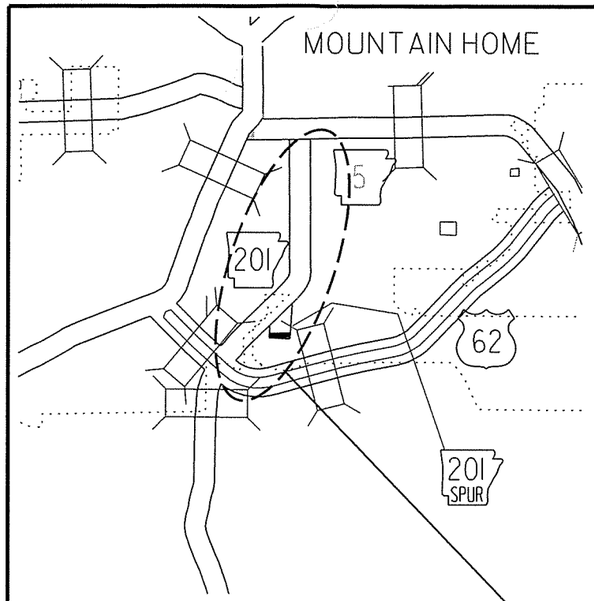
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090319	1	154
				(2) HWY. 62 - HWY. 5 (MOUNTAIN HOME)(S)				

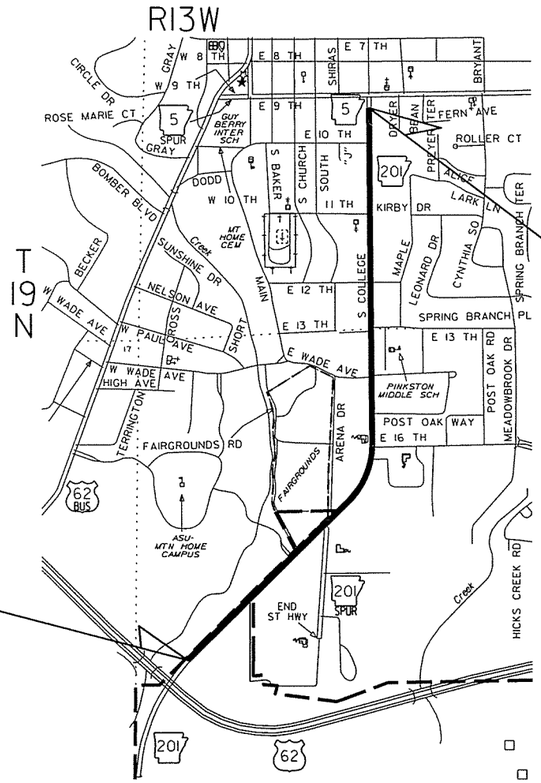


VICINITY MAP

PROJECT LOCATION

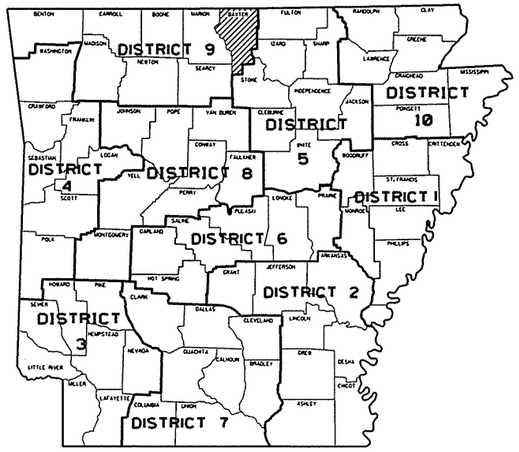
ARKANSAS STATE HIGHWAY AND TRANSPORTATION DEPARTMENT
CONSTRUCTION PLANS FOR STATE HIGHWAY

HWY. 62 - HWY. 5
(MOUNTAIN HOME) (S)
BAXTER COUNTY
ROUTE 201 SECTION 0
F.A.P. NO. STPC-9299(9)
JOB 090319
NOT TO SCALE



STA. 16+00.00
BEGIN JOB 090319
LOG MILE 10.11

STA. 86+10.00
END JOB 090319



ARKANSAS HWY. DIST. 9

• DESIGN TRAFFIC DATA •

DESIGN YEAR	2014
2014 ADT	7,000
2034 ADT	8,800
2034 DHV	968
DIRECTIONAL DISTRIBUTION	60%
TRUCKS	3%
DESIGN SPEED	40 MPH

PROJECT COORDINATES:

	BEGIN	MID-POINT	END
LAT.	N36° 18' 56"	N36° 19' 23"	N36° 19' 57"
LON.	W92° 23' 17"	W92° 22' 52"	W92° 22' 51"

GROSS LENGTH OF PROJECT 7010.00 FEET OR 1.328 MILES
NET LENGTH OF ROADWAY 7010.00 FEET OR 1.328 MILES
NET LENGTH OF BRIDGES 0.00 FEET OR 0.000 MILES
NET LENGTH OF PROJECT 7010.00 FEET OR 1.328 MILES

P.E. JOB 090319

APPROVED

STATE OF ARKANSAS REGISTERED PROFESSIONAL ENGINEER No. 4215 RALPH J. HALL

10-22-14

DEPUTY DIRECTOR AND CHIEF ENGINEER

090319

R090319.DGN 9/24/2014

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
12/22/2014				6	ARK.			
1/15/2015				JOB NO.		090319	2	154
				(2) INDEX OF SHEETS, GOV. SPECS., & GEN. NOTES				

INDEX OF SHEETS

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

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. ALL FLEXIBLE BASE AND ASPHALTIC PAVEMENTS REMOVED SHALL BE PAID FOR UNDER THE ITEM NO. 210 - UNCLASSIFIED EXCAVATION.
9. 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.

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

GOVERNING SPECIFICATIONS

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

NUMBER	TITLE
ERRATA	ERRATA FOR THE BOOK OF STANDARD SPECIFICATIONS
FHWA-1273	REQUIRED CONTRACT PROVISIONS FEDERAL-AID CONSTRUCTION CONTRACTS
FHWA-1273	SUPPLEMENT - EQUAL EMPLOYMENT OPPORTUNITY - NOTICE TO CONTRACTORS
FHWA-1273	SUPPLEMENT - SPECIFIC EQUAL EMPLOYMENT OPPORTUNITY RESPONSIBILITIES (23 U.S.C. 140)
FHWA-1273	SUPPLEMENT - EQUAL EMPLOYMENT OPPORTUNITY - GOALS AND TIMETABLES
FHWA-1273	SUPPLEMENT - EQUAL EMPLOYMENT OPPORTUNITY - FEDERAL STANDARDS
FHWA-1273	SUPPLEMENT - POSTERS AND NOTICES REQUIRED FOR FEDERAL-AID PROJECTS
FHWA-1273	SUPPLEMENT - WAGE RATE DETERMINATION
108-1	LIQUIDATED DAMAGES
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 090319	BROADBAND INTERNET SERVICE FOR ASPHALT CONCRETE PLANT
JOB 090319	BROADBAND INTERNET SERVICE FOR FIELD OFFICE
JOB 090319	DISADVANTAGED BUSINESS ENTERPRISES BIDDER'S RESPONSIBILITIES
JOB 090319	GOALS FOR DISADVANTAGED BUSINESS ENTERPRISE PARTICIPATION
JOB 090319	LOOP WIRING REVISION 1.4
JOB 090319	MANDATORY USE OF INTERNET BIDDING
JOB 090319	PARTNERING REQUIREMENTS
JOB 090319	SOIL STABILIZATION
JOB 090319	STAMPED CONCRETE
JOB 090319	STORM WATER POLLUTION PREVENTION PLAN
JOB 090319	SUBMISSION OF ASPHALT CONCRETE HOT MIX ACCEPTANCE TEST RESULTS
JOB 090319	UTILITY ADJUSTMENTS
JOB 090319	VALUE ENGINEERING
JOB 090319	WARM MIX ASPHALT

1/15/2015

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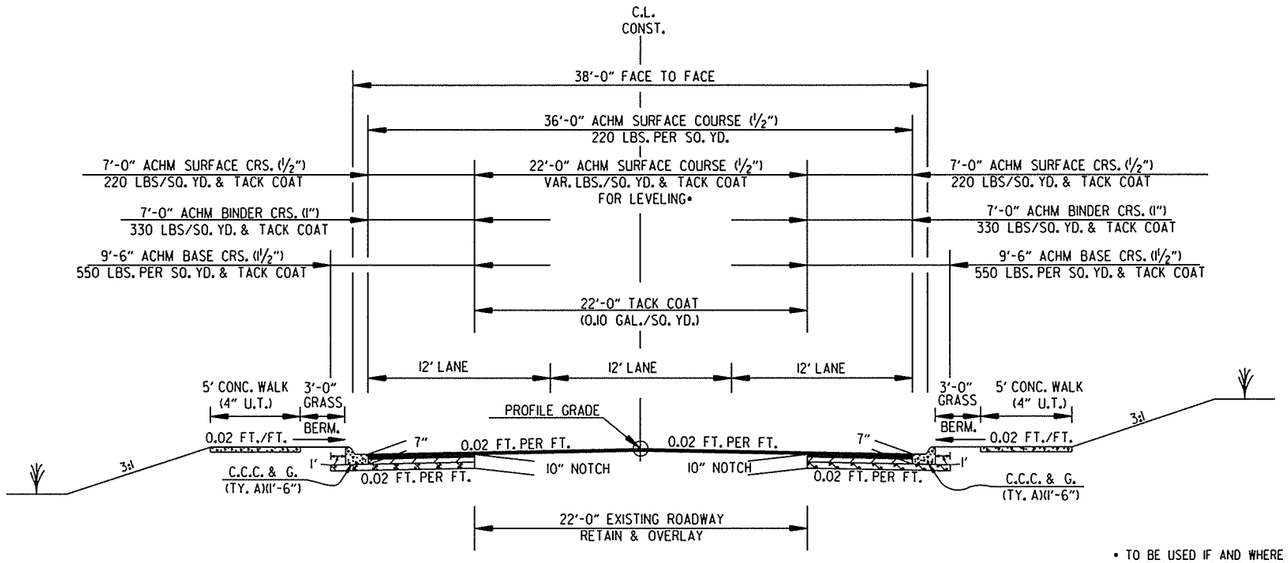
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090319	3	154

(2) TYPICAL SECTIONS OF IMPROVEMENT

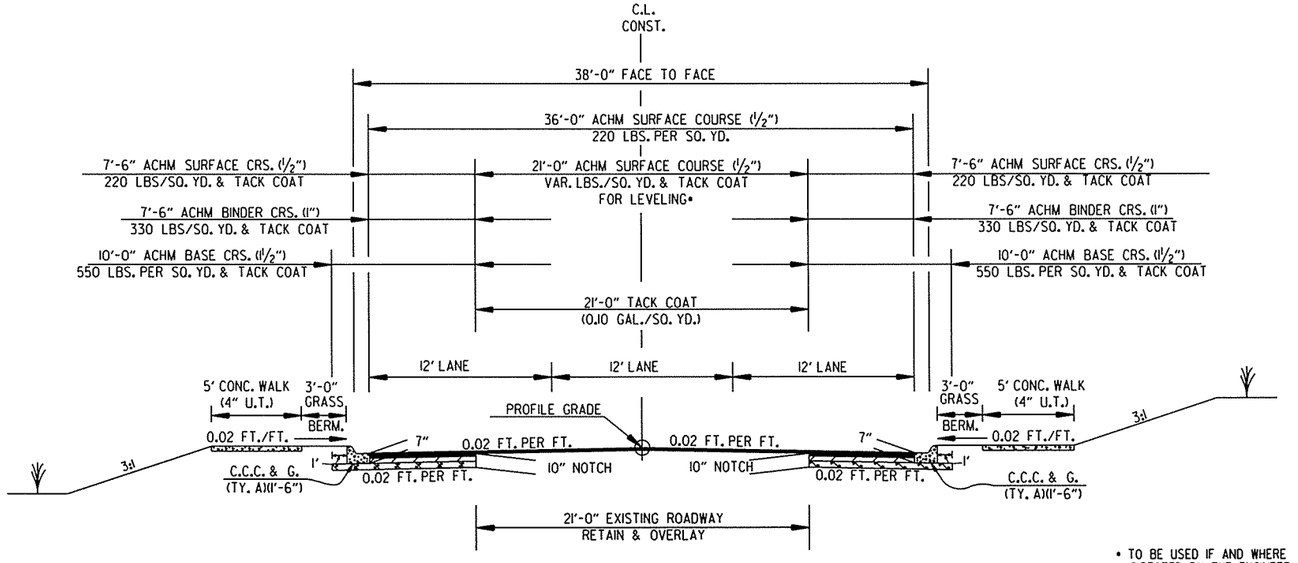
STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
10-10-14



* TO BE USED IF AND WHERE DIRECTED BY THE ENGINEER.

TYPICAL SECTION OF IMPROVEMENT

STA. 16+00 - STA. 37+95.99



* TO BE USED IF AND WHERE DIRECTED BY THE ENGINEER.

TYPICAL SECTION OF IMPROVEMENT

STA. 63+25 - STA. 86+10

NOTES:
PRIOR TO AND DURING PLACEMENT OF PAVEMENT IN FRONT OF THE CURB AND GUTTER, THE CONTRACTOR SHALL PROVIDE POSITIVE DRAINAGE AT ALL TIMES. THE METHOD(S) USED SHALL BE APPROVED BY THE ENGINEER. PAYMENT FOR THIS WORK SHALL BE CONSIDERED INCLUDED IN THE PRICE BID FOR THE VARIOUS CONTRACT ITEMS.

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

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

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

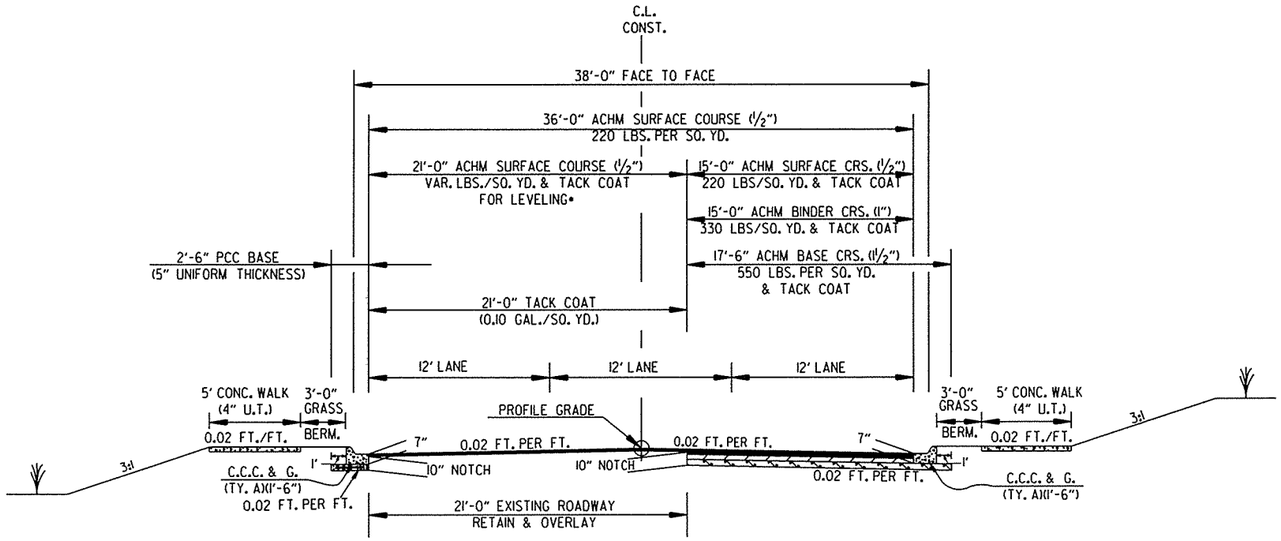
9/24/2014

R090319.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.		090319	4	154

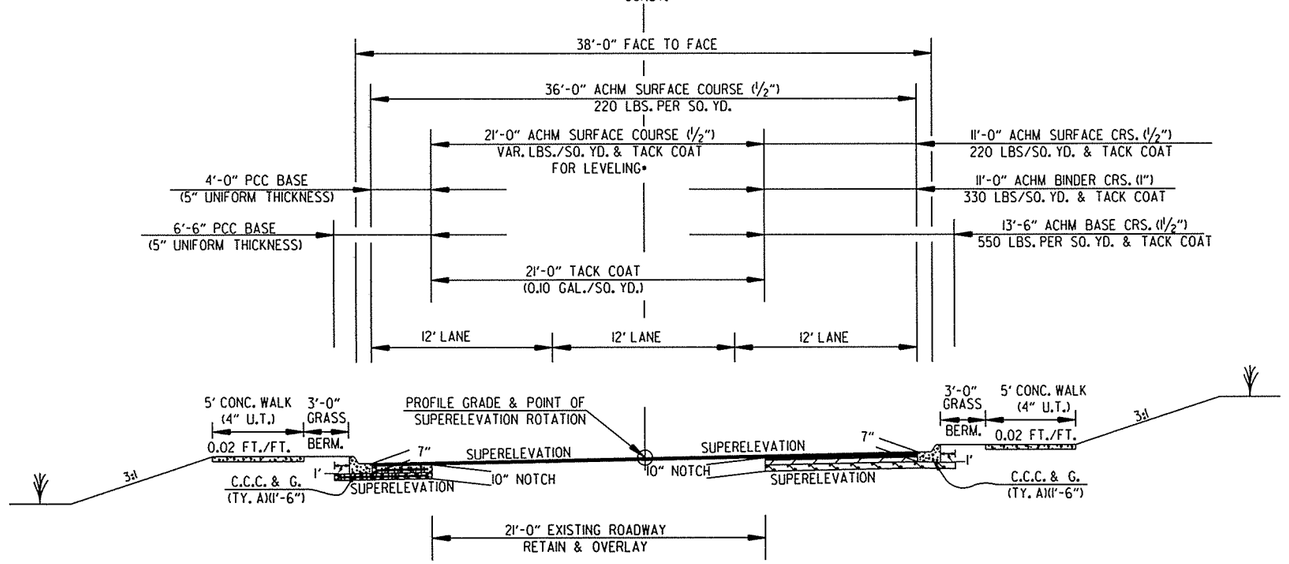
(2) TYPICAL SECTIONS OF IMPROVEMENT

STATE OF ARKANSAS REGISTERED PROFESSIONAL ENGINEER No. 11425 TRINITY D. SMITH 10-10-14



* TO BE USED IF AND WHERE DIRECTED BY THE ENGINEER.

TYPICAL SECTION OF IMPROVEMENT
STA. 48+50 - STA. 63+25



* TO BE USED IF AND WHERE DIRECTED BY THE ENGINEER.

TYPICAL SECTION OF IMPROVEMENT
STA. 37+95.99 - STA. 48+50

NOTES:
PRIOR TO AND DURING PLACEMENT OF PAVEMENT IN FRONT OF THE CURB AND GUTTER, THE CONTRACTOR SHALL PROVIDE POSITIVE DRAINAGE AT ALL TIMES. THE METHOD(S) USED SHALL BE APPROVED BY THE ENGINEER. PAYMENT FOR THIS WORK SHALL BE CONSIDERED INCLUDED IN THE PRICE BID FOR THE VARIOUS CONTRACT ITEMS.

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

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

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

10/7/2014

R090319.DGN

TYPICAL SECTIONS OF IMPROVEMENT

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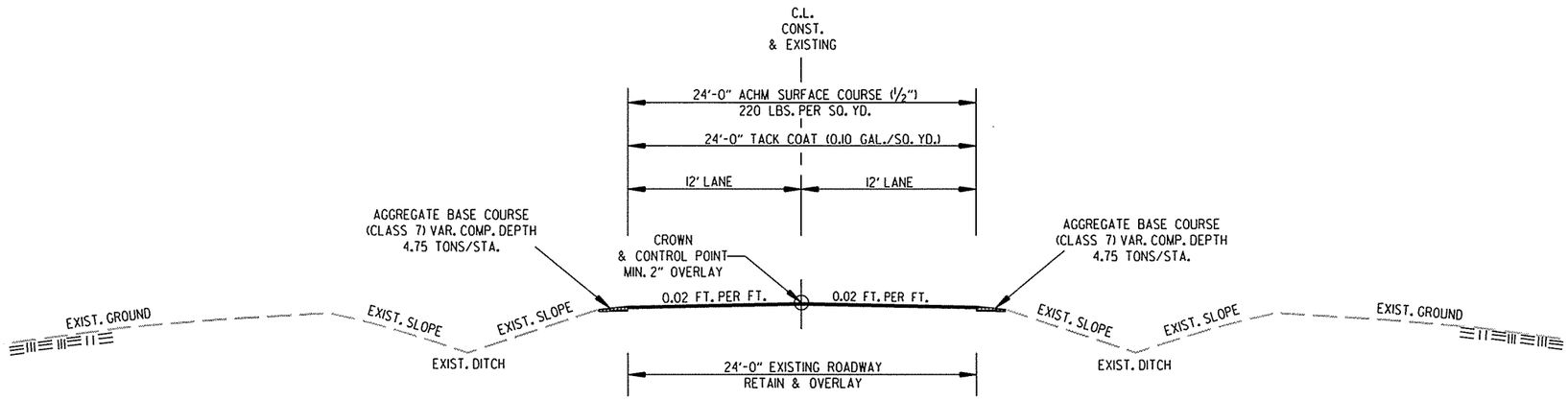
				6	ARK.			
				JOB NO.		090319	5	154

(2) TYPICAL SECTIONS OF IMPROVEMENT

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
10-10-14



OVERLAY SECTION
HWY. 201 SPUR

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

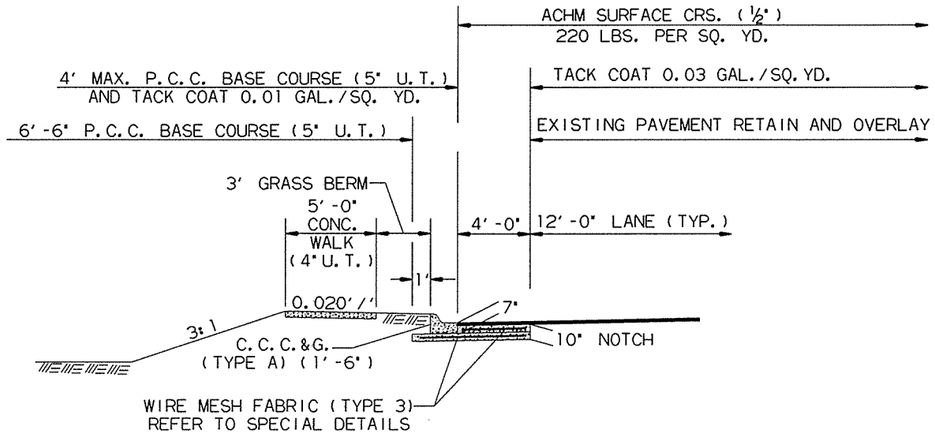
9/24/2014

R090319.DGN

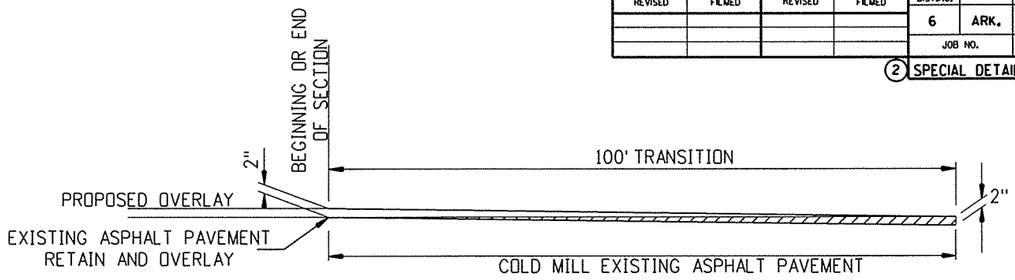
TYPICAL SECTIONS OF IMPROVEMENT

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.		090319	6	154

(2) SPECIAL DETAILS

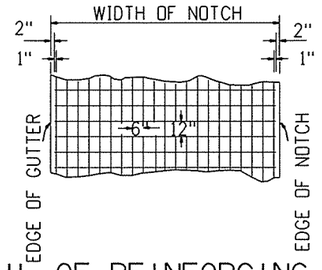


P.C.C. BASE WIDENING DETAIL



COLD MILLING DETAIL AT EXISTING PAVEMENT TIE-INS

NOTE: 50' PER 1" OF OVERLAY FOR MAIN LANES

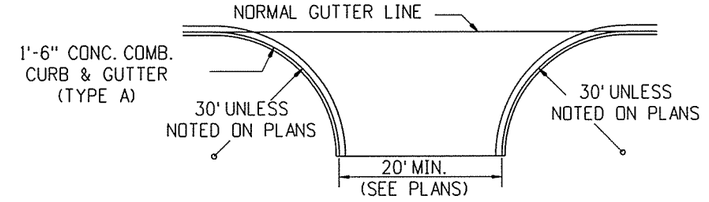


DETAIL OF REINFORCING STEEL FOR P.C.C. BASE PAVEMENT (WIRE MESH TYPE 3)

6"X 12" MESH FABRIC (TYPE 3) (W5.5 x W2.9) = 4.26 LBS./SQ.YD.

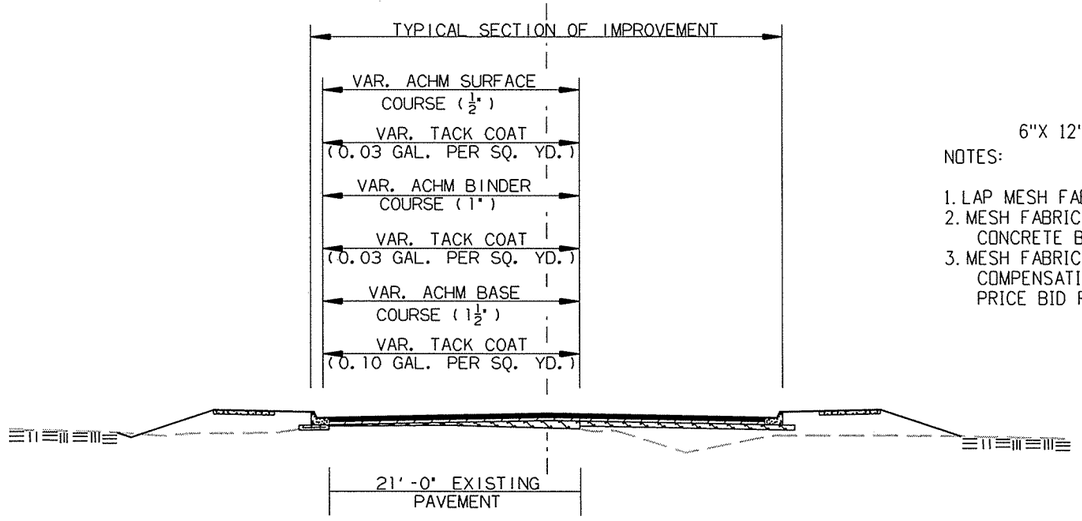
NOTES:

1. LAP MESH FABRIC MIN. 12" LONGITUDINALLY AND MIN. 6" TRANSVERSELY.
2. MESH FABRIC IS NOT REQUIRED WHEN WIDTH OF PORTLAND CEMENT CONCRETE BASE IS LESS THAN 12".
3. MESH FABRIC (TYPE 3) WILL NOT BE PAID FOR DIRECTLY, BUT FULL COMPENSATION THEREFORE WILL BE CONSIDERED INCLUDED IN THE CONTRACT PRICE BID PER SQ. YD. FOR PORTLAND CEMENT CONCRETE BASE (5" U.T.)



DETAIL OF TURNOUTS ASPHALT STREETS

NOTE: THE TYPICAL SECTION FOR THE CITY STREET CONNECTIONS IN THE CURB & GUTTER SECTION SHALL MATCH THE PROPOSED WIDENING SECTION SHOWN FOR THE MAIN LANES. UNLESS OTHERWISE NOTED ON THE PLANS, ALL CITY STREET RADII WILL BE 30'.



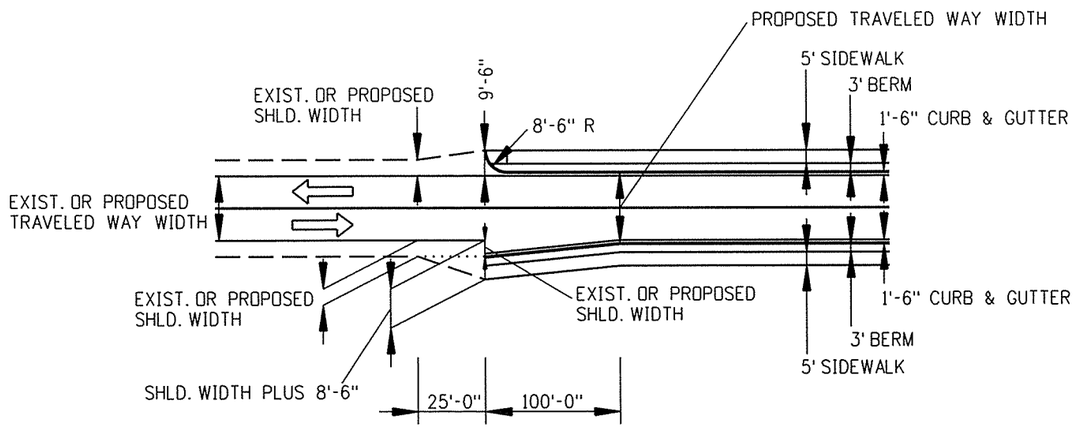
METHOD OF RAISING GRADE

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, EDITION OF 2014.



TRANSITION FROM OPEN SHOULDER TO CURB & GUTTER SECTION

10/7/2014

R090319.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.		090319	7	154

(2) TEMPORARY EROSION CONTROL DETAILS

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
10-10-14

(E-5) SAND BAG DITCH CHECKS ON RT.

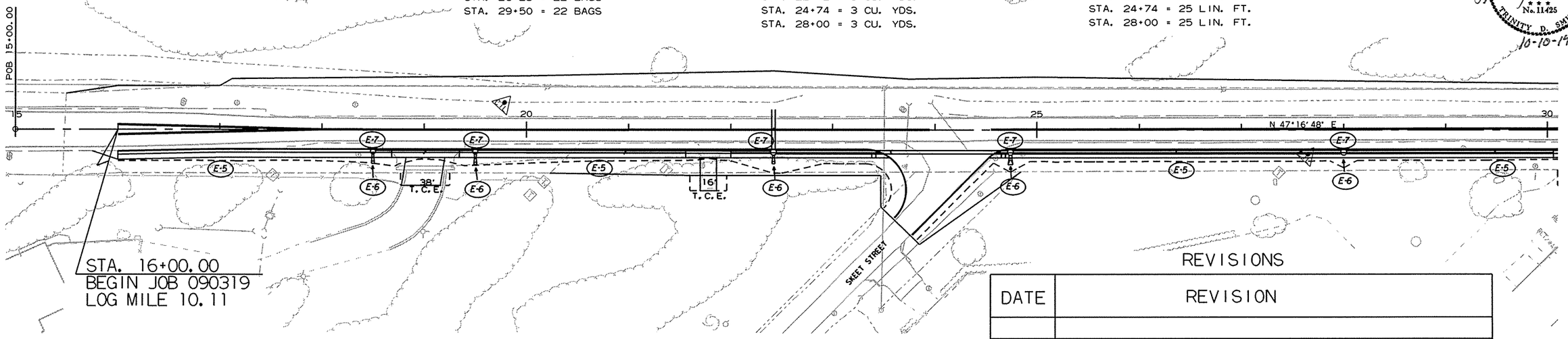
STA. 17+00 = 22 BAGS
STA. 21+75 = 22 BAGS
STA. 26+25 = 22 BAGS
STA. 29+50 = 22 BAGS

(E-6) ROCK CHECKS ON RT.

STA. 18+50 = 3 CU. YDS.
STA. 19+50 = 3 CU. YDS.
STA. 22+42 = 3 CU. YDS.
STA. 24+74 = 3 CU. YDS.
STA. 28+00 = 3 CU. YDS.

(E-7) DROP INLET SILT FENCE ON RT.

STA. 18+50 = 25 LIN. FT.
STA. 19+50 = 25 LIN. FT.
STA. 22+42 = 25 LIN. FT.
STA. 24+74 = 25 LIN. FT.
STA. 28+00 = 25 LIN. FT.

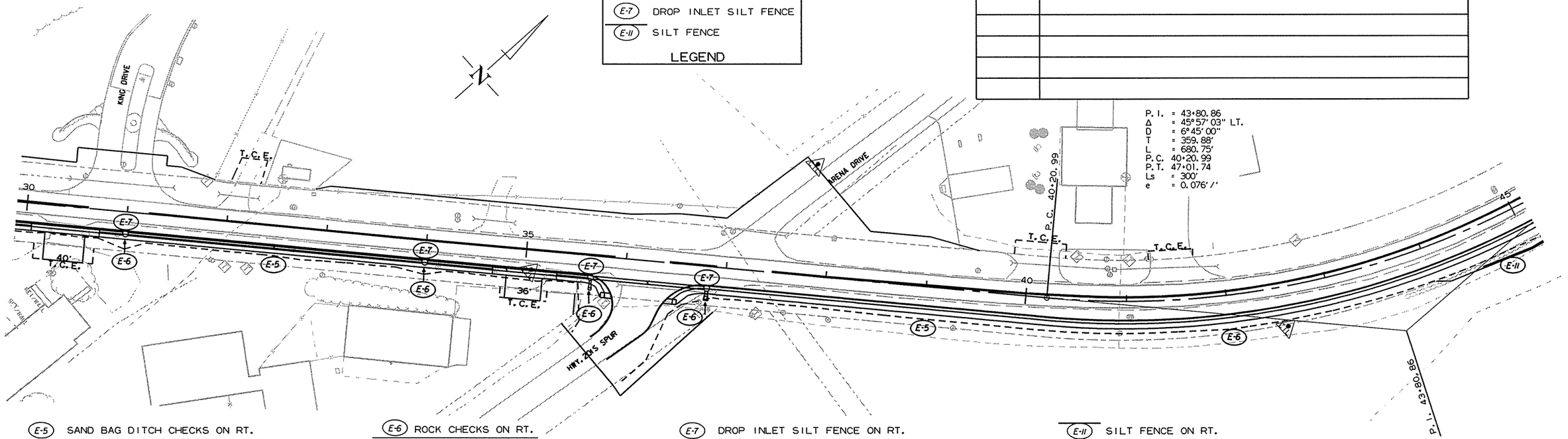


STA. 16+00.00
BEGIN JOB 090319
LOG MILE 10.11

REVISIONS

DATE	REVISION

(E-5) SAND BAG DITCH CHECKS
(E-6) ROCK DITCH CHECKS
(E-7) DROP INLET SILT FENCE
(E-11) SILT FENCE
LEGEND



(E-5) SAND BAG DITCH CHECKS ON RT.

STA. 32+50 = 22 BAGS
STA. 39+00 = 22 BAGS

(E-6) ROCK CHECKS ON RT.

STA. 31+00 = 3 CU. YDS.
STA. 34+00 = 3 CU. YDS.
STA. 35+66 = 3 CU. YDS.
STA. 36+82 = 3 CU. YDS.

(E-7) DROP INLET SILT FENCE ON RT.

STA. 31+00 = 25 LIN. FT.
STA. 34+00 = 25 LIN. FT.
STA. 35+66 = 25 LIN. FT.
STA. 36+82 = 25 LIN. FT.

(E-11) SILT FENCE ON RT.

STA. 44+50 - STA. 45+54 = 110 LIN. FT.

STAGE 1
TEMPORARY EROSION CONTROL DETAILS

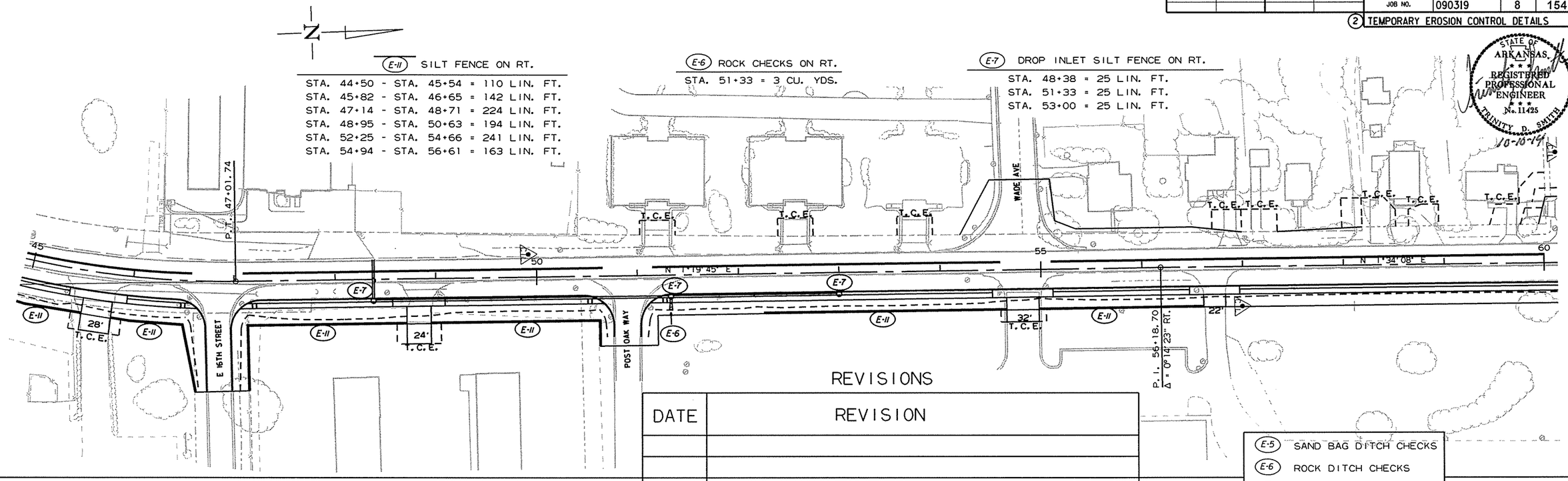
9/24/2014

R090319.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.		090319	8	154

(2) TEMPORARY EROSION CONTROL DETAILS

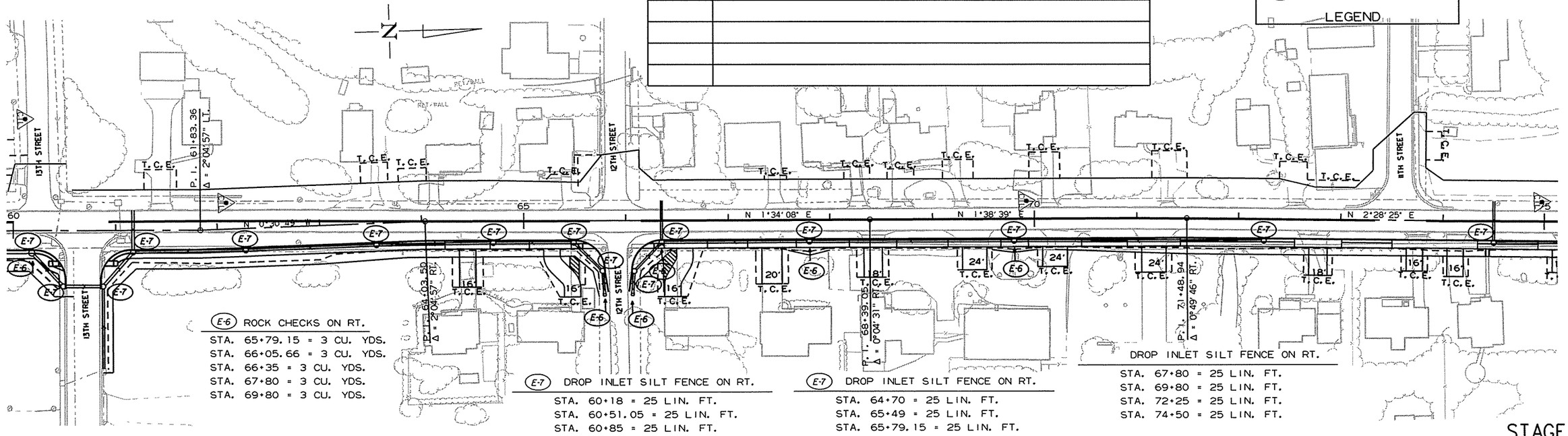
STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
10-10-14



REVISIONS

DATE	REVISION

E-5 SAND BAG DITCH CHECKS
E-6 ROCK DITCH CHECKS
E-7 DROP INLET SILT FENCE
E-11 SILT FENCE
LEGEND



E-6 ROCK CHECKS ON RT.
STA. 65+79.15 = 3 CU. YDS.
STA. 66+05.66 = 3 CU. YDS.
STA. 66+35 = 3 CU. YDS.
STA. 67+80 = 3 CU. YDS.
STA. 69+80 = 3 CU. YDS.

E-7 DROP INLET SILT FENCE ON RT.
STA. 60+18 = 25 LIN. FT.
STA. 60+51.05 = 25 LIN. FT.
STA. 60+85 = 25 LIN. FT.
STA. 61+17 = 25 LIN. FT.
STA. 62+27 = 25 LIN. FT.
STA. 63+55 = 25 LIN. FT.

E-7 DROP INLET SILT FENCE ON RT.
STA. 64+70 = 25 LIN. FT.
STA. 65+49 = 25 LIN. FT.
STA. 65+79.15 = 25 LIN. FT.
STA. 66+05.66 = 25 LIN. FT.
STA. 66+35 = 25 LIN. FT.

DROP INLET SILT FENCE ON RT.
STA. 67+80 = 25 LIN. FT.
STA. 69+80 = 25 LIN. FT.
STA. 72+25 = 25 LIN. FT.
STA. 74+50 = 25 LIN. FT.

STAGE 1
TEMPORARY EROSION CONTROL DETAILS

9/24/2014

R090319.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.		090319	9	154

(2) TEMPORARY EROSION CONTROL DETAILS

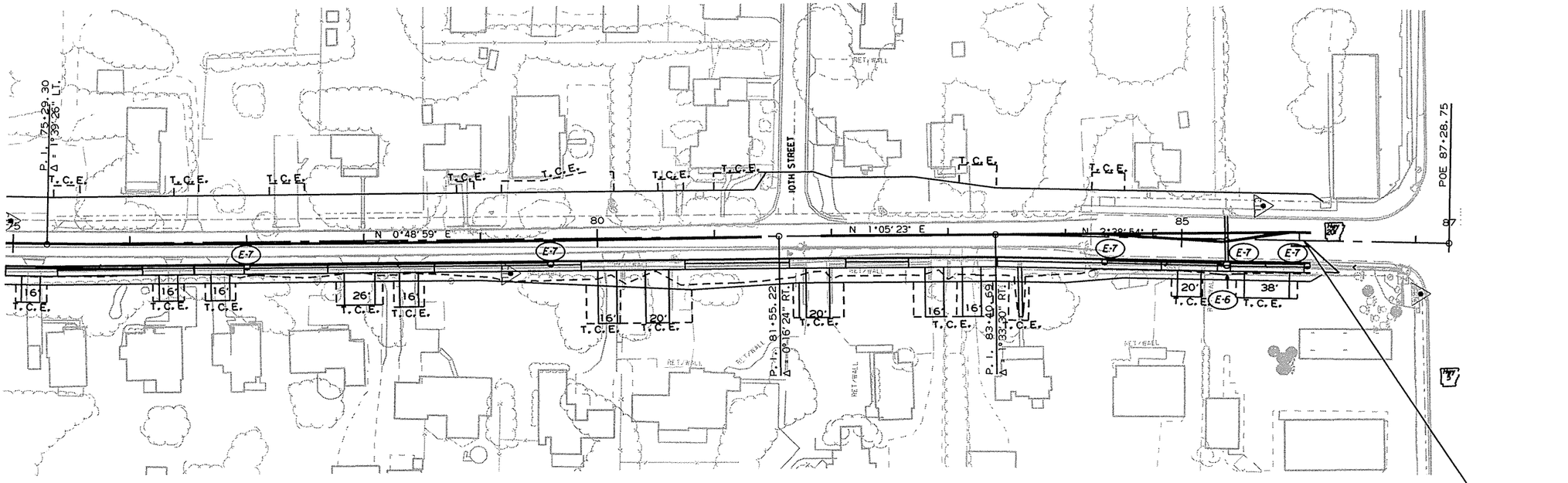
(E-5) SAND BAG DITCH CHECKS
(E-6) ROCK DITCH CHECKS
(E-7) DROP INLET SILT FENCE
(E-11) SILT FENCE

LEGEND

REVISIONS

DATE	REVISION

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
10-10-14



(E-6) ROCK CHECKS ON RT.
STA. 85+39 = 3 CU. YDS.

(E-7) DROP INLET SILT FENCE ON RT.
STA. 77+00 = 25 LIN. FT.
STA. 79+60 = 25 LIN. FT.
STA. 84+34 = 25 LIN. FT.
STA. 85+39 = 25 LIN. FT.
STA. 86+07 = 25 LIN. FT.

STA. 86+10.00
END JOB 090319

STAGE 1
TEMPORARY EROSION CONTROL DETAILS

9/24/2014
R090319.DGN

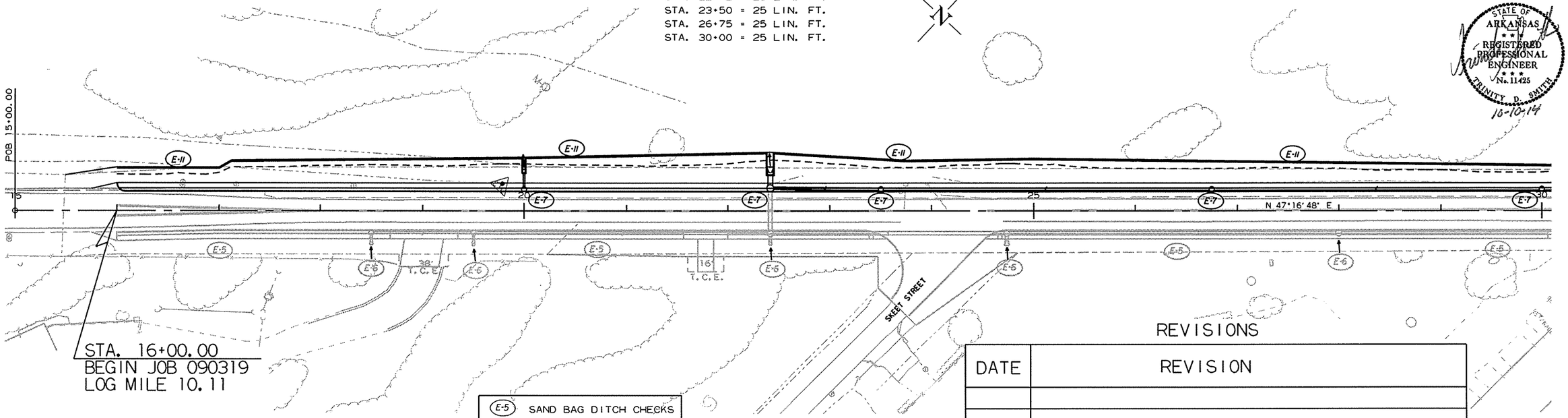
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090319	10	154

2 TEMPORARY EROSION CONTROL DETAILS

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
10-10-14

(E-11) SILT FENCE ON LT.
STA. 16+00 - STA. 30+46 = 1537 LIN. FT.

(E-7) DROP INLET SILT FENCE ON RT.
STA. 20+00 = 25 LIN. FT.
STA. 22+42 = 25 LIN. FT.
STA. 23+50 = 25 LIN. FT.
STA. 26+75 = 25 LIN. FT.
STA. 30+00 = 25 LIN. FT.



(E-5) SAND BAG DITCH CHECKS
(E-6) ROCK DITCH CHECKS
(E-7) DROP INLET SILT FENCE
(E-11) SILT FENCE
LEGEND

REVISIONS

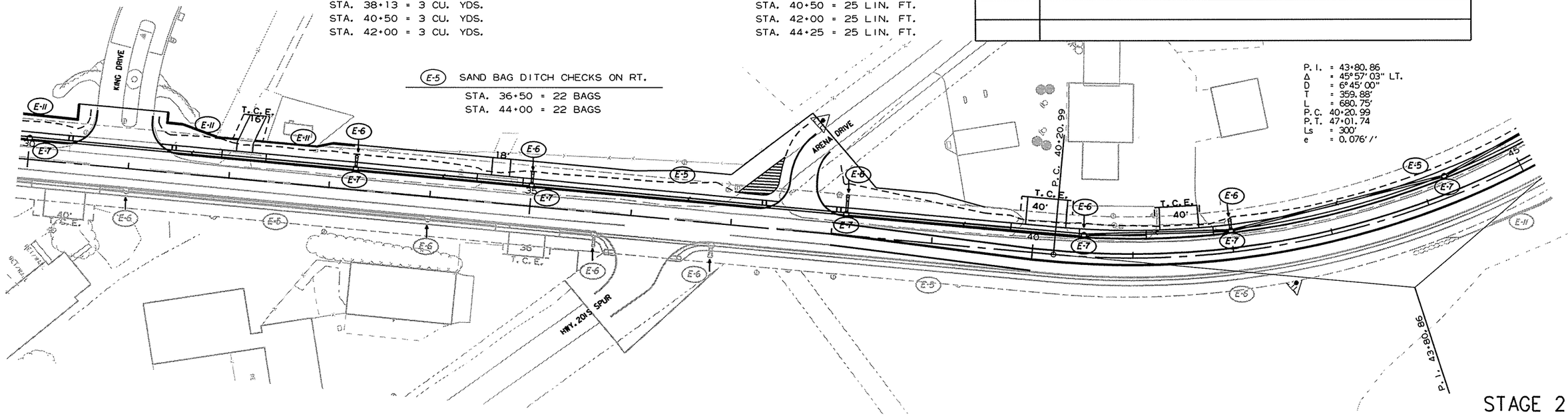
DATE	REVISION

(E-11) SILT FENCE ON LT.
STA. 31+34 - STA. 32+06 = 85 LIN. FT.
STA. 32+22 - STA. 33+22 = 100 LIN. FT.

(E-6) ROCK CHECKS ON RT.
STA. 33+25 = 3 CU. YDS.
STA. 35+00 = 3 CU. YDS.
STA. 38+13 = 3 CU. YDS.
STA. 40+50 = 3 CU. YDS.
STA. 42+00 = 3 CU. YDS.

(E-7) DROP INLET SILT FENCE ON RT.
STA. 33+25 = 25 LIN. FT.
STA. 35+00 = 25 LIN. FT.
STA. 38+13 = 25 LIN. FT.
STA. 40+50 = 25 LIN. FT.
STA. 42+00 = 25 LIN. FT.
STA. 44+25 = 25 LIN. FT.

(E-5) SAND BAG DITCH CHECKS ON RT.
STA. 36+50 = 22 BAGS
STA. 44+00 = 22 BAGS



9/24/2014

R090319.DGN

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.		090319	11	154

(2) TEMPORARY EROSION CONTROL DETAILS

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
10-16-14

(E-11) SILT FENCE ON LT.

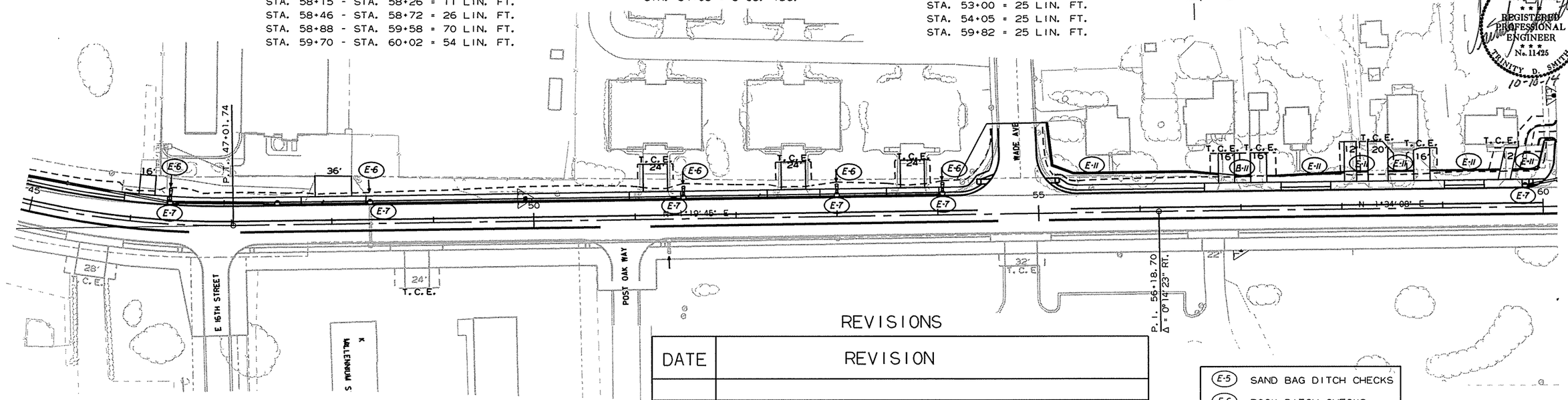
STA. 55+09 - STA. 56+78 = 209 LIN. FT.
STA. 56+94 - STA. 57+10 = 16 LIN. FT.
STA. 57+26 - STA. 58+03 = 77 LIN. FT.
STA. 58+15 - STA. 58+26 = 11 LIN. FT.
STA. 58+46 - STA. 58+72 = 26 LIN. FT.
STA. 58+88 - STA. 59+58 = 70 LIN. FT.
STA. 59+70 - STA. 60+02 = 54 LIN. FT.

(E-6) ROCK CHECKS ON RT.

STA. 46+38 = 3 CU. YDS.
STA. 48+38 = 3 CU. YDS.
STA. 51+48 = 3 CU. YDS.
STA. 53+00 = 3 CU. YDS.
STA. 54+05 = 3 CU. YDS.

(E-7) DROP INLET SILT FENCE ON RT.

STA. 46+38 = 25 LIN. FT.
STA. 47+46 = 25 LIN. FT.
STA. 48+38 = 25 LIN. FT.
STA. 51+48 = 25 LIN. FT.
STA. 53+00 = 25 LIN. FT.
STA. 54+05 = 25 LIN. FT.
STA. 59+82 = 25 LIN. FT.

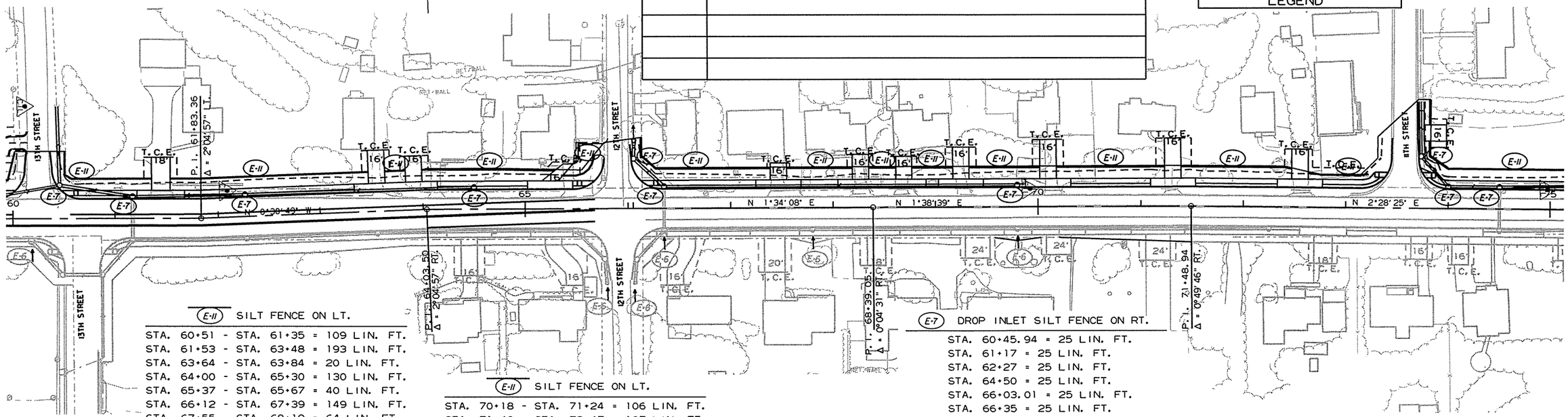


REVISIONS

DATE	REVISION

(E-5) SAND BAG DITCH CHECKS
(E-6) ROCK DITCH CHECKS
(E-7) DROP INLET SILT FENCE
(E-11) SILT FENCE

LEGEND



(E-11) SILT FENCE ON LT.

STA. 60+51 - STA. 61+35 = 109 LIN. FT.
STA. 61+53 - STA. 63+48 = 193 LIN. FT.
STA. 63+64 - STA. 63+84 = 20 LIN. FT.
STA. 64+00 - STA. 65+30 = 130 LIN. FT.
STA. 65+37 - STA. 65+67 = 40 LIN. FT.
STA. 66+12 - STA. 67+39 = 149 LIN. FT.
STA. 67+55 - STA. 68+19 = 64 LIN. FT.
STA. 68+35 - STA. 68+62 = 27 LIN. FT.
STA. 68+77 - STA. 69+17 = 40 LIN. FT.
STA. 69+33 - STA. 70+02 = 69 LIN. FT.

(E-11) SILT FENCE ON LT.

STA. 70+18 - STA. 71+24 = 106 LIN. FT.
STA. 71+40 - STA. 72+47 = 107 LIN. FT.
STA. 72+63 - STA. 73+22 = 59 LIN. FT.
STA. 73+81 = 25 LIN. FT.
STA. 73+81 - STA. 75+36 = 172 LIN. FT.

(E-7) DROP INLET SILT FENCE ON RT.

STA. 60+45.94 = 25 LIN. FT.
STA. 61+17 = 25 LIN. FT.
STA. 62+27 = 25 LIN. FT.
STA. 64+50 = 25 LIN. FT.
STA. 66+03.01 = 25 LIN. FT.
STA. 66+35 = 25 LIN. FT.
STA. 69+80 = 25 LIN. FT.
STA. 73+71.49 = 25 LIN. FT.
STA. 74+00 = 25 LIN. FT.
STA. 74+50 = 25 LIN. FT.

STAGE 2
TEMPORARY EROSION CONTROL DETAILS

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DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090319	12	154

(2) TEMPORARY EROSION CONTROL DETAILS

(E-5) SAND BAG DITCH CHECKS
(E-6) ROCK DITCH CHECKS
(E-7) DROP INLET SILT FENCE
(E-11) SILT FENCE

LEGEND

(E-11) SILT FENCE ON LT.

STA. 75+52 - STA. 76+43 = 91 LIN. FT.
STA. 76+59 - STA. 77+25 = 66 LIN .FT.
STA. 77+45 - STA. 78+55 = 110 LIN. FT.
STA. 78+71 - STA. 79+24 = 53 LIN. FT.
STA. 79+39 - STA. 79+81 = 42 LIN. FT.
STA. 80+11 - STA. 80+57 = 46 LIN. FT.
STA. 80+69 - STA. 81+05 = 36 LIN. FT.
STA. 81+09 - STA. 81+46 = 45 LIN. FT.
STA. 81+85 - STA. 83+18 = 135 LIN. FT.
STA. 83+34 - STA. 84+24 = 95 LIN. FT.
STA. 84+44 - STA. 86+10 = 166 LIN. FT.

(E-7) DROP INLET SILT FENCE ON RT.

STA. 77+00 = 25 LIN. FT.
STA. 79+60 = 25 LIN. FT.
STA. 85+37.62 = 25 LIN. FT.
STA. 86+07 = 25 LIN. FT.

STATE OF ARKANSAS
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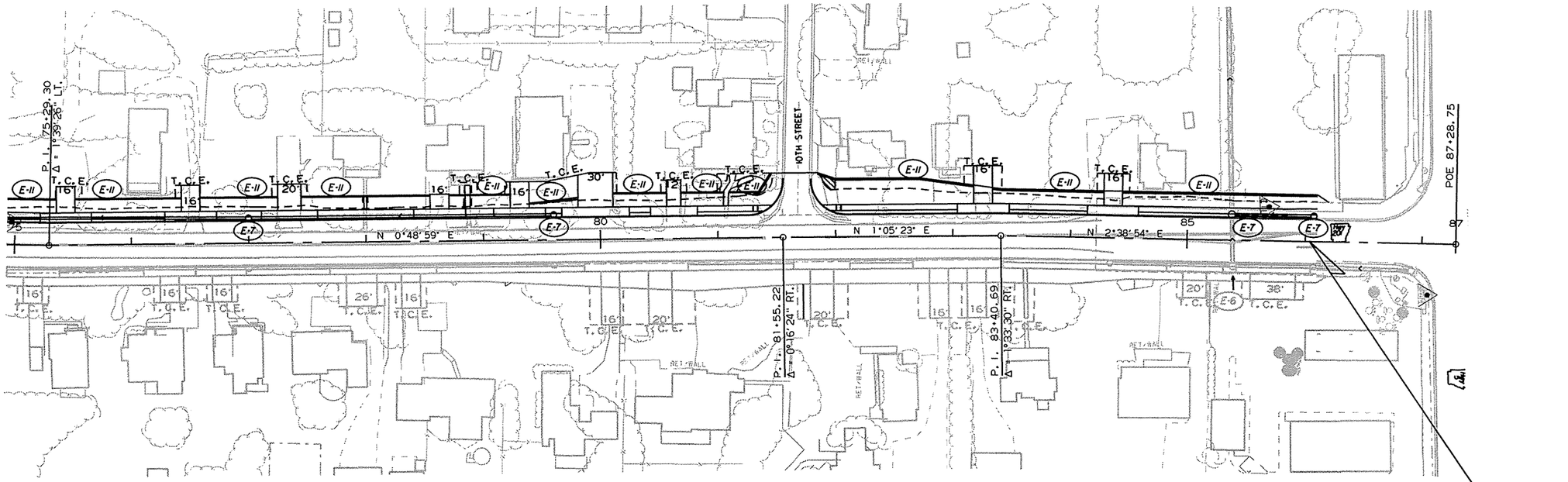
No. 11425
TRINITY D. SMITH
10-10-14



REVISIONS

DATE	REVISION

STAGE 2
TEMPORARY EROSION CONTROL DETAILS

9/24/2014
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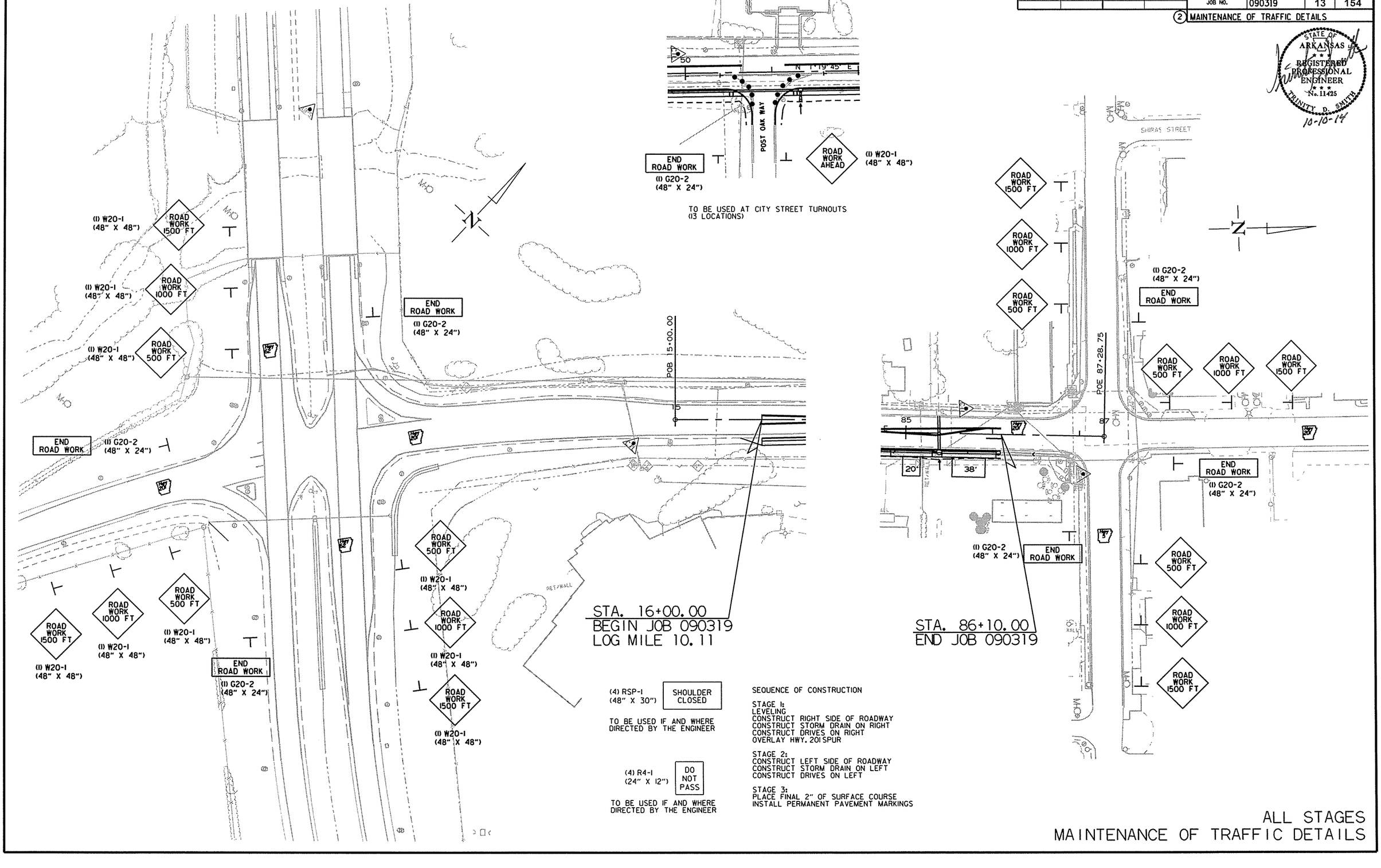
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090319	13	154

(2) MAINTENANCE OF TRAFFIC DETAILS

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
10-10-14



SEQUENCE OF CONSTRUCTION

STAGE 1:
LEVELING
CONSTRUCT RIGHT SIDE OF ROADWAY
CONSTRUCT STORM DRAIN ON RIGHT
CONSTRUCT DRIVES ON RIGHT
OVERLAY HWY. 201 SPUR

STAGE 2:
CONSTRUCT LEFT SIDE OF ROADWAY
CONSTRUCT STORM DRAIN ON LEFT
CONSTRUCT DRIVES ON LEFT

STAGE 3:
PLACE FINAL 2" OF SURFACE COURSE
INSTALL PERMANENT PAVEMENT MARKINGS

ALL STAGES
MAINTENANCE OF TRAFFIC DETAILS

9/24/2014

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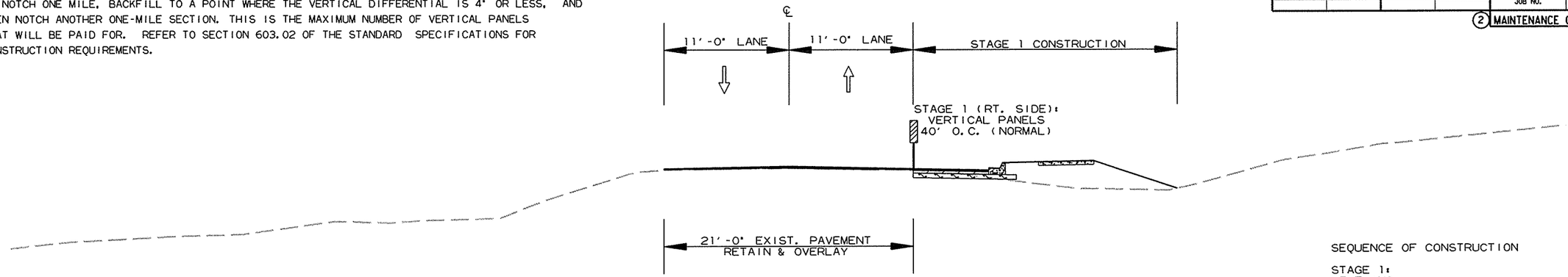
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090319	14	154

(2) MAINTENANCE OF TRAFFIC DETAILS

THE QUANTITY OF VERTICAL PANELS PROVIDED IN THE CONTRACT IS FOR ONE SIDE OF THE ROADWAY FOR THE FULL LENGTH OF THE JOB. 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.



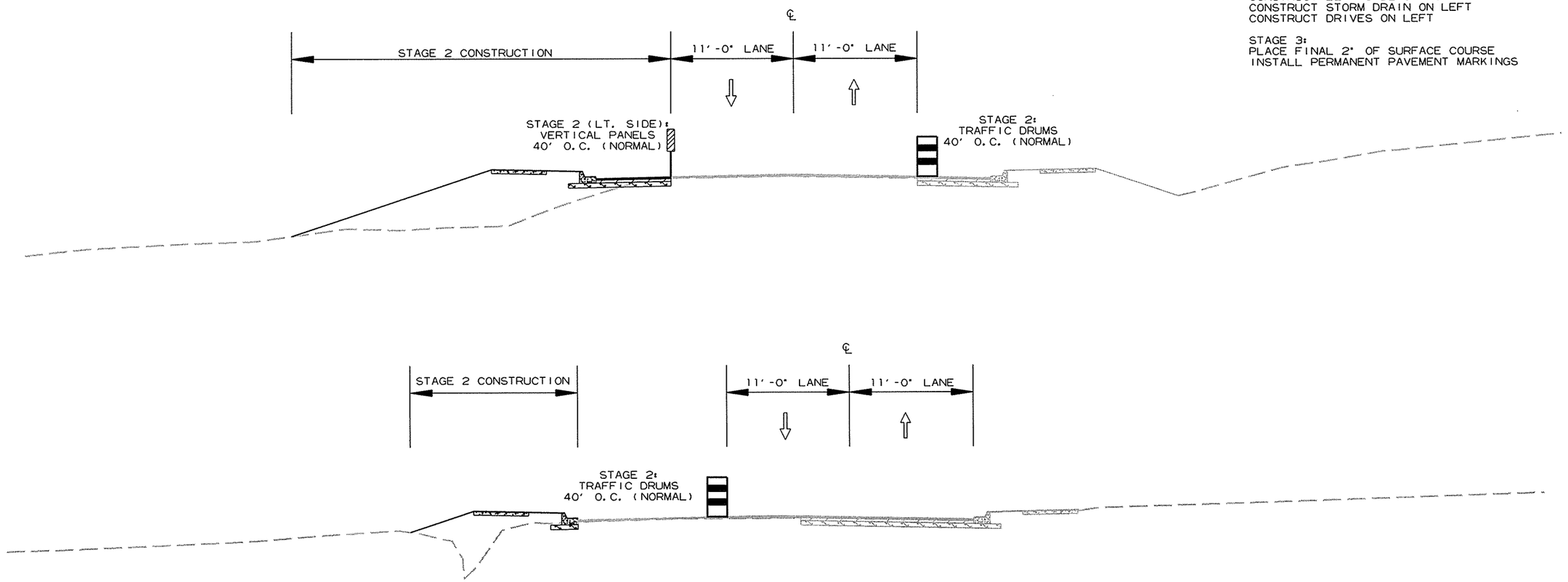
STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
10-10-14

SEQUENCE OF CONSTRUCTION

STAGE 1:
LEVELING
CONSTRUCT RIGHT SIDE OF ROADWAY
CONSTRUCT STORM DRAIN ON RIGHT
CONSTRUCT DRIVES ON RIGHT
OVERLAY HWY. 201 SPUR

STAGE 2:
CONSTRUCT LEFT SIDE OF ROADWAY
CONSTRUCT STORM DRAIN ON LEFT
CONSTRUCT DRIVES ON LEFT

STAGE 3:
PLACE FINAL 2" OF SURFACE COURSE
INSTALL PERMANENT PAVEMENT MARKINGS



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ALL STAGES
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.			
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(2) MAINTENANCE OF TRAFFIC DETAILS

CONSTRUCTION PAVEMENT MARKINGS:

4" DOUBLE YELLOW CENTERLINE
STA. 16+00-18+00 = 800 LIN. FT. (2 DBL. YELLOWS)
STA. 18+00-24+00 = 1200 LIN. FT.
STA. 24+50-30+64 = 1228 LIN. FT.
STA. 31+20-35+89 = 938 LIN. FT.
STA. 36+39-36+90 = 102 LIN. FT.
STA. 37+40-46+58 = 1836 LIN. FT.
STA. 47+08-50+65 = 714 LIN. FT.
STA. 51+15-54+60 = 690 LIN. FT.
STA. 55+10-60+00 = 980 LIN. FT.
STA. 60+93-65+65 = 944 LIN. FT.
STA. 66+15-73+33 = 1436 LIN. FT.
STA. 73+83-81+40 = 1514 LIN. FT.
STA. 81+90-84+27 = 474 LIN. FT.
STA. 84+27-85+35 = 274 LIN. FT. (2 DBL. YELLOWS)
STA. 85+35-85+92 = 58 LIN. FT.

4" WHITE SOLID EDGE LINE ON LT.
STA. 16+00-30+40 = 1440 LIN. FT.
STA. 34+14-36+90 = 545 LIN. FT.
STA. 37+46-54+14 = 1668 LIN. FT.
STA. 55+36-60+00 = 464 LIN. FT.
STA. 60+45-65+67 = 522 LIN. FT.
STA. 66+11-73+12 = 701 LIN. FT.
STA. 73+92-81+35 = 743 LIN. FT.
STA. 81+95-84+16 = 221 LIN. FT.

CONSTRUCTION PAVEMENT MARKINGS (CONT.):

4" WHITE SOLID EDGE LANE ON RT.
STA. 16+00-23+70 = 770 LIN. FT.
STA. 24+70-35+95 = 1125 LIN. FT.
STA. 37+00-46+40 = 940 LIN. FT.
STA. 47+31-50+59 = 328 LIN. FT.
STA. 51+38-60+24 = 886 LIN. FT.
STA. 61+06-65+68 = 462 LIN. FT.
STA. 66+17-84+37 = 1820 LIN. FT.

4" WHITE SOLID FOR TURN LANE LINES
STA. 85+93-86+10 = 17 LIN. FT.

VERTICAL PANELS @ 40 O.C. = 170 EACH
STA. 16+00-86+10

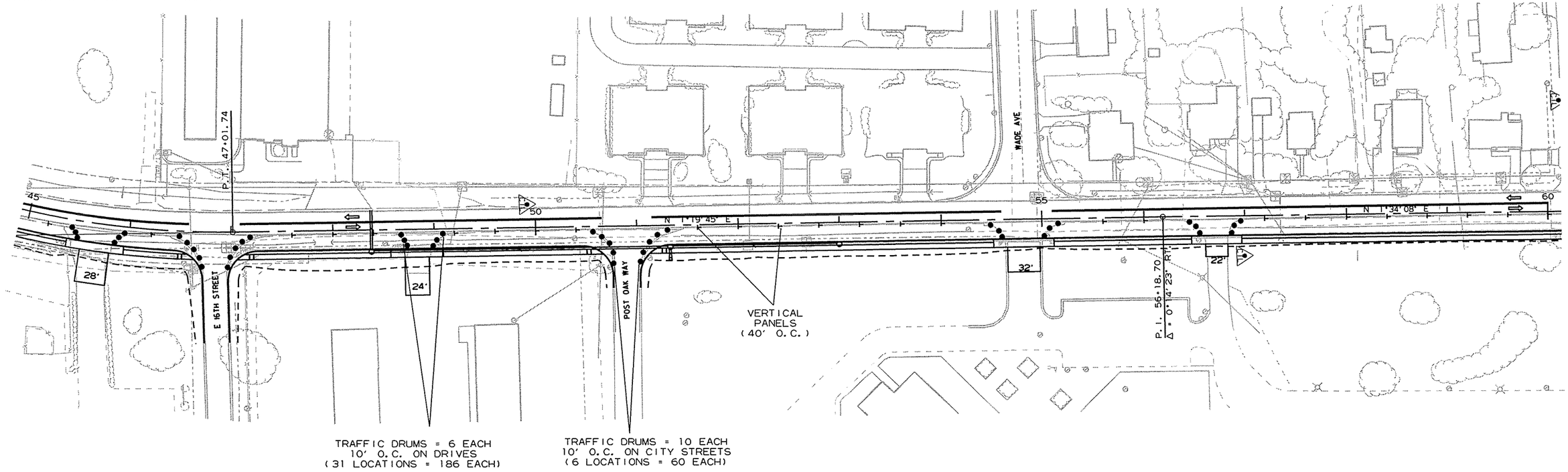
SEQUENCE OF CONSTRUCTION

STAGE 1:
LEVELING
CONSTRUCT RIGHT SIDE OF ROADWAY
CONSTRUCT STORM DRAIN ON RIGHT
CONSTRUCT DRIVES ON RIGHT
OVERLAY HWY. 201 SPUR

STAGE 2:
CONSTRUCT LEFT SIDE OF ROADWAY
CONSTRUCT STORM DRAIN ON LEFT
CONSTRUCT DRIVES ON LEFT

STAGE 3:
PLACE FINAL 2" OF SURFACE COURSE
INSTALL PERMANENT PAVEMENT MARKINGS

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
18-10-14



THE QUANTITY OF VERTICAL PANELS PROVIDED IN THE CONTRACT IS FOR ONE SIDE OF THE ROADWAY FOR THE FULL LENGTH OF THE JOB. 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.

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STAGE 1
MAINTENANCE OF TRAFFIC DETAILS

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				6	ARK.			
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(2) MAINTENANCE OF TRAFFIC DETAILS

REMOVAL OF CONSTRUCTION PAVEMENT MARKINGS:

4" DOUBLE YELLOW CENTERLINE
STA. 38+00-46+58 = 1716 LIN. FT.
STA. 47+08-50+65 = 714 LIN. FT.
STA. 51+15-54+60 = 690 LIN. FT.
STA. 55+10-60+00 = 980 LIN. FT.
STA. 60+93-65+65 = 944 LIN. FT.

4" WHITE SOLID EDGE LINE ON RT.
STA. 38+00-46+40 = 840 LIN. FT.
STA. 47+31-50+59 = 328 LIN. FT.
STA. 51+38-60+24 = 886 LIN. FT.
STA. 61+06-65+68 = 462 LIN. FT.

CONSTRUCTION PAVEMENT MARKINGS:

4" DOUBLE YELLOW CENTERLINE
STA. 38+00-46+58 = 1716 LIN. FT.
STA. 47+08-50+65 = 714 LIN. FT.
STA. 51+15-54+60 = 690 LIN. FT.
STA. 55+10-65+68 = 2116 LIN. FT.

4" WHITE SOLID EDGE LINE ON LT.
STA. 38+50-54+40 = 1590 LIN. FT.
STA. 55+32-60+00 = 468 LIN. FT.
STA. 60+56-65+68 = 512 LIN. FT.

4" WHITE SOLID EDGE LINE ON RT.
STA. 38+00-40+00 = 200 LIN. FT.
STA. 64+05-65+68 = 163 LIN. FT.

VERTICAL PANELS @ 40 O.C. = 114 EACH
STA. 16+00-40+00
STA. 64+50-86+40

TRAFFIC DRUMS @ 40 O.C. = 179 EACH
STA. 16+00-40+00 ON RT.
STA. 39+00-64+50 ON LT.
STA. 64+05-86+10 ON RT.

SEQUENCE OF CONSTRUCTION

STAGE 1:
LEVELING
CONSTRUCT RIGHT SIDE OF ROADWAY
CONSTRUCT STORM DRAIN ON RIGHT
CONSTRUCT DRIVES ON RIGHT
OVERLAY HWY. 201 SPUR

STAGE 2:
CONSTRUCT LEFT SIDE OF ROADWAY
CONSTRUCT STORM DRAIN ON LEFT
CONSTRUCT DRIVES ON LEFT

STAGE 3:
PLACE FINAL 2" OF SURFACE COURSE
INSTALL PERMANENT PAVEMENT MARKINGS

P.I. = 43+80.86
Δ = 45°57'03" LT.
D = 6°45'00"
T = 359.88'
L = 680.75'
P.C. 40+20.99
P.T. 47+01.74
Ls = 300'
e = 0.076'/'

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
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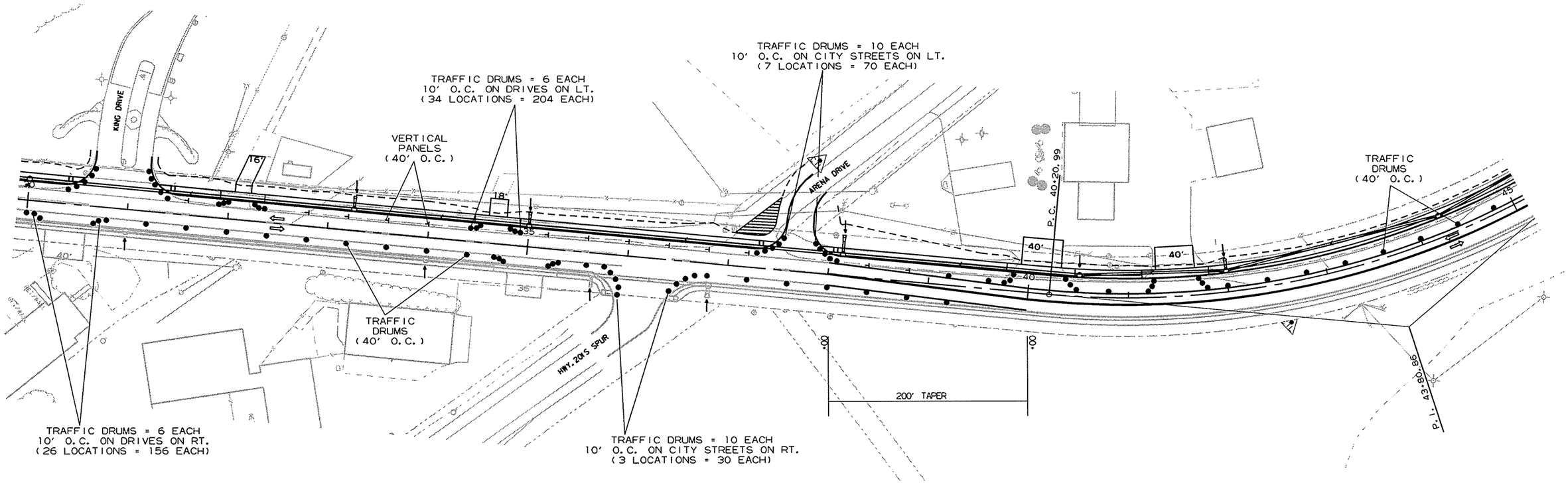

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STAGE 2
MAINTENANCE OF TRAFFIC DETAILS

9/24/2014

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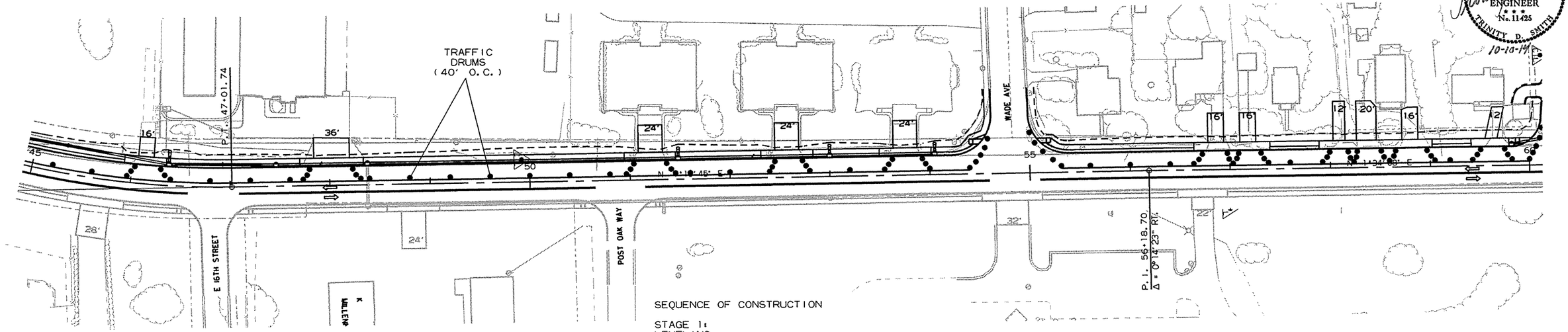
(2) MAINTENANCE OF TRAFFIC DETAILS

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
10-10-14

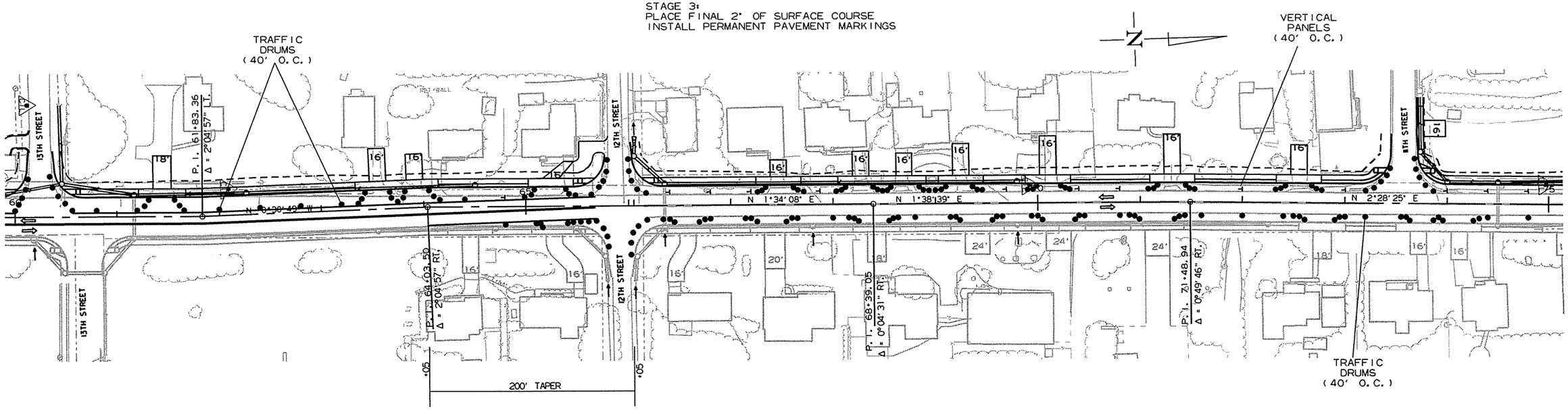


SEQUENCE OF CONSTRUCTION

STAGE 1:
LEVELING
CONSTRUCT RIGHT SIDE OF ROADWAY
CONSTRUCT STORM DRAIN ON RIGHT
CONSTRUCT DRIVES ON RIGHT
OVERLAY HWY. 201 SPUR

STAGE 2:
CONSTRUCT LEFT SIDE OF ROADWAY
CONSTRUCT STORM DRAIN ON LEFT
CONSTRUCT DRIVES ON LEFT

STAGE 3:
PLACE FINAL 2" OF SURFACE COURSE
INSTALL PERMANENT PAVEMENT MARKINGS



STAGE 2
MAINTENANCE OF TRAFFIC DETAILS

9/24/2014

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(2) PERMANENT PAVEMENT MARKING DETAILS

RAISED PAVEMENT MARKERS (TYPE II)(YELLOW/YELLOW) ARE TO BE PLACED ON THE DOUBLE YELLOW AT 80' INTERVALS.

RAISED PAVEMENT MARKERS (TYPE II)(WHITE/RED) ARE TO BE PLACED ON THE LANE LINES AT 80' INTERVALS.

REFER TO THE PERMANENT PAVEMENT MARKING DETAILS, STD. DRWG. PM-1, AND THE LATEST EDITION OF THE MUTCD FOR ADDITIONAL PAVEMENT MARKING DETAILS.

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/NO PASSING ZONES PRIOR TO THE PLACEMENT OF ANY FINAL STRIPING. CONTACH THE MAINTENANCE DIVISION AFTER THE FINAL LIFT OF SURFACE COURSE HAS BEEN PLACED TO SCHEDULE THE ZONING OF THE PROJECT.

THERMOPLASTIC PAVEMENT MARKINGS:

4" WHITE SOLID EDGE LINES ON LT.
STA. 13+47 - 16+00 = 253 LIN. FT.

4" WHITE SOLID EDGE LINES ON RT.
STA. 13+47 - 16+00 = 253 LIN. FT.

4" WHITE SOLID FOR TURN LANE LINES
STA. 47+09-48+09 = 100 LIN. FT.
STA. 85+92-86+92 = 100 LIN. FT.
WADE AVE. = 46 LIN. FEET.
DRIVEWAY STA. 54+81 ON RT. = 49 LIN. FT.
DRIVEWAY STA. 56+72 ON RT. = 13 LIN. FT.
13TH STREET ON RT. = 18 LIN. FT.

4" WHITE SKIP ON LT.
STA. 48+09-55+81 = 193 LIN. FT.

4" WHITE SKIP ON RT.
STA. 60+92-85+92 = 625 LIN. FT.

12" WHITE FOR STOP BARS
WADE AVE. = 25 LIN. FT.
13TH STREET = 25 LIN. FT.
STA. 86+85 = 11 LIN. FT.
STA. 86+92 = 16 LIN. FT.

4" YELLOW SKIP FOR CENTER TURN LANE
STA. 13+47-36+05 = 1129 LIN. FT.
STA. 36+55-37+43 = 44 LIN. FT.
STA. 37+93-46+59 = 433 LIN. FT.

THERMOPLASTIC PAVEMENT MARKINGS (CONT.):

4" YELLOW SOLID FOR CENTER TURN LANE
STA. 13+47-36+05 = 4516 LIN. FT.
STA. 36+55-37+43 = 176 LIN. FT.
STA. 37+93-46+59 = 1732 LIN. FT.

*4" DOUBLE YELLOW
STA. 47+09-50+65 = 712 LIN. FT.
STA. 51+15-54+53 = 676 LIN. FT.
STA. 55+03-56+81 = 356 LIN. FT.
STA. 56+81-60+01 = 1280 LIN. FT. (2 DBL. YELLOWS)
STA. 60+92-65+64 = 944 LIN. FT.
STA. 66+14-73+32 = 1436 LIN. FT.
STA. 73+82-81+81 = 1518 LIN. FT.
STA. 81+91-86+85 = 988 LIN. FT.
HWY. 201 SPUR = 2056 LIN. FT.
WADE AVE. = 92 LIN. FT.
13TH STREET = 36 LIN. FT.

ARROWS = 13 EACH

WORDS = 2 EACH

RAISED PAVEMENT MARKERS:

TYPE II (YELLOW/YELLOW) ON SKIP FOR CENTER TURN LANE
STA. 13+47-36+05 = 56 EACH
STA. 36+55-37+43 = 2 EACH
STA. 37+93-46+59 = 22 EACH

TYPE II (YELLOW/YELLOW) ON DOUBLE YELLOW
STA. 47+09-50+65 = 4 EACH
STA. 51+15-54+53 = 4 EACH
STA. 55+03-56+81 = 2 EACH
STA. 56+81-60+01 = 8 EACH (2 DBL. YELLOWS)
STA. 60+92-65+64 = 6 EACH
STA. 66+14-73+32 = 9 EACH
STA. 73+82-81+81 = 10 EACH
STA. 81+91-86+85 = 6 EACH

TYPE II (WHITE/RED) ON WHITE TURN LANE LINES
STA. 47+09-48+09 = 2 EACH
STA. 85+92-86+92 = 2 EACH

TYPE II (WHITE/RED) ON SKIP LINES ON LT.
STA. 48+09-55+81 = 10 EACH

TYPE II (WHITE/RED) ON SKIP LINES ON RT.
STA. 60+92-85+92 = 31 EACH

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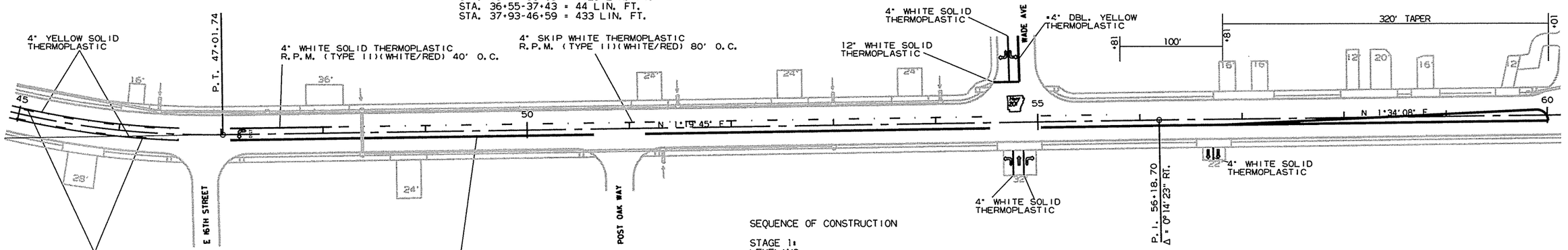
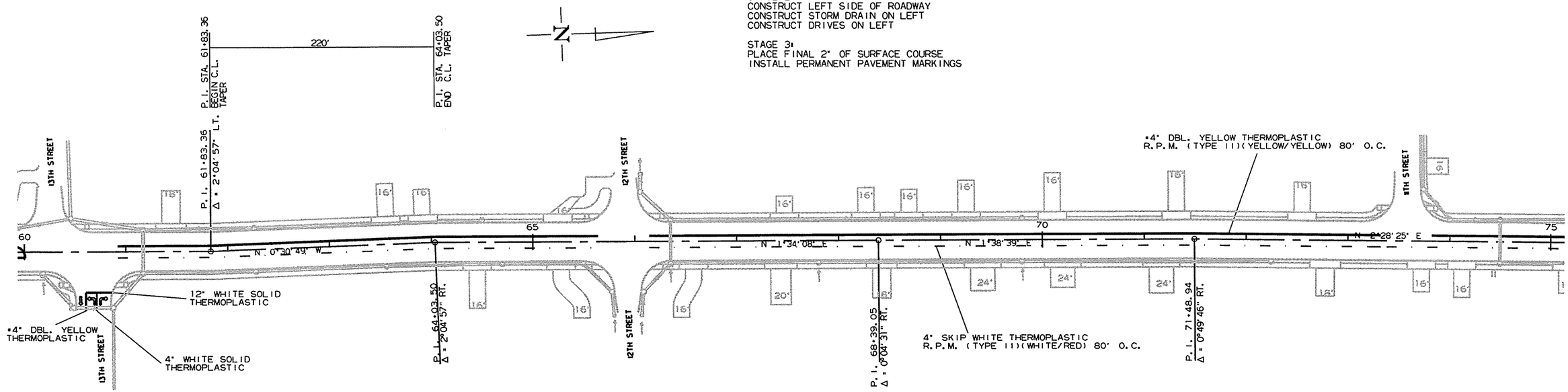


SEQUENCE OF CONSTRUCTION

STAGE 1:
LEVELING
CONSTRUCT RIGHT SIDE OF ROADWAY
CONSTRUCT STORM DRAIN ON RIGHT
CONSTRUCT DRIVES ON RIGHT
OVERLAY HWY. 201 SPUR

STAGE 2:
CONSTRUCT LEFT SIDE OF ROADWAY
CONSTRUCT STORM DRAIN ON LEFT
CONSTRUCT DRIVES ON LEFT

STAGE 3:
PLACE FINAL 2" OF SURFACE COURSE
INSTALL PERMANENT PAVEMENT MARKINGS



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PERMANENT PAVEMENT MARKING 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.		090319	19	154

(2) QUANTITIES

ADVANCE WARNING SIGNS AND DEVICES

SIGN NUMBER	DESCRIPTION	SIGN SIZE	STAGE 1	STAGE 2	STAGE 3	MAXIMUM NUMBER REQUIRED	TOTAL SIGNS REQUIRED		VERTICAL PANELS	TRAFFIC DRUMS
			LIN. FT. - EACH				NO.	SQ. FT.	EACH	
W20-1	ROAD WORK 1500 FT.	48"x48"	6	6	6	6	6	96.0		
W20-1	ROAD WORK 1000 FT.	48"x48"	6	6	6	6	6	96.0		
W20-1	ROAD WORK 500 FT.	48"x48"	6	6	6	6	6	96.0		
W20-1	ROAD WORK AHEAD	48"x48"	13	13	13	13	13	208.0		
G20-2	END ROAD WORK	48"x24"	19	19	19	19	19	152.0		
R4-1	DO NOT PASS	24"x30"	4	4	4	4	4	20.0		
RSP-1	SHOULDER CLOSED	48"x30"	4	4		4	4	40.0		
	VERTICAL PANELS		175	114		175			175	
	TRAFFIC DRUMS		246	639		639				639
TOTALS:								708.0	175	639

NOTE: THIS IS A HIGH 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 THE FULL LENGTH OF THE JOB. 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.

CLEARING AND GRUBBING

STATION	STATION	LOCATION	CLEARING	GRUBBING
			STATION	
55+00	60+00	HWY. 201	5	5
63+00	65+00	HWY. 201	2	2
66+00	74+00	HWY. 201	8	8
75+00	85+00	HWY. 201	10	10
TOTALS:			25	25

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EROSION CONTROL MATTING

STATION	STATION	LOCATION	LENGTH	CLASS 3
			LIN. FT.	SQ. YD.
*ENTIRE PROJECT TO BE USED IF AND WHERE DIRECTED BY THE ENGINEER.			1750.0	1555.6
TOTAL:				1555.6

NOTE: AVERAGE WIDTH = 8'-0"

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

EROSION CONTROL

STATION	STATION	LOCATION	PERMANENT EROSION CONTROL						TEMPORARY EROSION CONTROL									
			SEEDING	LIME	MULCH COVER	WATER	SECOND SEEDING APPLICATION	SOLID SODDING	TEMPORARY SEEDING	MULCH COVER	WATER	SAND BAG DITCH CHECKS (E-5)	ROCK DITCH CHECKS (E-6)	DROP INLET SILT FENCE (E-7)	SILT FENCE (E-11)	SEDIMENT BASIN (E-14)	OBLITERATION OF SEDIMENT BASIN	*SEDIMENT REMOVAL & DISPOSAL
			ACRE	TON	ACRE	M.GAL.	ACRE	SQ.YD.	ACRE	ACRE	M.GAL.	BAG	CU.YD.	LIN. FT.	LIN. FT.	CU.YD.	CU.YD.	CU. YD.
ENTIRE	PROJECT	STAGE 1	0.86	1.72	0.86	109.7	0.86	1741	5.37	5.37	109.5	132	48	800	1074			91
ENTIRE	PROJECT	STAGE 2	1.50	3.00	1.50	175.6	1.50	1793	5.31	5.31	108.3	44	30	800	4380			204
*ENTIRE PROJECT TO BE USED IF AND WHERE DIRECTED BY THE ENGINEER.									1.00	1.00	20.4	44	15	100	500	32	32	54
TOTALS:			2.36	4.72	2.36	285.3	2.36	3534	11.68	11.68	238.2	220	93	1700	5954	32	32	349

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
WATER.....12.6 GAL. / SQ. YD. OF SOLID SODDING
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 ARE ESTIMATED.
SEE SECTION 104.03 OF THE STD. SPECS.

CONSTRUCTION PAVEMENT MARKINGS AND PERMANENT PAVEMENT MARKINGS

DESCRIPTION	STAGE 1	STAGE 2	STAGE 3	CONSTRUCTION PAVEMENT MARKINGS	REMOVAL OF CONSTRUCTION PAVEMENT MARKINGS	RAISED PAVEMENT MARKERS		THERMOPLASTIC PAVEMENT MARKING				
						TYPE II (WHITE/RED)	TYPE II (YEL/YEL)	4" WHITE	4" YELLOW	12" WHITE	WORDS	ARROWS
	LIN. FT. - EACH			LIN. FT.	LIN. FT.	EACH		LIN. FT.			EACH	
CONSTRUCTION PAVEMENT MARKINGS	25840	8169		34009								
REMOVAL OF CONSTRUCTION PAVEMENT MARKINGS		7560			7560							
RAISED PAVEMENT MARKERS TYPE II (WHITE/RED)			45			45						
RAISED PAVEMENT MARKERS TYPE II (YEL/YEL)			129				129					
THERMOPLASTIC PAVEMENT MARKING WHITE (4")			1732					1732				
THERMOPLASTIC PAVEMENT MARKING YELLOW (4")			18125						18125			
THERMOPLASTIC PAVEMENT MARKING WHITE (12")			77							77		
THERMOPLASTIC PAVEMENT MARKING WORDS			3								3	
THERMOPLASTIC PAVEMENT MARKING ARROWS			13									13
TOTALS:				34009	7560	45	129	1732	18125	77	3	13

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

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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.		090319	20	154

(2) QUANTITIES

REMOVAL AND DISPOSAL OF ITEMS (BOX 1 OF 2)

STATION	STATION	LOCATION	CURB AND GUTTER	RETAINING WALLS	CONCRETE PAVEMENT	CONCRETE DRIVEWAYS	WALKS	LIGHTS	SIGN FOUNDATIONS	LUMINAIRE POLE AND FOUNDATION	BRICK WALL	BRICK COLUMNS	SIGNS	PLANTERS
			LIN. FT.	LIN. FT.	SQ. YD.	SQ. YD.	SQ. YD.	EACH	EACH	EACH	LIN. FT.	EACH	EACH	EACH
18+54		HWY. 201 ON RIGHT							1				1	
18+63		HWY. 201 ON RIGHT							1				1	
19+00		HWY. 201 ON RIGHT				192								
30+40	31+46	HWY. 201 ON LEFT	97											
30+58		HWY. 201 ON LEFT							1				1	
30+90		HWY. 201 ON LEFT							1				1	
35+36		HWY. 201 ON RIGHT				88								
35+58.27		HWY. 201 ON RIGHT							1				1	
40+10		HWY. 201 ON LEFT				186								
41+48		HWY. 201 ON LEFT				175								
43+00		HWY. 201 ON LEFT							1					
43+00		HWY. 201 ON LEFT											1	
45+50		HWY. 201 ON RIGHT											1	
45+68		HWY. 201 ON RIGHT				113								
45+94		HWY. 201 ON LEFT							1					
45+94		HWY. 201 ON LEFT											1	
48+02		HWY. 201 ON LEFT				153								
49+05		HWY. 201 ON RIGHT										1		
50+64		HWY. 201 ON RIGHT										1		
50+64	51+24	HWY. 201 ON RIGHT	115											
51+20		HWY. 201 ON LEFT				102								
52+57		HWY. 201 ON LEFT				99								
53+75		HWY. 201 ON LEFT				98								
54+32	55+27	HWY. 201 ON LEFT	138											
54+32	54+60	HWY. 201 ON LEFT					35							
54+81		HWY. 201 ON RIGHT				116								
55+80.53		HWY. 201 ON RIGHT							1				1	
56+86		HWY. 201 ON LEFT				56								
58+10.35		HWY. 201 ON RIGHT							1		8			
58+36		HWY. 201 ON LEFT				99								
59+68		HWY. 201 ON LEFT				34								
60+02		HWY. 201 ON LEFT												1
60+26	60+99	HWY. 201 ON RIGHT	124											
60+33.99		HWY. 201 ON RIGHT							1				1	
64+45	60+51	HWY. 201 ON RIGHT					41							
60+87	65+81	HWY. 201 ON RIGHT					220							
64+45		HWY. 201 ON RIGHT				44								
65+50		HWY. 201 ON RIGHT				48								
66+05	86+10	HWY. 201 ON RIGHT					891							
66+44		HWY. 201 ON RIGHT				68								
67+40		HWY. 201 ON RIGHT				80								
67+43		HWY. 201 ON LEFT				39								
68+69		HWY. 201 ON LEFT				71								
69+25		HWY. 201 ON LEFT				65								
71+16		HWY. 201 ON RIGHT				111								
72+78		HWY. 201 ON RIGHT				66								
72+91.92		HWY. 201 ON RIGHT							1				1	
73+14	73+45	HWY. 201 ON LEFT			63									
73+24	73+91	HWY. 201 ON LEFT	158											
73+72		HWY. 201 ON RIGHT				41								
73+70	73+99	HWY. 201 ON LEFT					77							
74+12		HWY. 201 ON RIGHT				65								
74+44		HWY. 201 ON RIGHT					3							
75+16		HWY. 201 ON RIGHT				12								
76+29		HWY. 201 ON RIGHT								1				
76+32		HWY. 201 ON RIGHT				36								
76+51		HWY. 201 ON LEFT				16								
76+77		HWY. 201 ON RIGHT				32								
77+35		HWY. 201 ON LEFT				83								
77+60.07		HWY. 201 ON RIGHT							1				1	
78+00		HWY. 201 ON LEFT					8							
78+32		HWY. 201 ON RIGHT						1				1		
78+38		HWY. 201 ON RIGHT				47								
78+49		HWY. 201 ON RIGHT						1				1		
78+71	79+17	HWY. 201 ON LEFT		49										
78+87		HWY. 201 ON LEFT					14							
79+17	80+05	HWY. 201 ON RIGHT		105										
80+07		HWY. 201 ON RIGHT				70								
80+22	80+43	HWY. 201 ON RIGHT		42										
80+43		HWY. 201 ON RIGHT										1		
80+63	81+79	HWY. 201 ON RIGHT		188										
80+63		HWY. 201 ON RIGHT										1		
80+68.11		HWY. 201 ON RIGHT							1			2	1	
81+06	81+31	HWY. 201 ON LEFT					26							
SUBTOTALS:			**632**	**384**	**63**	**2505**	**1315**	**2**	**13**	**1**	**8**	**8**	**13**	**1**

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REMOVAL AND DISPOSAL OF FENCE

STATION	STATION	LOCATION	FENCE
			LIN. FT.
31+84	33+83	LEFT OF MAIN LANES	179
47+19	48+72	RIGHT OF MAIN LANES	153
48+99	50+64	RIGHT OF MAIN LANES	165
55+09	55+89	LEFT OF MAIN LANES	220
TOTAL:			717

BENCH MARKS

STATION	LOCATION	BENCH MARKS
		EACH
31+00	TOP OF DROP INLET ON RIGHT	1
79+60	TOP OF DROP INLET ON LEFT	1
TOTAL:		2

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

4" PIPE UNDERDRAIN

STATION	STATION	LOCATIONS	4" PIPE UNDERDRAINS
			LIN. FT.
* ENTIRE PROJECT TO BE USED IF AND			1750
WHERE DIRECTED BY THE ENGINEER			
TOTAL:			1750

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

UNDERDRAINS SHALL BE STUBBED INTO THE PROPOSED DROP INLET IF AND WHERE DIRECTED BY THE ENGINEER. PAYMENT FOR THIS TO BE INCLUDED IN THE UNIT PRICE BID FOR 4" PIPE UNDERDRAIN.

ACHM PATCHING OF EXISTING ROADWAY

DESCRIPTION	TON
ENTIRE PROJECT - TO BE USED IF AND WHERE	50
DIRECTED BY THE ENGINEER	
TOTAL:	50

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

ASPHALT CONCRETE PATCHING FOR MAINTENANCE OF TRAFFIC

LOCATION	TON	TACK COAT
		GALLON
ENTIRE PROJECT - TO BE USED IF AND WHERE	33	66
DIRECTED BY THE ENGINEER		
TOTALS:	33	66

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

9/24/2014

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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.		090319	21	154

(2) QUANTITIES

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
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REMOVAL AND DISPOSAL OF ITEMS (BOX 2 OF 2)

STATION	STATION	LOCATION	CURB AND GUTTER	RETAINING WALLS	CONCRETE PAVEMENT	CONCRETE DRIVEWAYS	WALKS	LIGHTS	SIGN FOUNDATIONS	LUMINAIRE POLE AND FOUNDATION	BRICK WALL	BRICK COLUMNS	SIGNS	PLANTERS
			LIN. FT.	LIN. FT.	SQ. YD.	SQ. YD.	SQ. YD.	EACH	EACH	EACH	LIN. FT.	EACH	EACH	EACH
81+35	82+13	HWY. 201 ON LEFT	104											
81+40		HWY. 201 ON RIGHT							1					
81+69.39		HWY. 201 ON RIGHT							1			2	1	
81+79		HWY. 201 ON RIGHT										1		
81+99		HWY. 201 ON RIGHT										1		
81+99	82+84	HWY. 201 ON RIGHT		125										
82+84		HWY. 201 ON RIGHT										1		
83+02		HWY. 201 ON RIGHT										1		
83+02		HWY. 201 ON RIGHT		18										
83+63		HWY. 201 ON RIGHT					15							
84+13	86+10	HWY. 201 ON LEFT	197											
84+13	86+10	HWY. 201 ON LEFT					109							
84+36		HWY. 201 ON LEFT				11								
84+92	86+10	HWY. 201 ON RIGHT	118											
85+48.51		HWY. 201 ON RIGHT							1				1	
85+73		HWY. 201 ON RIGHT				130								
SUBTOTALS:			419	143		141	124		3			6	2	
TOTALS:			1051	527	63	2646	1439	2	16	1	8	14	15	1

REMOVAL AND DISPOSAL OF CULVERTS AND DROP INLETS

STATION	DESCRIPTION	PIPE CULVERTS	BOX CULVERTS	JUNCTION BOXES	DROP INLETS
		EACH	EACH	EACH	EACH
19+01	23" X 15" X 57' RCP SIDE DRAIN ON RIGHT	1			
21+79	SIDE DRAIN ON RIGHT	1			
23+73	24" X 46' CMP CROSS DRAIN	1			
24+14	24' X 57' CMP CROSS DRAIN	1		1	
24+50	18" X 35' RCP SIDE DRAIN ON RIGHT	1			
30+43	18" X 35' CMP SIDE DRAIN ON RIGHT	1			
30+92	28" X 20" X 107' RCP SIDE DRAIN ON LEFT	1			
32+10	24" X 39' CMP SIDE DRAIN ON LEFT	1			
34+65	18" X 40' CMP SIDE DRAIN ON LEFT	1			
35+38	18" X 36' CMP SIDE DRAIN ON RIGHT	1			
36+43	20" X 97' CMP SIDE DRAIN ON RIGHT	1			
37+26	18' X 60' CMP SIDE DRAIN ON LEFT	1			
40+88	DROP INLET WITH 18' X 100' PIPE OUTLET & 18" X 101' PIPE INLET	2			1
46+09	18" X 40' RCP SIDE DRAIN ON LEFT	1			
46+29	16" X 190' CMP SIDE DRAIN ON RIGHT	1			
47+91	SIDE DRAIN ON RIGHT	1			
48+89	18" X 43' RCP SIDE DRAIN ON RIGHT	1			
51+20	20" X 14" X 30' CMP ON LEFT	1			
52+57	20" X 14" X 30' CMP ON LEFT	1			
53+75	28" X 30' CMP ON LEFT	1			
60+39	DROP INLET WITH 18" PIPE INLET & 18" PIPE OUTLET ON RIGHT	2			1
60+54	DROP INLET ON LEFT				1
60+89	18" PIPE CULVERT ON RIGHT	1			
61+01	DROP INLET WITH 24" PIPE OUTLET ON LEFT	1			1
61+04	DROP INLET WITH 2' X 4' BOX CULVERT OUTLET ON RIGHT		1		1
61+45	22" X 16" X 20' CMP SIDE DRAIN ON LEFT	1			
64+45	18" X 18' RCP SIDE DRAIN ON RIGHT	1			
66+44	12" X 18' CMP SIDE DRAIN ON RIGHT	1			
67+43	12" X 26' RCP SIDE DRAIN ON RIGHT	1			
68+28	12" X 18' CMP SIDE DRAIN ON LEFT	1			
68+45	12" X 28' RCP SIDE DRAIN ON RIGHT	1			
68+67	12" X 24' CMP SIDE DRAIN ON LEFT	1			
69+26	12" X 15' RCP SIDE DRAIN ON LEFT	1			
69+40	18" X 30' CMP SIDE DRAIN ON RIGHT	1			
70+15	12" X 18' CMP SIDE DRAIN ON LEFT	1			
70+35	18" X 51' CMP SIDE DRAIN ON RIGHT	1			
71+18	18" X 41' CMP SIDE DRAIN ON RIGHT	1			
71+29	12" X 19' CMP SIDE DRAIN ON LEFT	1			
72+56	12" X 24' CMP SIDE DRAIN ON LEFT	1			
72+73	18" X 29' CMP SIDE DRAIN ON RIGHT	1			
73+72	15" X 20' CMP SIDE DRAIN ON RIGHT	1			
74+14	15" X 22' CMP SIDE DRAIN ON RIGHT	1			
75+18	12' X 19' RCP SIDE DRAIN ON RIGHT	1			
75+48	12" CMP SIDE DRAIN ON LEFT	1			
84+33	DROP INLET WITH 18' X 102' PIPE OUTLET ON RIGHT	1			1
85+39	DROP INLET WITH 24" X 39' PIPE OUTLET ON RIGHT	1			1
85+38	DROP INLET ON LEFT				1
85+99	DROP INLET WITH 24" X 57' PIPE OUTLET & 24" X 7' PIPE INLET ON RIGHT	2			1
TOTALS:		48	1	1	9

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

CONCRETE COMBINATION CURB AND GUTTER

STATION	STATION	LOCATION	TYPE A (1' 6")
			LIN. FT.
16+00	23+72	RIGHT OF MAIN LANES	796
16+00	30+64.76	LEFT OF MAIN LANES	1448
23+77.38	35+90	RIGHT OF MAIN LANES	1253
31+19.48	37+76.48	LEFT OF MAIN LANES	698
35+88.90	46+75.37	RIGHT OF MAIN LANES	1234
37+81.43	54+61.87	LEFT OF MAIN LANES	1692
46+96.39	50+76.67	RIGHT OF MAIN LANES	463
51+02.93	60+51.04	RIGHT OF MAIN LANES	965
54+97.86	60+13.24	LEFT OF MAIN LANES	573
60+36.29	65+77.01	LEFT OF MAIN LANES	553
60+84.99	65+82.92	RIGHT OF MAIN LANES	563
66+01.64	73+45.33	LEFT OF MAIN LANES	780
66+02.61	86+10	RIGHT OF MAIN LANES	1946
73+69.65	81+55.80	LEFT OF MAIN LANES	845
81+78.82	86+10	LEFT OF MAIN LANES	433
TOTAL:			14242

PAVEMENT REPAIR OVER CULVERTS (CONCRETE)

STATION	LOCATION	WIDTH	LENGTH	CU.YD.
		FEET		
22+42	MAIN LANES	9.67	22	5.9
23+73	MAIN LANES	8.50	22	5.2
24+14	MAIN LANES	8.50	29	6.8
48+34	MAIN LANES	7.92	22	4.8
60+44	MAIN LANES	7.92	26	5.7
61+04	MAIN LANES	10.83	19	5.7
61+17	MAIN LANES	8.50	19	4.5
66+35	MAIN LANES	7.92	22	4.8
74+50	MAIN LANES	7.92	22	4.8
85+39	MAIN LANES	8.50	37	8.7
TOTAL:				56.9

AVG. DEPTH = 9"

FENCING

STATION	STATION	LOCATION	WIRE FENCE (TYPE D-1)	* 5' CHAIN LINK FENCE	* 16'-0" GATES
			LIN. FT.	LIN. FT.	EACH
31+84.41	33+82	LEFT OF MAIN LANES	182		1
47+13	50+70	RIGHT OF MAIN LANES		447	
TOTALS:			182	447	1

* DENOTES ALTERNATE BID ITEM.

MAILBOXES

LOCATION	MAILBOXES	MAILBOX SUPPORTS (SINGLE)	MAILBOX SUPPORTS (DOUBLE)
	EACH		
ENTIRE PROJECT	21	7	7
TOTALS:	21	7	7

SELECTED PIPE BEDDING

LOCATION	SELECTED PIPE BEDDING
	CU.YD.
ENTIRE PROJECT TO BE USED IF	
AND WHERE DIRECTED BY THE	200
ENGINEER	
TOTAL:	200

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

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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.		090319	22	154

(2) QUANTITIES

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
10-10-14

STRUCTURES

STATION	DESCRIPTION	REINFORCED CONCRETE PIPE CULVERT (CLASS III) 18"	(CLASS III) 24"	(CLASS III) 30"	(CLASS III) 48"	(CLASS IV) 18"	(CLASS IV) 24"	(CLASS IV) 36"	(CLASS V) 18"	SIDE DRAIN 12"	PIPE CULVERT STORM DRAIN ALTERNATES 1 & 2 18"	24"	30"	36"	FLARED END SECTIONS FOR R.C. PIPE CULVERTS 18"	30"	48"	DROP INLETS TYPE MO	EXT. 4'	EXT. 8'	JUNCT. BOX (TYPE E)	YARD DRAIN	SOLID SODDING	WATER	STD. DWG. NOS.
		LIN. FT.													EACH			EACH					SQ.YD.	M.GAL	
18+50	CONSTRUCT DROP INLET ON RT.	4									96				1			1	1				5	0.06	FPC-9M, FPC-9E, PCC-1, PCM-1, FES-1, FES-2
19+50	CONSTRUCT DROP INLET ON RT.	5										288			1			1					5	0.06	FPC-9M, FPC-9E, PCC-1, PCM-1, FES-1, FES-2
20+00	CONSTRUCT DROP INLET ON LT.	14													1			1					5	0.06	FPC-9M, FPC-9E, PCC-1, FES-1, FES-2
22+42	CONSTRUCT DROP INLET ON RT.	3						38							1			1	1				5	0.06	FPC-9M, FPC-9E, PCC-1, FES-1, FES-2
22+42	CONSTRUCT DROP INLET ON LT.				9												1	1					29	0.37	FPC-9M, FPC-9E, PCC-1, FES-1, FES-2
23+50	CONSTRUCT DROP INLET ON LT.											103						1	1						FPC-9M, FPC-9E, PCC-1, PCM-1
24+74	CONSTRUCT DROP INLET ON RT.			4										227	1			1	1				5	0.06	FPC-9M, FPC-9E, PCC-1, PCM-1, FES-1, FES-2
26+75	CONSTRUCT DROP INLET ON LT.											321						1	1						FPC-9M, FPC-9E, PCC-1, PCM-1
28+00	CONSTRUCT DROP INLET ON RT.													321				1	1						FPC-9M, FPC-9E, PCC-1, PCM-1
30+00	CONSTRUCT DROP INLET ON LT.											321						1	1						FPC-9M, FPC-9E, PCC-1, PCM-1
31+00	CONSTRUCT DROP INLET ON RT.												295					1	1						FPC-9M, FPC-9E, PCC-1, PCM-1
33+25	CONSTRUCT DROP INLET ON LT.	5										321			1			1	1				5	0.06	FPC-9M, FPC-9E, PCC-1, PCM-1, FES-1, FES-2
34+00	CONSTRUCT DROP INLET ON RT.												295					1	1						FPC-9M, FPC-9E, PCC-1, PCM-1
35+00	CONSTRUCT DROP INLET ON LT.	7										171			1			1	1				5	0.06	FPC-9M, FPC-9E, PCC-1, PCM-1, FES-1, FES-2
35+66	CONSTRUCT 5'X5' TYPE E JUNCTION BOX ON RT.	4											161		1						1		5	0.06	FPC-9, PCC-1, PCM-1, FES-1, FES-2
36+82	CONSTRUCT DROP INLET ON RT.			4									111			1		1					13	0.16	FPC-9M, FPC-9E, PCC-1, PCM-1, FES-1, FES-2
38+13	CONSTRUCT DROP INLET ON LT.	11										309			1			1	1				5	0.06	FPC-9M, FPC-9E, PCC-1, PCM-1, FES-1, FES-2
40+50	CONSTRUCT DROP INLET ON LT.	3										233			1			1	1				5	0.06	FPC-9M, FPC-9E, PCC-1, PCM-1, FES-1, FES-2
42+00	CONSTRUCT DROP INLET ON LT.	4									146				1			1	1				5	0.06	FPC-9M, FPC-9E, PCC-1, PCM-1, FES-1, FES-2
44+25	CONSTRUCT DROP INLET ON LT.										221							1	1						FPC-9M, FPC-9E, PCC-1, PCM-1
46+38	CONSTRUCT DROP INLET ON LT.	6									209				1			1	1				5	0.06	FPC-9M,FPC-9E, PCC-1, PCM-1, FES-1, FES-2
47+46	CONSTRUCT DROP INLET ON LT.										104							1	1						FPC-9M, FPC-9E, PCC-1, PCM-1
48+38	CONSTRUCT DROP INLET ON RT.	39																1	1						FPC-9M, FPC-9E, PCC-1, PCM-1
48+38	CONSTRUCT DROP INLET ON LT.										88							1							FPC-9M, FPC-9E, PCC-1, PCM-1
51+33	CONSTRUCT DROP INLET ON RT.	5									291				1			1					5	0.06	FPC-9M, FPC-9E, PCC-1, PCM-1, FES-1, FES-2
51+48	CONSTRUCT DROP INLET ON LT.	3									306				1			1					5	0.06	FPC-9M, FPC-9E, PCC-1, PCM-1, FES-1, FES-2
53+00	CONSTRUCT DROP INLET ON LT.	3									148				1			1	1				5	0.06	FPC-9M, FPC-9E, PCC-1, PCM-1, FES-1, FES-2
53+00	CONSTRUCT DROP INLET ON RT.										163							1	1						FPC-9M, FPC-9E, PCC-1, PCM-1
54+05	CONSTRUCT DROP INLET ON LT.	3									101				1			1					5	0.06	FPC-9M, FPC-9E, PCC-1, PCM-1, FES-1, FES-2
59+82	CONSTRUCT DROP INLET ON LT.										62							1	1						FPC-9M, FPC-9E, PCC-1, PCM-1
60+18	CONSTRUCT DROP INLET ON RT.											42						1	1						FPC-9M, FPC-9E, PCC-1, PCM-1
60+45.94	CONSTRUCT 4'X4' TYPE E JUNCTION BOX ON LT.																				1				FPC-9M, FPC-9E, PCC-1, PCM-1
60+51.05	CONSTRUCT DROP INLET ON RT.											35						1							FPC-9M, FPC-9E, PCC-1, PCM-1
60+85	CONSTRUCT DROP INLET ON RT.										80	42						1							FPC-9M, FPC-9E, PCC-1, PCM-1
61+17	CONSTRUCT DROP INLET ON RT.						39											1							FPC-9M, FPC-9E, PCC-1
61+17	CONSTRUCT DROP INLET ON LT.											69						1	1						FPC-9M, FPC-9E, PCC-1, PCM-1
62+27	CONSTRUCT DROP INLET ON LT.										106							1							FPC-9M, FPC-9E, PCC-1, PCM-1
62+27	CONSTRUCT DROP INLET ON RT.										106							1		1					FPC-9M, FPC-9E, PCC-1, PCM-1
63+55	CONSTRUCT DROP INLET ON RT.										124							1	1						FPC-9M, FPC-9E, PCC-1, PCM-1
64+50	CONSTRUCT DROP INLET ON LT.										219							1							FPC-9M, FPC-9E, PCC-1, PCM-1
64+70	CONSTRUCT DROP INLET ON RT.										110							1	1						FPC-9M, FPC-9E, PCC-1, PCM-1
65+49	CONSTRUCT DROP INLET ON RT.										75							1							FPC-9M, FPC-9E, PCC-1, PCM-1
65+77.15	CONSTRUCT DROP INLET ON RT.	17									36				1			1					5	0.06	FPC-9M, FPC-9E, PCC-1, PCM-1, FES-1, FES-2
66+03.01	CONSTRUCT DROP INLET ON LT.	12													1			1					5	0.06	FPC-9M, FPC-9E, PCC-1, PCM-1, FES-1, FES-2
66+35	CONSTRUCT DROP INLET ON LT.											37						1	1						FPC-9M, FPC-9E, PCC-1, PCM-1
66+35	CONSTRUCT DROP INLET ON RT.								39									1	1						FPC-9M, FPC-9E, PCC-1
66+05.66	CONSTRUCT DROP INLET ON RT.	17									36				1			1					5	0.06	FPC-9M, FPC-9E, PCC-1, PCM-1, FES-1, FES-2
67+80	CONSTRUCT DROP INLET ON RT.										141							1	1						FPC-9M, FPC-9E, PCC-1, PCM-1
69+80	CONSTRUCT DROP INLET ON RT.										196							1		1					FPC-9M, FPC-9E, PCC-1, PCM-1
69+80	CONSTRUCT DROP INLET ON LT.										341							1							FPC-9M, FPC-9E, PCC-1, PCM-1
72+25	CONSTRUCT DROP INLET ON RT.										240							1		1					FPC-9M, FPC-9E, PCC-1, PCM-1
73+71.49	CONSTRUCT DROP INLET ON LT.										52							1							FPC-9M, FPC-9E, PCC-1, PCM-1
74+00	CONSTRUCT DROP INLET ON LT.										36							1							FPC-9M, FPC-9E, PCC-1, PCM-1
74+50	CONSTRUCT 4'X4' TYPE E JUNCTION BOX ON LT.										46										1				FPC-9, PCC-1, PCM-1
74+50	CONSTRUCT DROP INLET ON RT.					39												1		1					FPC-9M, FPC-9E, PCC-1, PCM-1
77+00	CONSTRUCT DROP INLET ON LT.										246							1							FPC-9M, FPC-9E, PCC-1, PCM-1
77+00	CONSTRUCT DROP INLET ON RT.										246							1		1					FPC-9M, FPC-9E, PCC-1, PCM-1
79+60	CONSTRUCT DROP INLET ON RT.										256							1		1					FPC-9M, FPC-9E, PCC-1, PCM-1
79+60	CONSTRUCT DROP INLET ON LT.										256							1							FPC-9M, FPC-9E, PCC-1, PCM-1
84+34	CONSTRUCT DROP INLET ON RT.										100							1	1						FPC-9M, FPC-9E, PCC-1, PCM-1
85+37.62	CONSTRUCT DROP INLET ON LT.																	1							FPC-9M, FPC-9E
85+39	CONSTRUCT DROP INLET ON RT.		39															1							FPC-9M, FPC-9E, PCC-1
86+07	CONSTRUCT DROP INLET ON RT.											64						1							FPC-9M, FPC-9E, PCC-1, PCM-1
86+07	CONSTRUCT DROP INLET ON LT.										65							1							FPC-9M, FPC-9E, PCC-1, PCM-1
*	IF AND WHERE DIRECTED BY THE ENGINEER									1200												12			FPC-9, PCC-1, PCM-1
TOTALS:		165	39	8	9	39	39	38	39	1200	5048	2356	862	548	19	1	1	61	29	6	3	12	137	1.67	

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

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

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.

9/24/2014

R090319.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.		090319	23	154

(2) QUANTITIES

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
10-10-14

DRIVEWAYS & TURNOUTS (BOX 1 OF 2)

STATION	SIDE	LOCATION	WIDTH	**MODIFIED CURB		PORTLAND CEMENT CONCRETE DRIVEWAY	STAMPED CONCRETE	ACHM SURFACE COURSE (1/2") 220 LBS. PER SQ. YD. (PG 64-22)		AGGREGATE BASE COURSE (CLASS 7)
			FEET	STATION	STATION	SQ. YD.	SQ. YD.	SQ. YD.	TON	TON
19+01	RT.	DRIVEWAY	38	18+68	19+34	58.70		116.1	12.8	47.4
21+78	RT.	DRIVEWAY	16	21+56	22+00	39.10		57.8	6.4	23.6
30+50	RT.	DRIVEWAY	40	30+16	30+84	60.40		122.2	13.4	49.9
30+95	LT.	KINGS DRIVE	53				273.70			
32+13	LT.	DRIVEWAY	16	31+91	32+35	39.10		66.7	7.3	27.2
34+68	LT.	DRIVEWAY	18	34+45	34+91	40.90		35.0	3.9	14.3
35+00	RT.	DRIVEWAY	36	34+68	35+32	56.90		90.0	9.9	36.8
40+10	LT.	DRIVEWAY	40	39+76	40+44	182.60				
41+48	LT.	DRIVEWAY	40	41+14	41+82	160.30				
45+68	RT.	DRIVEWAY	28	45+40	45+96	49.80		101.1	11.1	41.3
46+14	LT.	DRIVEWAY	16	45+92	46+36	39.10		34.4	3.8	14.0
48+02	LT.	DRIVEWAY	36	47+70	48+34	136.10				
48+83	RT.	DRIVEWAY	24	48+57	49+09	46.20		100.0	11.0	40.8
51+20	LT.	DRIVEWAY	24	50+94	51+46	119.50				
52+57	LT.	DRIVEWAY	24	52+31	52+83	119.50				
53+75	LT.	DRIVEWAY	24	53+49	54+01	119.50				
54+81	RT.	DRIVEWAY	32	54+51	55+11	53.30		87.1	9.6	35.6
56+72	RT.	DRIVEWAY	22	56+47	56+97	44.40		30.6	3.4	12.5
56+86	LT.	DRIVEWAY	16	56+64	57+08	39.10		52.4	5.8	21.4
57+18	LT.	DRIVEWAY	16	56+96	57+40	39.10		52.4	5.8	21.4
58+09	LT.	DRIVEWAY	12	57+89	58+29	35.60		52.7	5.8	21.5
58+36	LT.	DRIVEWAY	20	58+12	58+60	130.50				
58+80	LT.	DRIVEWAY	16	58+58	59+02	39.10		57.8	6.4	23.6
59+59	LT.	DRIVEWAY	12	59+39	59+79	77.60				
59+90	LT.	DRIVEWAY - 13TH STREET	12					51.2	5.6	20.9
61+44	LT.	DRIVEWAY	18	61+21	61+67	40.90		65.0	7.2	26.5
63+56	LT.	DRIVEWAY	16	63+34	63+78	39.10		57.8	6.4	23.6
63+92	LT.	DRIVEWAY	16	63+70	64+14	39.10		45.3	5.0	18.5
64+45	RT.	DRIVEWAY	16	64+23	64+67	105.80				
65+24	LT.	DRIVEWAY	16	65+02	65+46	39.10		120.7	13.3	49.3
65+28	RT.	DRIVEWAY	16	65+06	65+50	123.50				
66+58	RT.	DRIVEWAY	16	66+36	66+80	123.50				
67+40	RT.	DRIVEWAY	20	67+16	67+64	121.60				
67+43	LT.	DRIVEWAY	16	67+21	67+65	68.40				
68+27	LT.	DRIVEWAY	16	68+05	68+49	82.70				
68+42	RT.	DRIVEWAY	18	68+19	68+65	40.90		59.0	6.5	24.1
68+69	LT.	DRIVEWAY	16	68+47	68+91	79.10				
69+25	LT.	DRIVEWAY	16	69+03	69+47	95.10				
69+41	RT.	DRIVEWAY	24	69+15	69+67	46.20		60.0	6.6	24.5
70+10	LT.	DRIVEWAY	16	69+88	70+32	39.10		68.4	7.5	27.9
70+20	RT.	DRIVEWAY	24	69+94	70+46	46.20		52.0	5.7	21.2
71+16	RT.	DRIVEWAY	24	70+90	71+42	114.20				
71+33	LT.	DRIVEWAY	16	71+11	71+55	39.10		70.2	7.7	28.7
72+55	LT.	DRIVEWAY	16	72+33	72+77	39.10		52.4	5.8	21.4
72+78	RT.	DRIVEWAY	18	72+55	73+01	95.90				
73+76	LT.	DRIVEWAY - 11TH STREET	16			39.10		38.6	4.2	15.8
73+72	RT.	DRIVEWAY	16	73+50	73+94	79.10				
74+12	RT.	DRIVEWAY	16	73+90	74+34	88.00				
75+16	RT.	DRIVEWAY	16	74+94	75+38	79.10				
75+44	LT.	DRIVEWAY	16	75+22	75+66	39.10		40.0	4.4	16.3
76+32	RT.	DRIVEWAY	16	76+10	76+54	79.10				
76+51	LT.	DRIVEWAY	16	76+29	76+73	39.10		40.0	4.4	16.3
76+77	RT.	DRIVEWAY	16	76+55	76+99	79.10				
77+35	LT.	DRIVEWAY	20	77+11	77+59	92.70				
77+96	RT.	DRIVEWAY	26	77+69	78+23	48.00		79.4	8.7	32.4
78+38	RT.	DRIVEWAY	16	78+16	78+60	91.50				
78+63	LT.	DRIVEWAY	16	78+41	78+85	39.10		22.2	2.4	9.1
79+31	LT.	DRIVEWAY	16	79+09	79+53	39.10		40.0	4.4	16.3
79+96	LT.	DRIVEWAY	30	79+67	80+25	51.60		98.3	10.8	40.1
80+07	RT.	DRIVEWAY	16	79+85	80+29	120.00				
80+50	RT.	DRIVEWAY	20	80+26	80+74	143.80				
80+63	LT.	DRIVEWAY	12	80+43	80+83	35.60		30.0	3.3	12.3
SUBTOTALS:						**4328.10**	**273.70**	**2146.80**	**236.30**	**876.50**

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

** FOR INFORMATION ONLY

EARTHWORK

STATION	STATION	LOCATION / DESCRIPTION	UNCLASSIFIED EXCAVATION	COMPACTED EMBANKMENT	* SOIL STABILIZATION
			CU. YD.		TON
ENTIRE	PROJECT	STAGE 1-MAIN LANES	1679	3865	
ENTIRE	PROJECT	STAGE 2-MAIN LANES	536	7863	
ENTIRE	PROJECT	STAGE 1 - UNDERCUT MAIN LANE DITCHES	1950	1950	
ENTIRE	PROJECT	STAGE 2 - UNDERCUT MAIN LANE DITCHES	1406	1406	
ENTIRE	PROJECT	APPROACHES	405	585	
24+62		SKEET STREET	110	92	
30+95		KING DRIVE	82	5	
36+30		HWY. 102 SPUR	103	52	
37+68		ARENA DRIVE	33	107	
46+74		EAST 16TH STREET	37	91	
50+90		POST OAK WAY	40	8	
54+84		WADE AVENUE	105	10	
60+26		13TH STREET ON LEFT	42	25	
60+67		13TH STREET ON RIGHT	49		
65+90		12TH STREET ON LEFT	38	28	
65+92		12TH STREET ON RIGHT	62	10	
73+58		11TH STREET	91	12	
81+66		10TH STREET	16	14	
* ENTIRE	PROJECT	TO BE USED IF AND WHERE			100
		DIRECTED BY THE ENGINEER			
TOTALS:			6784	16123	100

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

NOTE: EARTHWORK QUANTITIES SHOWN ABOVE SHALL BE PAID AS PLAN QUANTITY.

SOIL LOG

STATION	LOCATION	DEPTH	LIQUID LIMIT	PLASTICITY INDEX	AASHTO CLASSIFICATION	COLOR
		FEET				
18+00	27'RT	0-5	56	40	A-7-6(35)	BROWN
18+00	14'RT	0.0-2.5Z	20	7	A-2-4(0)	BROWN
18+00	6'RT	0-5	19	6	A-4 (0)	BROWN
26+00	26'LT	0-5	30	15	A-6 (10)	BROWN
26+00	5'LT	0-5	27	12	A-6 (7)	BROWN
34+00	5'RT	0-5	33	20	A-6 (14)	BROWN
34+00	24'RT	0-5	64	45	A-7-6(43)	BROWN
34+00	24'RT	0-5	59	40	A-7-6(38)	BROWN
42+00	26'LT	0-5	50	33	A-7-6(29)	BROWN
42+00	05LT	0-5	24	12	A-6 (6)	BROWN
50+00	14'LT	0-5	21	9	A-4 (3)	BROWN
50+00	5'RT	0-5	29	16	A-6 (9)	BROWN
58+00	4'LT	0-5	27	14	A-6 (11)	BROWN
58+00	18'LT	0-5	40	23	A-6 (21)	BROWN
65+00	5'RT	0-5	28	15	A-6 (8)	BROWN
74+00	16'LT	0-5	46	31	A-7-6(24)	BROWN
74+00	5'LT	0-5	34	19	A-6 (10)	BROWN
82+00	4'RT	0-5	44	22	A-7-6(19)	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

9/24/2014

R090319.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.		090319	24	154

(2) QUANTITIES

DRIVEWAYS & TURNOUTS (BOX 2 OF 2)

STATION	SIDE	LOCATION	WIDTH	**MODIFIED CURB		PORTLAND CEMENT CONCRETE DRIVEWAY	STAMPED CONCRETE	ACHM SURFACE COURSE (1/2") 220 LBS. PER SQ. YD. (PG 64-22)		AGGREGATE BASE COURSE (CLASS 7)
			FEET	STATION	STATION	SQ. YD.	SQ. YD.	SQ. YD.	TON	TON
81+87	RT.	DRIVEWAY	20	81+63	82+11	137.10				
82+87	RT.	DRIVEWAY	16	82+65	83+09	114.70				
83+20	RT.	DRIVEWAY	16	82+98	83+42	39.10		75.6	8.3	30.9
83+26	LT.	DRIVEWAY	16	83+04	83+48	39.10		57.8	6.4	23.6
84+36	LT.	DRIVEWAY	16	84+14	84+58	39.10		48.9	5.4	20.0
85+07	RT.	DRIVEWAY	20	84+83	85+31	42.70		50.0	5.5	20.4
85+73	RT.	DRIVEWAY	38	85+40	86+06	153.70				
* ENTIRE PROJECT TEMPORARY DRIVES										1020.0
SUBTOTALS:						565.50		232.30	25.60	1114.90
TOTALS:						4893.60	273.70	2379.10	261.90	1991.40

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

THE CONTRACTOR, WITH THE APPROVAL OF THE ENGINEER, WILL BE ALLOWED TO SUBSTITUTE A HIGHER PERFORMANCE GRADE ASPHALT SURFACE COURSE FOR DRIVEWAYS AND MINOR SIDE STREET CONSTRUCTION AT NO ADDITIONAL COST TO THE DEPARTMENT.

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

** FOR INFORMATION ONLY

CONCRETE BASE

STATION	STATION	LOCATION	LENGTH	PORTLAND CEMENT CONCRETE BASE	
				AVG. WID.	5" U.T.
			FEET	FEET	SQ. YD.
16+00	17+06.48	LEFT SIDE - NOTCH	106.5	2.7	32.0
16+00	17+06.48	LEFT SIDE - UNDER CURB	106.5	2.5	29.6
16+00	17+09.18	RIGHT SIDE - NOTCH	109.2	2.7	32.8
16+00	17+09.18	RIGHT SIDE - UNDER CURB	109.2	2.5	30.3
40+13.55	43+00	LEFT SIDE - NOTCH	286.5	3.1	98.7
40+13.55	43+00	LEFT SIDE - UNDER CURB	286.5	2.5	79.6
43+00	44+25	LEFT SIDE - NOTCH	125.0	4.0	55.6
43+00	44+25	LEFT SIDE - UNDER CURB	125.0	2.5	34.7
44+25	45+92.48	LEFT SIDE - NOTCH	167.5	1.7	31.6
44+25	45+92.48	LEFT SIDE - UNDER CURB	167.5	2.5	46.5
45+92.48	62+26.59	LEFT SIDE - UNDER CURB	1634.1	2.5	453.9
62+26.59	63+25	LEFT SIDE - NOTCH	98.4	2.0	21.9
62+26.59	63+25	LEFT SIDE - UNDER CURB	98.4	2.5	27.3
84+13.47	84+26.64	LEFT SIDE - NOTCH	13.2	2.0	2.9
84+13.47	84+26.64	LEFT SIDE - UNDER CURB	13.2	2.5	3.7
84+42.26	84+50	RIGHT SIDE - NOTCH	7.7	2.8	2.4
84+42.26	84+50	RIGHT SIDE - UNDER CURB	7.7	2.5	2.1
84+26.64	86+10	LEFT SIDE - UNDER CURB	183.4	2.5	50.9
84+50	86+10	RIGHT SIDE - NOTCH	160.0	1.5	26.7
84+50	86+10	RIGHT SIDE - UNDER CURB	160.0	2.5	44.4
TOTAL:					1107.6

WHEELCHAIR RAMPS

STATION	LOCATION	TYPE 3
		SQ.YD.
23+46	RIGHT OF MAIN LANES	6.3
24+61	RIGHT OF MAIN LANES	5.4
30+46	LEFT OF MAIN LANES	5.4
31+38	LEFT OF MAIN LANES	5.4
35+84	RIGHT OF MAIN LANES	3.9
36+45	RIGHT OF MAIN LANES	4.5
37+37	LEFT OF MAIN LANES	5.4
37+99	LEFT OF MAIN LANES	5.4
46+56	RIGHT OF MAIN LANES	5.4
47+15	RIGHT OF MAIN LANES	5.4
50+59	RIGHT OF MAIN LANES	5.4
51+21	RIGHT OF MAIN LANES	5.4
54+47	LEFT OF MAIN LANES	4.5
55+13	LEFT OF MAIN LANES	4.4
59+93	LEFT OF MAIN LANES	5.4
60+41	RIGHT OF MAIN LANES	4.3
60+56	LEFT OF MAIN LANES	5.4
60+95	RIGHT OF MAIN LANES	4.3
65+58	LEFT OF MAIN LANES	5.4
65+60	RIGHT OF MAIN LANES	5.4
66+21	LEFT OF MAIN LANES	5.4
66+24	RIGHT OF MAIN LANES	5.4
73+35	LEFT OF MAIN LANES	4.3
73+80	LEFT OF MAIN LANES	4.3
81+37	LEFT OF MAIN LANES	5.4
81+97	LEFT OF MAIN LANES	5.4
TOTAL:		132.6

CONCRETE WALKS

STATION	STATION	LOCATION	LENGTH	CONCRETE WALKS
			LIN. FT.	SQ.YD.
16+00	23+42.31	RIGHT OF MAIN LANES	742	351
16+00	30+42.72	LEFT OF MAIN LANES	1443	802
24+65.08	35+81.26	RIGHT OF MAIN LANES	1116	551
31+41.33	37+33.49	LEFT OF MAIN LANES	592	279
36+49.12	46+52.17	RIGHT OF MAIN LANES	1003	530
38+03.37	54+60.94	LEFT OF MAIN LANES	1658	731
47+18.01	50+54.74	RIGHT OF MAIN LANES	337	163
51+25.02	60+50.54	RIGHT OF MAIN LANES	926	472
55+16.75	59+90.06	LEFT OF MAIN LANES	473	138
60+59.96	65+55.07	LEFT OF MAIN LANES	495	173
60+97.80	65+57.71	RIGHT OF MAIN LANES	460	188
66+24.95	73+32.22	LEFT OF MAIN LANES	707	226
66+27.59	86+10	RIGHT OF MAIN LANES	1982	566
73+70.15	81+34	LEFT OF MAIN LANES	764	307
82+00.74	86+10	LEFT OF MAIN LANES	409	178
74+44		RIGHT OF MAIN LANES		2
78+00		LEFT OF MAIN LANES		3
78+87		LEFT OF MAIN LANES		10
81+06	81+30.76	LEFT OF MAIN LANES		22
83+62		RIGHT OF MAIN LANES		15
TOTAL:				5707

COLD MILLING ASPHALT PAVEMENT

STATION	STATION	LOCATION	AVG. WIDTH	COLD MILLING ASPHALT PAVEMENT
			FEET	SQ. YD.
13+47	16+00	MAIN LANES - 253 FT. BEFORE THE START OF JOB	VAR.	1298.49
16+00	17+00	MAIN LANES	31	344.44
85+10	86+10	MAIN LANES	35	388.89
86+10	87+10	MAIN LANES - MILL AND INLAY TO HWY. 5	VAR.	464.83
TOTAL:				2496.65

NOTE: AVERAGE MILLING DEPTH 1".

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
10-21-14

10/15/2014

R090319.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.		090319	25	154

(2) QUANTITIES

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
10-21-14

BASE AND SURFACING

STATION	STATION	LOCATION	LENGTH	AGGREGATE BASE COURSE (CLASS 7)		TACK COAT				ACHM BASE COURSE (1 1/2")				ACHM BINDER COURSE (1")				ACHM SURFACE COURSE (1/2")			
				TON / STATION	TON	AVG. WID.	SQ.YD.	GALLONS / SQ.YD.	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 70-22
			FEET			FEET				FEET			TON	FEET			TON	FEET			TON
MAIN LANES																					
13+47.00	16+00.00	253 FT. BEFORE START OF JOB	253.00			VAR.	1298.49	0.10	129.85									VAR.	1298.49	220.00	142.83
16+00.00	17+00.00	TRANSITION	100.00			36.00	400.00	0.10	40.00									36.00	400.00	220.00	44.00
17+00.00	18+00.00	MAIN LANES - RIGHT NOTCH	100.00			10.66	118.44	0.03	3.55	7.83	87.00	550.00	23.93	5.33	59.22	330.00	9.77	5.33	59.22	220.00	6.51
18+00.00	24+50.00	MAIN LANES - RIGHT NOTCH	650.00			13.80	996.67	0.03	29.90	9.40	678.89	550.00	186.69	6.90	498.33	330.00	82.22	6.90	498.33	220.00	54.82
24+50.00	32+50.00	MAIN LANES - RIGHT NOTCH	800.00			15.20	1351.11	0.03	40.53	10.10	897.78	550.00	246.89	7.60	675.56	330.00	111.47	7.60	675.56	220.00	74.31
32+50.00	40+00.00	MAIN LANES - RIGHT NOTCH	750.00			14.60	1216.67	0.03	36.50	9.80	816.67	550.00	224.58	7.30	608.33	330.00	100.37	7.30	608.33	220.00	66.92
40+00.00	44+50.00	MAIN LANES - RIGHT NOTCH	450.00			20.60	1030.00	0.03	30.90	12.80	640.00	550.00	176.00	10.30	515.00	330.00	84.98	10.30	515.00	220.00	56.65
44+50.00	46+50.00	MAIN LANES - RIGHT NOTCH	200.00			26.60	591.11	0.03	17.73	15.80	351.11	550.00	96.56	13.30	295.56	330.00	48.77	13.30	295.56	220.00	32.51
46+50.00	62+00.00	MAIN LANES - RIGHT NOTCH	1550.00			31.00	5338.89	0.03	160.17	18.00	3100.00	550.00	852.50	15.50	2669.44	330.00	440.46	15.50	2669.44	220.00	293.64
62+00.00	64+00.00	MAIN LANES - RIGHT NOTCH	200.00			23.60	524.44	0.03	15.73	14.30	317.78	550.00	87.39	11.80	262.22	330.00	43.27	11.80	262.22	220.00	28.84
64+00.00	76+00.00	MAIN LANES - RIGHT NOTCH	1200.00			14.00	1866.67	0.03	56.00	9.50	1266.67	550.00	348.33	7.00	933.33	330.00	154.00	7.00	933.33	220.00	102.67
76+00.00	81+50.00	MAIN LANES - RIGHT NOTCH	550.00			12.00	733.33	0.03	22.00	8.50	519.44	550.00	142.85	6.00	366.67	330.00	60.50	6.00	366.67	220.00	40.33
81+50.00	84+00.00	MAIN LANES - RIGHT NOTCH	250.00			15.20	422.22	0.03	12.67	10.10	280.56	550.00	77.15	7.60	211.11	330.00	34.83	7.60	211.11	220.00	23.22
84+00.00	84+42.26	MAIN LANES - RIGHT NOTCH	42.26			12.00	56.35	0.03	1.69	8.50	39.91	550.00	10.98	6.00	28.17	330.00	4.65	6.00	28.17	220.00	3.10
17+00.00	19+00.00	MAIN LANES - LEFT NOTCH	200.00			12.00	266.67	0.03	8.00	8.50	188.89	550.00	51.94	6.00	133.33	330.00	22.00	6.00	133.33	220.00	14.67
19+00.00	39+50.00	MAIN LANES - LEFT NOTCH	2050.00			12.80	2915.56	0.03	87.47	8.90	2027.22	550.00	557.49	6.40	1457.78	330.00	240.53	6.40	1457.78	220.00	160.36
39+50.00	40+13.55	MAIN LANES - LEFT NOTCH	63.55			10.00	70.61	0.03	2.12	7.50	52.96	550.00	14.56	5.00	35.31	330.00	5.83	5.00	35.31	220.00	3.88
63+25.00	64+00.00	MAIN LANES - LEFT NOTCH	75.00			10.80	90.00	0.03	2.70	7.90	65.83	550.00	18.10	5.40	45.00	330.00	7.43	5.40	45.00	220.00	4.95
64+00.00	76+00.00	MAIN LANES - LEFT NOTCH	1200.00			15.00	2000.00	0.03	60.00	10.00	1333.33	550.00	366.67	7.50	1000.00	330.00	165.00	7.50	1000.00	220.00	110.00
76+00.00	80+50.00	MAIN LANES - LEFT NOTCH	450.00			18.20	910.00	0.03	27.30	11.60	580.00	550.00	159.50	9.10	455.00	330.00	75.08	9.10	455.00	220.00	50.05
80+50.00	83+50.00	MAIN LANES - LEFT NOTCH	300.00			15.20	506.67	0.03	15.20	10.10	336.67	550.00	92.58	7.60	253.33	330.00	41.80	7.60	253.33	220.00	27.87
83+50.00	84+13.47	MAIN LANES - LEFT NOTCH	63.47			10.40	73.34	0.03	2.20	7.70	54.30	550.00	14.93	5.20	36.67	330.00	6.05	5.20	36.67	220.00	4.03
17+00.00	85+10.00	FINAL 2"	6810.00			36.00	27240.00	0.03	817.20									36.00	27240.00	220.00	2996.40
85+10.00	86+10.00	TRANSITION	100.00			36.00	400.00	0.10	40.00									36.00	400.00	220.00	44.00
86+10.00	87+10.00	MILL AND INLAY TO HWY. 5	100.00			VAR.	464.83	0.10	46.48									VAR.	464.83	222.00	51.60
ADDITIONAL FOR LEVELING																					
17+00.00	85+10.00	MAIN LANES - LEVELING	6810.00			21.70	16419.67	0.10	1641.97									21.70	16419.67	220.00	1806.16
22+00.00	31+00.00	MAIN LANES - GRADE RAISE	900.00			22.40	2240.00	0.10	224.00					22.40	2240.00	VAR.	595.00				
35+00.00	41+50.00	MAIN LANES - GRADE RAISE	650.00			22.40	1617.78	0.10	161.78									22.40	1617.78	VAR.	199.00
44+25.00	48+00.00	MAIN LANES - GRADE RAISE	375.00			21.40	891.67	0.10	89.17									21.40	891.67	VAR.	131.00
48+00.00	50+50.00	MAIN LANES - GRADE RAISE	250.00			41.60	1155.56	0.10	115.56	20.80	577.78	VAR.	100.80	20.80	577.78	VAR.	95.20				
50+50.00	54+00.00	MAIN LANES - GRADE RAISE	350.00			20.40	793.33	0.10	79.33									20.40	793.33	VAR.	97.00
54+00.00	61+00.00	MAIN LANES - GRADE RAISE	700.00			20.60	1602.22	0.10	160.22									20.60	1602.22	VAR.	158.00
61+00.00	69+50.00	MAIN LANES - GRADE RAISE	850.00			21.30	2011.67	0.10	201.17									21.30	2011.67	VAR.	153.00
69+50.00	75+50.00	MAIN LANES - GRADE RAISE	600.00			21.30	1420.00	0.10	142.00									21.30	1420.00	VAR.	199.00
75+50.00	78+50.00	MAIN LANES - GRADE RAISE	300.00			21.20	706.67	0.10	70.67									21.20	706.67	VAR.	34.00
78+50.00	80+50.00	MAIN LANES - GRADE RAISE	200.00			21.10	468.89	0.10	46.89					21.10	468.89	VAR.	86.00				
80+50.00	85+50.00	MAIN LANES - GRADE RAISE	500.00			24.40	1355.56	0.10	135.56									24.40	1355.56	VAR.	137.00
SIDE STREETS																					
24+62.00		SKEET STREET				VAR.	979.78	0.03	29.39	VAR.	551.83	550.00	151.75	VAR.	489.89	330.00	80.83	VAR.	489.89	220.00	53.89
36+30.00		HWY. 201 SPUR				VAR.	808.94	0.03	24.27	VAR.	464.17	550.00	127.65	VAR.	404.47	330.00	66.74	VAR.	404.47	220.00	44.49
36+30.00		HWY. 201 SPUR - OVERLAY	1030.00	9.50	97.85	24.00	2746.67	0.10	274.67									24.00	2746.67	220.00	302.13
37+68.00		ARENA DRIVE				VAR.	479.46	0.03	14.38	VAR.	291.33	550.00	80.12	VAR.	239.73	330.00	39.56	VAR.	239.73	220.00	26.37
46+74.00		E 16TH STREET				VAR.	553.12	0.03	16.59	VAR.	336.25	550.00	92.47	VAR.	276.56	330.00	45.63	VAR.	276.56	220.00	30.42
50+90.00		POST OAK WAY				VAR.	326.60	0.03	9.80	VAR.	196.09	550.00	53.92	VAR.	163.30	330.00	26.94	VAR.	163.30	220.00	17.96
54+84.00		WADE AVE.				VAR.	676.66	0.03	20.30	VAR.	387.77	550.00	106.64	VAR.	338.33	330.00	55.82	VAR.	338.33	220.00	37.22
60+26.00		13TH STREET ON LEFT				VAR.	336.66	0.03	10.10	VAR.	203.84	550.00	56.06	VAR.	168.33	330.00	27.77	VAR.	168.33	220.00	18.52
60+67.00		13TH STREET ON RIGHT				VAR.	375.64	0.03	11.27	VAR.	218.78	550.00	60.16	VAR.	187.82	330.00	30.99	VAR.	187.82	220.00	20.66
65+90.00		12TH STREET ON LEFT				VAR.	326.60	0.03	9.80	VAR.	196.09	550.00	53.92	VAR.	163.30	330.00	26.94	VAR.	163.30	220.00	17.96
65+92.00		12TH STREET ON RIGHT				VAR.	354.28	0.03	10.63	VAR.	215.79	550.00	59.34	VAR.	177.14	330.00	29.23	VAR.	177.14	220.00	19.49
73+58.00		11TH STREET				VAR.	450.22	0.03	13.51	VAR.	272.18	550.00	74.85	VAR.	225.11	330.00	37.14	VAR.	225.11	220.00	24.76
81+66.00		10TH STREET				VAR.	242.16	0.03	7.26	VAR.	147.74	550.00	40.63	VAR.	121.08	330.00	19.98	VAR.	121.08	220.00	13.32
TOTALS:					**97.85**		**90221.88**		**5226.18**		**17694.65**		**4807.93**		**16781.09**		**3002.78**		**72862.98**		**7979.51**

BASIS OF ESTIMATE:
ACHM SURFACE COURSE (1/2").....94.6% MIN. AGGR.....5.4% ASPHALT BINDER
ACHM BINDER COURSE (1").....95.7% MIN. AGGR.....4.3% ASPHALT BINDER
ACHM BASE COURSE (1 1/2").....96.0% MIN. AGGR.....4.0% ASPHALT BINDER
MAXIMUM NUMBER OF GYRATIONS = 115 FOR PG 64-22
MAXIMUM NUMBER OF GYRATIONS = 160 FOR PG 70-22

10/15/2014

R090319.DGN

SUMMARY OF QUANTITIES

	ITEM NUMBER	ITEM		QUANTITY	UNIT
	201	CLEARING		25	STATION
	201	GRUBBING		25	STATION
	202	REMOVAL AND DISPOSAL OF CURB AND GUTTER		1051	LIN. FT.
	202	REMOVAL AND DISPOSAL OF FENCE		717	LIN. FT.
	202	REMOVAL AND DISPOSAL OF RETAINING WALLS		527	LIN. FT.
	202	REMOVAL AND DISPOSAL OF BRICK WALLS		8	LIN. FT.
	202	REMOVAL AND DISPOSAL OF CONCRETE PAVEMENT		63	SQ. YD.
	202	REMOVAL AND DISPOSAL OF CONCRETE DRIVEWAYS		2646	SQ. YD.
	202	REMOVAL AND DISPOSAL OF WALKS		1439	SQ. YD.
	202	REMOVAL AND DISPOSAL OF SIGN FOUNDATIONS		16	EACH
	202	REMOVAL AND DISPOSAL OF JUNCTION BOXES		1	EACH
	202	REMOVAL AND DISPOSAL OF DROP INLETS		9	EACH
	202	REMOVAL AND DISPOSAL OF PIPE CULVERTS		48	EACH
	202	REMOVAL AND DISPOSAL OF BOX CULVERTS		1	EACH
	202	REMOVAL AND DISPOSAL OF LUMINAIRE POLE AND FOUNDATION		1	EACH
	202	REMOVAL AND DISPOSAL OF BRICK COLUMNS		14	EACH
	202	REMOVAL AND DISPOSAL OF SIGNS		15	EACH
	202	REMOVAL AND DISPOSAL OF PLANTERS		1	EACH
	202	REMOVAL AND DISPOSAL OF LIGHTS		2	EACH
	210	UNCLASSIFIED EXCAVATION		6784	CU. YD.
	210	COMPACTED EMBANKMENT		16123	CU. YD.
	SP & 210	SOIL STABILIZATION		100	TON
	303	AGGREGATE BASE COURSE (CLASS 7)		2089	TON
	309	PORTLAND CEMENT CONCRETE BASE (5" UNIFORM THICKNESS)		1108	SQ. YD.
	401	TACK COAT		5292	GAL.
	SP & 405	MINERAL AGGREGATE IN ACHM BASE COURSE (1 1/2")		4616	TON
	SP & 405	ASPHALT BINDER (PG 64-22) IN ACHM BASE COURSE (1 1/2")		192	TON
	SP, SS, & 406	MINERAL AGGREGATE IN ACHM BINDER COURSE (1")		2874	TON
	SP, SS, & 406	ASPHALT BINDER (PG 64-22) IN ACHM BINDER COURSE (1")		129	TON
	SP, SS, & 407	MINERAL AGGREGATE IN ACHM SURFACE COURSE (1/2")		7796	TON
	SP, SS, & 407	ASPHALT BINDER (PG 64-22) IN ACHM SURFACE COURSE (1/2")		14	TON
	SP, SS, & 407	ASPHALT BINDER (PG 70-22) IN ACHM SURFACE COURSE (1/2")		431	TON
	412	COLD MILLING ASPHALT PAVEMENT		2497	SQ. YD.
	SP & 414	ASPHALT CONCRETE PATCHING FOR MAINTENANCE OF TRAFFIC		33	TON
	SP & 415	ACHM PATCHING OF EXISTING ROADWAY		50	TON
	505	PORTLAND CEMENT CONCRETE DRIVEWAY		4893.60	SQ. YD.
	601	MOBILIZATION		1.00	LUMP SUM
	SP & 602	FURNISHING FIELD OFFICE		1	EACH
	603	MAINTENANCE OF TRAFFIC		1.00	LUMP SUM
	SS & 604	SIGNS		708	SQ. FT.
	SS & 604	TRAFFIC DRUMS		639	EACH
	604	CONSTRUCTION PAVEMENT MARKINGS		34009	LIN. FT.
	604	REMOVAL OF CONSTRUCTION PAVEMENT MARKINGS		7560	LIN. FT.
	SS & 604	VERTICAL PANELS		175	EACH
	606	18" REINFORCED CONCRETE PIPE CULVERTS (CLASS III)		165	LIN. FT.
*	606	18" REINFORCED CONCRETE PIPE CULVERTS (CLASS III)	(ALTERNATE NO. 1)	5048	LIN. FT.
*	606	18" SMOOTH LINED POLYMER PRECOATED METALLIC COATED CORRUGATED STEEL PIPE	(ALTERNATE NO. 2)	5048	LIN. FT.
	606	18" REINFORCED CONCRETE PIPE CULVERTS (CLASS IV)		39	LIN. FT.
	606	18" REINFORCED CONCRETE PIPE CULVERTS (CLASS V)		39	LIN. FT.
	606	24" REINFORCED CONCRETE PIPE CULVERTS (CLASS III)		39	LIN. FT.
*	606	24" REINFORCED CONCRETE PIPE CULVERTS (CLASS III)	(ALTERNATE NO. 1)	2356	LIN. FT.
*	606	24" SMOOTH LINED POLYMER PRECOATED METALLIC COATED CORRUGATED STEEL PIPE	(ALTERNATE NO. 2)	2356	LIN. FT.
	606	24" REINFORCED CONCRETE PIPE CULVERTS (CLASS IV)		39	LIN. FT.
	606	30" REINFORCED CONCRETE PIPE CULVERTS (CLASS III)		8	LIN. FT.
*	606	30" REINFORCED CONCRETE PIPE CULVERTS (CLASS III)	(ALTERNATE NO. 1)	862	LIN. FT.
*	606	30" SMOOTH LINED POLYMER PRECOATED METALLIC COATED CORRUGATED STEEL PIPE	(ALTERNATE NO. 2)	862	LIN. FT.
*	606	36" REINFORCED CONCRETE PIPE CULVERTS (CLASS III)	(ALTERNATE NO. 1)	548	LIN. FT.
*	606	36" SMOOTH LINED POLYMER PRECOATED METALLIC COATED CORRUGATED STEEL PIPE	(ALTERNATE NO. 2)	548	LIN. FT.
	606	36" REINFORCED CONCRETE PIPE CULVERTS (CLASS IV)		38	LIN. FT.
	606	48" REINFORCED CONCRETE PIPE CULVERTS (CLASS III)		9	LIN. FT.
	SS & 606	12" SIDE DRAIN		1200	LIN. FT.
	606	18" FLARED END SECTIONS FOR REINFORCED CONCRETE PIPE CULVERTS		19	EACH
	606	30" FLARED END SECTIONS FOR REINFORCED CONCRETE PIPE CULVERTS		1	EACH
	606	48" FLARED END SECTIONS FOR REINFORCED CONCRETE PIPE CULVERTS		1	EACH
	606	SELECTED PIPE BEDDING		200	CU. YD.
	609	DROP INLETS (TYPE MO)		61	EACH
	609	JUNCTION BOXES (TYPE E)		3	EACH
	609	DROP INLET EXTENSIONS (4')		29	EACH
	609	DROP INLET EXTENSIONS (8')		6	EACH
	609	YARD DRAINS		12	EACH
	611	4" PIPE UNDERDRAINS		1750	LIN. FT.
	615	PAVEMENT REPAIR OVER CULVERTS (CONCRETE)		56.9	CU. YD.
	619	WIRE FENCE (TYPE D-1)		182	LIN. FT.
*	619	5' STEEL CHAIN LINK FENCE	(ALTERNATE NO. 1)	447	LIN. FT.
*	619	5' ALUMINUM CHAIN LINK FENCE	(ALTERNATE NO. 2)	447	LIN. FT.
*	619	16' STEEL GATES	(ALTERNATE NO. 1)	1	EACH
*	619	16' ALUMINUM GATES	(ALTERNATE NO. 2)	1	EACH
	620	LIME		5	TON
	620	SEEDING		2.36	ACRE
	SS & 620	MULCH COVER		14.04	ACRE
	620	WATER		525.2	M.GAL.
	621	TEMPORARY SEEDING		11.68	ACRE
	621	SILT FENCE		5954	LIN. FT.
	621	SAND BAG DITCH CHECKS		220	BAG
	621	DROP INLET SILT FENCE		1700	LIN. FT.
	621	SEDIMENT BASIN		32	CU. YD.
	621	OBLITERATION OF SEDIMENT BASIN		32	CU. YD.
	621	SEDIMENT REMOVAL AND DISPOSAL		349	CU. YD.
	621	ROCK DITCH CHECKS		93	CU. YD.
	623	SECOND SEEDING APPLICATION		2.36	ACRE
	624	SOLID SODDING		3671	SQ. YD.
	626	EROSION CONTROL MATTING (CLASS 3)		1556	SQ. YD.
	633	CONCRETE WALKS		5707	SQ. YD.
	SP	STAMPED CONCRETE		274	SQ. YD.
	634	CONCRETE COMBINATION CURB AND GUTTER (TYPE A) (1' 6")		14242	LIN. FT.
	635	ROADWAY CONSTRUCTION CONTROL		1.00	LUMP SUM
	637	MAILBOXES		21	EACH
	637	MAILBOX SUPPORTS (SINGLE)		7	EACH
	637	MAILBOX SUPPORTS (DOUBLE)		7	EACH
	641	WHEELCHAIR RAMPS (TYPE 3)		133	SQ. YD.
	SP	LOOP WIRING CLASS II (1C/16 A.W.G.)		1028	LIN. FT.
	719	THERMOPLASTIC PAVEMENT MARKING WHITE (4")		1732	LIN. FT.
	719	THERMOPLASTIC PAVEMENT MARKING WHITE (12")		77	LIN. FT.
	719	THERMOPLASTIC PAVEMENT MARKING YELLOW (4")		18125	LIN. FT.
	719	THERMOPLASTIC PAVEMENT MARKING (WORDS)		3	EACH
	719	THERMOPLASTIC PAVEMENT MARKING (ARROWS)		13	EACH
	721	RAISED PAVEMENT MARKERS (TYPE II)		174	EACH

* DENOTES ALTERNATE BID ITEMS.

REVISIONS

DATE	REVISION	SHEET NUMBER
11/20/2014	REVISED SPECIAL PROVISION "STORM WATER POLLUTION PREVENTION PLAN"	26
12/22/2014	ADDED SS-604-1 AND SS-606-1 TO THE LIST OF GOVERNING SPECIFICATIONS AND AFFECTED ITEMS.	2, 26
1/15/2015	REVISED MANDATORY USE OF INTERNET BIDDING SP, REVISED GOALS FOR DISADVANTAGED BUSINESS ENTERPRISE PARTICIPATION SP, ADDED DISADVANTAGED BUSINESS ENTERPRISE BIDDER'S RESPONSIBILITIES SP TO THE GOVERNING SPECIFICATIONS LIST.	2, 26

STATE OF ARKANSAS REGISTERED PROFESSIONAL ENGINEER No. 11435 TIMOTHY D. SMITH 1/15/15

SUMMARY OF QUANTITIES AND REVISIONS

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED
11/20/2014			
12/22/2014			
1/15/2015			

2 SUMMARY OF QUANTITIES AND REVISIONS

FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
6	ARK.		26	154

JOB NO. 090319

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090319	27	154

(2) SURVEY CONTROL DETAILS

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
10-10-14

SURVEY CONTROL COORDINATES

Project Name: s090319
Date: 6/5/2012
Coordinate System: ARKANSAS STATE PLANE - NORTH ZONE BASED ON GPS CONTROL, PROJECTED TO GROUND.
Units: U.S. SURVEY FOOT

Point Name	Northing	Easting	Elev	Feature	Description
1	721676.6372	1197953.8457	721.117	CTL	STD MONUMENT STAMPED PN:1, 5.5' SOUTHEAST OF EDGE OF PAVEMENT, 22.8' NORTHWEST OF FIRE HYDRANT, 18.1' NORTHWEST OF RIGHT OF WAY MARKER SIGN NORTHWEST OF SOUTHEAST EDGE OF PAVEMENT HWY. 201 AND CENTERLINE.
2	722073.7068	1198304.1775	714.980	CTL	STD MONUMENT STAMPED PN:2, 14.1' NORTHWEST OF EDGE OF PAVEMENT, 44.7' SOUTHWEST OF POWER POLE, ENTRANCE TO DONALD W. REYNOLDS LIBRARY
3	722570.1920	1198916.6317	720.289	CTL	STD MONUMENT STAMPED PN:3, 11.2' SOUTHEAST OF EDGE OF PAVEMENT, 33.5' NORTHEAST OF TELEPHONE BOX, NORTHWEST OF NORTHWEST CORNER OF "GREGORY" BUILDING
4	723075.9974	1199458.2157	731.886	CTL	STD MONUMENT STAMPED PN:4, 6.0' SOUTHEAST OF EDGE OF PAVEMENT, 15.4' SOUTHWEST OF 18" CORRUGATED METAL PIPE CULVERT, 20.0' NORTHWEST OF GRAVEL PARKING
5	723599.5921	1200005.1647	740.168	CTL	STD MONUMENT STAMPED PN:5, 28.0' SOUTHEAST OF EDGE OF PAVEMENT, 72.2' SOUTHWEST OF POWER POLE, SOUTHWEST OF SOUTHWEST CORNER "EPOXYN" BUILDING
6	724334.1513	1200079.5830	751.902	CTL	STD MONUMENT STAMPED PN:6, 3.4' WEST OF EDGE OF PAVEMENT, 31.6' SOUTH OF SIGN "SPEED LIMIT 35", 50.4' SOUTHWEST OF POWER POLE
7	725040.0320	1200158.6913	754.770	CTL	STD MONUMENT STAMPED PN:7, 36.0' EAST OF EDGE OF PAVEMENT, 16.0' NORTH OF EDGE OF PAVEMENT DRIVEWAY, 40.0' SOUTHEAST OF FIRE HYDRANT
8	725550.7885	1200106.1984	747.841	CTL	STD MONUMENT STAMPED PN:8, 7.0' WEST OF EDGE OF PAVEMENT, 32.6' SOUTH OF POWER POLE, 54.0' NORTH OF 20" CORRUGATED METAL PIPE CULVERT
9	726334.0475	1200128.9238	757.110	CTL	STD MONUMENT STAMPED PN:9, 6.2' WEST OF EDGE OF PAVEMENT, 52.0' NORTH OF POWER POLE, 9.4' EAST OF WATER METER
10	726839.2149	1200146.8271	770.660	CTL	STD MONUMENT STAMPED PN:10, 8.6' WEST OF EDGE OF PAVEMENT, 44.7' NORTH OF SIGN "SPEED LIMIT 35", 39.5' WEST OF POWER POLE
11	727265.7829	1200202.5370	785.064	CTL	STD MONUMENT STAMPED PN:11, 16.3' EAST OF EDGE OF PAVEMENT, 4.0' SOUTHEAST OF WATER METER, 13.1' NORTHEAST OF POWER POLE 25.3' SOUTHWEST OF 10" PINE
12	727910.6736	1200161.5483	788.444	CTL	STD MONUMENT STAMPED PN:12 10.4' WEST OF EDGE OF PAVEMENT, 51.5' SOUTH OF POWER POLE, 23.2' NORTHEAST OF SIGN POST "TANK REA INSURANCE"
100	728039.8570	1202548.4513	755.071	GPS	AHTD GPS 030001
101	727965.8526	1203789.2495	754.524	GPS	AHTD GPS 030001A
102	721706.8807	1197416.7418	702.379	GPS	AHTD GPS 030016
103	722921.7108	1196304.9163	749.358	GPS	AHTD GPS 030016A
900	727471.1193	1199814.4436	774.988	TBM	CHISELED SQ. NORTHWEST CORNER, CONCRETE BOX CULVERT SOUTHWEST INTERSECTION OF J ST. AND 10TH ST., 5.0' WEST OF EDGE OF PAVEMENT J ST., 25.3' SOUTH OF SIGN "DEAD END"
901	728043.2498	1200240.7526	791.450	TBM	AHTD 3.75" ALUMINUM CAP SET IN SOUTHWEST, SOUTHEAST INTERSECTION OF COLLEGE ST. AND 9TH ST., 1.8' EAST OF CENTERLINE STORM SEWER MANHOLE, 9.4' NORTHEAST OF SIGN "E 9TH ST/S COLLEGE ST"
903	733367.8892	1203137.1857	803.147	TBM	SOUTHEAST INTERSECTION OF HIGHLAND CIR. AND CARDINAL DR., CONCRETE WALL AT SOUTHWEST CORNER EAST BOUND BRIDGE OVER DODD CREEK, 9.0' SOUTHEAST OF END CONCRETE WALL, 41.3' EAST OF EDGE OF PAVEMENT CARDINAL DR.
904	729525.5364	1202959.0687	754.252	TBM	EAST SIDE CARDINAL DRIVE, 5.3' EAST OF EDGE OF CONCRETE SOUTHWEST, 14.7' SOUTHWEST OF CENTERLINE SANITARY SEWER MANHOLE, 150' NORTH OF 4TH ST.
905	728007.9623	1203116.9994	746.385	TBM	NORTHWEST CORNER BUILDING OVER HICKS CREEK, 0.6' ABOVE EDGE OF PAVEMENT 9TH ST. BRIDGE SIGN "5-18 19.26"
990	726915.7261	1197875.7514	756.009	BM	AT SOUTHWEST CORNER OF BRIDGE OVER DODD CREEK, 3.3' NORTH OF EDGE OF PAVEMENT, 1.0' EAST OF SOUTH END OF CONCRETE WALL
992	728154.2647	1200494.3908	804.023	BM	3.25" ALUMINUM DISK STAMPED "BAXTER COUNTY SURVEY MARKER", "STA. FAIR 1992" SET IN TOP OF A 4" ROUND CONCRETE MARKER PRECAST IN A PVC PIPE 24" IN LENGTH, 120' NORTH OF CENTERLINE 9TH ST., 83' WEST OF CENTERLINE DRYER ST., 4.0' EAST OF EDGE OF PAVEMENT PARKING
1500	723360.0751	1199570.9685	731.974	CTL	STD MONUMENT STAMPED PN:1500, 7.6' WEST OF EDGE OF PAVEMENT ARENA DR., 12.0' EAST OF WIRE FENCE, 60.1' SOUTHWEST OF SANITARY SEWER MANHOLE
1501	724058.1537	1199649.4148	743.553	CTL	STD MONUMENT STAMPED PN:1501, 2.3' EAST OF EDGE OF PAVEMENT ARENA DR., 43.2' SOUTHEAST OF CENTERLINE ARENA DR. AND FAIRGROUNDS RD., 60.7' SOUTH OF FIRE HYDRANT, 11.9' SOUTHWEST OF WATER METER
1502	725407.3371	1200835.2095	762.144	CTL	STD MONUMENT STAMPED PN:1502, 3.0' NORTH OF EDGE OF PAVEMENT 13TH ST., 7.8' SOUTHEAST OF WATER METER, 47.2' SOUTH OF SOUTHEAST CORNER HOUSE #511
1503	725356.5243	1200017.4289	745.980	CTL	STD MONUMENT STAMPED PN:1503, 1.2' SOUTH OF EDGE OF PAVEMENT 13TH ST., 63.1' NORTHEAST OF NORTHEAST CORNER HOUSE #304, 52.8' SOUTHWEST OF GUY POLE
1504	726685.4823	1199559.0863	777.205	CTL	STD MONUMENT STAMPED PN:1504, 4.0' WEST OF EDGE OF PAVEMENT SOUTH ST., 18.6' SOUTHEAST OF POWER POLE EAST OF NORTHEAST CORNER HOUSE #1104
1505	727401.2212	1199591.0749	775.975	CTL	STD MONUMENT STAMPED PN:1505, 2.9' EAST OF EDGE OF PAVEMENT SOUTH ST., 3.5' SOUTHEAST OF SOUTHWEST CORNER CONCRETE PARKING, 87.0' SOUTHEST OF FIRE HYDRANT
1506	728560.8654	1200180.1836	796.247	CTL	STD MONUMENT STAMPED PN:1506, 6.8' WEST OF EDGE OF PAVEMENT COLLEGE ST., 38.1' NORHTEAST OF NORTHWEST CORNER HOUSE #714
1507	729254.3449	1200189.8738	811.489	CTL	STD MONUMENT STAMPED PN:1507, 5.9' WEST OF EDGE OF PAVEMENT COLLEGE ST., 39.6' SOUTHEAST OF EAST EDGE SIGN POST "PONDER HEALTH"

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 0.9999834078 HAS BEEN USED TO COMPUTE THE GROUND COORDINATES LISTED ABOVE.
THIS CAF IS INTENDED FOR USE WITHIN THE PROJECT LIMITS.
GRID DISTANCE = GROUND DISTANCE X CAF.
GRID COORDINATES ARE STORED UNDER FILE NAME S090319GI.CTL
HORIZONTAL DATUM: NAD 83 (1997)
VERTICAL DATUM: NAVD 88 POSITIONAL ACCURACY THIRD ORDER, UNLESS SPECIFIED OTHERWISE AT A SPECIFIC POINT.

REFERENCE POINTS (1500 SERIES) ARE TO BE USED TO ESTABLISH CONTROL IF THE PRIMARY CONTROL POINTS LISTED ABOVE HAVE BEEN DESTROYED.
REFERENCE POINTS ARE NOT TO BE USED FOR VERTICAL CONTROL

BASIS OF BEARING:
ARKANSAS STATE PLANE GRID BEARINGS - 0301-NORTH ZONE
DETERMINED FROM GPS CONTROL POINTS: 030016 - 030001A
CONVERGENCE ANGLE: 00-13-18.0 LEFT/RIGHT AT LT:36-19-28.5 LG:092-22-51.0
GRID AZIMUTH = ASTRONOMICAL AZIMUTH - CONVERGENCE ANGLE.

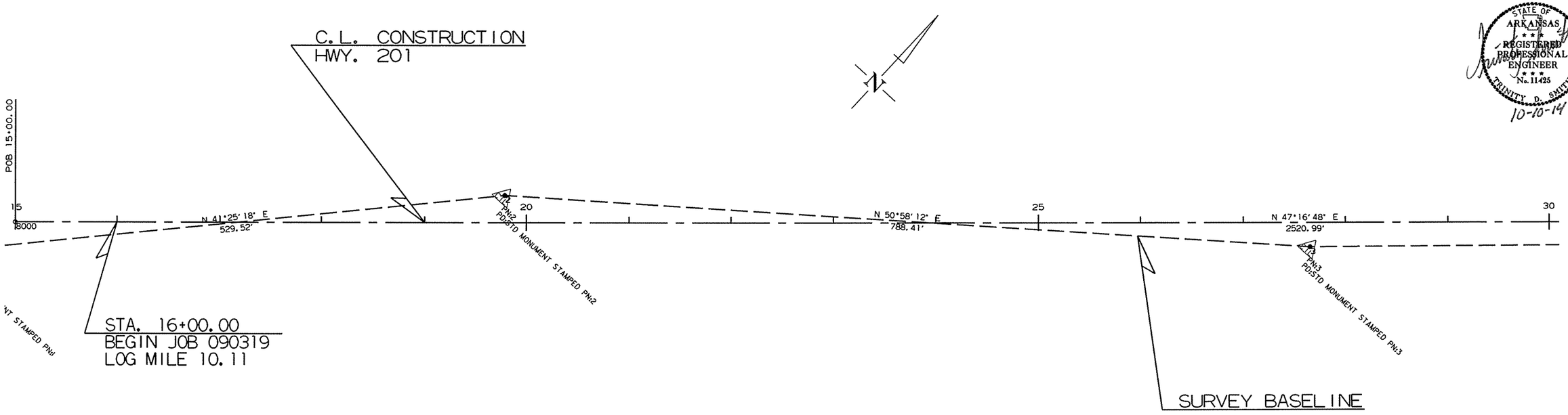
9/24/2014
R090319.DGN

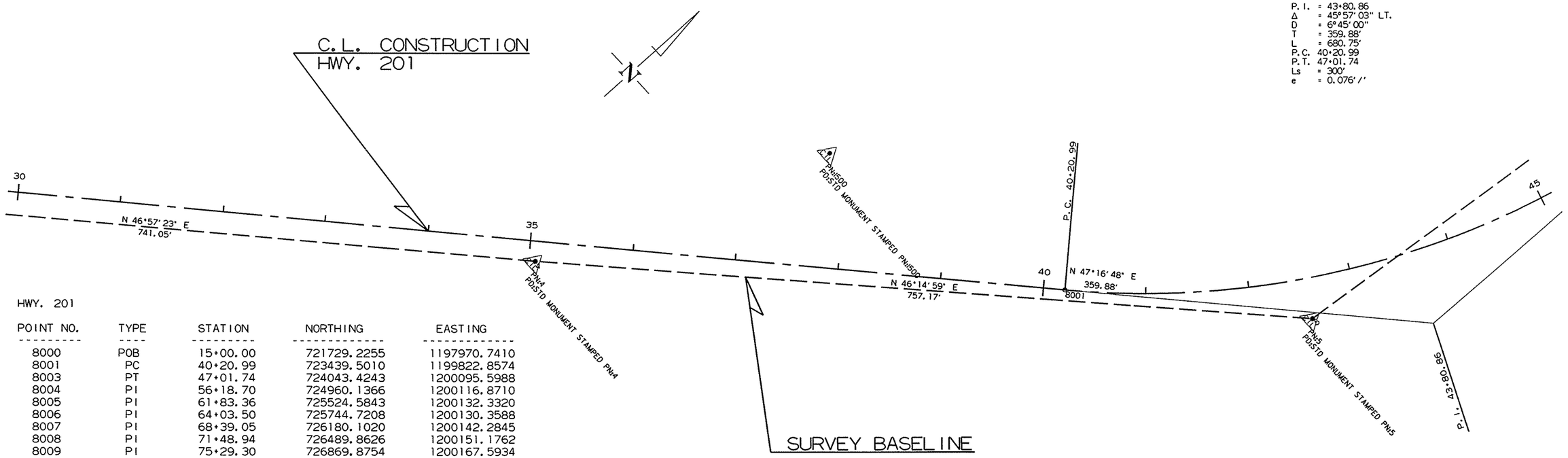
SURVEY CONTROL DETAILS

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.		090319	28	154

(2) SURVEY CONTROL DETAILS

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
10-10-14





HWY. 201

POINT NO.	TYPE	STATION	NORTHING	EASTING
8000	POB	15+00.00	721729.2255	1197970.7410
8001	PC	40+20.99	723439.5010	1199822.8574
8003	PT	47+01.74	724043.4243	1200095.5988
8004	PI	56+18.70	724960.1366	1200116.8710
8005	PI	61+83.36	725524.5843	1200132.3320
8006	PI	64+03.50	725744.7208	1200130.3588
8007	PI	68+39.05	726180.1020	1200142.2845
8008	PI	71+48.94	726489.8626	1200151.1762
8009	PI	75+29.30	726869.8754	1200167.5934
8010	PI	81+55.22	727495.7249	1200176.5118
8011	PI	83+40.69	727681.1604	1200180.0395
8012	POE	87+28.75	728068.8093	1200197.9700

9/24/2014

R090319.DGN

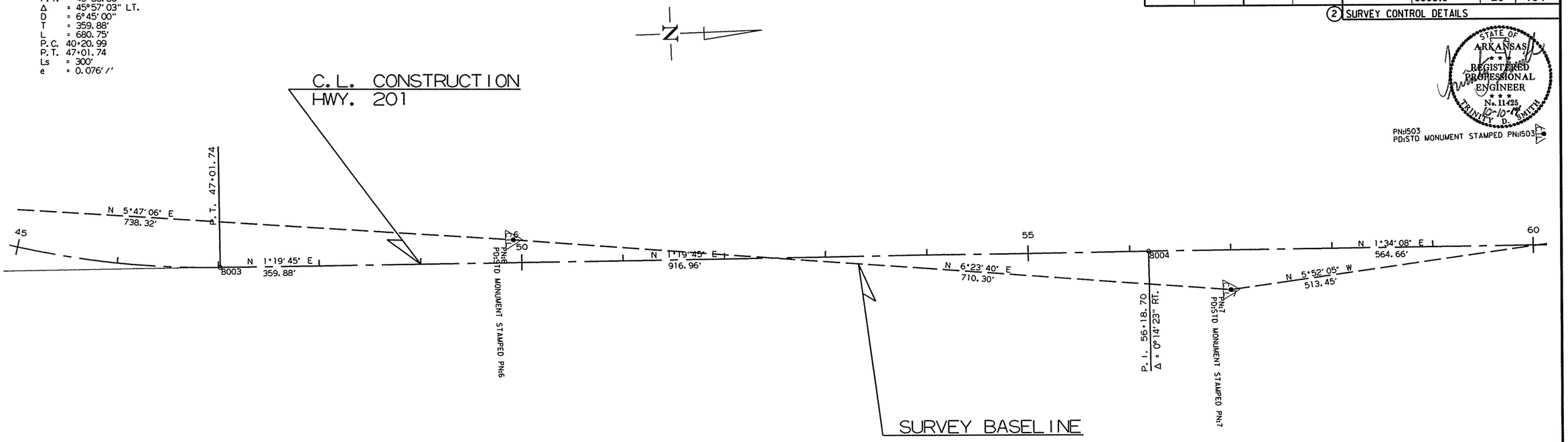
SURVEY CONTROL DETAILS

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.		090319	29	154

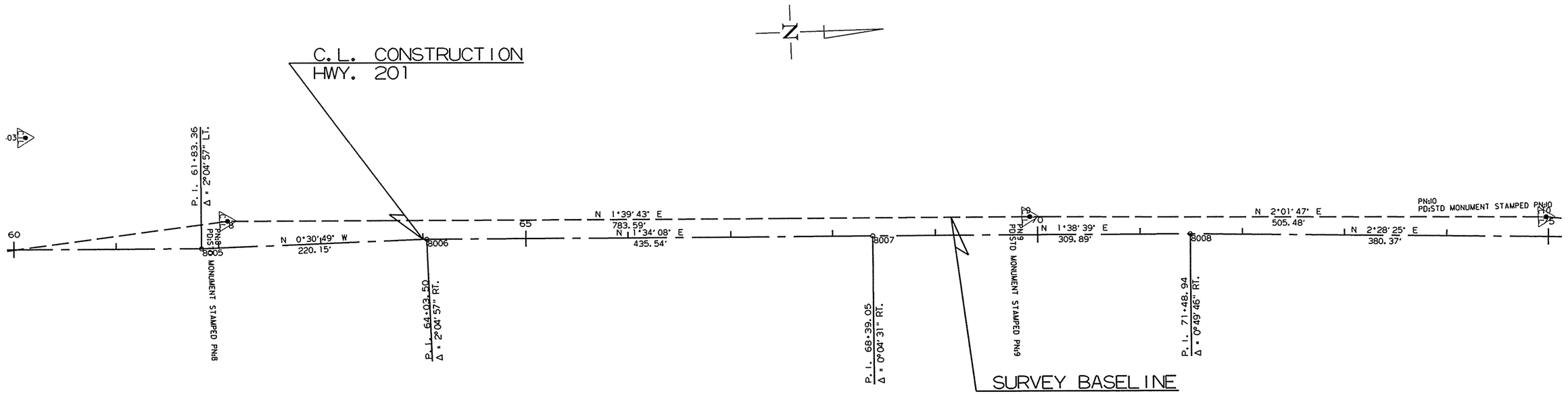
(2) SURVEY CONTROL DETAILS

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
10-10-14
TRINITY D. SMITH

P.I. = 43+80.86
Δ = 45°57'03" LT.
D = 6°45'00"
T = 359.88'
L = 680.75'
P.C. 40+20.99
P.T. 47+01.74
Ls = 300'
e = 0.076'/'



PN#503
PD:STD MONUMENT STAMPED PN#503



9/24/2014

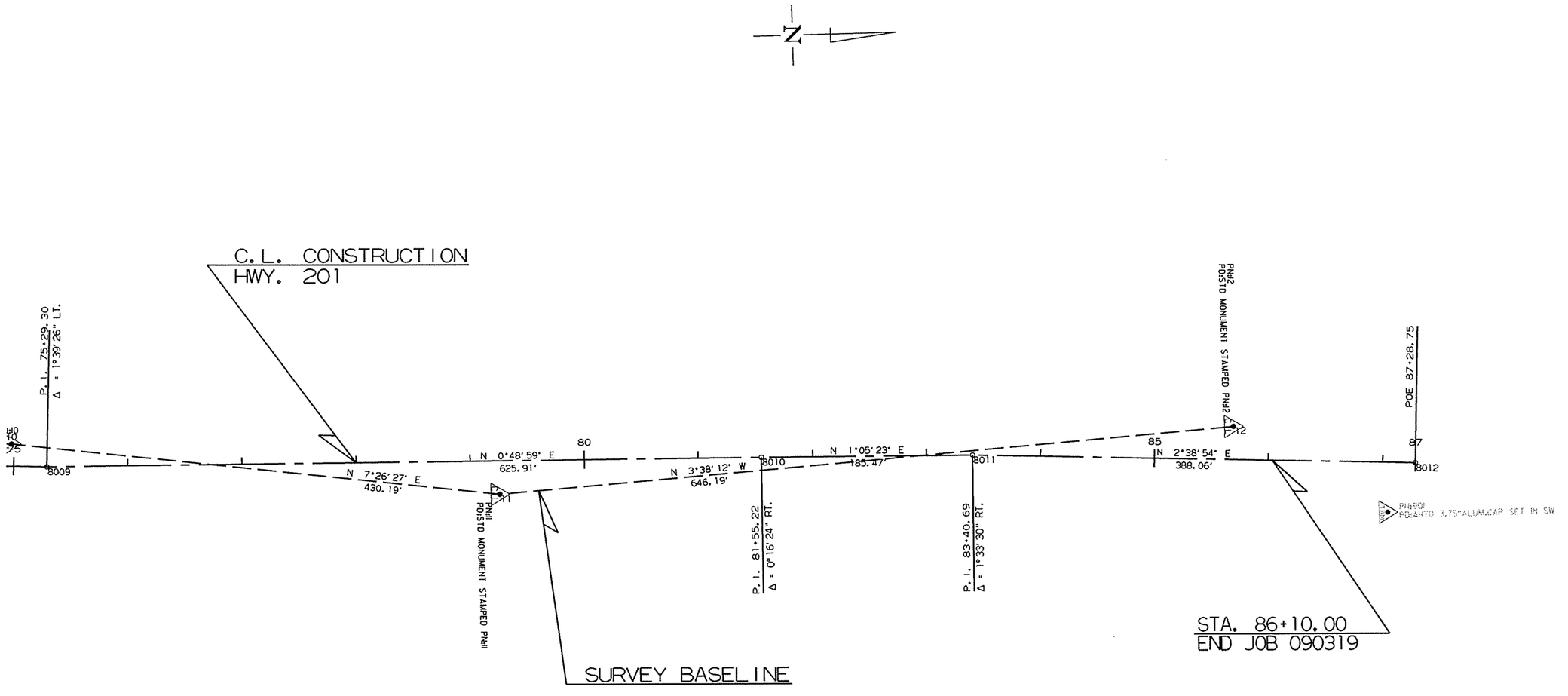
R090319.DGN

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.		090319	30	154

(2) SURVEY CONTROL DETAILS

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
10-10-14



9/24/2014

R090319.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.		090319	31	154

(2) PLAN AND PROFILE SHEETS

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
10-10-14

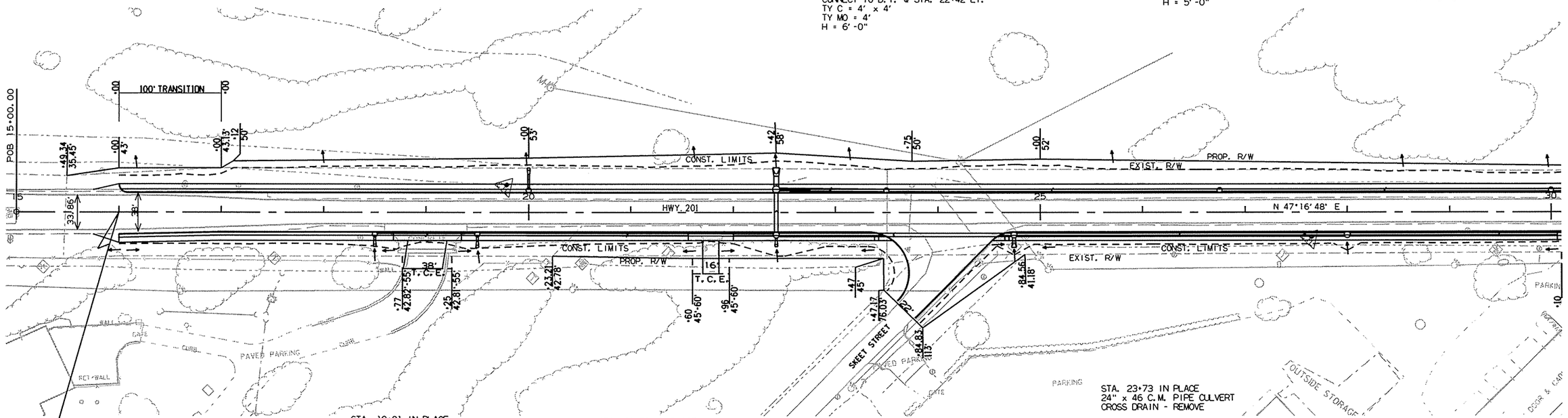
STA. 20+00 - CONSTRUCT
D. I. ON LT. WITH 18" x 14' R.C. PIPE OUTLET
WITH FES
TY C = 4' x 4'
TY MO = 4'
H = 5'-0"

STA. 22+42 - CONSTRUCT
D. I. ON LT. WITH 48" x 9' R.C. PIPE OUTLET
WITH FES
TY C = 6' x 6'
TY MO = 6'
H = 7'-3"

STA. 23+50 - CONSTRUCT
D. I. ON LT. WITH 4' EXTENSION
& 24" x 103' PIPE OUTLET
CONNECT TO D. I. @ STA. 22+42 LT.
TY C = 4' x 4'
TY MO = 4'
H = 6'-0"

STA. 26+75 - CONSTRUCT
D. I. ON LT. WITH 4' EXTENSION
& 24" x 321' PIPE OUTLET
CONNECT TO D. I. @ STA. 23+50 LT.
TY C = 4' x 4'
TY MO = 4'
H = 5'-0"

STA. 30+00 - CONSTRUCT
D. I. ON LT. WITH 4' EXTENSION
& 24" x 321' PIPE OUTLET
CONNECT TO D. I. @ STA. 26+75 LT.
TY C = 4' x 4'
TY MO = 4'
H = 5'-0"



STA. 16+00.00
BEGIN JOB 090319
LOG MILE 10.11

STA. 19+01 IN PLACE
23" x 15" x 57' R.C. PIPE CULVERT
SIDE DRAIN - REMOVE
CONSTRUCT APPROACH ON RT. = 5 CU. YDS.

STA. 18+50 - CONSTRUCT
D. I. ON RT. WITH 4' EXTENSION
& 18" x 96' PIPE OUTLET
CONNECT TO D. I. @ STA. 19+50 RT.
& 18" x 4' R.C. PIPE INLET WITH FES
TY C = 4' x 4'
TY MO = 4'
H = 5'-0"

STA. 19+50 - CONSTRUCT
D. I. ON RT. & 24" x 288' PIPE OUTLET
CONNECT TO D. I. @ STA. 22+42 RT.
& 18" x 5' R.C. PIPE INLET WITH FES
TY C = 4' x 4'
TY MO = 4'
H = 5'-0"

STA. 21+78 IN PLACE
SIDE DRAIN - REMOVE
CONSTRUCT APPROACH ON RT. = 10 CU. YDS.
UNCLASSIFIED EXCAVATION

STA. 22+42 - CONSTRUCT
D. I. ON RT. WITH 4' EXTENSION
& 36" x 38' R.C. PIPE OUTLET (CLASS IV)
CONNECT TO D. I. @ STA. 22+42 LT.
& 18" x 3' R.C. PIPE INLET WITH FES
TY C = 5' x 5'
TY MO = 5'
H = 6'-6"
D.A. = 36 ACRES
Q50 = 127 CFS

STA. 23+46 ON RT. CONSTRUCT
TYPE 3 WHEELCHAIR RAMP = 6.3 SQ. YDS.

STA. 23+73 IN PLACE
24" x 46 C.M. PIPE CULVERT
CROSS DRAIN - REMOVE

STA. 24+53 CONSTRUCT
APPROACH ON RT. ON
SKEET STREET = 92 CU. YDS.
UNCLASSIFIED EXCAVATION = 110 CU. YDS.

STA. 24+74 - CONSTRUCT
D. I. ON RT. WITH 4' EXTENSION
& 36" x 227' PIPE OUTLET
CONNECT TO D. I. @ STA. 22+42 RT.
& 30" x 4' R.C. PIPE INLET WITH FES
TY C = 5' x 5'
TY MO = 5'
H = 4'-6"

STA. 24+61 ON RT. CONSTRUCT
TYPE 3 WHEELCHAIR RAMP = 5.4 SQ. YDS.

STA. 24+14 IN PLACE
JUNCTION BOX WITH
24" x 57' C.M. PIPE CULVERT
REMOVE

STA. 24+50 IN PLACE
18" x 35' R.C. PIPE CULVERT
REMOVE

STA. 28+00 - CONSTRUCT
D. I. ON RT. WITH 4' EXTENSION
& OPENING IN BACK
& 36" x 321' PIPE OUTLET
CONNECT TO D. I. @ STA. 24+74 RT.
TY C = 5' x 5'
TY MO = 5'
H = 5'-6"

ALL R.C. PIPE CULVERTS SHALL BE CLASS III UNLESS OTHERWISE SPECIFIED. FOR ALL R.C. PIPE CULVERT INSTALLATIONS USE TYPE 3 BEDDING UNLESS OTHERWISE SPECIFIED. FOR ALL C.M. PIPE CULVERT INSTALLATIONS USE TYPE 2 BEDDING UNLESS OTHERWISE SPECIFIED.

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

9/24/2014

R090319.DGN

HWY. 201

ALL R.C. PIPE CULVERTS SHALL BE CLASS III UNLESS OTHERWISE SPECIFIED. FOR ALL R.C. PIPE CULVERT INSTALLATIONS USE TYPE 3 BEDDING UNLESS OTHERWISE SPECIFIED. FOR ALL C.M. PIPE CULVERT INSTALLATIONS USE TYPE 2 BEDDING UNLESS OTHERWISE SPECIFIED.

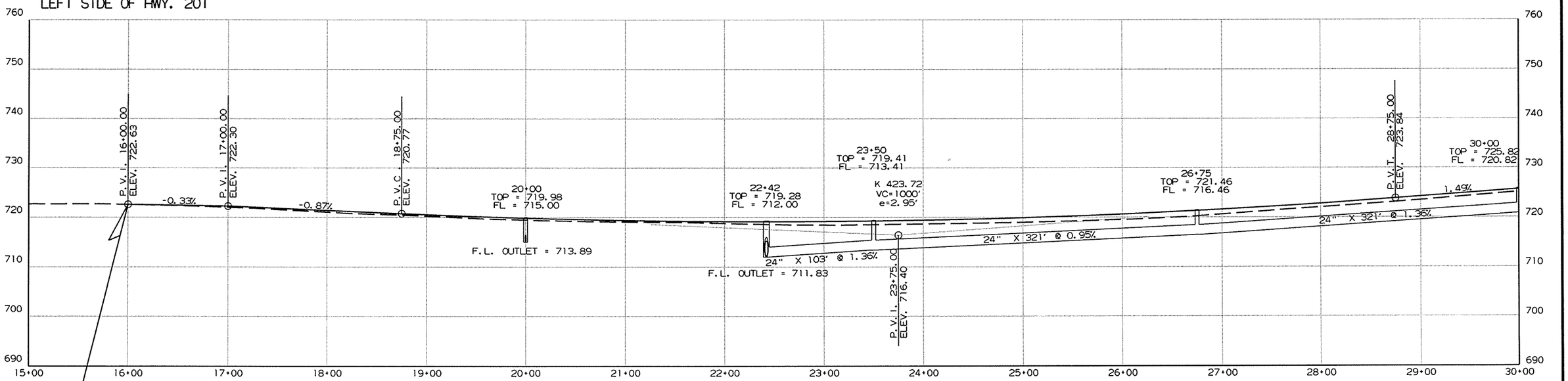
REFER TO SURVEY CONTROL DETAIL SHEETS FOR HORIZONTAL AND VERTICAL CONTROL DATA.

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090319	32	154

(2) PLAN AND PROFILE SHEETS

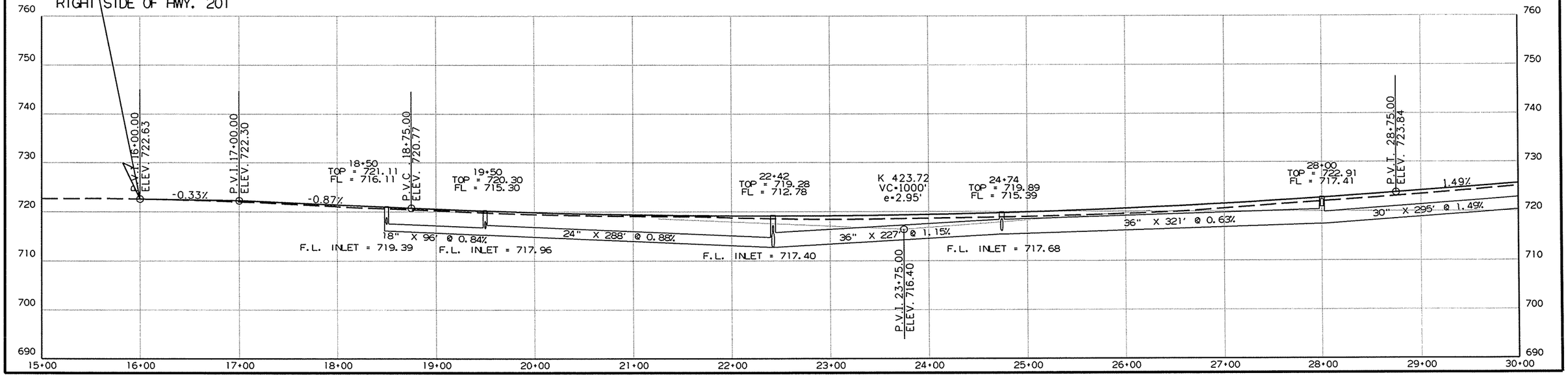
STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
10-10-14

LEFT SIDE OF HWY. 201



STA. 16+00.00
BEGIN JOB 090319
LOG MILE 10.11

RIGHT SIDE OF HWY. 201



9/24/2014

R090319.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.		090319	33	154

(2) PLAN AND PROFILE SHEETS

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
10-10-14

REMOVAL AND DISPOSAL OF FENCE

STA.	STA.	SIDE	LIN. FT.
31+84	33+83	LT.	179

FENCING

STA.	STA.	SIDE	TYPE	LIN. FT.	GATE
31+84.41	33+82	LT.	D-1	182	1

P. I. = 43+80.86
Δ = 45°57'03" LT.
D = 6°45'00"
T = 359.88'
L = 680.75'
P. C. 40+20.99
P. T. 47+01.74
Ls = 300'
e = 0.076'/'
SUPER ROTATED ABOUT ℄ CONST.

STA. 30+46 ON LT. CONSTRUCT
TYPE 3 WHEELCHAIR RAMP = 5.4 SQ. YDS.

STA. 31+38 ON LT. CONSTRUCT
TYPE 3 WHEELCHAIR RAMP = 5.4 SQ. YDS.

STA. 33+25 - CONSTRUCT
D. I. ON LT. WITH 4' EXTENSION
& 24" x 321' PIPE OUTLET
CONNECT TO D. I. @ STA. 30+00 LT.
& 18" x 5' R.C. PIPE INLET WITH FES
TY C = 4' x 4'
TY MO = 4'
H = 5'-0"

STA. 35+00 - CONSTRUCT
D. I. ON LT. WITH 4' EXTENSION
& 24" x 171' PIPE OUTLET
CONNECT TO D. I. @ STA. 33+25 LT.
& 18" x 7' R.C. PIPE INLET WITH FES
TY C = 4' x 4'
TY MO = 4'
H = 5'-0"

STA. 38+13 - CONSTRUCT
D. I. ON LT. WITH 4' EXTENSION
& 24" x 309' PIPE OUTLET
CONNECT TO D. I. @ STA. 35+00 LT.
& 18" x 11' R.C. PIPE INLET WITH FES
TY C = 4' x 4'
TY MO = 4'
H = 5'-0"

STA. 40+50 - CONSTRUCT
D. I. ON LT. WITH 4' EXTENSION
& 24" x 233' PIPE OUTLET
CONNECT TO D. I. @ STA. 38+13 LT.
& 18" x 3' R.C. PIPE INLET WITH FES
TY C = 4' x 4'
TY MO = 4'
H = 5'-0"

STA. 42+00 - CONSTRUCT
D. I. ON LT. WITH 4' EXTENSION
& 18" x 146' PIPE OUTLET
CONNECT TO D. I. @ STA. 40+50 LT.
& 18" x 4' R.C. PIPE INLET WITH FES
TY C = 4' x 4'
TY MO = 4'
H = 4'-0"

STA. 44+25 - CONSTRUCT
D. I. ON LT. WITH 4' EXTENSION
& 18" x 221' PIPE OUTLET
CONNECT TO D. I. @ STA. 42+00 LT.
TY C = 4' x 4'
TY MO = 4'
H = 4'-0"

STA. 30+95 - IN PLACE
28" x 20" x 107' R.C. PIPE CULVERT
SIDE DRAIN - REMOVE
CONSTRUCT APPROACH ON LT.
ON KING DRIVE = 5 CU. YDS.
UNCLASSIFIED EXCAVATION = 82 CU. YDS.

STA. 32+13 - IN PLACE
24" x 39' C.M. PIPE CULVERT
SIDE DRAIN - REMOVE
CONSTRUCT APPROACH ON LT. = 20 CU. YDS.

STA. 34+68 - IN PLACE
18" x 40' C.M. PIPE CULVERT
SIDE DRAIN - REMOVE
CONSTRUCT APPROACH ON LT. = 5 CU. YDS.

STA. 37+68 CONSTRUCT
APPROACH ON LT. ON
ARENA DRIVE = 107 CU. YDS.
UNCLASSIFIED EXCAVATION = 33 CU. YDS.

STA. 40+10 CONSTRUCT
APPROACH ON LT. = 25 CU. YDS.

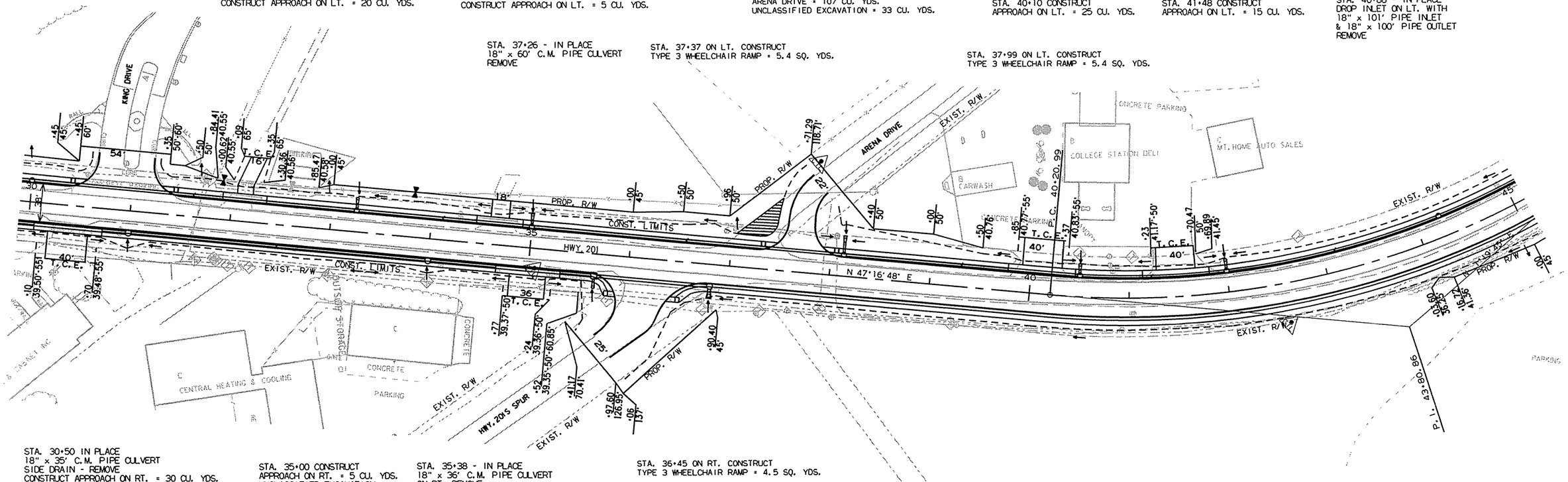
STA. 41+48 CONSTRUCT
APPROACH ON LT. = 15 CU. YDS.

STA. 40+88 - IN PLACE
DROP INLET ON LT. WITH
18" x 101' PIPE INLET
& 18" x 100' PIPE OUTLET
REMOVE

STA. 37+26 - IN PLACE
18" x 60' C.M. PIPE CULVERT
REMOVE

STA. 37+37 ON LT. CONSTRUCT
TYPE 3 WHEELCHAIR RAMP = 5.4 SQ. YDS.

STA. 37+99 ON LT. CONSTRUCT
TYPE 3 WHEELCHAIR RAMP = 5.4 SQ. YDS.



STA. 30+50 IN PLACE
18" x 35' C.M. PIPE CULVERT
SIDE DRAIN - REMOVE
CONSTRUCT APPROACH ON RT. = 30 CU. YDS.
UNCLASSIFIED EXCAVATION

STA. 31+00 - CONSTRUCT
D. I. ON RT. WITH 4' EXTENSION
& OPENING IN BACK
& 30" x 295' PIPE OUTLET
CONNECT TO D. I. @ STA. 28+00 RT.
TY C = 5' x 5'
TY MO = 5'
H = 5'-6"

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STA. 35+00 CONSTRUCT
APPROACH ON RT. = 5 CU. YDS.
UNCLASSIFIED EXCAVATION

STA. 35+38 - IN PLACE
18" x 36' C.M. PIPE CULVERT
ON RT. REMOVE

STA. 35+84 ON RT. CONSTRUCT
TYPE 3 WHEELCHAIR RAMP = 3.9 SQ. YDS.

STA. 34+00 - CONSTRUCT
D. I. ON RT. WITH 4' EXTENSION
& OPENING IN BACK
& 30" x 295' PIPE OUTLET
CONNECT TO D. I. @ STA. 31+00 RT.
TY C = 5' x 5'
TY MO = 5'
H = 6'-6"

STA. 35+66 - CONSTRUCT
JUNCTION BOX ON RT.
& 30" x 161' PIPE OUTLET
CONNECT TO D. I. @ STA. 34+00 RT.
& 18" x 4' R.C. PIPE INLET WITH FES
TY E = 5' x 5'
H = 5'-6"

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

STA. 36+45 ON RT. CONSTRUCT
TYPE 3 WHEELCHAIR RAMP = 4.5 SQ. YDS.

STA. 36+82 - CONSTRUCT
D. I. ON RT. & 30" x 111' PIPE OUTLET
CONNECT TO J.B. @ STA. 35+66 RT.
& 30" x 4' R.C. PIPE INLET WITH FES
TY C = 5' x 5'
TY MO = 5'
H = 5'-6"

STA. 36+43 - IN PLACE
20" x 97' C.M. PIPE CULVERT
REMOVE
CONSTRUCT APPROACH ON RT. ON
HWY. 102 SPUR = 52 CU. YDS.
UNCLASSIFIED EXCAVATION = 103 CU. YDS.

9/24/2014

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HWY. 201

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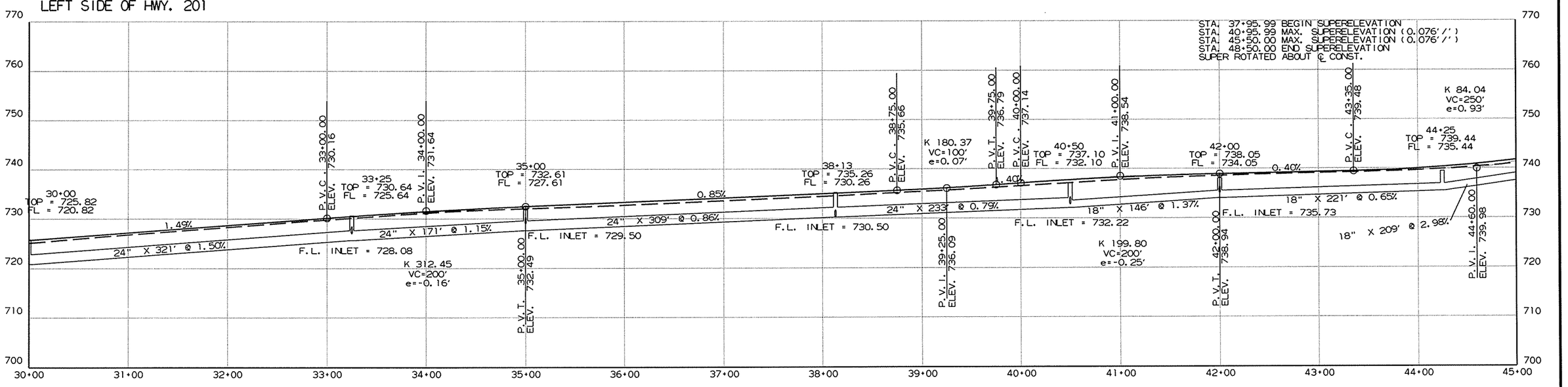
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090319	34	154

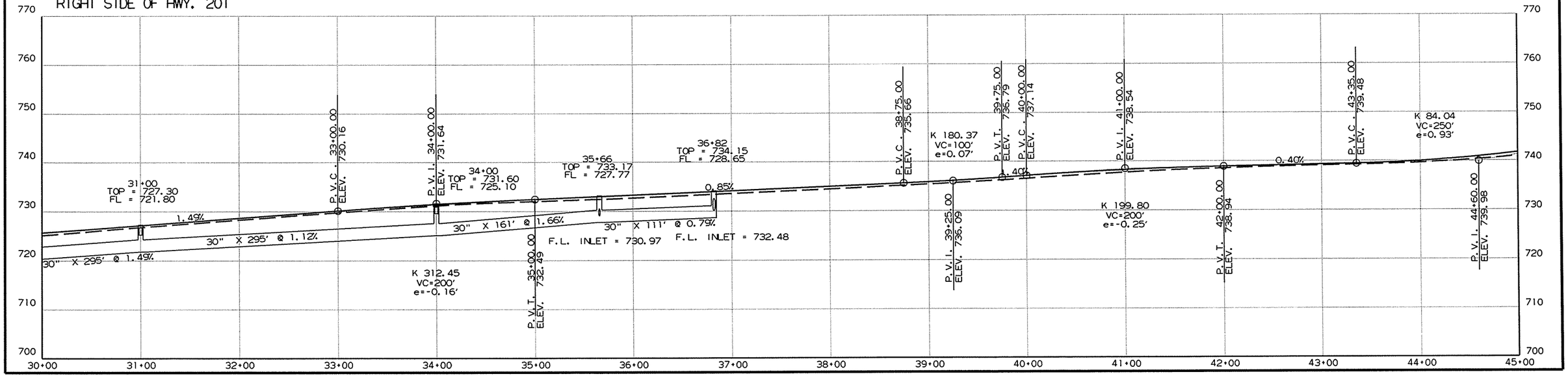
(2) PLAN AND PROFILE SHEETS

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
10-10-14

LEFT SIDE OF HWY. 201



RIGHT SIDE OF HWY. 201



9/24/2014

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DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED

FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
6	ARK.			
JOB NO.		090319	35	154

(2) PLAN AND PROFILE SHEETS

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
10-10-14

P. I. = 43+80.86
Δ = 45°57'03" LT.
D = 6°45'00"
T = 359.88'
L = 680.75'
P. C. 40+20.99
P. T. 47+01.74
Ls = 300'
e = 0.076'/'
SUPER ROTATED
ABOUT ℄ CONST.

STA. 47+46 - CONSTRUCT
D. I. ON LT. WITH 4'EXTENSION
& 18" x 104' PIPE OUTLET
CONNECT TO D. I. @ STA. 46+38 LT.
TY C = 4' x 4'
TY MO = 4'
H = 4'-0"

STA. 46+38 - CONSTRUCT
D. I. ON LT. WITH 4'EXTENSION
& 18" x 209' PIPE OUTLET
CONNECT TO D. I. @ STA. 44+25 LT.
& 18" x 6' R.C. PIPE INLET WITH FES
TY C = 4' x 4'
TY MO = 4'
H = 4'-0"

STA. 48+38 - CONSTRUCT
D. I. ON RT.
WITH OPENING IN BACK
& 18" x 88' PIPE OUTLET
CONNECT TO D. I. @ STA. 47+46 LT.
TY C = 4' x 4'
TY MO = 4'
H = 5'-0"

STA. 48+02 CONSTRUCT
APPROACH ON LT. = 10 CU. YDS.

STA. 46+14 - IN PLACE
18" x 40' R.C. PIPE CULVERT
SIDE DRAIN - REMOVE
CONSTRUCT APPROACH ON LT. = 5 CU. YDS.

STA. 51+48 - CONSTRUCT
D. I. ON LT. & 18" x 306' PIPE OUTLET
CONNECT TO J.B. @ STA. 48+38 RT.
& 18" x 3' R.C. PIPE INLET WITH FES
TY C = 4' x 4'
TY MO = 4'
H = 4'

STA. 51+20 - IN PLACE
20" x 14" x 30' C.M. PIPE CULVERT
SIDE DRAIN - REMOVE
CONSTRUCT APPROACH ON LT. = 15 CU. YDS.

STA. 52+57 - IN PLACE
20" x 14" x 30' C.M. PIPE CULVERT
SIDE DRAIN - REMOVE
CONSTRUCT APPROACH ON LT. = 10 CU. YDS.

STA. 53+00 - CONSTRUCT
D. I. ON LT. WITH 4'EXTENSION
& 18" x 148' PIPE OUTLET
CONNECT TO D. I. @ STA. 51+48 LT.
& 18" x 3' R.C. PIPE INLET WITH FES
TY C = 4' x 4'
TY MO = 4'
H = 4'-0"

STA. 53+75 - IN PLACE
28" x 30' C.M. PIPE CULVERT
SIDE DRAIN - REMOVE
CONSTRUCT APPROACH ON LT. = 5 CU. YDS.

STA. 54+05 - CONSTRUCT
D. I. ON LT. & 18" x 101' PIPE OUTLET
CONNECT TO D. I. @ STA. 53+00 LT.
& 18" x 3' R.C. PIPE INLET WITH FES
TY C = 4' x 4'
TY MO = 4'
H = 4'-0"

STA. 54+47 ON LT. CONSTRUCT
TYPE 3 WHEELCHAIR RAMP = 4.5 SQ. YDS.

STA. 54+84 CONSTRUCT
APPROACH ON LT. ON
WADE AVENUE = 10 CU. YDS.
UNCLASSIFIED EXCAVATION = 105 CU. YDS.

STA. 55+13 ON LT. CONSTRUCT
TYPE 3 WHEELCHAIR RAMP = 4.4 SQ. YDS.

STA. 56+86 CONSTRUCT
APPROACH ON LT.
= 15 CU. YDS.

STA. 57+18 CONSTRUCT
APPROACH ON LT.
= 20 CU. YDS.

STA. 58+09 CONSTRUCT
APPROACH ON LT.
= 15 CU. YDS.

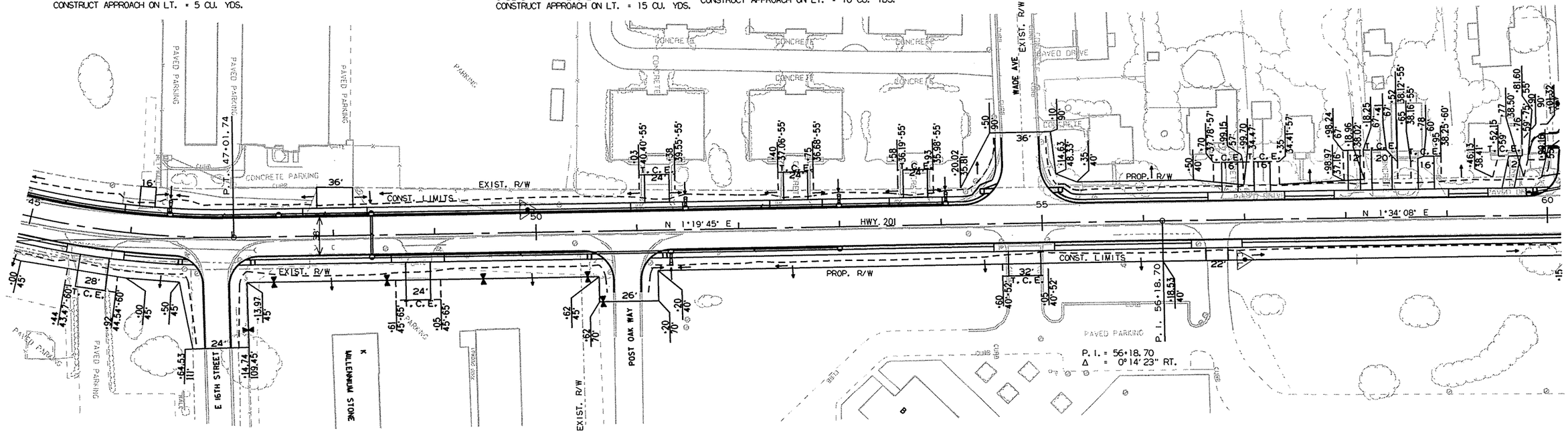
STA. 58+36 CONSTRUCT
APPROACH ON LT.
= 30 CU. YDS.

STA. 58+80 CONSTRUCT
APPROACH ON LT.
= 15 CU. YDS.

STA. 59+82 - CONSTRUCT
D. I. ON LT. WITH 4'EXTENSION
& 18" x 62' PIPE OUTLET
CONNECT TO J.B. @ STA. 60+45.94 LT.
TY C = 4' x 4'
TY MO = 4'
H = 6'-0"

STA. 59+90 CONSTRUCT
APPROACH ON LT. (ON 13TH ST.)
= 5 CU. YDS.

STA. 59+59 CONSTRUCT
APPROACH ON LT.
= 20 CU. YDS.



STA. 46+56 ON RT. CONSTRUCT
TYPE 3 WHEELCHAIR RAMP = 5.4 SQ. YDS.

STA. 47+15 ON RT. CONSTRUCT
TYPE 3 WHEELCHAIR RAMP = 5.4 SQ. YDS.

STA. 50+59 ON RT. CONSTRUCT
TYPE 3 WHEELCHAIR RAMP = 5.4 SQ. YDS.

STA. 51+21 ON RT. CONSTRUCT
TYPE 3 WHEELCHAIR RAMP = 5.4 SQ. YDS.

STA. 54+81 CONSTRUCT
APPROACH ON RT. = 10 CU. YDS.

STA. 56+72 CONSTRUCT
APPROACH ON RT.

STA. 45+68 CONSTRUCT
APPROACH ON RT. = 15 CU. YDS.

STA. 46+29 - IN PLACE
16" x 190' C.M. PIPE CULVERT
ON RT. REMOVE

STA. 47+91 - IN PLACE
SIDE DRAIN
ON RT. REMOVE

STA. 48+83 - IN PLACE
18" x 43' R.C. PIPE CULVERT
SIDE DRAIN - REMOVE
CONSTRUCT APPROACH ON RT. = 35 CU. YDS.

STA. 46+74 - IN PLACE
CONSTRUCT APPROACH ON RT. ON
EAST 16TH STREET = 91 CU. YDS.
UNCLASSIFIED EXCAVATION = 37 CU. YDS.

STA. 48+38 - CONSTRUCT
D. I. ON RT. WITH 4'EXTENSION
& 18" x 39' R.C. PIPE OUTLET
CONNECT TO J.B. @ STA. 48+38 LT.
TY C = 4' x 4'
TY MO = 4'
H = 5'-0"

STA. 50+94 - IN PLACE
CONSTRUCT APPROACH ON RT. ON
POST OAK WAY = 8 CU. YDS.
UNCLASSIFIED EXCAVATION = 40 CU. YDS.

STA. 51+33 - CONSTRUCT
D. I. ON RT. & 18" x 291' PIPE OUTLET
CONNECT TO D. I. @ STA. 48+38 RT.
& 18" x 5' R.C. PIPE NILET WITH FES
TY C = 4' x 4'
TY MO = 4'
H = 4'-0"

STA. 53+00 - CONSTRUCT
D. I. ON RT. WITH 4'EXTENSION
& 18" x 163' PIPE OUTLET
CONNECT TO D. I. @ STA. 51+33 RT.
TY C = 4' x 4'
TY MO = 4'
H = 4'-0"

REMOVAL AND DISPOSAL OF FENCE

STA.	STA.	SIDE	LIN. FT.
47+19	48+72	RT.	153
48+99	50+64	RT.	165
55+09	55+89	LT.	220

FENCING

STA.	STA.	SIDE	TYPE	LIN. FT.
47+13	50+70	RT.	5' CHAIN LINK	447

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9/24/2014

R090319.DGN

HWY. 201

ALL R.C. PIPE CULVERTS SHALL BE CLASS III UNLESS OTHERWISE SPECIFIED. FOR ALL R.C. PIPE CULVERT INSTALLATIONS USE TYPE 3 BEDDING UNLESS OTHERWISE SPECIFIED. FOR ALL C.M. PIPE CULVERT INSTALLATIONS USE TYPE 2 BEDDING UNLESS OTHERWISE SPECIFIED.

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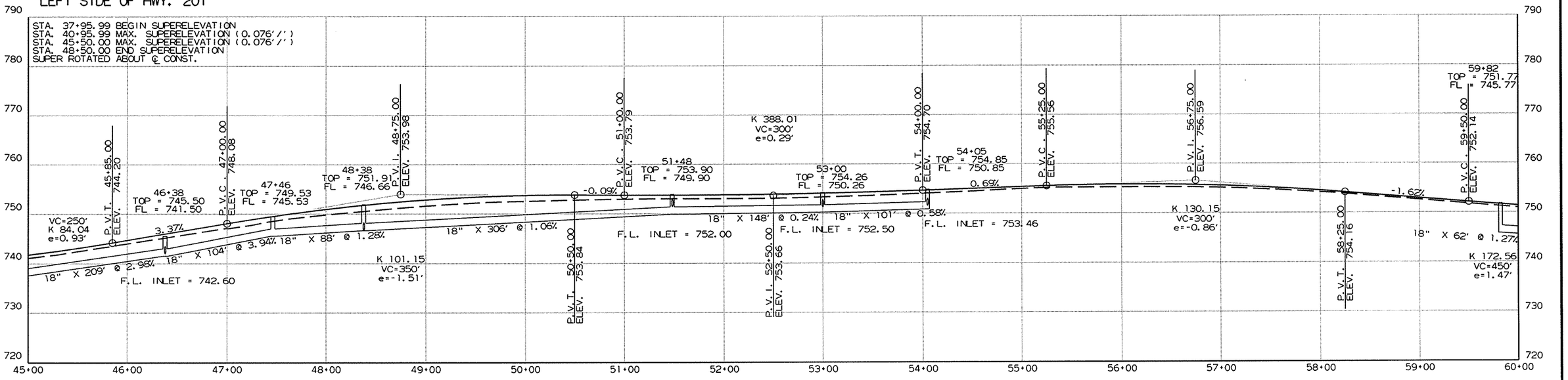
				6	ARK.			
				JOB NO.		090319	36	154

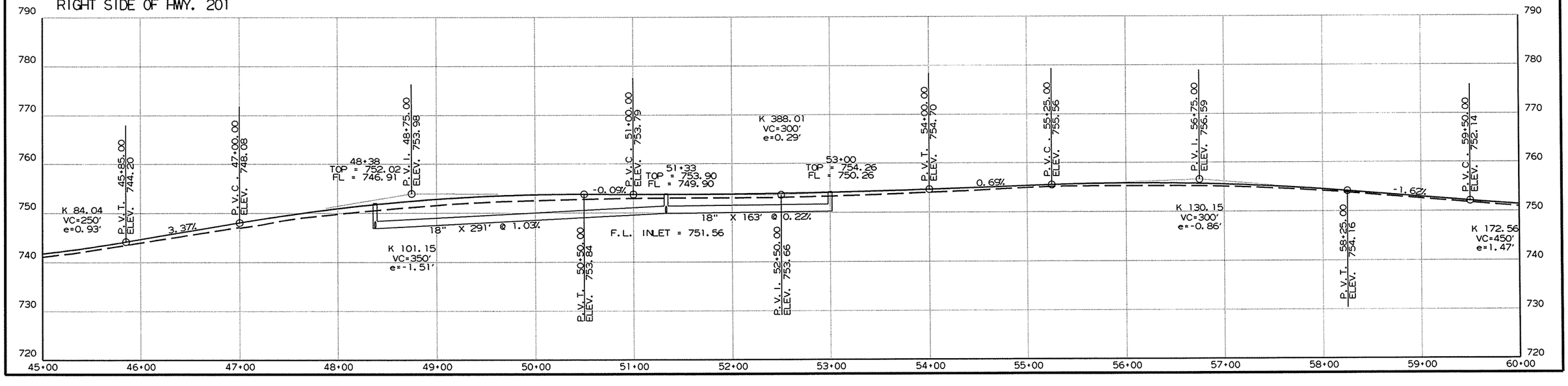
(2) PLAN AND PROFILE SHEETS

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
10-10-14

LEFT SIDE OF HWY. 201



RIGHT SIDE OF HWY. 201



9/24/2014

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DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090319	37	154

(2) PLAN AND PROFILE SHEETS

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
10-10-14

STA. 60+26 - IN PLACE
CONSTRUCT APPROACH ON LT. ON
13TH STREET = 25 CU. YDS.
UNCLASSIFIED EXCAVATION = 42 CU. YDS.

STA. 60+54 - IN PLACE
DROP INLET ON LT.
REMOVE

STA. 61+01 - IN PLACE
DROP INLET ON LT. WITH
24" PIPE OUTLET
REMOVE

STA. 61+17 - CONSTRUCT
D. I. ON LT. WITH 4'EXTENSION
& 24" x 69' PIPE OUTLET
CONNECT TO J.B. @ STA. 60+45.94 LT.
TY C = 4' x 4'
TY MO = 4'
H = 5'-0"

STA. 60+45.94 - CONSTRUCT
JUNCTION BOX ON LT.
CONNECT TO EXISTING PIPE OUTLET
TY E = 4' x 4'
H = 5'-9"

STA. 62+27 - CONSTRUCT
D. I. ON LT. & 18" x 106' PIPE OUTLET
CONNECT TO D. I. @ STA. 61+17 LT.
TY C = 4' x 4'
TY MO = 4'
H = 4'-0"

STA. 61+44 - IN PLACE
22" x 16" x 20' C.M. PIPE CULVERT
SIDE DRAIN - REMOVE
CONSTRUCT APPROACH ON LT. = 25 CU. YDS.

STA. 63+56 CONSTRUCT
APPROACH ON LT. = 15 CU. YDS.

STA. 63+92 CONSTRUCT
APPROACH ON LT. = 15 CU. YDS.

STA. 64+50 - CONSTRUCT
D. I. ON LT. & 18" x 219' PIPE OUTLET
CONNECT TO D. I. @ STA. 62+27 LT.
TY C = 4' x 4'
TY MO = 4'
H = 4'-0"

STA. 65+24 CONSTRUCT
APPROACH ON LT. = 20 CU. YDS.
UNCLASSIFIED EXCAVATION = 10 CU. YDS.

STA. 66+03.01 - CONSTRUCT
D. I. ON LT. WITH
18" x 12' R.C. PIPE OUTLET WITH FES
TY C = 4' x 4'
TY MO = 4'
H = 2'-9"

STA. 66+35 - CONSTRUCT
D. I. ON LT. WITH 4'EXTENSION
& 24" x 37' PIPE OUTLET
CONNECT TO D. I. @ STA. 66+03.01 LT.
TY C = 4' x 4'
TY MO = 4'
H = 4'-0"

STA. 67+43 CONSTRUCT
APPROACH ON LT. = 5 CU. YDS.

STA. 68+27 - IN PLACE
12" x 18' C.M. PIPE CULVERT
SIDE DRAIN - REMOVE
CONSTRUCT APPROACH ON LT. = 15 CU. YDS.

STA. 68+69 - IN PLACE
12" x 24' C.M. PIPE CULVERT
SIDE DRAIN - REMOVE
CONSTRUCT APPROACH ON LT. = 5 CU. YDS.

STA. 69+80 - CONSTRUCT
D. I. ON LT. & 18" x 341' PIPE OUTLET
CONNECT TO D. I. @ STA. 66+35 LT.
TY C = 4' x 4'
TY MO = 4'
H = 5'-0"

STA. 69+25 - IN PLACE
12" x 15' C.M. PIPE CULVERT
SIDE DRAIN - REMOVE
CONSTRUCT APPROACH ON LT. = 15 CU. YDS.

STA. 70+10 - IN PLACE
12" x 18' C.M. PIPE CULVERT
SIDE DRAIN - REMOVE
CONSTRUCT APPROACH ON LT. = 25 CU. YDS.

STA. 71+33 - IN PLACE
12" x 19' C.M. PIPE CULVERT
SIDE DRAIN - REMOVE
CONSTRUCT APPROACH ON LT. = 30 CU. YDS.

STA. 72+55 - IN PLACE
12" x 24' C.M. PIPE CULVERT
SIDE DRAIN - REMOVE
CONSTRUCT APPROACH ON LT. = 15 CU. YDS.

STA. 73+58 - IN PLACE
CONSTRUCT APPROACH ON LT. ON
11TH STREET = 12 CU. YDS.
UNCLASSIFIED EXCAVATION = 91 CU. YDS.

STA. 73+71.49 - CONSTRUCT
D. I. ON LT. & 18" x 52' PIPE OUTLET
CONNECT TO EXISTING D. I.
TY C = 4' x 4'
TY MO = 4'
H = 5'-0"

STA. 74+00 - CONSTRUCT
D. I. ON LT. & 18" x 36' PIPE OUTLET
CONNECT TO D. I. @ STA. 73+71.49 LT.
TY C = 4' x 4'
TY MO = 4'
H = 6'-11"

STA. 74+50 - CONSTRUCT
JUNCTION BOX ON LT.
& 18" x 46' PIPE OUTLET
CONNECT TO D. I. @ STA. 74+00 LT.
TY E = 4' x 4'
H = 5'

STA. 73+76 CONSTRUCT
APPROACH ON LT. = 5 CU. YDS.
UNCLASSIFIED EXCAVATION

STA. 59+93 ON LT. CONSTRUCT
TYPE 3 WHEELCHAIR RAMP = 5.4 SQ. YDS.

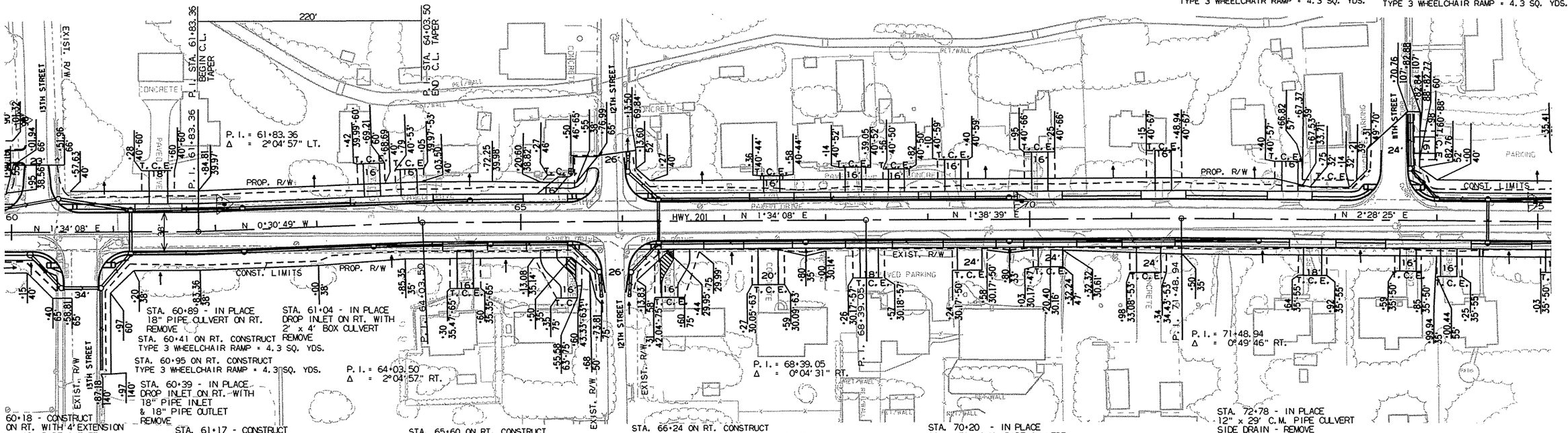
STA. 60+56 ON LT. CONSTRUCT
TYPE 3 WHEELCHAIR RAMP = 5.4 SQ. YDS.

STA. 65+58 ON LT. CONSTRUCT
TYPE 3 WHEELCHAIR RAMP = 5.4 SQ. YDS.

STA. 66+21 ON LT. CONSTRUCT
TYPE 3 WHEELCHAIR RAMP = 5.4 SQ. YDS.

STA. 73+35 ON LT. CONSTRUCT
TYPE 3 WHEELCHAIR RAMP = 4.3 SQ. YDS.

STA. 73+80 ON LT. CONSTRUCT
TYPE 3 WHEELCHAIR RAMP = 4.3 SQ. YDS.



STA. 60+89 - IN PLACE
18" PIPE CULVERT ON RT.
REMOVE

STA. 60+41 ON RT. CONSTRUCT
TYPE 3 WHEELCHAIR RAMP = 4.3 SQ. YDS.

STA. 60+95 ON RT. CONSTRUCT
TYPE 3 WHEELCHAIR RAMP = 4.3 SQ. YDS.

STA. 60+39 - IN PLACE
DROP INLET ON RT. WITH
18" PIPE INLET
& 18" PIPE OUTLET
REMOVE

STA. 61+04 - IN PLACE
DROP INLET ON RT. WITH
2' x 4' BOX CULVERT
REMOVE

STA. 60+18 - CONSTRUCT
D. I. ON RT. WITH 4'EXTENSION
& 24" x 42' PIPE OUTLET
CONNECT TO D. I. @ STA. 60+51.05 RT.
TY C = 4' x 4'
TY MO = 4'
H = 4'-6"

STA. 60+51.05 - CONSTRUCT
D. I. ON RT. & 24" x 35' PIPE OUTLET
CONNECT TO D. I. @ STA. 60+85 RT.
TY C = 4' x 4'
TY MO = 4'
H = 5'-9"

STA. 60+85 - CONSTRUCT
D. I. ON RT. & 18" x 80' PIPE INLET
CONNECT TO EXISTING D. I.
& 24" x 42' PIPE OUTLET
CONNECT TO D. I. @ STA. 61+17 RT.
TY C = 4' x 4'
TY MO = 4'
H = 6'-0"

STA. 61+17 - CONSTRUCT
D. I. ON RT.
& 24" x 39' R.C. PIPE OUTLET (CLASS IV)
CONNECT TO D. I. @ STA. 61+17 LT.
TY C = 4' x 4'
TY MO = 4'
H = 4'-9"

STA. 64+45 - IN PLACE
18" x 18' R.C. PIPE CULVERT
SIDE DRAIN - REMOVE
CONSTRUCT APPROACH ON RT. = 15 CU. YDS.
UNCLASSIFIED EXCAVATION

STA. 62+27 - CONSTRUCT
D. I. ON RT. WITH 8' EXTENSION
& 18" x 106' PIPE OUTLET
CONNECT TO D. I. @ STA. 61+17 RT.
TY C = 4' x 4'
TY MO = 4'
H = 3'-9"

STA. 60+67 - IN PLACE
CONSTRUCT APPROACH ON RT. ON
13TH STREET = 49 CU. YDS.
UNCLASSIFIED EXCAVATION

STA. 65+28 CONSTRUCT
APPROACH ON RT. = 15 CU. YDS.
UNCLASSIFIED EXCAVATION

STA. 63+55 - CONSTRUCT
D. I. ON RT. WITH 4' EXTENSION
& 18" x 124' PIPE OUTLET
CONNECT TO D. I. @ STA. 62+27 RT.
TY C = 4' x 4'
TY MO = 4'
H = 3'-6"

STA. 64+70 - CONSTRUCT
D. I. ON RT. WITH 4' EXTENSION
& 18" x 110' PIPE OUTLET
CONNECT TO D. I. @ STA. 63+55 RT.
TY C = 4' x 4'
TY MO = 4'
H = 4'-0"

STA. 65+60 ON RT. CONSTRUCT
TYPE 3 WHEELCHAIR RAMP = 5.4 SQ. YDS.

STA. 66+44 - IN PLACE
12" x 18' C.M. PIPE CULVERT
SIDE DRAIN ON RT. - REMOVE

STA. 66+58 CONSTRUCT
APPROACH ON RT. = 35 CU. YDS.
UNLCASSIFIED EXCAVATION

STA. 65+92 - IN PLACE
CONSTRUCT APPROACH ON RT. ON
12TH STREET = 10 CU. YDS.
UNCLASSIFIED EXCAVATION = 62 CU. YDS.

STA. 65+49 - CONSTRUCT
D. I. ON RT. & 18" x 75' PIPE OUTLET
CONNECT TO D. I. @ STA. 64+70 RT.
TY C = 4' x 4'
TY MO = 4'
H = 4'-0"

STA. 65+77.15 - CONSTRUCT
D. I. ON RT. & 18" x 17' R.C. PIPE INLET
WITH FES
& 18" x 36' PIPE OUTLET
CONNECT TO D. I. @ STA. 65+49 RT.
TY C = 4' x 4'
TY MO = 4'
H = 4'-3"

STA. 66+24 ON RT. CONSTRUCT
TYPE 3 WHEELCHAIR RAMP = 5.4 SQ. YDS.

STA. 68+42 - IN PLACE
12" x 28' R.C. PIPE CULVERT
SIDE DRAIN - REMOVE
CONSTRUCT APPROACH ON RT. = 5 CU. YDS.
UNCLASSIFIED EXCAVATION

STA. 67+40 - IN PLACE
12" x 26' R.C. PIPE CULVERT
SIDE DRAIN - REMOVE
CONSTRUCT APPROACH ON RT. = 10 CU. YDS.
UNCLASSIFIED EXCAVATION

STA. 66+35 - CONSTRUCT
D. I. ON RT. WITH 4' EXTENSION
& 18" x 39' R.C. PIPE OUTLET (CLASS V)
CONNECT TO D. I. @ STA. 63+55 LT.
TY C = 4' x 4'
TY MO = 4'
H = 3'-9"

STA. 66+05.66 - CONSTRUCT
D. I. ON RT. & 18" x 17' R.C. PIPE INLET
WITH FES
& 18" x 36' PIPE OUTLET
CONNECT TO D. I. @ STA. 66+35 RT.
TY C = 4' x 4'
TY MO = 4'
H = 4'-3"

STA. 70+20 - IN PLACE
18" x 51' C.M. PIPE CULVERT
SIDE DRAIN - REMOVE
CONSTRUCT APPROACH ON RT. = 5 CU. YDS.
UNCLASSIFIED EXCAVATION

STA. 69+41 - IN PLACE
12" x 30' C.M. PIPE CULVERT
SIDE DRAIN - REMOVE
CONSTRUCT APPROACH ON RT. = 5 CU. YDS.
UNCLASSIFIED EXCAVATION

STA. 67+80 - CONSTRUCT
D. I. ON RT. WITH 4'EXTENSION
& OPENING IN BACK
& 18" x 141' PIPE OUTLET
CONNECT TO D. I. @ STA. 66+35 RT.
TY C = 4' x 4'
TY MO = 4'
H = 4'-0"

STA. 69+80 - CONSTRUCT
D. I. ON RT. WITH 8'EXTENSION
& OPENING IN BACK
& 18" x 196' PIPE OUTLET
CONNECT TO D. I. @ STA. 67+80 RT.
TY C = 4' x 4'
TY MO = 4'
H = 5'-0"

STA. 72+78 - IN PLACE
12" x 29' C.M. PIPE CULVERT
SIDE DRAIN - REMOVE
CONSTRUCT APPROACH ON RT. = 10 CU. YDS.
UNCLASSIFIED EXCAVATION

STA. 74+43 - CONSTRUCT
ON RT. SIDEWALK

STA. 71+16 - IN PLACE
18" x 41' C.M. PIPE CULVERT
SIDE DRAIN - REMOVE
CONSTRUCT APPROACH ON RT. = 15 CU. YDS.
UNCLASSIFIED EXCAVATION

STA. 73+72 - IN PLACE
15" x 20' C.M. PIPE CULVERT
SIDE DRAIN - REMOVE
CONSTRUCT APPROACH ON RT. = 5 CU. YDS.
UNCLASSIFIED EXCAVATION

STA. 74+12 - IN PLACE
15" x 22' C.M. PIPE CULVERT
SIDE DRAIN - REMOVE
CONSTRUCT APPROACH ON RT. = 15 CU. YDS.
UNCLASSIFIED EXCAVATION

STA. 72+25 - CONSTRUCT
D. I. ON RT. WITH 8'EXTENSION
& 18" x 240' PIPE OUTLET
CONNECT TO D. I. @ STA. 69+80 RT.
TY C = 4' x 4'
TY MO = 4'
H = 4'-6"

STA. 74+50 - CONSTRUCT
D. I. ON RT. WITH 8' EXTENSION
& 18" x 39' R.C. PIPE OUTLET (CLASS IV)
CONNECT TO D. I. @ STA. 74+50 LT.
TY C = 4' x 4'
TY MO = 4'
H = 4'-9"

ALL R.C. PIPE CULVERTS SHALL BE CLASS III UNLESS OTHERWISE SPECIFIED. FOR ALL R.C. PIPE CULVERT INSTALLATIONS USE TYPE 3 BEDDING UNLESS OTHERWISE SPECIFIED. FOR ALL C.M. PIPE CULVERT INSTALLATIONS USE TYPE 2 BEDDING UNLESS OTHERWISE SPECIFIED.

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

HWY. 201

9/24/2014

R090319.DGN

ALL R.C. PIPE CULVERTS SHALL BE CLASS III UNLESS OTHERWISE SPECIFIED. FOR ALL R.C. PIPE CULVERT INSTALLATIONS USE TYPE 3 BEDDING UNLESS OTHERWISE SPECIFIED. FOR ALL C.M. PIPE CULVERT INSTALLATIONS USE TYPE 2 BEDDING UNLESS OTHERWISE SPECIFIED.

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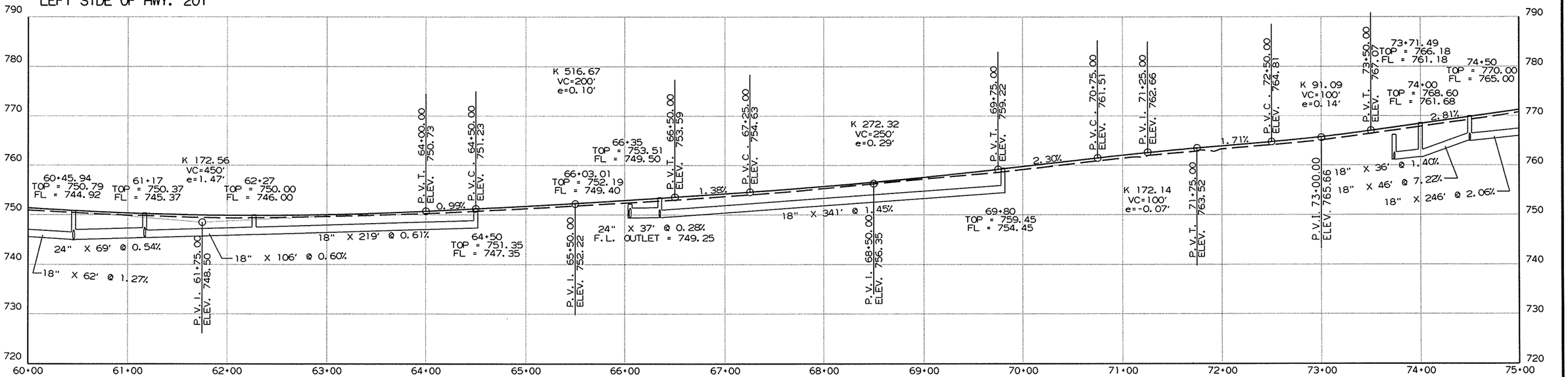
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090319	38	154

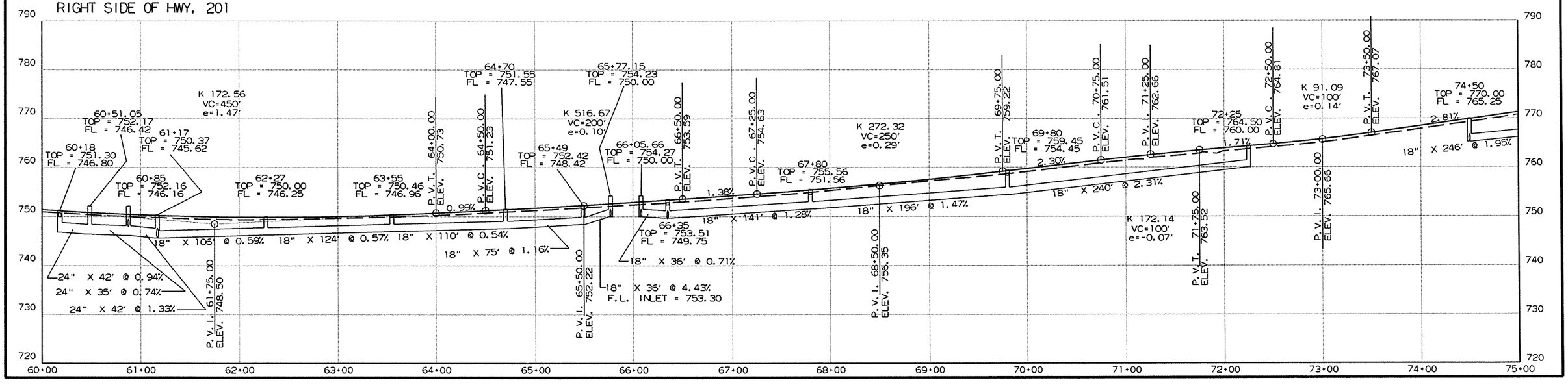
(2) PLAN AND PROFILE SHEETS

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
10-10-14

LEFT SIDE OF HWY. 201



RIGHT SIDE OF HWY. 201



9/24/2014

R090319.DGN

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
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				JOB NO.		090319	39	154

(2) PLAN AND PROFILE SHEETS

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
10-10-14

STA. 77+00 - CONSTRUCT
D. I. ON LT. & 18" x 246' PIPE OUTLET
CONNECT TO J.B. @ STA. 74+50 LT.
TY C = 4' x 4'
TY MO = 4'
H = 6'-0"

STA. 79+60 - CONSTRUCT
D. I. ON LT. & 18" x 256' PIPE OUTLET
CONNECT TO D. I. @ STA. 77+00 LT.
TY C = 4' x 4'
TY MO = 4'
H = 8'-0"

STA. 81+66 - IN PLACE
CONSTRUCT APPROACH ON LT. ON
10TH STREET = 14 CU. YDS.
UNCLASSIFIED EXCAVATION = 16 CU. YDS.

STA. 81+37 ON LT. CONSTRUCT
TYPE 3 WHEELCHAIR RAMP = 5.4 SQ. YDS.

STA. 81+97 ON LT. CONSTRUCT
TYPE 3 WHEELCHAIR RAMP = 5.4 SQ. YDS.

STA. 85+37.62 - CONSTRUCT
D. I. ON LT.
CONNECT TO EXISTING PIPE OUTLET
TY C = 5' x 5'
TY MO = 5'
H = 6'-5"

STA. 86+07 - CONSTRUCT
D. I. ON LT. & 18" x 65' PIPE OUTLET
CONNECT TO D. I. @ STA. 85+37.62 LT.
TY C = 4' x 4'
TY MO = 4'
H = 6'-0"

STA. 75+44 - IN PLACE
12" C.M. PIPE CULVERT
SIDE DRAIN - REMOVE
CONSTRUCT APPROACH ON LT. = 10 CU. YDS.

STA. 78+00 - CONSTRUCT
ON LT. SIDEWALK

STA. 78+86 - CONSTRUCT
ON LT. SIDEWALK

STA. 77+35 CONSTRUCT
APPROACH ON LT. = 5 CU. YDS.

STA. 79+31 CONSTRUCT
APPROACH ON LT. = 5 CU. YDS.

STA. 81+07 - CONSTRUCT
ON LT. SIDEWALK

STA. 84+33 - IN PLACE
DROP INLET ON LT.
REMOVE

STA. 84+36 CONSTRUCT
APPROACH ON LT. = 15 CU. YDS.

STA. 76+51 CONSTRUCT
APPROACH ON LT. = 10 CU. YDS.

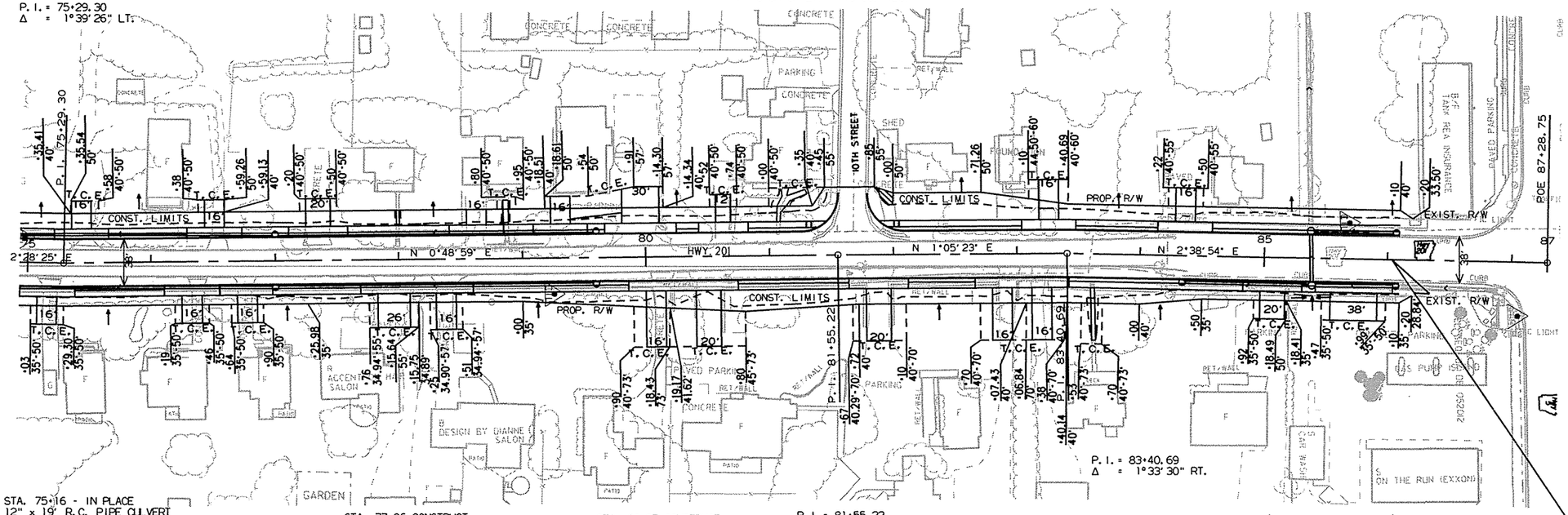
STA. 78+63 CONSTRUCT
APPROACH ON LT.

STA. 79+96 CONSTRUCT
APPROACH ON LT. = 30 CU. YDS.

STA. 83+26 CONSTRUCT
APPROACH ON LT. = 20 CU. YDS.

STA. 80+63 CONSTRUCT
APPROACH ON LT. = 10 CU. YDS.

P. I. = 75+29.30
Δ = 1°39'26" LT.



STA. 75+16 - IN PLACE
12" x 19" R.C. PIPE CULVERT
SIDE DRAIN - REMOVE
CONSTRUCT APPROACH ON RT. = 5 CU. YDS.
UNCLASSIFIED EXCAVATION

STA. 77+96 CONSTRUCT
APPROACH ON RT. = 15 CU. YDS.
UNCLASSIFIED EXCAVATION

STA. 78+38 CONSTRUCT
APPROACH ON RT. = 15 CU. YDS.
UNCLASSIFIED EXCAVATION

STA. 80+07 CONSTRUCT
APPROACH ON RT. = 45 CU. YDS.
UNCLASSIFIED EXCAVATION

STA. 80+50 CONSTRUCT
APPROACH ON RT. = 20 CU. YDS.
UNCLASSIFIED EXCAVATION

P. I. = 81+55.22
Δ = 0°16'24" RT.

STA. 81+87 CONSTRUCT
APPROACH ON RT. = 35 CU. YDS.
UNCLASSIFIED EXCAVATION

STA. 82+87 CONSTRUCT
APPROACH ON RT. = 25 CU. YDS.
UNCLASSIFIED EXCAVATION

STA. 83+20 CONSTRUCT
APPROACH ON RT. = 30 CU. YDS.
UNCLASSIFIED EXCAVATION

P. I. = 83+40.69
Δ = 1°33'30" RT.

STA. 85+07 CONSTRUCT
APPROACH ON RT. = 5 CU. YDS.
UNCLASSIFIED EXCAVATION

STA. 85+73 CONSTRUCT
APPROACH ON RT. = 5 CU. YDS.
UNCLASSIFIED EXCAVATION

STA. 76+32 CONSTRUCT
APPROACH ON RT. = 5 CU. YDS.
UNCLASSIFIED EXCAVATION

STA. 76+77 CONSTRUCT
APPROACH ON RT. = 5 CU. YDS.
UNCLASSIFIED EXCAVATION

STA. 77+00 - CONSTRUCT
D. I. ON RT. WITH 8' EXTENSION
& 18" x 246' PIPE OUTLET
CONNECT TO D. I. @ STA. 74+50 RT.
TY C = 4' x 4'
TY MO = 4'
H = 6'-0"

STA. 79+60 - CONSTRUCT
D. I. ON RT. WITH 8' EXTENSION
& 18" x 256' PIPE OUTLET
CONNECT TO D. I. @ STA. 77+00 RT.
TY C = 4' x 4'
TY MO = 4'
H = 8'-0"

STA. 84+33 - IN PLACE
DROP INLET ON RT. WITH
18" x 102' PIPE OUTLET
REMOVE

STA. 85+39 - IN PLACE
DROP INLET ON RT. WITH
24" x 39' PIPE OUTLET
REMOVE

STA. 85+99 - IN PLACE
DROP INLET ON RT. WITH
24" x 57' PIPE OUTLET
& 24" x 7' PIPE INLET
REMOVE

STA. 83+62 - CONSTRUCT
ON RT. SIDEWALK

STA. 84+34 - CONSTRUCT
D. I. ON RT. WITH 4' EXTENSION
& 18" x 100' PIPE OUTLET
CONNECT TO D. I. @ STA. 85+39 RT.
TY C = 4' x 4'
TY MO = 4'
H = 4'-9"

STA. 85+39 - CONSTRUCT
D. I. ON RT. WITH OPENING IN BACK
& 24" x 39' R.C. PIPE OUTLET
CONNECT TO D. I. @ STA. 85+37.62 LT.
TY C = 5' x 5'
TY MO = 5'
H = 5'-11"

STA. 86+10.00
END JOB 090319

STA. 86+07 - CONSTRUCT
D. I. ON RT. & 24" x 64' PIPE OUTLET
CONNECT TO D. I. @ STA. 85+39 RT.
& CONNECT TO EXISTING PIPE INLET
TY C = 4' x 4'
TY MO = 4'
H = 4'-2"

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

9/24/2014

R090319.DGN

HWY. 201

ALL R.C. PIPE CULVERTS SHALL BE CLASS III UNLESS OTHERWISE SPECIFIED. FOR ALL R.C. PIPE CULVERT INSTALLATIONS USE TYPE 3 BEDDING UNLESS OTHERWISE SPECIFIED. FOR ALL C.M. PIPE CULVERT INSTALLATIONS USE TYPE 2 BEDDING UNLESS OTHERWISE SPECIFIED.

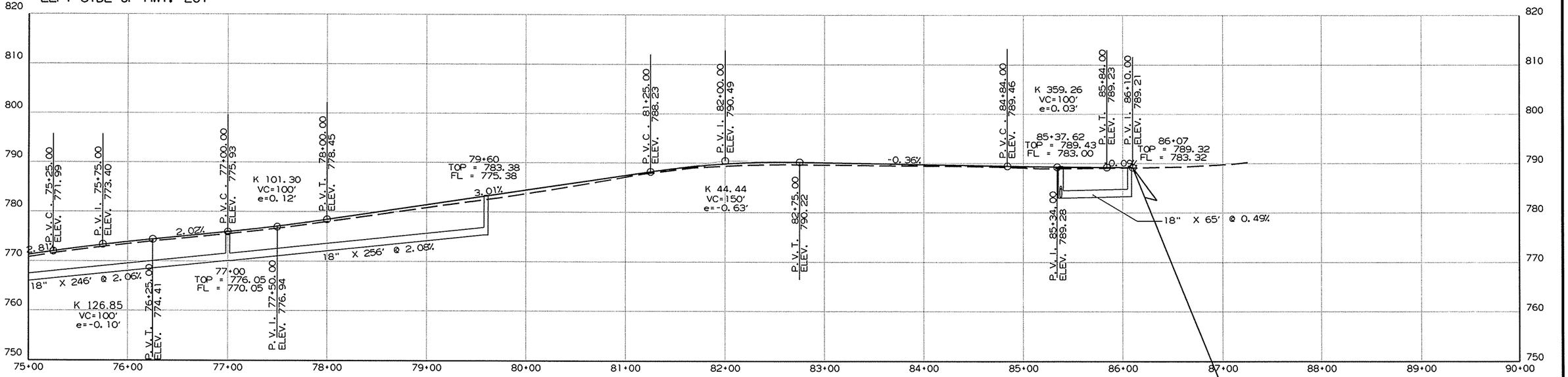
REFER TO SURVEY CONTROL DETAIL SHEETS FOR HORIZONTAL AND VERTICAL CONTROL DATA.

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090319	40	154

(2) PLAN AND PROFILE SHEETS

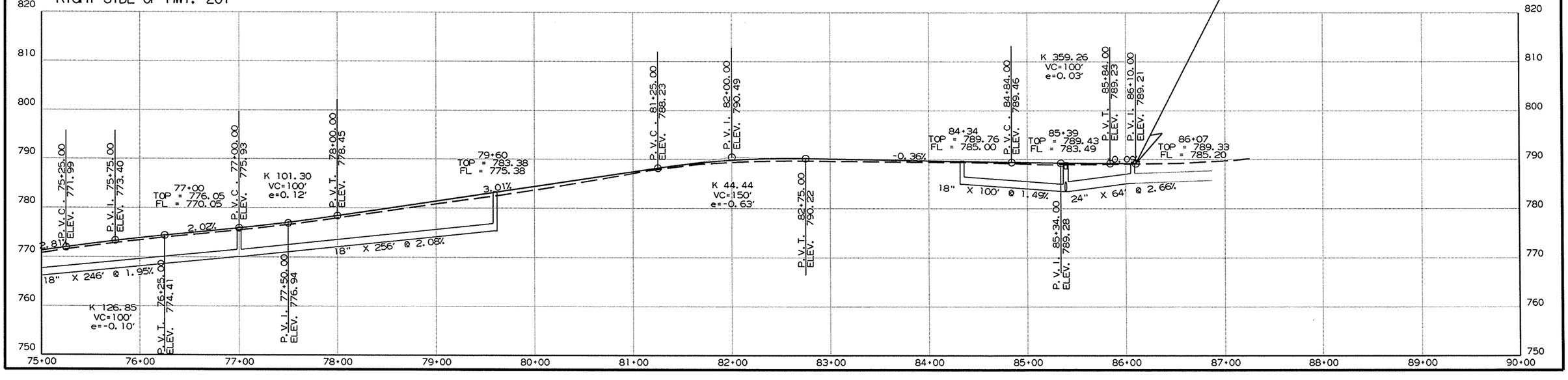
STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
11-14-14

LEFT SIDE OF HWY. 201



STA. 86+10.00
END JOB 090319

RIGHT SIDE OF HWY. 201



9/24/2014

R090319.DGN

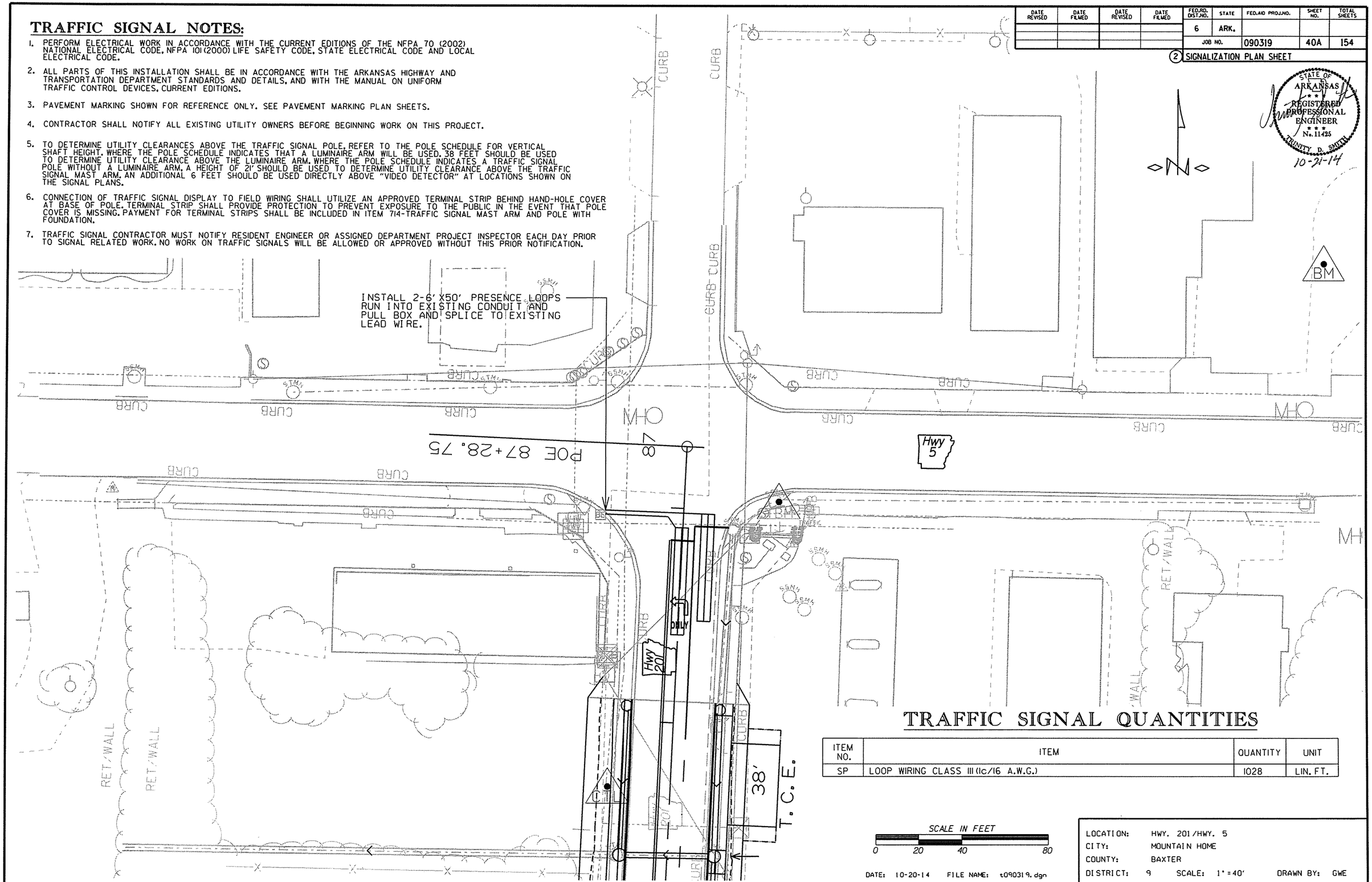
TRAFFIC SIGNAL NOTES:

1. PERFORM ELECTRICAL WORK IN ACCORDANCE WITH THE CURRENT EDITIONS OF THE NFPA 70 (2002) NATIONAL ELECTRICAL CODE, NFPA 101 (2000) LIFE SAFETY CODE, STATE ELECTRICAL CODE AND LOCAL ELECTRICAL CODE.
2. ALL PARTS OF THIS INSTALLATION SHALL BE IN ACCORDANCE WITH THE ARKANSAS HIGHWAY AND TRANSPORTATION DEPARTMENT STANDARDS AND DETAILS, AND WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, CURRENT EDITIONS.
3. PAVEMENT MARKING SHOWN FOR REFERENCE ONLY. SEE PAVEMENT MARKING PLAN SHEETS.
4. CONTRACTOR SHALL NOTIFY ALL EXISTING UTILITY OWNERS BEFORE BEGINNING WORK ON THIS PROJECT.
5. TO DETERMINE UTILITY CLEARANCES ABOVE THE TRAFFIC SIGNAL POLE, REFER TO THE POLE SCHEDULE FOR VERTICAL SHAFT HEIGHT. WHERE THE POLE SCHEDULE INDICATES THAT A LUMINAIRE ARM WILL BE USED, 38 FEET SHOULD BE USED TO DETERMINE UTILITY CLEARANCE ABOVE THE LUMINAIRE ARM. WHERE THE POLE SCHEDULE INDICATES A TRAFFIC SIGNAL POLE WITHOUT A LUMINAIRE ARM, A HEIGHT OF 21' SHOULD BE USED TO DETERMINE UTILITY CLEARANCE ABOVE THE TRAFFIC SIGNAL MAST ARM. AN ADDITIONAL 6 FEET SHOULD BE USED DIRECTLY ABOVE "VIDEO DETECTOR" AT LOCATIONS SHOWN ON THE SIGNAL PLANS.
6. CONNECTION OF TRAFFIC SIGNAL DISPLAY TO FIELD WIRING SHALL UTILIZE AN APPROVED TERMINAL STRIP BEHIND HAND-HOLE COVER AT BASE OF POLE. TERMINAL STRIP SHALL PROVIDE PROTECTION TO PREVENT EXPOSURE TO THE PUBLIC IN THE EVENT THAT POLE COVER IS MISSING. PAYMENT FOR TERMINAL STRIPS SHALL BE INCLUDED IN ITEM 714-TRAFFIC SIGNAL MAST ARM AND POLE WITH FOUNDATION.
7. TRAFFIC SIGNAL CONTRACTOR MUST NOTIFY RESIDENT ENGINEER OR ASSIGNED DEPARTMENT PROJECT INSPECTOR EACH DAY PRIOR TO SIGNAL RELATED WORK. NO WORK ON TRAFFIC SIGNALS WILL BE ALLOWED OR APPROVED WITHOUT THIS PRIOR NOTIFICATION.

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090319	40A	154

(2) SIGNALIZATION PLAN SHEET

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
10-21-14



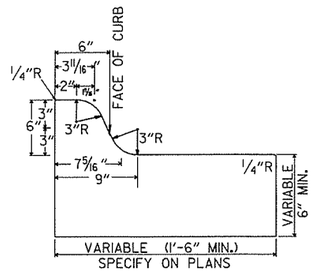
TRAFFIC SIGNAL QUANTITIES

ITEM NO.	ITEM	QUANTITY	UNIT
SP	LOOP WIRING CLASS III (1c/16 A.W.G.)	1028	LIN. FT.

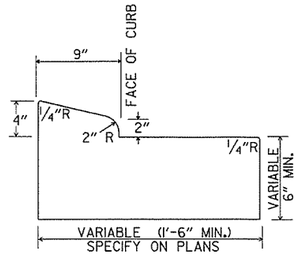
SCALE IN FEET
0 20 40 80

DATE: 10-20-14 FILE NAME: t090319.dgn

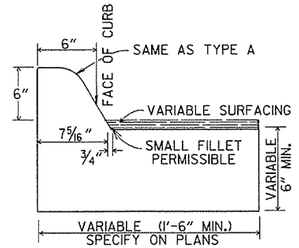
LOCATION: HWY. 201/HWY. 5
CITY: MOUNTAIN HOME
COUNTY: BAXTER
DISTRICT: 9 SCALE: 1" = 40' DRAWN BY: GWE



TYPE A



TYPE B-1



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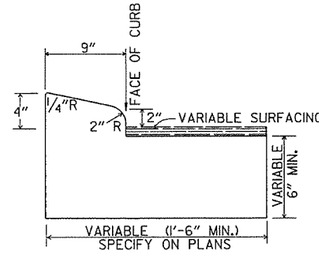
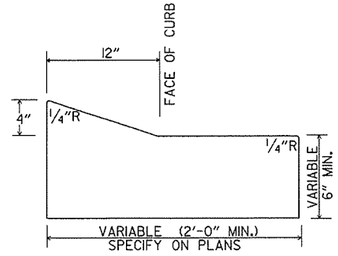
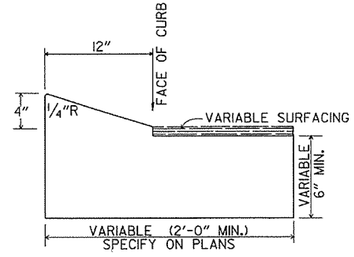


TYPE B-2

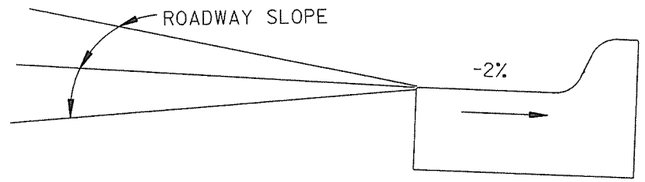


TYPE E-1



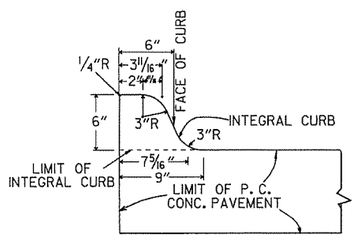
TYPE E-2

CONCRETE COMBINATION CURB AND GUTTER

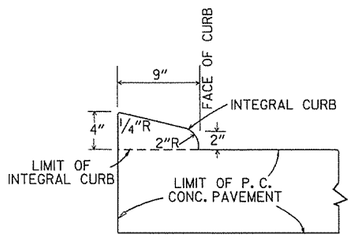


DETAIL OF GUTTER SLOPE

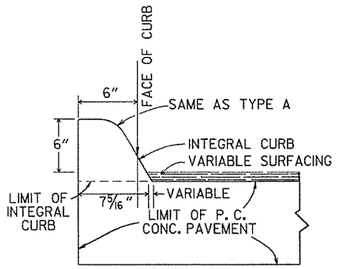
GUTTER SHALL BE CONSTRUCTED ON 2% SLOPE AWAY FROM ROADWAY, REGARDLESS OF ROADWAY SLOPE.



TYPE A

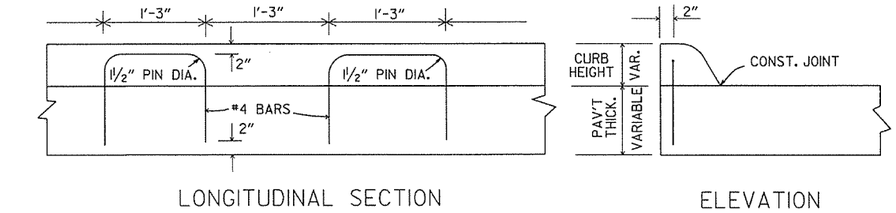


TYPE B



TYPE C

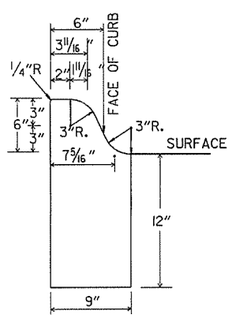
INTEGRAL CURB



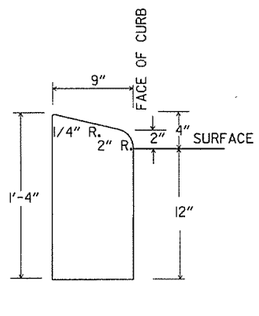
LONGITUDINAL SECTION

ELEVATION

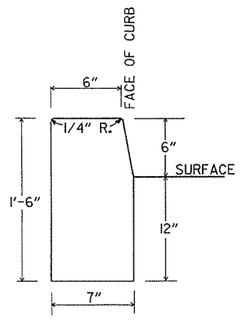
ALTERNATE CONSTRUCTION METHOD FOR INTEGRAL CURB



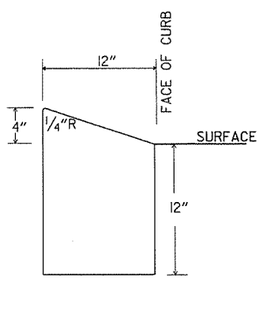
TYPE A



TYPE B

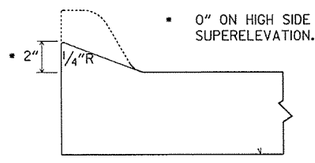


TYPE D



TYPE E

CONCRETE CURB



NOTE: USE MODIFIED CURB AS SPECIFIED ON STD. DR-1. COMPENSATION FOR MODIFIED CURB WILL BE CONSIDERED INCLUDED IN THE PRICE BID FOR THE TYPE OF CURB OR CURB AND GUTTER SPECIFIED.

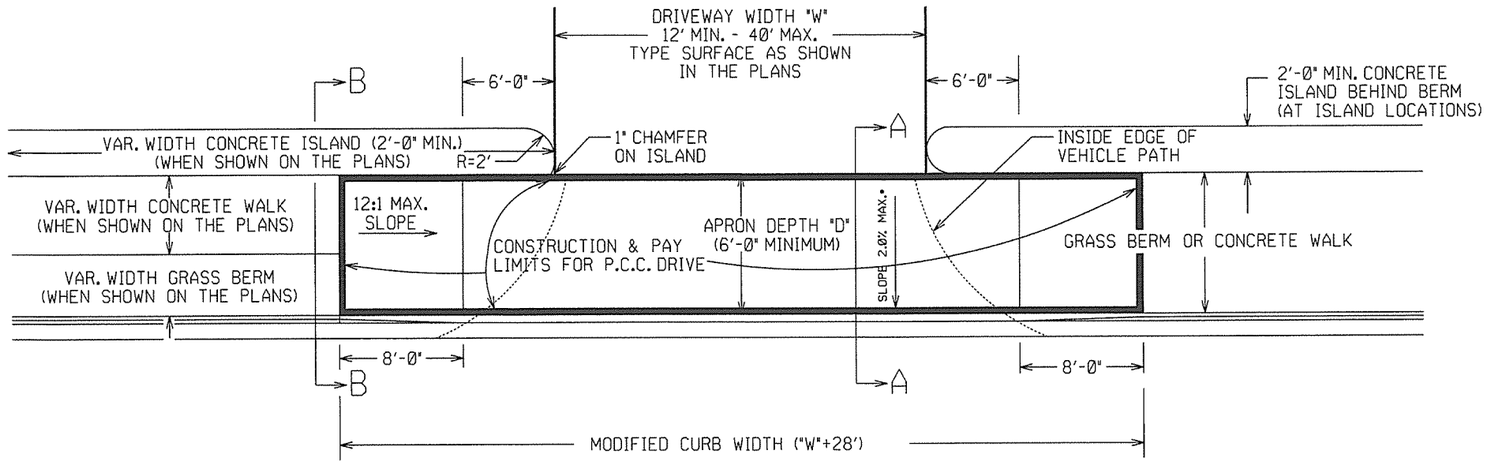
DETAILS OF MODIFIED CURB

DATE	REVISION	DATE FILMED
11-29-07	REVISED GUTTER SLOPE & MODIFIED CURB DETAILS	
11-10-05	ADDED DETAILS OF TYPE E CURBS	
11-16-01	REVISED CONCRETE CURB TYPE B	
11-18-98	REVISED MODIFIED CURB	
6-2-94	ADDED NOTE TO SPECIAL MODIFIED CURB	
8-5-93	CORRECTED GUTTER SLOPE	8-5-93
10-1-92	ADDED DETAILS OF GUTTER SLOPE	10-1-92
5-24-90	ADDED DETAILS OF MODIFIED CURB	5-24-90
11-30-89	VARIBLE DEPTH TYPE A & B 1	11-30-89
7-15-88	REVISED MODIFIED CURB	630-7-15-88
11-1-73	REVISED MODIFIED CURB	500-11-1-73
10-2-72	REVISED AND REDRAWN	512-10-2-72

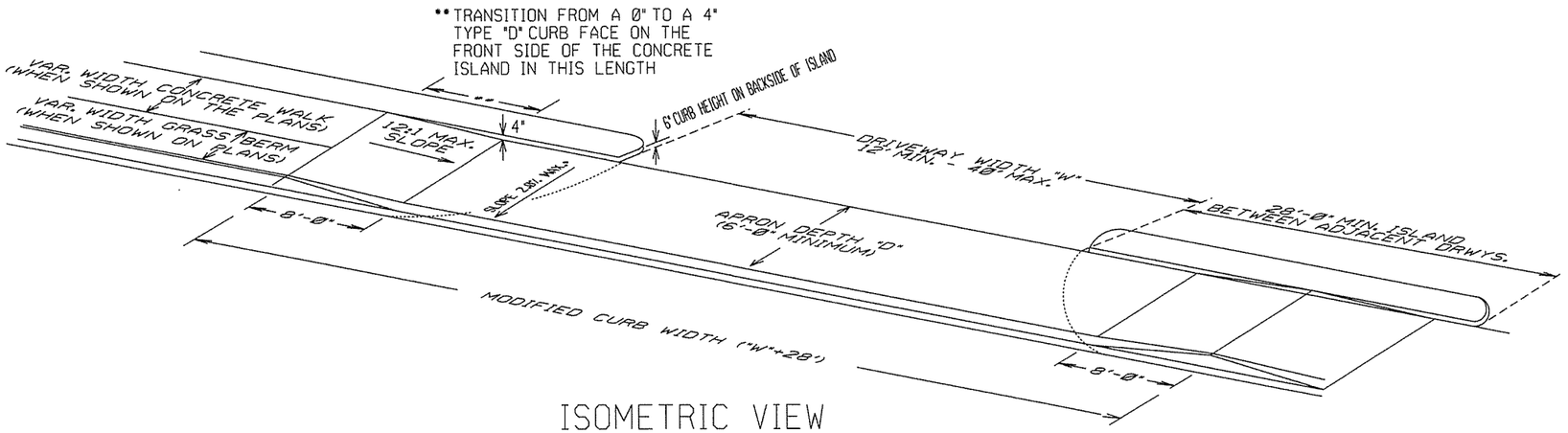
ARKANSAS STATE HIGHWAY COMMISSION

CURBING DETAILS

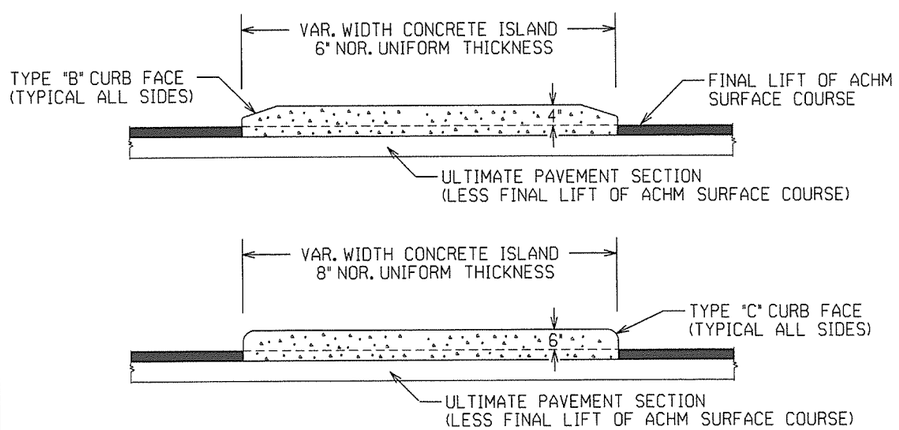
STANDARD DRAWING CG-1



PLAN VIEW

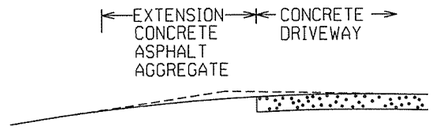


ISOMETRIC VIEW



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

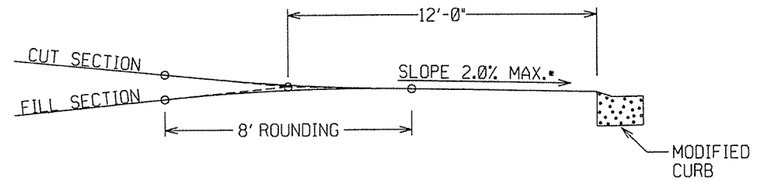
2: ASPHALT - 2" ACHM SURFACE COURSE (1/2")
4" ACHM BINDER COURSE.(1") OR
4" ACHM BASE COURSE (1-1/2")

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

4: AGGREGATE - 6" AGGREGATE BASE COURSE

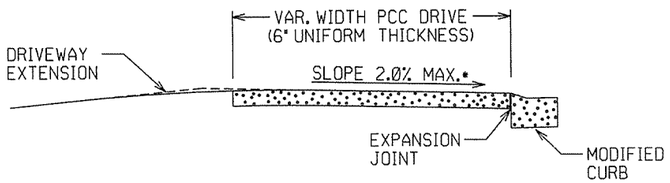
THE TYPE OF EXTENSION SHALL BE AS SHOWN IN THE PLANS. THE CONTRACTOR MAY, WITH THE APPROVAL OF THE ENGINEER, SUBSTITUTE A LOWER NUMBERED TYPE OF EXTENSION IN LIEU OF THE TYPE SPECIFIED IN THE PLANS, BUT AT NO ADDITIONAL COST TO THE DEPARTMENT.

DRIVEWAY EXTENSION DETAILS

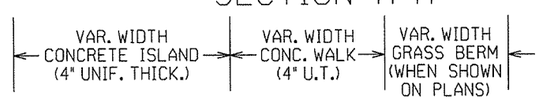


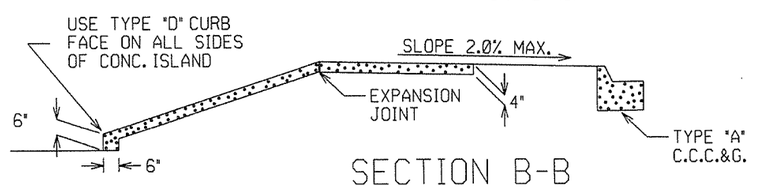
DRIVEWAY VERTICAL ALIGNMENT DETAILS

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



SECTION A-A

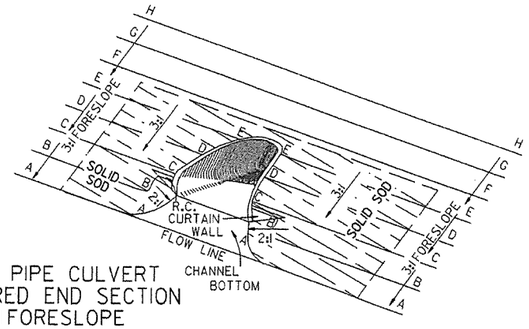




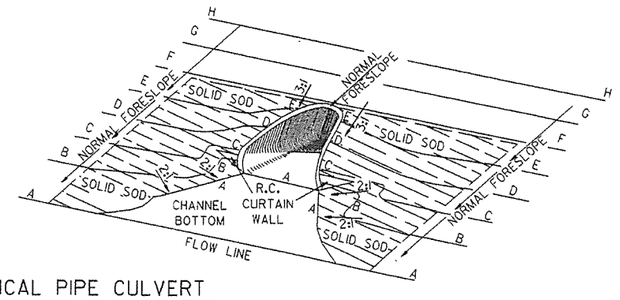
SECTION B-B
CURBED ISLAND BEHIND WALK

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

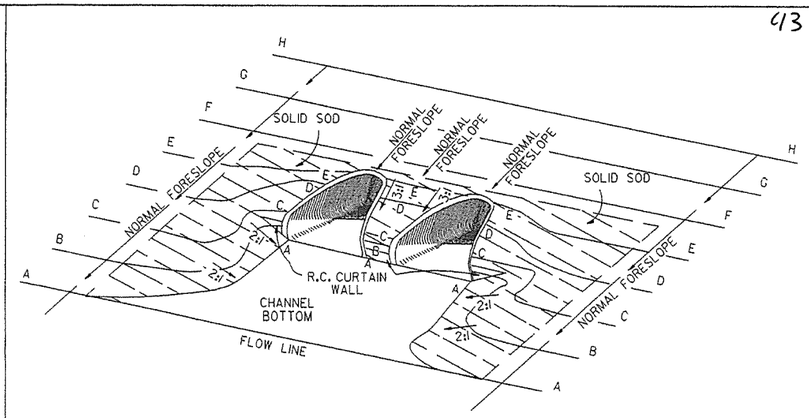
ARKANSAS STATE HIGHWAY COMMISSION
DETAILS OF DRIVEWAYS & ISLANDS
STANDARD DRAWING DR-1



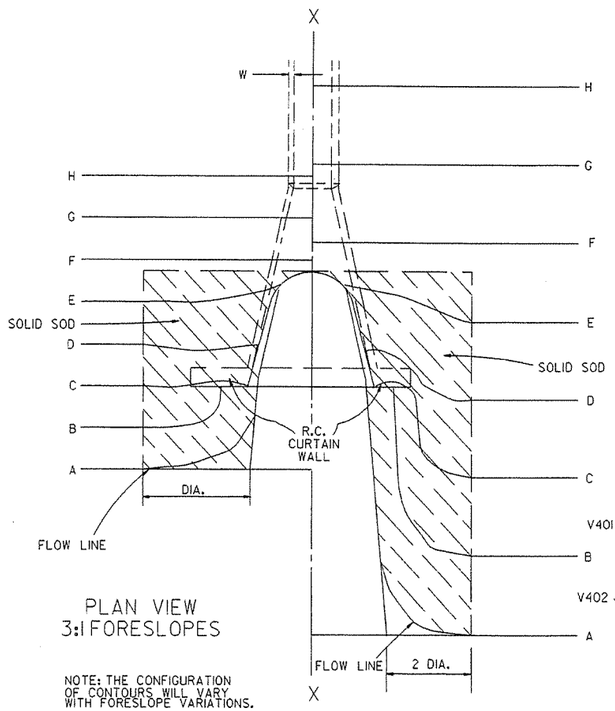
TYPICAL PIPE CULVERT
WITH FLARED END SECTION
& 3:1 FORESLOPE



TYPICAL PIPE CULVERT
WITH FLARED END SECTION
& FLATTENED ADJACENT SLOPES



TYPICAL MULTIPLE PIPE CULVERT
WITH FLARED END SECTIONS
& FLATTENED ADJACENT SLOPES



PLAN VIEW
3:1 FORESLOPES

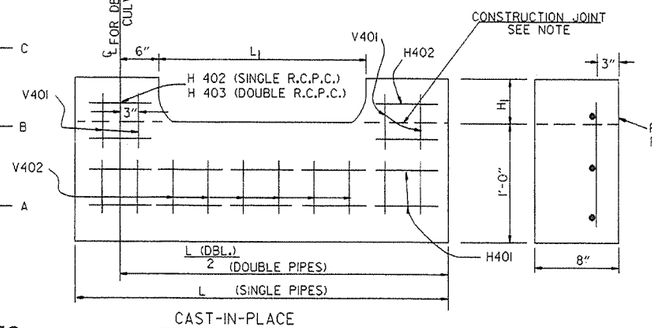
NOTE: THE CONFIGURATION OF CONTOURS WILL VARY WITH FORESLOPE VARIATIONS.

PLAN VIEW
FLATTENED FORESLOPES

R.C. CURTAIN WALL DIMENSIONS & QUANTITIES

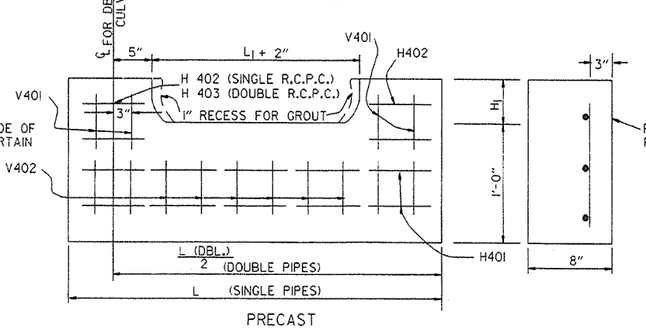
PIPE DIA.	H_1	L_1	L	L (DBL.)/2	SINGLE R.C.P.C. CONC. CU. YDS.	SINGLE R.C.P.C. REINF. STEEL LBS.	DOUBLE R.C.P.C. CONC. CU. YDS.	DOUBLE R.C.P.C. REINF. STEEL LBS.
18"	1'-11½"	3'-5"	8'-0"	6'-3"	0.31	27.7	0.45	39.5
24"	1'-0½"	4'-6"	9'-6"	7'-6"	0.37	33.4	0.53	48.0
30"	1'-3½"	5'-7"	11'-0"	9'-0"	0.45	39.0	0.67	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.



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

REINFORCING STEEL SCHEDULE

PIPE DIA.	SINGLE R.C. PIPE CULVERT H401 L	NO.	H402 L	NO.	V401 L	NO.	V402 L	NO.	DOUBLE R.C. PIPE CULVERT H401 L	NO.	H402 L	NO.	H403 L	NO.	V401 L	NO.	V402 L	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.

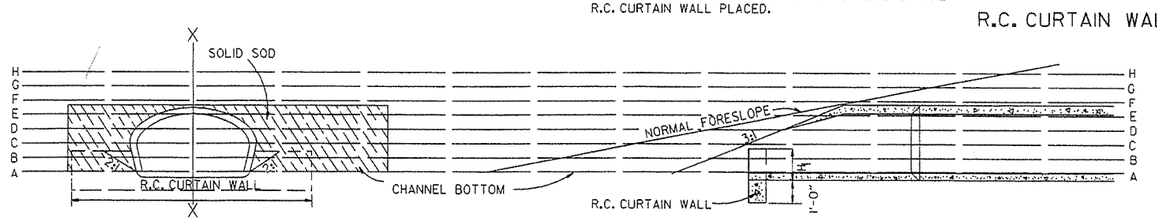
SOLID SODDING

PIPE DIA.	SINGLE R.C.P.C. 3:1	4:1	6:1	DOUBLE R.C.P.C. 3:1	4:1	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

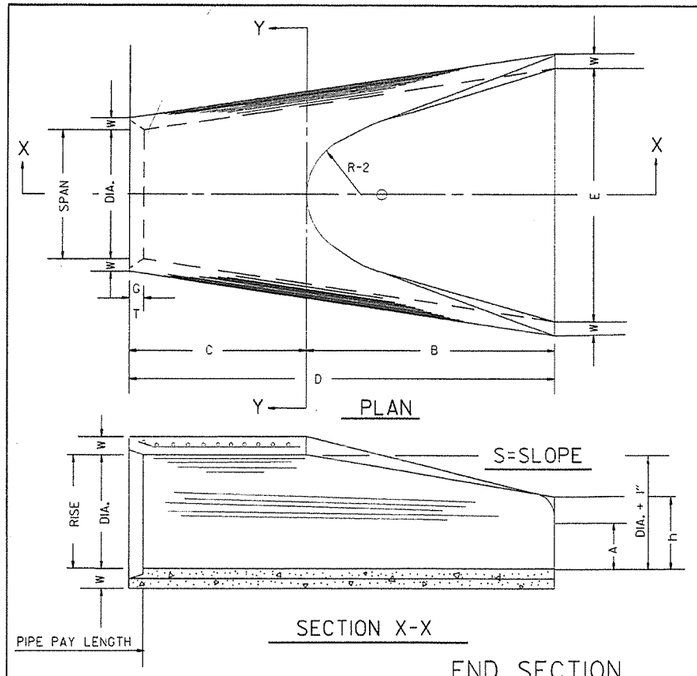
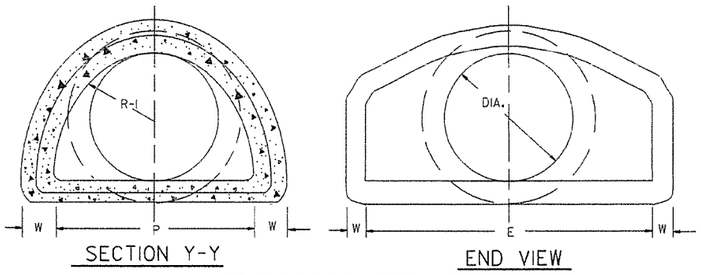


TABLE OF DIMENSIONS

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'-1½"	4'-0"	3:1	25"	33⅜"	16⅜"	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"	47¹³⁄₁₆"	24⅝"	20"	3½"	4100	1'-8"
42"	4½"	1'-9"	5'-3"	2'-11"	8'-2"	6'-6"	3:1	43"	53⅞"	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"	36⅛"	24"	4"	9270	3'-5"
72"	7"	3'-10"	6'-6"	1'-10"	8'-4"	9'-0"	3:1	73"	77¹³⁄₁₆"	38⅛"	24"	5"	13250	4'-6"



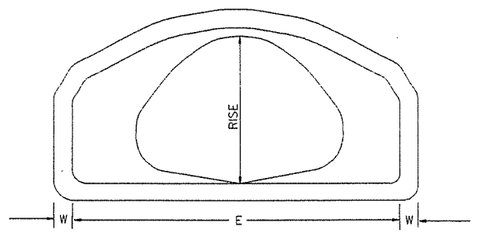
NOTE: TONGUE END ON UPSTREAM SECTION
GROOVE END ON DOWNSTREAM SECTION

END SECTION FOR REINFORCED CONCRETE PIPE CULVERTS

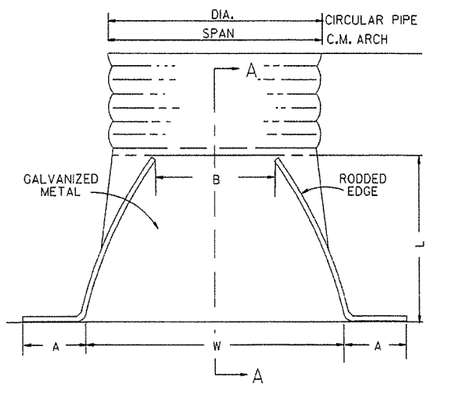
ARCH PIPE

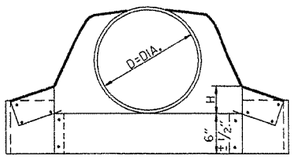
EQUIV. DIA.	• SPAN AASHTO M 206	• SPAN AHD NOMINAL	• RISE AASHTO M 206	• RISE AHD NOMINAL	W	A	B	C	D	E	P	R2	G-T	S
INCHES														
15	18	18	11	11	2"	4"	2'-0"	4'-0"	6'-0"	3'-0"	29"	12"	1½"	2½:1
18	22	22	13½	14	2½"	5"	2'-0"	4'-1"	6'-1"	3'-6"	32⅛"	13"	2½"	2½:1
21	26	26	15½	16	2¾"	7"	2'-3"	3'-10"	6'-1"	4'-0"	34⅛"	14"	2½"	2½:1
24	28½	29	18	18	3"	9"	2'-3"	3'-10"	6'-1"	5'-0"	36¹³⁄₁₆"	15"	2½"	2½:1
30	36¼	36	22½	23	3½"	10"	3'-1"	3'-0½"	6'-1½"	6'-0"	47¹³⁄₁₆"	20"	3"	2½:1
36	43¾	44	26⅝	27	4"	10½"	4'-0"	2'-11½"	6'-1½"	6'-6"	54⅝"	22"	3½"	2½:1
42	51⅛	51	31⅝	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"	70⅝"	24"	4¼"	2½:1
54	65	65	40	40	5½"	1'-7"	5'-3"	2'-11"	8'-2"	8'-6"	72½"	24"	4¾"	2¼:1
60	73	73	45	45	6"	1'-10"	5'-6"	2'-8"	8'-2"	9'-0"	77¹³⁄₁₆"	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

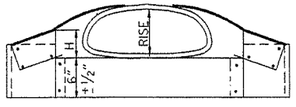




CIRCULAR PIPE

CIRCULAR PIPE

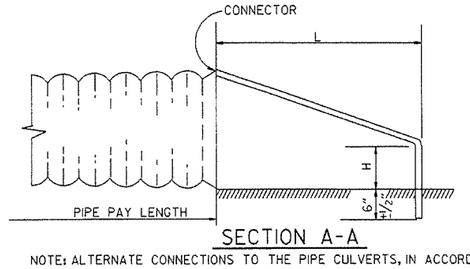
D. DIA.	GAUGE	A 1" ±	B. MAX.	H 1" ±	L 1½" ±	W 2" ±	S
		INCHES					
12	16	6	6	6	21	24	2½:1
15	16	7	8	6	26	30	2½:1
18	16	8	10	6	31	36	2½:1
21	16	9	12	6	36	42	2½:1
24	16	10	13	6	41	48	2½:1
30	14	12	16	8	51	60	2½:1
36	14	14	19	9	60	72	2½:1
42	12	16	22	11	69	84	2½:1
48	12	18	27	12	78	90	2½:1
54	12	18	30	12	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

C.M. ARCH PIPE

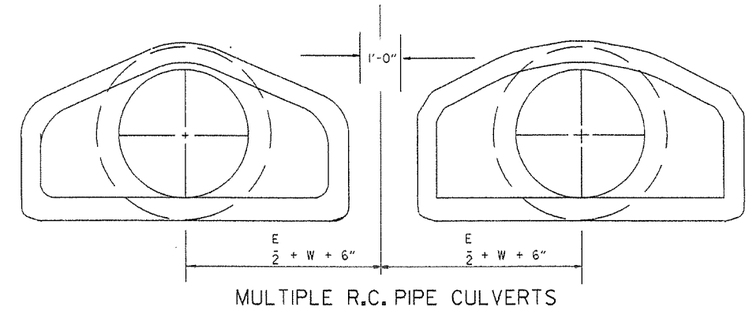
EQUIV. DIA.	SPAN	RISE	A 1" ±	B MAX.	H 1" ±	L 1½" ±	W 2" ±	S	GAUGE
	INCHES								
15"	17	13	7	9	6	19	30	2½:1	16
18"	21	15	7	10	6	23	36	2½:1	16
21"	24	18	8	12	6	28	42	2½:1	16
24"	28	20	9	14	6	32	48	2½:1	16
30"	35	24	10	16	6	39	60	2½:1	14
36"	42	29	12	18	8	46	75	2½:1	14
42"	49	33	13	21	9	53	85	2½:1	12
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



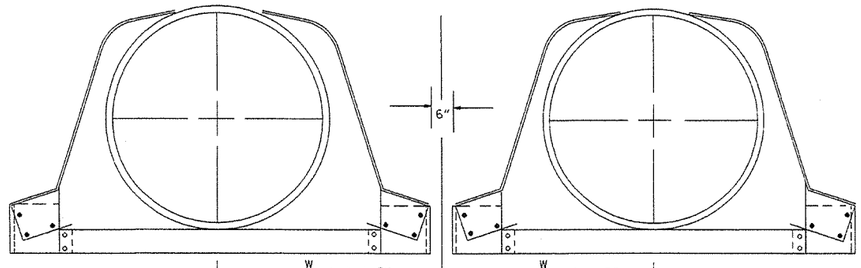
SECTION A-A

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

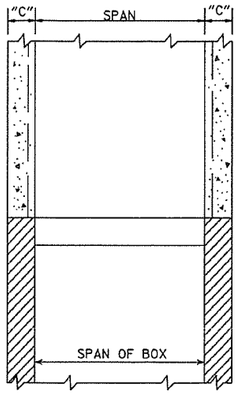
DATE	REVISION	FILMED
10-18-96	REVISED ASTM REF. TO AASHTO	10-18-96
5-15-80	REVISED DISTANCE BETWEEN MULTIPLE R.C.P. F.E.S.	664-5-15-80
7-14-78	C.M. ARCH SIZES TO CONFORM WITH AASHTO SIZES	752-7-14-78
8-22-75	ADDED MULTIPLE PIPE CULVERTS	517-8-22-75
12-5-74	REMOVED NOTE RE REINF. FOR R.C. F.E.S.	500-12-5-74
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

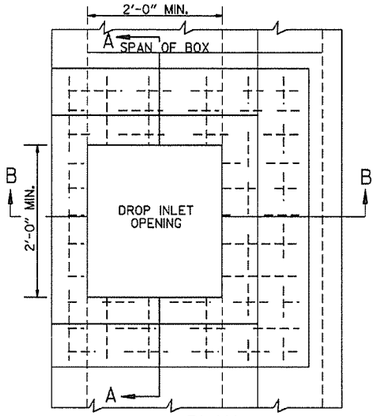
FLARED END SECTION

STANDARD DRAWING FES-2

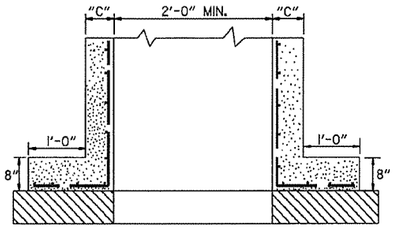
stdfes2.dgn



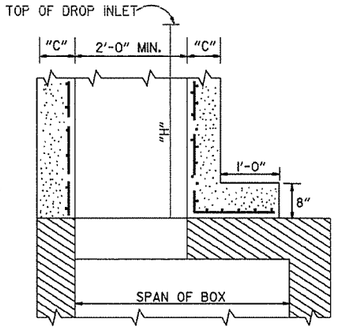
SECTION B-B



PLAN

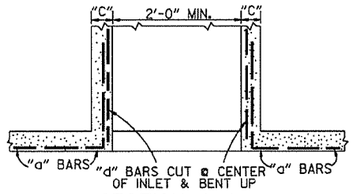


SECTION A-A

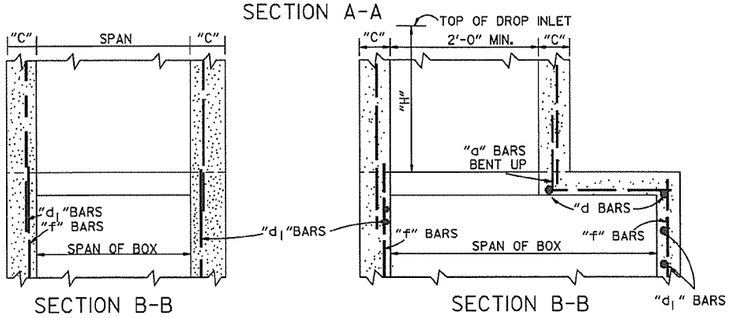


SECTION B-B

METHOD OF CONSTRUCTING DROP INLET ON EXISTING R.C. BOX CULVERT



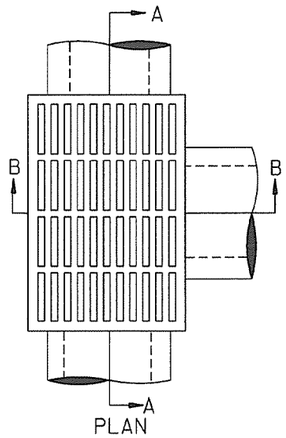
SECTION A-A



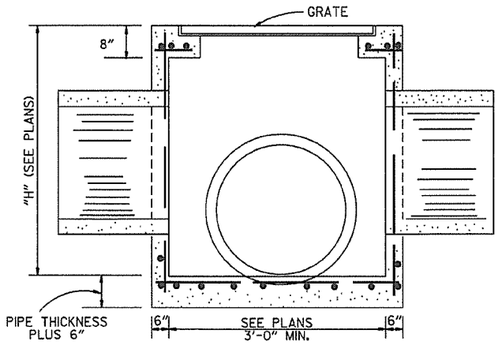
SECTION B-B SECTION B-B

METHOD OF CONSTRUCTING DROP INLET ON NEW R.C. BOX CULVERT

NOTE: "C" DIMENSIONS AND REINFORCING BAR SIZES, SHALL CONFORM TO THOSE SHOWN ON STANDARD DRAWING FOR DROP INLET.

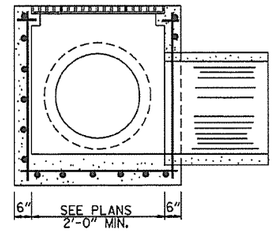


PLAN



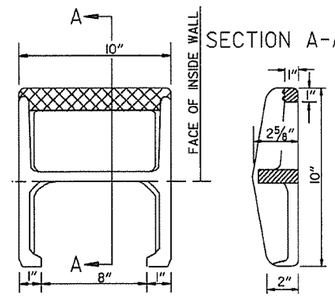
SECTION A-A

NOTE: REINF. BARS TO BE #4 BARS ON 6" CTRS. WITH 1½" MIN. COVER. THIS TYPE DROP INLET TO BE USED WHERE NOT SUBJECTED TO TRAFFIC.



SECTION B-B

DROP INLET (TYPE E)

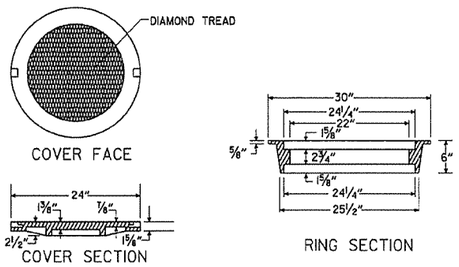


APPROX. WEIGHT = 11 LBS. (CAST IRON)

PLAN

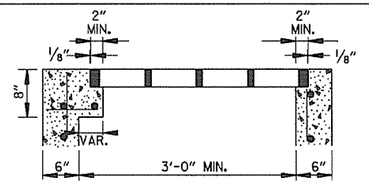
NOTE: THIS DETAIL IS TYPICAL. OTHERS MAY BE USED WITH PRIOR APPROVAL OF THE ENGINEER.

DETAIL OF STEP FOR DROP INLET

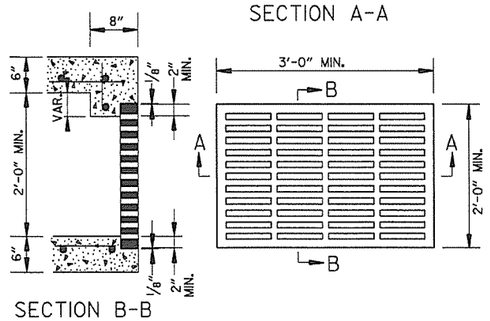


APPROXIMATE TOTAL WEIGHT = 333 LBS.

HEAVY DUTY RING & COVER



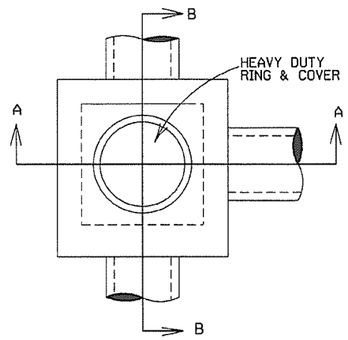
SECTION A-A



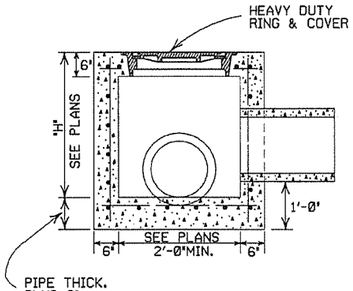
SECTION B-B

APPROXIMATE MINIMUM WATERWAY OPENING = 260 SQ. IN.

GRATE FOR TYPE E DROP INLET

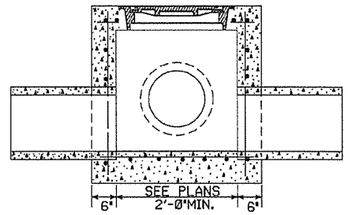


PLAN



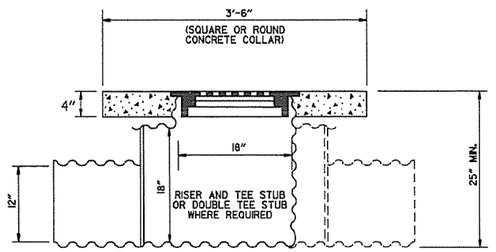
SECTION A-A

NOTE: REINF. BARS TO BE #4 BARS ON 6" CTRS. WITH 1½" MIN. COVER. THIS TYPE JUNCTION BOX TO BE USED WHERE NOT SUBJECTED TO TRAFFIC.

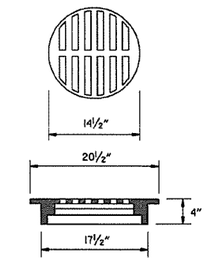


SECTION B-B

JUNCTION BOX (TYPE E)



NOTE: CONCRETE COLLAR TO BE CAST IN PLACE. 12" PIPE CULVERTS TO BE MEASURED AND PAID FOR AS " 12" SIDE DRAIN ".



USE NEENAH R-5901-C OR EQUIVALENT BICYCLE SAFE FRAME AND GRATE

DETAIL OF YARD DRAIN

GENERAL NOTES:

1. ALL EXPOSED CORNERS SHALL BE ¾" CHAMFERED.
2. STEPS SHALL BE INSTALLED ON 16" CENTERS ON ALL INLETS 4'-0" HIGH OR OVER, OR AS APPROVED BY THE ENGINEER.
3. EXPANSION JOINT MATERIAL SHALL BE ¾" PREFORMED FIBER.
4. GRATE OR GRATE AND FRAME SHALL BE CONSTRUCTED OF CAST IRON AND SHALL CONFORM TO THE REQUIREMENTS OF THE STANDARD SPECIFICATIONS FOR GRAY IRON CASTINGS AASHTO M 105 CLASS 35B. GRATE MAY BE USED WITHOUT FRAME.
5. GRATE AND FRAME SHALL NOT BE PAINTED.
6. GRATE SHALL BE BICYCLE SAFE.
7. HEAVY DUTY RING SHALL ALWAYS BE INSTALLED WITH FLANGE ON TOP.
8. HEAVY DUTY RING AND COVER SHALL BE CONSTRUCTED OF CAST IRON AND SHALL CONFORM TO THE REQUIREMENTS OF THE STANDARD SPECIFICATIONS FOR GRAY IRON CASTINGS AASHTO M105 CLASS 35B & AASHTO M306.
9. HEAVY DUTY RING AND COVER SHALL NOT BE PAINTED.
10. DIMENSIONS SHOWN FOR RING AND COVER ARE TYPICAL. THE CONTRACTOR MAY SUBSTITUTE SIMILAR CASTINGS WITH THE APPROVAL OF THE ENGINEER. REQUESTING APPROVAL FOR CASTING DESIGNS MAY BE MADE BY REFERRING TO PREVIOUSLY APPROVED DRAWINGS.

DATE REV.	REVISION	DATE FILMED
11-16-01	ADDED NOTE 10	
1-12-00	REVISED HEAVY DUTY RING & COVER	
7-02-98	CHANGED GRATE DETAIL, DELETED DI(TYPE D), REPLACED RING & COVER W/HEAVY DUTY RING & COVER, ADDED JUNCTION BOX (TYPE E)	
6-26-97	ADDED DIMENSION TO TYPE IV-A	
10-18-96	ADDED DETAIL OF YARD DRAIN	
8-15-91	DELETE TYPE IV GRATE	
7-15-88	REVISED STEP DETAIL	
5-20-83	REVISED DETAILS OF GRATES (TYPE IV & IV-A)	
2-4-83	ADDED GENERAL NOTE NO. 4	
3-2-81	ADDED TYPE IV-A GRATE	
5-22-74	DELETED INLET (TYPE F) & GRATE (TYPE III)	
10-2-72	REVISED AND REDRAWN	

ARKANSAS STATE HIGHWAY COMMISSION

DETAILS OF DROP INLETS & JUNCTION BOXES

STANDARD DRAWING FPC-9

4'-0" LENGTH DROP INLET

PIPE SIZE	MIN. WIDTH	HEIGHT 5'-0" CLASS A CONC. CU. YDS.	HEIGHT 5'-0" REINF. STEEL POUNDS	PLUS OR MINUS PER LIN. FT. OF HEIGHT CLASS A CONC. CU. YDS.	PLUS OR MINUS PER LIN. FT. OF HEIGHT REINF. STEEL POUNDS
18"	2'-6"	1.77	156	0.28	22
24"	2'-6"	1.79	156	0.28	22
30"	3'-2"	2.39	205	0.30	26
36"	3'-8"	2.63	236	0.32	28
42"	4'-4"	2.95	250	0.34	30
48"	4'-10"	3.21	265	0.36	32

NOTE: QUANTITIES ARE APPROXIMATE AND ARE SHOWN FOR BIDDER INFORMATION ONLY.

DROP INLET EXTENSION

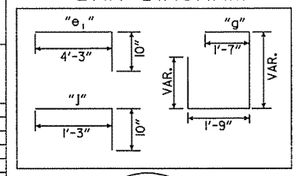
4'-0" CLASS A CONC. CU. YDS.	4'-0" REINF. STEEL POUNDS	8'-0" CLASS A CONC. CU. YDS.	8'-0" REINF. STEEL POUNDS
0.58	38	0.87	72

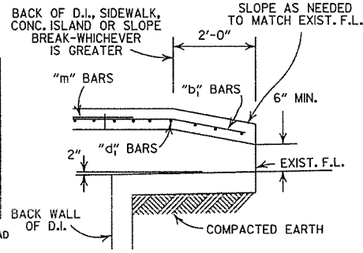
DEDUCT FROM QUANTITY COMPUTED FOR EACH EXTENSION ADDED.

0.04	3		

DEDUCT FROM QUANTITY COMPUTED FOR EACH PIPE ENTERING INLET		
INSIDE DIA. PIPE	CLASS A CONC.	REINF. STEEL
INCHES	CU. YDS.	POUNDS
18	0.05	2
24	0.09	3
30	0.13	4
42	0.24	8

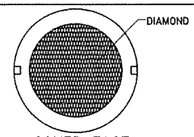
BAR DIAGRAM

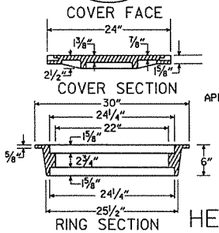




BACK OPENING

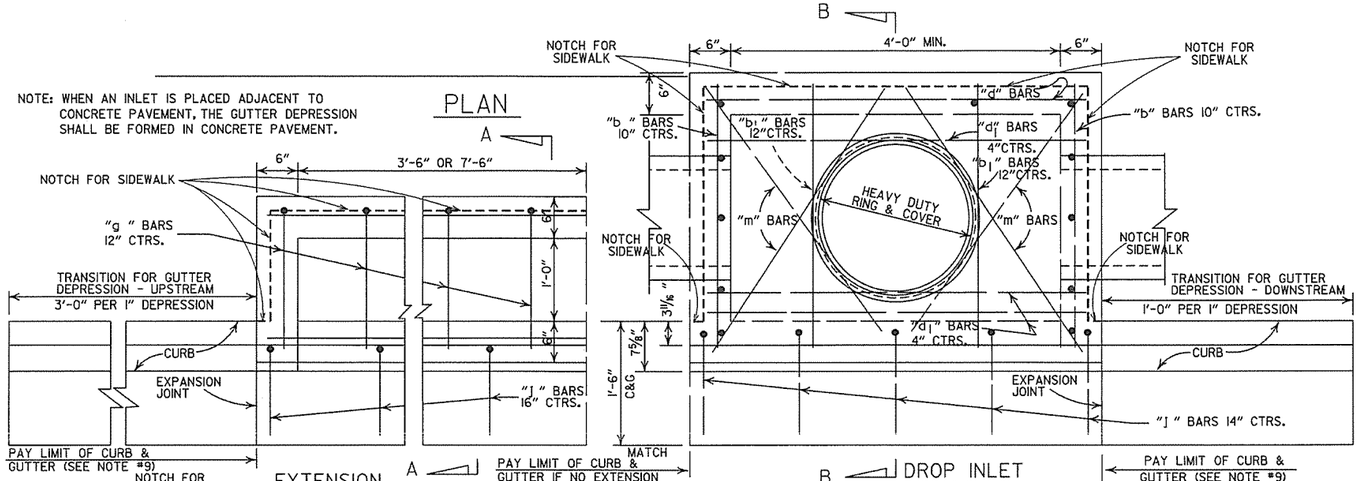
WHEN OPENING IN BACK IS CALLED FOR ON PLANS EXTEND OPENING AS SHOWN IN DETAIL. PAYMENT TO BE INCLUDED IN PRICE BID FOR DROP INLET (TYPE C).

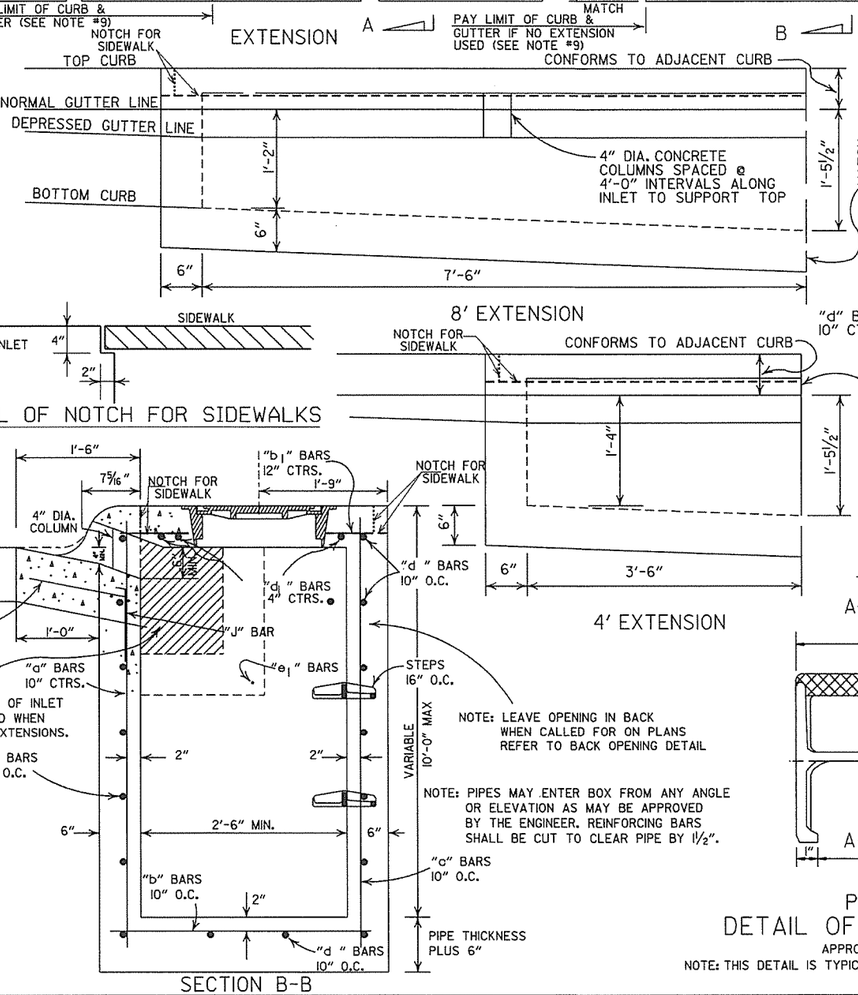


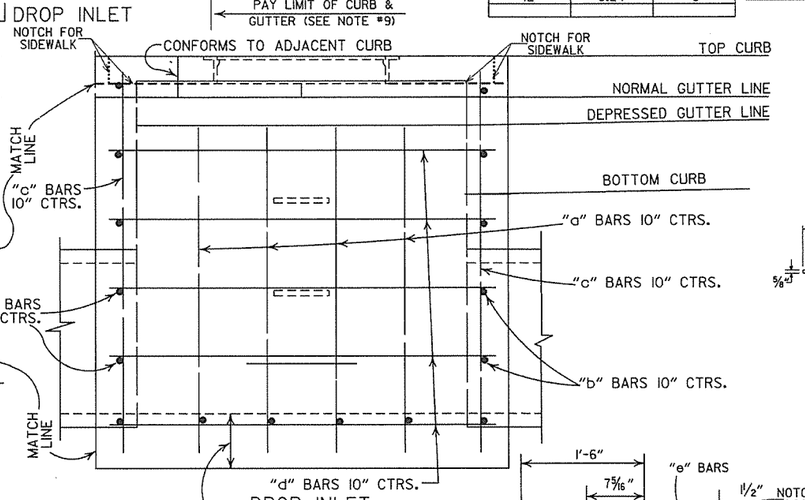


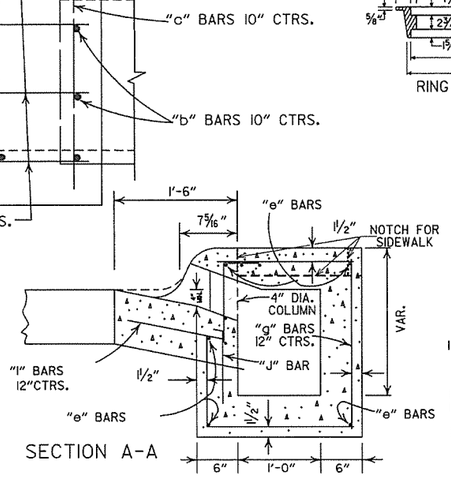
APPROXIMATE TOTAL WEIGHT = 333 LBS.

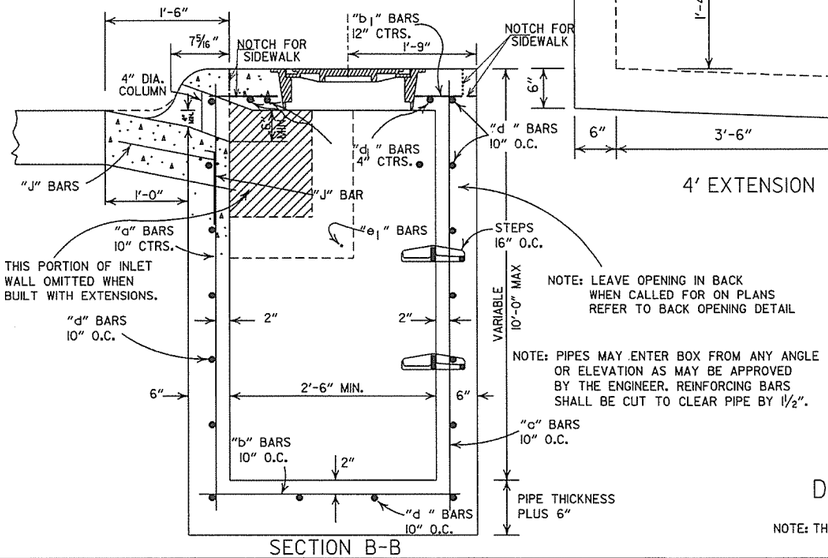
HEAVY DUTY RING & COVER

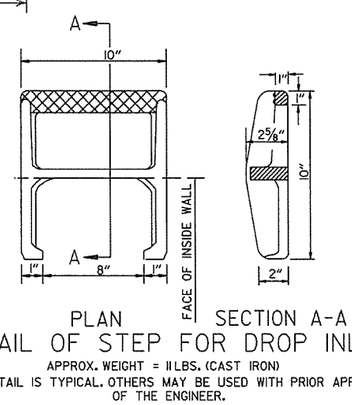












APPROX. WEIGHT = 11 LBS. (CAST IRON)

NOTE: THIS DETAIL IS TYPICAL. OTHERS MAY BE USED WITH PRIOR APPROVAL OF THE ENGINEER.

GENERAL NOTES:
1. ALL EXPOSED CORNERS TO HAVE 3/4" CHAMFER.
2. STEPS SHALL BE INSTALLED IN ALL INLETS 4'-0" HIGH AND OVER OF AS APPROVED BY THE ENGINEER.
3. ALL REINF. BARS SHALL BE #4 AND HAVE 1 1/2" COVER.
4. DROP INLETS AND EXTENSION ON CURVED SECTIONS SHALL CONFORM TO THE CURVATURE OF THE CURB.
5. THIS DROP INLET MAY BE CONSTRUCTED ON NEW OR EXISTING R.C. BOX CULVERT AS SHOWN ON F.P.C.-9.
6. WHEN PLANS CALL FOR DROP INLET OVER 10'-0" HIGH, FLOOR AND WALLS SHALL BE CONSTRUCTED AS SHOWN FOR TYPE "RM" DROP INLET (F.P.C.-9D).
7. HEAVY DUTY RING SHALL ALWAYS BE INSTALLED WITH FLANGE ON TOP.
8. DURING CONSTRUCTION OF THE ROADWAY THE CONTRACTOR SHALL MAINTAIN DRAINAGE INTO OR AROUND THE DROP INLET AS APPROVED BY THE ENGINEER.
9. PAYMENT FOR CURB AND/OR CURB AND GUTTER WITHIN THE LIMITS OF DROP INLETS AND DROP INLET EXTENSIONS SHALL BE CONSIDERED INCLUDED IN PAYMENT MADE FOR DROP INLETS AND/OR DROP INLET EXTENSIONS.
10. HEAVY DUTY RING AND COVER SHALL BE CONSTRUCTED OF CAST IRON AND SHALL CONFORM TO THE REQUIREMENTS OF THE STANDARD SPECIFICATIONS FOR GRAY IRON CASTINGS AASHTO M105 CLASS 35B & AASHTO M306.
11. HEAVY DUTY RING AND COVER SHALL NOT BE PAINTED.
12. 4"x2" NOTCH SHALL BE FORMED IN ALL DROP INLETS TO SUPPORT SIDEWALK CONSTRUCTION. REFER TO DETAIL OF NOTCH FOR SIDEWALKS.
13. DIMENSIONS SHOWN FOR RING AND COVER ARE TYPICAL. THE CONTRACTOR MAY SUBSTITUTE SIMILAR CASTINGS WITH THE APPROVAL OF THE ENGINEER. REQUESTING APPROVAL FOR CASTING DESIGNS MAY BE MADE BY REFERRING TO PREVIOUSLY APPROVED DRAWINGS.

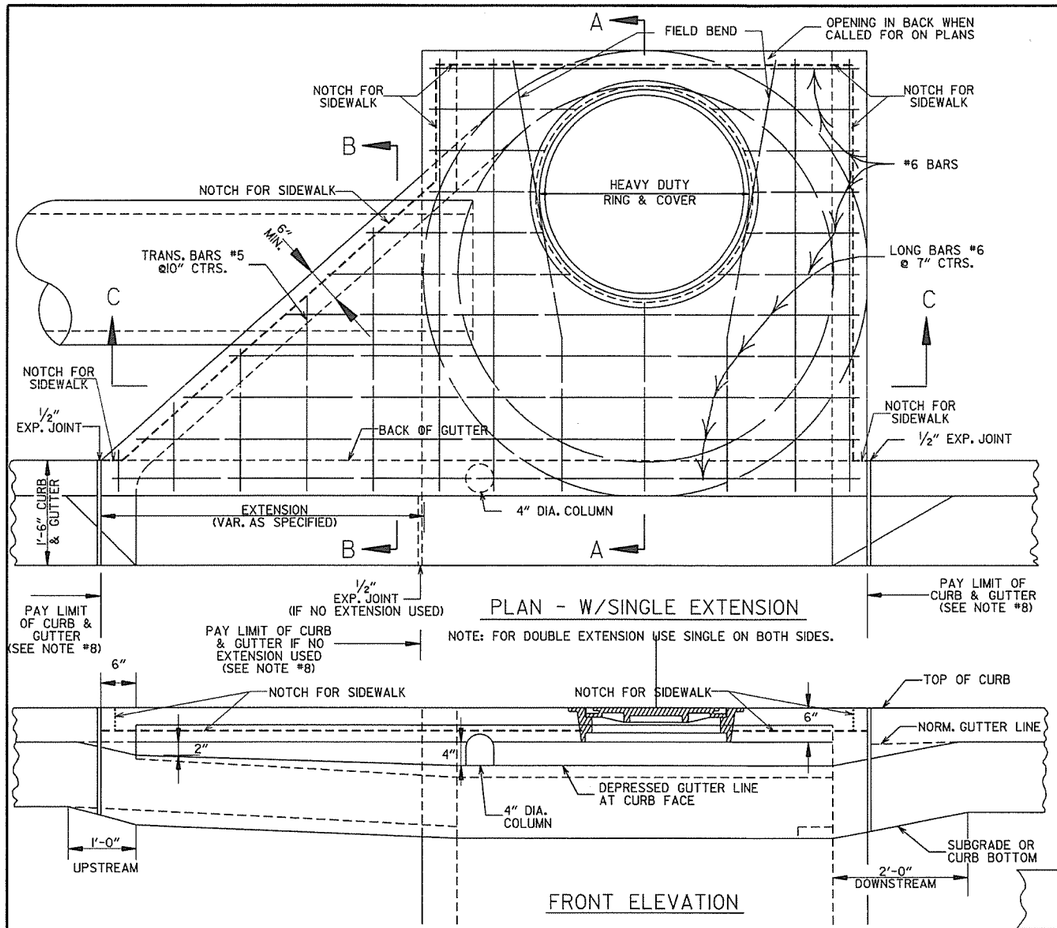
DATE REV.	REVISION	DATE FILMED
8-22-02	ADDED PAY LIMIT CURB NOTES TO SECTIONS A-A & B-B	
11-16-01	ADDED NOTE 13; REVISED SECTION B-B	
1-12-00	CORRECTED DIMENSION ON SECTION B-B & REVISED RING & COVER	
5-13-99	ADDED DETAIL OF NOTCH FOR SIDEWALKS	
7-02-98	REPLACED RING & COVER W/HEAVY DUTY RING & COVER ADDED NOTES 9,10,&11	
10-18-96	CORRECTED SPELLING	
4-26-96	ADDED NOTE 8 & REVISED (4')(8') EXTENSION TITLES	10-18-96
4-1-93	REVISED BACK OPENING & NOTE	
8-15-91	DELETE TYPE IV GRATE	
7-15-88	REVISED STEP DETAIL	
5-20-83	REVISED DETAILS OF GRATES (TYPE IV & IV-A)	
2-4-83	ADDED GENERAL NOTE NO. 4	
3-2-81	ADDED TYPE IV-A GRATE	
5-22-74	DELETED INLET (TYPE F) & GRATE (TYPE III)	
10-2-72	REVISED AND REDRAWN	

ARKANSAS STATE HIGHWAY COMMISSION

DETAILS OF DROP INLETS

(TYPE C)

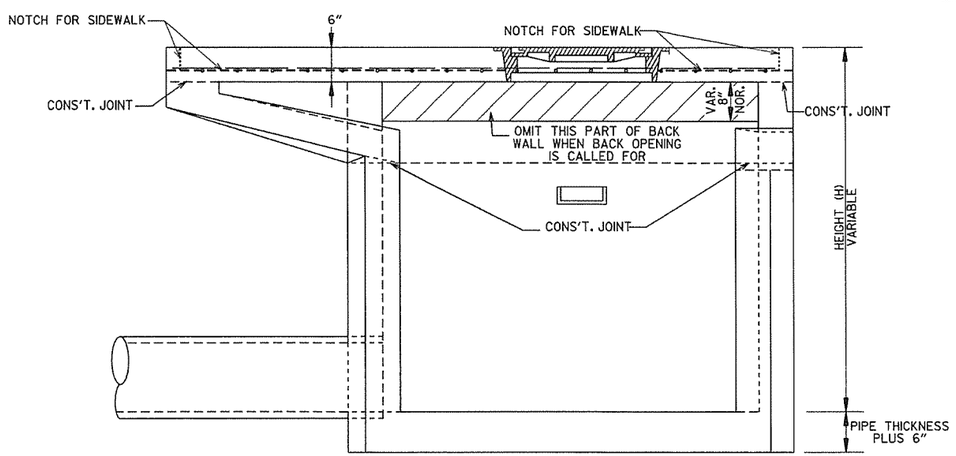
STANDARD DRAWING FPC-9E



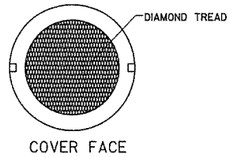
PLAN - W/SINGLE EXTENSION

NOTE: FOR DOUBLE EXTENSION USE SINGLE ON BOTH SIDES.

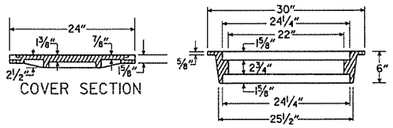
FRONT ELEVATION



SECTION C-C



COVER FACE



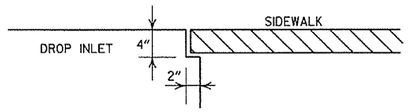
COVER SECTION

RING SECTION

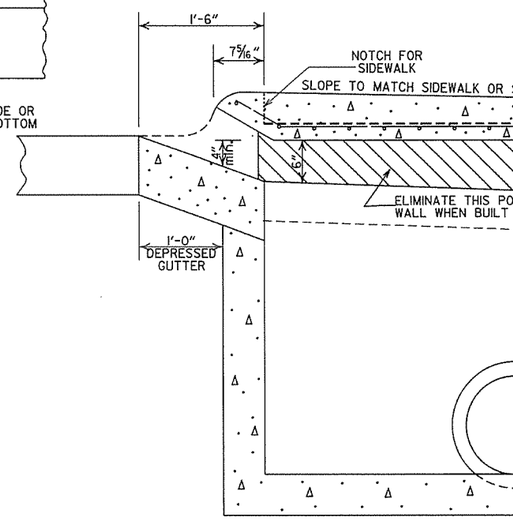
APPROXIMATE TOTAL WEIGHT = 333 LBS.

HEAVY DUTY RING & COVER

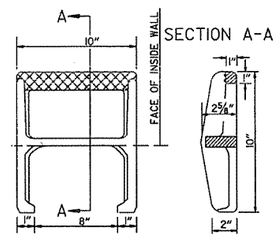
1. HEAVY DUTY RING AND COVER SHALL BE CONSTRUCTED OF CAST IRON AND SHALL CONFORM TO THE REQUIREMENTS OF THE STANDARD SPECIFICATIONS FOR GRAY IRON CASTINGS AASHTO M105 CLASS 35B & AASHTO M306.
2. HEAVY DUTY RING AND COVER SHALL NOT BE PAINTED.
3. HEAVY DUTY RING SHALL ALWAYS BE INSTALLED WITH FLANGE ON TOP.



DETAIL OF NOTCH FOR SIDEWALKS



SECTION A-A

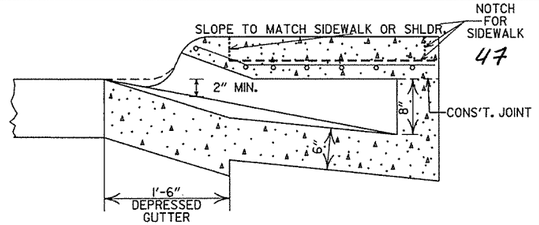


APPROX. WEIGHT = 11 LBS. (CAST IRON)

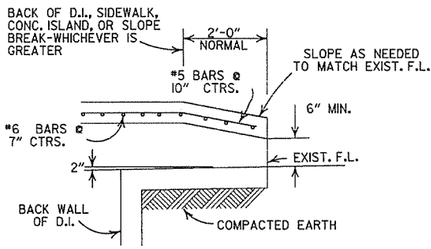
PLAN

NOTE: THIS DETAIL IS TYPICAL. OTHERS MAY BE USED WITH PRIOR APPROVAL OF THE ENGINEER.

DETAIL OF STEP FOR DROP INLET



SECTION B-B



BACK OPENING

WHEN OPENING IN BACK IS CALLED FOR ON PLANS EXTEND OPENING AS SHOWN IN DETAIL. PAYMENT TO BE INCLUDED IN PRICE BID FOR DROP INLET (TYPE MO).

GENERAL NOTES:

1. ALL EXPOSED CORNERS TO HAVE ¾" CHAMFER.
2. STEPS SHALL BE INSTALLED IN ALL INLETS 4'-0" HIGH AND OVER OR AS DIRECTED BY THE ENGINEER.
3. ALL REINFORCING BARS SHALL BE GRADE 60 AND HAVE MIN. 1½" COVER.
4. DROP INLETS AND EXTENSION ON CURVED SECTIONS SHALL CONFORM TO THE CURVATURE OF THE CURB.
5. 4" DIA. COLUMNS SPACED AT MAX. 4'-0" INTERVALS SHALL BE INSTALLED ALONG INLET AND EXTENSION TO SUPPORT TOP.
6. BASE AND INLET WALLS SHALL BE CAST MONOLITHICALLY.
7. THE THROAT SHALL BE CAST INTEGRALLY WITH THE GUTTER.
8. PAYMENT FOR CURB AND/OR CURB AND GUTTER WITHIN THE LIMITS OF DROP INLETS AND DROP INLET EXTENSIONS SHALL BE CONSIDERED INCLUDED IN PAYMENT MADE FOR DROP INLETS AND/OR DROP INLET EXTENSIONS.
9. PIPES MAY ENTER DROP INLET FROM ANY ANGLE OR ELEVATION AS MAY BE APPROVED BY THE ENGINEER.
10. APPROPRIATE SIZE TYPE C DROP INLETS MAY BE SUBSTITUTED FOR TYPE MO DROP INLETS AS APPROVED BY THE ENGINEER. PAYMENT TO BE AS DROP INLET (TYPE MO).
11. DURING CONSTRUCTION OF THE ROADWAY THE CONTRACTOR SHALL MAINTAIN DRAINAGE INTO OR AROUND THE DROP INLET AS APPROVED BY THE ENGINEER.
12. 4"×2" NOTCH SHALL BE FORMED IN ALL DROP INLETS TO SUPPORT SIDEWALK CONSTRUCTION. REFER TO DETAIL OF NOTCH FOR SIDEWALKS.
13. DIMENSIONS SHOWN FOR RING AND COVER ARE TYPICAL. THE CONTRACTOR MAY SUBSTITUTE SIMILAR CASTINGS WITH THE APPROVAL OF THE ENGINEER. REQUESTING APPROVAL FOR CASTING DESIGNS MAY BE MADE BY REFERRING TO PREVIOUSLY APPROVED DRAWINGS.

LEAVE OPENING IN BACK WHEN CALLED FOR ON PLANS REFER TO BACK OPENING DETAIL

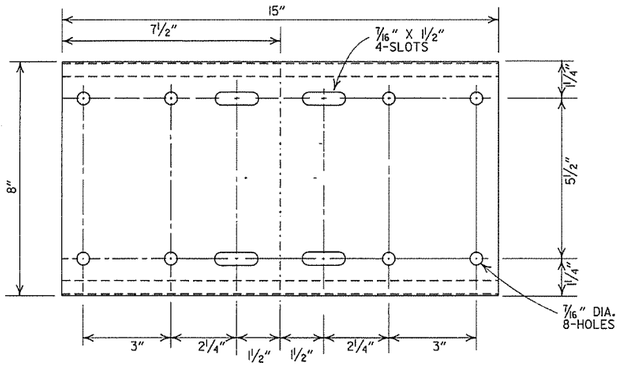
DIA. OF D.I.	DIA. OF OUTLET PIPE	MINIMUM WALL THICKNESS	
		CAST IN PLACE	PRECAST
4' I.D.	12" THRU 27"	6"	5"
5' I.D.	30" THRU 42"	8"	6"
6' I.D.	48" THRU 54"	8"	7"

DATE	REVISIONS	DATE FILMED
8-22-02	ADDED PAY LIMIT CURB NOTES TO SECTIONS A-A & B-B	
11-16-01	ADDED NOTE 13	
1-12-00	REVISED HEAVY DUTY RING & COVER	
5-13-99	ADDED NOTCH DETAIL FOR SIDEWALKS	
7-02-98	REP. NOTE 8, REM. PLAN DET., REV. PICTURE FOR NEW RING & COVER, ADDED HEAVY DUTY RING & COVER AND DETAIL OF STEP FOR DROP INLET	
4-26-96	ADDED NOTE 11, ADJ. OPENING DIMENSION	
10-12-95	CORRECTED #6 BAR SPACING	
7-20-95	CORRECTED DIAMETER OF D.I. IN BOX	
2-2-95	TYPE C TO MO (OPEN BACK DETAIL)	
11-3-94	REVISED GENERAL NOTES	11-3-94
4-1-93	REV. BACK OPEN. DETAIL & NOTE	4-1-93
8-15-91	REVISED NOTES 11,12 & ADDED BK.OPEN DETAIL	8-15-91
11-30-89	ADDED NOTE NO. 12	11-30-89
5-23-89	ADDED NOTE & MINIMUM WALL THICKNESS	513-5-23-89
7-15-88	ADDED EXTEND NOTE TO SECTION A-A	639-7-15-88
1-14-87	MODIFIED WALL THICKNESS	784-1-14-87
5-12-87	ISSUED	4-5-12-87

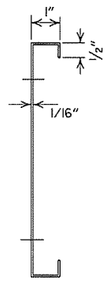
ARKANSAS STATE HIGHWAY COMMISSION

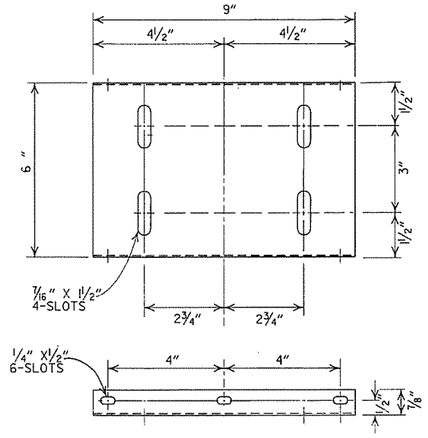
DETAILS OF DROP INLET (TYPE MO)

STANDARD DRAWING FPC-9M

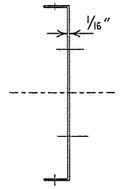


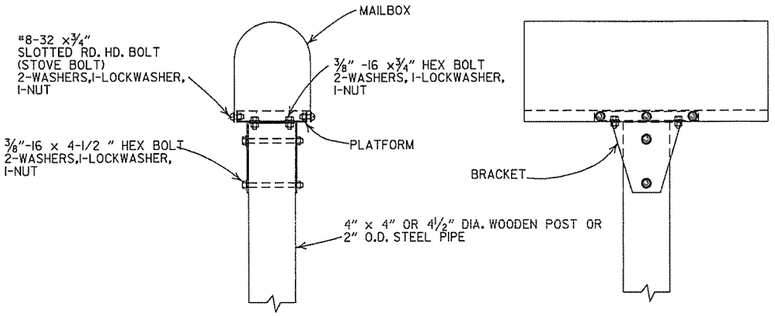
SHELF



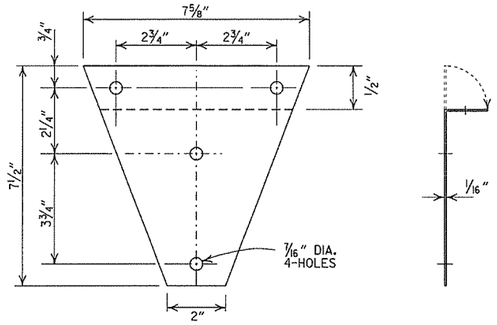


PLATFORM





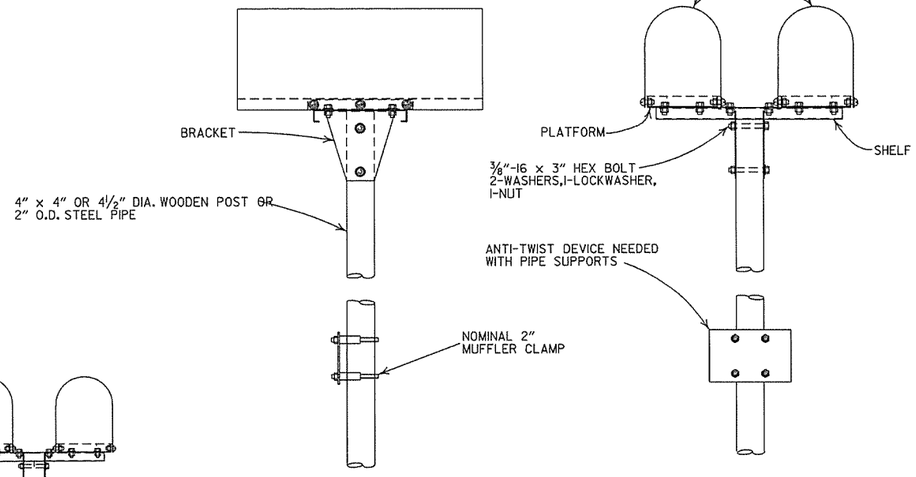
SINGLE INSTALLATION



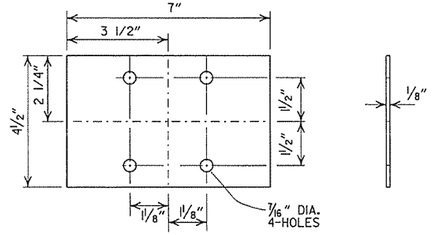
BRACKET

GENERAL NOTES

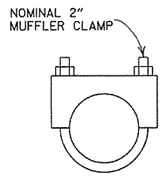
1. MAILBOX POSTS MAY BE WOOD OR METAL. WOOD POSTS SHALL BE PRESSURE TREATED FOR GROUND CONTACT IN ACCORDANCE WITH SECTION 637.02 OF THE STANDARD SPECIFICATIONS.
2. ANTI-TWIST PLATES SHALL BE USED ONLY ON METAL POSTS.
3. MAILBOX SHELF, BRACKET & PLATFORM SHALL BE GALVANIZED OR PAINTED STEEL, HOWEVER TREATED 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.



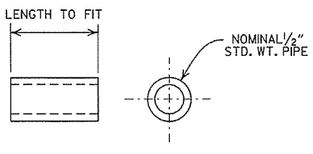
DOUBLE INSTALLATION



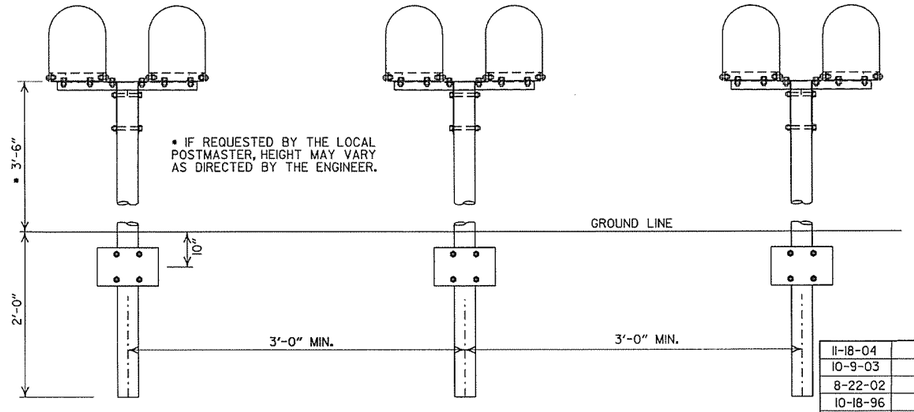
ANTI-TWIST PLATE



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	31⅝	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.

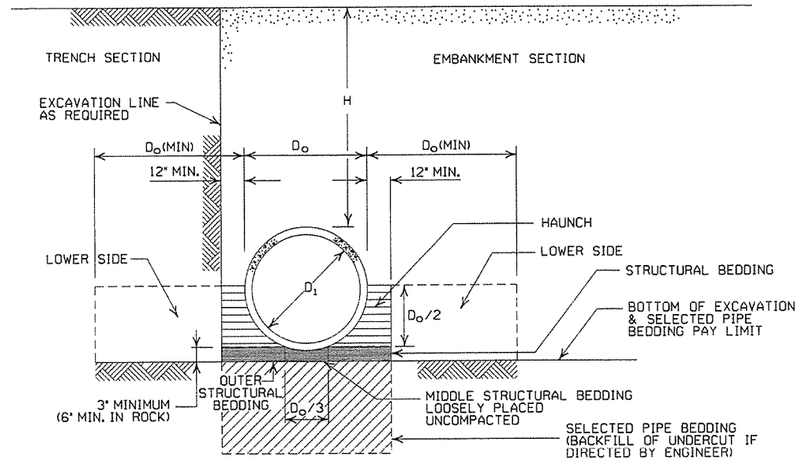
- LEGEND -

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

	CLASS OF PIPE			
	CLASS III		CLASS IV	CLASS V
INSTALLATION TYPE	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

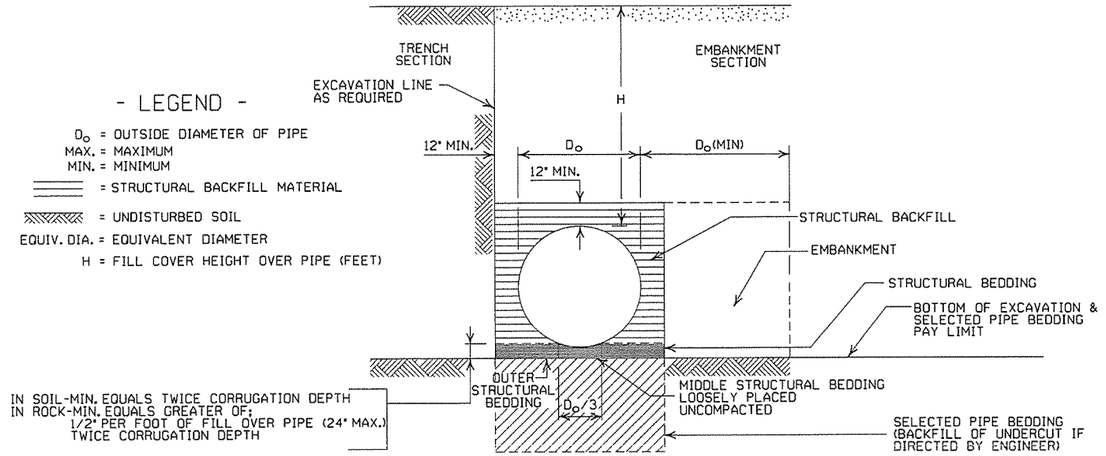
③ SM-3 WILL NOT BE ALLOWED.

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. INSTALAALTION 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	

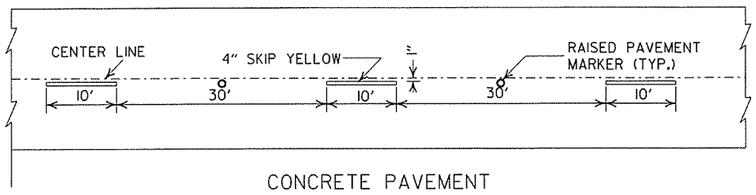
ARKANSAS STATE HIGHWAY COMMISSION

METAL PIPE CULVERT FILL HEIGHTS & BEDDING

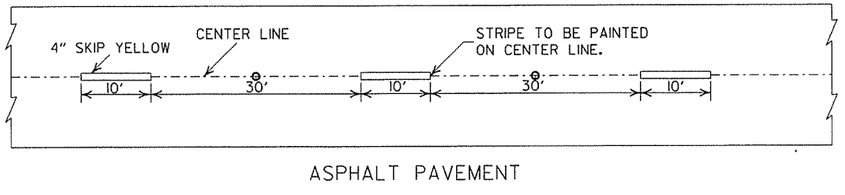
STANDARD DRAWING PCM-1

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.

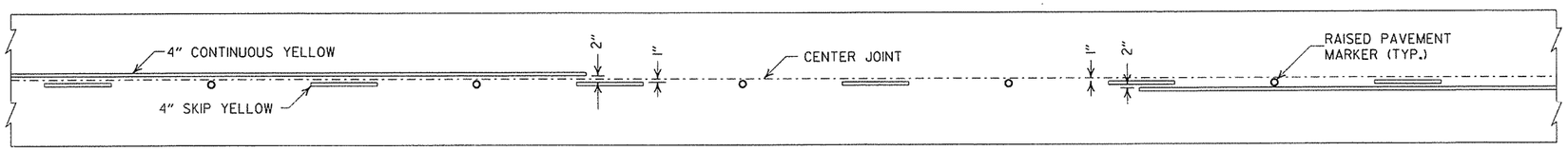


CONCRETE PAVEMENT

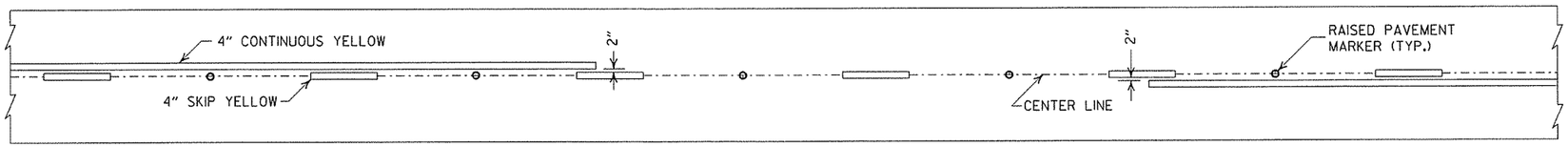


ASPHALT PAVEMENT

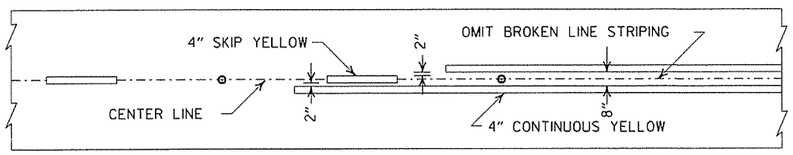
BROKEN LINE STRIPING



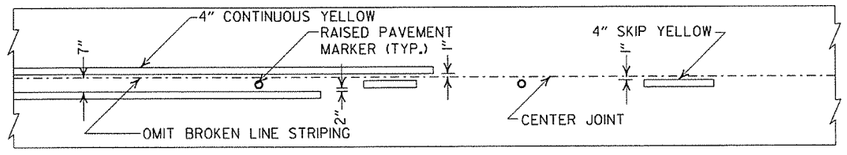
SOLID LINE STRIPING ON CONCRETE PAVEMENT



SOLID LINE STRIPING ON ASPHALT PAVEMENT

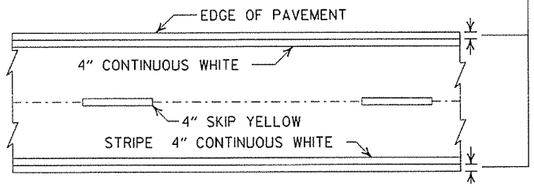


ASPHALT PAVEMENT

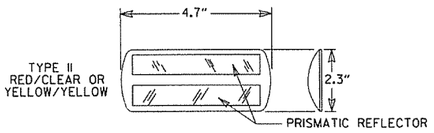


CONCRETE PAVEMENT

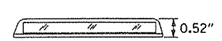
2" FOR ASPHALT OR CONCRETE PAVEMENT
6" FOR BITUMINOUS SURFACE TREATMENT



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:

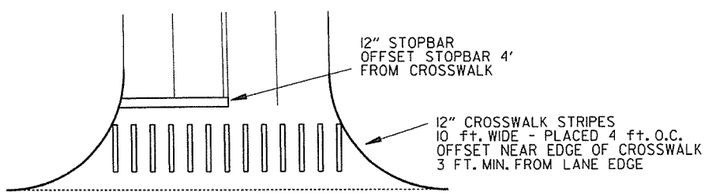
THIS DRAWING SHOULD BE CONSIDERED AS TYPICAL ONLY AND THE FINAL LOCATION OF THE STRIPING AND RAISED PAVEMENT MARKERS SHALL BE DETERMINED BY THE ENGINEER.

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

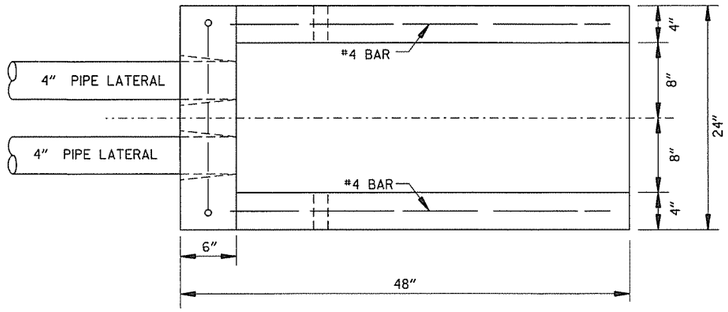
PAVEMENT MARKING DETAILS

STANDARD DRAWING PM-1

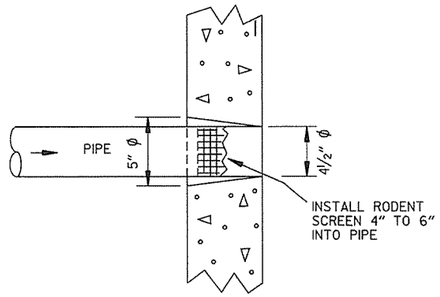
NOTE:
1. GRANULAR BACKFILL TO BE SUBSIDIARY TO PIPE UNDERDRAIN.

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

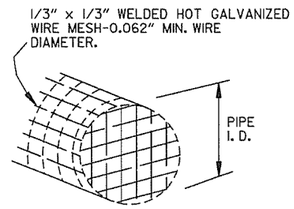
3. GRANULAR MATERIAL SHALL BE WRAPPED WITH GEOTEXTILE FABRIC. LAP FABRIC 12" OR THE WIDTH OF THE TRENCH AT THE TOP.



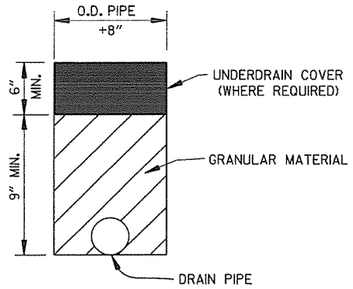
PLAN VIEW

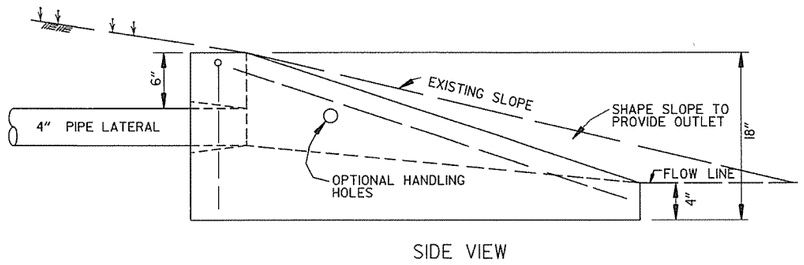


DETAIL OF HOLE FOR 4" PIPE

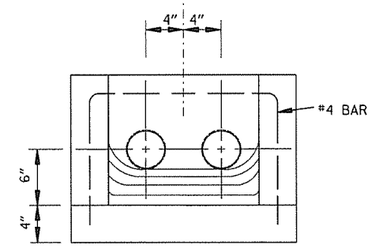


DETAIL OF RODENT SCREEN

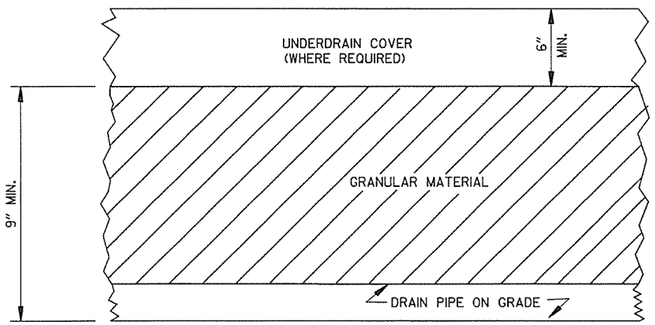




SIDE VIEW

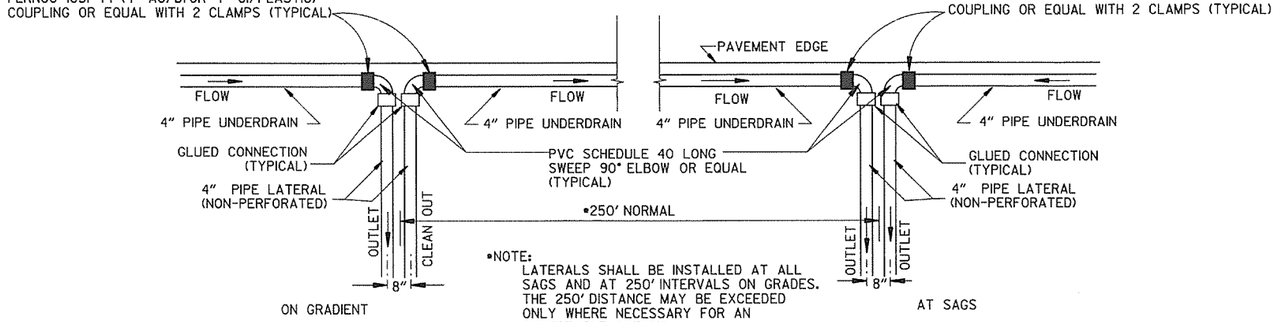


FRONT VIEW



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

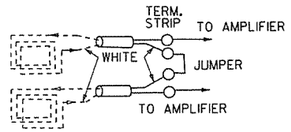
7-20-95 INSTD.PUI

LOOP DETECTOR INSTALLATION AND TESTING

NOTES:

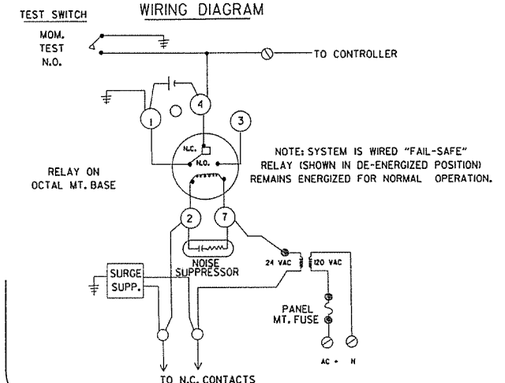
1. LOOPS WITH A PERIMETER GREATER THAN 40' SHALL HAVE TWO TURNS. LOOPS WITH A PERIMETER LESS THAN OR EQUAL TO 40' SHALL HAVE THREE TURNS, UNLESS OTHERWISE NOTED ON THE PLANS. QUADRUPOLE LOOPS SHALL BE TWO TURNS (2-4-2 CONFIGURATION) UNLESS OTHERWISE NOTED.
2. LOOP AND FEEDER WIRE SHALL BE CONTINUOUS WITHOUT SPLICES EXCEPT AT THE LOOP/FEEDER WIRE SPLICE AS SHOWN. SPLICE SHALL BE ROSIN SOLDERED AND WATERPROOFED WITH AN ACCEPTED SPLICE KIT. DRAIN WIRE SHALL BE GROUNDED IN CABINET AND INSULATED AT LOOP TO FEEDER SPLICE.
3. THE LOOP TO FEEDER SPLICE, FEEDER JACKET AND JACKET OF LOOP WIRE IN DUCT SHALL BE COMPLETELY SEALED AND WATERPROOFED.
4. CONTRACTOR MAY MAKE CONNECTIONS TO SIGNAL CABLE AND LOOP TO FEEDER CONNECTION AT TERMINAL STRIPS MOUNTED TO POLE INSIDE HAND HOLD COVER AS SHOWN IN DETAIL. TERMINALS MUST BE EASILY ACCESSIBLE, BUT PROTECTED AGAINST ACCIDENTAL CONTACT. CONNECTION OF POWER CARRYING CIRCUITS MUST BE SEPARATED FROM LOOP OR LOGIC CIRCUITS. ALL CONNECTIONS TO TERMINAL STRIPS SHALL UTILIZE SPADE LUGS OR AS APPROVED BY THE ENGINEER.
5. EACH LOOP SHALL HAVE A SEPARATE "FEEDER WIRE" UNLESS OTHERWISE NOTED. ALL FEEDER WIRES SHALL BE LABELED AS TO LOOP NUMBER AS DESIGNATED ON THE PLANS.
6. ALL LOOP WIRE ENTERING PULL BOXES SHALL BE ENCLOSED IN CONDUIT. EACH LOOP WIRE SHALL ENTER PULL BOX OR POLE BASE THROUGH A SEPARATE PIECE OF ONE INCH (1"O) CONDUIT.
7. LOOP WIRE FROM LOOP TO CONDUIT IS NOT TWISTED. LOOP WIRE IN THE CONDUIT MUST BE TWISTED TWO TO FIVE TURNS PER FOOT.
8. WARRANTY PERIOD FOR LOOPS SHALL NOT COMMENCE UNTIL TESTED BY THE CONTRACTOR AND ACCEPTED BY THE ENGINEER. CONTRACTOR SHALL PERFORM TEST AND PROVIDE A RECORD TO THE ENGINEER AS LISTED IN THE DETECTOR LOOP TESTING PROCEDURE.
9. UNLESS OTHERWISE APPROVED BY THE ENGINEER, BACKER ROD SHALL BE INSTALLED IN SHORT SECTIONS SPACED NOT MORE THAN 18" APART AND WEDGED INTO SLOT TO HOLD CABLE IN PLACE. CABLE SHALL BE TOTALLY ENCAPSULATED IN SEALER.
10. "HOT POUR" SEALER SHALL NOT BE ALLOWED WITH 705-LOOP WIRING IN DUCT.
11. WHERE UNDERGROUND SPLICES OF SIGNAL CABLE ARE REQUIRED, CONNECTIONS SHALL BE SOLDERED AND COMPLETELY WATERPROOFED TO THE SATISFACTION OF THE ENGINEER. WATERPROOFING SHALL EXTEND A MINIMUM OF TWO INCHES PAST THE SIGNAL CABLE JACKET AND SHALL COMPLETELY COVER ALL INDIVIDUAL CONDUCTORS OF THE SIGNAL CABLE. WATERPROOFING DOES NOT APPLY TO CONNECTIONS MADE IN POLE BASES.
12. CONTRACTOR SHALL CONNECT A SEPARATE NEUTRAL FOR EACH LOAD SWITCH REPRESENTED ON EACH SIGNAL POLE. ONLY ONE NEUTRAL IS REQUIRED FOR PEDESTRIAN SIGNALS. A SEPARATE 5C (TYPICAL) IS PROVIDED FOR PEDESTRIAN PUSH BUTTONS.
13. TRAFFIC CONTROLLER CABINET AND LAYOUT SHALL BE SUCH THAT IT IS NOT NECESSARY TO SHUT DOWN POWER OR REMOVE LOAD SWITCHES IN ORDER TO EASILY TEST OR MODIFY DETECTOR INPUTS TO CONTROLLER. CONTROLLER CABINET SHALL BE WIRED SUCH POWER TO LOAD SWITCHES CANNOT BACKFEED TO LOAD SWITCH POWER BUSS DURING FLASH OPERATION.

SERIES CONNECTED LOOPS

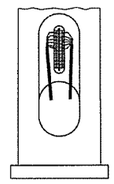


WIND LOOPS COUNTERCLOCKWISE; TAG WIRE EXITING SLOT AND TIE TO WHITE LEAD OF FEEDER WIRE; WHEN LOOPS ARE TIED TO SAME VEHICLE DETECTOR, SERIES CONNECT IN CABINET AS SHOWN.

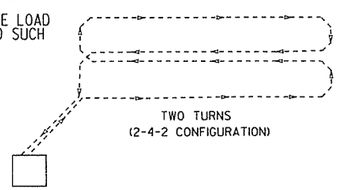
TRAFFIC SIGNAL PRE-EMPTION INTERFACE WIRING DIAGRAM

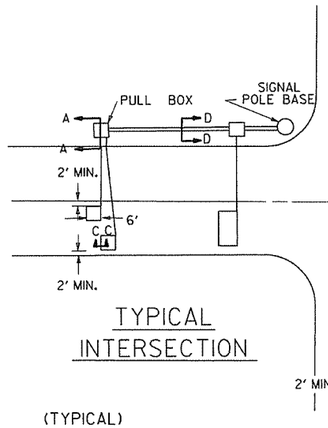


HANDHOLE TERMINAL

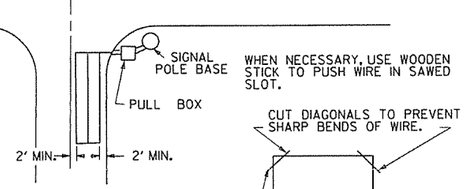


QUADRUPOLE LOOP





TYPICAL INTERSECTION



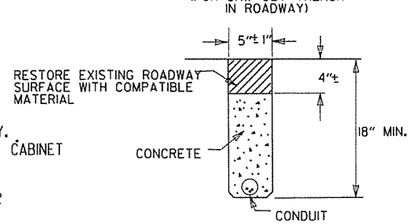
TYPICAL PROCEDURE FOR DETECTOR LOOP TESTING

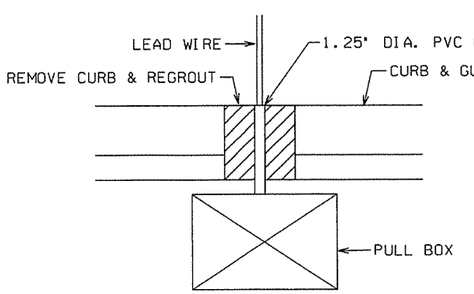
1. DISCONNECT AND TEST CONTINUITY (< 10 OHMS) IF CONTINUITY IS BAD, GO TO TEST 3
2. TEST INSULATION (@ 500 VOLT TEST > 10 MEG-OHM)
   IF TESTS 1& 2 ARE GOOD, NO FURTHER TESTING IS NECESSARY. RECORDED RESULTS CONSIST OF TESTS 1& 2 FROM CONTROL CABINET WITH FEEDER WIRE CONNECTED TO LOOP.
3. OPEN SPLICE (DO NOT BREAK CONNECTION) REPEAT TEST 1& 2 IF TEST 3 IS BAD, GO TO TEST 4
4. BREAK SPLICE, INSTALL JUMPER IN CABINET, REPEAT TESTS 1& 2 SEPARATELY FOR FEEDER AND FOR LOOP

FAILURES TYPICALLY RESULT FROM BROKEN WIRE IN PAVEMENT, FAULTY INSULATION OF LOOP OR FEEDER WIRE, OR POORLY INSULATED SPLICE CONNECTION.

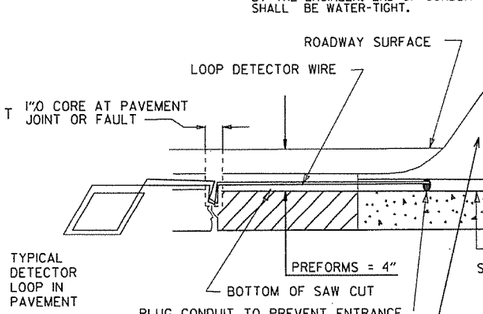
TRENCHING DETAIL

(FOR SAW CUT TRENCH IN ROADWAY)





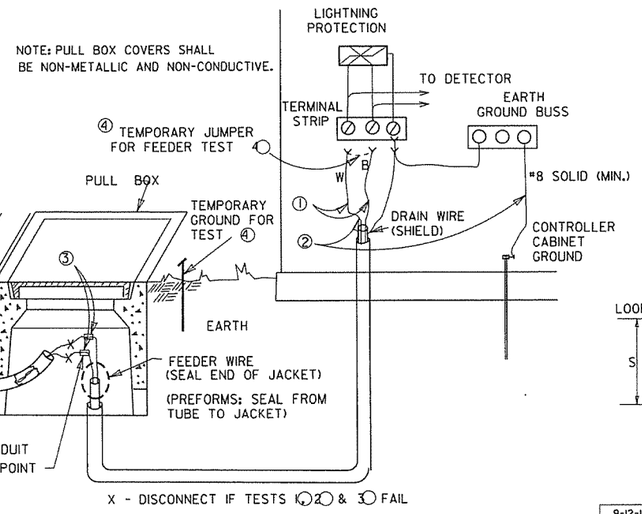
NOTE: CONDUIT SHALL BE INSTALLED IN CURB AS SHOWN OR AS DIRECTED BY THE ENGINEER. END OF CONDUIT SHALL BE WATER-TIGHT.



SECTION A-A

1'-6" CONCRETE COMBINATION CURB AND GUTTER

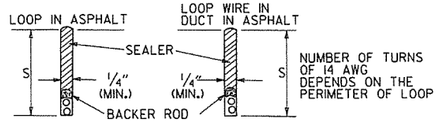
(TYPICAL)



SPECIAL NOTE

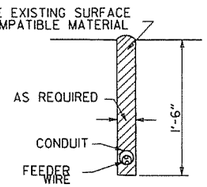
IF FEEDER WIRE JACKET IS LEFT UNSEALED AND WATER IS ALLOWED TO ENTER JACKET, CONTRACTOR WILL BE REQUIRED TO REPLACE FEEDER AT NO COST TO THE DEPARTMENT.

TYPICAL SECTIONS FOR PULSE AND PRESENCE LOOP DETECTORS



SECTION C-C

S=2 1/2" IN ASPHALT
S=1 1/2" IN CONCRETE



SECTION D-D

DATE	REVISION	DATE FILM
9-12-13	ISSUED AS STANDARD DRAWING	
5-17-01	REVISED	
4-11-01	REVISED	
2-4-00	REVISED PRE-EMPTION TEST SWITCH	
11-18-98	REVISED NOTES	
11-21-95	ISSUED	

ARKANSAS STATE HIGHWAY COMMISSION

LOOP DETECTOR INSTALLATION

STANDARD DRAWING SD-4

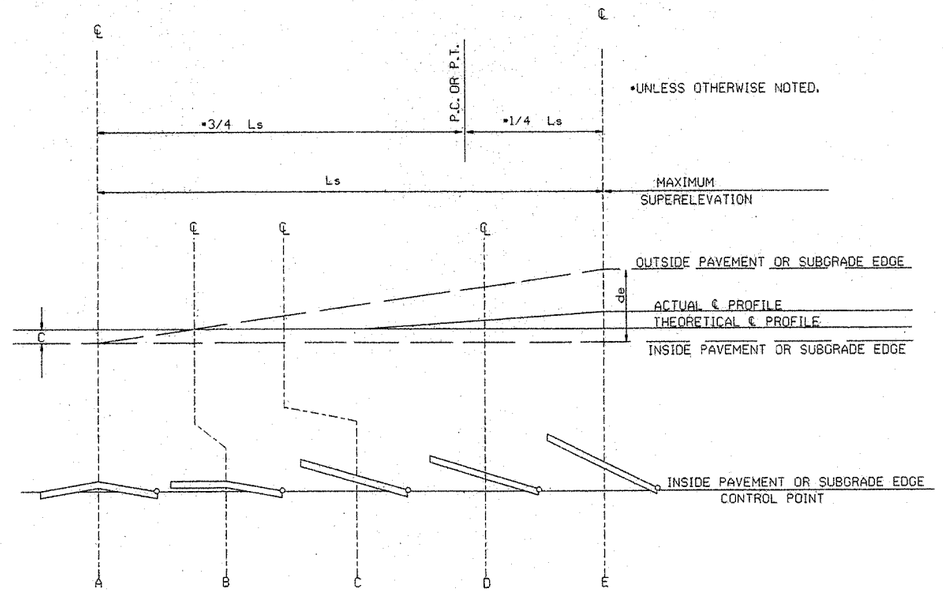
SUPERELEVATION TABLE FOR TWO - WAY TRAFFIC

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.			N.C.			N.C.		
0° 45′	N.C.			N.C.			R.C.			0.022			0.023			0.028		
1° 00′	N.C.			N.C.			0.021			0.026			0.030			0.037	275	300
1° 15′	N.C.			R.C.			0.026			0.032			0.037			0.046		
1° 30′	N.C.			0.021			0.031	200		0.037	225		0.043	250		0.054		
1° 45′	N.C.			0.025	175		0.036			0.043		300	0.049		300	0.062		
2° 00′	R.C.			0.028			0.040			0.048			0.055			0.070		
2° 15′	R.C.			0.031			0.045		250	0.053			0.061			0.078	300	
2° 30′	0.021			0.034			0.049			0.058			0.067			0.085	315	350
2° 45′	0.023			0.037		200	0.053			0.063			0.072			0.091	335	
3° 00′	0.025			0.040			0.057			0.067	230		0.077	260		0.096	350	400
3° 15′	0.027	150		0.043			0.061			0.072	245		0.082	275		0.098	360	
3° 30′	0.029			0.046			0.065	205		0.076	255		0.086	285		0.100	360	
3° 45′	0.031		200	0.049			0.069	215		0.080	265		0.090	295	350			
4° 00′	0.033			0.051			0.072	225		0.083	270		0.093	305				
4° 30′	0.037			0.056			0.078	240		0.087	280		0.096	315				
5° 00′	0.040			0.061			0.083	250		0.091	295	350	0.098	320				
5° 30′	0.043			0.066	185		0.088	260		0.094	300							
6° 00′	0.046			0.070	190		0.092	270	300	0.096	305							
6° 30′	0.050			0.074	200		0.095	280		0.100	315							
7° 00′	0.053			0.078	210		0.098	285										
7° 30′	0.056			0.081	215		0.099	290										
8° 00′	0.058			0.084	220		0.100	290										
8° 30′	0.061			0.087	225	250												
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																
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′ | D MAX = 13° 15′ | D MAX = 8° 15′ | D MAX = 6° 30′ | D MAX = 5° 15′ | D MAX = 3° 30′

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.

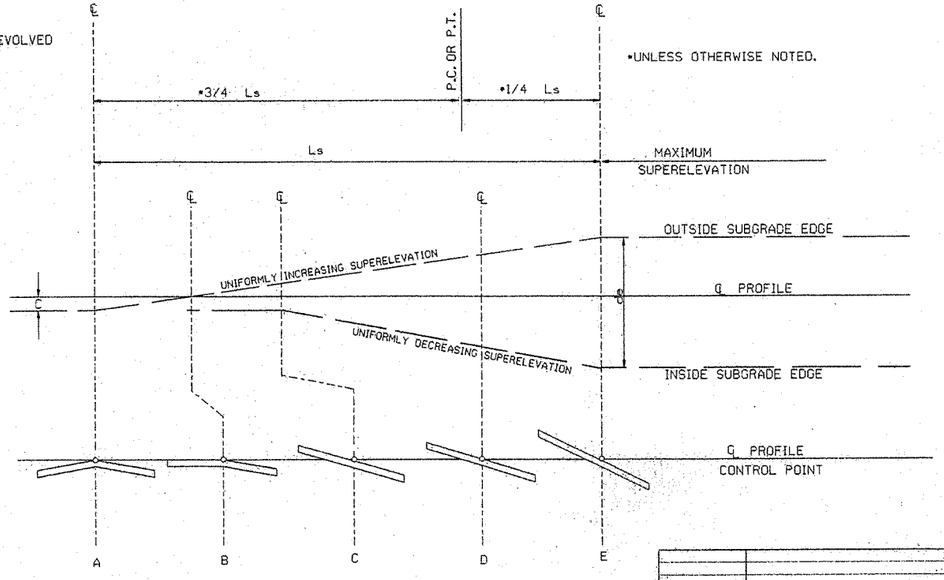
GENERAL NOTES

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 = $\frac{Lde}{Ls}$

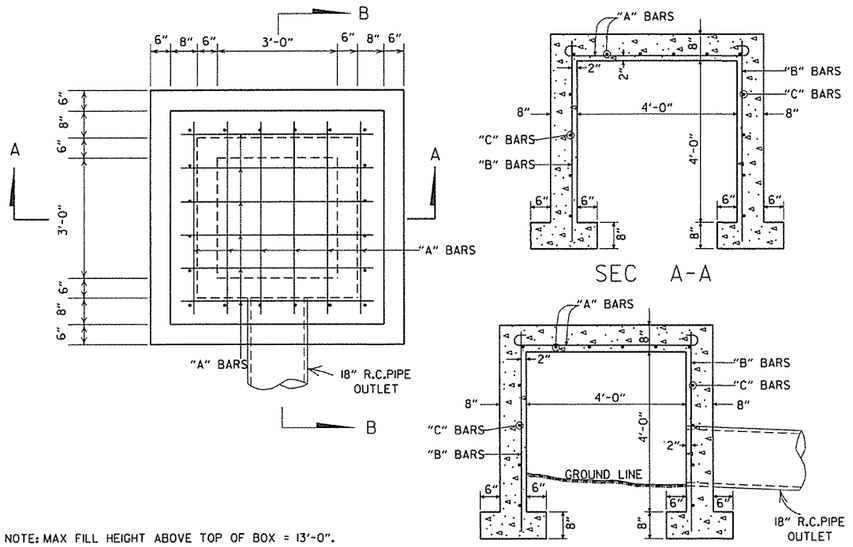
DATE	REVISION	DATE FILMED
10-18-96	ADDED FORMULA	10-18-96
01-09-87	ISSUED	534-1-9-87

ARKANSAS STATE HIGHWAY COMMISSION

TABLES AND METHOD OF SUPERELEVATION FOR TWO-WAY TRAFFIC

STANDARD DRAWING SE-2

FILE STDSE2.DGN



SEC A-A

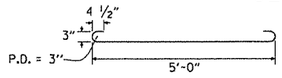
SEC B-B

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



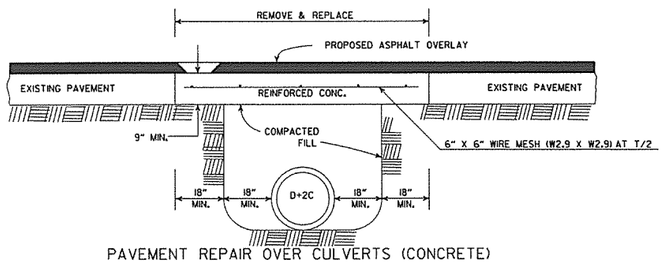
QUANTITIES

CONCRETE 3.31 CU. YDS.
REINFORCING STEEL 168 LB.

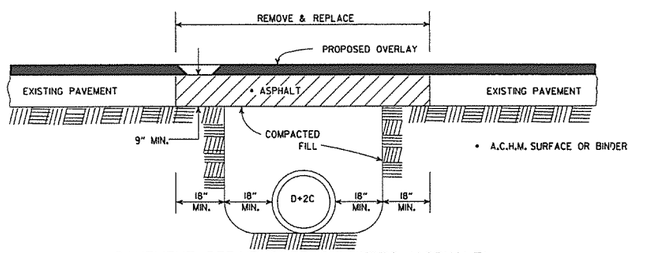
GENERAL NOTE:

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



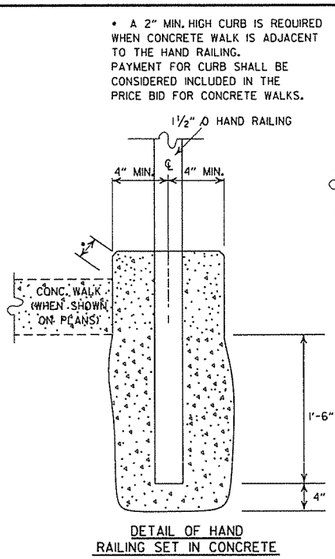
PAVEMENT REPAIR OVER CULVERTS (CONCRETE)



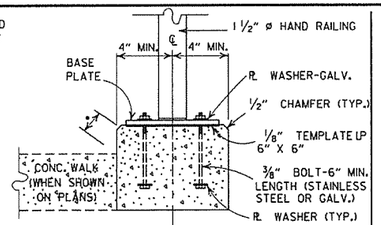
PAVEMENT REPAIR OVER CULVERTS (ASPHALT)

DETAIL SHOWING REPAIR OF EXISTING PAVEMENT AT CULVERT INSTALLATIONS

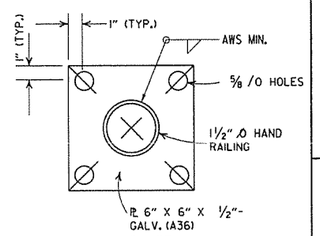
• A 2" MIN. HIGH CURB IS REQUIRED WHEN CONCRETE WALK IS ADJACENT TO THE HAND RAILING. PAYMENT FOR CURB SHALL BE CONSIDERED INCLUDED IN THE PRICE BID FOR CONCRETE WALKS.



DETAIL OF HAND RAILING SET IN CONCRETE

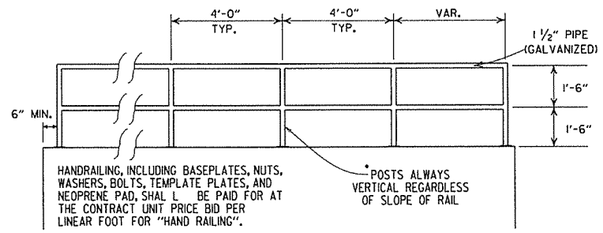


POST CONNECTION TO WALL

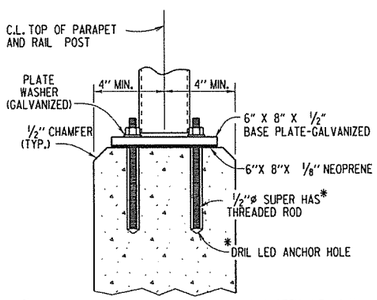


BASE PLATE

POST CONNECTION DETAILS



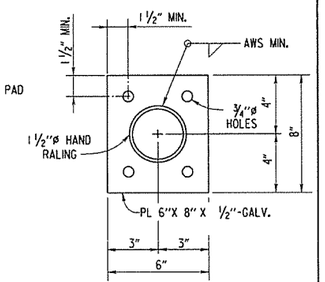
HAND RAILING SHAL L CONFORM TO SECTION 633.



*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.

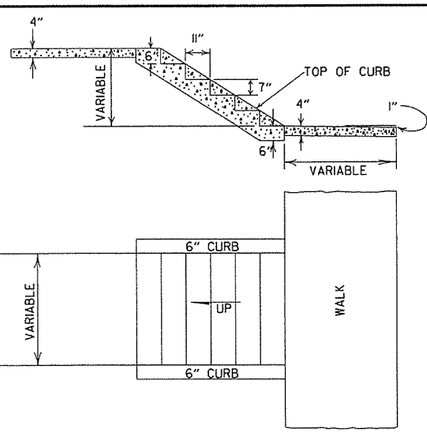
POST CONNECTION TO WALL



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 DET& 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

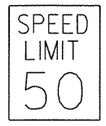
R1-1

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

R1-2

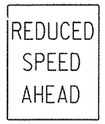
STD. 36"X36"X36"
EXPWY. 48"X48"X48"
FWY. 60"X60"X60"

R2-1



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

R2-5A



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

R2-5C

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

R4-1

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

R4-2

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

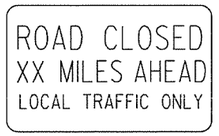
R5-1

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

RII-2

48"X30"

RII-3A



60"X30"

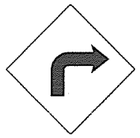
RII-4

60"X30"

RSP-1

48"X30"

WI-1



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

WI-2

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

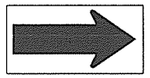
WI-3

STD. 48"X48"

WI-4

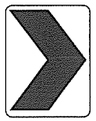
STD. 48"X48"

WI-6



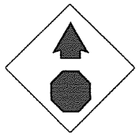
STD. 48"X24"
SPECIAL 60"X30"

WI-8



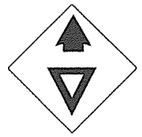
STD. 18"X24"
SPECIAL 24"X30"
EXPWY. 30"X36"
FWY. 36"X48"

W3-1



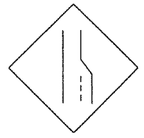
STD. 36"X36"
SPECIAL 48"X48"

W3-2



STD. 36"X36"
SPECIAL 48"X48"

W4-2



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

W5-1

STD. 36"X36"
SPECIAL 48"X48"

W6-3

EXPWY. 36"X36"
SPECIAL 48"X48"

W8-7

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

W9-2

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

WI3-1

STD. 24"X24"

W20-1

STD. 48"X48"

W20-2

STD. 48"X48"

W20-3

STD. 48"X48"

W20-4

STD. 48"X48"

W20-5

STD. 48"X48"

W20-7a

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

W21-2

STD. 30"X30"
SPECIAL 36"X36"

W21-5

STD. 30"X30"
SPECIAL 36"X36"

W24-1

STD. 36"X36"

WI-4b

STD. 48"X48"

R56-1

STD. 18"X18"

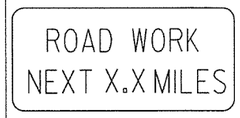
W8-11

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

W8-9

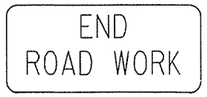
STD. 36"X36"
FWY. 48"X48"

G20-1



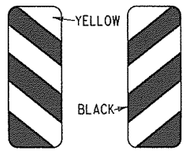
60"X24"

G20-2



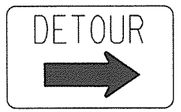
48"X24"

OM-3L OM-3R



12"X36"

M4-9

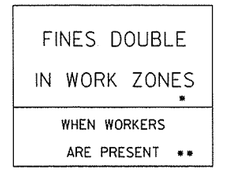


STD. 30"X24"
SPECIAL 48"X36"
SPECIAL 60"X48"

M4-10

48"X18"

R55-1



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.

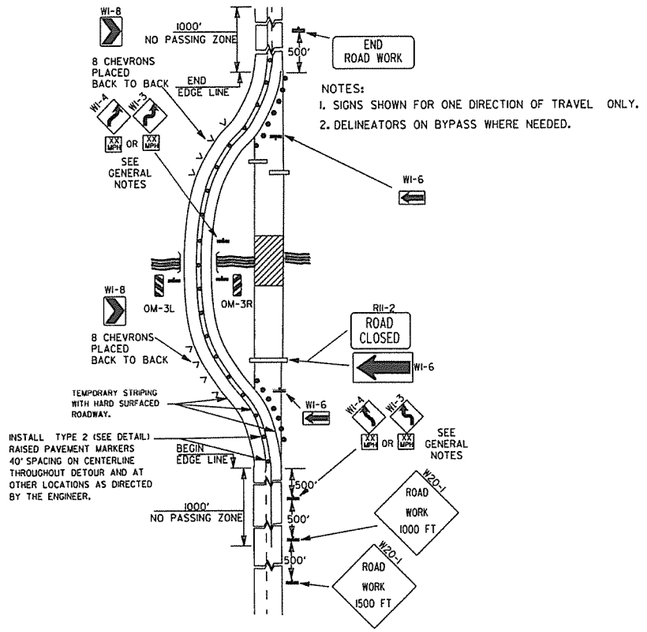
• NOTE: SUPPORTS FOR SIGNS, BARRICADES, AND VERTICAL PANELS THAT ARE DIFFERENT FROM THE REQUIREMENTS SHOWN IN NOTES 4 & 5, BUT MEET THE REQUIREMENTS OF NCHRP-350 OR MANUAL FOR ASSESSING SAFETY HARDWARE (MASH), WILL BE ACCEPTED. COMPLIANCE WITH THE REQUIREMENTS OF NCHRP-350 OR MANUAL FOR ASSESSING SAFETY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

DATE	REVISION	FILMED
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

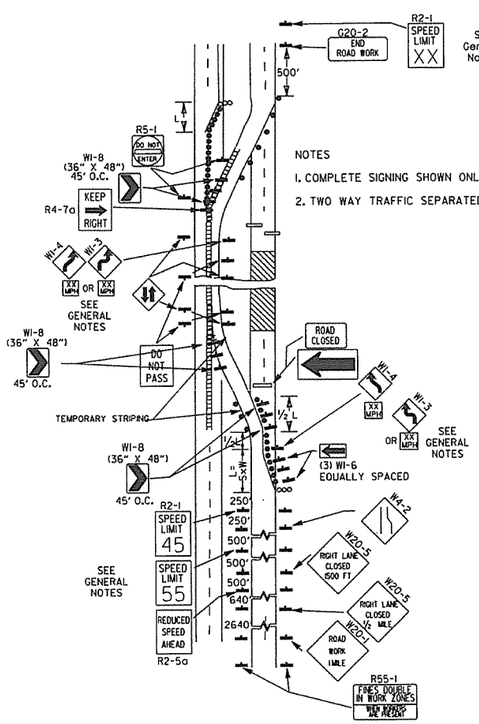
STANDARD TRAFFIC CONTROLS FOR HIGHWAY CONSTRUCTION

STANDARD DRAWING TC-1



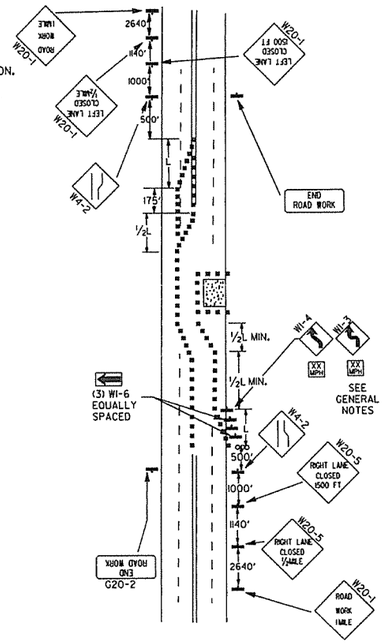
(A) TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES ON A 2-LANE HIGHWAY WHERE THE ENTIRE ROADWAY IS CLOSED AND A BYPASS DETOUR IS PROVIDED.

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

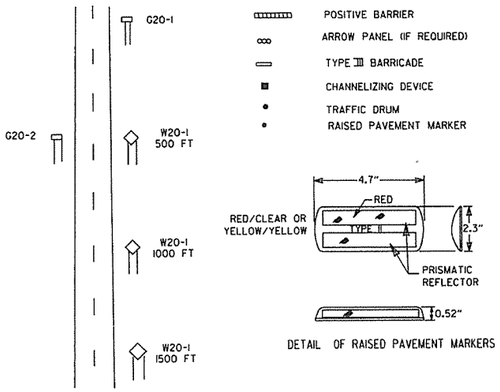


(B) TYPICAL APPLICATION - 4-LANE DIVIDED ROADWAY WHERE ONE ROADWAY IS CLOSED.

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

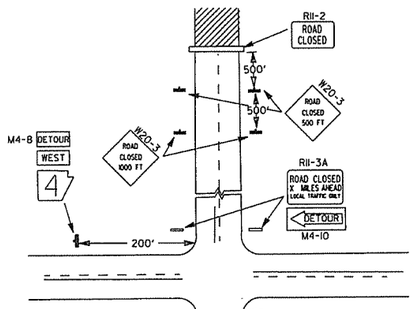


(C) TYPICAL APPLICATION - 4-LANE UNDIVIDED ROADWAY WHERE HALF OF THE ROADWAY IS CLOSED.



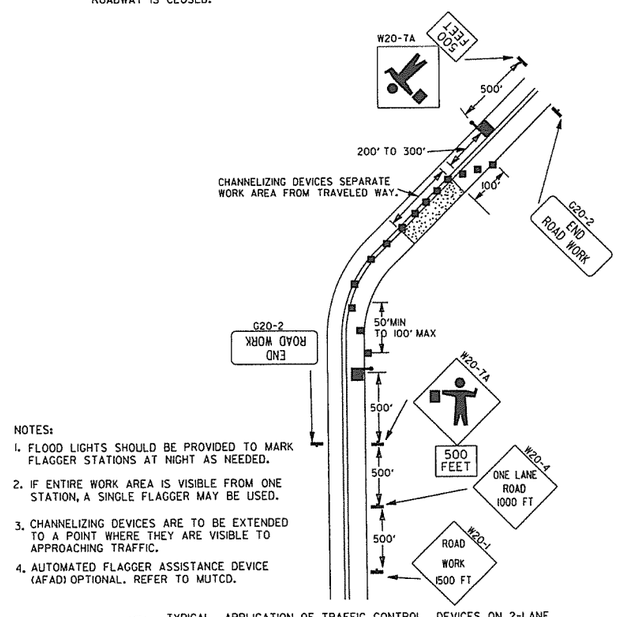
DETAIL OF RAISED PAVEMENT MARKERS

TYPICAL ADVANCE WARNING SIGN PLACEMENT



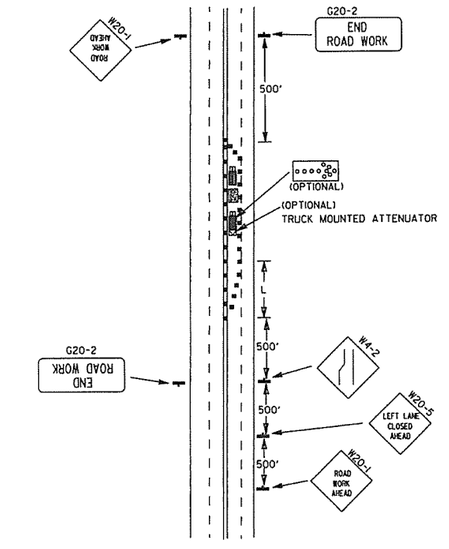
NOTES:
1. REGULATORY TRAFFIC CONTROL DEVICES TO BE MODIFIED AS NEEDED FOR THE DURATION OF THE DETOUR.
2. STREET NAMES MAY BE USED WHEN DESIRABLE FOR DIRECTING DETOURED TRAFFIC.

(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.

TAPER FORMULAE:

L=SXW FOR SPEEDS OF 45MPH OR MORE.

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

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

GENERAL NOTES:

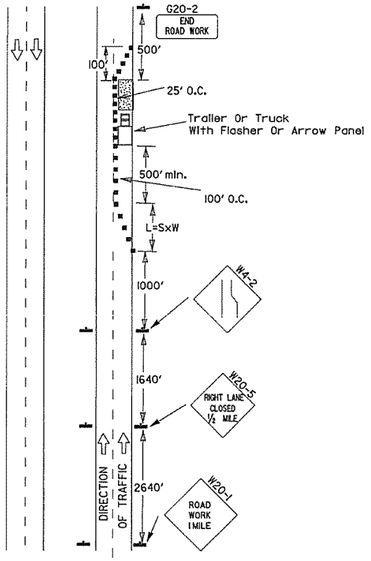
1. ADVISORY SPEED POSTED ON WI-3 OR WI-4 CURVE WARNING SIGNS TO BE DETERMINED AT SITE. USE WI-4 WHEN SPEED IS GREATER THAN 30MPH AND WI-3 WHEN 30MPH OR LESS.
2. WHEN THE EXISTING SPEED LIMIT IS 55MPH AND THE PLANS REQUIRE A SPEED LIMIT OF 45MPH, THE R2-1(55) SHALL BE OMITTED AND THE R2-5A SHALL BE INSTALLED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

DATE	REVISION	FILMED
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 WI-4A	6-8-95
2-2-95	REVISED PER PART VI, MUTCD, SEPT. 3, 1993	
8-15-91	DRAWN AND PLACED IN USE	

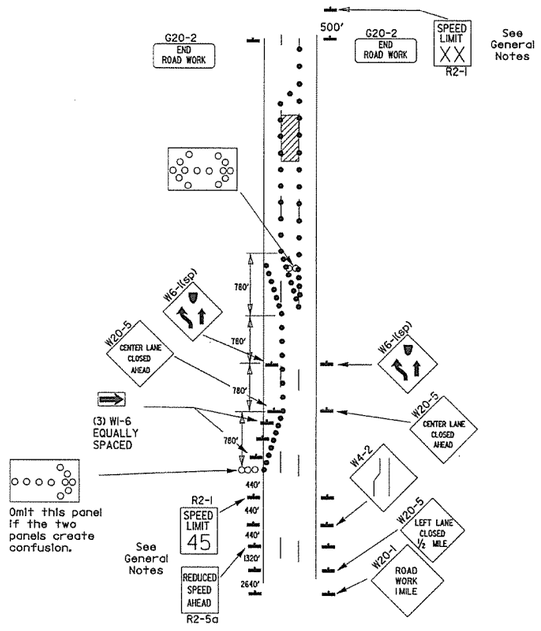
ARKANSAS STATE HIGHWAY COMMISSION

STANDARD TRAFFIC CONTROLS FOR HIGHWAY CONSTRUCTION

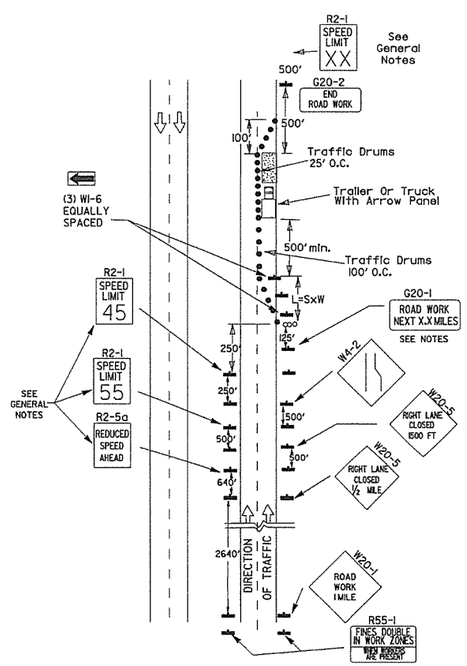
STANDARD DRAWING TC-2



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



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



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

KEY:

○○○ Arrow Panel (If Required)

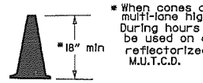
■ Channelizing Device

● Traffic drum

GENERAL NOTES:

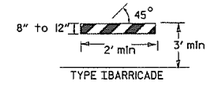
1. A speed limit reduction may be implemented ONLY when designated in the plan or when recommended by the Roadway Design Division.
2. When the existing speed limit is 55mph and the plans require a speed limit of 45mph, the R2-1(55) shall be omitted and the R2-5A shall be installed at that location. Additional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

Channelizing devices



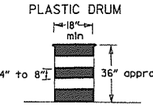
* When cones are used on freeways and multi-lane highways, they shall be 28" min. During hours of darkness, 28" cones shall be used on all roadways, and shall be reflectorized in accordance with the M.U.T.C.D.

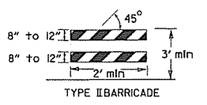
CONES



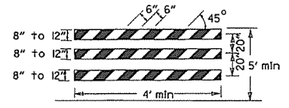
TYPE I BARRICADE

PLASTIC DRUM



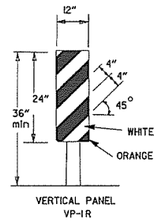


TYPE II BARRICADE



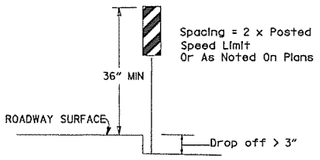
TYPE III BARRICADE

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



VERTICAL PANEL
VP-1R

VERTICAL PANEL PLACEMENT



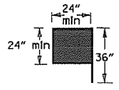
TRAFFIC CONTROL DEVICES
FOR
VERTICAL PAVEMENT DIFFERENTIALS

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.

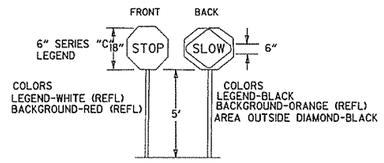
When the shoulder area is used as part of the traveled lane and there is insufficient width to place drums on the remaining shoulder width, then vertical panels shall be used.

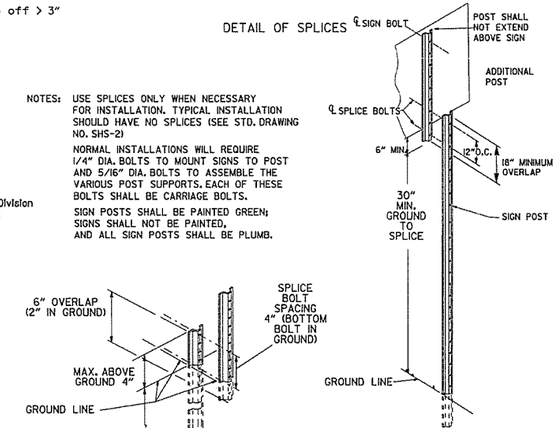
FLAG



Flag shall be of good grade red material

STOP SLOW PADDLE

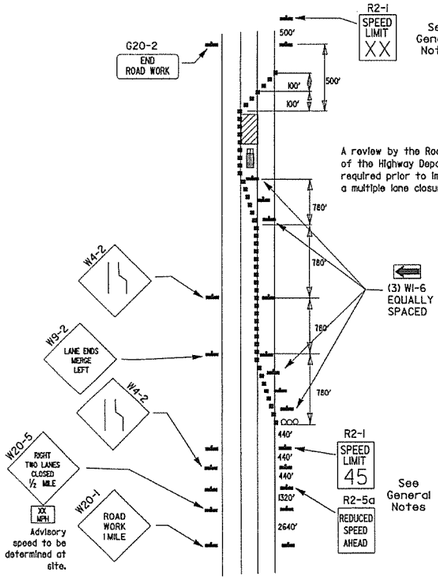




NOTES: USE SPLICES ONLY WHEN NECESSARY FOR INSTALLATION. TYPICAL INSTALLATION SHOULD HAVE NO SPLICES (SEE STD. DRAWING NO. SHS-2)

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.



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

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	
DATE	REVISION	FILMED

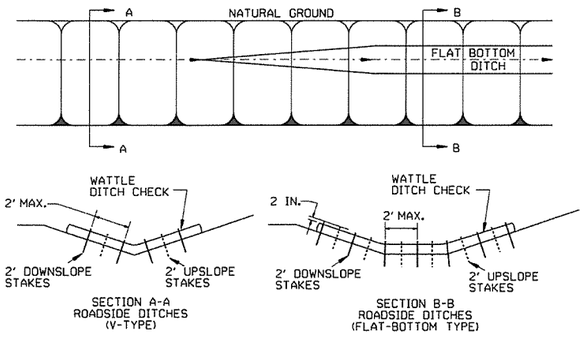
ARKANSAS STATE HIGHWAY COMMISSION

STANDARD TRAFFIC CONTROLS FOR HIGHWAY CONSTRUCTION

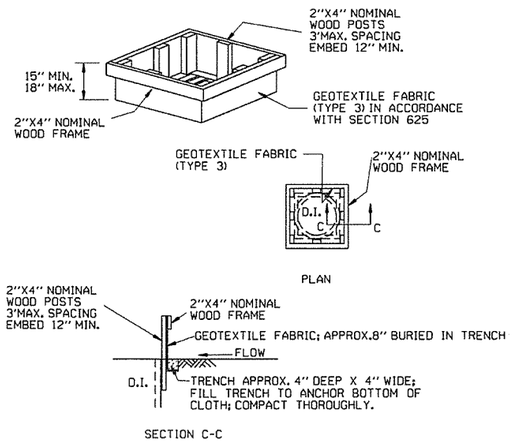
STANDARD DRAWING TC-3

GENERAL NOTES

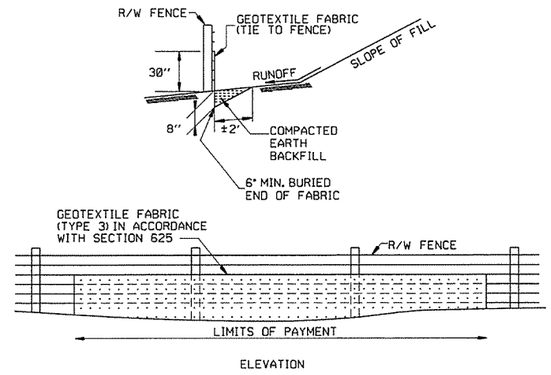
INSTALL A MINIMUM OF 2 UPSLOPE STAKES AND 4 DOWNSLOPE STAKES AT AN ANGLE TO WEDGE WATTLE TO BOTTOM OF DITCH.



WATTLE DITCH CHECK (E-1)



DROP INLET SILT FENCE (E-7)



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

GENERAL NOTES

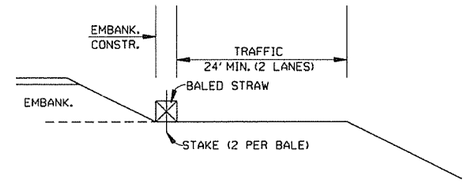
GEOTEXTILE FABRIC SHALL BE SPLICED TOGETHER WITH A SEWN SEAM ONLY AT A SUPPORT POST, OR TWO SECTIONS OF FENCE MAY BE OVERLAPPED INSTEAD. PAYMENT OF ADDITIONAL MATERIAL FOR OVERLAP WILL NOT BE MADE.

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.

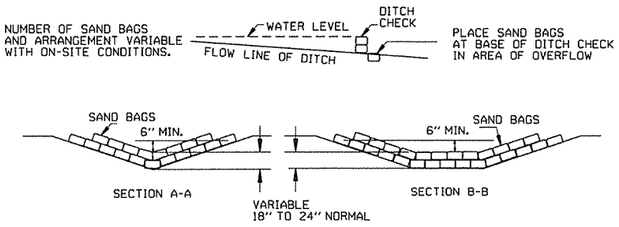
2. NO GAPS SHALL BE LEFT BETWEEN BALES.

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.

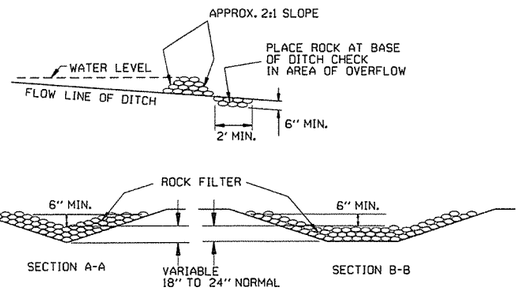


BALED STRAW FILTER BARRIER (E-2)

NUMBER OF SAND BAGS AND ARRANGEMENT VARIABLE WITH ON-SITE CONDITIONS.

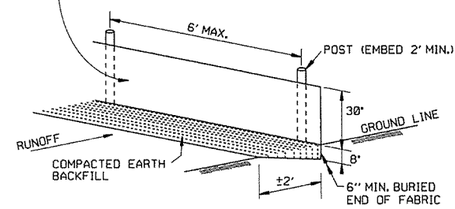


SAND BAG DITCH CHECK (E-5)



ROCK DITCH CHECK (E-6)

GEOTEXTILE FABRIC (TYPE 4) IN ACCORDANCE WITH SECTION 625



SILT FENCE (E-11)

GENERAL NOTES

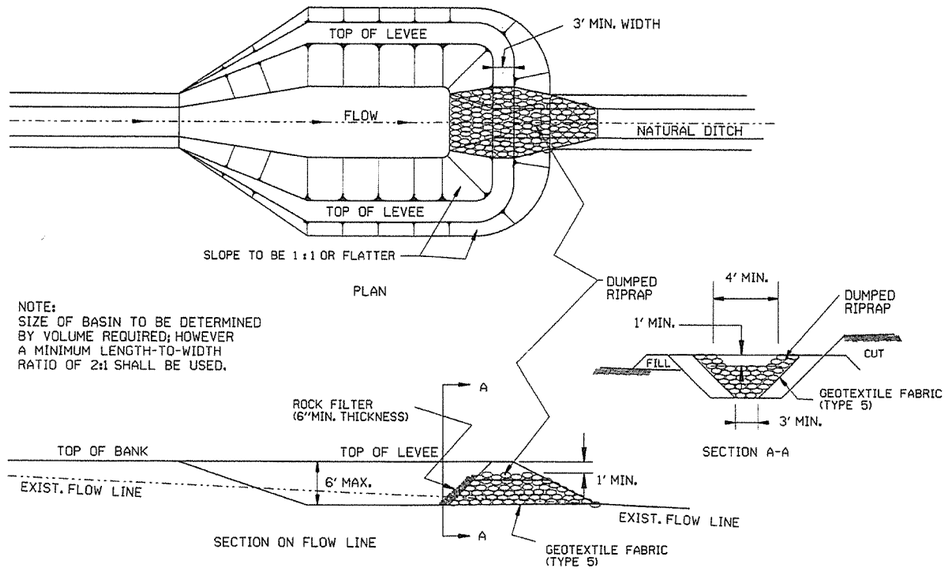
GEOTEXTILE FABRIC SHALL BE SPLICED TOGETHER WITH A SEWN SEAM ONLY AT A SUPPORT POST OR TWO SECTIONS OF FENCE MAY BE OVERLAPPED INSTEAD. PAYMENT OF ADDITIONAL MATERIAL FOR OVERLAP WILL NOT BE MADE.

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

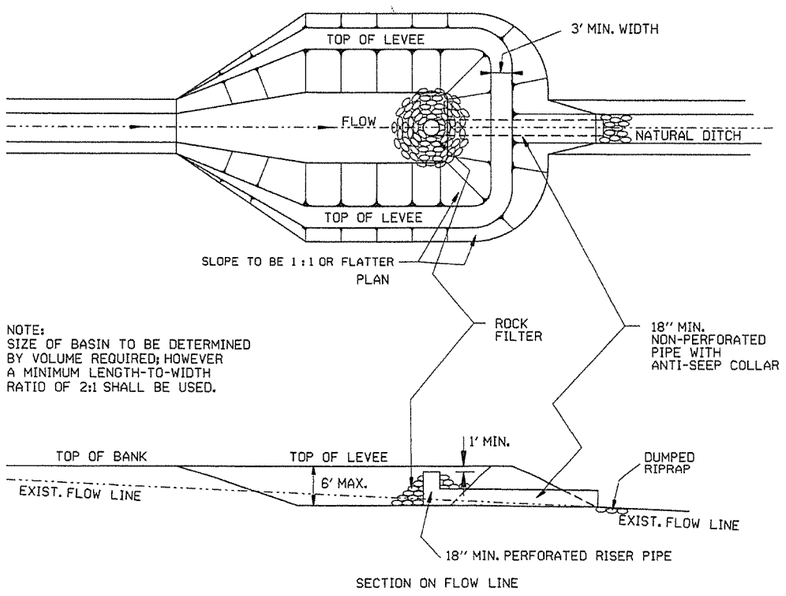
ARKANSAS STATE HIGHWAY COMMISSION

TEMPORARY EROSION CONTROL DEVICES

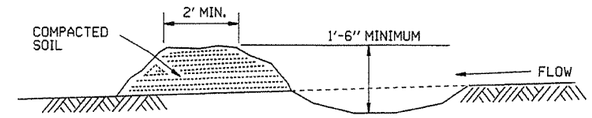
STANDARD DRAWING TEC-1



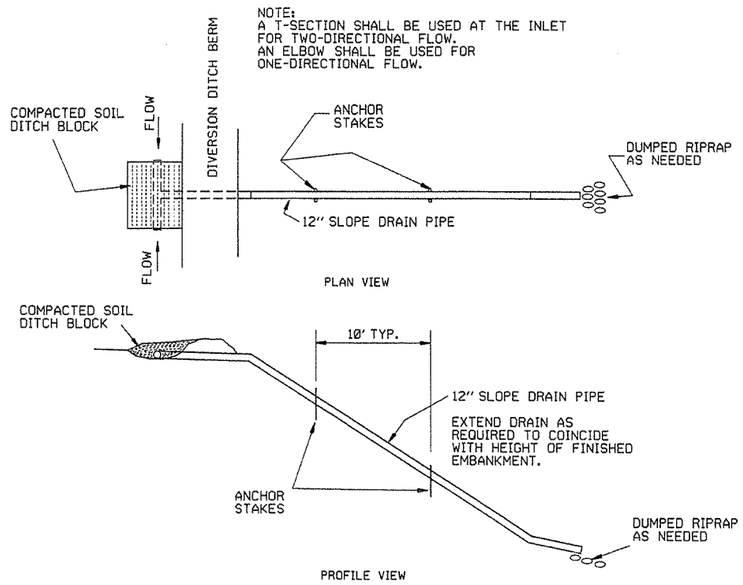
SEDIMENT BASIN WITH RIPRAP OUTLET (E-9)



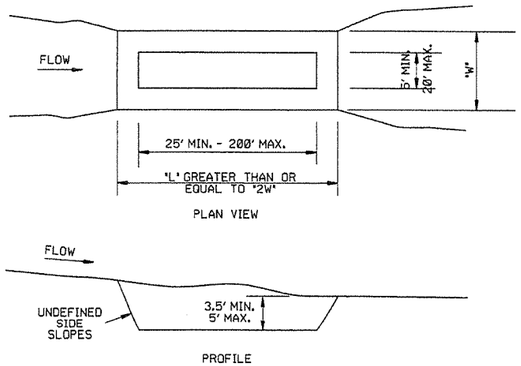
SEDIMENT BASIN WITH PIPE OUTLET (E-10)



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

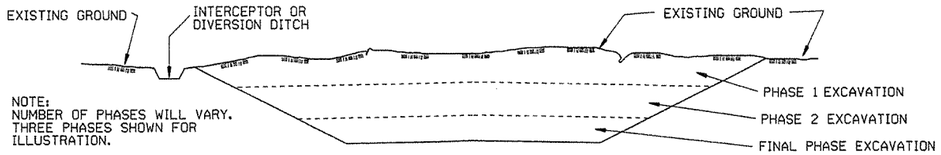
STANDARD DRAWING TEC-2

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



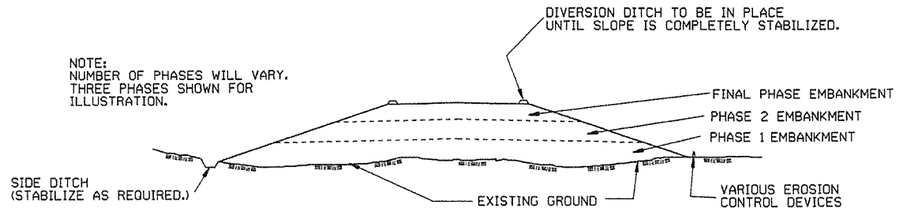
GENERAL NOTE

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

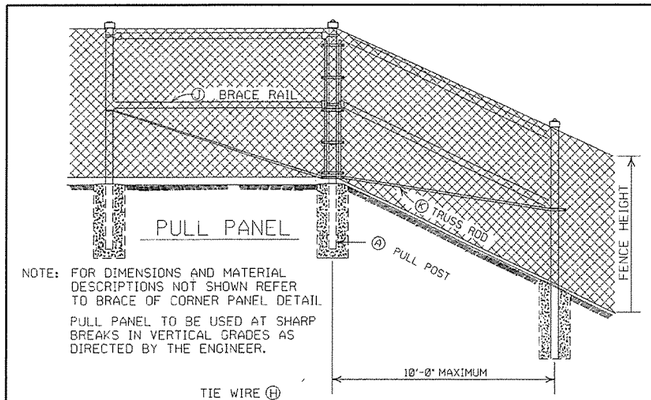
1. CONSTRUCT DIVERSION DITCHES, DITCH CHECKS, SEDIMENT BASINS, SILT FENCES, OR OTHER EROSION CONTROL DEVICES AS SPECIFIED.
2. PLACE PHASE 1 EMBANKMENT WITH PERMANENT OR TEMPORARY SEEDING. PROVIDE DIVERSION DITCHES AND SLOPE DRAINS IF EMBANKMENT CONSTRUCTION IS TO BE TEMPORARILY ABANDONED FOR A PERIOD 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

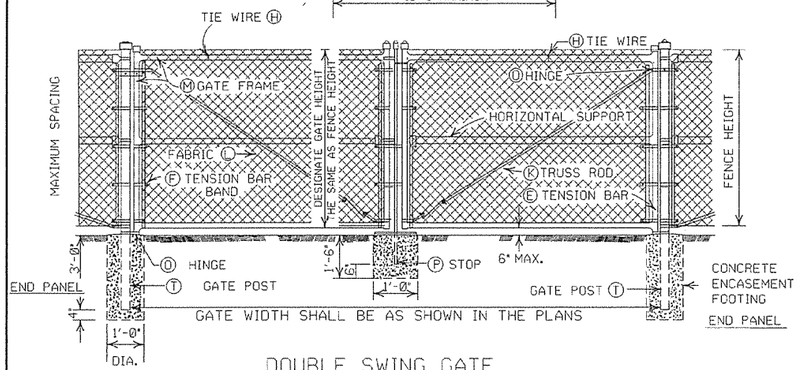
STANDARD DRAWING TEC-3



PULL PANEL

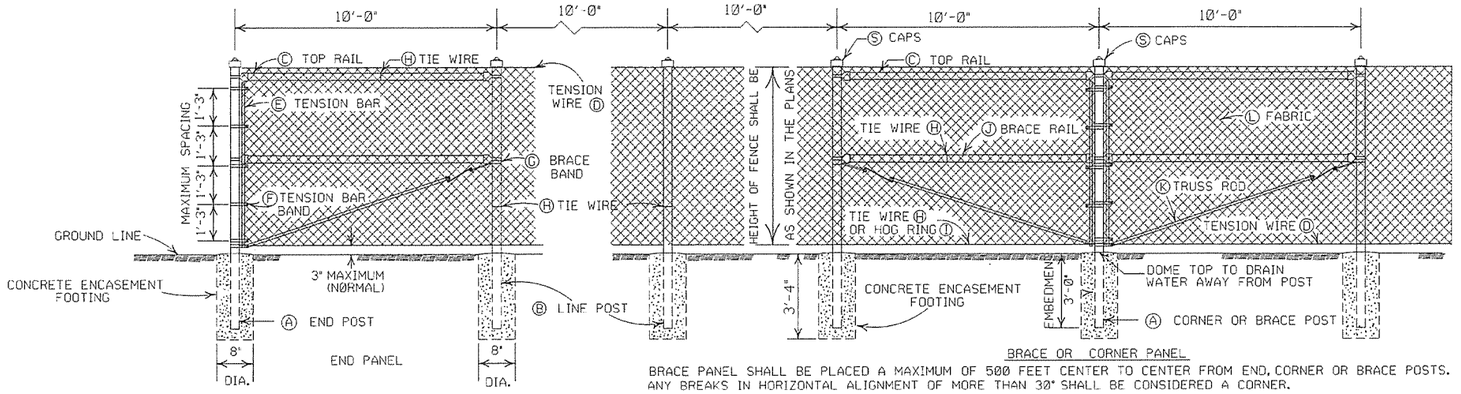
NOTE: FOR DIMENSIONS AND MATERIAL DESCRIPTIONS NOT SHOWN REFER TO BRACE OF CORNER PANEL DETAIL.

PULL PANEL TO BE USED AT SHARP BREAKS IN VERTICAL GRADES AS DIRECTED BY THE ENGINEER.



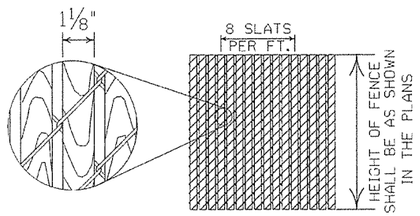
DOUBLE SWING GATE

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)

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.

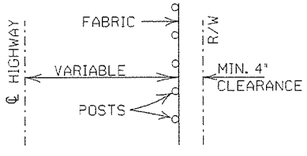
HEIGHT OF FENCE FABRIC	Ⓐ END, PULL CORNER OR BRACE POST	Ⓑ LINE POSTS SIZE	Ⓑ LINE POSTS TIE SPACING	Ⓒ TOP RAIL SIZE	Ⓒ TOP RAIL TIE SPACING	Ⓒ TOP RAIL MIN. LENGTH	Ⓓ TENSION WIRE SIZE	Ⓓ TENSION WIRE TIE SPACING	Ⓔ TENSION BAR SIZE	Ⓔ TENSION BAR LENGTH	Ⓕ TENSION BAR BAND SIZE	Ⓕ TENSION BAR BAND BOLT SIZE	Ⓕ TENSION BAR BAND SPACING	Ⓖ BRACE BAND SIZE	Ⓖ BRACE BAND 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	MIN. OF 2" LESS THAN FABRIC HEIGHT	MIN. OF ¾" X 0.074	⅝" X 1¼"	1 BAND AT TOP AND BOTTOM 15" MAX. INTERVAL BETWEEN BANDS	MIN. OF ¾" X 0.105	⅝" X 1¼"
OVER 6' TO 12' INCL.	3 " O.D.	2½" O.D.							⅜" X ¾"						

HEIGHT OF FENCE FABRIC	Ⓗ TIE WIRE	Ⓘ HOG RING	Ⓙ BRACE RAIL SIZE	Ⓙ BRACE RAIL TIE SPACING	Ⓚ TRUSS ROD	Ⓛ FABRIC SIZE	Ⓛ FABRIC MESH	Ⓛ FABRIC SELVAGE	Ⓜ GATE FRAME SIZE	Ⓜ GATE FRAME TIE SPACING	Ⓝ HORIZONTAL SUPPORT SIZE	Ⓝ HORIZONTAL SUPPORT TIE SPACING	Ⓞ HINGE TYPE 180° SWING	Ⓣ GATE POST GATE WIDTH 12' AND LESS	Ⓣ GATE POST GATE WIDTH OVER 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 ⅜" 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 .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

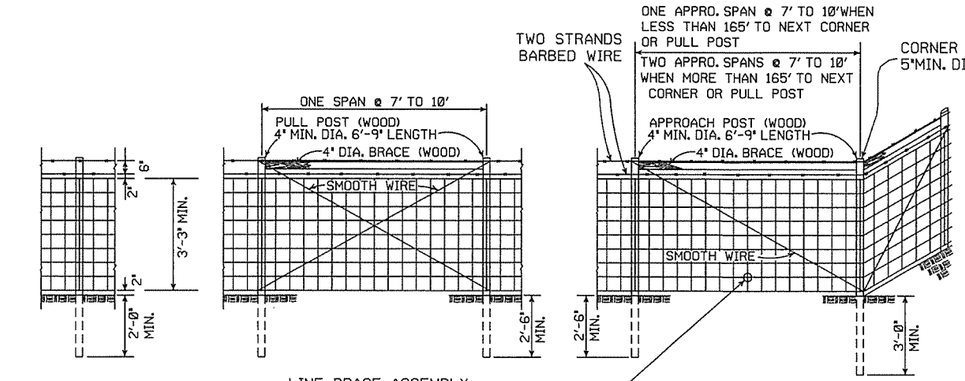
TOLERANCES ON DIMENSIONS AND WEIGHTS ACCORDING TO AASHTO M 181

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

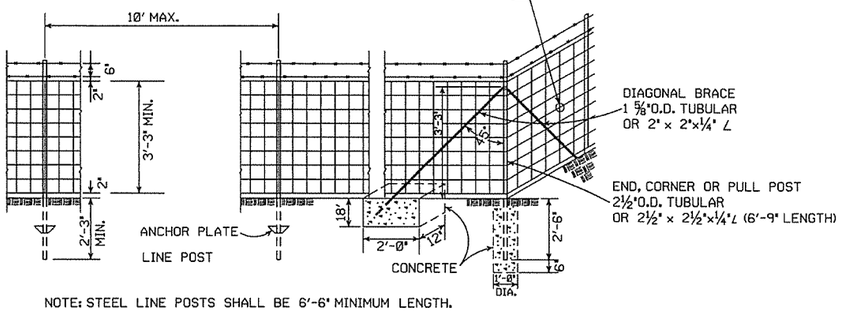


LINE BRACE ASSEMBLY
MAX. SPACING TO BE 330'

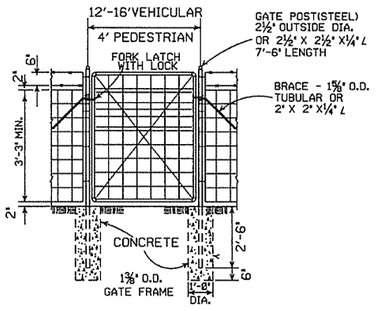
LINE POST
3" MIN. DIA. 6'-3" LENGTH
MAX. SPACING TO BE 10'-0"

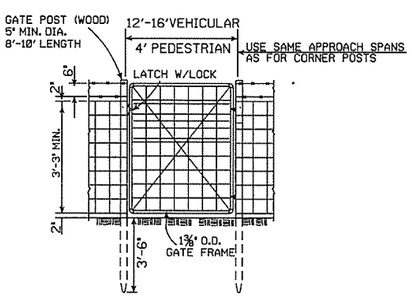
TYPE C FENCE (WOOD POSTS)

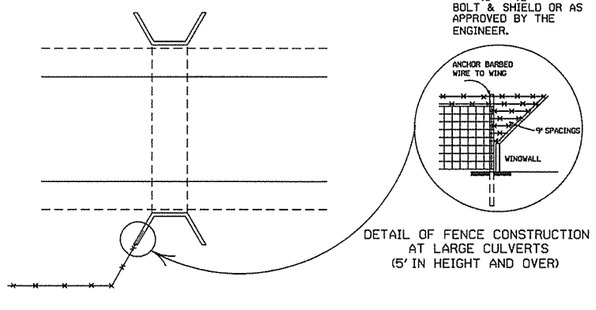
OTHER APPROVED TIES WILL BE PERMITTED



NOTE: STEEL LINE POSTS SHALL BE 6'-6" MINIMUM LENGTH.







DETAIL OF FENCE CONSTRUCTION AT LARGE CULVERTS (5' IN HEIGHT AND OVER)

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.

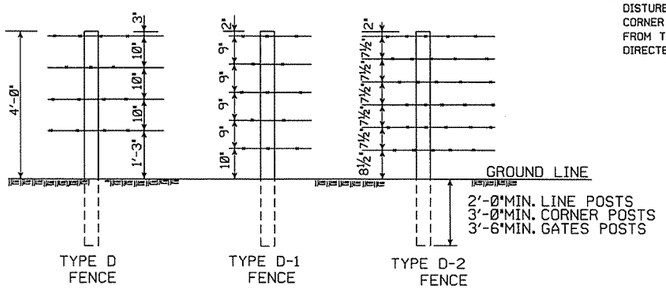
SPLICE FOR BARBED WIRE BETWEEN PULL POST ASSEMBLY SHALL BE BY THE 'EYE METHOD' AS DESCRIBED AS FOLLOWS:
THE ENDS OF THE BARBED WIRE SHALL BE BENT TO FORM A LOOP. THE LOOPS SHALL BE CONNECTED. AFTER THE LOOPS ARE CONNECTED THE ENDS OF THE WIRE SHALL BE WRAPPED AROUND THE PROJECTING WIRES A MINIMUM OF 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.

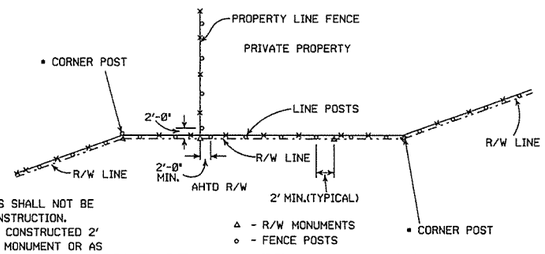
STAPLE AT LEAST TOP, BOTTOM AND ALTERNATE WIRES OF WOVEN FABRIC FOR WOOD LINE POSTS.

TYPE C FENCE (STEEL POSTS)

4 STRANDS BARBED WIRE (D)
5 STRANDS BARBED WIRE (D-1)
6 STRANDS BARBED WIRE (D-2)

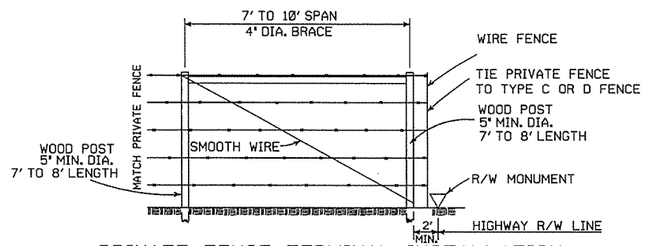


NOTE: SPACING AND SIZE (EXCEPT LENGTH) OF POSTS, APPROACH SPANS, PULL POST ASSEMBLIES, AND CORNER BRACING FOR TYPE D FENCE SHALL CONFORM TO TYPE C FENCE. USE GALVANIZED STAPLES ON WOOD POSTS AND APPROVED FASTENERS ON STEEL POSTS.



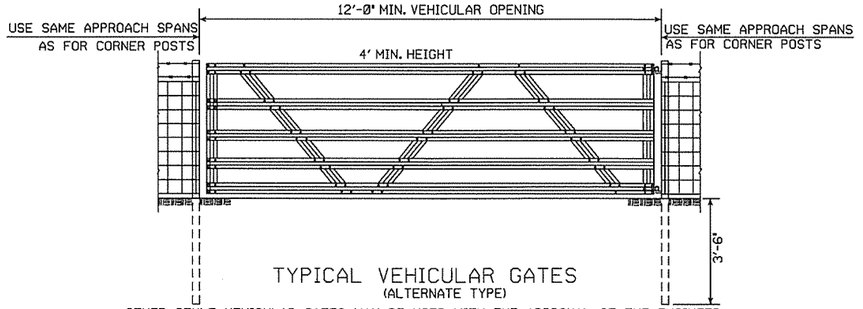
• NOTE: RIGHT-OF-WAY MONUMENTS SHALL NOT BE DISTURBED BY FENCE CONSTRUCTION. CORNER POSTS SHALL BE CONSTRUCTED 2' FROM THE RIGHT-OF-WAY MONUMENT OR AS DIRECTED BY THE ENGINEER.

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)

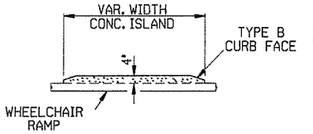
OTHER STYLE VEHICULAR GATES MAY BE USED WITH THE APPROVAL OF THE ENGINEER.
THE METHOD OF SECURING GATE (LATCH AND/OR LOCK) SHALL MEET THE APPROVAL OF THE ENGINEER.

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

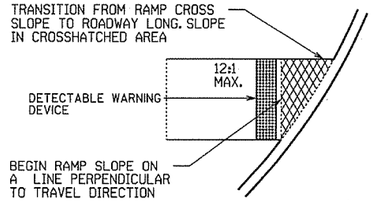
ARKANSAS STATE HIGHWAY COMMISSION

WIRE FENCE
TYPE C AND D

STANDARD DRAWING WF-4



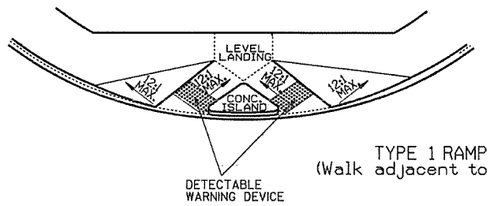
CONCRETE ISLAND DETAIL



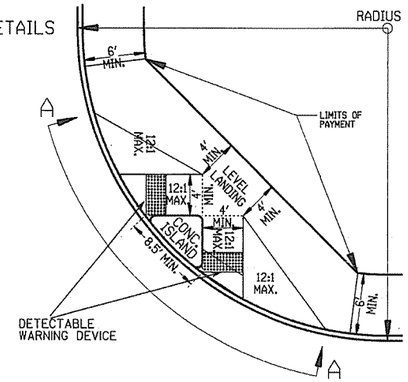
SLOPE TRANSITION DETAILS

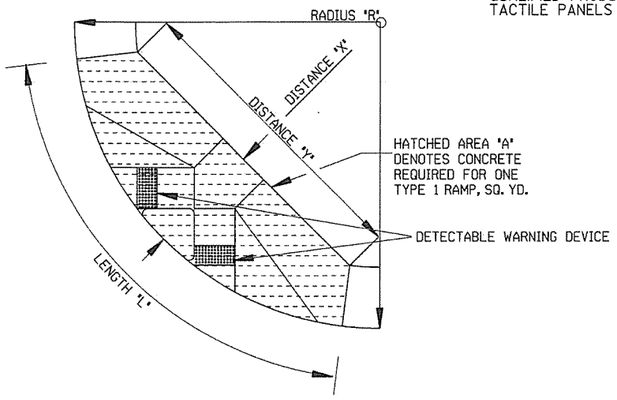
TYPE 1 RAMP DIMENSIONS AND QUANTITIES

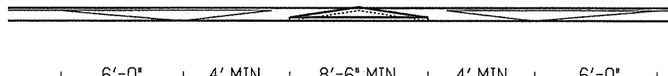
RADIUS 'R'	DISTANCE 'X'	DISTANCE 'Y'	LENGTH 'L'	RAMP AREA 'A'
FEET	FEET	FEET	FEET	SQ. YD.
15	11.67	18.82	32.18	26.21
20	11.52	22.28	35.46	30.07
25	11.43	26.60	38.77	33.80
30	11.37	30.26	40.93	36.90
35	11.33	33.51	43.11	39.77
40	11.30	36.45	45.26	42.45
45	11.27	39.16	47.34	44.97
50	11.25	41.69	49.36	47.35
55	11.24	44.07	51.31	49.63
60	11.22	46.33	53.21	51.80



TYPE 1 RAMP
(Walk adjacent to curb)



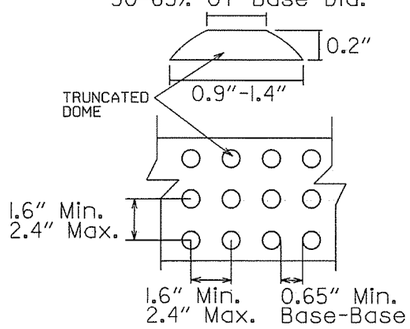




SECTION A-A

GENERAL NOTES FOR DETECTABLE WARNING DEVICES

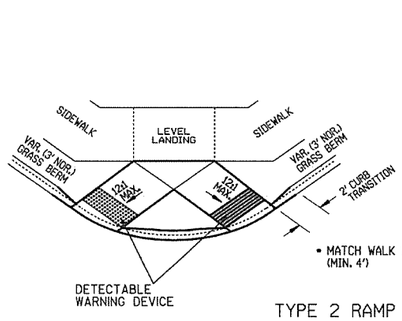
THE DETECTABLE WARNING DEVICE SHALL BE LOCATED SO THAT THE NEAREST EDGE OF THE DEVICE IS 6 TO 8 INCHES FROM THE FACE OF THE CURB.
TRUNCATED DOMES IN THE DETECTABLE WARNING SURFACE SHALL MEET THE REQUIREMENTS OF THE GEOMETRIC CONFIGURATION SHOWN.
DOMES SHALL BE ALIGNED ON A SQUARE GRID IN THE PREDOMINANT DIRECTION OF TRAVEL TO PERMIT WHEELS TO ROLL BETWEEN DOMES.
DETECTABLE WARNING DEVICE SHALL BE 24 INCHES IN THE DIRECTION OF TRAVEL AND EXTEND THE FULL WIDTH OF THE CURB RAMP OR FLUSH SURFACE.
DETECTABLE WARNING DEVICE SHALL BE ON THE AHTD QUALIFIED PRODUCTS LIST FOR CAST-IN-PLACE TACTILE PANELS (ADA DETECTABLE WARNING).



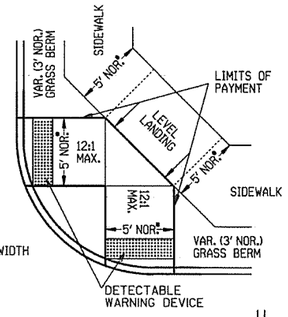
DETECTABLE WARNING DEVICE DETAIL

GENERAL NOTES:

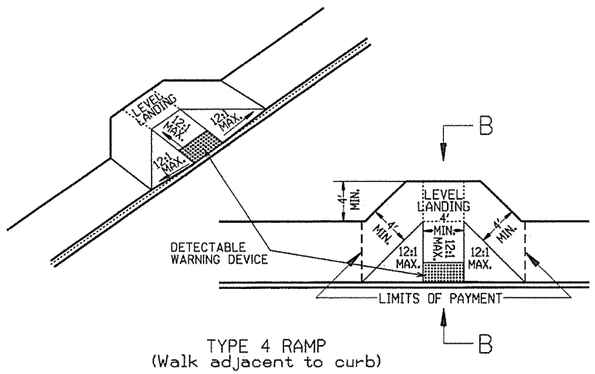
IN NEW CONSTRUCTION, UNLESS OTHERWISE INDICATED ON THE PLANS, WHEELCHAIR RAMPS ARE TO BE PROVIDED AT ALL CORNERS OF CURBED STREET INTERSECTIONS AND MID-BLOCK CROSSWALK LOCATIONS.
IN ALTERATIONS WHEELCHAIR RAMPS ARE TO BE PROVIDED AT CURBED STREET INTERSECTIONS WITH PEDESTRIAN TRAFFIC AND MID-BLOCK CROSSWALK LOCATIONS.
THE LENGTH OF THE RAMP SHALL BE SUCH THAT THE SLOPE DOES NOT EXCEED 12:1. THE SURFACE TEXTURE OF THE RAMP SHALL CONFORM TO A CLASS 6 FINISH ACCORDING TO SECTION 802.19.
THE NORMAL GUTTER GRADE SHALL BE MAINTAINED THROUGH THE AREA OF THE RAMP.
ALL PAVEMENT MARKINGS SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES PUBLISHED BY THE FEDERAL HIGHWAY ADMINISTRATION.
THE MINIMUM THICKNESS OF THE RAMP, WALK, & LANDING SHALL BE 4".
THE MINIMUM WIDTH OF THE RAMPS SHALL BE THE WALK WIDTH OR 36", WHICHEVER IS GREATER.
RAMPS SHALL BE MODIFIED AS NECESSARY TO INSURE THAT THEY ARE PARALLEL TO A LINE DRAWN FROM THE CENTER OF ONE RAMP TO THE CENTER OF THE RAMP ON THE OPPOSITE SIDE OF THE INTERSECTION.
THE DIMENSIONS AND QUANTITIES SHOWN ON THIS DRAWING ARE FOR A 90° INTERSECTION ONLY. DIMENSIONS AND QUANTITIES FOR SKEWED INTERSECTIONS WILL VARY, AND ARE TO BE DETERMINED BY THE ENGINEER.



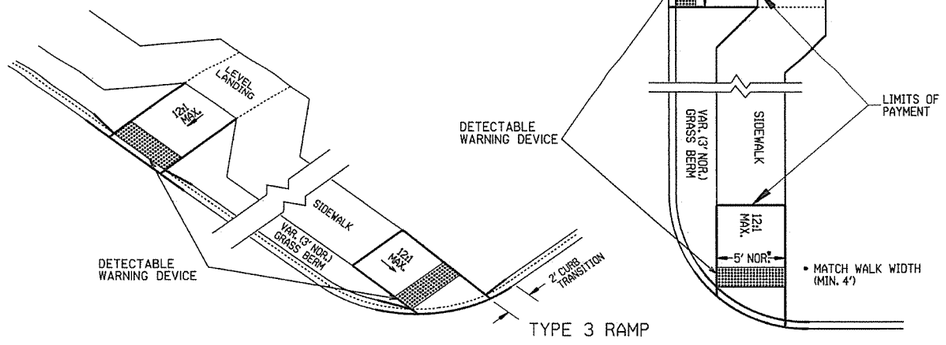
TYPE 2 RAMP



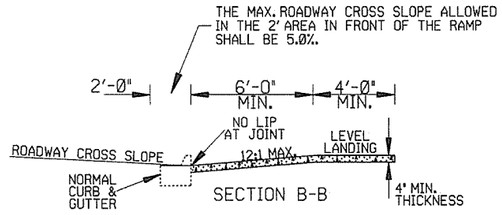
NOTE:
THE CROSS SLOPE OF THE RAMPS, LEVEL LANDINGS, AND SIDEWALKS SHALL NOT EXCEED 2.0% UNLESS REQUIRED TO MATCH STREET LONGTITUDINAL GRADE.



TYPE 4 RAMP
(Walk adjacent to curb)



TYPE 3 RAMP



SECTION B-B

RAMP SELECTION CRITERIA

FIRST CHOICE	TYPE 1	CORNER LOCATIONS WITH THE WALK ADJACENT TO THE CURB (BOTH NEW CONSTRUCTION AND ALTERATIONS).
	TYPE 2	CORNER LOCATIONS WITH THE WALK OFFSET FROM THE CURB A DISTANCE INSUFFICIENT TO ALLOW THE REQUIRED RAMP SLOPE (BOTH NEW CONSTRUCTION AND ALTERATIONS).
	TYPE 3	CORNER LOCATIONS WITH THE WALK OFFSET FROM THE CURB A DISTANCE SUFFICIENT TO ALLOW THE REQUIRED RAMP SLOPE (BOTH NEW CONSTRUCTION AND ALTERATIONS).
	TYPE 4	TANGENT LOCATIONS (BOTH NEW CONSTRUCTION AND ALTERATIONS).
SECOND CHOICE	TYPE 5	TANGENT LOCATIONS (ALTERATIONS ONLY).
THIRD CHOICE	TYPE 6	CORNER LOCATIONS (ALTERATIONS ONLY). THIS RAMP MAY BE USED ONLY IF THE TYPE 5 RAMPS CANNOT BE PLACED AT THE ENDS OF THE RADIUS.
FOURTH CHOICE		IF SITE CONSTRAINTS PREVENT THE CONSTRUCTION OF ANY OF THE TYPES LISTED, THEN AND ONLY THEN CAN THE 12:1 MAX. SLOPE ON THE RAMP BE EXCEEDED TO PROVIDE ACCESS TO THE STREET LEVEL (ALTERATIONS ONLY). THE SLOPE CAN BE STEEPENED TO A 10:1 MAX. FOR A MAX. LENGTH OF 5' OR A 8:1 MAX. FOR A MAX. LENGTH OF 2'. SLOPES STEEPER THAN 8:1 ARE NOT ALLOWED UNDER ANY CIRCUMSTANCES.

NOTE: IN ALTERATIONS, THE SELECTION OF THE TYPE OF WHEELCHAIR RAMP TO BE CONSTRUCTED SHALL BE BASED ON THE AMOUNT OF RIGHT-OF-WAY AVAILABLE, AND ON THE PRESENCE OF OTHER SITE CONSTRAINTS (UTILITIES, BUILDINGS, ETC.). THE TABLE ABOVE LISTS THE ORDER IN WHICH THE RAMPS ARE TO BE CONSIDERED.
AN ALTERATION IS DEFINED AS A PROJECT THAT CHANGES OR AFFECTS THE USE OF A PEDESTRIAN PATHWAY (OVERLAYS, SIGNALIZATION PROJECTS, ETC.) BUT DOES NOT REQUIRE THE PURCHASE OF ADDITIONAL RIGHT-OF-WAY. ALL PROJECTS THAT REQUIRE THE PURCHASE OF ADDITIONAL RIGHT-OF-WAY WILL USUALLY BE CONSIDERED NEW CONSTRUCTION FOR THE PURPOSES OF THE CHART ABOVE.

DATE	REVISION	DATE FILM
11-10-05	REVISED TO NEW SIDEWALK POLICY	
10-9-03	REVISED GEN. NOTES & ADDED NOTE	
4-10-03	REV. DETECTABLE WARNING DEVICES	
8-22-02	ADD DETECTABLE WARNING DEVICES	
3-30-00	ADD.SLOPE TRANS. & REV. ISL. DIMS.	
11-18-98	REVISED NOTES	
8-12-98	REVISED TEXTURE	
7-02-98	REDRAWN & REISSUED	
10-18-96	CORRECTED DIMENSIONS	10-18-96
5-24-90	FROM8:1TO12:1MAX.SLOPES	5-24-90
7-15-88	ADJUSTED MAX. SLOPE	652-7-15-88
7-14-88	INCLUD."CONC. ISLD."IN PAY ITEM	-------
6-02-76	ISSUED-P.H.D.	299-7-28-76

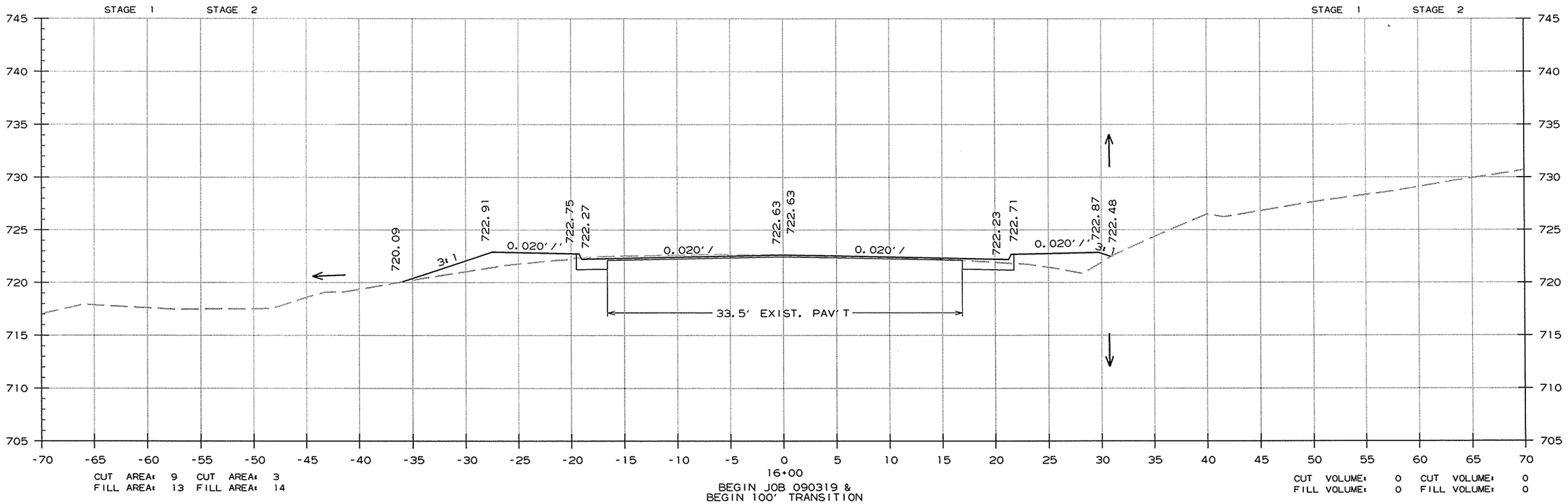
ARKANSAS STATE HIGHWAY COMMISSION

WHEELCHAIR RAMPS NEW CONSTRUCTION AND ALTERATIONS

STANDARD DRAWING WR-1

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090319	64	154

(2) CROSS SECTIONS



CROSS SECTION STA. 16+00 TO STA. 16+00

10/7/2014

R090319.DGN

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
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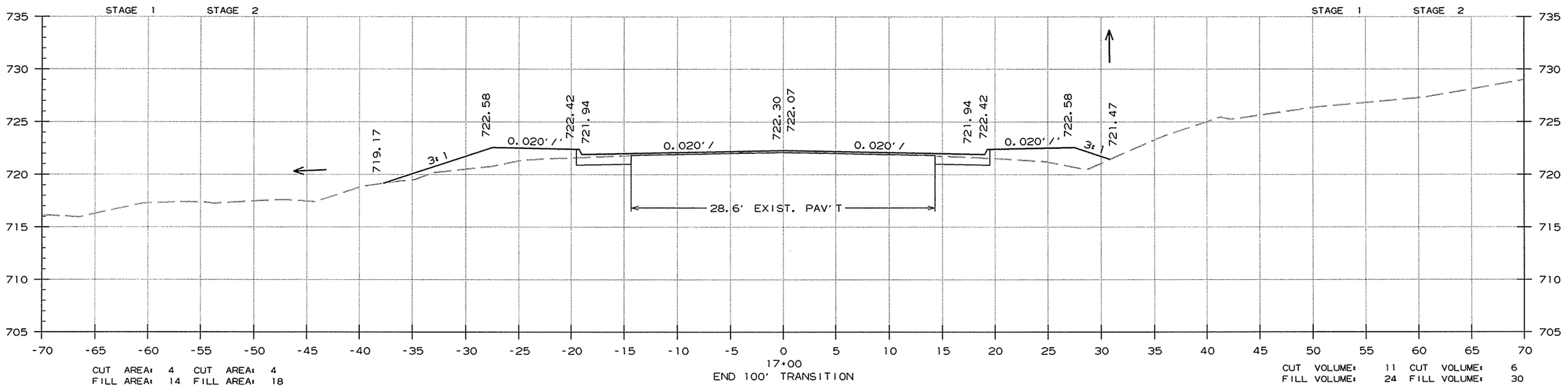
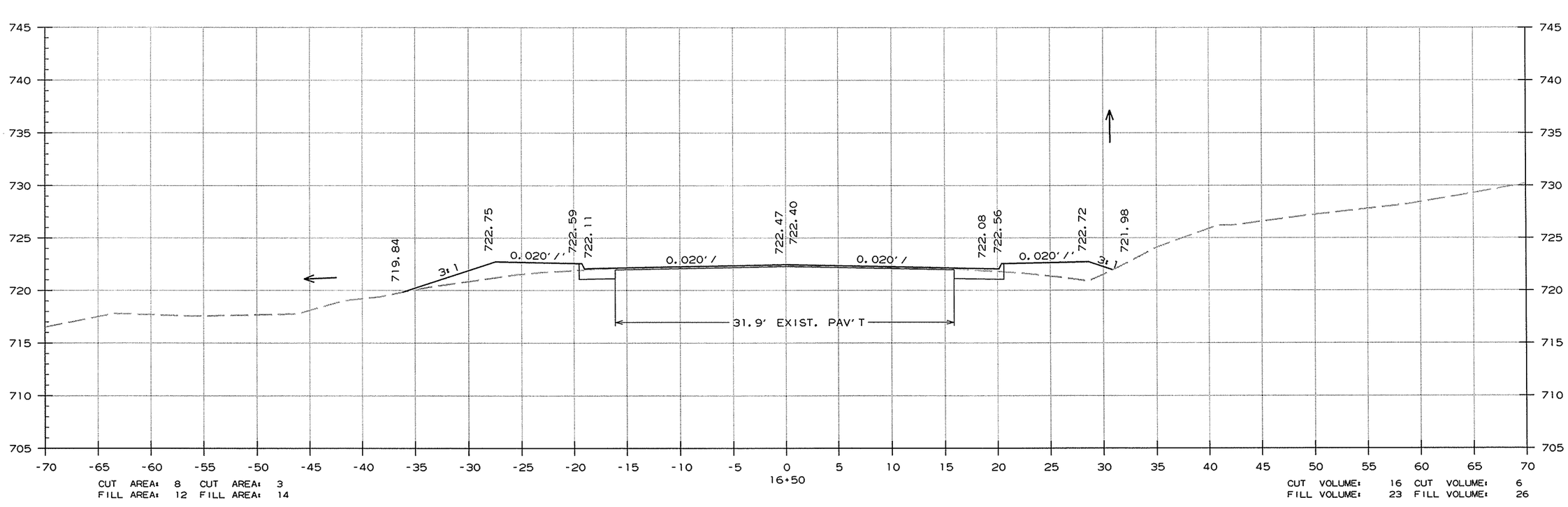
(2) CROSS SECTIONS





CROSS SECTION STA. 16+50 TO STA. 17+00

10/7/2014

R090319.DGN

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
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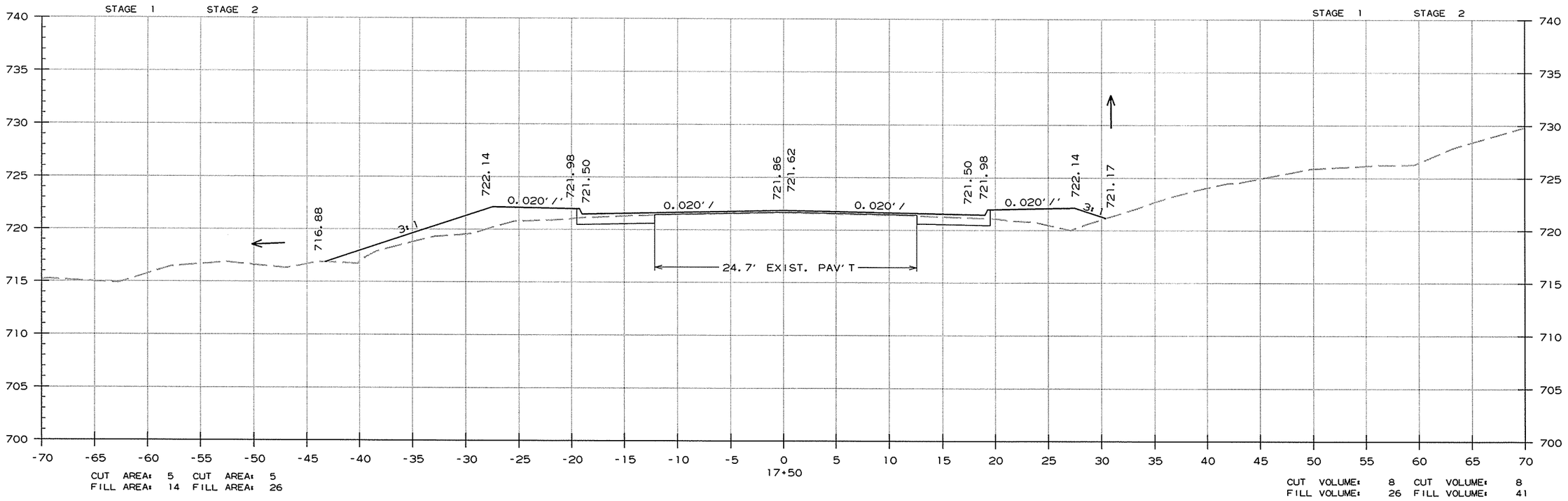

CROSS SECTION STA. 17+50 TO STA. 17+50

10/7/2014

R090319.DGN

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
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				JOB NO.		090319	67	154

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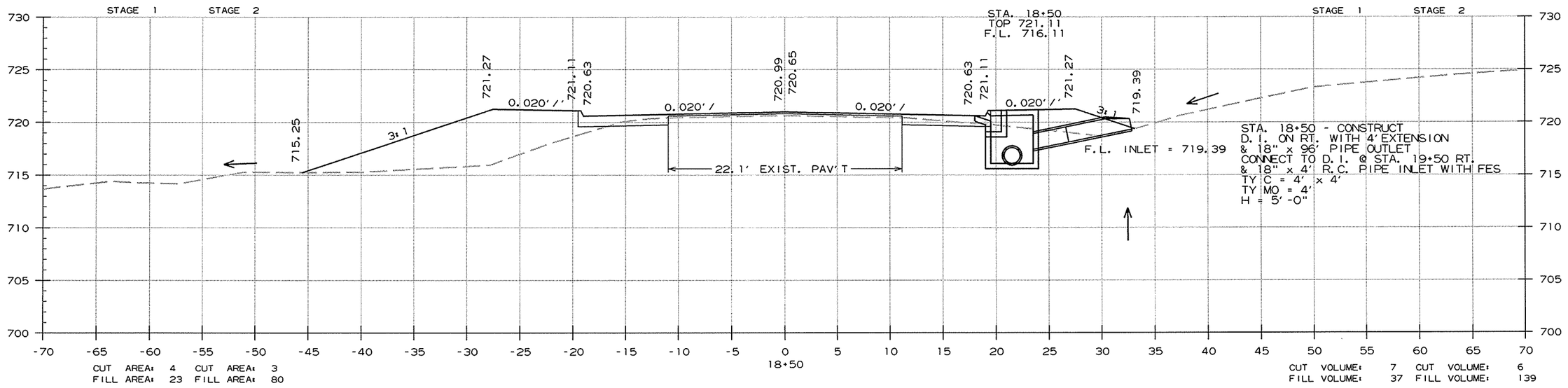

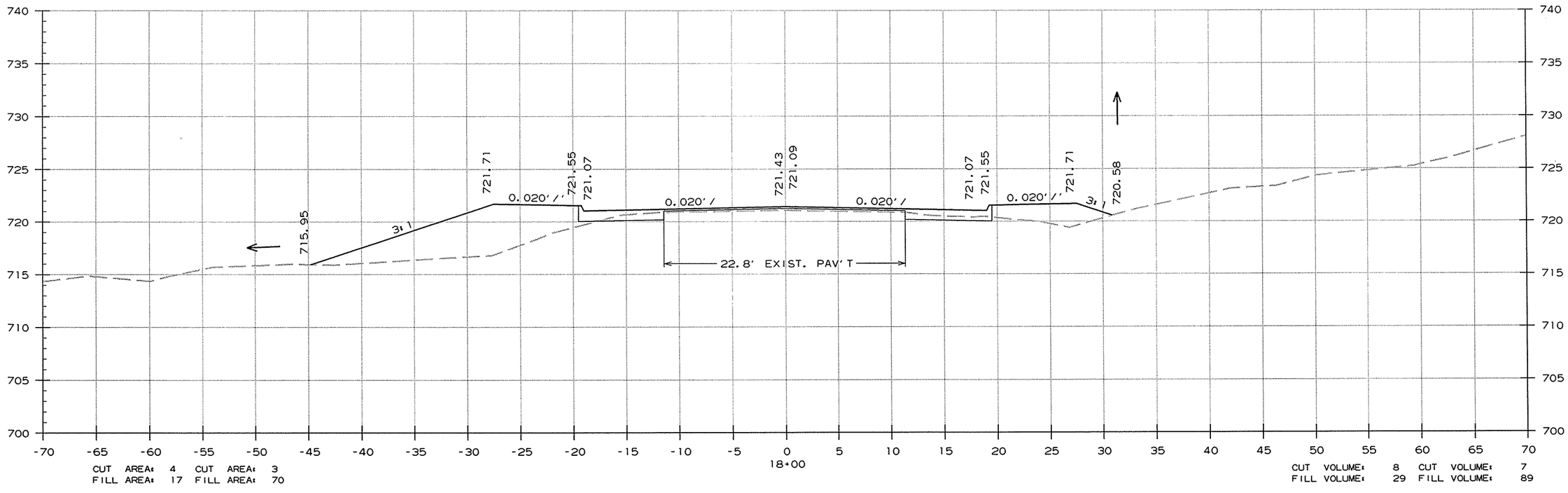

CROSS SECTION STA. 18+00 TO STA. 18+50

10/7/2014

R090319.DGN

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
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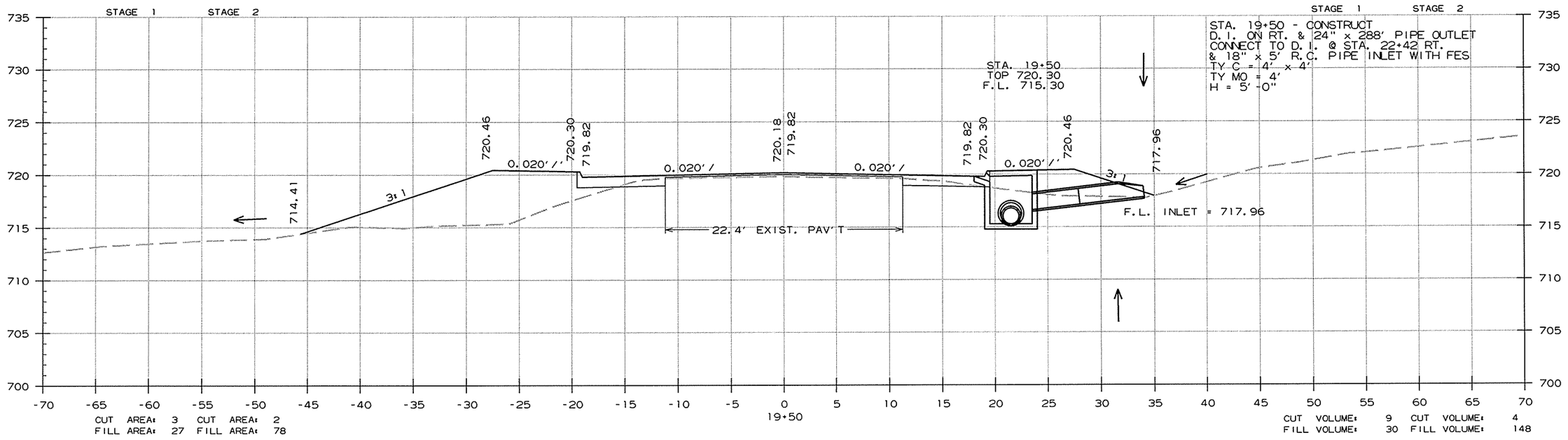
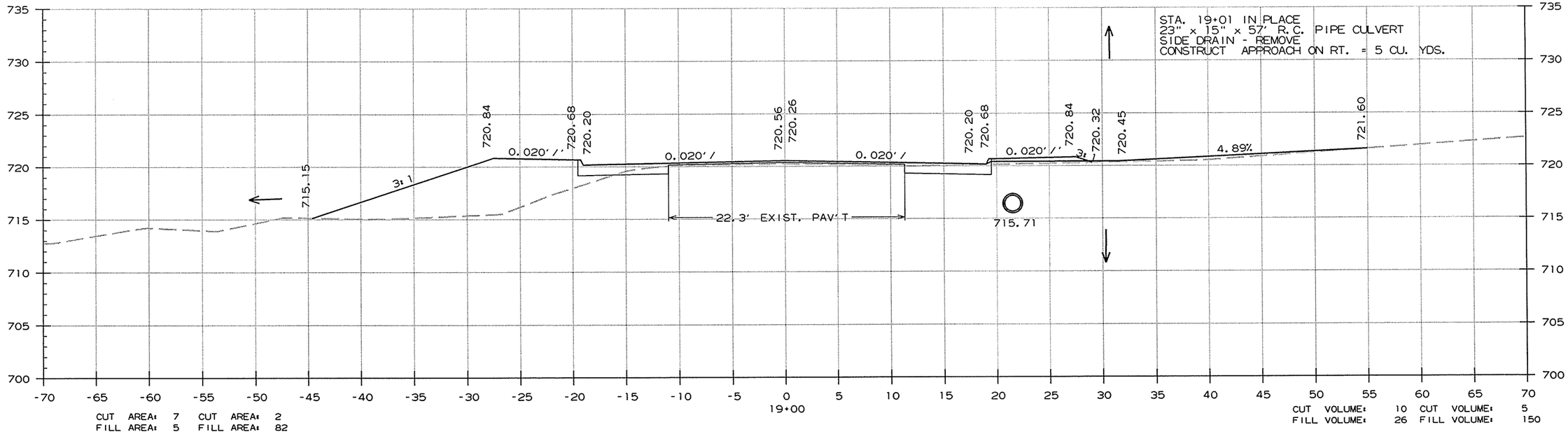
				JOB NO.		090319	68	154

(2) CROSS SECTIONS





CROSS SECTION STA. 19+00 TO STA. 19+50

10/7/2014

R090319.DGN

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
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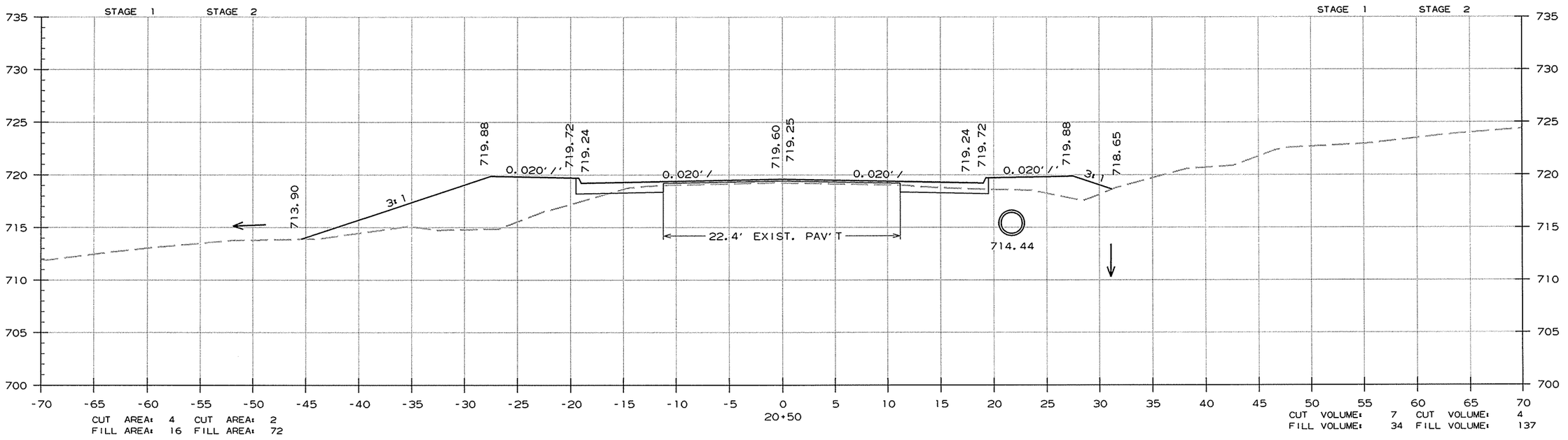
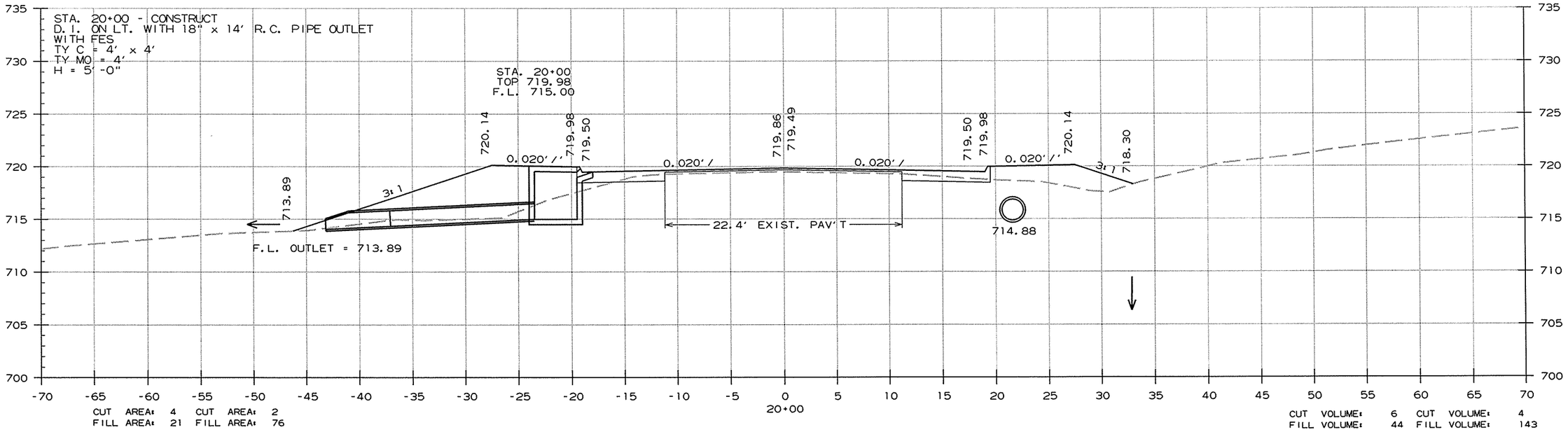
				JOB NO.		090319	69	154

(2) CROSS SECTIONS





CROSS SECTION STA. 20+00 TO STA. 20+50

10/7/2014

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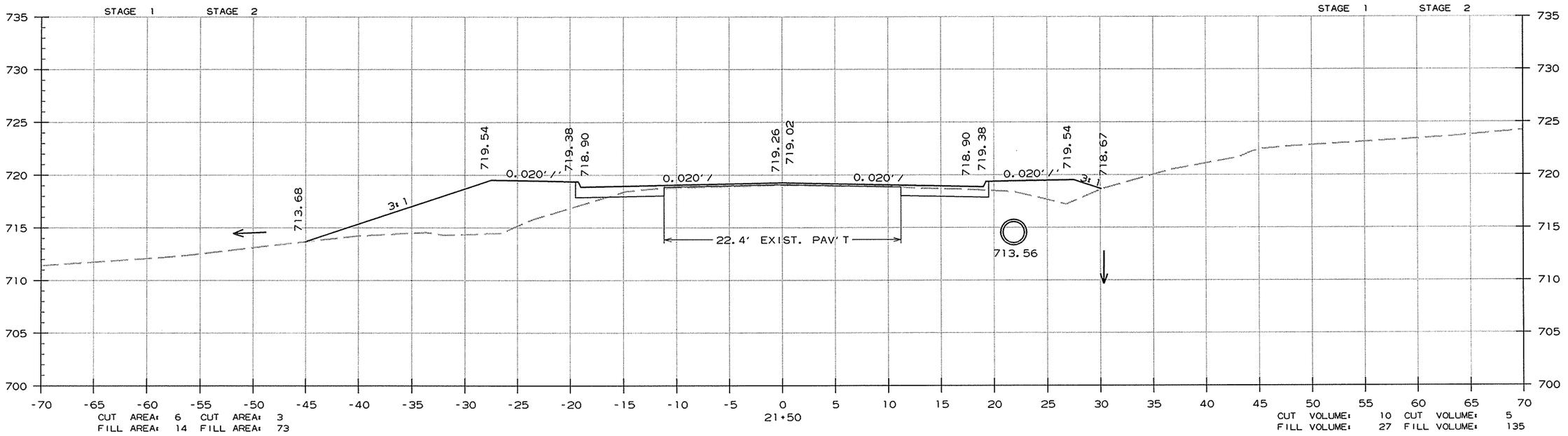
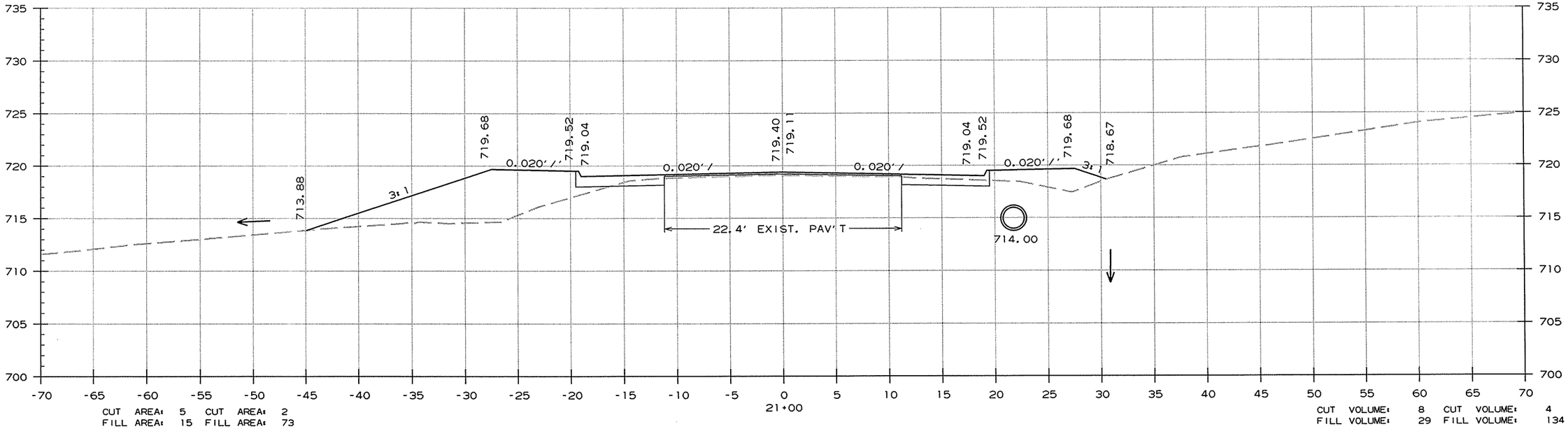
				6	ARK.			
				JOB NO.		090319	70	154

(2) CROSS SECTIONS





CROSS SECTION STA. 21+00 TO STA. 21+50

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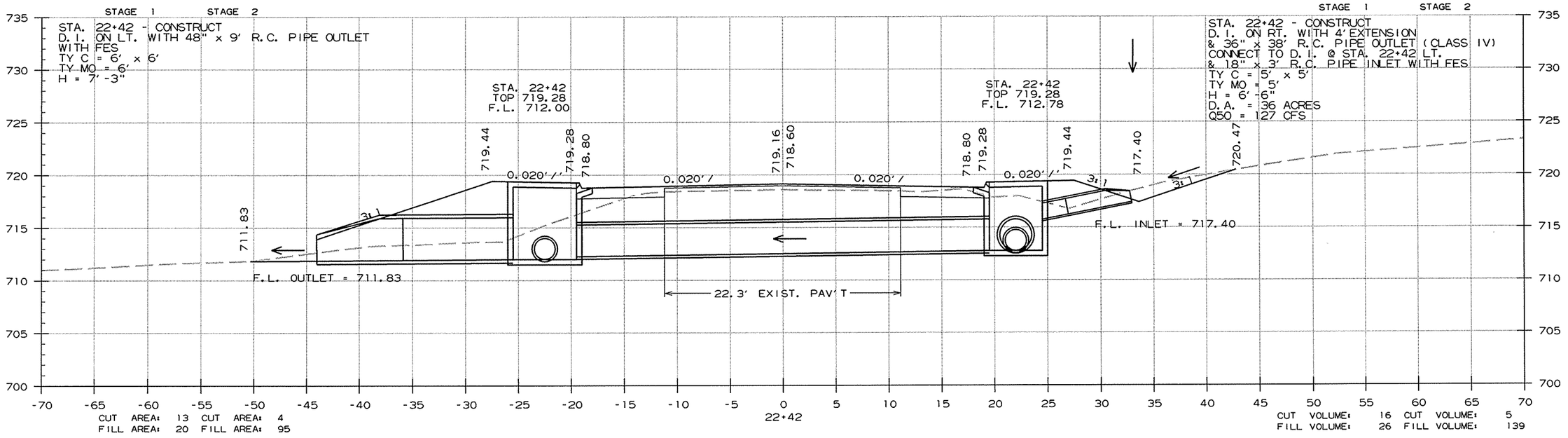
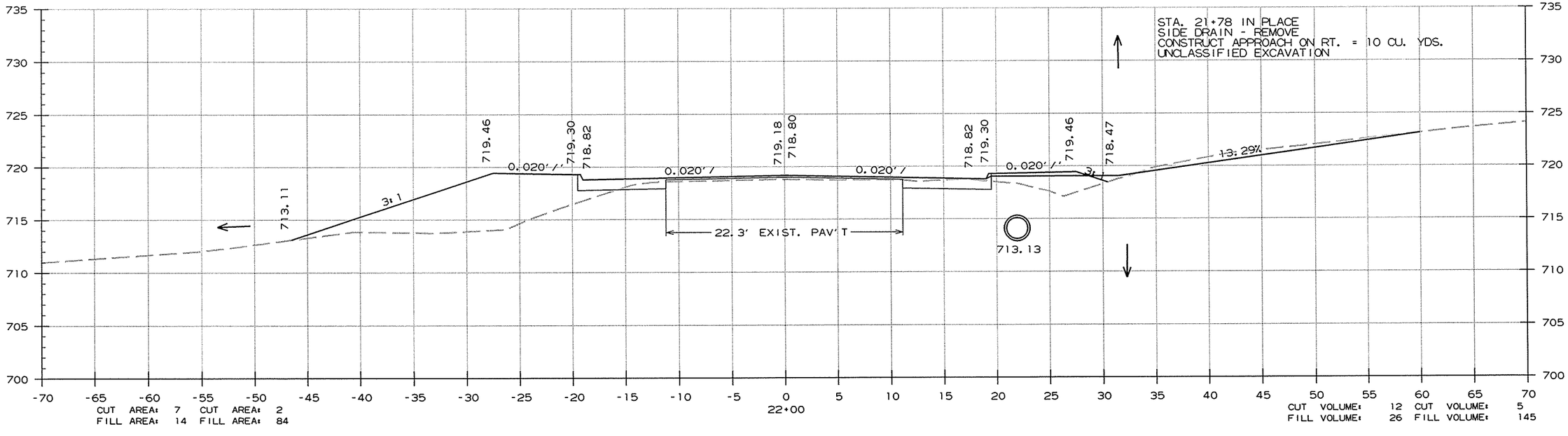
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090319	71	154

(2) CROSS SECTIONS





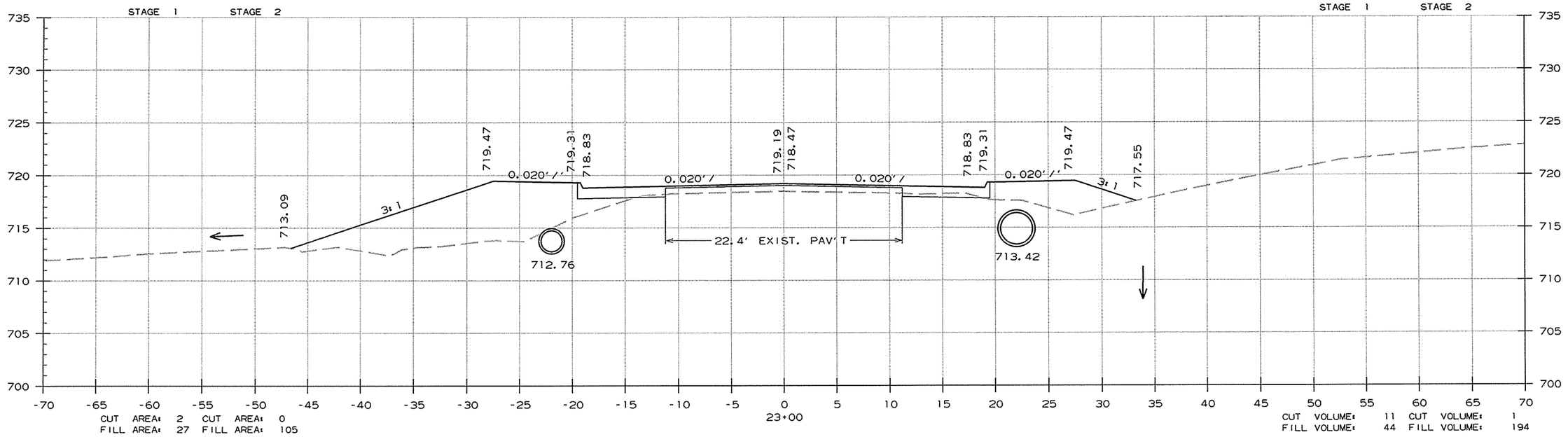
CROSS SECTION STA. 22+00 TO STA. 22+42

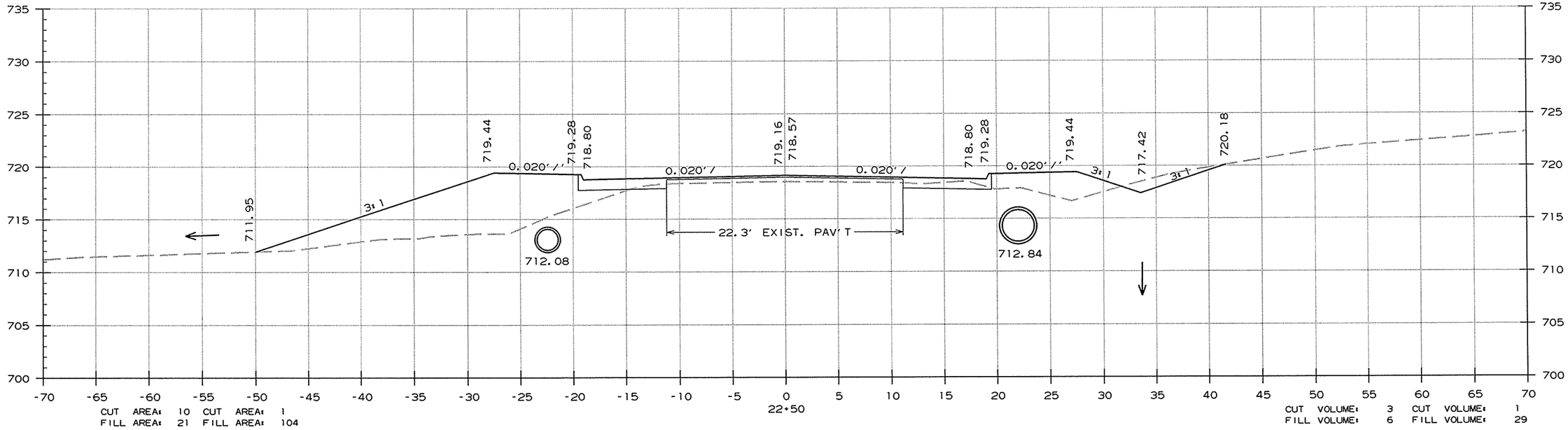
10/7/2014

R090319.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.		090319	72	154

(2) CROSS SECTIONS





CROSS SECTION STA. 22+50 TO STA. 23+00

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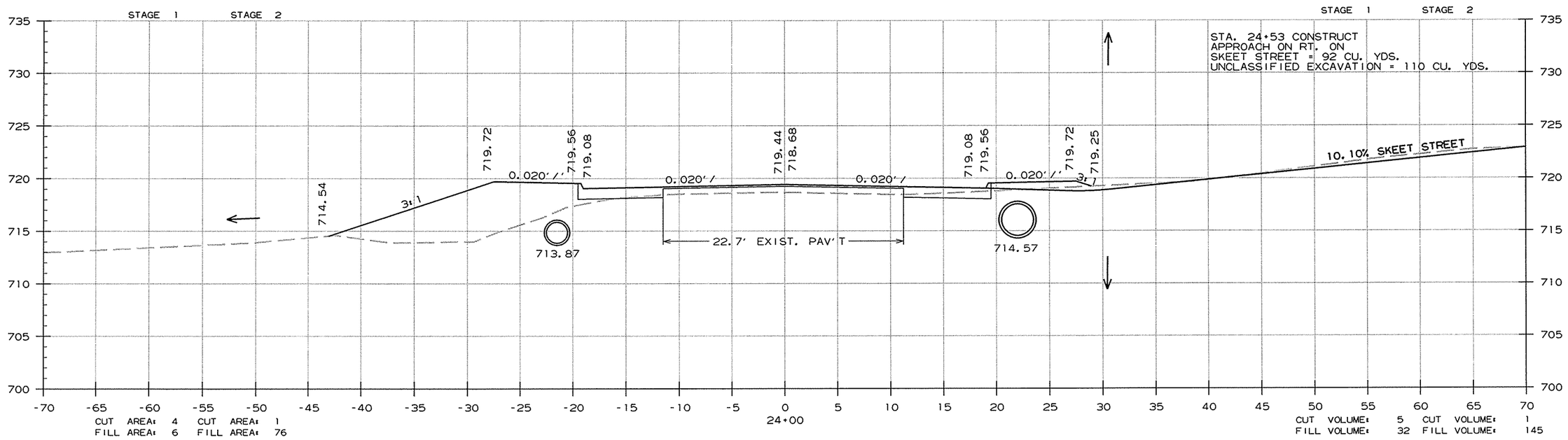
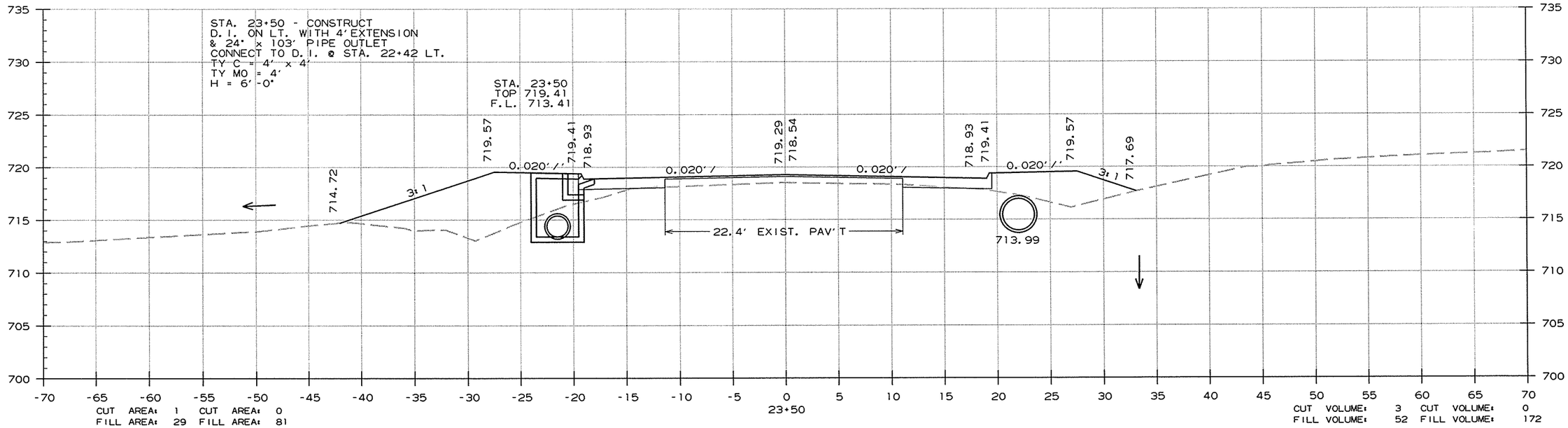
R090319.DGN

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.		090319	73	154

(2) CROSS SECTIONS





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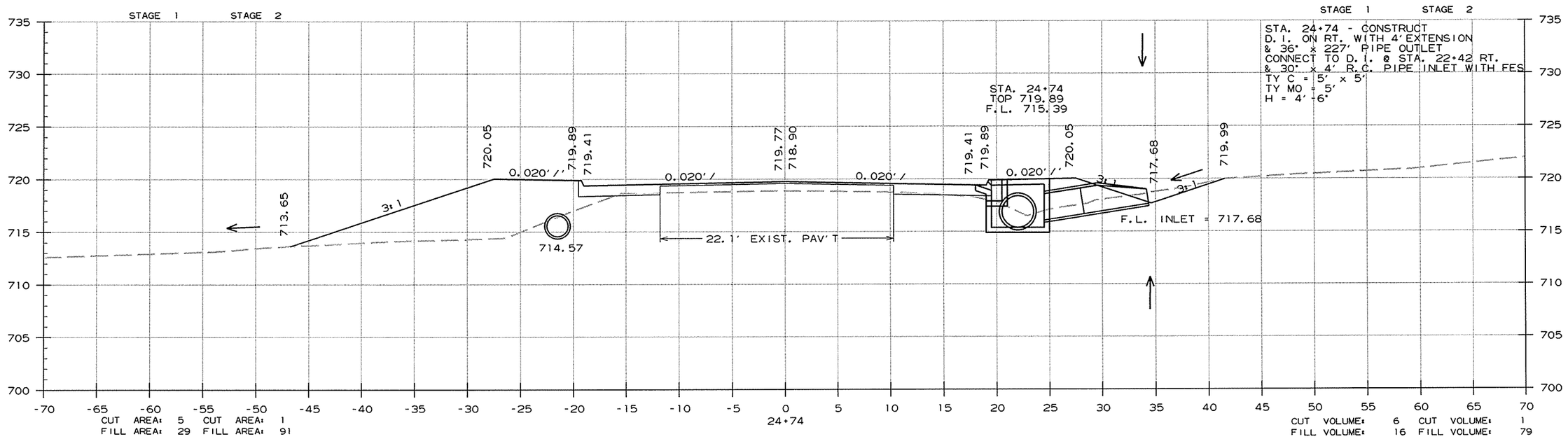
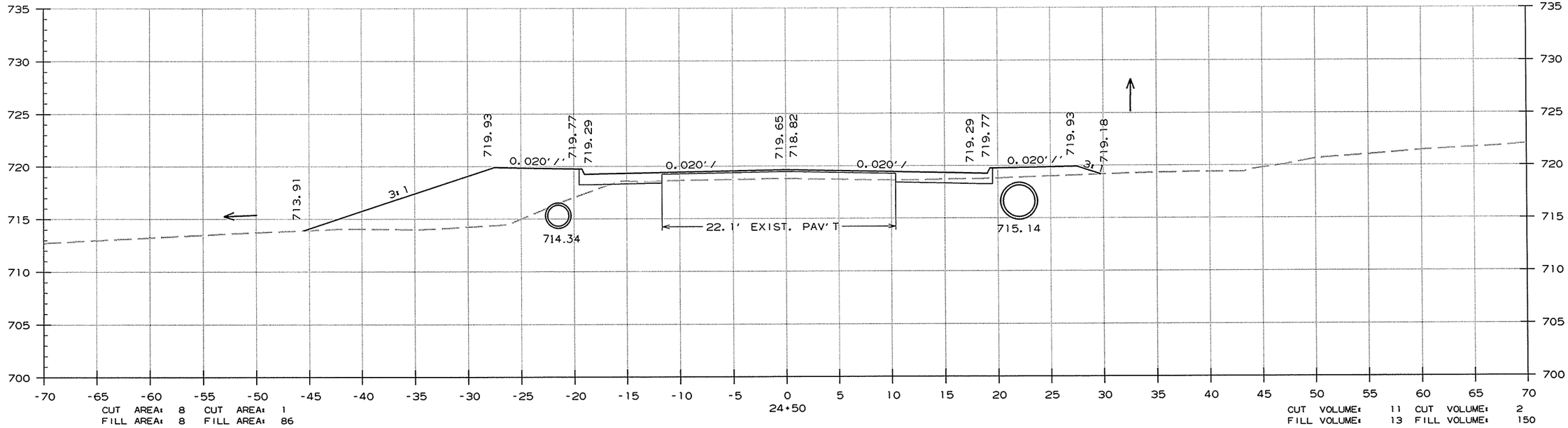
R090319.DGN

CROSS SECTION STA. 23+50 TO STA. 24+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.		090319	74	154

(2) CROSS SECTIONS





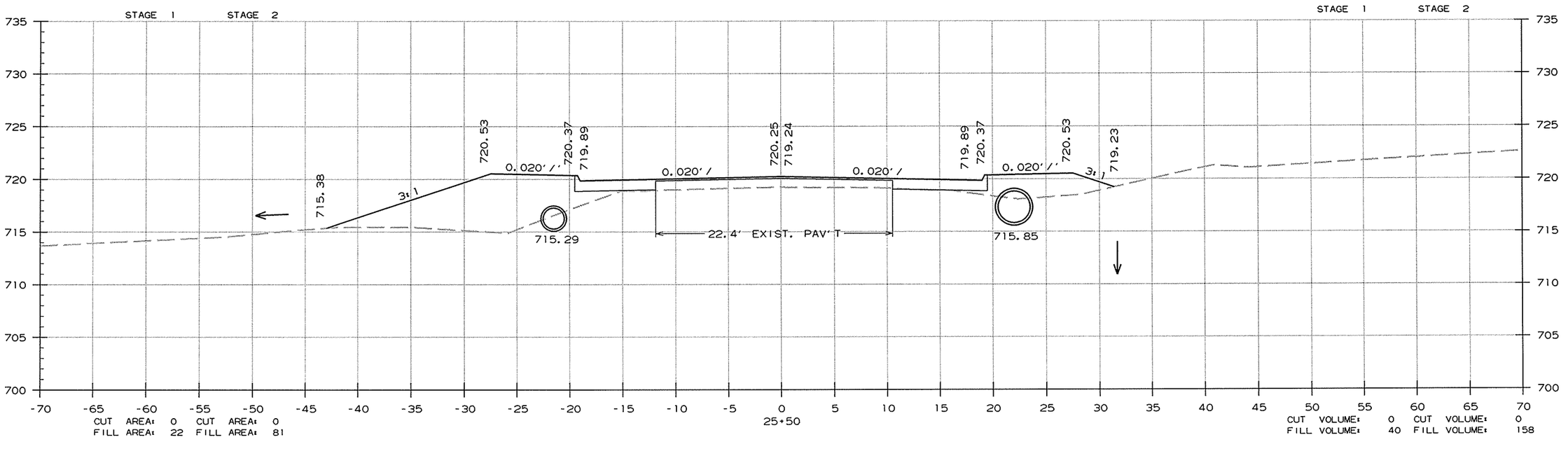
CROSS SECTION STA. 24+50 TO STA. 24+74

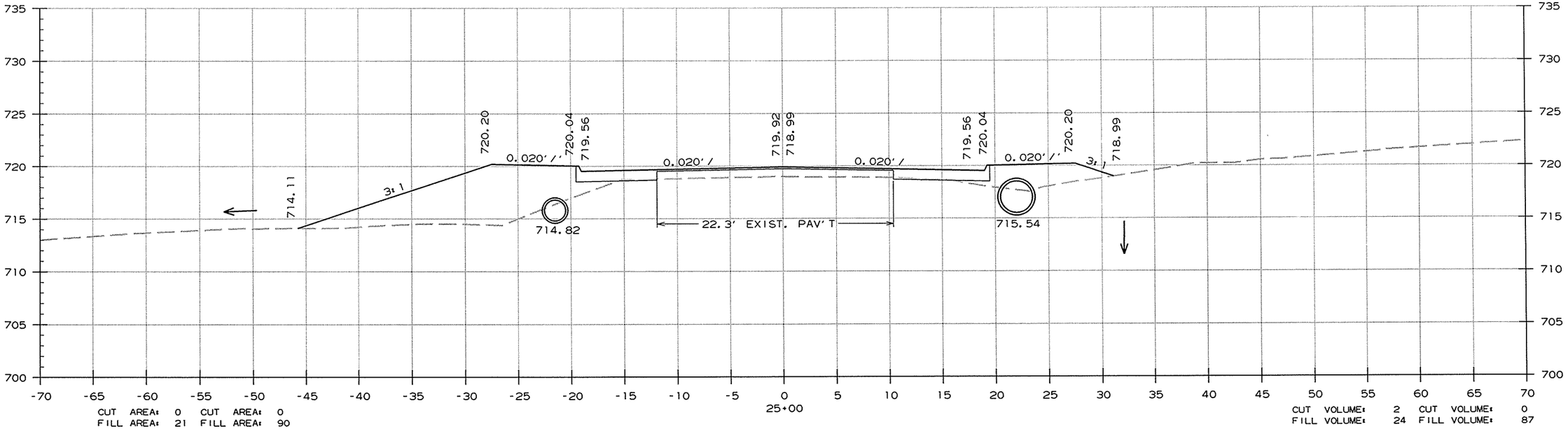
10/7/2014

R090319.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.		090319	75	154

(2) CROSS SECTIONS





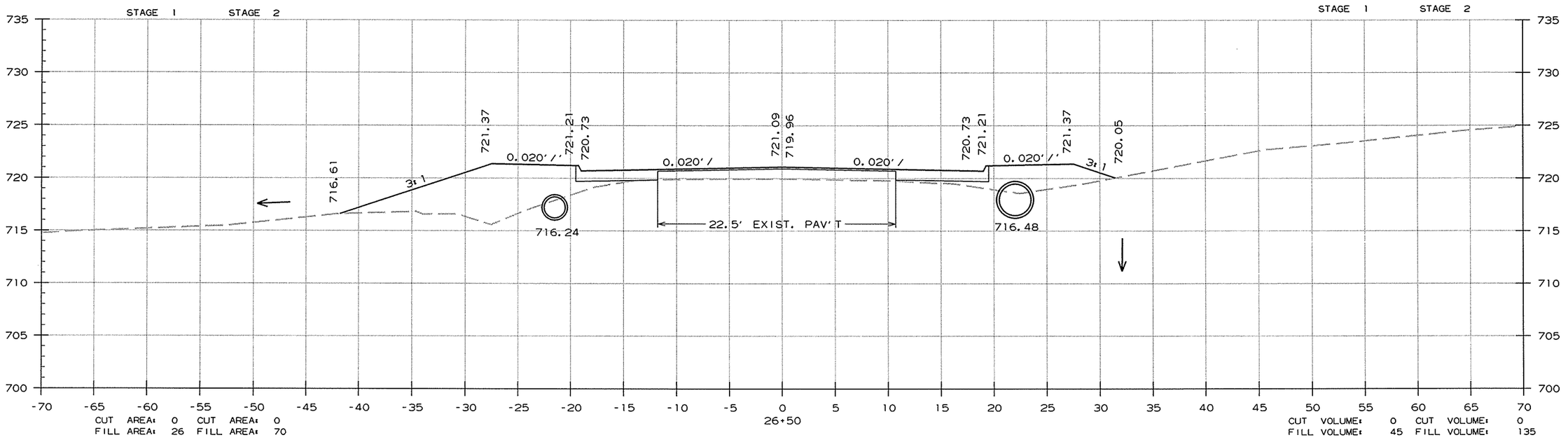
CROSS SECTION STA. 25+00 TO STA. 25+50

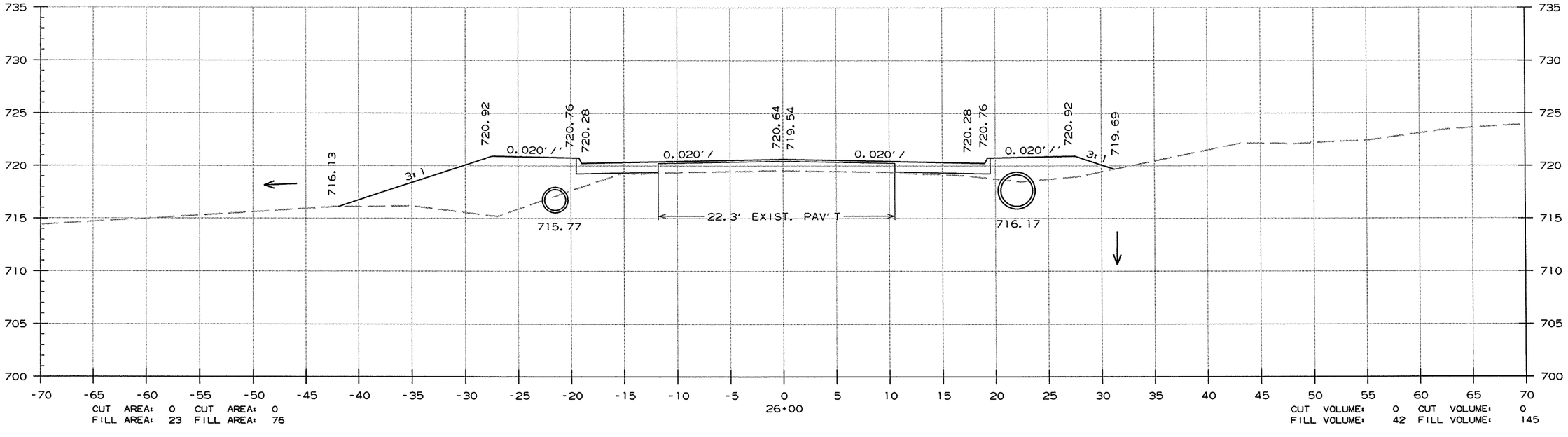
10/7/2014

R090319.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.		090319	76	154

(2) CROSS SECTIONS





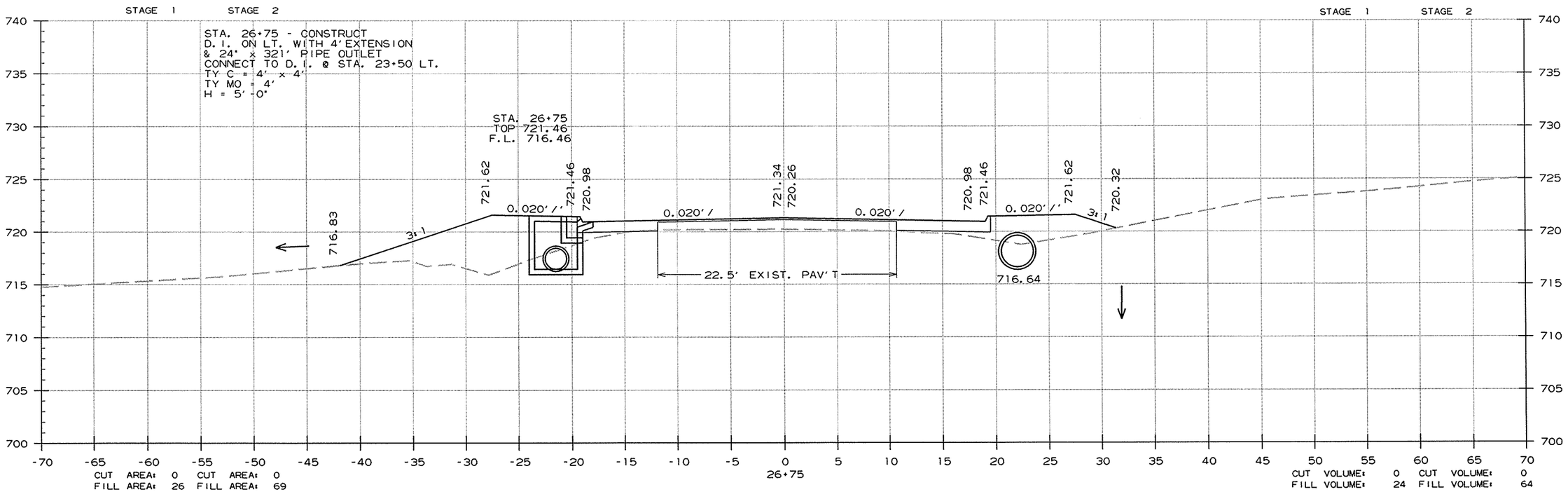
CROSS SECTION STA. 26+00 TO STA. 26+50

10/7/2014

R090319.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.		090319	77	154

(2) CROSS SECTIONS



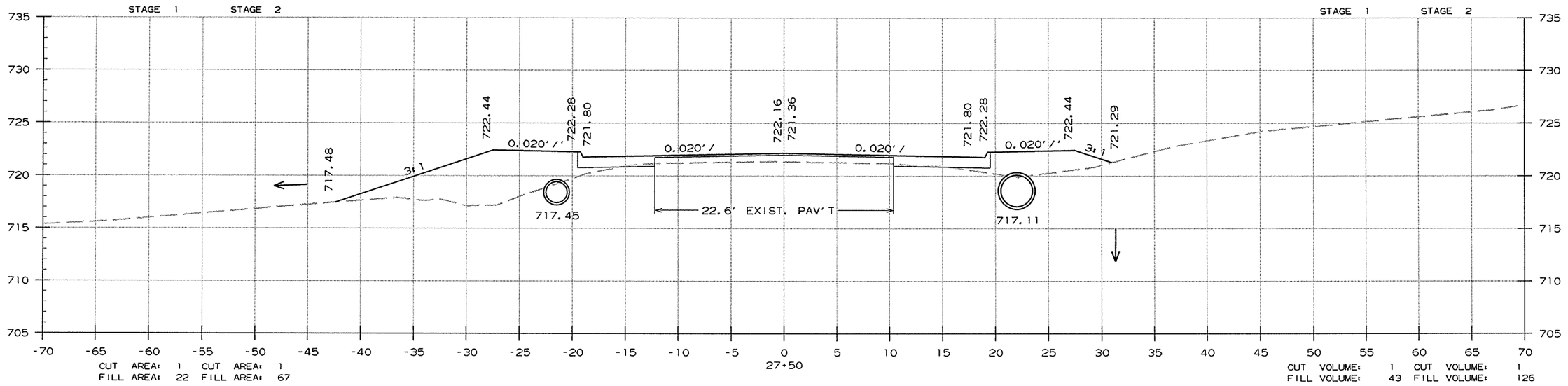
CROSS SECTION STA. 26+75 TO STA. 26+75

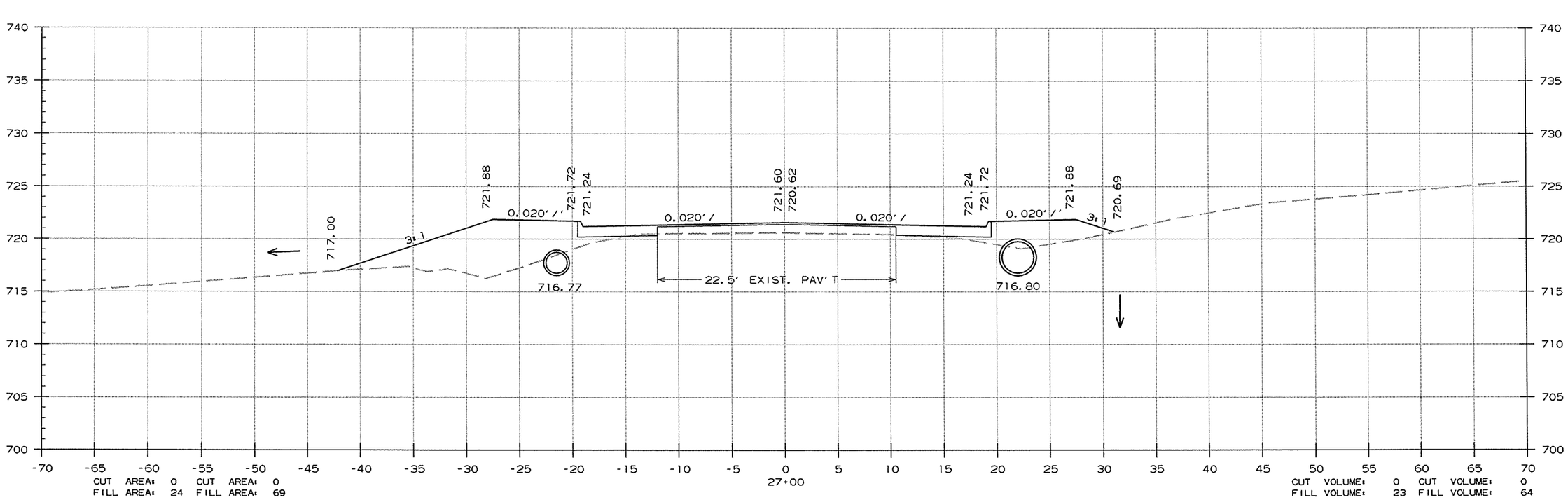
10/7/2014

R090319.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.		090319	78	154

(2) CROSS SECTIONS





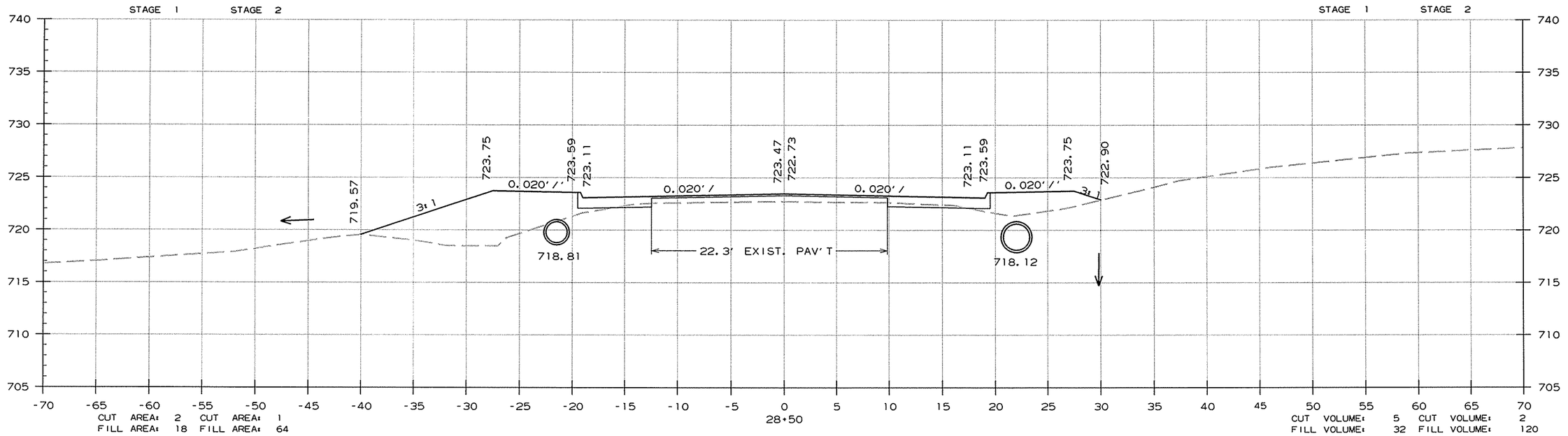
CROSS SECTION STA. 27+00 TO STA. 27+50

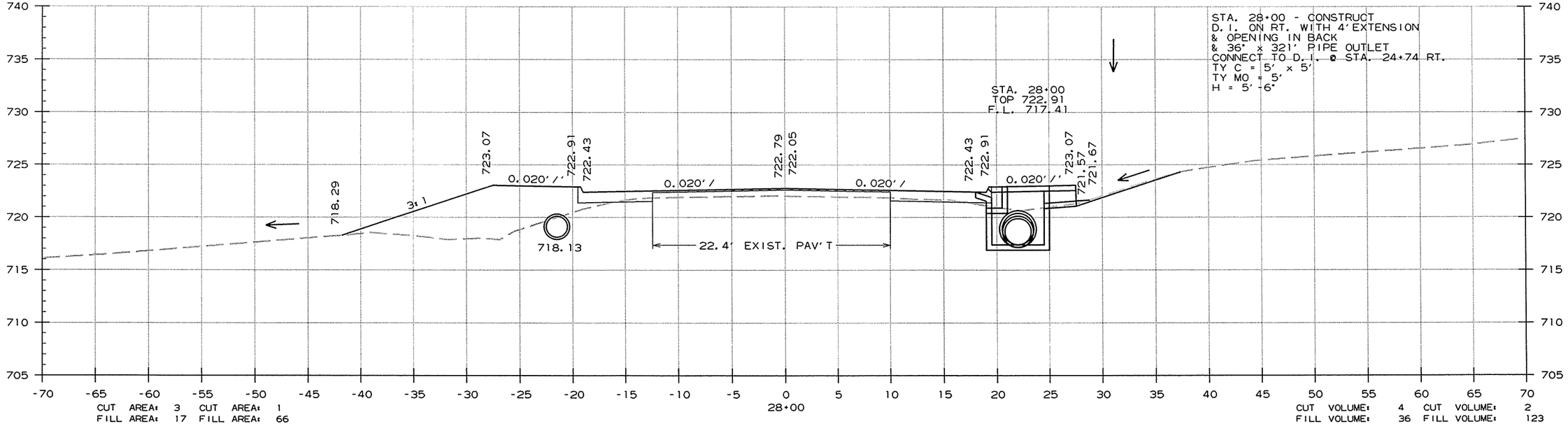
10/7/2014

R090319.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.		090319	79	154

(2) CROSS SECTIONS





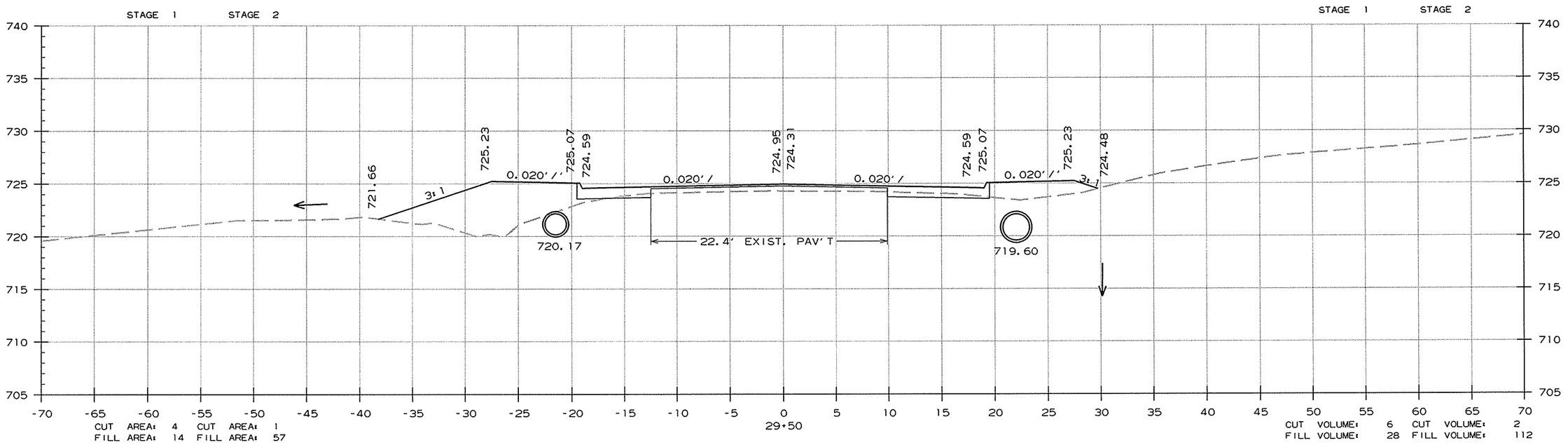
CROSS SECTION STA. 28+00 TO STA. 28+50

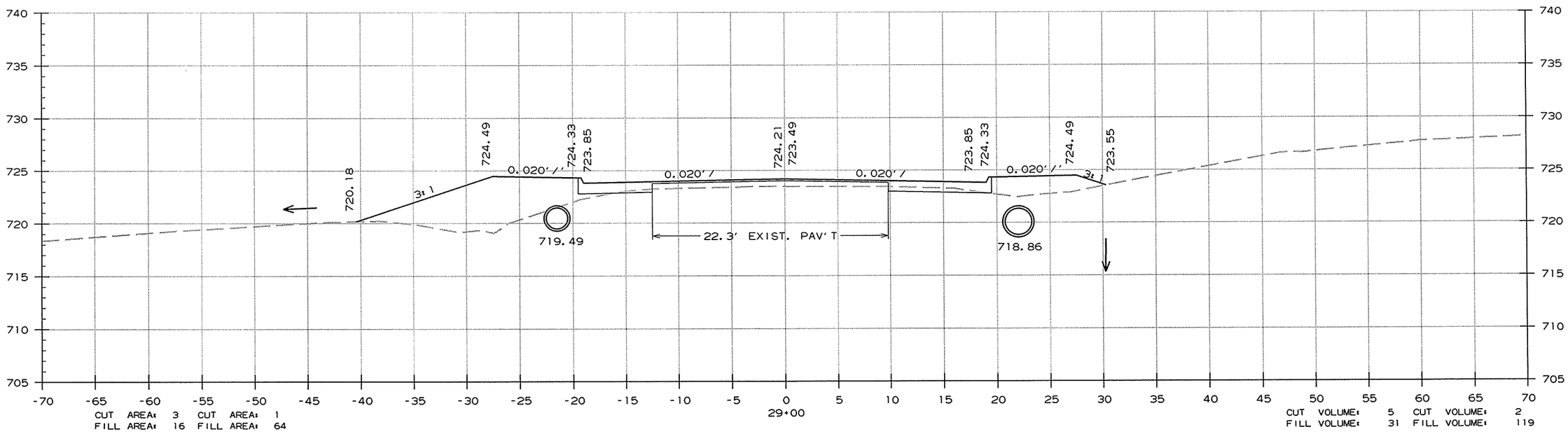
10/7/2014

R090319.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.		090319	80	154

(2) CROSS SECTIONS





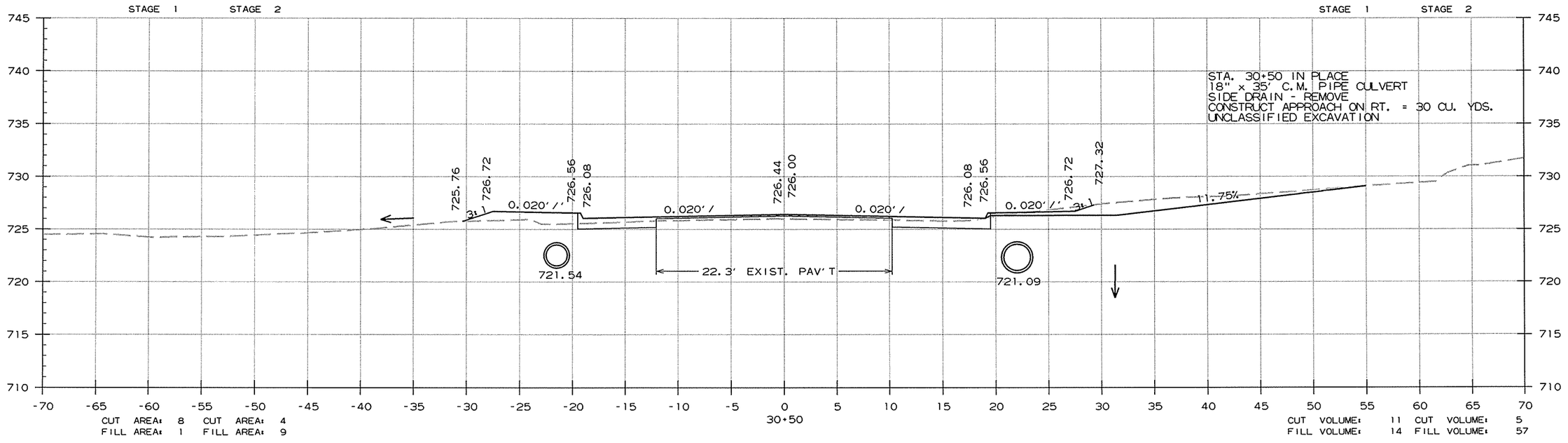
CROSS SECTION STA. 29+00 TO STA. 29+50

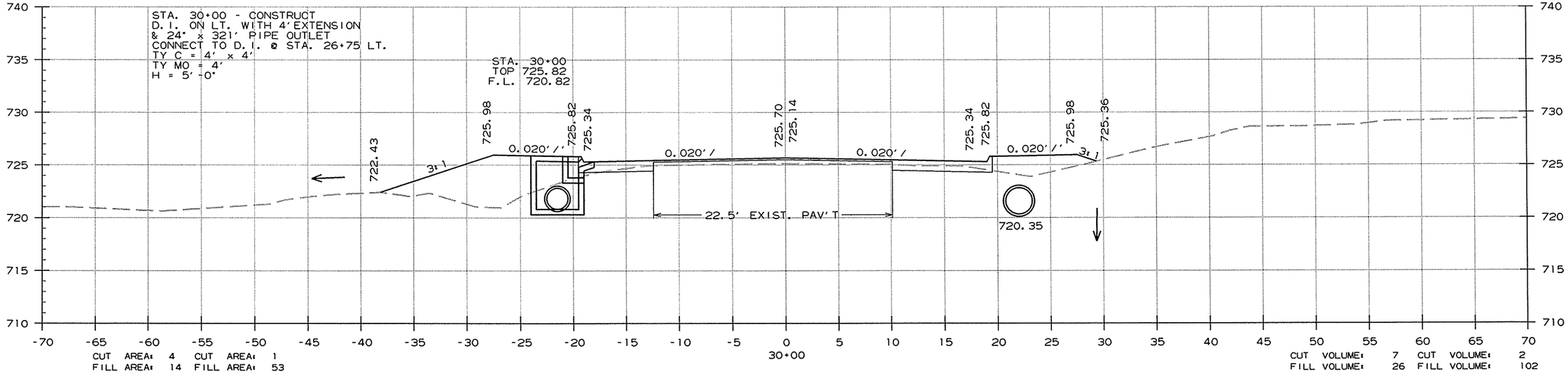
10/7/2014

R090319.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.		090319	81	154

(2) CROSS SECTIONS





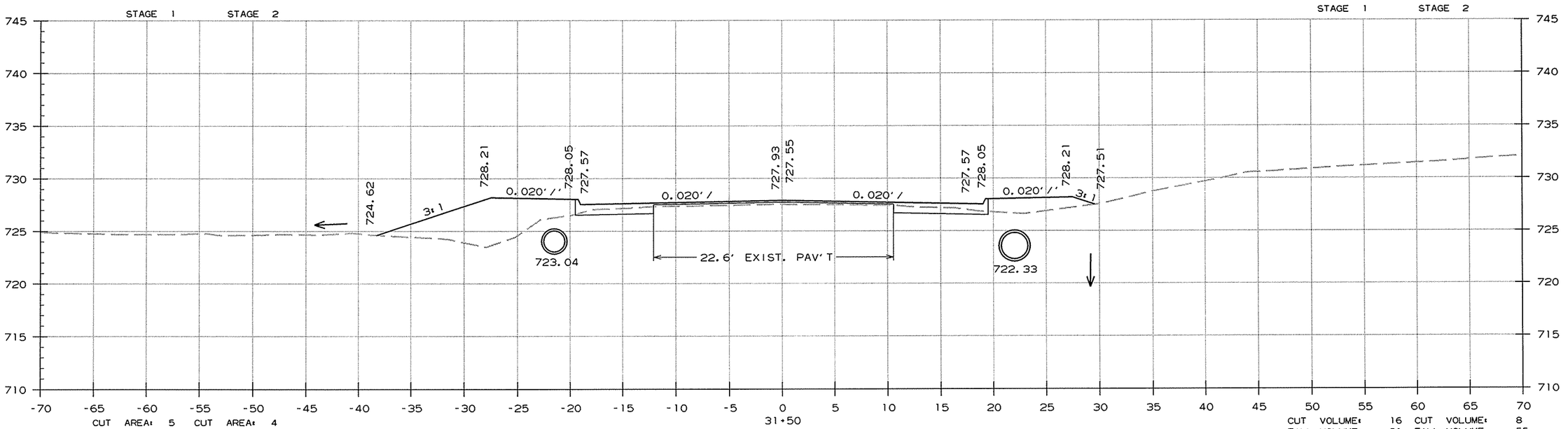
CROSS SECTION STA. 30+00 TO STA. 30+50

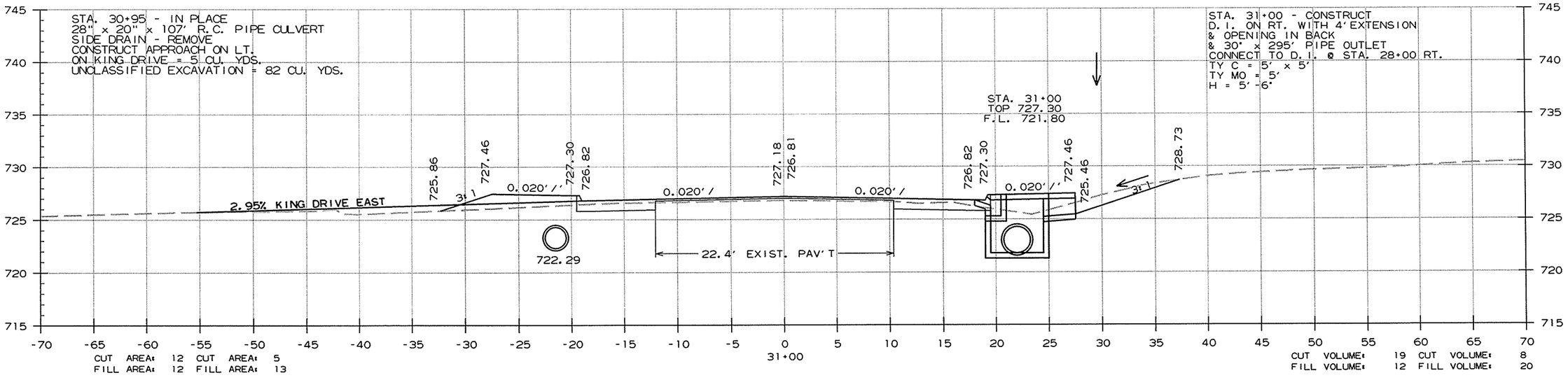
10/7/2014

R090319.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.		090319	82	154

(2) CROSS SECTIONS





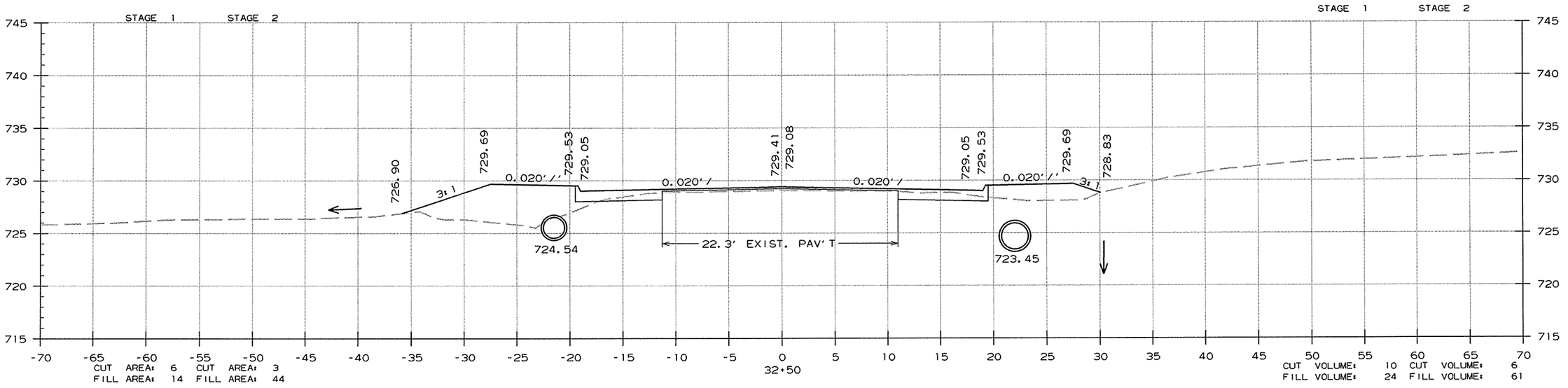
CROSS SECTION STA. 31+00 TO STA. 31+50

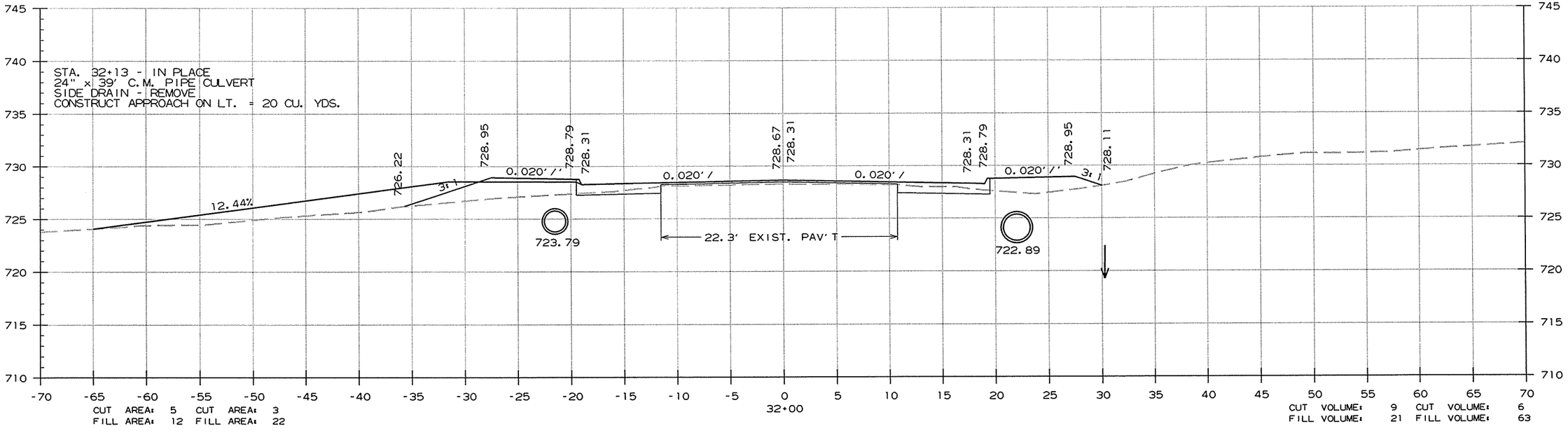
10/7/2014

R090319.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.		090319	83	154

(2) CROSS SECTIONS





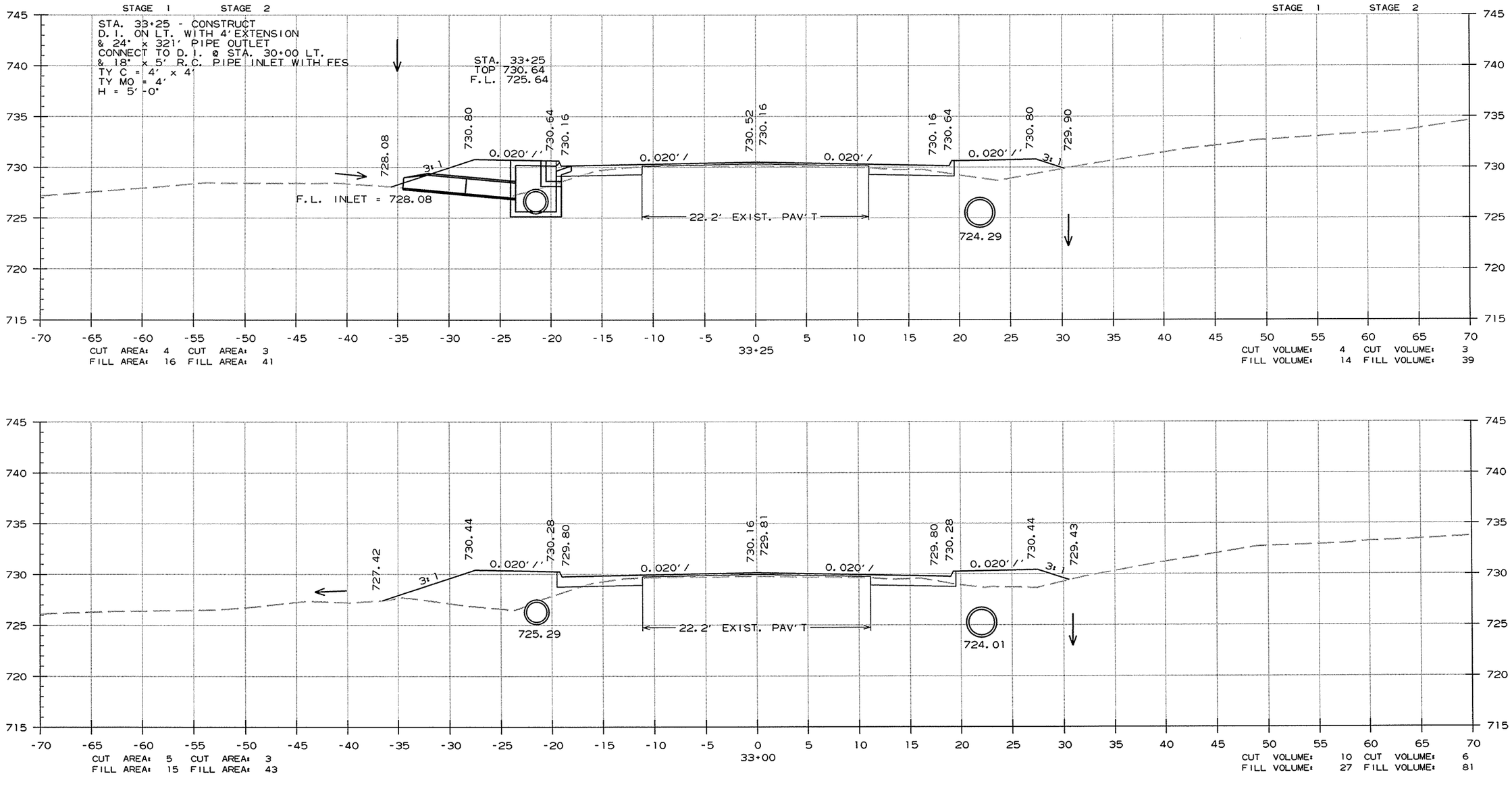
CROSS SECTION STA. 32+00 TO STA. 32+50

10/7/2014

R090319.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.		090319	84	154

(2) CROSS SECTIONS



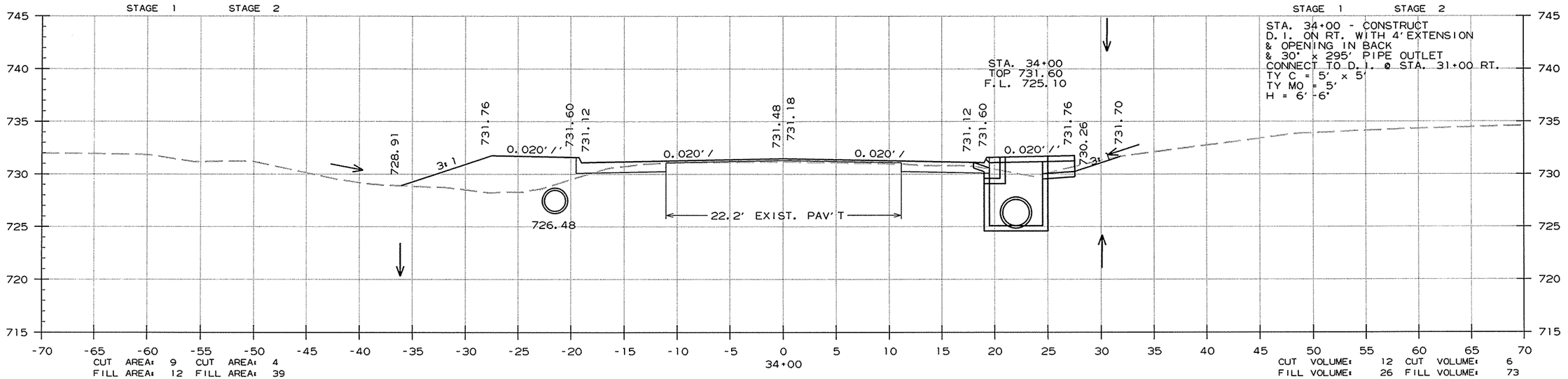
CROSS SECTION STA. 33+00 TO STA. 33+25

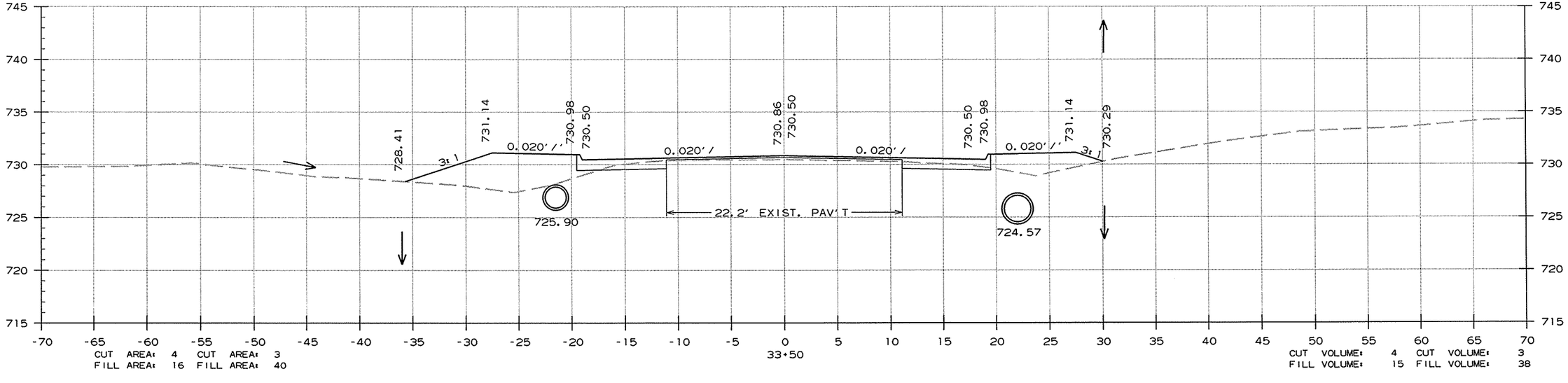
10/7/2014

R090319.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.		090319	85	154

(2) CROSS SECTIONS





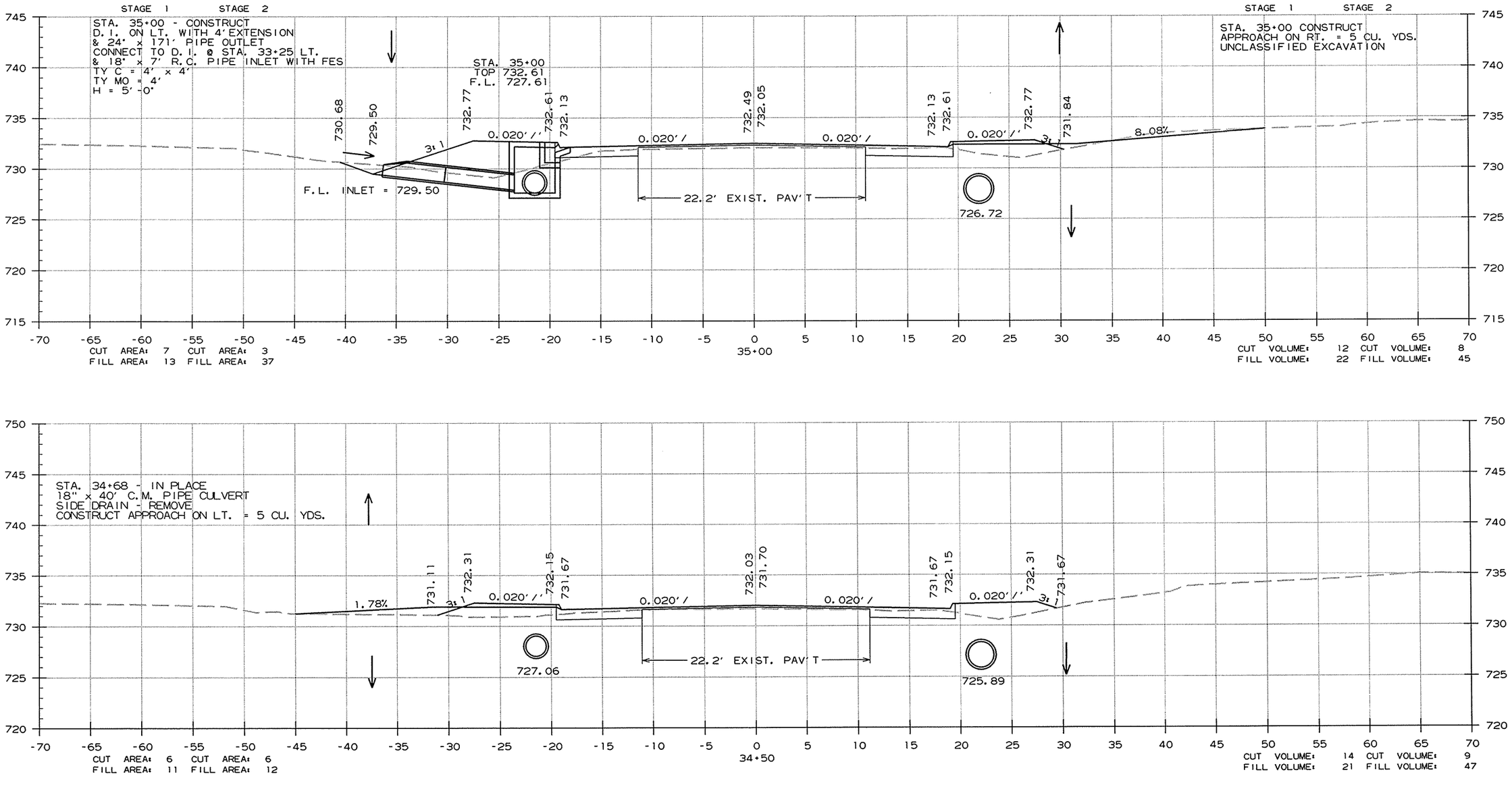
CROSS SECTION STA. 33+50 TO STA. 34+00

10/7/2014

R090319.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.		090319	86	154

(2) CROSS SECTIONS



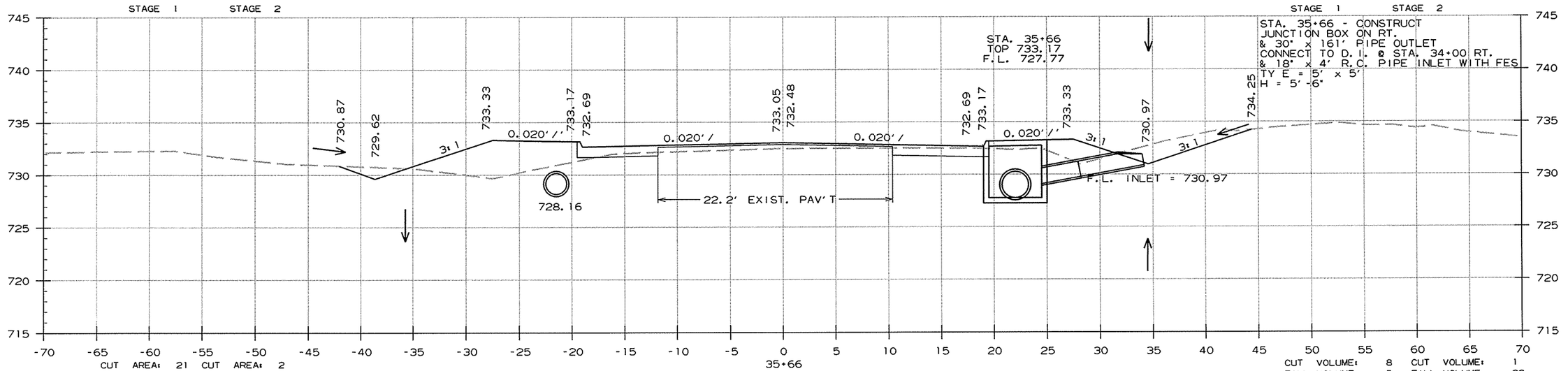
CROSS SECTION STA. 34+50 TO STA. 35+00

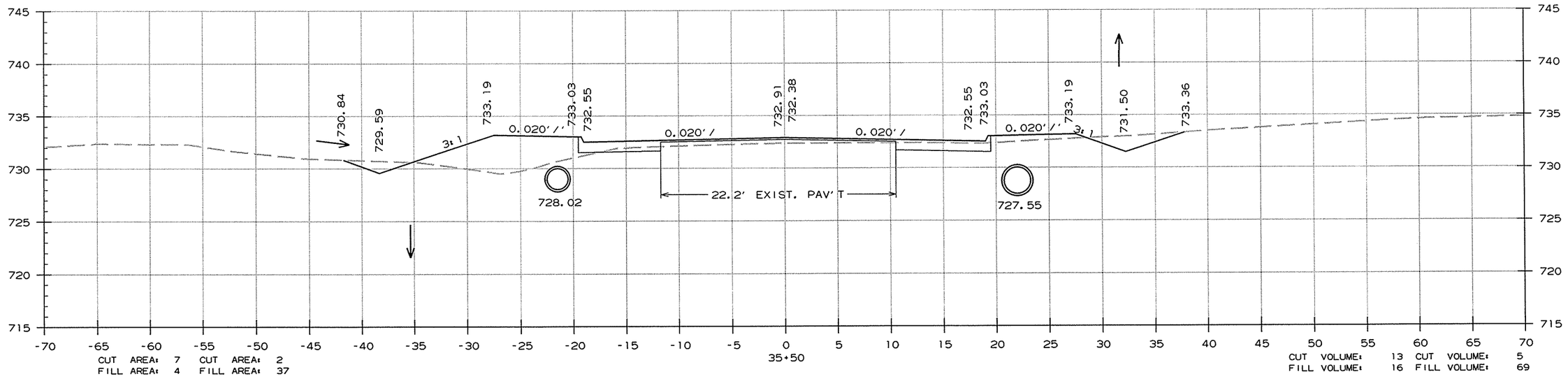
10/7/2014

R090319.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.		090319	87	154

(2) CROSS SECTIONS





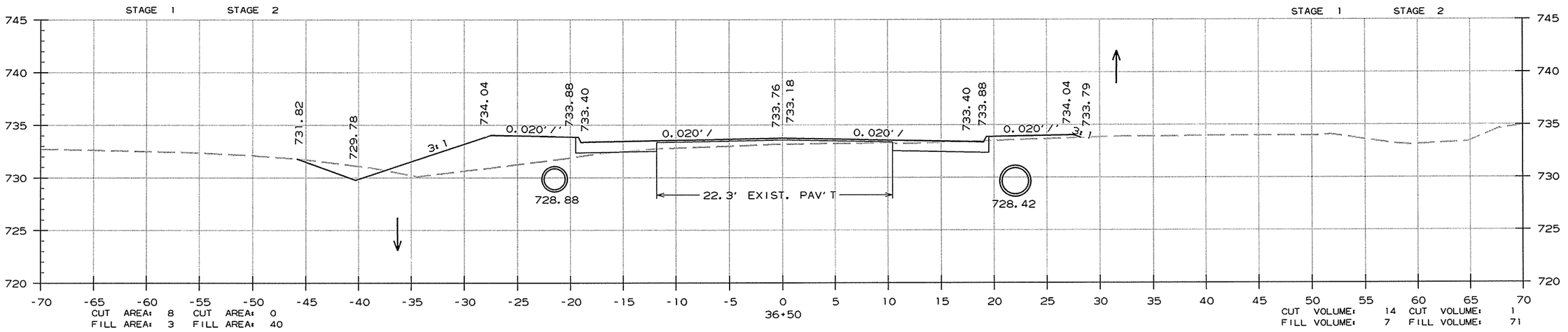
CROSS SECTION STA. 35+50 TO STA. 35+66

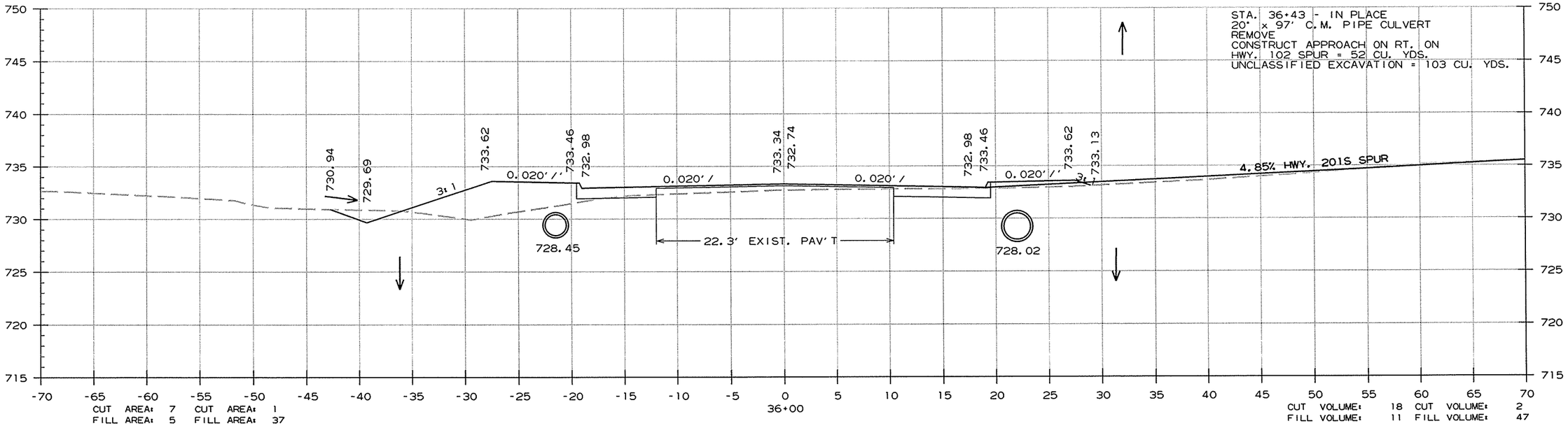
10/7/2014

R090319.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.		090319	88	154

(2) CROSS SECTIONS





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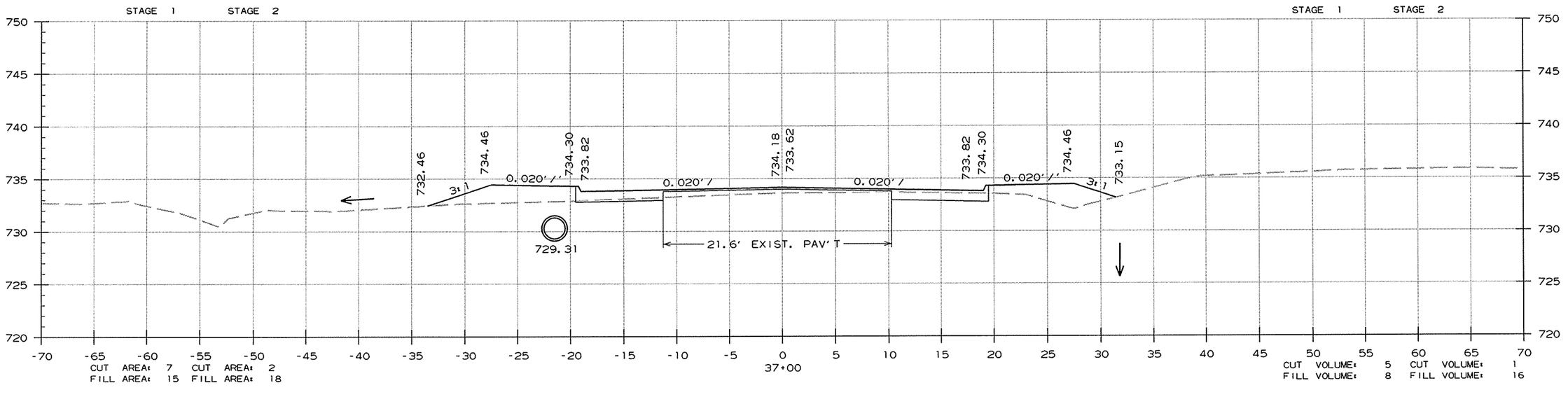
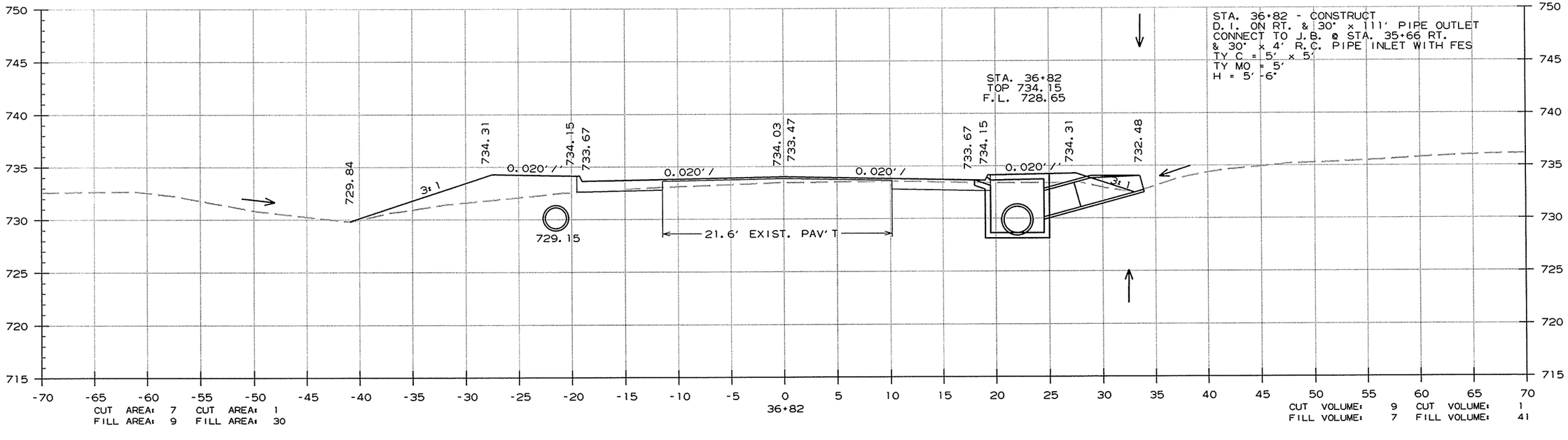
CROSS SECTION STA. 36+00 TO STA. 36+50

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090319	89	154

(2) CROSS SECTIONS





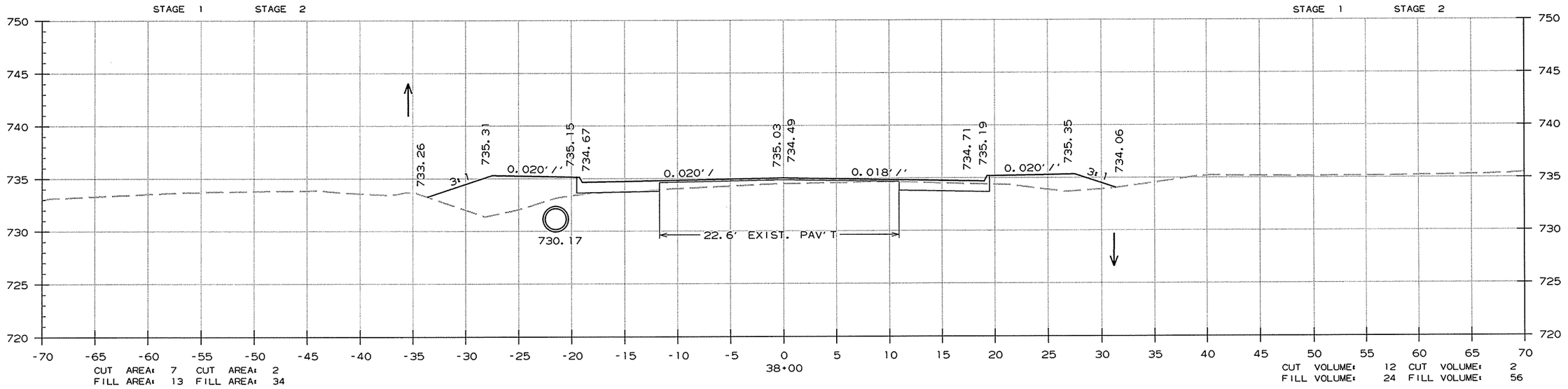
CROSS SECTION STA. 36+82 TO STA. 37+00

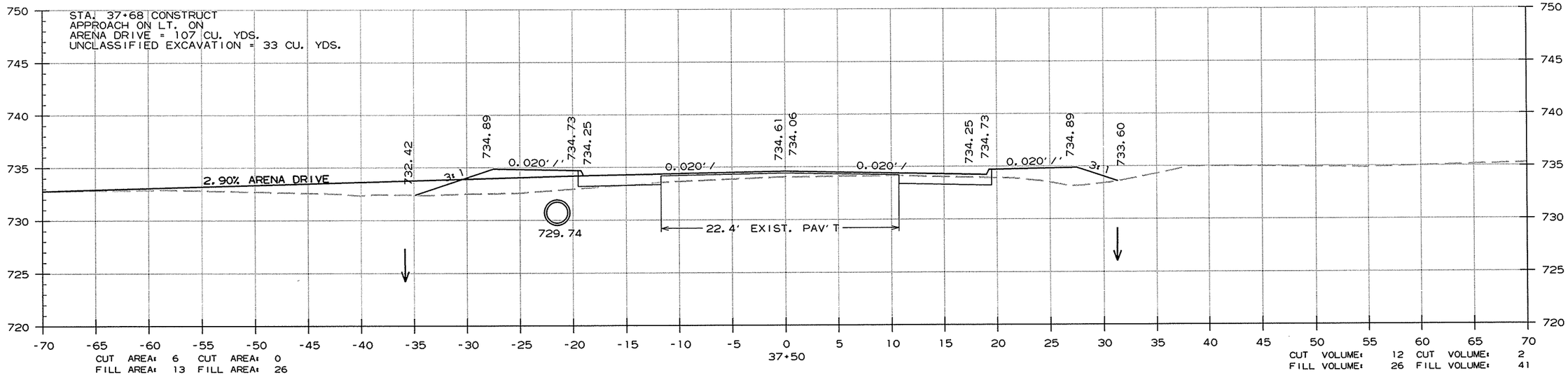
10/7/2014

R090319.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.		090319	90	154

(2) CROSS SECTIONS





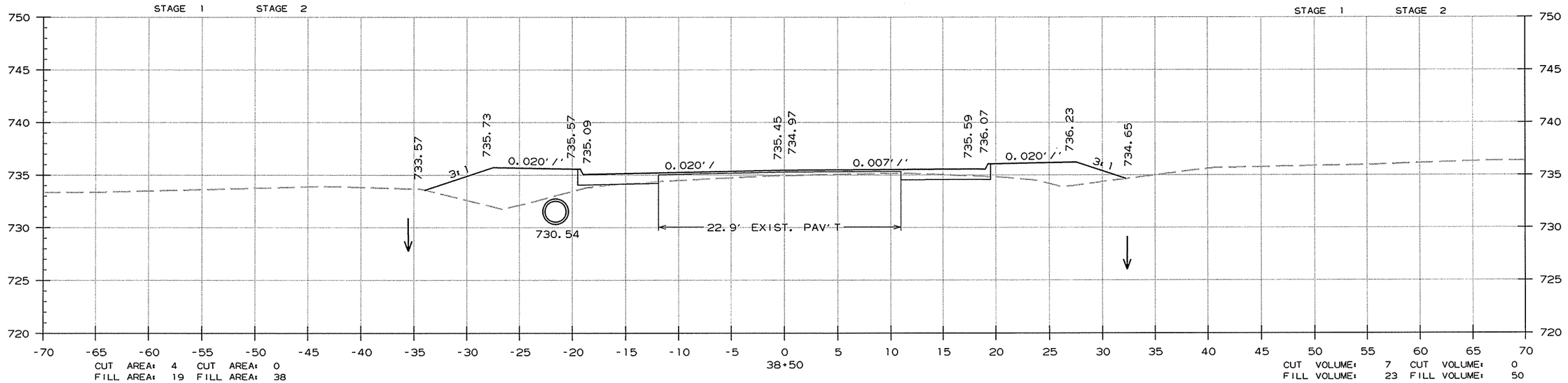
CROSS SECTION STA. 37+50 TO STA. 38+00

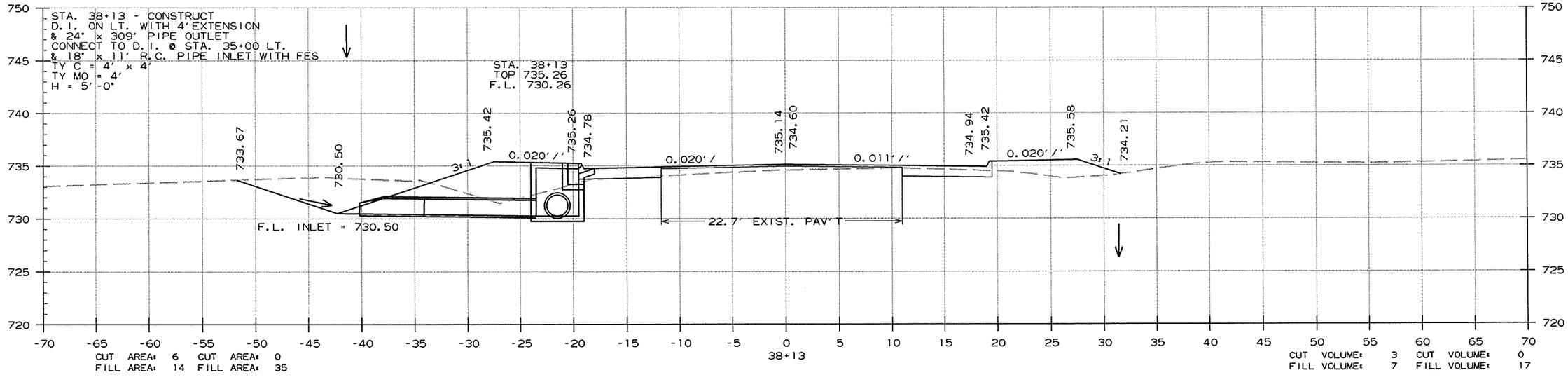
10/7/2014

R090319.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.		090319	91	154

(2) CROSS SECTIONS





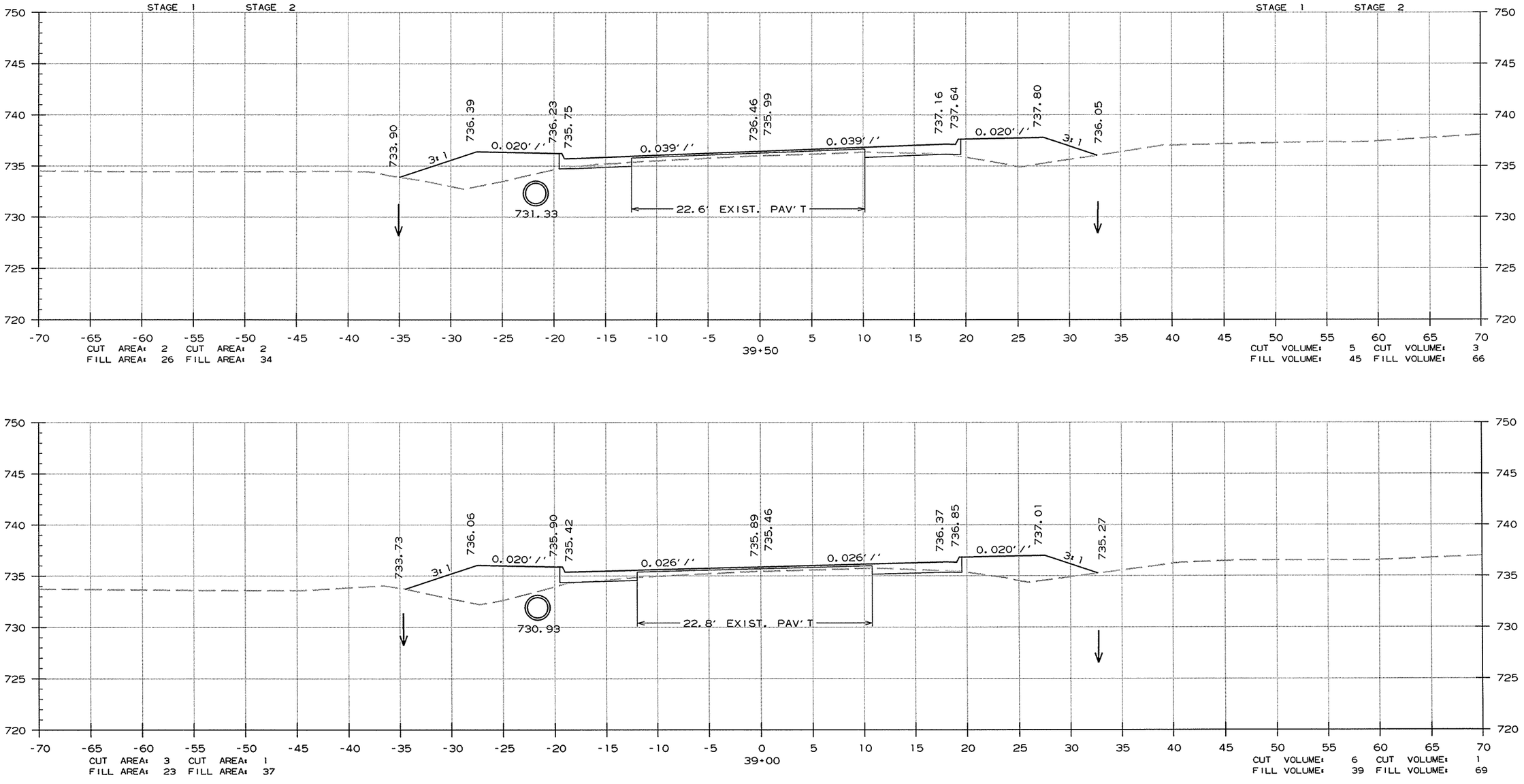
CROSS SECTION STA. 38+13 TO STA. 38+50

10/7/2014

R090319.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.		090319	92	154

(2) CROSS SECTIONS



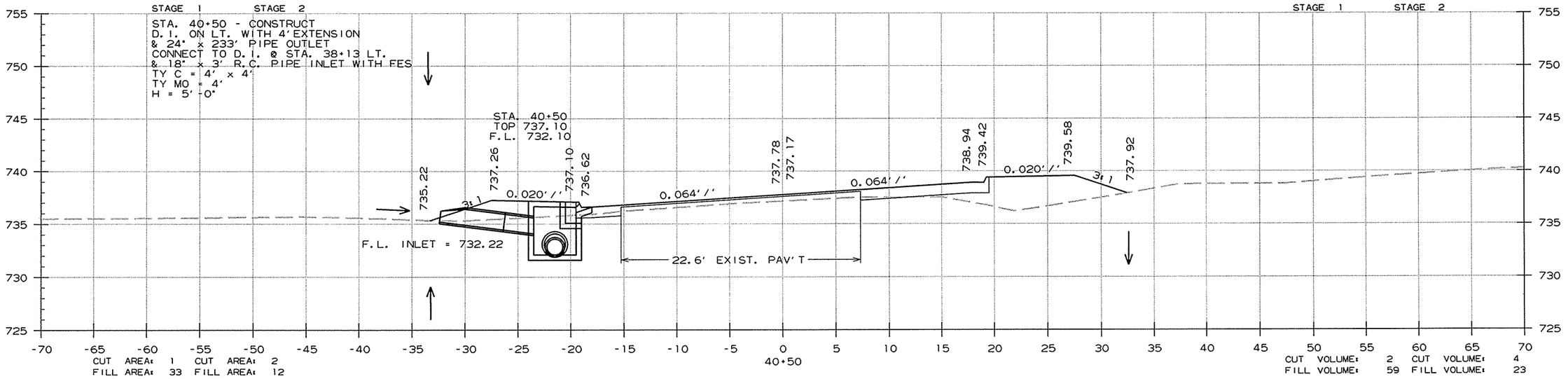
CROSS SECTION STA. 39+00 TO STA. 39+50

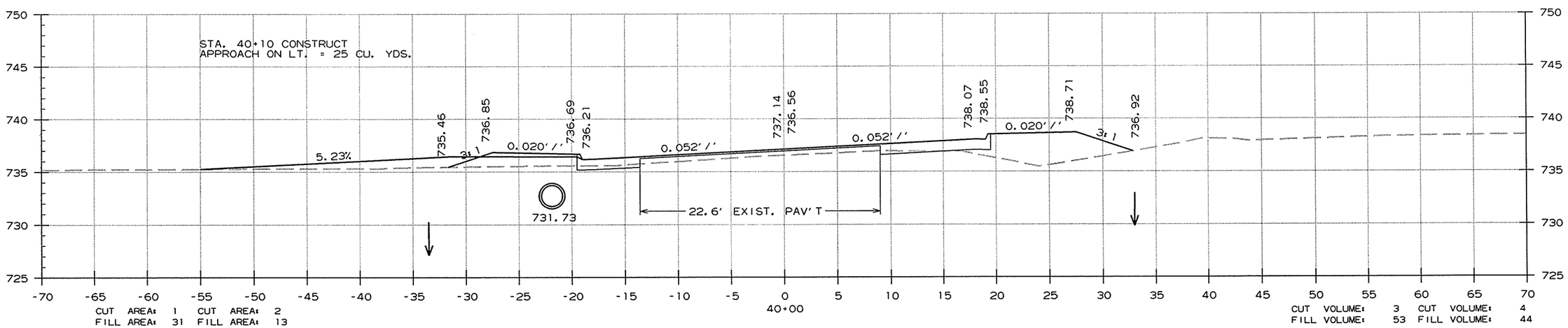
10/7/2014

R090319.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.		090319	93	154

(2) CROSS SECTIONS





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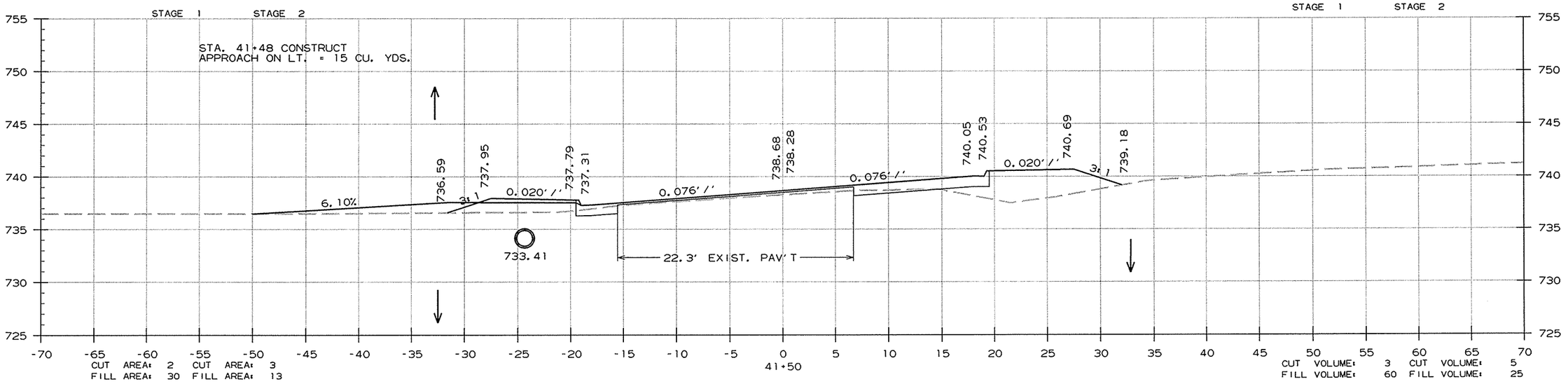
CROSS SECTION STA. 40+00 TO STA. 40+50

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090319	94	154

(2) CROSS SECTIONS



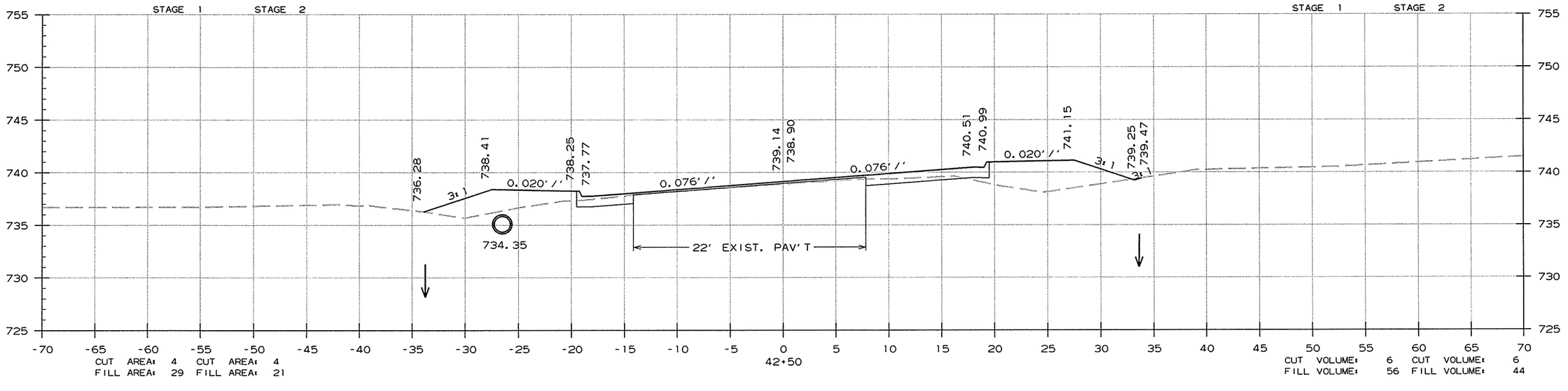
CROSS SECTION STA. 41+00 TO STA. 41+50

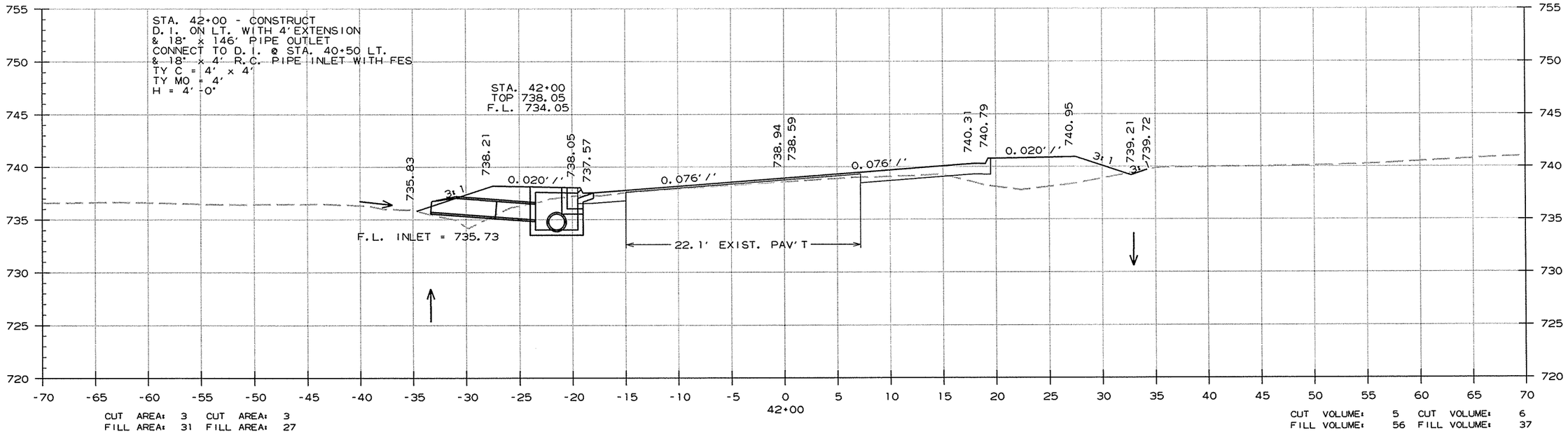
10/7/2014

R090319.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.		090319	95	154

(2) CROSS SECTIONS





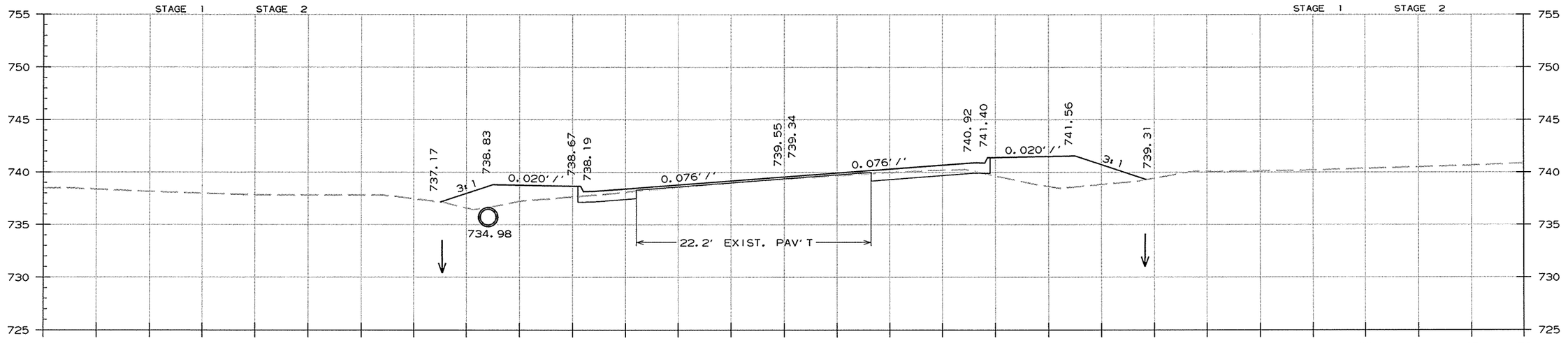
CROSS SECTION STA. 42+00 TO STA. 42+50

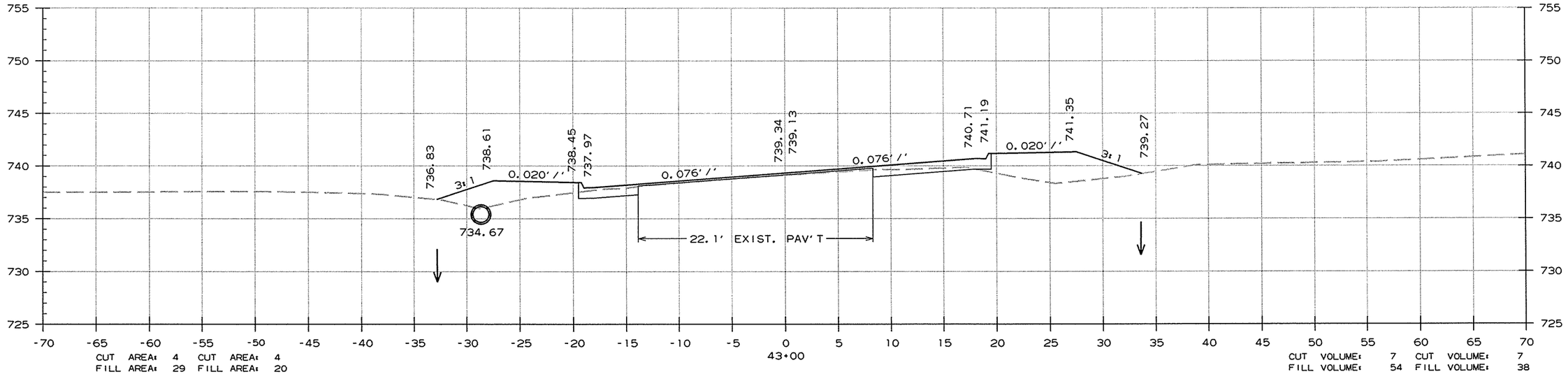
10/7/2014

R090319.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.		090319	96	154

(2) CROSS SECTIONS





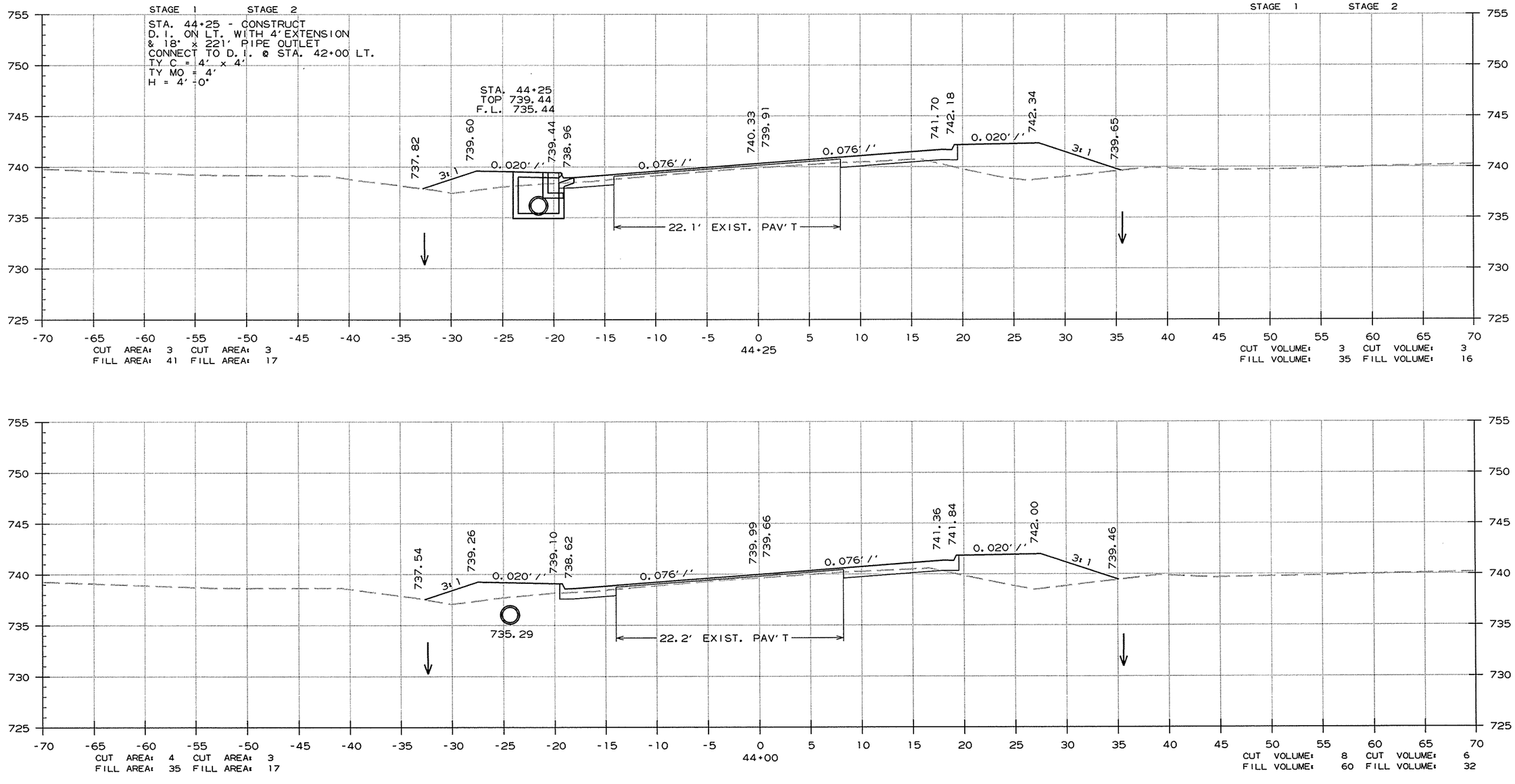
CROSS SECTION STA. 43+00 TO STA. 43+50

10/7/2014

R090319.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.		090319	97	154

(2) CROSS SECTIONS



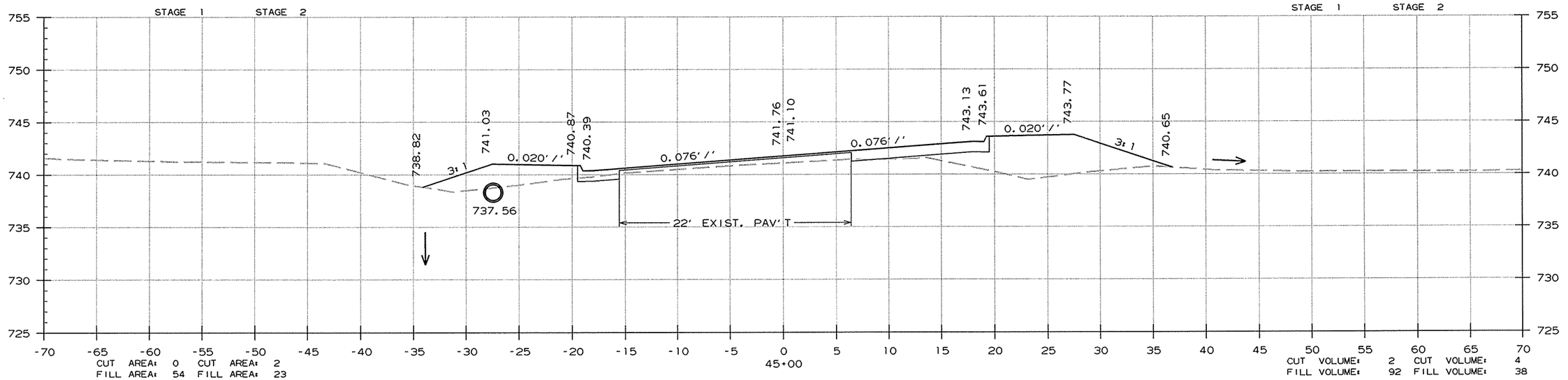
CROSS SECTION STA. 44+00 TO STA. 44+25

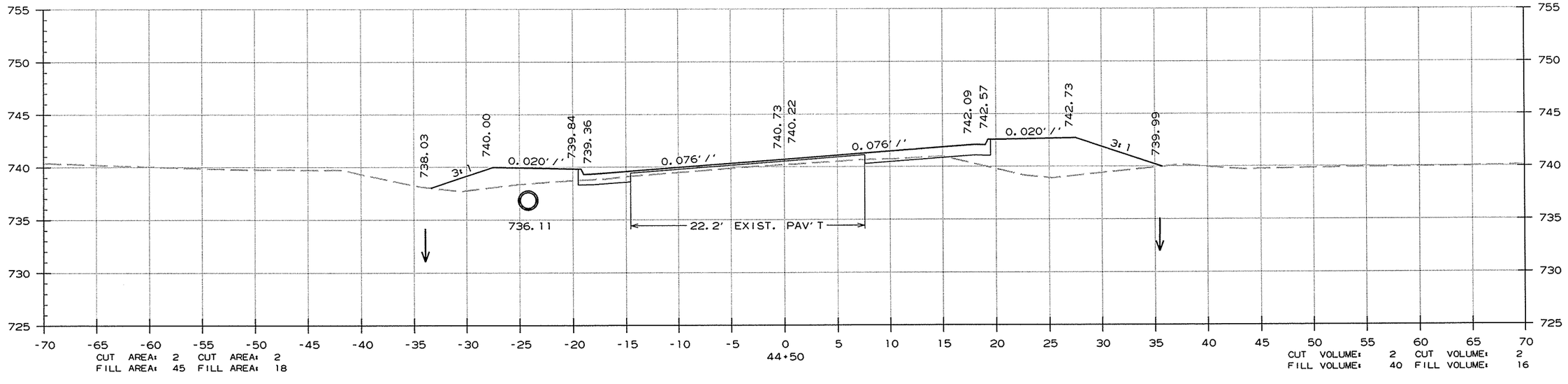
10/7/2014

R090319.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.		090319	98	154

(2) CROSS SECTIONS





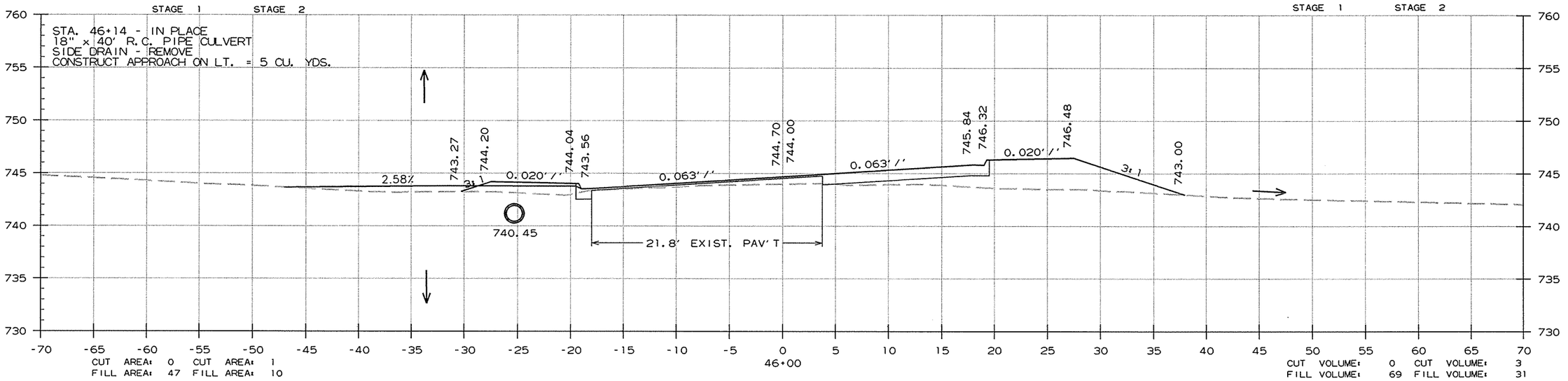
CROSS SECTION STA. 44+50 TO STA. 45+00

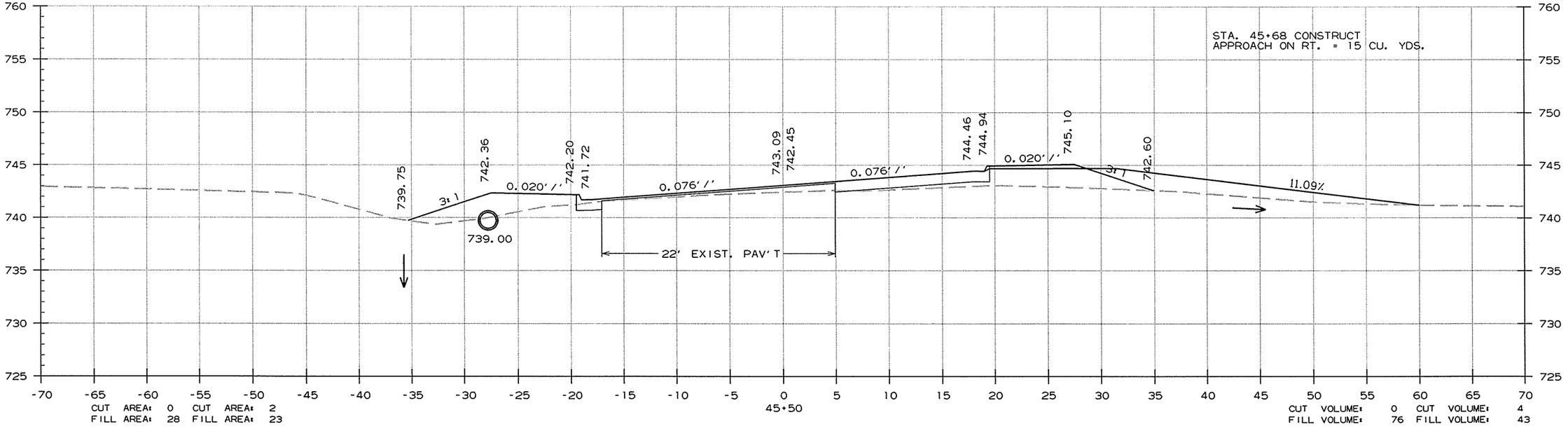
10/7/2014

R090319.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.		090319	99	154

(2) CROSS SECTIONS





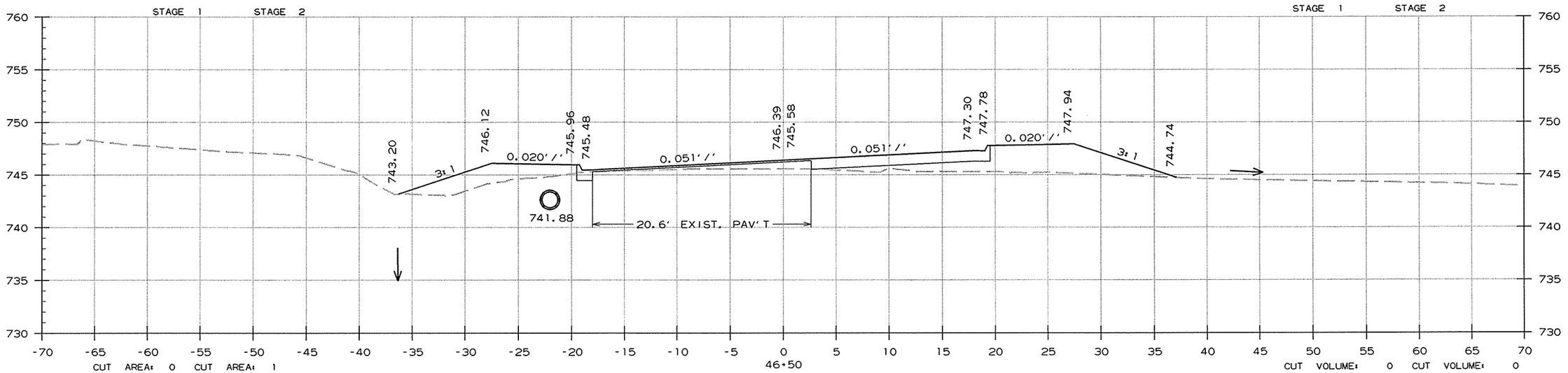
CROSS SECTION STA. 45+50 TO STA. 46+00

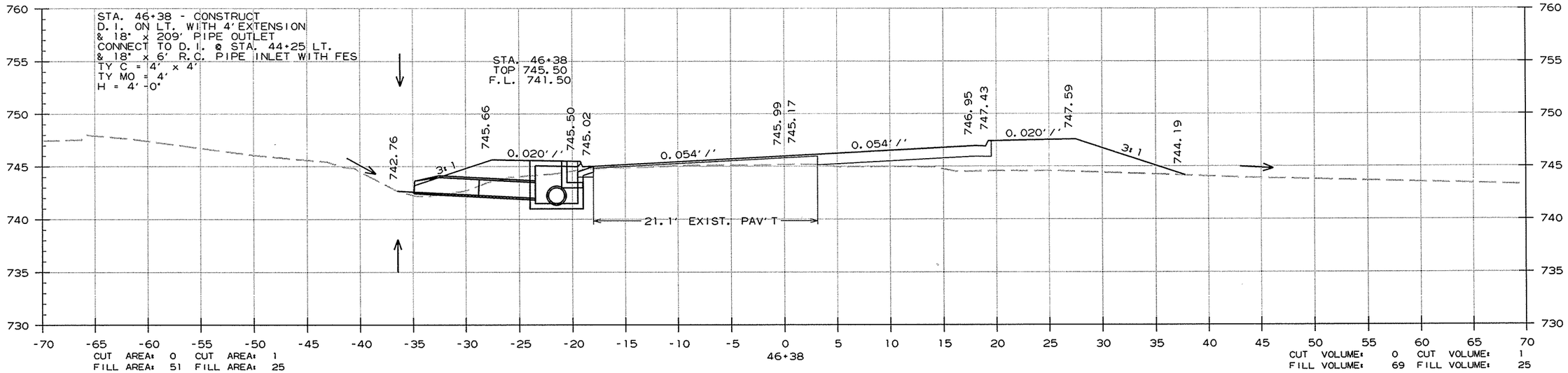
10/7/2014

R090319.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.		090319	100	154

(2) CROSS SECTIONS





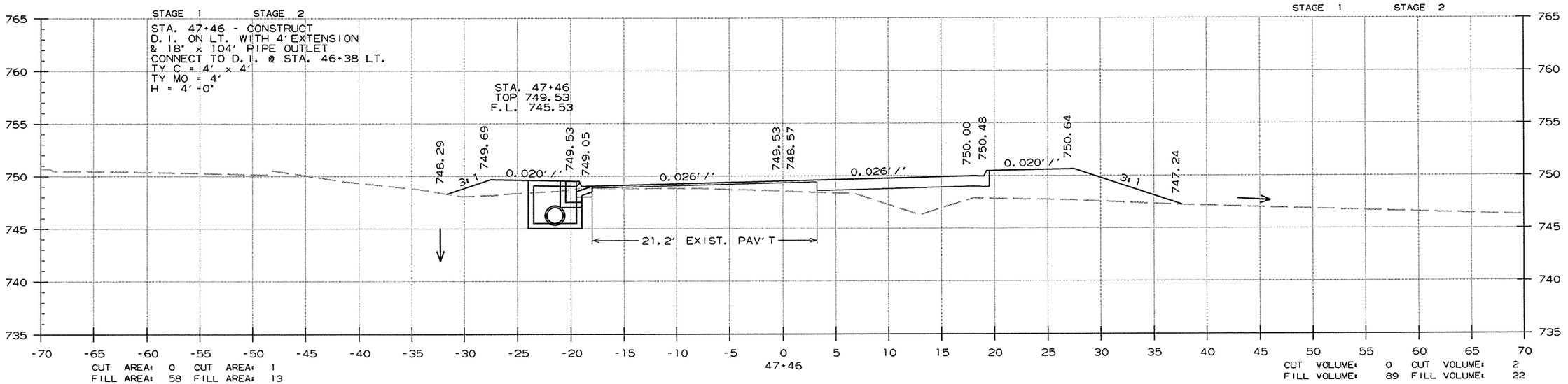
CROSS SECTION STA. 46+38 TO STA. 46+50

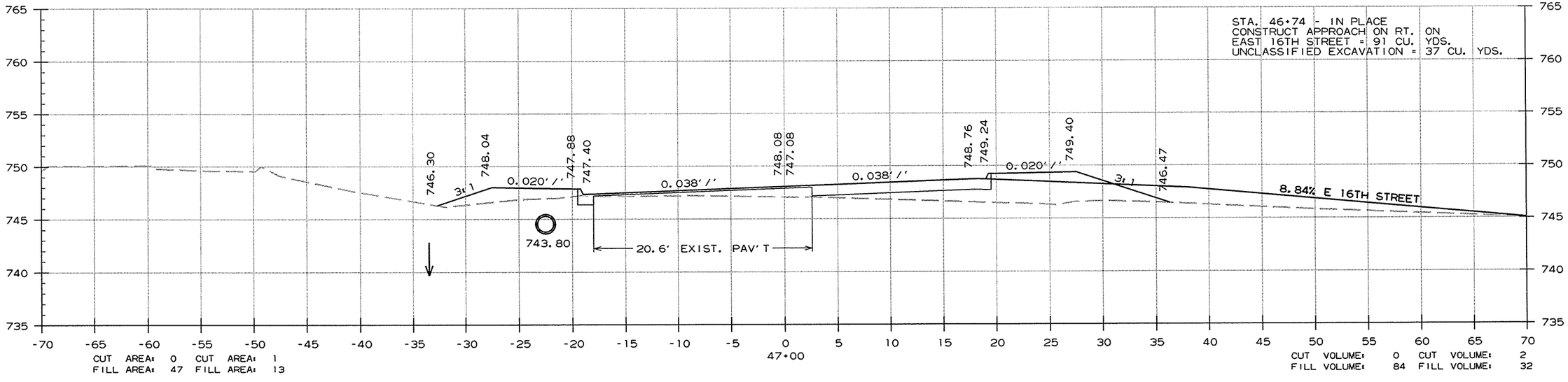
10/7/2014

R090319.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.		090319	101	154

(2) CROSS SECTIONS





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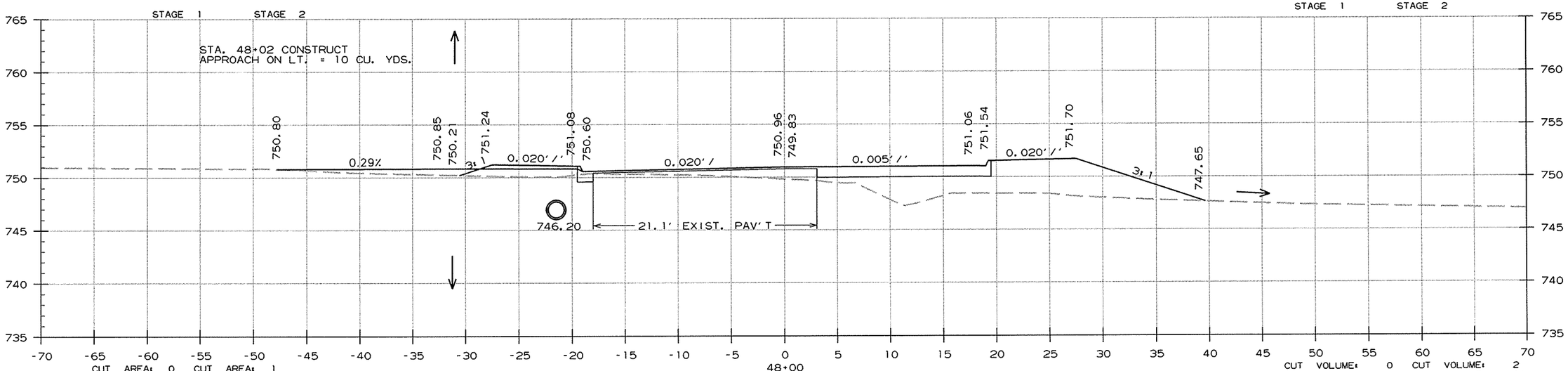
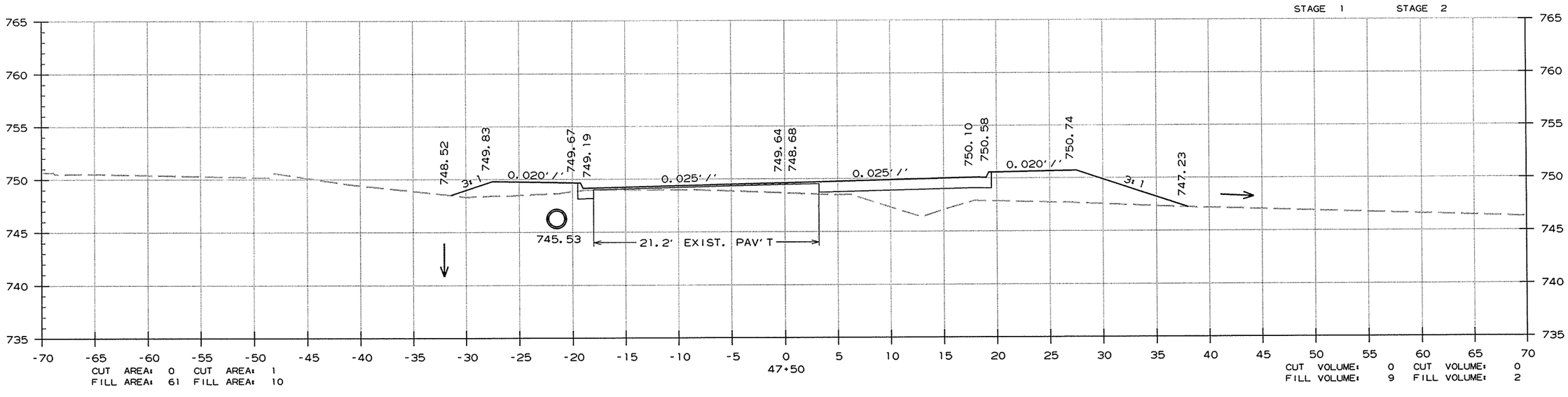
R090319.DGN

CROSS SECTION STA. 47+00 TO STA. 47+46

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090319	102	154

(2) CROSS SECTIONS





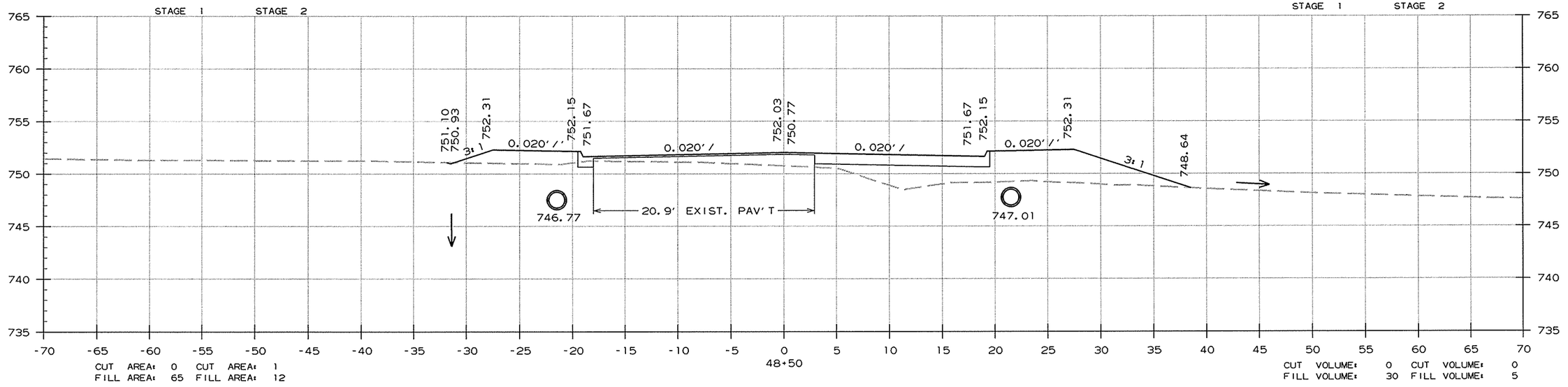
CROSS SECTION STA. 47+50 TO STA. 48+00

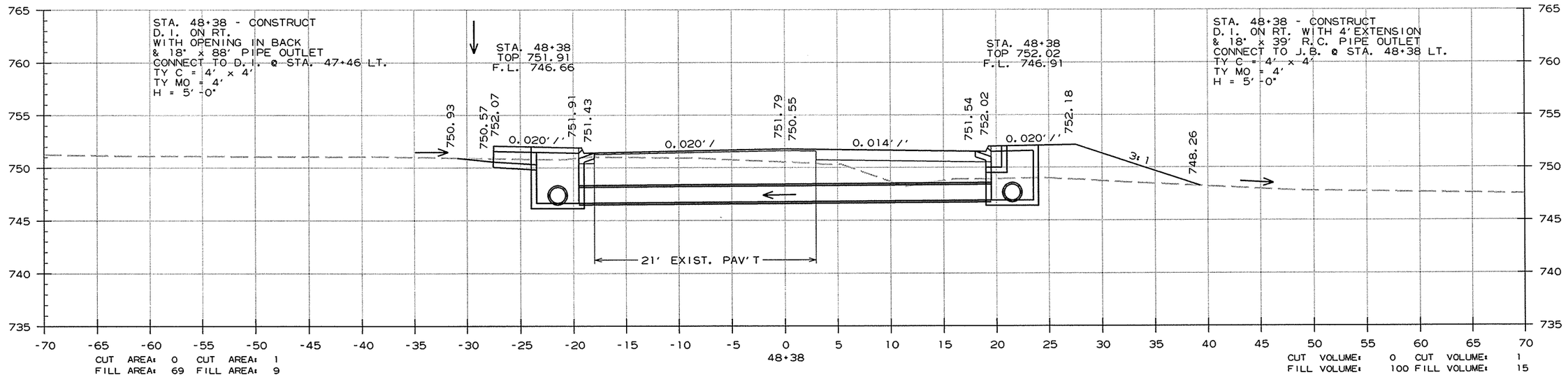
10/7/2014

R090319.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.		090319	103	154

(2) CROSS SECTIONS





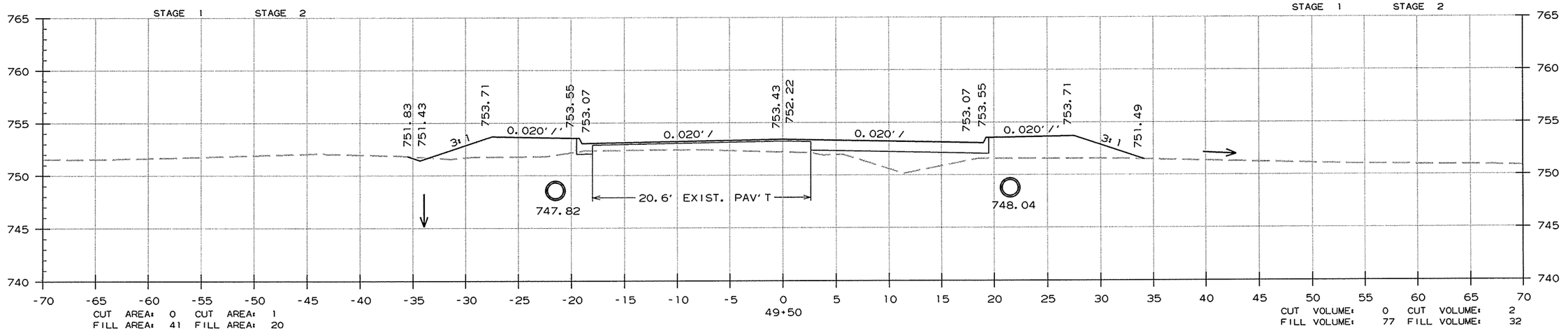
CROSS SECTION STA. 48+38 TO STA. 48+50

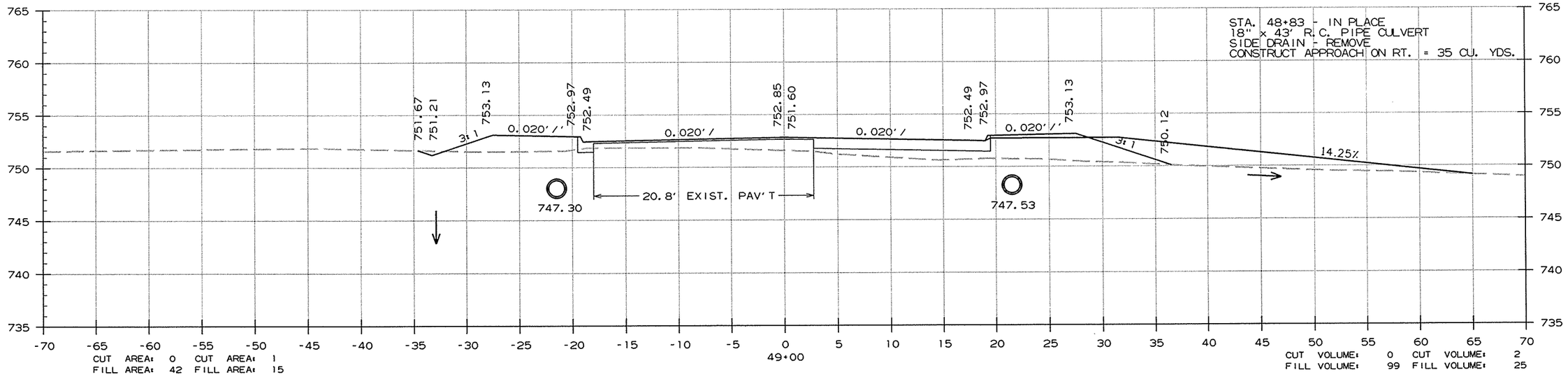
10/7/2014

R090319.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.		090319	104	154

(2) CROSS SECTIONS





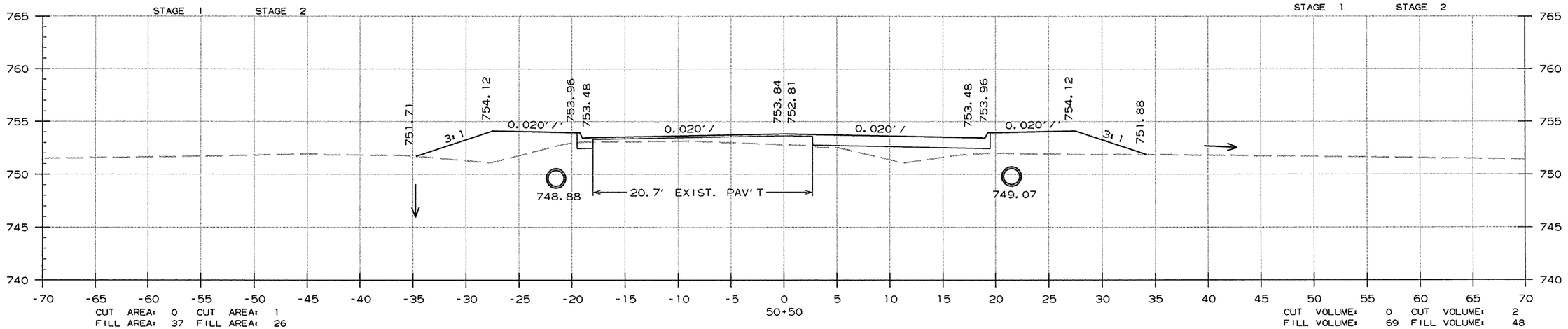
CROSS SECTION STA. 49+00 TO STA. 49+50

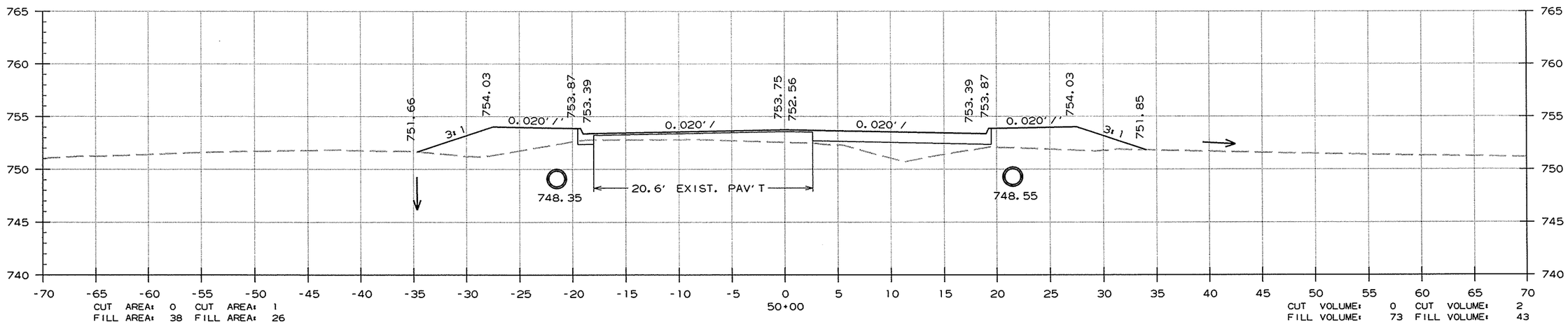
10/7/2014

R090319.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.		090319	105	154

(2) CROSS SECTIONS





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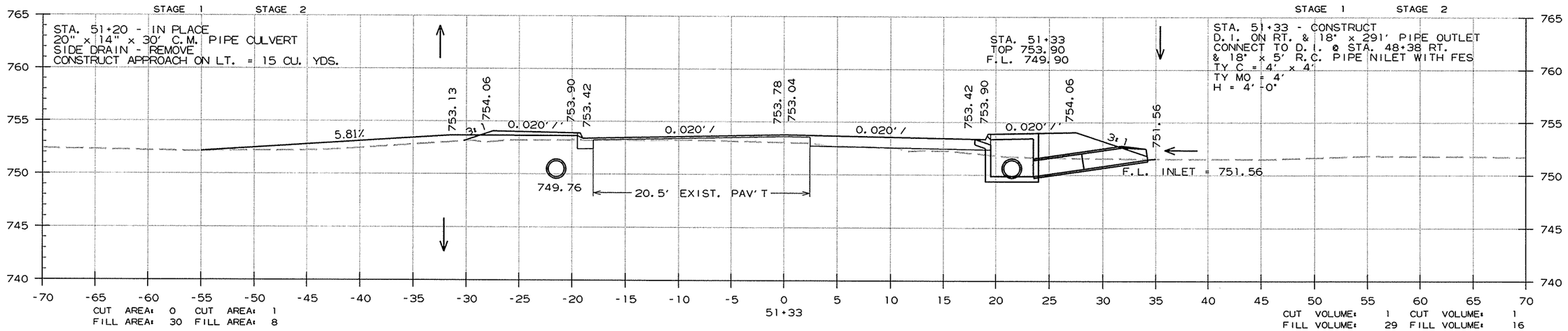
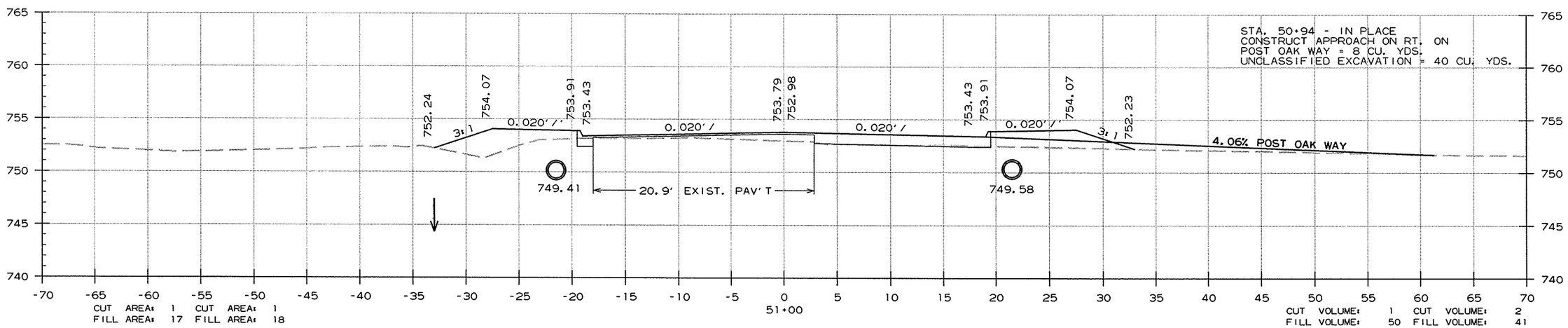
R090319.DGN

CROSS SECTION STA. 50+00 TO STA. 50+50

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090319	106	154

(2) CROSS SECTIONS





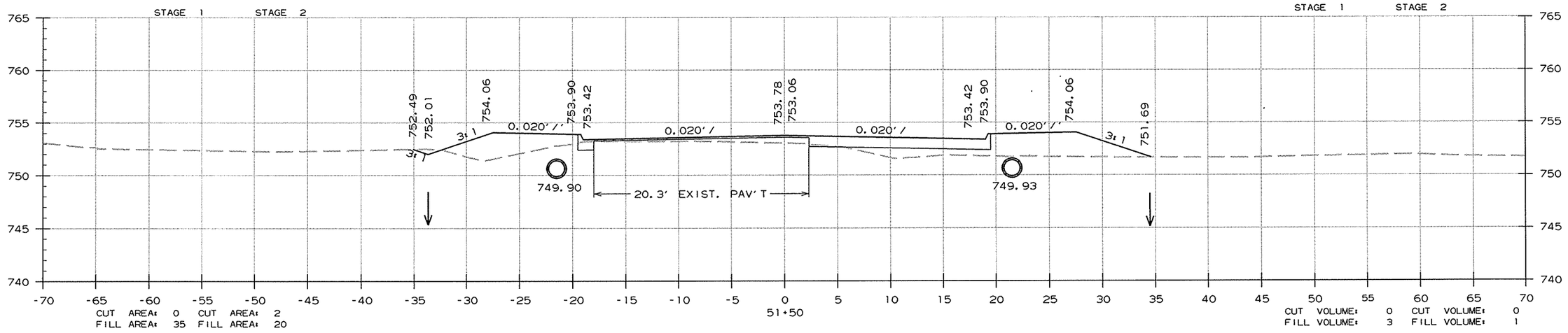
10/7/2014

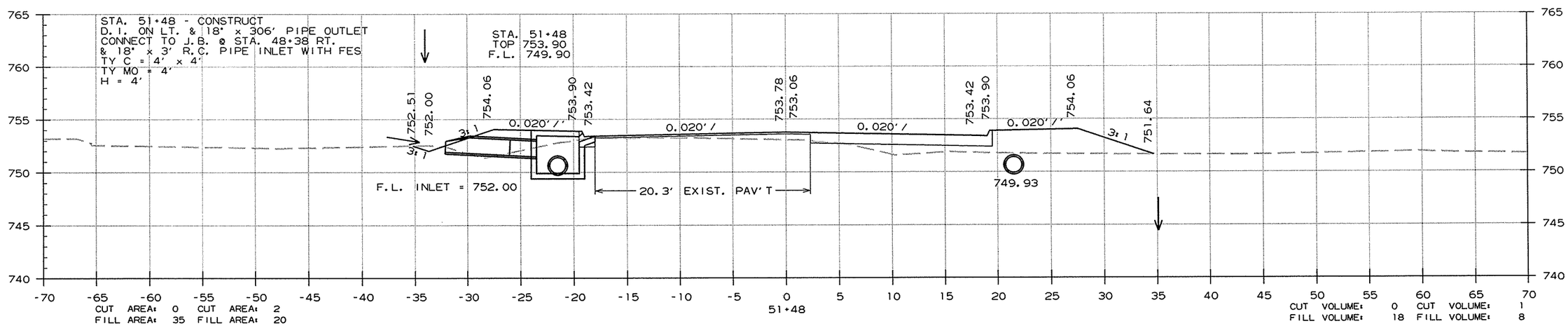
R090319.DGN

CROSS SECTION STA. 51+00 TO STA. 51+33

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090319	107	154

(2) CROSS SECTIONS





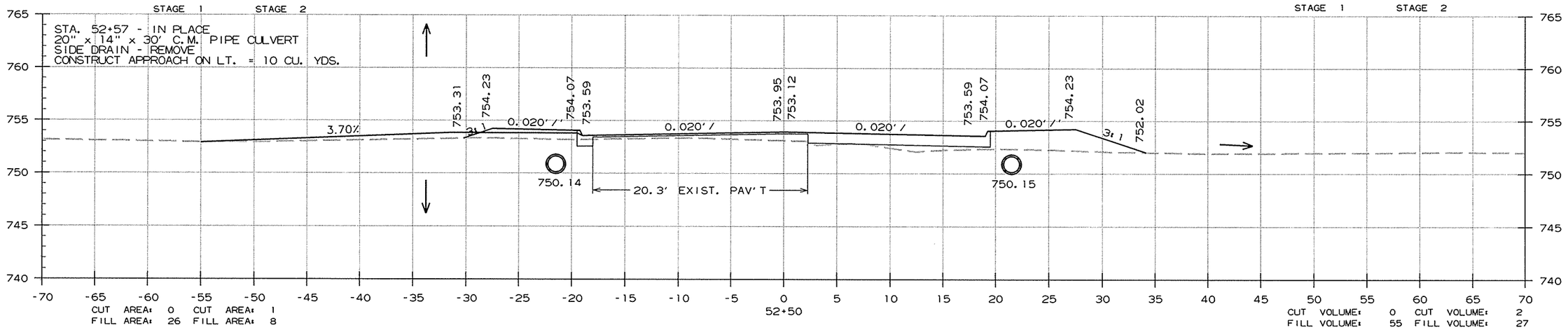
CROSS SECTION STA. 51+48 TO STA. 51+50

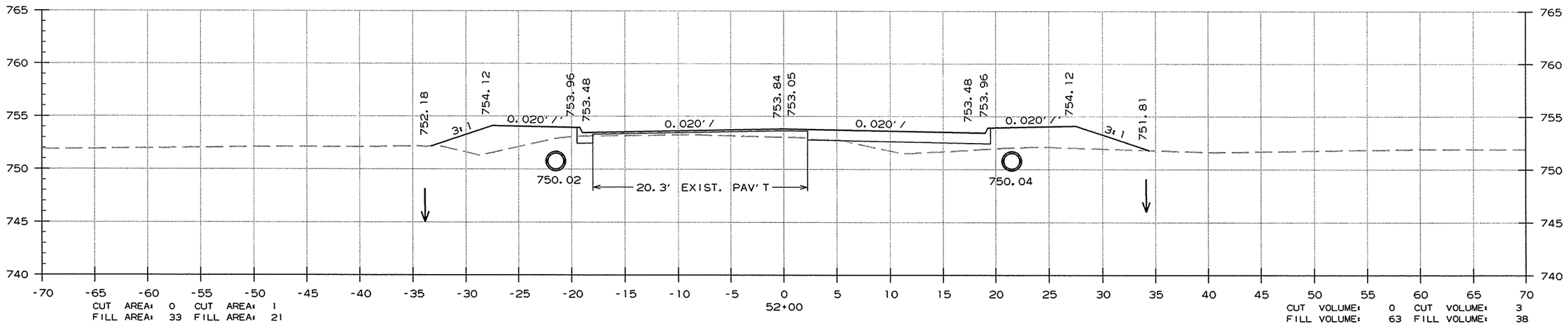
10/7/2014

R090319.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.		090319	108	154

(2) CROSS SECTIONS





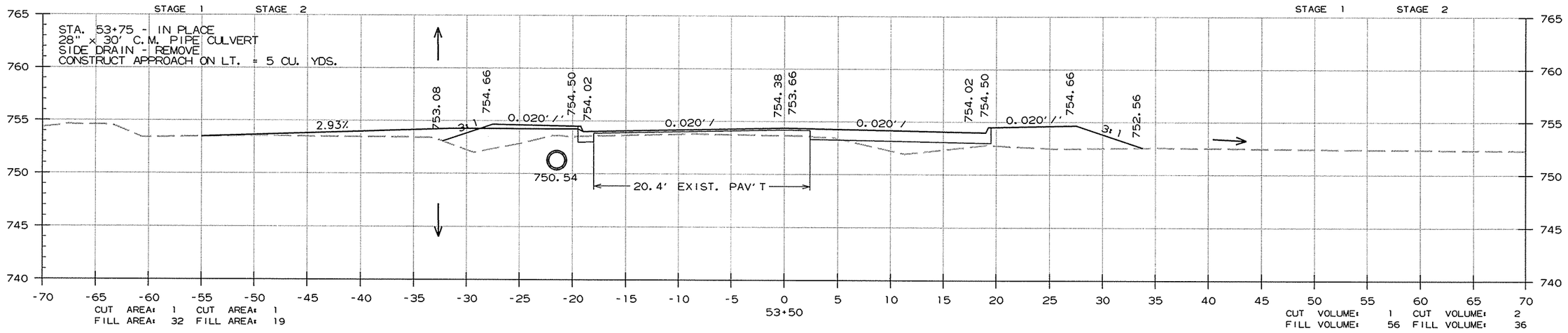
CROSS SECTION STA. 52+00 TO STA. 52+50

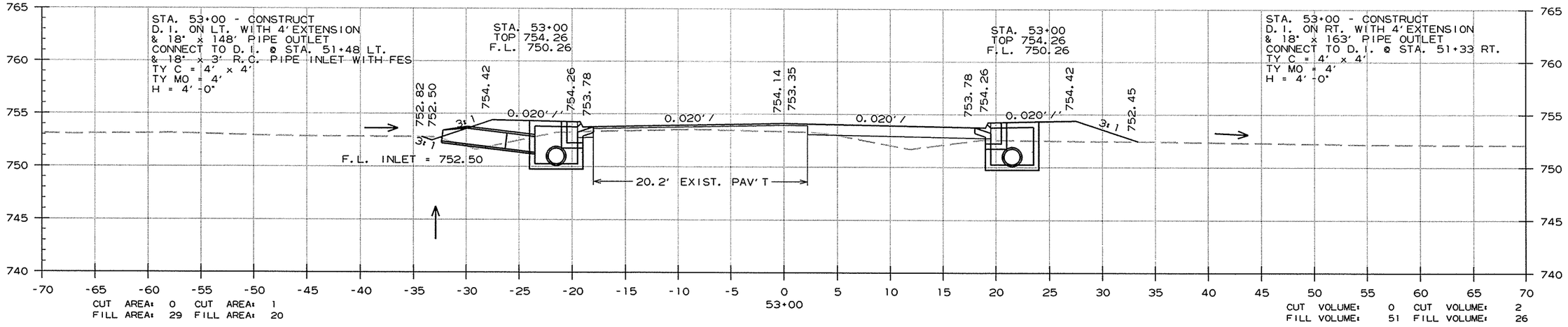
10/7/2014

R090319.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.		090319	109	154

(2) CROSS SECTIONS





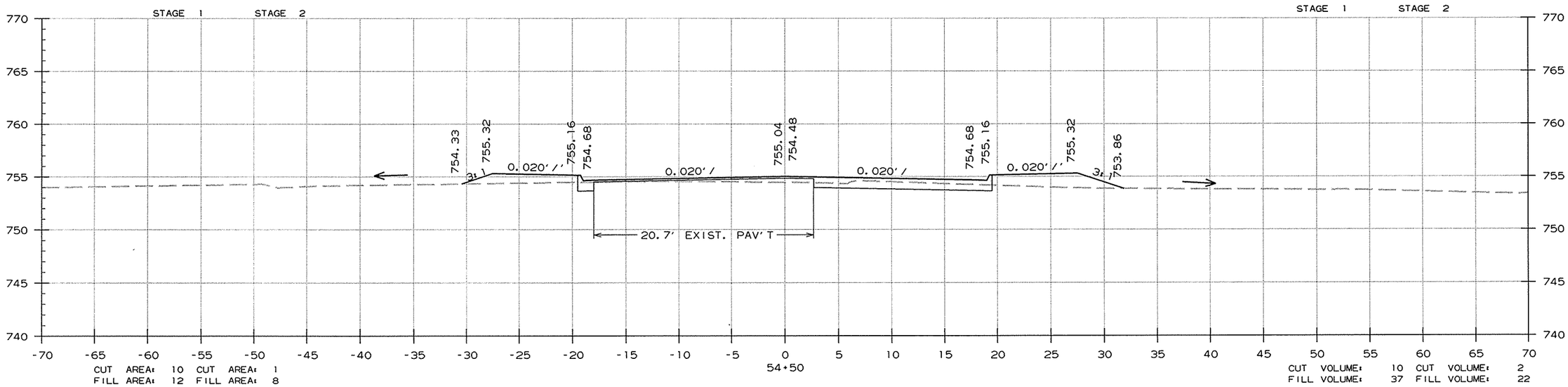
10/7/2014

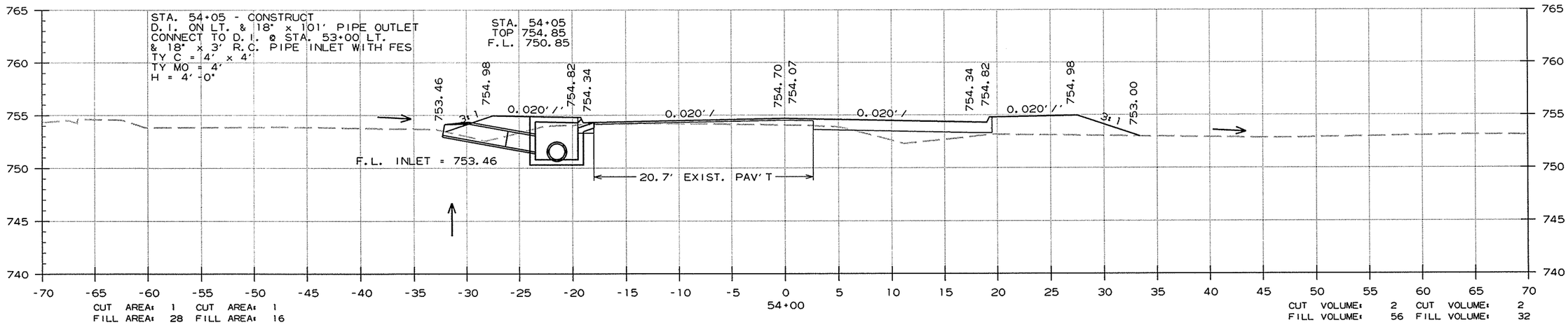
R090319.DGN

CROSS SECTION STA. 53+00 TO STA. 53+50

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090319	110	154

(2) CROSS SECTIONS





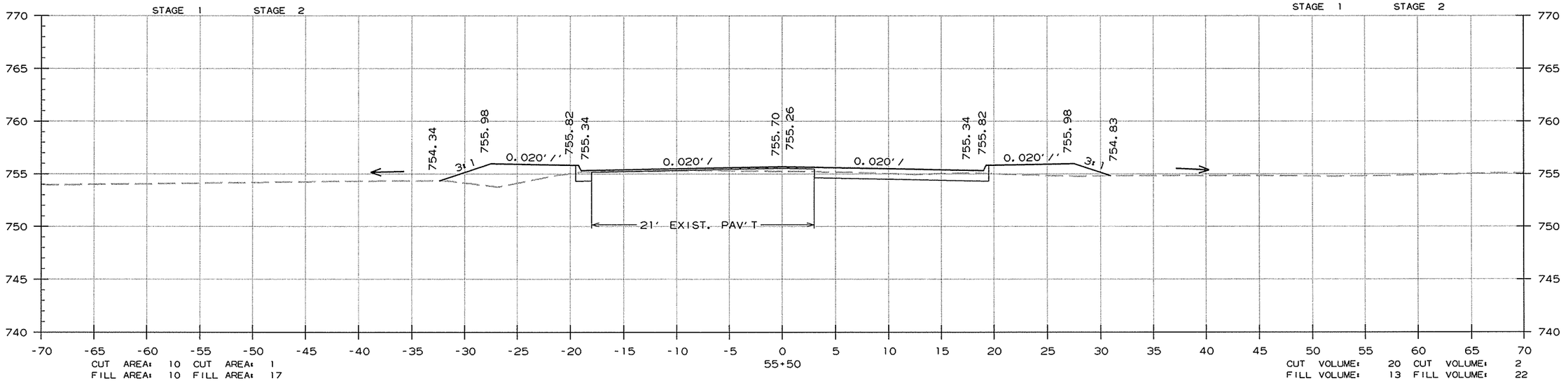
CROSS SECTION STA. 54+00 TO STA. 54+50

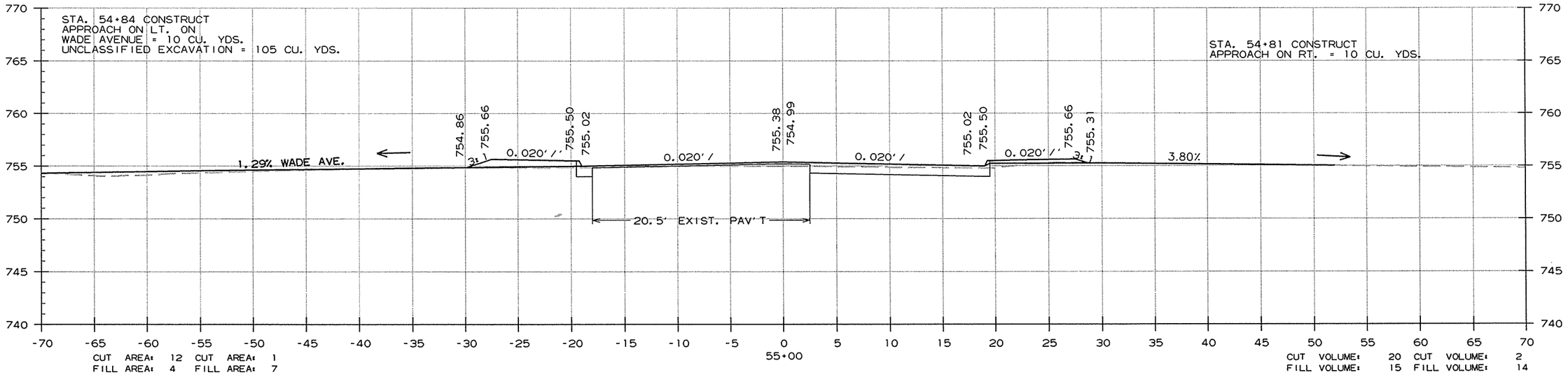
10/7/2014

R090319.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.		090319	111	154

(2) CROSS SECTIONS





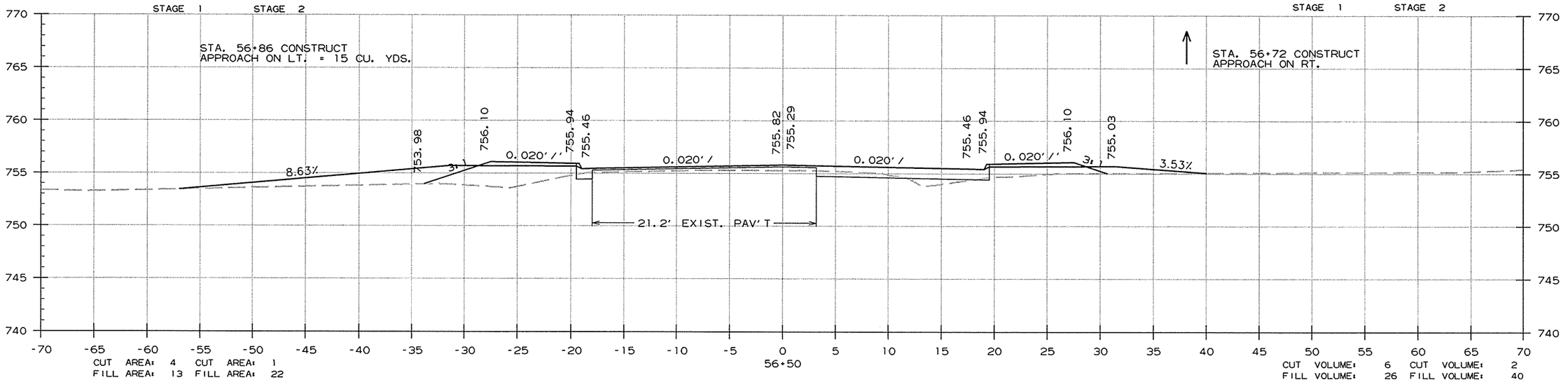
CROSS SECTION STA. 55+00 TO STA. 55+50

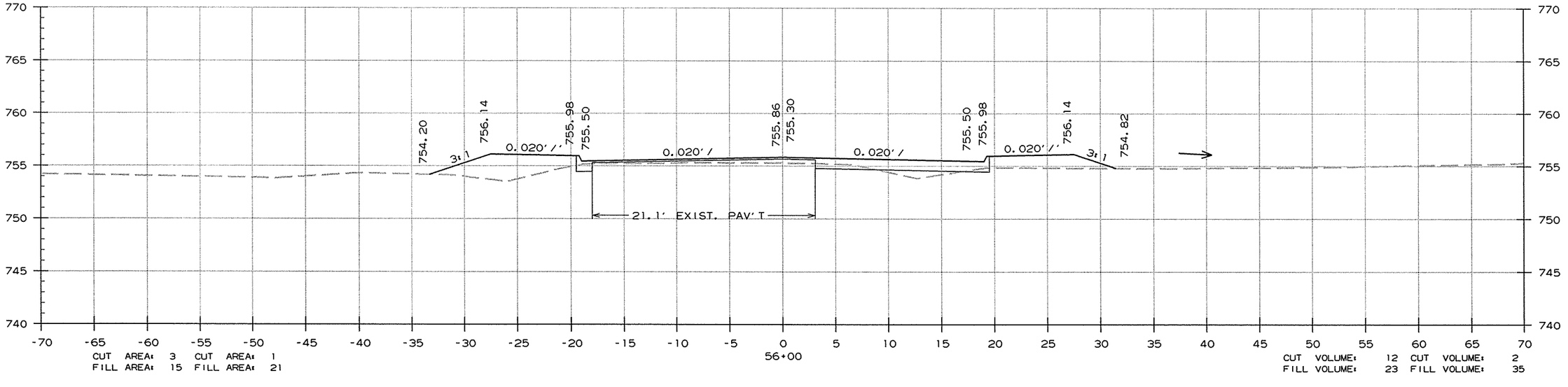
10/7/2014

R090319.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.		090319	112	154

(2) CROSS SECTIONS





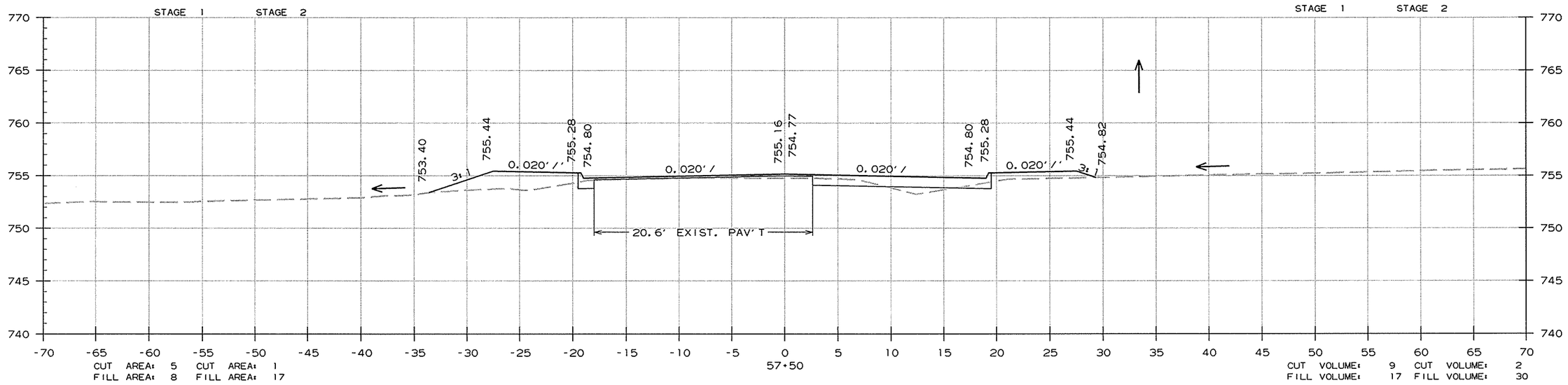
CROSS SECTION STA. 56+00 TO STA. 56+50

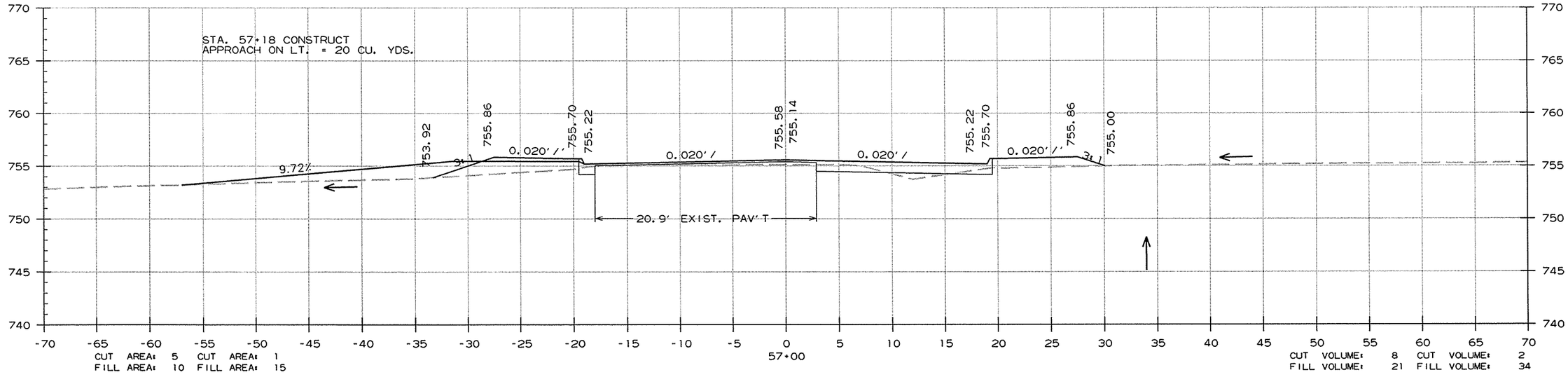
10/7/2014

R090319.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.		090319	113	154

(2) CROSS SECTIONS





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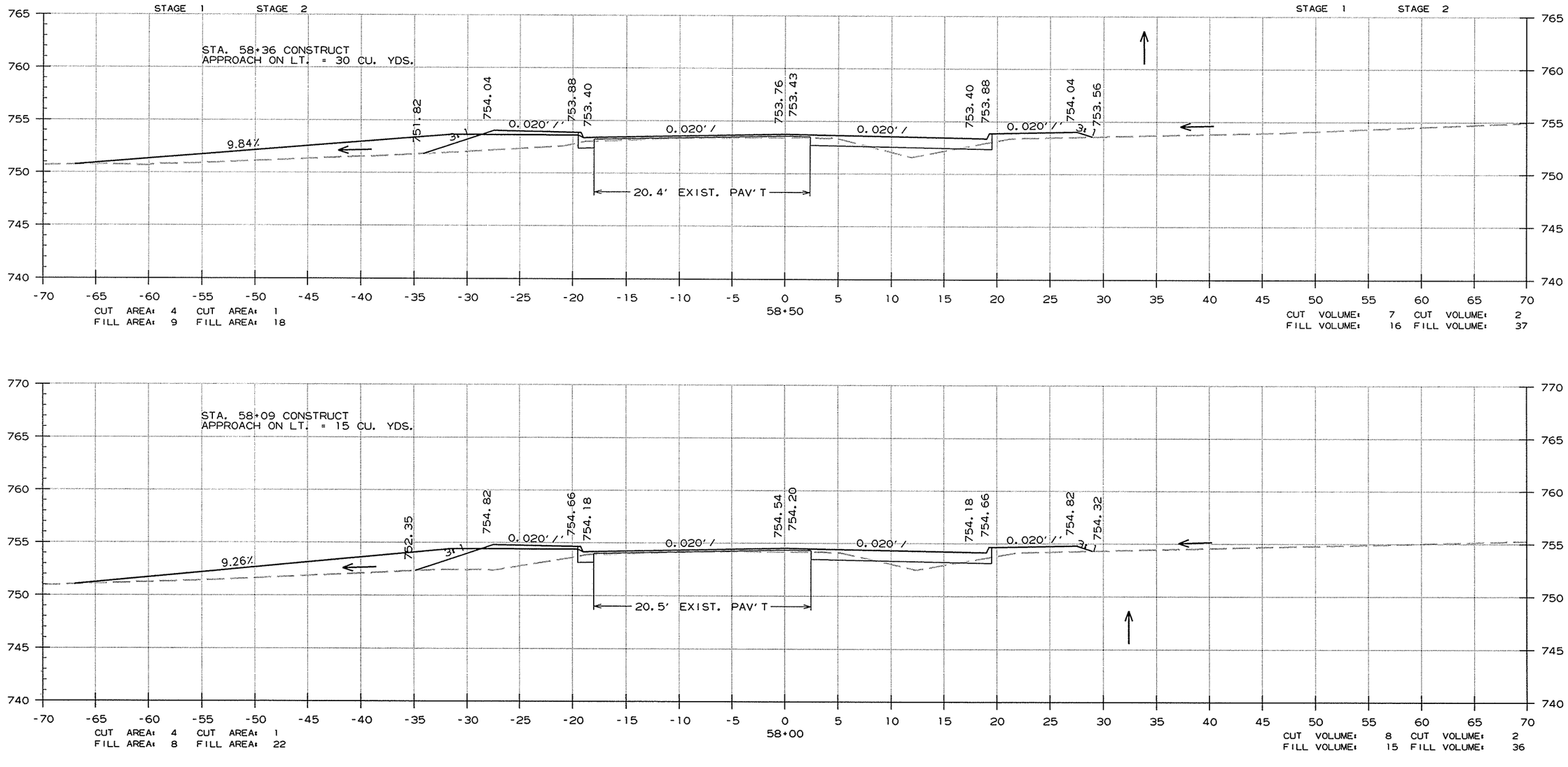
R090319.DGN

CROSS SECTION STA. 57+00 TO STA. 57+50

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090319	114	154

(2) CROSS SECTIONS



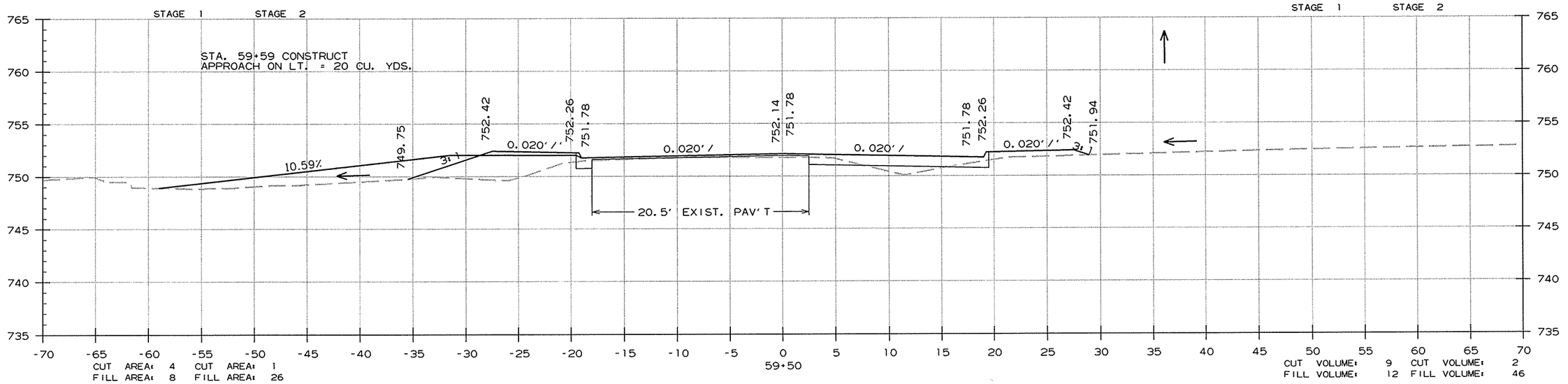
CROSS SECTION STA. 58+00 TO STA. 58+50

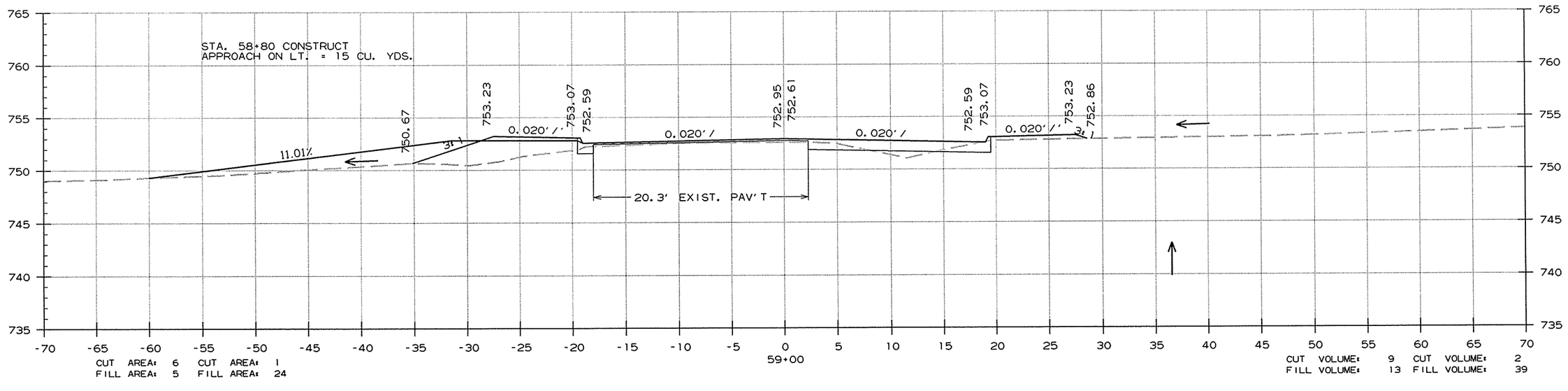
10/7/2014

R090319.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.		090319	115	154

(2) CROSS SECTIONS





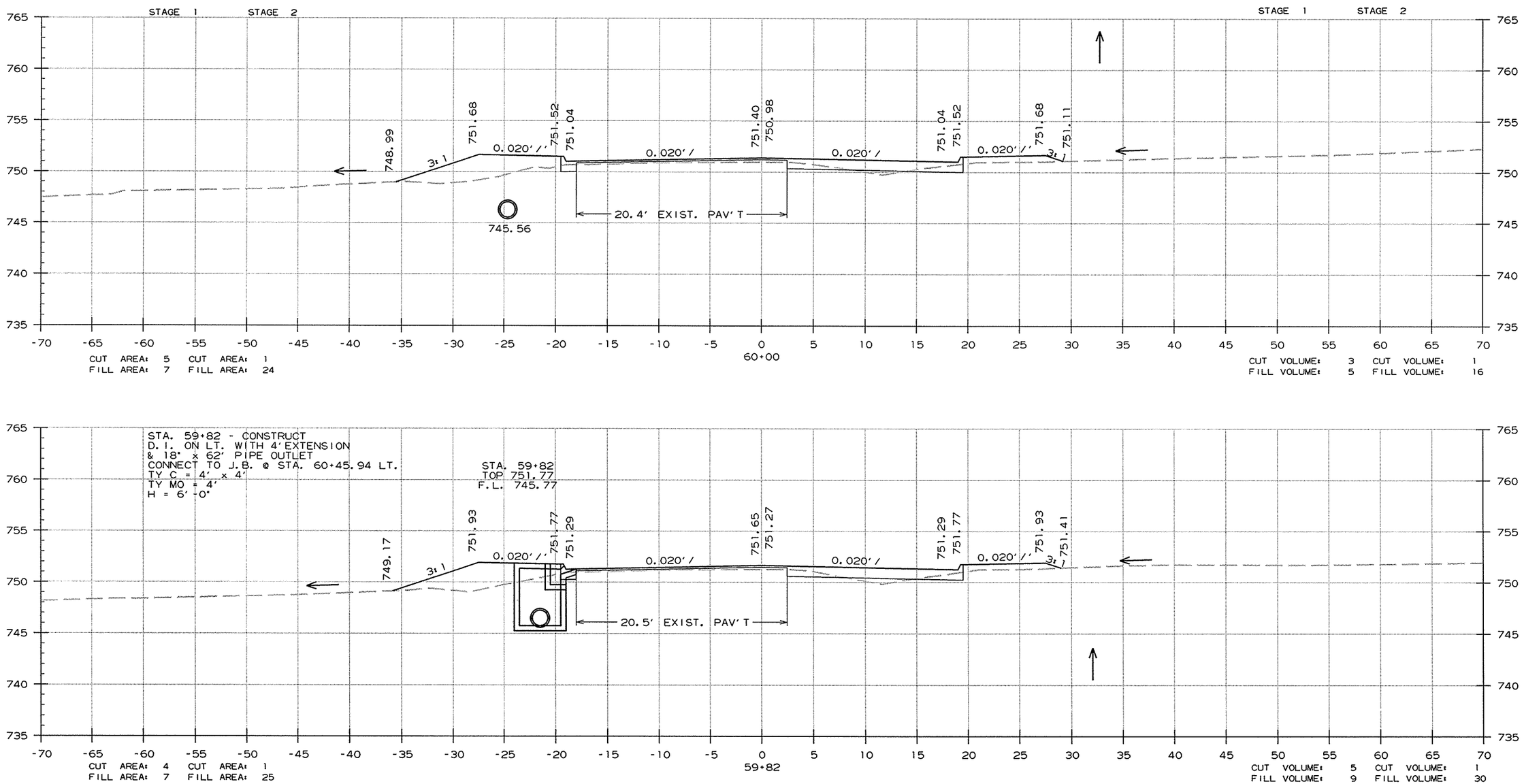
CROSS SECTION STA. 59+00 TO STA. 59+50

10/7/2014

R090319.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.		090319	116	154

(2) CROSS SECTIONS



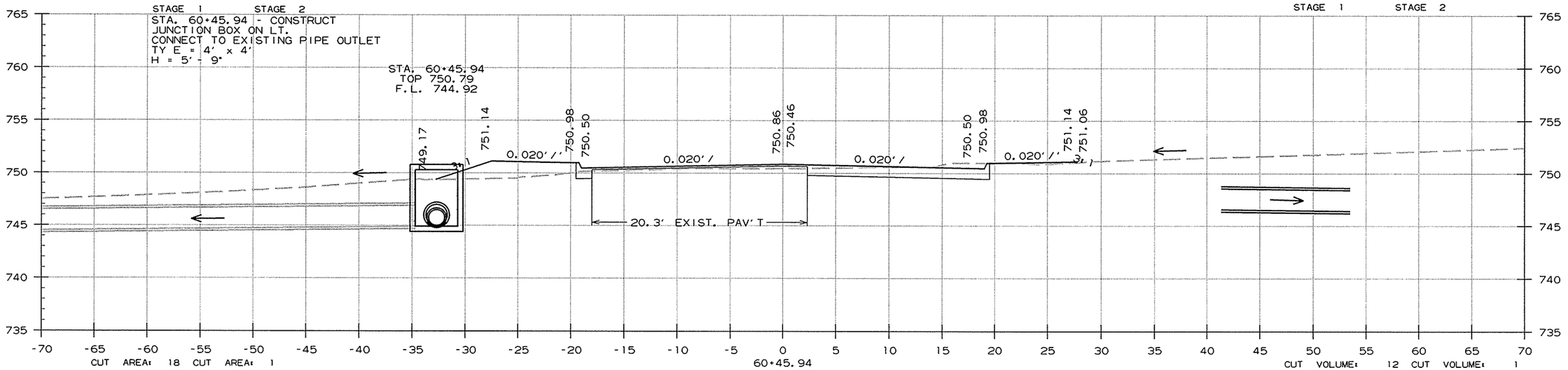
CROSS SECTION STA. 59+82 TO STA. 60+00

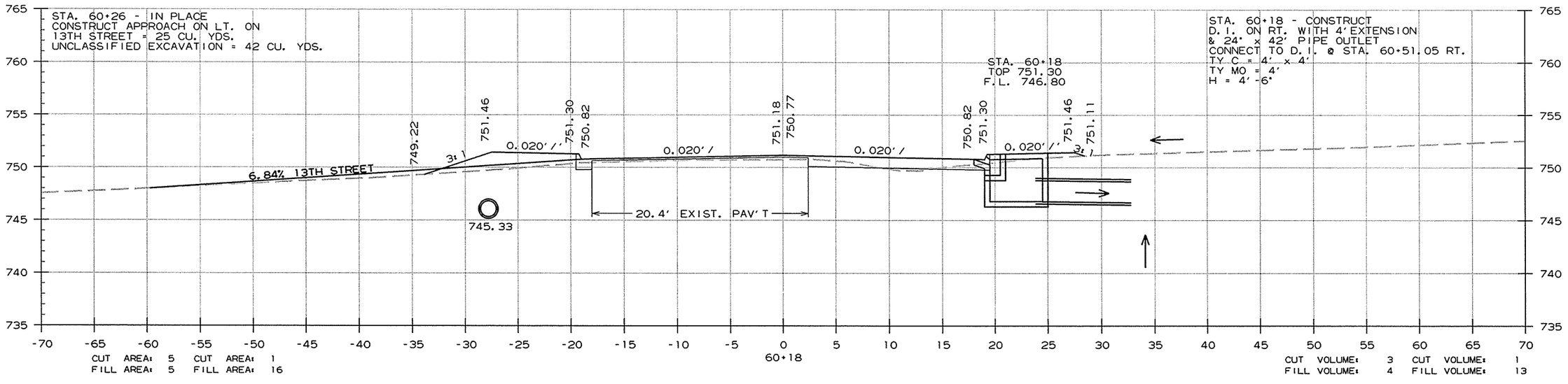
10/7/2014

R090319.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.		090319	117	154

(2) CROSS SECTIONS





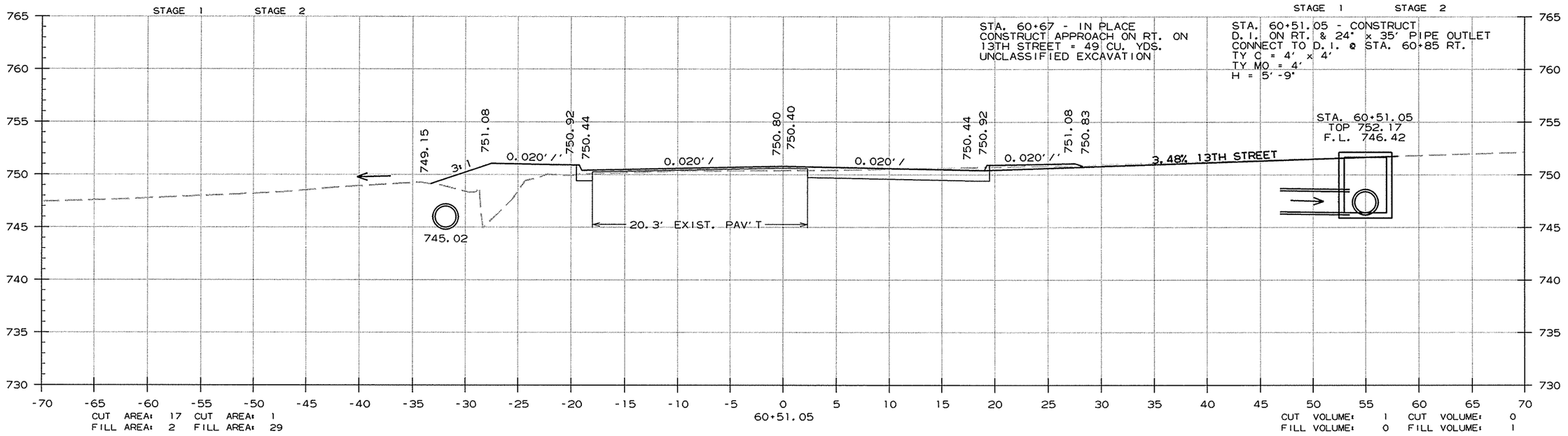
CROSS SECTION STA. 60+18 TO STA. 60+45.94

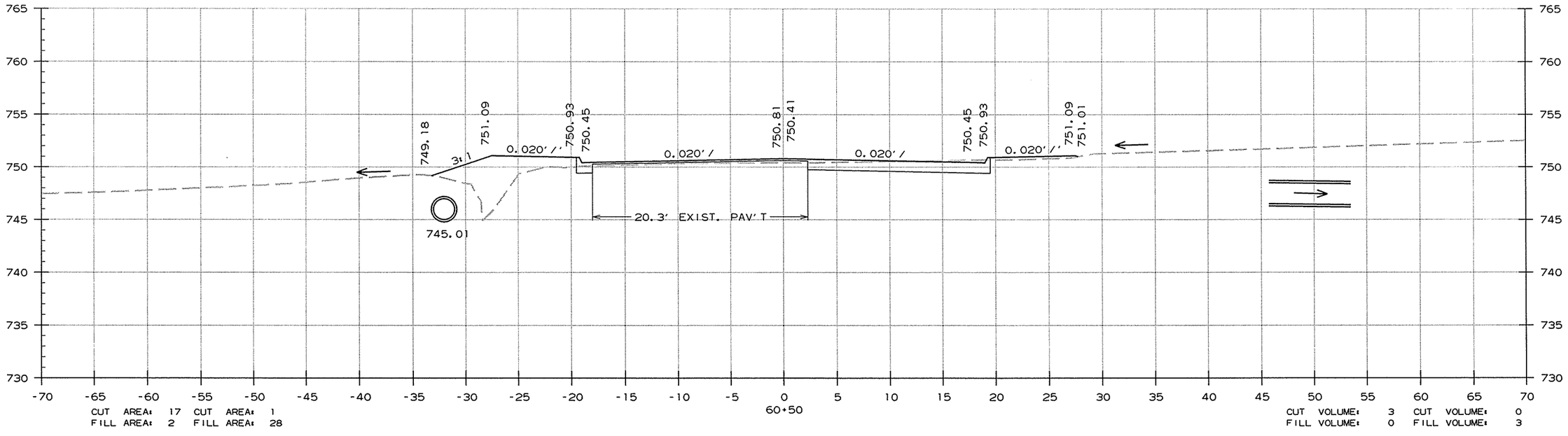
10/7/2014

R090319.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.		090319	118	154

(2) CROSS SECTIONS





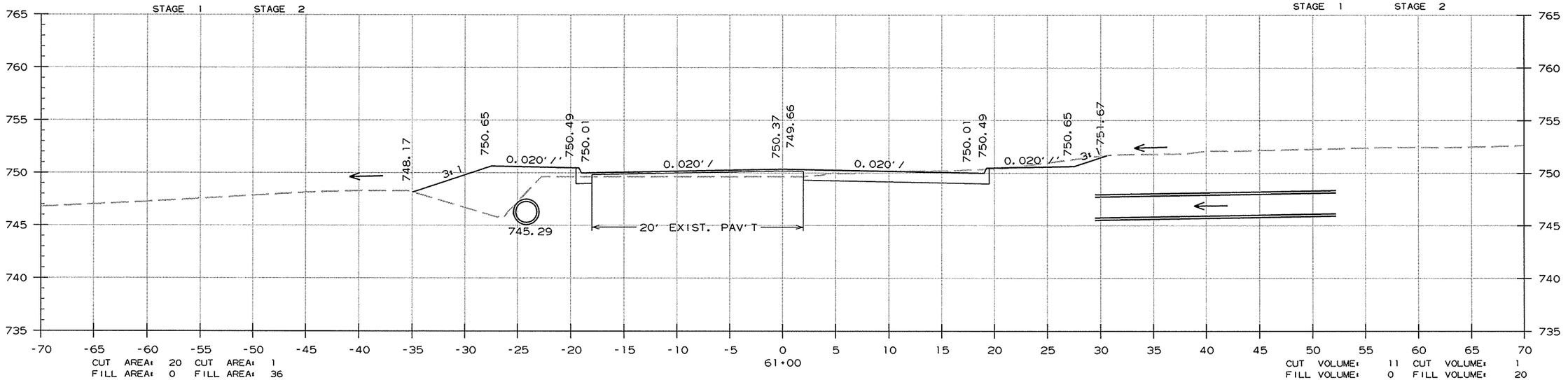
CROSS SECTION STA. 60+50 TO STA. 60+51.05

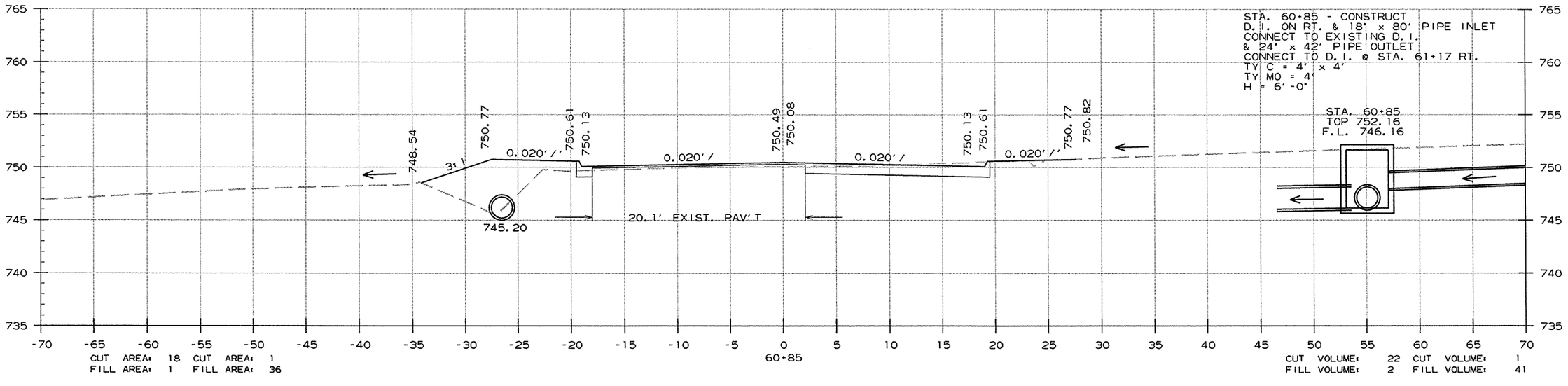
10/7/2014

R090319.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.		090319	119	154

(2) CROSS SECTIONS





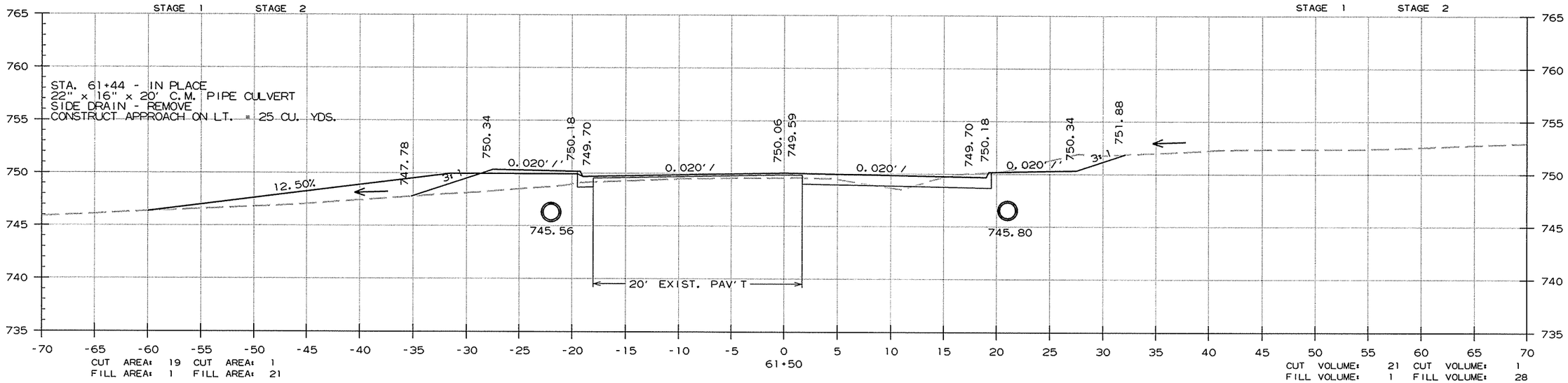
CROSS SECTION STA. 60+85 TO STA. 61+00

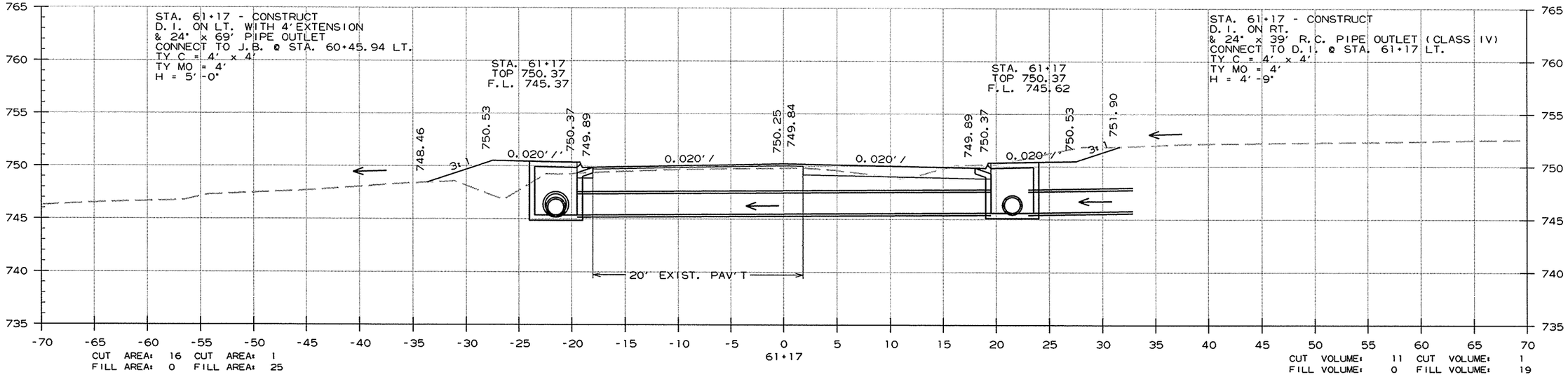
10/7/2014

R090319.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.		090319	120	154

(2) CROSS SECTIONS





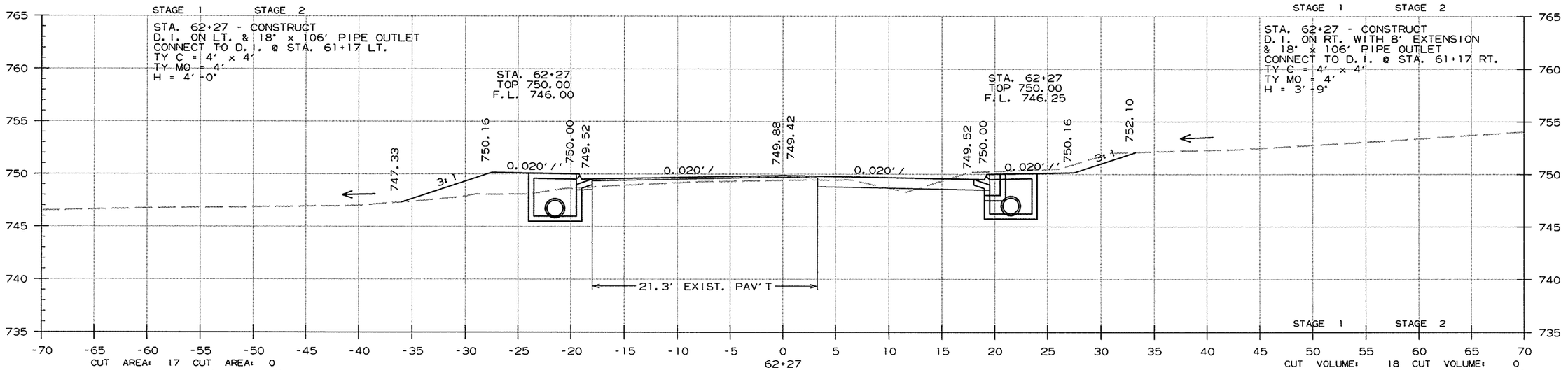
CROSS SECTION STA. 61+17 TO STA. 61+50

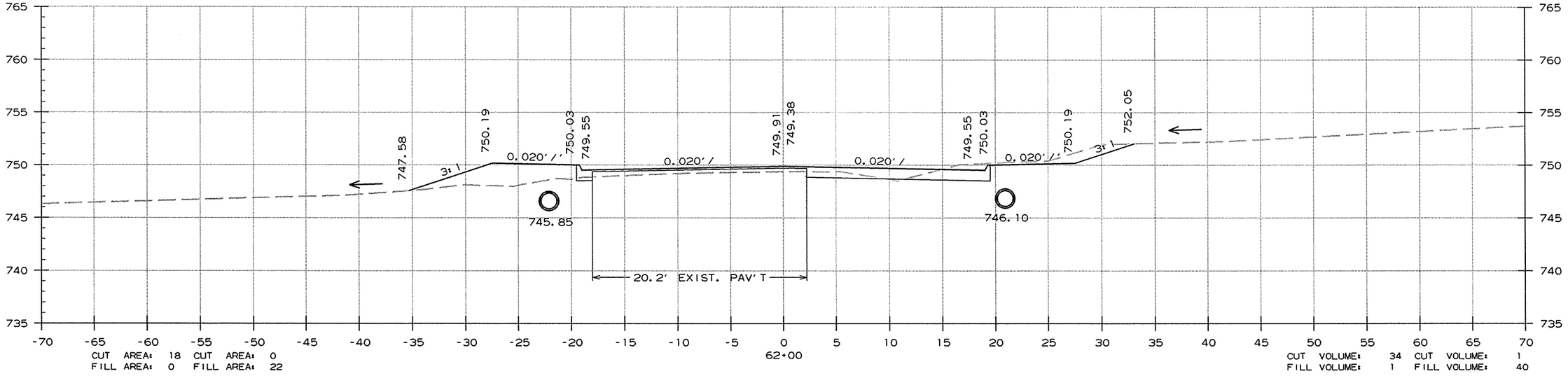
10/7/2014

R090319.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.		090319	121	154

(2) CROSS SECTIONS





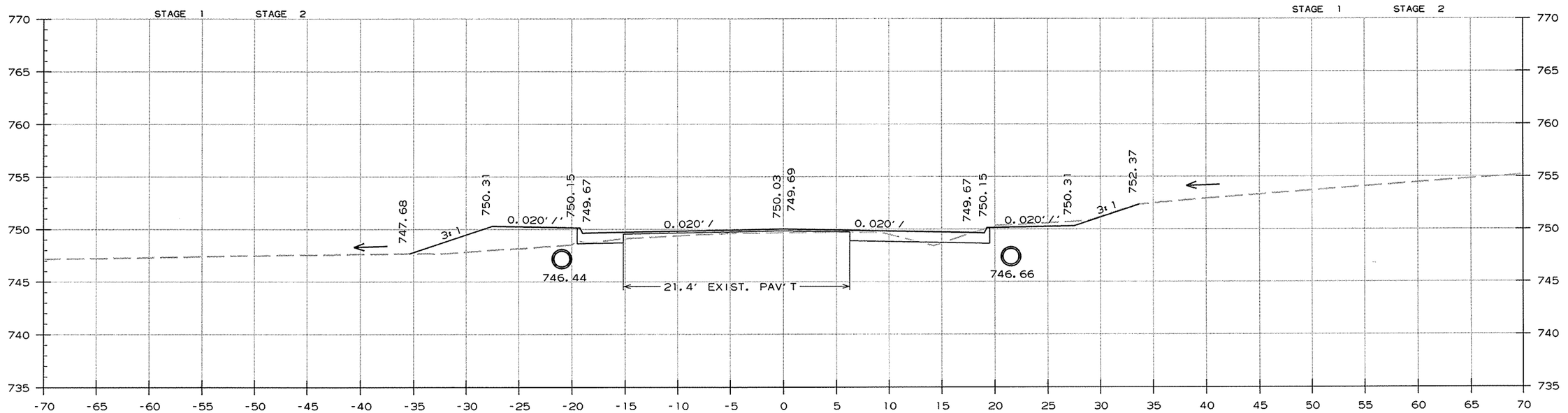
CROSS SECTION STA. 62+00 TO STA. 62+27

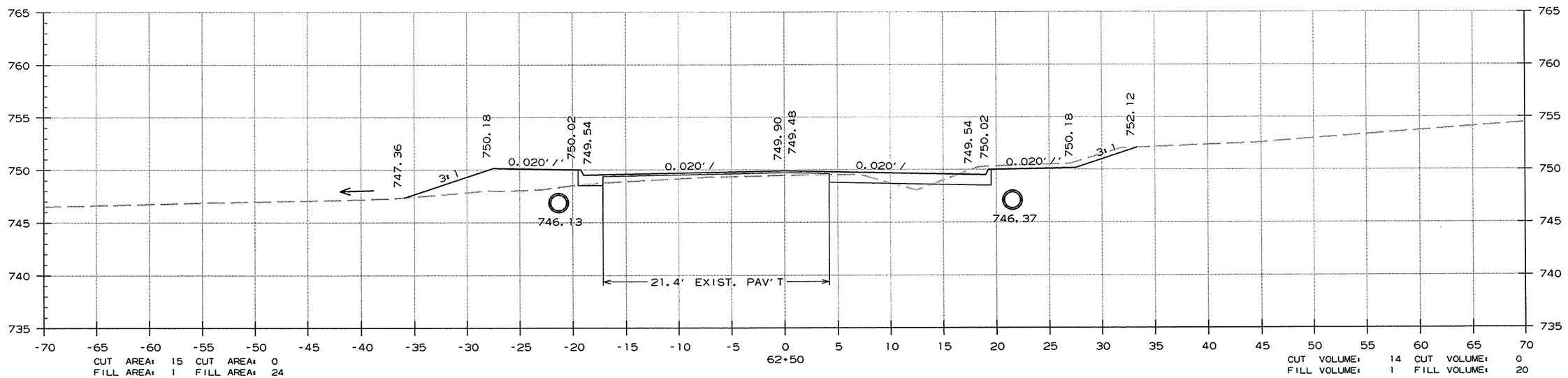
10/7/2014

R090319.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.		090319	122	154

(2) CROSS SECTIONS





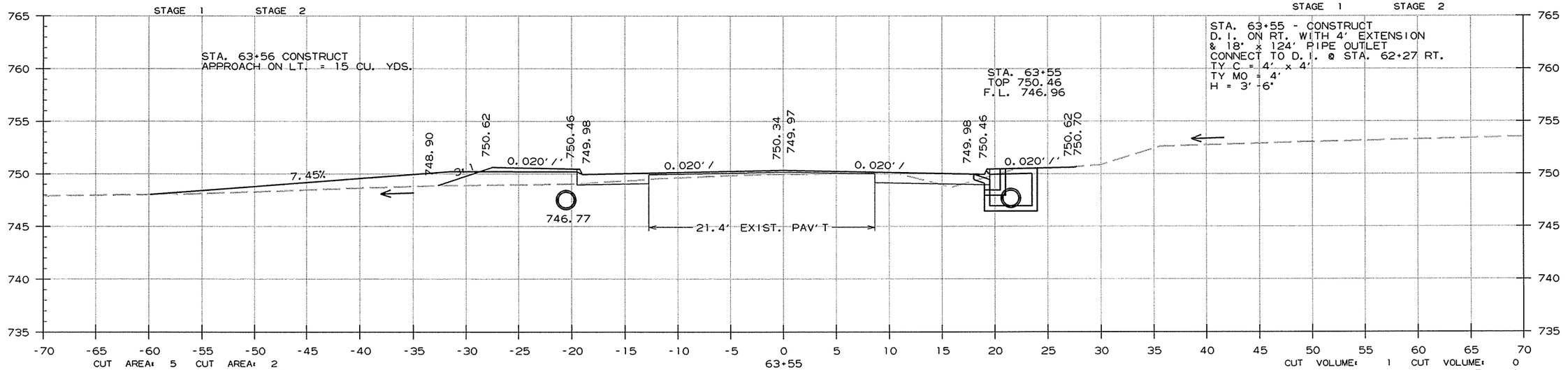
CROSS SECTION STA. 62+50 TO STA. 63+00

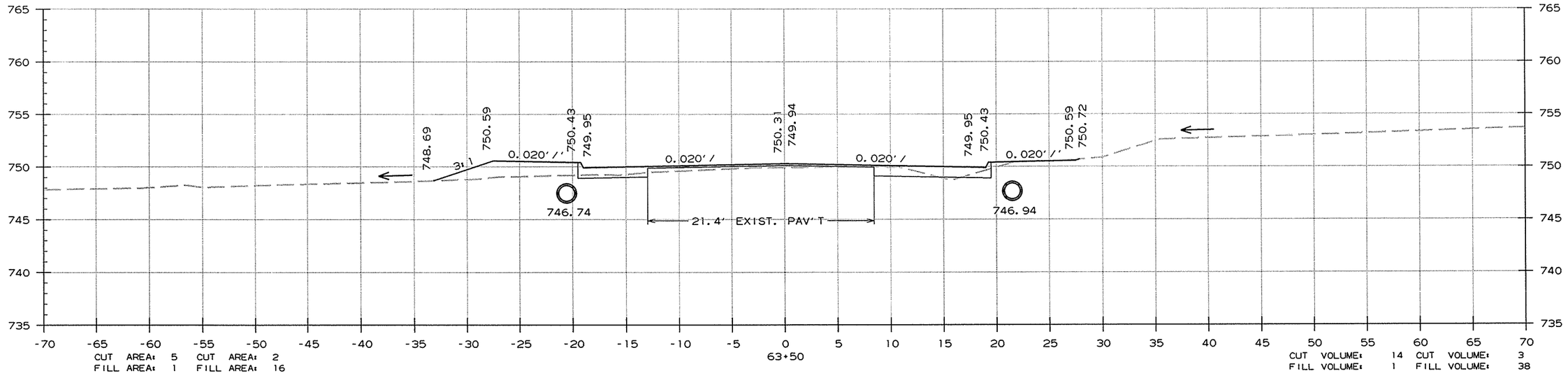
10/7/2014

R090319.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.		090319	123	154

(2) CROSS SECTIONS





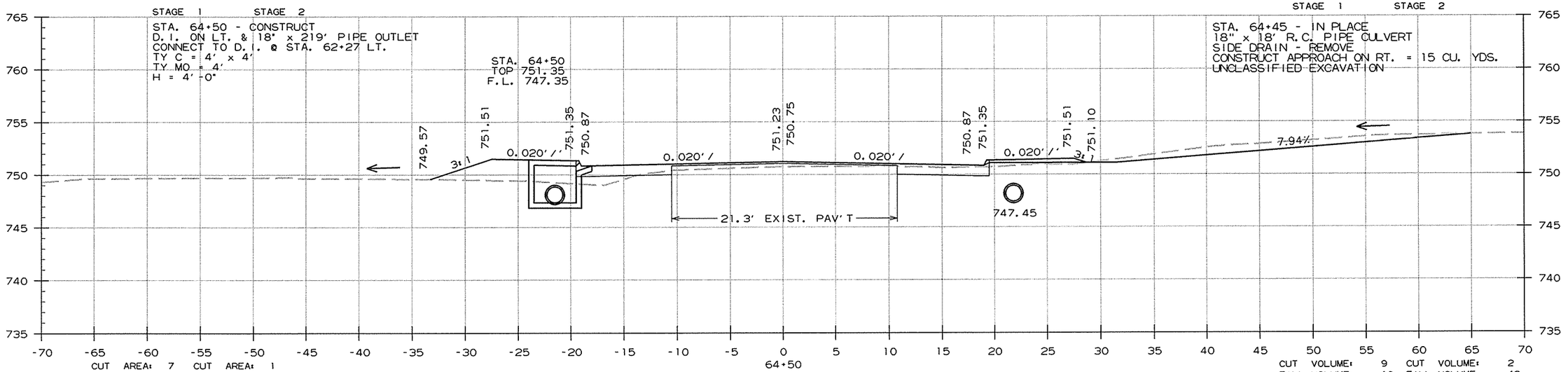
CROSS SECTION STA. 63+50 TO STA. 63+55

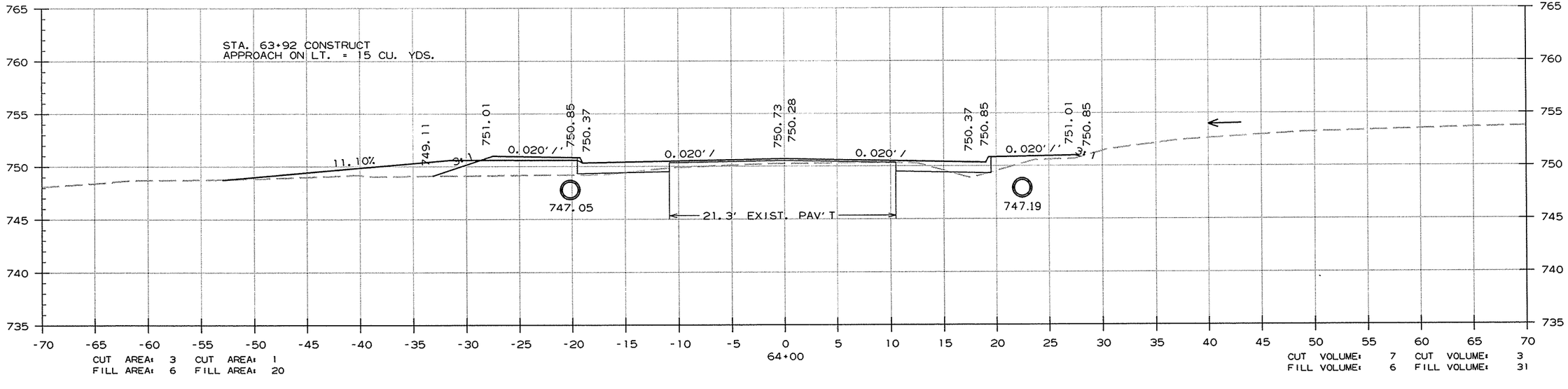
10/7/2014

R090319.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.		090319	124	154

(2) CROSS SECTIONS





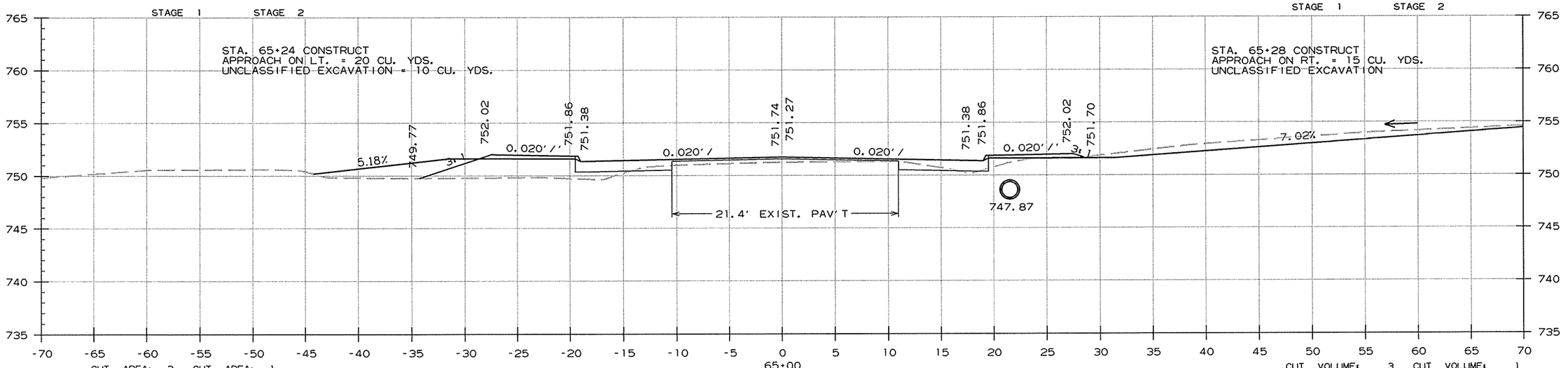
CROSS SECTION STA. 64+00 TO STA. 64+50

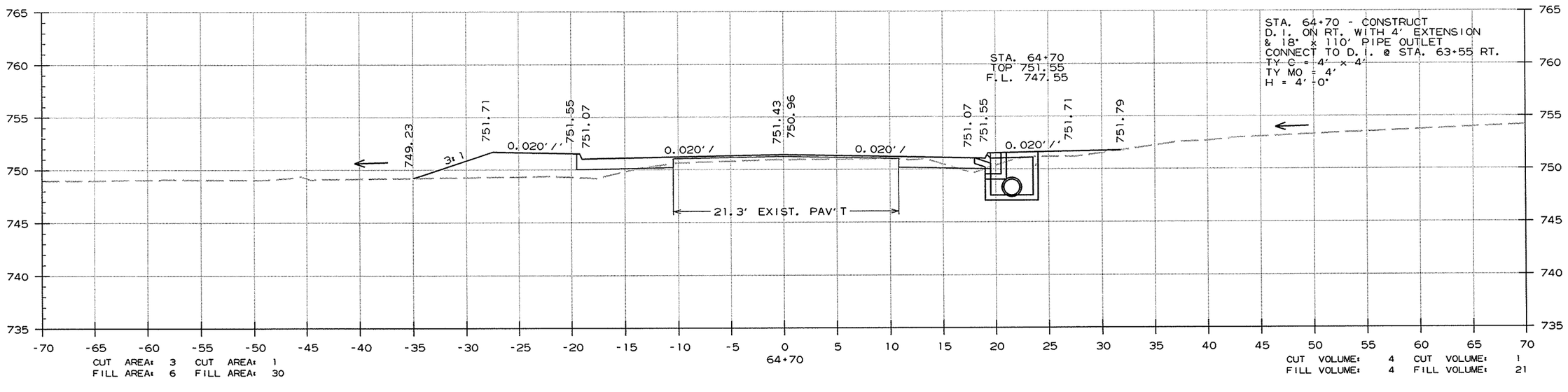
10/7/2014

R090319.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.		090319	125	154

(2) CROSS SECTIONS





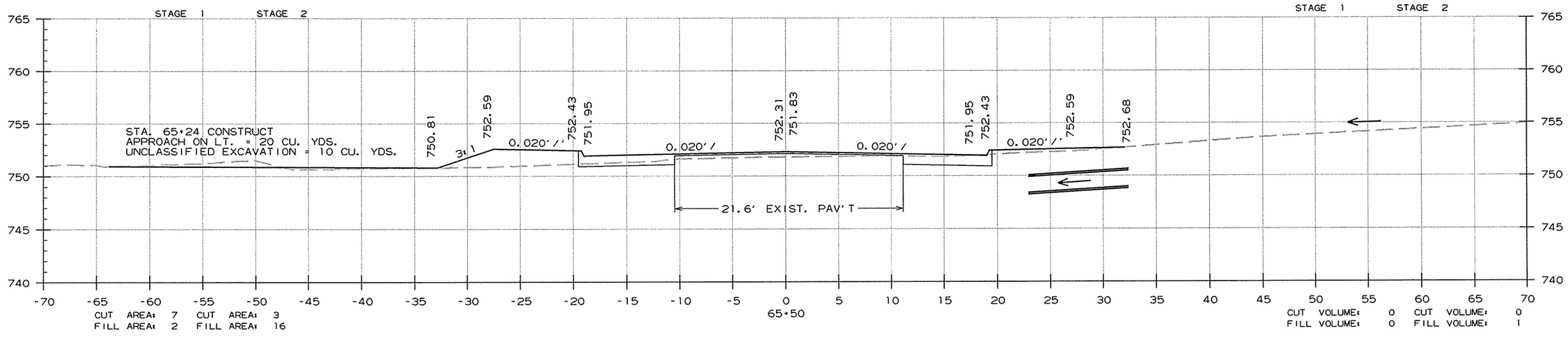
CROSS SECTION STA. 64+70 TO STA. 65+00

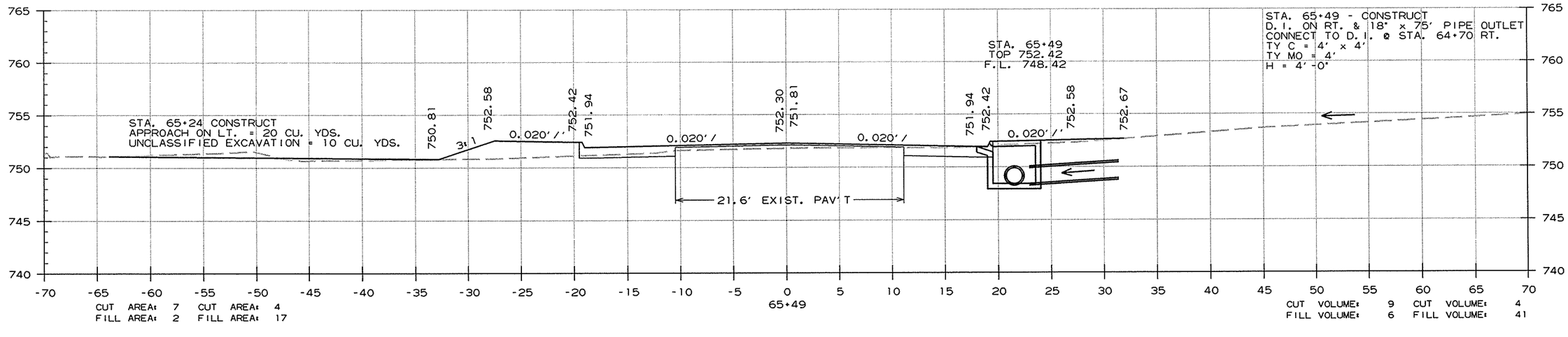
10/7/2014

R090319.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.		090319	126	154

(2) CROSS SECTIONS





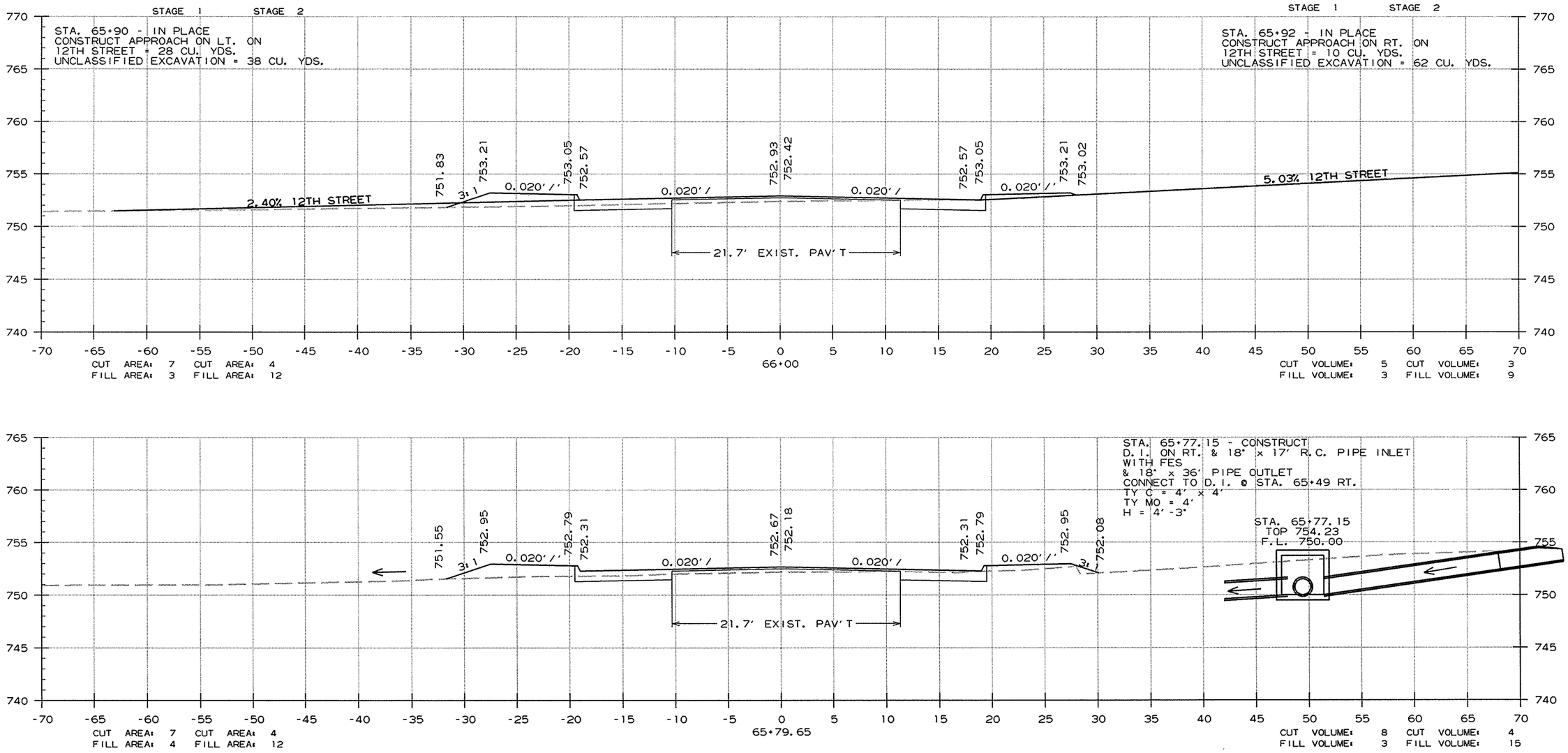
CROSS SECTION STA. 65+49 TO STA. 65+50

10/7/2014

R090319.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.		090319	127	154

(2) CROSS SECTIONS



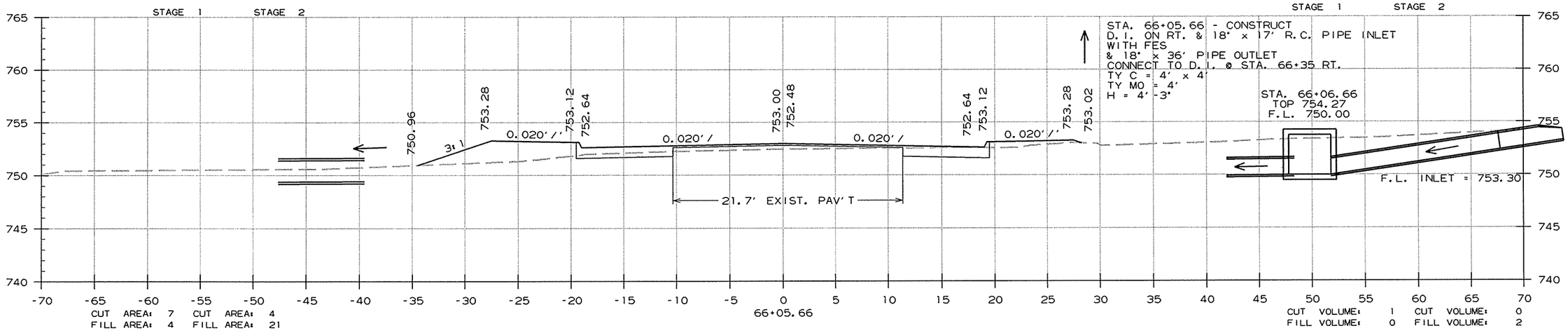
CROSS SECTION STA. 65+79.65 TO STA. 66+00

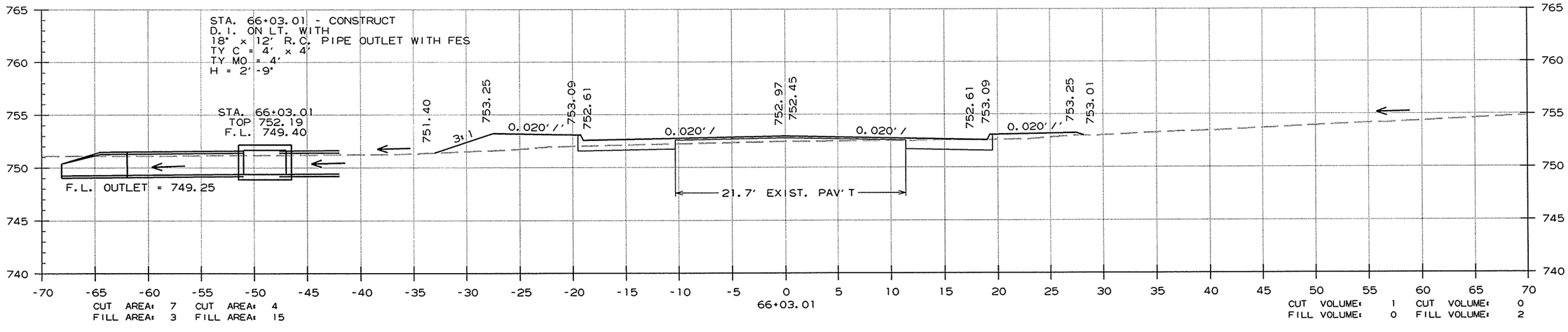
10/7/2014

R090319.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.		090319	128	154

(2) CROSS SECTIONS





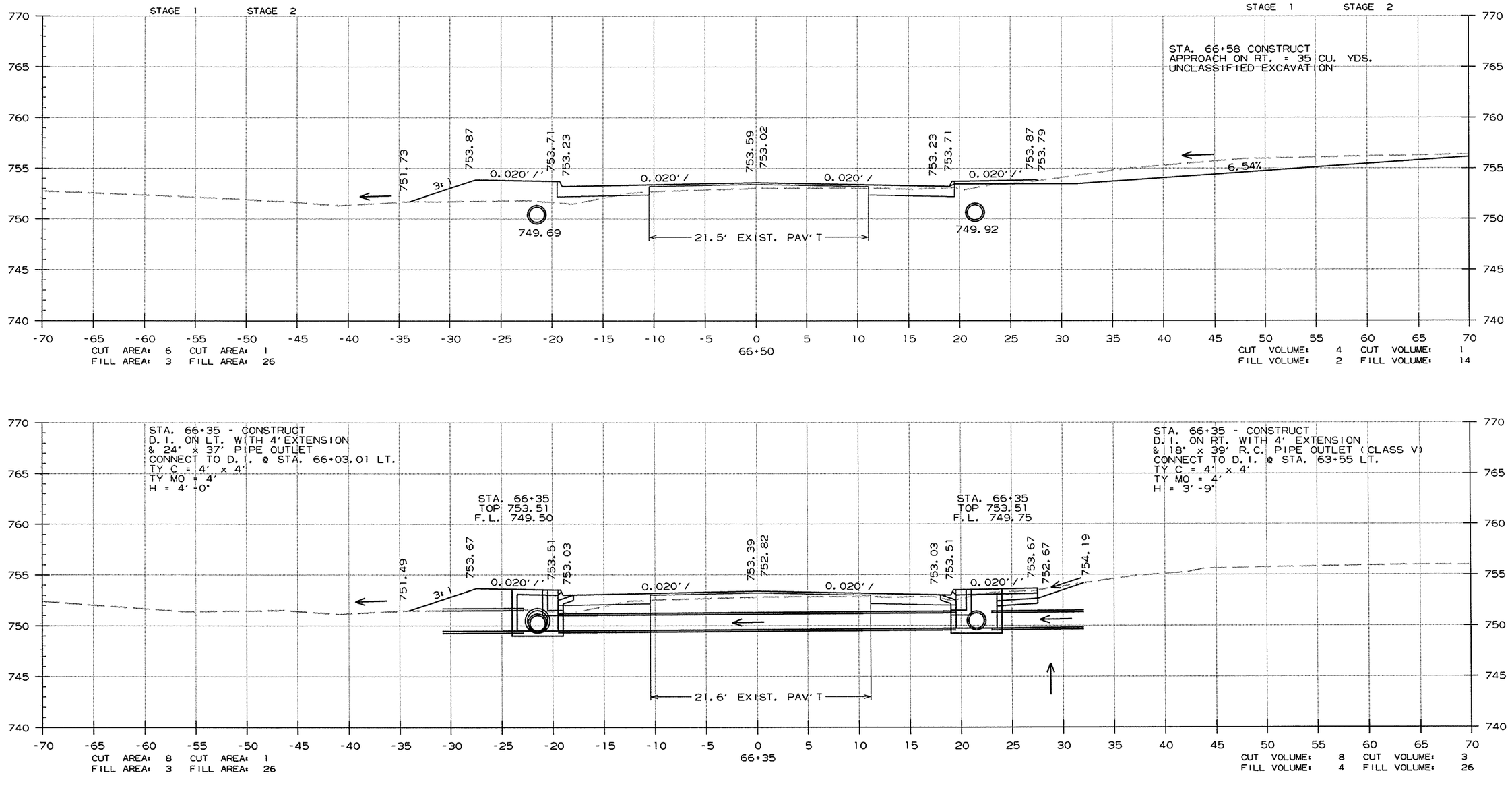
CROSS SECTION STA. 66+03.01 TO STA. 66+05.66

10/7/2014

R090319.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.		090319	129	154

(2) CROSS SECTIONS



CROSS SECTION STA. 66+35 TO STA. 66+50

10/7/2014

R090319.DGN

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
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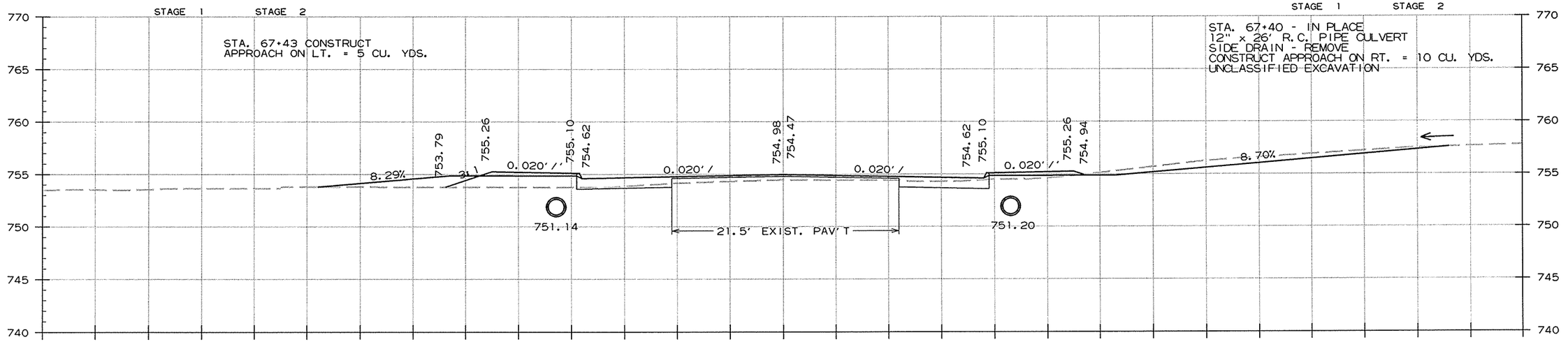
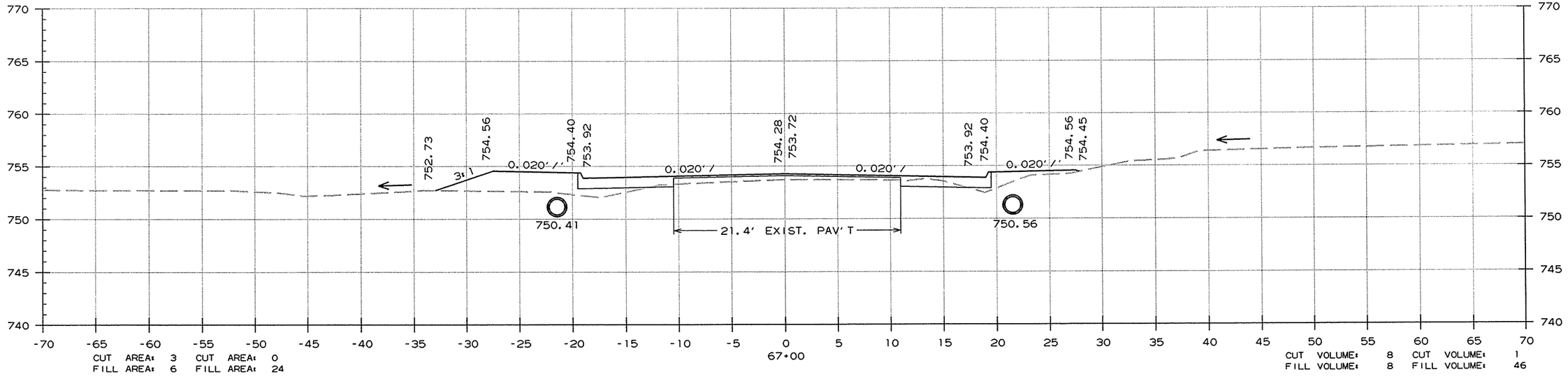
(2) CROSS SECTIONS





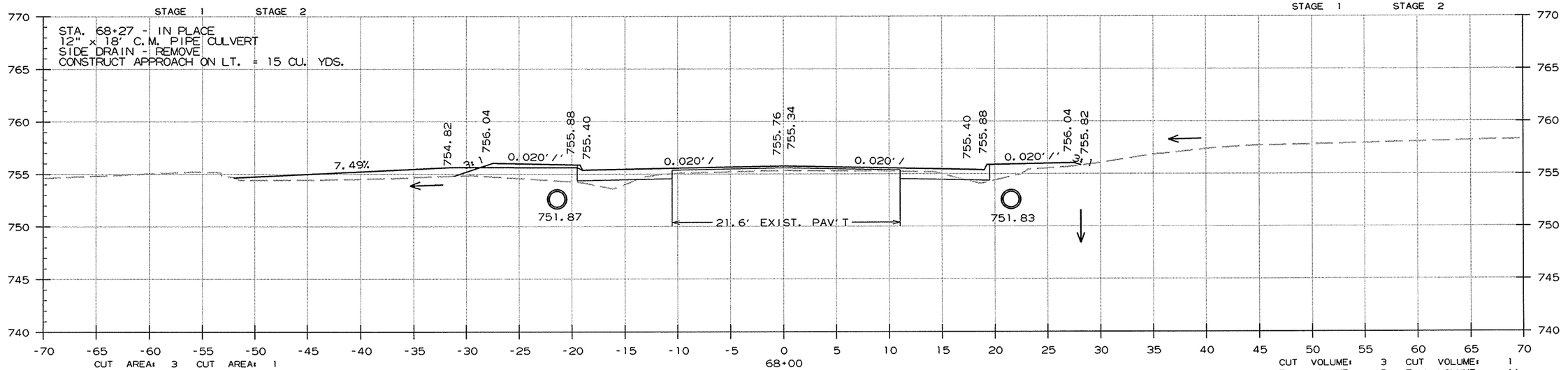
CROSS SECTION STA. 67+00 TO STA. 67+50

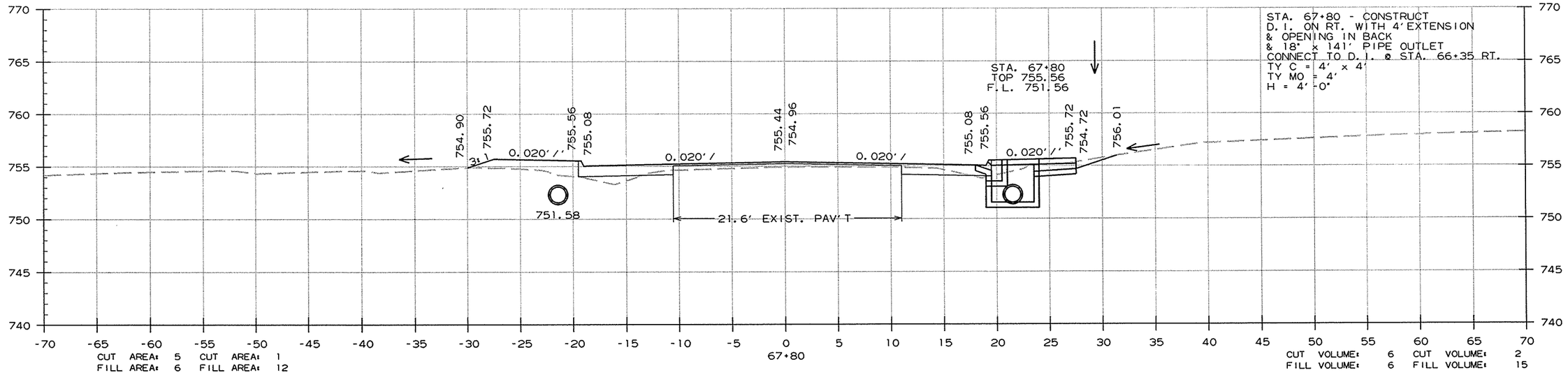
10/7/2014

R090319.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.		090319	131	154

(2) CROSS SECTIONS





CROSS SECTION STA. 67+80 TO STA. 68+00

10/7/2014

R090319.DGN

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
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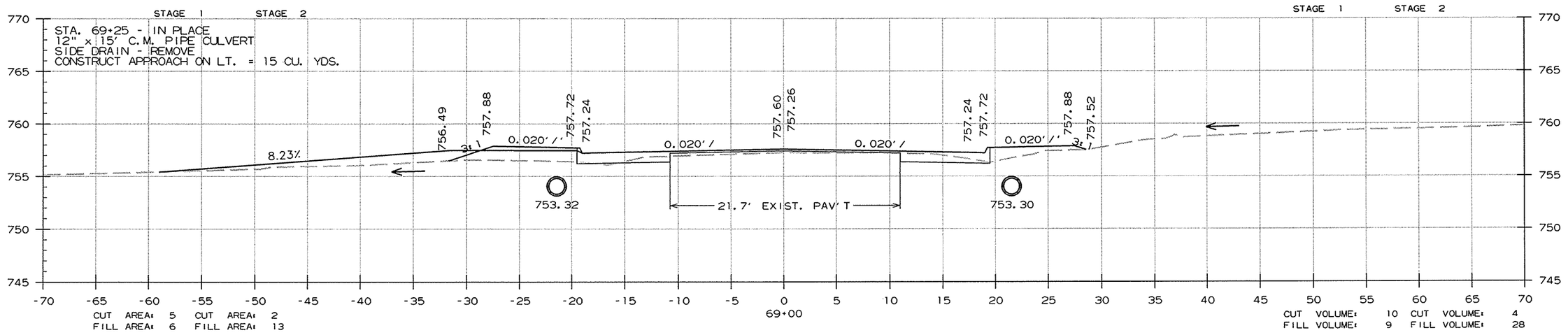
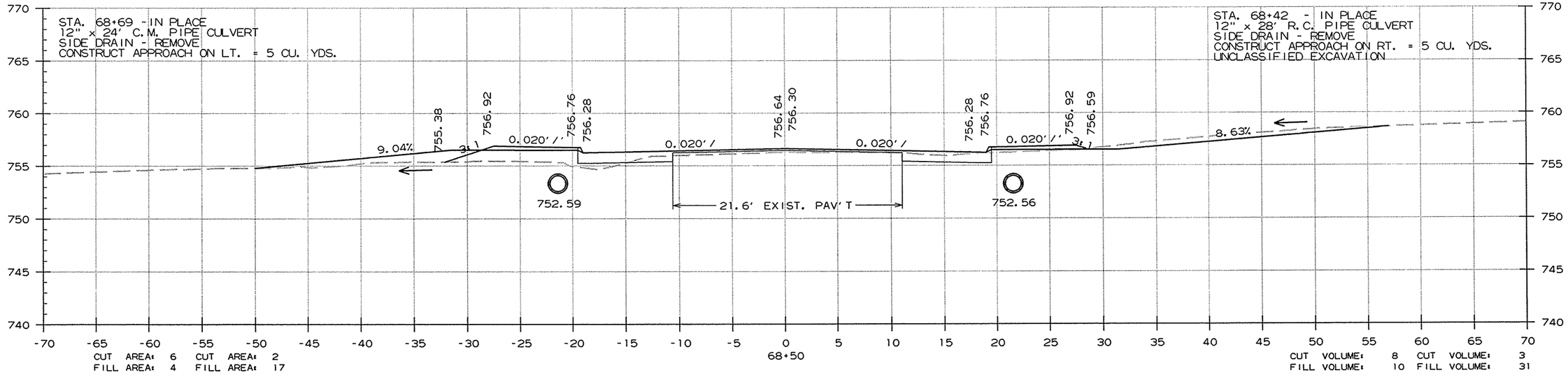
(2) CROSS SECTIONS





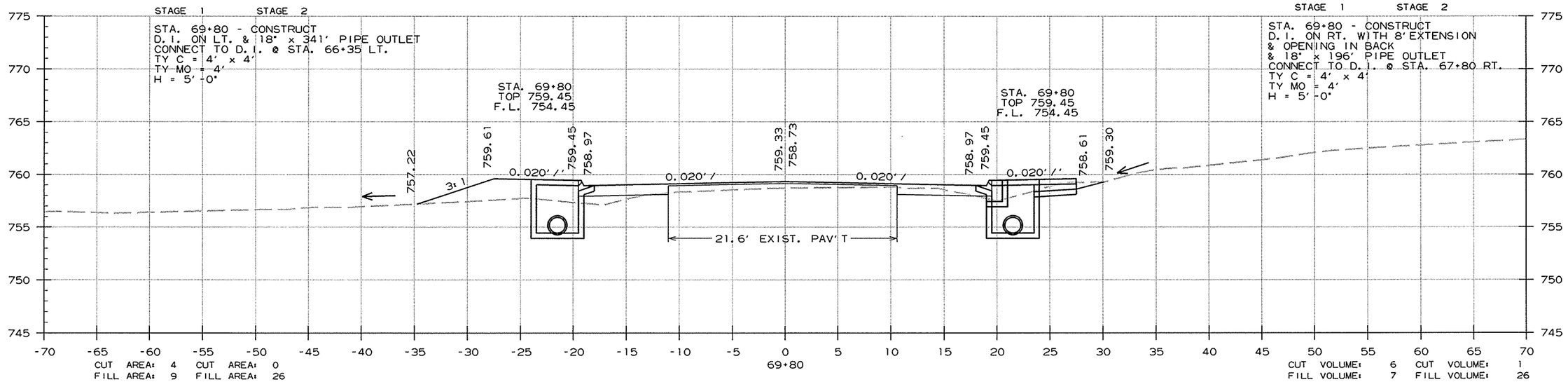
CROSS SECTION STA. 68+50 TO STA. 69+00

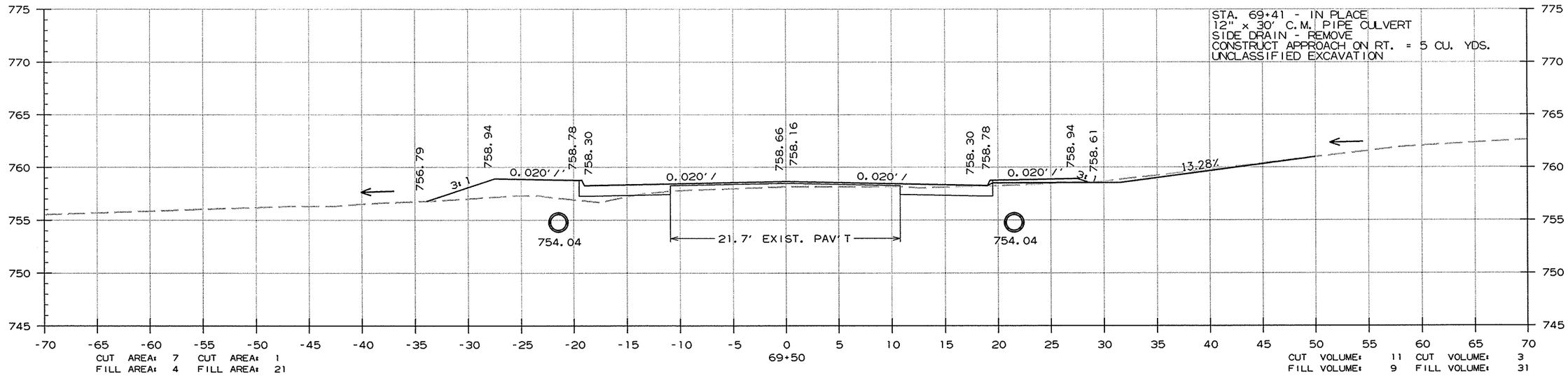
10/7/2014

R090319.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.		090319	133	154

(2) CROSS SECTIONS





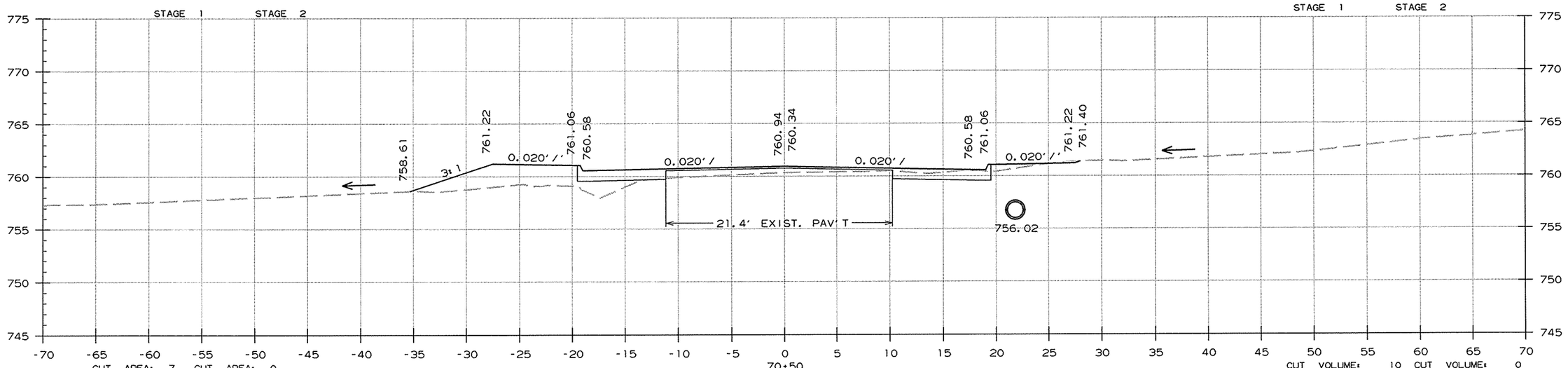
CROSS SECTION STA. 69+50 TO STA. 69+80

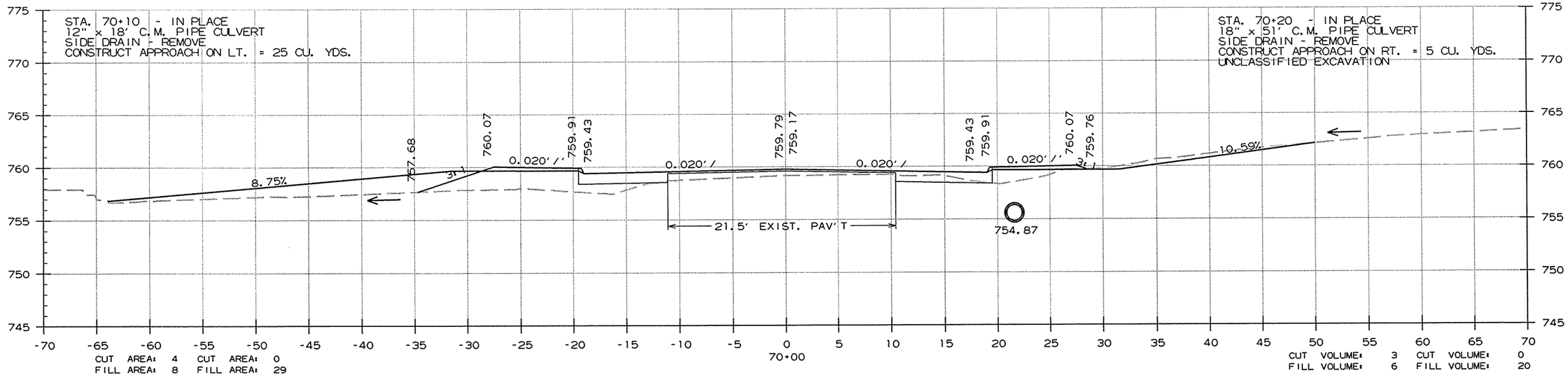
10/7/2014

R090319.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.		090319	134	154

(2) CROSS SECTIONS





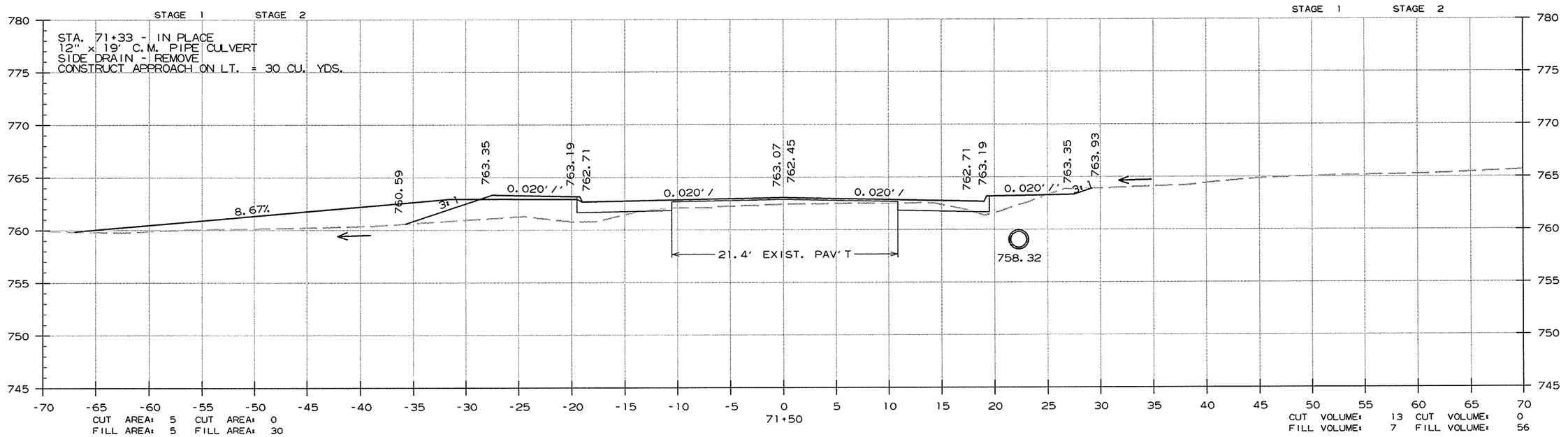
CROSS SECTION STA. 70+00 TO STA. 70+50

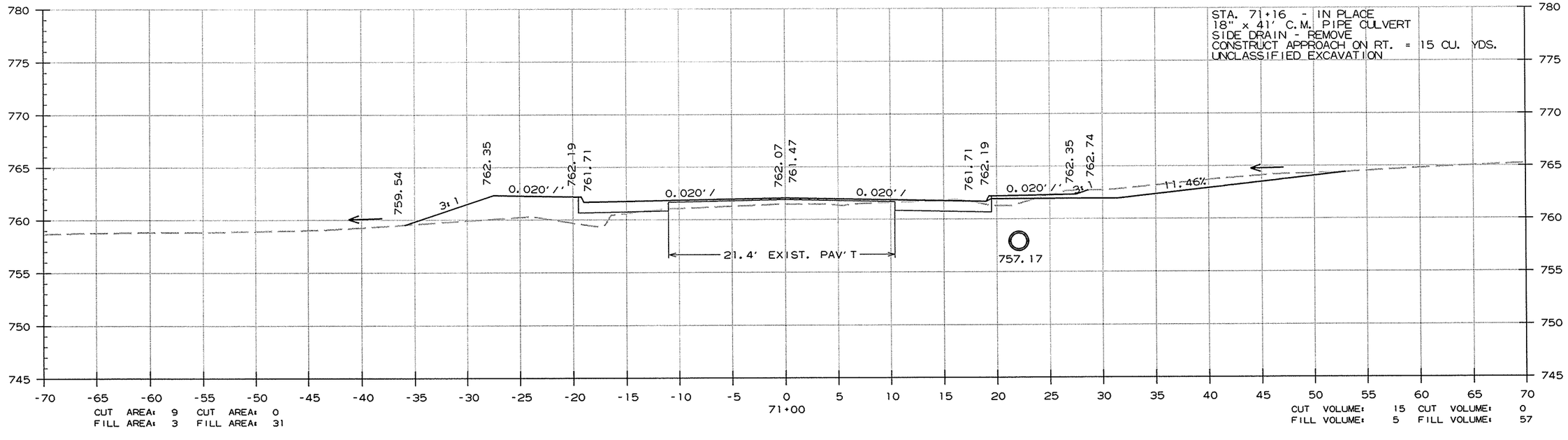
10/7/2014

R090319.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.		090319	135	154

(2) CROSS SECTIONS





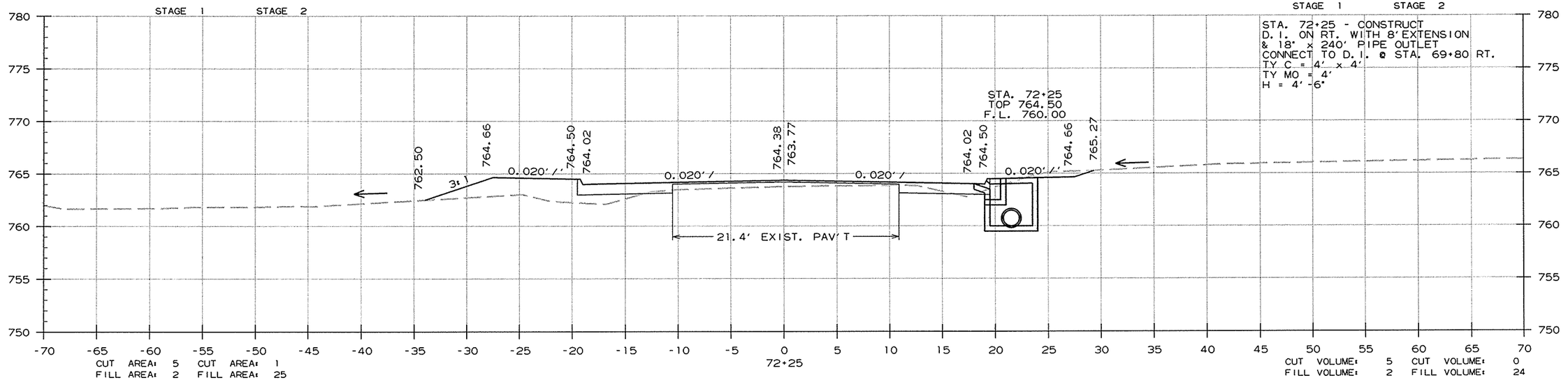
CROSS SECTION STA. 71+00 TO STA. 71+50

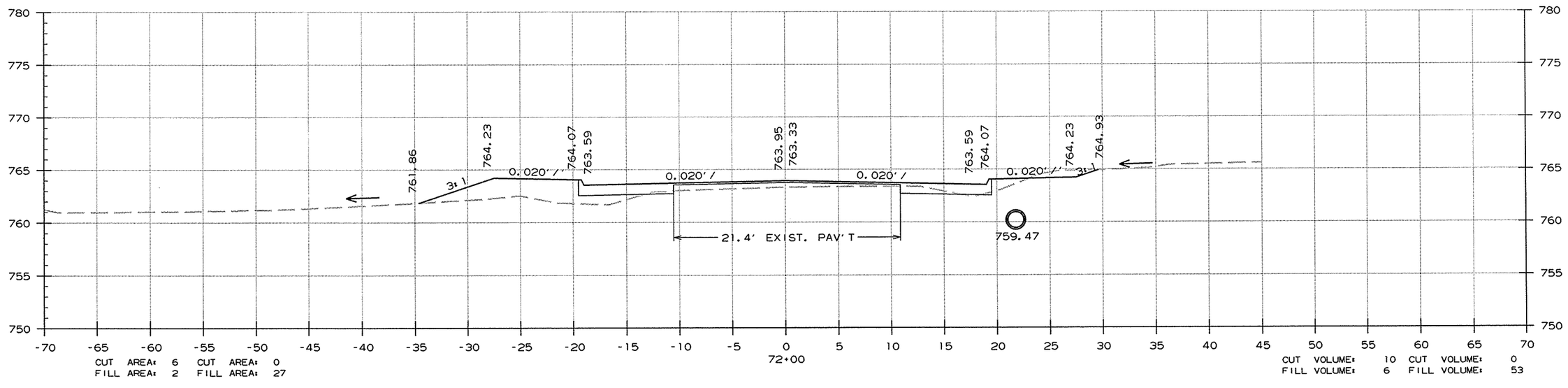
10/7/2014

R090319.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.		090319	136	154

(2) CROSS SECTIONS





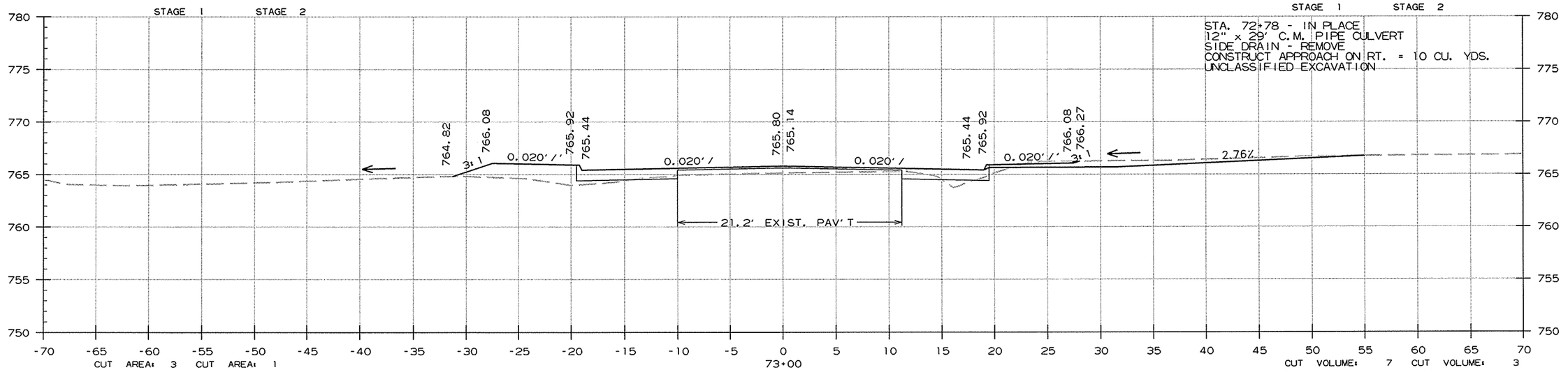
CROSS SECTION STA. 72+00 TO STA. 72+25

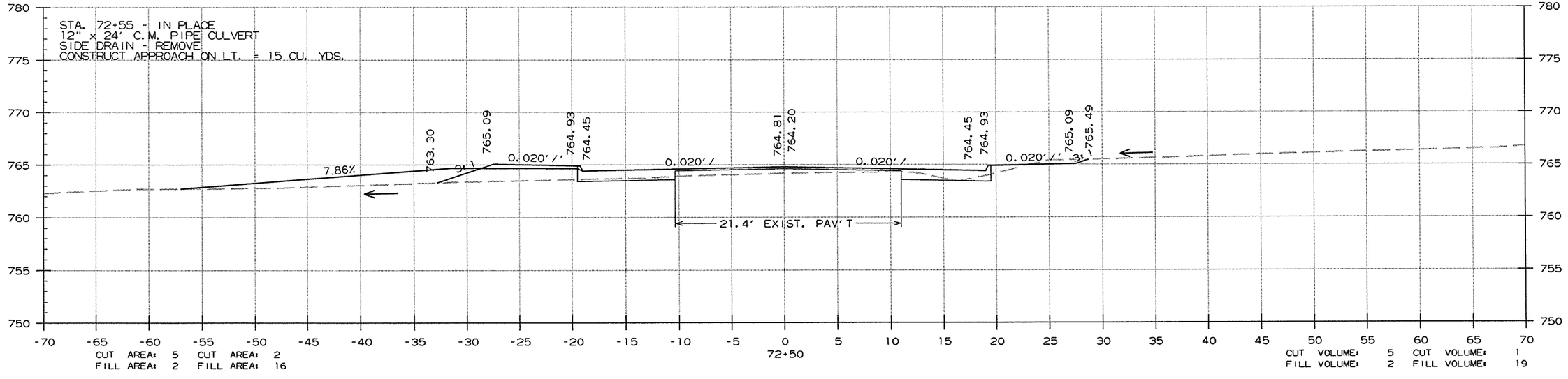
10/7/2014

R090319.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.		090319	137	154

(2) CROSS SECTIONS





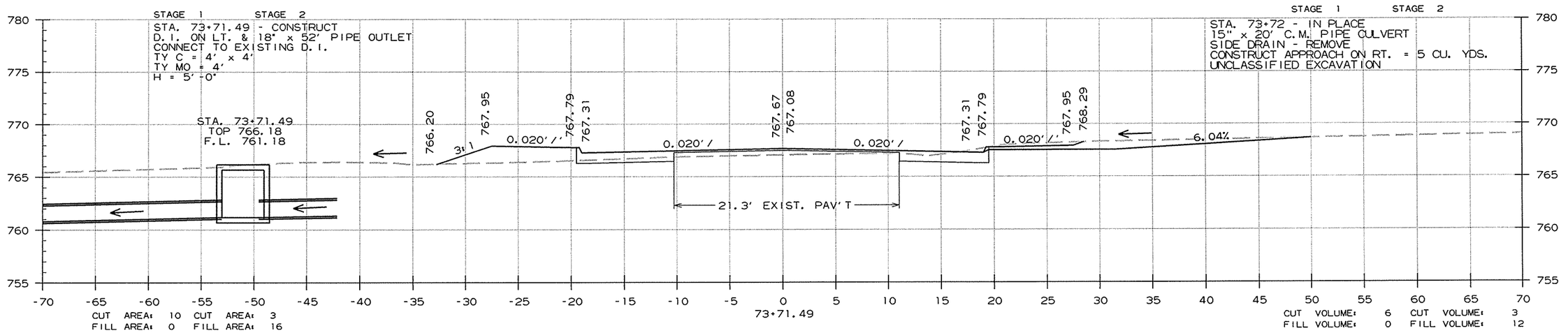
CROSS SECTION STA. 72+50 TO STA. 73+00

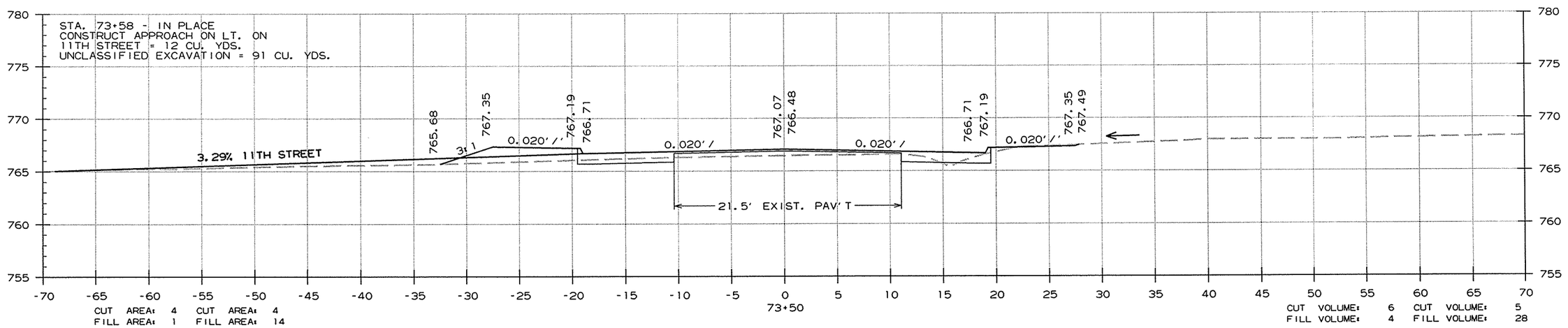
10/7/2014

R090319.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.		090319	138	154

(2) CROSS SECTIONS





CROSS SECTION STA. 73+50 TO STA. 73+71.49

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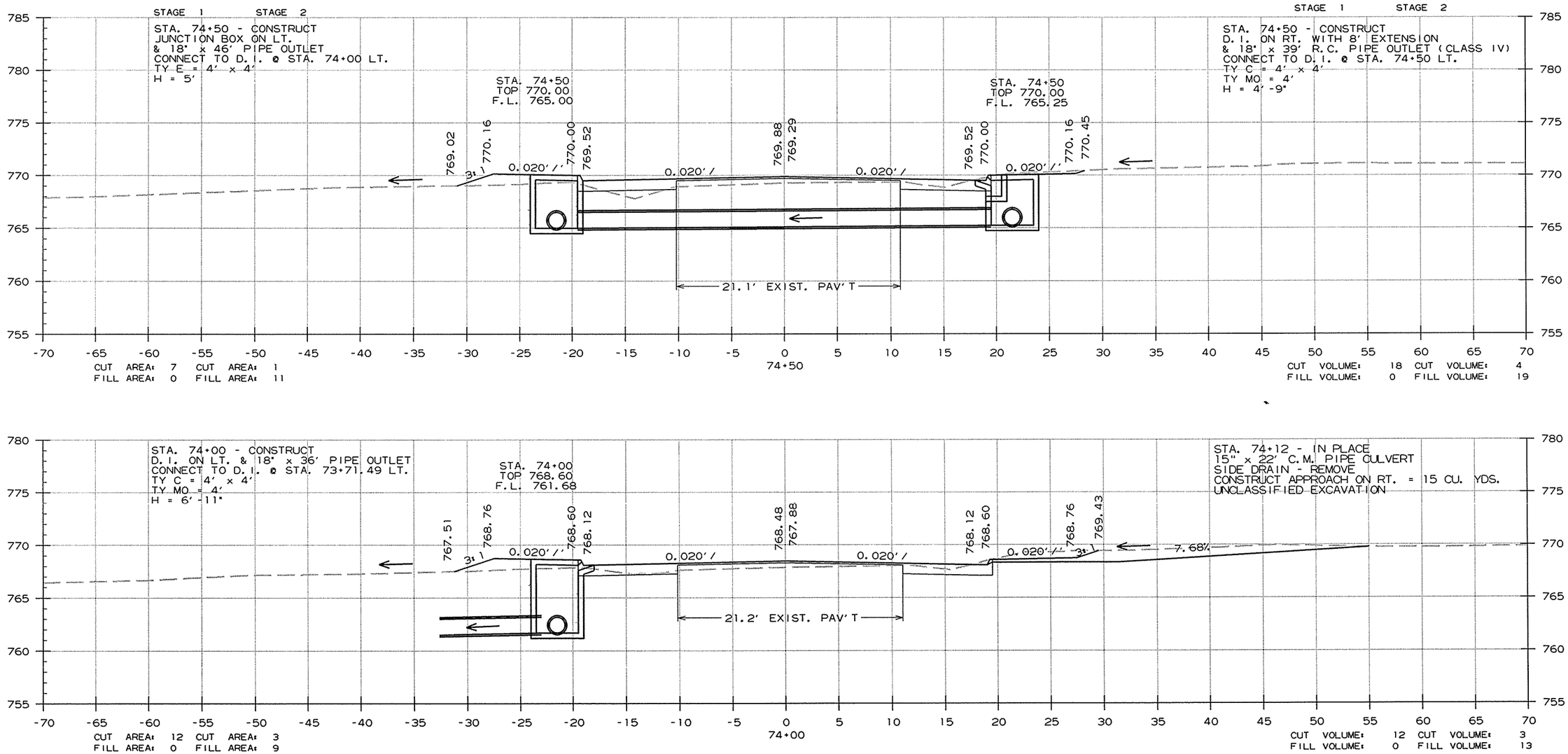
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090319	139	154

(2) CROSS SECTIONS



CROSS SECTION STA. 74+00 TO STA. 74+50

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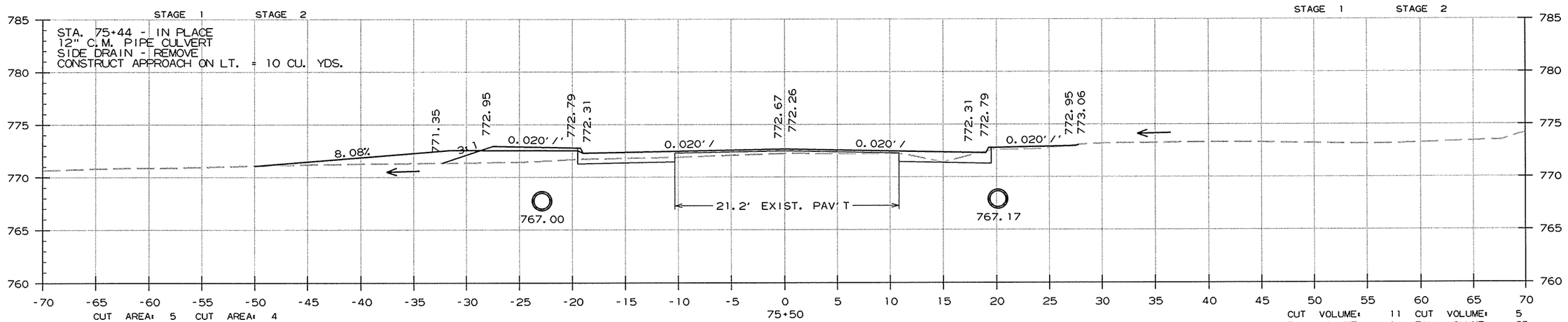
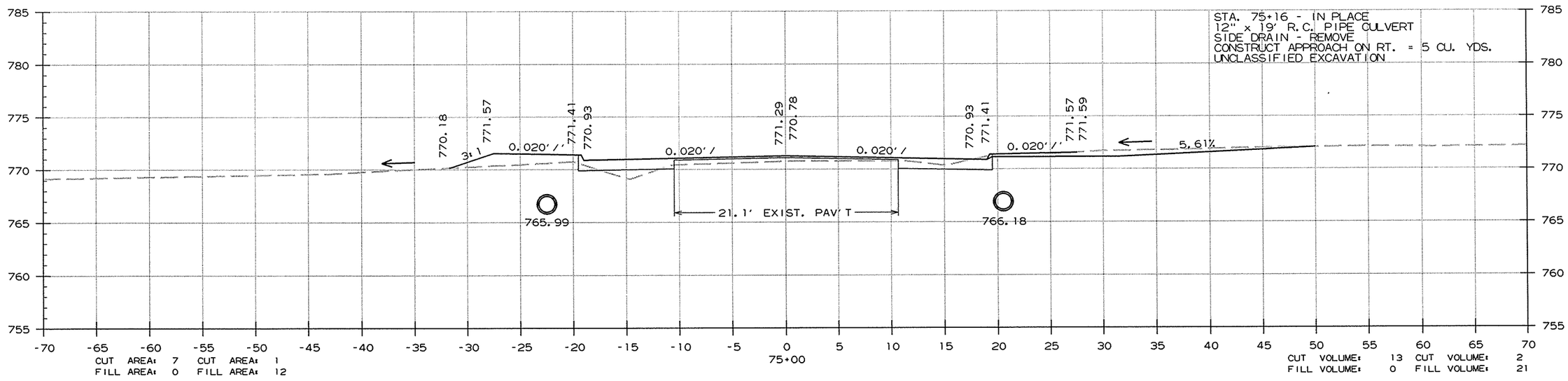
R090319.DGN

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.		090319	140	154

(2) CROSS SECTIONS





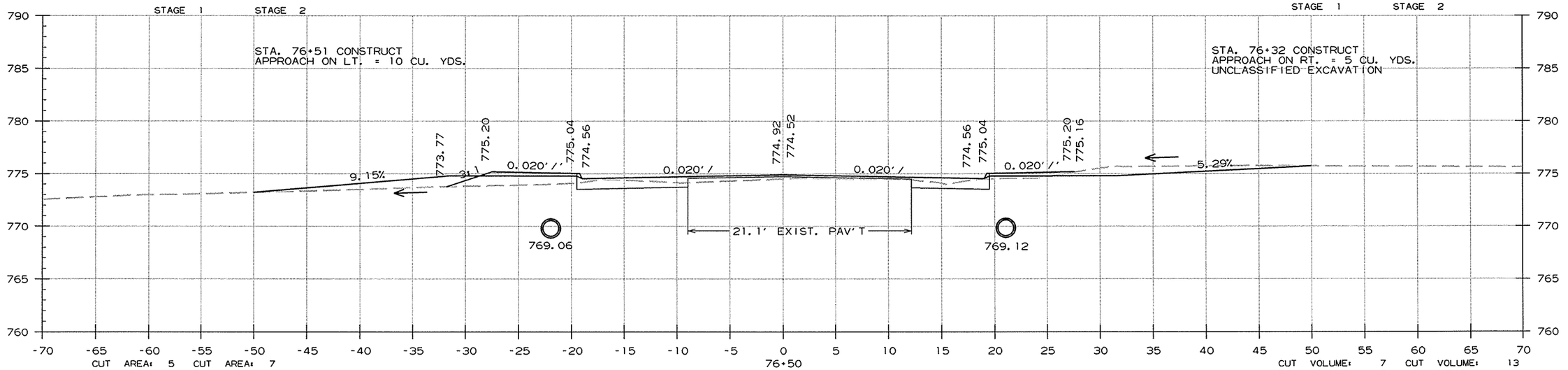
CROSS SECTION STA. 75+00 TO STA. 75+50

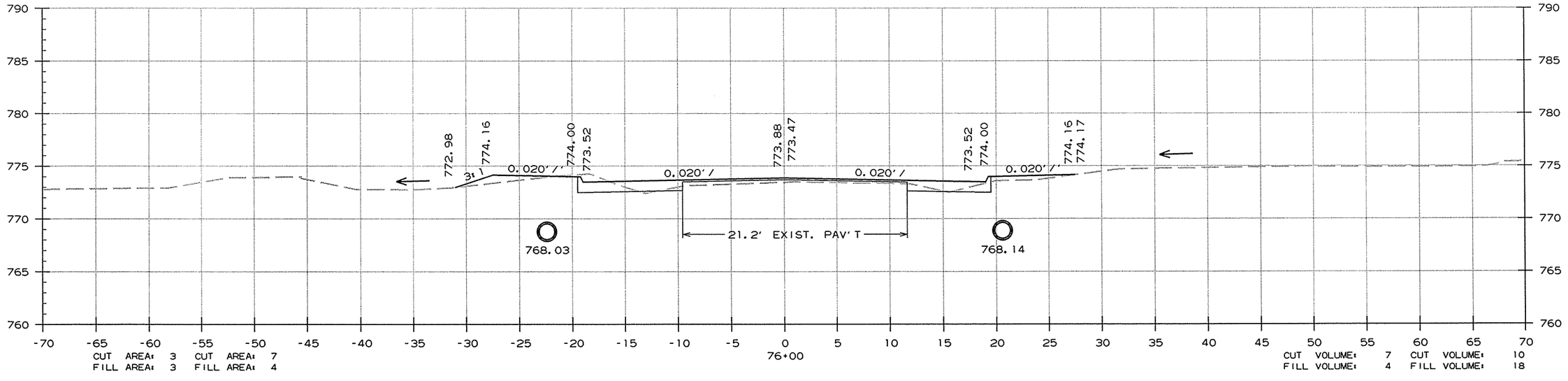
10/7/2014

R090319.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.		090319	141	154

(2) CROSS SECTIONS





CROSS SECTION STA. 76+00 TO STA. 76+50

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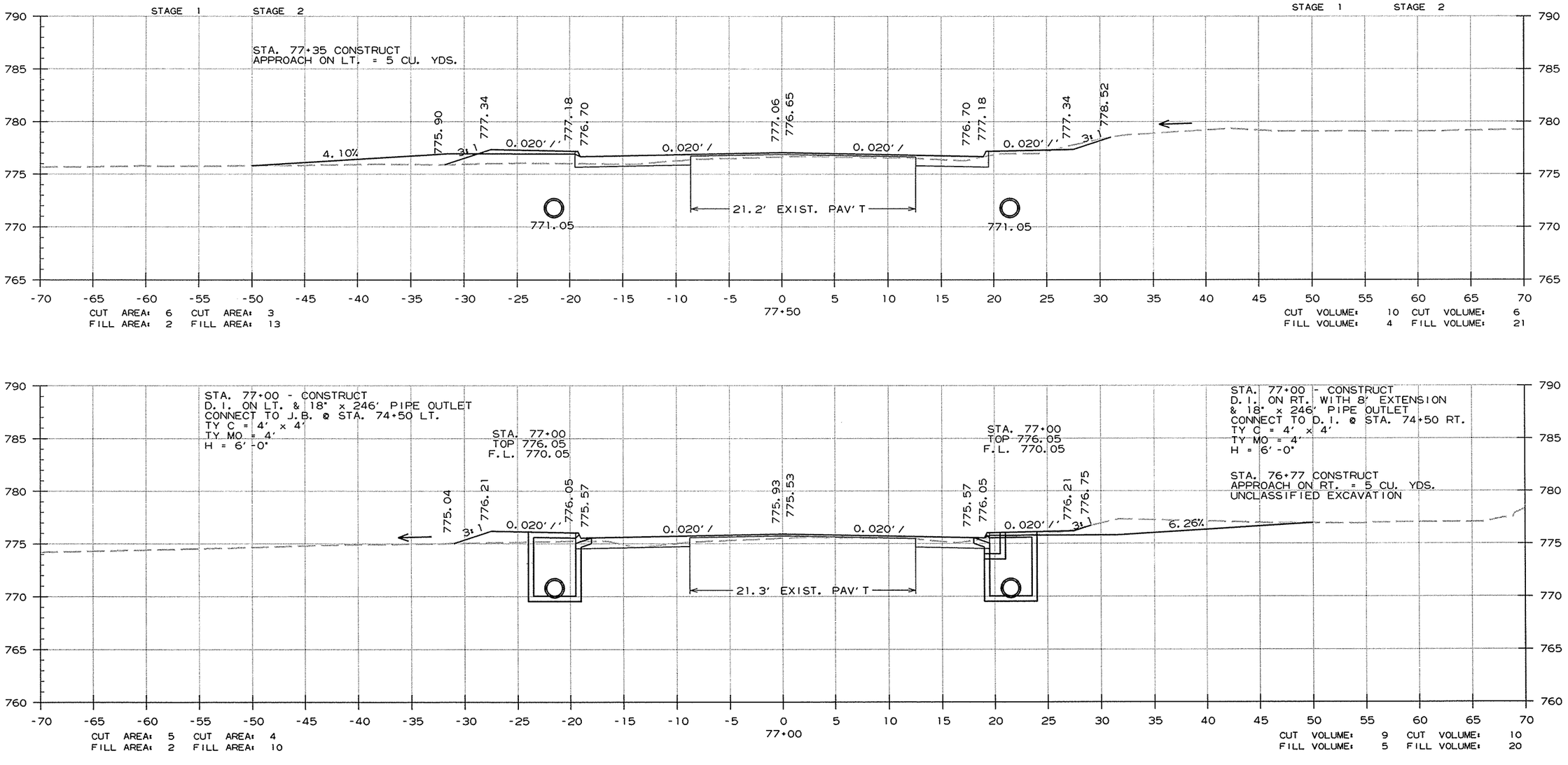
R090319.DGN

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.		090319	142	154

(2) CROSS SECTIONS



CROSS SECTION STA. 77+00 TO STA. 77+50

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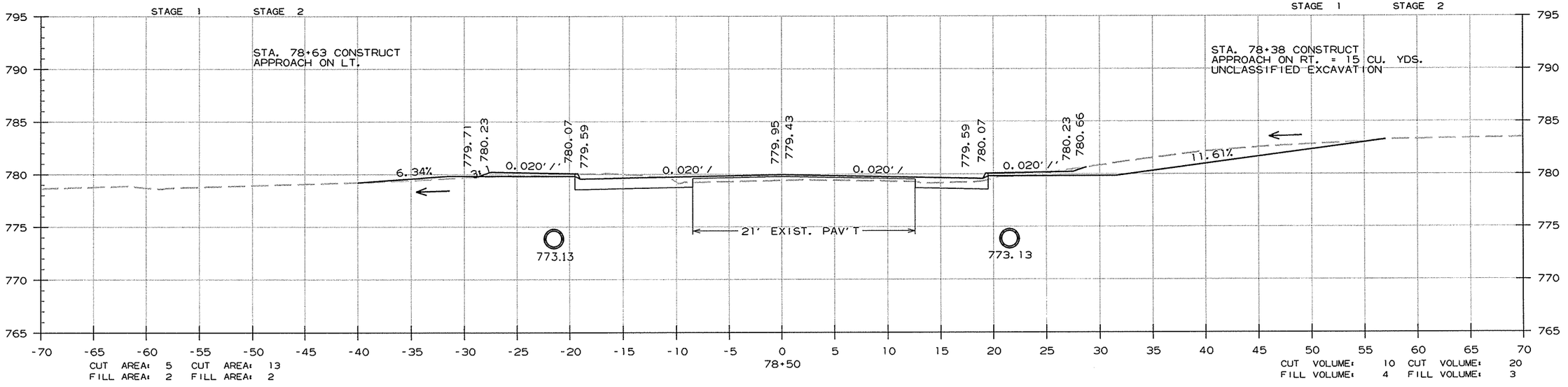
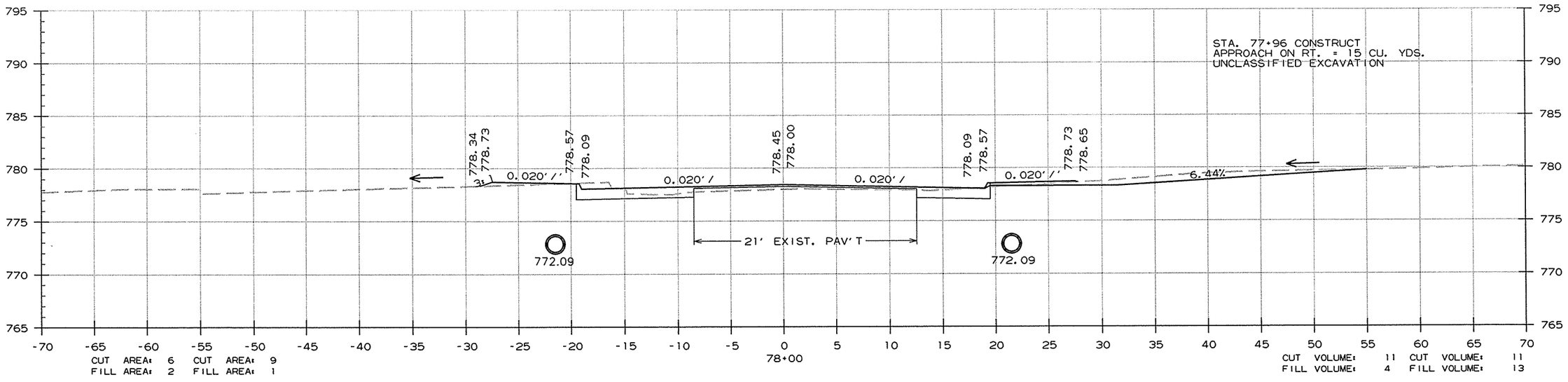
R090319.DGN

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.		090319	143	154

(2) CROSS SECTIONS





CROSS SECTION STA. 78+00 TO STA. 78+50

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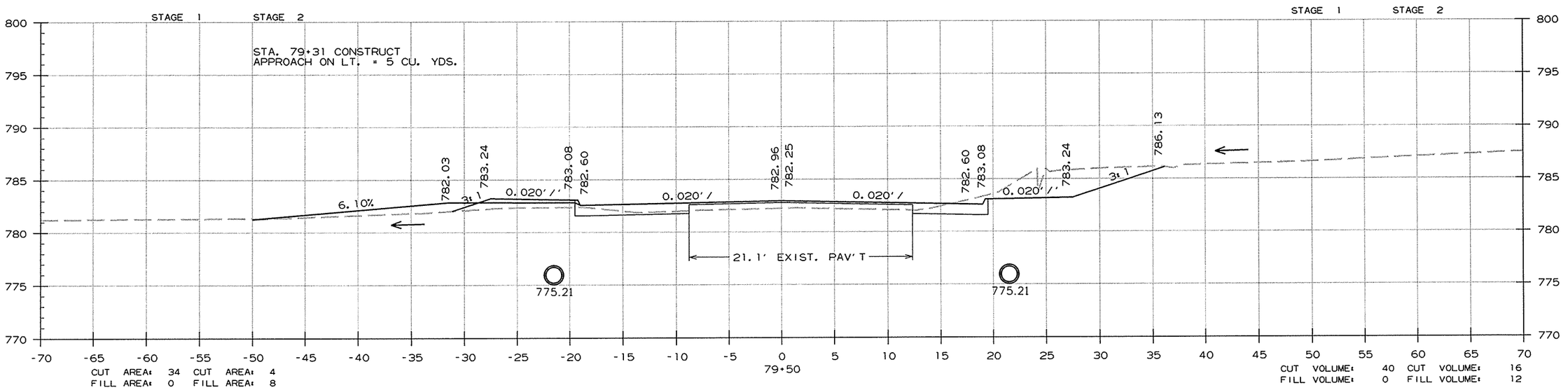
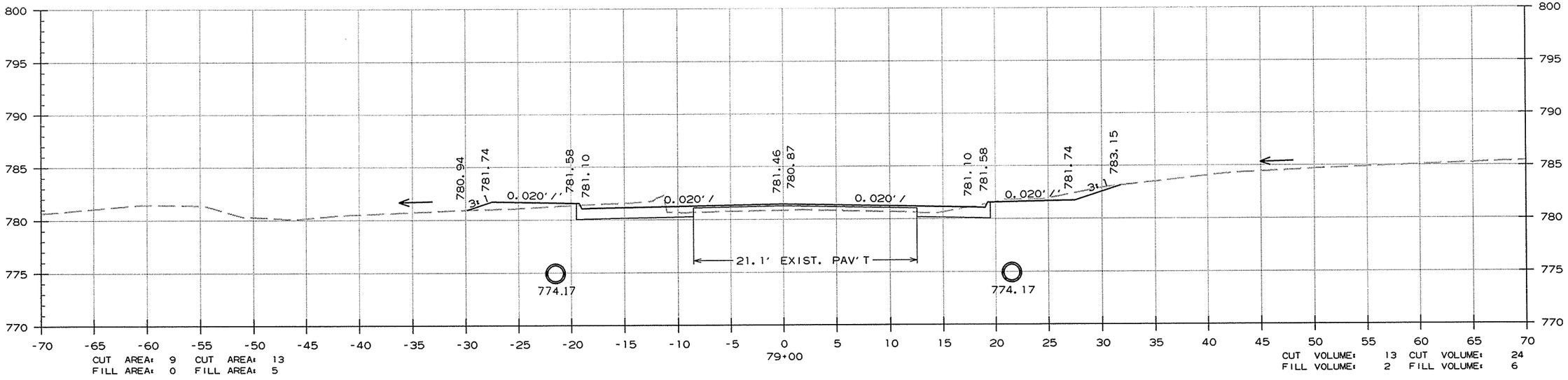
R090319.DGN

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.		090319	144	154

(2) CROSS SECTIONS





CROSS SECTION STA. 79+00 TO STA. 79+50

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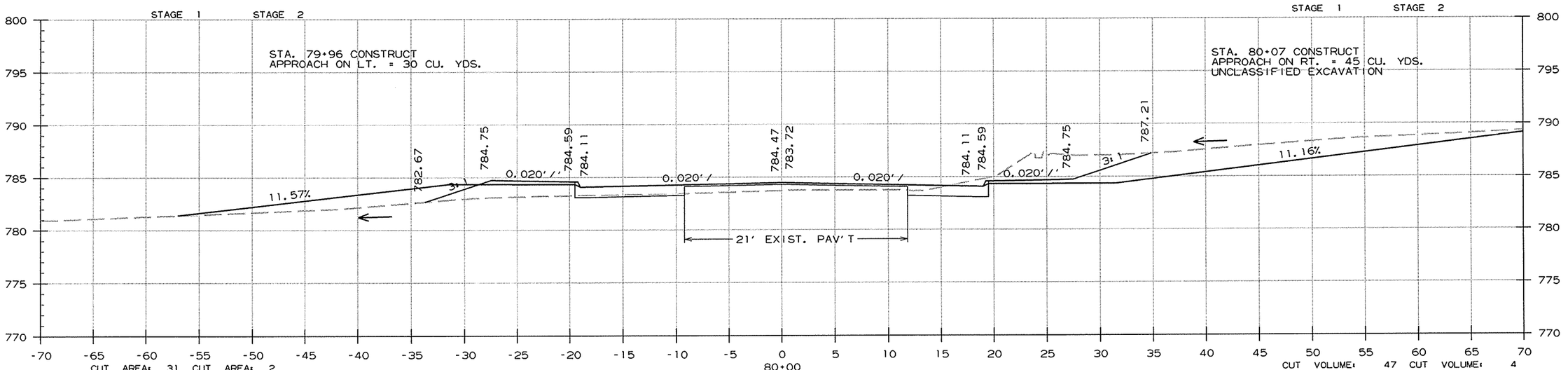
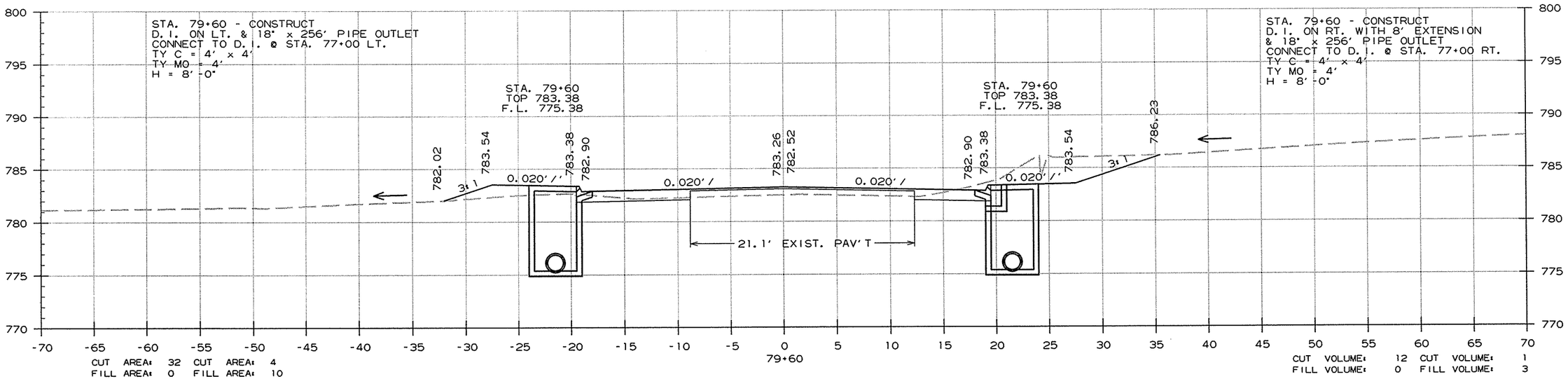
R090319.DGN

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.		090319	145	154

(2) CROSS SECTIONS





CROSS SECTION STA. 79+60 TO STA. 80+00

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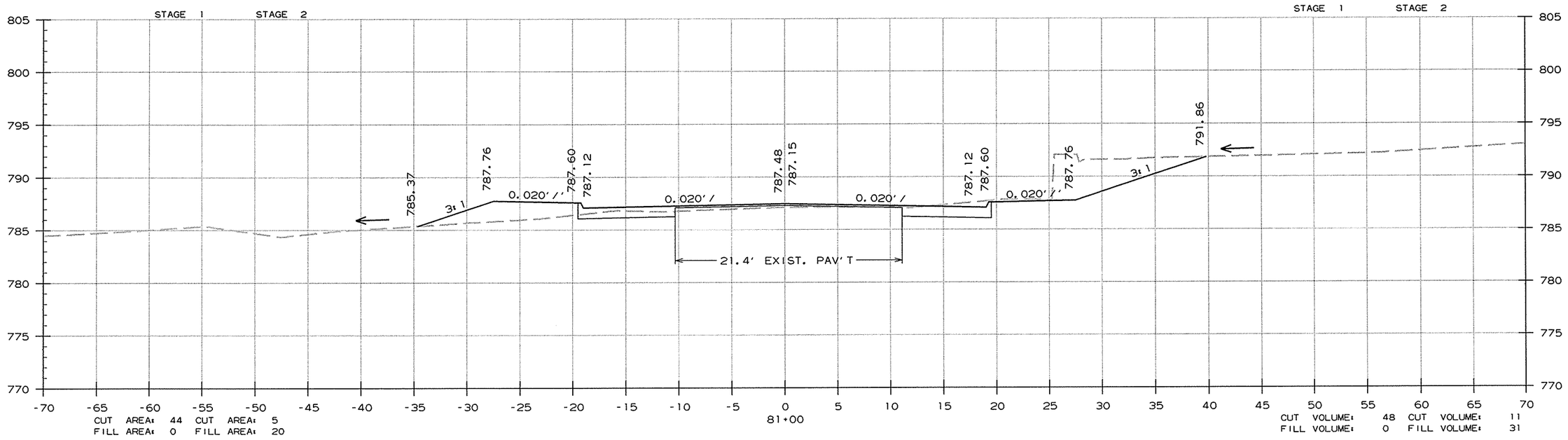
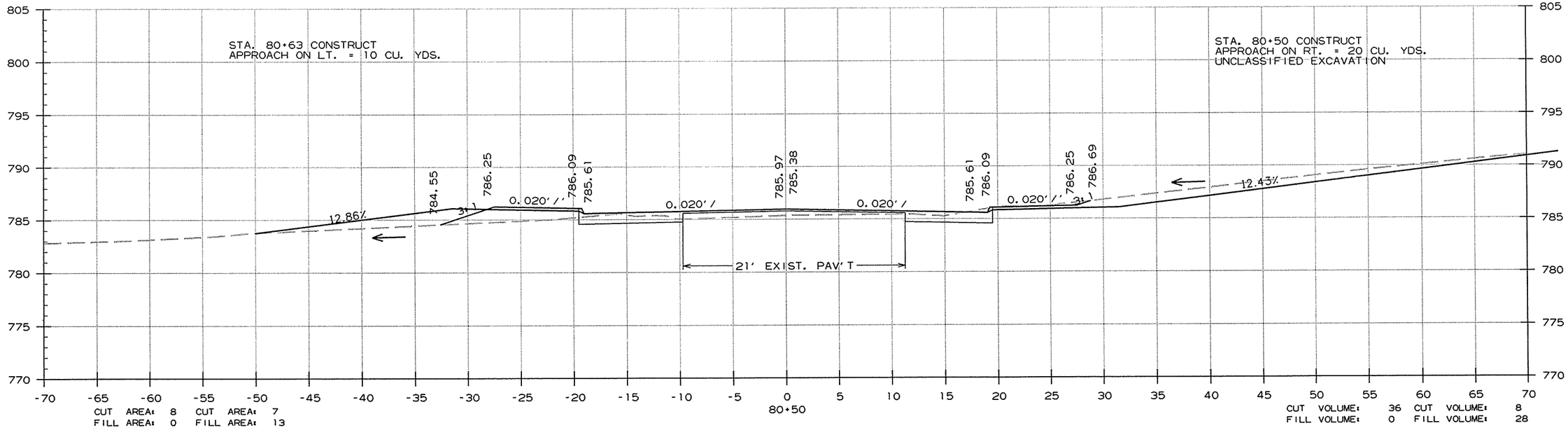
R090319.DGN

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.		090319	146	154

(2) CROSS SECTIONS





CROSS SECTION STA. 80+50 TO STA. 81+00

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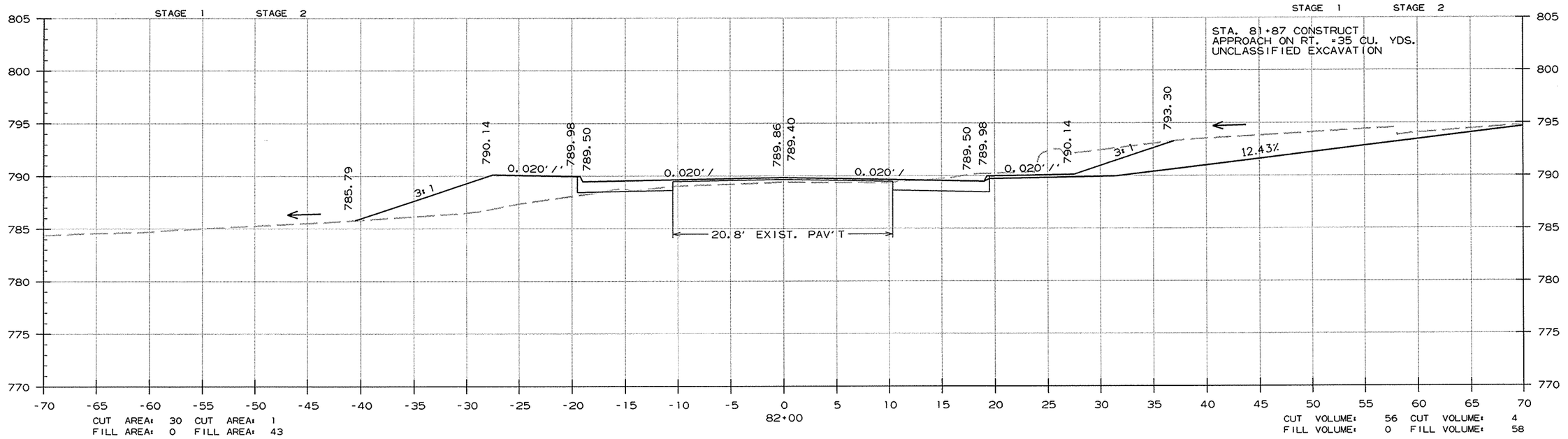
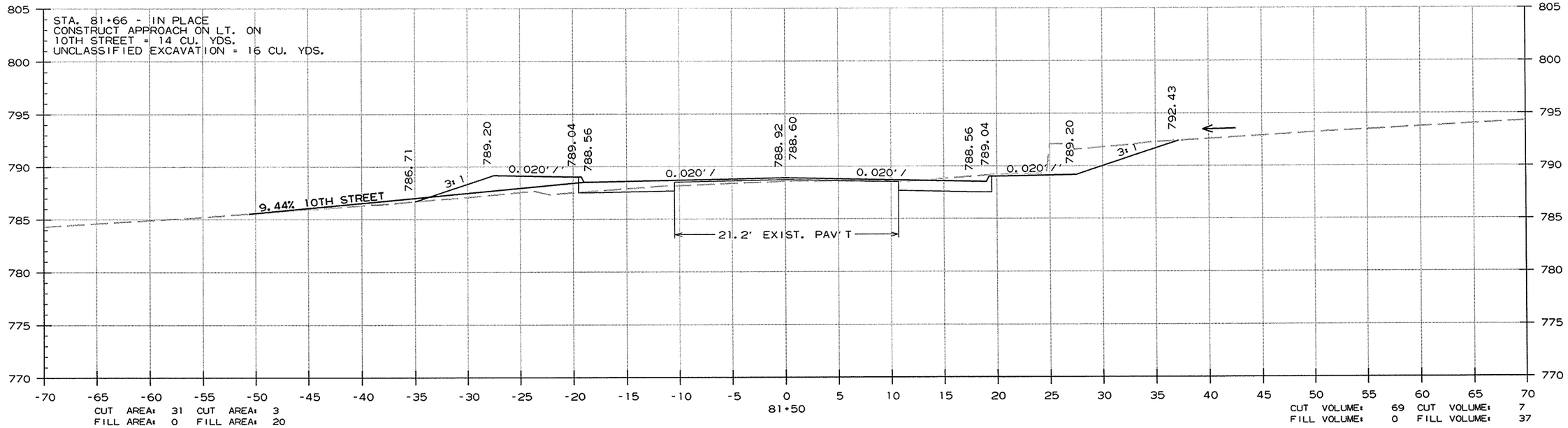
R090319.DGN

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.		090319	147	154

(2) CROSS SECTIONS





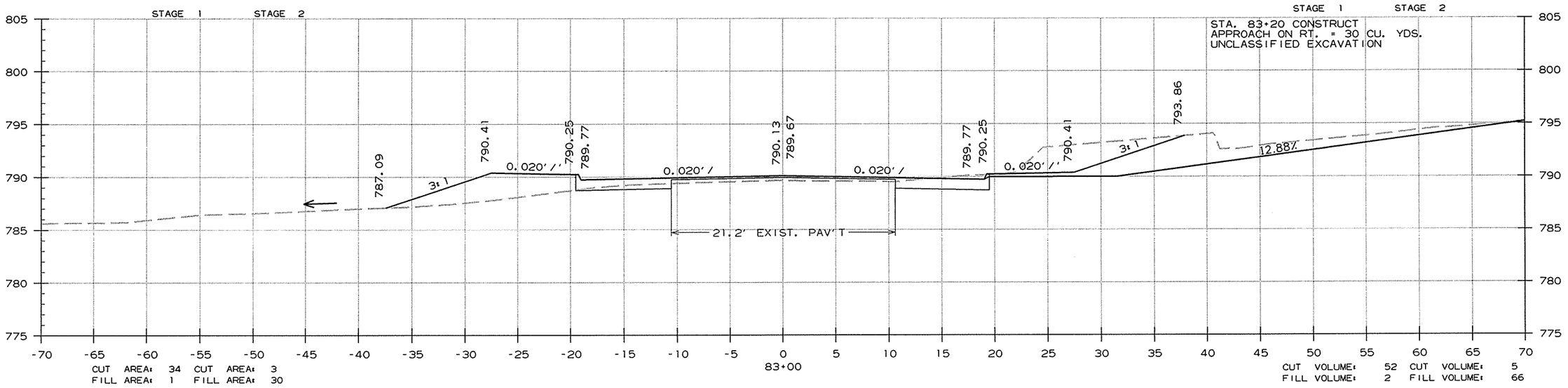
CROSS SECTION STA. 81+50 TO STA. 82+00

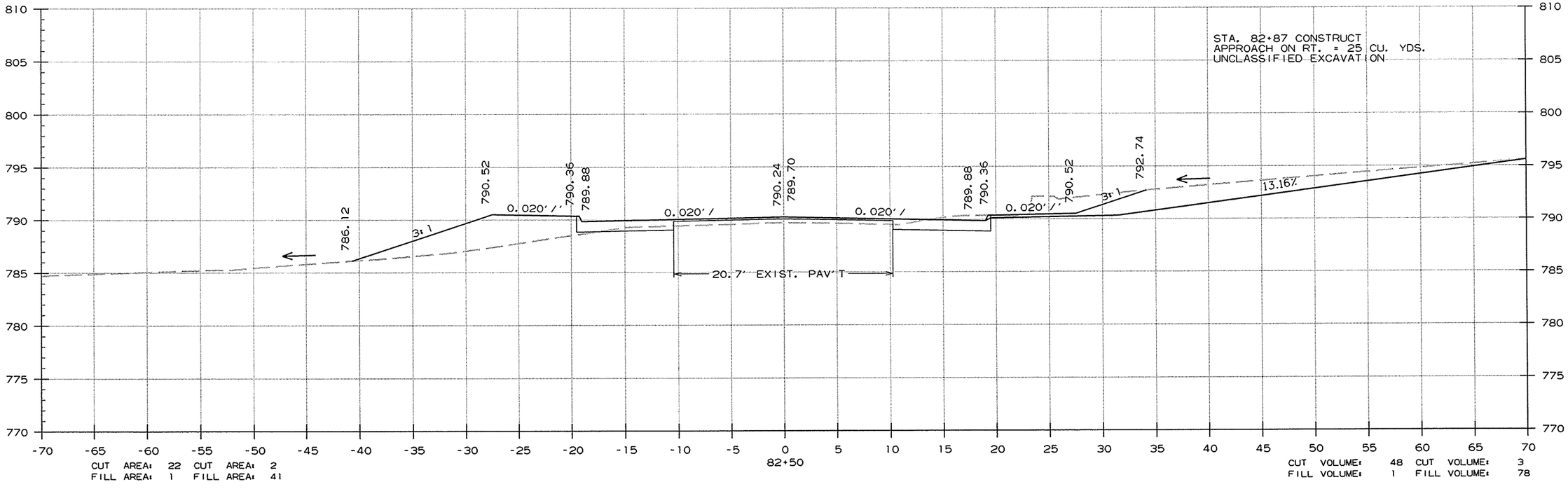
10/7/2014

R090319.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.		090319	148	154

(2) CROSS SECTIONS





CROSS SECTION STA. 82+50 TO STA. 83+00

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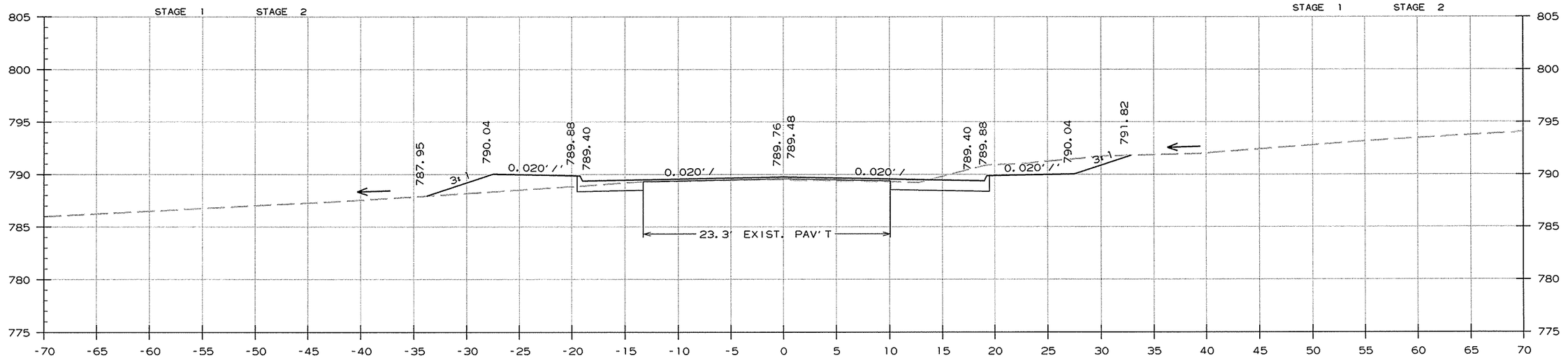
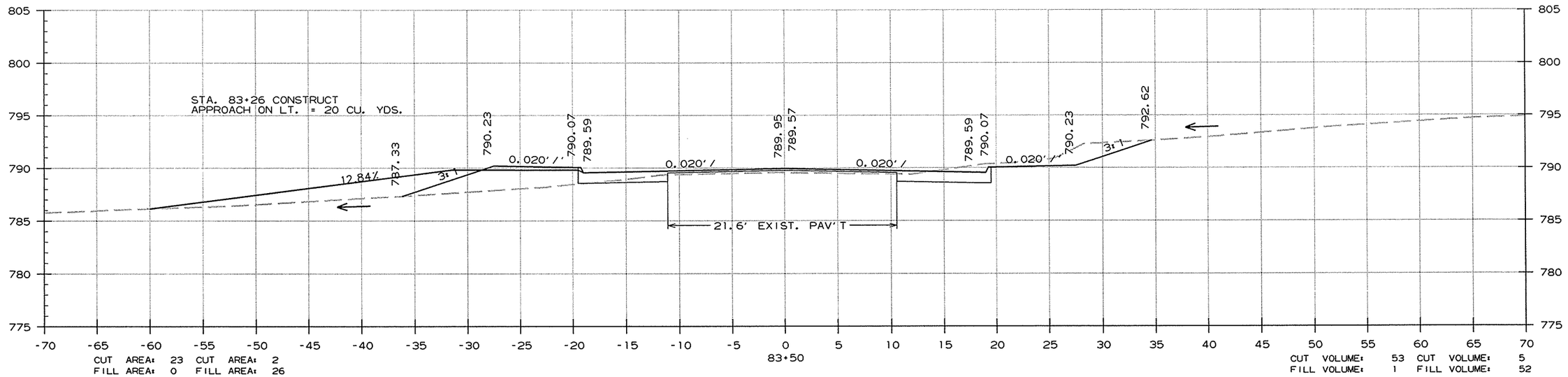
R090319.DGN

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.		090319	149	154

(2) CROSS SECTIONS





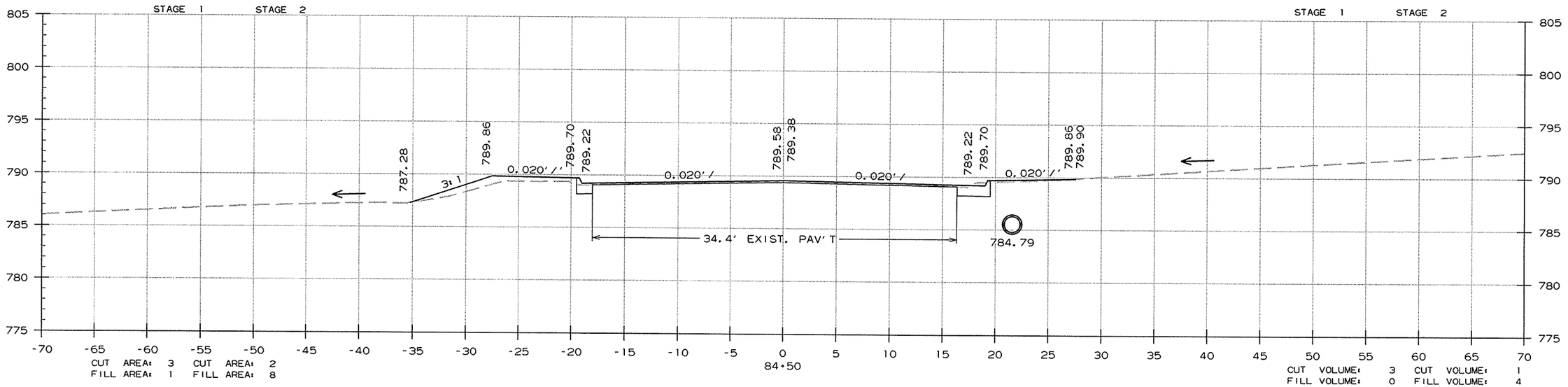
CROSS SECTION STA. 83+50 TO STA. 84+00

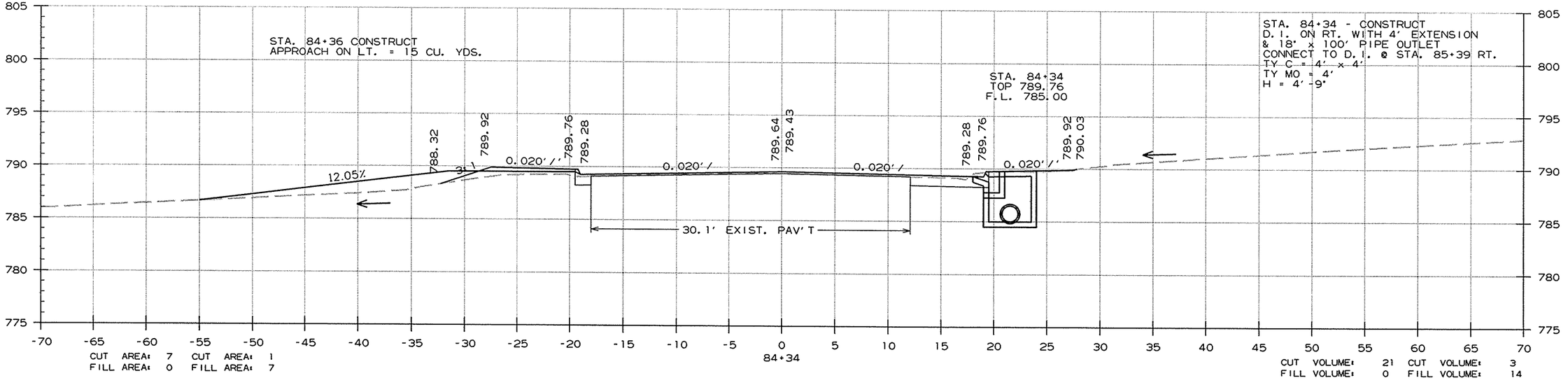
10/7/2014

R090319.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.		090319	150	154

(2) CROSS SECTIONS





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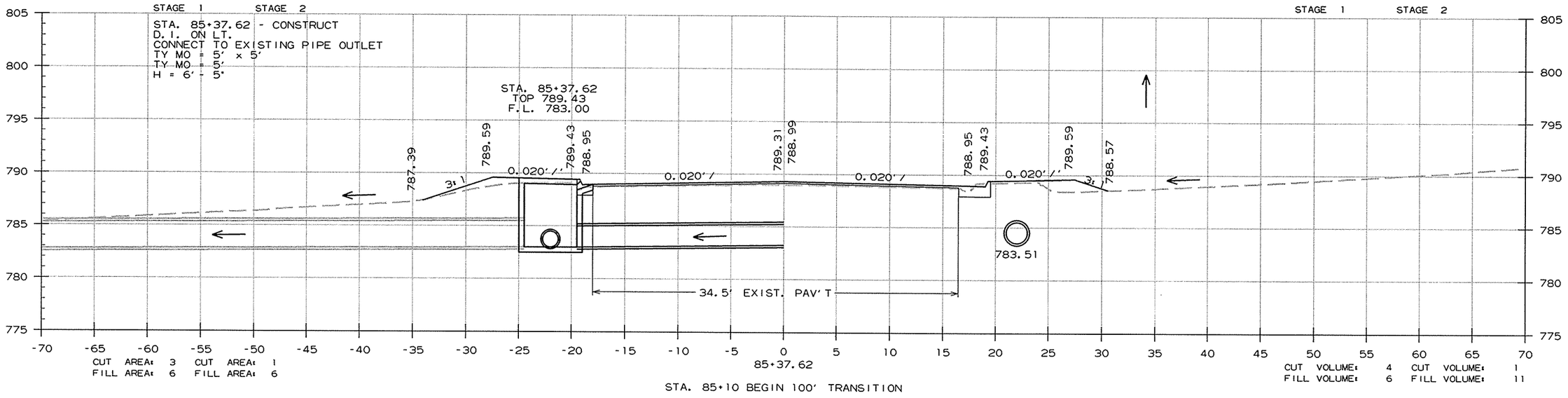
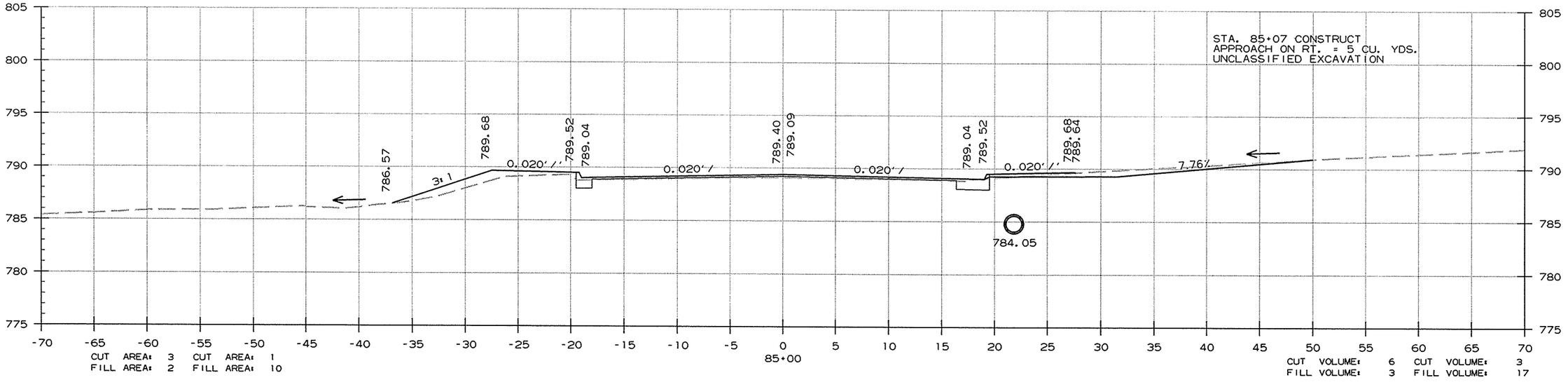
CROSS SECTION STA. 84+34 TO STA. 84+50

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090319	151	154

(2) CROSS SECTIONS



STA. 85+10 BEGIN 100' TRANSITION



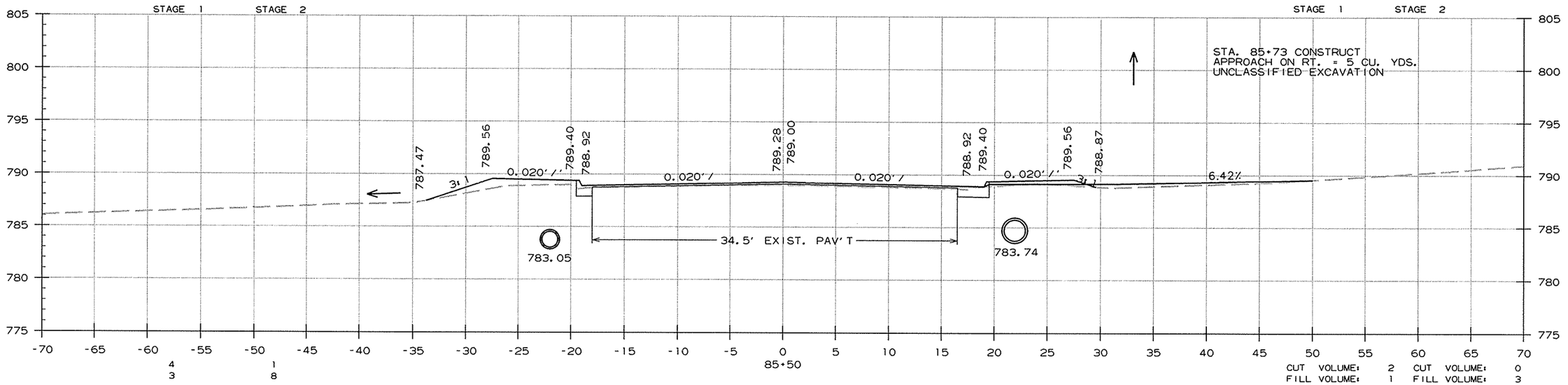
10/7/2014

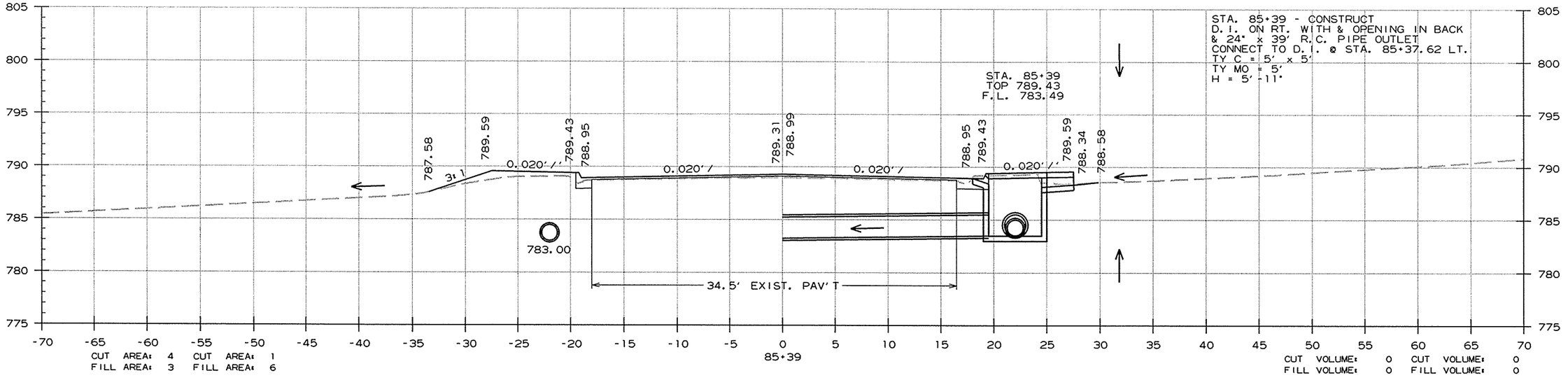
R090319.DGN

CROSS SECTION STA. 85+00 TO STA. 85+37.62

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090319	152	154

(2) CROSS SECTIONS





CROSS SECTION STA. 85+39 TO STA. 85+50

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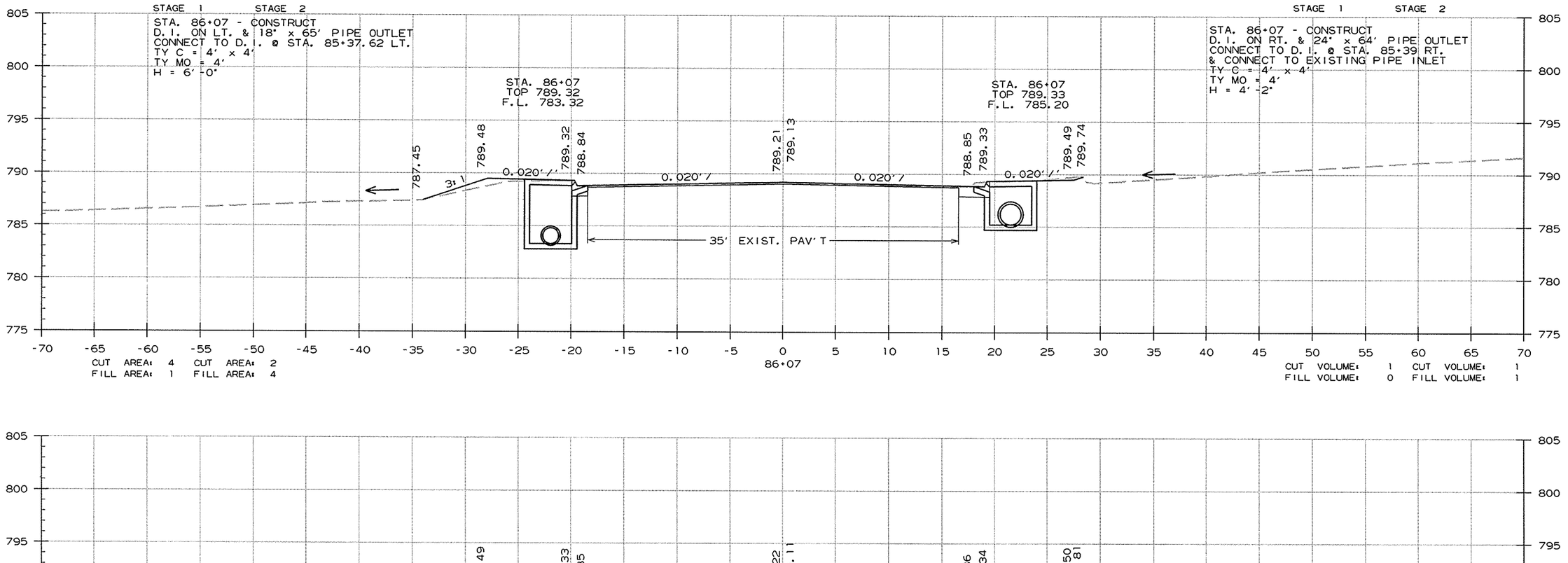
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090319	153	154

(2) CROSS SECTIONS



CROSS SECTION STA. 86+00 TO STA. 86+07

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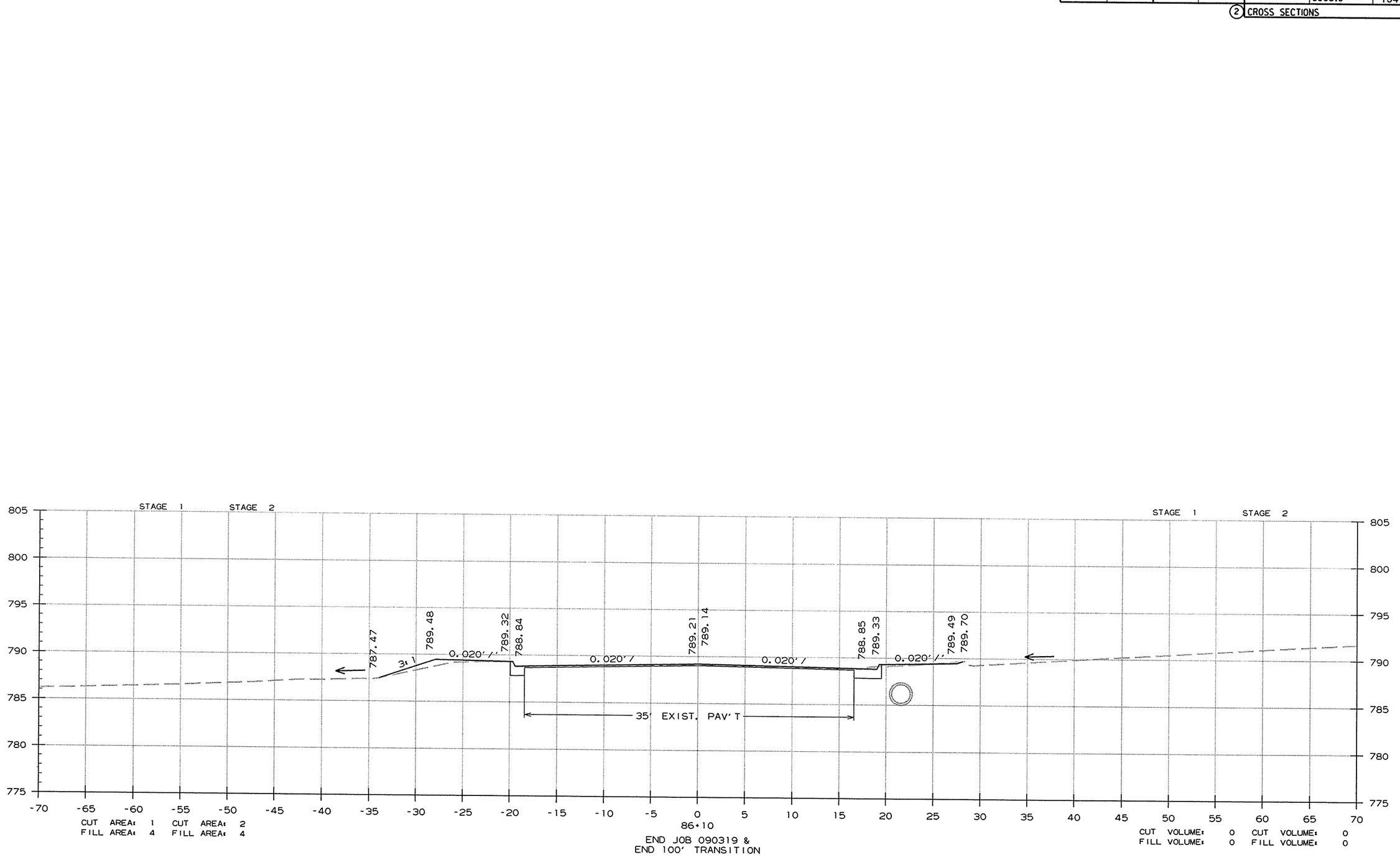
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090319	154	154

(2) CROSS SECTIONS



CROSS SECTION STA. 86+10 TO STA. 86+10

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