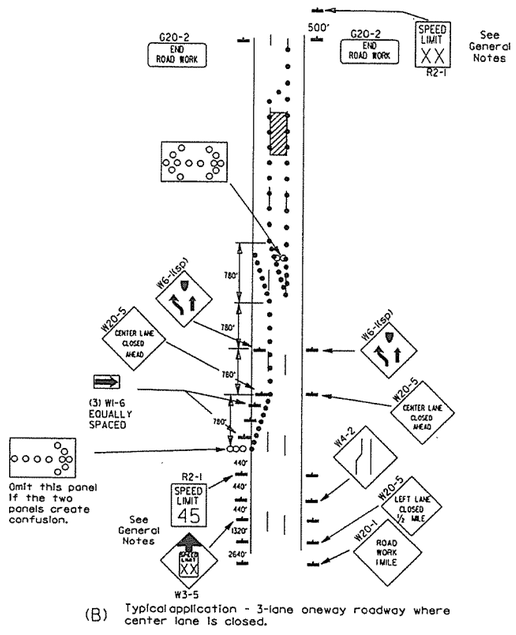
ARKANSAS STATE HIGHWAY COMMISSION

STANDARD TRAFFIC CONTROLS FOR HIGHWAY CONSTRUCTION

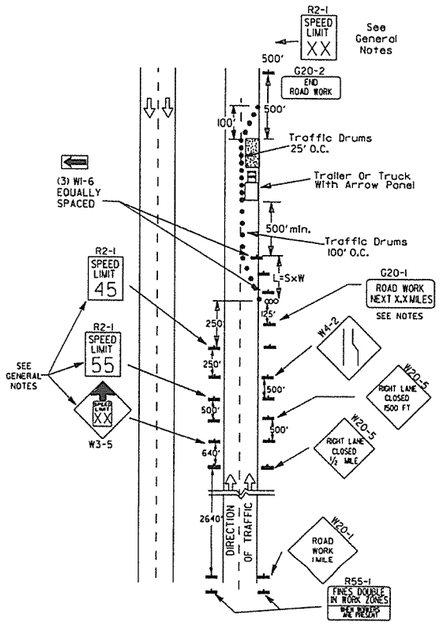
STANDARD DRAWING TC-2



(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.



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

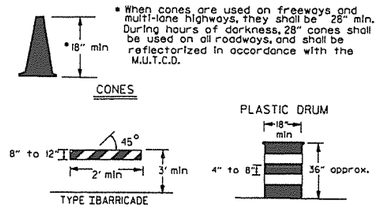
KEY:

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

Channelizing devices



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

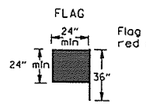
TRAFFIC CONTROL DEVICES
FOR
VERTICAL PAVEMENT DIFFERENTIALS

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

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

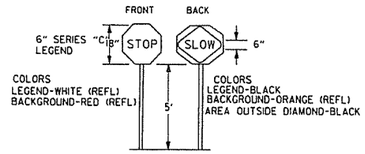
When the shoulder area is used as part of the traveled lane and there is insufficient width to place drums on the remaining shoulder width, then vertical panels shall be used.

FLAG

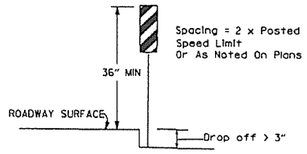


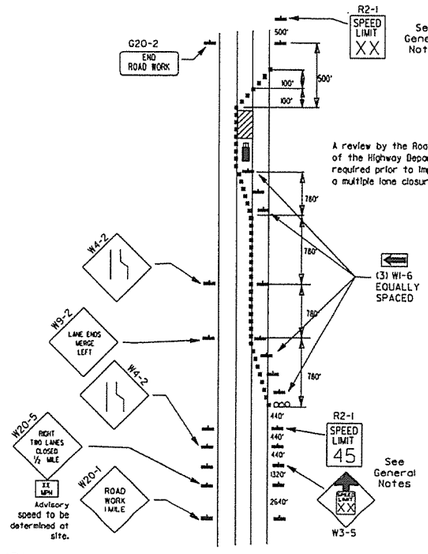
Flag shall be of good grade red material

STOP SLOW PADDLE



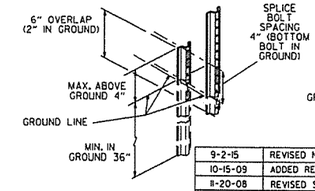
VERTICAL PANEL PLACEMENT

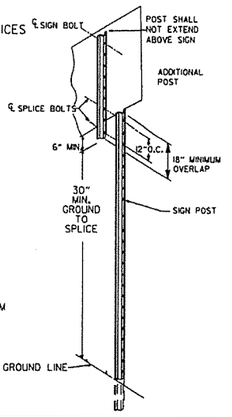




(D) Typical application - closing multiple lanes of a multilane highway.

DETAIL OF SPLICES





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

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

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

DATE	REVISION	FILMED
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	

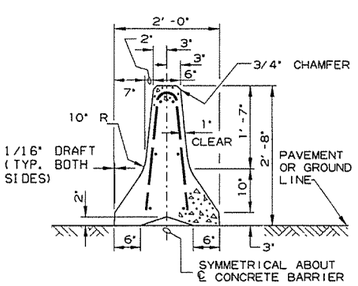
ARKANSAS STATE HIGHWAY COMMISSION

STANDARD TRAFFIC CONTROLS FOR HIGHWAY CONSTRUCTION

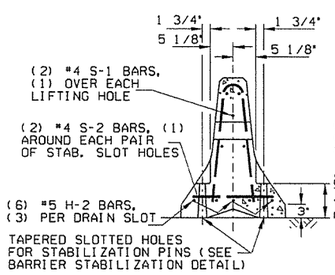
STANDARD DRAWING TC-3

REINFORCING BAR TABLE PER BARRIER UNIT

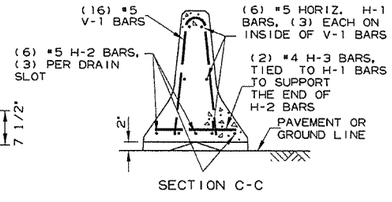
MARK	LOCATION	BAR SIZE	(NO. BARS)	SKETCH
H-1	HORIZONTAL IN BARRIER TIED INSIDE V-1 BARS	#5	(6)	19'-3"
H-2	CENTERED ABOVE DRAIN SLOTS LONG. & TRANSVERSELY	#5	(6)	6'-6"
H-3	TIED ABOVE H-1 BARS TO SUPPORT H-2. TIED TO V-1	#4	(2)	1'-6"
S-1	OVER LIFT HOLES	#4	(2)	2'-5", LIFTING HOLE, 90°, 3 3/8" R
S-2	HORIZ.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



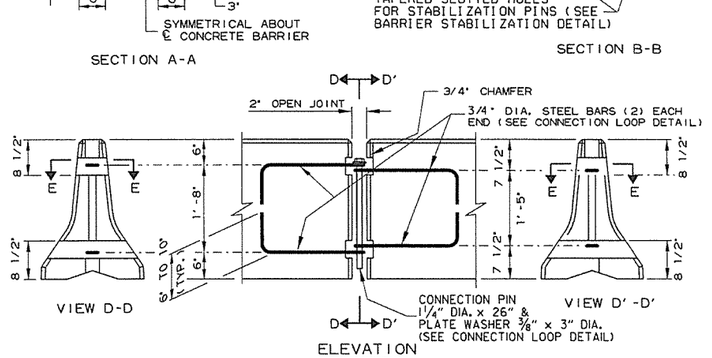
SECTION A-A



SECTION B-B



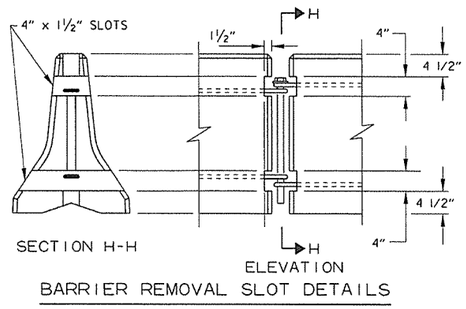
SECTION C-C



VIEW D-D

VIEW D'-D'

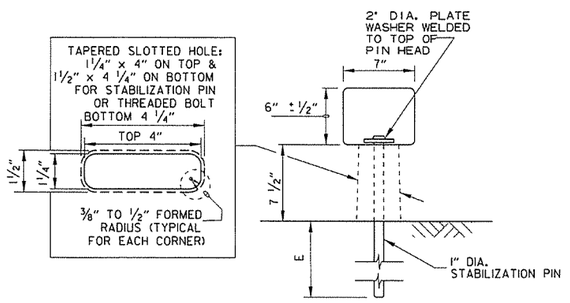
ELEVATION



SECTION H-H

ELEVATION

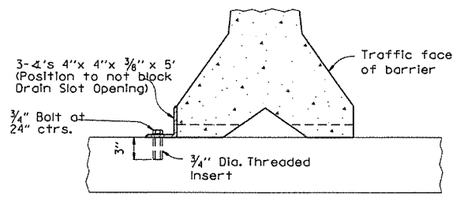
BARRIER REMOVAL SLOT DETAILS



BARRIER STABILIZATION DETAIL

ROADWAY SECTION

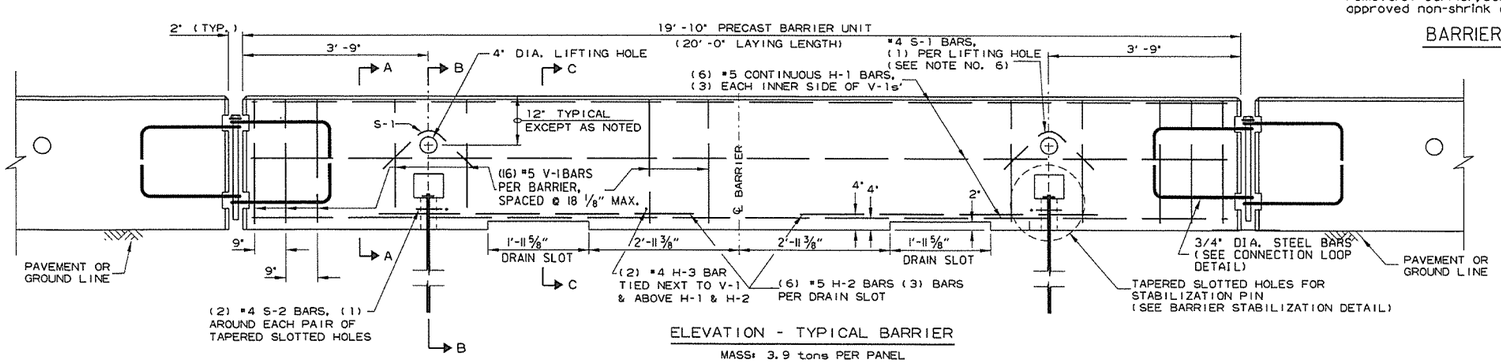
(E) 4" - Concrete Pavement
8" - Asphalt Pavement
12" - Shoulder Areas



NOTE: 3/4" 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 AHTD 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 NCHRP-350 test level 3 or 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 NCHRP Report 350 or 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 NCHRP Report 350 or Manual For Assessing Safety Hardware (MASH) and include a copy of the Federal Highway Administration's (FHWA) approval letter with all attachments. Precast concrete barrier units shall be fabricated and installed in accordance with crash testing and documentation provided in the FHWA approval letter. 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.

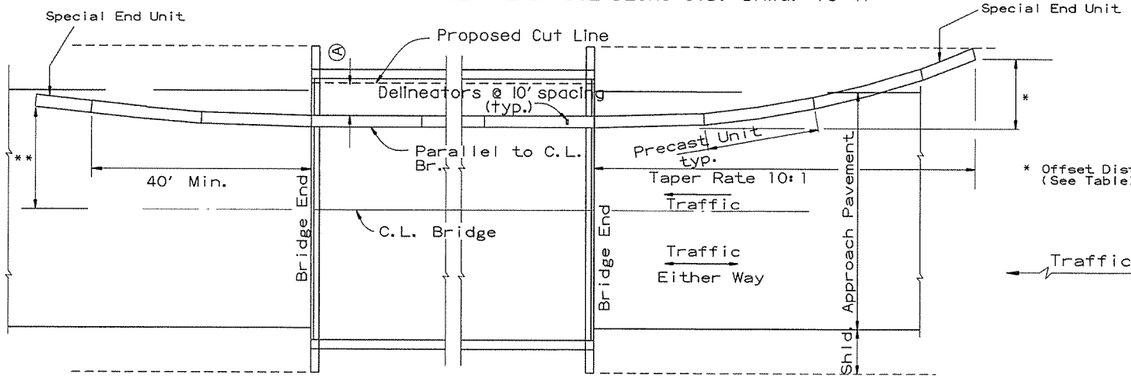
DATE	REVISION	FILMED
2-27-14	REVISED BARRIER STABILIZATION DETAIL	
10-15-09	ADDED REFERENCE TO MASH	
8-5-09	REV. NOTE 3 CONCERNING DRAIN SLOTS	
11-29-07	REVISED NOTE 3	
5-25-06	DELETED GENERAL NOTE 7	
11-18-04	REVISED BARRIER STABILIZATION DETAIL BRIDGE DECKS	
4-10-03	REVISED GENERAL NOTE 2	
8-22-02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

ARKANSAS STATE HIGHWAY COMMISSION

STANDARD TRAFFIC CONTROLS FOR HIGHWAY CONSTRUCTION - TEMPORARY PRECAST BARRIER

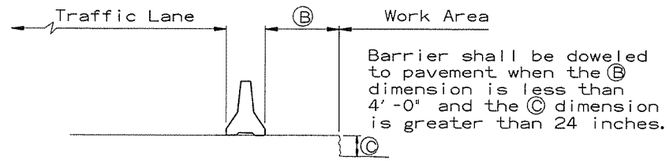
STANDARD DRAWING TC-4

Ⓐ 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

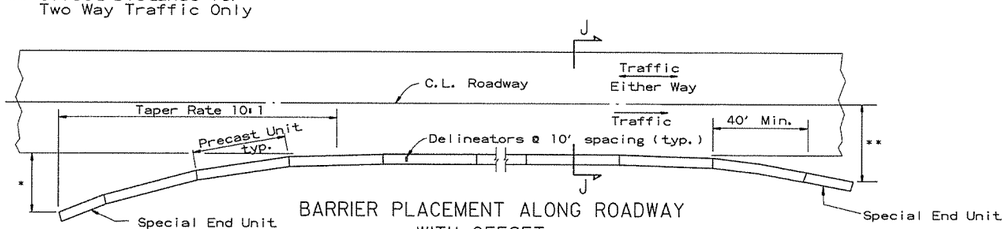


Barrier shall be doweled to pavement when the Ⓑ dimension is less than 4'-0" and the Ⓒ dimension is greater than 24 inches.

SECTION J-J

No Scale

** Offset Distance for Two Way Traffic Only



BARRIER PLACEMENT ALONG ROADWAY WITH OFFSET

No Scale

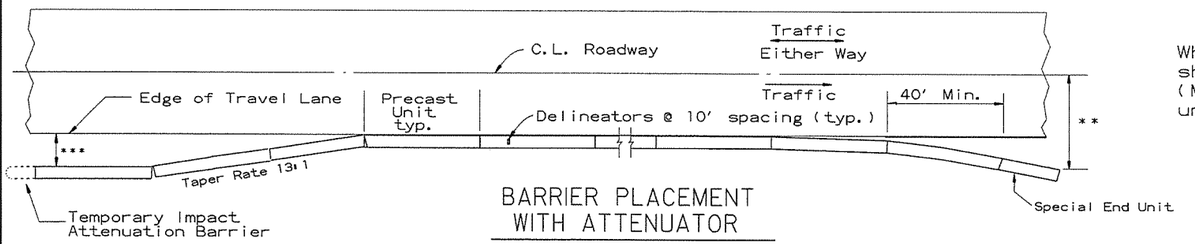
** Offset Distance For Two Way Traffic Only

* 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.

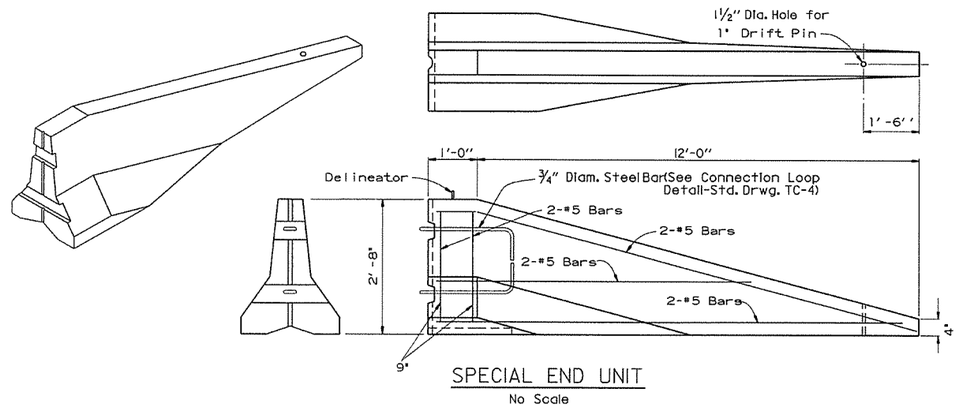


BARRIER PLACEMENT WITH ATTENUATOR

No Scale

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

** Offset Distance For Two Way Traffic Only



SPECIAL END UNIT

No Scale

General Notes

When shown on the Plans, the ends of the Temporary Precast Concrete Barrier shall be protected with an NCHRP-350 or 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
10-15-09	ADDED REFERENCE TO MASH	
5-25-06	REVISED BARRIER PLACEMENT	
8-22-02	ISSUED NEW DRAWING	

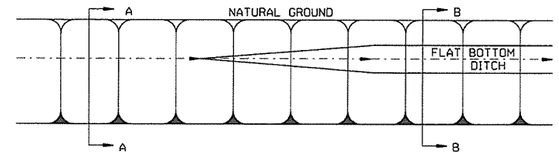
ARKANSAS STATE HIGHWAY COMMISSION

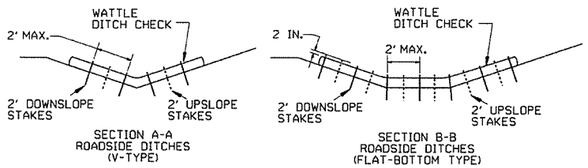
STANDARD TRAFFIC CONTROLS FOR HIGHWAY CONSTRUCTION - TEMPORARY PRECAST BARRIER

STANDARD DRAWING TC-5

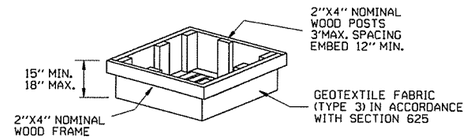
GENERAL NOTES

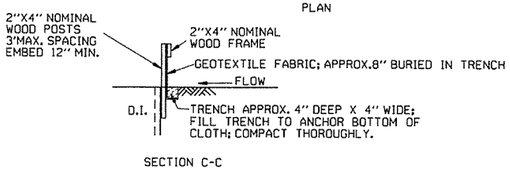
INSTALL A MINIMUM OF 2 UPSLOPE STAKES AND 4 DOWNSLOPE STAKES AT AN ANGLE TO WEDGE WATTLE TO BOTTOM OF DITCH.



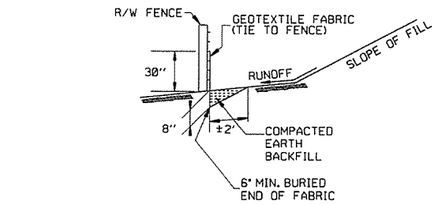


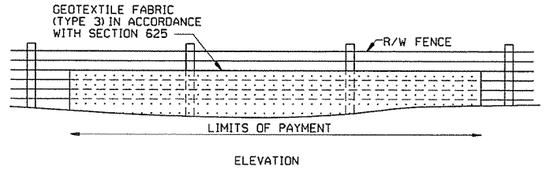
WATTLE DITCH CHECK (E-1)





DROP INLET SILT FENCE (E-7)





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

GENERAL NOTES

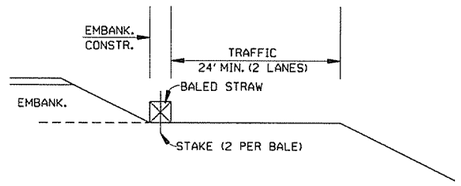
GEOTEXTILE FABRIC SHALL BE SPLICED TOGETHER WITH A SEWN SEAM ONLY AT A SUPPORT POST, OR TWO SECTIONS OF FENCE MAY BE OVERLAPPED INSTEAD. PAYMENT OF ADDITIONAL MATERIAL FOR OVERLAP WILL NOT BE MADE.

GENERAL NOTES

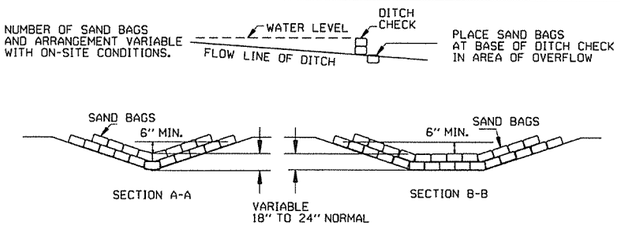
1. STRAW BALES SHALL BE INSTALLED SO THAT THE BINDINGS ARE ORIENTED AROUND THE SIDES RATHER THAN ALONG THE TOPS AND BOTTOMS OF THE BALES. THE BALES SHALL BE A MINIMUM OF 30 INCHES IN LENGTH.

2. NO GAPS SHALL BE LEFT BETWEEN BALES.

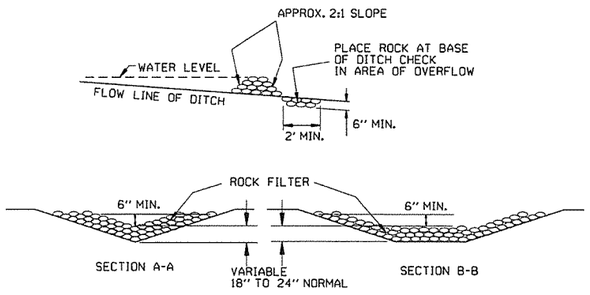
3. BALED STRAW FILTER BARRIERS COMPLETED AND ACCEPTED WILL BE MEASURED BY THE BALE IN PLACE AS AUTHORIZED BY THE ENGINEER AND WILL BE PAID FOR AT THE CONTRACT UNIT PRICE BID PER BALE FOR BALED STRAW DITCH CHECKS.



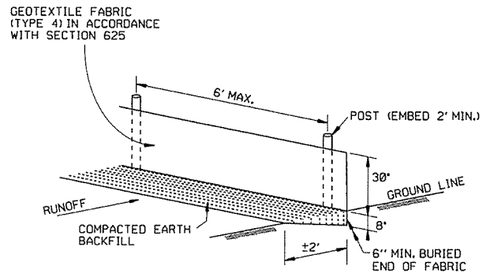
BALED STRAW FILTER BARRIER (E-2)



SAND BAG DITCH CHECK (E-5)



ROCK DITCH CHECK (E-6)



SILT FENCE (E-11)

GENERAL NOTES

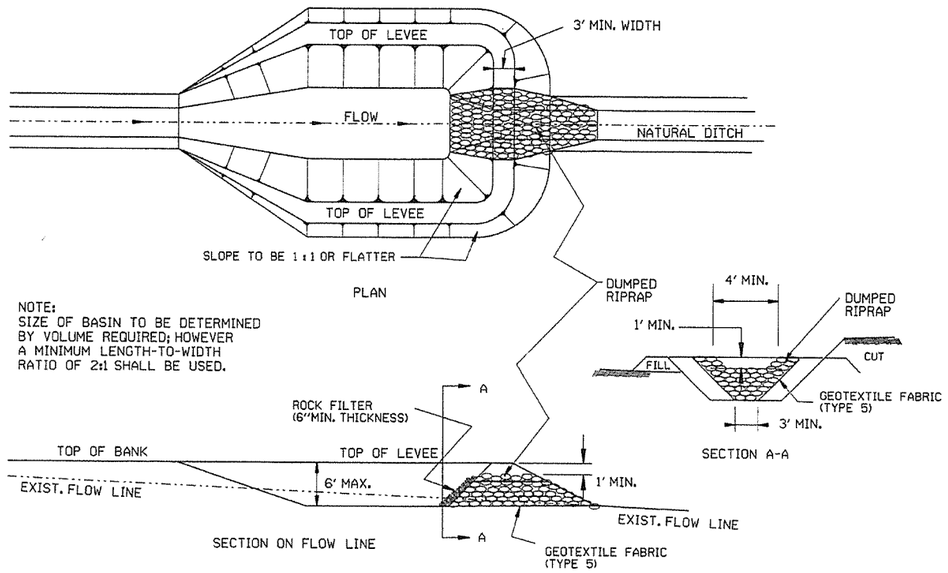
GEOTEXTILE FABRIC SHALL BE SPLICED TOGETHER WITH A SEWN SEAM ONLY AT A SUPPORT POST OR TWO SECTIONS OF FENCE MAY BE OVERLAPPED INSTEAD. PAYMENT OF ADDITIONAL MATERIAL FOR OVERLAP WILL NOT BE MADE.

DATE	REVISION	FILMED
12-15-11	DELETED BALED STRAW DITCH CHECK & ADDED WATTLE DITCH CHECK	
11-18-98	ADDED NOTES	
7-02-98	ADDED BALED STRAW FILTER BARRIER (E-2)	
7-20-95	REVISED SILT FENCE E-4 AND E-11	7-20-95
7-15-94	REV. E-4 & E-11 MIN. 13" BURIED END OF FABRIC	
6-2-94	REVISED E-1,4,7 & 11; DELETED E-2 & 3	6-2-94
4-1-93	REDRAWN	
10-1-92	REDRAWN	
8-2-76	ISSUED R.D.M.	298-7-28-76

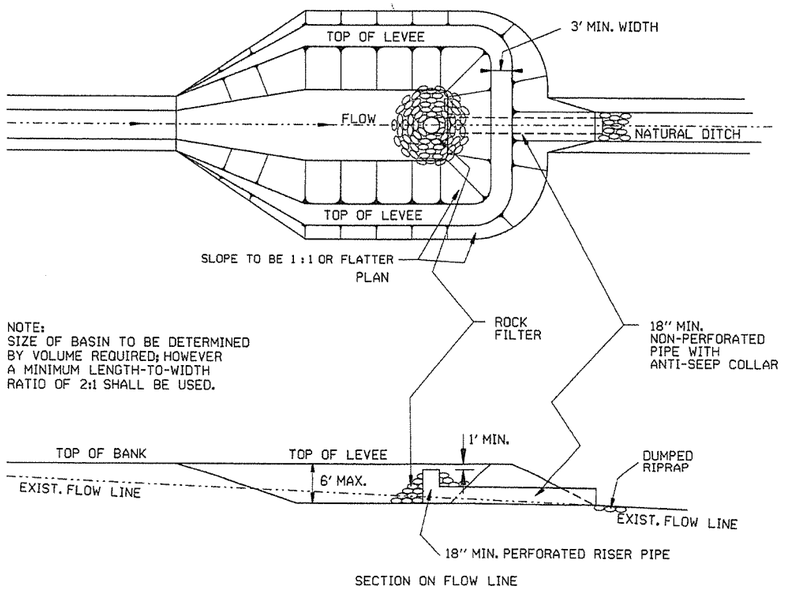
ARKANSAS STATE HIGHWAY COMMISSION

TEMPORARY EROSION CONTROL DEVICES

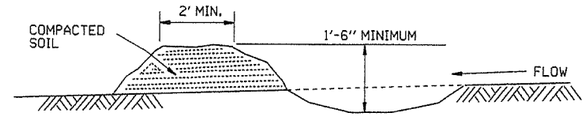
STANDARD DRAWING TEC-1



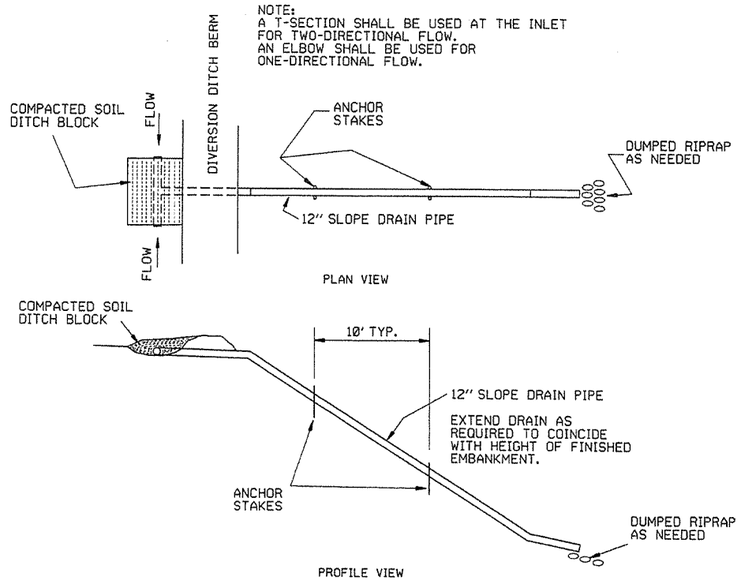
SEDIMENT BASIN WITH RIPRAP OUTLET (E-9)



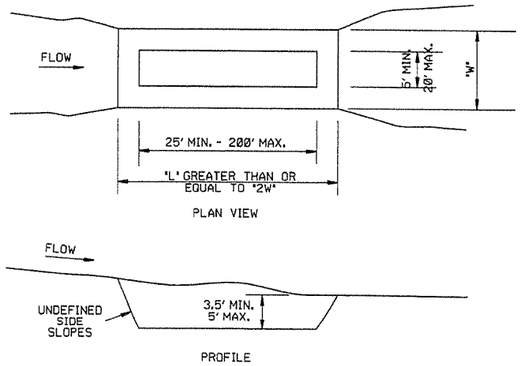
SEDIMENT BASIN WITH PIPE OUTLET (E-10)



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

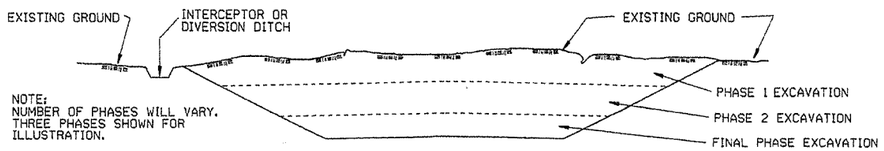
STANDARD DRAWING TEC-2

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



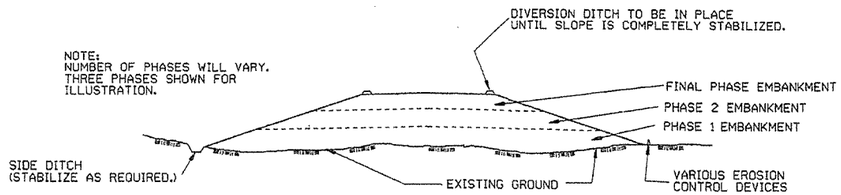
GENERAL NOTE

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



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.

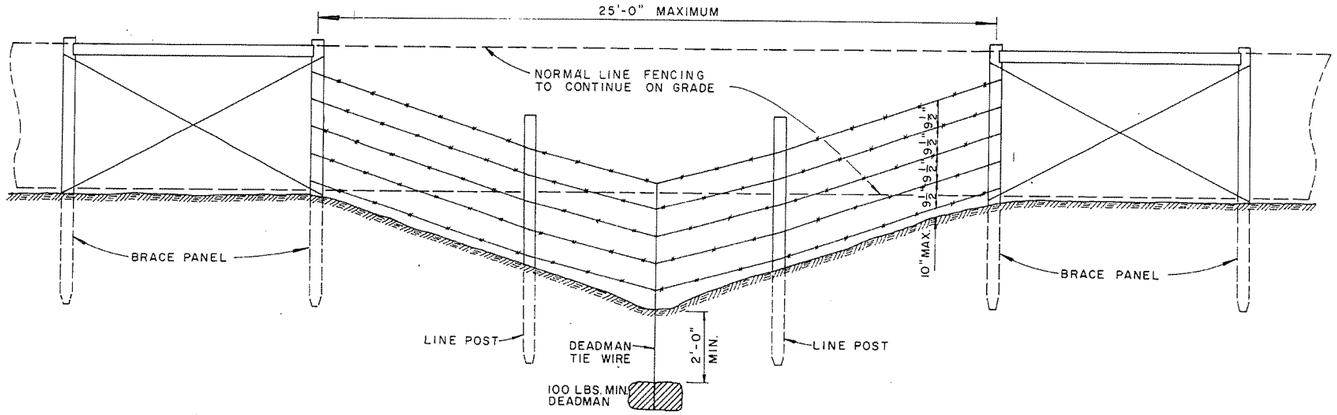
DATE	REVISION	FILMED
11-03-94	CORRECTED SPELLING	
6-2-94	Drawn & Issued	6-2-94

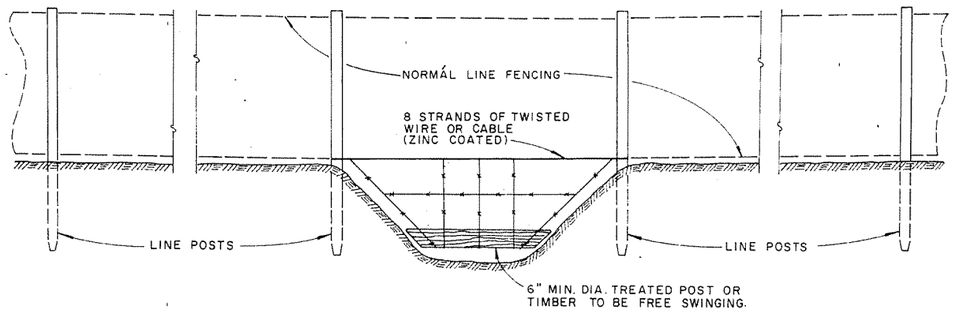
ARKANSAS STATE HIGHWAY COMMISSION

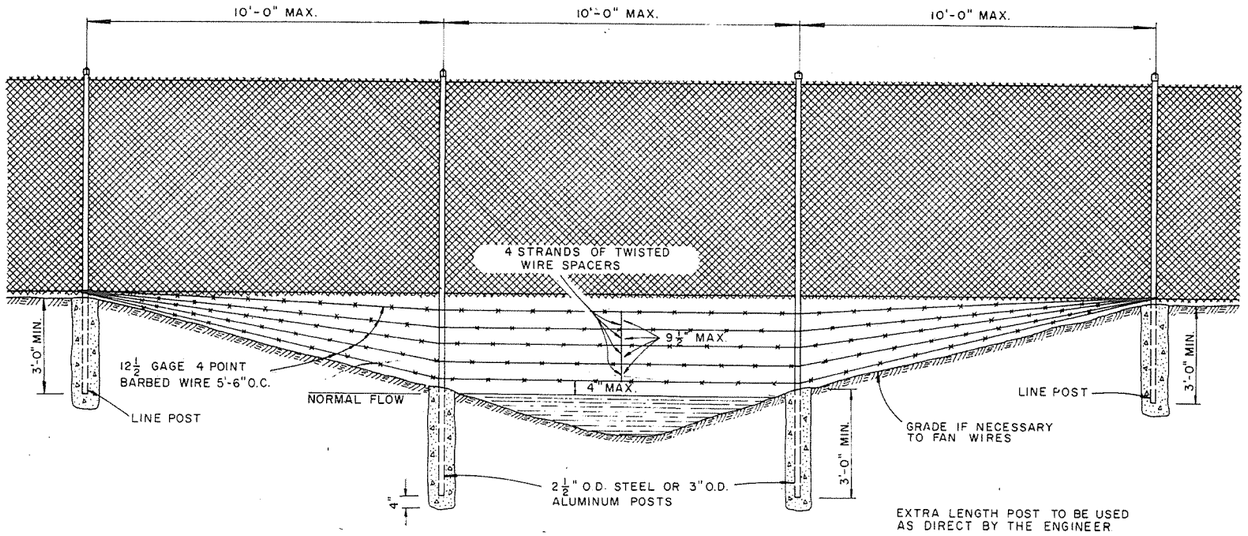
TEMPORARY EROSION CONTROL DEVICES

STANDARD DRAWING TEC-3

stdtec3.dgn







GENERAL NOTES:

THESE INSTALLATIONS TO BE USED WHERE NORMAL FENCING INSTALLATION WOULD CAUSE THE COLLECTING OF DRIFT IN THE CHANNEL OR THE DEPRESSION WILL NOT PERMIT NORMAL INSTALLATION. INSTALLATIONS WILL BE MADE ONLY WHERE DIRECTED BY THE ENGINEER.

WHEN A FENCE LINE APPROACHES A DITCH, GULLY OR DEPRESSION, THE LAST POST ON LEVEL GROUND SHALL BE PLACED CLOSE ENOUGH TO THE EDGE OF THE DROP OFF THAT THE FENCE MAY BE STRUNG TO THE POST IN THE DEPRESSION WITHOUT TOUCHING THE GROUND.

IN TERRAIN OF SUCH EXTREME IRREGULARITY THAT MINOR GRADING WILL NOT BE FEASIBLE, THE NORMAL FENCE SHALL CONTINUE ON GRADE AND THE GULLIES OR DEPRESSIONS TREATED BY AUXILIARY FENCES AS SHOWN.

PAYMENT FOR THE TYPE INSTALLATION USED WILL NOT BE MADE DIRECTLY BUT WILL BE INCLUDED IN THE CONTRACT UNIT PRICE BID FOR WIRE FENCE OR CHAIN LINK FENCE.

DATE	REVISION	DATE FILM'D.
4-20-79	REVISED TOP RAIL & TENSION WIRE	676-4-20-79
10-2-72	REVISED & REDRAWN	529-10-2-72

ARKANSAS STATE HIGHWAY COMMISSION

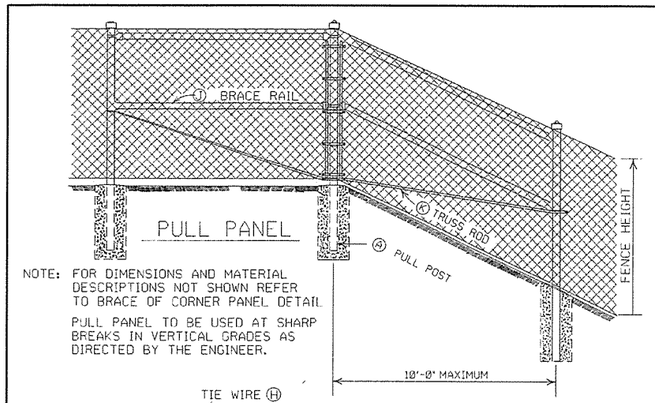
WIRE FENCE WATER GAPS

STANDARD DRAWING

WF-2

73

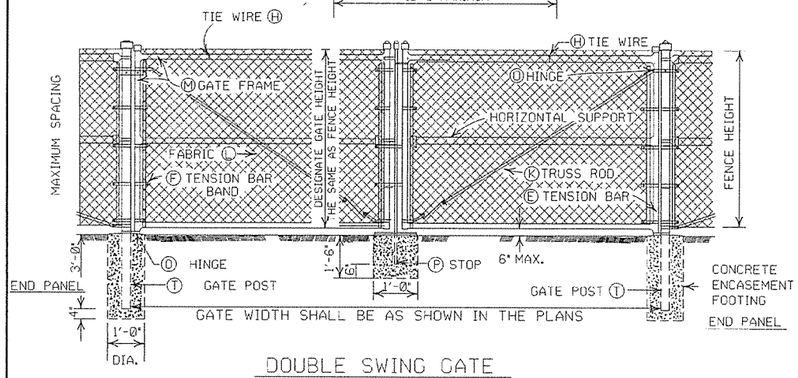
1M—11-71—47001—PP&SC



PULL PANEL

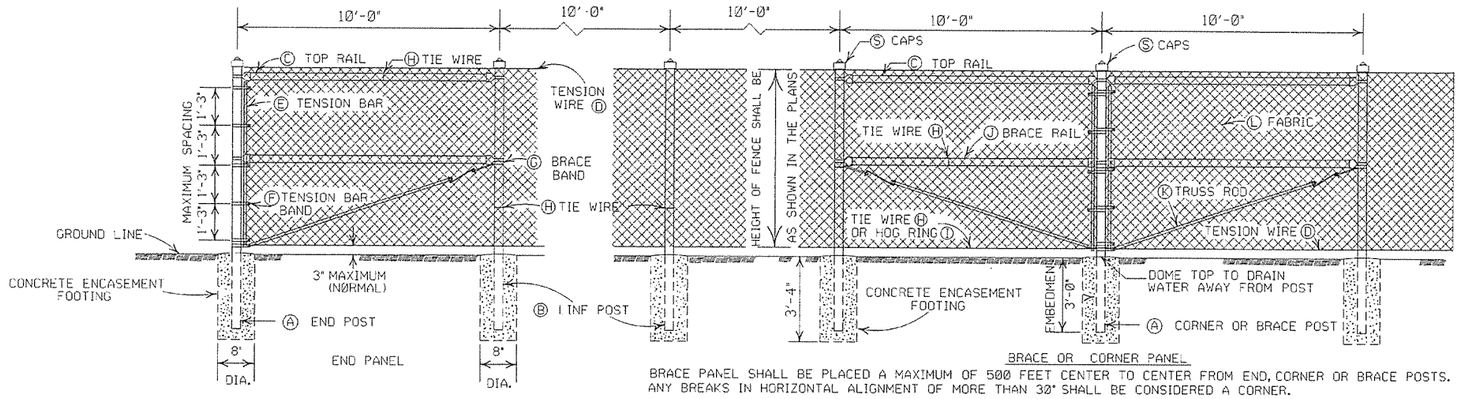
NOTE: FOR DIMENSIONS AND MATERIAL DESCRIPTIONS NOT SHOWN REFER TO BRACE OF CORNER PANEL DETAIL.

PULL PANEL TO BE USED AT SHARP BREAKS IN VERTICAL GRADES AS DIRECTED BY THE ENGINEER.



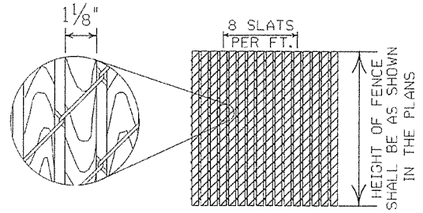
DOUBLE SWING GATE

POST SPACING DETAIL



BRACE OR CORNER PANEL

BRACE PANEL SHALL BE PLACED A MAXIMUM OF 500 FEET CENTER TO CENTER FROM END, CORNER OR BRACE POSTS. ANY BREAKS IN HORIZONTAL ALIGNMENT OF MORE THAN 30° SHALL BE CONSIDERED A CORNER.



1⅛" X ¼" REDWOOD SLATS(LENGTH TO MATCH HEIGHT OF FENCE)

DETAIL OF REDWOOD SLAT INSTALLATION

(WHERE APPLICABLE)

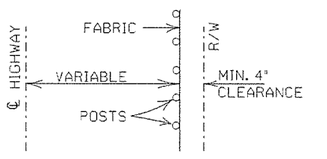
HEIGHT OF FENCE FABRIC	(A) END, PULL CORNER OR BRACE POST	(B) LINE POSTS		(C) TOP RAIL			(D) TENSION WIRE		(E) TENSION BAR		(F) TENSION BAR BAND			(G) BRACE BAND	
		SIZE	TIE SPACING	SIZE	TIE SPACING	MIN. LENGTH	SIZE	TIE SPACING	SIZE	LENGTH	SIZE	BOLT SIZE	SPACING	SIZE	BOLT SIZE
6' AND LESS	2½" O.D.	2" O.D.	1 TIE EVERY 1'-2" OF FABRIC HEIGHT	1⅝" O.D.	1 TIE EVERY 2'-0"	10'-0"	7 GAUGE COIL SPRING WIRE	1 TIE EVERY 1'-0"	MIN. OF 3/16" X ¾"	MIN. OF 2" LESS THAN FABRIC HEIGHT	MIN. OF ¾" X 0.074	5/16" X 1¼"	1 BAND AT TOP AND BOTTOM 15" MAX. INTERVAL BETWEEN BANDS	MIN. OF ¾" X 0.105	5/16" X 1¼"
OVER 6' TO 12' INCL.	3 " O.D.	2½" O.D.													

HEIGHT OF FENCE FABRIC	(H) TIE WIRE	(I) HOG RING	(J) BRACE RAIL SIZE	(J) BRACE RAIL TIE SPACING	(K) TRUSS ROD	(L) FABRIC SIZE	(L) FABRIC MESH	(L) FABRIC SELVAGE	(M) GATE FRAME SIZE	(M) GATE FRAME TIE SPACING	(N) HORIZONTAL SUPPORT SIZE	(N) HORIZONTAL SUPPORT TIE SPACING	(O) HINGE 180° SWING	(T) GATE POST GATE WIDTH GATE WIDTH OVER 12' AND LESS	(T) GATE POST 12' TO 24' INCL.
6' AND LESS	MIN. OF 12 GA. STEEL OR 9 GA. ALUM.	SAME GAUGE AS FABRIC	1⅝" O.D.	1 TIE EVERY 2'-0"	MIN. OF ⅝" ROUND WITH TIGHTNERS AND FITTINGS	9 GA.	2"	KNUCK -ING AND/OR TWIST -ING	2" O.D.	1 TIE EVERY 1'-0"	2" O.D.	1 TIE EVERY 1'-0"	OFFSET	3' O.D.	4" O.D.
OVER 6' TO 12' INCL.														4" O.D.	

NOTE: POST SIZES SHOWN ARE FOR STEEL. WHERE ALUMINUM IS PROVIDED. LINE POSTS SHALL HAVE AN OUT SIDE DIAMETER OF 2½" FOR FENCE HEIGHT OF 6' AND LESS, AN OUTSIDE DIAMETER OF 3" FOR FENCE HEIGHT OF 6' TO 12'. END, PULL, CORNER OR BRACE POSTS SHALL HAVE AN OUTSIDE DIAMETER OF 3" FOR FENCE HEIGHT OF 6' AND LESS; AN OUTSIDE DIAMETER OF 3½" FOR FENCE HEIGHTS OF 6' TO 12'. GATE POSTS WHERE GATE WIDTH IS 12' AND LESS SHALL HAVE AN OUTSIDE DIAMETER OF 3½" FOR FENCE HEIGHT OF 6' AND LESS. ALUMINUM TENSION WIRE SHALL BE 0.192" IN DIAMETER. MINIMUM THICKNESS OF MATERIAL FROM WHICH EXPANSION SLEEVES SHALL BE MADE WILL BE 0.078". POSTS AND RAILS MAY HAVE ANY CROSS-SECTIONAL SHAPE THAT WILL MEET THE SPECIFICATIONS.

OTHER DETAILS APPLY TO BOTH STEEL AND ALUMINUM FENCE.

ALL MISCELLANEOUS FITTINGS AND HARDWARE SHALL MEET THE REQUIREMENTS AND PRODUCTION TOLERANCES AS SET FORTH IN THE SPECIFICATIONS.
9 GAUGE ALUMINUM WIRE SHALL BE ACCEPTABLE FOR TIEING FABRIC TO TUBULAR AND ROLL FORMED MEMBERS OF STEEL FENCE.



INSTALLATION MAY BE MODIFIED AS SHOWN IN THE PLANS

TYPICAL INSTALLATION DIAGRAM

POSTS AND RAILS

SIZE O.D.	GRADE 1 AND ALUMINUM ALLOY O.D. INCHES	WALL THICKNESS	LBS. PER LINEAR FT. STEEL	LBS. PER LINEAR FT. ALUMINUM	GRADE 2 O.D. INCHES	WALL THICKNESS	LBS. PER LINEAR FT.
1⅝	1.660	0.140	2.27	0.786	1.660	0.111	1.84
2	1.900	0.145	2.72	0.940	1.900	0.120	2.28
2½	2.375	0.154	3.65	1.264	2.375	0.130	3.11
3	2.875	0.203	5.79	2.004	2.875	0.160	4.64
3½	3.500	0.216	7.58	2.621	3.500	0.160	5.71
4	4.000	0.226	9.11	3.151	4.000	0.160	6.56

TOLERANCES ON DIMENSIONS AND WEIGHTS ACCORDING TO AASHTO M 181

GENERAL NOTES:

(C) CHAIN LINK FENCE BEING PLACED ON PRIVATE PROPERTY SHALL INCLUDE A TOP RAIL, ALL LABOR, MATERIALS, EQUIPMENT, TOOLS, AND INCIDENTALS NECESSARY TO COMPLETE THE WORK WILL BE PAID FOR AT THE CONTRACT UNIT PRICE BID PER LIN. FT. OF CHAIN LINK FENCE.

(D) TENSION WIRE: SHALL BE SECURED TO ALL TERMINAL, PULL, BRACE OR CORNER POSTS WITH TENSION BAR BANDS.

(J) BRACE RAIL: BRACE RAILS SHALL BE PROVIDED AT ALL TERMINAL, PULL, BRACE OR CORNER POSTS HALFWAY BETWEEN THE TOP RAIL AND GROUND LEVEL WHEN TOPRAIL IS SPECIFIED AND TWELVE INCHES (12") DOWN FROM TOP OF FABRIC WHEN TOP TENSION WIRE IS SPECIFIED. BRACE RAIL SHALL EXTEND FROM SUCH POST TO THE FIRST ADJACENT LINE POST.

(L) FABRIC: SHALL CONFORM TO THE SPECIFICATIONS.

(M) GATE FRAMES: SHALL BE CONSTRUCTED OF TUBULAR MEMBERS ASSEMBLED BY USE OF HEAVY PRESSED STEEL, MALLEABLE FITTINGS OR BY WELDING. ALL GATES SHALL HAVE ONE HORIZONTAL SUPPORT EXTENDING THE WIDTH OF THE GATE AT THE MIDPOINTS OF VERTICAL FRAME MEMBERS. THE COMPLETE FRAME SHALL BE RIGID AND HAVE AMPLE STRENGTH TO BE FREE FROM SAG AND TWIST.

(O) HINGES: SHALL BE OF HEAVY PATTERN, OF ADEQUATE STRENGTH FOR GATE, AND WITH LARGE BEARING SURFACES FOR CLAMPING IN POSITION. THE HINGE SHALL BE OF THE PROPER TYPE TO ALLOW FOR THE DESIGNATED DEGREE OF SWING. THE HINGE SHALL NOT TWIST OR TURN UNDER THE ACTION OF THE GATE. THE GATES SHALL BE CAPABLE OF BEING OPENED AND CLOSED EASILY BY ONE PERSON.

(P) LATCHES AND STOPS: SHALL BE PROVIDED FOR ALL GATES. GATES SHALL HAVE A DROP BAR LATCH. LATCHES SHALL BE ARRANGED FOR LOCKING. THE STOP FOR DROP BAR LATCHES SHALL BE SET IN CONCRETE AND ENGAGE THE PLUNGER OF THE BAR LATCH.

(S) CAPS: ALL POSTS, EXCEPT ROLL FORMED POSTS AND "T" POSTS SHALL BE CAPPED OVER THE EXTERIOR OF THE POST, AND SHALL CONFORM TO ASTM F626.

CONCRETE REQUIRED FOR THE EMBEDMENT OF ALL POSTS SHALL NOT BE PAID FOR DIRECTLY BUT SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE BID FOR CHAIN LINK FENCE.

POSTS SHALL BE SPACED EQUIDISTANT ON A MAXIMUM OF 10' CENTERS.

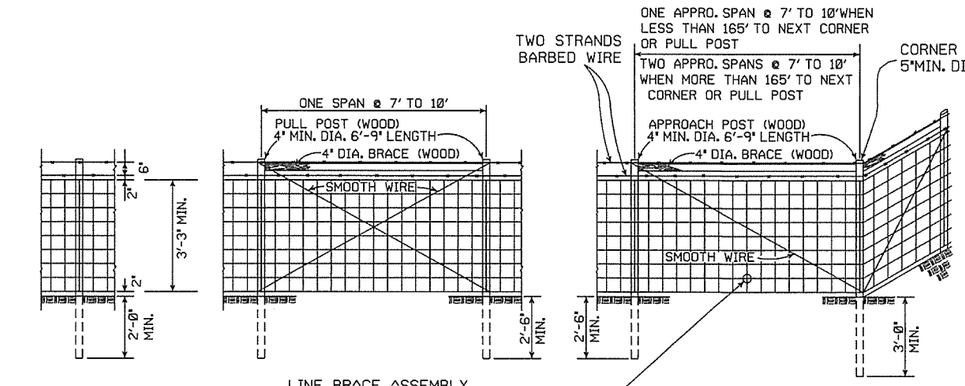
EXCAVATION FOR POSTS: IN OTHER THAN ROCK SHALL BE OF THE DIMENSIONS INDICATED. IF ROCK IS ENCOUNTERED BEFORE REACHING THE REQUIRED DEPTH, THE EXCAVATION SHALL BE CONTINUED TO THE DEPTH INDICATED OR 1'-6" INTO THE ROCK, WHICHEVER IS LESS, AND SHALL BE A MINIMUM OF 8 INCHES IN DIAMETER.

DATE	REVISION	FILMED
11-17-10	REVISED TRUSS ROD	
12-10-09	REVISED POSTS & RAILS TABLE	
5-21-09	ADDED TABLE & GEN. NOTE (C)	
8-22-02	REVISED NOTES, REMOVED TABLE, & REMOVED FENCE ALTERNATE	
4-3-97	REVISED BRACE RAIL NOTE	
10-18-96	REVISED AASHTO & ASTM REF.	
11-3-94	REVISED NOTE (L)	
10-1-92	DELETED ALTERNATE POST	10-1-92
8-15-91	DELETED ROLL FORMED POST DETAIL & ADDED NOTE	8-15-91 8-15-91
11-30-89	DELETED CLASS CONCRETE	11 30 89
11-17-88	REVISED O.D. SIZES	668-11-17-88
10-30-87	GENERAL REVISIONS	548-10-30-87
4-20-79	REVISED TOP RAIL & TENSION WIRE	695-4-20-79
10-2-72	REVISED AND REDRAWN	530-10-2-72

ARKANSAS STATE HIGHWAY COMMISSION

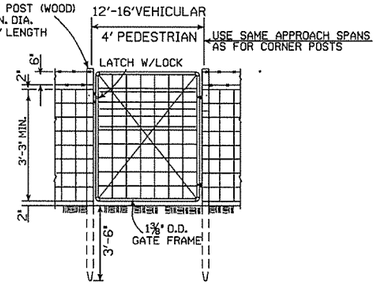
CHAIN LINK FENCE

STANDARD DRAWING WF-3



LINE POST
3" MIN. DIA. 6'-3" LENGTH
MAX. SPACING TO BE 10'-0"

LINE BRACE ASSEMBLY
MAX. SPACING TO BE 330'



GENERAL NOTES:

STEEL LINE POSTS SHALL BE PAINTED OR GALVANIZED. TUBULAR END, CORNER, PULL, OR DIAGONAL BRACES MUST CONFORM TO THE DIMENSIONS AND WEIGHTS SPECIFIED ON STANDARD DRAWING WF-3 (CHAIN LINK). APPROVED ALTERNATES ARE ACCEPTABLE.
AN ACCEPTABLE TOLERANCE IN LENGTH OF TUBULAR OR WOODEN POSTS SHALL BE - 1" TO +2".
TUBULAR POSTS MUST BE PAINTED OR GALVANIZED.

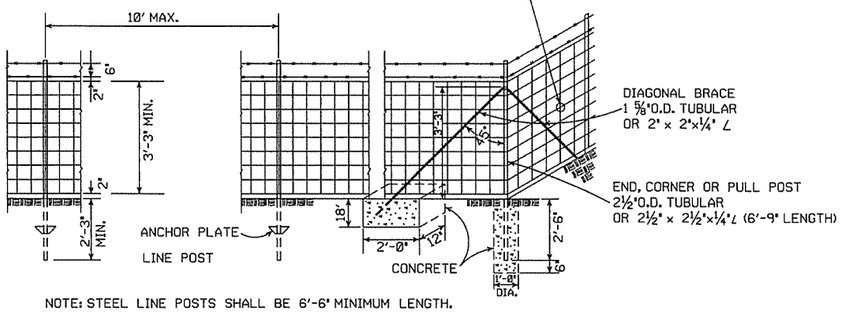
THE CONTRACTOR SHALL FURNISH AT LEAST 25% OF TIMBER LINE POSTS OF 7 FOOT LENGTHS IN ORDER TO PROVIDE SUFFICIENT SET IN SOFT GROUND OR SMALL DEPRESSIONS.

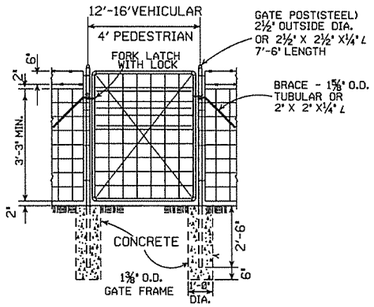
DRIVEWAY GATES, EITHER SINGLE 12' TO 16' OR DOUBLE 6' TO 8' OPENING OF THE SAME TYPE AS THE PEDESTRIAN GATE, SHALL BE INSTALLED ON THE RIGHT SIDE OF EACH THROUGH LANE ROAD AT LARGE CULVERTS OR BRIDGE CROSS FENCE, FOR USE OF MAINTENANCE EQUIPMENT. LOCATION OF GATES TO BE SHOWN ON PLANS OR AS DESIGNATED BY THE ENGINEER.

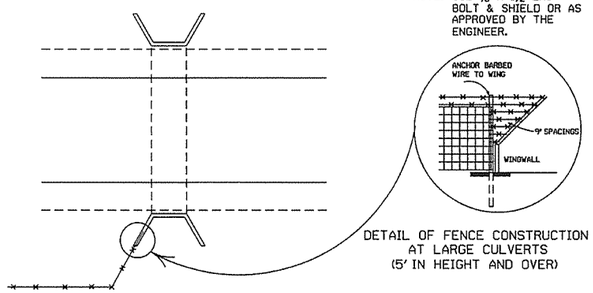
AT STREAM CROSSINGS, THE FENCE SHALL NOT BE CONSTRUCTED ACROSS LARGE STREAMS. WHERE CLEARANCE IS SUFFICIENT FROM THE TOP OF THE BANK TO THE BRIDGE STRUCTURE A CROSS CONNECTION SHALL BE CONSTRUCTED BETWEEN THE FENCE ON EACH SIDE OF THE ROAD. WHERE THE CLEARANCE IS NOT SUFFICIENT, THE FENCE SHALL BE TERMINATED WITH CROSS CONNECTIONS AND END POSTS ADJACENT TO BRIDGE ABUTMENTS OR CULVERT WINGWALLS.

TYPE C FENCE (WOOD POSTS)

OTHER APPROVED TIES WILL BE PERMITTED







DETAIL OF FENCE CONSTRUCTION AT LARGE CULVERTS (5' IN HEIGHT AND OVER)

SPLICE FOR BARBED WIRE BETWEEN PULL POST ASSEMBLY SHALL BE BY THE "EYE METHOD" AS DESCRIBED AS FOLLOWS: THE ENDS OF THE BARBED WIRE SHALL BE BENT TO FORM A LOOP. THE LOOPS SHALL BE CONNECTED. AFTER THE LOOPS ARE CONNECTED THE ENDS OF THE WIRE SHALL BE WRAPPED AROUND THE PROJECTING WIRES A MINIMUM OF 4 TIMES FOR EACH WIRE LOOP.

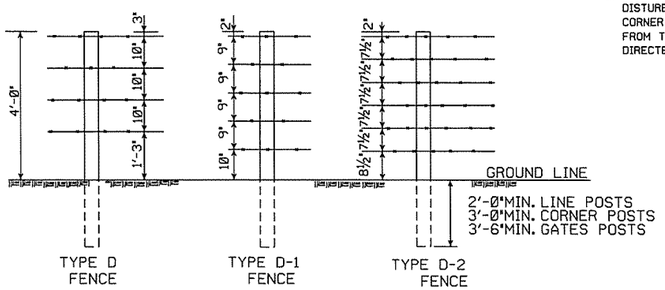
SPLICE FOR WOVEN WIRE BETWEEN PULL POST SHALL BE BY THE "WESTERN UNION METHOD" AS DESCRIBED AS FOLLOWS: THE VERTICAL WIRES FOR EACH END OF THE FENCE FABRIC SHALL BE PLACED SIDE BY SIDE AND THE PROJECTING HORIZONTAL WIRES SHALL BE WRAPPED A MINIMUM OF 4 TIMES AROUND THE HORIZONTAL WIRES OF THE FIRST WEB.

STAPLE AT LEAST TOP, BOTTOM AND ALTERNATE WIRES OF WOVEN FABRIC FOR WOOD LINE POSTS.

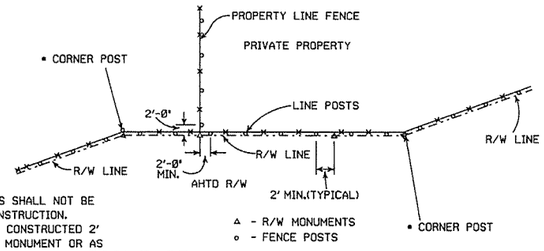
NOTE: STEEL LINE POSTS SHALL BE 6'-6" MINIMUM LENGTH.

TYPE C FENCE (STEEL POSTS)

4 STRANDS BARBED WIRE (D)
5 STRANDS BARBED WIRE (D-1)
6 STRANDS BARBED WIRE (D-2)

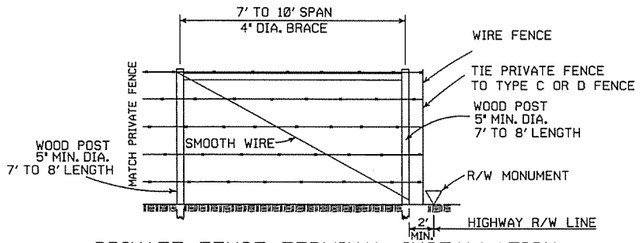


NOTE: SPACING AND SIZE (EXCEPT LENGTH) OF POSTS, APPROACH SPANS, PULL POST ASSEMBLIES, AND CORNER BRACING FOR TYPE D FENCE SHALL CONFORM TO TYPE C FENCE. USE GALVANIZED STAPLES ON WOOD POSTS AND APPROVED FASTENERS ON STEEL POSTS.

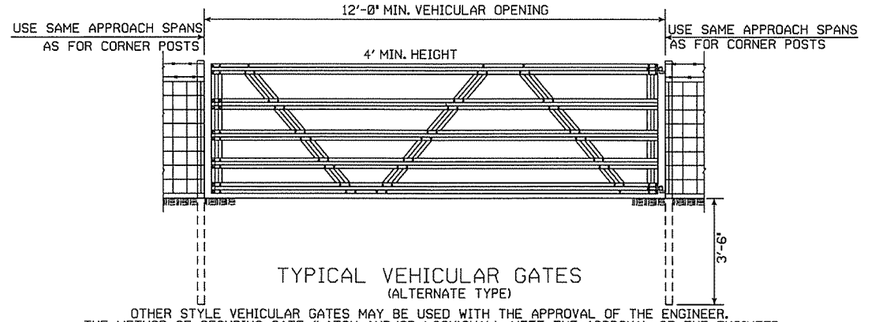


• NOTE: RIGHT-OF-WAY MONUMENTS SHALL NOT BE DISTURBED BY FENCE CONSTRUCTION. CORNER POSTS SHALL BE CONSTRUCTED 2' FROM THE RIGHT-OF-WAY MONUMENT OR AS DIRECTED BY THE ENGINEER.

RIGHT-OF-WAY FENCE LOCATION



PRIVATE FENCE TERMINAL INSTALLATION
WHERE EXISTING FENCE CONSISTS OF STEEL POSTS, USE END POST ASSEMBLY AS SHOWN IN TYPE C FENCE OR OTHER END POST ASSEMBLY AS APPROVED BY THE ENGINEER.



TYPICAL VEHICULAR GATES
(ALTERNATE TYPE)
OTHER STYLE VEHICULAR GATES MAY BE USED WITH THE APPROVAL OF THE ENGINEER. THE METHOD OF SECURING GATE (LATCH AND/OR LOCK) SHALL MEET THE APPROVAL OF THE ENGINEER.

DATE	REVISION	FILMED
8-22-02	REVISED GENERAL NOTES	
10-18-96	REVISED AASHTO	
11-22-95	REVISED R-O-W LOCATION DETAIL	
6-2-94	REVISED BARB WIRE AND ADDED CORNER POST NOTES	6-2-94
8-5-93	REVISED R/W INSTALLATION FENCE	8-5-93
10-1-92	ADDED STAPLE NOTE	10-1-92
8-15-91	ADDED TYPE D-2 FENCE	8-15-91
11-30-89	DELETED CLASS CONCRETE	11-30-89
7-15-88	ADDED SPLICE NOTE	700-7-15-88
10-30-87	GENERAL REVISIONS	549-10-30-87
11-1-84	MAX. POST SPACING MIN. WIRE GAUGE	507-11-1-84
1-4-83	MIN. DIA. LINE POST	648-1-4-83
3-2-81	TOLERANCE FOR POST LENGTH	722-3-2-81
12-1-72	ADDED D-1 & FENCE INSTALLATION	564-12-1-72
10-2-72	REVISED AND REDRAWN	540-10-2-72

ARKANSAS STATE HIGHWAY COMMISSION

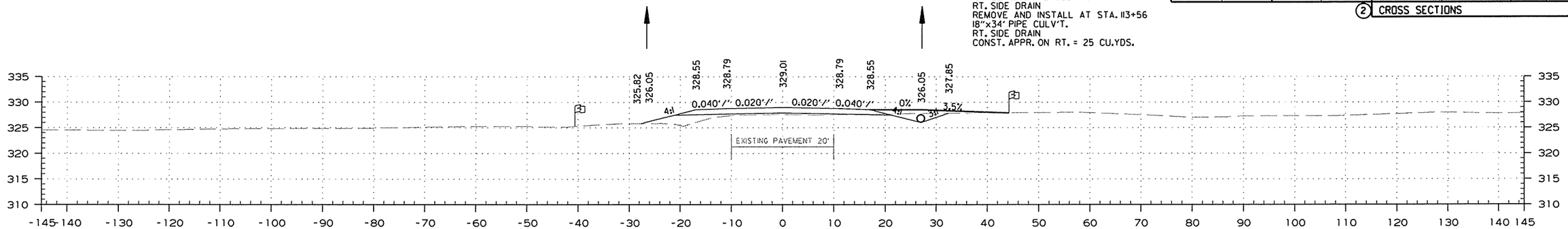
WIRE FENCE TYPE C AND D

STANDARD DRAWING WF-4

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.		080426	132	271

(2) CROSS SECTIONS

STA. 113+52 IN PLACE
18"x25' C.M. PIPE CULV'T.
RT. SIDE DRAIN
REMOVE AND INSTALL AT STA. 113+56
18"x34' PIPE CULV'T.
RT. SIDE DRAIN
CONST. APPR. ON RT. = 25 CU.YDS.

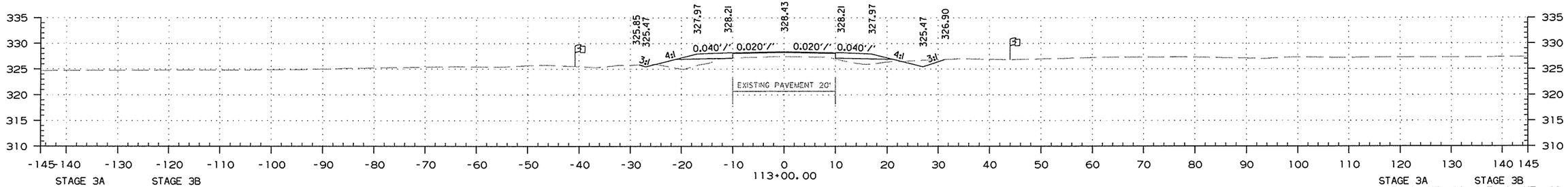


STAGE 3A
AREA CUT 0
AREA FILL 16

STAGE 3B
AREA CUT 13
AREA FILL 0

STAGE 3A
CUT VOLUME 1
FILL VOLUME 31

STAGE 3B
CUT VOLUME 19
FILL VOLUME 9

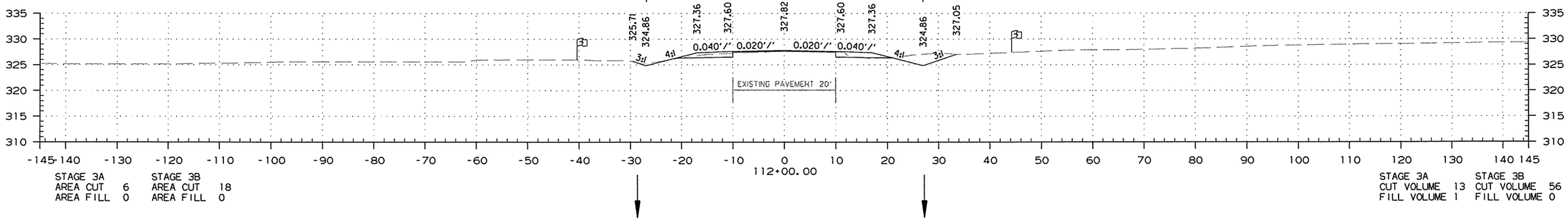


STAGE 3A
AREA CUT 1
AREA FILL 14

STAGE 3B
AREA CUT 5
AREA FILL 9

STAGE 3A
CUT VOLUME 13
FILL VOLUME 26

STAGE 3B
CUT VOLUME 43
FILL VOLUME 16

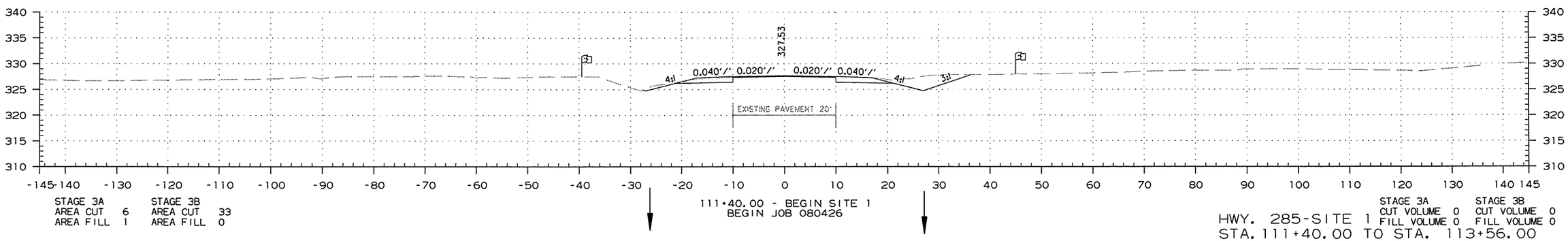


STAGE 3A
AREA CUT 6
AREA FILL 0

STAGE 3B
AREA CUT 18
AREA FILL 0

STAGE 3A
CUT VOLUME 13
FILL VOLUME 1

STAGE 3B
CUT VOLUME 56
FILL VOLUME 0



STAGE 3A
AREA CUT 6
AREA FILL 1

STAGE 3B
AREA CUT 33
AREA FILL 0

STAGE 3A
CUT VOLUME 0
FILL VOLUME 0

STAGE 3B
CUT VOLUME 0
FILL VOLUME 0

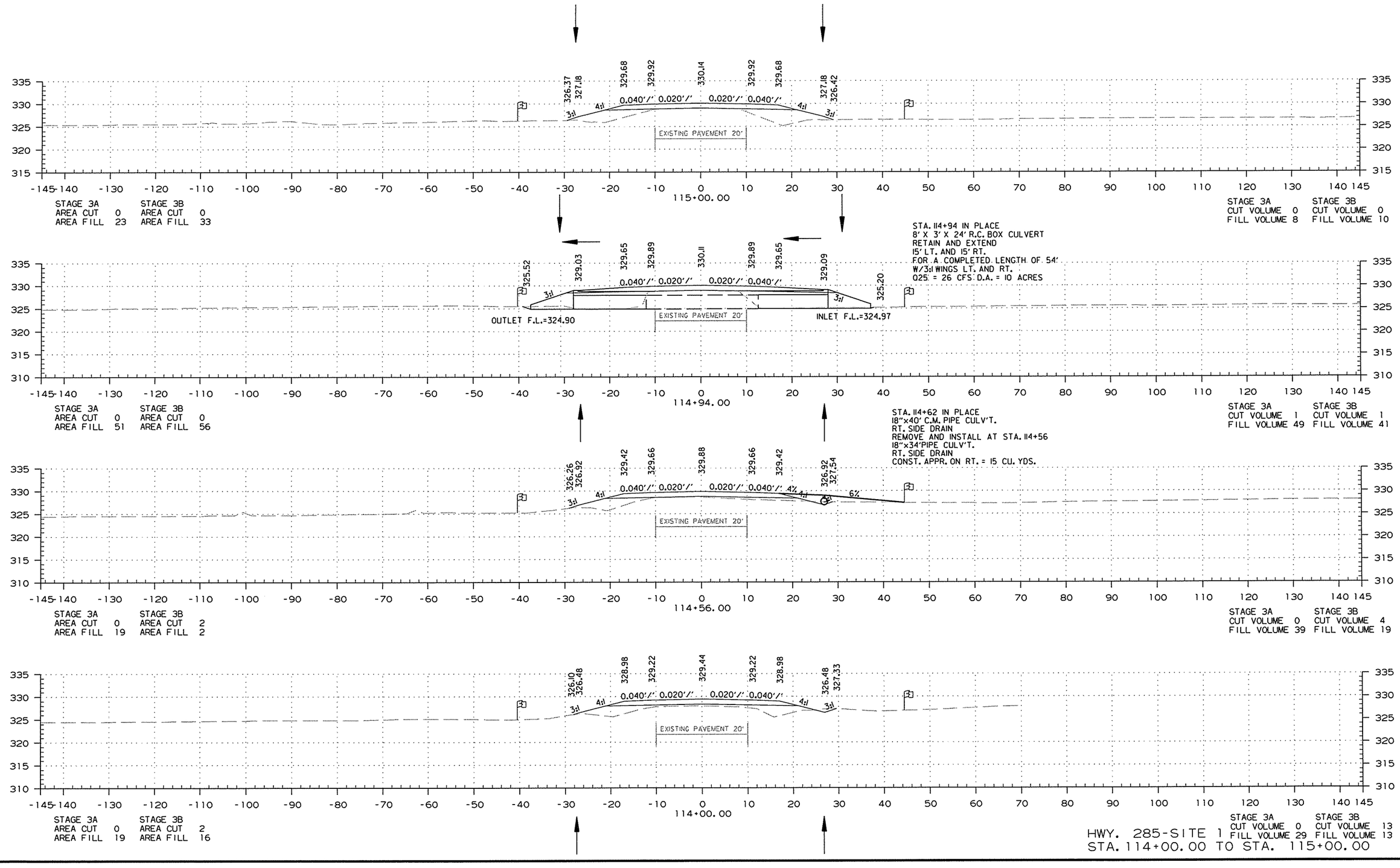
HWY. 285-SITE 1
STA. 111+40.00 TO STA. 113+56.00

12/4/2015

R080426.DGN

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		080426	133	271

(2) CROSS SECTIONS



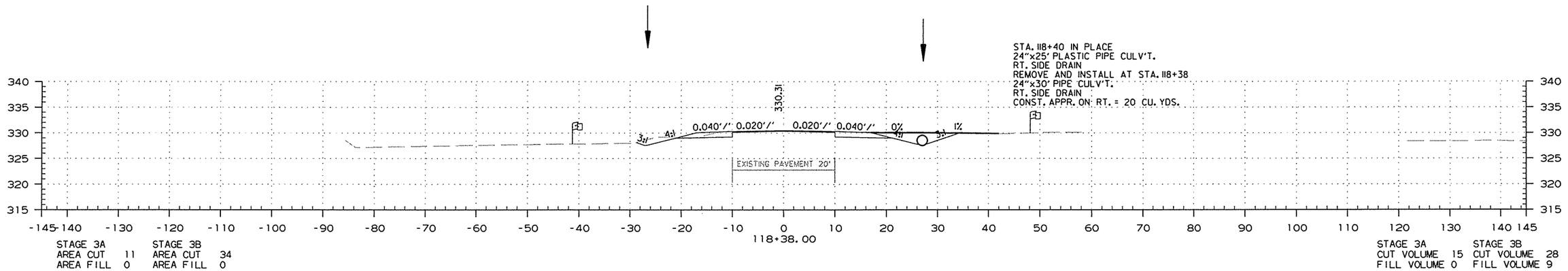
HWY. 285-SITE 1
STA. 114+00.00 TO STA. 115+00.00

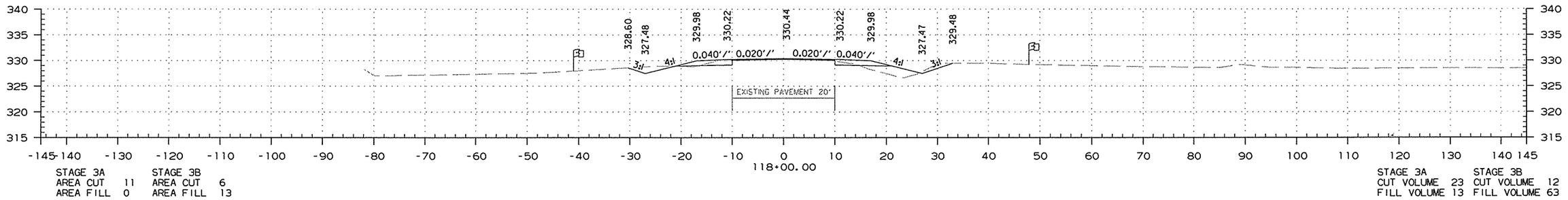
12/4/2015

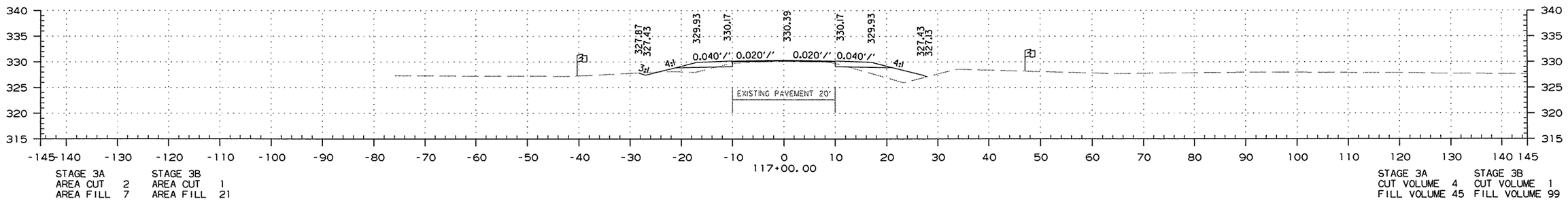
R080426.DGN

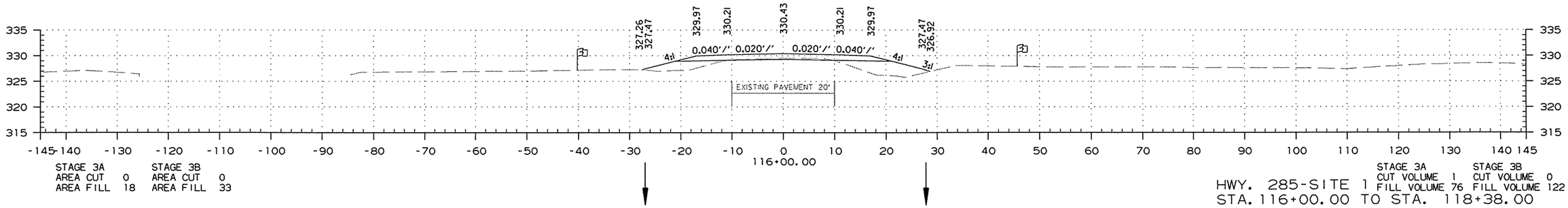
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		080426	134	271

(2) CROSS SECTIONS









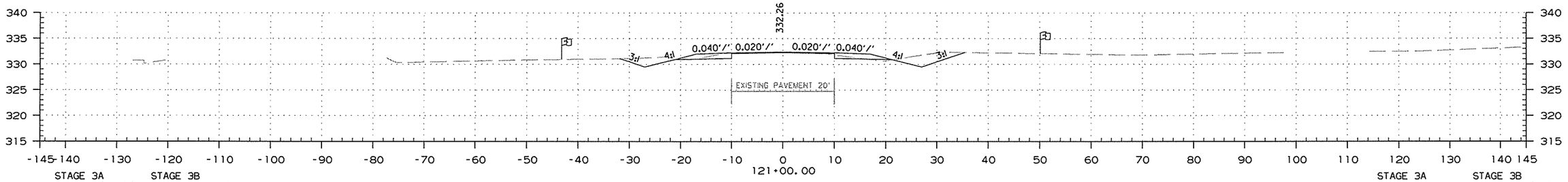
HWY. 285-SITE 1
STA. 116+00.00 TO STA. 118+38.00

12/4/2015

R080426.DGN

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		080426	135	271

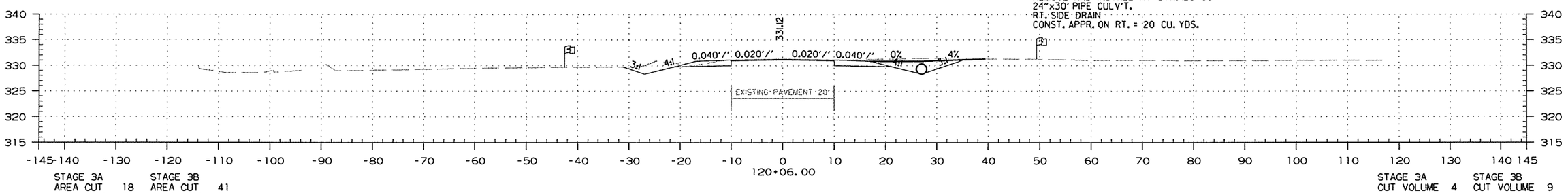
(2) CROSS SECTIONS



STAGE 3A AREA CUT 15 AREA FILL 0
STAGE 3B AREA CUT 20 AREA FILL 1

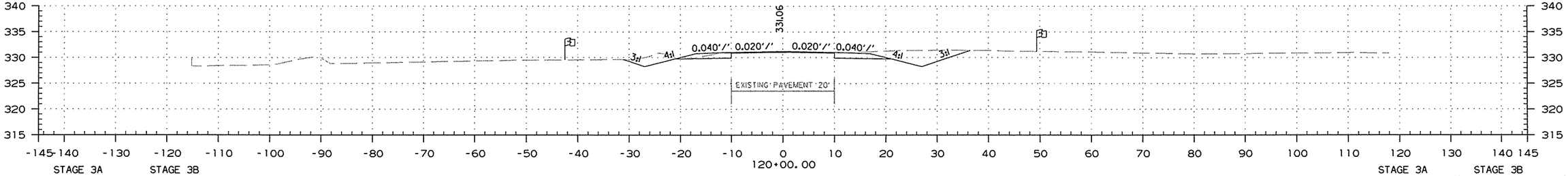
STAGE 3A CUT VOLUME 59 FILL VOLUME 0
STAGE 3B CUT VOLUME 106 FILL VOLUME 2

STA. 120+04 IN PLACE
24"x25' C.M. PIPE CULV'T.
RT. SIDE DRAIN
REMOVE AND INSTALL AT STA. 120+06
24"x30' PIPE CULV'T.
RT. SIDE DRAIN
CONST. APPR. ON RT. = 20 CU. YDS.



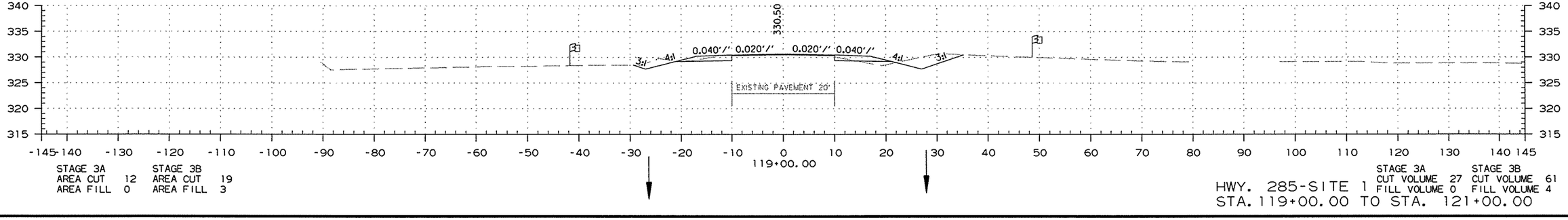
STAGE 3A AREA CUT 18 AREA FILL 0
STAGE 3B AREA CUT 41 AREA FILL 0

STAGE 3A CUT VOLUME 4 FILL VOLUME 0
STAGE 3B CUT VOLUME 9 FILL VOLUME 0



STAGE 3A AREA CUT 18 AREA FILL 0
STAGE 3B AREA CUT 43 AREA FILL 0

STAGE 3A CUT VOLUME 57 FILL VOLUME 0
STAGE 3B CUT VOLUME 115 FILL VOLUME 6



STAGE 3A AREA CUT 12 AREA FILL 0
STAGE 3B AREA CUT 19 AREA FILL 3

STAGE 3A CUT VOLUME 27 FILL VOLUME 0
STAGE 3B CUT VOLUME 61 FILL VOLUME 4

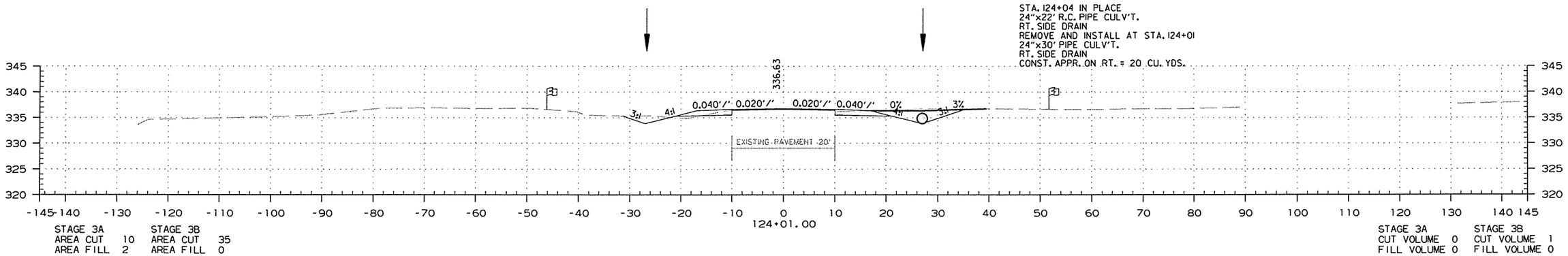
HWY. 285-SITE 1
STA. 119+00.00 TO STA. 121+00.00

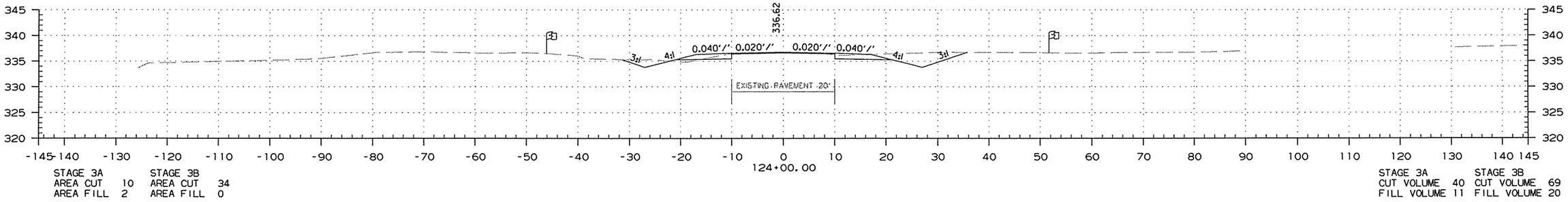
12/4/2015

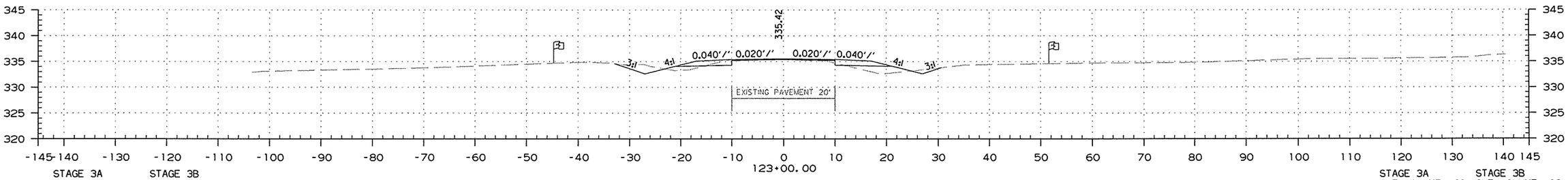
R080426.DGN

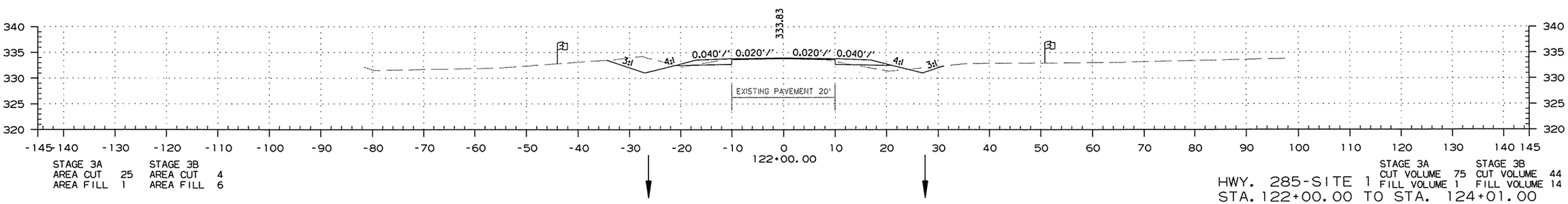
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		080426	136	271

(2) CROSS SECTIONS









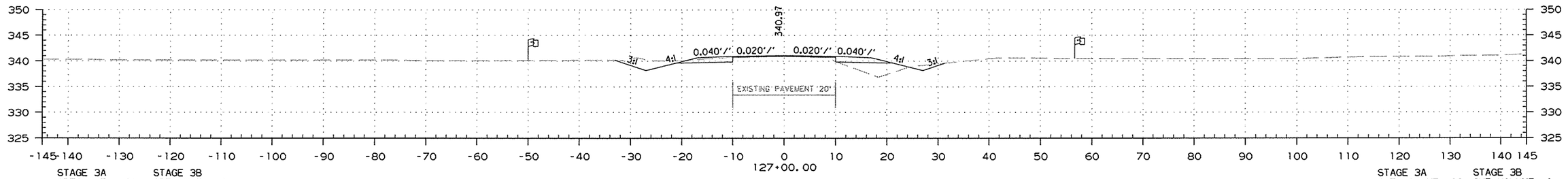
HWY. 285-SITE 1
STA. 122+00.00 TO STA. 124+01.00

12/4/2015

R080426.DGN

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		080426	137	271

(2) CROSS SECTIONS



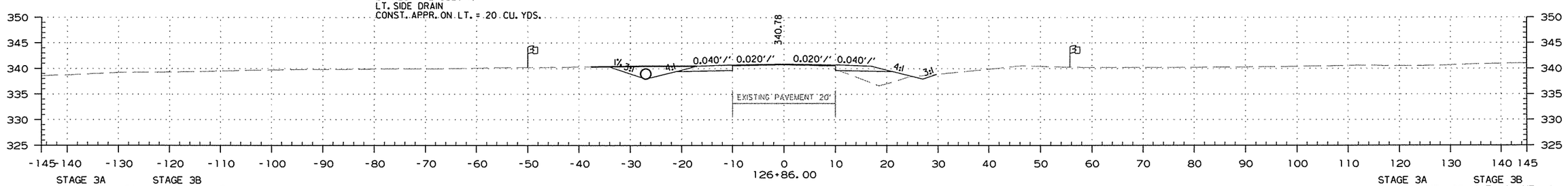
STAGE 3A
AREA CUT 21
AREA FILL 0

STAGE 3B
AREA CUT 4
AREA FILL 21

STAGE 3A
CUT VOLUME 13
FILL VOLUME 3

STAGE 3B
CUT VOLUME 1
FILL VOLUME 11

STA. 126+86 INSTALL
24"x28' PIPE CULV'T.
LT. SIDE DRAIN
CONST. APPR. ON LT. = 20 CU. YDS.

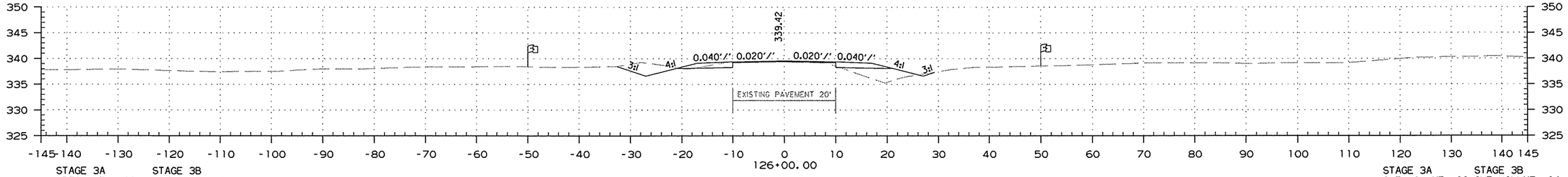


STAGE 3A
AREA CUT 31
AREA FILL 2

STAGE 3B
AREA CUT 2
AREA FILL 21

STAGE 3A
CUT VOLUME 82
FILL VOLUME 1

STAGE 3B
CUT VOLUME 4
FILL VOLUME 69

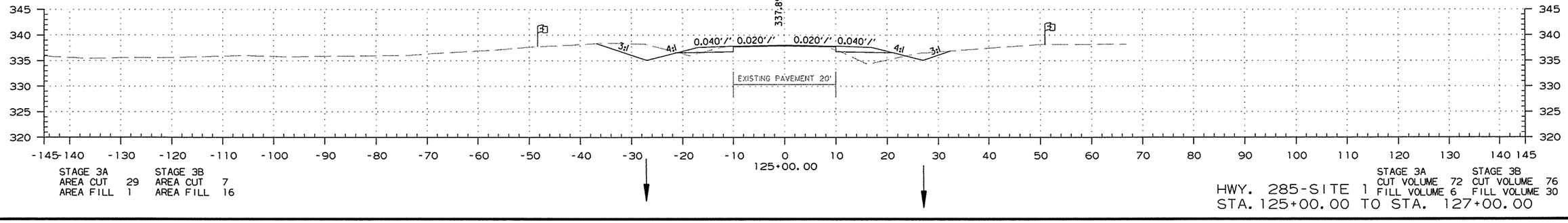


STAGE 3A
AREA CUT 21
AREA FILL 0

STAGE 3B
AREA CUT 1
AREA FILL 22

STAGE 3A
CUT VOLUME 93
FILL VOLUME 3

STAGE 3B
CUT VOLUME 14
FILL VOLUME 70



STAGE 3A
AREA CUT 29
AREA FILL 1

STAGE 3B
AREA CUT 7
AREA FILL 16

STAGE 3A
CUT VOLUME 72
FILL VOLUME 6

STAGE 3B
CUT VOLUME 76
FILL VOLUME 30

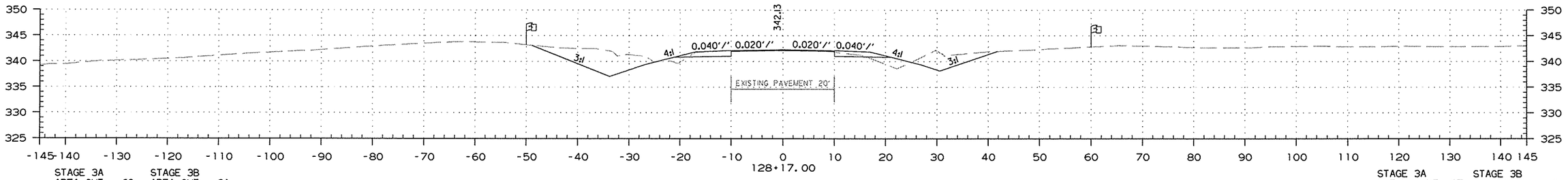
HWY. 285-SITE 1
STA. 125+00.00 TO STA. 127+00.00

12/4/2015

R080426.DGN

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		080426	138	271

(2) CROSS SECTIONS

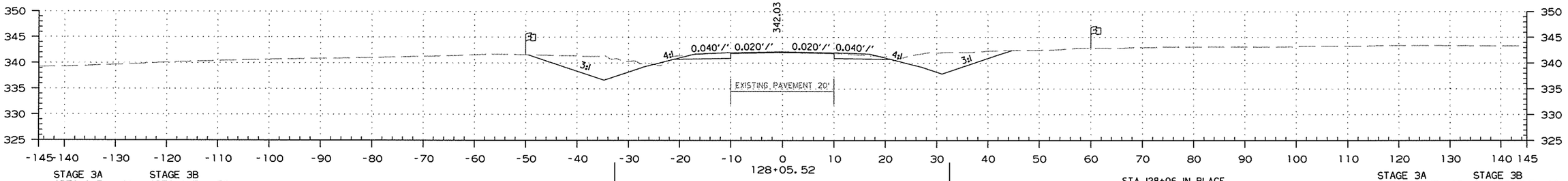


STAGE 3A
AREA CUT 68
AREA FILL 3

STAGE 3B
AREA CUT 31
AREA FILL 9

STAGE 3A
CUT VOLUME 27
FILL VOLUME 1

STAGE 3B
CUT VOLUME 19
FILL VOLUME 2



STAGE 3A
AREA CUT 60
AREA FILL 1

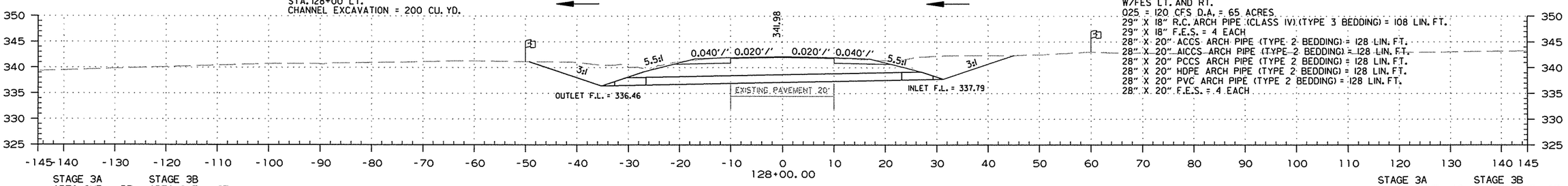
STAGE 3B
AREA CUT 56
AREA FILL 0

STAGE 3A
CUT VOLUME 12
FILL VOLUME 0

STAGE 3B
CUT VOLUME 13
FILL VOLUME 0

STA. 128+00 LT.
CHANNEL EXCAVATION = 200 CU. YD.

STA. 128+06 IN PLACE
30"X 42' R.C. PIPE CULVERT
REMOVE AND CONSTRUCT
DBL. 29" X 18" ARCH PIPE CULVERT
ON 25° RT. FWD. SKEW
W/FES LT. AND RT.
025 = 120 CFS D.A. = 65 ACRES
29" X 18" R.C. ARCH PIPE (CLASS IV) (TYPE 3 BEDDING) = 108 LIN. FT.
29" X 18" F.E.S. = 4 EACH
28" X 20" ACCS ARCH PIPE (TYPE 2 BEDDING) = 128 LIN. FT.
28" X 20" AICCS ARCH PIPE (TYPE 2 BEDDING) = 128 LIN. FT.
28" X 20" PCCS ARCH PIPE (TYPE 2 BEDDING) = 128 LIN. FT.
28" X 20" HDPE ARCH PIPE (TYPE 2 BEDDING) = 128 LIN. FT.
28" X 20" PVC ARCH PIPE (TYPE 2 BEDDING) = 128 LIN. FT.
28" X 20" F.E.S. = 4 EACH

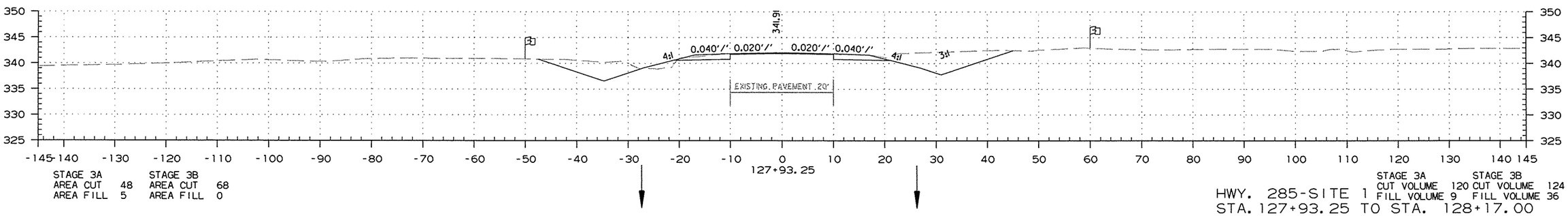


STAGE 3A
AREA CUT 57
AREA FILL 0

STAGE 3B
AREA CUT 67
AREA FILL 0

STAGE 3A
CUT VOLUME 13
FILL VOLUME 1

STAGE 3B
CUT VOLUME 17
FILL VOLUME 0



STAGE 3A
AREA CUT 48
AREA FILL 5

STAGE 3B
AREA CUT 68
AREA FILL 0

STAGE 3A
CUT VOLUME 120
FILL VOLUME 9

STAGE 3B
CUT VOLUME 124
FILL VOLUME 36

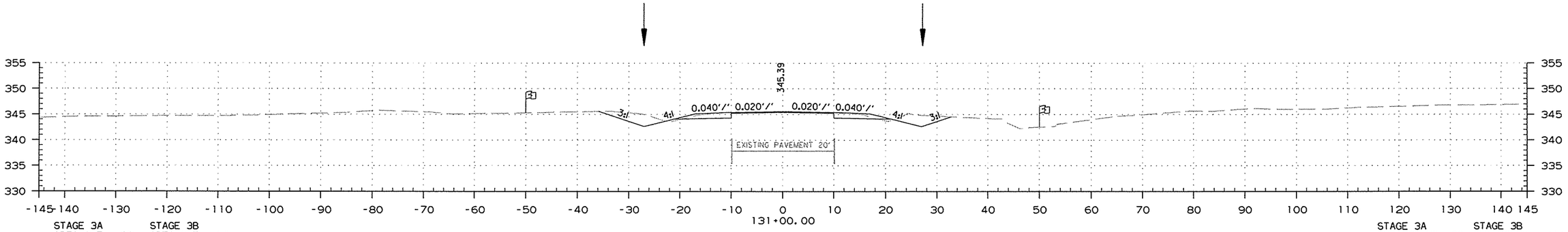
HWY. 285-SITE 1
STA. 127+93.25 TO STA. 128+17.00

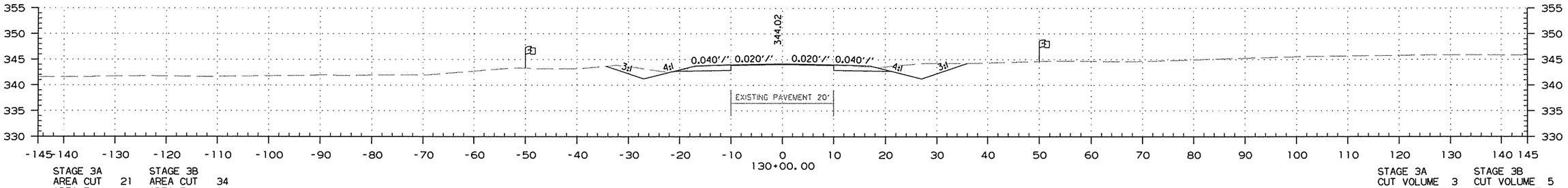
12/4/2015

R080426.DGN

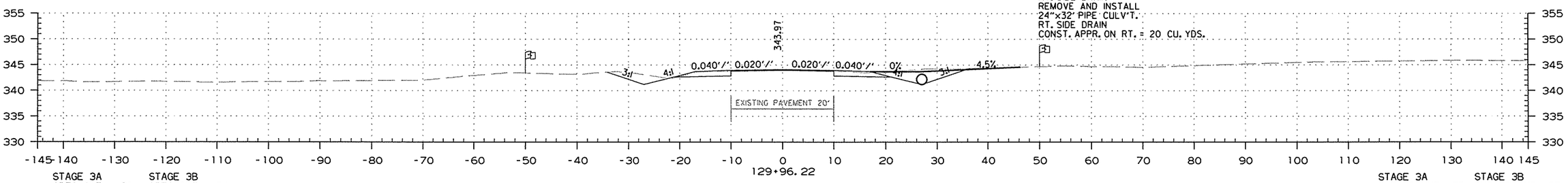
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		080426	139	271

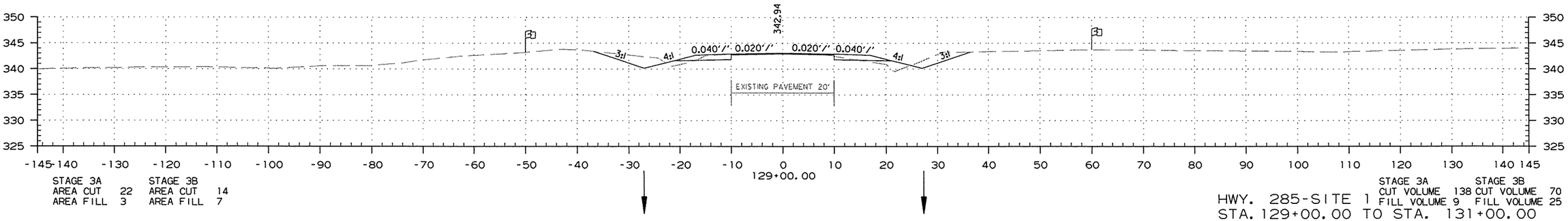
(2) CROSS SECTIONS





STA. 129+96 IN PLACE
24"x22' C.M. PIPE CULV'T.
RT. SIDE DRAIN
REMOVE AND INSTALL
24"x32' PIPE CULV'T.
RT. SIDE DRAIN
CONST. APPR. ON RT. = 20 CU. YDS.





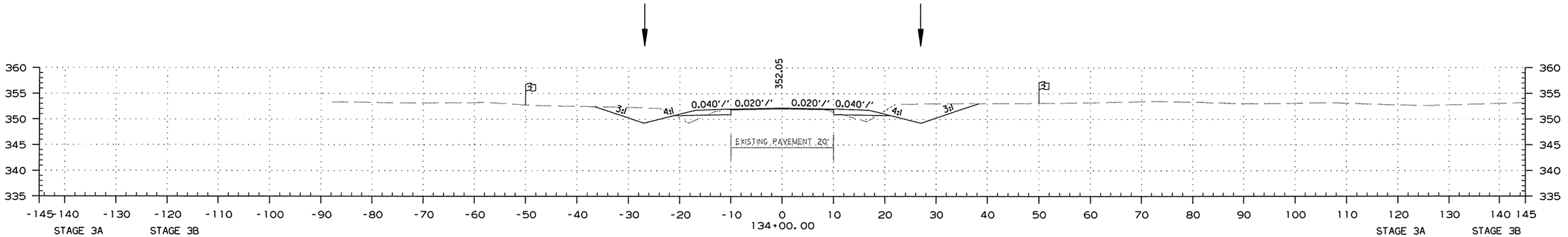
HWY. 285-SITE 1
STA. 129+00.00 TO STA. 131+00.00

12/4/2015

R080426.DGN

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		080426	140	271

(2) CROSS SECTIONS

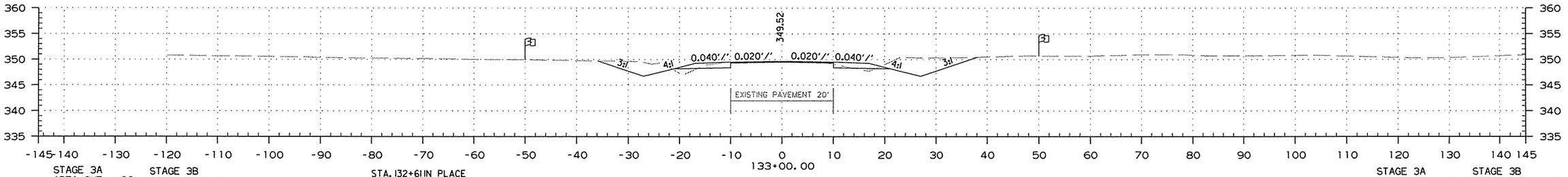


STAGE 3A
AREA CUT 29
AREA FILL 5

STAGE 3B
AREA CUT 41
AREA FILL 4

STAGE 3A
CUT VOLUME 102
FILL VOLUME 14

STAGE 3B
CUT VOLUME 147
FILL VOLUME 10



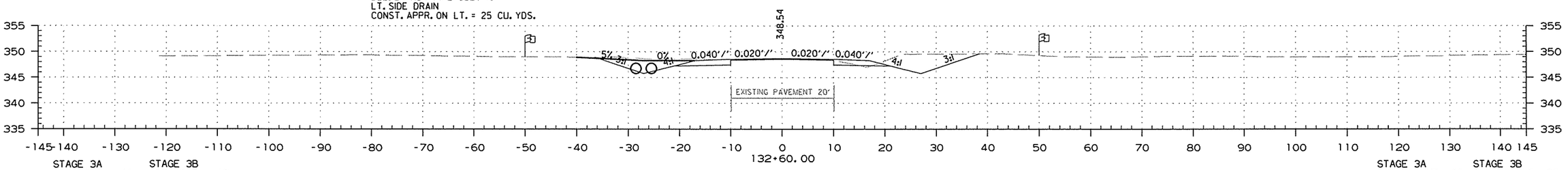
STAGE 3A
AREA CUT 26
AREA FILL 3

STAGE 3B
AREA CUT 39
AREA FILL 1

STA. 132+61 IN PLACE
24"x 25' C.M. PIPE CULV'T.
LT. SIDE DRAIN
REMOVE AND INSTALL AT STA. 132+60
DBL. 24"x34' PIPE CULV'T.
LT. SIDE DRAIN
CONST. APPR. ON LT. = 25 CU. YDS.

STAGE 3A
CUT VOLUME 49
FILL VOLUME 2

STAGE 3B
CUT VOLUME 61
FILL VOLUME 1

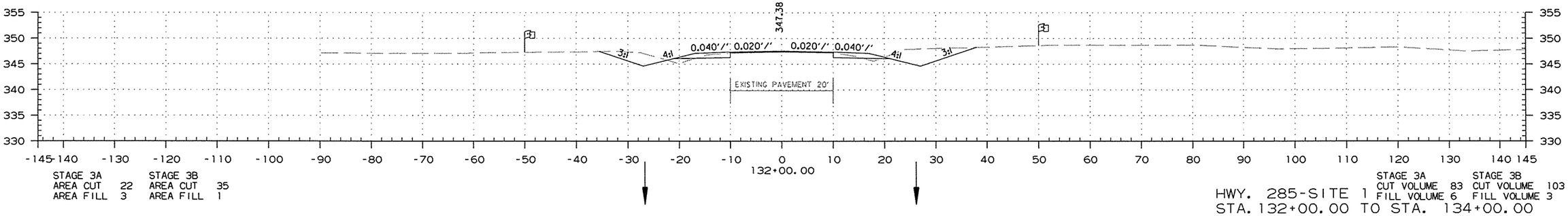


STAGE 3A
AREA CUT 40
AREA FILL 0

STAGE 3B
AREA CUT 43
AREA FILL 0

STAGE 3A
CUT VOLUME 68
FILL VOLUME 3

STAGE 3B
CUT VOLUME 87
FILL VOLUME 2



STAGE 3A
AREA CUT 22
AREA FILL 3

STAGE 3B
AREA CUT 35
AREA FILL 1

STAGE 3A
CUT VOLUME 83
FILL VOLUME 6

STAGE 3B
CUT VOLUME 103
FILL VOLUME 3

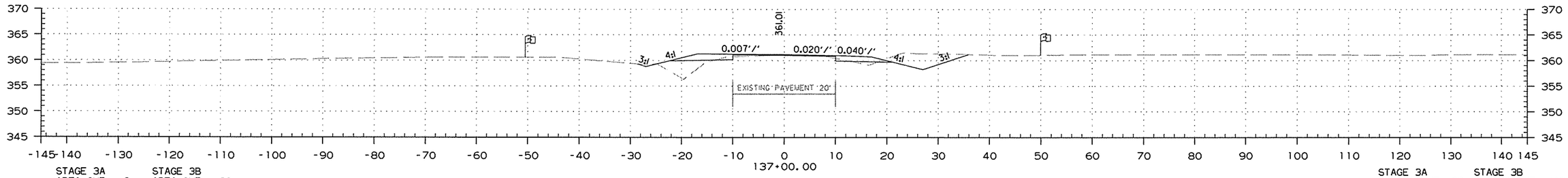
HWY. 285-SITE 1
STA. 132+00.00 TO STA. 134+00.00

12/4/2015

R080426.DGN

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		080426	141	271

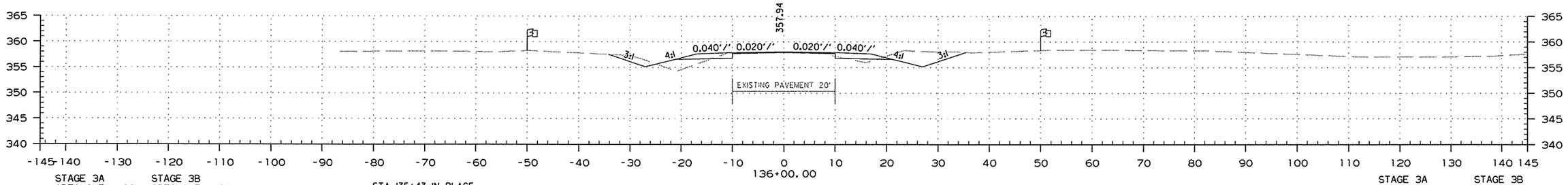
(2) CROSS SECTIONS



STAGE 3A AREA CUT 2 AREA FILL 20
STAGE 3B AREA CUT 30 AREA FILL 2

STAGE 3A CUT VOLUME 23 FILL VOLUME 60
STAGE 3B CUT VOLUME 108 FILL VOLUME 8

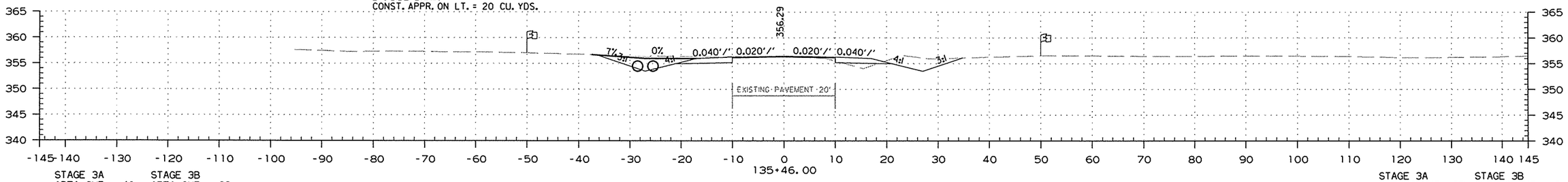
STA. 136+40.48
BEGIN SUPERELEVATION



STAGE 3A AREA CUT 10 AREA FILL 13
STAGE 3B AREA CUT 28 AREA FILL 2

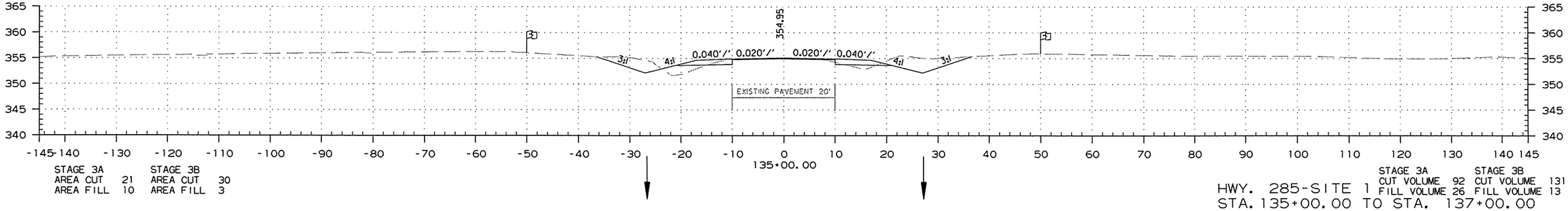
STAGE 3A CUT VOLUME 51 FILL VOLUME 13
STAGE 3B CUT VOLUME 51 FILL VOLUME 6

STA. 135+43 IN PLACE
36"x24' C.M. PIPE CULV'T.
LT. SIDE DRAIN
REMOVE AND INSTALL AT STA. 135+46
DBL. 24"x30' PIPE CULV'T.
LT. SIDE DRAIN
CONST. APPR. ON LT. = 20 CU. YDS.



STAGE 3A AREA CUT 40 AREA FILL 0
STAGE 3B AREA CUT 23 AREA FILL 4

STAGE 3A CUT VOLUME 52 FILL VOLUME 8
STAGE 3B CUT VOLUME 45 FILL VOLUME 5



STAGE 3A AREA CUT 21 AREA FILL 10
STAGE 3B AREA CUT 30 AREA FILL 3

STAGE 3A CUT VOLUME 92 FILL VOLUME 26
STAGE 3B CUT VOLUME 131 FILL VOLUME 13

HWY. 285-SITE 1
STA. 135+00.00 TO STA. 137+00.00

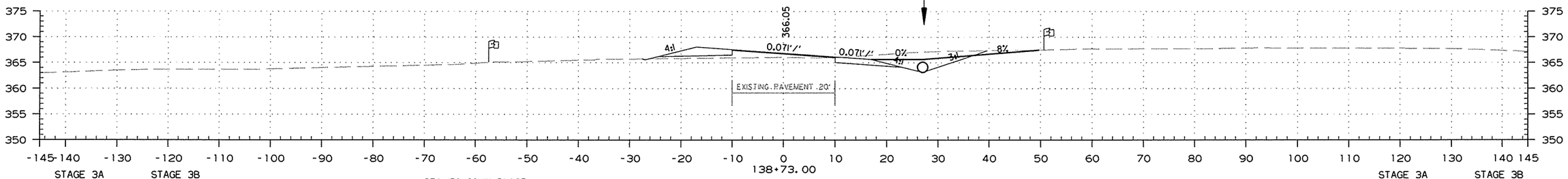
12/4/2015

R080426.DGN

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		080426	142	271

(2) CROSS SECTIONS

STA. 138+73 IN PLACE
24"x24' C.M. PIPE CULV'T.
RT. SIDE DRAIN
REMOVE AND INSTALL
24"x30' PIPE CULV'T.
RT. SIDE DRAIN
CONST. APPR. ON RT. = 20 CU. YDS. COMB. EMB.
AND 5 CU. YDS. UNCL. EXC.



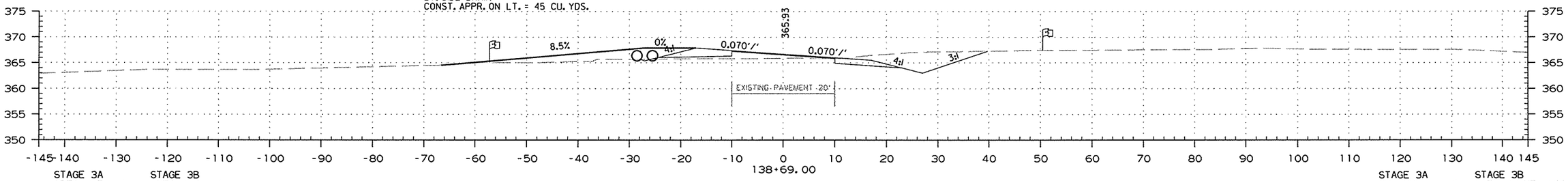
STAGE 3A
AREA CUT 0
AREA FILL 7

STAGE 3B
AREA CUT 63
AREA FILL 0

STAGE 3A
CUT VOLUME 0
FILL VOLUME 1

STAGE 3B
CUT VOLUME 9
FILL VOLUME 0

STA. 138+69 IN PLACE
36"x25' C.M. PIPE CULV'T.
LT. SIDE DRAIN
REMOVE AND INSTALL
DBL. 24"x88' PIPE CULV'T.
LT. SIDE DRAIN
CONST. APPR. ON LT. = 45 CU. YDS.

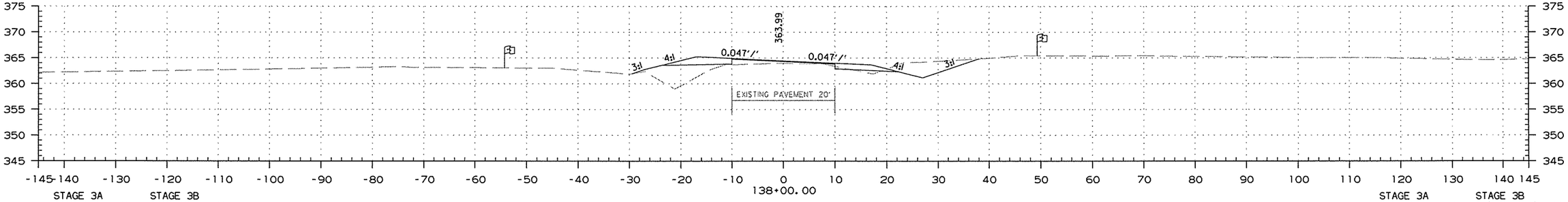


STAGE 3A
AREA CUT 0
AREA FILL 6

STAGE 3B
AREA CUT 64
AREA FILL 0

STAGE 3A
CUT VOLUME 0
FILL VOLUME 55

STAGE 3B
CUT VOLUME 121
FILL VOLUME 2



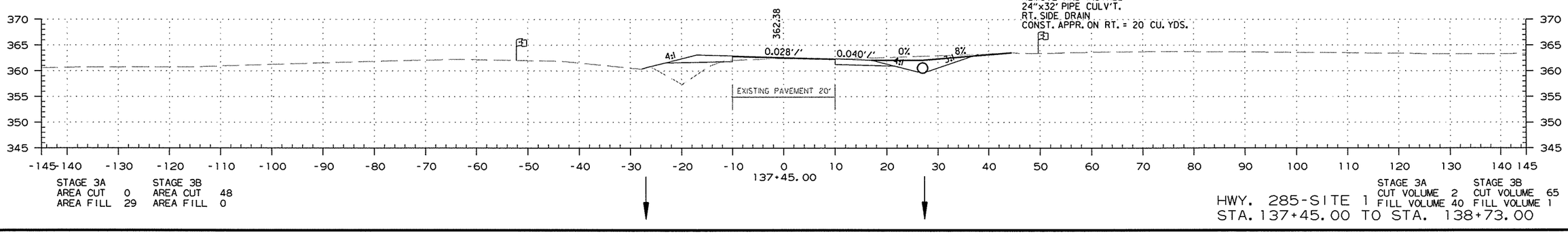
STAGE 3A
AREA CUT 0
AREA FILL 37

STAGE 3B
AREA CUT 31
AREA FILL 2

STAGE 3A
CUT VOLUME 0
FILL VOLUME 68

STAGE 3B
CUT VOLUME 80
FILL VOLUME 2

STA. 137+45 IN PLACE
24"x24' C.M. PIPE CULV'T.
RT. SIDE DRAIN
REMOVE AND INSTALL
24"x32' PIPE CULV'T.
RT. SIDE DRAIN
CONST. APPR. ON RT. = 20 CU. YDS.



STAGE 3A
AREA CUT 0
AREA FILL 29

STAGE 3B
AREA CUT 48
AREA FILL 0

STAGE 3A
CUT VOLUME 2
FILL VOLUME 40

STAGE 3B
CUT VOLUME 65
FILL VOLUME 1

HWY. 285-SITE 1
STA. 137+45.00 TO STA. 138+73.00

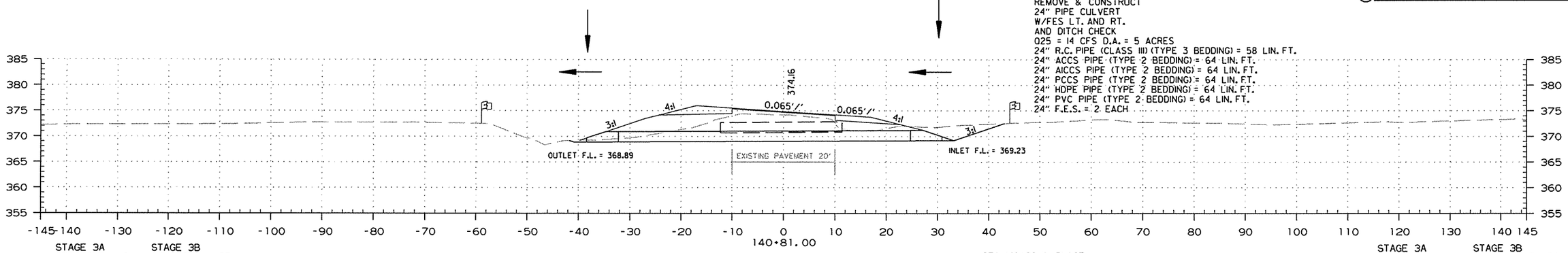
12/4/2015

R080426.DGN

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		080426	143	271

(2) CROSS SECTIONS

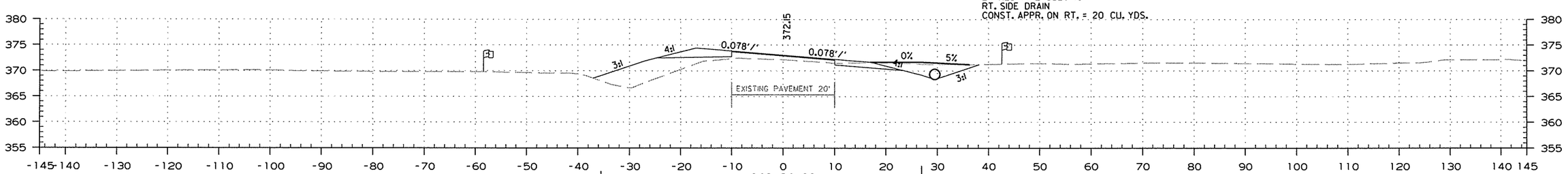
STA. 140+81 IN PLACE
24" X 24' C.M. PIPE CULVERT
REMOVE & CONSTRUCT
24" PIPE CULVERT
W/FES LT. AND RT.
AND DITCH CHECK
Q25 = 14 CFS D.A. = 5 ACRES
24" R.C. PIPE (CLASS III) (TYPE 3 BEDDING) = 58 LIN. FT.
24" ACCS PIPE (TYPE 2 BEDDING) = 64 LIN. FT.
24" AICCS PIPE (TYPE 2 BEDDING) = 64 LIN. FT.
24" PCCS PIPE (TYPE 2 BEDDING) = 64 LIN. FT.
24" HDPE PIPE (TYPE 2 BEDDING) = 64 LIN. FT.
24" PVC PIPE (TYPE 2 BEDDING) = 64 LIN. FT.
24" F.E.S. = 2 EACH



STAGE 3A AREA CUT 0 AREA FILL 64
STAGE 3B AREA CUT 25 AREA FILL 17

STAGE 3A CUT VOLUME 0 FILL VOLUME 111
STAGE 3B CUT VOLUME 54 FILL VOLUME 15

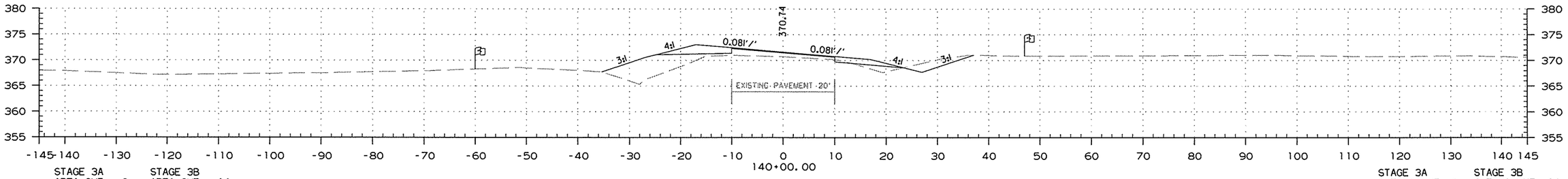
STA. 140+29 IN PLACE
24"x25' R.C. PIPE CULV'T.
RT. SIDE DRAIN
REMOVE AND INSTALL AT STA. 140+34
24"x28' PIPE CULV'T.
RT. SIDE DRAIN
CONST. APPR. ON RT. = 20 CU. YDS.



STAGE 3A AREA CUT 0 AREA FILL 63
STAGE 3B AREA CUT 37 AREA FILL 0

STAGE 3A CUT VOLUME 0 FILL VOLUME 76
STAGE 3B CUT VOLUME 32 FILL VOLUME 4

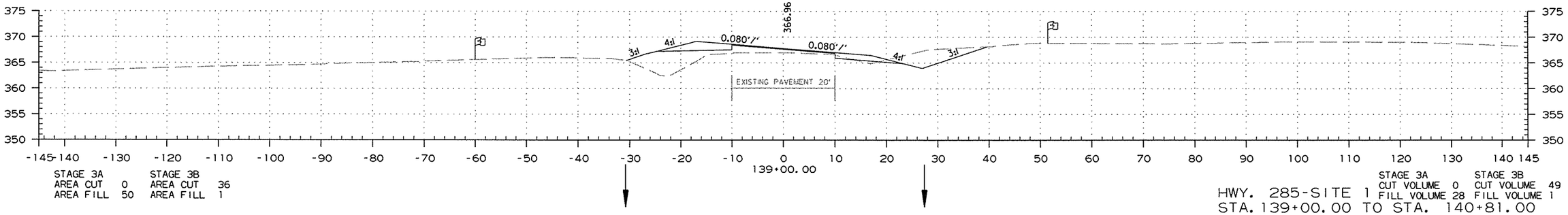
STA. 140+24.85
MAX SUPERELEVATION



STAGE 3A AREA CUT 0 AREA FILL 57
STAGE 3B AREA CUT 14 AREA FILL 6

STAGE 3A CUT VOLUME 0 FILL VOLUME 197
STAGE 3B CUT VOLUME 94 FILL VOLUME 14

STA. 139+10.48
MAX SUPERELEVATION



STAGE 3A AREA CUT 0 AREA FILL 50
STAGE 3B AREA CUT 36 AREA FILL 1

STAGE 3A CUT VOLUME 0 FILL VOLUME 28
STAGE 3B CUT VOLUME 49 FILL VOLUME 1

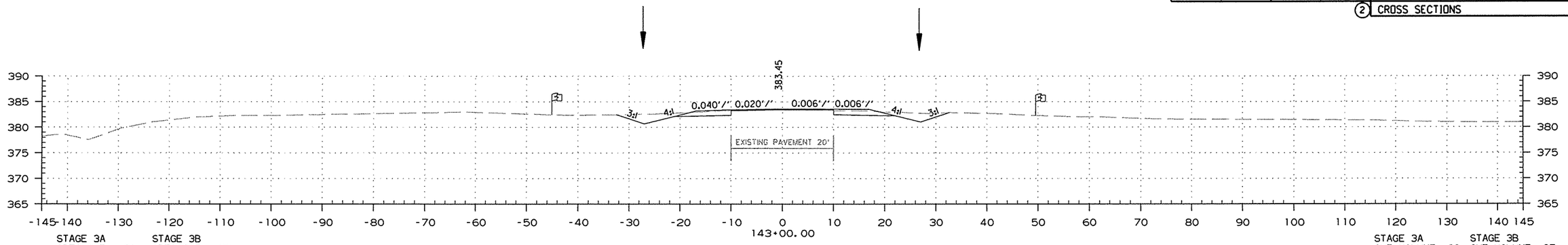
HWY. 285-SITE 1
STA. 139+00.00 TO STA. 140+81.00

12/4/2015

R080426.DGN

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		080426	144	271

(2) CROSS SECTIONS

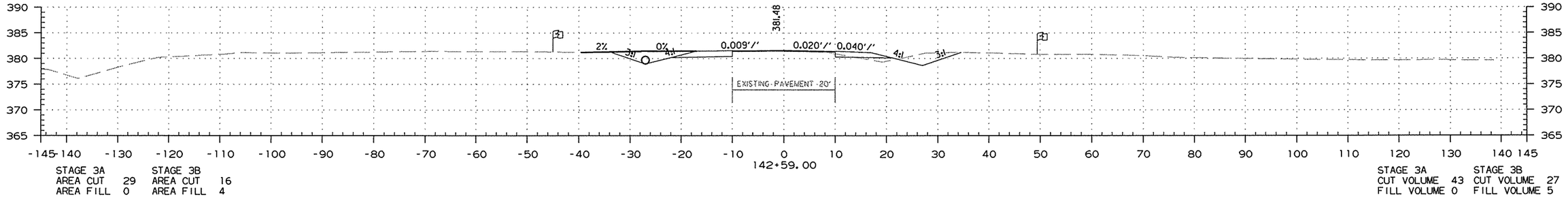


STAGE 3A AREA CUT 21 AREA FILL 0
STAGE 3B AREA CUT 20 AREA FILL 0

STA. 142+59 INSTALL 18"x 40' PIPE CULV'T. LT. SIDE DRAIN CONST. APPR. ON LT. = 25 CU.YDS.

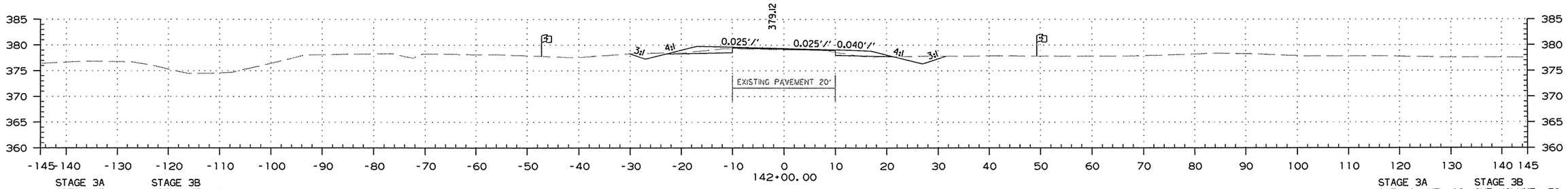
STA. 142+74.85 BEGIN AND END SUPERELEVATION

STAGE 3A CUT VOLUME 38 FILL VOLUME 0
STAGE 3B CUT VOLUME 27 FILL VOLUME 3



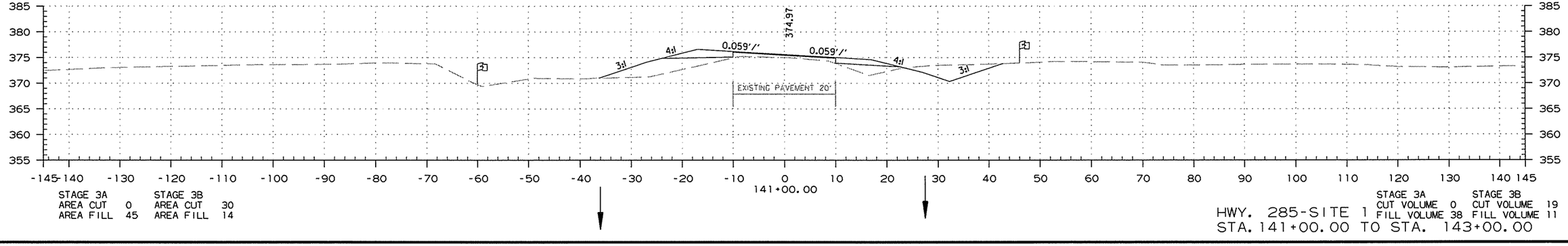
STAGE 3A AREA CUT 29 AREA FILL 0
STAGE 3B AREA CUT 16 AREA FILL 4

STAGE 3A CUT VOLUME 43 FILL VOLUME 0
STAGE 3B CUT VOLUME 27 FILL VOLUME 5



STAGE 3A AREA CUT 10 AREA FILL 0
STAGE 3B AREA CUT 9 AREA FILL 1

STAGE 3A CUT VOLUME 19 FILL VOLUME 83
STAGE 3B CUT VOLUME 73 FILL VOLUME 28



STAGE 3A AREA CUT 0 AREA FILL 45
STAGE 3B AREA CUT 30 AREA FILL 14

STAGE 3A CUT VOLUME 0 FILL VOLUME 38
STAGE 3B CUT VOLUME 19 FILL VOLUME 11

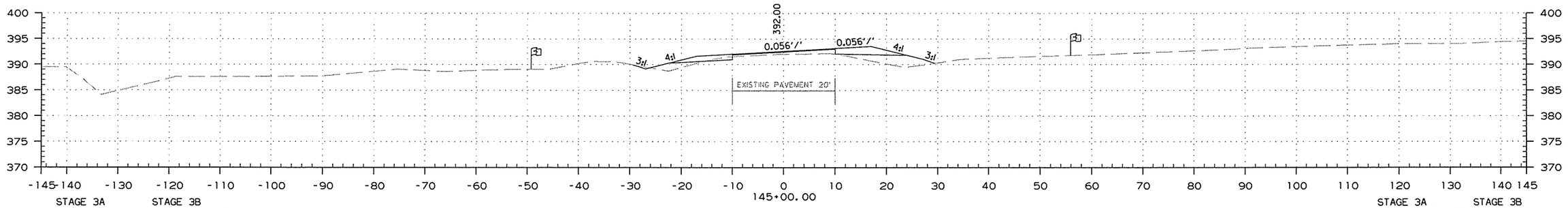
HWY. 285-SITE 1
STA. 141+00.00 TO STA. 143+00.00

12/4/2015

R080426.DGN

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		080426	145	271

(2) CROSS SECTIONS



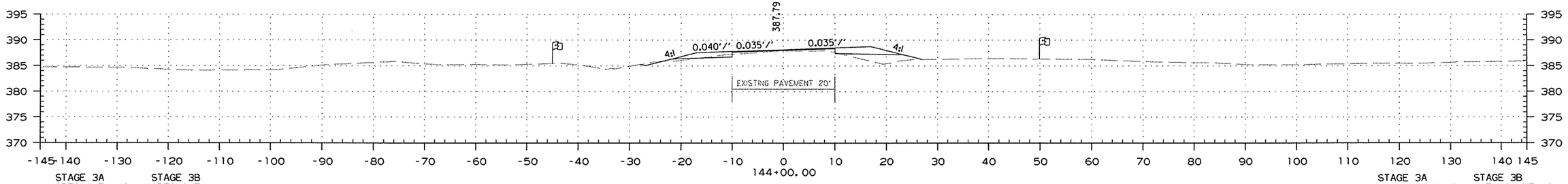
STAGE 3A
AREA CUT 3
AREA FILL 8

STAGE 3B
AREA CUT 0
AREA FILL 24

STA. 144+74.85
MAX SUPERELEVATION

STAGE 3A
CUT VOLUME 10
FILL VOLUME 14

STAGE 3B
CUT VOLUME 0
FILL VOLUME 75



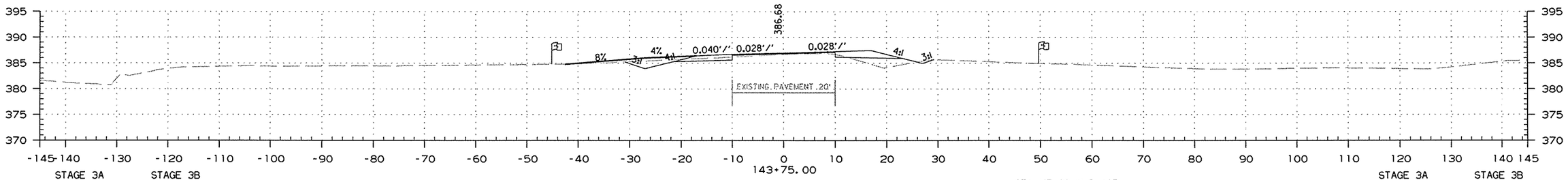
STAGE 3A
AREA CUT 3
AREA FILL 2

STAGE 3B
AREA CUT 0
AREA FILL 16

STAGE 3A
CUT VOLUME 7
FILL VOLUME 1

STAGE 3B
CUT VOLUME 1
FILL VOLUME 14

STA. 143+75 INSTALL
CONST. C.R. TURNOUT ON LT. = 20 CU. YDS.



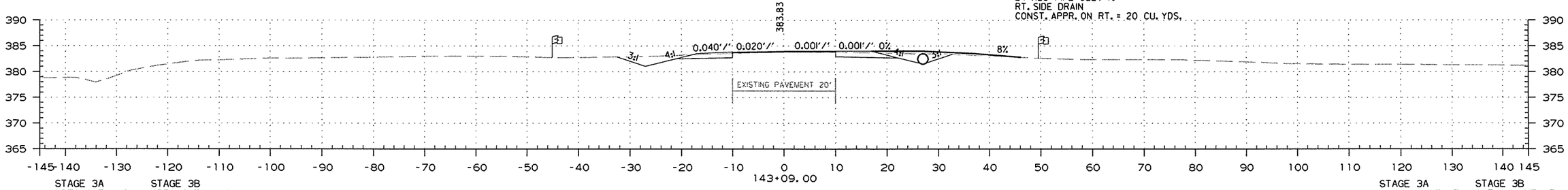
STAGE 3A
AREA CUT 13
AREA FILL 0

STAGE 3B
AREA CUT 1
AREA FILL 14

STA. 143+09 IN PLACE
24"x24' C.M. PIPE CULV'T.
RT. SIDE DRAIN
REMOVE AND INSTALL
24"x28' PIPE CULV'T.
RT. SIDE DRAIN
CONST. APPR. ON RT. = 20 CU. YDS.

STAGE 3A
CUT VOLUME 42
FILL VOLUME 0

STAGE 3B
CUT VOLUME 30
FILL VOLUME 17



STAGE 3A
AREA CUT 21
AREA FILL 0

STAGE 3B
AREA CUT 23
AREA FILL 0

STAGE 3A
CUT VOLUME 7
FILL VOLUME 0

STAGE 3B
CUT VOLUME 7
FILL VOLUME 0

HWY. 285-SITE 1
STA. 143+09.00 TO STA. 145+00.00

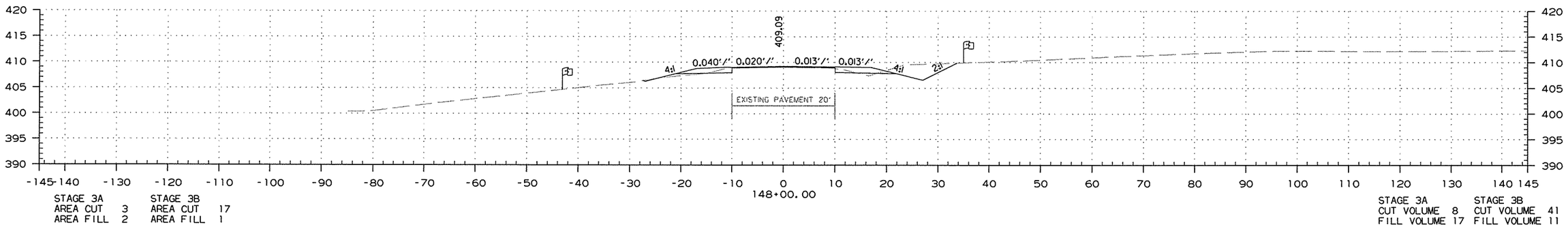
12/4/2015

R080426.DGN

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		080426	146	271

(2) CROSS SECTIONS

STA. 148+13.16
END SUPERELEVATION

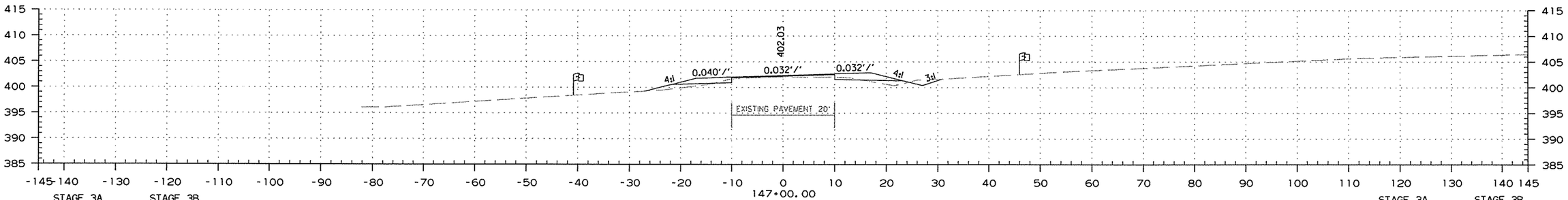


STAGE 3A
AREA CUT 3
AREA FILL 2

STAGE 3B
AREA CUT 17
AREA FILL 1

STAGE 3A
CUT VOLUME 8
FILL VOLUME 17

STAGE 3B
CUT VOLUME 41
FILL VOLUME 11



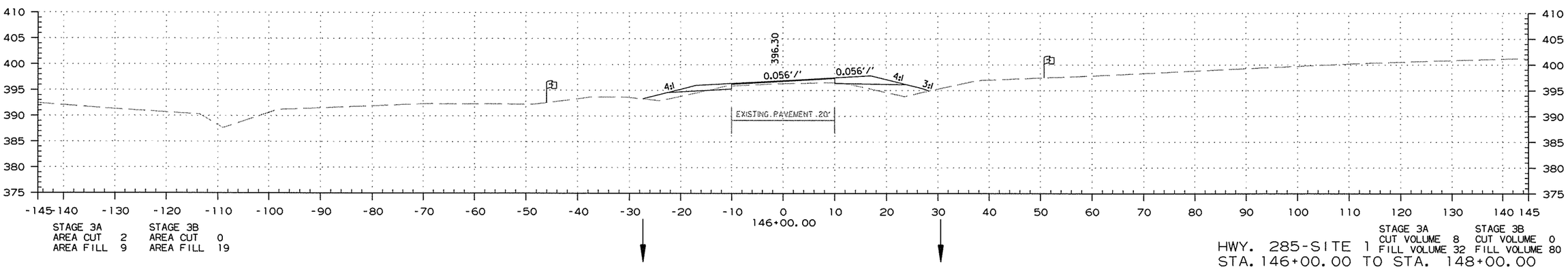
STAGE 3A
AREA CUT 1
AREA FILL 7

STAGE 3B
AREA CUT 5
AREA FILL 5

STAGE 3A
CUT VOLUME 5
FILL VOLUME 29

STAGE 3B
CUT VOLUME 9
FILL VOLUME 44

STA. 146+13.16
MAX SUPERELEVATION



STAGE 3A
AREA CUT 2
AREA FILL 9

STAGE 3B
AREA CUT 0
AREA FILL 19

STAGE 3A
CUT VOLUME 8
FILL VOLUME 32

STAGE 3B
CUT VOLUME 0
FILL VOLUME 80

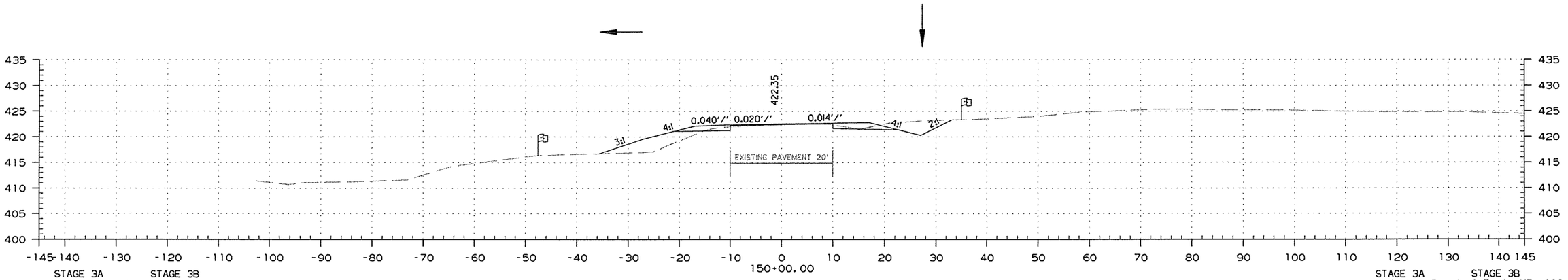
HWY. 285-SITE 1
STA. 146+00.00 TO STA. 148+00.00

12/4/2015

R080426.DGN

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		080426	147	271

(2) CROSS SECTIONS



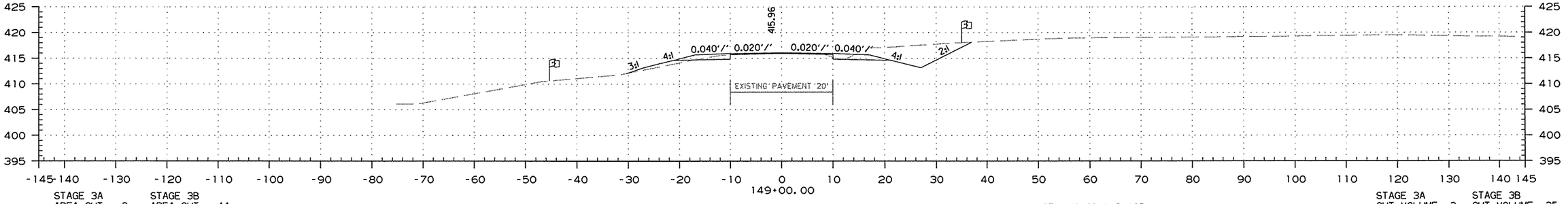
STAGE 3A
AREA CUT 2
AREA FILL 34

STAGE 3B
AREA CUT 17
AREA FILL 0

STA. 149+27.33
BEGIN SUPERELEVATION

STAGE 3A
CUT VOLUME 11
FILL VOLUME 74

STAGE 3B
CUT VOLUME 113
FILL VOLUME 0



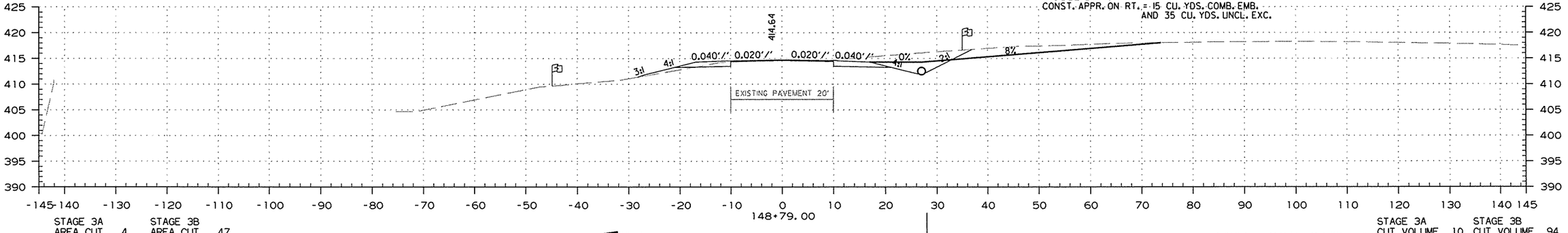
STAGE 3A
AREA CUT 3
AREA FILL 6

STAGE 3B
AREA CUT 44
AREA FILL 0

STA. 148+69 IN PLACE
18"x26' R.C. PIPE CULV'T.
RT. SIDE DRAIN
REMOVE AND INSTALL AT STA. 148+79
18"x28' PIPE CULV'T.
RT. SIDE DRAIN
CONST. APPR. ON RT. = 15 CU. YDS. COMB. EMB.
AND 35 CU. YDS. UNCL. EXC.

STAGE 3A
CUT VOLUME 3
FILL VOLUME 4

STAGE 3B
CUT VOLUME 35
FILL VOLUME 0



STAGE 3A
AREA CUT 4
AREA FILL 4

STAGE 3B
AREA CUT 47
AREA FILL 0

STAGE 3A
CUT VOLUME 10
FILL VOLUME 10

STAGE 3B
CUT VOLUME 94
FILL VOLUME 1

HWY. 285-SITE 1
STA. 148+79.00 TO STA. 150+00.00

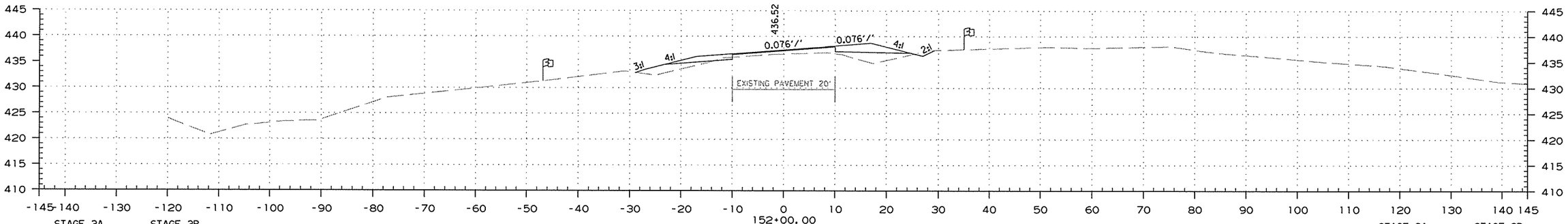
12/4/2015

R080426.DGN

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		080426	148	271

(2) CROSS SECTIONS

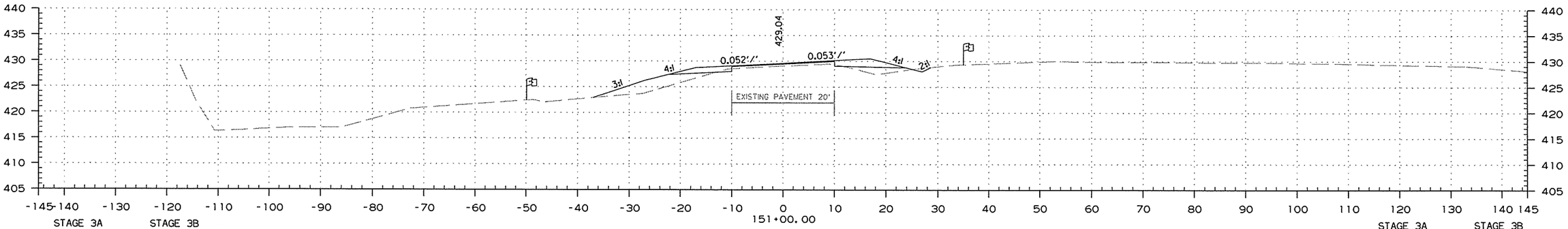
STA. 152+93.50
MAX SUPERELEVATION



STAGE 3A AREA CUT 1 AREA FILL 15
STAGE 3B AREA CUT 2 AREA FILL 18

STAGE 3A CUT VOLUME 4 FILL VOLUME 89
STAGE 3B CUT VOLUME 4 FILL VOLUME 53

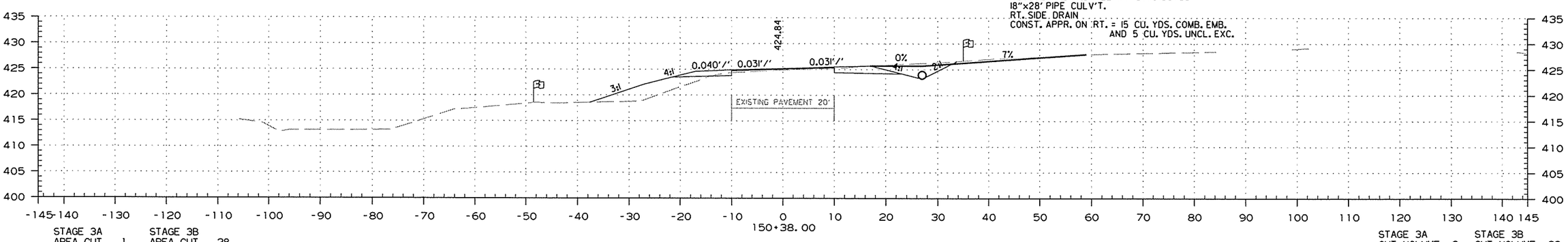
STA. 151+44.07
MAX SUPERELEVATION



STAGE 3A AREA CUT 1 AREA FILL 34
STAGE 3B AREA CUT 0 AREA FILL 10

STAGE 3A CUT VOLUME 3 FILL VOLUME 86
STAGE 3B CUT VOLUME 32 FILL VOLUME 12

STA. 150+36 IN PLACE
18"×20' C.M. PIPE CULV'T.
RT. SIDE DRAIN
REMOVE AND INSTALL AT STA. 150+38
18"×28' PIPE CULV'T.
RT. SIDE DRAIN
CONST. APPR. ON RT. = 15 CU. YDS. COMB. EMB.
AND 5 CU. YDS. UNCL. EXC.



STAGE 3A AREA CUT 1 AREA FILL 41
STAGE 3B AREA CUT 28 AREA FILL 0

STAGE 3A CUT VOLUME 3 FILL VOLUME 53
STAGE 3B CUT VOLUME 32 FILL VOLUME 0

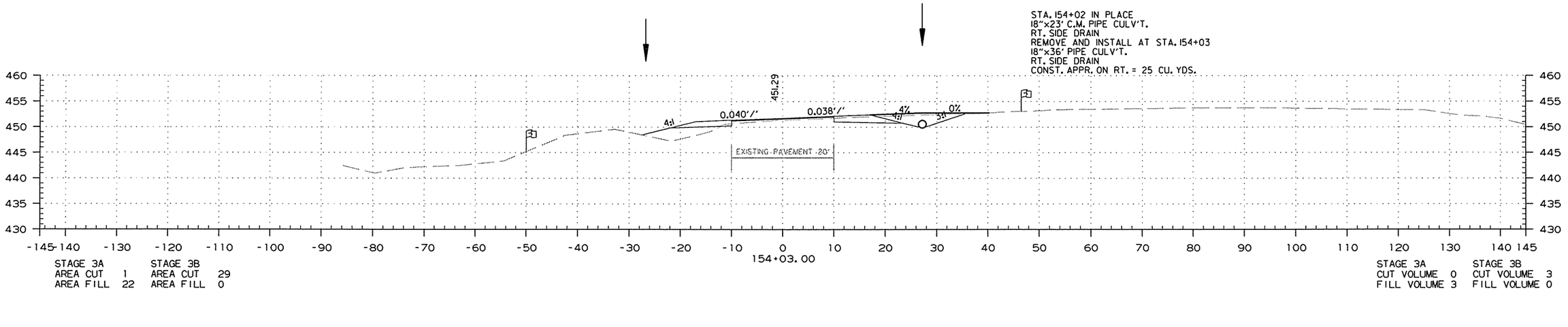
HWY. 285-SITE 1
STA. 150+38.00 TO STA. 152+00.00

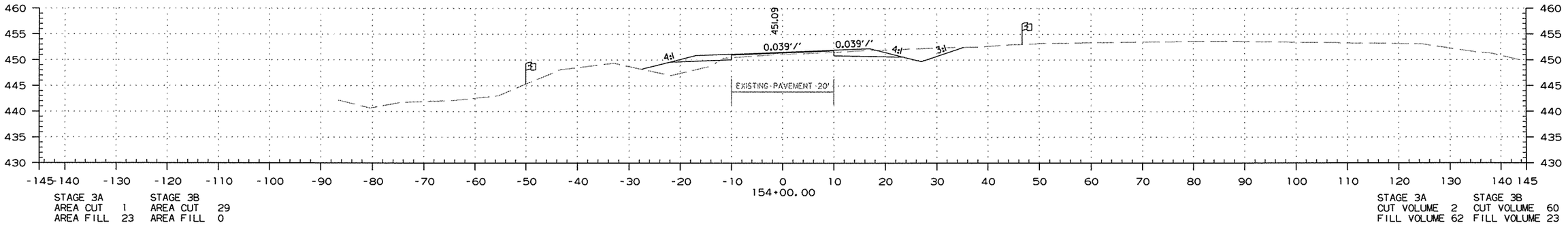
12/4/2015

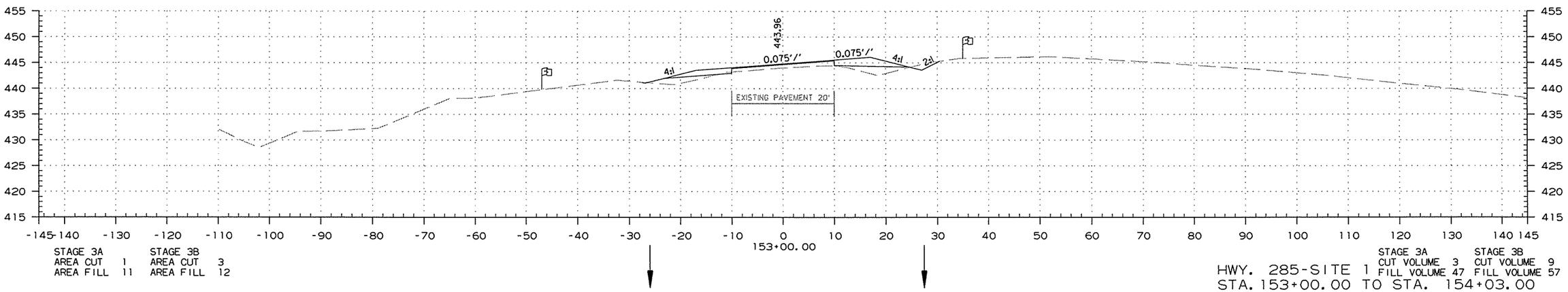
R080426.DGN

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		080426	149	271

(2) CROSS SECTIONS







HWY. 285-SITE 1
STA. 153+00.00 TO STA. 154+03.00

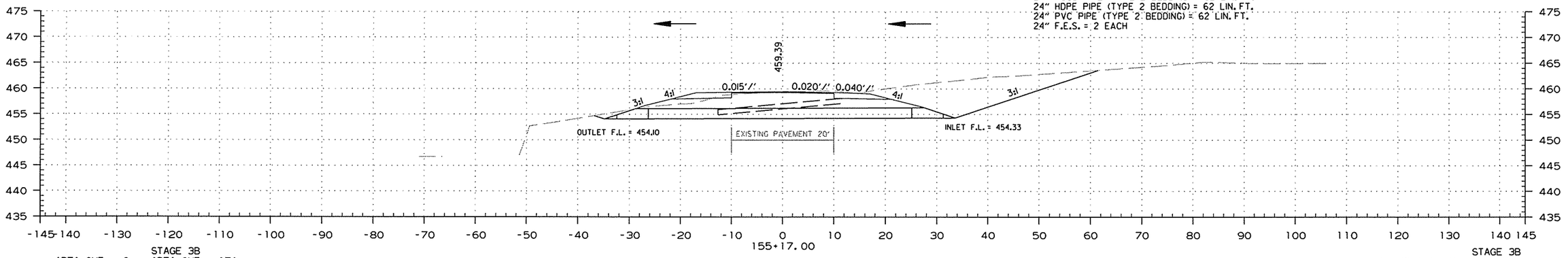
12/4/2015

R080426.DGN

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		080426	150	271

(2) CROSS SECTIONS

STA. 155+17 IN PLACE
12" X 29' C.M. PIPE CULVERT
REMOVE & CONSTRUCT
24" X 52' PIPE CULVERT
W/FES LT. AND RT.
025 = 13 CFS D.A. = 5 ACRES
24" R.C. PIPE (CLASS III) (TYPE 3 BEDDING) = 58 LIN. FT.
24" ACCS PIPE (TYPE 2 BEDDING) = 62 LIN. FT.
24" AICCS PIPE (TYPE 2 BEDDING) = 62 LIN. FT.
24" PCCS PIPE (TYPE 2 BEDDING) = 62 LIN. FT.
24" HDPE PIPE (TYPE 2 BEDDING) = 62 LIN. FT.
24" PVC PIPE (TYPE 2 BEDDING) = 62 LIN. FT.
24" F.E.S. = 2 EACH



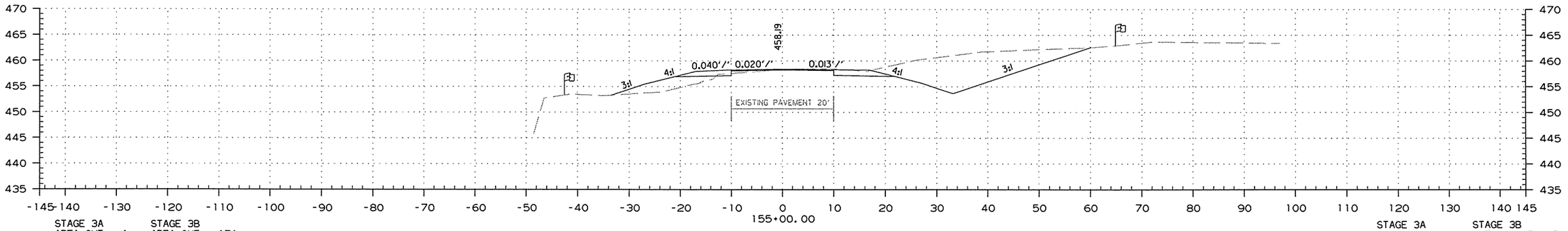
STAGE 3B
AREA CUT 6
AREA FILL 10

STAGE 3B
AREA CUT 174
AREA FILL 0

STAGE 3B
CUT VOLUME 2
FILL VOLUME 12

STAGE 3B
CUT VOLUME 110
FILL VOLUME 0

STA. 155+10.24
BEGIN AND END SUPERELEVATION



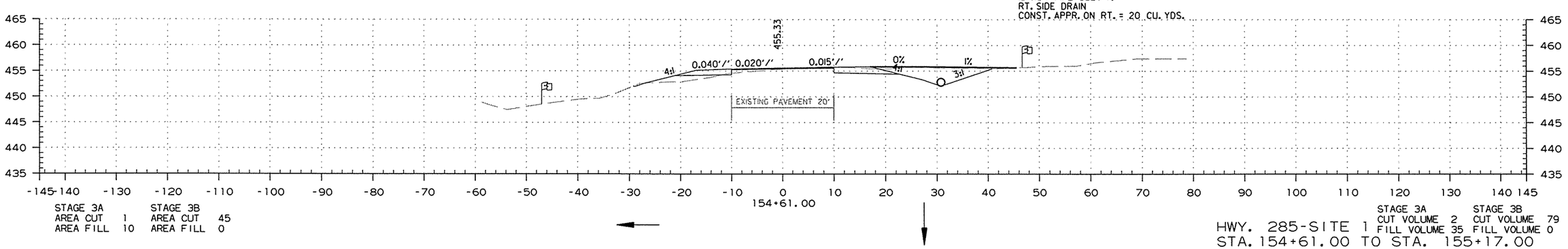
STAGE 3A
AREA CUT 1
AREA FILL 30

STAGE 3B
AREA CUT 174
AREA FILL 0

STAGE 3A
CUT VOLUME 1
FILL VOLUME 29

STAGE 3B
CUT VOLUME 158
FILL VOLUME 0

STA. 154+61 INSTALL
18"x34' PIPE CULV'T.
RT. SIDE DRAIN
CONST. APPR. ON RT. = 20 CU. YDS.



STAGE 3A
AREA CUT 1
AREA FILL 10

STAGE 3B
AREA CUT 45
AREA FILL 0

STAGE 3A
CUT VOLUME 2
FILL VOLUME 35

STAGE 3B
CUT VOLUME 79
FILL VOLUME 0

HWY. 285-SITE 1
STA. 154+61.00 TO STA. 155+17.00

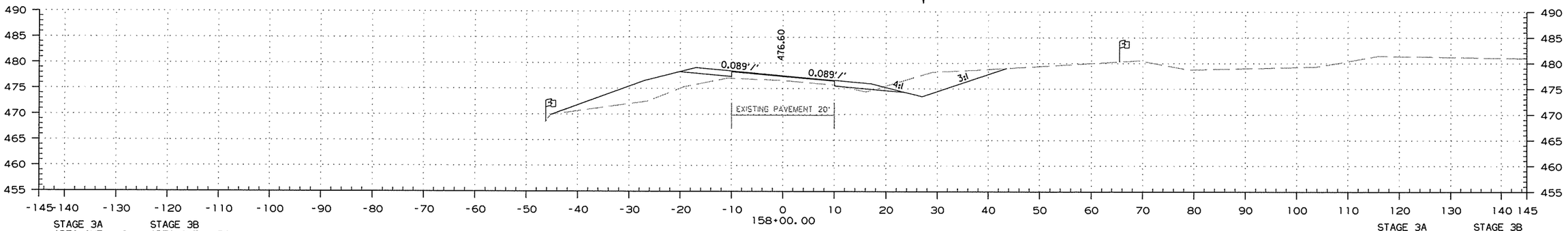
12/4/2015

R080426.DGN

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		080426	151	271

(2) CROSS SECTIONS

STA. 158+86.39
MAX SUPERELEVATION



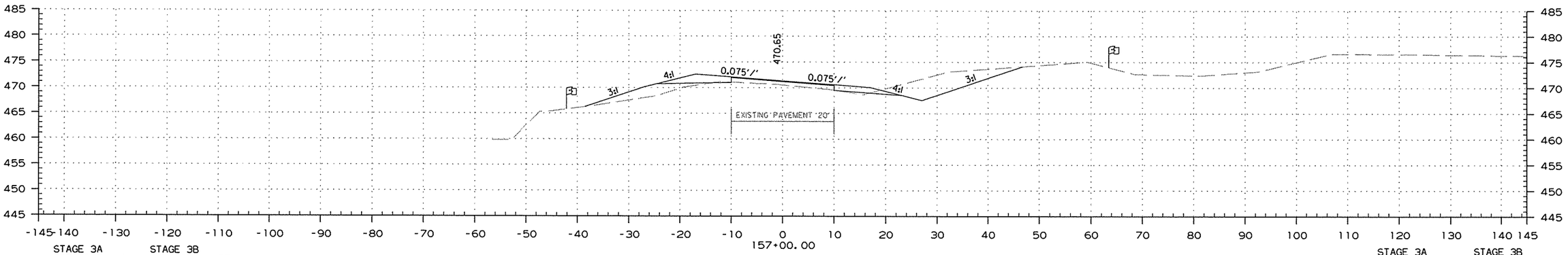
STAGE 3A
AREA CUT 0
AREA FILL 77

STAGE 3B
AREA CUT 56
AREA FILL 2

STAGE 3A
CUT VOLUME 1
FILL VOLUME 71

STAGE 3B
CUT VOLUME 228
FILL VOLUME 6

STA. 157+36.95
MAX SUPERELEVATION

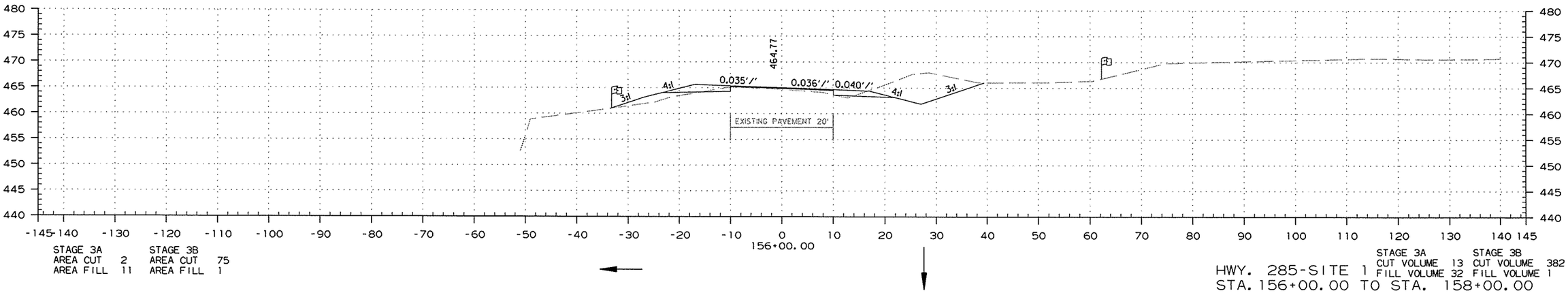


STAGE 3A
AREA CUT 1
AREA FILL 23

STAGE 3B
AREA CUT 67
AREA FILL 1

STAGE 3A
CUT VOLUME 6
FILL VOLUME 64

STAGE 3B
CUT VOLUME 263
FILL VOLUME 4



STAGE 3A
AREA CUT 2
AREA FILL 11

STAGE 3B
AREA CUT 75
AREA FILL 1

STAGE 3A
CUT VOLUME 13
FILL VOLUME 32

STAGE 3B
CUT VOLUME 382
FILL VOLUME 1

HWY. 285-SITE 1
STA. 156+00.00 TO STA. 158+00.00

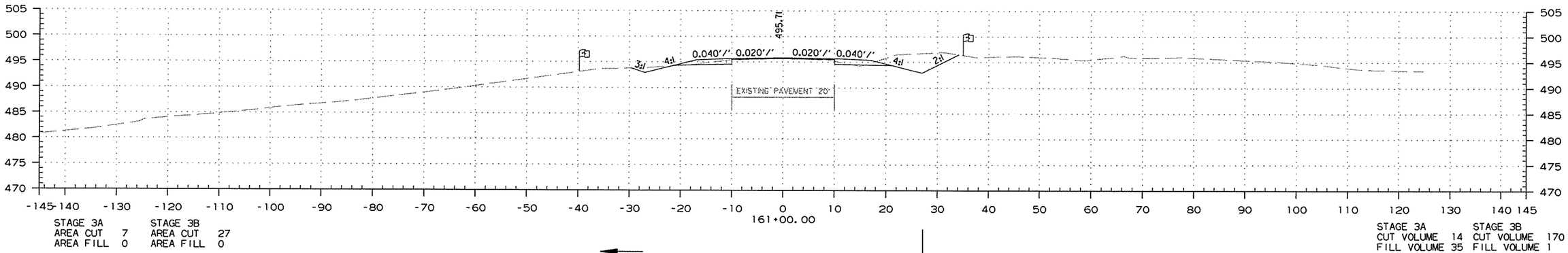
12/4/2015

R080426.DGN

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		080426	152	271

(2) CROSS SECTIONS

STA. 161+13.10
END SUPERELEVATION

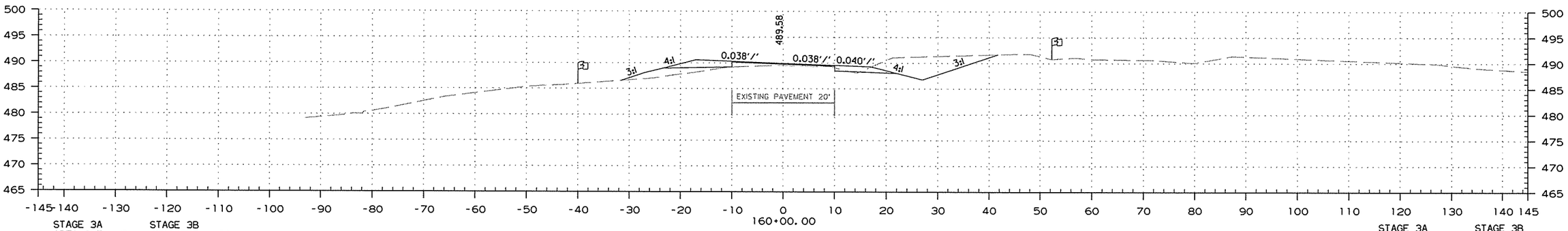


STAGE 3A
AREA CUT 7
AREA FILL 0

STAGE 3B
AREA CUT 27
AREA FILL 0

STAGE 3A
CUT VOLUME 14
FILL VOLUME 35

STAGE 3B
CUT VOLUME 170
FILL VOLUME 1

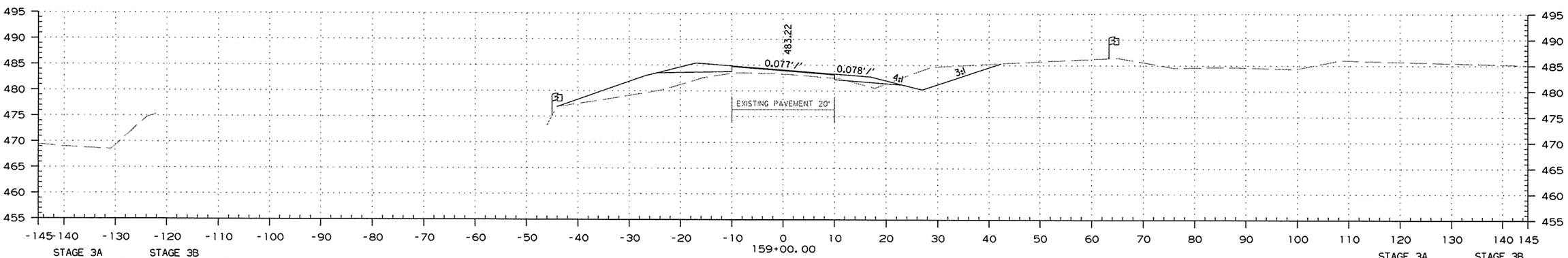


STAGE 3A
AREA CUT 0
AREA FILL 19

STAGE 3B
AREA CUT 64
AREA FILL 0

STAGE 3A
CUT VOLUME 0
FILL VOLUME 143

STAGE 3B
CUT VOLUME 203
FILL VOLUME 8



STAGE 3A
AREA CUT 0
AREA FILL 58

STAGE 3B
AREA CUT 45
AREA FILL 4

STAGE 3A
CUT VOLUME 0
FILL VOLUME 250

STAGE 3B
CUT VOLUME 187
FILL VOLUME 11

HWY. 285-SITE 1
STA. 159+00.00 TO STA. 161+00.00

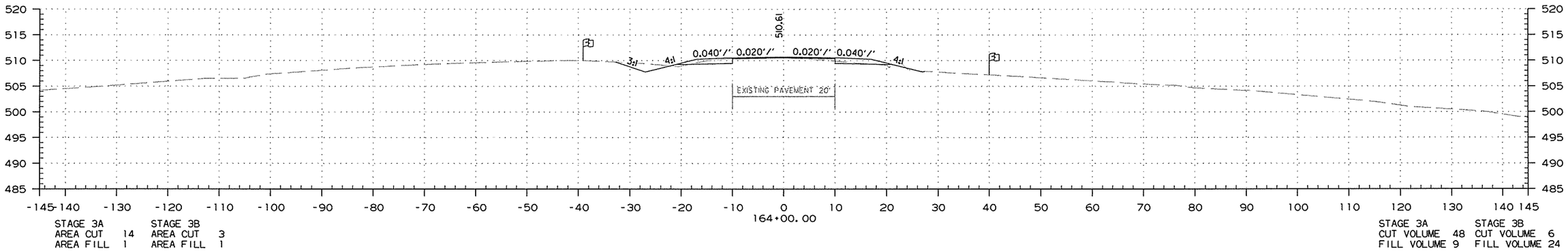
12/4/2015

R080426.DGN

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		080426	153	271

(2) CROSS SECTIONS

STA. 164+30.93
BEGIN SUPERELEVATION

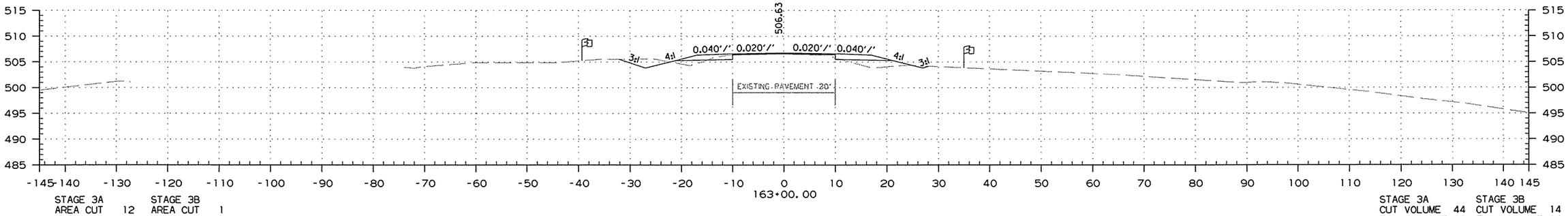


STAGE 3A
AREA CUT 14
AREA FILL 1

STAGE 3B
AREA CUT 3
AREA FILL 1

STAGE 3A
CUT VOLUME 48
FILL VOLUME 9

STAGE 3B
CUT VOLUME 6
FILL VOLUME 24

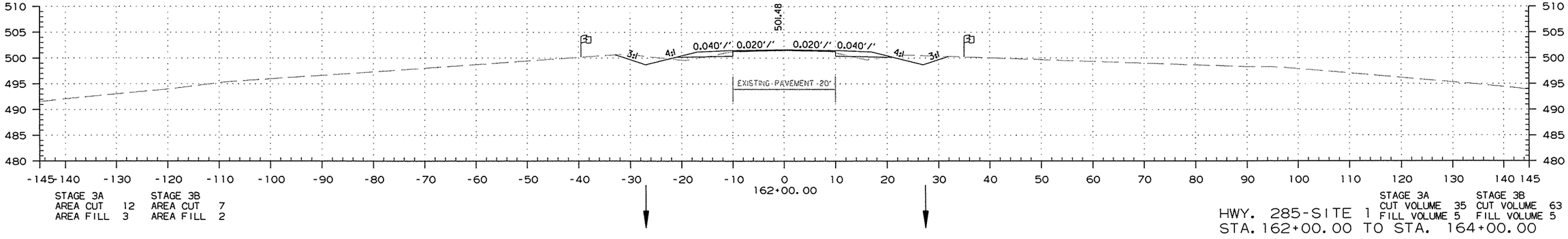


STAGE 3A
AREA CUT 12
AREA FILL 4

STAGE 3B
AREA CUT 1
AREA FILL 12

STAGE 3A
CUT VOLUME 44
FILL VOLUME 13

STAGE 3B
CUT VOLUME 14
FILL VOLUME 26



STAGE 3A
AREA CUT 12
AREA FILL 3

STAGE 3B
AREA CUT 7
AREA FILL 2

STAGE 3A
CUT VOLUME 35
FILL VOLUME 5

STAGE 3B
CUT VOLUME 63
FILL VOLUME 5

HWY. 285-SITE 1
STA. 162+00.00 TO STA. 164+00.00

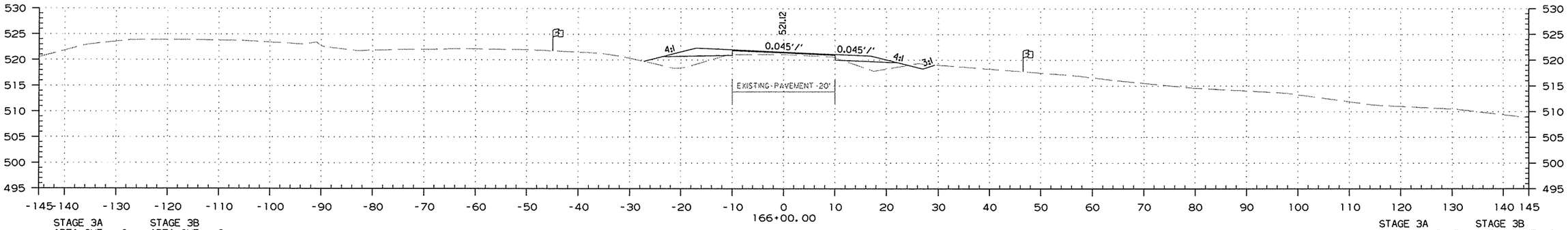
12/4/2015

R080426.DGN

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		080426	154	271

(2) CROSS SECTIONS

STA. 166+30.93
MAX SUPERELEVATION

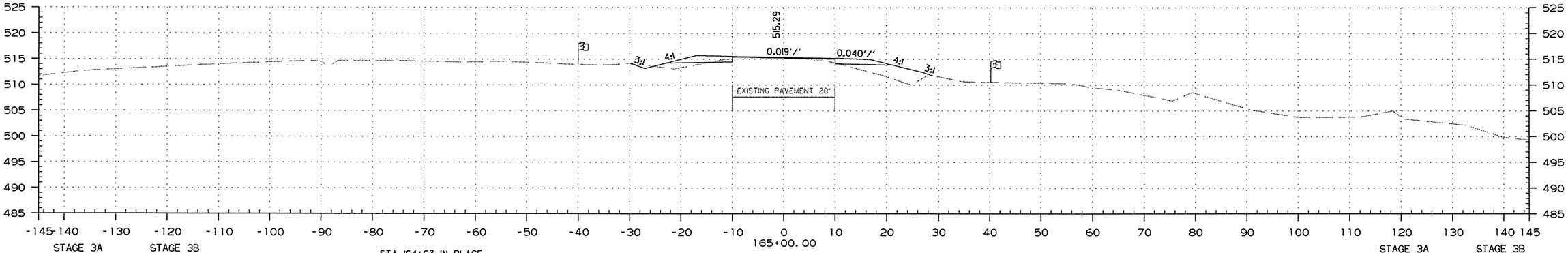


STAGE 3A
AREA CUT 0
AREA FILL 21

STAGE 3B
AREA CUT 3
AREA FILL 13

STAGE 3A
CUT VOLUME 5
FILL VOLUME 52

STAGE 3B
CUT VOLUME 6
FILL VOLUME 77



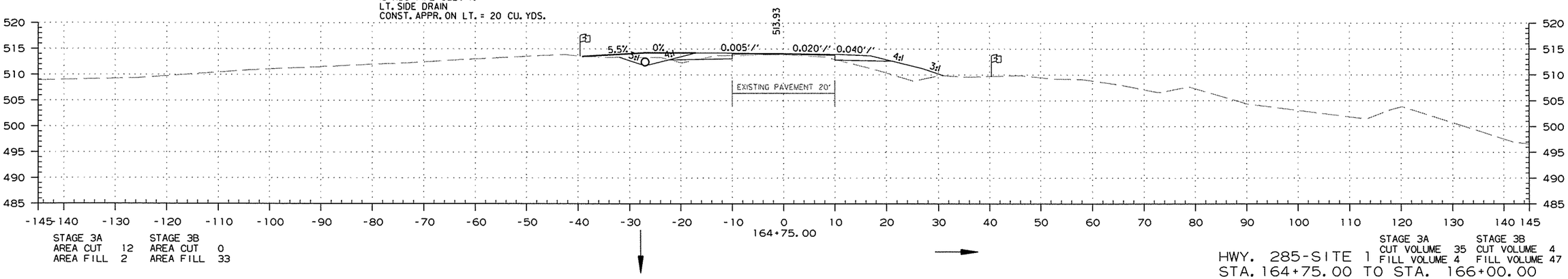
STAGE 3A
AREA CUT 3
AREA FILL 7

STAGE 3B
AREA CUT 0
AREA FILL 29

STA. 164+63 IN PLACE
12"x24' C.M. PIPE CULV'T.
LT. SIDE DRAIN
REMOVE AND INSTALL AT STA. 164+75
18"x30' PIPE CULV'T.
LT. SIDE DRAIN
CONST. APPR. ON LT. = 20 CU. YDS.

STAGE 3A
CUT VOLUME 7
FILL VOLUME 4

STAGE 3B
CUT VOLUME 0
FILL VOLUME 29



STAGE 3A
AREA CUT 12
AREA FILL 2

STAGE 3B
AREA CUT 0
AREA FILL 33

STAGE 3A
CUT VOLUME 35
FILL VOLUME 4

STAGE 3B
CUT VOLUME 4
FILL VOLUME 47

HWY. 285-SITE 1
STA. 164+75.00 TO STA. 166+00.00

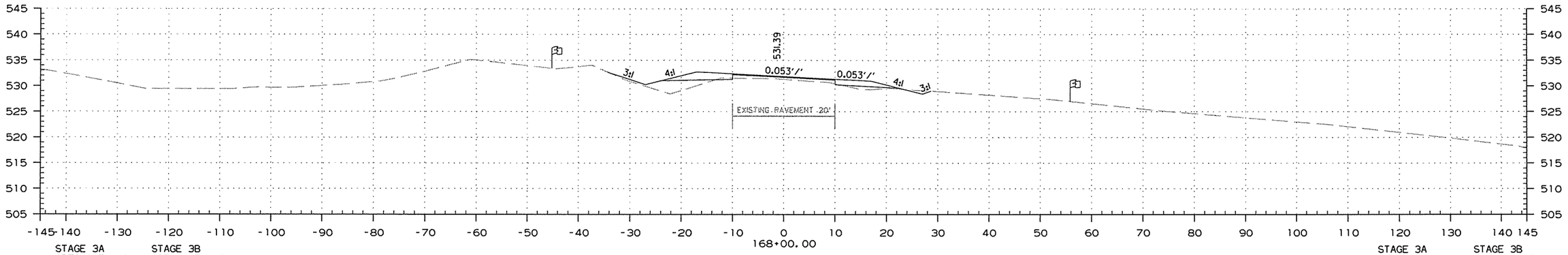
12/4/2015

R080426.DGN

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		080426	155	271

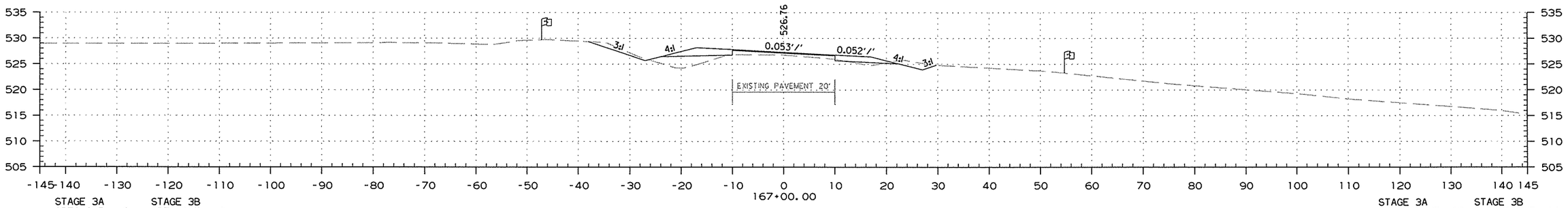
(2) CROSS SECTIONS

STA. 168+82.82
MAX SUPERELEVATION



STAGE 3A AREA CUT 1 AREA FILL 21
STAGE 3B AREA CUT 2 AREA FILL 4

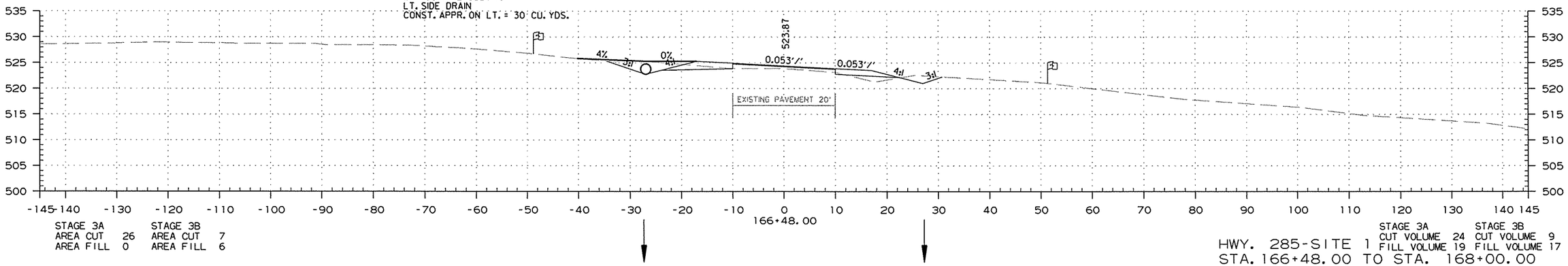
STAGE 3A CUT VOLUME 13 FILL VOLUME 77
STAGE 3B CUT VOLUME 18 FILL VOLUME 12



STAGE 3A AREA CUT 6 AREA FILL 20
STAGE 3B AREA CUT 8 AREA FILL 2

STAGE 3A CUT VOLUME 32 FILL VOLUME 20
STAGE 3B CUT VOLUME 14 FILL VOLUME 8

STA. 166+50 IN PLACE
24"x30' PLASTIC PIPE CULV'T.
LT. SIDE DRAIN
REMOVE AND INSTALL AT STA. 166+48
24"x38' PIPE CULV'T.
LT. SIDE DRAIN
CONST. APPR. ON LT. = 30 CU. YDS.



STAGE 3A AREA CUT 26 AREA FILL 0
STAGE 3B AREA CUT 7 AREA FILL 6

STAGE 3A CUT VOLUME 24 FILL VOLUME 19
STAGE 3B CUT VOLUME 9 FILL VOLUME 17

HWY. 285-SITE 1
STA. 166+48.00 TO STA. 168+00.00

12/4/2015

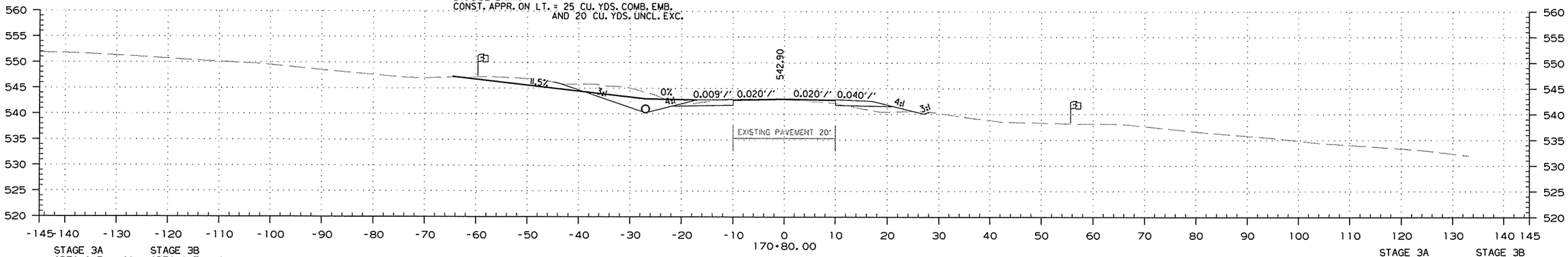
R080426.DGN

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		080426	156	271

(2) CROSS SECTIONS

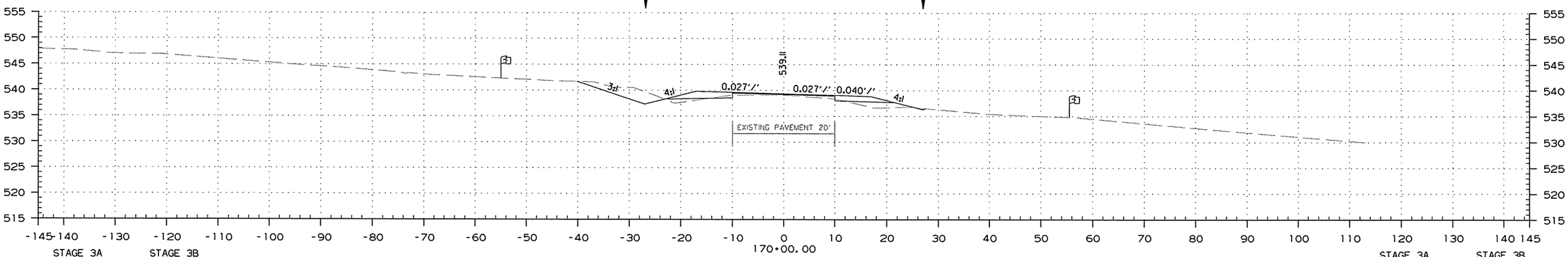
STA. 170+80 INSTALL
18"x34' PIPE CULV'T.
LT. SIDE DRAIN
CONST. APPR. ON LT. = 25 CU. YDS. COMB. EMB.
AND 20 CU. YDS. UNCL. EXC.

STA. 170+82.82
BEGIN AND END SUPERELEVATION



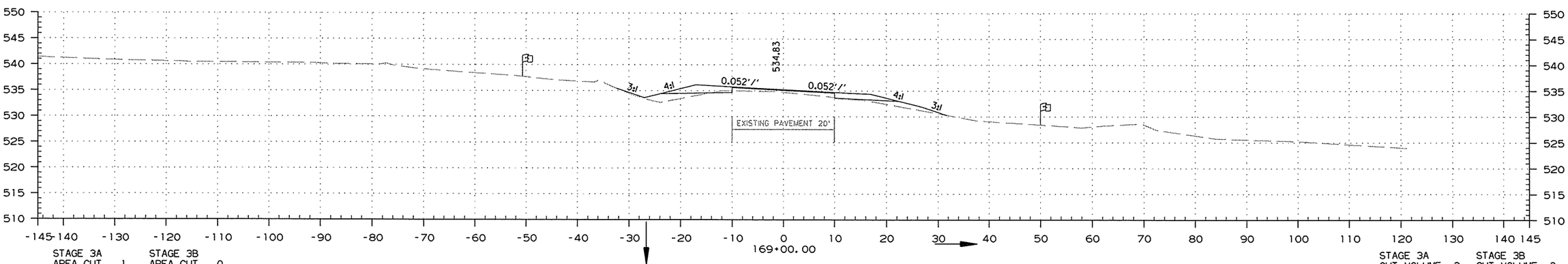
STAGE 3A: AREA CUT 60, AREA FILL 0
STAGE 3B: AREA CUT 1, AREA FILL 9

STAGE 3A: CUT VOLUME 125, FILL VOLUME 6
STAGE 3B: CUT VOLUME 2, FILL VOLUME 27



STAGE 3A: AREA CUT 24, AREA FILL 4
STAGE 3B: AREA CUT 1, AREA FILL 10

STAGE 3A: CUT VOLUME 47, FILL VOLUME 29
STAGE 3B: CUT VOLUME 1, FILL VOLUME 37



STAGE 3A: AREA CUT 1, AREA FILL 12
STAGE 3B: AREA CUT 0, AREA FILL 11

STAGE 3A: CUT VOLUME 3, FILL VOLUME 62
STAGE 3B: CUT VOLUME 3, FILL VOLUME 27

HWY. 285-SITE 1
STA. 169+00.00 TO STA. 170+80.00

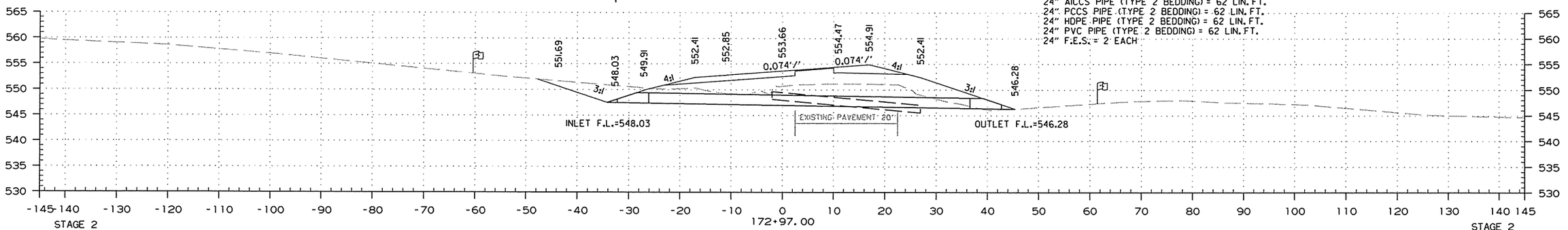
12/4/2015

R080426.DGN

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		080426	157	271

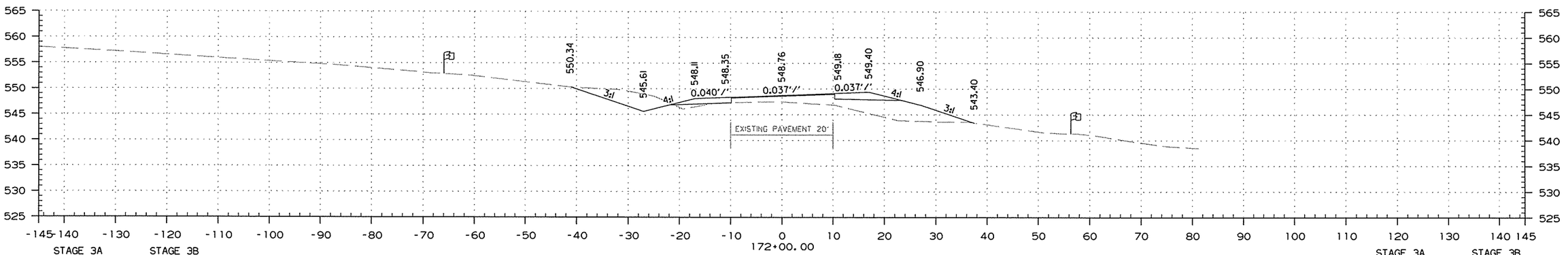
(2) CROSS SECTIONS

STA. 172+97 IN PLACE
18" X 29' R.C. PIPE CULVERT
REMOVE & CONSTRUCT
24" PIPE CULVERT
W/FES LT. AND RT.
AND DITCH CHECK
Q25 = 3 CFS D.A. = 1 ACRES
24" R.C. PIPE (CLASS III) (TYPE 3 BEDDING) = 68 LIN. FT.
24" ACCS PIPE (TYPE 2 BEDDING) = 62 LIN. FT.
24" AICCS PIPE (TYPE 2 BEDDING) = 62 LIN. FT.
24" PCCS PIPE (TYPE 2 BEDDING) = 62 LIN. FT.
24" HDPE PIPE (TYPE 2 BEDDING) = 62 LIN. FT.
24" PVC PIPE (TYPE 2 BEDDING) = 62 LIN. FT.
24" F.E.S. = 2 EACH



STAGE 2
AREA CUT 1
AREA FILL 104

STAGE 2
CUT VOLUME 68
FILL VOLUME 308

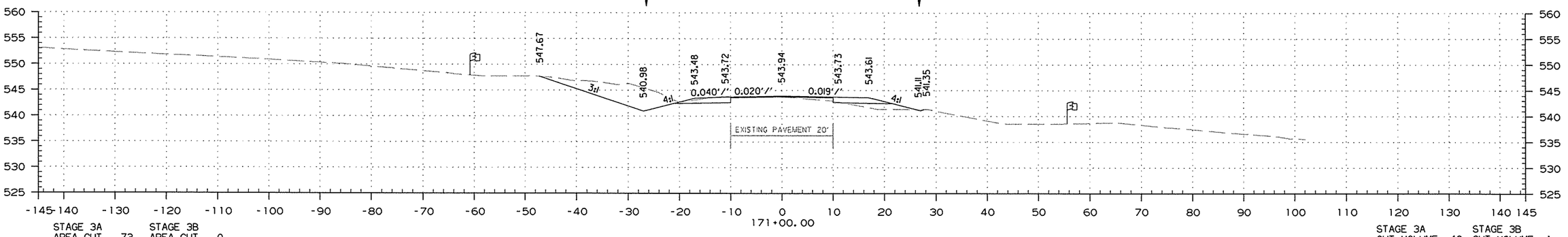


STAGE 3A
AREA CUT 37
AREA FILL 3

STAGE 3B
AREA CUT 0
AREA FILL 64

STAGE 3A
CUT VOLUME 203
FILL VOLUME 6

STAGE 3B
CUT VOLUME 1
FILL VOLUME 136



STAGE 3A
AREA CUT 73
AREA FILL 0

STAGE 3B
AREA CUT 0
AREA FILL 9

STAGE 3A
CUT VOLUME 49
FILL VOLUME 0

STAGE 3B
CUT VOLUME 1
FILL VOLUME 7

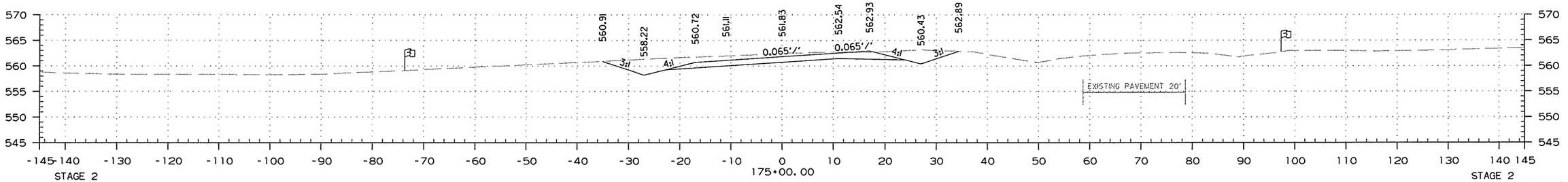
HWY. 285-SITE 1
STA. 171+00.00 TO STA. 172+97.00

12/4/2015

R080426.DGN

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		080426	158	271

(2) CROSS SECTIONS

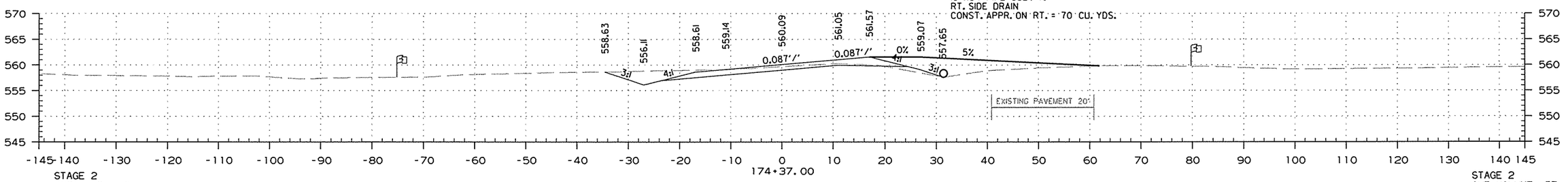


STAGE 2
AREA CUT 121
AREA FILL 0

STAGE 2
CUT VOLUME 204
FILL VOLUME 6

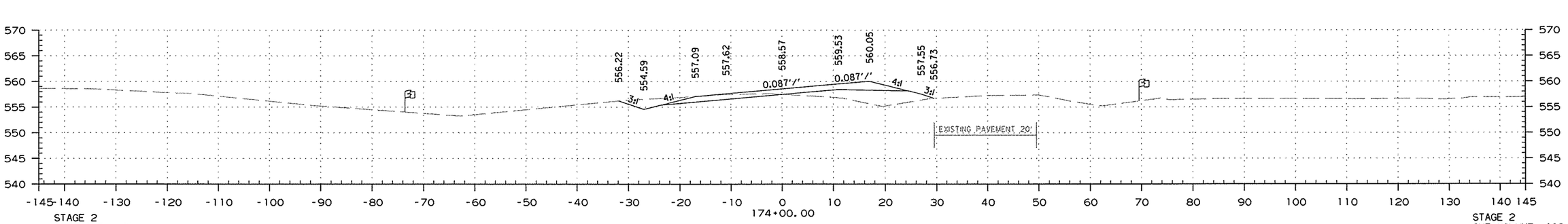
STA. 174+38.44
MAX SUPERELEVATION

STA. 174+55 IN PLACE
12"x24' R.C. PIPE CULV'T.
RT. SIDE DRAIN
REMOVE AND INSTALL AT STA. 174+37
18"x34' PIPE CULV'T.
RT. SIDE DRAIN
CONST. APPR. ON RT. = 70 CU. YDS.



STAGE 2
AREA CUT 53
AREA FILL 5

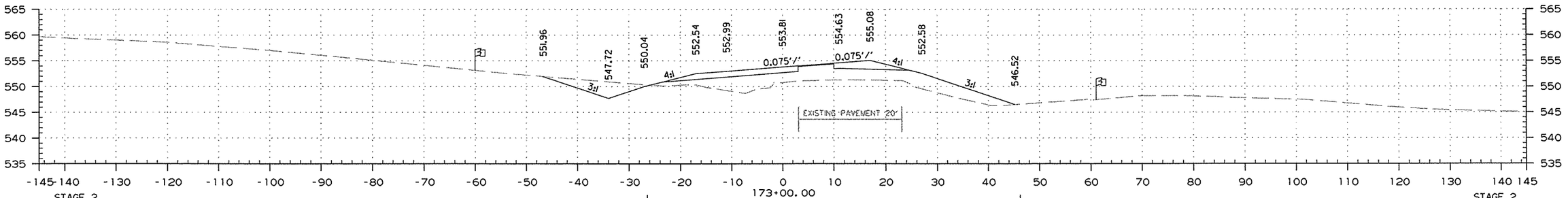
STAGE 2
CUT VOLUME 57
FILL VOLUME 36



STAGE 2
AREA CUT 30
AREA FILL 47

STAGE 2
CUT VOLUME 118
FILL VOLUME 276

STA. 173+32.82
MAX SUPERELEVATION



STAGE 2
AREA CUT 34
AREA FILL 102

STAGE 2
CUT VOLUME 2
FILL VOLUME 11

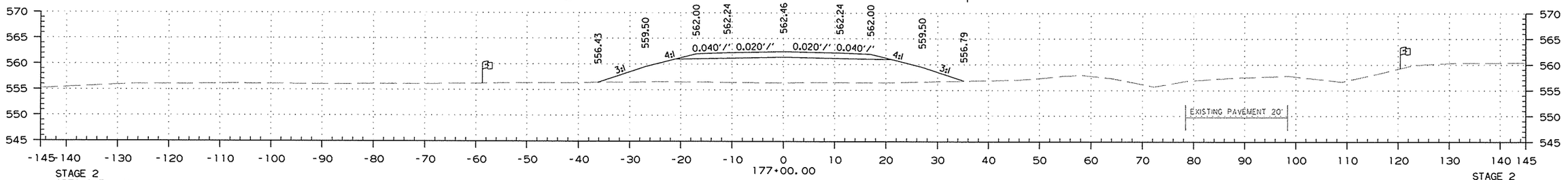
HWY. 285-SITE 1
STA. 173+00.00 TO STA. 175+00.00

12/4/2015

R080426.DGN

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		080426	159	271

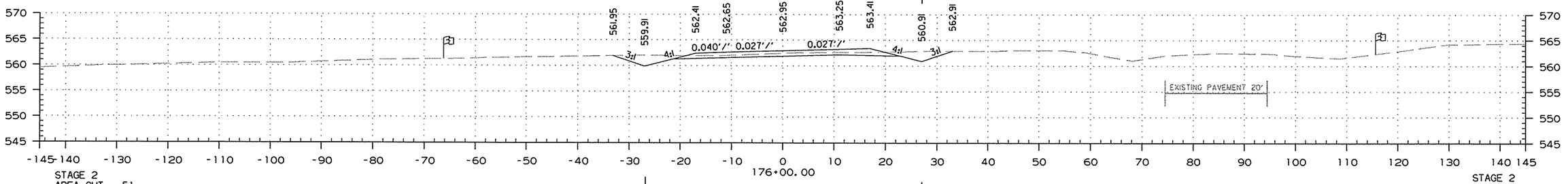
(2) CROSS SECTIONS



STAGE 2
AREA CUT 0
AREA FILL 269

STAGE 2
CUT VOLUME 94
FILL VOLUME 498

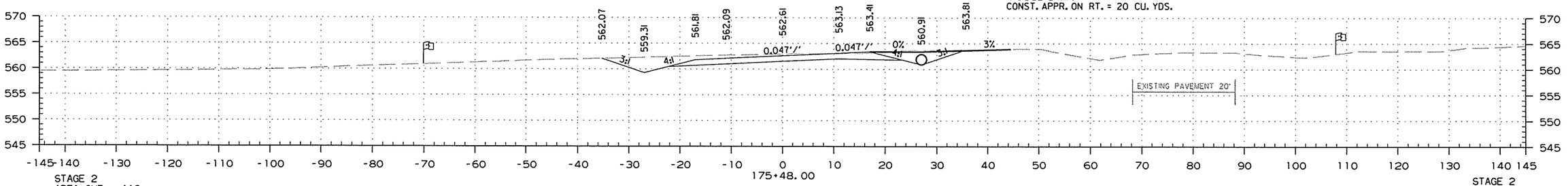
STA. 176+88.44
END SUPERELEVATION



STAGE 2
AREA CUT 51
AREA FILL 0

STAGE 2
CUT VOLUME 156
FILL VOLUME 0

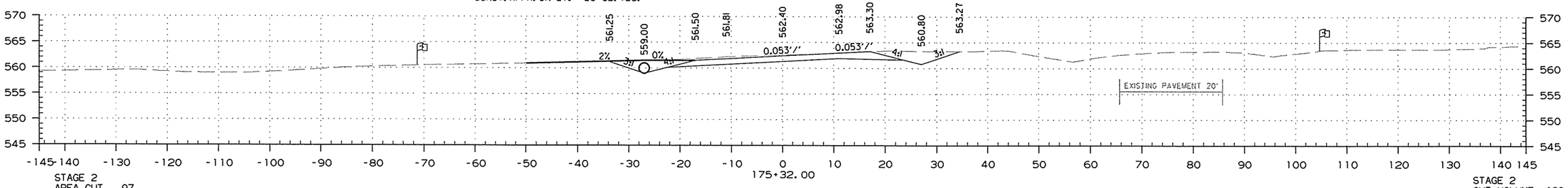
STA. 175+48 INSTALL
24"x42' PIPE CULV'T.
RT. SIDE DRAIN
CONST. APPR. ON RT. = 20 CU. YDS.



STAGE 2
AREA CUT 112
AREA FILL 0

STAGE 2
CUT VOLUME 62
FILL VOLUME 0

STA. 175+32 INSTALL
24"x38' PIPE CULV'T.
LT. SIDE DRAIN
CONST. APPR. ON LT. = 20 CU. YDS.



STAGE 2
AREA CUT 97
AREA FILL 0

STAGE 2
CUT VOLUME 129
FILL VOLUME 0

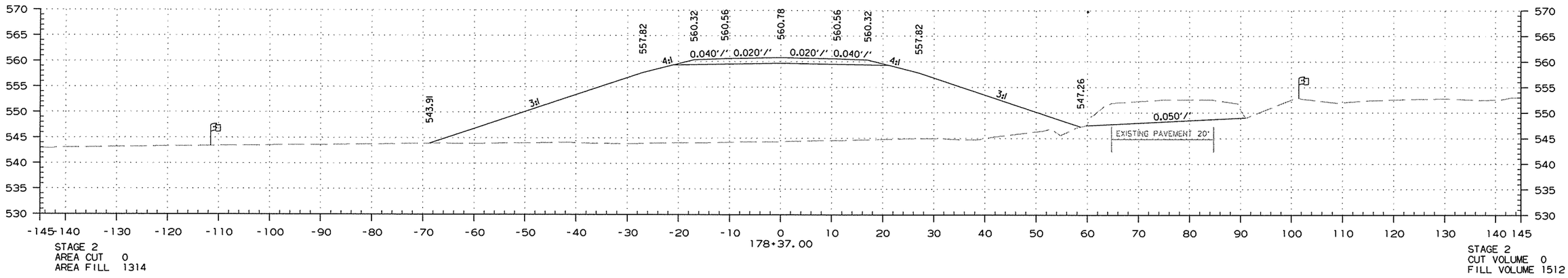
HWY. 285-SITE 1
STA. 175+32.00 TO STA. 177+00.00

12/4/2015

R080426.DGN

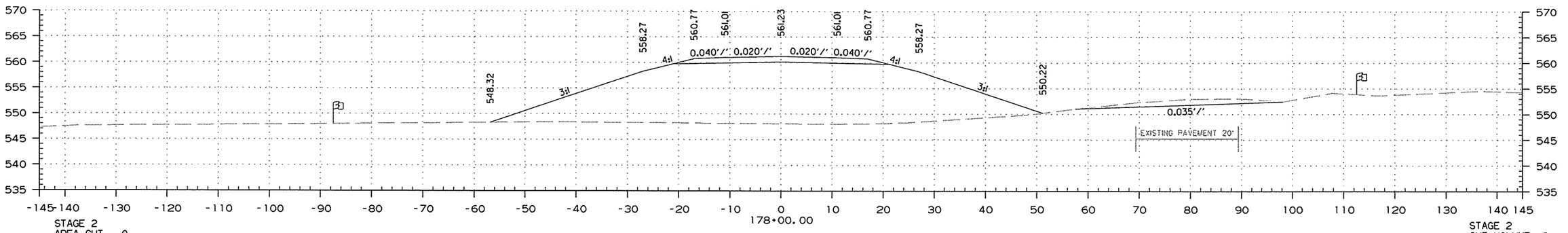
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		080426	160	271

(2) CROSS SECTIONS



STAGE 2
AREA CUT 0
AREA FILL 1314

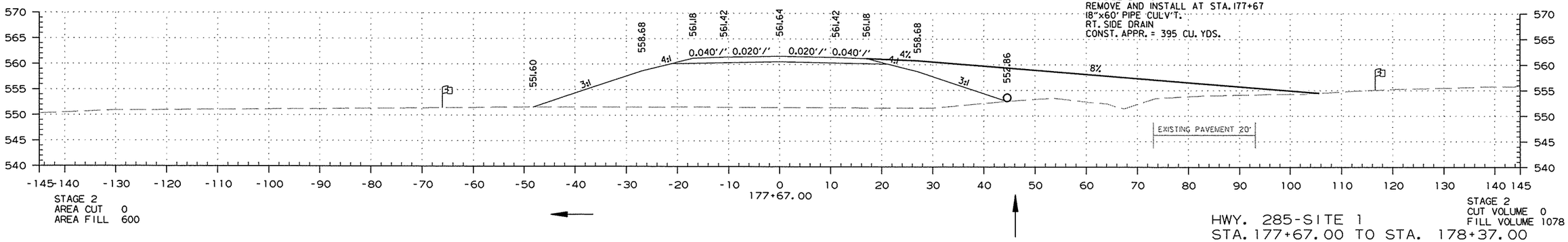
STAGE 2
CUT VOLUME 0
FILL VOLUME 1512



STAGE 2
AREA CUT 0
AREA FILL 892

STAGE 2
CUT VOLUME 0
FILL VOLUME 912

STA. 177+84 IN PLACE
12"x24' C.M. PIPE CULV'T.
RT. SIDE DRAIN
REMOVE AND INSTALL AT STA. 177+67
18"x60' PIPE CULV'T.
RT. SIDE DRAIN
CONST. APPR. = 395 CU. YDS.



STAGE 2
AREA CUT 0
AREA FILL 600

STAGE 2
CUT VOLUME 0
FILL VOLUME 1078

HWY. 285-SITE 1
STA. 177+67.00 TO STA. 178+37.00

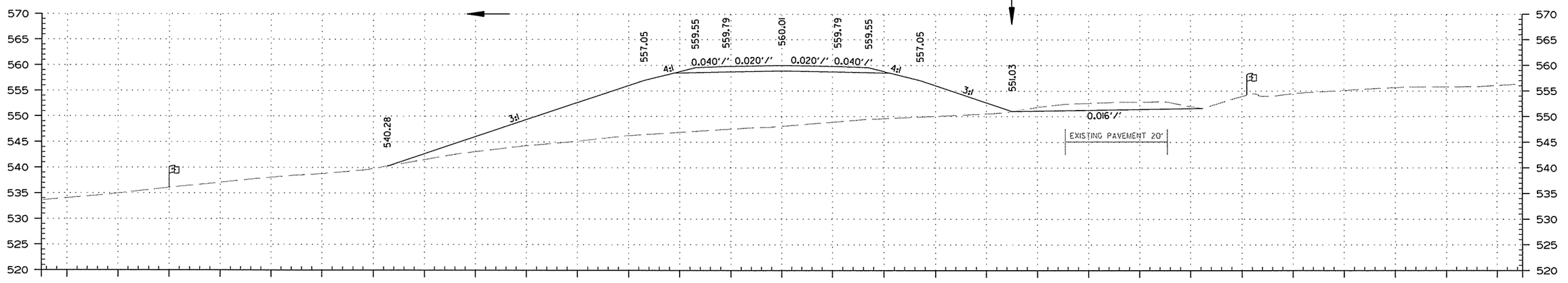
12/4/2015

R080426.DGN

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		080426	161	271

(2) CROSS SECTIONS

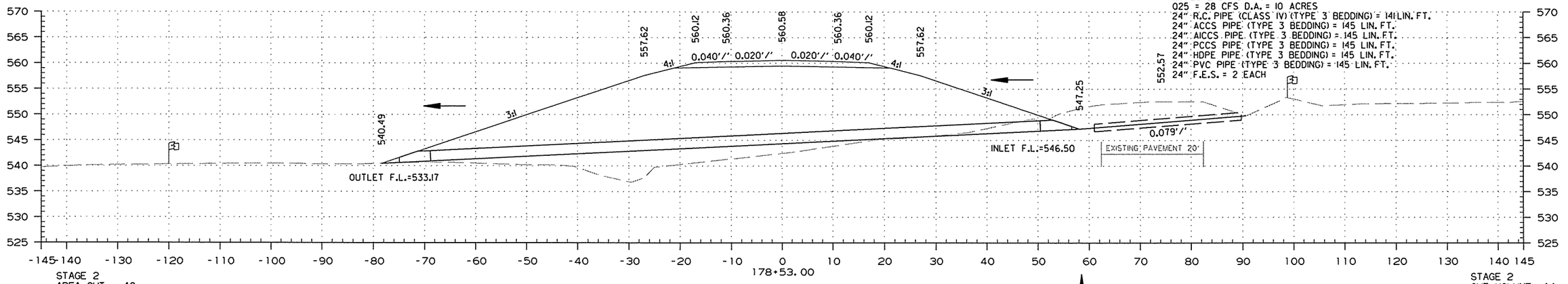
STA. 179+36.84
BEGIN SUPERELEVATION



STAGE 2
AREA CUT 0
AREA FILL 866

STA. 178+53 IN PLACE
18" X 29' C.M. PIPE CULVERT
REMOVE & CONSTRUCT
24" PIPE CULVERT
ON 15° LT. FWD. SKEW
W/FES LT. AND RT.
025 = 28 CFS D.A. = 10 ACRES
24" R.C. PIPE (CLASS IV) (TYPE 3 BEDDING) = 141 LIN. FT.
24" ACCS PIPE (TYPE 3 BEDDING) = 145 LIN. FT.
24" AICCS PIPE (TYPE 3 BEDDING) = 145 LIN. FT.
24" PCCS PIPE (TYPE 3 BEDDING) = 145 LIN. FT.
24" HDPE PIPE (TYPE 3 BEDDING) = 145 LIN. FT.
24" PVC PIPE (TYPE 3 BEDDING) = 145 LIN. FT.
24" F.E.S. = 2 EACH

STAGE 2
CUT VOLUME 42
FILL VOLUME 2076



STAGE 2
AREA CUT 48
AREA FILL 1520

STAGE 2
CUT VOLUME 14
FILL VOLUME 840

HWY. 285-SITE 1
STA. 178+53.00 TO STA. 179+00.00

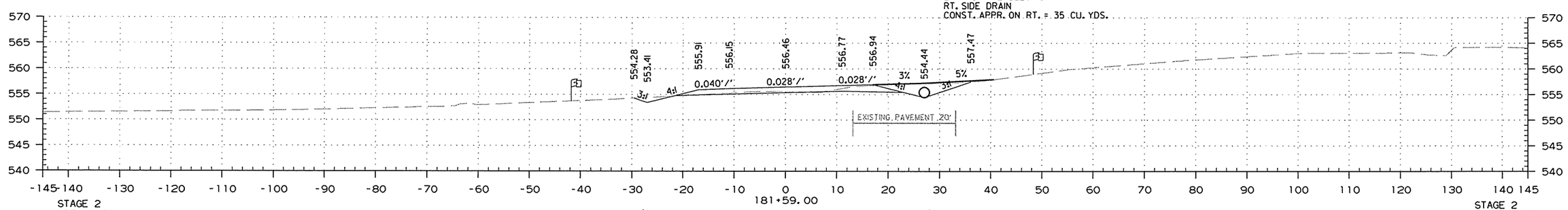
12/4/2015

R080426.DGN

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		080426	162	271

(2) CROSS SECTIONS

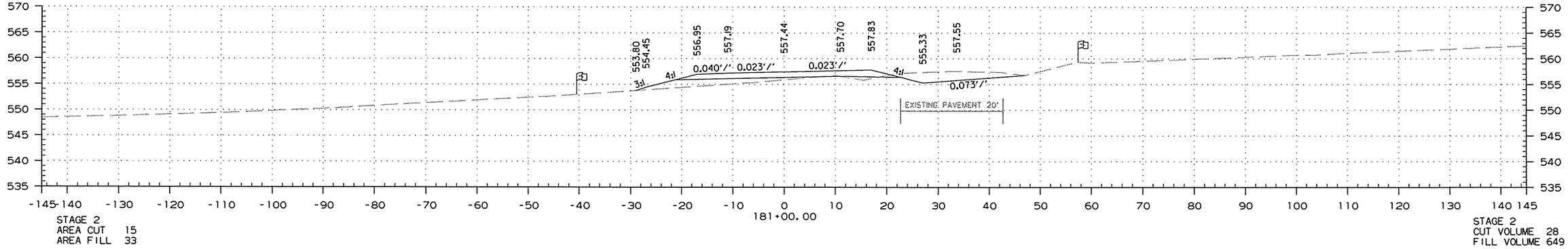
STA. 181+83 IN PLACE
24"x60' C.M. PIPE CULV'T.
RT. SIDE DRAIN
REMOVE AND INSTALL AT STA. 181+59
24"x40' PIPE CULV'T.
RT. SIDE DRAIN
CONST. APPR. ON RT. = 35 CU. YDS.



STAGE 2
AREA CUT 44
AREA FILL 1

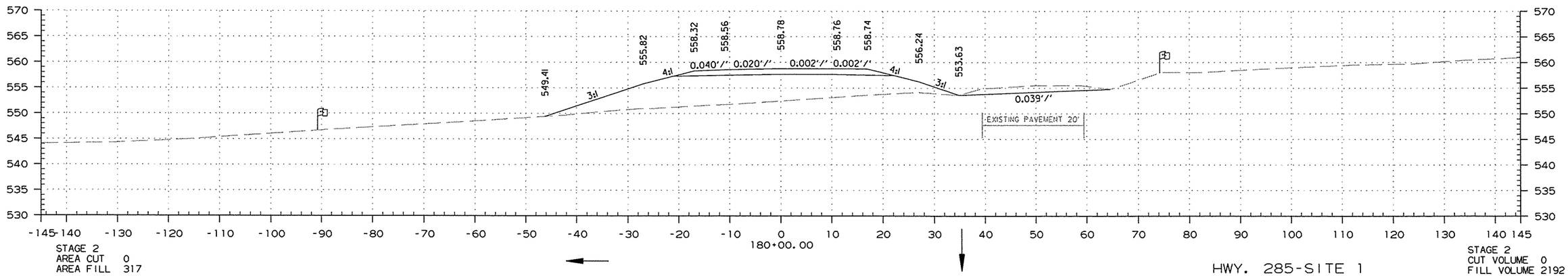
STAGE 2
CUT VOLUME 64
FILL VOLUME 37

STA. 181+36.84
MAX SUPERELEVATION



STAGE 2
AREA CUT 15
AREA FILL 33

STAGE 2
CUT VOLUME 28
FILL VOLUME 649



STAGE 2
AREA CUT 0
AREA FILL 317

STAGE 2
CUT VOLUME 0
FILL VOLUME 2192

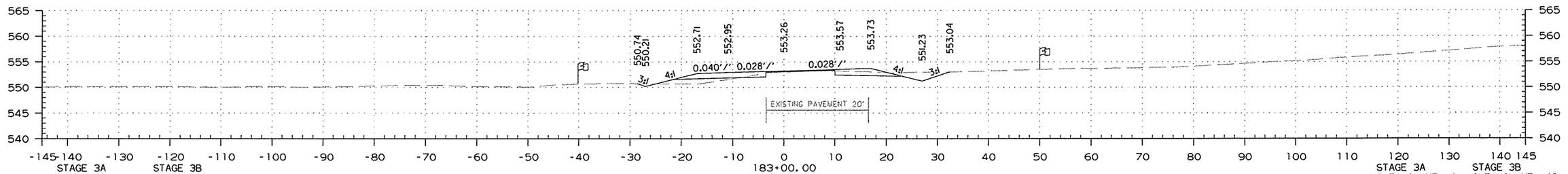
HWY. 285-SITE 1
STA. 180+00.00 TO STA. 181+59.00

12/4/2015

R080426.DGN

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		080426	163	271

(2) CROSS SECTIONS



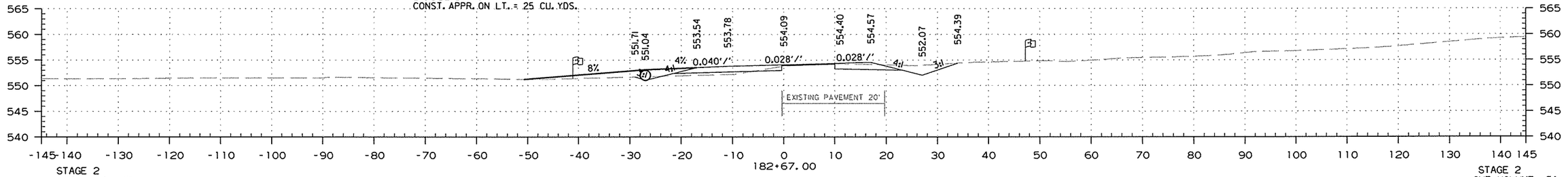
STAGE 3A
AREA CUT 3
AREA FILL 11

STAGE 3B
AREA CUT 25
AREA FILL 0

STA. 183+53 IN PLACE
18"x24' C.M. PIPE CULV'T.
LT. SIDE DRAIN
REMOVE AND INSTALL AT STA. 182+67
24"x28' PIPE CULV'T.
LT. SIDE DRAIN
CONST. APPR. ON LT. = 25 CU. YDS.

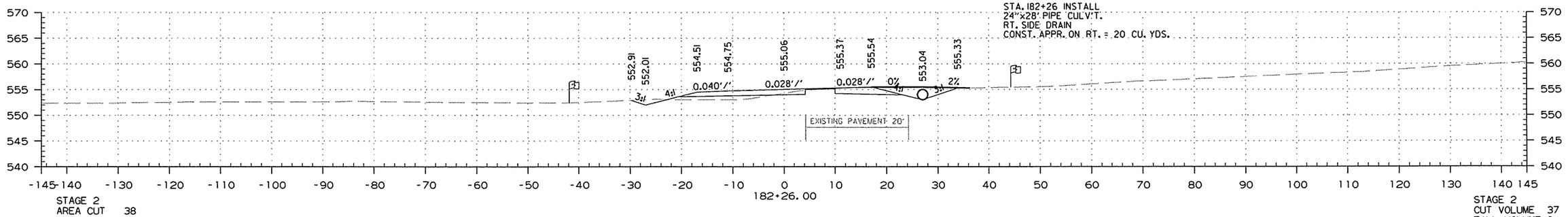
STAGE 3A
CUT VOLUME 4
FILL VOLUME 11

STAGE 3B
CUT VOLUME 43
FILL VOLUME 0



STAGE 2
AREA CUT 29
AREA FILL 8

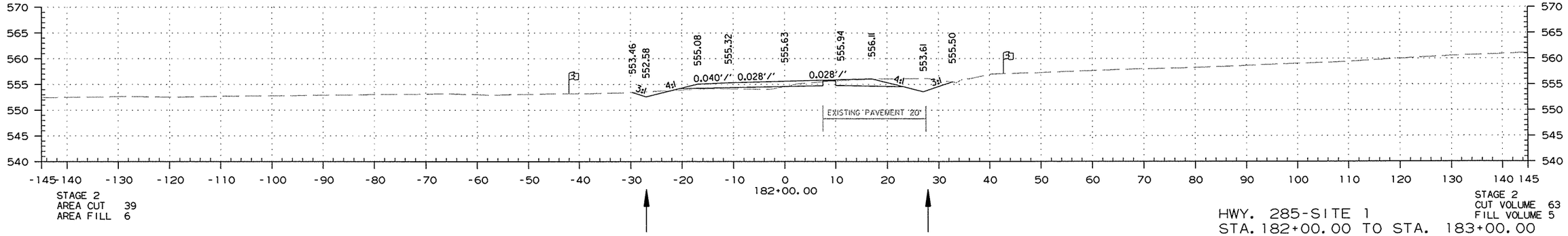
STAGE 2
CUT VOLUME 51
FILL VOLUME 15



STA. 182+26 INSTALL
24"x28' PIPE CULV'T.
RT. SIDE DRAIN
CONST. APPR. ON RT. = 20 CU. YDS.

STAGE 2
AREA CUT 38
AREA FILL 12

STAGE 2
CUT VOLUME 37
FILL VOLUME 9



STAGE 2
AREA CUT 39
AREA FILL 6

STAGE 2
CUT VOLUME 63
FILL VOLUME 5

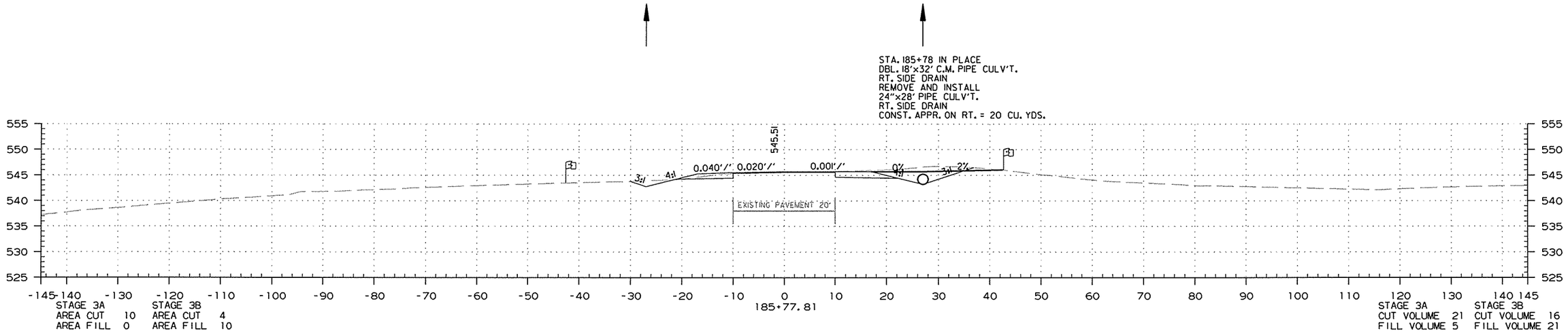
HWY. 285-SITE 1
STA. 182+00.00 TO STA. 183+00.00

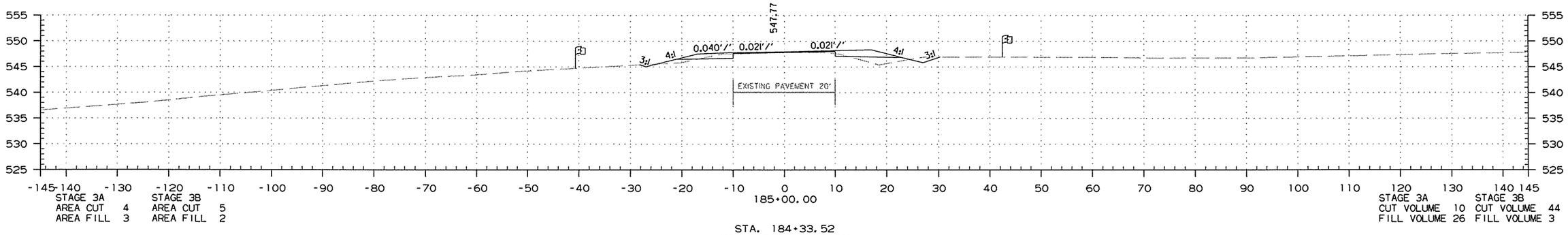
12/4/2015

R080426.DGN

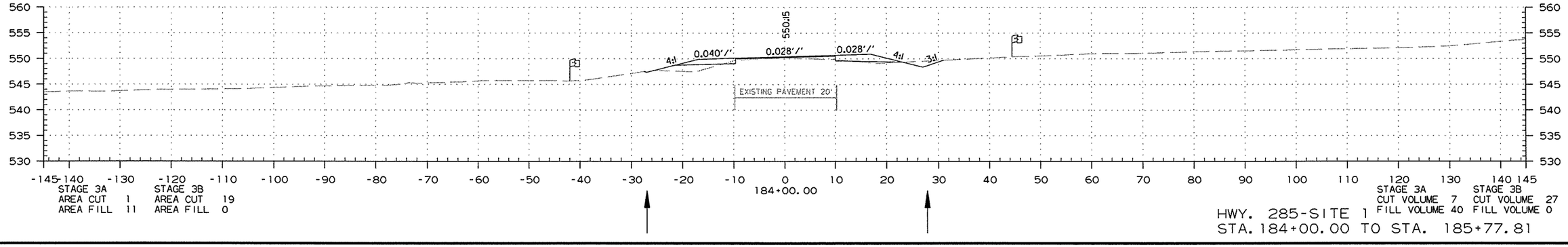
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		080426	164	271

(2) CROSS SECTIONS





STA. 184+33.52
MAX SUPERELEVATION



HWY. 285-SITE 1
STA. 184+00.00 TO STA. 185+77.81

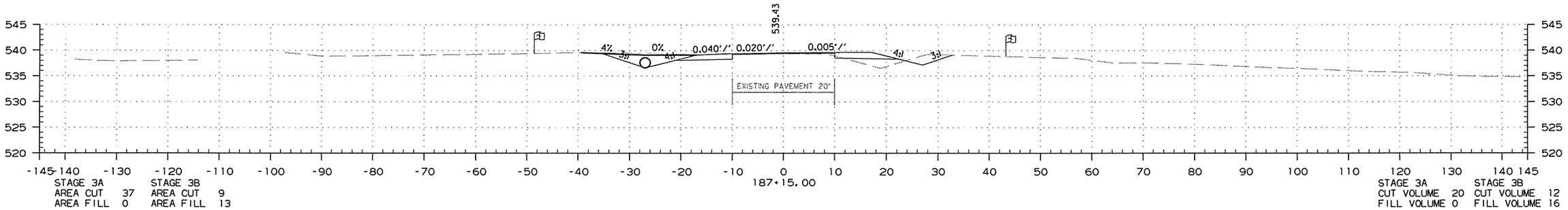
12/4/2015

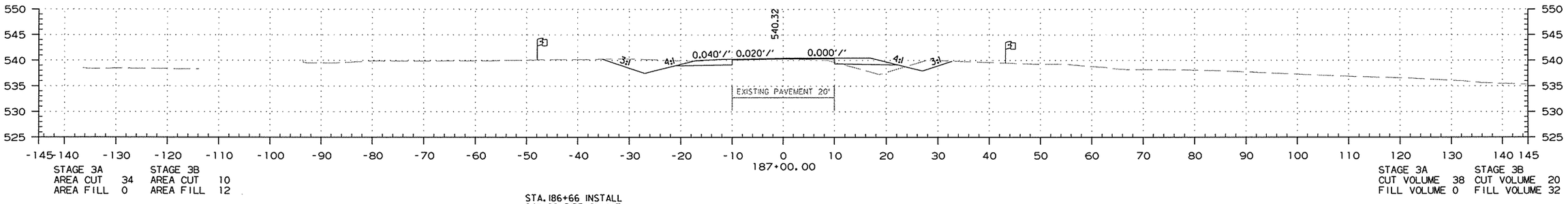
R080426.DGN

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		080426	165	271

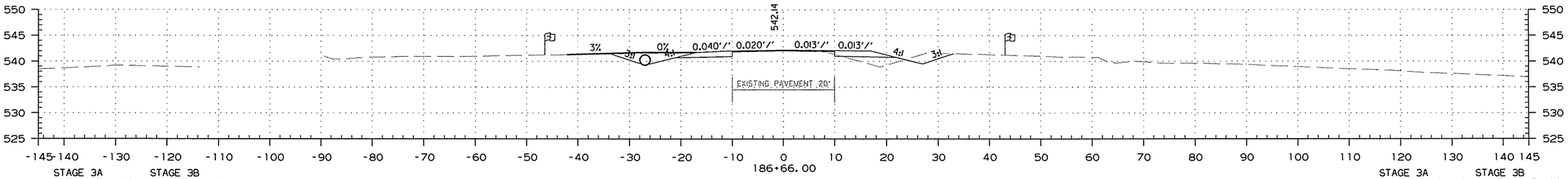
(2) CROSS SECTIONS

STA. 187+15 INSTALL
24"x28' PIPE CULV'T.
LT. SIDE DRAIN
CONST. APPR. = 20 CU. YDS.

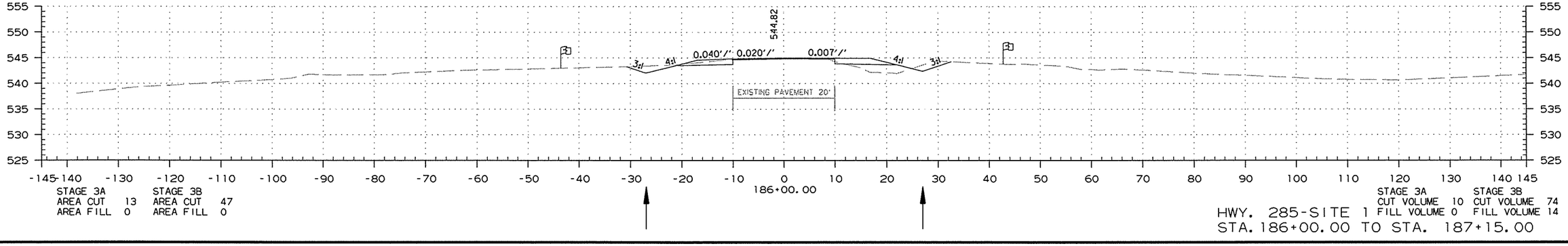




STA. 186+66 INSTALL
24"x28' PIPE CULV'T.
LT. SIDE DRAIN
CONST. APPR. = 20 CU. YDS.



STA. 186+33.52
BEGIN AND END SUPERELEVATION



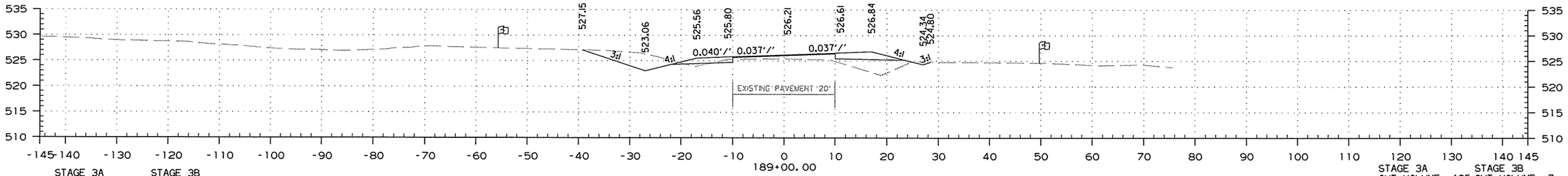
HWY. 285-SITE 1
STA. 186+00.00 TO STA. 187+15.00

12/4/2015

R080426.DGN

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		080426	166	271

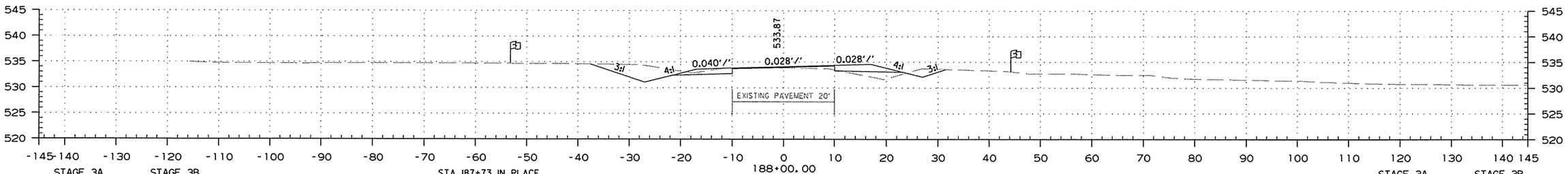
(2) CROSS SECTIONS



STAGE 3A AREA CUT 35 AREA FILL 2
STAGE 3B AREA CUT 6 AREA FILL 10

STA. 188+33.52
BEGIN AND END SUPERELEVATION

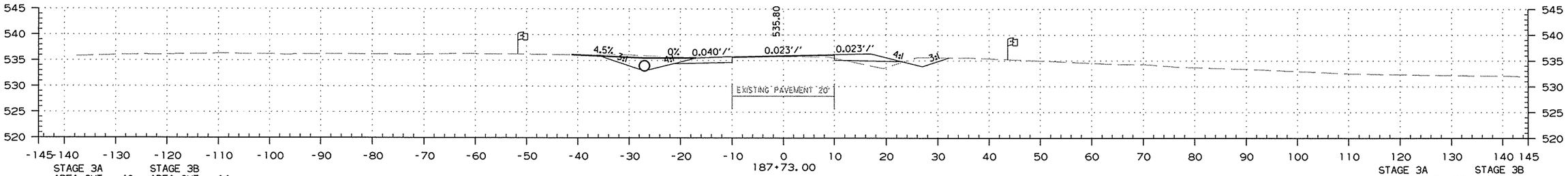
STAGE 3A CUT VOLUME 135 FILL VOLUME 3
STAGE 3B CUT VOLUME 7 FILL VOLUME 9



STAGE 3A AREA CUT 38 AREA FILL 0
STAGE 3B AREA CUT 9 AREA FILL 8

STA. 187+73 IN PLACE
12"x26' C.M. PIPE CULV'T.
LT. SIDE DRAIN
REMOVE AND INSTALL
24"x30' PIPE CULV'T.
LT. SIDE DRAIN
CONST. APPR. ON LT. = 20 CU. YDS.

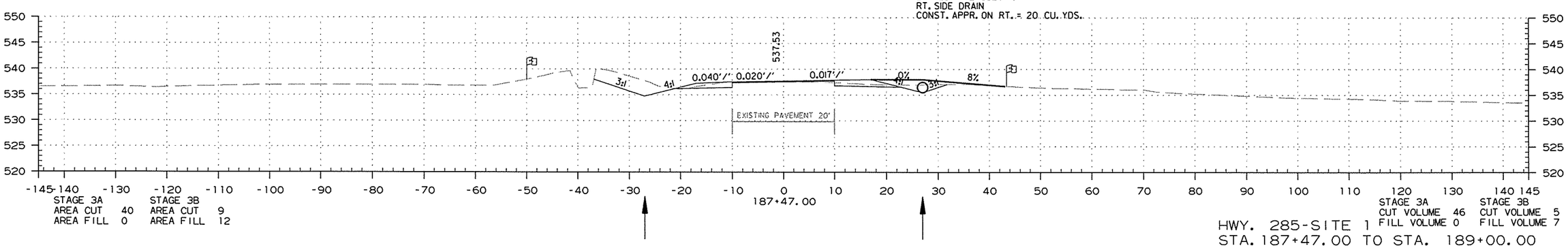
STAGE 3A CUT VOLUME 39 FILL VOLUME 0
STAGE 3B CUT VOLUME 11 FILL VOLUME 4



STAGE 3A AREA CUT 40 AREA FILL 0
STAGE 3B AREA CUT 14 AREA FILL 0

STA. 187+47 IN PLACE
18"x24' C.M. PIPE CULV'T.
RT. SIDE DRAIN
REMOVE AND INSTALL
24"x28' PIPE CULV'T.
RT. SIDE DRAIN
CONST. APPR. ON RT. = 20 CU. YDS.

STAGE 3A CUT VOLUME 39 FILL VOLUME 0
STAGE 3B CUT VOLUME 14 FILL VOLUME 7



STAGE 3A AREA CUT 40 AREA FILL 0
STAGE 3B AREA CUT 9 AREA FILL 12

STAGE 3A CUT VOLUME 46 FILL VOLUME 0
STAGE 3B CUT VOLUME 5 FILL VOLUME 7

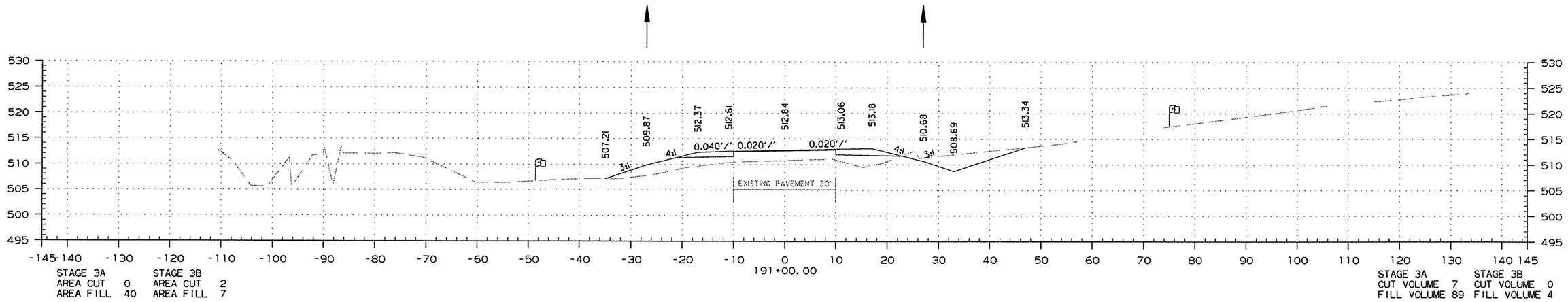
HWY. 285-SITE 1
STA. 187+47.00 TO STA. 189+00.00

12/4/2015

R080426.DGN

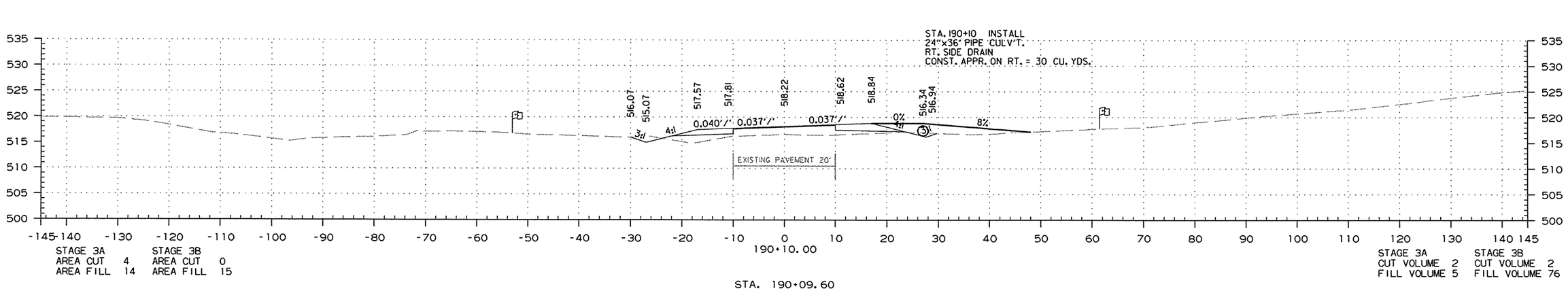
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		080426	167	271

(2) CROSS SECTIONS



STAGE 3A AREA CUT 0 AREA FILL 40
STAGE 3B AREA CUT 2 AREA FILL 7

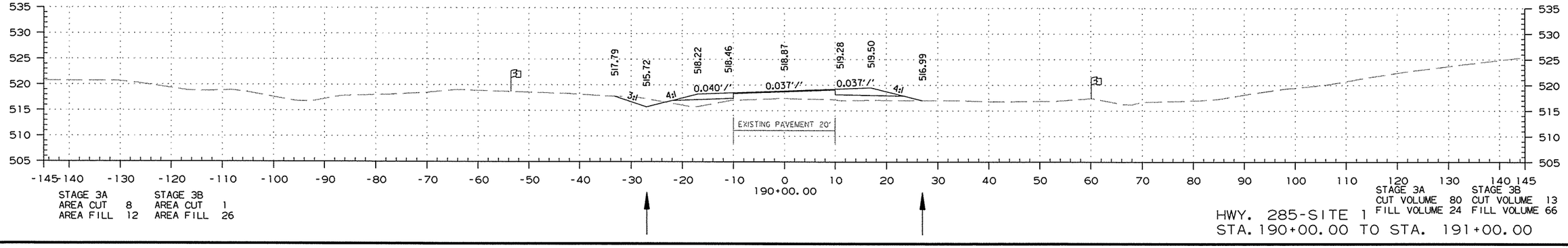
STAGE 3A CUT VOLUME 7 FILL VOLUME 89
STAGE 3B CUT VOLUME 0 FILL VOLUME 4



STAGE 3A AREA CUT 4 AREA FILL 14
STAGE 3B AREA CUT 0 AREA FILL 15

STAGE 3A CUT VOLUME 2 FILL VOLUME 5
STAGE 3B CUT VOLUME 2 FILL VOLUME 76

STA. 190+09.60
MAX SUPERELEVATION



STAGE 3A AREA CUT 8 AREA FILL 12
STAGE 3B AREA CUT 1 AREA FILL 26

STAGE 3A CUT VOLUME 80 FILL VOLUME 24
STAGE 3B CUT VOLUME 13 FILL VOLUME 66

HWY. 285-SITE 1
STA. 190+00.00 TO STA. 191+00.00

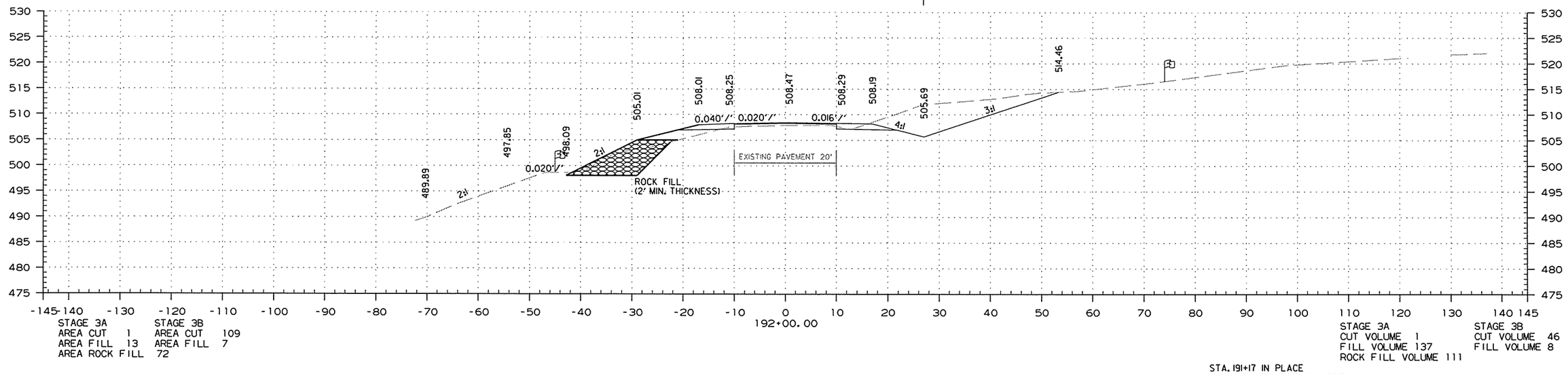
12/4/2015

R080426.DGN

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		080426	168	271

(2) CROSS SECTIONS

STA. 192+09.60
END SUPERELEVATION



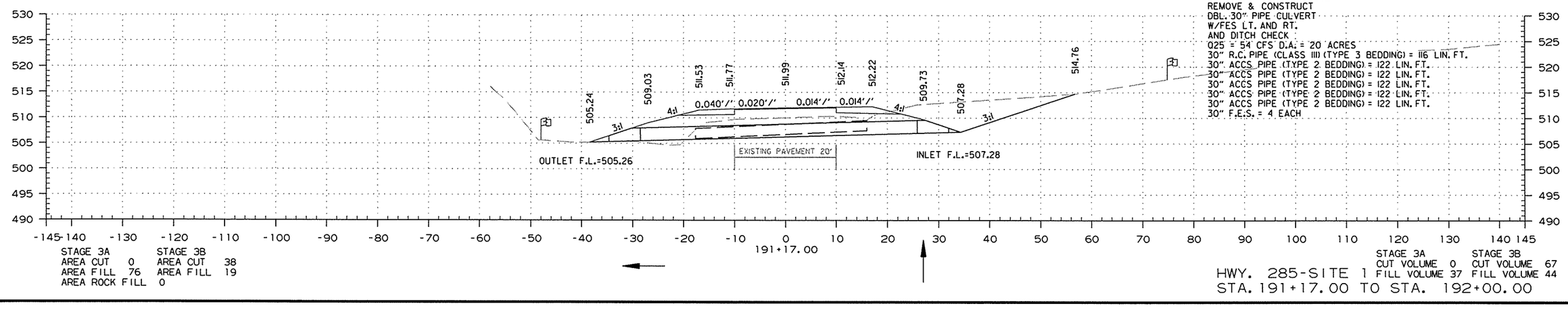
STAGE 3A
AREA CUT 1
AREA FILL 13
AREA ROCK FILL 72

STAGE 3B
AREA CUT 109
AREA FILL 7

STAGE 3A
CUT VOLUME 1
FILL VOLUME 137
ROCK FILL VOLUME 111

STAGE 3B
CUT VOLUME 46
FILL VOLUME 8

STA. 191+17 IN PLACE
24" X 34' R.C. PIPE CULVERT
REMOVE & CONSTRUCT
DBL. 30" PIPE CULVERT
W/FES LT. AND RT.
AND DITCH CHECK
Q25 = 54 CFS D.A. = 20 ACRES
30" R.C. PIPE (CLASS III) (TYPE 3 BEDDING) = 116 LIN. FT.
30" ACCS PIPE (TYPE 2 BEDDING) = 122 LIN. FT.
30" ACCS PIPE (TYPE 2 BEDDING) = 122 LIN. FT.
30" ACCS PIPE (TYPE 2 BEDDING) = 122 LIN. FT.
30" ACCS PIPE (TYPE 2 BEDDING) = 122 LIN. FT.
30" ACCS PIPE (TYPE 2 BEDDING) = 122 LIN. FT.
30" F.E.S. = 4 EACH



STAGE 3A
AREA CUT 0
AREA FILL 76
AREA ROCK FILL 0

STAGE 3B
AREA CUT 38
AREA FILL 19

STAGE 3A
CUT VOLUME 0
FILL VOLUME 37

STAGE 3B
CUT VOLUME 67
FILL VOLUME 44

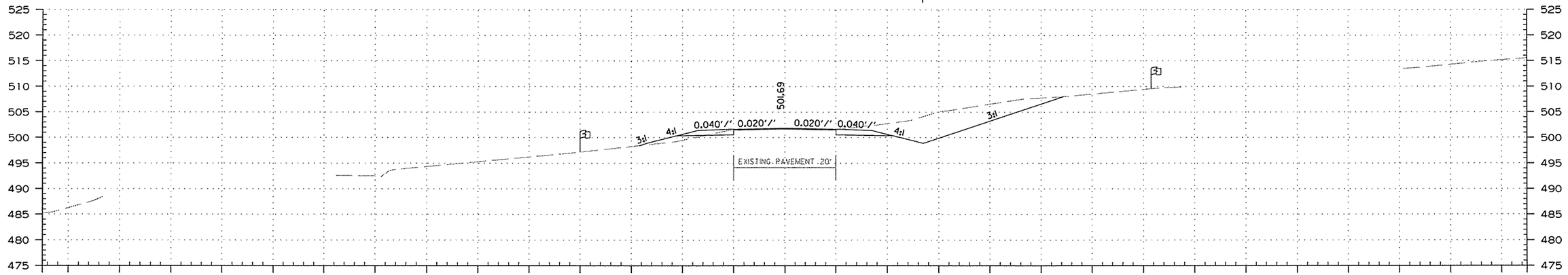
HWY. 285-SITE 1
STA. 191+17.00 TO STA. 192+00.00

12/4/2015

R080426.DGN

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		080426	169	271

(2) CROSS SECTIONS

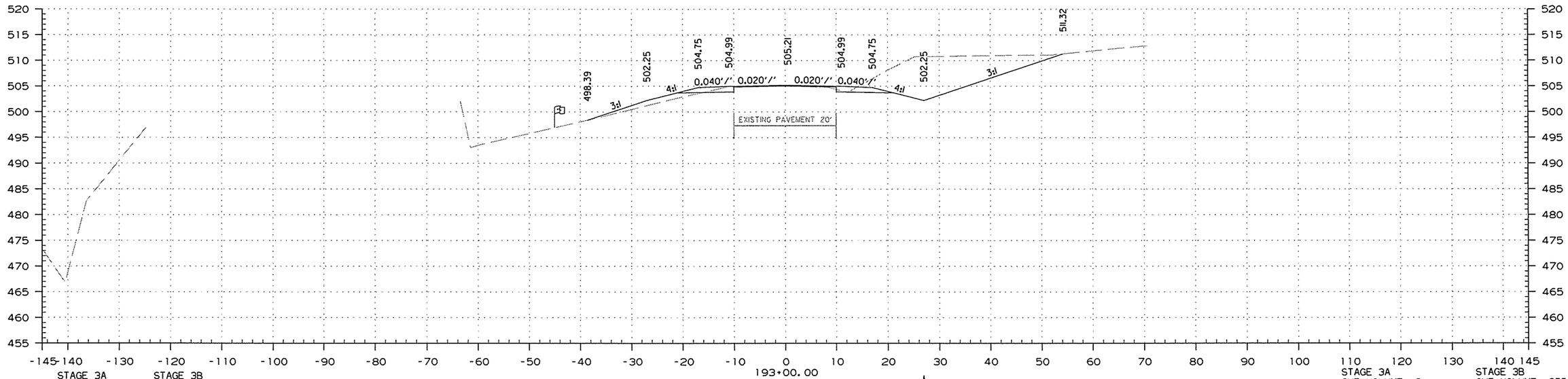


STAGE 3A
AREA CUT 3
AREA FILL 8

STAGE 3B
AREA CUT 178
AREA FILL 0

STAGE 3A
CUT VOLUME 12
FILL VOLUME 43

STAGE 3B
CUT VOLUME 556
FILL VOLUME 0



STAGE 3A
AREA CUT 4
AREA FILL 15

STAGE 3B
AREA CUT 122
AREA FILL 0

STAGE 3A
CUT VOLUME 8
FILL VOLUME 51
ROCK FILL VOLUME 133

STAGE 3B
CUT VOLUME 355
FILL VOLUME 11

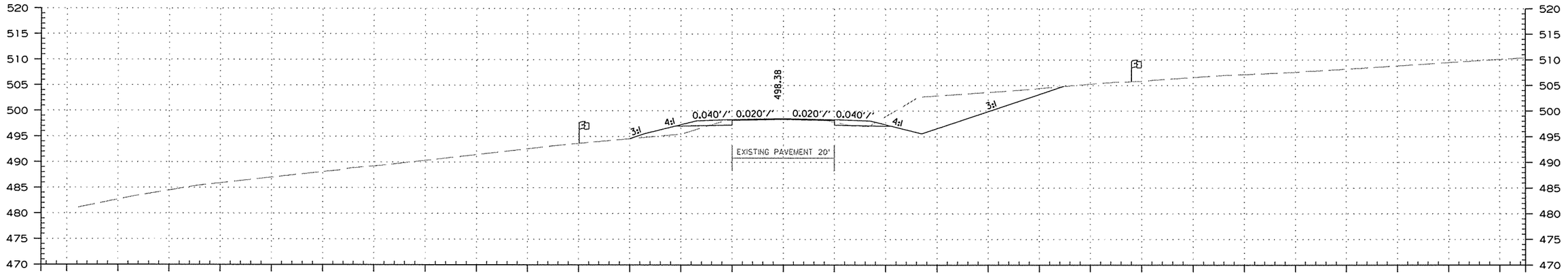
HWY. 285-SITE 1
STA. 193+00.00 TO STA. 194+00.00

12/4/2015

R080426.DGN

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		080426	170	271

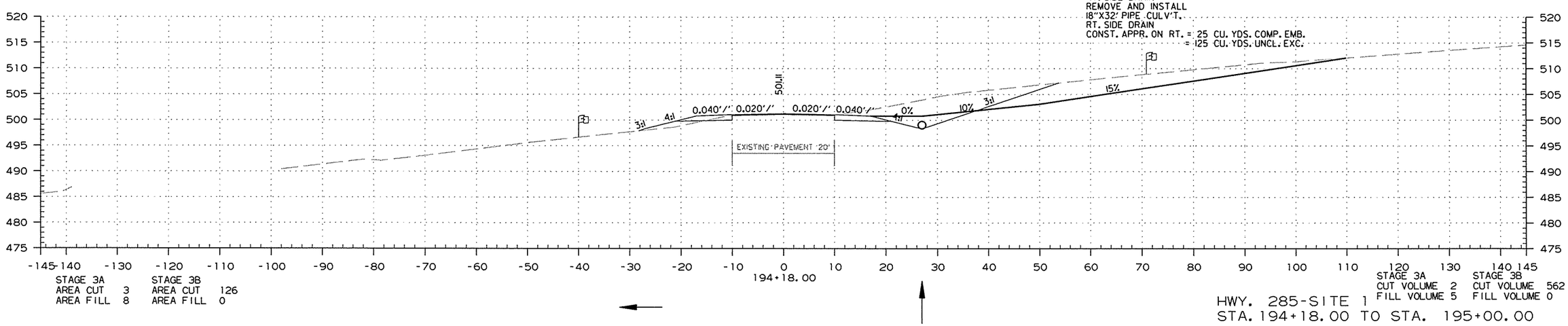
(2) CROSS SECTIONS



STAGE 3A AREA CUT 3 AREA FILL 14
STAGE 3B AREA CUT 128 AREA FILL 0

STAGE 3A CUT VOLUME 8 FILL VOLUME 33
STAGE 3B CUT VOLUME 85 FILL VOLUME 0

STA. 194+18 IN PLACE
18"x41' R.C. PIPE CULV'T.
RT. SIDE DRAIN
REMOVE AND INSTALL
18"X32' PIPE CULV'T.
RT. SIDE DRAIN
CONST. APPR. ON RT. = 25 CU. YDS. COMP. EMB.
= 125 CU. YDS. UNCL. EXC.



STAGE 3A AREA CUT 3 AREA FILL 8
STAGE 3B AREA CUT 126 AREA FILL 0

STAGE 3A CUT VOLUME 2 FILL VOLUME 5
STAGE 3B CUT VOLUME 562 FILL VOLUME 0

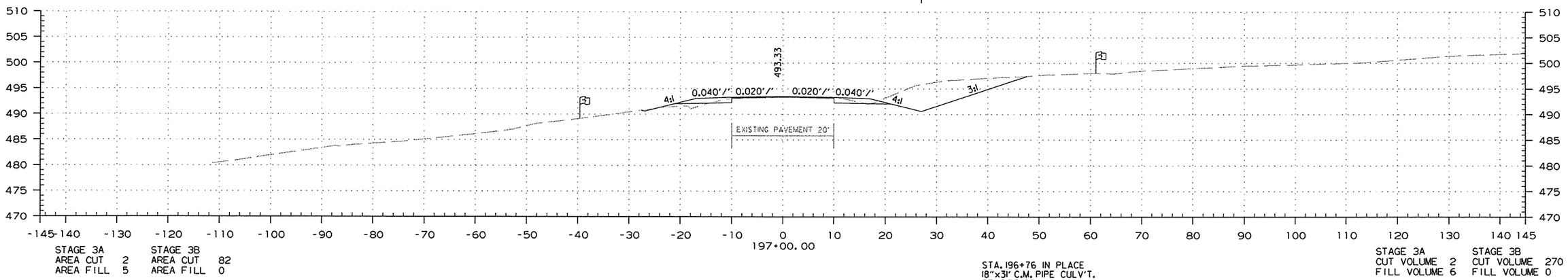
HWY. 285-SITE 1
STA. 194+18.00 TO STA. 195+00.00

12/4/2015

R080426.DGN

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		080426	171	271

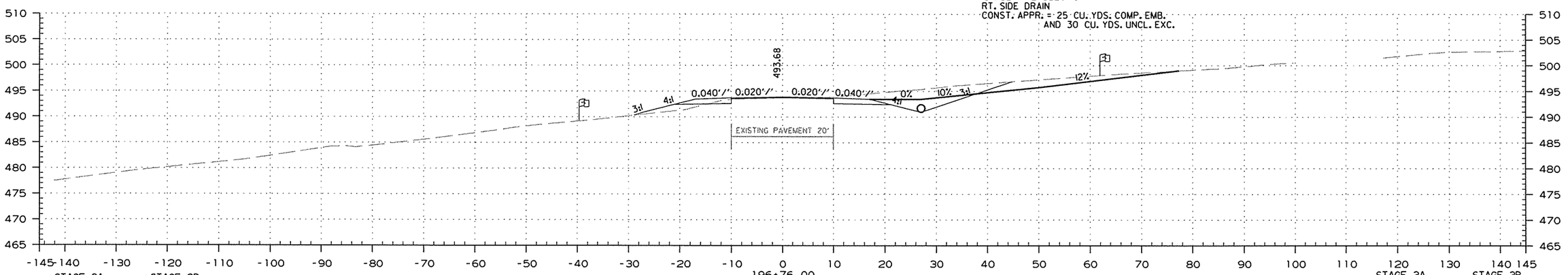
(2) CROSS SECTIONS



STAGE 3A AREA CUT 2 AREA FILL 5
STAGE 3B AREA CUT 82 AREA FILL 0

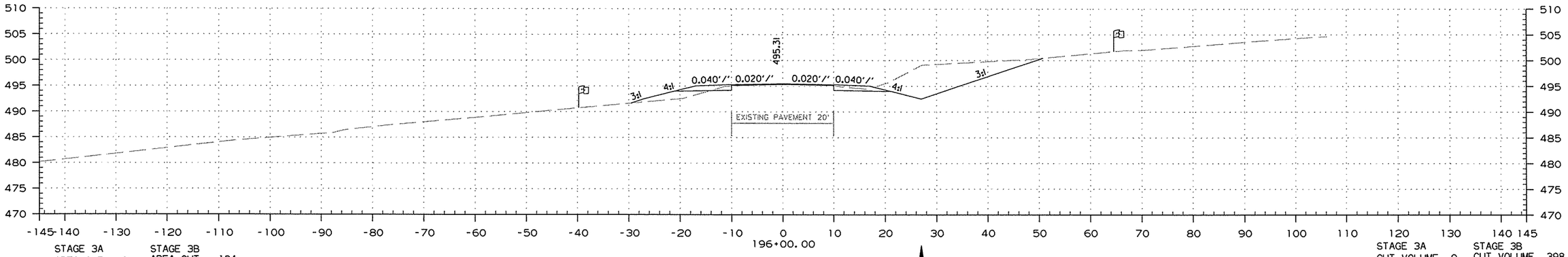
STA. 196+76 IN PLACE
18"x31' C.M. PIPE CULV'T.
RT. SIDE DRAIN
REMOVE AND INSTALL
18"x32' PIPE CULV'T.
RT. SIDE DRAIN
CONST. APPR. = 25 CU. YDS. COMP. EMB.
AND 30 CU. YDS. UNCL. EXC.

STAGE 3A CUT VOLUME 2 FILL VOLUME 6
STAGE 3B CUT VOLUME 270 FILL VOLUME 0



STAGE 3A AREA CUT 2 AREA FILL 10
STAGE 3B AREA CUT 110 AREA FILL 0

STAGE 3A CUT VOLUME 6 FILL VOLUME 33
STAGE 3B CUT VOLUME 452 FILL VOLUME 1



STAGE 3A AREA CUT 2 AREA FILL 14
STAGE 3B AREA CUT 134 AREA FILL 0

STAGE 3A CUT VOLUME 9 FILL VOLUME 52
STAGE 3B CUT VOLUME 398 FILL VOLUME 1

HWY. 285-SITE 1
STA. 196+00.00 TO STA. 197+00.00

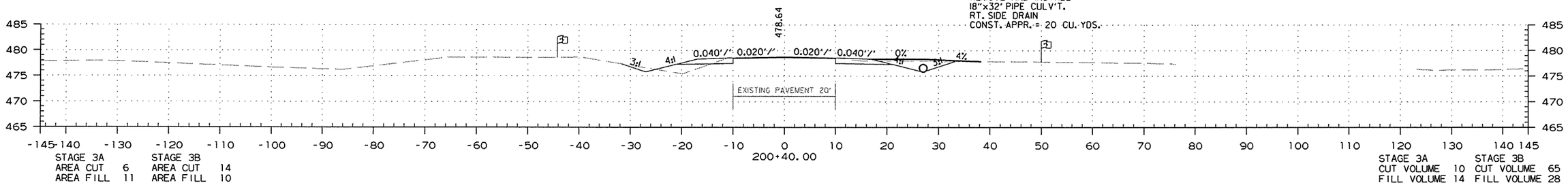
12/4/2015

R080426.DGN

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		080426	172	271

(2) CROSS SECTIONS

STA. 200+40 IN PLACE
18"x18' C.M. PIPE CULV'T.
RT. SIDE DRAIN
REMOVE AND INSTALL
18"x32' PIPE CULV'T.
RT. SIDE DRAIN
CONST. APPR. = 20 CU. YDS.

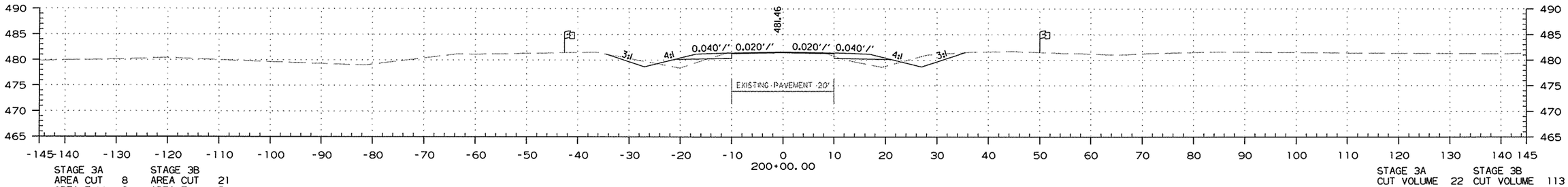


STAGE 3A
AREA CUT 6
AREA FILL 11

STAGE 3B
AREA CUT 14
AREA FILL 10

STAGE 3A
CUT VOLUME 10
FILL VOLUME 14

STAGE 3B
CUT VOLUME 65
FILL VOLUME 28

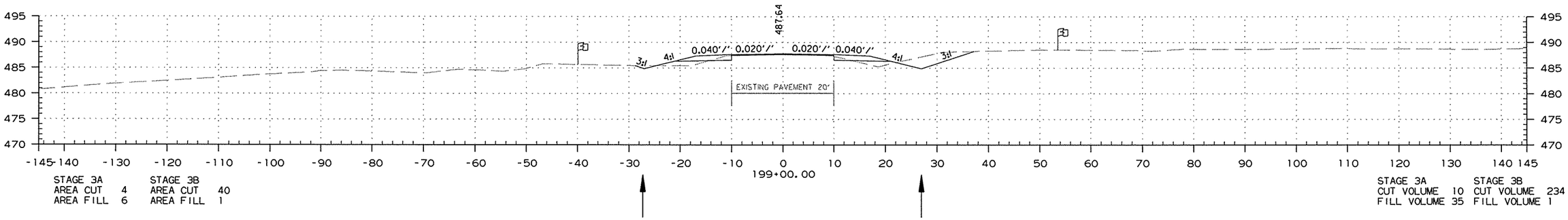


STAGE 3A
AREA CUT 8
AREA FILL 9

STAGE 3B
AREA CUT 21
AREA FILL 5

STAGE 3A
CUT VOLUME 22
FILL VOLUME 28

STAGE 3B
CUT VOLUME 113
FILL VOLUME 11

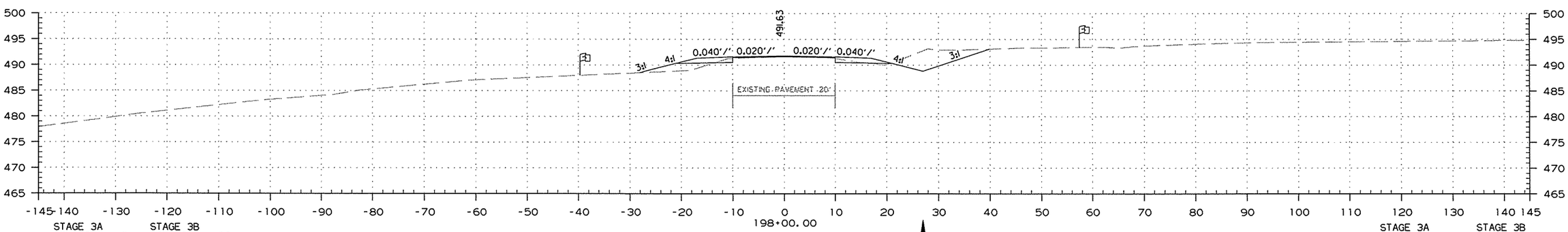


STAGE 3A
AREA CUT 4
AREA FILL 6

STAGE 3B
AREA CUT 40
AREA FILL 1

STAGE 3A
CUT VOLUME 10
FILL VOLUME 35

STAGE 3B
CUT VOLUME 234
FILL VOLUME 1



STAGE 3A
AREA CUT 2
AREA FILL 13

STAGE 3B
AREA CUT 86
AREA FILL 0

STAGE 3A
CUT VOLUME 8
FILL VOLUME 32

STAGE 3B
CUT VOLUME 75
FILL VOLUME 0

HWY. 285-SITE 1
STA. 198+00.00 TO STA. 200+40.00

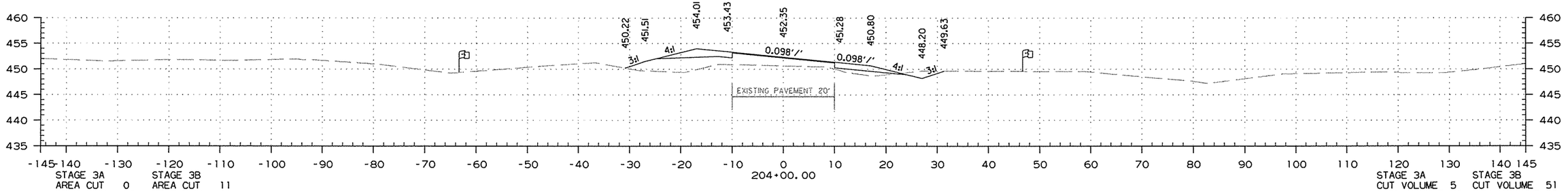
12/4/2015

R080426.DGN

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		080426	173	271

(2) CROSS SECTIONS

STA. 204+06.19
MAX SUPERELEVATION

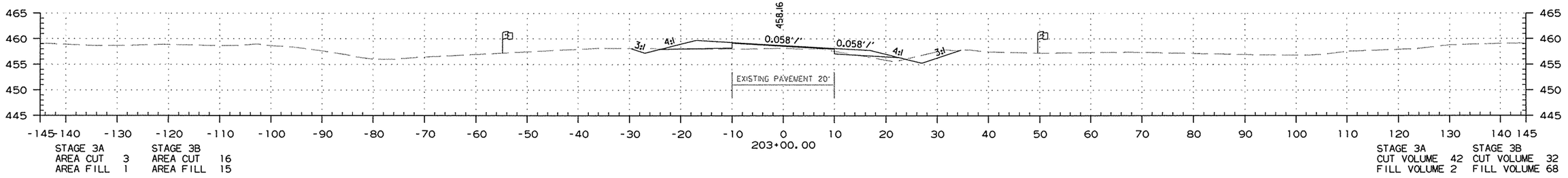


STAGE 3A
AREA CUT 0
AREA FILL 40

STAGE 3B
AREA CUT 11
AREA FILL 4

STAGE 3A
CUT VOLUME 5
FILL VOLUME 76

STAGE 3B
CUT VOLUME 51
FILL VOLUME 35

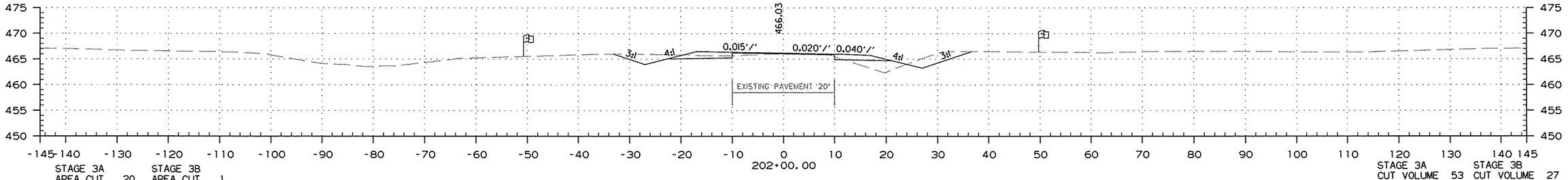


STAGE 3A
AREA CUT 3
AREA FILL 1

STAGE 3B
AREA CUT 16
AREA FILL 15

STAGE 3A
CUT VOLUME 42
FILL VOLUME 2

STAGE 3B
CUT VOLUME 32
FILL VOLUME 68



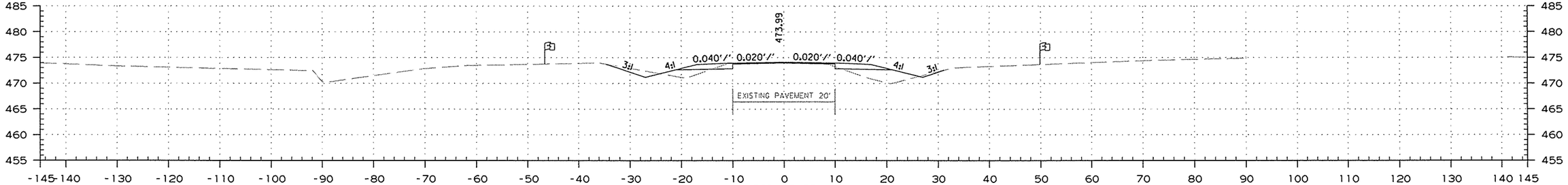
STAGE 3A
AREA CUT 20
AREA FILL 0

STAGE 3B
AREA CUT 1
AREA FILL 22

STAGE 3A
CUT VOLUME 53
FILL VOLUME 17

STAGE 3B
CUT VOLUME 27
FILL VOLUME 24

STA. 201+56.19
BEGIN SUPERELEVATION



STAGE 3A
AREA CUT 9
AREA FILL 9

STAGE 3B
AREA CUT 23
AREA FILL 0

STAGE 3A
CUT VOLUME 16
FILL VOLUME 22

STAGE 3B
CUT VOLUME 27
FILL VOLUME 7

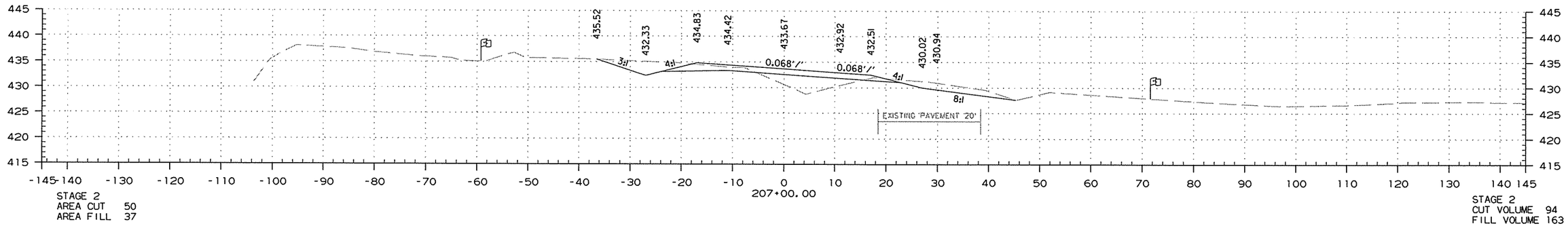
HWY. 285-SITE 1
STA. 201+00.00 TO STA. 204+00.00

12/4/2015

R080426.DGN

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		080426	174	271

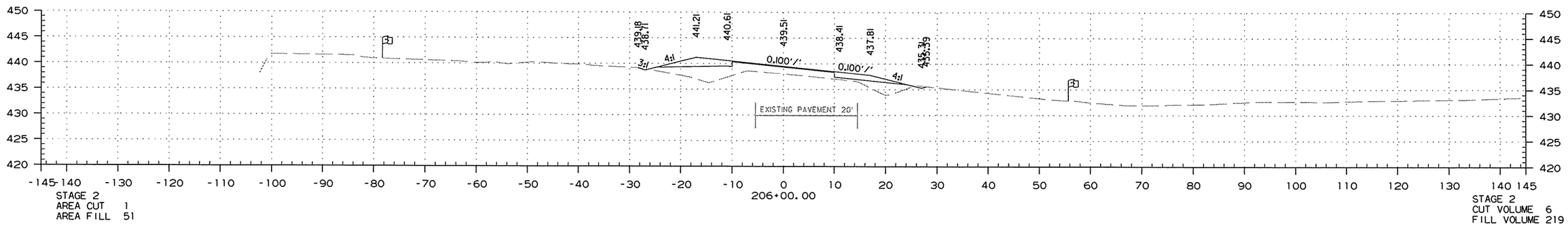
(2) CROSS SECTIONS



STAGE 2
AREA CUT 50
AREA FILL 37

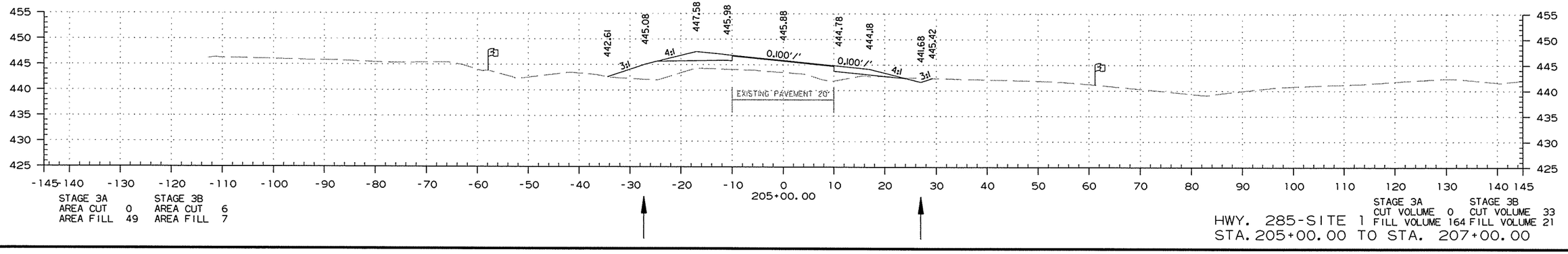
STAGE 2
CUT VOLUME 94
FILL VOLUME 163

STA. 206+20.25
MAX SUPERELEVATION



STAGE 2
AREA CUT 1
AREA FILL 51

STAGE 2
CUT VOLUME 6
FILL VOLUME 219



STAGE 3A
AREA CUT 0
AREA FILL 49

STAGE 3B
AREA CUT 6
AREA FILL 7

STAGE 3A
CUT VOLUME 0
FILL VOLUME 164

STAGE 3B
CUT VOLUME 33
FILL VOLUME 21

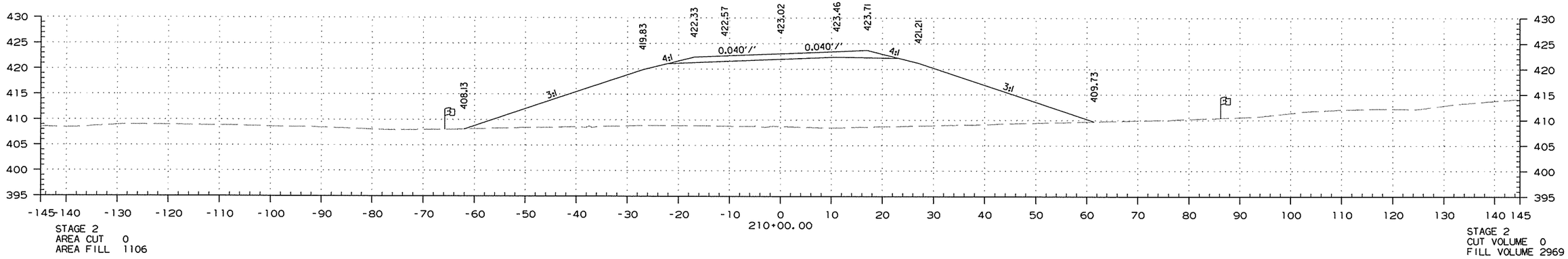
HWY. 285-SITE 1
STA. 205+00.00 TO STA. 207+00.00

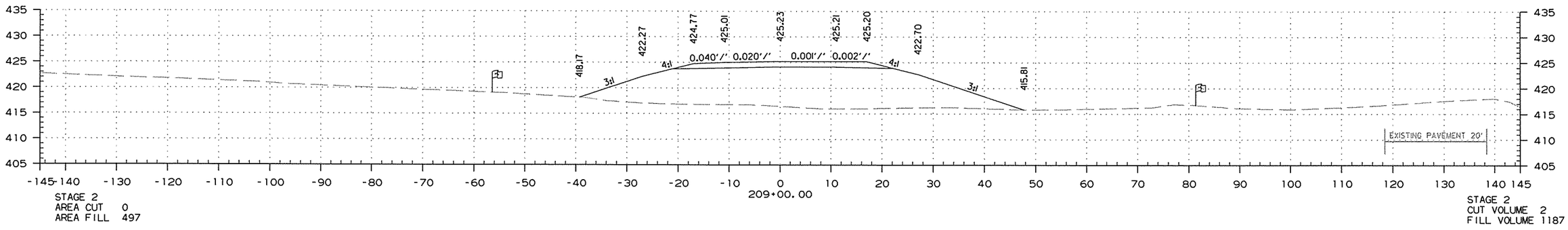
12/4/2015

R080426.DGN

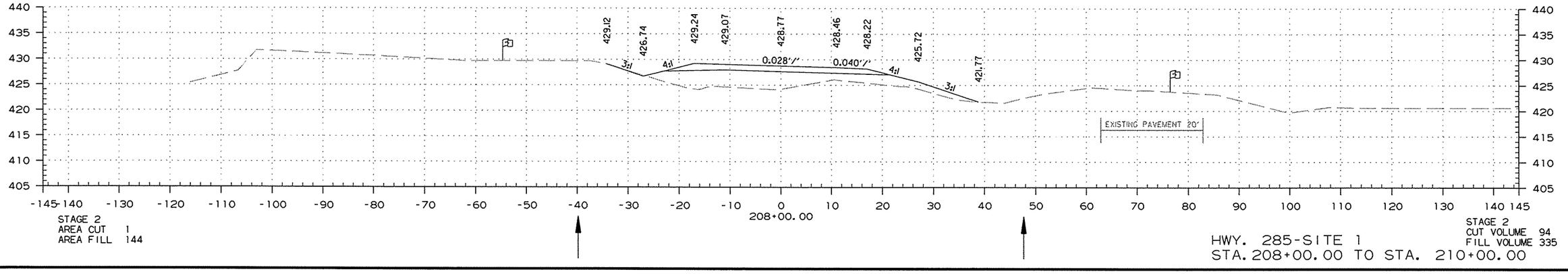
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		080426	175	271

(2) CROSS SECTIONS





STA. 208+70.25
BEGIN AND END SUPERELEVATION



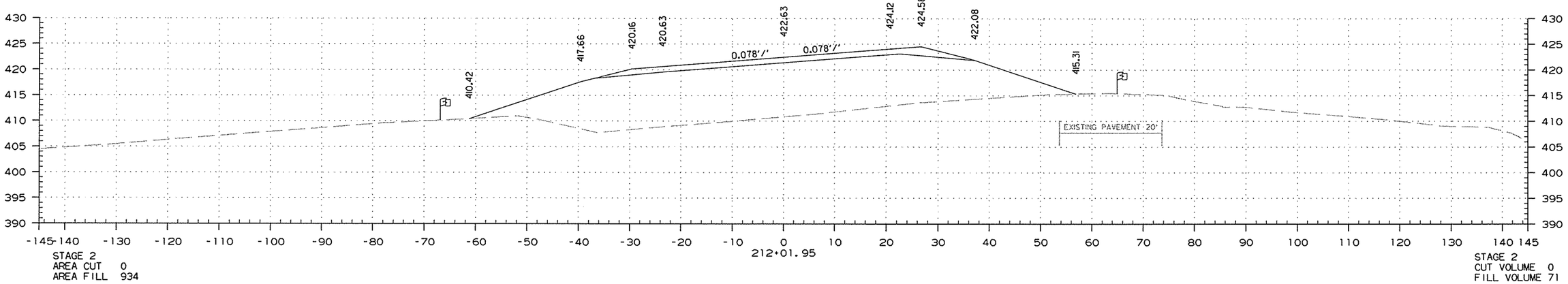
HWY. 285-SITE 1
STA. 208+00.00 TO STA. 210+00.00

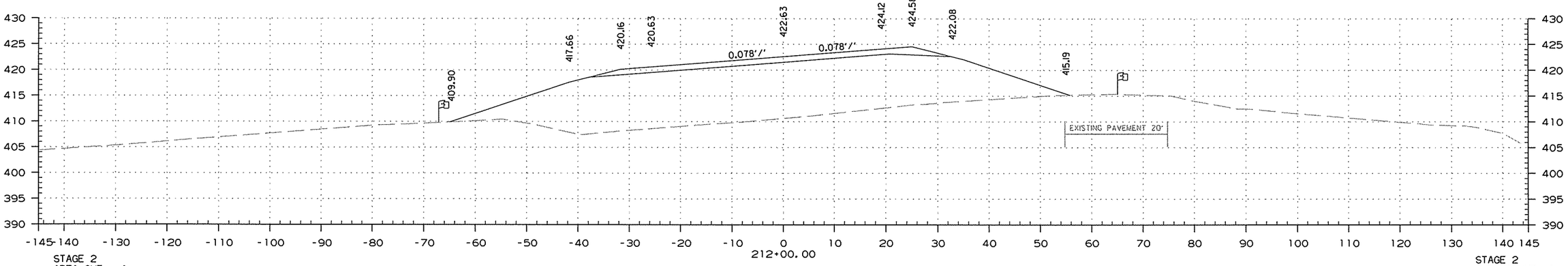
12/4/2015

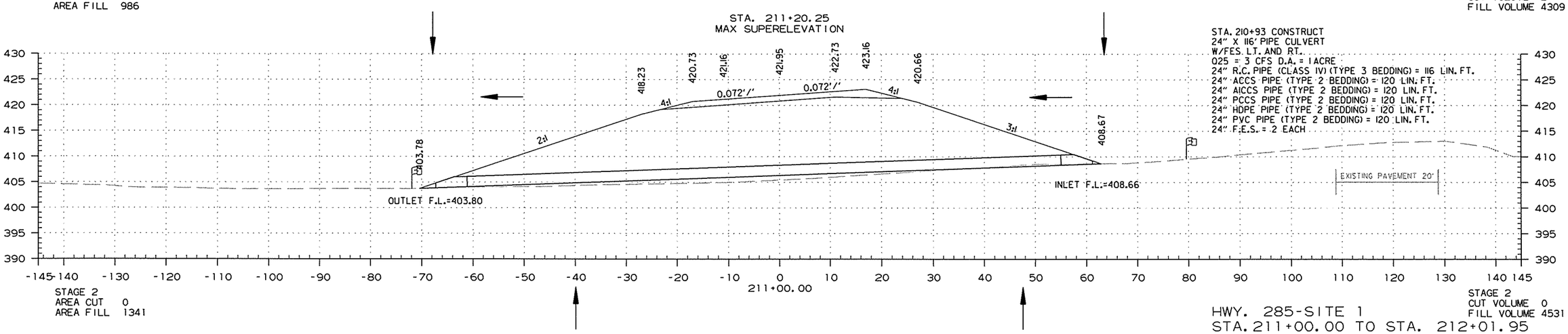
R080426.DGN

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		080426	176	271

(2) CROSS SECTIONS







STA. 210+93 CONSTRUCT
24" X 116' PIPE CULVERT
W/FES. LT. AND RT.
Q25 = 3 CFS D.A. = 1 ACRE
24" R.C. PIPE (CLASS IV) (TYPE 3 BEDDING) = 116 LIN. FT.
24" ACCS PIPE (TYPE 2 BEDDING) = 120 LIN. FT.
24" AICCS PIPE (TYPE 2 BEDDING) = 120 LIN. FT.
24" PCCS PIPE (TYPE 2 BEDDING) = 120 LIN. FT.
24" HDPE PIPE (TYPE 2 BEDDING) = 120 LIN. FT.
24" PVC PIPE (TYPE 2 BEDDING) = 120 LIN. FT.
24" F.E.S. = 2 EACH

HWY. 285-SITE 1
STA. 211+00.00 TO STA. 212+01.95

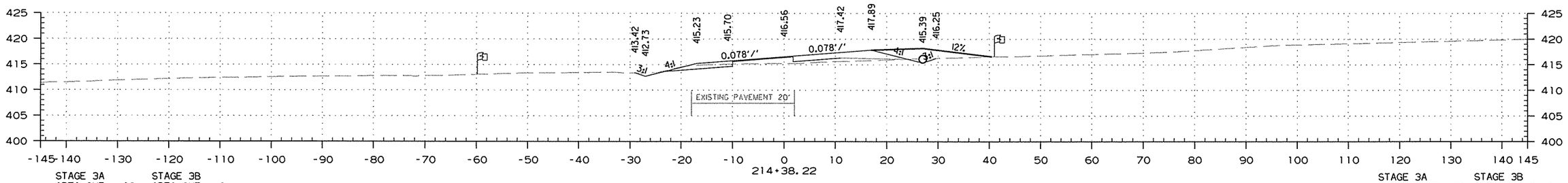
12/4/2015

R080426.DGN

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		080426	177	271

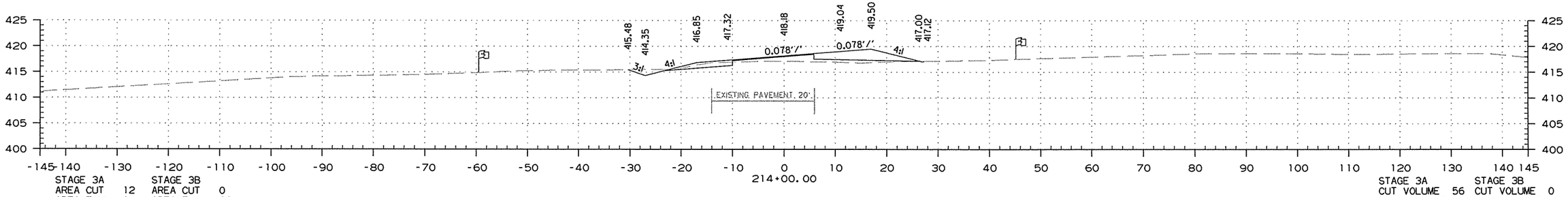
(2) CROSS SECTIONS

STA. 214+38 INSTALL
18"x38' PIPE CULV'T.
RT. SIDE DRAIN
CONST. APPR. ON RT. = 25 CU. YDS.



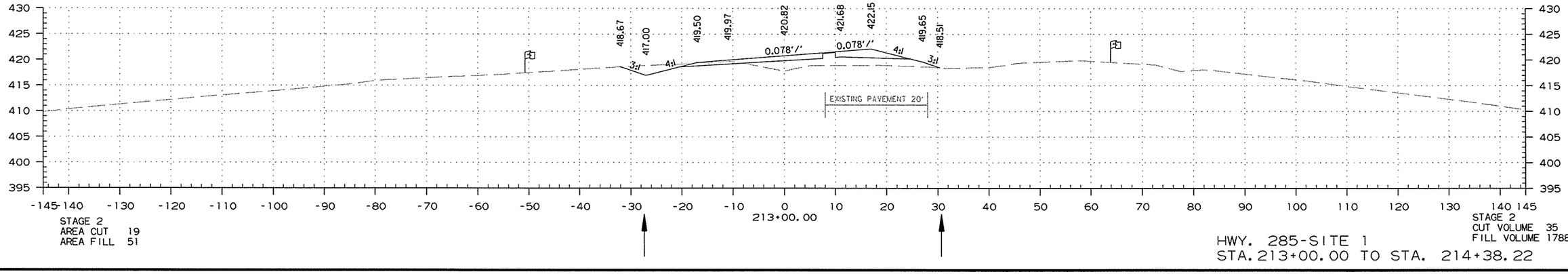
STAGE 3A AREA CUT 10 AREA FILL 0
STAGE 3B AREA CUT 0 AREA FILL 8

STAGE 3A CUT VOLUME 15 FILL VOLUME 0
STAGE 3B CUT VOLUME 0 FILL VOLUME 62



STAGE 3A AREA CUT 12 AREA FILL 0
STAGE 3B AREA CUT 0 AREA FILL 26

STAGE 3A CUT VOLUME 56 FILL VOLUME 37
STAGE 3B CUT VOLUME 0 FILL VOLUME 474



STAGE 2 AREA CUT 19 AREA FILL 51

STAGE 2 CUT VOLUME 35 FILL VOLUME 1788

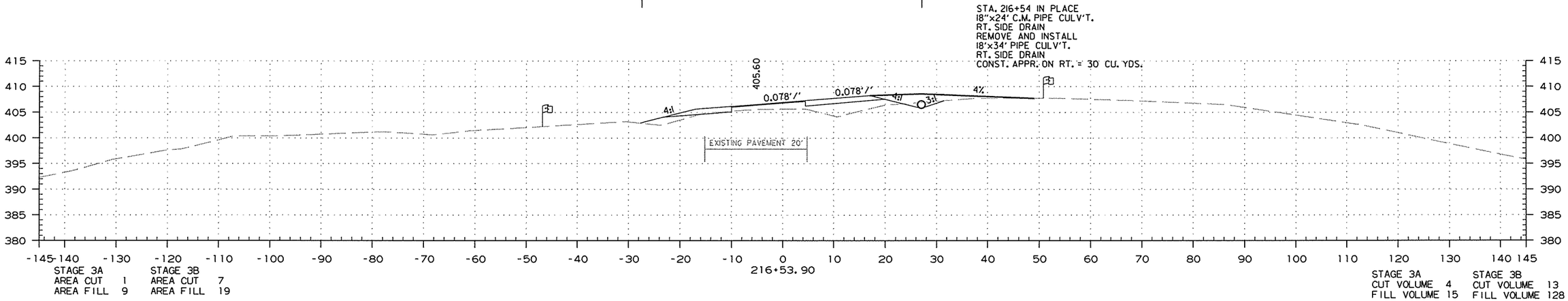
HWY. 285-SITE 1
STA. 213+00.00 TO STA. 214+38.22

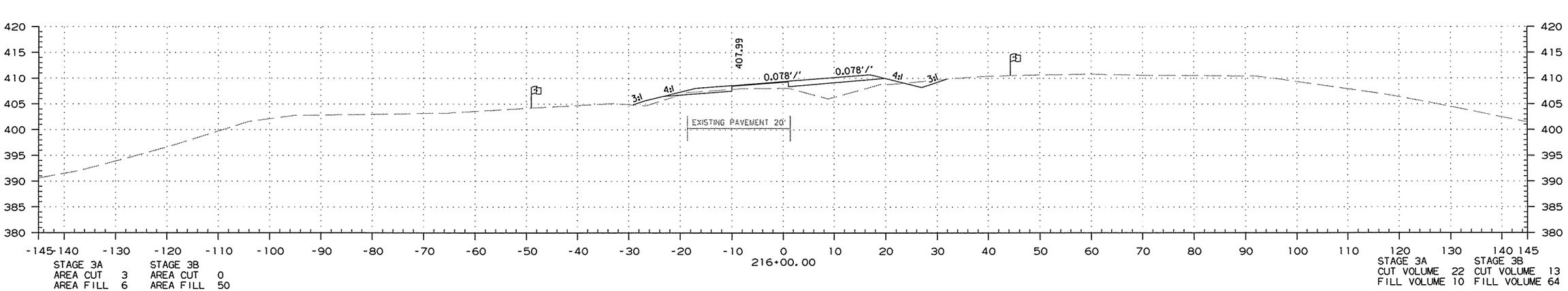
12/4/2015

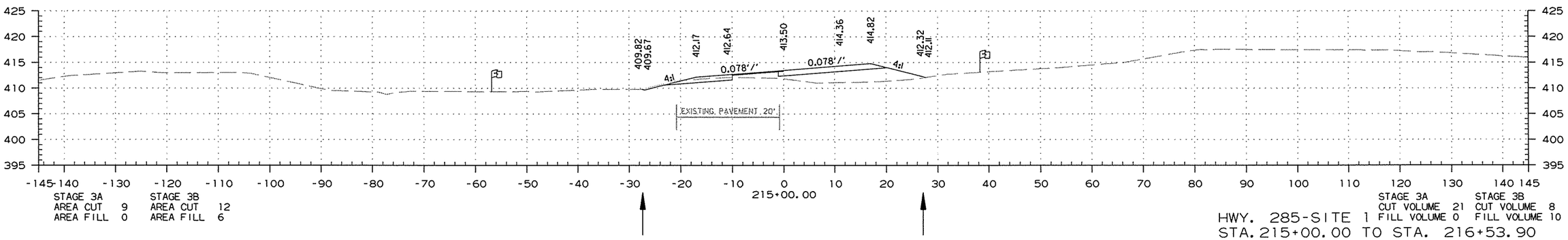
R080426.DGN

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		080426	178	271

(2) CROSS SECTIONS







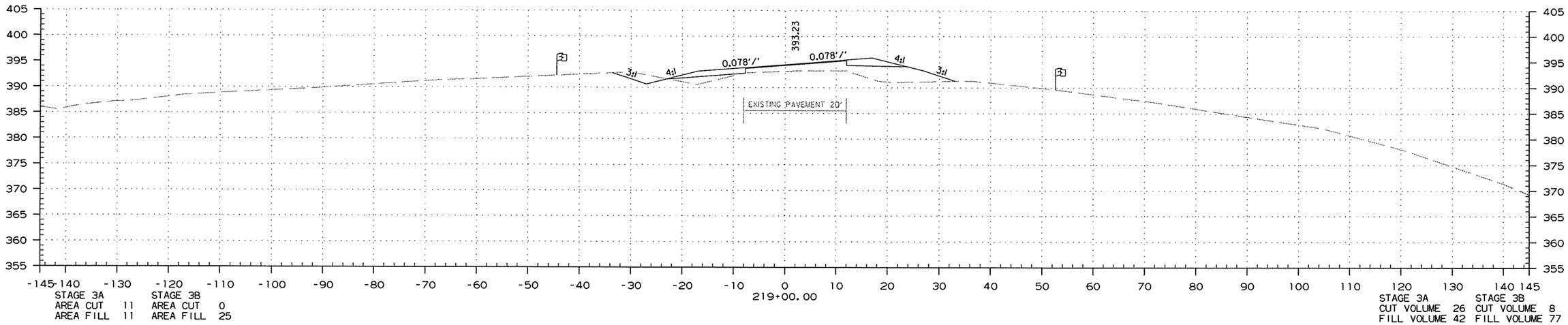
HWY. 285-SITE 1
STA. 215+00.00 TO STA. 216+53.90

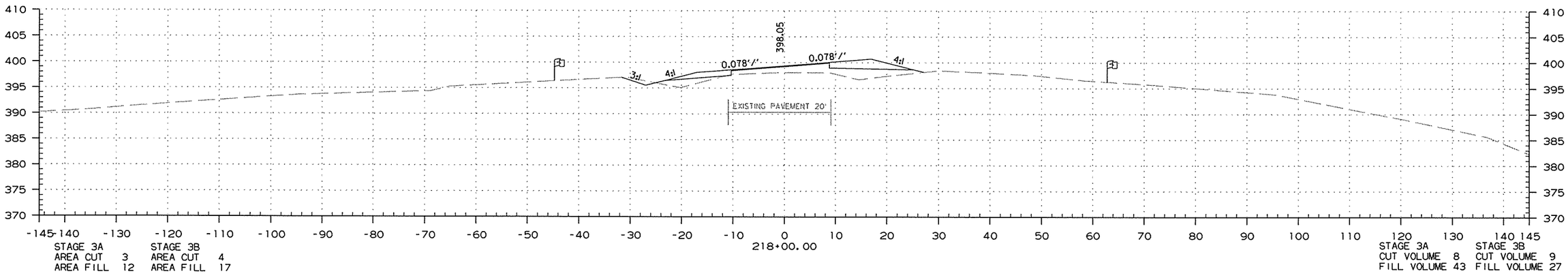
12/4/2015

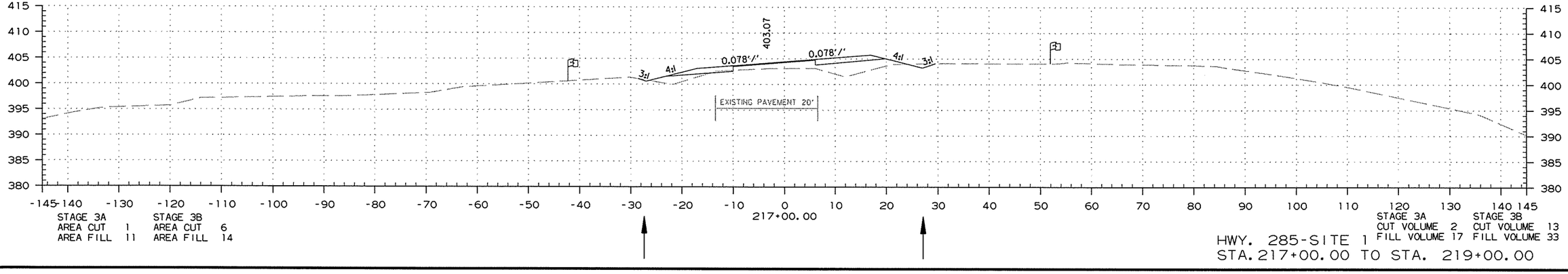
R080426.DGN

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		080426	179	271

(2) CROSS SECTIONS







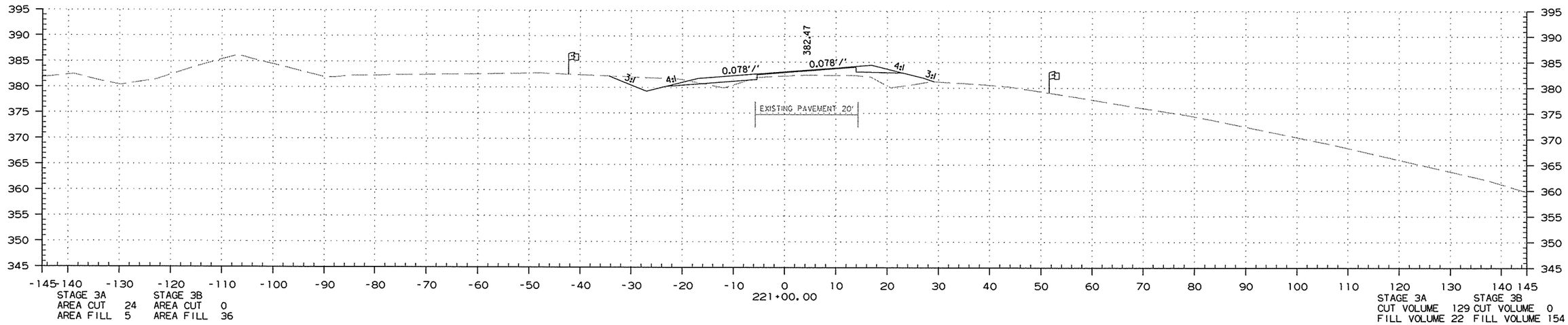
HWY. 285-SITE 1
STA. 217+00.00 TO STA. 219+00.00

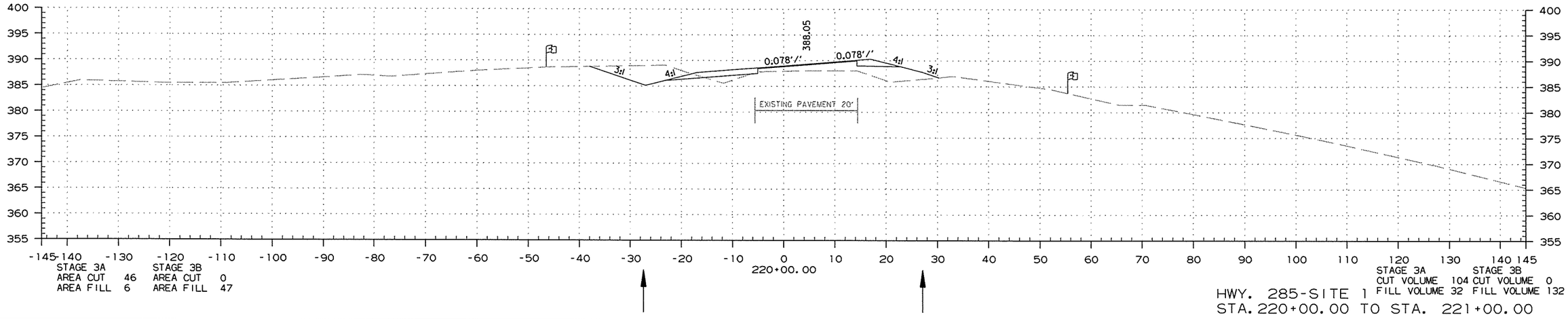
12/4/2015

R080426.DGN

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		080426	180	271

(2) CROSS SECTIONS





HWY. 285-SITE 1
STA. 220+00.00 TO STA. 221+00.00

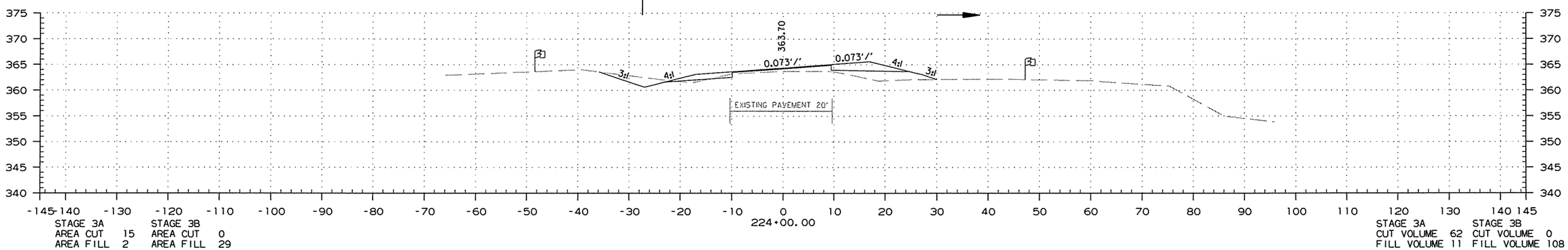
12/4/2015

R080426.DGN

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		080426	181	271

(2) CROSS SECTIONS

STA. 224+47.47
MAX SUPERELEVATION

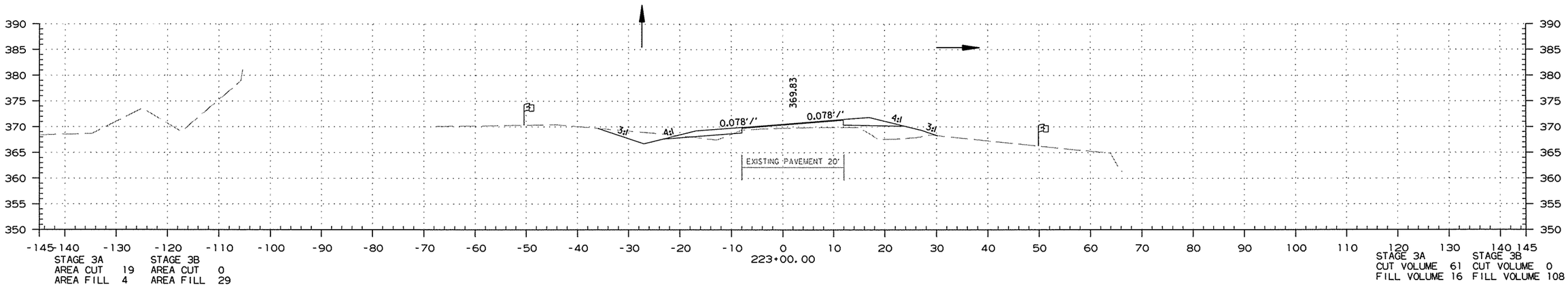


STAGE 3A
AREA CUT 15
AREA FILL 2

STAGE 3B
AREA CUT 0
AREA FILL 29

STAGE 3A
CUT VOLUME 62
FILL VOLUME 11

STAGE 3B
CUT VOLUME 0
FILL VOLUME 108

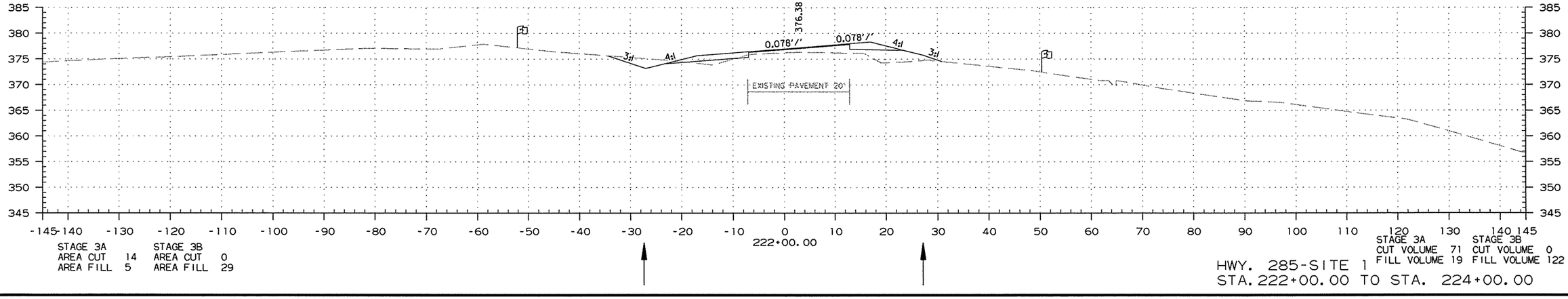


STAGE 3A
AREA CUT 19
AREA FILL 4

STAGE 3B
AREA CUT 0
AREA FILL 29

STAGE 3A
CUT VOLUME 61
FILL VOLUME 16

STAGE 3B
CUT VOLUME 0
FILL VOLUME 108



STAGE 3A
AREA CUT 14
AREA FILL 5

STAGE 3B
AREA CUT 0
AREA FILL 29

STAGE 3A
CUT VOLUME 71
FILL VOLUME 19

STAGE 3B
CUT VOLUME 0
FILL VOLUME 122

HWY. 285-SITE 1
STA. 222+00.00 TO STA. 224+00.00

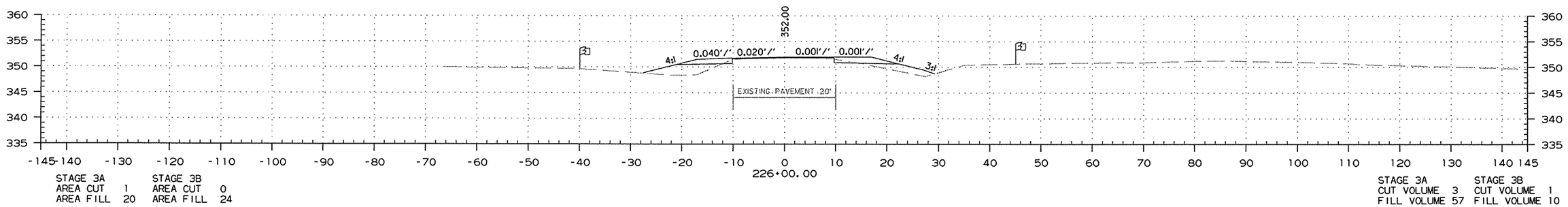
12/4/2015

R080426.DGN

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		080426	182	271

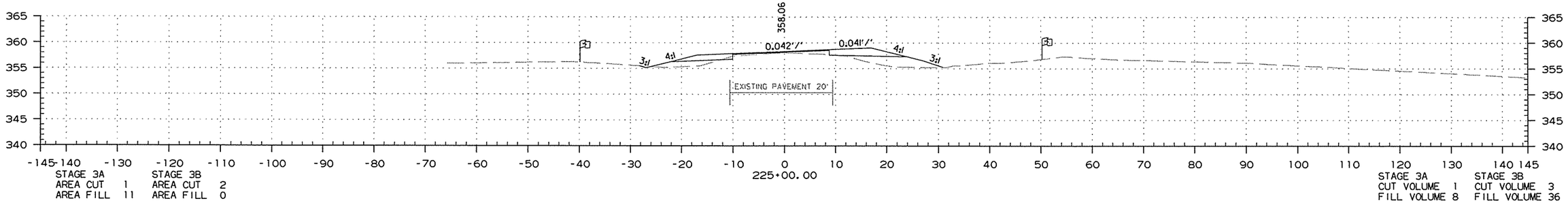
(2) CROSS SECTIONS

STA. 226+97.47 - END SITE 1
END SUPERELEVATION



STAGE 3A AREA CUT 1 AREA FILL 20
STAGE 3B AREA CUT 0 AREA FILL 24

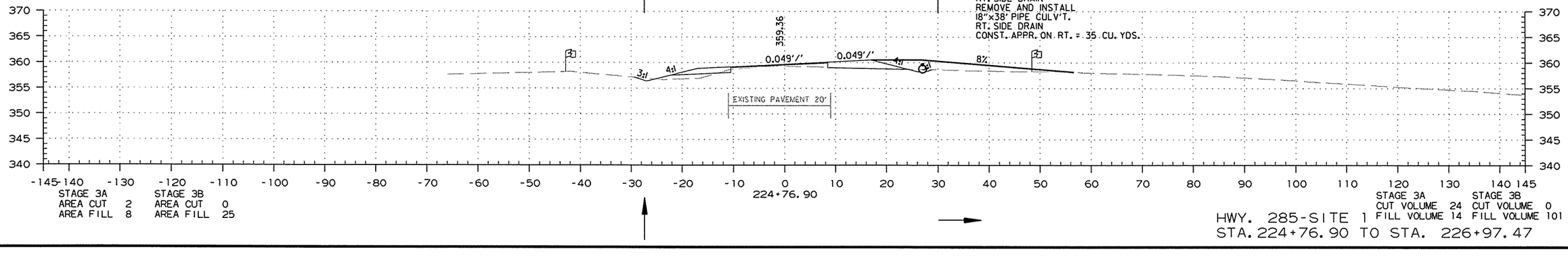
STAGE 3A CUT VOLUME 3 FILL VOLUME 57
STAGE 3B CUT VOLUME 1 FILL VOLUME 10



STAGE 3A AREA CUT 1 AREA FILL 11
STAGE 3B AREA CUT 2 AREA FILL 0

STAGE 3A CUT VOLUME 1 FILL VOLUME 8
STAGE 3B CUT VOLUME 3 FILL VOLUME 36

STA. 224+77 IN PLACE
18"x20' C.M. PIPE CULV'T.
RT. SIDE DRAIN
REMOVE AND INSTALL
18"x38' PIPE CULV'T.
RT. SIDE DRAIN
CONST. APPR. ON RT. = 35 CU. YDS.



STAGE 3A AREA CUT 2 AREA FILL 8
STAGE 3B AREA CUT 0 AREA FILL 25

STAGE 3A CUT VOLUME 24 FILL VOLUME 14
STAGE 3B CUT VOLUME 0 FILL VOLUME 101

HWY. 285-SITE 1
STA. 224+76.90 TO STA. 226+97.47

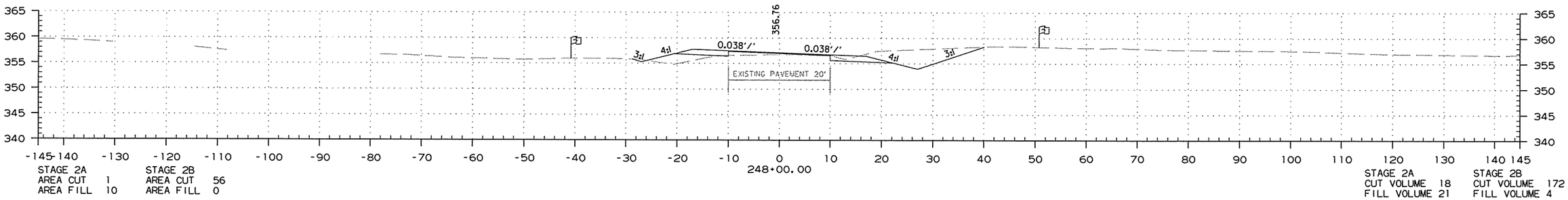
12/4/2015

R080426.DGN

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		080426	183	271

(2) CROSS SECTIONS

STA. 248+86.51
BEGIN SUPERELEVATION

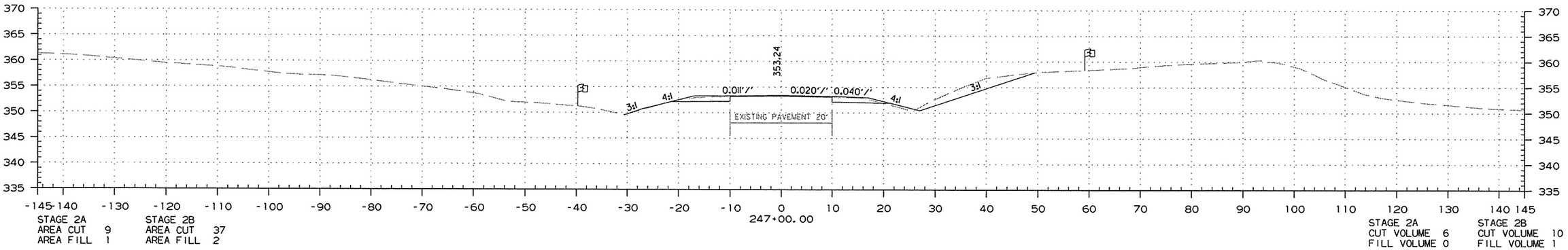


STAGE 2A
AREA CUT 1
AREA FILL 10

STAGE 2B
AREA CUT 56
AREA FILL 0

STAGE 2A
CUT VOLUME 18
FILL VOLUME 21

STAGE 2B
CUT VOLUME 172
FILL VOLUME 4



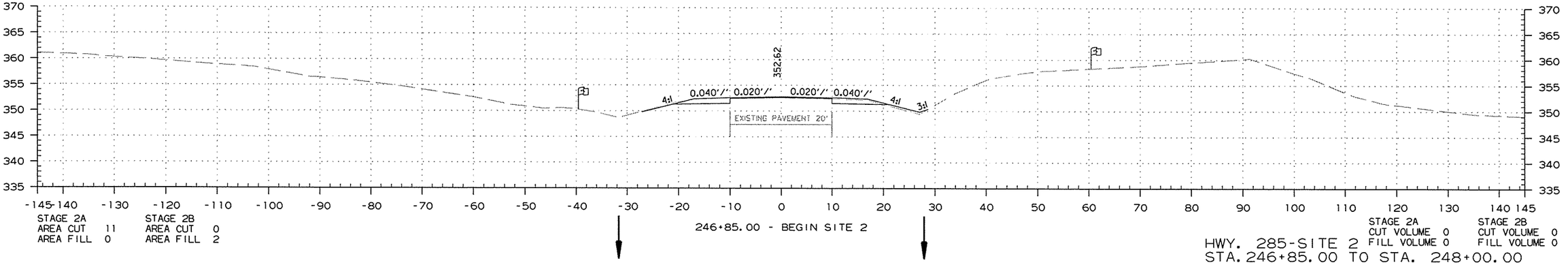
STAGE 2A
AREA CUT 9
AREA FILL 1

STAGE 2B
AREA CUT 37
AREA FILL 2

STAGE 2A
CUT VOLUME 6
FILL VOLUME 0

STAGE 2B
CUT VOLUME 10
FILL VOLUME 1

STA. 246+86.51
BEGIN SUPERELEVATION



STAGE 2A
AREA CUT 11
AREA FILL 0

STAGE 2B
AREA CUT 0
AREA FILL 2

STAGE 2A
CUT VOLUME 0
FILL VOLUME 0

STAGE 2B
CUT VOLUME 0
FILL VOLUME 0

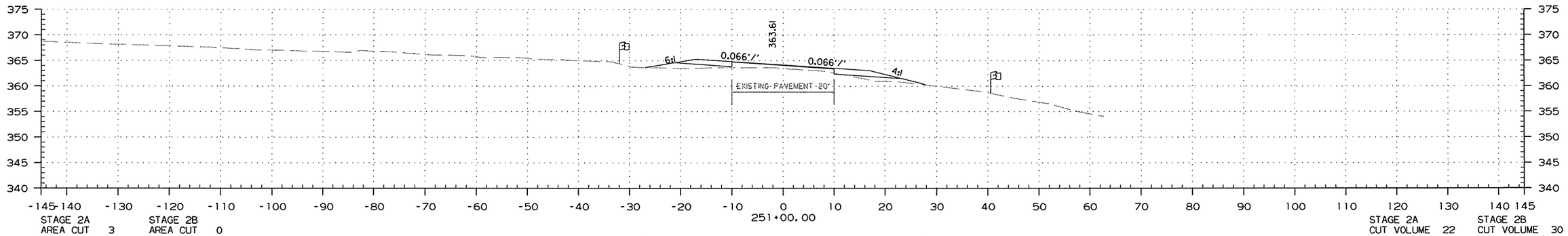
HWY. 285-SITE 2
STA. 246+85.00 TO STA. 248+00.00

12/4/2015

R080426.DGN

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		080426	184	271

(2) CROSS SECTIONS

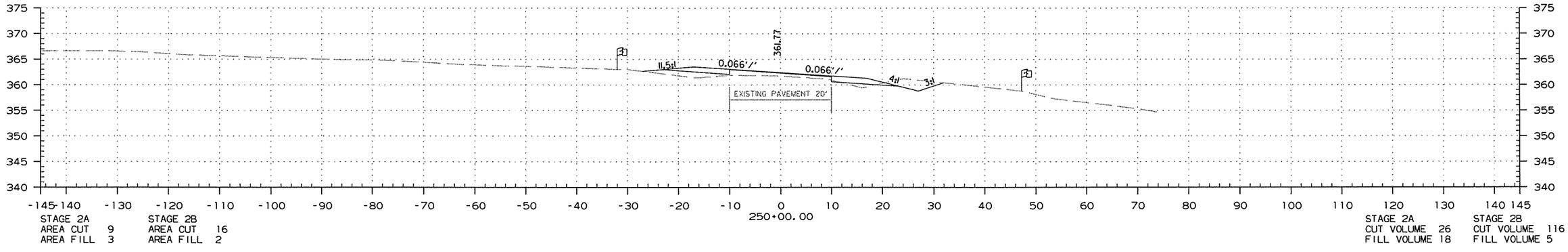


STAGE 2A
AREA CUT 3
AREA FILL 2

STAGE 2B
AREA CUT 0
AREA FILL 25

STAGE 2A
CUT VOLUME 22
FILL VOLUME 10

STAGE 2B
CUT VOLUME 30
FILL VOLUME 51

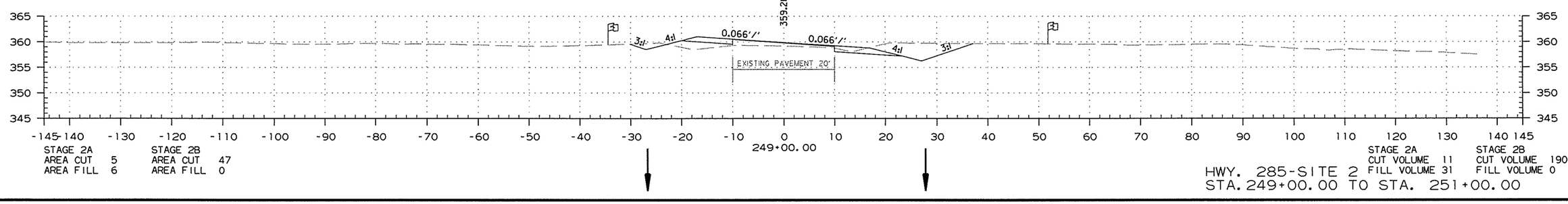


STAGE 2A
AREA CUT 9
AREA FILL 3

STAGE 2B
AREA CUT 16
AREA FILL 2

STAGE 2A
CUT VOLUME 26
FILL VOLUME 18

STAGE 2B
CUT VOLUME 116
FILL VOLUME 5



STAGE 2A
AREA CUT 5
AREA FILL 6

STAGE 2B
AREA CUT 47
AREA FILL 0

STAGE 2A
CUT VOLUME 11
FILL VOLUME 31

STAGE 2B
CUT VOLUME 190
FILL VOLUME 0

HWY. 285-SITE 2
STA. 249+00.00 TO STA. 251+00.00

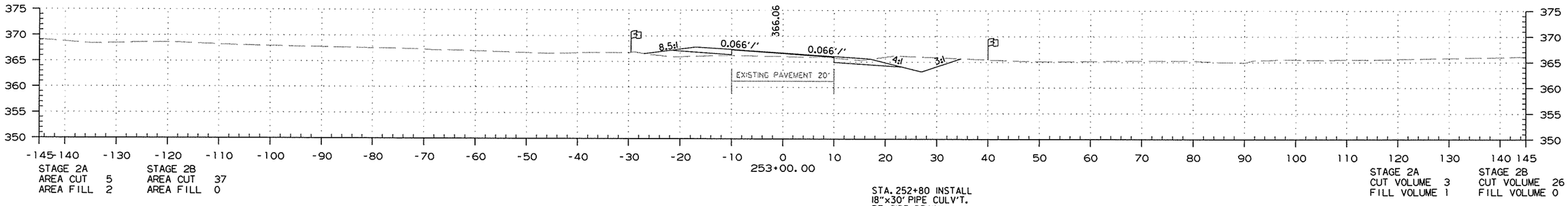
12/4/2015

R080426.DGN

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		080426	185	271

(2) CROSS SECTIONS

STA. 253+16.65
MAX SUPERELEVATION



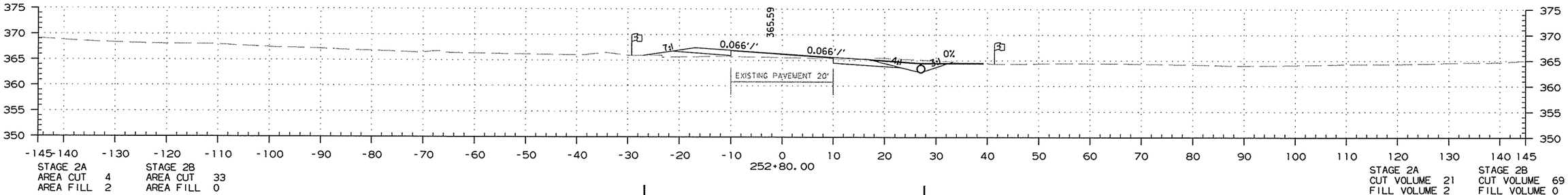
STAGE 2A
AREA CUT 5
AREA FILL 2

STAGE 2B
AREA CUT 37
AREA FILL 0

STAGE 2A
CUT VOLUME 3
FILL VOLUME 1

STAGE 2B
CUT VOLUME 26
FILL VOLUME 0

STA. 252+80 INSTALL
18"x30' PIPE CULV'T.
RT. SIDE DRAIN
CONST. APPR. ON RT. = 15 CU. YDS.

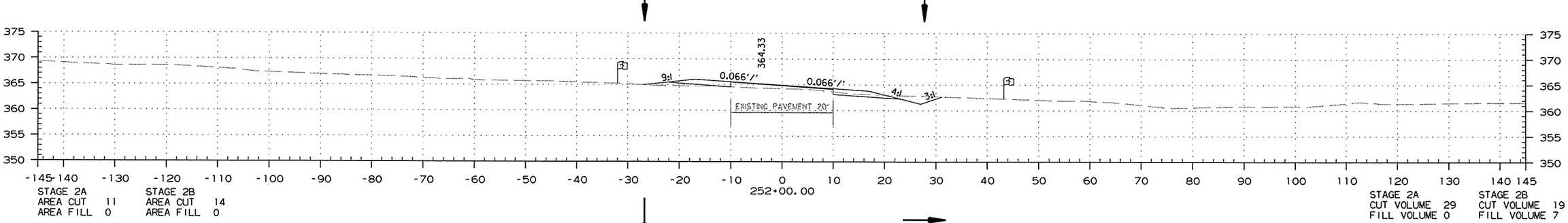


STAGE 2A
AREA CUT 4
AREA FILL 2

STAGE 2B
AREA CUT 33
AREA FILL 0

STAGE 2A
CUT VOLUME 21
FILL VOLUME 2

STAGE 2B
CUT VOLUME 69
FILL VOLUME 0

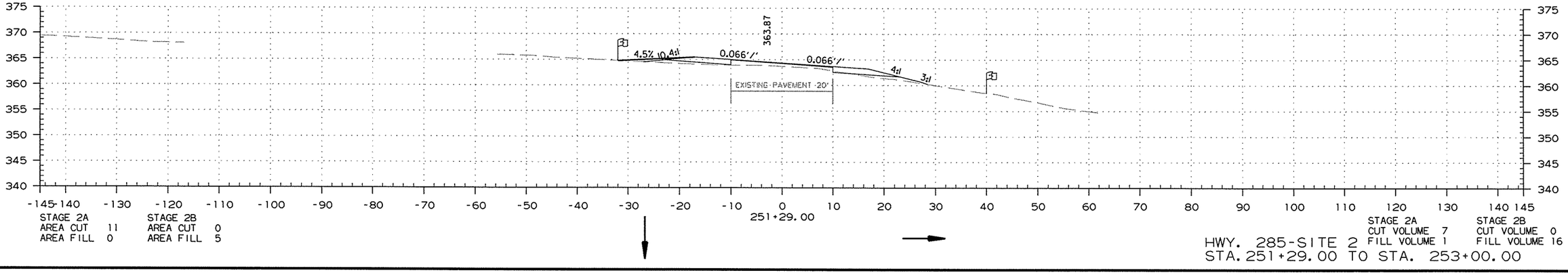


STAGE 2A
AREA CUT 11
AREA FILL 0

STAGE 2B
AREA CUT 14
AREA FILL 0

STAGE 2A
CUT VOLUME 29
FILL VOLUME 0

STAGE 2B
CUT VOLUME 19
FILL VOLUME 7



STAGE 2A
AREA CUT 11
AREA FILL 0

STAGE 2B
AREA CUT 0
AREA FILL 5

STAGE 2A
CUT VOLUME 7
FILL VOLUME 1

STAGE 2B
CUT VOLUME 0
FILL VOLUME 16

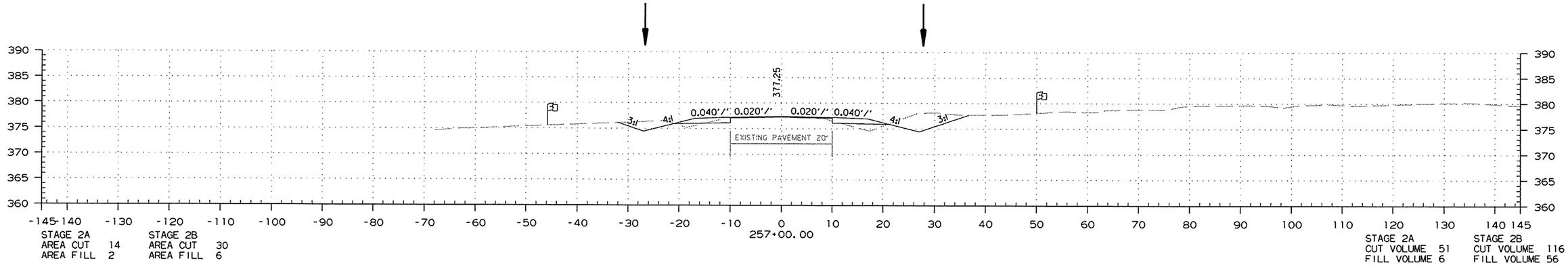
HWY. 285-SITE 2
STA. 251+29.00 TO STA. 253+00.00

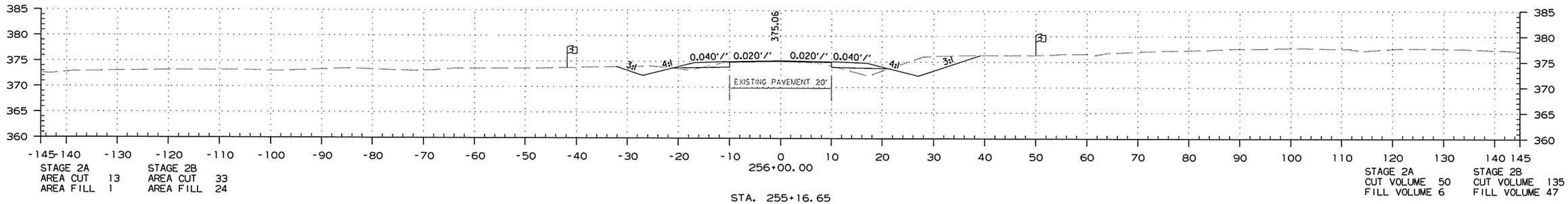
12/4/2015

R080426.DGN

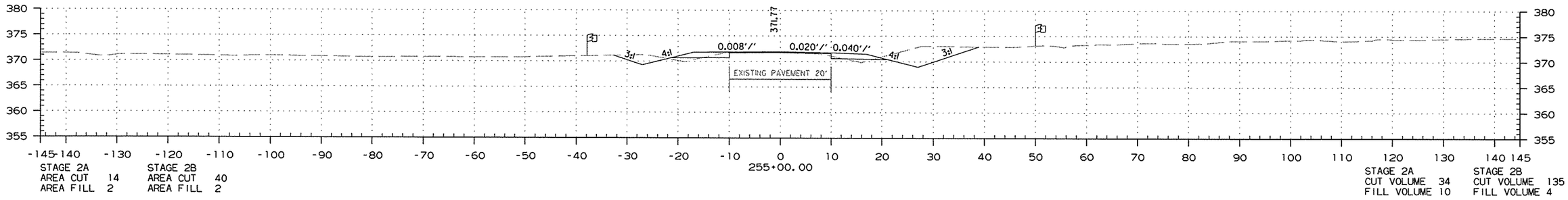
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		080426	186	271

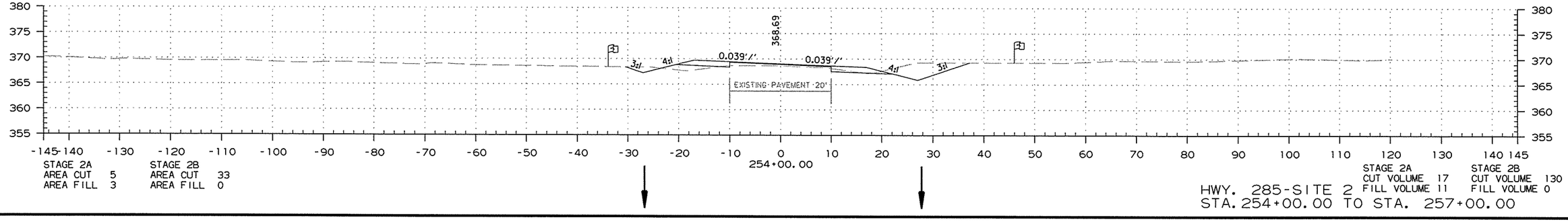
(2) CROSS SECTIONS





STA. 255+16.65
END SUPERELEVATION





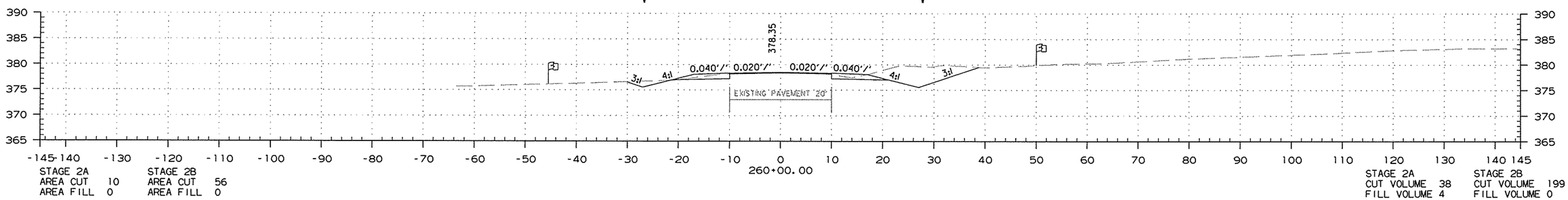
HWY. 285-SITE 2
STA. 254+00.00 TO STA. 257+00.00

12/4/2015

R080426.DGN

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		080426	187	271

(2) CROSS SECTIONS

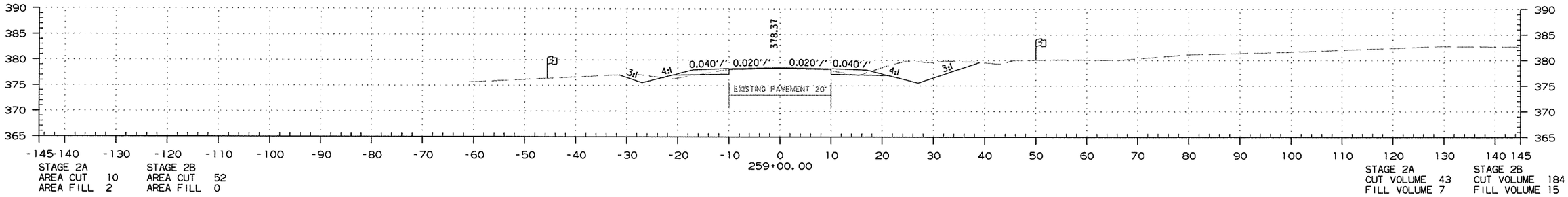


STAGE 2A
AREA CUT 10
AREA FILL 0

STAGE 2B
AREA CUT 56
AREA FILL 0

STAGE 2A
CUT VOLUME 38
FILL VOLUME 4

STAGE 2B
CUT VOLUME 199
FILL VOLUME 0

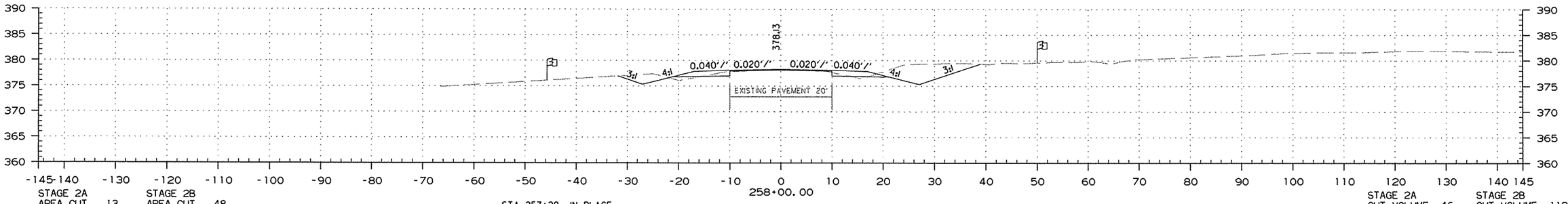


STAGE 2A
AREA CUT 10
AREA FILL 2

STAGE 2B
AREA CUT 52
AREA FILL 0

STAGE 2A
CUT VOLUME 43
FILL VOLUME 7

STAGE 2B
CUT VOLUME 184
FILL VOLUME 15



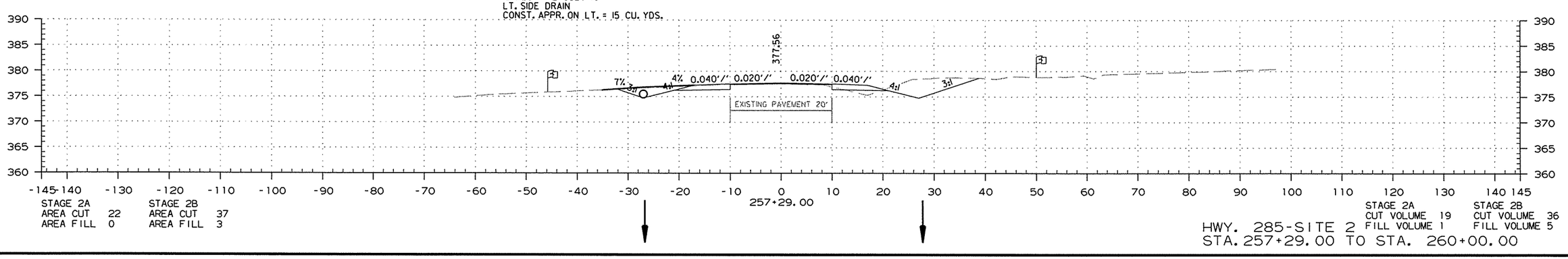
STAGE 2A
AREA CUT 13
AREA FILL 2

STAGE 2B
AREA CUT 48
AREA FILL 8

STA. 257+29 IN PLACE
12"x20' C.M. PIPE CULV'T.
LT. SIDE DRAIN
REMOVE AND INSTALL
18"x28' PIPE CULV'T.
LT. SIDE DRAIN
CONST. APPR. ON LT. = 15 CU. YDS.

STAGE 2A
CUT VOLUME 46
FILL VOLUME 3

STAGE 2B
CUT VOLUME 112
FILL VOLUME 15



STAGE 2A
AREA CUT 22
AREA FILL 0

STAGE 2B
AREA CUT 37
AREA FILL 3

STAGE 2A
CUT VOLUME 19
FILL VOLUME 1

STAGE 2B
CUT VOLUME 36
FILL VOLUME 5

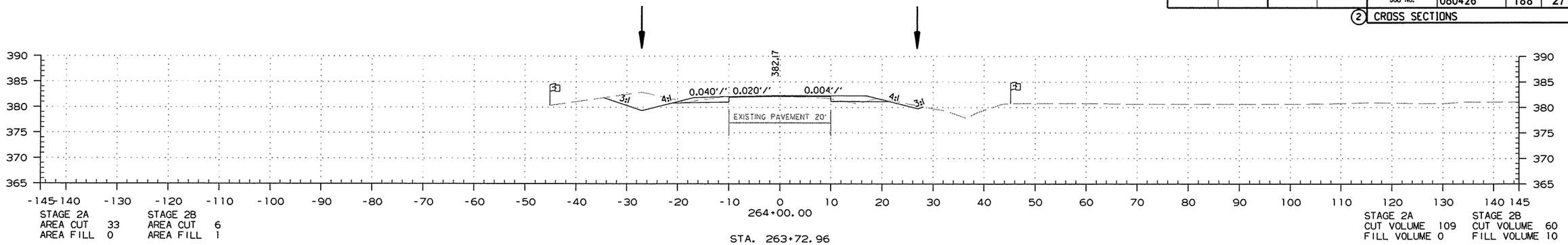
HWY. 285-SITE 2
STA. 257+29.00 TO STA. 260+00.00

12/4/2015

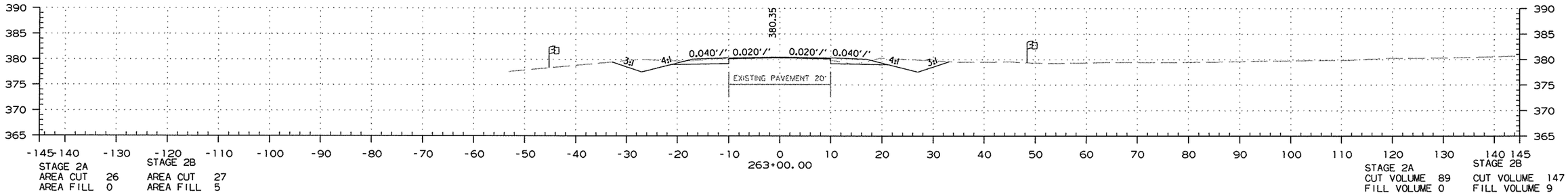
R080426.DGN

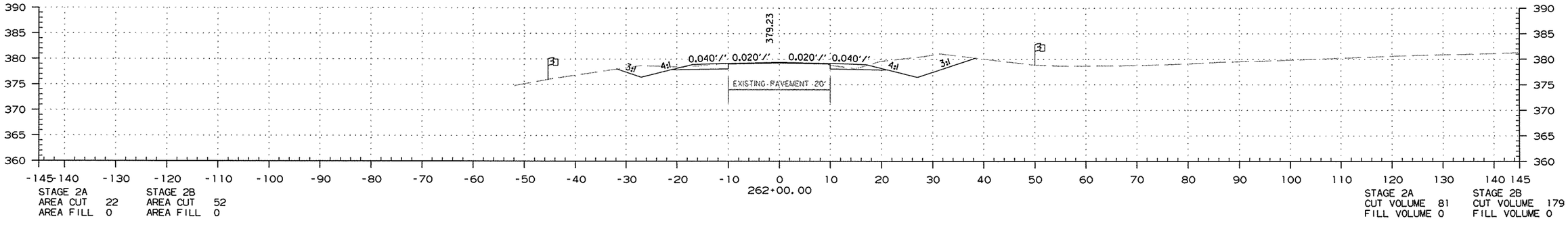
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		080426	188	271

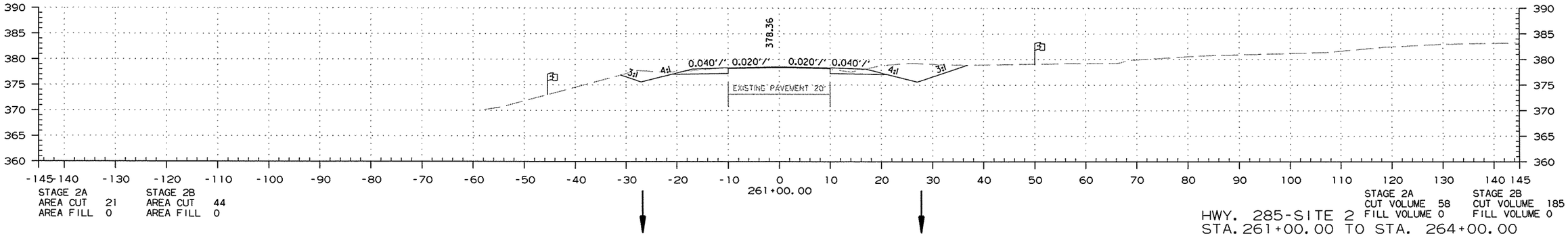
(2) CROSS SECTIONS



STA. 263+72.96
BEGIN SUPERELEVATION







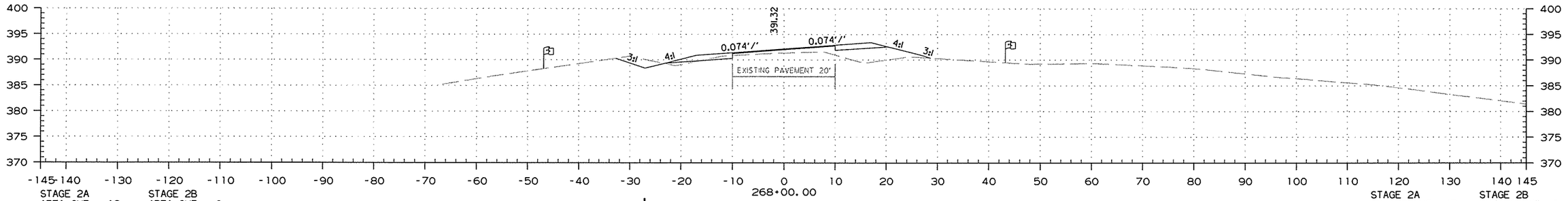
HWY. 285-SITE 2
STA. 261+00.00 TO STA. 264+00.00

12/4/2015

R080426.DGN

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		080426	189	271

(2) CROSS SECTIONS

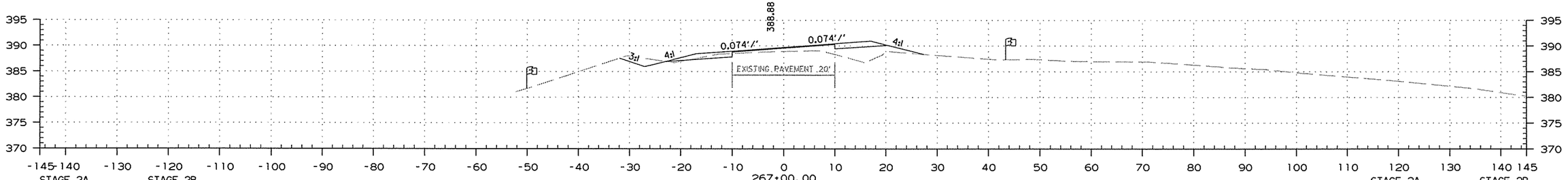


STAGE 2A
AREA CUT 12
AREA FILL 1

STAGE 2B
AREA CUT 0
AREA FILL 26

STAGE 2A
CUT VOLUME 47
FILL VOLUME 3

STAGE 2B
CUT VOLUME 0
FILL VOLUME 86



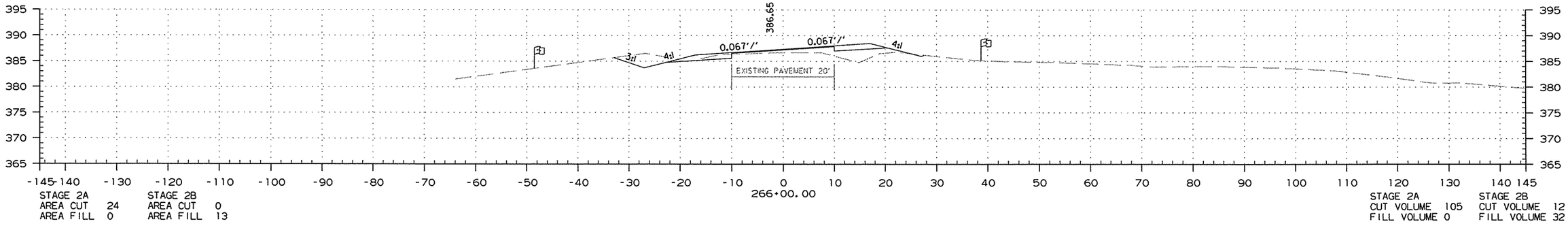
STAGE 2A
AREA CUT 13
AREA FILL 0

STAGE 2B
AREA CUT 0
AREA FILL 20

STAGE 2A
CUT VOLUME 69
FILL VOLUME 0

STAGE 2B
CUT VOLUME 1
FILL VOLUME 62

STA. 266+22.96
MAX SUPERELEVATION

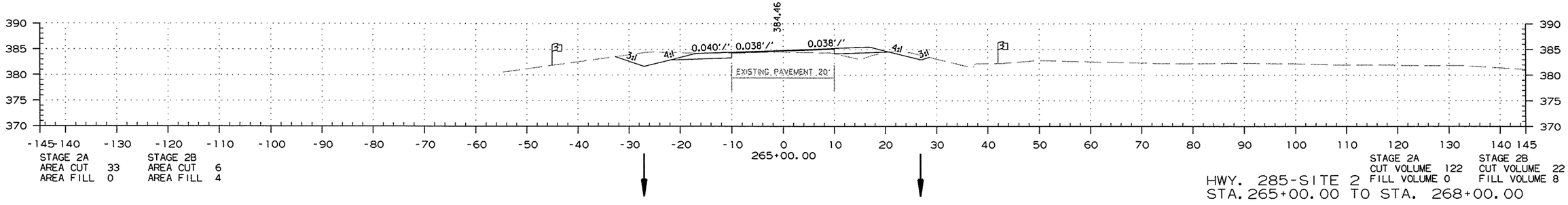


STAGE 2A
AREA CUT 24
AREA FILL 0

STAGE 2B
AREA CUT 0
AREA FILL 13

STAGE 2A
CUT VOLUME 105
FILL VOLUME 0

STAGE 2B
CUT VOLUME 12
FILL VOLUME 32



STAGE 2A
AREA CUT 33
AREA FILL 0

STAGE 2B
AREA CUT 6
AREA FILL 4

STAGE 2A
CUT VOLUME 122
FILL VOLUME 0

STAGE 2B
CUT VOLUME 22
FILL VOLUME 8

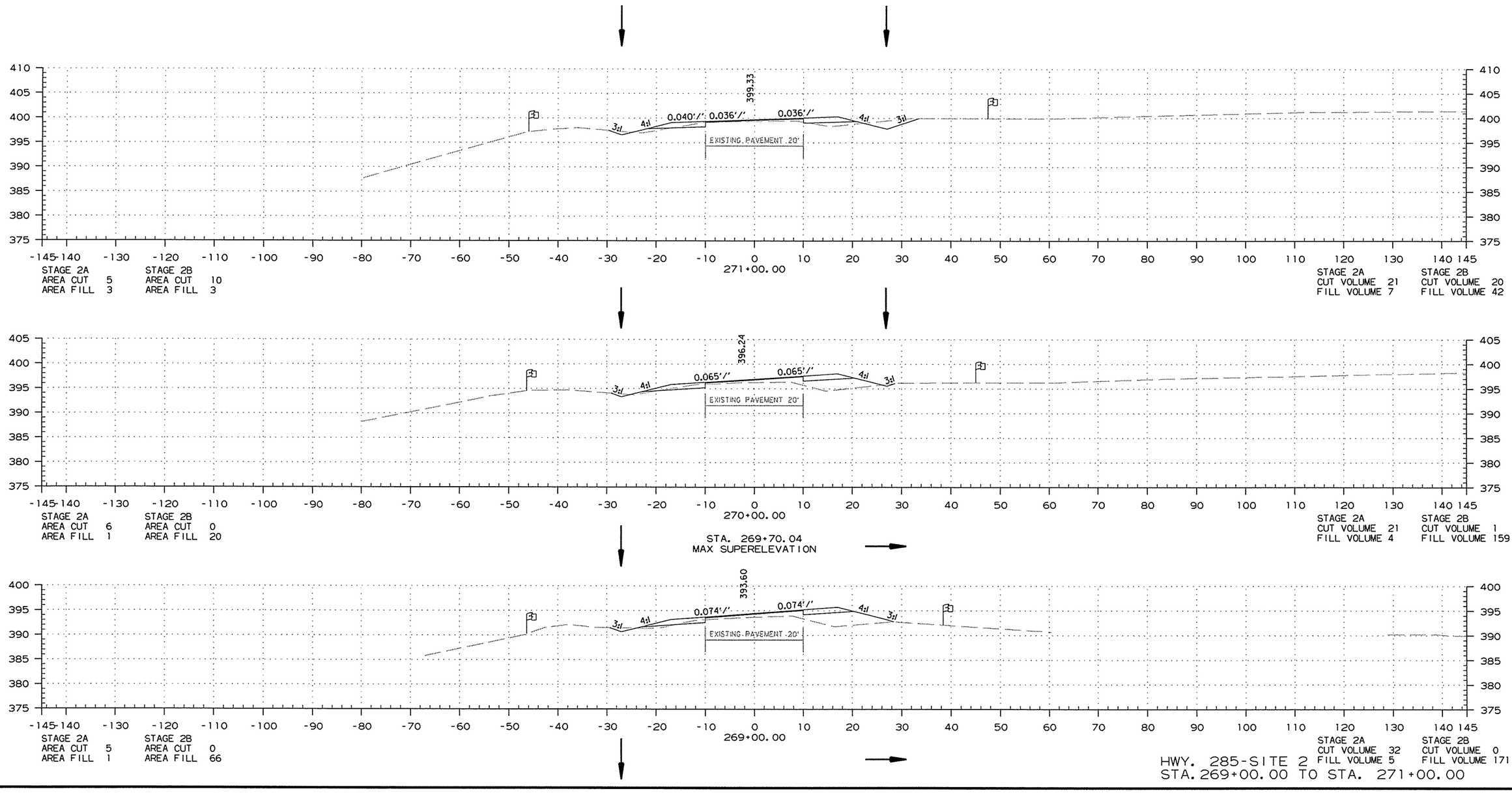
HWY. 285-SITE 2
STA. 265+00.00 TO STA. 268+00.00

12/4/2015

R080426.DGN

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		080426	190	271

(2) CROSS SECTIONS



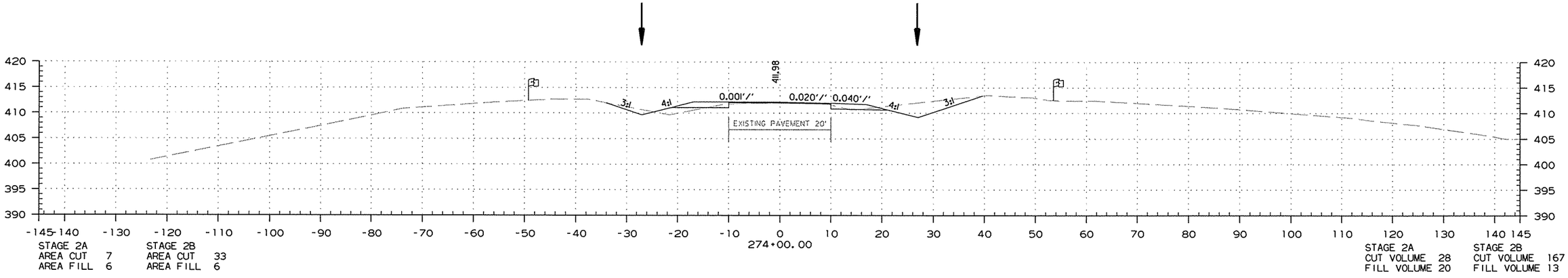
HWY. 285-SITE 2
STA. 269+00.00 TO STA. 271+00.00

12/4/2015

R080426.DGN

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		080426	191	271

(2) CROSS SECTIONS

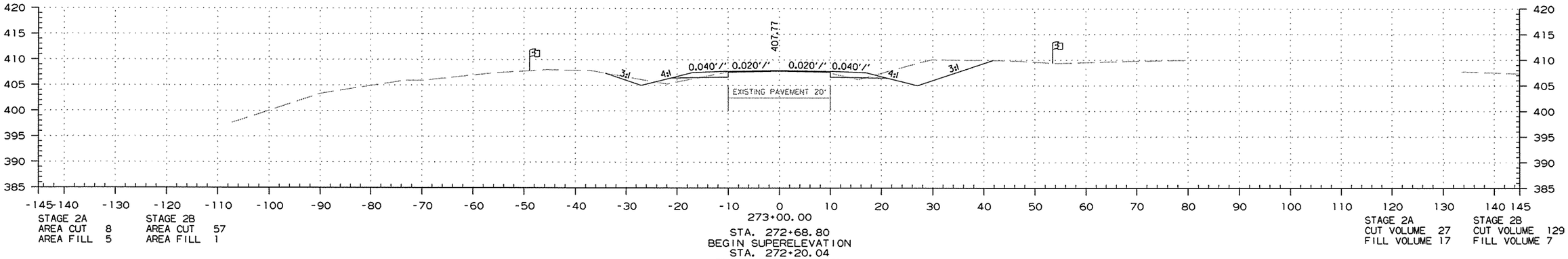


STAGE 2A
AREA CUT 7
AREA FILL 6

STAGE 2B
AREA CUT 33
AREA FILL 6

STAGE 2A
CUT VOLUME 28
FILL VOLUME 20

STAGE 2B
CUT VOLUME 167
FILL VOLUME 13



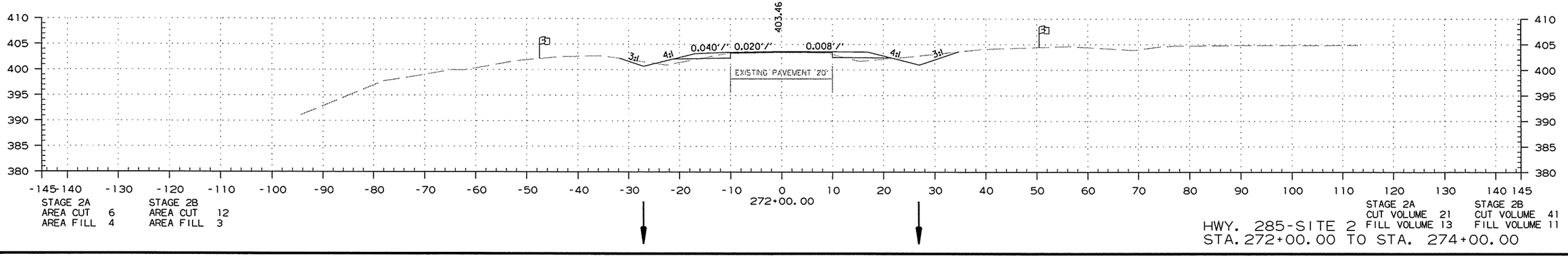
STAGE 2A
AREA CUT 8
AREA FILL 5

STAGE 2B
AREA CUT 57
AREA FILL 1

STAGE 2A
CUT VOLUME 27
FILL VOLUME 17

STAGE 2B
CUT VOLUME 129
FILL VOLUME 7

STA. 272+68.80
BEGIN SUPERELEVATION
STA. 272+20.04
END SUPERELEVATION



STAGE 2A
AREA CUT 6
AREA FILL 4

STAGE 2B
AREA CUT 12
AREA FILL 3

STAGE 2A
CUT VOLUME 21
FILL VOLUME 13

STAGE 2B
CUT VOLUME 41
FILL VOLUME 11

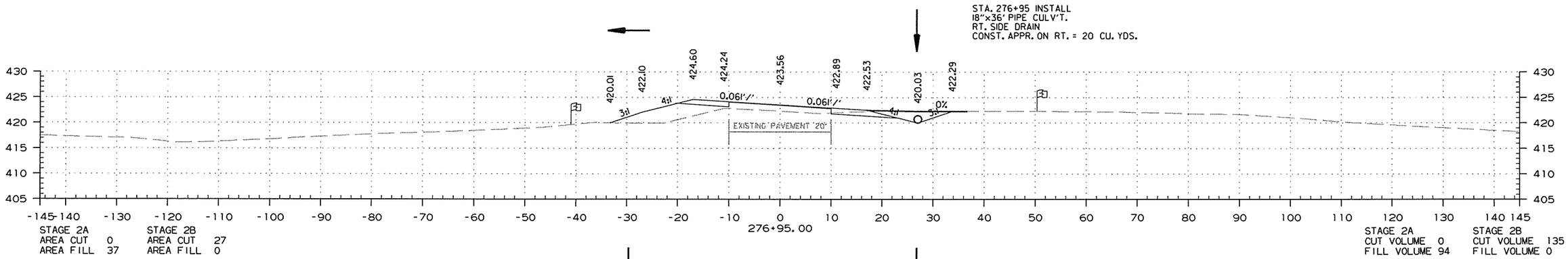
HWY. 285-SITE 2
STA. 272+00.00 TO STA. 274+00.00

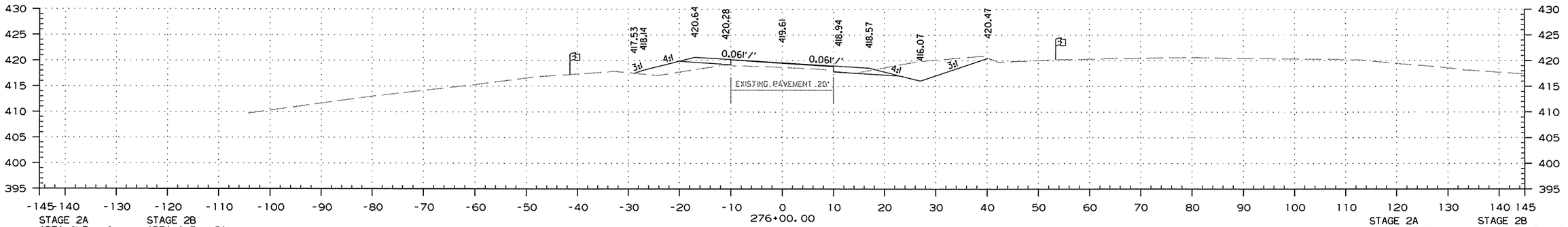
12/4/2015

R080426.DGN

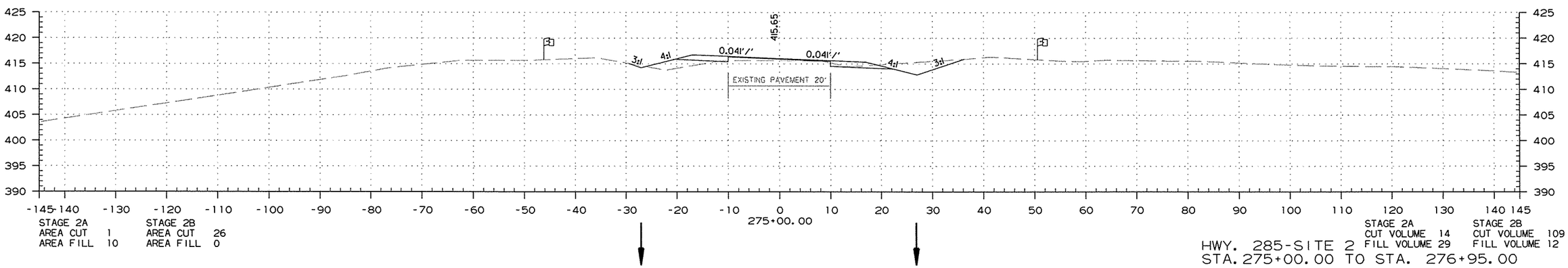
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		080426	192	271

(2) CROSS SECTIONS





STA. 275+68.80
MAX SUPERELEVATION



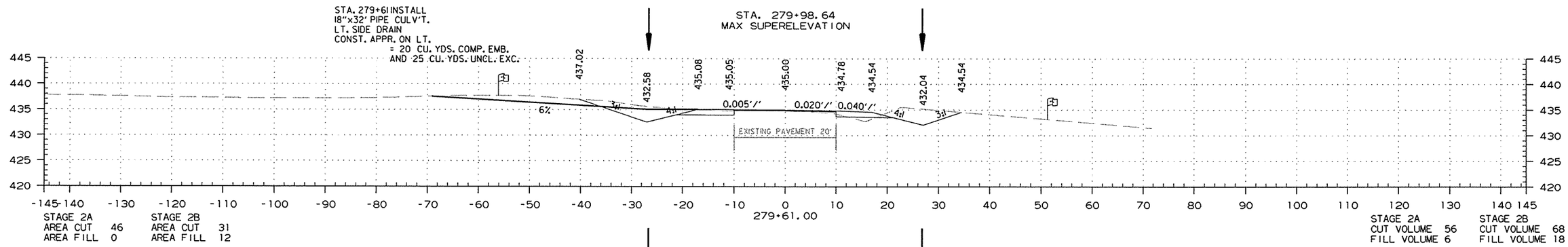
HWY. 285-SITE 2
STA. 275+00.00 TO STA. 276+95.00

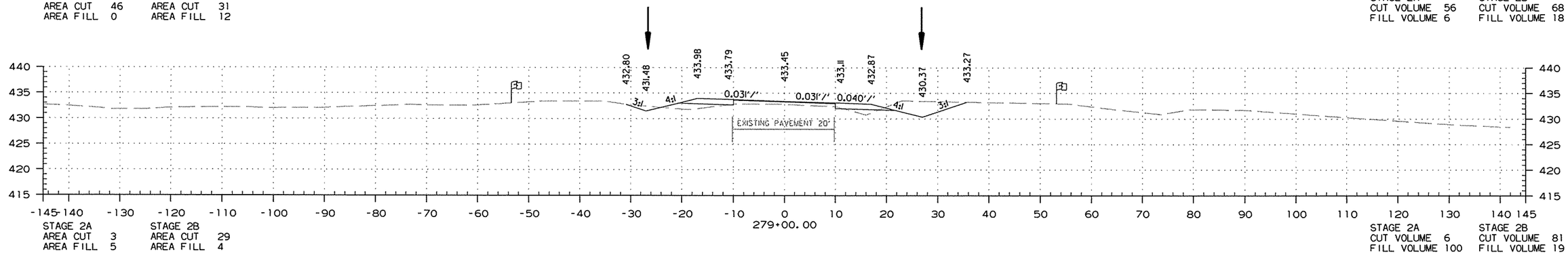
12/4/2015

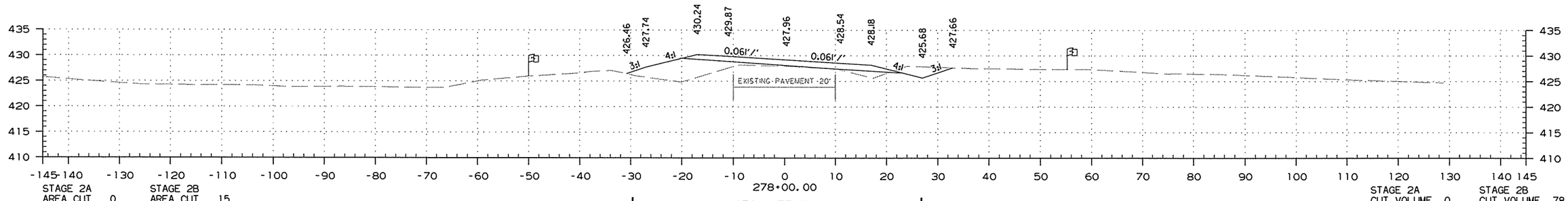
R080426.DGN

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		080426	193	271

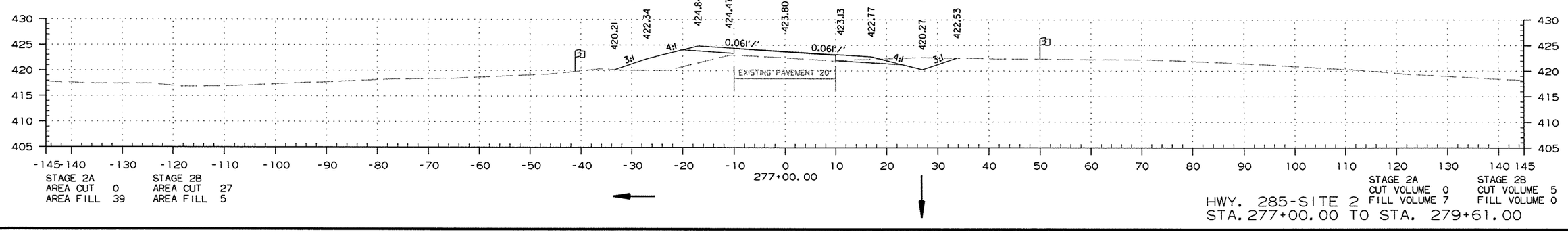
(2) CROSS SECTIONS







STA. 277+98.64
MAX SUPERELEVATION



HWY. 285-SITE 2
STA. 277+00.00 TO STA. 279+61.00

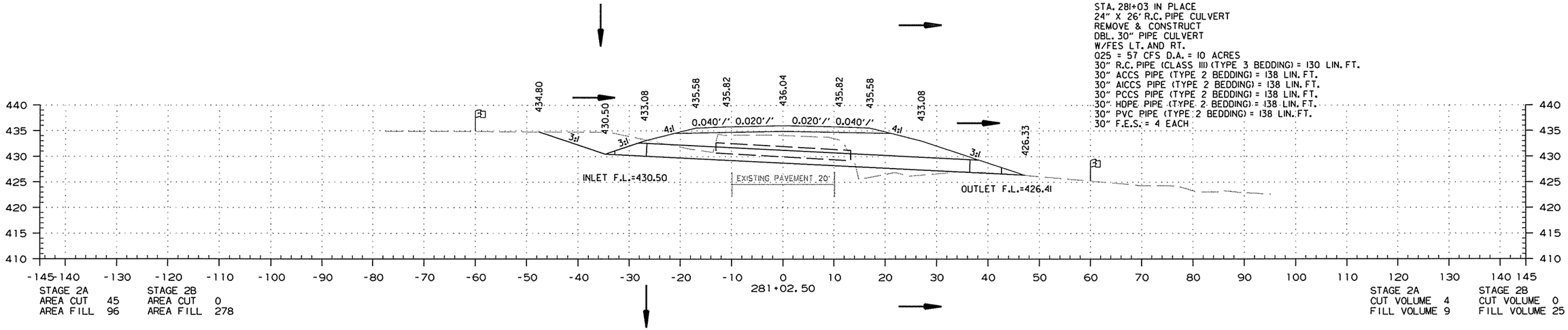
12/4/2015

R080426.DGN

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		080426	194	271

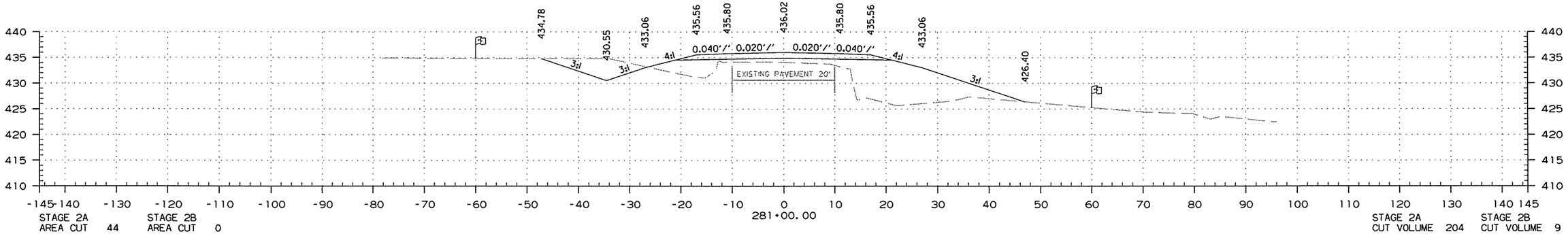
(2) CROSS SECTIONS

STA. 281+03 IN PLACE
24" X 26' R.C. PIPE CULVERT
REMOVE & CONSTRUCT
DBL. 30" PIPE CULVERT
W/FES LT. AND RT.
Q25 = 57 CFS D.A. = 10 ACRES
30" R.C. PIPE (CLASS III) (TYPE 3 BEDDING) = 130 LIN. FT.
30" ACCS PIPE (TYPE 2 BEDDING) = 138 LIN. FT.
30" AICCS PIPE (TYPE 2 BEDDING) = 138 LIN. FT.
30" PCCS PIPE (TYPE 2 BEDDING) = 138 LIN. FT.
30" HDPE PIPE (TYPE 2 BEDDING) = 138 LIN. FT.
30" PVC PIPE (TYPE 2 BEDDING) = 138 LIN. FT.
30" F.E.S. = 4 EACH



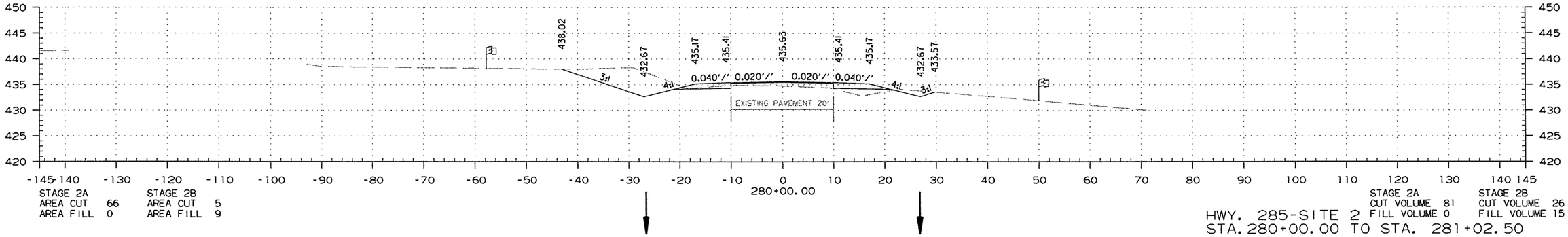
STAGE 2A AREA CUT 45 AREA FILL 96
STAGE 2B AREA CUT 0 AREA FILL 278

STAGE 2A CUT VOLUME 4 FILL VOLUME 9
STAGE 2B CUT VOLUME 0 FILL VOLUME 25



STAGE 2A AREA CUT 44 AREA FILL 94
STAGE 2B AREA CUT 0 AREA FILL 272

STAGE 2A CUT VOLUME 204 FILL VOLUME 174
STAGE 2B CUT VOLUME 9 FILL VOLUME 521



STAGE 2A AREA CUT 66 AREA FILL 0
STAGE 2B AREA CUT 5 AREA FILL 9

STAGE 2A CUT VOLUME 81 FILL VOLUME 0
STAGE 2B CUT VOLUME 26 FILL VOLUME 15

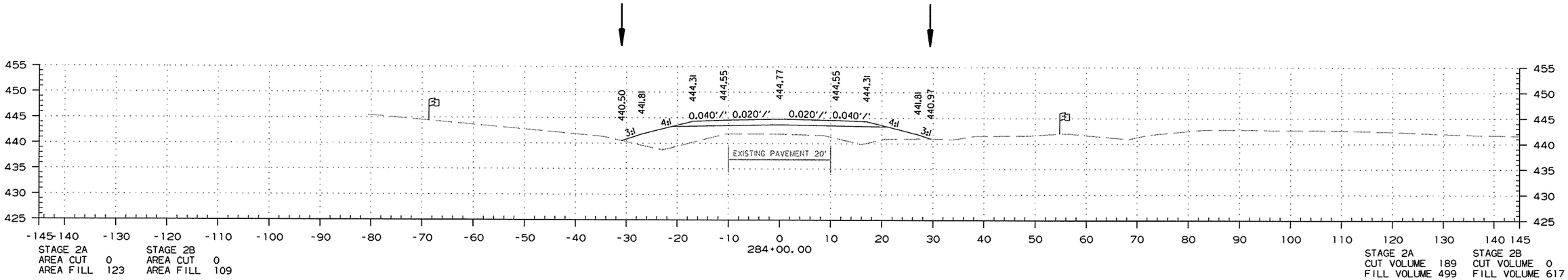
HWY. 285-SITE 2
STA. 280+00.00 TO STA. 281+02.50

12/4/2015

R080426.DGN

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		080426	195	271

(2) CROSS SECTIONS



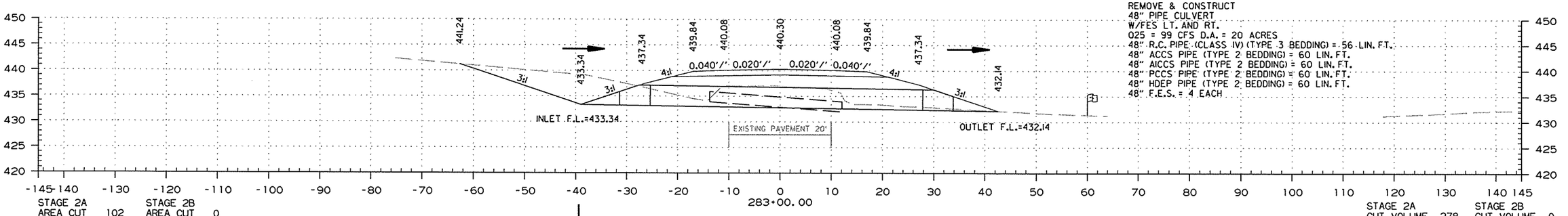
STAGE 2A
AREA CUT 0
AREA FILL 123

STAGE 2B
AREA CUT 0
AREA FILL 109

STAGE 2A
CUT VOLUME 189
FILL VOLUME 499

STAGE 2B
CUT VOLUME 0
FILL VOLUME 617

STA. 283+00 IN PLACE
24" X 26' C.M. PIPE CULVERT
REMOVE & CONSTRUCT
48" PIPE CULVERT
W/FES LT. AND RT.
Q25 = 99 CFS D.A. = 20 ACRES
48" R.C. PIPE (CLASS IV) (TYPE 3 BEDDING) = 56 LIN. FT.
48" ACCS PIPE (TYPE 2 BEDDING) = 60 LIN. FT.
48" AICCS PIPE (TYPE 2 BEDDING) = 60 LIN. FT.
48" PCCS PIPE (TYPE 2 BEDDING) = 60 LIN. FT.
48" HDEP PIPE (TYPE 2 BEDDING) = 60 LIN. FT.
48" F.E.S. = 4 EACH

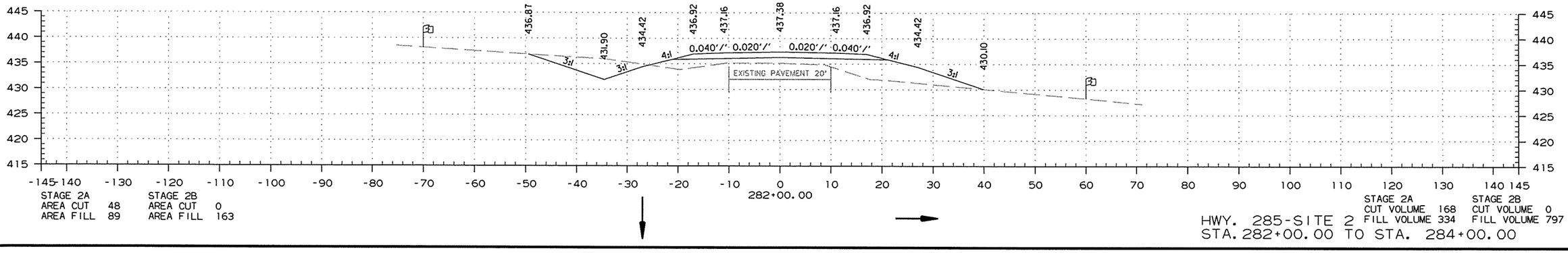


STAGE 2A
AREA CUT 102
AREA FILL 146

STAGE 2B
AREA CUT 0
AREA FILL 225

STAGE 2A
CUT VOLUME 278
FILL VOLUME 437

STAGE 2B
CUT VOLUME 0
FILL VOLUME 718



STAGE 2A
AREA CUT 48
AREA FILL 89

STAGE 2B
AREA CUT 0
AREA FILL 163

STAGE 2A
CUT VOLUME 168
FILL VOLUME 334

STAGE 2B
CUT VOLUME 0
FILL VOLUME 797

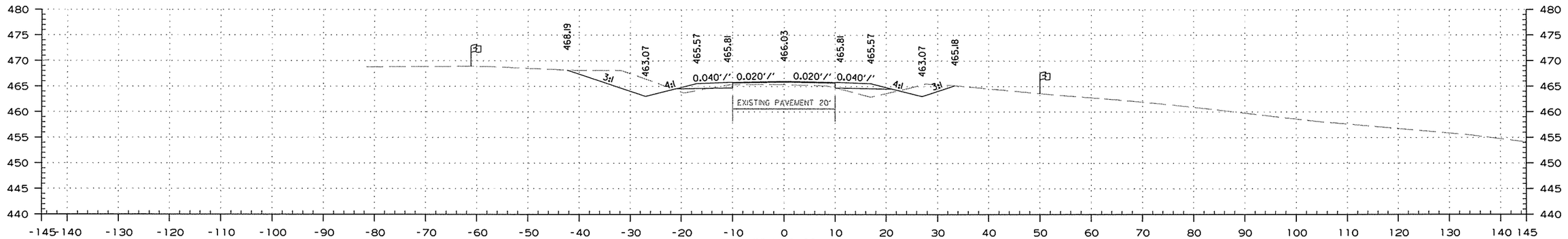
HWY. 285-SITE 2
STA. 282+00.00 TO STA. 284+00.00

12/4/2015

R080426.DGN

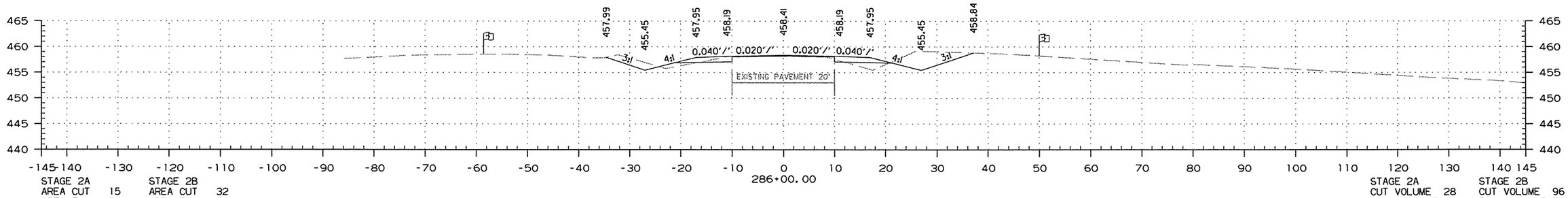
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		080426	196	271

(2) CROSS SECTIONS



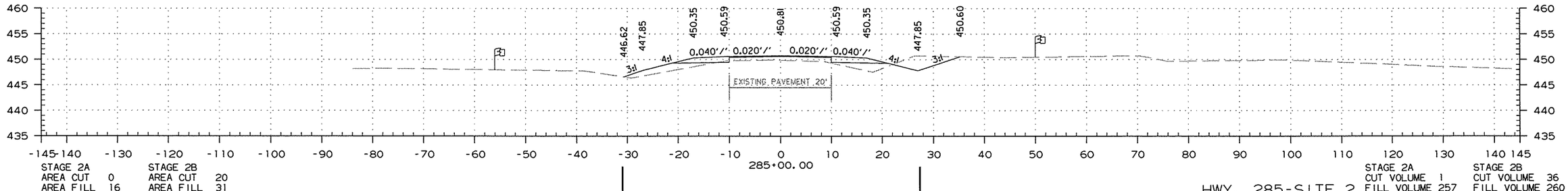
287+00.00

STAGE 2A		STAGE 2B	
AREA CUT	46	AREA CUT	13
AREA FILL	3	AREA FILL	11
CUT VOLUME	112	CUT VOLUME	83
FILL VOLUME	11	FILL VOLUME	31



286+00.00

STAGE 2A		STAGE 2B	
AREA CUT	15	AREA CUT	32
AREA FILL	3	AREA FILL	6
CUT VOLUME	28	CUT VOLUME	96
FILL VOLUME	36	FILL VOLUME	70



285+00.00

STAGE 2A		STAGE 2B	
AREA CUT	0	AREA CUT	20
AREA FILL	16	AREA FILL	31
CUT VOLUME	1	CUT VOLUME	36
FILL VOLUME	257	FILL VOLUME	260

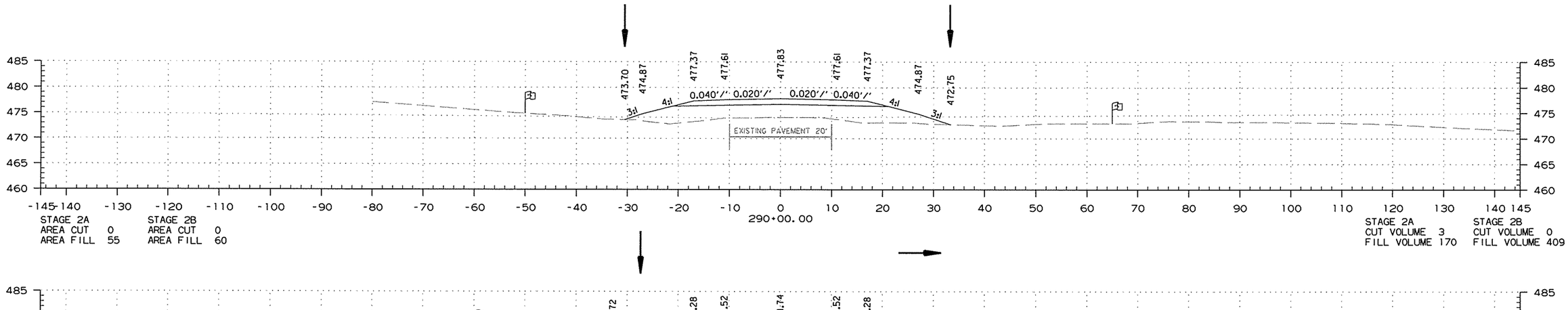
HWY. 285-SITE 2
STA. 285+00.00 TO STA. 287+00.00

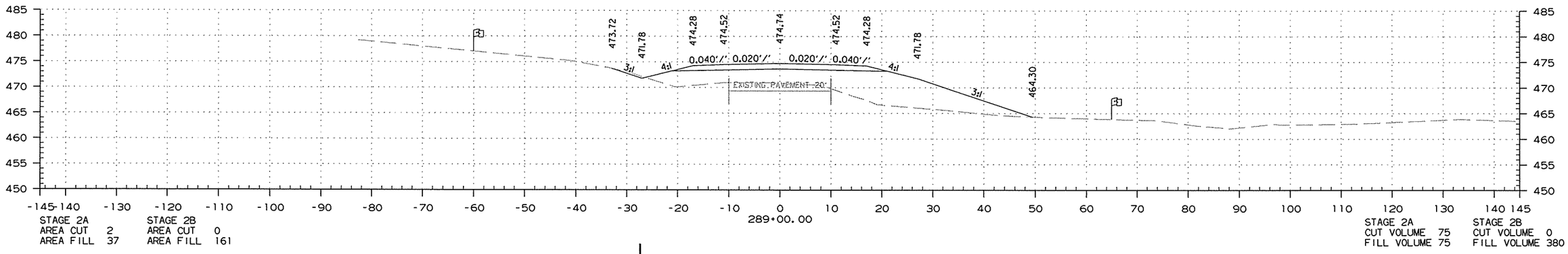
12/4/2015

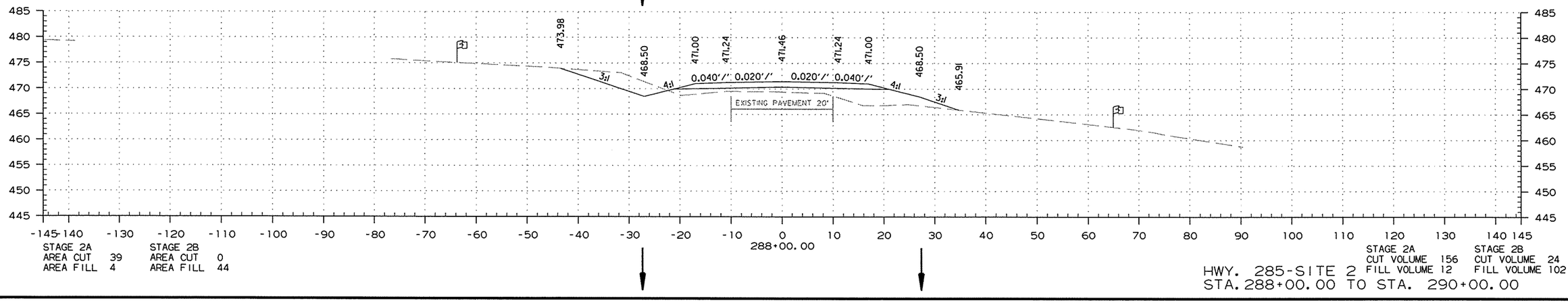
R080426.DGN

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		080426	197	271

(2) CROSS SECTIONS







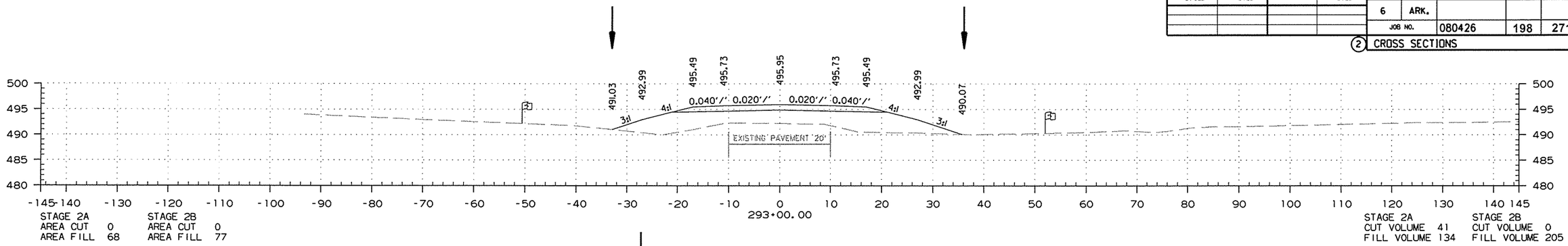
HWY. 285-SITE 2
STA. 288+00.00 TO STA. 290+00.00

12/4/2015

R080426.DGN

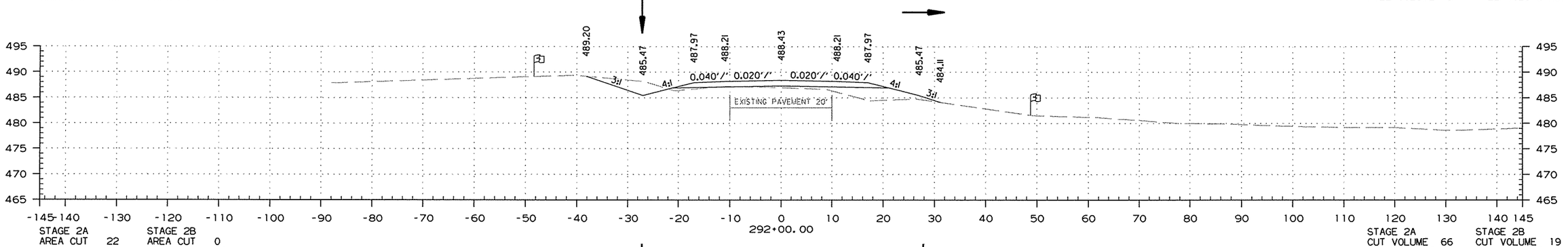
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		080426	198	271

(2) CROSS SECTIONS



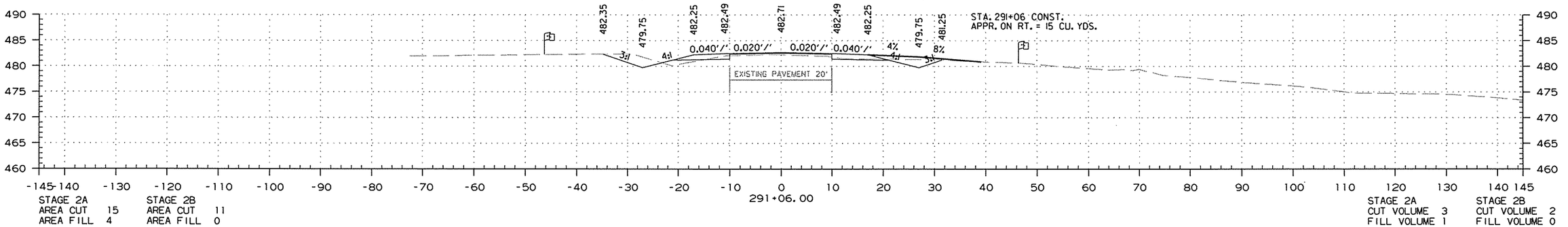
STAGE 2A AREA CUT 0 AREA FILL 68
STAGE 2B AREA CUT 0 AREA FILL 77

STAGE 2A CUT VOLUME 41 FILL VOLUME 134
STAGE 2B CUT VOLUME 0 FILL VOLUME 205



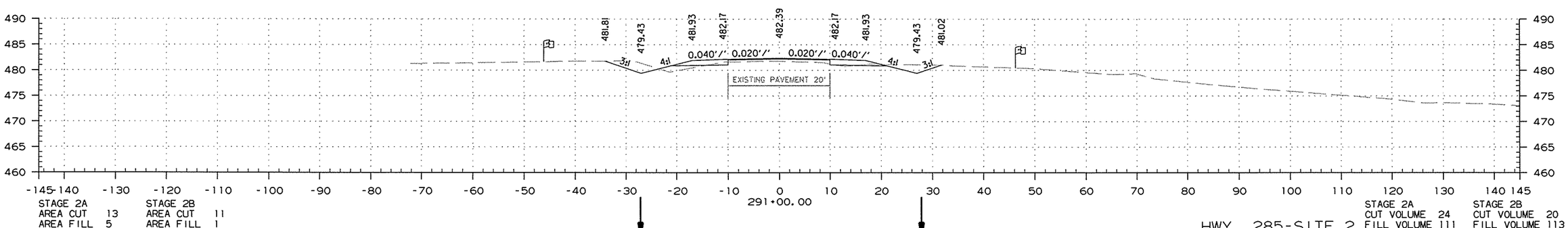
STAGE 2A AREA CUT 22 AREA FILL 4
STAGE 2B AREA CUT 0 AREA FILL 34

STAGE 2A CUT VOLUME 66 FILL VOLUME 14
STAGE 2B CUT VOLUME 19 FILL VOLUME 59



STAGE 2A AREA CUT 15 AREA FILL 4
STAGE 2B AREA CUT 11 AREA FILL 0

STAGE 2A CUT VOLUME 3 FILL VOLUME 1
STAGE 2B CUT VOLUME 2 FILL VOLUME 0



STAGE 2A AREA CUT 13 AREA FILL 5
STAGE 2B AREA CUT 11 AREA FILL 1

STAGE 2A CUT VOLUME 24 FILL VOLUME 111
STAGE 2B CUT VOLUME 20 FILL VOLUME 113

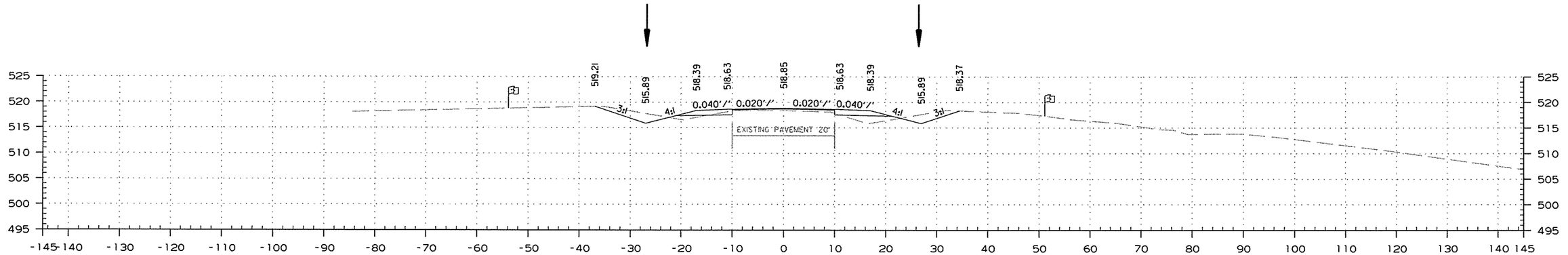
HWY. 285-SITE 2
STA. 291+00.00 TO STA. 293+00.00

12/4/2015

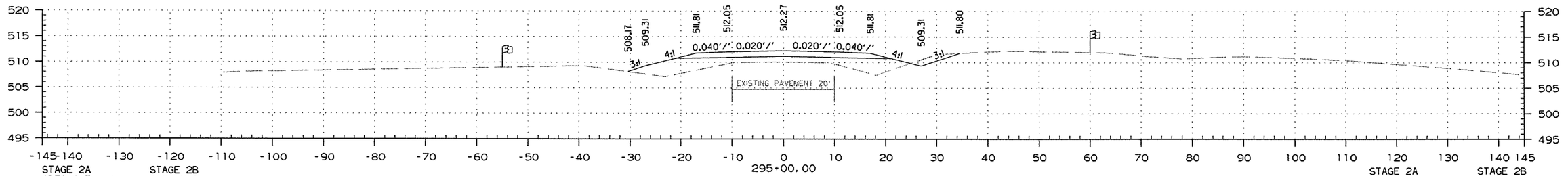
R080426.DGN

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		080426	199	271

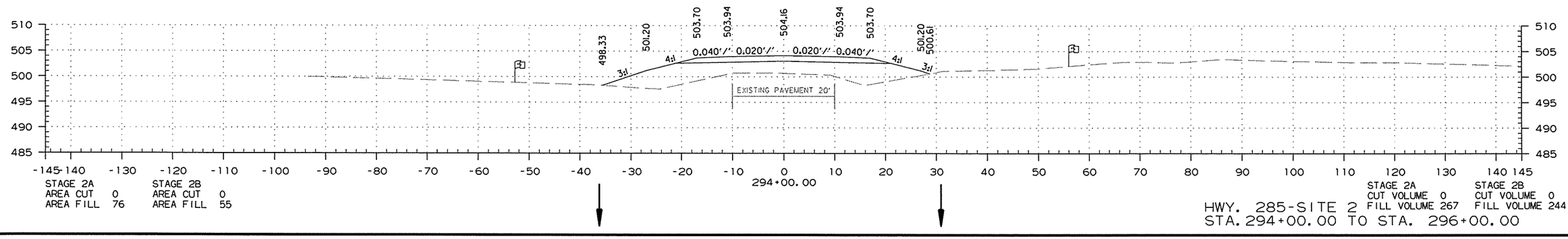
(2) CROSS SECTIONS



STAGE 2A AREA CUT 17 AREA FILL 3
STAGE 2B AREA CUT 12 AREA FILL 10
STAGE 2A CUT VOLUME 31 FILL VOLUME 77
STAGE 2B CUT VOLUME 36 FILL VOLUME 70



STAGE 2A AREA CUT 0 AREA FILL 38
STAGE 2B AREA CUT 8 AREA FILL 28
STAGE 2A CUT VOLUME 0 FILL VOLUME 211
STAGE 2B CUT VOLUME 15 FILL VOLUME 153



STAGE 2A AREA CUT 0 AREA FILL 76
STAGE 2B AREA CUT 0 AREA FILL 55
STAGE 2A CUT VOLUME 0 FILL VOLUME 267
STAGE 2B CUT VOLUME 0 FILL VOLUME 244

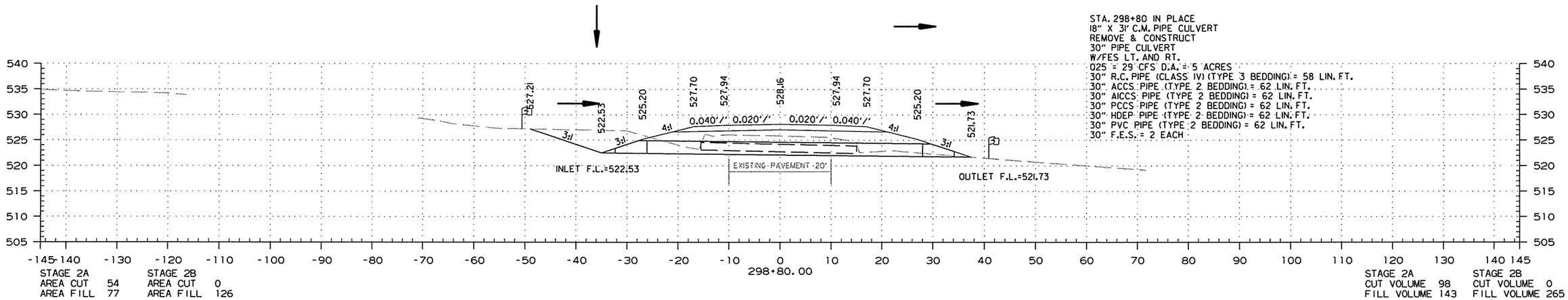
HWY. 285-SITE 2
STA. 294+00.00 TO STA. 296+00.00

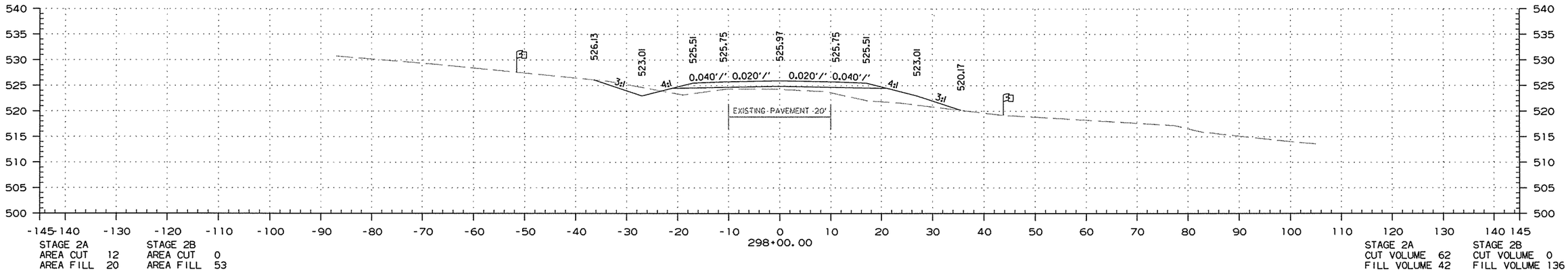
12/4/2015

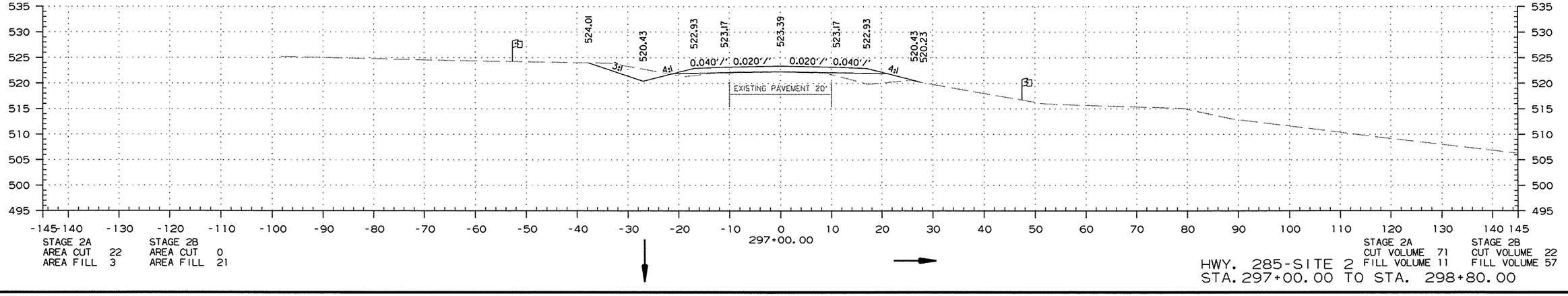
R080426.DGN

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		080426	200	271

(2) CROSS SECTIONS







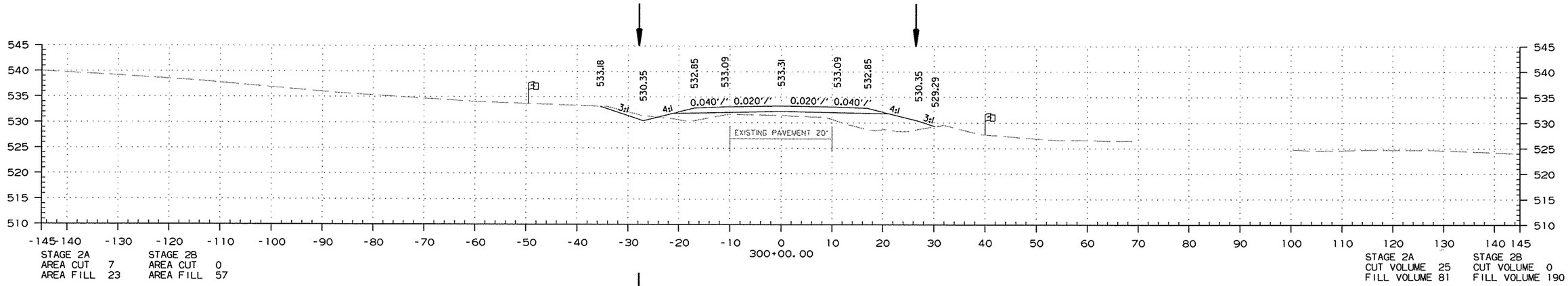
HWY. 285-SITE 2
STA. 297+00.00 TO STA. 298+80.00

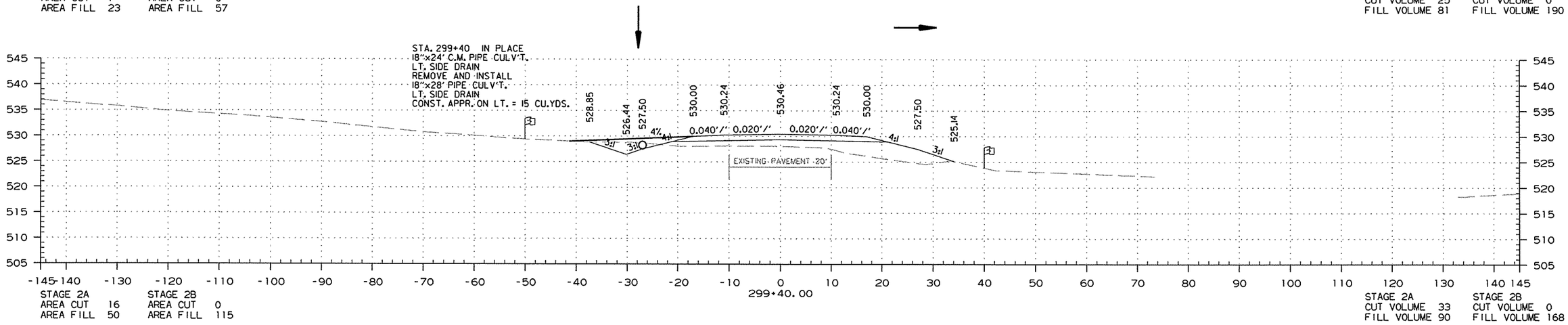
12/4/2015

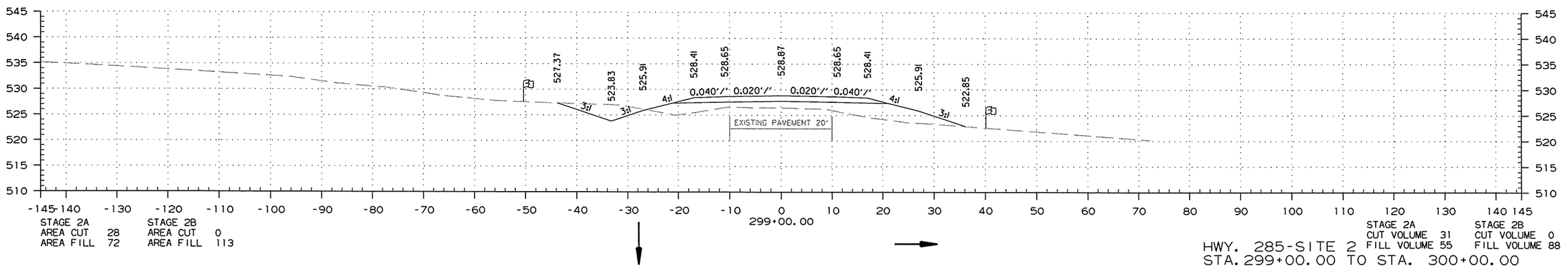
R080426.DGN

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		080426	201	271

(2) CROSS SECTIONS







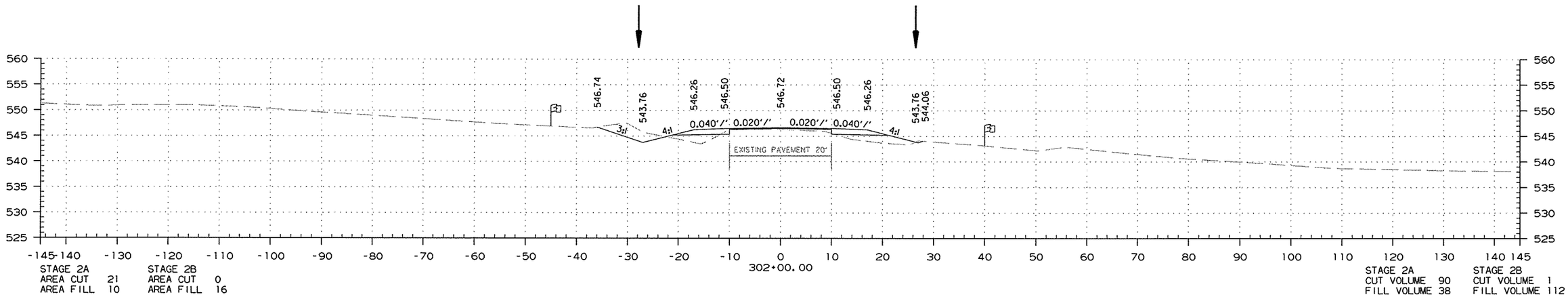
HWY. 285-SITE 2
STA. 299+00.00 TO STA. 300+00.00

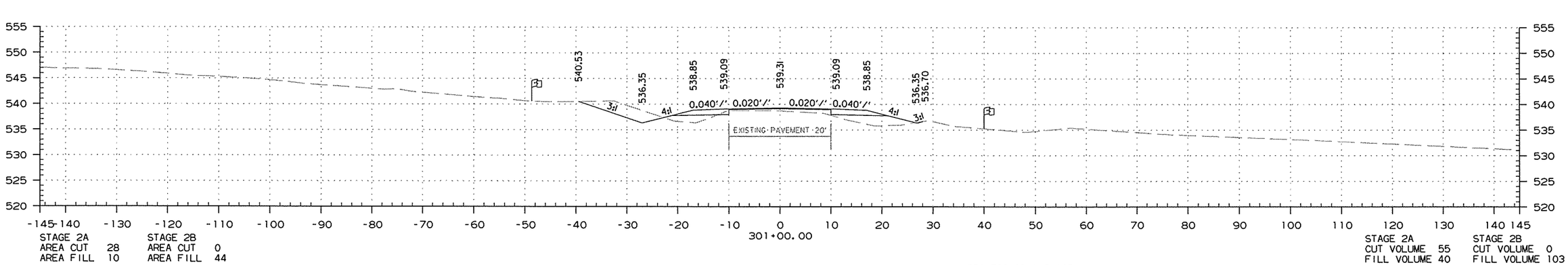
12/4/2015

R080426.DGN

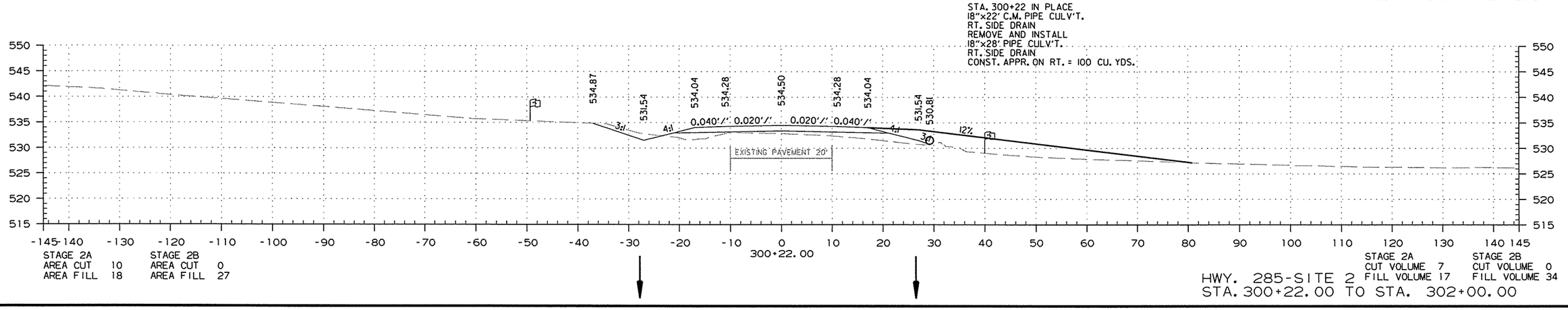
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		080426	202	271

(2) CROSS SECTIONS





STA. 300+22 IN PLACE
18"×22' C.M. PIPE CULV'T.
RT. SIDE DRAIN
REMOVE AND INSTALL
18"×28' PIPE CULV'T.
RT. SIDE DRAIN
CONST. APPR. ON RT. = 100 CU. YDS.



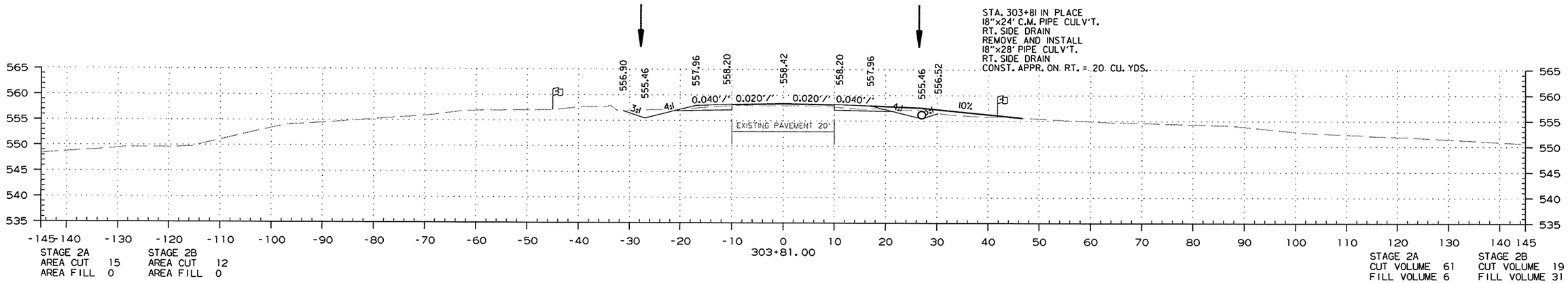
HWY. 285-SITE 2
STA. 300+22.00 TO STA. 302+00.00

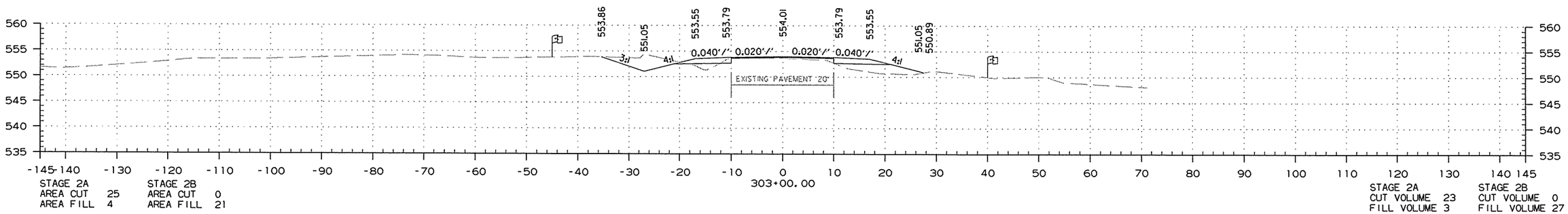
12/4/2015

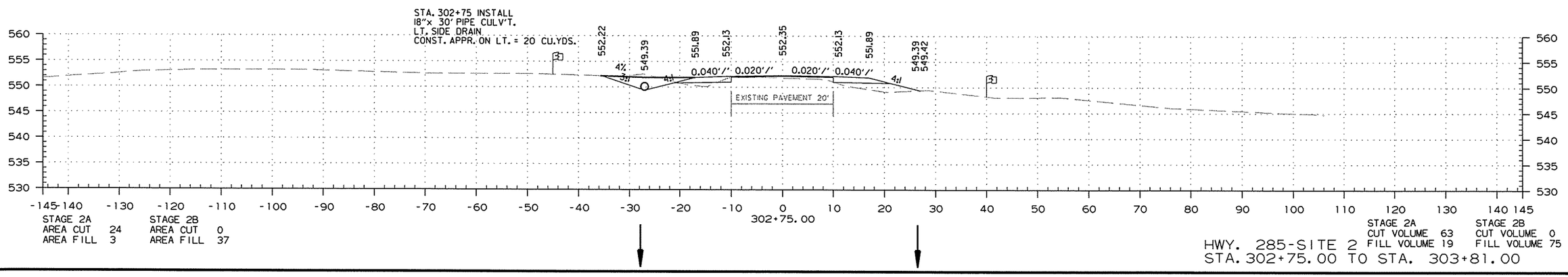
R080426.DGN

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		080426	203	271

(2) CROSS SECTIONS







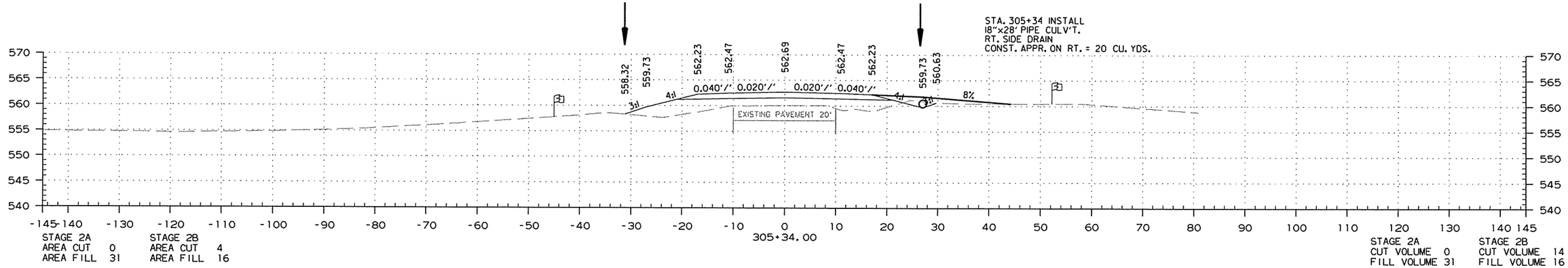
HWY. 285-SITE 2
STA. 302+75.00 TO STA. 303+81.00

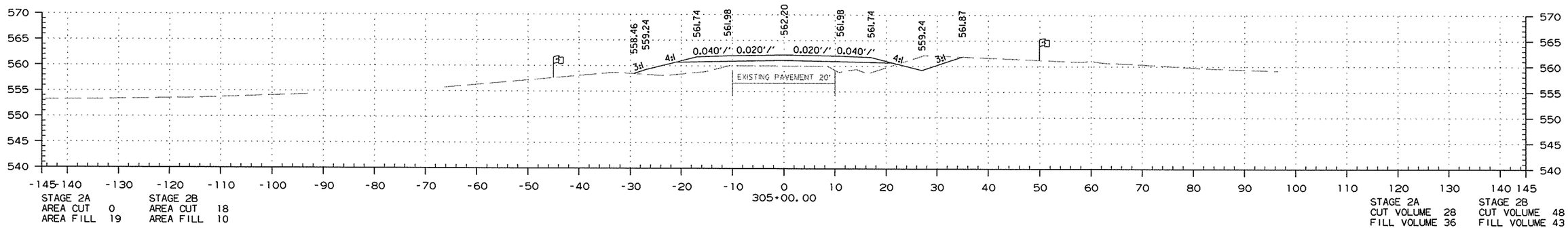
12/4/2015

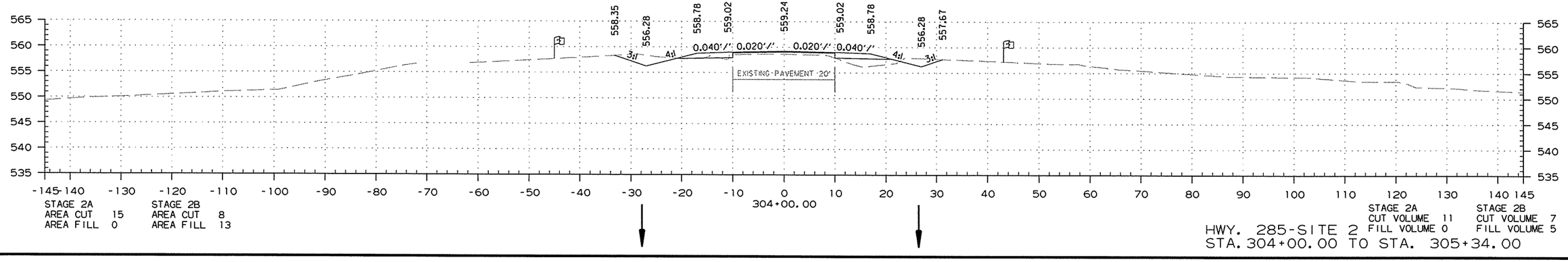
R080426.DGN

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		080426	204	271

(2) CROSS SECTIONS







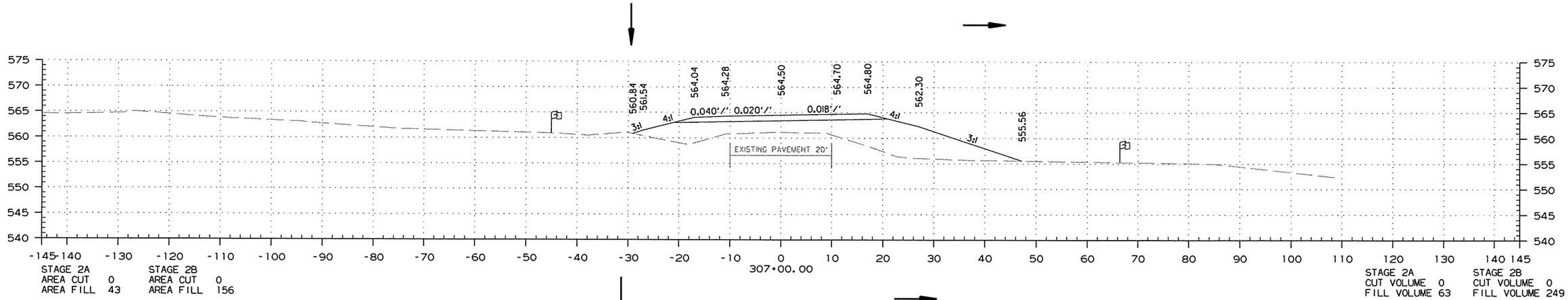
HWY. 285-SITE 2
STA. 304+00.00 TO STA. 305+34.00

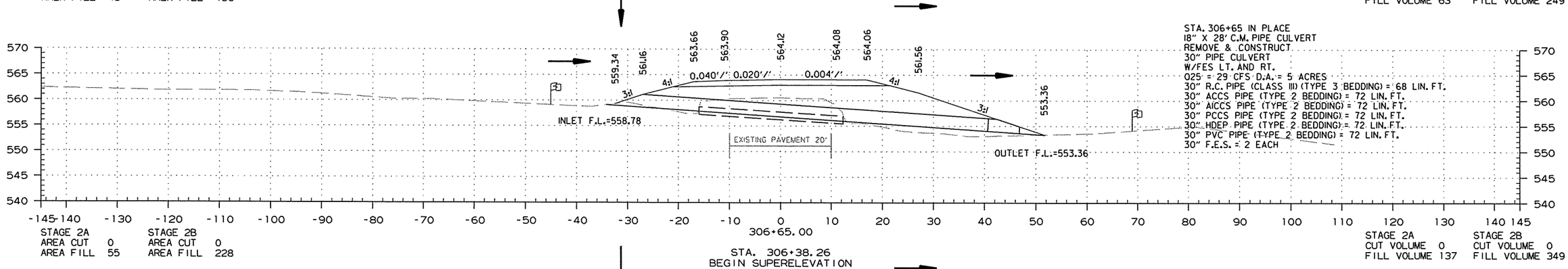
12/4/2015

R080426.DGN

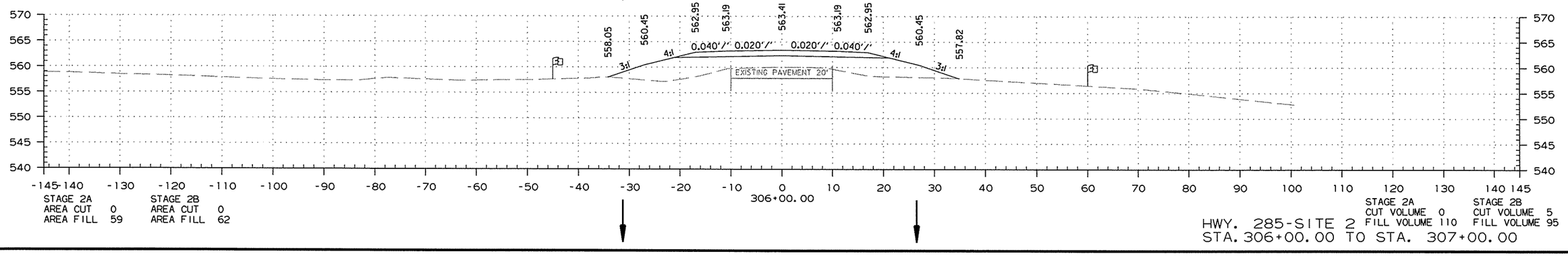
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		080426	205	271

(2) CROSS SECTIONS





STA. 306+38.26
BEGIN SUPERELEVATION



HWY. 285-SITE 2
STA. 306+00.00 TO STA. 307+00.00

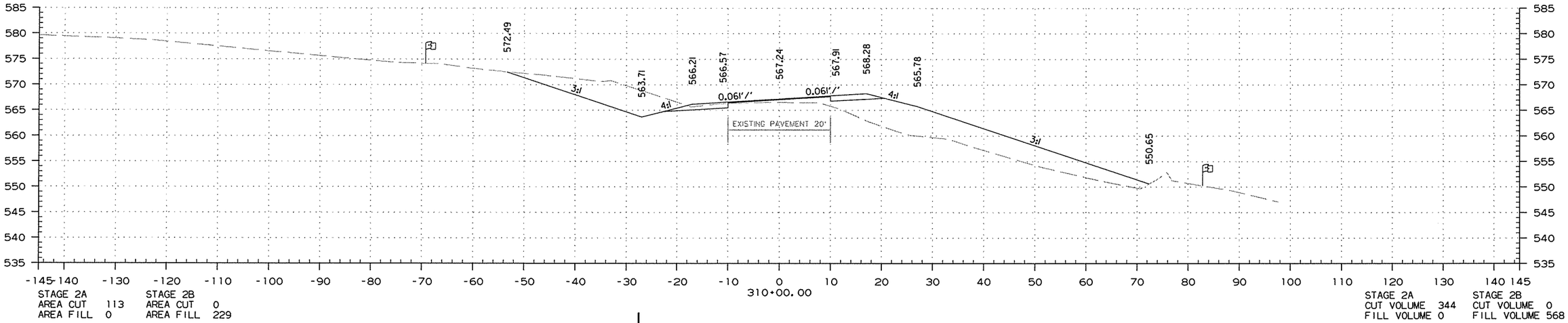
12/4/2015

R080426.DGN

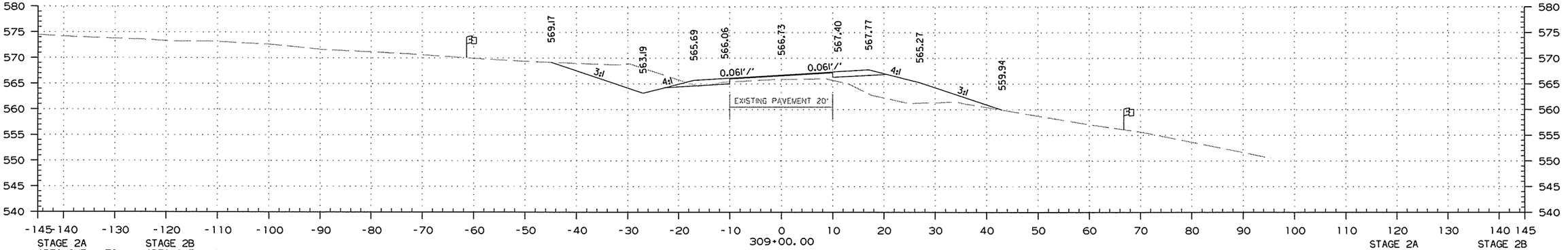
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		080426	206	271

(2) CROSS SECTIONS

STA. 310+13.99
MAX SUPERELEVATION

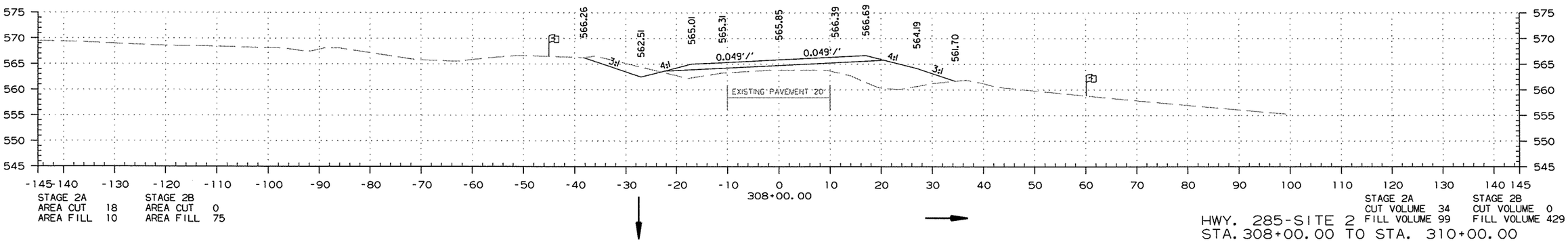


STAGE 2A AREA CUT 113 AREA FILL 0
STAGE 2B AREA CUT 0 AREA FILL 229
STAGE 2A CUT VOLUME 344 FILL VOLUME 0
STAGE 2B CUT VOLUME 0 FILL VOLUME 568



STAGE 2A AREA CUT 73 AREA FILL 0
STAGE 2B AREA CUT 0 AREA FILL 78
STAGE 2A CUT VOLUME 170 FILL VOLUME 19
STAGE 2B CUT VOLUME 0 FILL VOLUME 283

STA. 308+38.26
MAX SUPERELEVATION



STAGE 2A AREA CUT 18 AREA FILL 10
STAGE 2B AREA CUT 0 AREA FILL 75
STAGE 2A CUT VOLUME 34 FILL VOLUME 99
STAGE 2B CUT VOLUME 0 FILL VOLUME 429

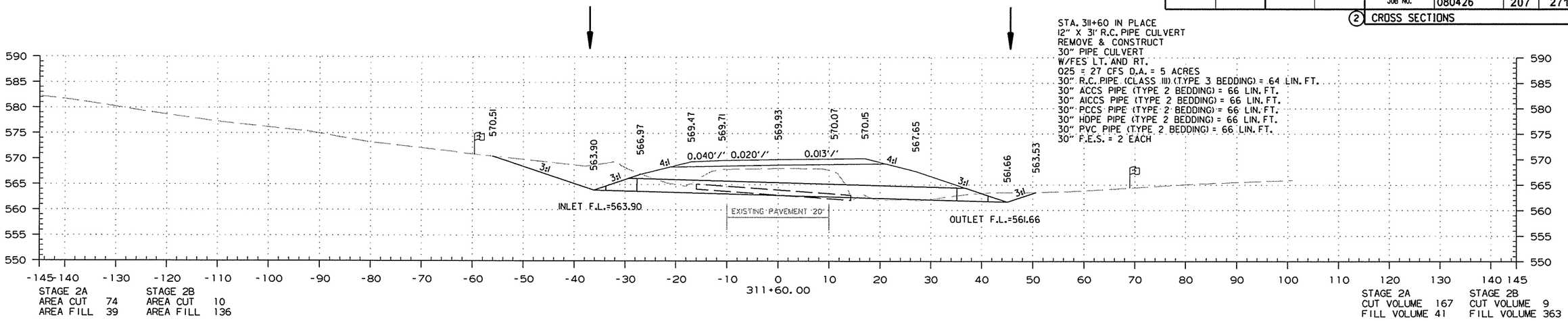
HWY. 285-SITE 2
STA. 308+00.00 TO STA. 310+00.00

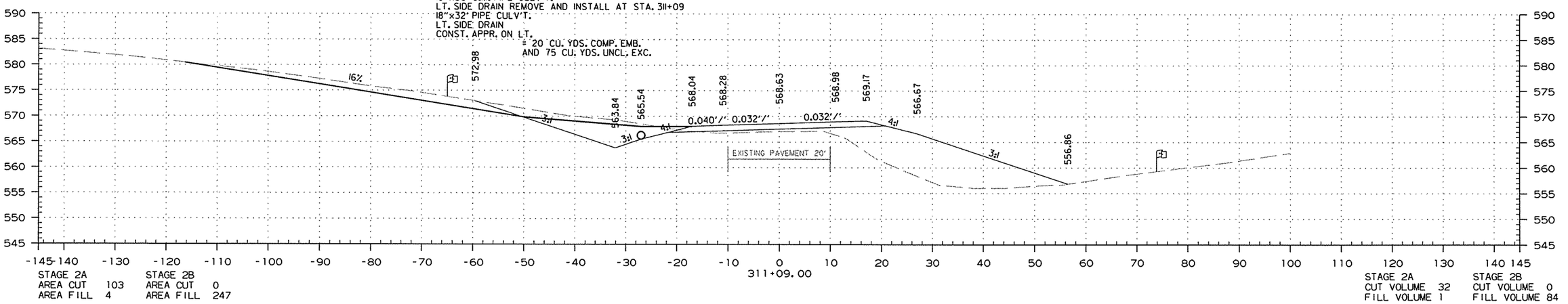
12/4/2015

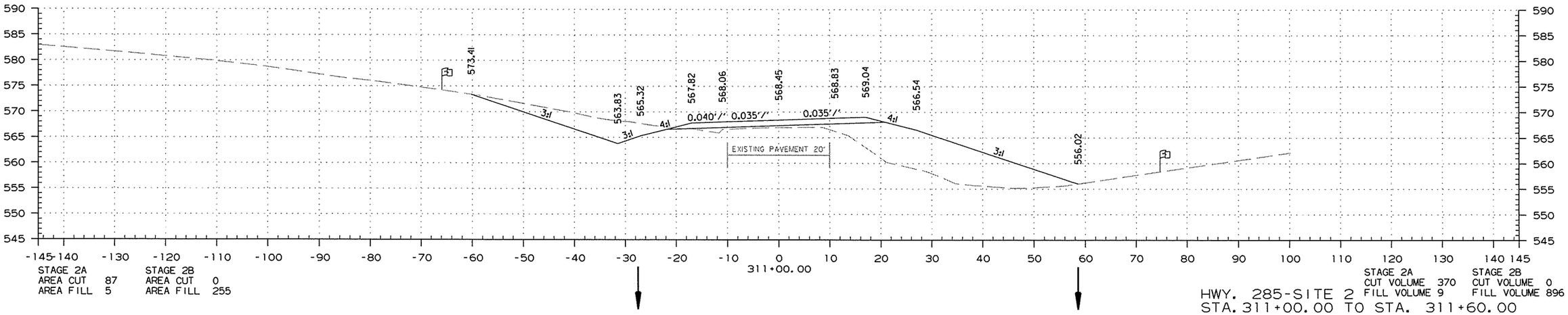
R080426.DGN

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		080426	207	271

(2) CROSS SECTIONS







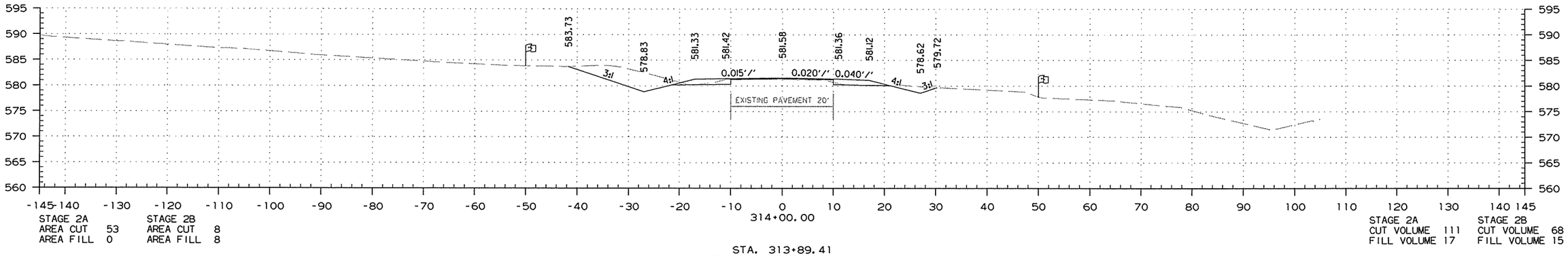
HWY. 285-SITE 2
STA. 311+00.00 TO STA. 311+60.00

12/4/2015

R080426.DGN

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		080426	208	271

(2) CROSS SECTIONS



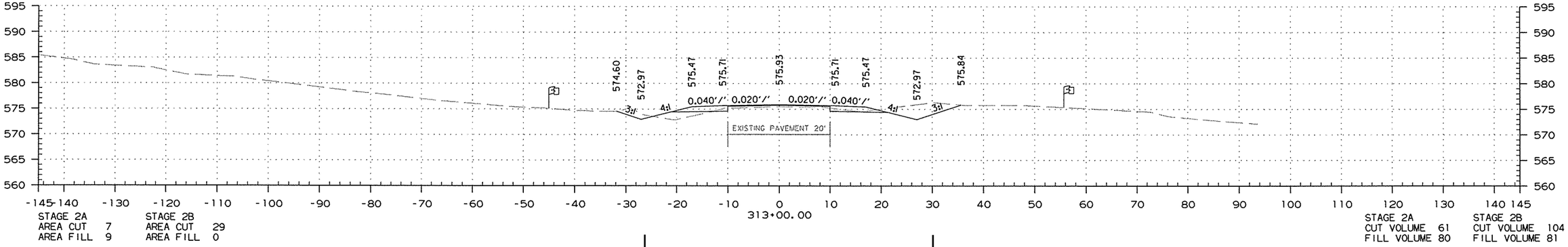
STAGE 2A
AREA CUT 53
AREA FILL 0

STAGE 2B
AREA CUT 8
AREA FILL 8

STAGE 2A
CUT VOLUME 111
FILL VOLUME 17

STAGE 2B
CUT VOLUME 68
FILL VOLUME 15

STA. 313+89.41
BEGIN SUPERELEVATION



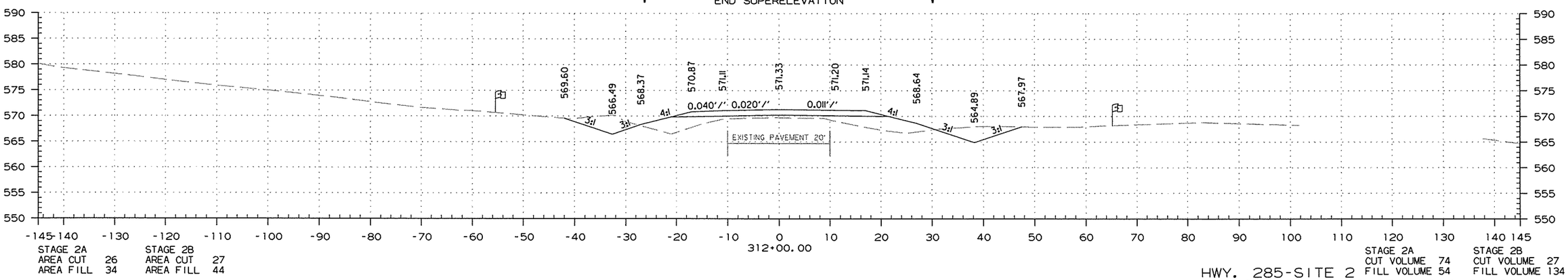
STAGE 2A
AREA CUT 7
AREA FILL 9

STAGE 2B
AREA CUT 29
AREA FILL 0

STAGE 2A
CUT VOLUME 61
FILL VOLUME 80

STAGE 2B
CUT VOLUME 104
FILL VOLUME 81

STA. 312+13.99
END SUPERELEVATION



STAGE 2A
AREA CUT 26
AREA FILL 34

STAGE 2B
AREA CUT 27
AREA FILL 44

STAGE 2A
CUT VOLUME 74
FILL VOLUME 54

STAGE 2B
CUT VOLUME 27
FILL VOLUME 134

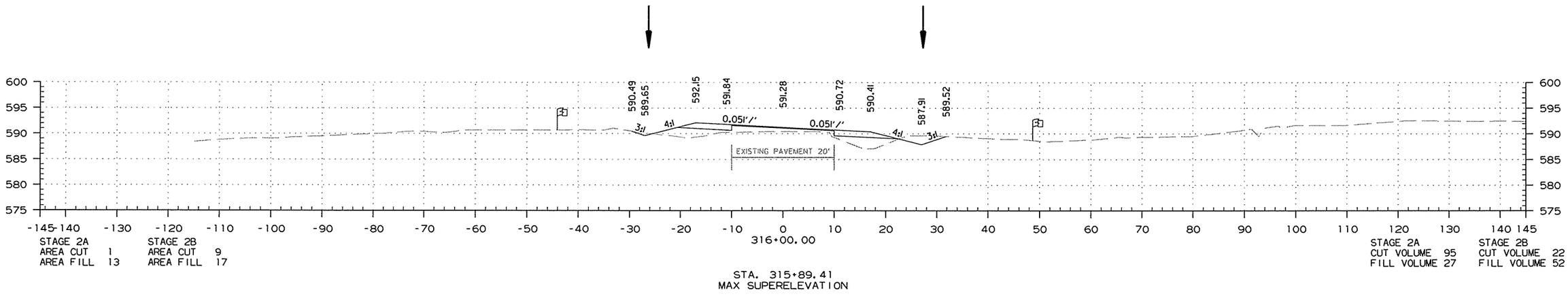
HWY. 285-SITE 2
STA. 312+00.00 TO STA. 314+00.00

12/4/2015

R080426.DGN

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		080426	209	271

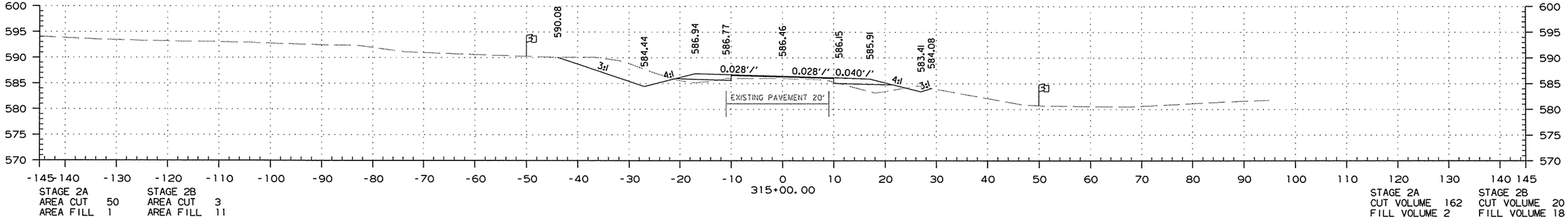
(2) CROSS SECTIONS



STAGE 2A: AREA CUT 1, AREA FILL 13 — STAGE 2B: AREA CUT 9, AREA FILL 17

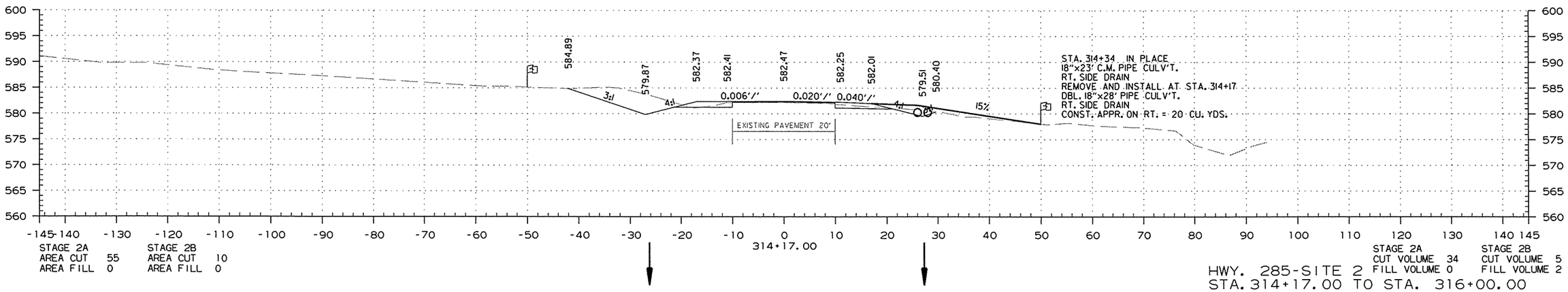
STAGE 2A: CUT VOLUME 95, FILL VOLUME 27 — STAGE 2B: CUT VOLUME 22, FILL VOLUME 52

STA. 315+89.41
MAX SUPERELEVATION



STAGE 2A: AREA CUT 50, AREA FILL 1 — STAGE 2B: AREA CUT 3, AREA FILL 11

STAGE 2A: CUT VOLUME 162, FILL VOLUME 2 — STAGE 2B: CUT VOLUME 20, FILL VOLUME 18



STAGE 2A: AREA CUT 55, AREA FILL 0 — STAGE 2B: AREA CUT 10, AREA FILL 0

STAGE 2A: CUT VOLUME 34, FILL VOLUME 0 — STAGE 2B: CUT VOLUME 5, FILL VOLUME 2

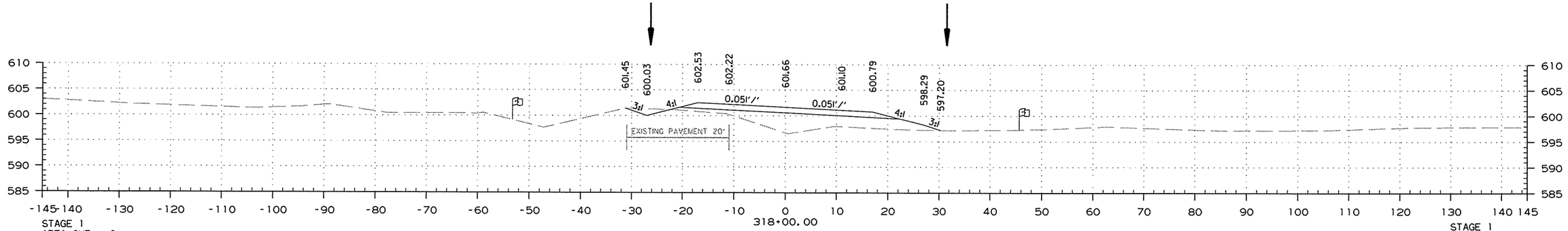
HWY. 285-SITE 2
STA. 314+17.00 TO STA. 316+00.00

12/4/2015

R080426.DGN

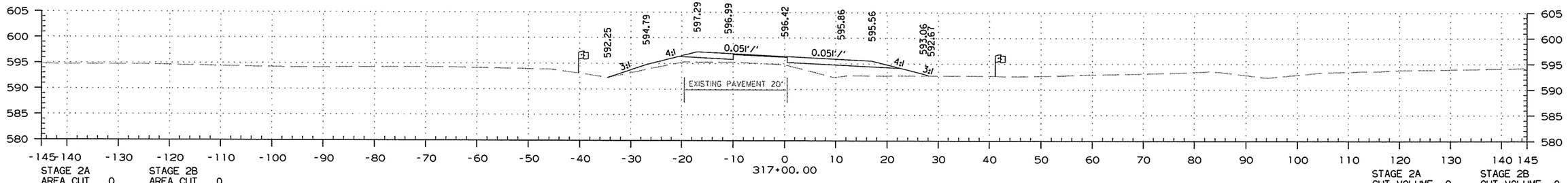
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		080426	210	271

(2) CROSS SECTIONS



STAGE 1
AREA CUT 6
AREA FILL 92

STAGE 1
CUT VOLUME 11
FILL VOLUME 272



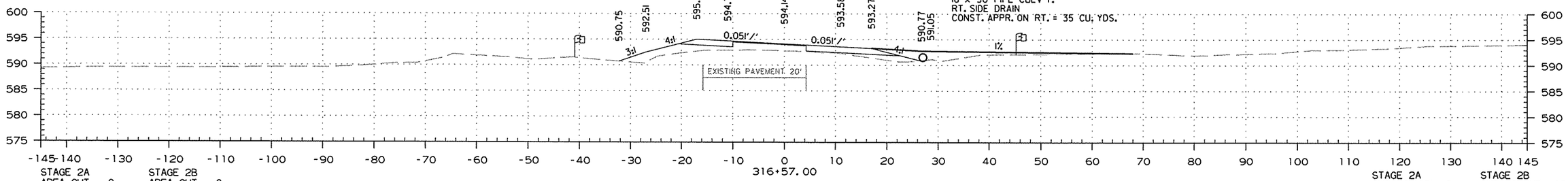
STAGE 2A
AREA CUT 0
AREA FILL 15

STAGE 2B
AREA CUT 0
AREA FILL 27

STAGE 2A
CUT VOLUME 0
FILL VOLUME 31

STAGE 2B
CUT VOLUME 0
FILL VOLUME 30

STA. 316+32 IN PLACE
18"x50' C.M. PIPE CULV'T.
RT. SIDE DRAIN
REMOVE AND INSTALL AT STA. 316+57
18"x 50' PIPE CULV'T.
RT. SIDE DRAIN
CONST. APPR. ON RT. = 35 CU. YDS.



STAGE 2A
AREA CUT 0
AREA FILL 23

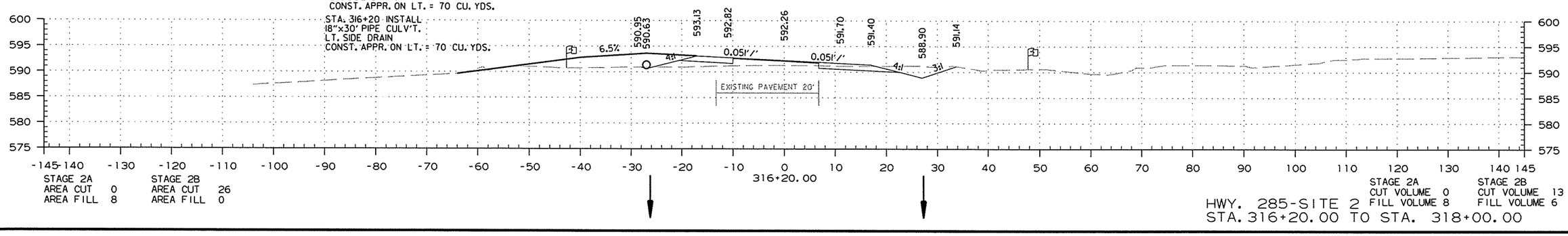
STAGE 2B
AREA CUT 0
AREA FILL 10

STAGE 2A
CUT VOLUME 0
FILL VOLUME 22

STAGE 2B
CUT VOLUME 18
FILL VOLUME 7

STA. 316+20 INSTALL
18"x32' PIPE CULV'T.
LT. SIDE DRAIN
CONST. APPR. ON LT. = 70 CU. YDS.

STA. 316+20 INSTALL
18"x30' PIPE CULV'T.
LT. SIDE DRAIN
CONST. APPR. ON LT. = 70 CU. YDS.



STAGE 2A
AREA CUT 0
AREA FILL 8

STAGE 2B
AREA CUT 26
AREA FILL 0

STAGE 2A
CUT VOLUME 0
FILL VOLUME 8

STAGE 2B
CUT VOLUME 13
FILL VOLUME 6

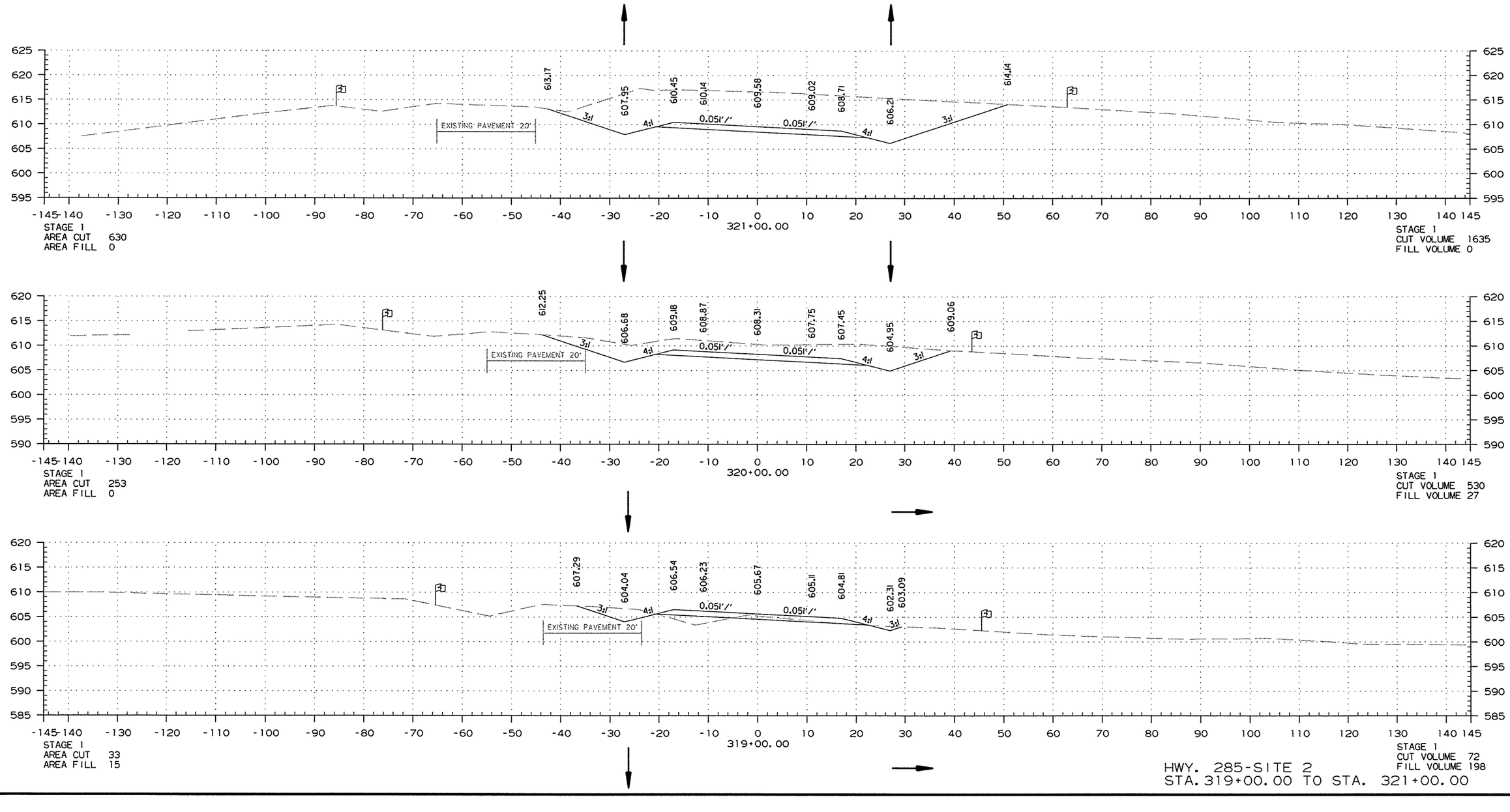
HWY. 285-SITE 2
STA. 316+20.00 TO STA. 318+00.00

12/4/2015

R080426.DGN

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		080426	211	271

(2) CROSS SECTIONS



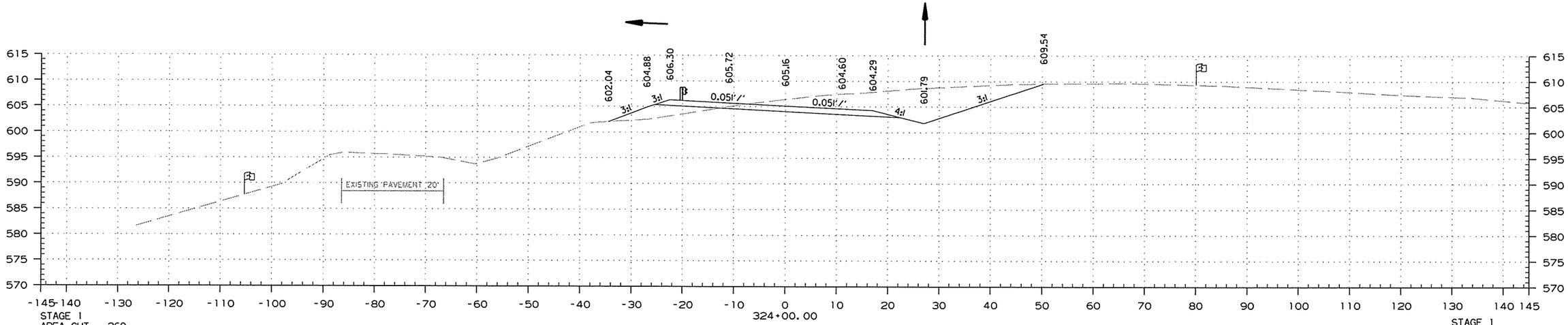
HWY. 285-SITE 2
STA. 319+00.00 TO STA. 321+00.00

12/4/2015

R080426.DGN

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		080426	212	271

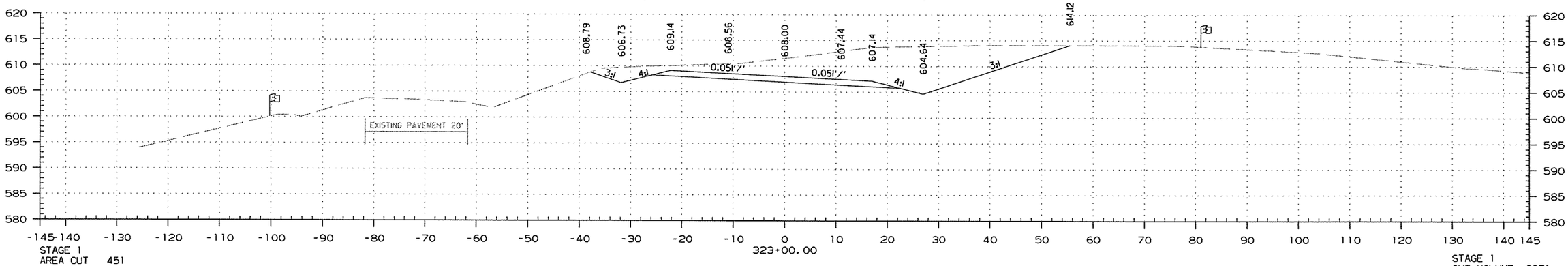
(2) CROSS SECTIONS



STAGE 1
AREA CUT 269
AREA FILL 30

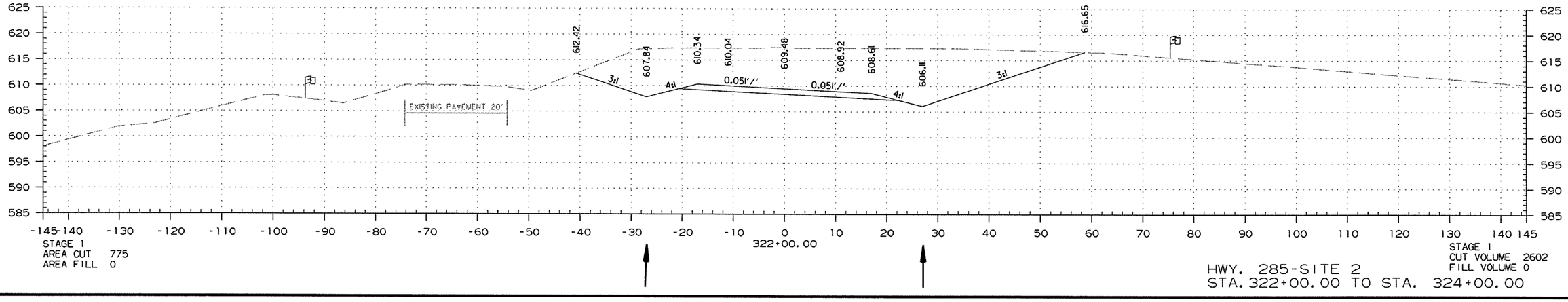
STAGE 1
CUT VOLUME 1334
FILL VOLUME 55

STA. 323+11.60
BEGIN GUARDRAIL



STAGE 1
AREA CUT 451
AREA FILL 0

STAGE 1
CUT VOLUME 2271
FILL VOLUME 0



STAGE 1
AREA CUT 775
AREA FILL 0

STAGE 1
CUT VOLUME 2602
FILL VOLUME 0

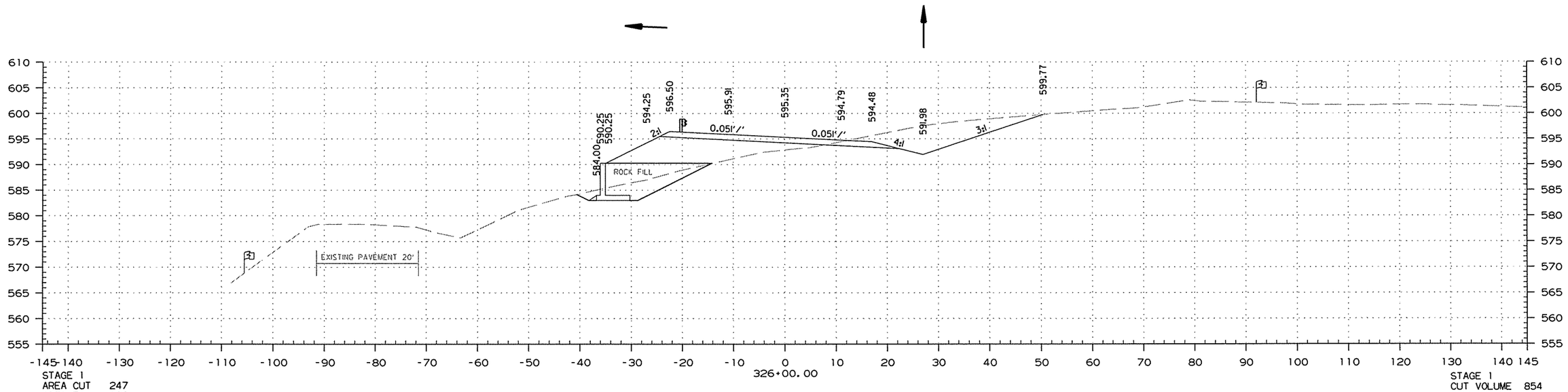
HWY. 285-SITE 2
STA. 322+00.00 TO STA. 324+00.00

12/4/2015

R080426.DGN

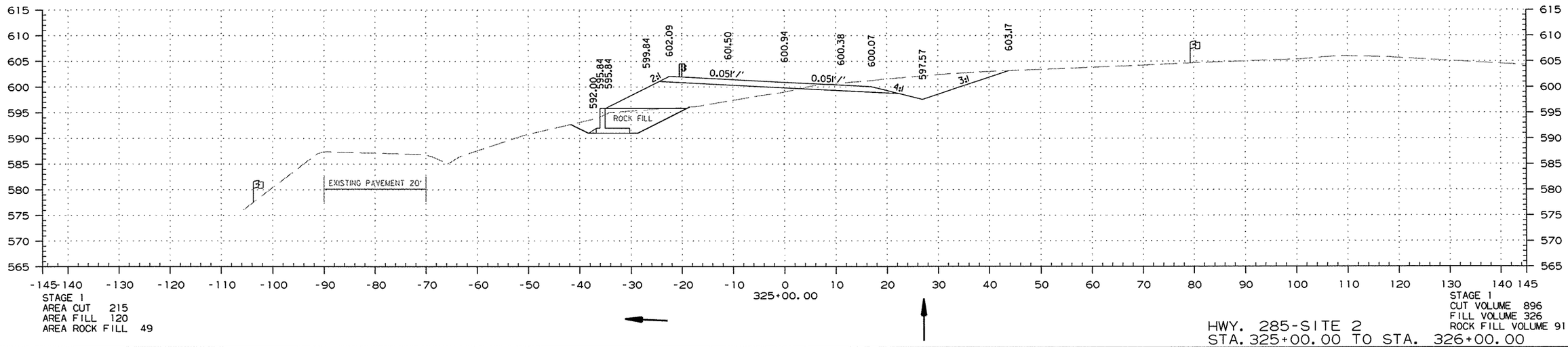
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		080426	213	271

(2) CROSS SECTIONS



STAGE 1
AREA CUT 247
AREA FILL 132
AREA ROCK FILL 93

STAGE 1
CUT VOLUME 854
FILL VOLUME 466
ROCK FILL VOLUME 263



STAGE 1
AREA CUT 215
AREA FILL 120
AREA ROCK FILL 49

STAGE 1
CUT VOLUME 896
FILL VOLUME 326
ROCK FILL VOLUME 91

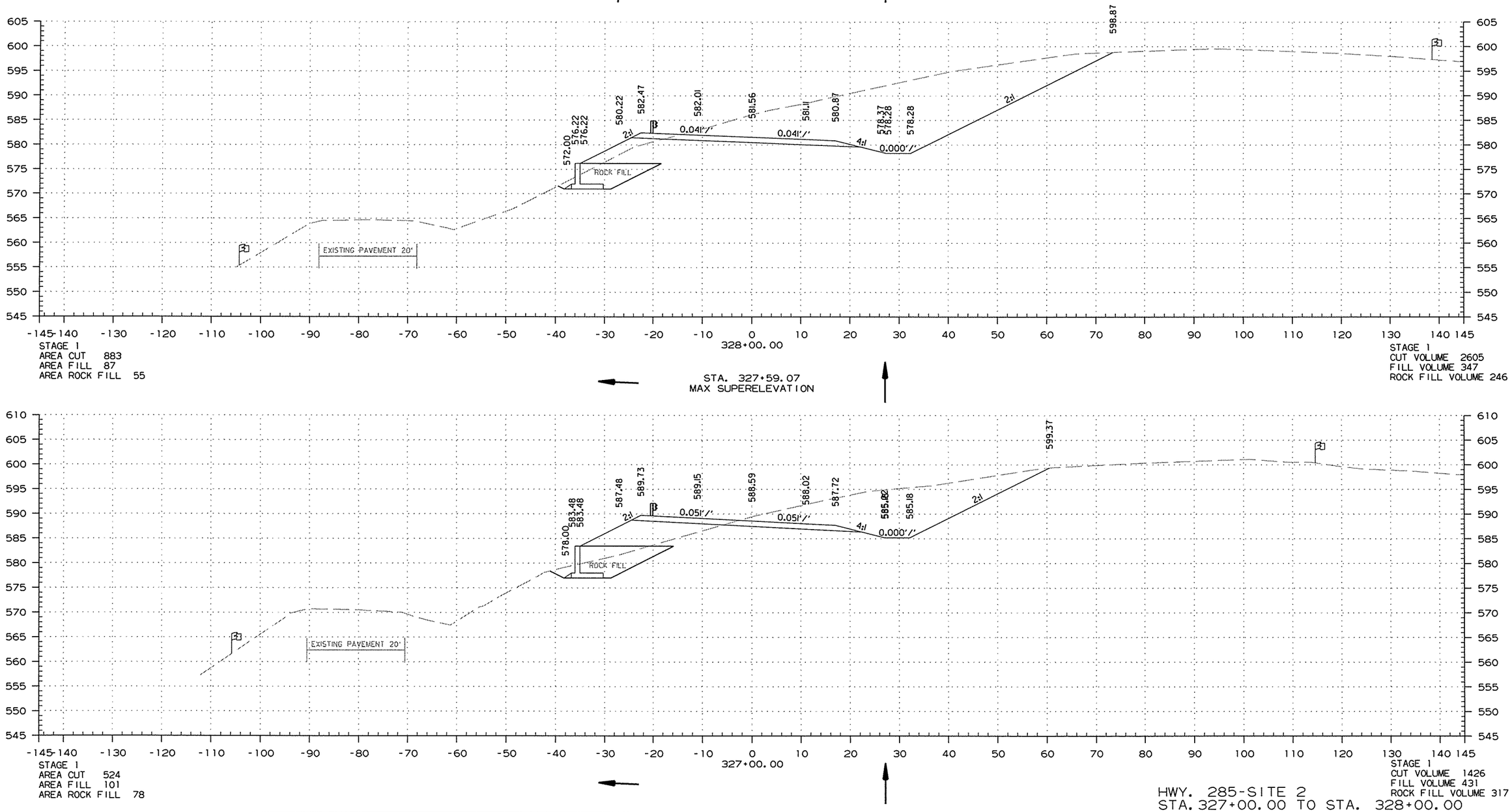
HWY. 285-SITE 2
STA. 325+00.00 TO STA. 326+00.00

12/4/2015

R080426.DGN

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		080426	214	271

(2) CROSS SECTIONS



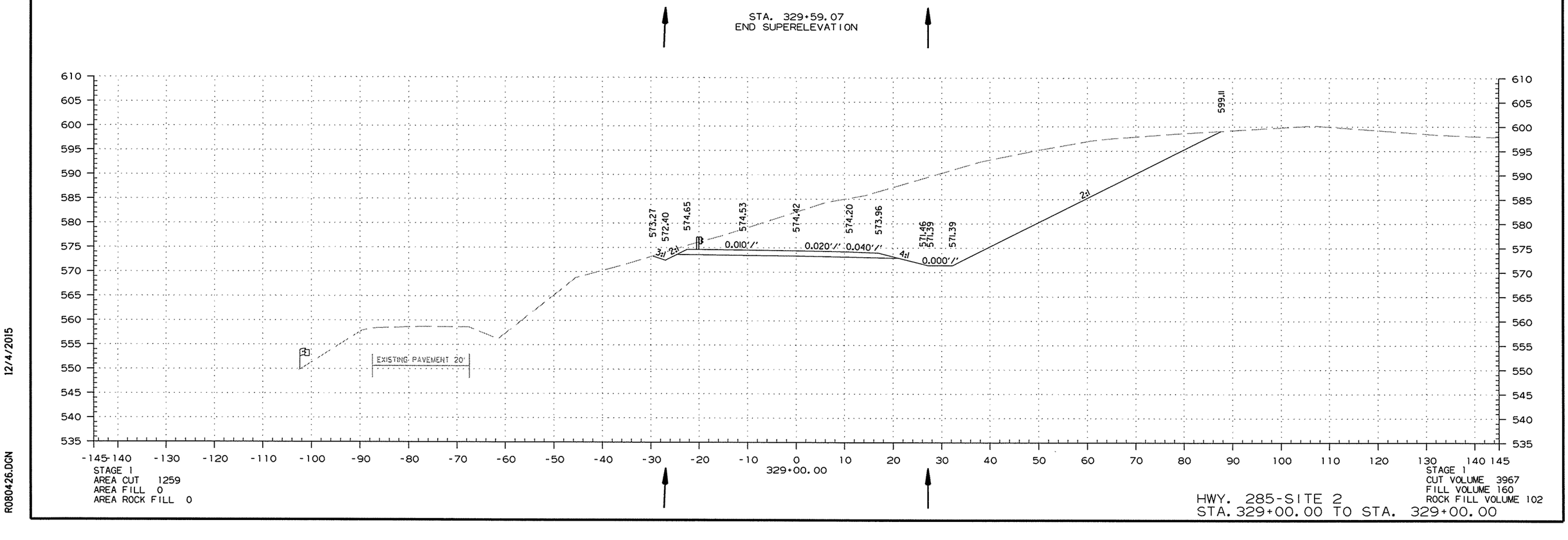
HWY. 285-SITE 2
STA. 327+00.00 TO STA. 328+00.00

12/4/2015

R080426.DGN

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		080426	215	271

(2) CROSS SECTIONS



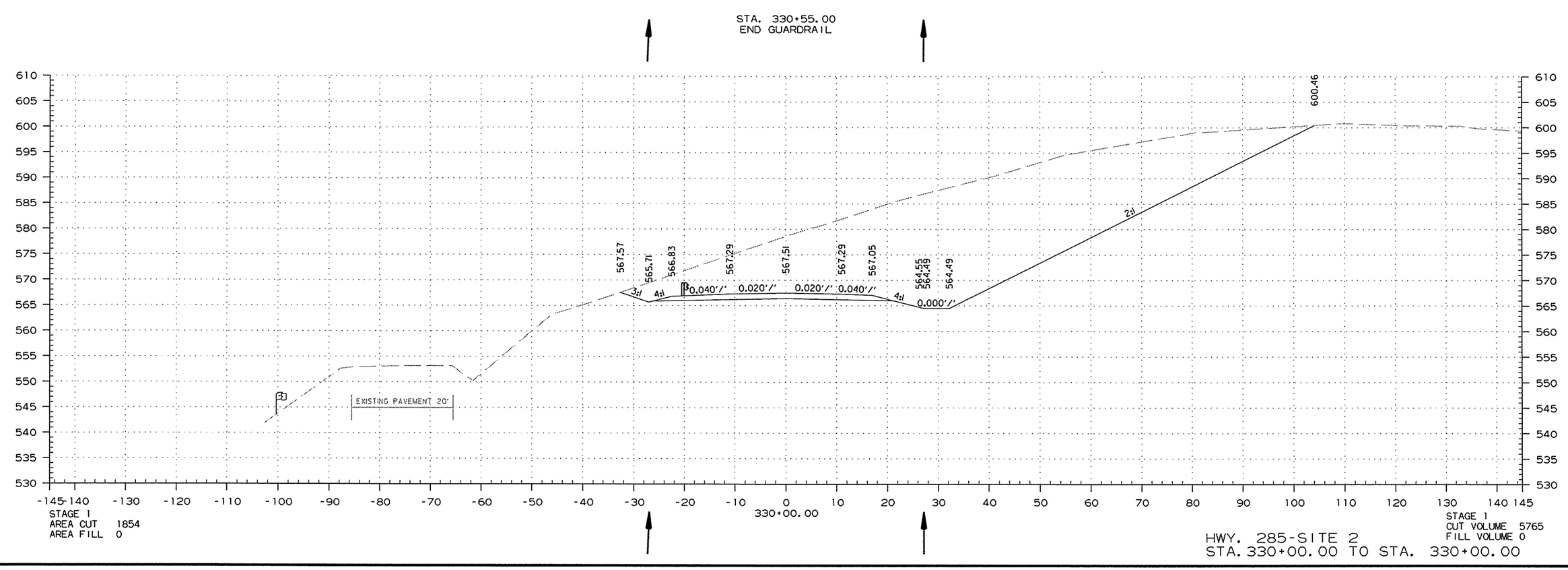
HWY. 285-SITE 2
STA. 329+00.00 TO STA. 329+00.00

12/4/2015

R080426.DGN

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		080426	216	271

(2) CROSS SECTIONS



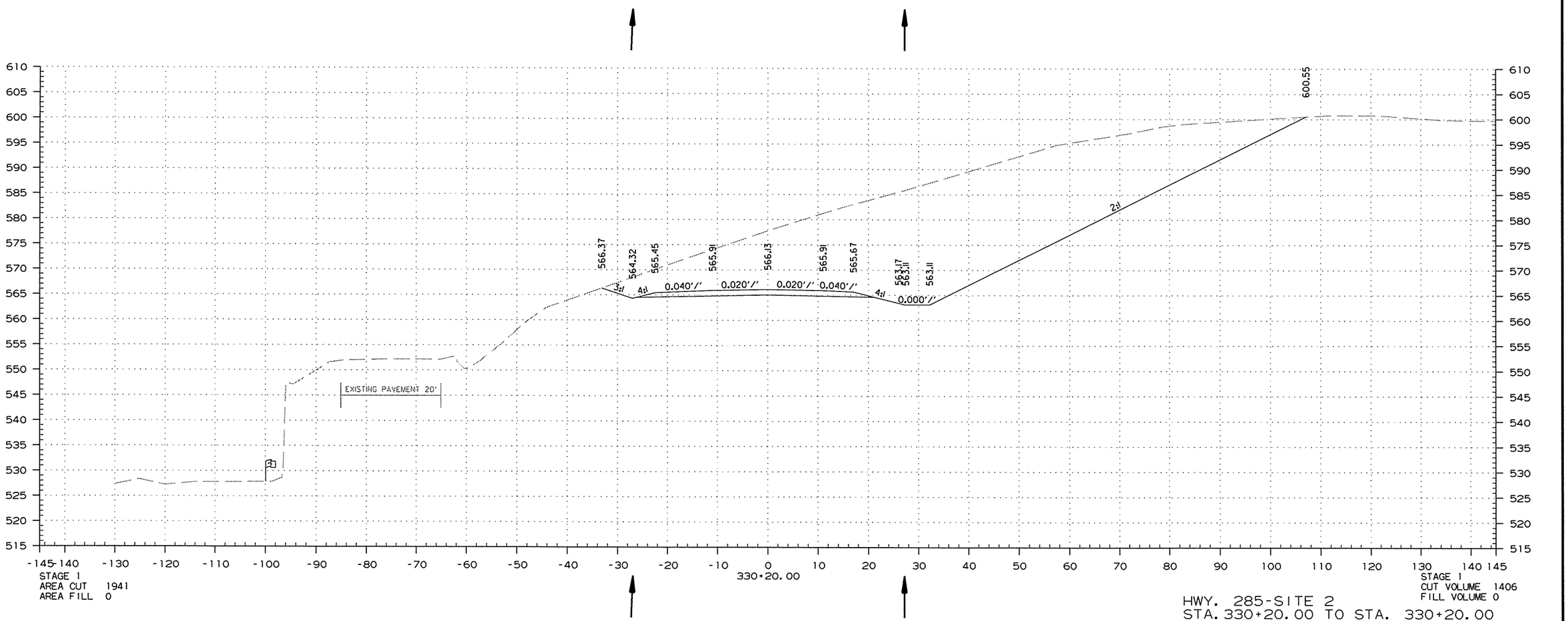
HWY. 285-SITE 2
STA. 330+00.00 TO STA. 330+00.00

12/4/2015

R080426.DGN

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		080426	217	271

(2) CROSS SECTIONS



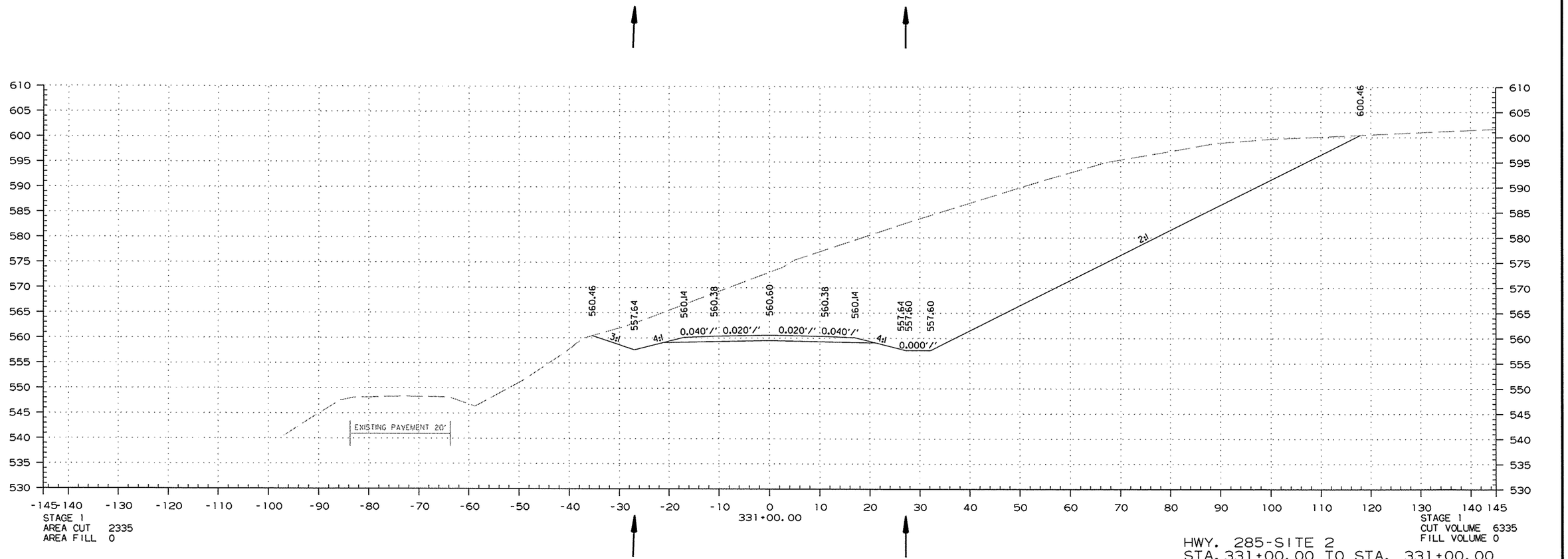
HWY. 285-SITE 2
STA. 330+20.00 TO STA. 330+20.00

12/4/2015

R080426.DGN

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		080426	218	271

(2) CROSS SECTIONS

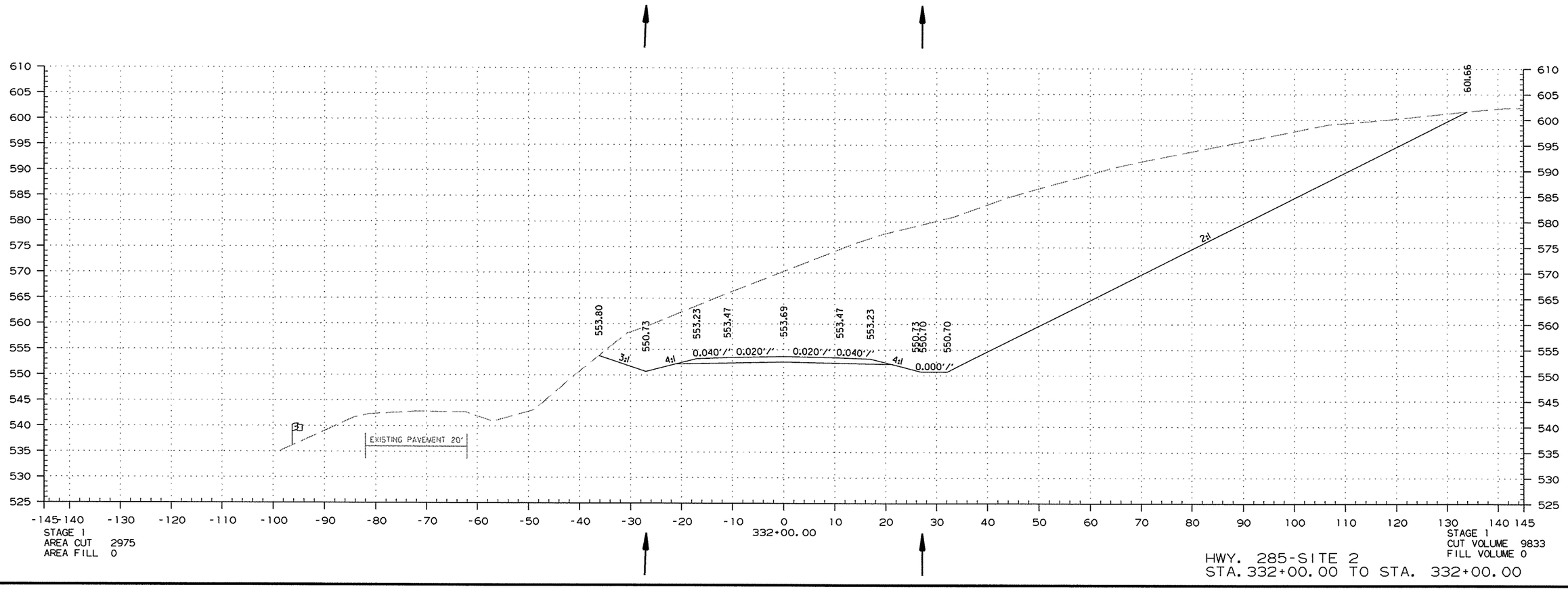


HWY. 285-SITE 2
STA. 331+00.00 TO STA. 331+00.00

12/4/2015

R080426.DGN

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		080426	219	271
				(2) CROSS SECTIONS				



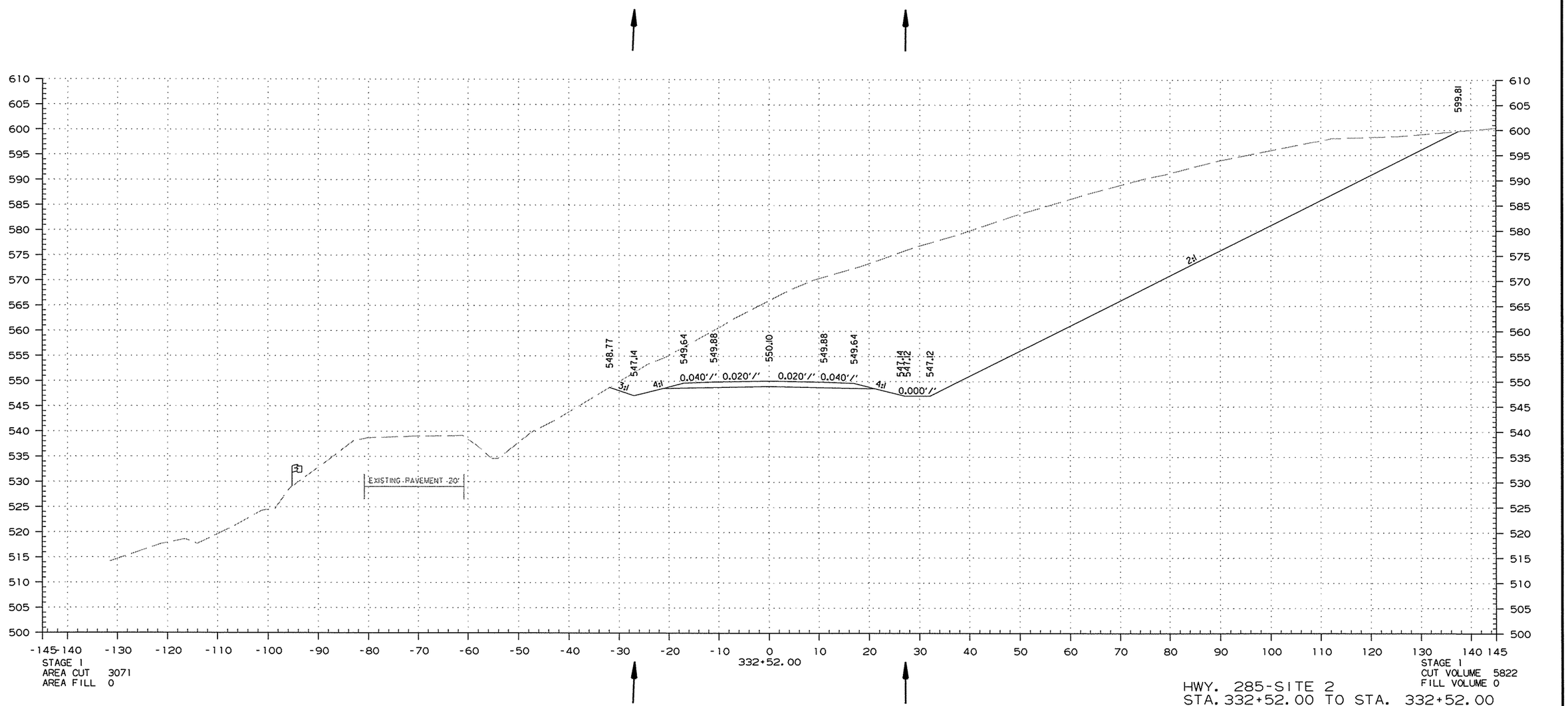
HWY. 285-SITE 2
STA. 332+00.00 TO STA. 332+00.00

12/4/2015

R080426.DGN

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		080426	220	271

(2) CROSS SECTIONS



STAGE 1
AREA CUT 3071
AREA FILL 0

STAGE 1
CUT VOLUME 5822
FILL VOLUME 0

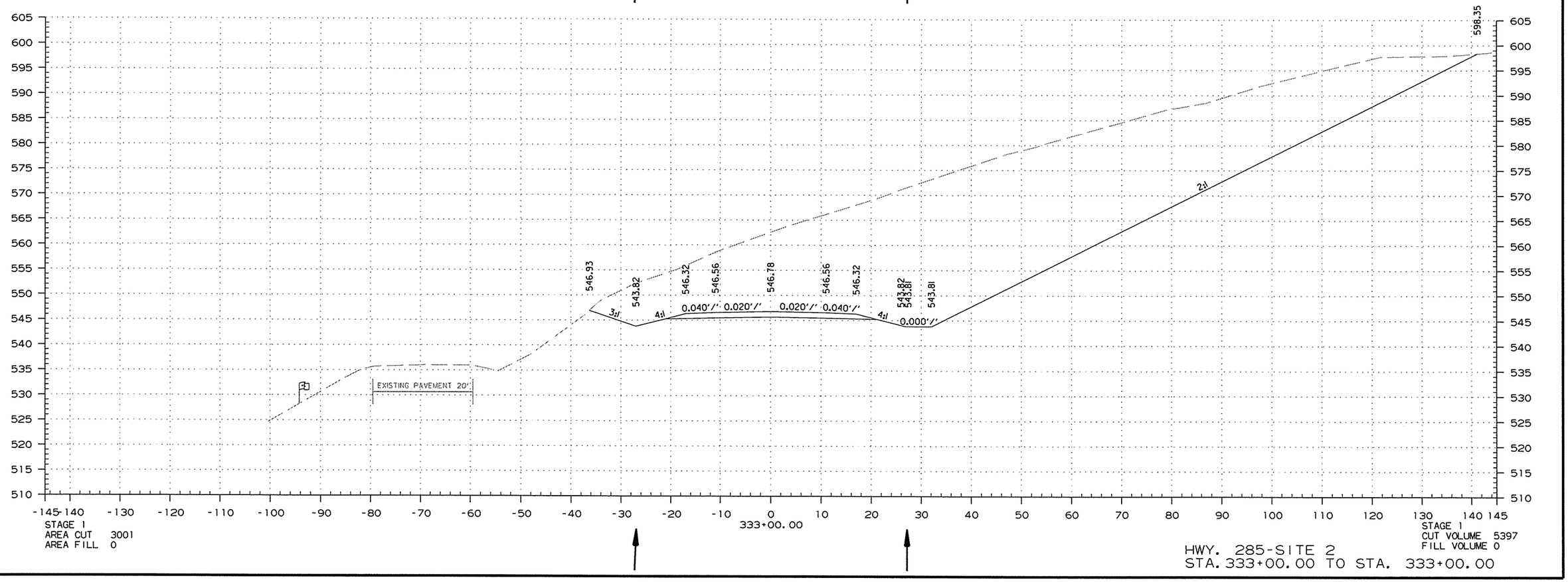
HWY. 285-SITE 2
STA. 332+52.00 TO STA. 332+52.00

12/4/2015

R080426.DGN

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		080426	221	271

(2) CROSS SECTIONS



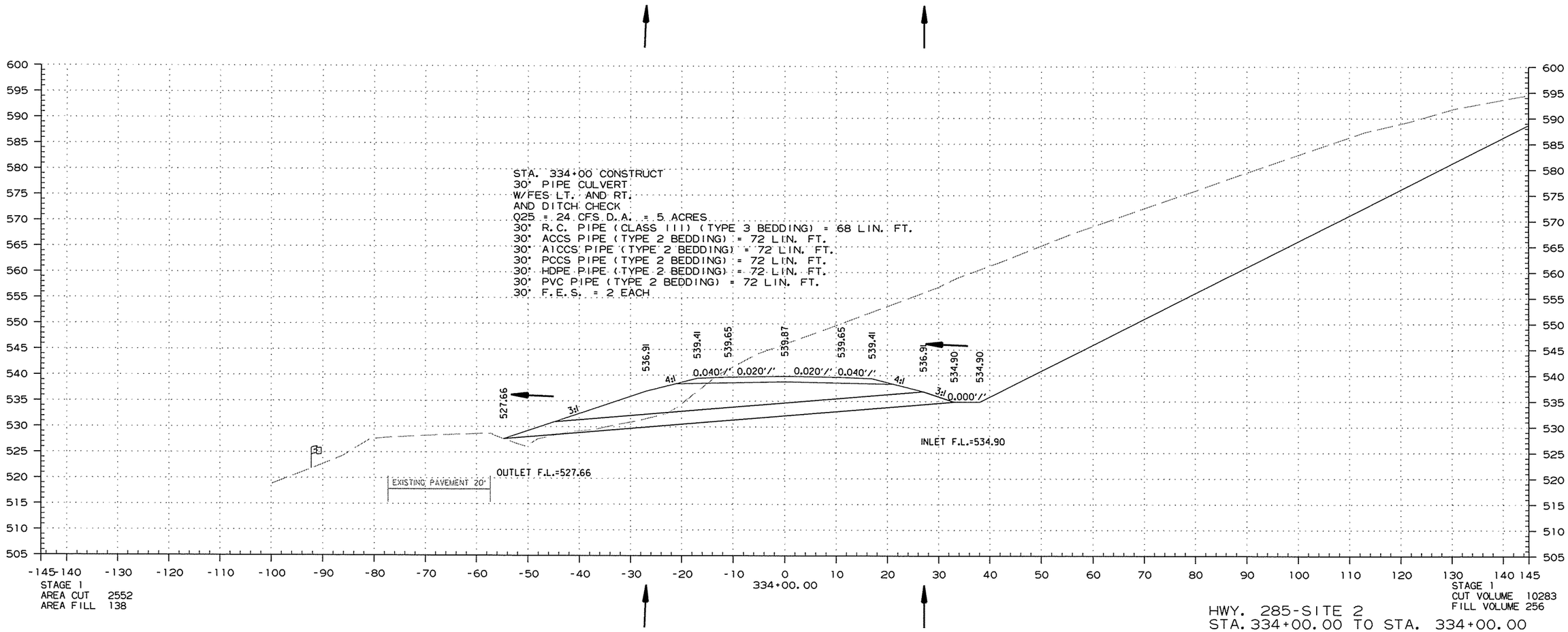
HWY. 285-SITE 2
STA. 333+00.00 TO STA. 333+00.00

12/4/2015

R080426.DGN

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		080426	222	271

(2) CROSS SECTIONS



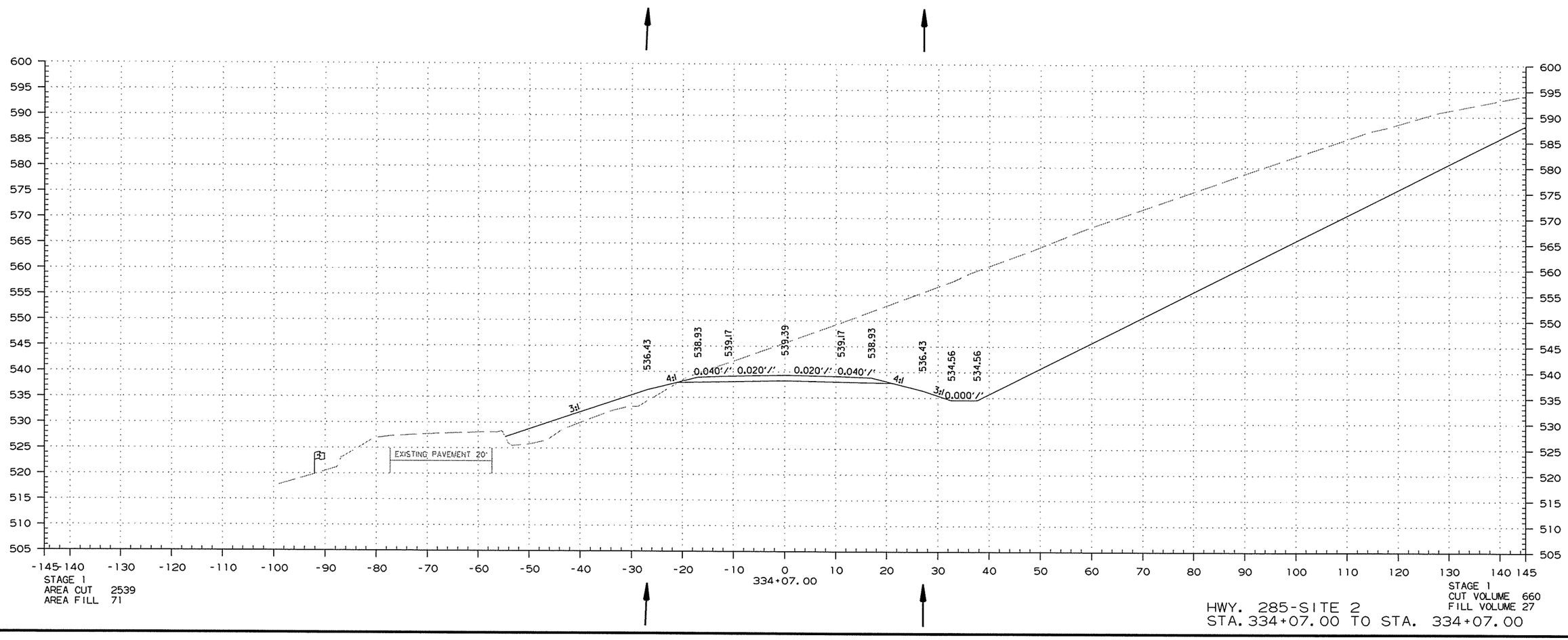
HWY. 285-SITE 2
STA. 334+00.00 TO STA. 334+00.00

12/4/2015

R080426.DGN

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		080426	223	271

(2) CROSS SECTIONS



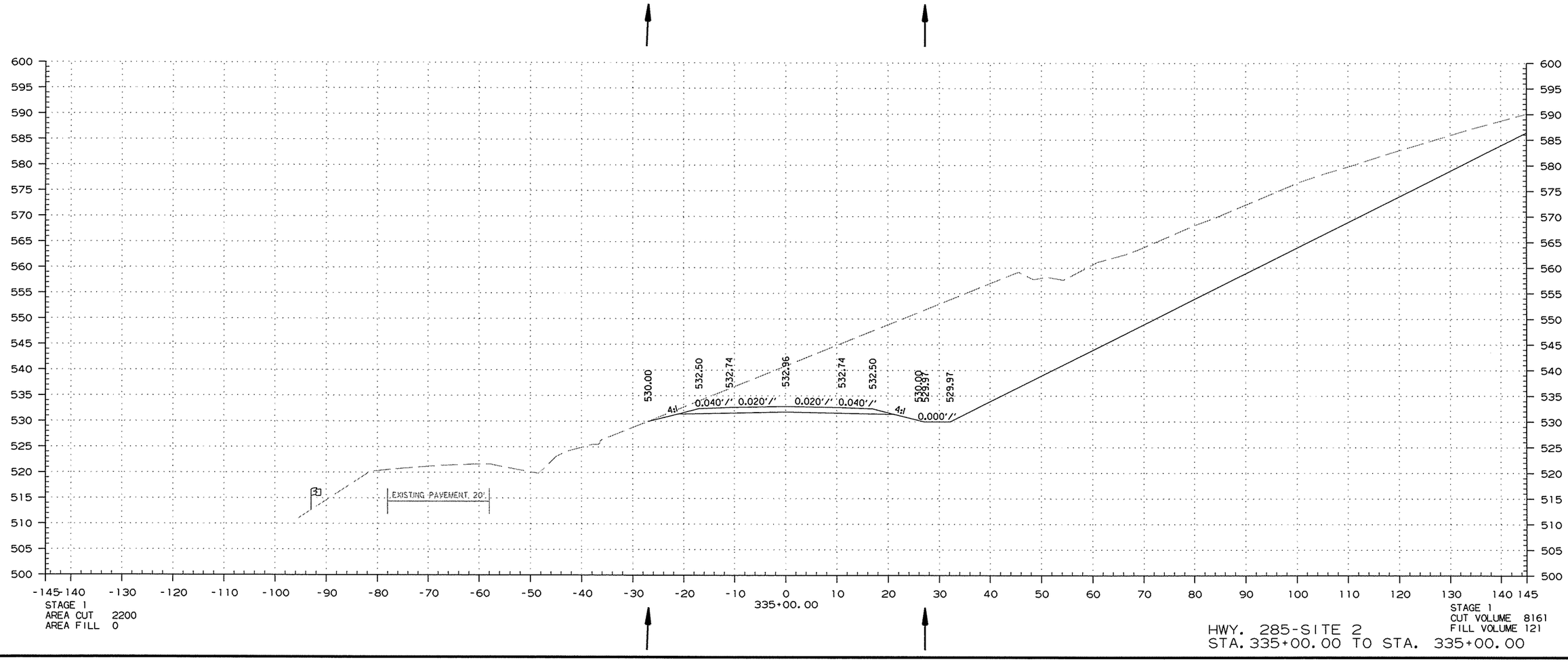
HWY. 285-SITE 2
STA. 334+07.00 TO STA. 334+07.00

12/4/2015

R080426.DGN

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		080426	224	271

(2) CROSS SECTIONS



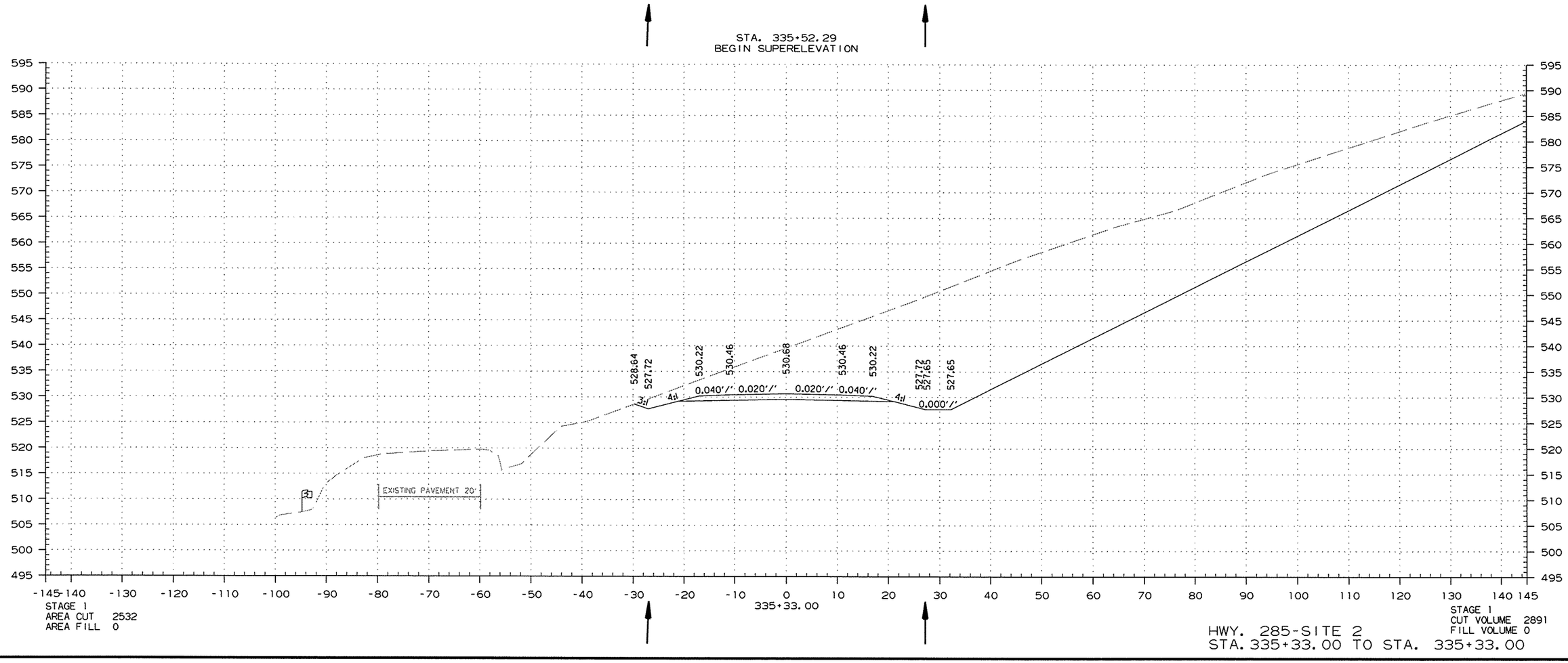
HWY. 285-SITE 2
STA. 335+00.00 TO STA. 335+00.00

12/4/2015

R080426.DGN

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		080426	225	271

(2) CROSS SECTIONS



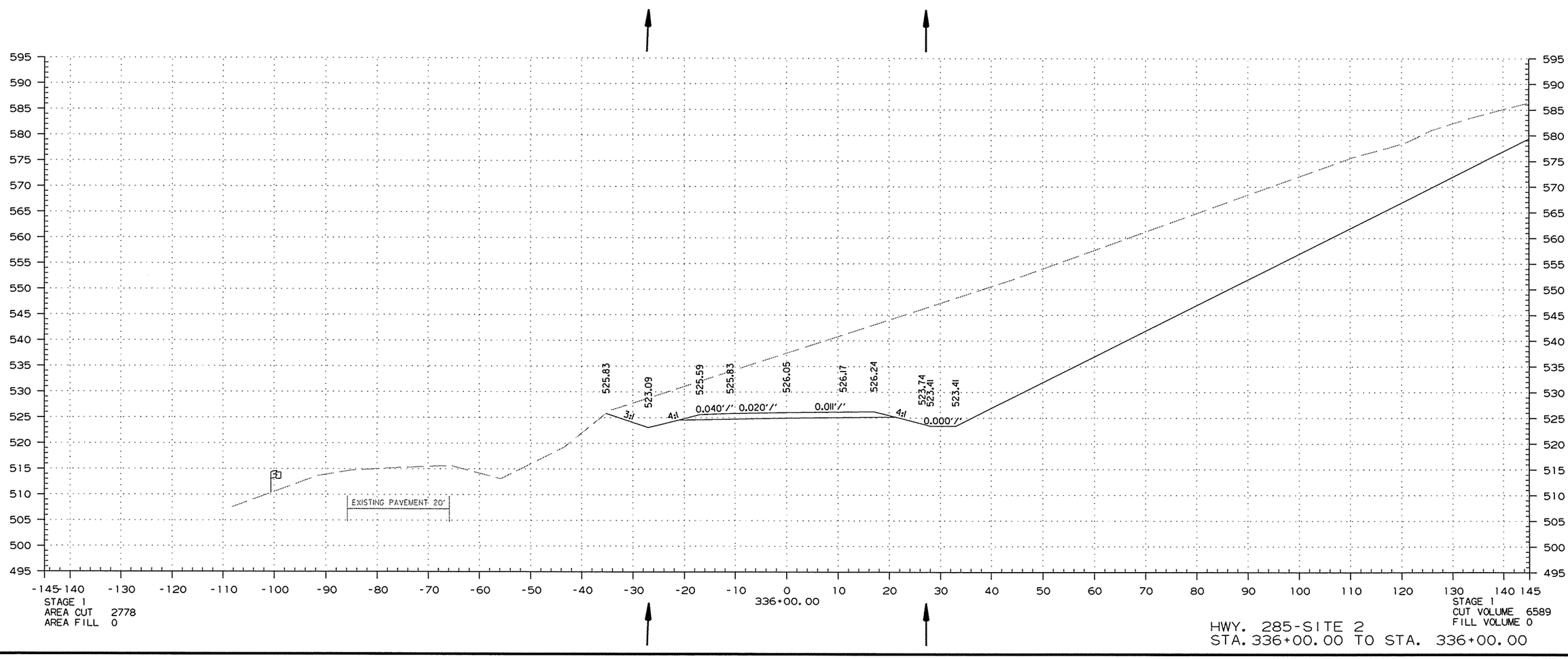
HWY. 285-SITE 2
STA. 335+33.00 TO STA. 335+33.00

12/4/2015

RD80426.DGN

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		080426	226	271

(2) CROSS SECTIONS



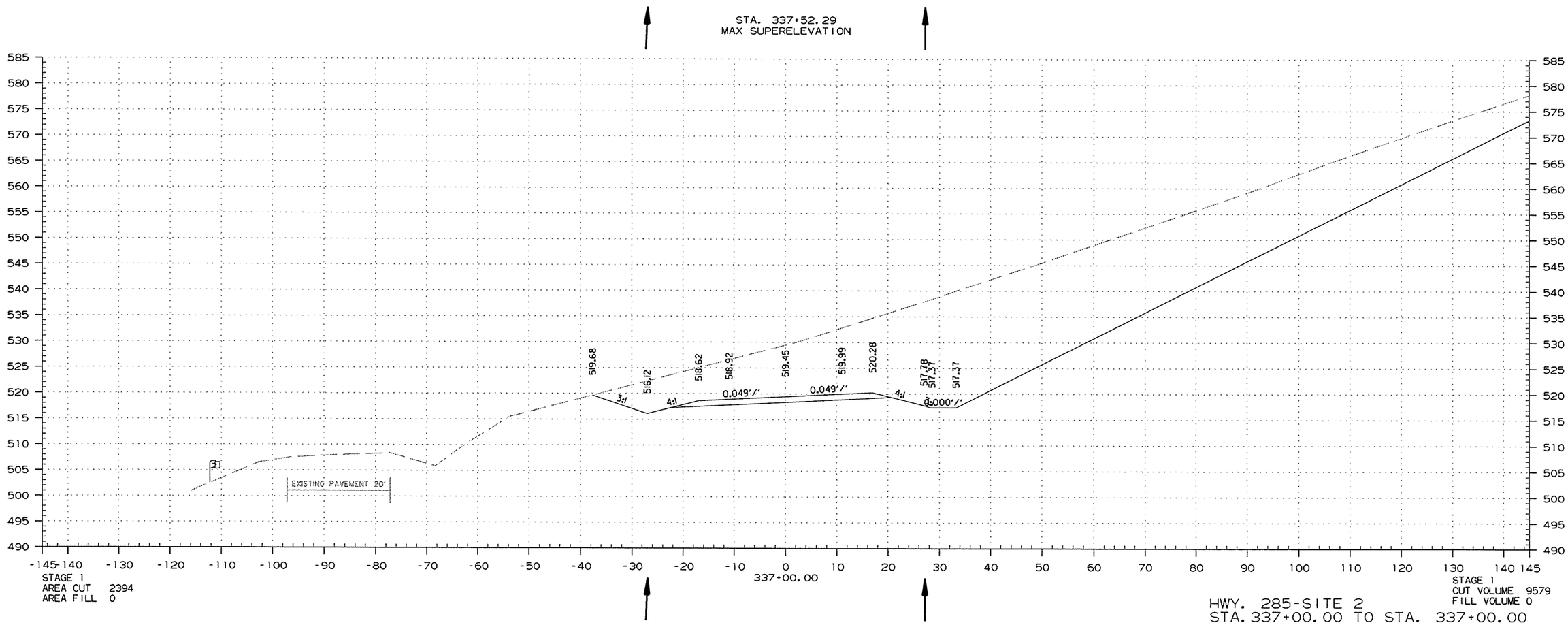
HWY. 285-SITE 2
STA. 336+00.00 TO STA. 336+00.00

12/4/2015

R080426.DGN

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		080426	227	271

(2) CROSS SECTIONS



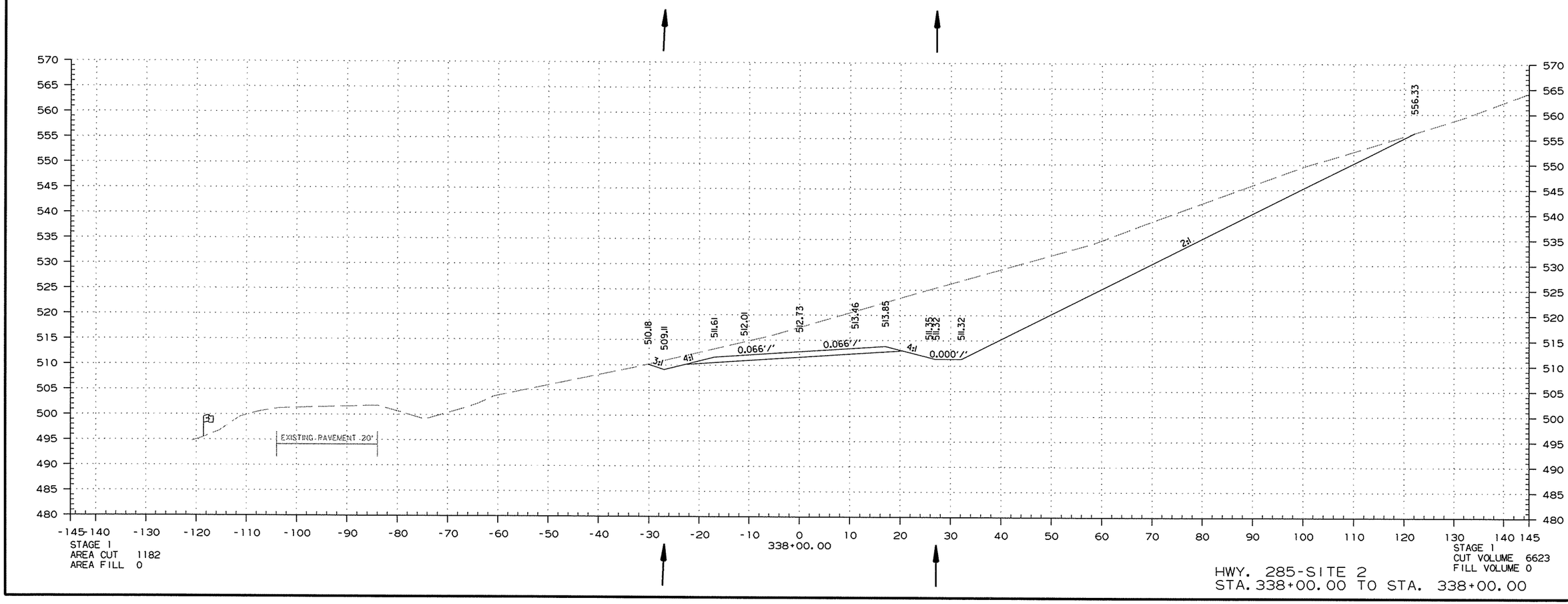
HWY. 285-SITE 2
STA. 337+00.00 TO STA. 337+00.00

12/4/2015

R080426.DGN

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		080426	228	271

(2) CROSS SECTIONS



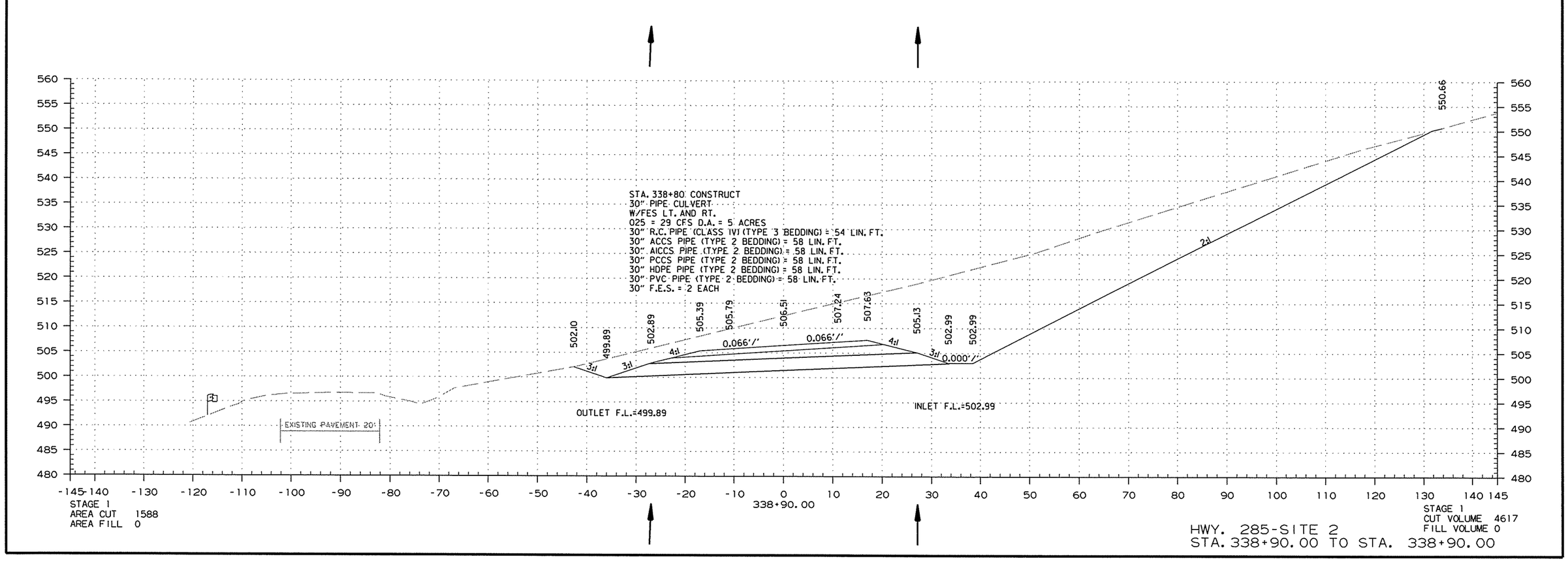
HWY. 285-SITE 2
STA. 338+00.00 TO STA. 338+00.00

12/4/2015

R080426.DGN

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		080426	229	271

(2) CROSS SECTIONS

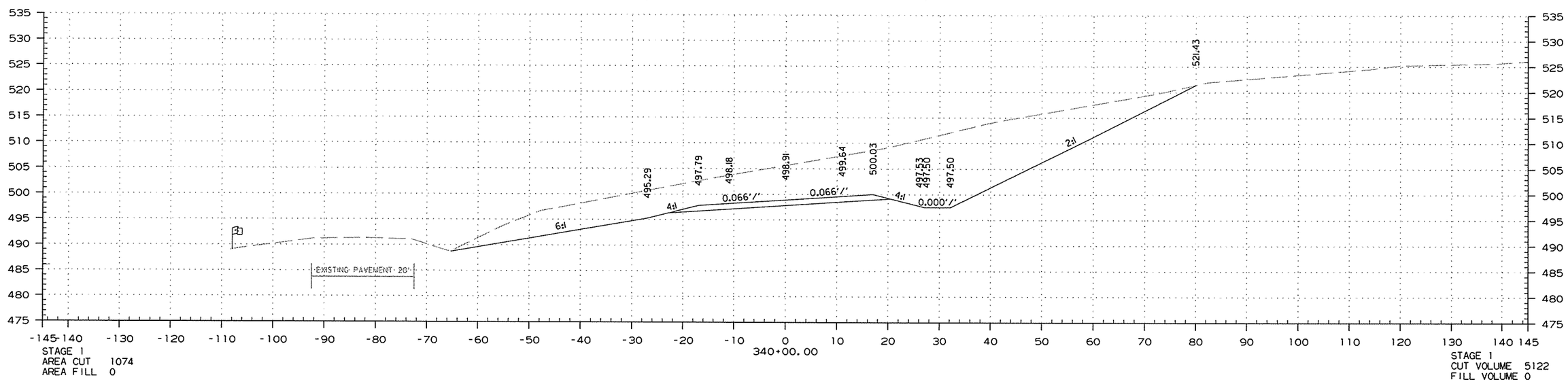


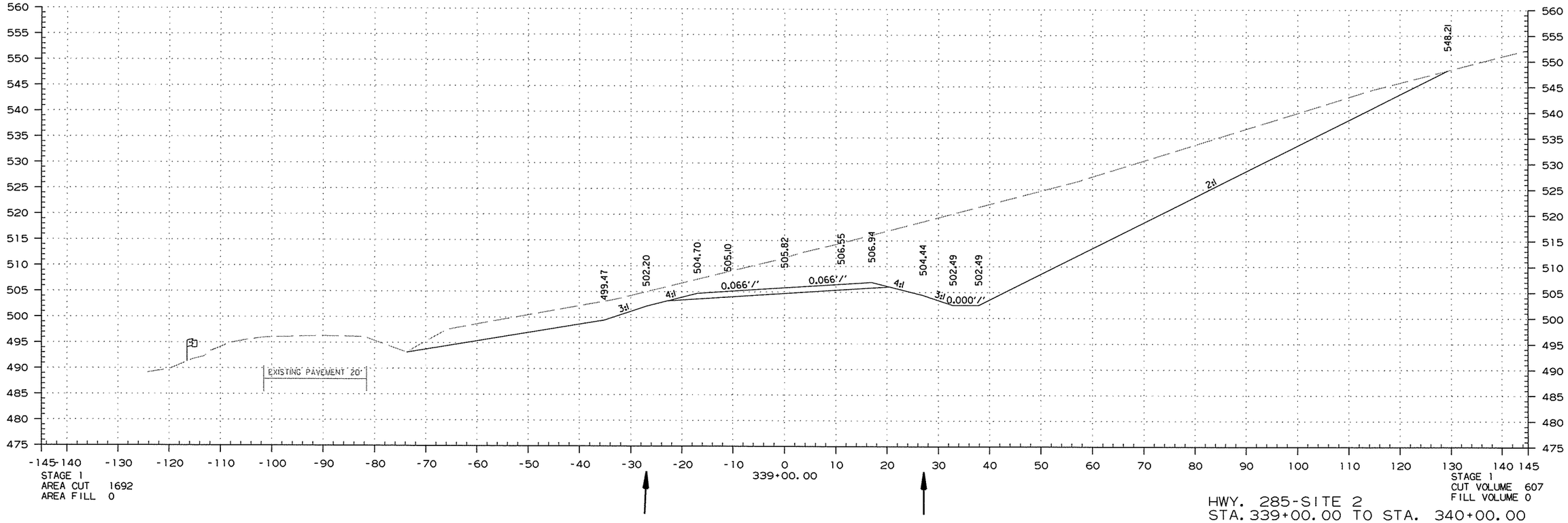
12/4/2015

R080426.DGN

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		080426	230	271

(2) CROSS SECTIONS





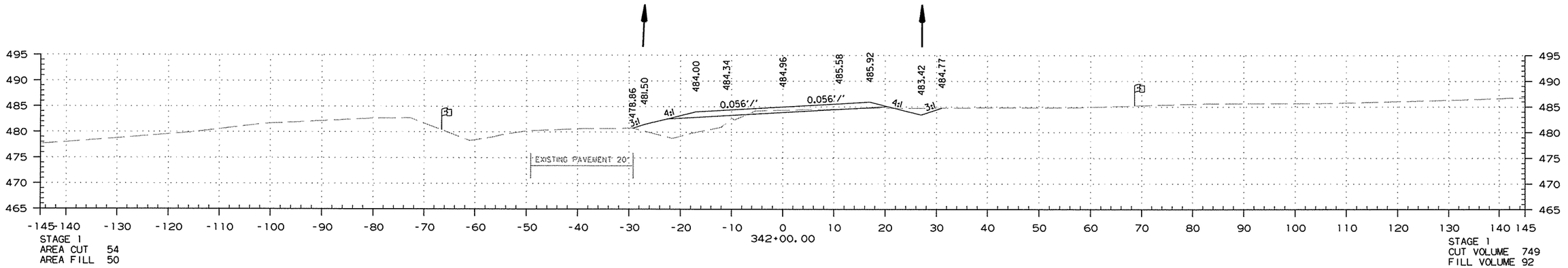
HWY. 285-SITE 2
STA. 339+00.00 TO STA. 340+00.00

12/4/2015

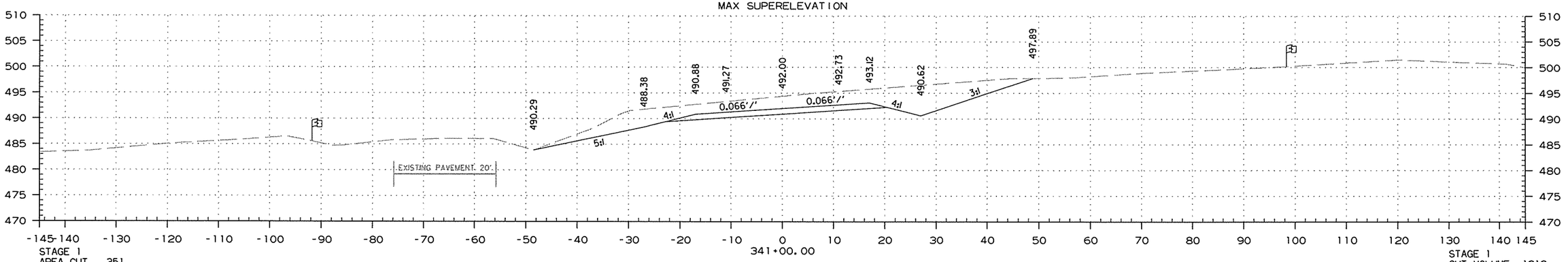
R080426.DGN

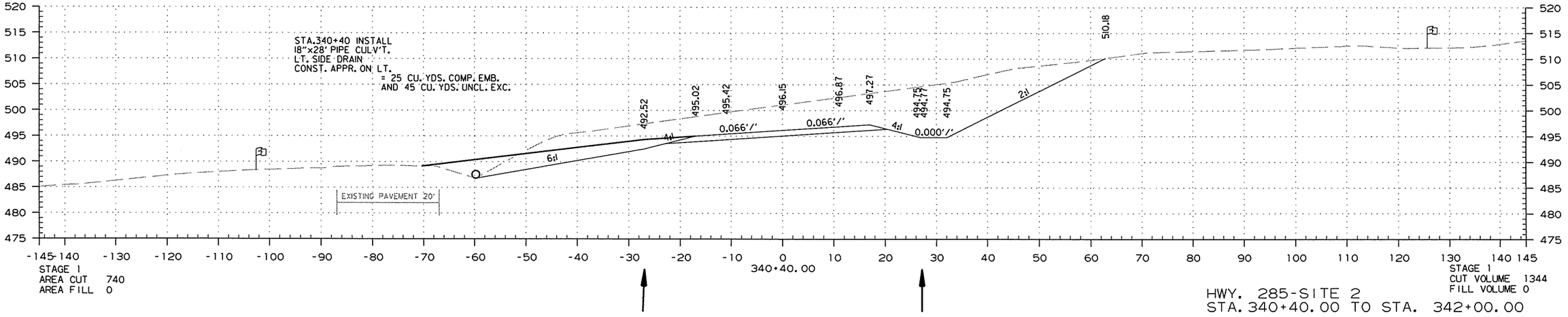
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		080426	231	271

(2) CROSS SECTIONS



STA. 341+70.98
MAX SUPERELEVATION





HWY. 285-SITE 2
STA. 340+40.00 TO STA. 342+00.00

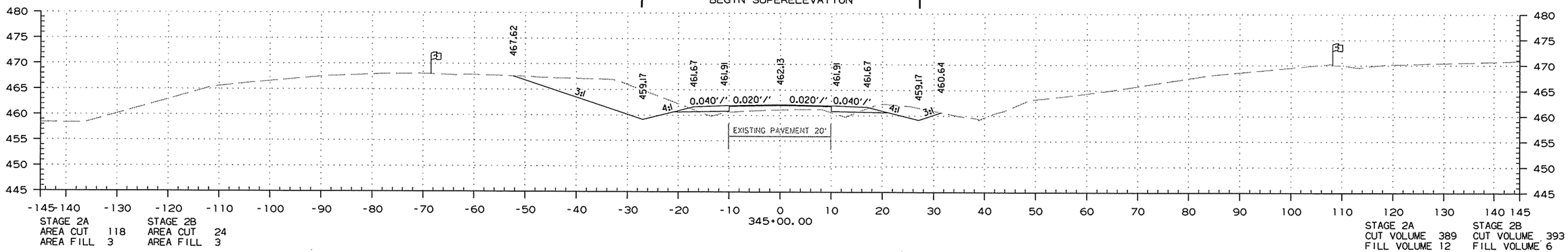
12/4/2015

R080426.DGN

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		080426	232	271

(2) CROSS SECTIONS

STA. 345+31.29
BEGIN SUPERELEVATION

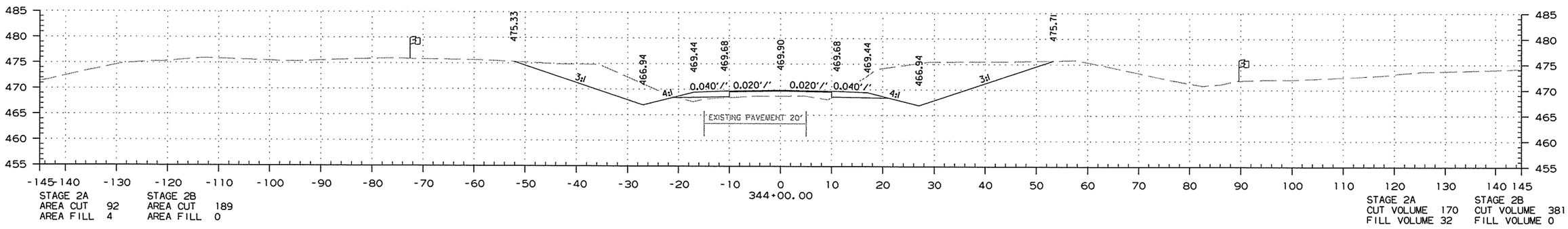


STAGE 2A
AREA CUT 118
AREA FILL 3

STAGE 2B
AREA CUT 24
AREA FILL 3

STAGE 2A
CUT VOLUME 389
FILL VOLUME 12

STAGE 2B
CUT VOLUME 393
FILL VOLUME 6



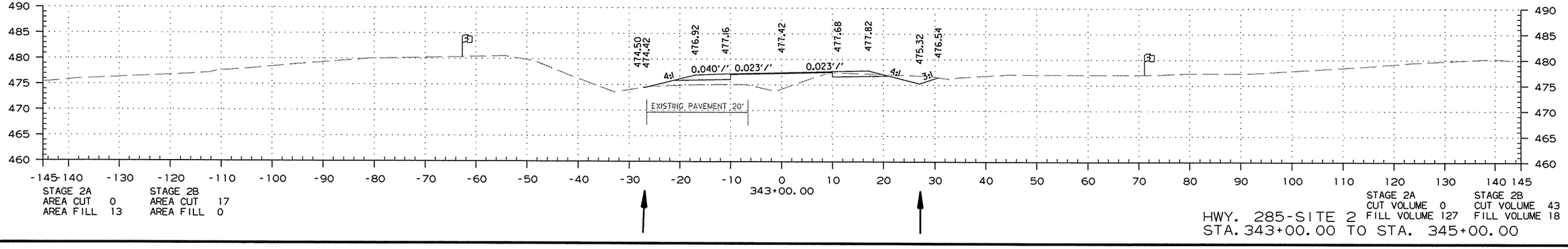
STAGE 2A
AREA CUT 92
AREA FILL 4

STAGE 2B
AREA CUT 189
AREA FILL 0

STAGE 2A
CUT VOLUME 170
FILL VOLUME 32

STAGE 2B
CUT VOLUME 381
FILL VOLUME 0

STA. 343+70.98
END SUPERELEVATION



STAGE 2A
AREA CUT 0
AREA FILL 13

STAGE 2B
AREA CUT 17
AREA FILL 0

STAGE 2A
CUT VOLUME 0
FILL VOLUME 127

STAGE 2B
CUT VOLUME 43
FILL VOLUME 18

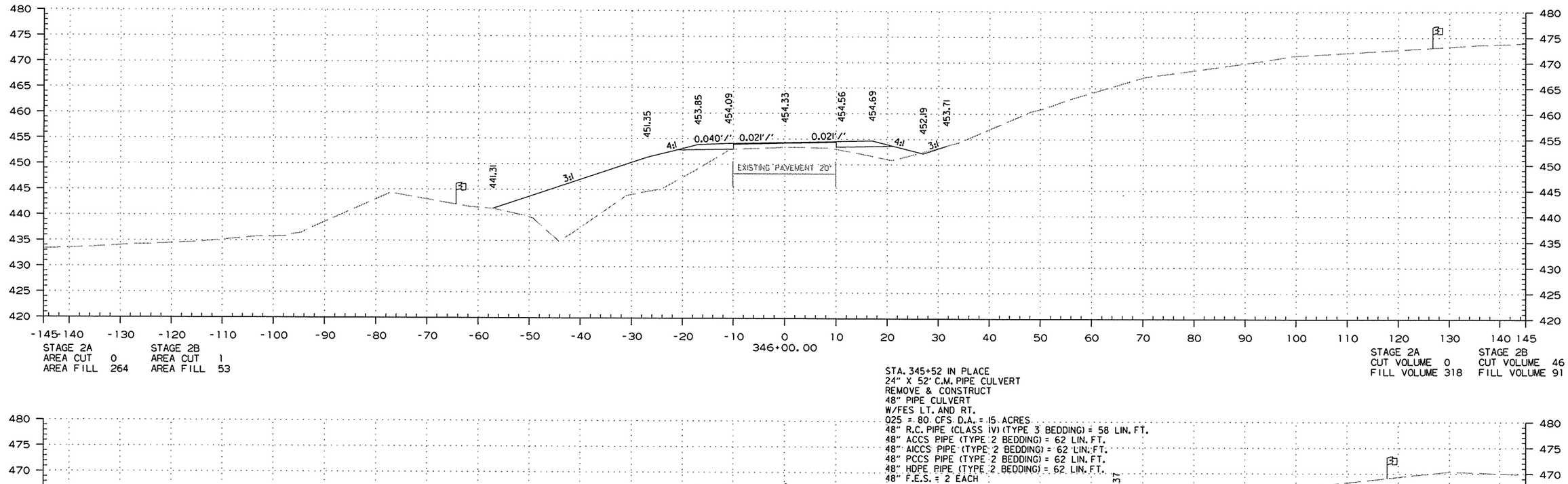
HWY. 285-SITE 2
STA. 343+00.00 TO STA. 345+00.00

12/4/2015

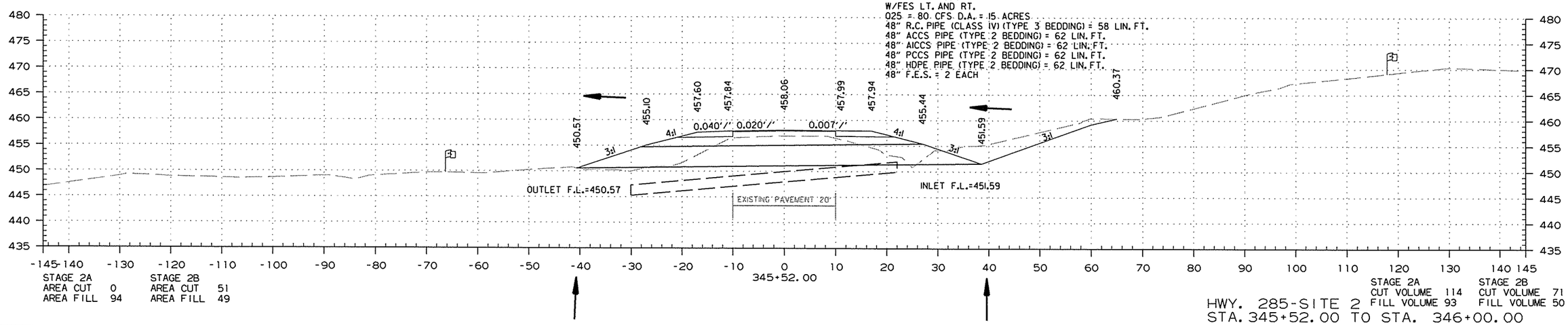
R080426.DGN

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		080426	233	271

(2) CROSS SECTIONS



STA. 345+52 IN PLACE
24" X 52' C.M. PIPE CULVERT
REMOVE & CONSTRUCT
48" PIPE CULVERT
W/FES LT. AND RT.
025 = 80 CFS D.A. = 15 ACRES
48" R.C. PIPE (CLASS IV) (TYPE 3 BEDDING) = 58 LIN. FT.
48" ACCS PIPE (TYPE 2 BEDDING) = 62 LIN. FT.
48" AICCS PIPE (TYPE 2 BEDDING) = 62 LIN. FT.
48" PCCS PIPE (TYPE 2 BEDDING) = 62 LIN. FT.
48" HDPE PIPE (TYPE 2 BEDDING) = 62 LIN. FT.
48" F.E.S. = 2 EACH



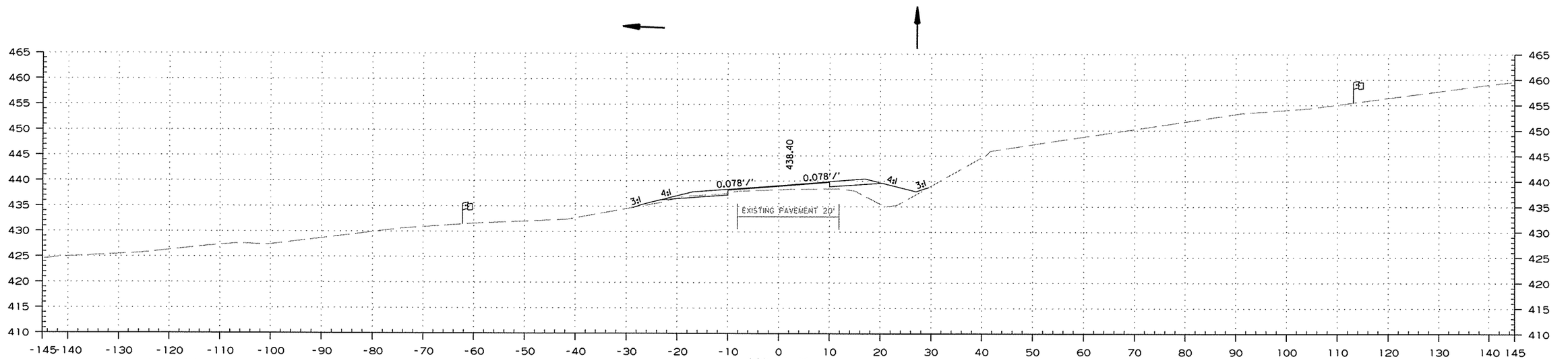
HWY. 285-SITE 2
STA. 345+52.00 TO STA. 346+00.00

12/4/2015

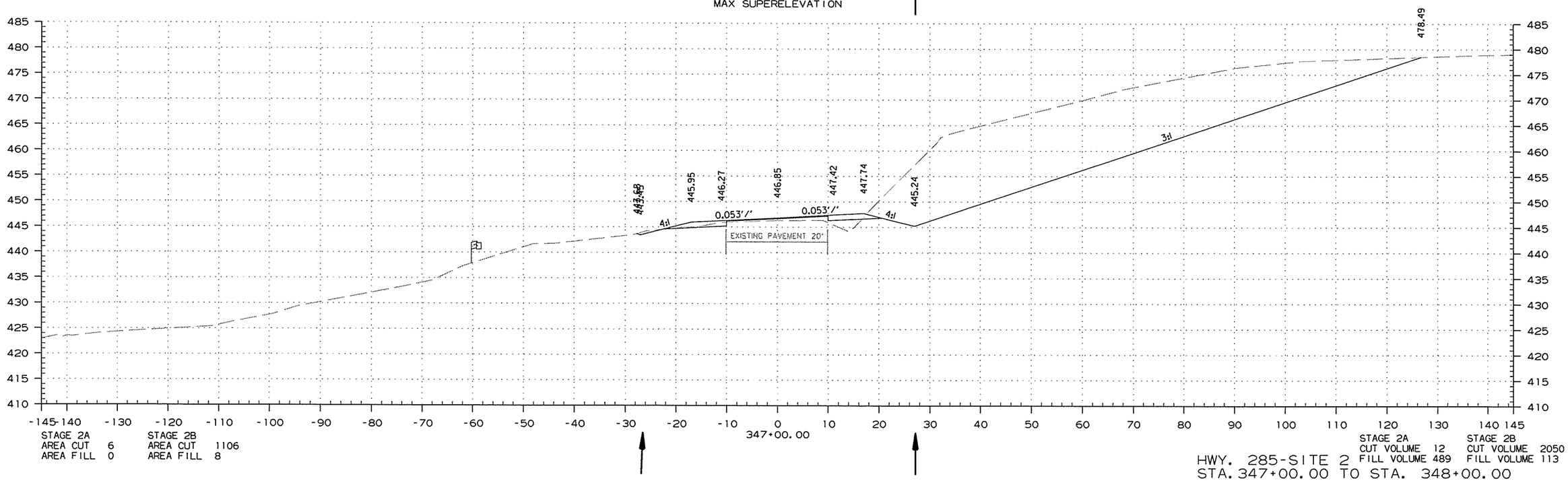
R080426.DGN

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		080426	234	271

(2) CROSS SECTIONS



STA. 347+81.29
MAX SUPERELEVATION



HWY. 285-SITE 2
STA. 347+00.00 TO STA. 348+00.00

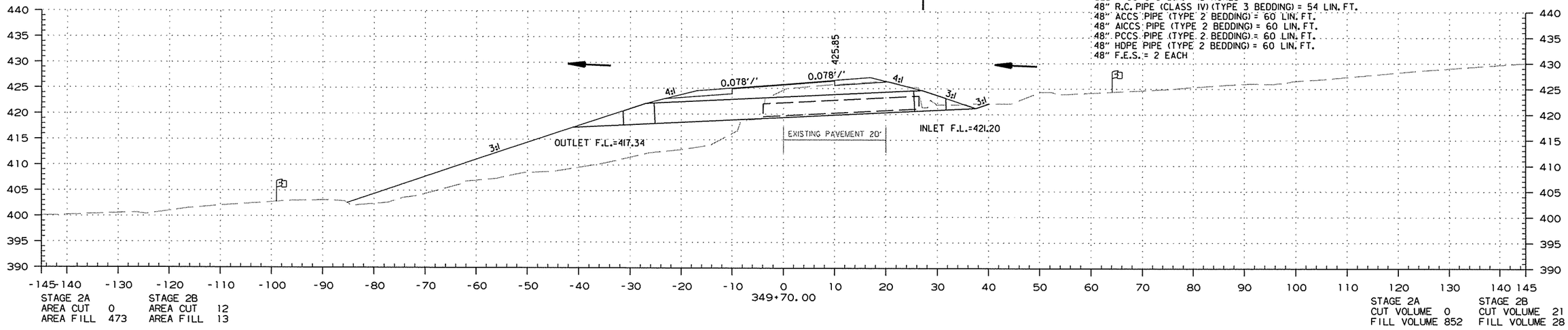
12/4/2015

R080426.DGN

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		080426	235	271

(2) CROSS SECTIONS

STA. 349+70 IN PLACE
30" X 30' C.M. PIPE CULVERT
REMOVE & CONSTRUCT
48" PIPE CULVERT
W/FES LT. AND RT.
Q25 = 80 CFS D.A. = 15 ACRES
48" R.C. PIPE (CLASS IV) (TYPE 3 BEDDING) = 54 LIN. FT.
48" ACCS PIPE (TYPE 2 BEDDING) = 60 LIN. FT.
48" AICCS PIPE (TYPE 2 BEDDING) = 60 LIN. FT.
48" PCCS PIPE (TYPE 2 BEDDING) = 60 LIN. FT.
48" HDPE PIPE (TYPE 2 BEDDING) = 60 LIN. FT.
48" F.E.S. = 2 EACH

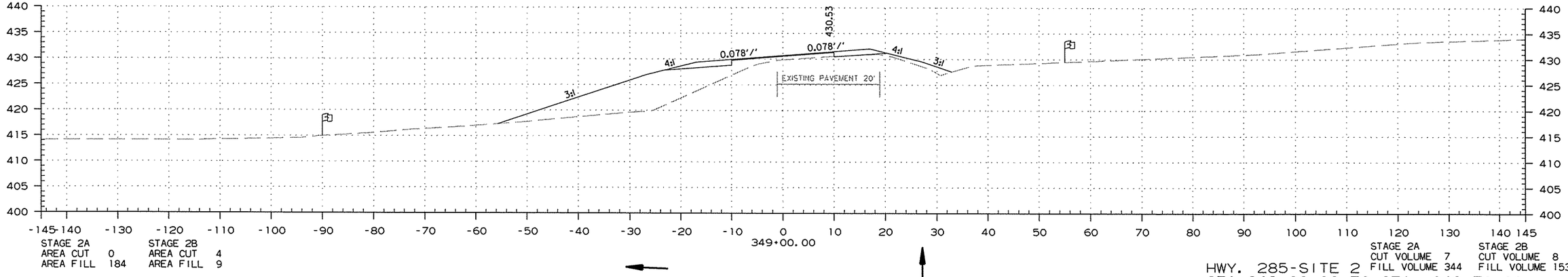


STAGE 2A
AREA CUT 0
AREA FILL 473

STAGE 2B
AREA CUT 12
AREA FILL 13

STAGE 2A
CUT VOLUME 0
FILL VOLUME 852

STAGE 2B
CUT VOLUME 21
FILL VOLUME 28



STAGE 2A
AREA CUT 0
AREA FILL 184

STAGE 2B
AREA CUT 4
AREA FILL 9

STAGE 2A
CUT VOLUME 7
FILL VOLUME 344

STAGE 2B
CUT VOLUME 8
FILL VOLUME 153

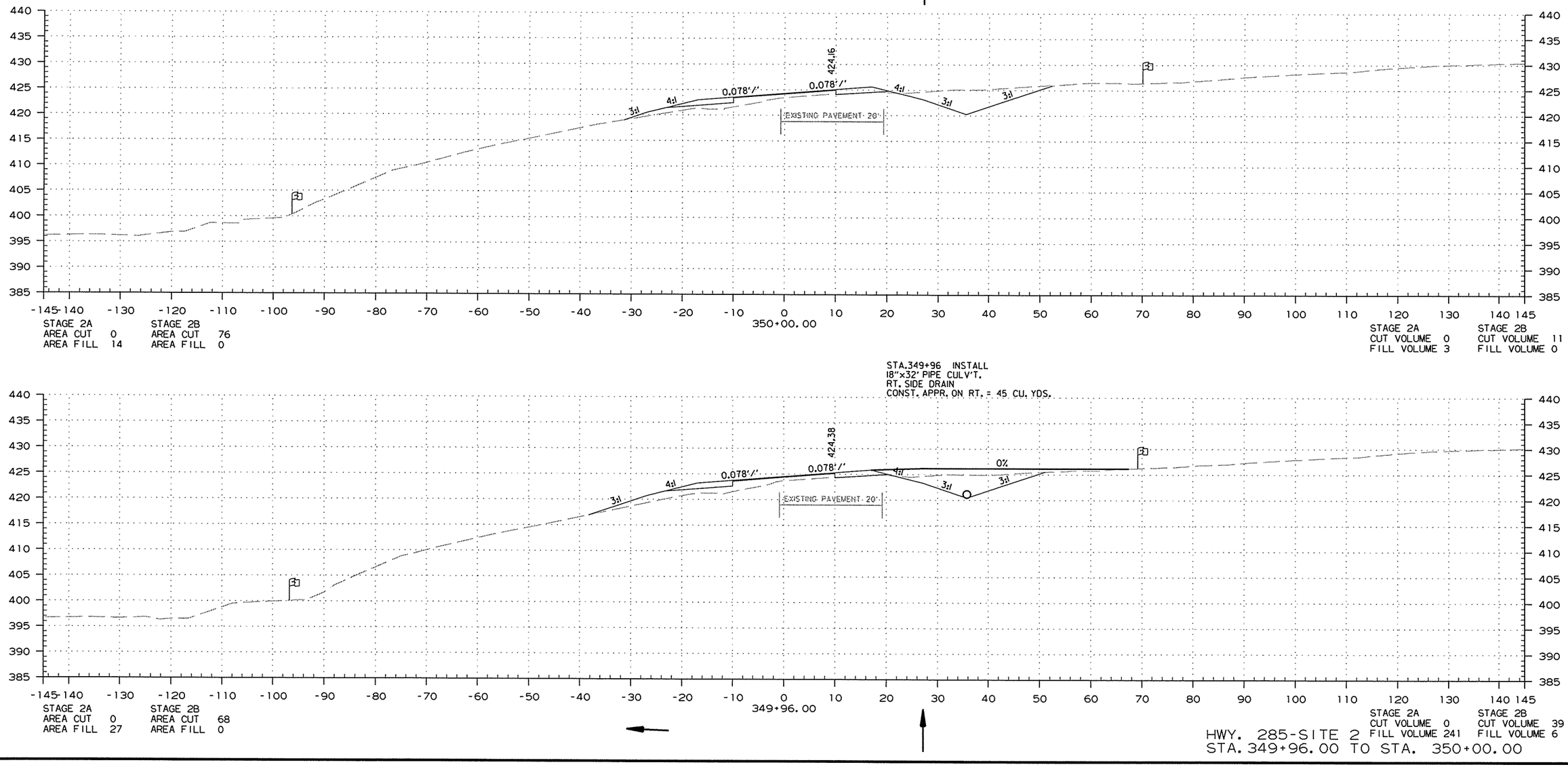
HWY. 285-SITE 2
STA. 349+00.00 TO STA. 349+70.00

12/4/2015

R080426.DGN

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		080426	236	271

(2) CROSS SECTIONS



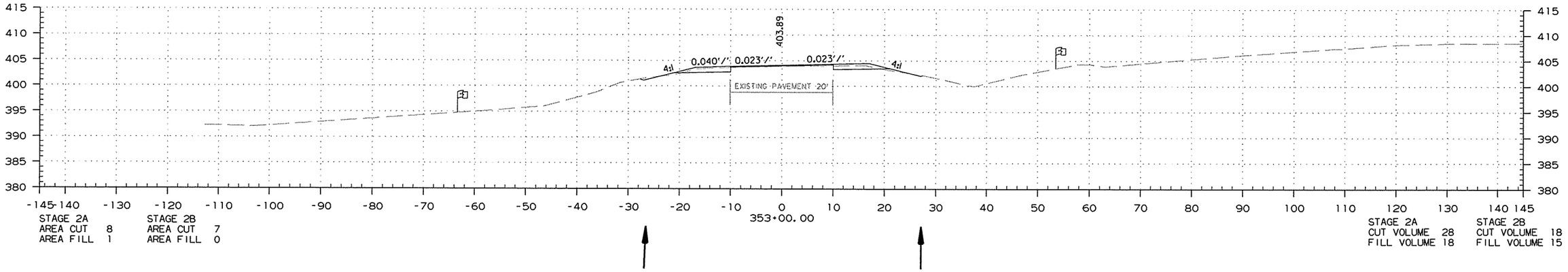
HWY. 285-SITE 2
STA. 349+96.00 TO STA. 350+00.00

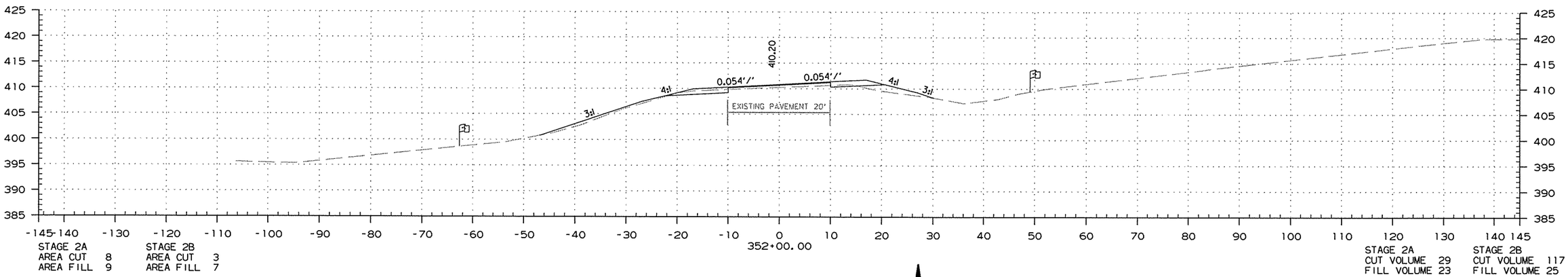
12/4/2015

R080426.DGN

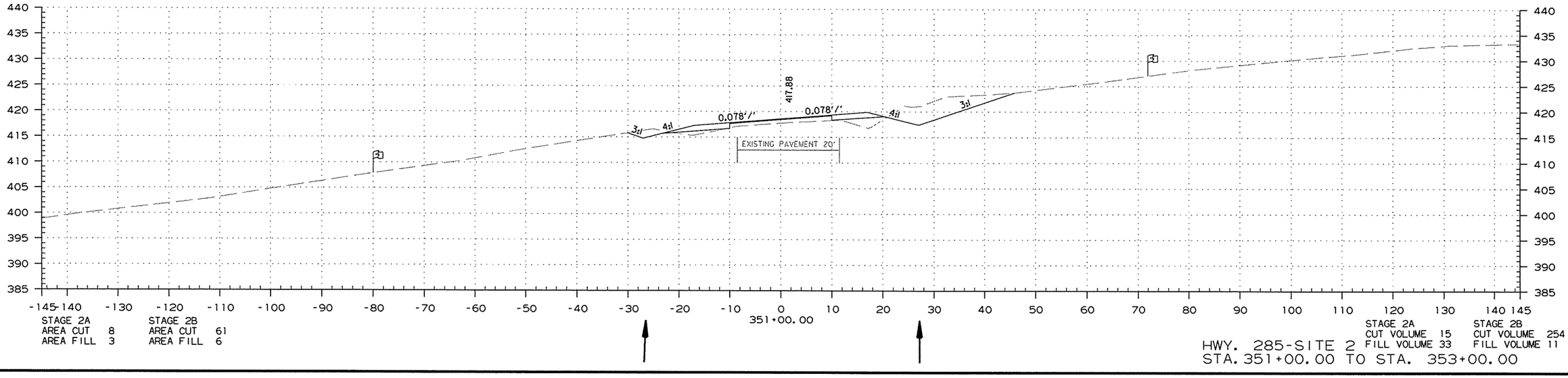
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		080426	237	271

(2) CROSS SECTIONS





STA. 351+23.14
MAX SUPERELEVATION



HWY. 285-SITE 2
STA. 351+00.00 TO STA. 353+00.00

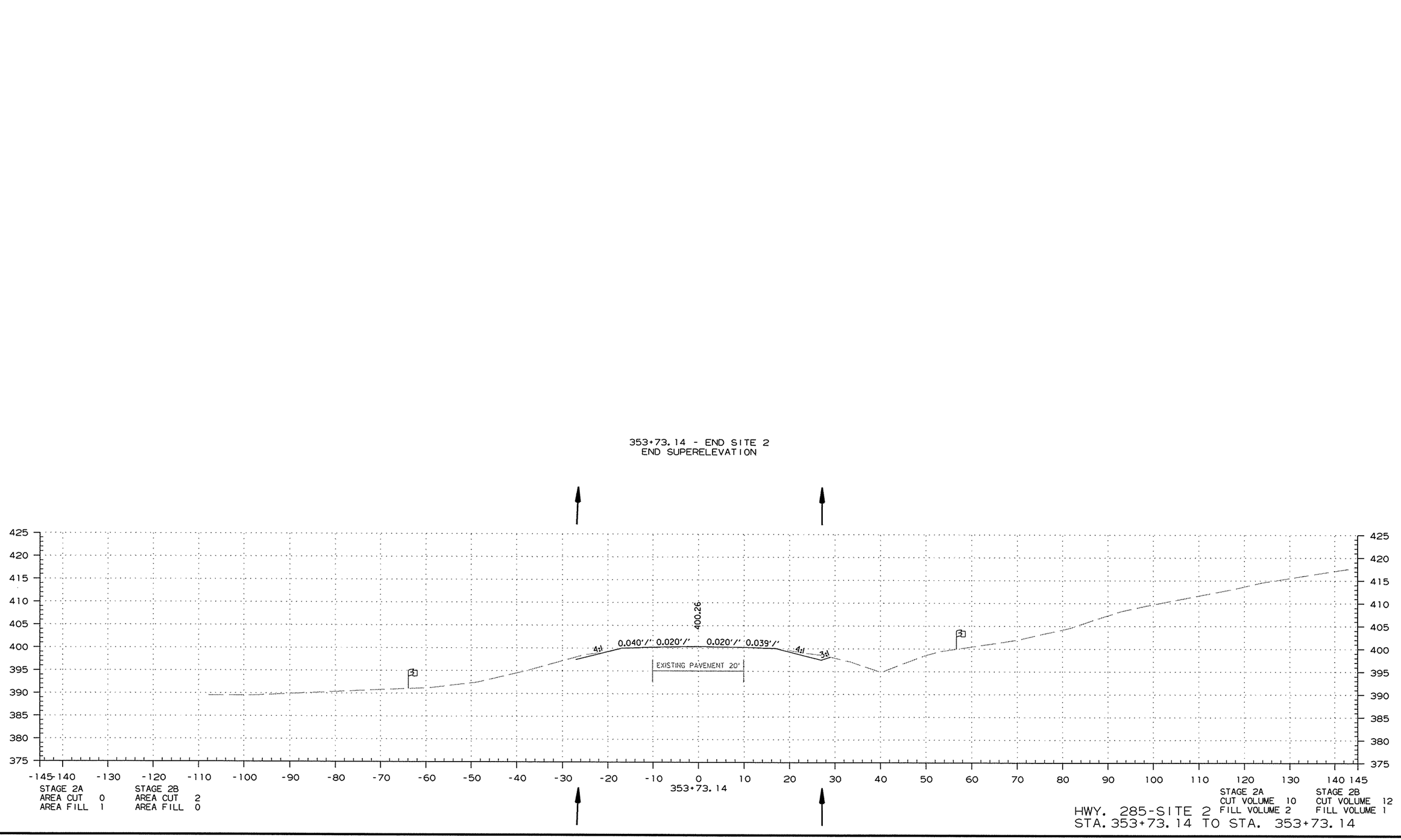
12/4/2015

R080426.DGN

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		080426	238	271

(2) CROSS SECTIONS

353+73.14 - END SITE 2
END SUPERELEVATION



STAGE 2A
AREA CUT 0
AREA FILL 1

STAGE 2B
AREA CUT 2
AREA FILL 0

STAGE 2A
CUT VOLUME 10
FILL VOLUME 2

STAGE 2B
CUT VOLUME 12
FILL VOLUME 1

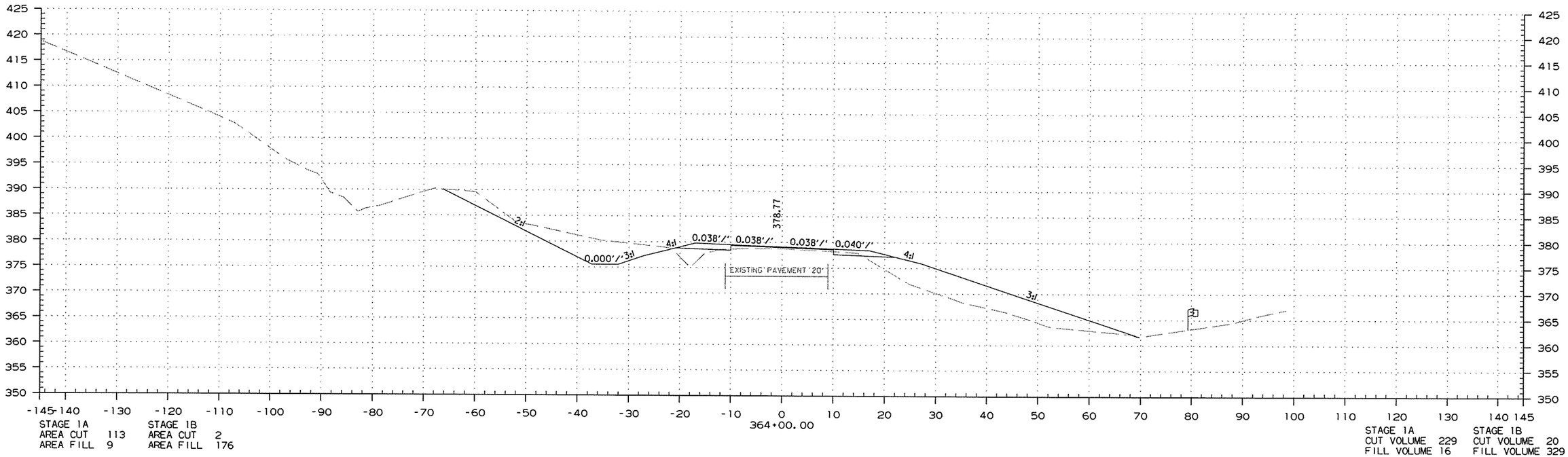
HWY. 285-SITE 2
STA. 353+73.14 TO STA. 353+73.14

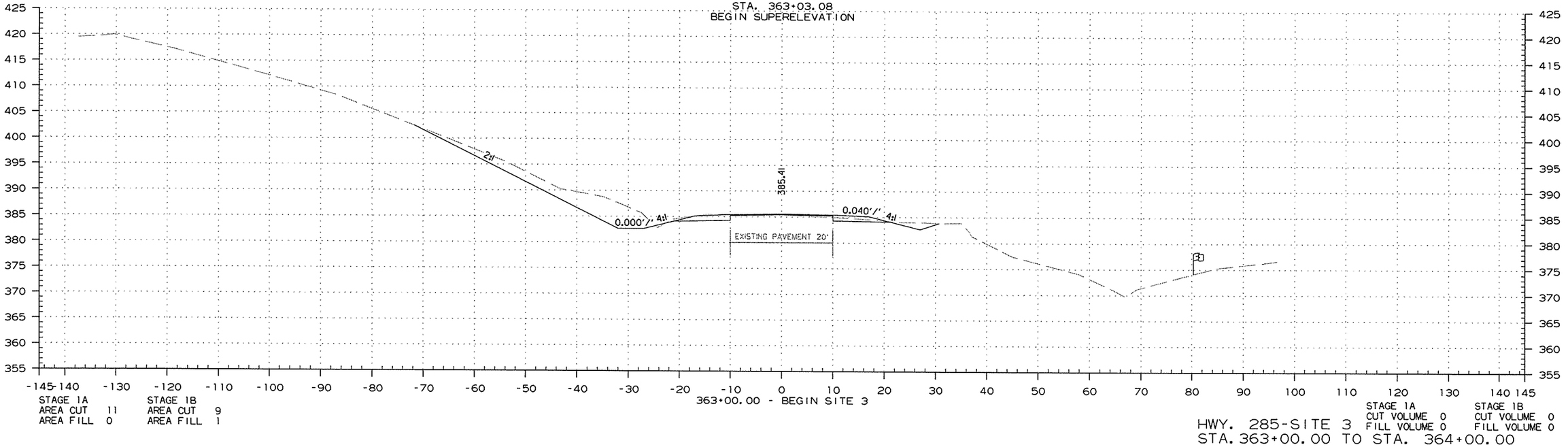
12/4/2015

R080426.DGN

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		080426	239	271

(2) CROSS SECTIONS





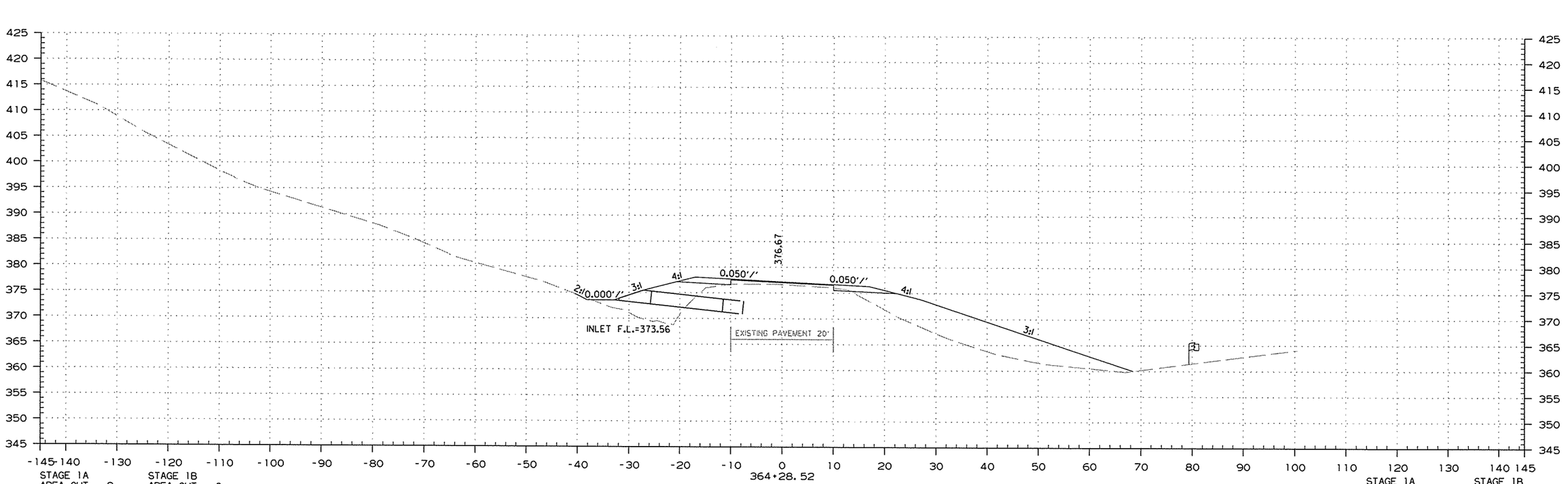
HWY. 285-SITE 3
STA. 363+00.00 TO STA. 364+00.00

12/3/2015

R080426.DGN

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		080426	240	271

(2) CROSS SECTIONS



STAGE 1A
AREA CUT 2
AREA FILL 84

STAGE 1B
AREA CUT 0
AREA FILL 217

STAGE 1A
CUT VOLUME 61
FILL VOLUME 49

STAGE 1B
CUT VOLUME 1
FILL VOLUME 208

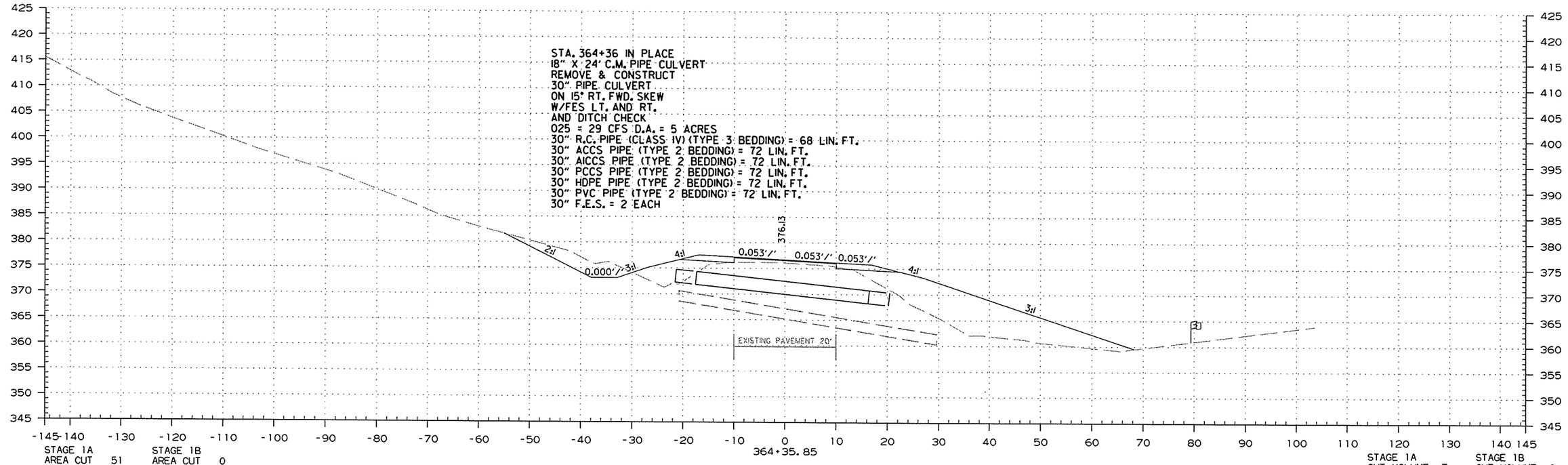
HWY. 285-SITE 3
STA. 364+28.52 TO STA. 364+28.52

12/3/2015

R080426.DGN

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		080426	241	271

(2) CROSS SECTIONS



STAGE 1A
AREA CUT 51
AREA FILL 37

STAGE 1B
AREA CUT 0
AREA FILL 254

STAGE 1A
CUT VOLUME 7
FILL VOLUME 16

STAGE 1B
CUT VOLUME 0
FILL VOLUME 64

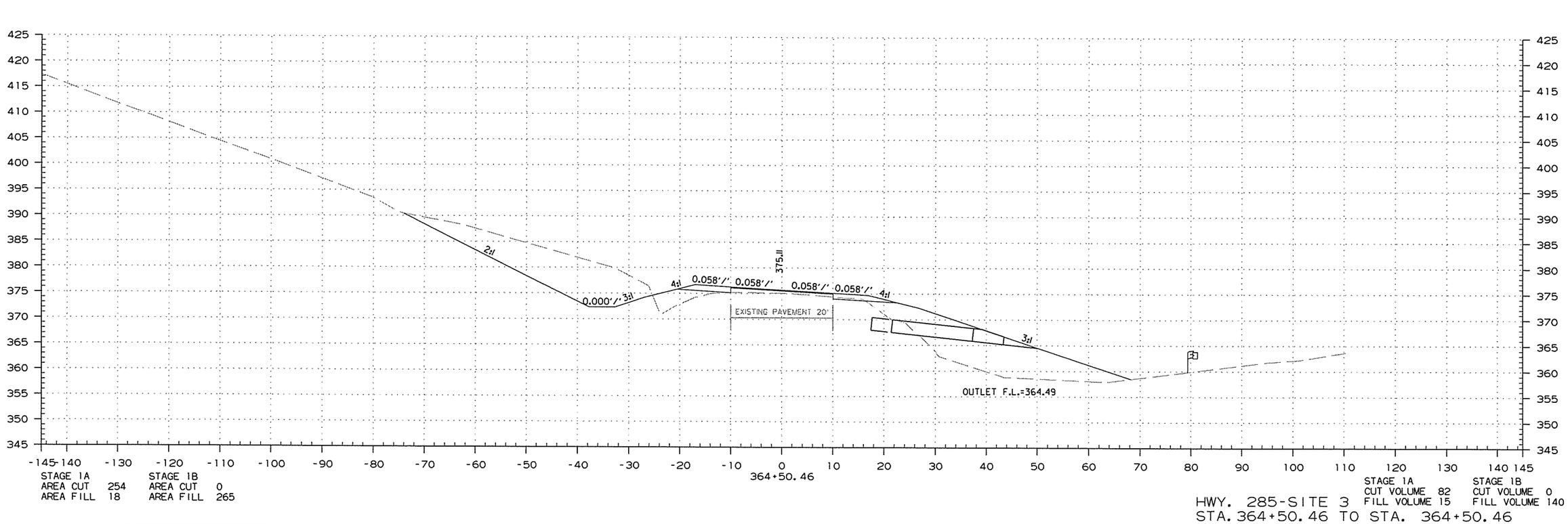
HWY. 285-SITE 3
STA. 364+35.85 TO STA. 364+35.85

12/3/2015

R080426.DGN

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		080426	242	271

(2) CROSS SECTIONS



STAGE 1A
AREA CUT 254
AREA FILL 18

STAGE 1B
AREA CUT 0
AREA FILL 265

STAGE 1A
CUT VOLUME 82
FILL VOLUME 15

STAGE 1B
CUT VOLUME 0
FILL VOLUME 140

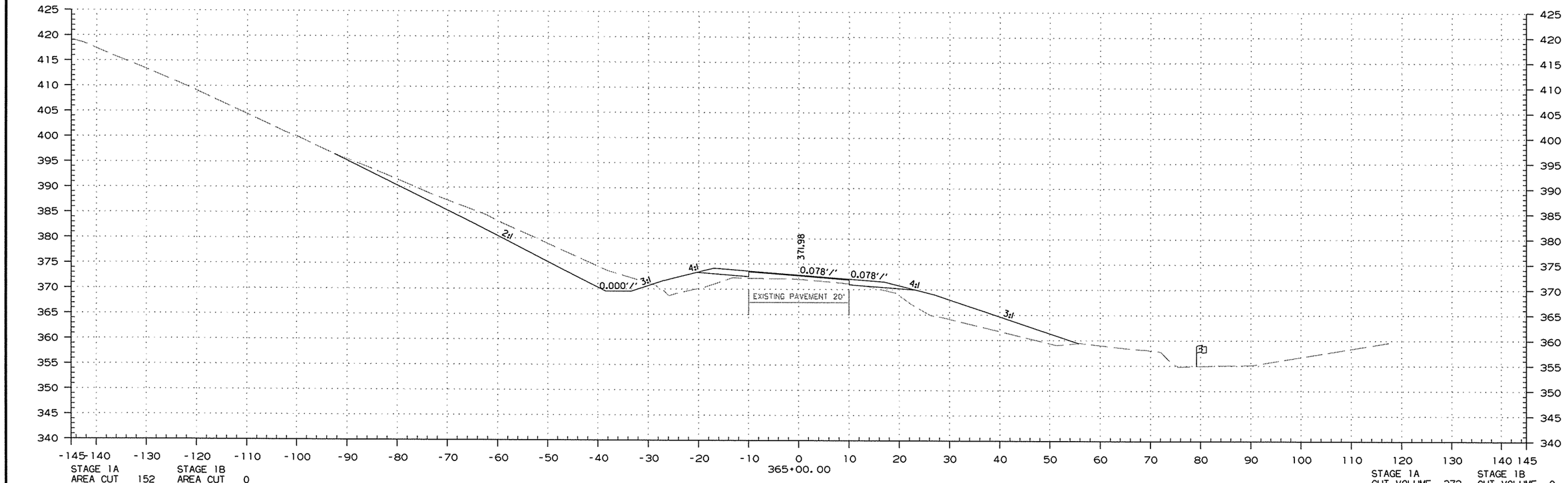
HWY. 285-SITE 3
STA. 364+50.46 TO STA. 364+50.46

12/3/2015

R080426.DGN

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		080426	243	271

(2) CROSS SECTIONS



STAGE 1A
AREA CUT 152
AREA FILL 26

STAGE 1B
AREA CUT 0
AREA FILL 108

STAGE 1A
CUT VOLUME 372
FILL VOLUME 40

STAGE 1B
CUT VOLUME 0
FILL VOLUME 342

HWY. 285-SITE 3
STA. 365+00.00 TO STA. 365+00.00

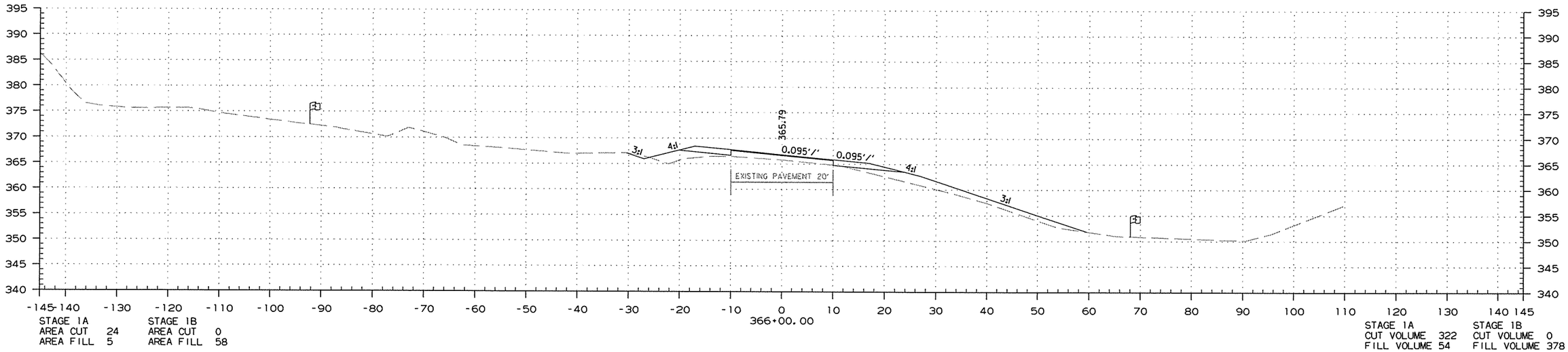
12/3/2015

R080426.DGN

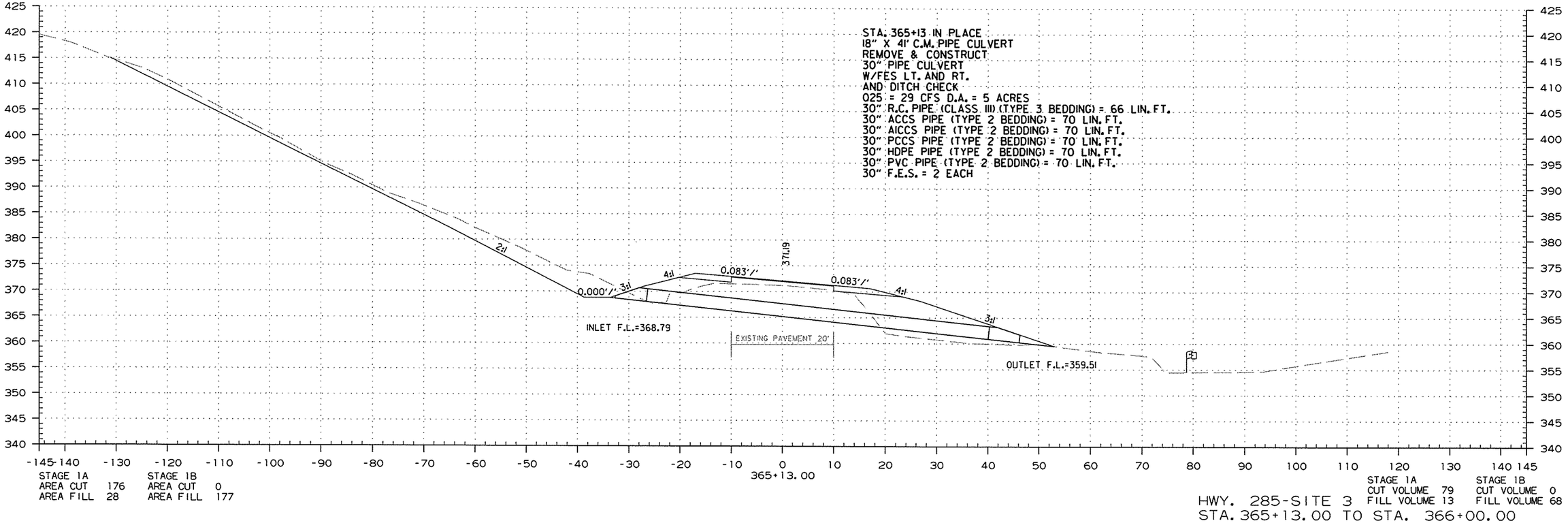
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		080426	244	271

(2) CROSS SECTIONS

STA. 366+56.34
MAX SUPERELEVATION



STA. 365+43.16
MAX SUPERELEVATION



HWY. 285-SITE 3
STA. 365+13.00 TO STA. 366+00.00

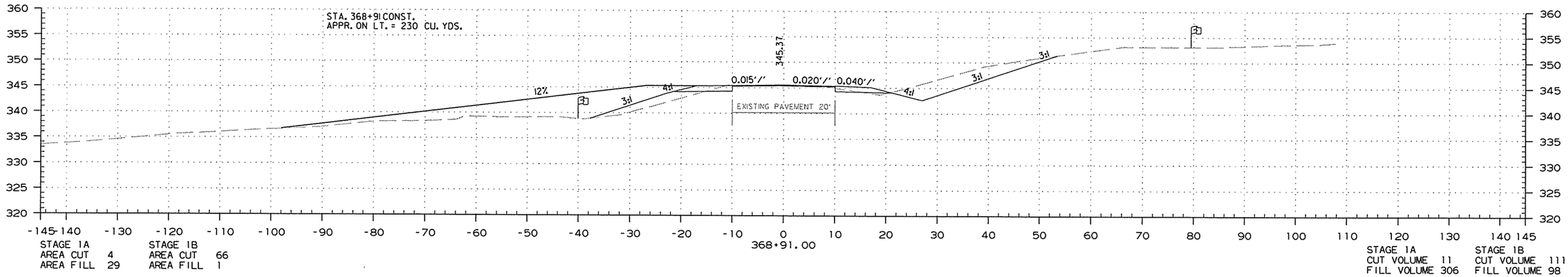
12/3/2015

R080426.DGN

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		080426	245	271

(2) CROSS SECTIONS

STA. 368+96.72
BEGIN AND END SUPERELEVATION

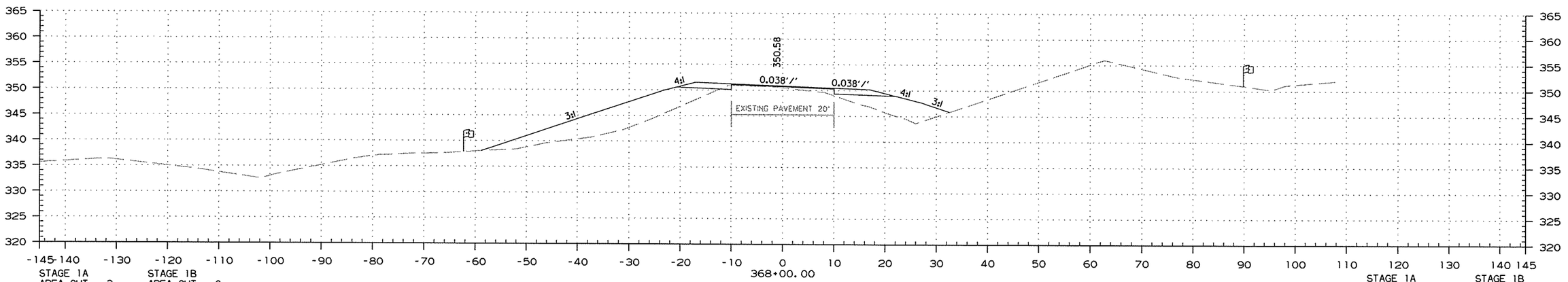


STAGE 1A
AREA CUT 4
AREA FILL 29

STAGE 1B
AREA CUT 66
AREA FILL 1

STAGE 1A
CUT VOLUME 11
FILL VOLUME 306

STAGE 1B
CUT VOLUME 111
FILL VOLUME 98

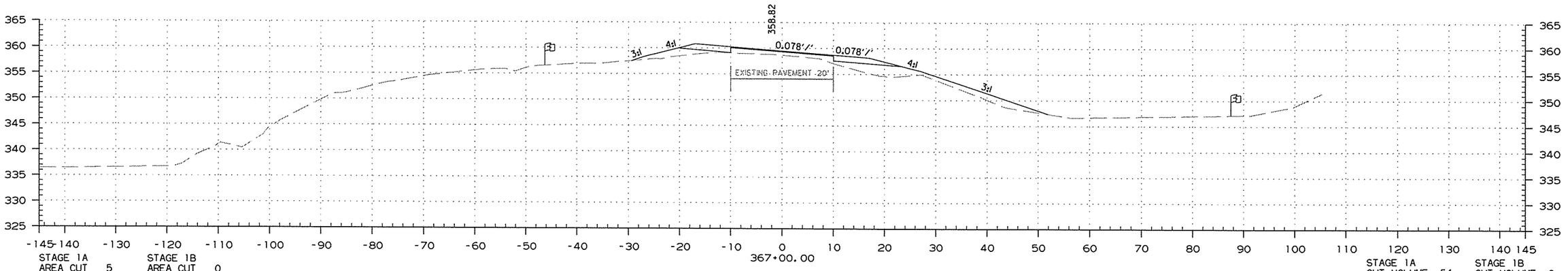


STAGE 1A
AREA CUT 3
AREA FILL 153

STAGE 1B
AREA CUT 0
AREA FILL 57

STAGE 1A
CUT VOLUME 14
FILL VOLUME 293

STAGE 1B
CUT VOLUME 0
FILL VOLUME 207



STAGE 1A
AREA CUT 5
AREA FILL 5

STAGE 1B
AREA CUT 0
AREA FILL 55

STAGE 1A
CUT VOLUME 54
FILL VOLUME 19

STAGE 1B
CUT VOLUME 0
FILL VOLUME 208

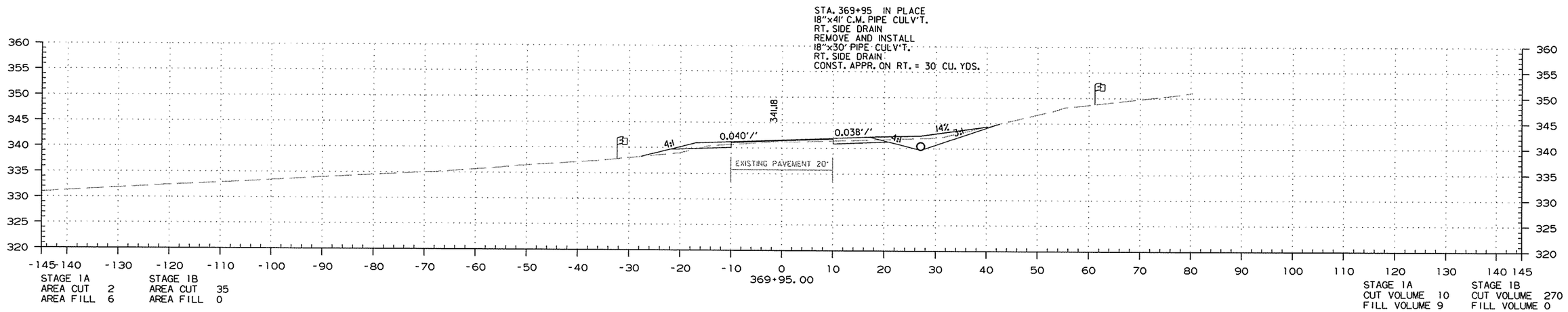
HWY. 285-SITE 3
STA. 367+00.00 TO STA. 368+91.00

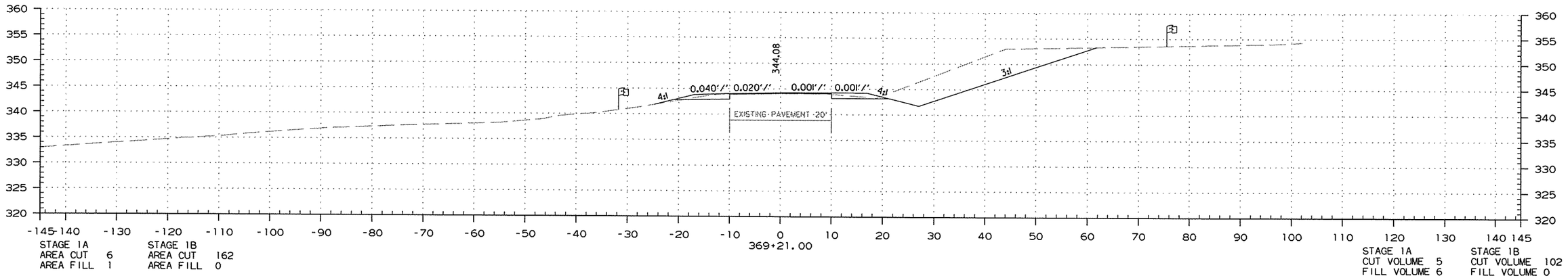
12/3/2015

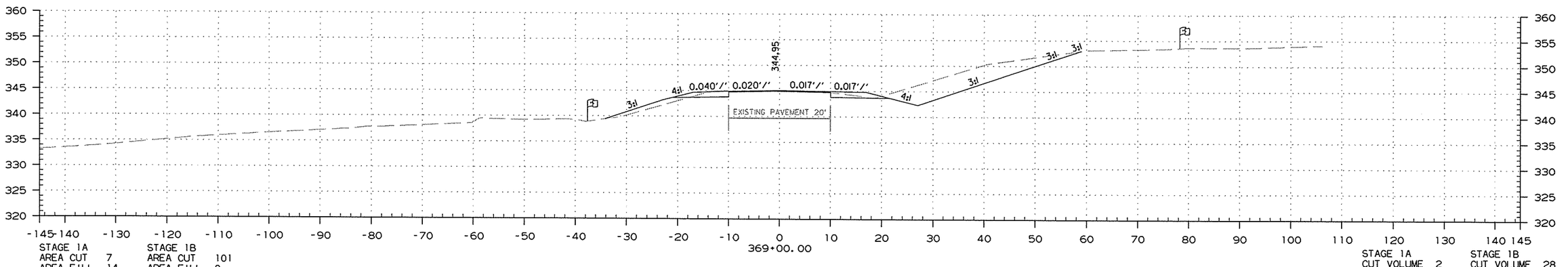
R080426.DGN

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		080426	246	271

(2) CROSS SECTIONS







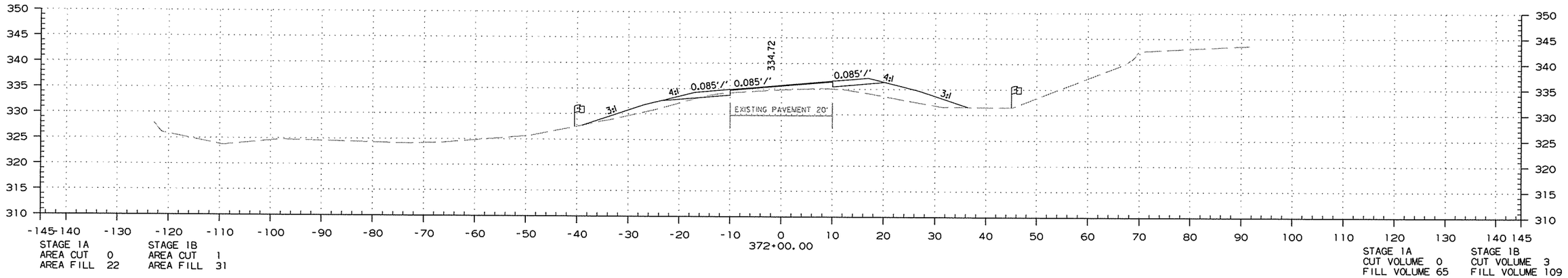
HWY. 285-SITE 3
STA. 369+00.00 TO STA. 369+95.00

12/3/2015

R080426.DGN

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		080426	247	271
				(2)	CROSS SECTIONS			

STA. 372+14.49
MAX SUPERELEVATION



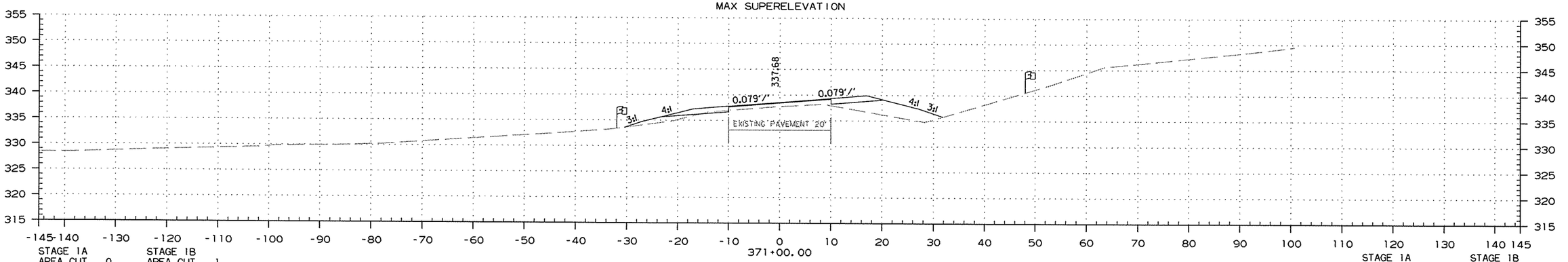
STAGE 1A
AREA CUT 0
AREA FILL 22

STAGE 1B
AREA CUT 1
AREA FILL 31

STAGE 1A
CUT VOLUME 0
FILL VOLUME 65

STAGE 1B
CUT VOLUME 3
FILL VOLUME 109

STA. 371+16.34
MAX SUPERELEVATION

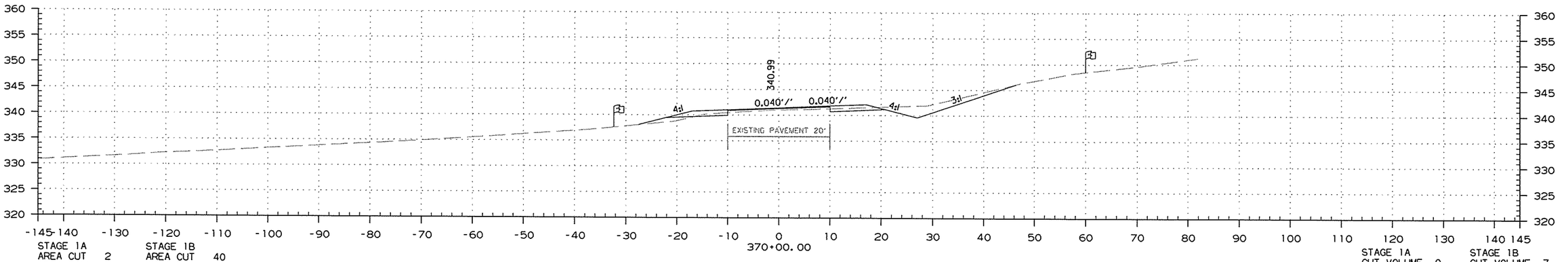


STAGE 1A
AREA CUT 0
AREA FILL 13

STAGE 1B
AREA CUT 1
AREA FILL 28

STAGE 1A
CUT VOLUME 3
FILL VOLUME 34

STAGE 1B
CUT VOLUME 76
FILL VOLUME 51



STAGE 1A
AREA CUT 2
AREA FILL 5

STAGE 1B
AREA CUT 40
AREA FILL 0

STAGE 1A
CUT VOLUME 0
FILL VOLUME 1

STAGE 1B
CUT VOLUME 7
FILL VOLUME 0

HWY. 285-SITE 3
STA. 370+00.00 TO STA. 372+00.00

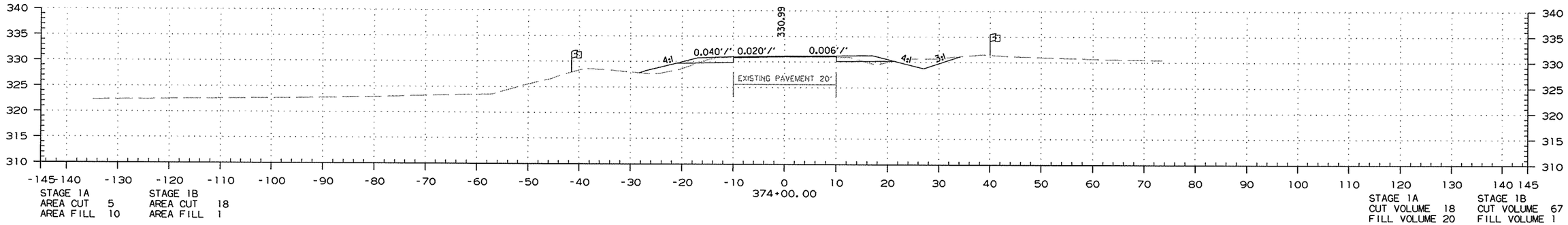
12/3/2015

R080426.DGN

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		080426	248	271

(2) CROSS SECTIONS

STA. 374+34.11
END SUPERELEVATION



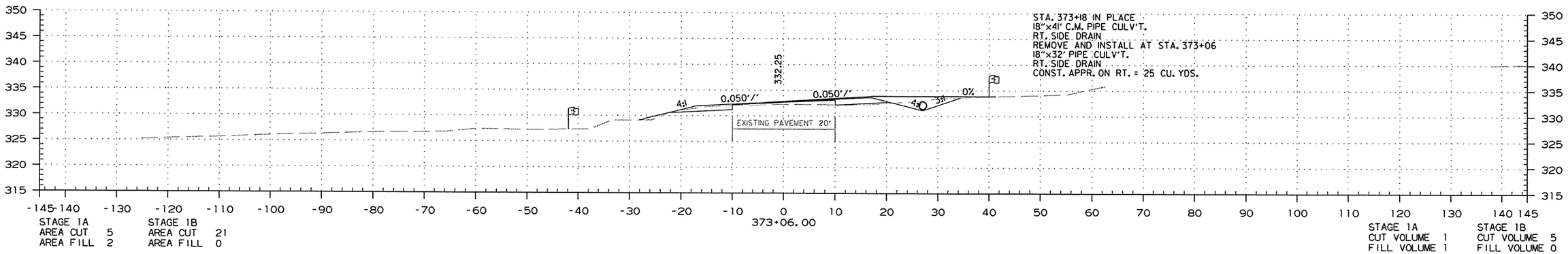
STAGE 1A
AREA CUT 5
AREA FILL 10

STAGE 1B
AREA CUT 18
AREA FILL 1

STAGE 1A
CUT VOLUME 18
FILL VOLUME 20

STAGE 1B
CUT VOLUME 67
FILL VOLUME 1

STA. 373+18 IN PLACE
18"x41' C.M. PIPE CULV'T.
RT. SIDE DRAIN
REMOVE AND INSTALL AT STA. 373+06
18"x32' PIPE CULV'T.
RT. SIDE DRAIN
CONST. APPR. ON RT. = 25 CU. YDS.

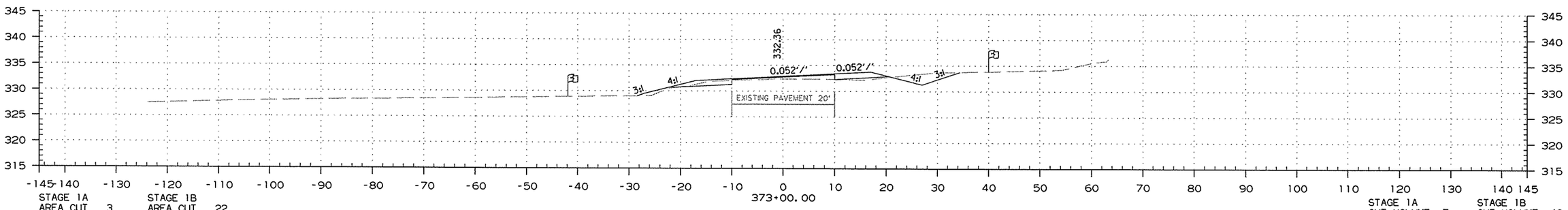


STAGE 1A
AREA CUT 5
AREA FILL 2

STAGE 1B
AREA CUT 21
AREA FILL 0

STAGE 1A
CUT VOLUME 1
FILL VOLUME 1

STAGE 1B
CUT VOLUME 5
FILL VOLUME 0



STAGE 1A
AREA CUT 3
AREA FILL 3

STAGE 1B
AREA CUT 22
AREA FILL 0

STAGE 1A
CUT VOLUME 7
FILL VOLUME 47

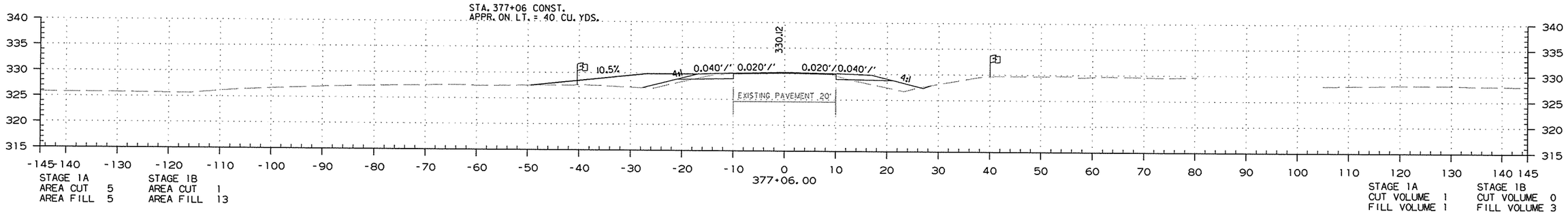
STAGE 1B
CUT VOLUME 43
FILL VOLUME 58

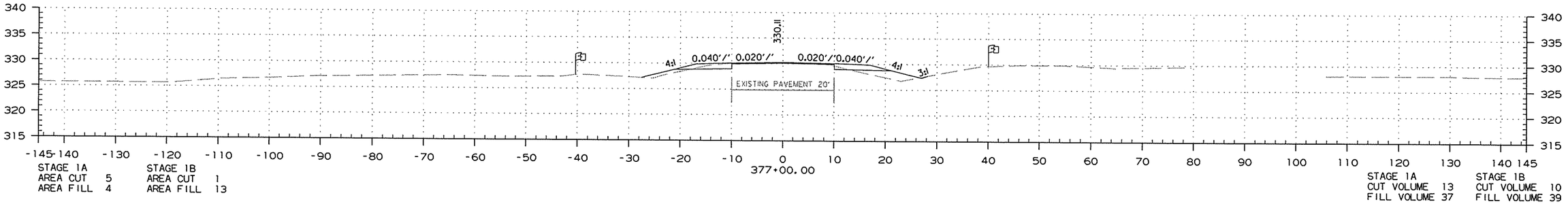
HWY. 285-SITE 3
STA. 373+00.00 TO STA. 374+00.00

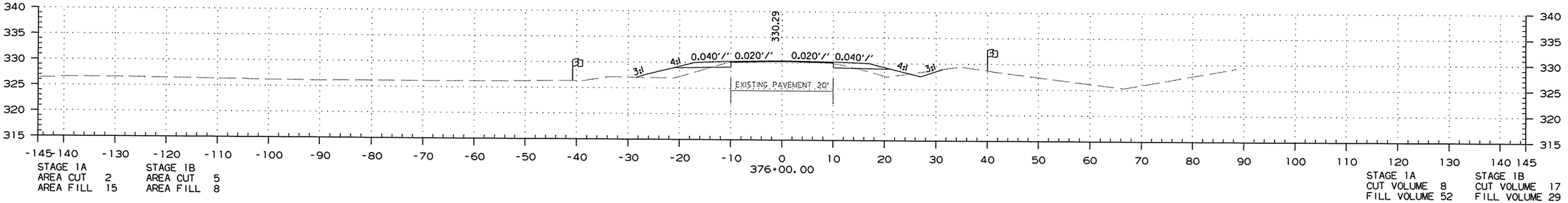
12/3/2015

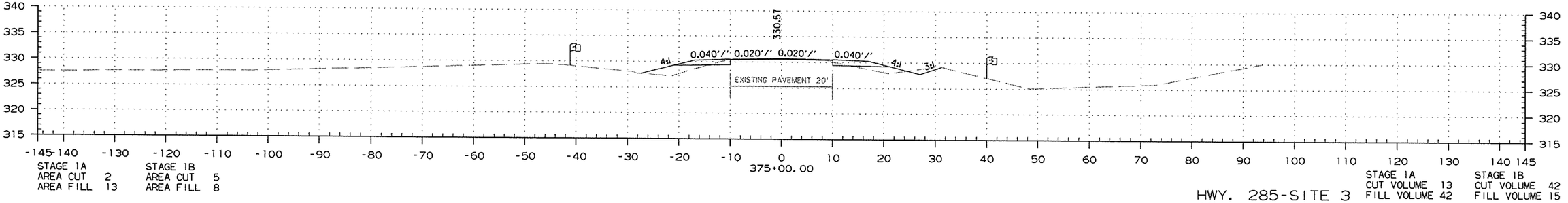
R080426.DGN

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		080426	249	271
				(2) CROSS SECTIONS				









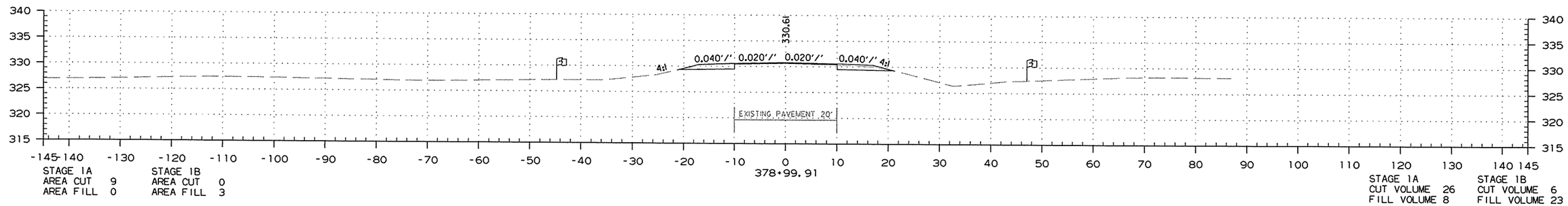
HWY. 285-SITE 3
STA. 375+00.00 TO STA. 377+06.00

12/3/2015

R080426.DGN

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		080426	250	271
				(2) CROSS SECTIONS				

378+99.91 - END SITE 3

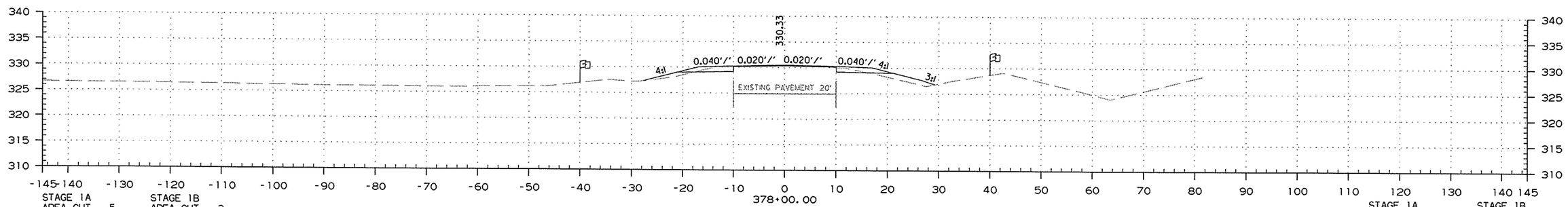


STAGE 1A
AREA CUT 9
AREA FILL 0

STAGE 1B
AREA CUT 0
AREA FILL 3

STAGE 1A
CUT VOLUME 26
FILL VOLUME 8

STAGE 1B
CUT VOLUME 6
FILL VOLUME 23



STAGE 1A
AREA CUT 5
AREA FILL 4

STAGE 1B
AREA CUT 3
AREA FILL 10

STAGE 1A
CUT VOLUME 17
FILL VOLUME 16

STAGE 1B
CUT VOLUME 7
FILL VOLUME 40

HWY. 285-SITE 3
STA. 378+00.00 TO STA. 378+99.91

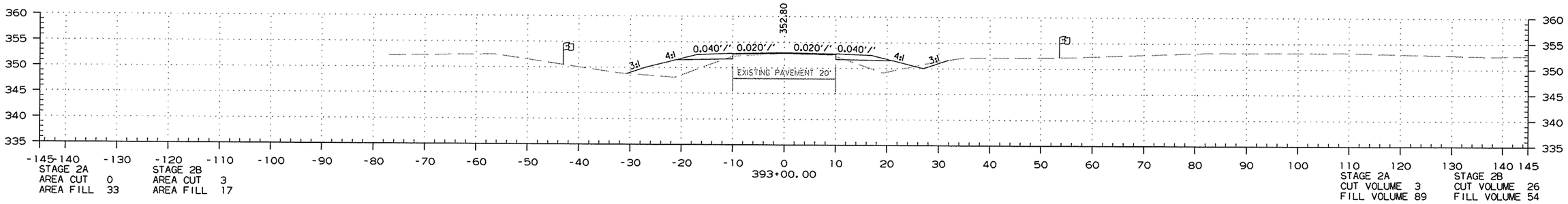
12/3/2015

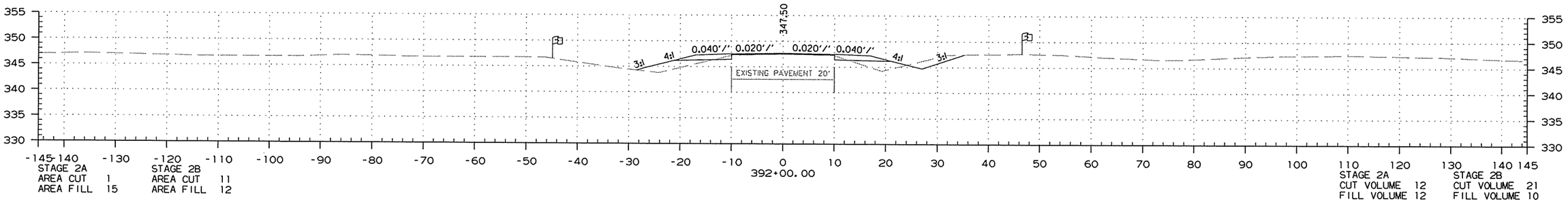
R080426.DGN

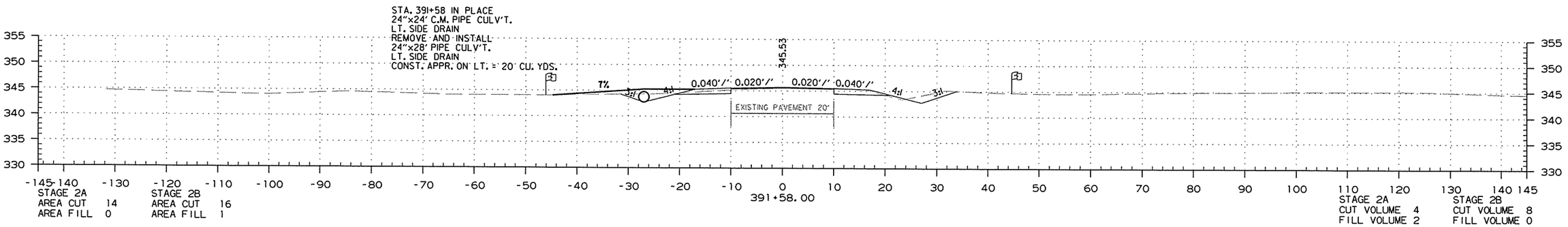
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		080426	251	271

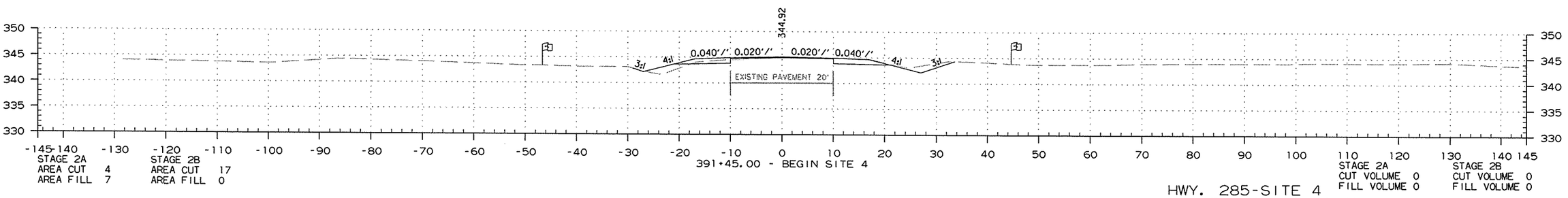
(2) CROSS SECTIONS

STA. 393+34.42
BEGIN SUPERELEVATION







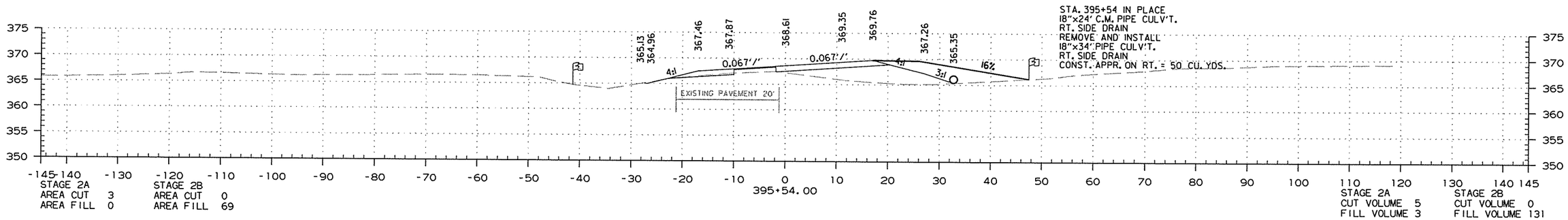


HWY. 285-SITE 4
STA. 391+45.00 TO STA. 393+00.00

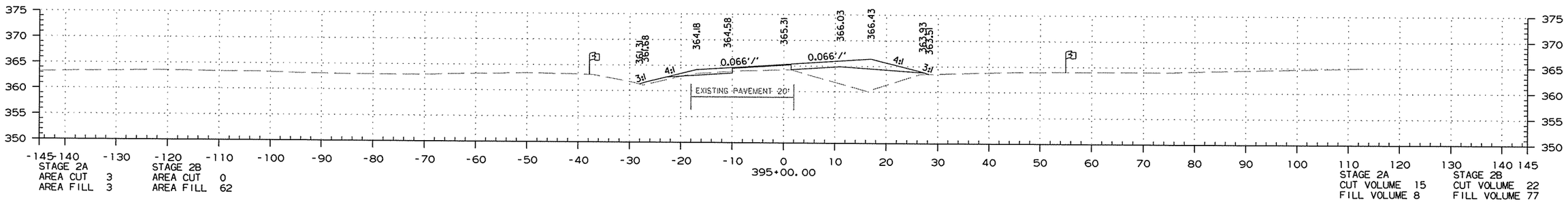
12/4/2015

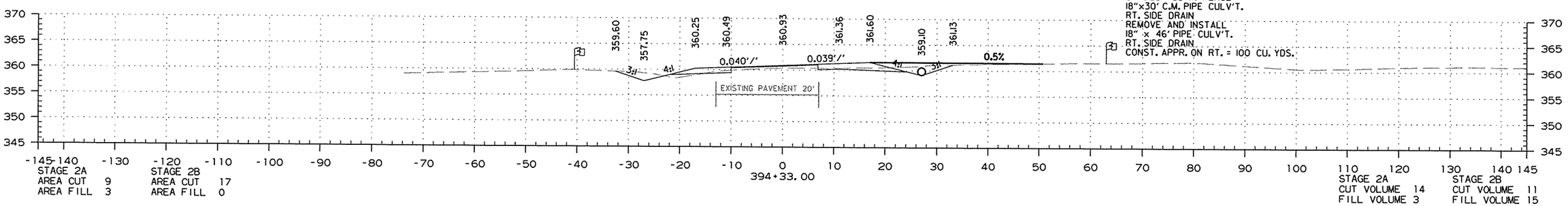
R080426.DGN

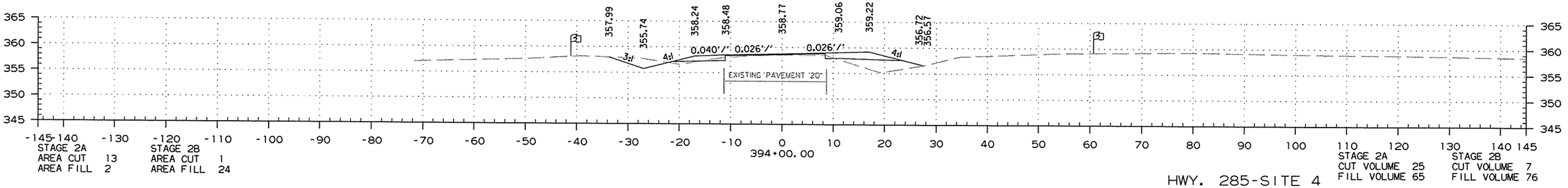
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		080426	252	271
				(2) CROSS SECTIONS				



STA. 395+03.03
MAX SUPERELEVATION







HWY. 285-SITE 4
STA. 394+00.00 TO STA. 395+54.00

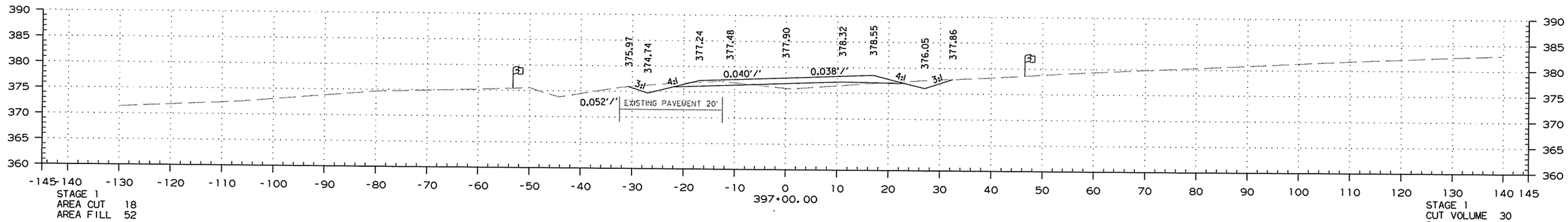
12/4/2015

R080426.DGN

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		080426	253	271

(2) CROSS SECTIONS

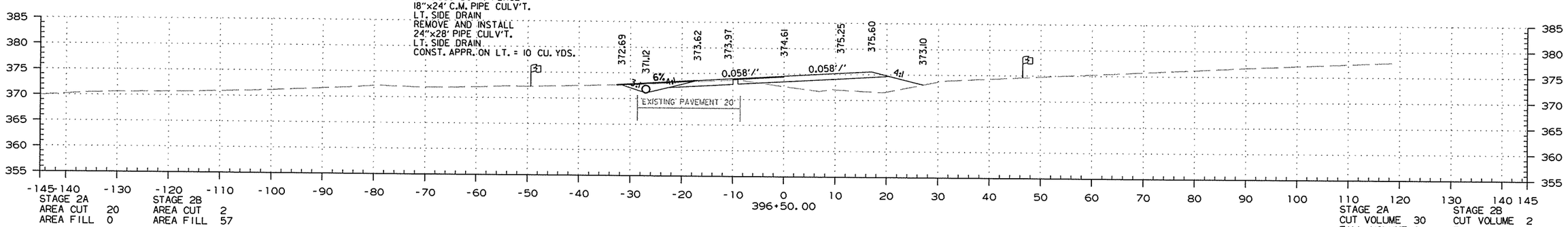
STA. 397+95.22
BEGIN AND END SUPERELEVATION



STAGE 1
AREA CUT 18
AREA FILL 52

STAGE 1
CUT VOLUME 30
FILL VOLUME 102

STA. 396+50 IN PLACE
18"x24' C.M. PIPE CULV'T.
LT. SIDE DRAIN
REMOVE AND INSTALL
24"x28' PIPE CULV'T.
LT. SIDE DRAIN
CONST. APPR. ON LT. = 10 CU. YDS.



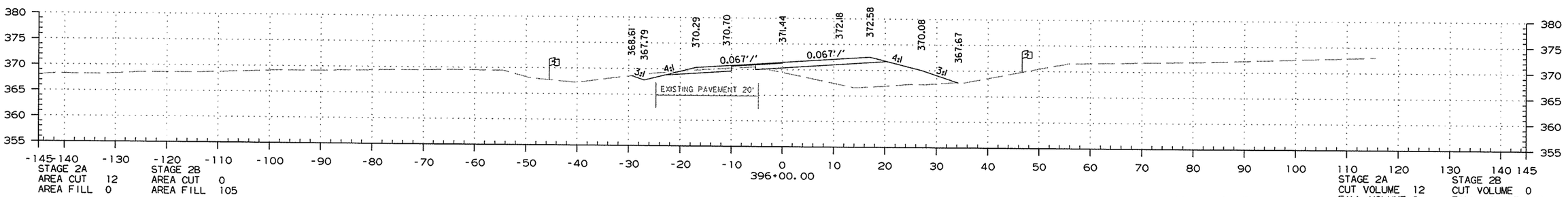
STAGE 2A
AREA CUT 20
AREA FILL 0

STAGE 2B
AREA CUT 2
AREA FILL 57

STAGE 2A
CUT VOLUME 30
FILL VOLUME 0

STAGE 2B
CUT VOLUME 2
FILL VOLUME 151

STA. 396+26.61
MAX SUPERELEVATION



STAGE 2A
AREA CUT 12
AREA FILL 0

STAGE 2B
AREA CUT 0
AREA FILL 105

STAGE 2A
CUT VOLUME 12
FILL VOLUME 0

STAGE 2B
CUT VOLUME 0
FILL VOLUME 149

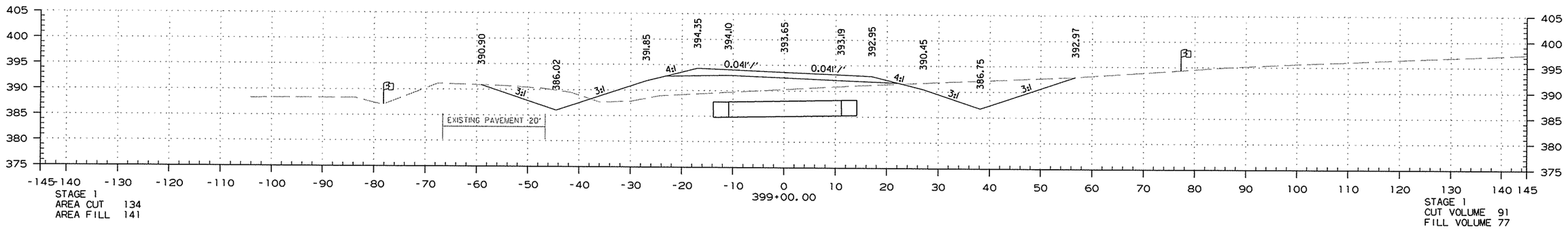
HWY. 285-SITE 4
STA. 396+00.00 TO STA. 397+00.00

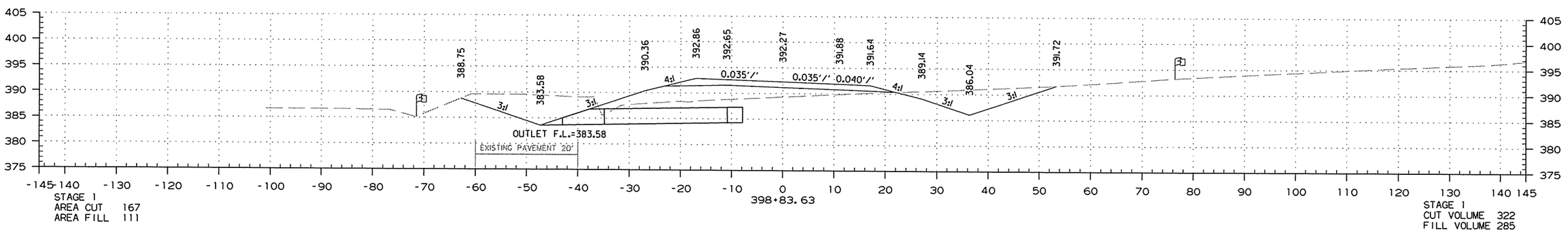
12/4/2015

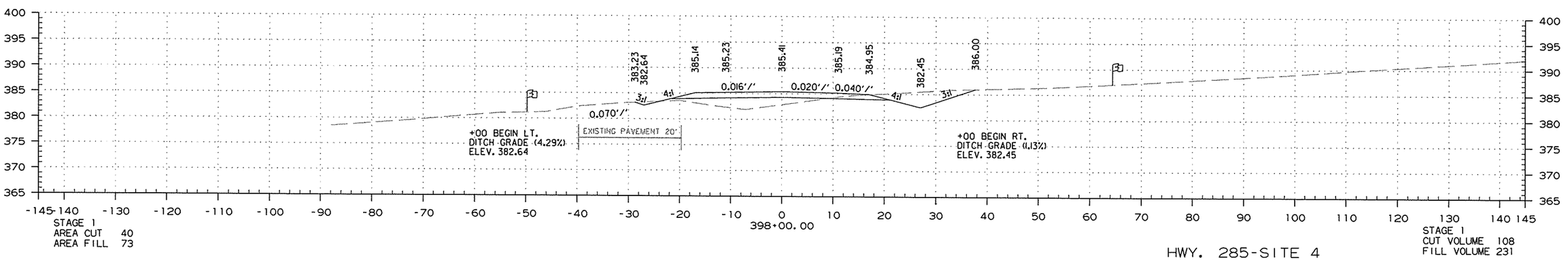
R080426.DGN

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		080426	254	271

(2) CROSS SECTIONS







HWY. 285-SITE 4
STA. 398+00.00 TO STA. 399+00.00

12/4/2015

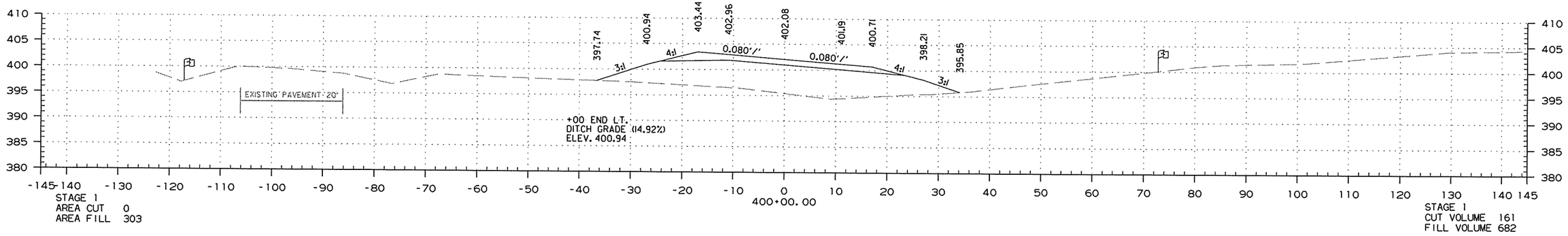
R080426.DGN

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		080426	255	271

(2) CROSS SECTIONS

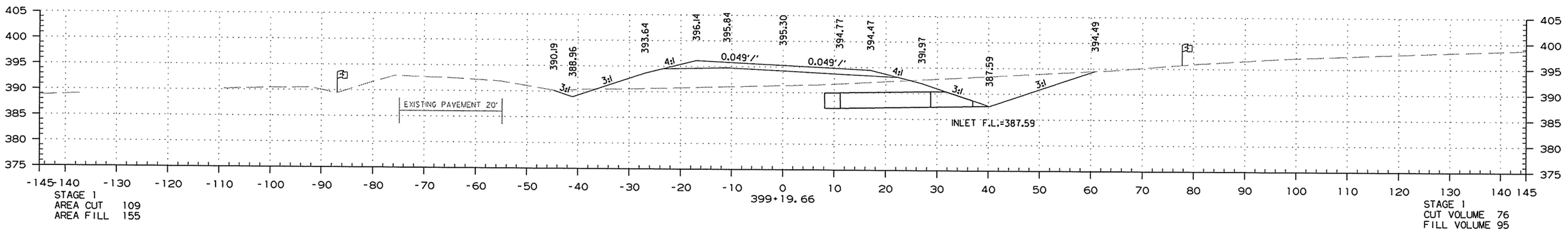
STA. 400+54.22
MAX SUPERELEVATION

+80 END RT.
DITCH GRADE (10.55%)
ELEV. 404.51



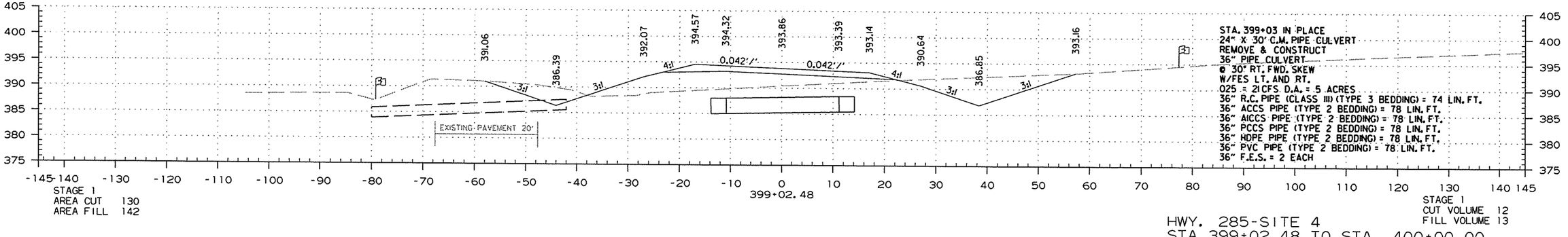
STAGE 1
AREA CUT 0
AREA FILL 303

STAGE 1
CUT VOLUME 161
FILL VOLUME 682



STAGE 1
AREA CUT 109
AREA FILL 155

STAGE 1
CUT VOLUME 76
FILL VOLUME 95



STA. 399+03 IN PLACE
24" X 30' C.M. PIPE CULVERT
REMOVE & CONSTRUCT
36" PIPE CULVERT
@ 30° RT. FWD. SKEW
W/FES LT. AND RT.
Q25 = 21 CFS D.A. = 5 ACRES
36" R.C. PIPE (CLASS III) (TYPE 3 BEDDING) = 74 LIN. FT.
36" ACCS PIPE (TYPE 2 BEDDING) = 78 LIN. FT.
36" AICCS PIPE (TYPE 2 BEDDING) = 78 LIN. FT.
36" PCCS PIPE (TYPE 2 BEDDING) = 78 LIN. FT.
36" HDPE PIPE (TYPE 2 BEDDING) = 78 LIN. FT.
36" PVC PIPE (TYPE 2 BEDDING) = 78 LIN. FT.
36" F.E.S. = 2 EACH

STAGE 1
AREA CUT 130
AREA FILL 142

STAGE 1
CUT VOLUME 12
FILL VOLUME 13

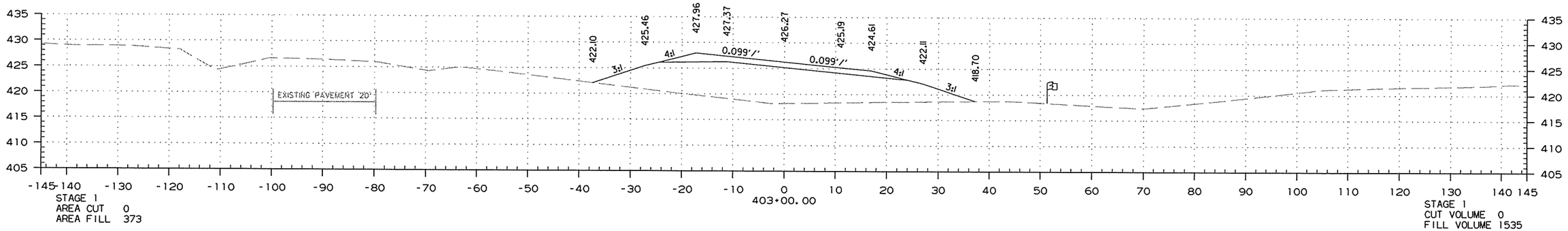
HWY. 285-SITE 4
STA. 399+02.48 TO STA. 400+00.00

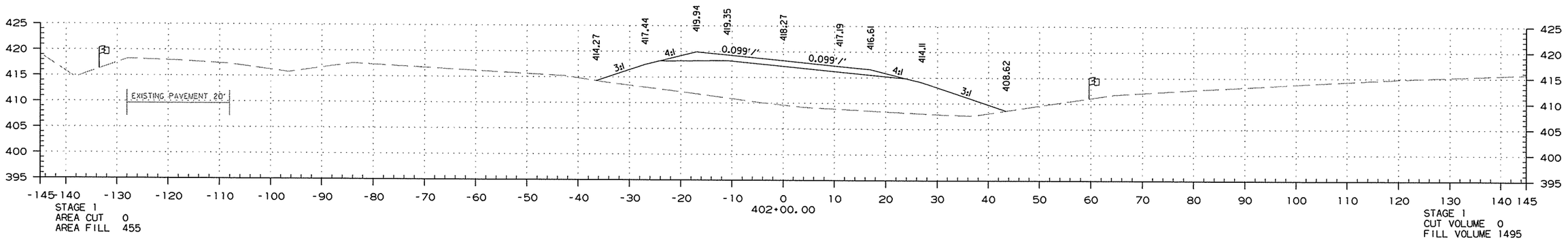
12/4/2015

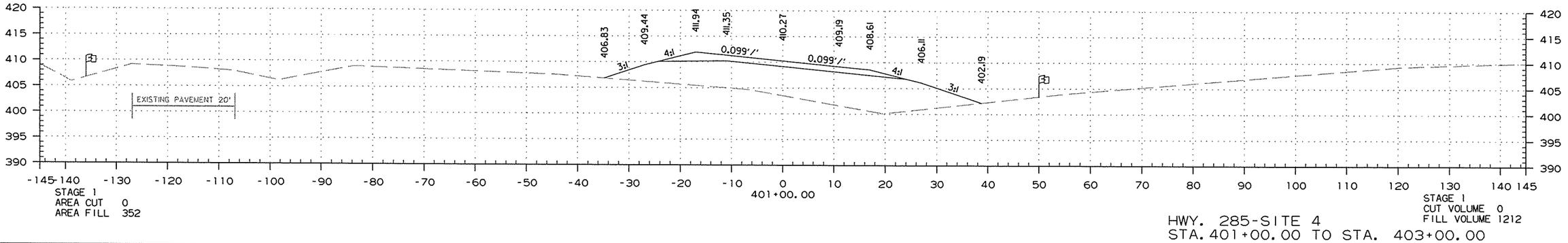
R080426.DGN

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		080426	256	271

(2) CROSS SECTIONS







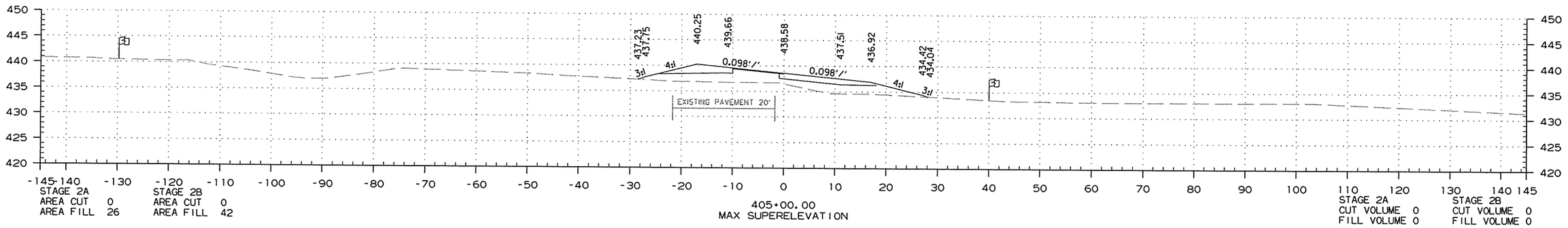
HWY. 285-SITE 4
STA. 401+00.00 TO STA. 403+00.00

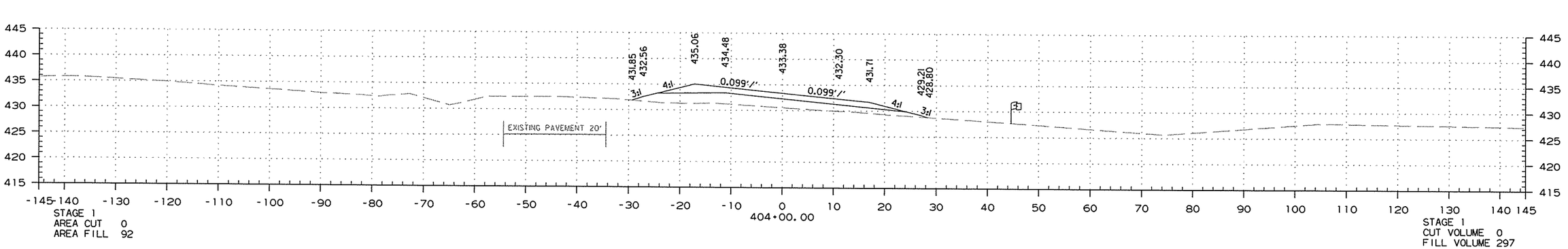
12/4/2015

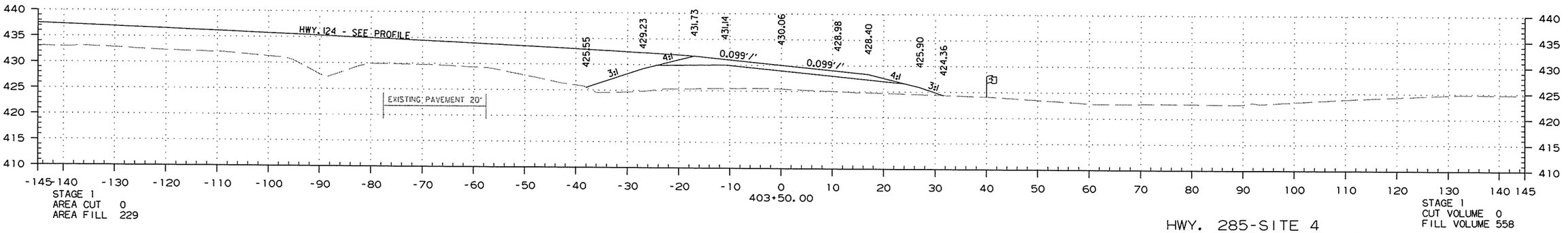
R080426.DGN

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		080426	257	271

(2) CROSS SECTIONS







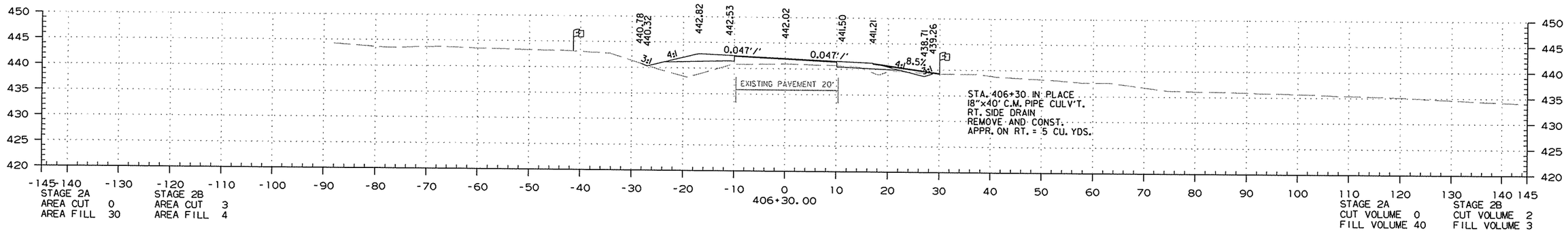
HWY. 285-SITE 4
STA. 403+50.00 TO STA. 405+00.00

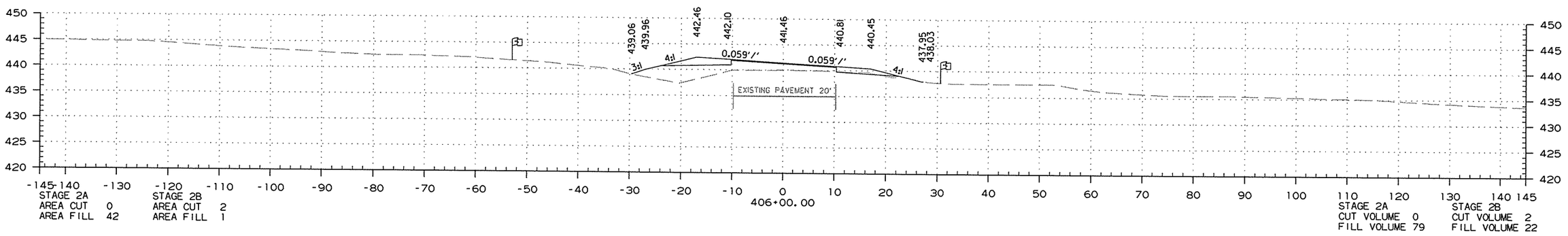
12/4/2015

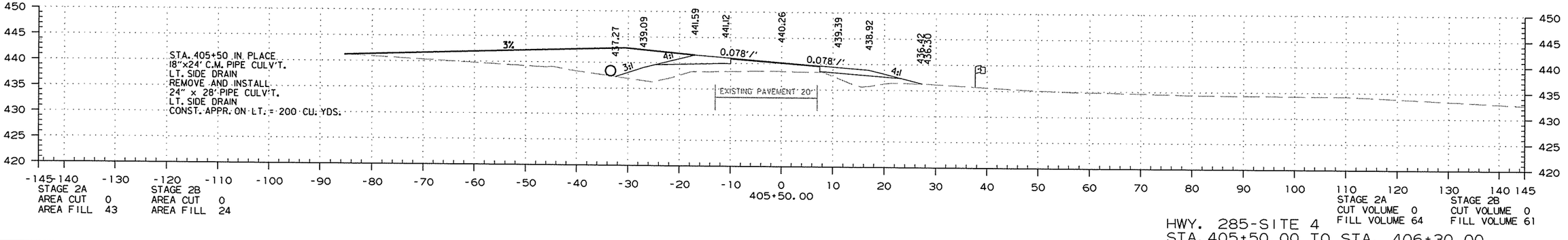
R080426.DGN

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		080426	258	271

(2) CROSS SECTIONS







HWY. 285-SITE 4
STA. 405+50.00 TO STA. 406+30.00

12/4/2015

R080426.DGN

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED

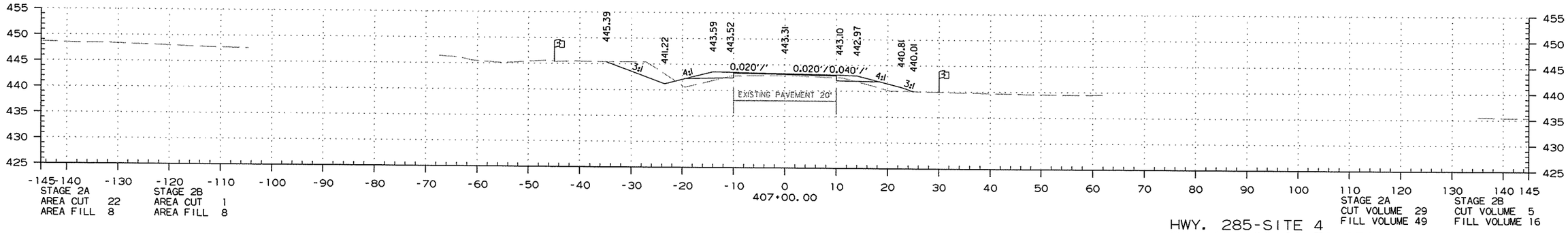
FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
6	ARK.			
JOB NO.		080426	259	271

(2) CROSS SECTIONS

12/4/2015

R080426.DGN

407+50 - END SITE 4
END SUPERELEVATION
END JOB 080426



STAGE 2A
AREA CUT 22
AREA FILL 8

STAGE 2B
AREA CUT 1
AREA FILL 8

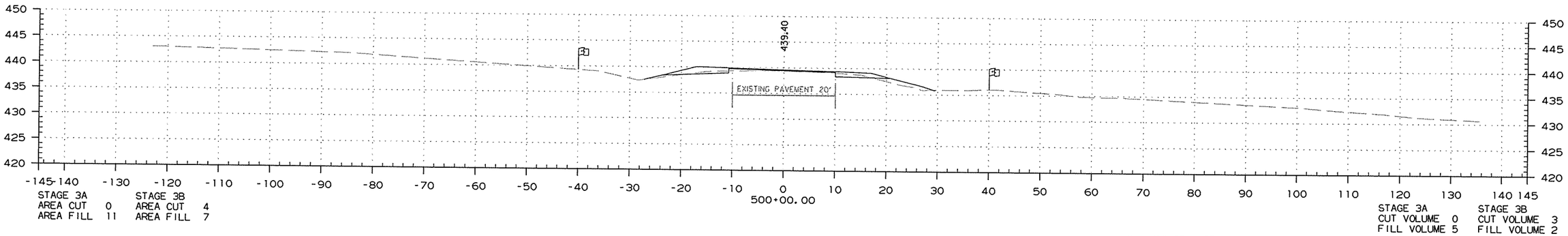
STAGE 2A
CUT VOLUME 29
FILL VOLUME 49

STAGE 2B
CUT VOLUME 5
FILL VOLUME 16

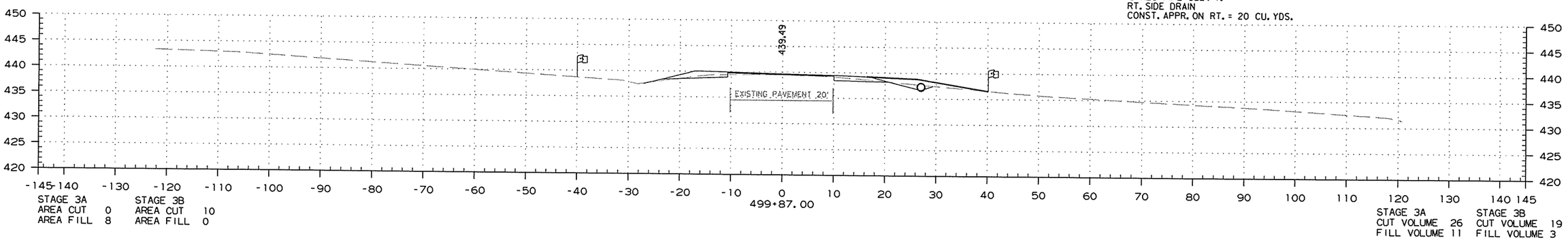
HWY. 285-SITE 4
STA. 407+00.00 TO STA. 408+11.00

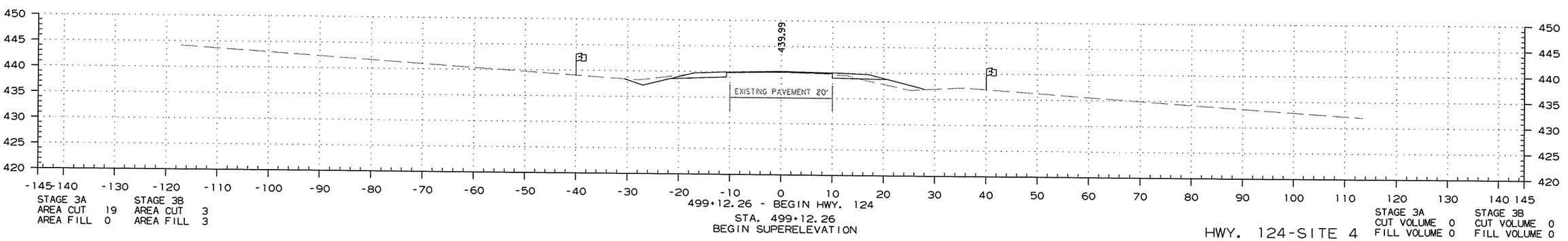
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		080426	260	271

(2) CROSS SECTIONS



STA. 499+87 INSTALL
18"x28' PIPE CULV'T.
RT. SIDE DRAIN
CONST. APPR. ON RT. = 20 CU. YDS.





HWY. 124-SITE 4
STA. 499+12.26 TO STA. 500+00.00

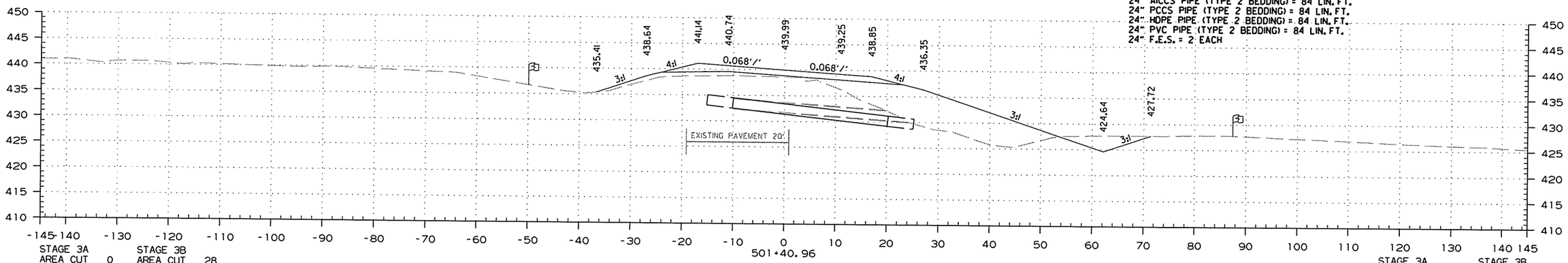
12/4/2015

R080426.DGN

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		080426	261	271

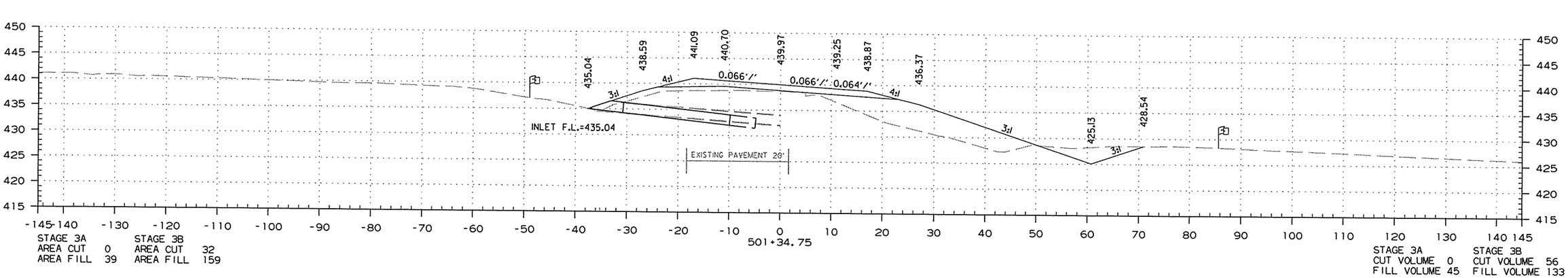
(2) CROSS SECTIONS

STA. 501+41 IN PLACE
24" X 58' C.M. PIPE CULVERT
REMOVE & CONSTRUCT
24" PIPE CULVERT
@ 11° RT. FWD. SKEW
W/FES LT. AND RT.
025 = 29 CFS D.A. = 7 ACRES
24" R.C. PIPE (CLASS III) (TYPE 3 BEDDING) = 80 LIN. FT.
24" ACCS PIPE (TYPE 2 BEDDING) = 84 LIN. FT.
24" AICCS PIPE (TYPE 2 BEDDING) = 84 LIN. FT.
24" PCCS PIPE (TYPE 2 BEDDING) = 84 LIN. FT.
24" HDPE PIPE (TYPE 2 BEDDING) = 84 LIN. FT.
24" PVC PIPE (TYPE 2 BEDDING) = 84 LIN. FT.
24" F.E.S. = 2 EACH



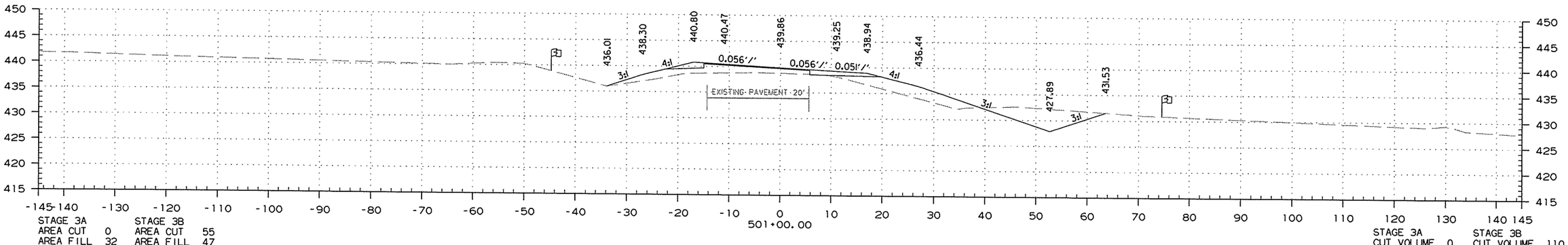
STAGE 3A AREA CUT 0 AREA FILL 33
STAGE 3B AREA CUT 28 AREA FILL 229

STAGE 3A CUT VOLUME 0 FILL VOLUME 8
STAGE 3B CUT VOLUME 7 FILL VOLUME 45



STAGE 3A AREA CUT 0 AREA FILL 39
STAGE 3B AREA CUT 32 AREA FILL 159

STAGE 3A CUT VOLUME 0 FILL VOLUME 45
STAGE 3B CUT VOLUME 56 FILL VOLUME 133



STAGE 3A AREA CUT 0 AREA FILL 32
STAGE 3B AREA CUT 55 AREA FILL 47

STAGE 3A CUT VOLUME 0 FILL VOLUME 80
STAGE 3B CUT VOLUME 110 FILL VOLUME 99

HWY. 124-SITE 4
STA. 501+00.00 TO STA. 501+40.96

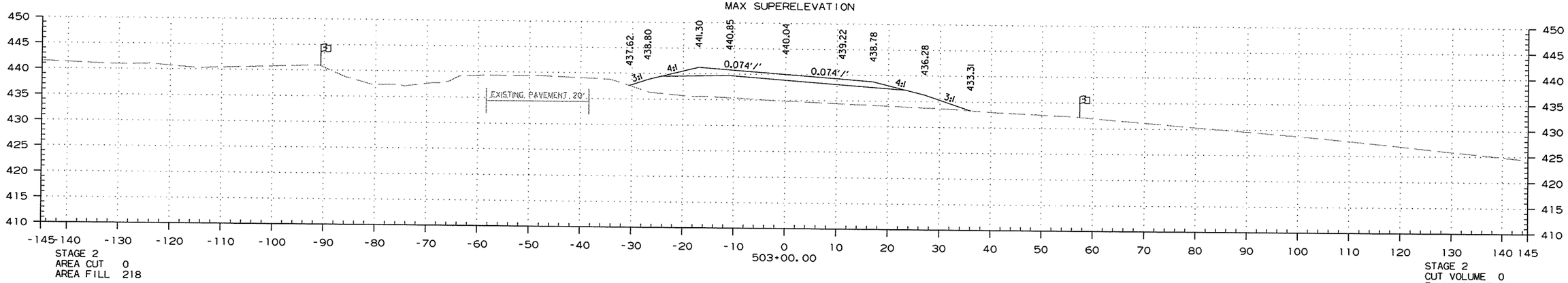
12/4/2015

R080426.DGN

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		080426	262	271

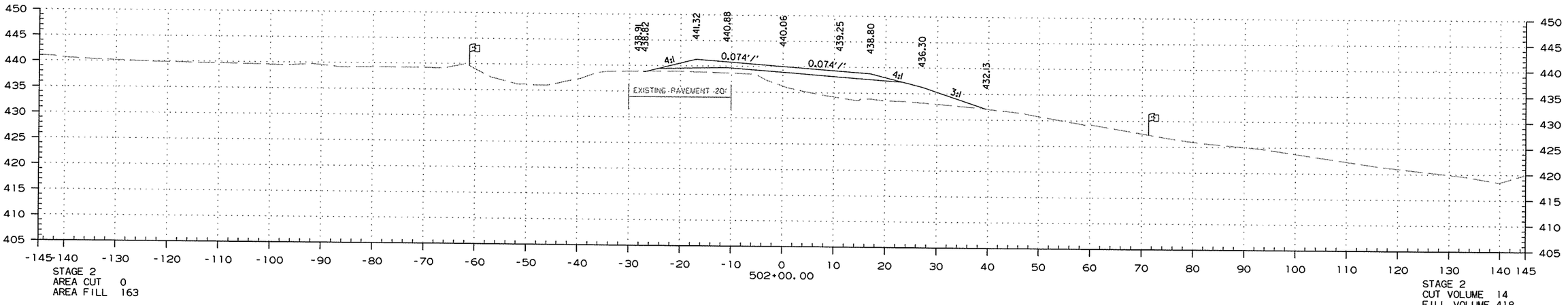
(2) CROSS SECTIONS

STA. 503+09.00
MAX SUPERELEVATION



STAGE 2
AREA CUT 0
AREA FILL 218

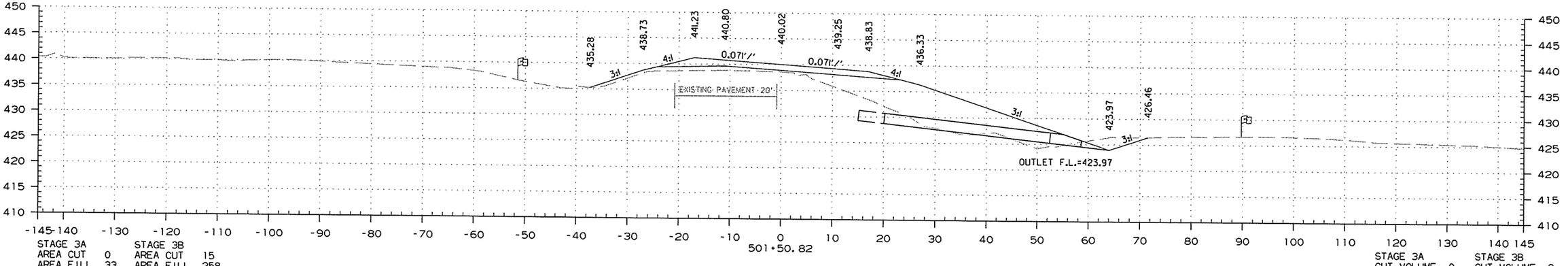
STAGE 2
CUT VOLUME 0
FILL VOLUME 707



STAGE 2
AREA CUT 0
AREA FILL 163

STAGE 2
CUT VOLUME 14
FILL VOLUME 418

STA. 501+62.26
MAX SUPERELEVATION



STAGE 3A
AREA CUT 0
AREA FILL 33

STAGE 3B
AREA CUT 15
AREA FILL 258

STAGE 3A
CUT VOLUME 0
FILL VOLUME 12

STAGE 3B
CUT VOLUME 8
FILL VOLUME 89

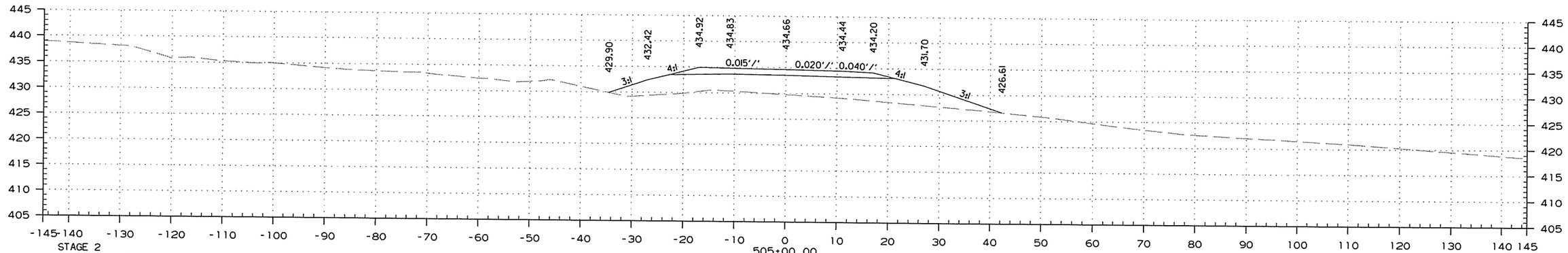
HWY. 124-SITE 4
STA. 501+50.82 TO STA. 503+00.00

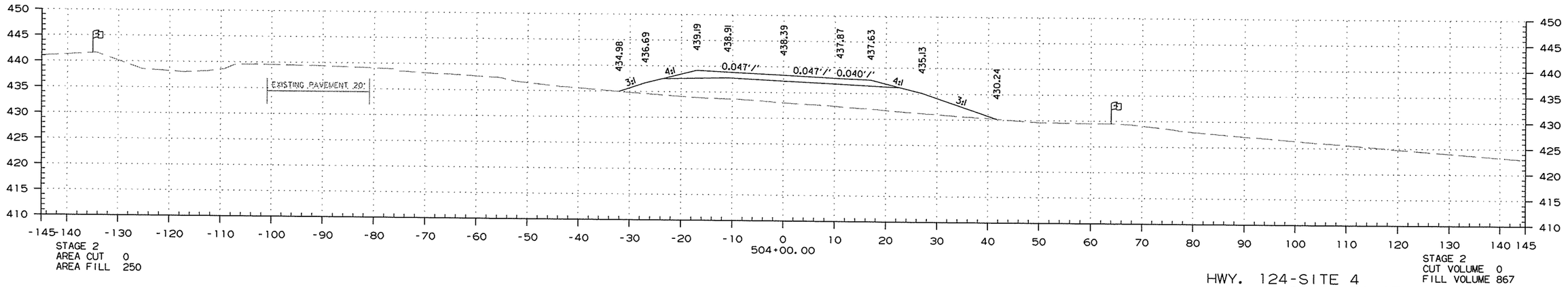
12/4/2015

R080426.DGN

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		080426	263	271

(2) CROSS SECTIONS





HWY. 124-SITE 4
STA. 504+00.00 TO STA. 505+74.17

12/4/2015

R080426.DGN

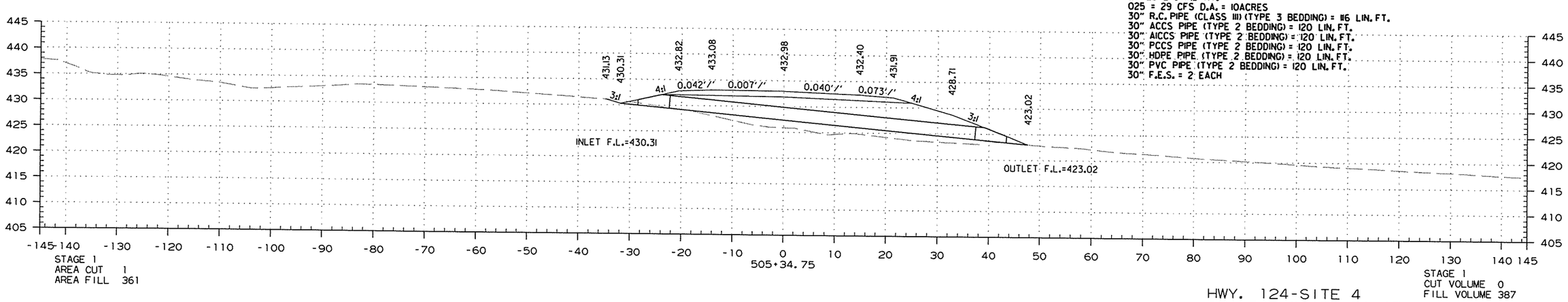
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		080426	264	271

(2) CROSS SECTIONS

505+74.17 - END HWY. 124

STA. 505+59.00
END SUPERELEVATION

STA. 505+35 CONSTRUCT
30" PIPE CULVERT
W/FES LT. AND RT.
025 = 29 CFS D.A. = 10ACRES
30" R.C. PIPE (CLASS III) (TYPE 3 BEDDING) = 116 LIN. FT.
30" ACCS PIPE (TYPE 2 BEDDING) = 120 LIN. FT.
30" AICCS PIPE (TYPE 2 BEDDING) = 120 LIN. FT.
30" PCCS PIPE (TYPE 2 BEDDING) = 120 LIN. FT.
30" HDPE PIPE (TYPE 2 BEDDING) = 120 LIN. FT.
30" PVC PIPE (TYPE 2 BEDDING) = 120 LIN. FT.
30" F.E.S. = 2 EACH



STAGE 1
AREA CUT 1
AREA FILL 361

STAGE 1
CUT VOLUME 0
FILL VOLUME 387

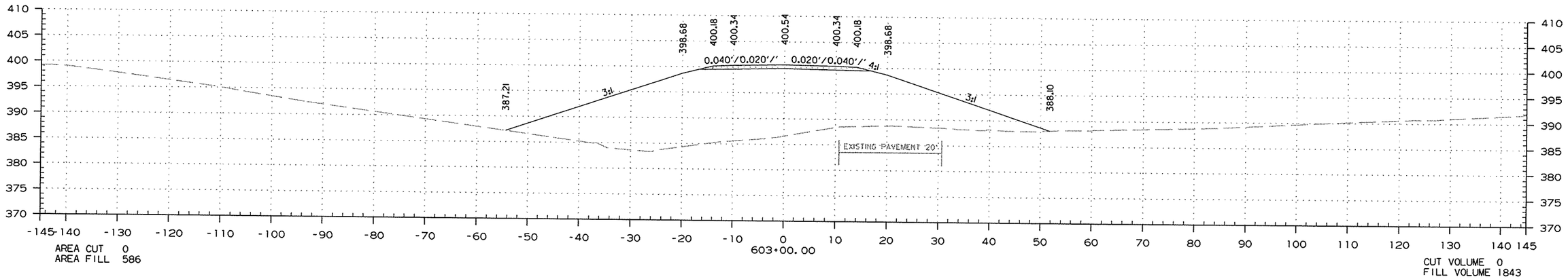
HWY. 124-SITE 4
STA. 505+34.75 TO STA. 505+34.75

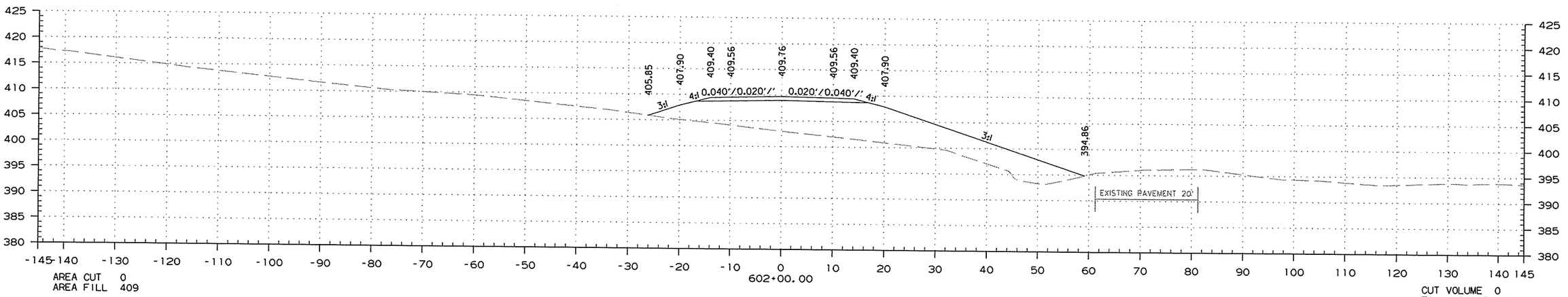
12/4/2015

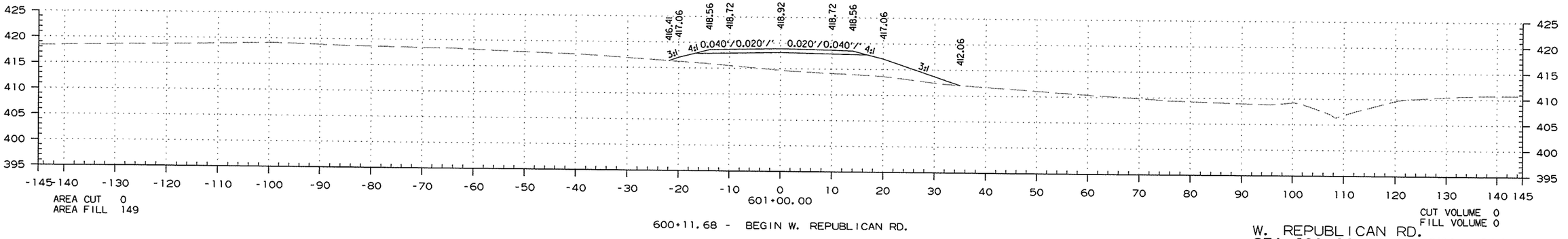
R080426.DGN

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		080426	265	271

(2) CROSS SECTIONS







600+11.68 - BEGIN W. REPUBLICAN RD.

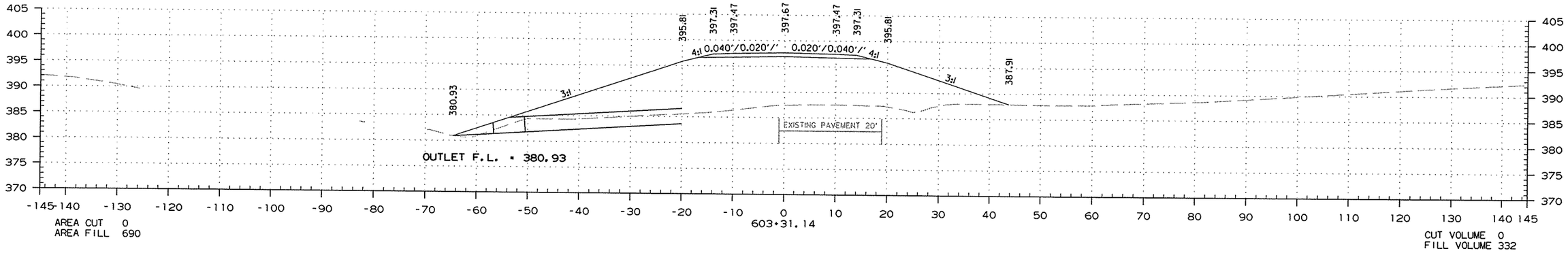
W. REPUBLICAN RD.
STA. 601+00.00 TO STA. 603+00.00

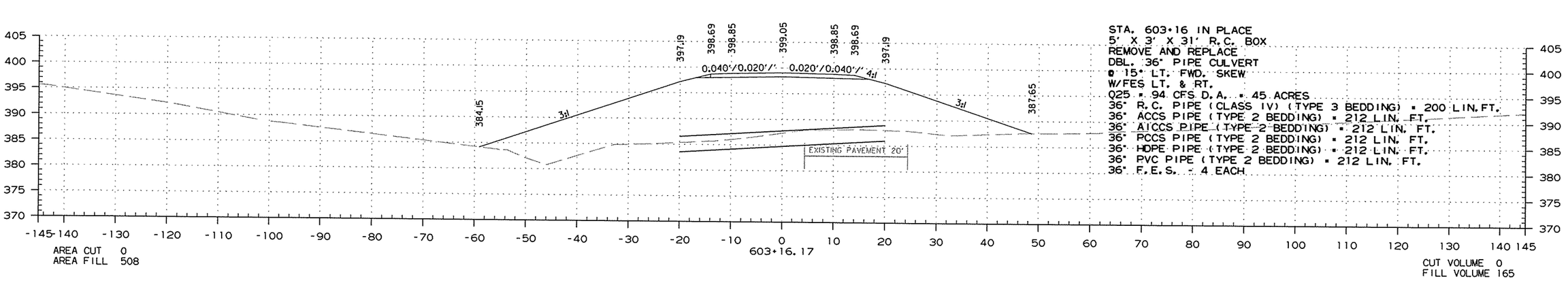
11/25/2015

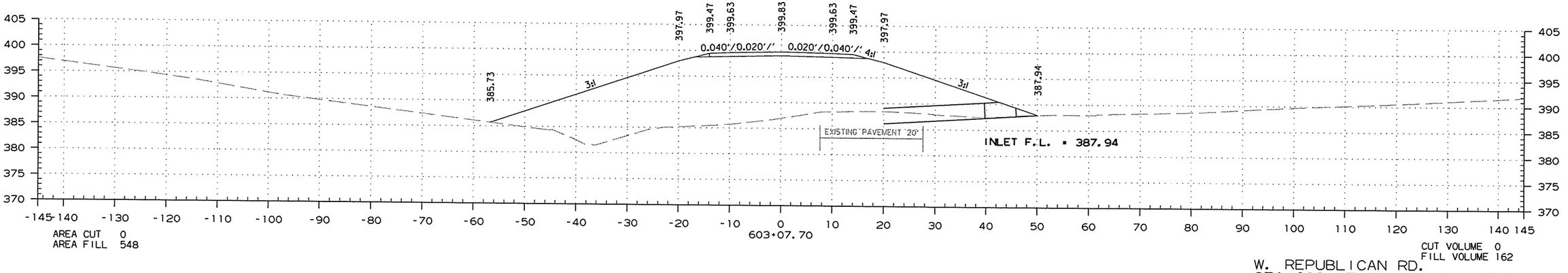
R080426.DGN

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		080426	266	271

(2) CROSS SECTIONS







W. REPUBLICAN RD.
STA. 603+07.70 TO STA. 603+31.14

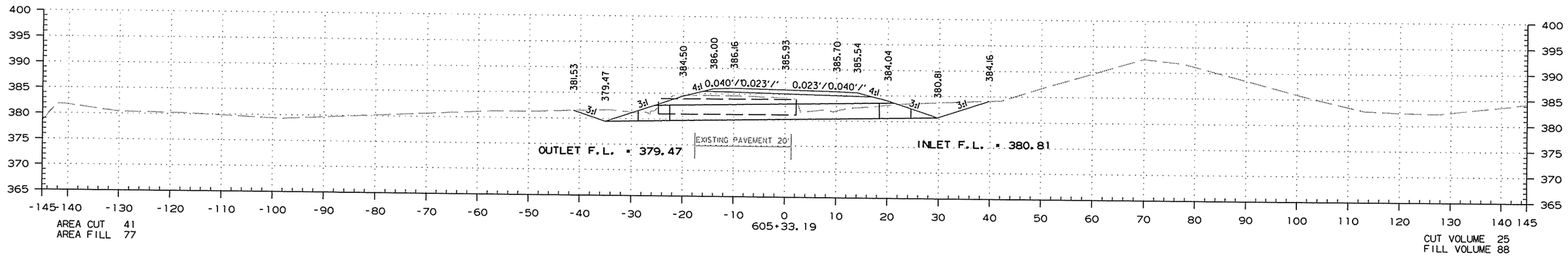
11/25/2015

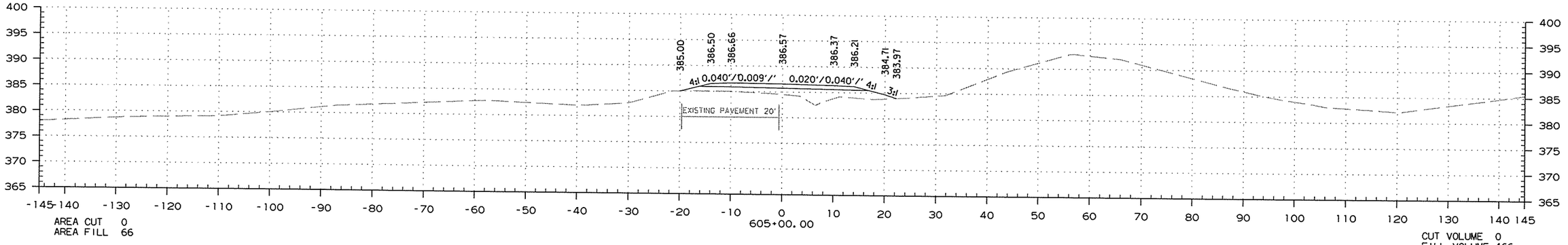
R080426.DGN

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		080426	267	271

(2) CROSS SECTIONS

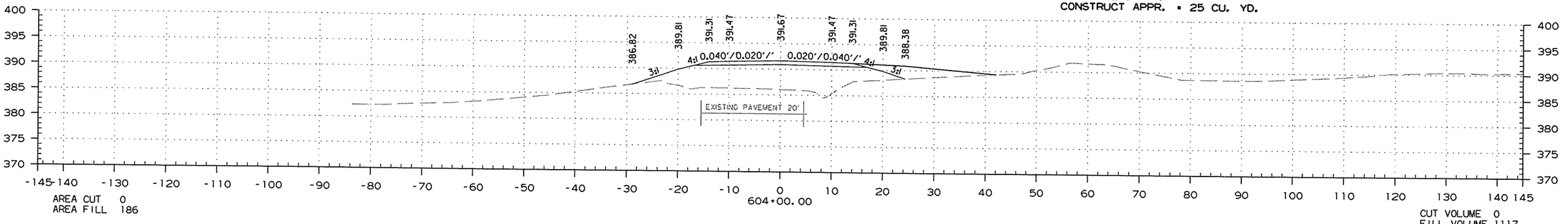
STA. 605+33 IN PLACE
4' X 3' X 27' R.C. BOX
REMOVE AND REPLACE
DBL. 36" PIPE CULVERT
W/FES LT. & RT.
Q25 = 210 CFS D.A. = 105 ACRES
36" R.C. PIPE (CLASS IV) (TYPE 3 BEDDING) = 80 LIN.FT.
36" ACCS PIPE (TYPE 2 BEDDING) = 92 LIN. FT.
36" AICCS PIPE (TYPE 2 BEDDING) = 92 LIN. FT.
36" PCCS PIPE (TYPE 2 BEDDING) = 92 LIN. FT.
36" HDPE PIPE (TYPE 2 BEDDING) = 92 LIN. FT.
36" PVC PIPE (TYPE 2 BEDDING) = 92 LIN. FT.
36" F.E.S. - 4 EACH





STA. 604+41.58
BEGIN SUPERELEVATION

STA. 604+00 - INSTALL
18" x 28' SIDE DRAIN
RT. SIDE DRAIN
CONSTRUCT APPR. = 25 CU. YD.



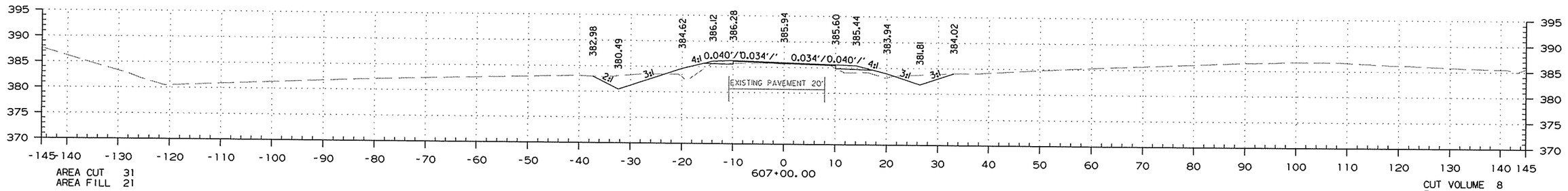
W. REPUBLICAN RD.
STA. 604+00.00 TO STA. 605+33.19

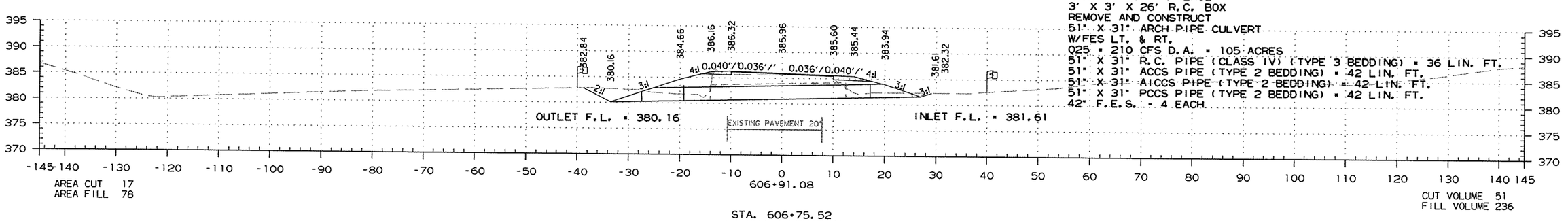
11/25/2015

R080426.DGN

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		080426	268	271

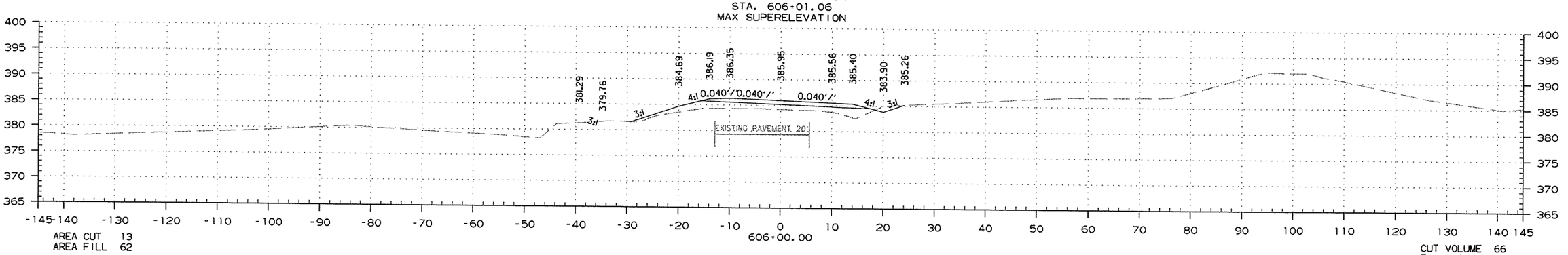
(2) CROSS SECTIONS





STA. 606+91 IN PLACE
3' X 3' X 26' R.C. BOX
REMOVE AND CONSTRUCT
51" X 31" ARCH PIPE CULVERT
W/FES LT. & RT.
Q25 = 210 CFS D.A. = 105 ACRES
51" X 31" R.C. PIPE (CLASS IV) (TYPE 3 BEDDING) = 36 LIN. FT.
51" X 31" ACCS PIPE (TYPE 2 BEDDING) = 42 LIN. FT.
51" X 31" AICCS PIPE (TYPE 2 BEDDING) = 42 LIN. FT.
51" X 31" PCCS PIPE (TYPE 2 BEDDING) = 42 LIN. FT.
42" F.E.S. - 4 EACH

STA. 606+75.52
MAX SUPERELEVATION
STA. 606+01.06
MAX SUPERELEVATION



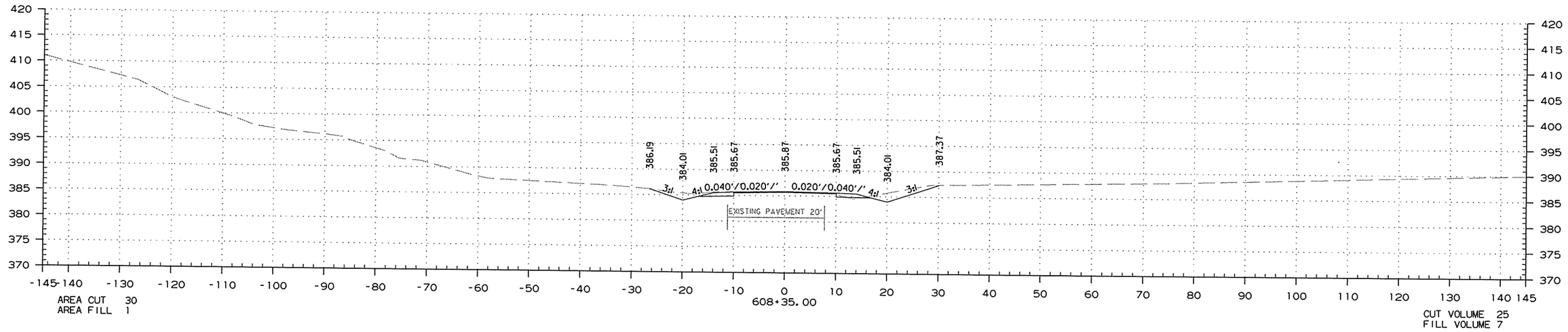
W. REPUBLICAN RD.
STA. 606+00.00 TO STA. 607+00.00

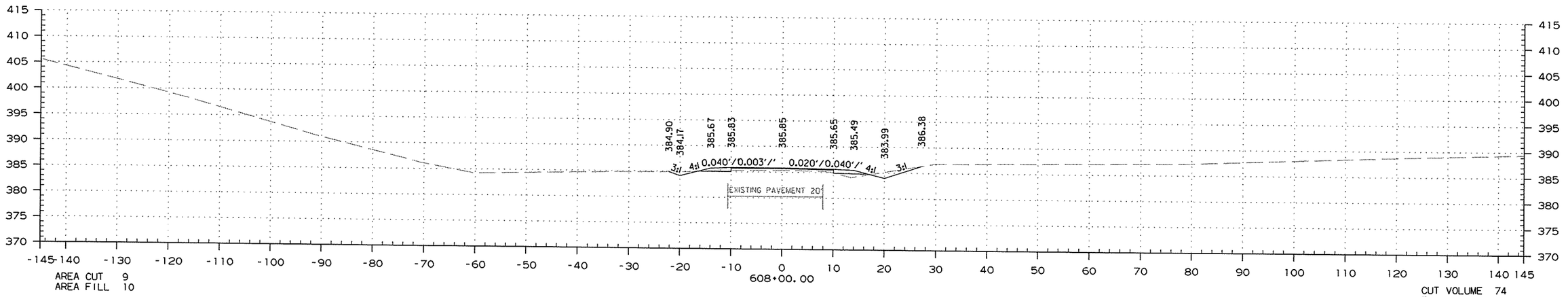
11/25/2015

R080426.DGN

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		080426	269	271
				(2) CROSS SECTIONS				

604+41.58 - END W. REPUBLICAN RD.
END SUPERELEVATION





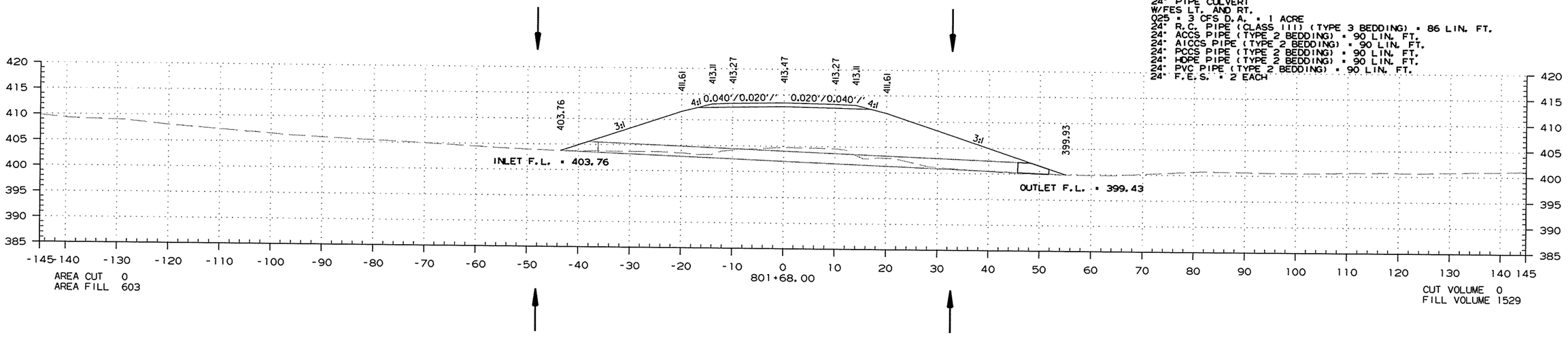
W. REPUBLICAN RD.
STA. 608+00.00 TO STA. 608+35.00

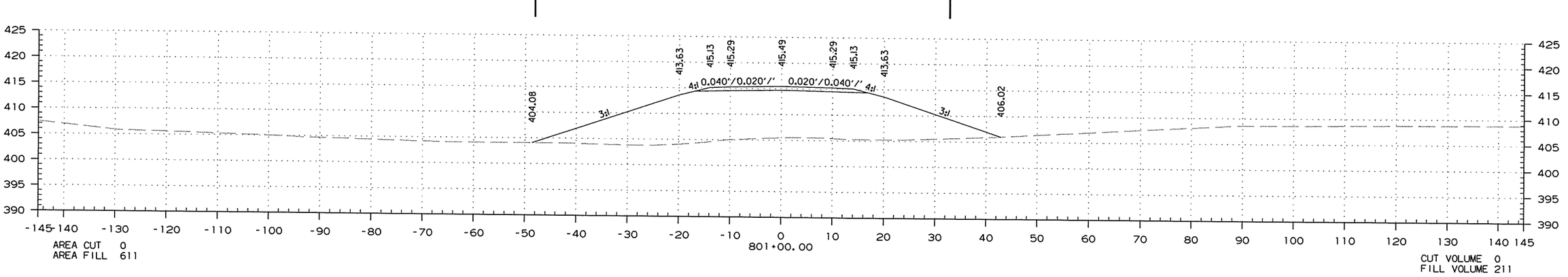
11/25/2015

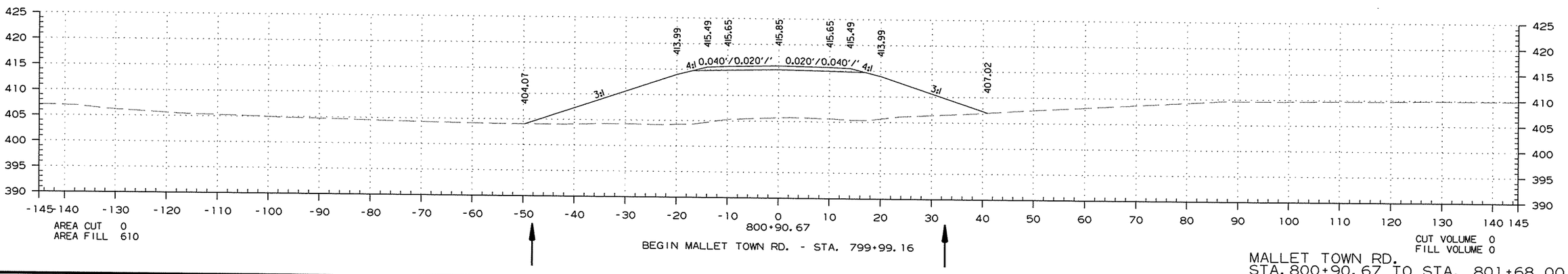
R080426.DGN

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		080426	270	271

(2) CROSS SECTIONS







BEGIN MALLET TOWN RD. - STA. 799+99.16

MALLET TOWN RD.
STA. 800+90.67 TO STA. 801+68.00

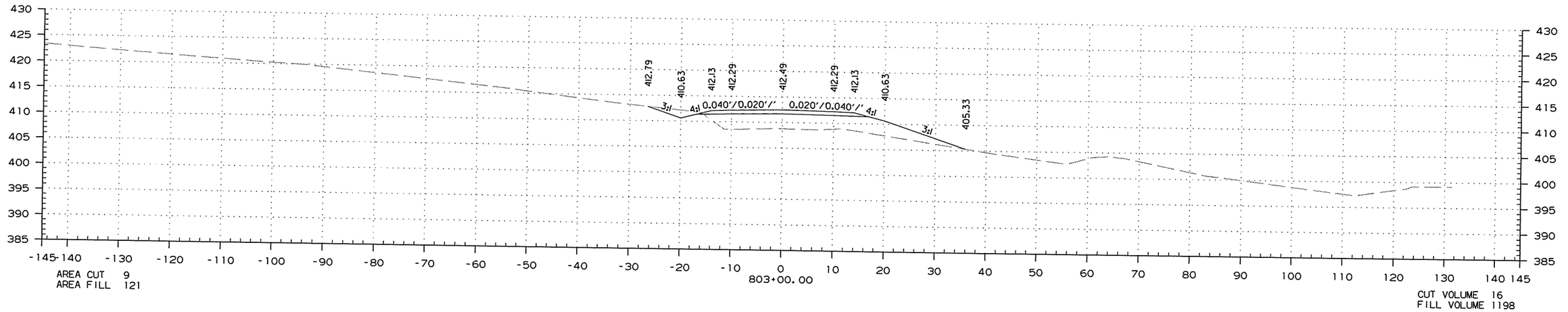
11/30/2015

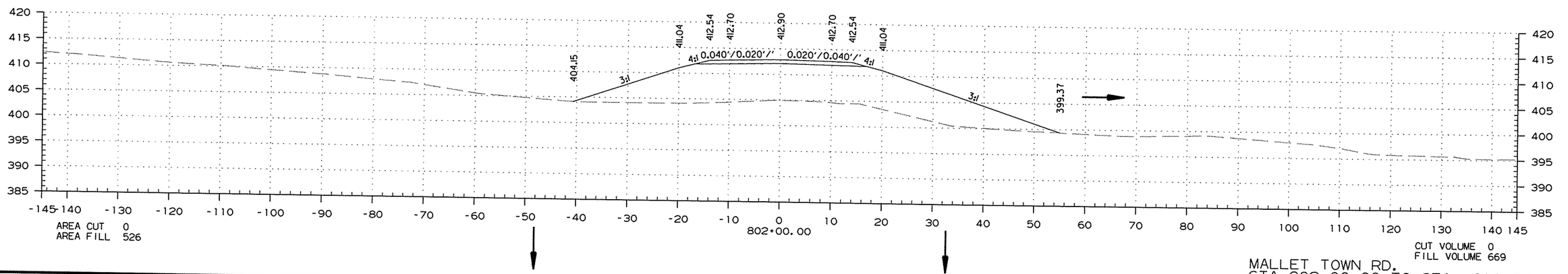
R080426.DGN

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		080426	271	271

(2) CROSS SECTIONS

END MALLET TOWN RD. - STA. 803+56.98





MALLET TOWN RD.
STA. 802+00.00 TO STA. 803+56.98

11/30/2015

R080426.DGN