

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
310	(40BY)BR; (41-A)BR-1	McDonough	66	1

CONTRACT NO. 68677  
D-94-006-07

+3  
69

**INDEX OF SHEETS**

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**LIST OF STANDARDS**

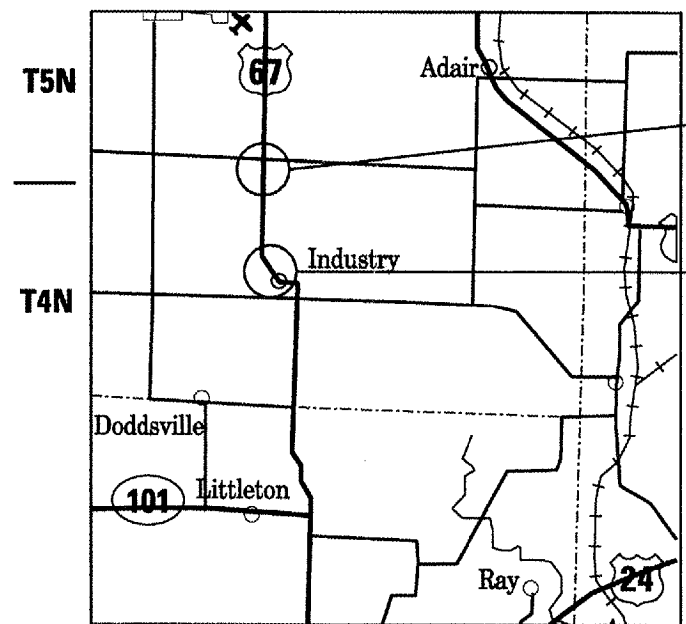
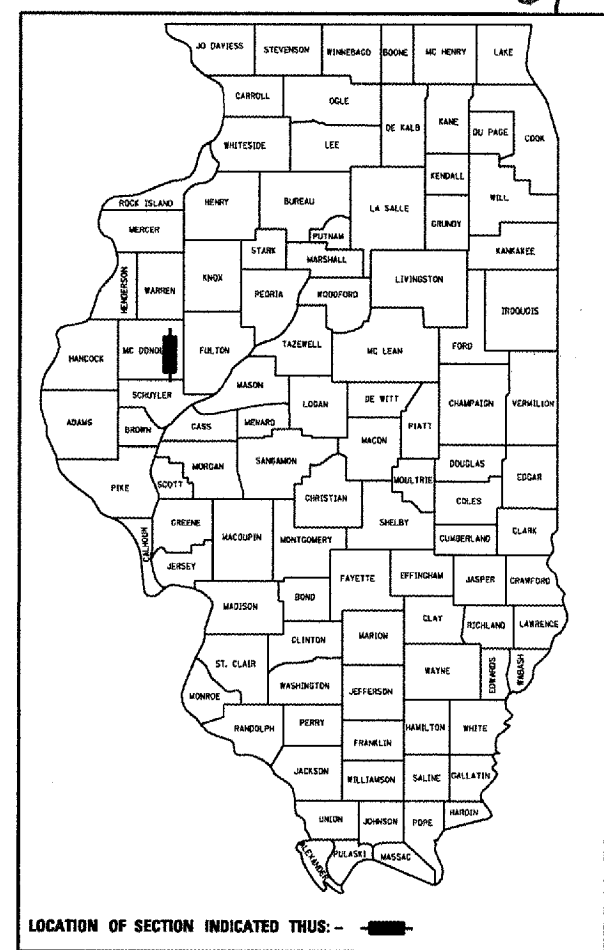
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482011-02 631031-06 701201-02 702001-06  
515001-02 635001 701301-02 704001-03  
542401 635006-02 701311-02 780001-01  
601101 635011-01 701316-03 781001-02  
610001-03 666001

**DESIGN DESIGNATION**

ADT = 2850 (2001)  
MU 14% SU 5%

**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**  
**DIVISION OF HIGHWAYS**  
**PLANS FOR PROPOSED**  
**FEDERAL AID HIGHWAY**

**FAP ROUTE 318 (US 67)**  
**SECTION (40BY)BR; (41-A)BR-1**  
**McDONOUGH COUNTY**  
**C-94-007-07**  
**PROJECT ACNHF-0318(009)**  
**R2W of the 4th PM**



**Camp Creek**  
SN 055-0006

**Grindstone Creek**  
SN 055-0018 (exist.)  
SN 055-0049 (prop.)

**JOB DESCRIPTION**

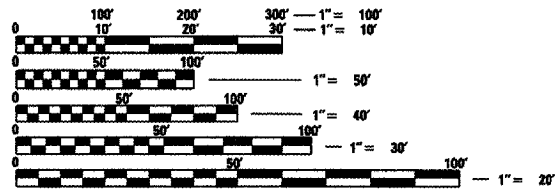
This improvement consists of the removal and replacement of the existing waterproofing membrane system on SN 055-0006 over Camp Creek and the removal and replacement of SN 055-0018 over Grindstone Creek. Included in this work will be the related bituminous paving and earth work.

**GROSS LENGTH OF IMPROVEMENT = 1415 FEET = 0.27 MILES**  
**NET LENGTH OF IMPROVEMENT = 1415 FEET = 0.27 MILES**

Project Engineer: Maureen Addis (309) 671-3454

Liason: David M. Layne (309) 671-3472

404/401 PERMIT REQUIRED



FULL SIZE PLANS HAVE BEEN PREPARED USING STANDARD ENGINEERING SCALES. REDUCED SIZED PLANS WILL NOT CONFORM TO STANDARD SCALES. IN MAKING MEASUREMENTS ON REDUCED PLANS, THE ABOVE SCALES MAY BE USED.

J.U.L.I.E.  
JOINT UTILITY LOCATION INFORMATION FOR EXCAVATION  
1-800-892-0123

CONTRACT NO. 68677  
CATALOG NO. 031050-00D

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION  
DIVISION OF HIGHWAYS

SUBMITTED July 23, 07

*[Signature]*  
DEPUTY DIRECTOR OF HIGHWAYS, REGION ENGINEER

October 12, 20 07

*[Signature]*  
ENGINEER OF DESIGN AND ENVIRONMENT

October 12, 20 07

*[Signature]*  
DIRECTOR OF HIGHWAYS, CHIEF ENGINEER

**PRINTED BY THE AUTHORITY  
OF THE STATE OF ILLINOIS**

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
310	(McDonough)	McDonough	66	2
STA.	various	TO STA.	various	
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

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Dewatering System Details

# GENERAL NOTES

## AVAILABILITY OF ELECTRONIC FILES

Micro Station and GEOPAK files of this project will be made available to the Contractor. If there is a conflict between the electronic files and the printed contract plans and documents, the printed contract plans and documents shall take precedence over the electronic files. The Contractor shall accept all risk associated with using the electronic files and shall hold the Department harmless for any errors or omissions in the electronic files and the data contained therein. Errors or delays resulting from the use of the electronic files by the Contractor shall not result in an extension of time for any interim or final completion date or shall not be considered cause for additional compensation. The Contractor shall not use, share, or distribute these electronic files except for the purpose of constructing this contract. Any claims by third parties due to use or errors shall be the responsibility of the Contractor. The Contractor shall include this disclaimer with the transfer of these electronic files to any other parties and shall include appropriate language binding them to similar responsibilities.

## UTILITIES - LOCATIONS /INFORMATION ON PLANS

The locations of existing water mains, gas mains, sewers, electric power lines, telephone lines and other utilities as shown on the plans are based on careful field investigation and the best information available, but they are not guaranteed. Unless elevations are shown — all utility locations shown on the cross sections are based on the approximate depth supplied by the utility company. It shall be the Contractor's responsibility to ascertain their exact location from the utility companies and by field inspection.

## TREE REMOVAL - UTILITY RELOCATION

Tree removal may be necessary prior to utility companies being able to relocate their facilities outside the construction limits. The Contractor should coordinate any contract tree removal activities with the utility companies to eliminate conflicts and potential delays caused by utility tree removal activities or incomplete utility relocations.

## PLAN ELEVATIONS - U. S. G. S. MEAN SEA LEVEL DATUM

Use one of the following two options.

1. All elevations shown on the plans are established from U. S. G. S. mean sea level datum.
2. All elevations shown refer to U. S. G. S. datum at mean sea level unless otherwise noted.

## COMMITMENTS

Commitments are not to be altered without the written approval of all parties to which the commitment was made.

NPDES 404/401 permit is required for this project.

## TREE REMOVAL

The District Four Tree Committee should be contacted and prior approval obtained for any tree removal beyond the limits/locations included in the plans.

## BRIDGE OVERLAY NOTIFICATION

After placement of the bridge deck overlay, the Resident Engineer shall notify the District Bridge Maintenance Engineer of the "as constructed" milling depth and overlay thickness for updating the Illinois Highway Information System.

## ENVIRONMENTAL REVIEWS

Prior to the use of any proposed borrow areas, use areas (temporary access roads, detours, run-arounds, etc.) and/or waste areas, the Contractor shall file the required environmental resource request surveys according to Section 107.22 of the Standard Specifications. These surveys are required in order for the Department to conduct cultural and biological resource surveys for the proposed site.

Prior to any waste materials being removed from the construction site the required environmental resource surveys will need to be obtained and filed by the Contractor. Excess waste products removed from the construction site shall be disposed of as required in Section 202.03 of the Standard Specifications.

Any protruding metal bars shall be removed prior to the disposal of broken concrete at approved disposal sites.

The required environmental resource documentation shall include the following:

- \* BDE Form 2289 (Environmental Survey Request)
- \* A location map showing the size limits and location of the use area
- \* Signed property owner agreement form
- \* Color photographs depicting the use area

Please note that a minimum of two weeks shall be allowed for the District to obtain the required environmental clearances.

## SEEDING - SIDE SLOPE RIPPING

All slopes steeper than 3 to 1 and over 4.5 m (15 ft.) in height shall be ripped. This shall consist of ripping between 450 mm to 600 mm (18 inches to 24 inches) deep normal to the slope. The interval of ripping along the slope shall be 3.6 m (12 ft.). This work shall be done after the seed bed has been prepared but before any fertilizer or seed has been applied. The fertilizer and seed shall be applied within a 24-hour period after the ripping has been done. This work will not be paid for separately but will be included in the cost of the various items of seeding involved.

## AGGREGATE (DESCRIPTION), TYPE B

Aggregate (Description), Type B shall be required for all granular construction of side roads, entrances, and mailbox turnouts, whether or not portions of the surfaces thus constructed are to be covered with a bituminous surface, except where noted differently on the plans.

## AGGREGATE FOR DRIVEWAY REPLACEMENT

The material used for construction of permanent aggregate driveways shall be gravel or crushed stone as directed by the Engineer, to replace in kind the existing aggregate driveways.

No additional compensation shall be provided for this requirement but shall be considered as included in the cost of the pay item for the aggregate as specified on the plans.

REVISIONS		ILLINOIS DEPARTMENT OF TRANSPORTATION
NAME	DATE	
		<h3>INDEX OF SHEETS &amp; GENERAL NOTES</h3> <p>SCALE: VERT. _____ HORIZ. _____</p> <p>DATE _____ DRAWN BY _____ CHECKED BY _____</p>

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
310	McDonough	McDonough	66	3
STA. <i>workout</i>		TO STA. <i>workout</i>		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		
D-94-006-07				

# GENERAL NOTES

## HOT-MIX ASPHALT MIXTURE REQUIREMENTS

Mixture Use(s):	HMA SURFACE CSE.	HMA LEVELING BINDER	HMA BINDER COURSE & HMA SHOULDER (BOTTOM LIFT)	HMA SHOULDER (TOP LIFT)
RAP % (Max)**:	15%	0%	25%	30%
ACPC:	PG 64-22	SBR or SBS PG 70-22	PG 64-22	PG 64-22
Design Air Voids:	4.0% @ N=50	4.0% @ N=50	4.0% @ N=50	3.0% @ N=30
Mixture Composition: (Gradation Mixture)	IL 9.5 OR 12.5	IL 4.75	IL 19.0	IL 9.5L
Friction Aggregate	MIXTURE D	N/A	N/A	MIXTURE C

\*\* If the RAP option is selected, the asphalt cement grade may need to be adjusted; this will be determined by the Engineer.

## PAVING SURFACE COURSE

Continuous paving operations on the main roadway shall be maintained at all times during the construction of the bituminous surface. No interruptions for side roads, entrances, turn lanes, etc. will be allowed.

## ORDERING LENGTH CONFIRMATION - DRAINAGE ITEMS

The Contractor shall consult with the Engineer in regard to the exact length of the box/pipe culverts, storm sewers, and/or pipe drains required prior to ordering these items.

## ENGINEERS FIELD OFFICE

Add the following sentence to the end of paragraph 670.02 (i) and 670.04 (e):  
All of the telephone lines provided shall have unpublished numbers.

## PAVEMENT STATIONING NUMBERS & PLACEMENT

The Contractor shall provide labor and materials required to imprint pavement station numbers in the finished surface of the pavement and/or overlay. The numbers shall be approximately 20 mm (3/4 inch) wide, 125 mm (5 inches) high and 15 mm (5/8 inch) deep.

The pavement station numbers shall be installed as specified herein:

Interval - 100 meters (metric stationing) or 200 feet (English stationing)

Bottom of Numbers - 150 mm (6 inches) from the inside edge of the pavement marking

### Location:

- \* 2,3, & 5 Lane Pavements - right edge of pavement in direction of increasing stations
- \* Multi-Lane Divided Roadways - outside edge of pavement in both directions
- \* Ramps - along baseline edge of pavement

Position - stations shall be placed so they can be read from the adjacent shoulder

Format - Metric (English) pavement stations shall use this format (XX + X00" (XXX")) where X represents the pavement station

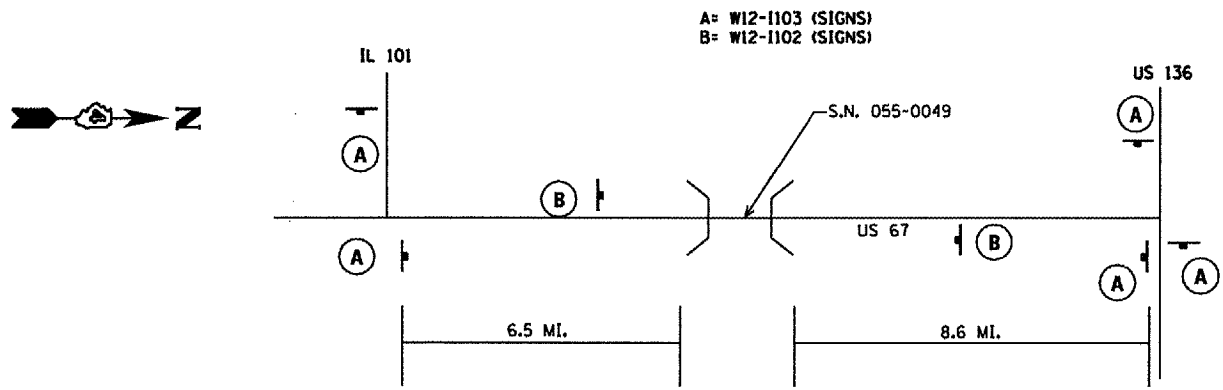
This work will not be paid for separately, but will be considered included in the cost of the associated pavement and/or overlay pay items.

# STATUS OF UTILITIES TO BE ADJUSTED

Grindstone Creek (exist. SN 055-018 prop. SN 055-0049)

Company	Offset	Location	Type of Utility	Type of Conflict	Disposition
AmerenCIPS (Electric)	40' LT	451 + 14	Power Pole	Fill	Relocate
AmerenCIPS (Electric)	45' LT	453 + 92	Power Pole	Fill	Relocate
AmerenCIPS (Electric)	40' LT	455 + 75	Power Pole	Cut	Relocate
AmerenCIPS (Electric)	35' RT	454 + 40	Power Pole	Fill	Caution
McDonough Telephone	35' RT	453 + 50	Telephone Pole	Bridge	Caution
McDonough Telephone	35' RT	454 + 40	Telephone Pole	Bridge	Caution

# LOCATION OF WIDTH RESTRICTION SIGNS



PLOT DATE \* 7/12/2007  
 FILE NAME \* c:\projects\11506018\status.dgn  
 PLOT SCALE \* 1/16" = 1'-0"  
 USER NAME \* hngar

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

## GENERAL NOTES & STATUS OF UTILITIES

SCALE: VERT. DATE  
HORIZ. DATE

DRAWN BY  
CHECKED BY

# SUMMARY OF QUANTITIES

F. A. P. DIST.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
310	MOYER, (W)-ARR-1	MCDONOUGH	66	4
STA.	TO STA.			
FED. ROAD DIST. NO. 1	ALLOYS	FED. AID PROJECT		

D-94-006-07

SUMMARY OF QUANTITIES			TOTAL QUANTITIES	CONSTRUCTION TYPE CODE	
CODE NO	ITEM	UNIT		055-0006 FED-STATE 80%-20% SFTY-2A	055-0018 FED-STATE 80%-20% X081-2A
20200410	EARTH EXCAVATION (SPECIAL)	CU YD	2204		2204
20300100	CHANNEL EXCAVATION	CU YD	124		124
20700400	POROUS GRANULAR EMBANKMENT, SPECIAL	CU YD	277		277
21101615	TOP SOIL FURNISH AND PLACE, 4"	SO YD	2568		2568
25000200	SEEDING, CLASS 2	ACRE	0.6		0.6
25000400	NITROGEN FERTILIZER NUTRIENT	POUND	51		51
25000500	PHOSPHORUS FERTILIZER NUTRIENT	POUND	51		51
25000600	POTASSIUM FERTILIZER NUTRIENT	POUND	51		51
25100630	EROSION CONTROL BLANKET	SO YD	2772		2772
28000300	TEMPORARY DITCH CHECKS	EACH	4		4
28000400	PERIMETER EROSION BARRIER	FOOT	970		970
28100105	STONE RIPRAP, CLASS A3	SO YD	11		11
28100107	STONE RIPRAP, CLASS A4	SO YD	832		832
28200200	FILTER FABRIC	SO YD	843		843
31100100	SUB-BASE GRANULAR MATERIAL, TYPE A	TON	50		50
35600716	<i>HOT-MIX ASPHALT</i> BASE COURSE WIDENING, 10"	SO YD	116		116
40600100	BITUMINOUS MATERIALS (PRIME COAT)	GALLON	257		257
40600300	AGGREGATE (PRIME COAT)	TON	3.2		3.2
40600982	<i>HOT-MIX ASPHALT</i> SURFACE REMOVAL - BUTT JOINT	SO YD	160		160
40603080	<i>HOT-MIX ASPHALT</i> BINDER COURSE IL-19.0 N50	TON	326	68	258
40603335	<i>HOT-MIX ASPHALT</i> SURFACE COURSE, MIX "D", N50	TON	220.6	28.6	192
42001165	BRIDGE APPROACH PAVEMENT	SO YD	236		236
42001300	PROTECTIVE COAT	SO YD	451		451
42001430	BRIDGE APPROACH PAVEMENT CONNECTOR (FLEXIBLE)	SO YD	47		47
44001005	<i>HOT-MIX ASPHALT</i> SURFACE REMOVAL	SO YD	245	245	
48203029	<i>HOT-MIX ASPHALT</i> SHOULDERS, 8"	SO YD	393		393
48203037	<i>HOT-MIX ASPHALT</i> SHOULDERS, 10"	SO YD	340		340
48300500	PORTLAND CEMENT CONCRETE SHOULDERS 10"	SO YD	10		10
50100100	REMOVAL OF EXISTING STRUCTURES	EACH	1		1
50200100	STRUCTURE EXCAVATION	CU YD	412		412
50300225	CONCRETE STRUCTURES	CU YD	43.9		43.9
50300255	CONCRETE SUPER STRUCTURES	CU YD	167.4		167.4
50300260	BRIDGE DECK GROOVING	SO YD	349		349

SUMMARY OF QUANTITIES			TOTAL QUANTITIES	CONSTRUCTION TYPE CODE	
CODE NO	ITEM	UNIT		055-0006 FED-STATE 80%-20% SFTY-2A	055-0018 FED-STATE 80%-20% X081-2A
50300300	PROTECTIVE COAT	SO YD	451		451
50401105	FURNISHING AND ERECTING PRECAST PRESTRESSED CONCRETE I-BEAMS, 54 IN.	FOOT	674		674
50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	34000		34000
50800515	BAR SPLICERS	EACH	387		387
51200452	FURNISHING METAL SHELL PILES 14" X 0.250"	FOOT	908		908
51202305	DRIVING PILES	FOOT	908		908
51203200	TEST PILE METAL SHELLS	EACH	1		1
51205200	TEMPORARY SHEET PILING	SO FT	2774		2774
51500100	NAME PLATES	EACH	1		1
54215547	METAL END SECTIONS 12"	EACH	2		2
58100200	WATERPROOFING MEMBRANE SYSTEM	SO YD	247	247	
58300100	PORTLAND CEMENT MORTAR FAIRING COURSE	FOOT	252	252	
59000210	EPOXY CRACK SEALING	FOOT	10	10	
59100100	GEOCOMPOSITE WALL DRAIN	SO YD	41		41
60100945	PIPE DRAINS 12"	FOOT	35		35
60109580	PIPE UNDERDRAINS FOR STRUCTURES 4"	FOOT	198		198
60900215	TYPE C INLET BOX, STANDARD 609001	EACH	2		2
60900515	CONCRETE THRUST BLOCKS	EACH	2		2
*63000000	STEEL PLATE BEAM GUARD RAIL, TYPE A	FOOT	513		513
*63100085	TRAFFIC BARRIER TERMINAL, TYPE 6	EACH	4		4
*63100167	TRAFFIC BARRIER TERMINAL TYPE 1, SPECIAL (TANGENT)	EACH	3		3
*63100169	TRAFFIC BARRIER TERMINAL TYPE 1, SPECIAL (FLARED)	EACH	1		1
63200305	STEEL PLATE BEAM GUARD RAIL REMOVAL	FOOT	914		914
66600105	FURNISHING AND ERECTING RIGHT-OF-WAY MARKERS	EACH	8	8	
66700205	PERMANENT SURVEY MARKERS, TYPE I	EACH	3	3	
67000400	ENGINEER'S FIELD OFFICE, TYPE A	CAL MO	3	3	
67100100	MOBILIZATION	L SUM	1	1	
70100100	TRAFFIC CONTROL AND PROTECTION, STANDARD 701316	EACH	1	1	
70100405	TRAFFIC CONTROL AND PROTECTION, STANDARD 701321	EACH	1	1	
70100450	TRAFFIC CONTROL AND PROTECTION, STANDARD 701201	L SUM	1	1	
70100500	TRAFFIC CONTROL AND PROTECTION, STANDARD 701326	L SUM	1	1	

\*SPECIALTY ITEM



# SCHEDULE OF QUANTITIES-CAMP CREEK

CONTRACT NO. 68677				
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
310	McDonough (MT-ABR-1)	McDonough	66	6
STA.	various	TO STA.	various	
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT	D-94-006-07	

### 70106500 TEMPORARY BRIDGE TRAFFIC SIGNALS

LOCATION	QUANTITY (EACH)
STA. 284+10, RT.	1
STA. 284+35, LT.	
STA. 289+45, RT.	
STA. 289+70, LT.	
TOTAL =	1

### 70106700 TEMPORARY RUMBLE STRIP

LOCATION	QUANTITY (EACH)
NORTH PROJECT LIMIT	3
SOUTH PROJECT LIMIT	3
TOTAL =	6

### 70300520 PAVEMENT MARKING TAPE, TYPE III 4"

LOCATION	QUANTITY (FOOT)
STATION	
STA. 283+60, RT. - STOP BAR, 24"	72.0
STA. 285+20 TO 288+60, (STAGE I)	340.0
STA. 284+70 TO 288+60, (STAGE I)	390.0
STA. 285+20 TO 288+60, (STAGE II)	340.0
STA. 285+20 TO 289+10, (STAGE II)	390.0
STA. 290+20, LT. - STOP BAR, 24"	72.0
TOTAL =	1604.0

### 70301000 WORK ZONE PAVEMENT MARKING REMOVAL

LOCATION	QUANTITY (SQ. FT.)
STATION	
STAGE I	243.4
STAGE II	243.4
STOP BARS	
JOB SITE	48.0
TOTAL =	534.8

### 78005110 EPOXY PAVEMENT MARKING - LINE 4"

LOCATION	QUANTITY (FOOT)
STATION	
STA. 283+60 TO 290+20, CENTER LINE DOUBLE SOLID YELLOW	1320.0
STA. 285+20 TO 288+60, RT. EDGE LINE SOLID WHITE	340.0
STA. 285+20 TO 289+10, LT. EDGE LINE SOLID WHITE	390.0
TOTAL =	2050.0

### 78300100 PAVEMENT MARKING REMOVAL

LOCATION	QUANTITY (SQ. FT.)
STATION	
STA. 283+60 TO STA. 290+20, CENTER	440.0
STA. 285+20 TO STA. 288+60, LEFT	113.4
STA. 285+20 TO STA. 289+10, RIGHT	130.0
TOTAL =	683.4

### 40603335 HMA SURFACE COURSE, MIX "D", N50

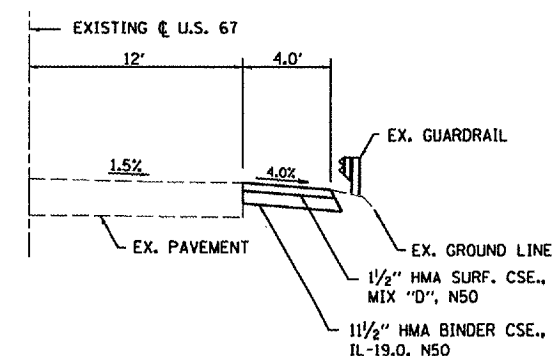
LOCATION	QUANTITY (SQ. YD.)
STATION	
STA. 285+20 TO STA. 288+39, LEFT SIDE	4.5
STA. 287+41 TO STA. 288+60, LEFT SIDE	4.5
TOTAL =	9.0

### 40603080 HMA BINDER COURSE, IL-19.0, N50

LOCATION	QUANTITY (TON)
STATION	
STA. 285+20 TO STA. 288+39, LEFT SIDE	33.8
STA. 287+41 TO STA. 288+60, LEFT SIDE	33.8
TOTAL =	67.6

### MAINTENANCE OF TRAFFIC GENERAL NOTES:

1. PRE-STAGE SHOULDER CONSTRUCTION SHALL BE IN ACCORDANCE WITH HIGHWAY STD. 701316 AND AS DIRECTED BY THE ENGINEER.
2. STAGE I AND II MAINTENANCE OF TRAFFIC SHALL BE IN ACCORDANCE WITH HIGHWAY STD. 701316 AS SHOWN AND AS DIRECTED BY THE ENGINEER.
3. SIGNALS AND STOP BAR LOCATIONS TO REMAIN IN PLACE THROUGHOUT DURATION OF STAGES I & II.
4. COSTS OF SIDE STREET/ENTRANCE CLOSURE WILL BE INCLUDED IN THE TRAFFIC CONTROL STANDARD 701316. NO ADDITIONAL COMPENSATION WILL BE MADE.
5. SEE BRIDGE REPAIR STAGE CONSTRUCTION DETAILS FOR CROSS SECTION VIEW
6. APPLY PERMANENT PAVEMENT MARKINGS UNDER STD. 701311 OR OTHERWISE AS DIRECTED BY THE ENGINEER. COSTS WILL NOT BE PAID FOR SEPARATELY, BUT SHALL BE CONSIDERED AS INCLUDED IN THE UNIT PRICE OF EPOXY PAVEMENT MARKING.
7. SHORT TIME OPERATIONS SHALL BE IN ACCORDANCE WITH HIGHWAY STD. 701301 OR OTHERWISE AS DIRECTED BY THE ENGINEER. STANDARD 701301 WILL NOT BE MEASURED FOR PAYMENT.
8. SEEDING, CLASS 3 & MULCH METHOD 2 SHALL BE APPLIED TO DISTURBED AREAS. NECESSARY GRADING FOR THE CONSTRUCTION OF BITUMINOUS SHOULDER AND SEEDING & MULCH WILL NOT BE PAID FOR SEPARATELY, BUT SHALL BE CONSIDERED AS INCLUDED IN THE UNIT PRICE OF BITUMINOUS SHOULDER.



**SHOULDER WIDENING DETAILS**  
(LOOKING NORTH)

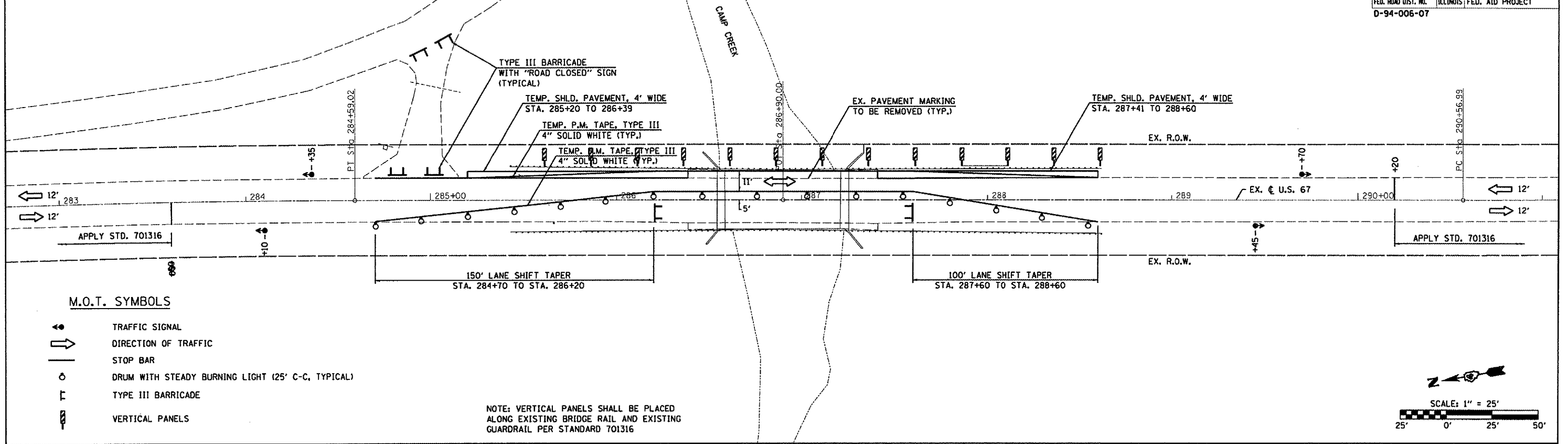
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REVISIONS		ILLINOIS DEPARTMENT OF TRANSPORTATION
NAME	DATE	
		SN 055-0006 SCHEDULE OF QUANTITIES M.O.T. GENERAL NOTES & SHOULDER WIDENING DETAILS
SCALE: VERT. DATE		DRAWN BY CHECKED BY

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
310	4027BR, 41-ABR-1	McDonough	66	7
STA.	various	TO STA.	various	
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
				0-94-006-07

TWP5N R2W 4RD P.M.

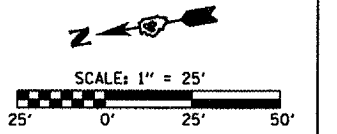
MAINTENANCE OF TRAFFIC - STAGE I



M.O.T. SYMBOLS

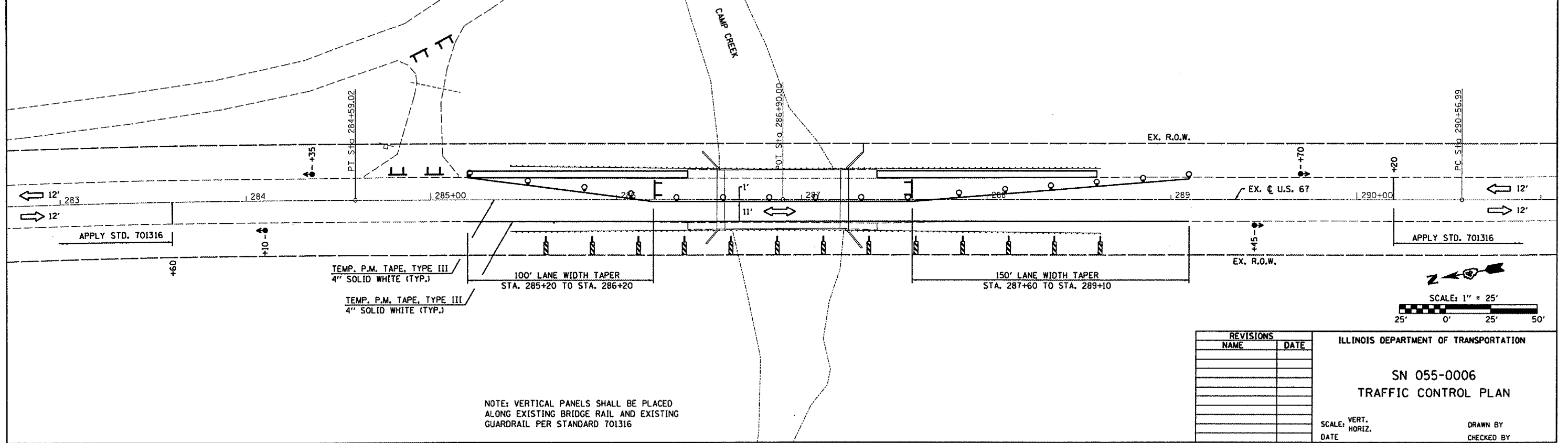
- TRAFFIC SIGNAL
- DIRECTION OF TRAFFIC
- STOP BAR
- DRUM WITH STEADY BURNING LIGHT (25' C-C, TYPICAL)
- TYPE III BARRICADE
- VERTICAL PANELS

NOTE: VERTICAL PANELS SHALL BE PLACED ALONG EXISTING BRIDGE RAIL AND EXISTING GUARDRAIL PER STANDARD 701316

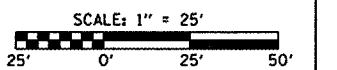


TWP5N R2W 4RD P.M.

MAINTENANCE OF TRAFFIC - STAGE II



NOTE: VERTICAL PANELS SHALL BE PLACED ALONG EXISTING BRIDGE RAIL AND EXISTING GUARDRAIL PER STANDARD 701316



REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

SN 055-0006

TRAFFIC CONTROL PLAN

SCALE: VERT. HORIZ. DATE

DRAWN BY CHECKED BY

PLOT DATE: 7/12/2007  
 FILE NAME: c:\pwork\projects\0550006\0550006\0550006\0550006.dwg  
 PLOT SCALE: 1/8"=1'-0" / IN.  
 USER NAME: jlong

Bench Mark: Chiseled "X" on top of northeast wingwall - Elev. 606.87

Existing Structure: Constructed in 1924 as SBI Route 3, Section 40-B, originally consisted of single span reinforced concrete tee beams supported on closed abutments with wingwalls. The structure was widened in 1971 with two 36" concrete deck beams on each side. Wide flange beams were added between the concrete tee beams in 1997. One lane of traffic is to be maintained at all times utilizing Stage Construction.

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 310 U.S. 67	(40BY) BR	McDonough	8	3 SHEETS
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

Contract 6817

**GENERAL NOTES**

Plan dimensions and details relative to existing structure have been taken from existing plans and are subject to nominal construction variations. It shall be the Contractor's responsibility to verify such dimensions and details in the field and make necessary approved adjustments prior to construction or ordering of materials. Such variations shall not be cause for additional compensation for a change in the scope of the work, however, the Contractor will be paid for the quantity actually furnished at the unit price bid for the work.

**INDEX OF SHEETS**

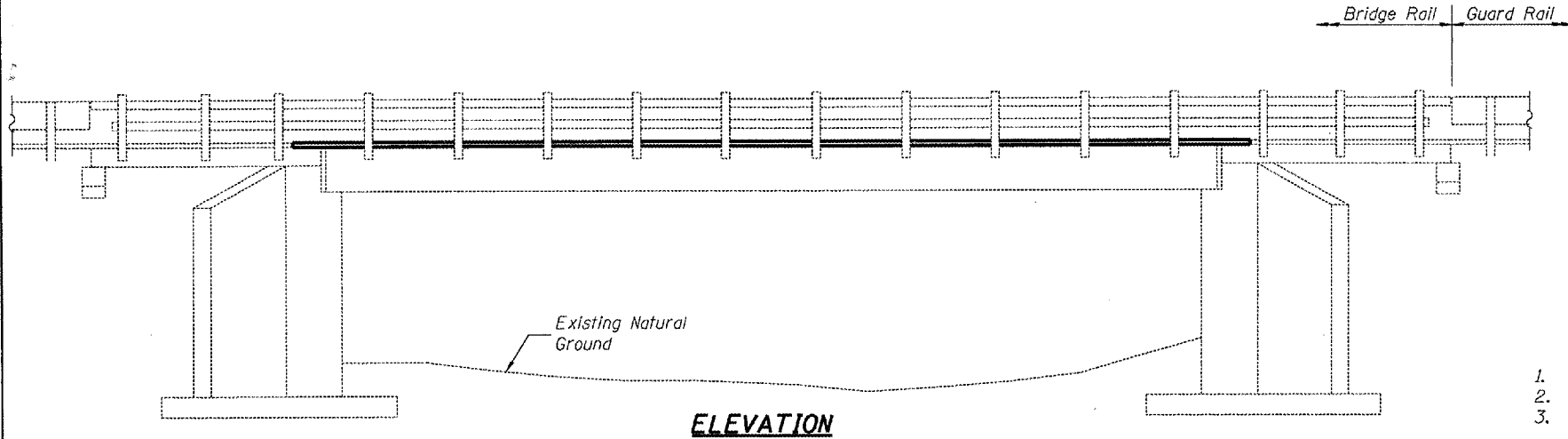
1. General Plan
2. Deck Cross Section
3. Concrete Girder Repair

**SCOPE OF WORK**

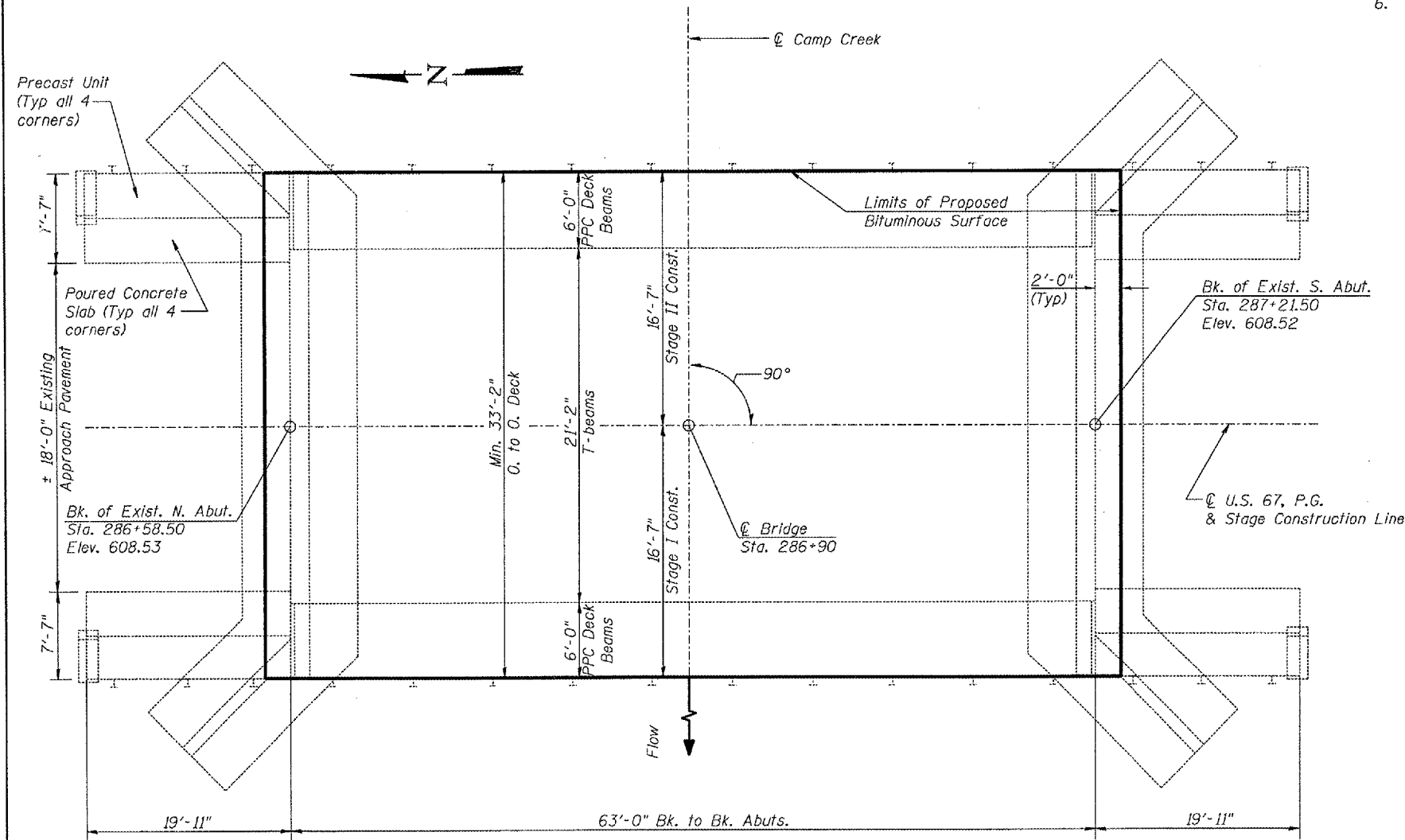
1. Repair existing exterior concrete tee beams.
2. Remove existing bituminous surface.
3. Remove existing waterproofing system over deck beams.
4. Repair Keyways
5. Apply P.C. Mortar Fairing Course
6. Provide Waterproofing Membrane System and Bituminous Surface

**TOTAL BILL OF MATERIAL**

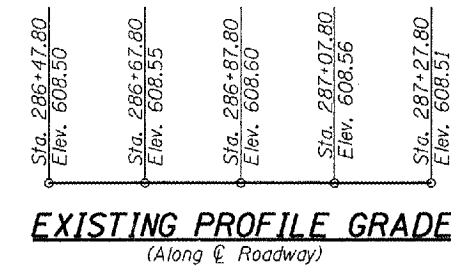
ITEM	UNIT	TOTAL
Structural Repair of Concrete (Depth Equal to or less than 5 in.)	Sq. Ft.	139
Hot-Mix Asphalt Surface Removal	Sq. Yd.	245
Epoxy Crack Sealing	Foot	10
Hot-mix Asphalt Surface Course, Mix "D", N50	Tons	28.6
Portland Cement Mortar Fairing Course	Foot	252
Waterproofing Membrane System	Sq. Yd.	247
Keyway Repair	Foot	25



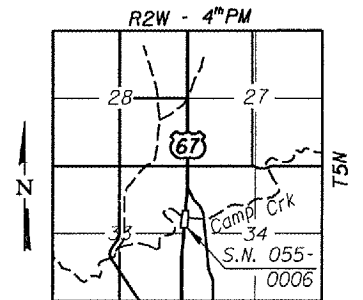
**ELEVATION**



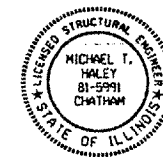
**PLAN**



**EXISTING PROFILE GRADE**  
(Along U Roadway)



**LOCATION SKETCH**



Michael J. Key 6-23-06  
 Michael T. Haley  
 Licensed Structural Engineer  
 State of Illinois No. 81-5991  
 Date

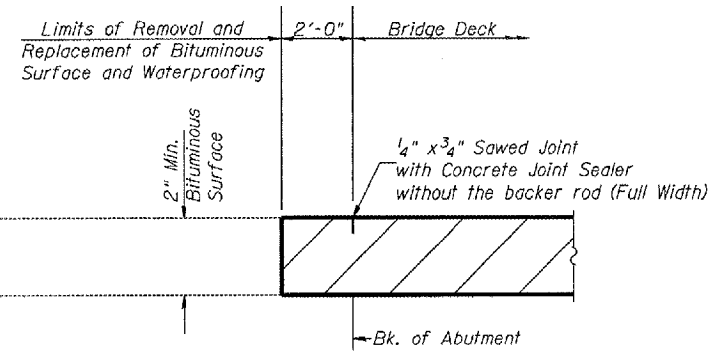
**LIN ENGINEERING, LTD.**

201 W. Chestnut  
 623 483-855  
 Chatham, Illinois 62629  
 Fax: 623 483-4708  
 Designed By: STD Checked By: ARB Drawn By: JMD

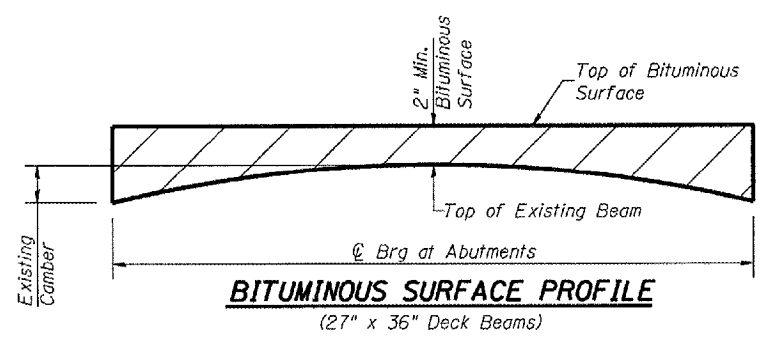
REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION  
**GENERAL PLAN**  
**F.A.P. 310 (U.S. 67) OVER CAMP CREEK**  
**SECTION (40BY)BR**  
**McDONOUGH COUNTY**  
**STA. 286+90**  
**S.N. 055-0006**



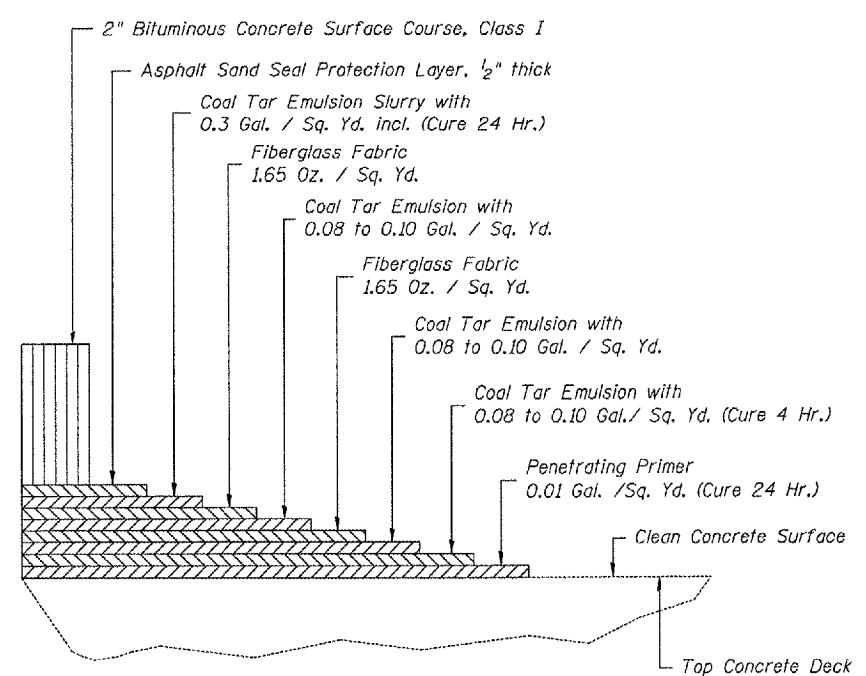


**SECTION AT ABUTMENT**  
North Abutment - Looking East  
South Abutment - Looking West

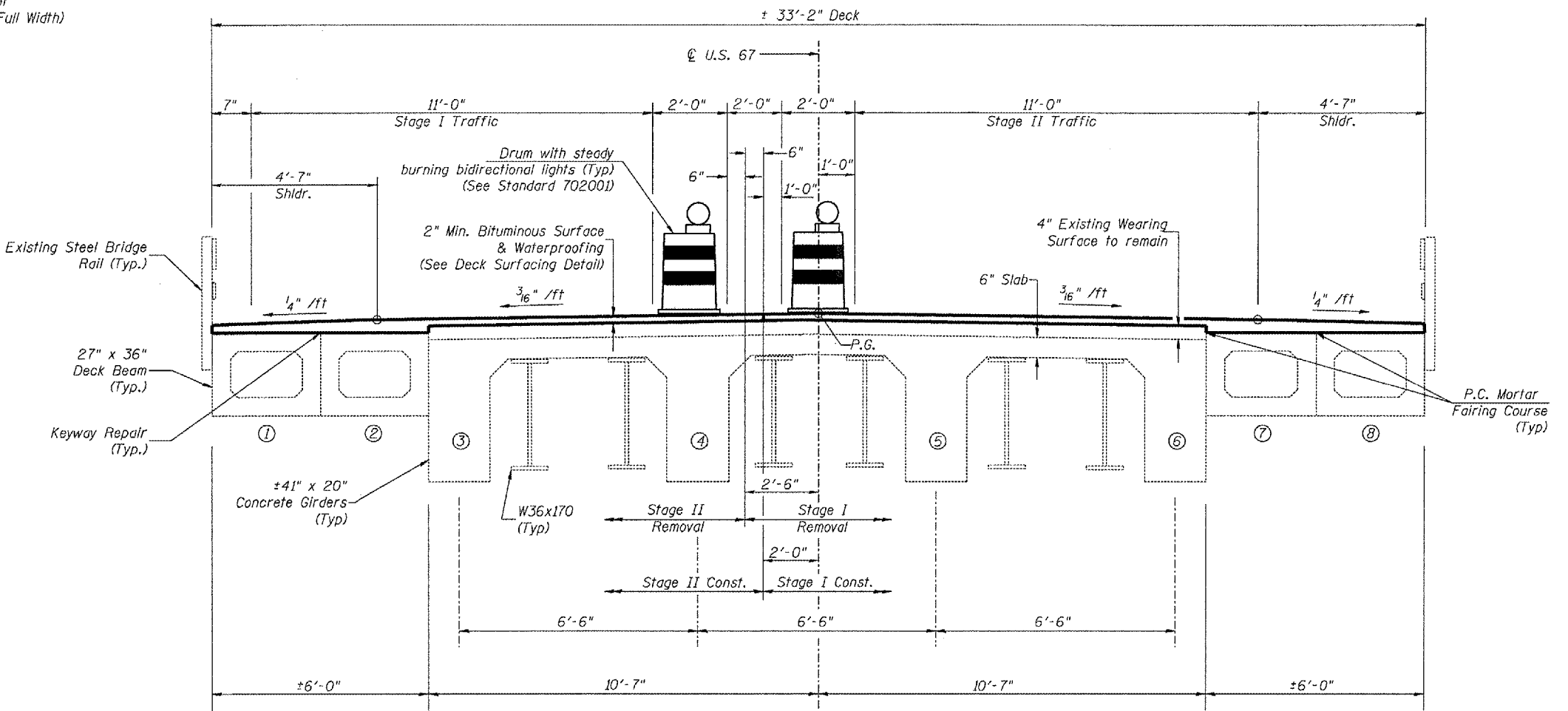


**BITUMINOUS SURFACE PROFILE**  
(27" x 36" Deck Beams)

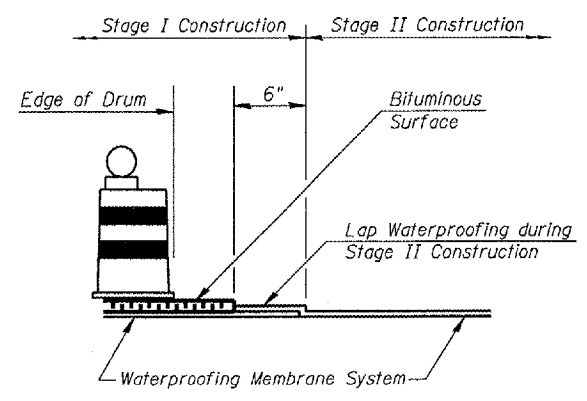
Note:  
The minimum thickness of the Bituminous Overlay shall be 2" and varies as required to adjust for the beam camber and the step at the interface of the deck beam and concrete girder.



**DECK SURFACING DETAIL**



**EXISTING CROSS SECTION**  
(Looking South)



**WATERPROOFING TREATMENT AT STAGE CONSTRUCTION**

**CONSTRUCTION SEQUENCE**

1. Move Traffic to Stage I.
2. Perform repairs to Beam 6.
3. Remove Bituminous Surface and Waterproofing for Stage I Construction.
4. Complete P.C. Mortar Fairing Course and Keyway Repair on longitudinal joints of deck beams 7 and 8.
5. Replace Waterproofing and Bituminous Surface for Stage I Construction.
6. Move traffic to Stage II.
7. Complete repairs to Beam 3.
8. Repeat steps 3, 4, and 5 for beams and deck under Stage II Construction.

REVISIONS	
NAME	DATE

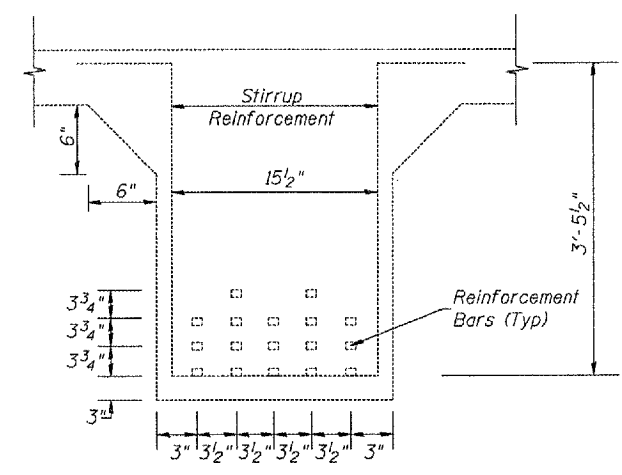
ILLINOIS DEPARTMENT OF TRANSPORTATION  
**DECK CROSS SECTION**  
F.A.P. 310 (U.S. 67) OVER CAMP CREEK  
SECTION (40BY)BR  
McDONOUGH COUNTY  
STA. 286+90  
S.N. 055-0006

**LI ENGINEERING, LTD.**  
210 W. BROADWAY  
CHICAGO, ILLINOIS 60601  
DESIGNED BY: STD  
CHECKED BY: KRJ  
DATE: 11/05

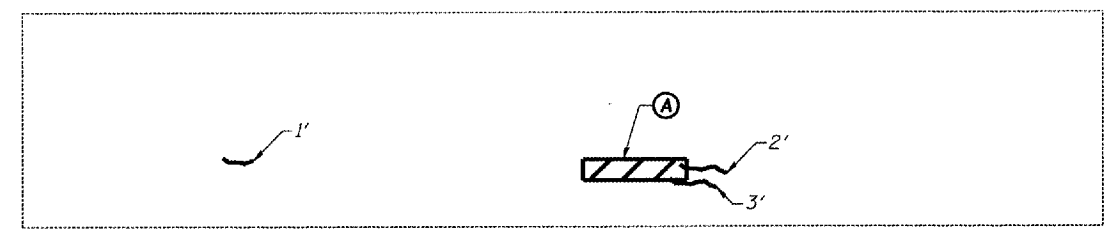
Contract #68677

**STRUCTURAL REPAIR OF CONCRETE**

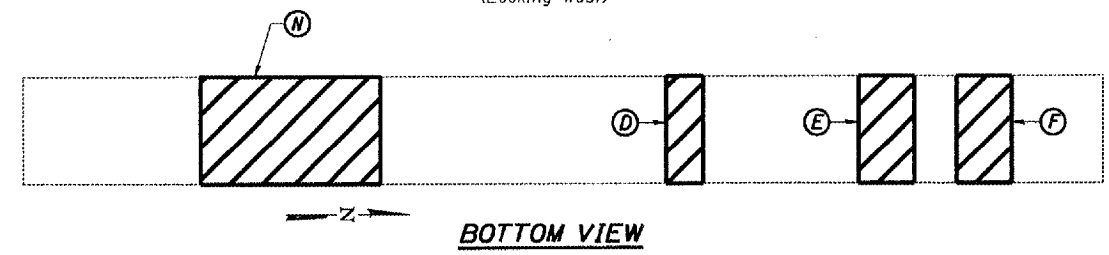
Designation	Size	Area (Sq. Ft.)
A	3' x 0.7'	2.1
B	5' x 0.7'	3.5
C	6' x 0.7'	4.2
D	2' x 1.7'	3.4
E	3' x 1.7'	5.1
F	3' x 1.7'	5.1
G	5' x 0.7'	3.5
H	26' x 0.7'	18.2
I	12' x 0.7'	8.4
J	5' x 0.7'	3.5
K	5' x 0.3'	1.5
L	16' x 1.7'	27.2
M	21' x 1.7'	35.7
N	10' x 1.7'	17.0
Total =		138.4



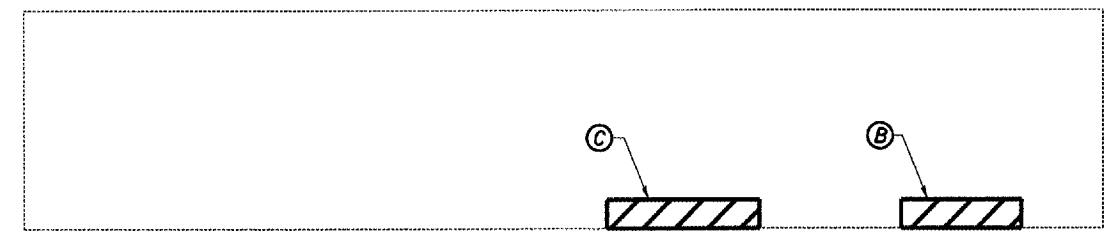
**SECTION THRU CONCRETE GIRDERS**



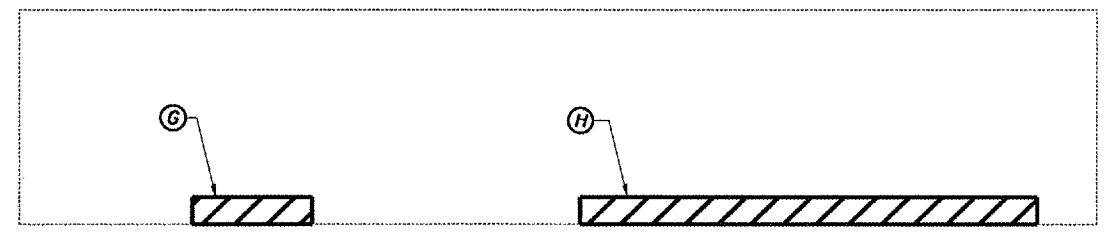
**CONCRETE GIRDER #3**  
(Looking West)



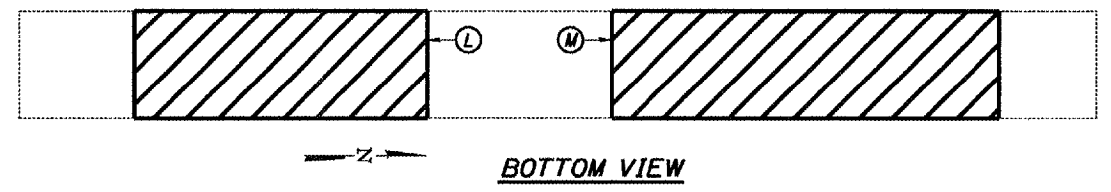
**BOTTOM VIEW**



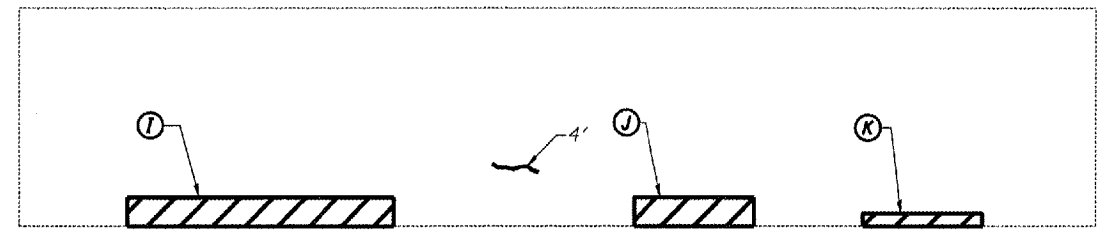
**CONCRETE GIRDER #3**  
(Looking East)



**CONCRETE GIRDER #6**  
(Looking West)



**BOTTOM VIEW**



**CONCRETE GIRDER #6**  
(Looking East)

**Note:**  
The quantities shown are for estimating purposes only. Area to be repaired will be determined by the Engineer at the time of construction. Actual repair locations shall be shown on the as-built plans.

**LEGEND**

- Structural Repair of Concrete (Depth Equal to or less than 5 in.)
- Epoxy Crack Sealing

**BILL OF MATERIAL**

ITEM	UNIT	TOTAL
Structural Repair of Concrete (Depth Equal to or less than 5 in.)	Sq. Ft.	139
Epoxy Crack Sealing	Foot	10

**LIN ENGINEERING, LTD.**  
313 W. Chestnut  
Channahon, Illinois 62620  
Tel: 815-453-4668 Fax: 815-453-4705  
Designed By: STD Checked By: RMD Drawn By: JWD  
Date: 11/05 File: 0520006.dgn

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION  
**CONCRETE GIRDER REPAIR**  
F.A.P. 310 (U.S. 67) OVER CAMP CREEK  
SECTION (40B)BR  
McDONOUGH COUNTY  
STA. 286+90  
S.N. 055-0006

# SCHEDULE OF QUANTITIES - GRINDSTONE CREEK

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 310 U.S. 67	(40B)BR, (41-A)BR-1	McDonough	66	11
FED. ROAD DIST. NO. 4			FED. AID PROJECT-	
Contract #68677				

LOCATION	EARTH EXCAVATION (SPECIAL) ± 20200410	EARTH EXCAVATION ADJUSTED FOR SHRINKAGE 25%	EMBANKMENT	EARTHWORK BALANCE WASTE (+) OR SHORTAGE (-)
STAGE I STA. 450+30 - 453+70.93 STA. 454+69.07 - 458+00	787	590	965	-375
Ø STRUCTURE STA. 453+70.93 - 454+00 STA. 454+30 - 454+69.07	584	438	0	438
<b>TOTALS</b>	<b>1,371</b>	<b>1,028</b>	<b>965</b>	<b>63</b>

LOCATION	EARTH EXCAVATION (SPECIAL) ± 20200410	EARTH EXCAVATION ADJUSTED FOR SHRINKAGE 25%	EMBANKMENT	EARTHWORK BALANCE WASTE (+) OR SHORTAGE (-)
STAGE II STA. 450+30 - 453+70.93 STA. 454+69.07 - 458+00	119	90	529	-439
Ø STRUCTURE STA. 453+70.93 - 454+00 STA. 454+30 - 454+69.07	714	536	0	536
<b>TOTALS</b>	<b>833</b>	<b>626</b>	<b>529</b>	<b>97</b>

CHANNEL EXCAVATION		
STATION	CU. YD.	REMARKS
STA. 454+00 - 454+30	124	
<b>TOTAL</b>	<b>124</b>	

20300100

TOPSOIL FURNISH AND PLACE, 4"		
STATION	SO. YD.	REMARKS
STAGE I CONSTRUCTION	1,802	AS DIRECTED BY THE ENGINEER
STAGE II CONSTRUCTION	766	
<b>PROJECT TOTAL</b>	<b>2,568</b>	

21101615

SEEDING, CLASS 2 & TEMPORARY SEEDING		
STATION	ACRE	REMARKS
ENTIRE PROJECT	0.57	AS DIRECTED BY THE ENGINEER
<b>PROJECT TOTAL</b>	<b>0.57</b>	

25000200 & 25002300

NITROGEN FERTILIZER NUTRIENT		
STATION	POUND	REMARKS
ENTIRE PROJECT	51	AS DIRECTED BY THE ENGINEER
<b>PROJECT TOTAL</b>	<b>51</b>	

25000400

PHOSPHOROUS FERTILIZER NUTRIENT		
STATION	POUND	REMARKS
ENTIRE PROJECT	51	AS DIRECTED BY THE ENGINEER
<b>PROJECT TOTAL</b>	<b>51</b>	

25000500

POTASSIUM FERTILIZER NUTRIENT		
STATION	POUND	REMARKS
ENTIRE PROJECT	51	AS DIRECTED BY THE ENGINEER
<b>PROJECT TOTAL</b>	<b>51</b>	

25000600

EROSION CONTROL BLANKET		
STATION	SO. YD.	REMARKS
ENTIRE PROJECT	2,772	SEE EROSION CONTROL PLAN
<b>PROJECT TOTAL</b>	<b>2,772</b>	

25100630

TEMPORARY DITCH CHECKS		
STATION	EACH	REMARKS
LT. STA. 455+15	1	SEE EROSION CONTROL PLAN
LT. STA. 456+00	1	
LT. STA. 457+00	1	
RT. STA. 457+16	1	
<b>PROJECT TOTAL</b>	<b>4</b>	

28000300

PERIMETER EROSION BARRIER		
STATION	FOOT	REMARKS
RT. STA. 450+30 - STA. 453+60	335	SEE EROSION CONTROL PLAN
LT. STA. 450+30 - STA. 453+90	360	
RT. STA. 454+52 - STA. 456+07	165	
RT. STA. 456+30 - STA. 458+00	110	
<b>PROJECT TOTAL</b>	<b>970</b>	

28000400

STONE RIPRAP, CLASS A3		
STATION	SO. YD.	REMARKS
LT. STA. 452+78	5.5	
RT. STA. 452+78	5.5	
<b>PROJECT TOTAL</b>	<b>11</b>	

28100105

STONE RIPRAP, CLASS A4		
STATION	SO. YD.	REMARKS
STA. 453+55 - 455+00	832	
<b>PROJECT TOTAL</b>	<b>832</b>	

28100107

FILTER FABRIC		
STATION	SO. YD.	REMARKS
LT. STA. 452+78	5.5	
RT. STA. 452+78	5.5	
STA. 453+55 - 455+00	832	
<b>PROJECT TOTAL</b>	<b>843</b>	

28200200

SUB-BASE GRANULAR MATERIAL, TYPE A		
STATION	TON	REMARKS
STA. 453+40.93 - STA. 453+70.93	25	STANDARD 420401-05
STA. 454+69.07 - STA. 454+99.07	25	
<b>PROJECT TOTAL</b>	<b>50</b>	

31100100

BITUMINOUS MATERIALS (PRIME COAT)		
STATION	GALLON	REMARKS
BITUMINOUS BINDER COURSE	44	STAGE I & II BINDER APPLICATION
BITUMINOUS SURFACE COURSE	213	
<b>PROJECT TOTAL</b>	<b>257</b>	

40600100

AGGREGATE (PRIME COAT)		
STATION	TON	REMARKS
BITUMINOUS SURFACE COURSE	3.2	AS DIRECTED BY THE ENGINEER
<b>PROJECT TOTAL</b>	<b>3.2</b>	

40600300

HMA SURFACE REMOVAL - BUTT JOINT		
STATION	SO. YD.	REMARKS
STA. 450+30 - STA. 450+60	80	STANDARD 406101-D4
STA. 457+70 - STA. 458+00	80	
<b>PROJECT TOTAL</b>	<b>160</b>	

40600980

BRIDGE APPROACH PAVEMENT		
STATION	SO. YD.	REMARKS
STA. 453+40.93 - STA. 453+70.93	118	STANDARD 420401-05
STA. 454+69.07 - STA. 454+99.07	118	
<b>PROJECT TOTAL</b>	<b>236</b>	

42001165

BRIDGE APPROACH PAVEMENT CONNECTOR (FLEXIBLE)		
STATION	SO. YD.	REMARKS
STAGE I CONSTRUCTION		
STA. 453+34.93 - STA. 453+40.93	10.1	STANDARD 420401-05
STA. 454+99.07 - STA. 455+05.07	10.1	
STAGE II CONSTRUCTION		
STA. 453+34.93 - STA. 453+40.93	13.4	
STA. 454+99.07 - STA. 455+05.07	13.4	
<b>PROJECT TOTAL</b>	<b>47</b>	

42001430

HMA SHOULDERS 8"		
STATION	SO. YD.	REMARKS
RT. STA. 450+30 - STA. 452+73	103	
RT. STA. 452+83 - STA. 453+34	28	
RT. STA. 454+69 - STA. 455+89	33	
RT. STA. 455+82 - STA. 457+15	180	ENTRANCES & MAIL BOX TURNOUT -
RT. STA. 457+08 - STA. 458+00	49	STANDARD 406201-D4 &
<b>PROJECT TOTAL</b>	<b>393</b>	STANDARD 406301-D4

48202600

HMA SHOULDERS 10"		
STATION	SO. YD.	REMARKS
LT. STA. 450+30 - STA. 452+73	135	USED FOR STAGE II TRAFFIC
LT. STA. 452+83 - STA. 453+51	38	
LT. STA. 455+06 - STA. 458+00	167	
<b>PROJECT TOTAL</b>	<b>340</b>	

48202800

PORTLAND CEMENT CONCRETE SHOULDERS 10"		
STATION	SO. YD.	REMARKS
LT. STA. 452+73 - STA. 452+83	5	FOR EROSION CONTROL CURB INLETS
RT. STA. 452+72 - STA. 452+83	5	
<b>PROJECT TOTAL</b>	<b>10</b>	

48300500

METAL END SECTIONS 12"		
STATION	EACH	REMARKS
LT. STA. 452+78	1	
RT. STA. 452+78	1	
<b>PROJECT TOTAL</b>	<b>2</b>	

54215547

PIPE DRAINS 12" & PIPE ELBOW, 12"			
STATION	DRAINS FOOT	ELBOWS EACH	REMARKS
LT. STA. 452+78	21	2	
RT. STA. 452+78	14	2	
<b>PROJECT TOTAL</b>	<b>35</b>	<b>4</b>	

60100945 & X0321475

TYPE C INLET BOX, STANDARD 609001		
STATION	EACH	REMARKS
LT. STA. 452+78	1	
RT. STA. 452+78	1	
<b>PROJECT TOTAL</b>	<b>2</b>	

60900215

CONCRETE THRUST BLOCKS		
STATION	EACH	REMARKS
LT. STA. 452+78	1	
RT. STA. 452+78	1	
<b>PROJECT TOTAL</b>	<b>2</b>	

60900515

**SCHEDULE OF QUANTITIES  
F.A.P. 310 SECTION (41A)BR-1  
U.S. ROUTE 67 OVER GRINDSTONE CREEK  
McDONOUGH COUNTY  
STA. 454+20 (S.N. 055-0049)**

# SCHEDULE OF QUANTITIES - GRINDSTONE CREEK

ROUTE NO. F.A.P. 310 U.S. 67	SECTION (40B)BR, (41-A)BR-1	COUNTY McDonough	TOTAL SHEETS 66	SHEET 12
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FED. ROAD DIST. NO. 4      FED. AID PROJECT: Contract #68677

TRAFFIC BARRIER TERMINAL, TYPE 6		
STATION	EACH	REMARKS
N.E. BRIDGE GUARDRAIL	1	STANDARD 631031-05
N.W. BRIDGE GUARDRAIL	1	
S.E. BRIDGE GUARDRAIL	1	
S.W. BRIDGE GUARDRAIL	1	
<b>PROJECT TOTAL</b>	<b>4</b>	

63100085

EPOXY PAVEMENT MARKING - LINE 4"		
STATION	FOOT	REMARKS
LT. STA. 450+30 - STA. 458+00	770	EDGE LINE - WHITE
STA. 450+30 - STA. 458+00	1,540	CENTERLINE - DBL YELLOW
RT. STA. 450+30 - STA. 458+00	770	EDGE LINE - WHITE
<b>PROJECT TOTAL</b>	<b>3,080</b>	

78005110

HMA BINDER COURSE, IL-19.0, N50		
STATION	TON	REMARKS
STA. 451+75+ - STA. 453+40.93	258	AS DIRECTED BY THE ENGINEER
<b>PROJECT TOTAL</b>	<b>258</b>	

40603080

PERMANENT SURVEY MARKERS TYPE I			
STATION	DESC.	EACH	REMARKS
STA. 450+50	POT	1	
STA. 458+00	POT	1	
S.N. 055-0049		1	
<b>PROJECT TOTAL</b>		<b>3</b>	

66700205

TRAFFIC BARRIER TERMINAL, TYPE 1, SPECIAL (TANGENT)		
STATION	EACH	REMARKS
N.E. BRIDGE GUARDRAIL	1	STANDARD 630301-03
N.W. BRIDGE GUARDRAIL	1	
S.E. BRIDGE GUARDRAIL	1	
<b>PROJECT TOTAL</b>	<b>3</b>	

63100167

RAISED REFLECTIVE PAVEMENT MARKER		
STATION	EACH	REMARKS
STA. 450+30 - STA. 458+00	10	STANDARD 781001-02
<b>PROJECT TOTAL</b>	<b>10</b>	

78100100

EROSION CONTROL CURB		
STATION	FOOT	REMARKS
LT. STA. 452+14 - STA. 453+51	137	STANDARD 630101-D4
RT. STA. 450+93 - STA. 453+31	238	
LT. STA. 455+09 - STA. 457+47	238	
RT. STA. 454+89 - STA. 455+89	100	
<b>PROJECT TOTAL</b>	<b>713</b>	

Z0020800

TEMPORARY BRIDGE TRAFFIC SIGNALS		
STATION	EACH	REMARKS
N.E. BRIDGE		
N.W. BRIDGE	1	
S.E. BRIDGE		
S.W. BRIDGE		
<b>PROJECT TOTAL</b>	<b>1</b>	

70106500

TRAFFIC BARRIER TERMINAL, TYPE 1, SPECIAL (FLARED)		
STATION	EACH	REMARKS
S.W. BRIDGE GUARDRAIL	1	STANDARD 630301-03
<b>PROJECT TOTAL</b>	<b>1</b>	

63100169

GUARD RAIL MARKERS, TYPE A		
STATION	EACH	REMARKS
LT. STA. 451+80 - 457+81	6	STANDARD 635011-02
RT. STA. 450+59 - 456+13	6	
<b>PROJECT TOTAL</b>	<b>12</b>	

78200410

IMPACT ATTENUATORS, TEMPORARY (NON REDIRECTIVE) TEST LEVEL 3		
STATION	EACH	REMARKS
STAGE I CONSTRUCTION	2	
<b>PROJECT TOTAL</b>	<b>2</b>	

Z0030250

STEEL PLATE BEAM GUARD RAIL REMOVAL		
STATION	FOOT	REMARKS
N.E. BRIDGE GUARDRAIL	372	
N.W. BRIDGE GUARDRAIL	366	
S.E. BRIDGE GUARDRAIL	100	
S.W. BRIDGE GUARDRAIL	76	
<b>PROJECT TOTAL</b>	<b>914</b>	

63200305

TERMINAL MARKER - DIRECT APPLIED		
STATION	EACH	REMARKS
RT. STA. 450+93	1	STANDARD 635006-02
LT. STA. 452+14	1	
LT. STA. 457+47	1	
RT. STA. 456+13	1	
<b>PROJECT TOTAL</b>	<b>4</b>	

78201000

IMPACT ATTENUATORS, RELOCATE (NON REDIRECTIVE) TEST LEVEL 3		
STATION	EACH	REMARKS
STAGE I CONSTRUCTION	2	
<b>PROJECT TOTAL</b>	<b>2</b>	

Z0030350

TEMPORARY PAINT PAVEMENT MARKING LINE 4"		
STATION	FOOT	REMARKS
LT. STA. 450+30 - STA. 458+00	770	EDGE LINE - WHITE
STA. 450+30 - STA. 458+00	1,540	CENTERLINE - DBL YELLOW
RT. STA. 450+30 - STA. 458+00	770	EDGE LINE - WHITE
<b>PROJECT TOTAL</b>	<b>3,080</b>	

70300625

GUARDRAIL AGGREGATE EROSION CONTROL		
STATION	TON	REMARKS
LT. STA. 451+80 - STA. 453+51	28	STANDARD 630001-06
RT. STA. 450+99 - STA. 453+31	45	
LT. STA. 455+09 - STA. 457+81	45	
RT. STA. 454+89 - STA. 456+13	21	
<b>PROJECT TOTAL</b>	<b>139</b>	

X0301612

FURNISHING AND ERECTING RIGHT-OF-WAY MARKERS		
STATION	EACH	REMARKS
STA. 450+30 30' LT	1	
STA. 450+30 55' LT	1	
STA. 451+00 35' RT	1	
STA. 451+00 40' RT	1	
STA. 455+75 35' RT	1	
STA. 455+75 40' RT	1	
STA. 457+30 40' LT	1	
STA. 457+30 55' LT	1	
<b>PROJECT TOTAL</b>	<b>8</b>	

66600105

TEMPORARY CONCRETE BARRIER		
STATION	FOOT	REMARKS
STAGE I CONSTRUCTION	520	
STA. 451+00 - STA. 456+20		
<b>PROJECT TOTAL</b>	<b>520</b>	

70400100

HMA BASE COURSE WIDENING, 10 INCH		
STATION	SQ. YD.	REMARKS
RT. STA. 450+30 - STA. 453+96	81	USED FOR STAGE I TRAFFIC
RT. STA. 454+28 - STA. 455+85	35	
<b>PROJECT TOTAL</b>	<b>116</b>	

X3560140

STEEL PLATE BEAM GUARDRAIL, TYPE A		
STATION	FOOT	REMARKS
N.E. BRIDGE GUARDRAIL	87.5	STANDARD 630001-06
N.W. BRIDGE GUARDRAIL	187.5	
S.E. BRIDGE GUARDRAIL	187.5	
S.W. BRIDGE GUARDRAIL	50	
<b>PROJECT TOTAL</b>	<b>512.5</b>	

63000000

RELOCATE TEMPORARY CONCRETE BARRIER		
STATION	FOOT	REMARKS
STAGE II CONSTRUCTION	520	
STA. 451+00 - STA. 456+20		
<b>PROJECT TOTAL</b>	<b>520</b>	

70400200

HMA SURFACE COURSE, MIX "D", N50		
STATION	TON	REMARKS
STA. 450+30 - STA. 453+40.93	102	AS DIRECTED BY THE ENGINEER
STA. 454+99.07 - STA. 458+00	90	
<b>PROJECT TOTAL</b>	<b>192</b>	

X4066426

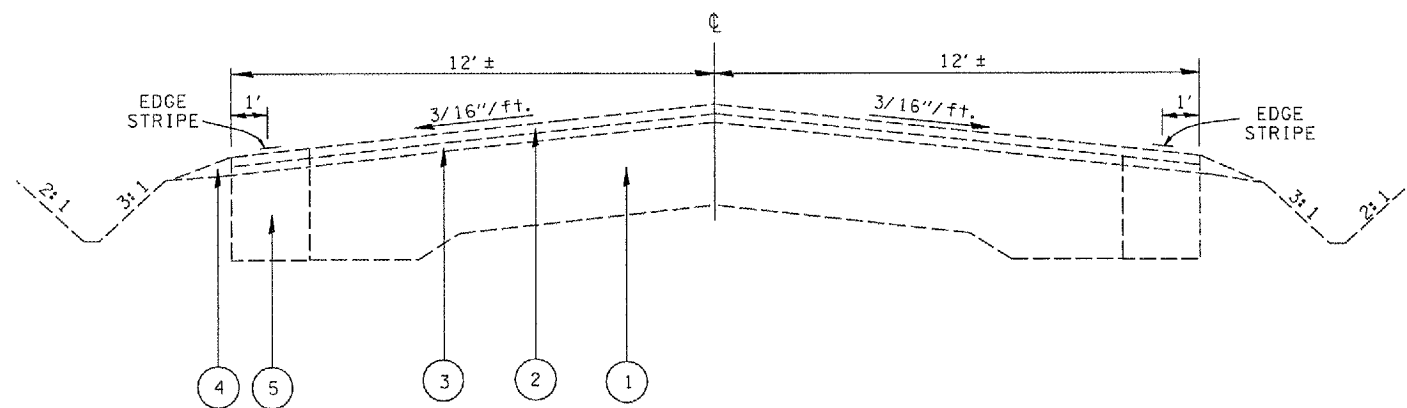
TEMPORARY RUMBLE STRIP		
LOCATION	EACH	REMARKS
NORTH PROJECT LIMIT	3	
<b>PROJECT TOTAL</b>	<b>3</b>	

70106700

**SCHEDULE OF QUANTITIES**  
**F.A.P. 310 SECTION (41A)BR-1**  
**U.S. ROUTE 67 OVER GRINDSTONE CREEK**  
**MCDONOUGH COUNTY**  
**STA. 454+20 (S.N. 055-0049)**

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 310	(40B)BR.	McDonough	66	13
U.S. 67	(41-A)BR-1			

FED. ROAD DIST. NO. 4      FED. AID PROJECT-  
Contract #58677

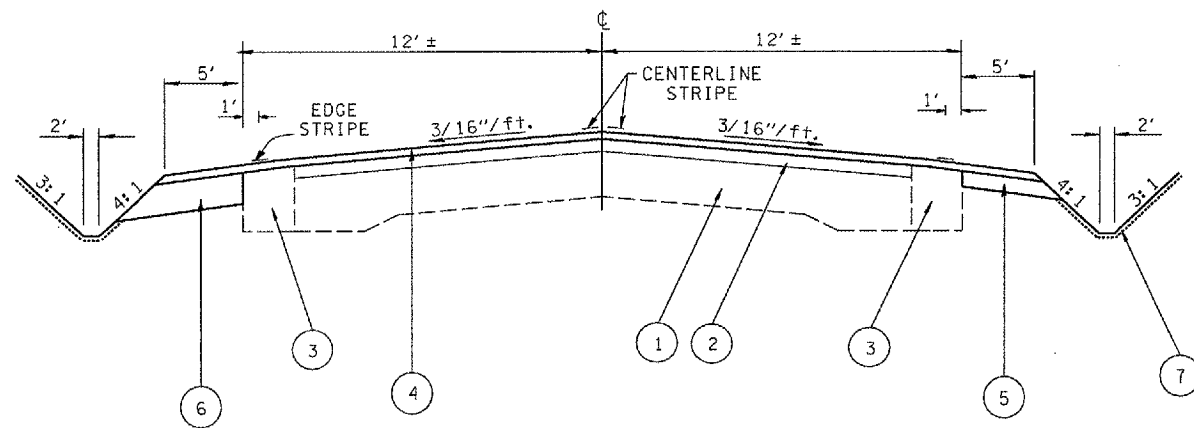


**EXISTING TYPICAL SECTION**

Sta. 461+42.77 to Sta. 782+46  
Excluding Guardrail Locations  
NOT TO SCALE

**LEGEND**

- ① EXISTING 9-6-9 PCC PAVEMENT
- ② EXISTING HMA OVERLAY, VARIABLE DEPTH
- ③ EXISTING HMA BINDER COURSE, VARIABLE DEPTH
- ④ EXISTING AGGREGATE SHOULDERS, TYPE B, 2 in
- ⑤ EXISTING 3' WIDENING

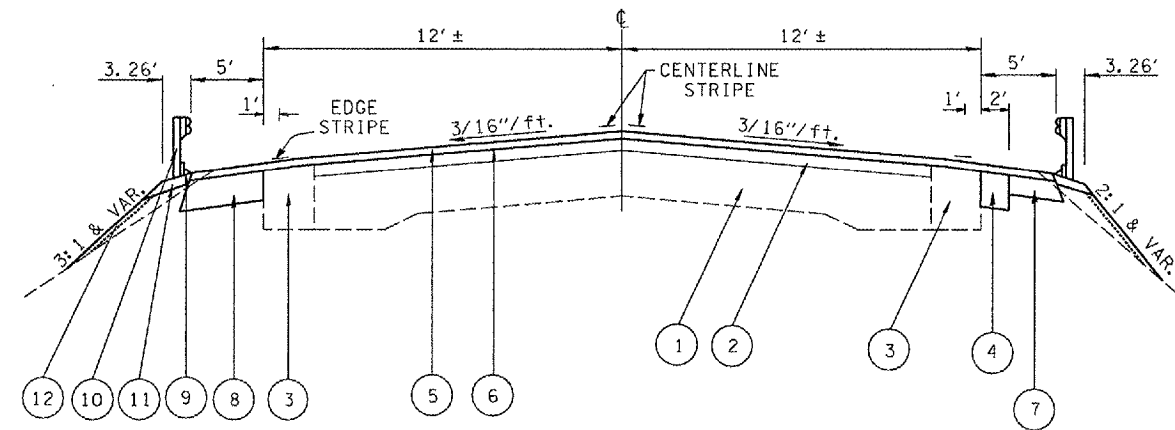


**PROPOSED TYPICAL SECTION**

(Sections not located within GR locations)

**LEGEND**

- ① EXISTING 9-6-9 P.C.C. PAVEMENT
- ② EXISTING HMA OVERLAY, VAR. DEPTH 1.5 - 3.0 in
- ③ EXISTING HMA BASE COURSE WIDENING, 11 in
- ④ PROPOSED HMA SURFACE COURSE, MIX "D", N50 - 1.5 in
- ⑤ PROPOSED HMA SHOULDERS, 8 in
- ⑥ PROPOSED HMA SHOULDERS, 10 in
- ⑦ PROPOSED TOPSOIL FURNISH AND PLACE, 4 in



**PROPOSED TYPICAL SECTION**

Guardrail Locations

**LEGEND**

- ① EXISTING 9-6-9 P.C.C. PAVEMENT
- ② EXISTING HMA OVERLAY, VAR. DEPTH 1.5 - 3.0 in
- ③ EXISTING HMA BASE COURSE WIDENING, 11 in
- ④ PROPOSED HMA BASE COURSE WIDENING 10 in  
(RT. STA. 450+30 - 453+96 & RT. STA. 454+28 - 455+85)
- ⑤ PROPOSED HMA SURFACE COURSE, MIX "D", N50 - 1.5 in
- ⑥ PROPOSED HMA BINDER COURSE, IL-19.0, N50 (AS NEEDED)
- ⑦ PROPOSED HMA SHOULDERS, 8 in
- ⑧ PROPOSED HMA SHOULDERS, 10 in
- ⑨ PROPOSED EROSION CONTROL CURB
- ⑩ PROPOSED STEEL PLATE BEAM GUARDRAIL
- ⑪ PROPOSED EROSION CONTROL AGGREGATE
- ⑫ PROPOSED TOPSOIL FURNISH AND PLACE, 4 in

**TYPICAL SECTIONS**  
**F.A.P. 310 SECTION (41A)BR-1**  
**U.S. ROUTE 67 OVER GRINDSTONE CREEK**  
**MCDONOUGH COUNTY**  
**STA. 454+20 (S.N. 055-0049)**

WHA # 1050D03

SEC 15, T4N, R2W, 4TH PM  
(TYP PAGE XX-XX)

Bench Marks Chiseled "□" on Northeast Wingwall  
of S.N. 055-0018  
Elev. 609.74

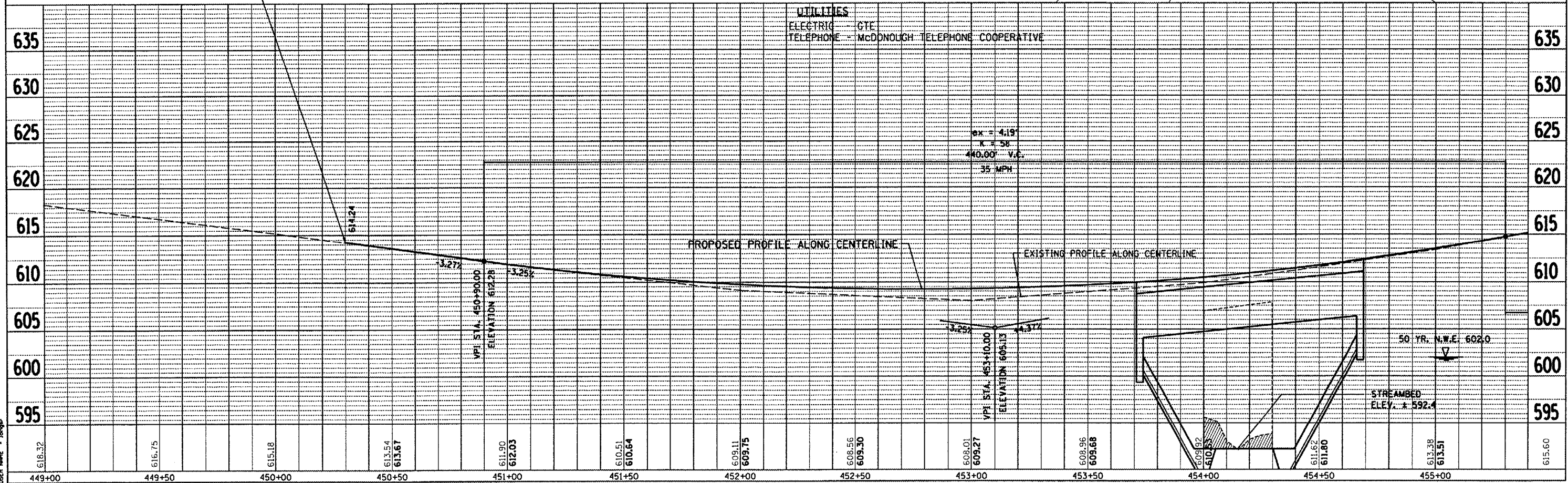
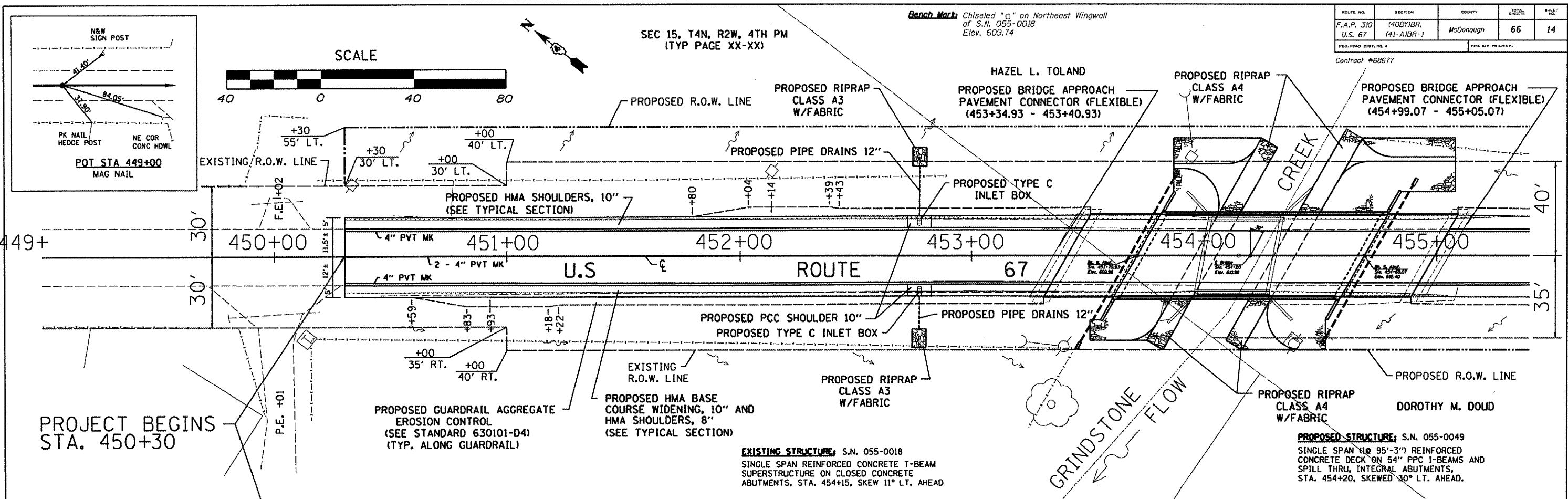
ROUTE NO.	SECTION	COUNTY	107% SHEETS	SHEET NO.
F.A.P. 310 U.S. 67	(40B)BR, (41-A)BR-1	McDonough	66	14

Contract #68677

DATE	BY
DATE	BY
DATE	BY

DATE	BY
DATE	BY
DATE	BY

PLOT DATE: 7/12/2007  
PLOT SCALE: 1"=40'  
USER NAME: jorjor



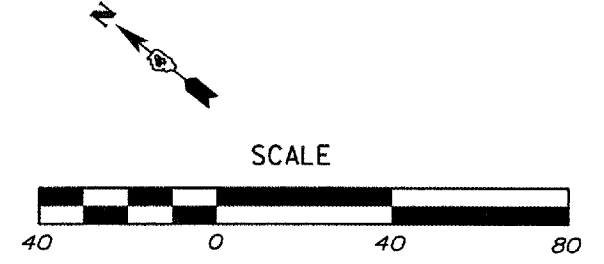
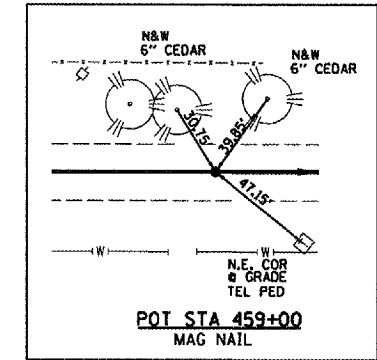
US RT 67 OVER GRINDSTONE CREEK

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 310 U.S. 67	(40BY)BR. (41-A)BR-1	McDonough	66	15

FED. ROAD DIST. NO. 4  
FED. AID PROJECT-

Contract #68577

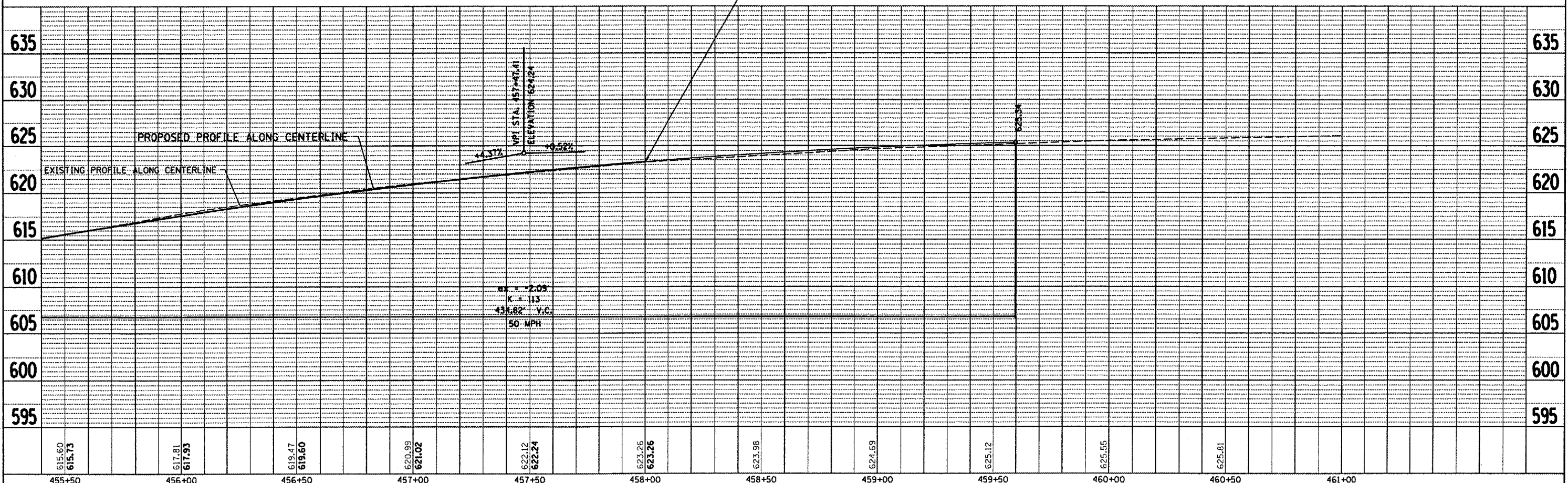
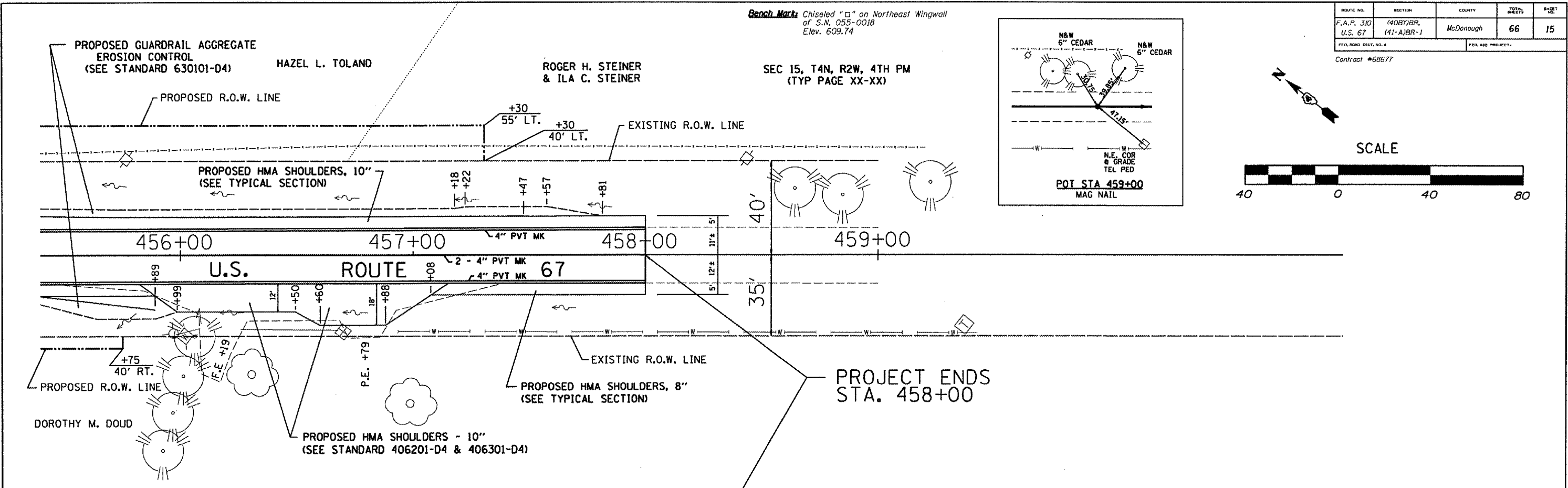
**Bench Mark:** Chiseled "□" on Northeast Wingwall of S.N. 055-0018 Elev. 609.74

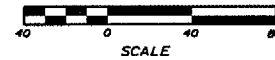
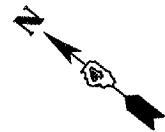


PLAN	DATE	BY
SURVEYED		
PLotted		
Checked		
Approved		

PROFILE	DATE	BY
SURVEYED		
Plotted		
Checked		
Approved		

PLOT DATE: 7/12/2007  
FILE NAME: c:\p\proj\1881861\sheetp15.dwg  
PLOT SCALE: 1/8" = 1' / 1/4" = 1'  
USER NAME: jlonger



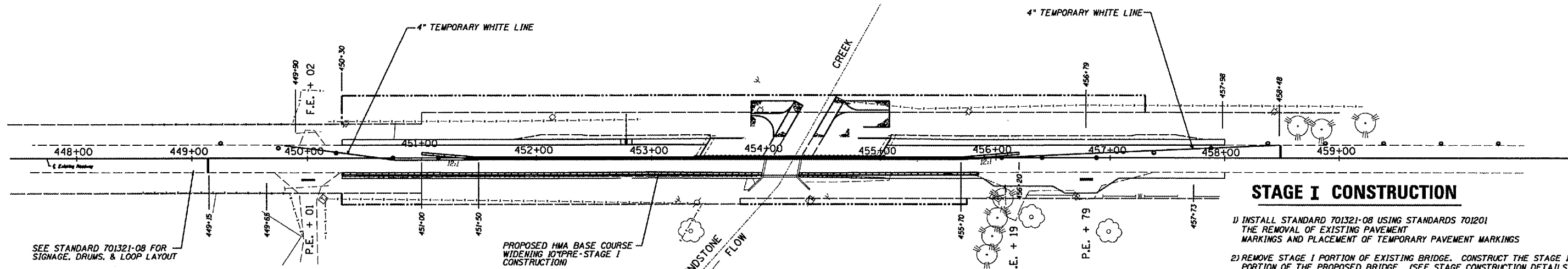


# STAGE I CONSTRUCTION AND BARRIER LAYOUT

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 310 U.S. 67	(40B)BR, (41-A)BR-1	McDonough	66	16
FED. ROAD DIST. NO. 4			FED. AID PROJECT	
Contract #68677				

## PRE-STAGE I CONSTRUCTION

- 1) INSTALL HMA BASE COURSE WIDENING 10" FROM RT. STA. 450+30 TO RT. STA. 453+96 AND RT. STA. 454+28 TO RT. STA. 455+85 USING STANDARDS 701326



SEE STANDARD 701321-08 FOR SIGNAGE, DRUMS, & LOOP LAYOUT

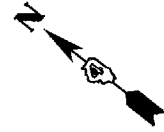
PROPOSED HMA BASE COURSE WIDENING 10" (PRE-STAGE I CONSTRUCTION)

ALL STOP BARS, SIGNALS, LOOPS AND SIGNS SHALL REMAIN IN PLACE FOR STAGE I AND II CONSTRUCTION

LEGEND	
24" STOP BARS	—
ATTENUATORS	▨
TEMPORARY CONC. BARRIERS	▬
DRUM WITH STEADY BURNING LIGHT	○
TYPE III BARRICADE W/ FLASHING LIGHTS	⊥
INDUCTION LOOP DETECTOR	◇
TRAFFIC SIGNAL	➔

## STAGE I CONSTRUCTION

- 1) INSTALL STANDARD 701321-08 USING STANDARDS 701201 THE REMOVAL OF EXISTING PAVEMENT MARKINGS AND PLACEMENT OF TEMPORARY PAVEMENT MARKINGS
- 2) REMOVE STAGE I PORTION OF EXISTING BRIDGE. CONSTRUCT THE STAGE I PORTION OF THE PROPOSED BRIDGE. (SEE STAGE CONSTRUCTION DETAILS AND SEQUENCE SHEET IN THE BRIDGE PLANS). PERFORM STAGE I EARTHWORK, PAVEMENT REMOVAL, PORTION OF NEW PAVEMENT, HMA AND PCC SHOULDERS, STORM INLETS, PIPE DRAINS, AND GUARD RAIL. HMA SURFACE 1-1/2" TO BE PLACED IN FINAL CONSTRUCTION.
- 3) RELOCATE STANDARD 701321-08 TO STAGE II ALIGNMENT USING STANDARDS 701301-02 AND 702001-06
- 4) SWITCH TRAFFIC TO STAGE II CONSTRUCTION.



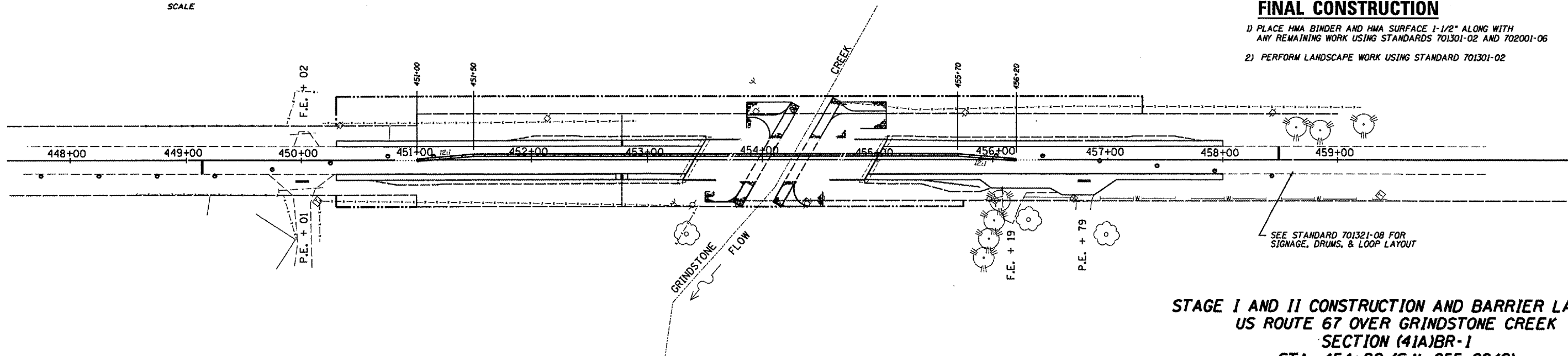
# STAGE II CONSTRUCTION AND BARRIER LAYOUT

## STAGE II CONSTRUCTION

- 1) REMOVE REMAINDER OF EXISTING BRIDGE. CONSTRUCT STAGE II PORTION OF PROPOSED BRIDGE. (SEE STAGE CONSTRUCTION DETAILS AND SEQUENCE SHEET IN BRIDGE PLANS). PERFORM STAGE II EARTHWORK, PAVEMENT REMOVAL, PORTION OF NEW PAVEMENT, HMA AND PCC SHOULDERS, STORM INLETS, PIPE DRAINS, AND GUARD RAIL.
- 2) REMOVE STANDARD 701321-08 USING STANDARDS 701301-02 AND 702001-06

## FINAL CONSTRUCTION

- 1) PLACE HMA BINDER AND HMA SURFACE 1-1/2" ALONG WITH ANY REMAINING WORK USING STANDARDS 701301-02 AND 702001-06
- 2) PERFORM LANDSCAPE WORK USING STANDARD 701301-02



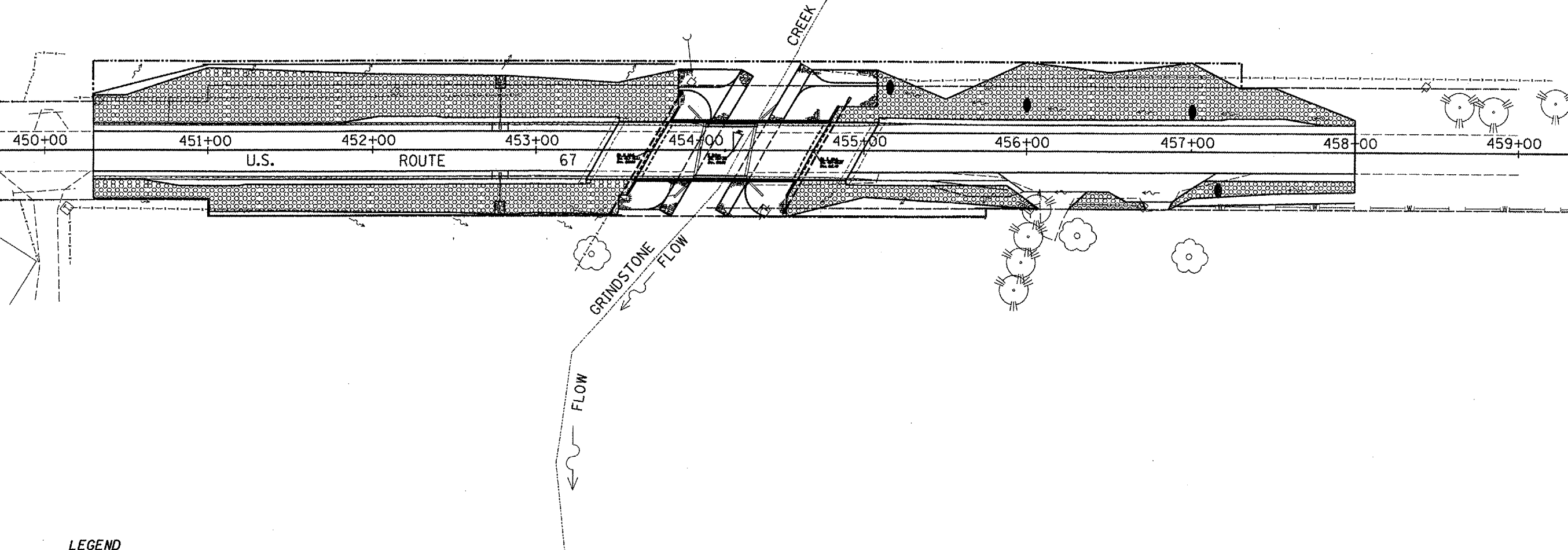
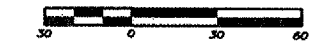
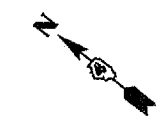
SEE STANDARD 701321-08 FOR SIGNAGE, DRUMS, & LOOP LAYOUT

STAGE I AND II CONSTRUCTION AND BARRIER LAYOUTS  
US ROUTE 67 OVER GRINDSTONE CREEK  
SECTION (41A)BR-1  
STA. 454+20 (S.N. 055-0049)  
MCDONOUGH COUNTY  
WHA # 1050D03



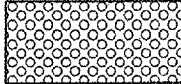


ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 310 U.S. 67	(41A)BR-1	McDonough	66	17
FED. ROAD DIST. NO. #			FED. AID PROJECT #	

Contract #68677



**LEGEND**

-  Temporary Ditch Checks
-  Perimeter Erosion Barrier
-  Erosion Control Blanket

**NOTES:**

Temporary Ditch Checks Shall Comply With Section 280 Of The Standard Specifications For Road And Bridge Construction And Standard 280001-01 Located In The Proposal. Temporary Ditch Checks Shall Be Either Rolled Excelsior Or Aggregate At The Option Of The Contractor.

Temporary Ditch Checks Shall Be Placed At 100' Maximum Centers And Shall Be Placed At Stations Called Out In The Schedule Of Quantities Or As Directed By The Engineer.

Perimeter Erosion Barrier Shall Comply With Section 280 Of The Standard Specifications And Shall Be Placed As Shown On The Erosion Control Plan And In Accordance With Stations Shown On The Schedule Of Quantities Sheet Or As Directed By The Engineer.

Erosion Control Blanket Shall Be Placed In All Disturbed Areas And In Accordance With Section 251 Of The Standard Specifications For Road And Bridge Construction.

**EROSION CONTROL PLAN**  
**F.A.P. 310 SECTION (41A)BR-1**  
**U.S. ROUTE 67 OVER GRINDSTONE CREEK**  
**McDONOUGH COUNTY**  
**STA. 454+20 (S.N. 055-0049)**

WHA # 1050D03

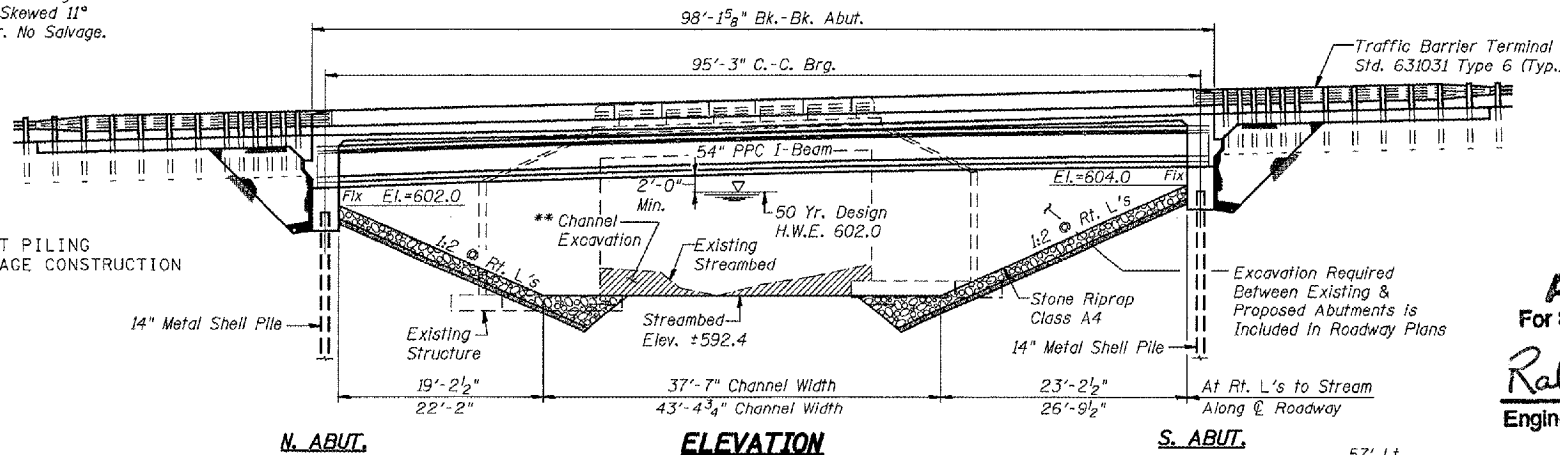
**EXISTING STRUCTURE:** S.N. 055-0018  
 A Single Span (1 @ 32'-6") Reinforced Concrete T-Beam Bridge on Closed Concrete Abutments, 29'-7" F.-F. of Abut. Skewed 11° Left Ahead. Sta. 454+15 To be Removed by Contractor. No Salvage.  
 Traffic shall be Maintained by Stage Construction.

**BENCH MARK:** Chiseled "□" on Northeast Wingwall of S.N. 055-0018 Elev. 609.74

ROUTE NO.	SECTION	COUNTY	SHEETS	SHEET NO.
F.A.P. 310	(41A)BR-1	MCDONOUGH	66	18
FED. ROAD DIST. NO. 4		ILLINOIS	CONTRACT # 28677	

**INDEX OF STRUCTURAL SHEETS**

- 1 GENERAL PLAN & ELEVATION
- 2 CONSTRUCTION STAGING & TEMP. SHEET PILING
- 3 TEMPORARY CONCRETE BARRIER FOR STAGE CONSTRUCTION
- 4 TOP OF SLAB ELEVATIONS
- 5 SUPERSTRUCTURE
- 6 FRAMING & DIAPHRAGM DETAILS
- 7 PARAPET DETAILS
- 8-9 PRESTRESSED BEAM DETAILS
- 10 NORTH ABUTMENT
- 11 SOUTH ABUTMENT
- 12 BAR SPLICER (COUPLER DETAILS)
- 13 PILING DETAILS
- 14 BORING LOGS



**APPROVED**  
 For Structural Adequacy Only  
*Ralph E. Anderson*  
 Engineer of Bridges & Structures (P.E.)

**BILL OF MATERIAL - BRIDGE**

ITEM	UNIT	SUB	SUPER	TOTAL
Porous Granular Embankment (Special)	Cu. Yd.	277	---	277
Stone Riprap, Class A4	Sq. Yd.	832	---	832
Filter Fabric	Sq. Yd.	832	---	832
Protective Coat	Sq. Yd.	---	451	451
Removal of Existing Structures	Each	---	1	1
Structure Excavation	Cu. Yd.	412	---	412
Concrete Structures	Cu. Yd.	43.9	---	43.9
Concrete Superstructure	Cu. Yd.	---	167.4	167.4
Bridge Deck Grooving	Sq. Yd.	---	349	349
Furnishing & Erecting Precast, Prestressed Concrete I-Beams, 54"	Foot	---	673.8	673.8
Reinforcement Bars, Epoxy Coated	Pound	7,400	26,600	34,000
Furnishing Metal Shell Piles, 14"x4"	Foot	908	---	908
Driving Piles	Foot	908	---	908
Test Pile, Metal Shells	Each	1	---	1
Temporary Sheet Piling	Sq. Ft.	2774	---	2774
Name Plates	Each	---	1	1
Bar Splacers	Each	20	367	387
Geocomposite Wall Drain	Sq. Yd.	41	---	41
Pipe Underdrains for Structures 4"	Foot	198	---	198

**GENERAL NOTES**

- Layout of Slope Protection System may be varied in the field to suit ground conditions as directed by the Engineer.
- Reinforcement bars shall conform to the requirements of AASHTO M322 Grade 60.
- The Contractor shall drive Test Piles to 110% of the nominal required bearing specified in production locations at substructures specified or approved by the Engineer before ordering the remainder of Piles.
- Excavation behind existing abutment wall shall be done before removing the existing Superstructure. The Contractor shall Sawcut the existing Abutment at the Stage Removal Line before Stage 1 Removal.
- \* Cost Included with Pipe Underdrains for Structures.
- \*\* Channel Excavation Included in Roadway Plans.
- \*\*\* Quantity is for the Deck, Top & Inside Face of Parapet Only.

STATION 454+20  
 BUILT 200. BY  
 STATE OF ILLINOIS  
 F.A.P. RT. 310 SEC (41A)BR-1  
 LOADING HS20  
 STR. NO. 055-0049

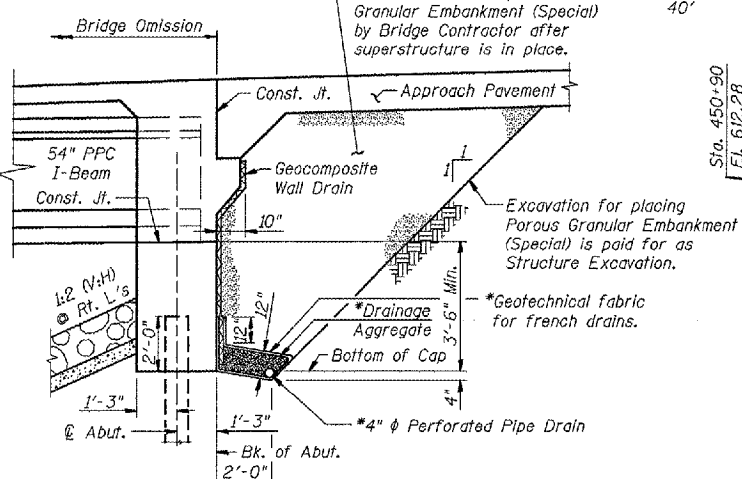
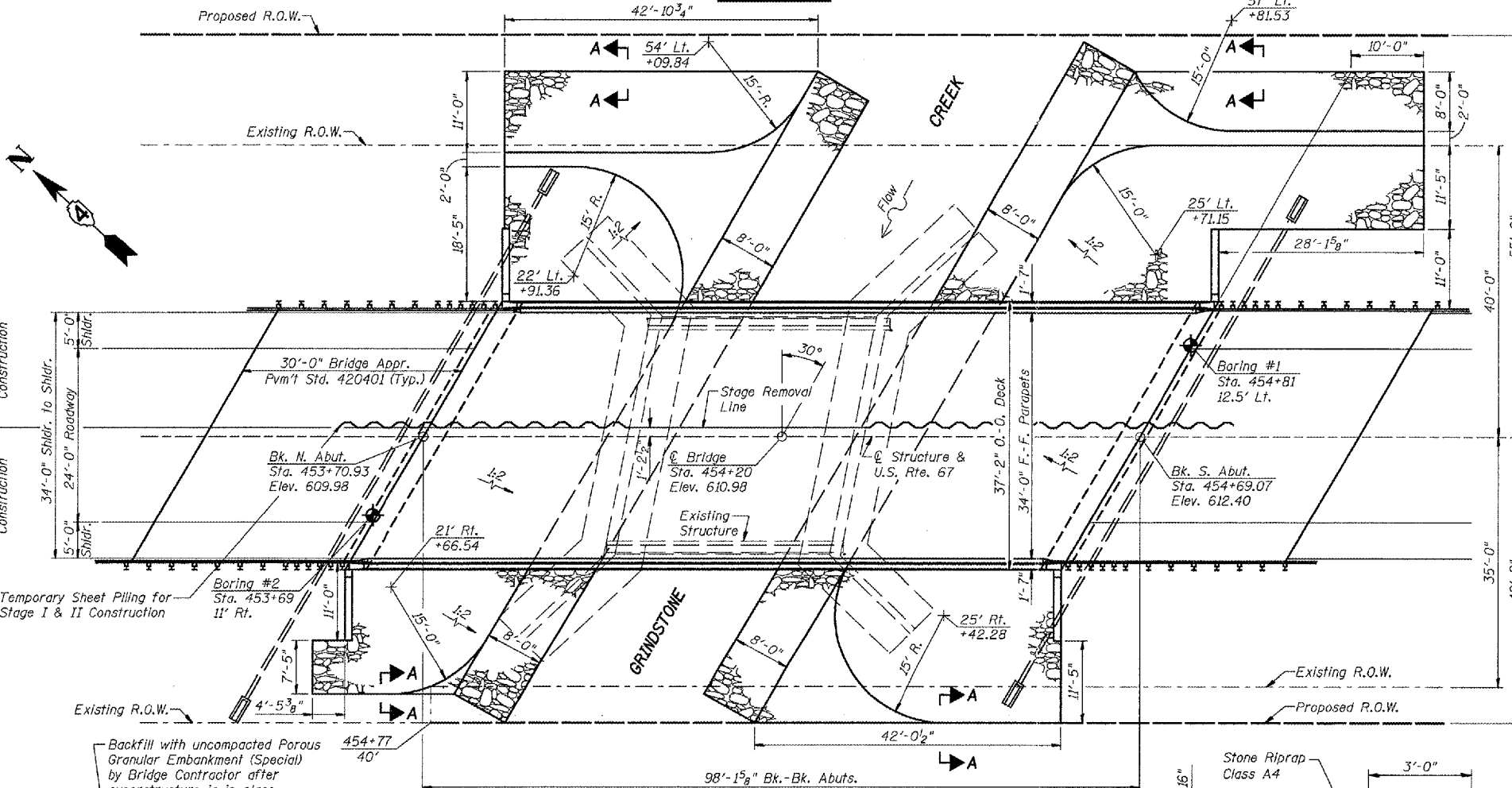
**NAME PLATE LETTERING**

Refer To Std. 515001

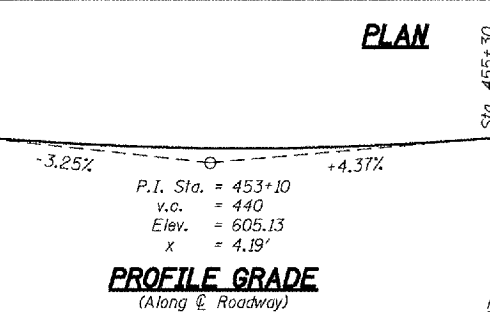
**WATERWAY INFORMATION**

Drainage Area = 12.48 Sq. Mi. Low Grade Elev. = 608.01 @ Sta. 453+00

Flood	Freq. Yr.	Q c.f.s.	Opening Sq. Ft.		Nat. H.W.E.		Head-ft.		Headwater El.	
			Exist.	Prop.	Exist.	Prop.	Exist.	Prop.	Exist.	Prop.
Design	10	1412	219	534	601.4	1.0	0.5	602.4	601.9	
Base	50	2175	236	580	602.0	1.8	1.0	603.8	603.0	
Overtopping	100	2499	242	598	602.2	2.3	1.1	604.5	603.3	
Max. Calc.	500	3293	256	636	602.7	3.3	1.6	606.0	604.3	



**SECTION THRU INTEGRAL ABUTMENT**  
 @ RT. ANGLES



**PROFILE GRADE**

(Along @ Roadway)

**DESIGN SPECIFICATIONS**

Design in accordance with AASHTO Specs. Dated 2002.

**LOADING HS20-44**

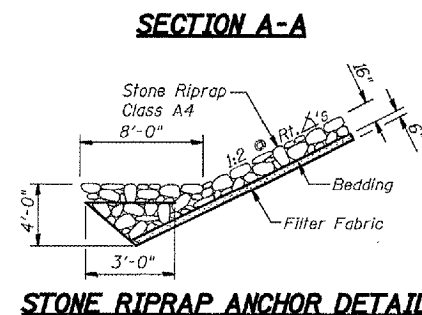
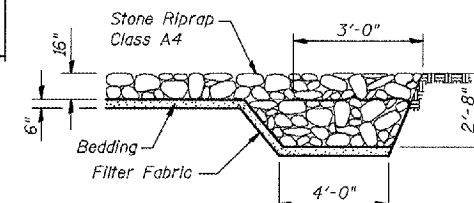
Allow 50#/Sq. Ft. for Future Wearing Surface.

**DESIGN STRESSES**

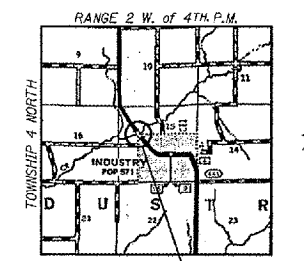
**FIELD UNITS**  
 $f'_c = 3,500$  psi  
 $f_y = 60,000$  psi (Reinforcement)  
**PRECAST PRESTRESSED UNITS**  
 $f'_c = 6,000$  psi  
 $f_{pi} = 5,000$  psi  
 $f_s = 270,000$  psi ( $1/2$ "  $\phi$  Low Lax Strands)  
 $f_{bi} = 201,960$  psi ( $1/2$ "  $\phi$  Low Lax Strands)

**SEISMIC DATA**

Seismic Performance Category (SPC) = A  
 Bedrock Acceleration Coefficient (A) = 0.035  
 Site Coefficient (S) = 1.2



**STONE RIPRAP ANCHOR DETAIL**



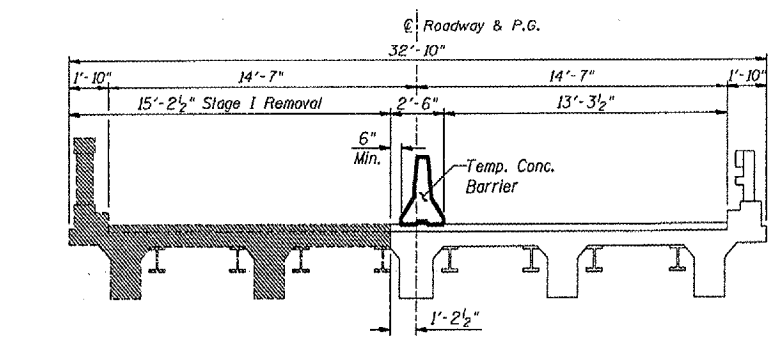
**LOCATION SKETCH**

**GENERAL PLAN & ELEVATION**  
 F.A.P. 310 SECTION (41A)BR-1  
 U.S. ROUTE 67 OVER GRINDSTONE CREEK  
 MCDONOUGH COUNTY  
 STA. 454+20 (S.N. 055-0049)

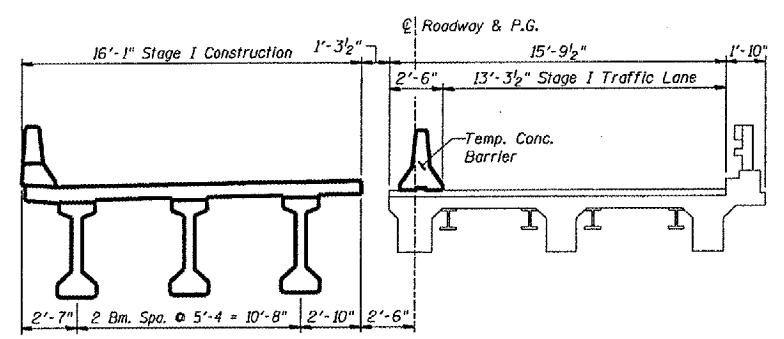
Designed By: B.K. Converse  
 Date: 4/06  
 Checked By: M.R. Leslie  
 Date: 4/06  
 Drawn By: R.D. Allen  
 Date: 4/06

WILLET, HOFMANN & ASSOCIATES, INC.  
 CONSULTING ENGINEERS  
 Land Surveying - Transportation - Structural  
 Environmental - Architecture  
 WHA # 1050003

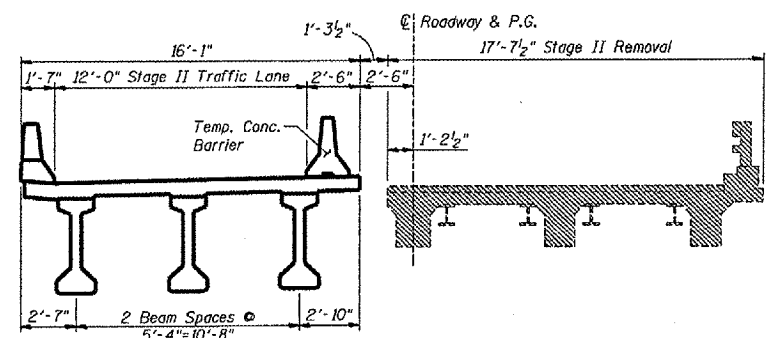
Expires 11/30/08



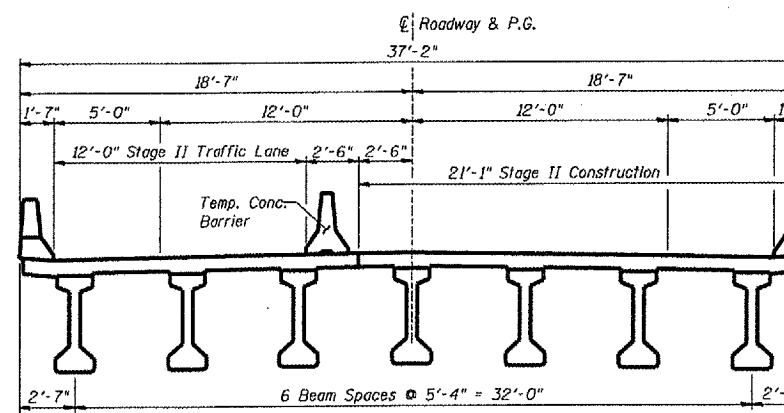
**CROSS SECTION - STAGE I REMOVAL**  
(Looking Upstation South)



**CROSS SECTION - STAGE I CONSTRUCTION**  
(Looking Upstation South)



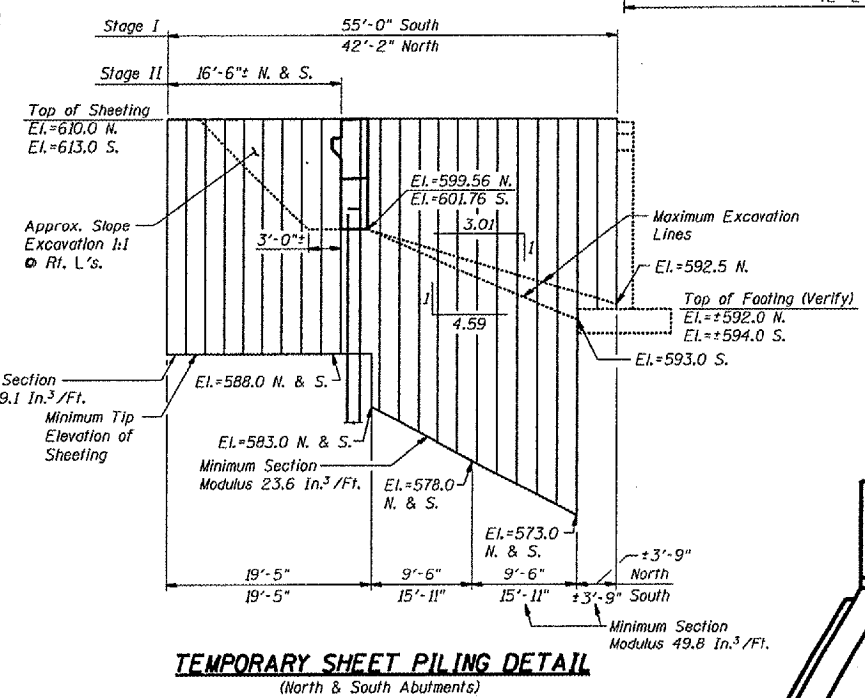
**CROSS SECTION - STAGE II REMOVAL**  
(Looking Upstation South)



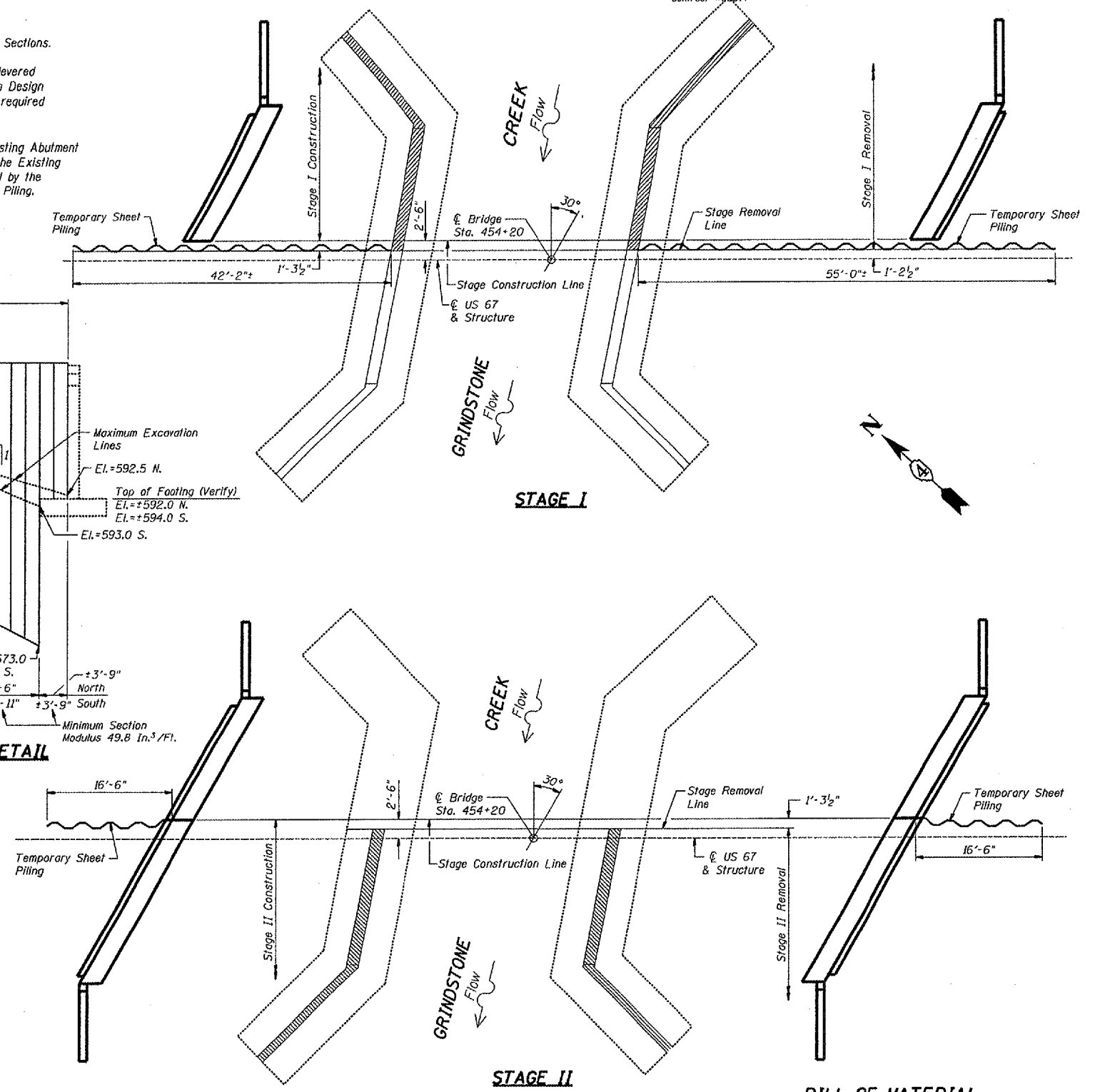
**CROSS SECTION - STAGE II CONSTRUCTION**  
(Looking Upstation South)

**NOTES:**  
Temporary Concrete Barrier Shall Be Provided For Stage Construction. See Structural Sheet 3 of 14. Pay Item For Temporary Concrete Barrier is Scheduled in the Roadway Plans.  
Hatched Area Indicates Existing Structure Removal.  
Dimensions are at Right Angles to  $\bar{C}$  Roadway in Cross Sections.  
If the Contractor chooses to alter the Temporary Cantilevered Sheet Piling Design Requirements shown on the plans, a Design Submittal including Plan Details and Calculations will be required for review and acceptance by the Engineer.

The Contractor shall connect the first sheet to the Existing Abutment Wall to ensure stability of sheets driven to the top of the Existing Footing. This connection shall be reviewed and accepted by the Engineer and included in the cost for Temporary Sheet Piling.



**TEMPORARY SHEET PILING DETAIL**  
(North & South Abutments)



**BILL OF MATERIAL**

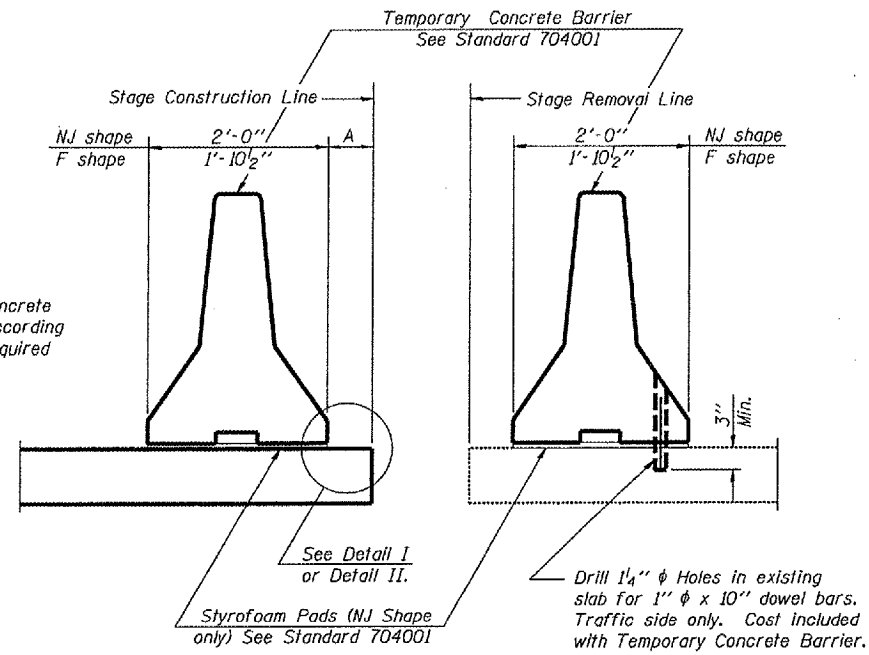
Item	Unit	Total
Temporary Sheet Piling	Sq. Ft.	2774

**CONSTRUCTION STAGING, & TEMP. SHEET PILING**  
F.A.P. 310, SECTION (41A)BR-1  
U.S. ROUTE 67 OVER GRINDSTONE CREEK  
McDONOUGH COUNTY  
STA. 454+20 (S.N. 055-0049)  
WHA# 1050003

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 310 U.S. 67	(40BY)BR, (41-A)BR-1	McDonough	66	20
FED. ROAD DIST. NO. 4		FED. AID PROJECT		

SHEET NO. 3  
14 SHEETS

Contract #68677



When "A" is 3'-6" or less, the temporary concrete barrier shall be anchored to the new slab according to Detail I or Detail II. No anchorage is required when "A" is greater than 3'-6".

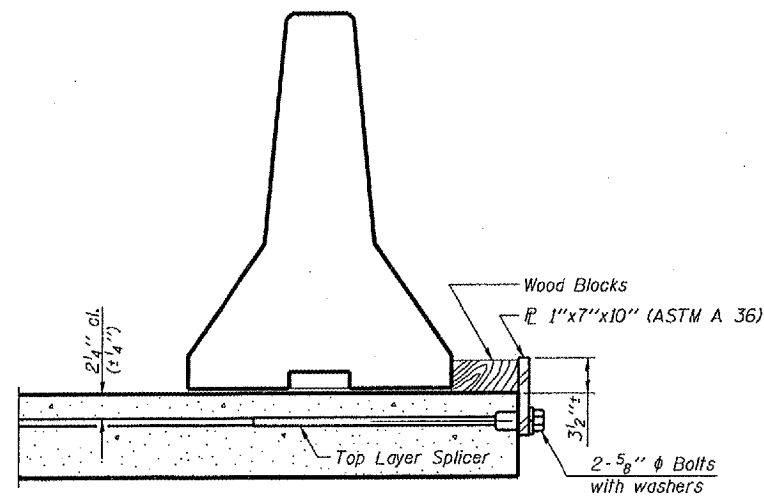
**NOTES**

- Detail I - With Bar Splicer or Couplers:  
Connect one (1) 1"x7"x10" steel P to the top layer of couplers with 2-5/8" φ bolts screwed to coupler at approximate C of each barrier panel.
  - Detail II - With Extended Reinforcement Bars:  
Connect one (1) 1"x7"x10" steel P to the concrete slab with 2-5/8" φ Expansion Anchors or cast in place inserts spaced between the top layer of reinforcement at approximate C of each barrier panel.
- Cost of anchorage is included with Temporary Concrete Barrier.

**NEW SLAB**

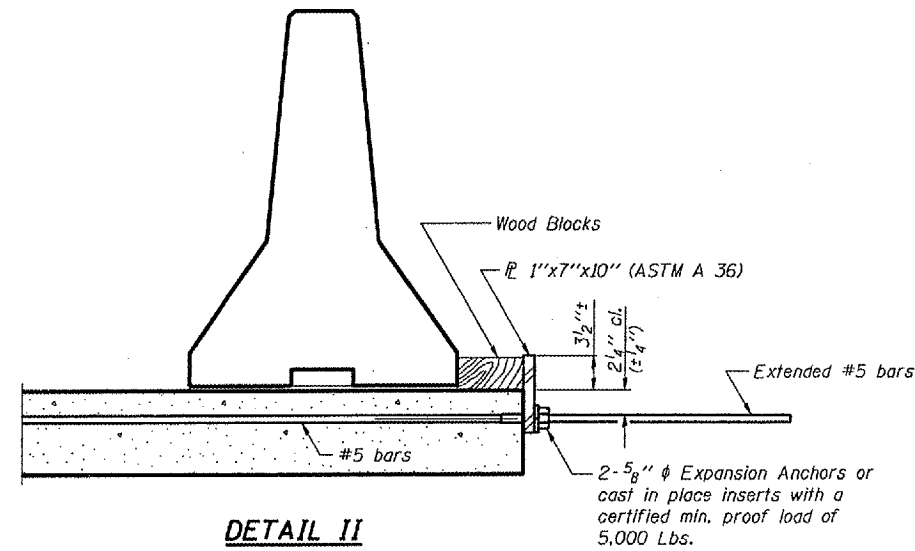
**EXISTING SLAB**

**SECTIONS THRU SLAB**



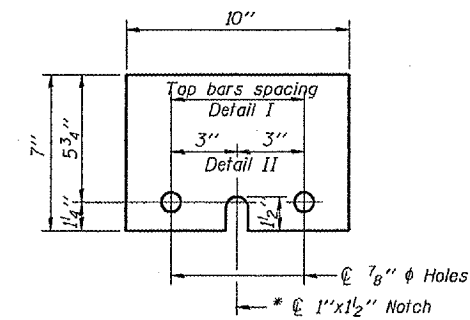
**DETAIL I**

The 1"x7"x10" Plate shall not be removed until Stage II Construction forms and reinforcement bars are in place.



**DETAIL II**

The 1"x7"x10" Plate shall not be removed until Stage II Construction forms and all reinforcement bars are in place and the concrete is ready to be placed.

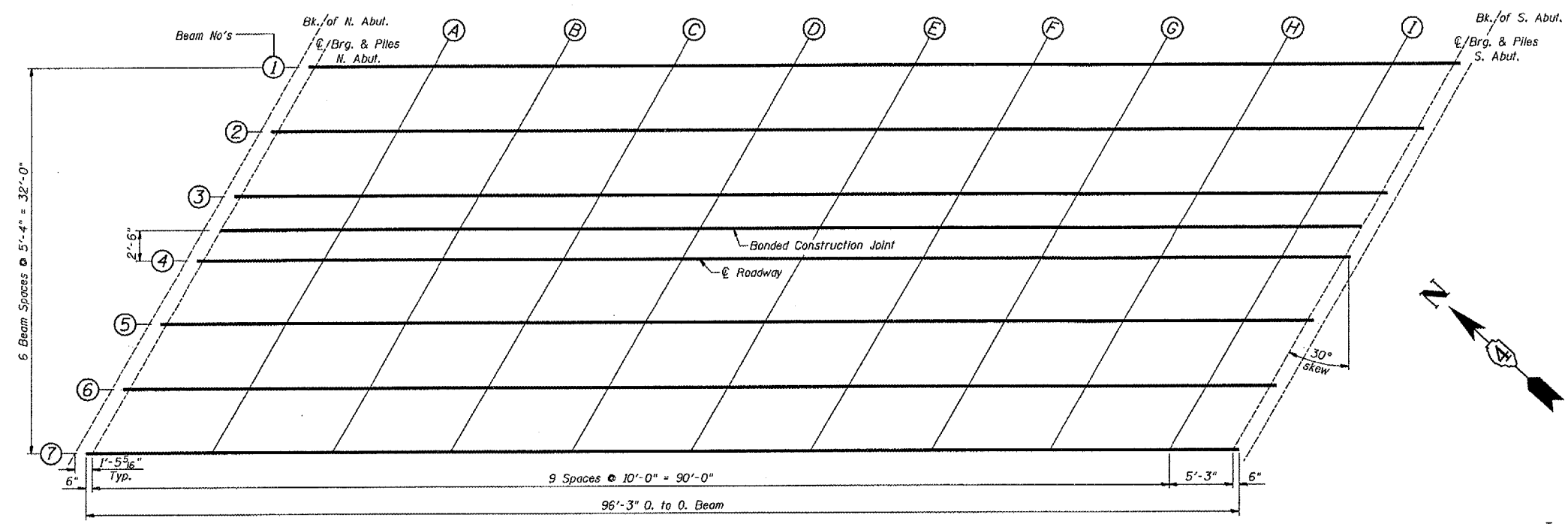


**P 1"x7"x10"**

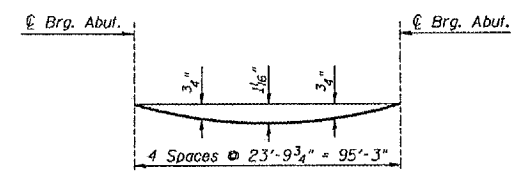
\* Required only with Detail II

**TEMPORARY CONCRETE BARRIER FOR  
STAGE CONSTRUCTION  
F.A.P. 310, SECTION (41A)BR-1  
U.S. ROUTE 67 OVER GRINDSTONE CREEK  
MCDONOUGH COUNTY  
STA. 454+20 (S.N. 055-0049)**

WHA # 1050003

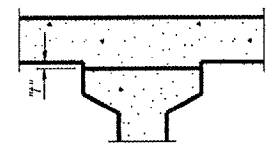


**PLAN VIEW**



**DEAD LOAD DEFLECTION DIAGRAM**  
(Includes weight of concrete, excluding beams).

Note:  
The above deflections are not to be used in the field if the engineer is working from the grade elevations adjusted for dead load deflections as shown below.



To determine "f": After all precast prestressed beams have been erected, elevations of the top flanges of the beams shall be taken at intervals shown below. These elevations subtracted from the "Theoretical Grade Elevations Adjusted For Dead Load Deflections" shown below, minus slab thickness, equals the fillet heights "f" above top flanges of beams.

**FILLET HEIGHTS**

**BEAM ①**

Location	Station	Offset Lt.	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Back N. Abut.	453+80.17	16.00	609.869	609.869
⊕ Brg. N. Abut.	453+81.62	16.00	609.895	609.895
A	453+91.62	16.00	610.084	610.113
B	454+01.62	16.00	610.290	610.345
C	454+11.62	16.00	610.513	610.588
D	454+21.62	16.00	610.754	610.839
E	454+31.62	16.00	611.012	611.100
F	454+41.62	16.00	611.287	611.368
G	454+51.62	16.00	611.580	611.646
H	454+61.62	16.00	611.890	611.933
I	454+71.62	16.00	612.217	612.233
⊕ Brg. S. Abut.	454+76.87	16.00	612.395	612.395
Back S. Abut.	454+78.31	16.00	612.449	612.449

**BEAM ②**

Location	Station	Offset Lt.	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Back N. Abut.	453+77.09	10.67	609.923	609.923
⊕ Brg. N. Abut.	453+78.54	10.67	609.945	609.945
A	453+88.54	10.67	610.128	610.158
B	453+98.54	10.67	610.329	610.384
C	454+08.54	10.67	610.547	610.621
D	454+18.54	10.67	610.782	610.868
E	454+28.54	10.67	611.035	611.123
F	454+38.54	10.67	611.305	611.386
G	454+48.54	10.67	611.592	611.658
H	454+58.54	10.67	611.897	611.940
I	454+68.54	10.67	612.219	612.234
⊕ Brg. S. Abut.	454+73.79	10.67	612.395	612.395
Back S. Abut.	454+75.23	10.67	612.443	612.443

**BEAM ③**

Location	Station	Offset Lt.	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Back N. Abut.	453+74.01	5.33	609.947	609.947
⊕ Brg. N. Abut.	453+75.46	5.33	609.975	609.975
A	453+85.46	5.33	610.153	610.183
B	453+95.46	5.33	610.349	610.404
C	454+05.46	5.33	610.561	610.636
D	454+15.46	5.33	610.791	610.877
E	454+25.46	5.33	611.039	611.127
F	454+35.46	5.33	611.303	611.385
G	454+45.46	5.33	611.585	611.651
H	454+55.46	5.33	611.884	611.928
I	454+65.46	5.33	612.201	612.217
⊕ Brg. S. Abut.	454+70.71	5.33	612.374	612.374
Back S. Abut.	454+72.15	5.33	612.427	612.427

**BONDED CONSTRUCTION JOINT**

Location	Station	Offset Lt.	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Back N. Abut.	453+72.37	2.50	609.971	609.971
⊕ Brg. N. Abut.	453+73.82	2.50	609.992	609.992
A	453+83.82	2.50	610.167	610.197
B	453+93.82	2.50	610.360	610.415
C	454+03.82	2.50	610.570	610.644
D	454+13.82	2.50	610.797	610.882
E	454+23.82	2.50	611.041	611.129
F	454+33.82	2.50	611.303	611.384
G	454+43.82	2.50	611.582	611.648
H	454+53.82	2.50	611.878	611.922
I	454+63.82	2.50	612.192	612.208
⊕ Brg. S. Abut.	454+69.07	2.50	612.364	612.364
Back S. Abut.	454+70.51	2.50	612.411	612.411

**⊕ ROADWAY/BEAM ④**

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Back N. Abut.	453+70.93	0.00	609.980	609.980
⊕ Brg. N. Abut.	453+72.38	0.00	610.007	610.007
A	453+82.38	0.00	610.180	610.210
B	453+92.38	0.00	610.370	610.425
C	454+02.38	0.00	610.577	610.652
D	454+12.38	0.00	610.802	610.888
E	454+22.38	0.00	611.044	611.132
F	454+32.38	0.00	611.303	611.385
G	454+42.38	0.00	611.580	611.646
H	454+52.38	0.00	611.874	611.917
I	454+62.38	0.00	612.185	612.201
⊕ Brg. S. Abut.	454+67.63	0.00	612.355	612.355
Back S. Abut.	454+69.07	0.00	612.400	612.400

**BEAM ⑤**

Location	Station	Offset Rt.	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Back N. Abut.	453+67.85	5.33	609.847	609.847
⊕ Brg. N. Abut.	453+69.30	5.33	609.874	609.874
A	453+79.30	5.33	610.042	610.071
B	453+89.30	5.33	610.226	610.282
C	453+99.30	5.33	610.428	610.503
D	454+09.30	5.33	610.648	610.733
E	454+19.30	5.33	610.884	610.972
F	454+29.30	5.33	611.138	611.320
G	454+39.30	5.33	611.410	611.746
H	454+49.30	5.33	611.698	611.742
I	454+59.30	5.33	612.004	612.020
⊕ Brg. S. Abut.	454+64.55	5.33	612.172	612.172
Back S. Abut.	454+65.99	5.33	612.217	612.217

**BEAM ⑥**

Location	Station	Offset Rt.	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Back N. Abut.	453+64.77	10.67	609.723	609.723
⊕ Brg. N. Abut.	453+66.22	10.67	609.743	609.743
A	453+76.22	10.67	609.905	609.934
B	453+86.22	10.67	610.084	610.139
C	453+96.22	10.67	610.281	610.355
D	454+06.22	10.67	610.495	610.581
E	454+16.22	10.67	610.726	610.814
F	454+26.22	10.67	610.975	611.056
G	454+36.22	10.67	611.241	611.307
H	454+46.22	10.67	611.524	611.568
I	454+56.22	10.67	611.825	611.840
⊕ Brg. S. Abut.	454+61.47	10.67	611.989	611.989
Back S. Abut.	454+62.91	10.67	612.033	612.033

**BEAM ⑦**

Location	Station	Offset Rt.	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Back N. Abut.	453+61.69	16.00	609.569	609.569
⊕ Brg. N. Abut.	453+63.14	16.00	609.592	609.592
A	453+73.14	16.00	609.749	609.778
B	453+83.14	16.00	609.923	609.978
C	453+93.14	16.00	610.114	610.188
D	454+03.14	16.00	610.323	610.408
E	454+13.14	16.00	610.549	610.637
F	454+23.14	16.00	610.792	610.873
G	454+33.14	16.00	611.053	611.119
H	454+43.14	16.00	611.330	611.374
I	454+53.14	16.00	611.626	611.642
⊕ Brg. S. Abut.	454+58.39	16.00	611.788	611.788
Back S. Abut.	454+59.83	16.00	611.829	611.829

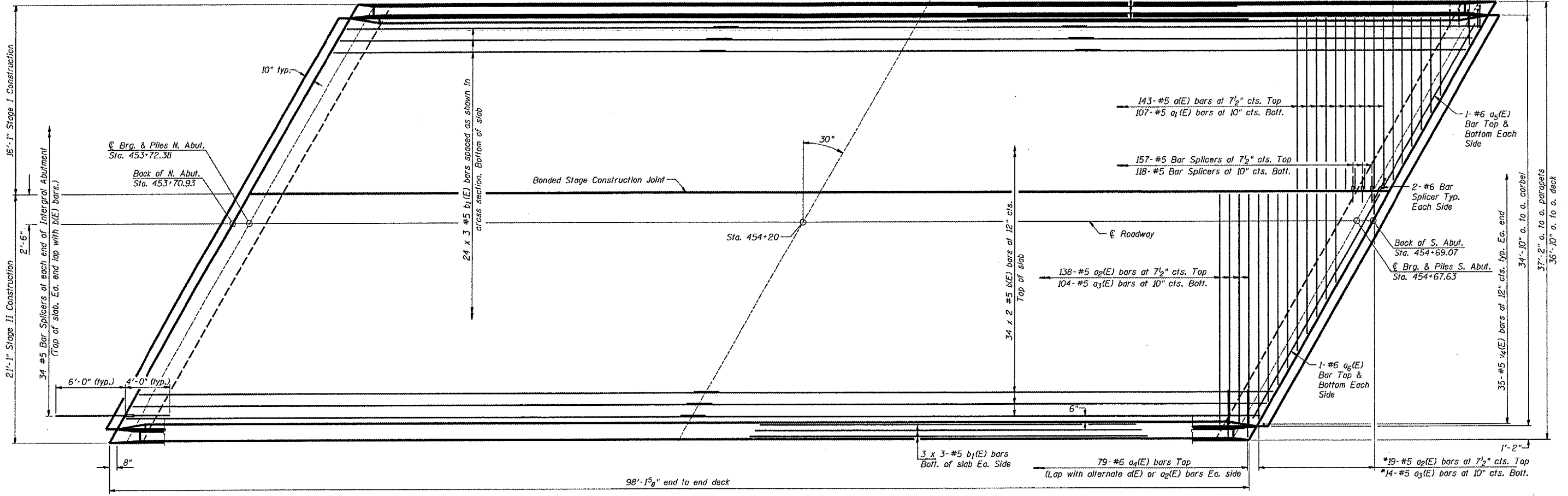
**TOP OF SLAB ELEVATIONS**  
**F.A.P. 310, SECTION (41A)BR-1**  
**U.S. ROUTE 67 OVER GRINDSTONE CREEK**  
**McDONOUGH COUNTY**  
**STA. 454+20 (S.N. 055-0049)**  
 WHA # 1050003

ROUTE NO.	SECTION	COUNTY	DATE	SHEET	SHEET NO. 5 14 SHEETS
F.A.P. 310 U.S. 67	(40BY)BR, (41-A)BR-1	McDonough	66	22	
FED. ROAD DIST. NO. 4		FED. AID PROJECT-			

Contract #68677  
 98-#5 d<sub>3</sub>(E) bars at 12" cts. Outside Face  
 101-#5 d<sub>1</sub>(E) bars at 11" cts. Inside Face  
 3-#5 d<sub>4</sub>(E) bars at 11" cts., Ea. Corner  
 \*14-#5 a<sub>1</sub>(E) bars at 7 1/2" cts. Top  
 \*11-#5 a<sub>1</sub>(E) bars at 10" cts. Bolt.

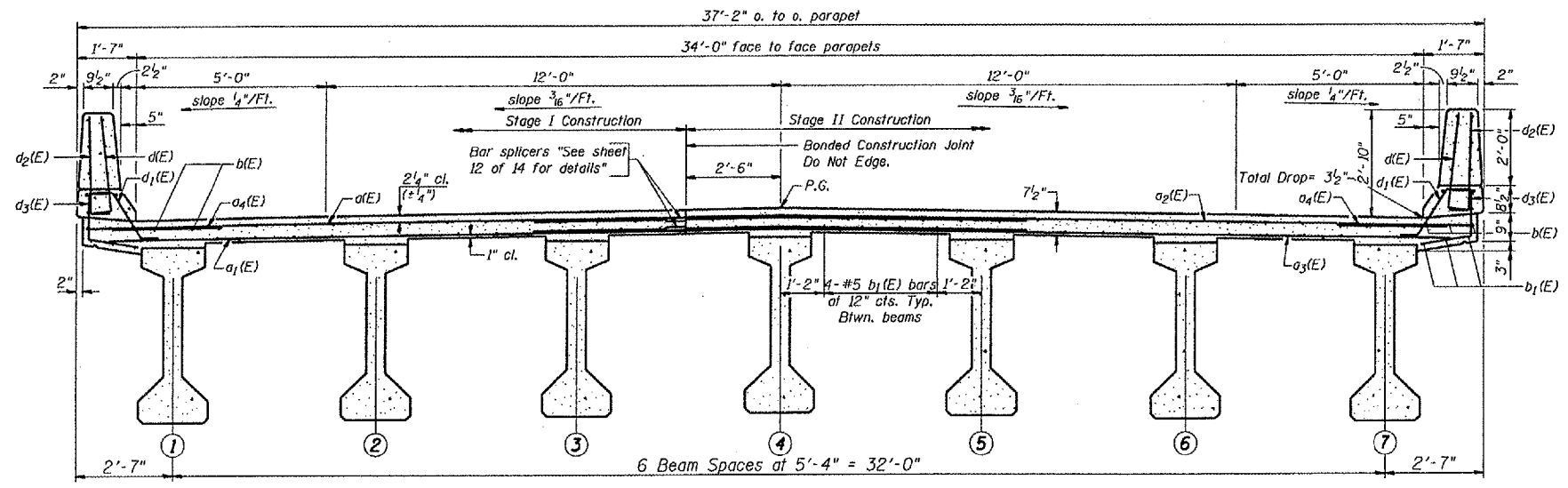
\*Order a<sub>1</sub>(E), a<sub>2</sub>(E), a<sub>3</sub>(E), & a<sub>4</sub>(E) Bars Full Length. Cut to Fit Skew and Use Remainder in Opposite End

3 x 2-#5 b<sub>1</sub>(E) bars Top of slab Ea. side



**PLAN VIEW**

BAR	LAP
#4	1'-8"
#5	2'-2"
#6	2'-7"
#7	3'-5"
#8	4'-6"



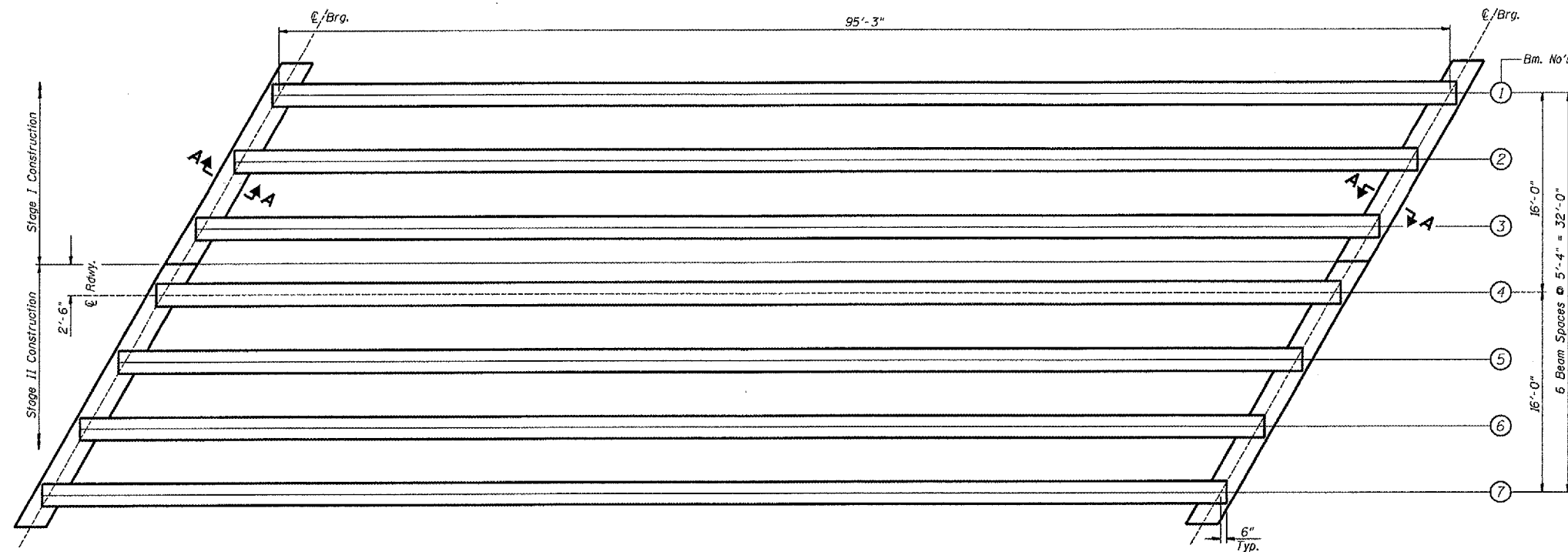
**CROSS SECTION**  
(Looking Upstation)

**Notes:**  
 See sheet 7 of 14 for parapet details and Bill of Material.  
 See sheet 6 of 14 for sections at Abutments.  
 Reinforcement bars designated (E) shall be epoxy coated.  
 Bars indicated thus 34 x 2-#5 etc. indicates 34 lines of bars with 2 lengths per line.

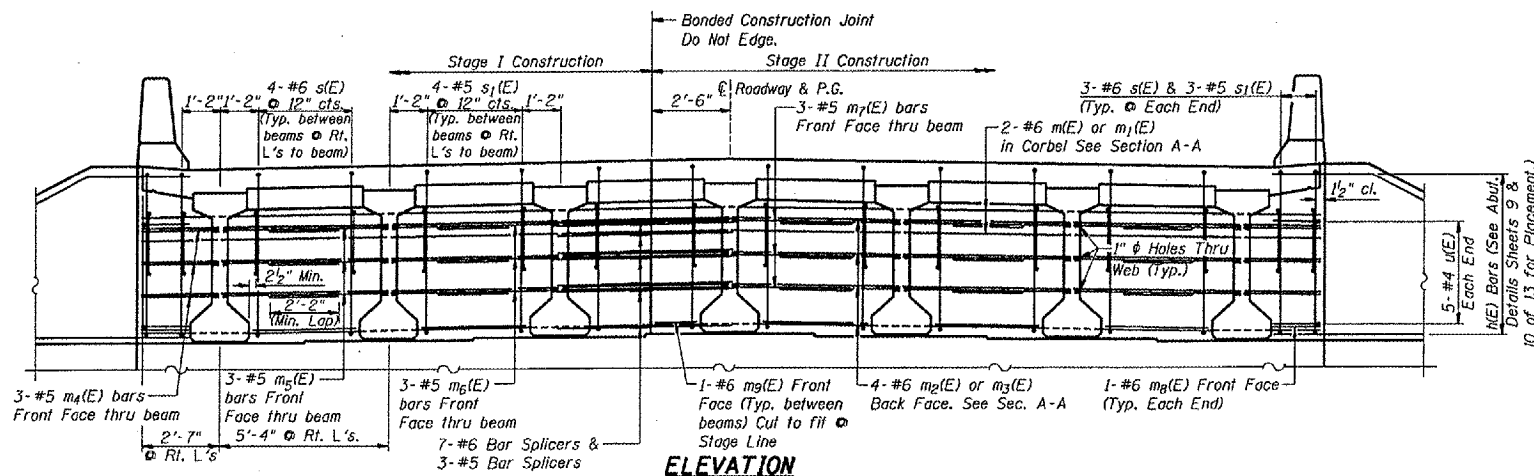
**SUPERSTRUCTURE**  
 F.A.P. 310, SECTION (41A)BR-1  
 U.S. ROUTE 67 OVER GRINDSTONE CREEK  
 McDONOUGH COUNTY  
 STA. 454+20 (S.N. 055-0049)  
 WHA # 105003

ROUTE NO.	SECTION	COUNTY	STATION	SHEET NO.	SHEET NO. 6
F.A.P. 310	(40BY)BR.	McDonough	66	23	14 SHEETS
U.S. 67	(41-A)BR-1				
FED. ROAD DIST. NO. 4			FED. AID PROJECT-		

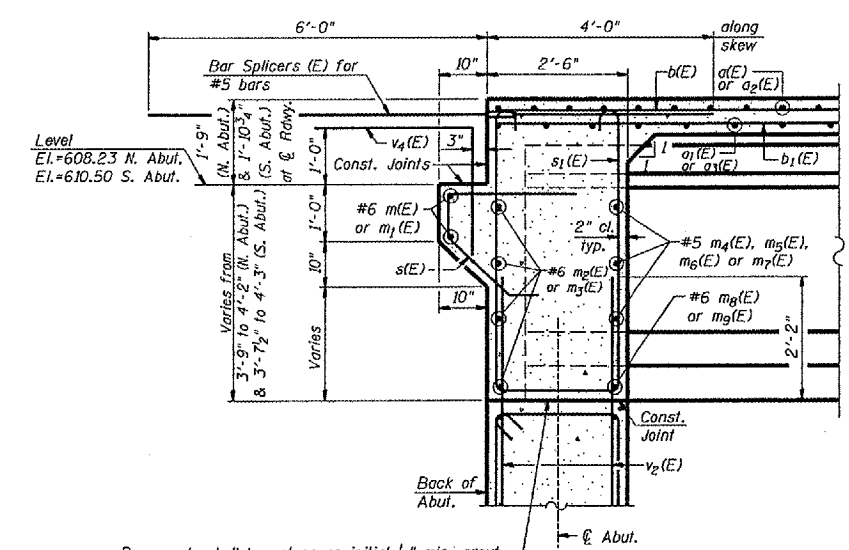
Contract #68677



**FRAMING PLAN**



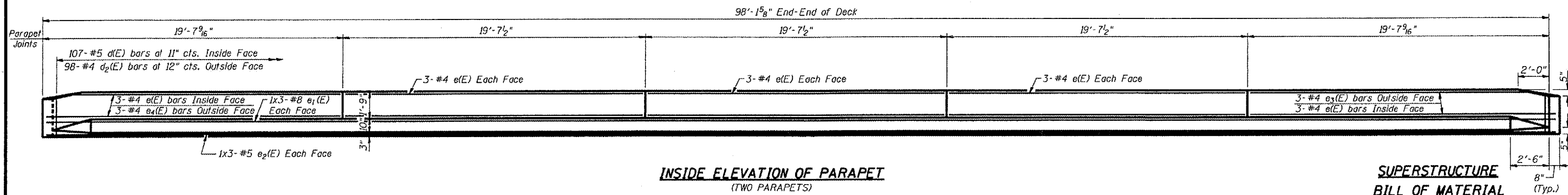
**ELEVATION  
DIAPHRAGM AT ABUTMENT**  
(South Abutment Looking South)  
(North Abutment Similar)



**SECTION A-A**

Dimensions at right angles to abutment, except as shown.

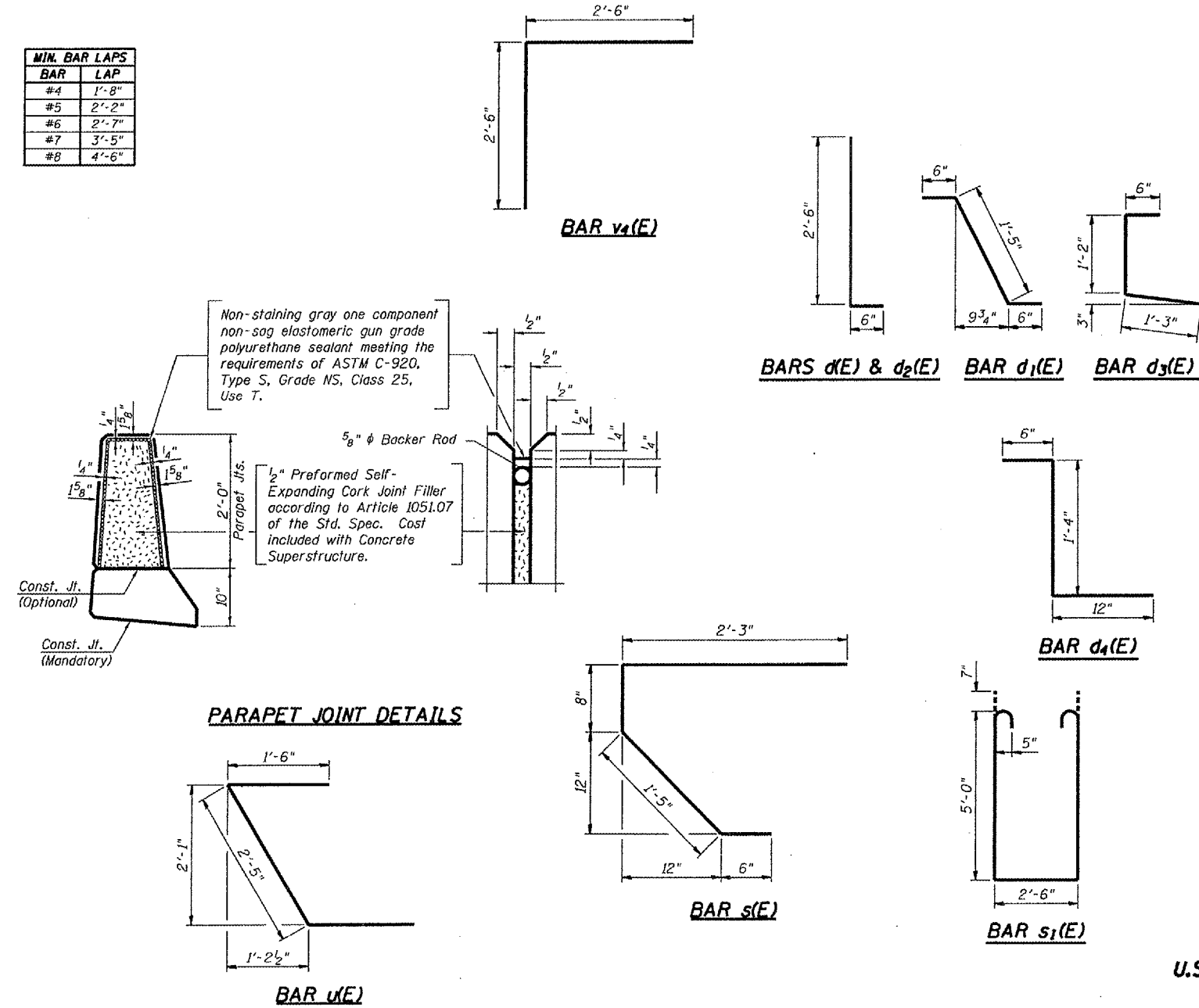
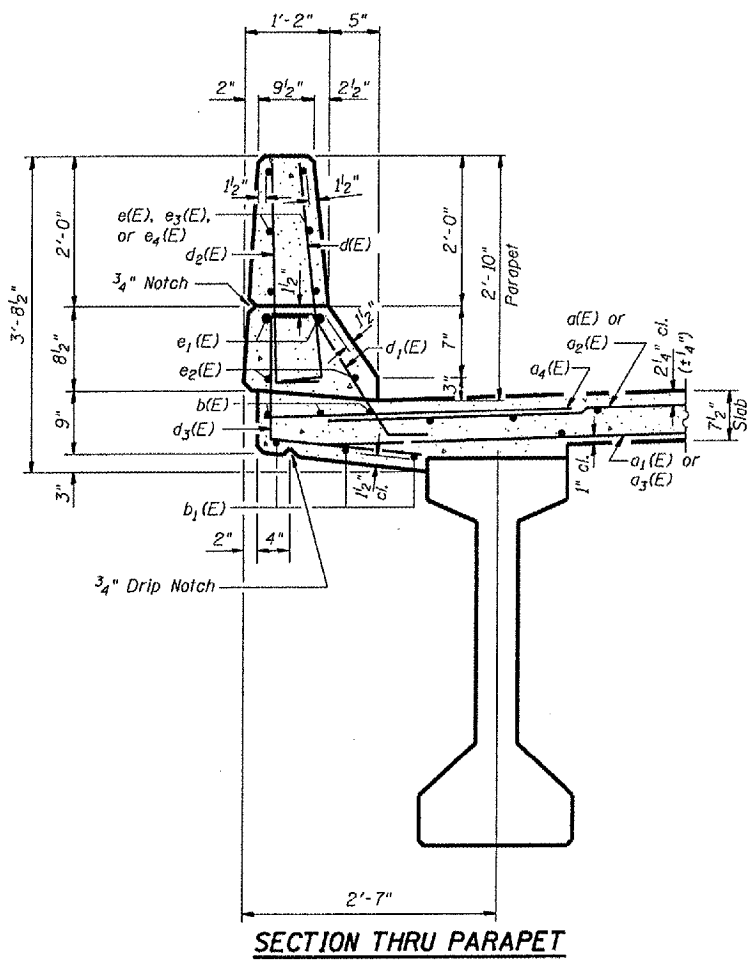
**FRAMING & DIAPHRAGM DETAILS**  
F.A.P. 310, SECTION (41A)BR-1  
U.S. ROUTE 67 OVER GRINDSTONE CREEK  
MCDONOUGH COUNTY  
STA. 454+20 (S.N. 055-0049)  
WHA # 1050003



**SUPERSTRUCTURE  
BILL OF MATERIAL**

Bar	No.	Size	Length	Shape
a(E)	157	#5	15'-7"	—
a <sub>1</sub> (E)	118	#5	14'-7"	—
a <sub>2</sub> (E)	157	#5	20'-7"	—
a <sub>3</sub> (E)	118	#5	19'-7"	—
a <sub>4</sub> (E)	158	#6	6'-0"	—
a <sub>5</sub> (E)	4	#6	18'-0"	—
a <sub>6</sub> (E)	4	#6	23'-10"	—
b(E)	80	#5	50'-0"	—
b <sub>1</sub> (E)	90	#5	34'-0"	—
d(E)	214	#5	3'-0"	—
d <sub>1</sub> (E)	202	#5	2'-5"	—
d <sub>2</sub> (E)	196	#4	3'-0"	—
d <sub>3</sub> (E)	196	#5	2'-11"	—
d <sub>4</sub> (E)	12	#5	2'-10"	—
e(E)	48	#4	19'-3"	—
e <sub>1</sub> (E)	12	#8	35'-5"	—
e <sub>2</sub> (E)	12	#5	33'-10"	—
e <sub>3</sub> (E)	6	#4	19'-11"	—
e <sub>4</sub> (E)	6	#4	18'-7"	—
m(E)	4	#6	22'-7"	—
m <sub>1</sub> (E)	4	#6	17'-0"	—
m <sub>2</sub> (E)	8	#6	24'-0"	—
m <sub>3</sub> (E)	8	#6	18'-3"	—
m <sub>4</sub> (E)	12	#5	7'-0"	—
m <sub>5</sub> (E)	18	#5	8'-4"	—
m <sub>6</sub> (E)	6	#5	7'-3"	—
m <sub>7</sub> (E)	6	#6	6'-11"	—
m <sub>8</sub> (E)	4	#6	1'-4"	—
m <sub>9</sub> (E)	12	#6	3'-8"	—
s(E)	60	#6	4'-10"	—
s <sub>1</sub> (E)	60	#5	13'-8"	—
u(E)	20	#4	5'-5"	—
v <sub>4</sub> (E)	70	#5	5'-0"	—
Reinforcement Bars, Epoxy Coated	Pound		26,600	
Concrete Superstructure	Cu. Yd.		167.4	
Bar Splacers	Each		367	
Bridge Deck Grooving	Sq. Yd.		349	

BAR	LAP
#4	1'-8"
#5	2'-2"
#6	2'-7"
#7	3'-5"
#8	4'-6"



**NOTES:**  
 Reinforcement bars designated (E) shall be epoxy coated.  
 Bars indicated thus 1 x 3-#8 etc. indicates 1 line of bars with 3 lengths per line.

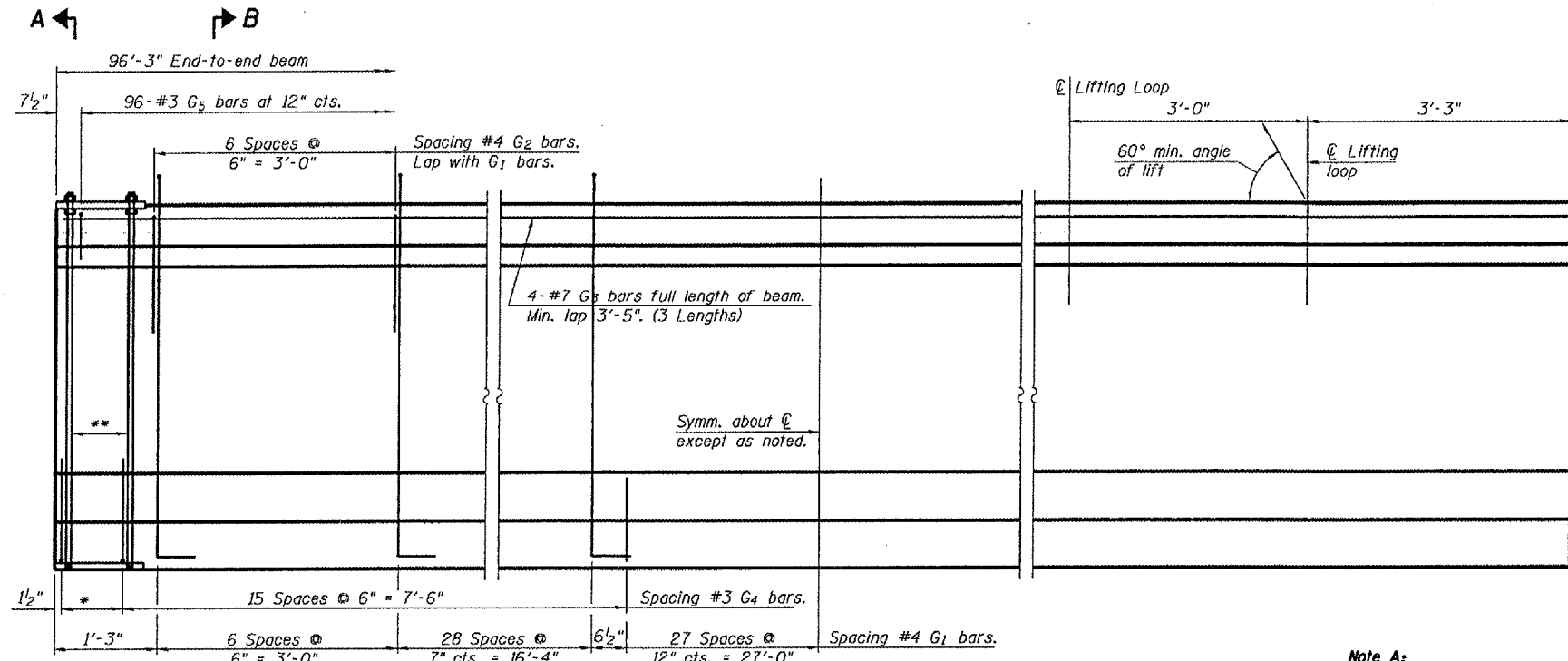
**PARAPET DETAILS**  
 F.A.P. 310 SECTION (41A)BR-1  
 U.S. ROUTE 67 OVER GRINDSTONE CREEK  
 McDONOUGH COUNTY  
 STA. 454+20 (S.N. 055-0049)  
 WHA # 1050003



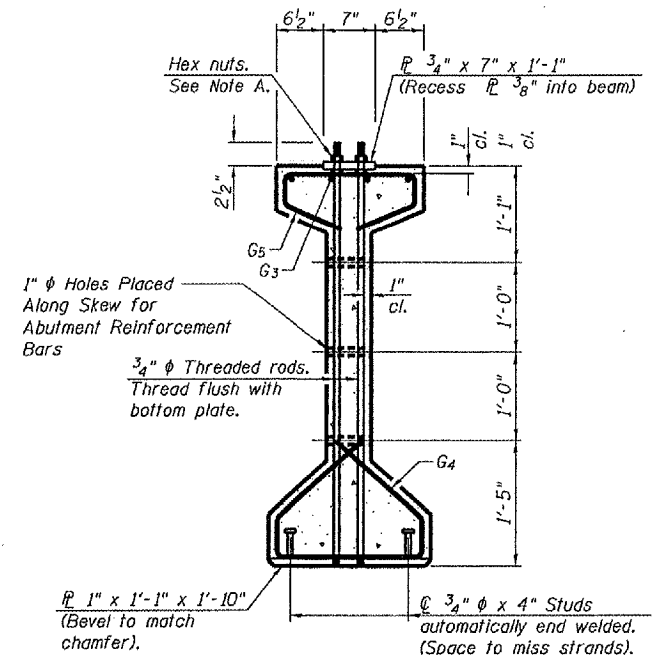
ROUTE NO.	SECTION	COUNTY	SHEETS	#NO.
F.A.P. 310 U.S. 67	(40B)BR. (41-A)BR-1	McDonough	66	25
FED. ROAD DIST. NO. 4		FED. AID PROJECT		

SHEET NO. 8  
14 SHEETS

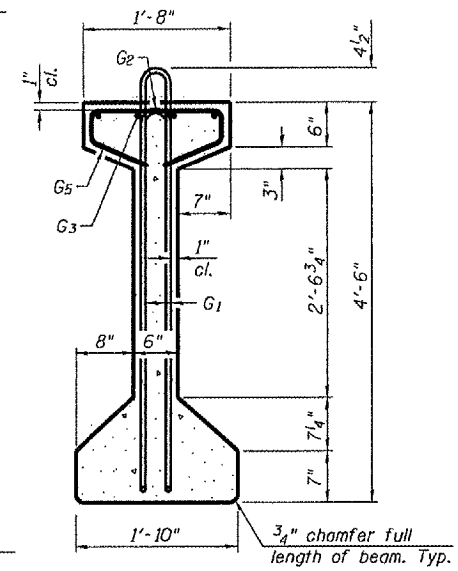
Contract #68677



**ELEVATION OF BEAM**  
(Showing reinforcement & dimensions)



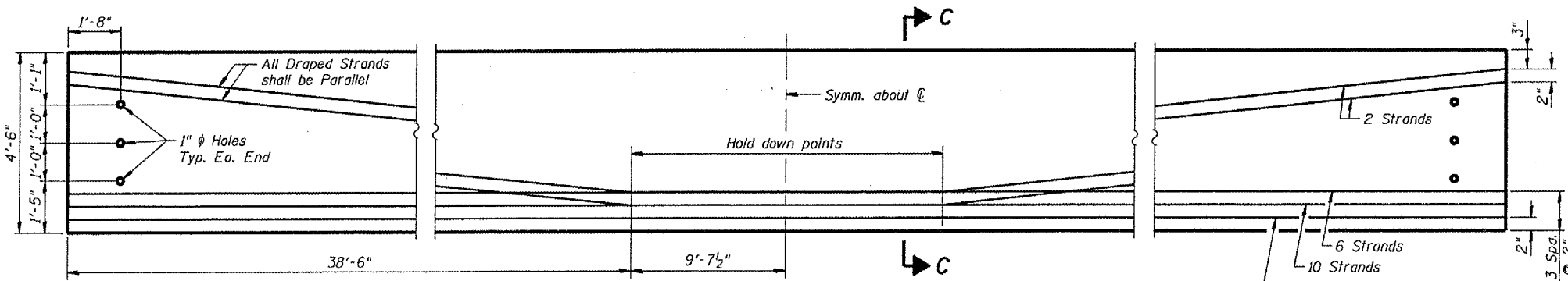
**SECTION A-A**



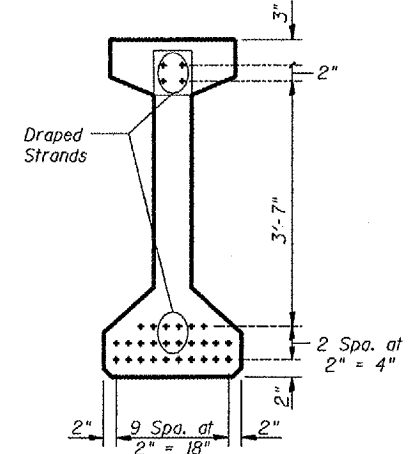
**SECTION B-B**

**Note A:**  
Hex nuts (top and bottom) with lock washers (top). Only tighten sufficiently to compress lock washers.

\* 3 spaces at 3" = 9"  
\*\* 4-3/4" diameter threaded dowel rods at 3" cts., each face.



**ELEVATION OF BEAM**  
(Showing prestressing steel)



**SECTION C-C**

**BAR LIST**  
**ONE BEAM ONLY**

Bar	No.	Size	Length	Shape
G <sub>1</sub>	125	#4	10'-5"	□
G <sub>2</sub>	14	#4	5'-4"	□
G <sub>3</sub>	12	#7	34'-4"	□
G <sub>4</sub>	38	#3	4'-11"	□
G <sub>5</sub>	96	#3	3'-5"	□

**Notes:**  
See sheet 9 of 14 for additional details and Bill of Material.  
Required release strength, f'ci, shall be 5000 psi.

**PRESTRESSED BEAM DETAILS**  
**F.A.P. 310, SECTION (41A)BR-1**  
**U.S. ROUTE 67 OVER GRINDSTONE CREEK**  
**MCDONOUGH COUNTY**  
**STA. 454+20 (S.N. 055-0049)**

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 310 U.S. 67	(40BY)BR. (41-A)BR-1	McDonough	66	26
FED. ROAD DIST. NO. 1		FED. AID PROJECT-		

SHEET NO. 9  
14 SHEETS

Contract #68677

**NOTES**

Inserts for  $\frac{3}{4}$ "  $\phi$  threaded dowel rods, when specified, are to be two strut, coil type for interior beams and single coil, flared loop type for exterior beams.

Prestressing steel shall be uncoated high strength, low relaxation 7-wire strand, Grade 270.

The nominal diameter shall be  $\frac{1}{2}$ " and the nominal cross-sectional area shall be 0.153 sq. in.

Non-prestressing steel shall conform to AASHTO designation M-31 or M 322, Grade 60.

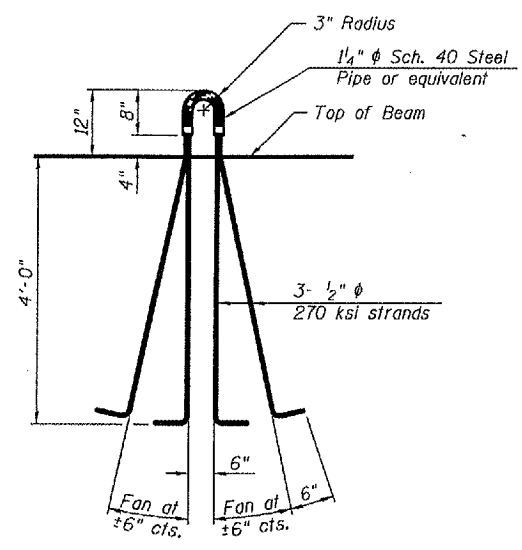
A minimum  $2\frac{1}{2}$ "  $\phi$  lifting pin shall be used to engage the lifting loops during handling.

Reinforcement bars designated (E) shall be epoxy coated.

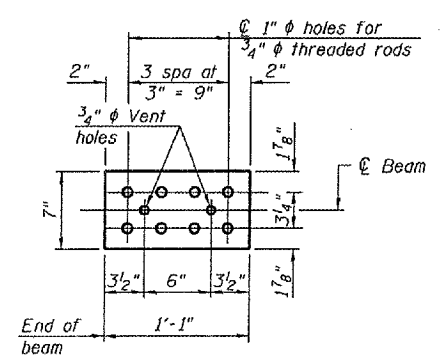
The bottom plates and studs shall be galvanized according to AASHTO M111 and ASTM A385.

Threaded rods shall be ASTM F 1554 Grade 55.

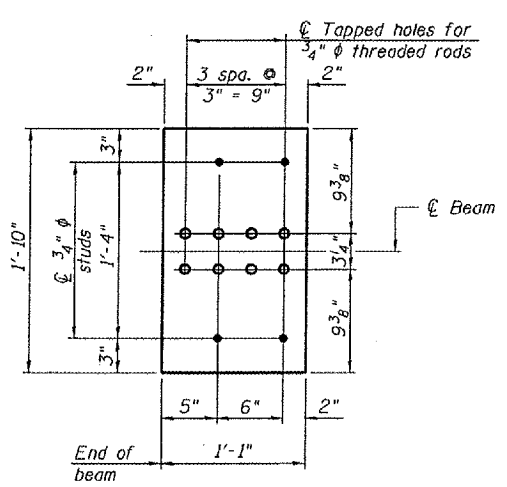
The cut strands at each beam end shall be given two coats of zinc dust spray or paint meeting the requirements of ASTM A 780. The zinc dust spray or paint shall be applied before corrosion appears and allowed to dry according to the manufacturer's specifications prior to another coat of zinc. A concrete sealer meeting the requirements of Section 587 of the Standard Specifications shall be applied to all portions of the I-beam or Bulb-T beam, except the top surface of the top flange and the bottom surface of the bottom flange, starting at each beam end and extending out a distance of 54". The sealer shall be applied after visible crack growth has subsided. This work shall be performed by the producer and included with the cost of the beam.



**LIFTING LOOP DETAIL**

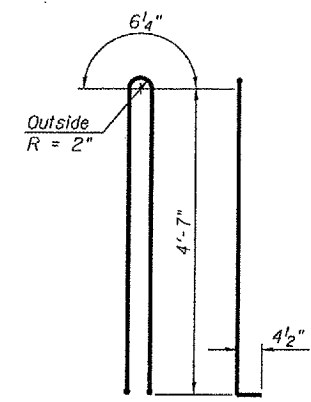


**TOP PLATE**

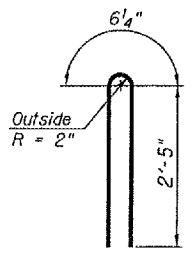


**BOTTOM PLATE**

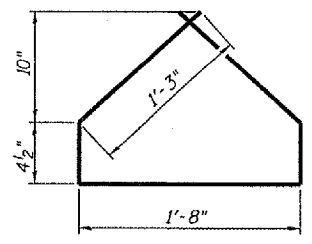
See bearing details for pintle hole locations when required.



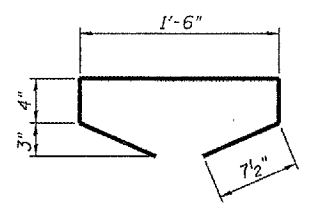
**BAR G1**



**BAR G2**



**BAR G4**



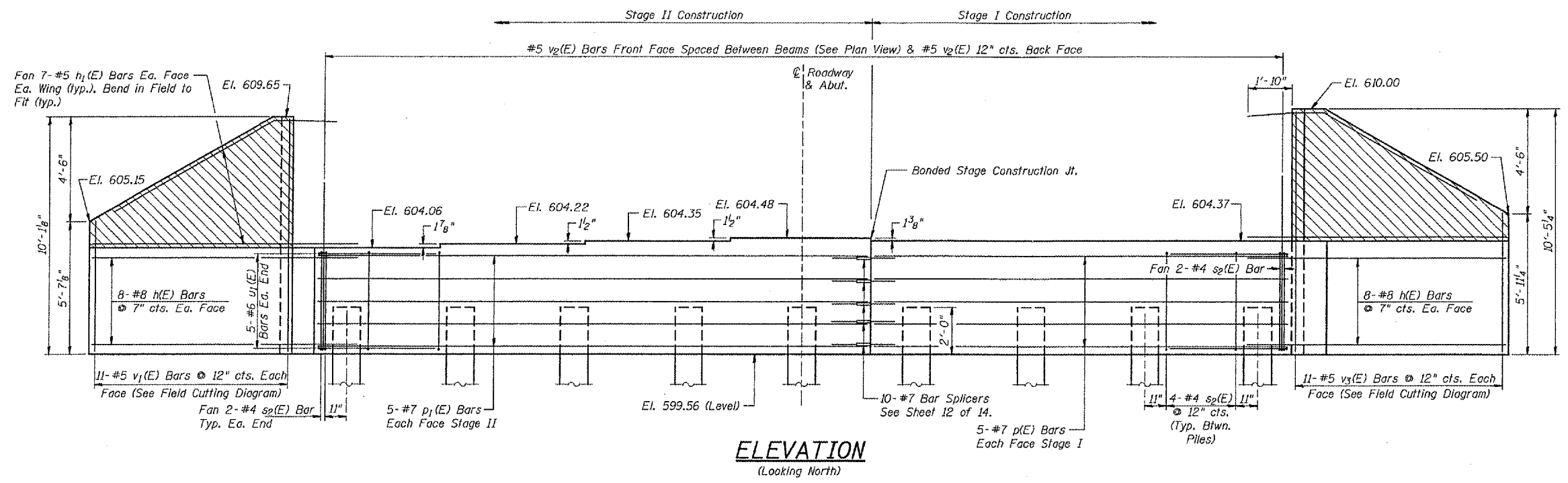
**BAR G5**

**BILL OF MATERIAL**

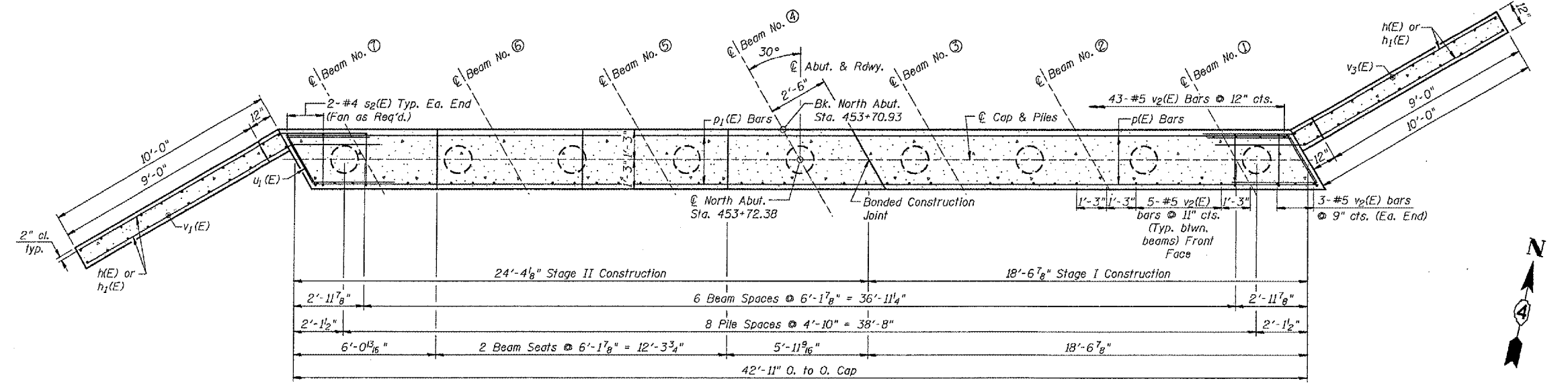
Item	Unit	Total
Furnishing and Erecting Precast Prestressed Concrete I-Beams, 54"	Ft.	673.8

**PRESTRESSED BEAM DETAILS**  
**F.A.P. 310, SECTION (41A)BR-1**  
**U.S. ROUTE 67 OVER GRINDSTONE CREEK**  
**MCDONOUGH COUNTY**  
**STA. 454+20 (S.N. 055-0049)**

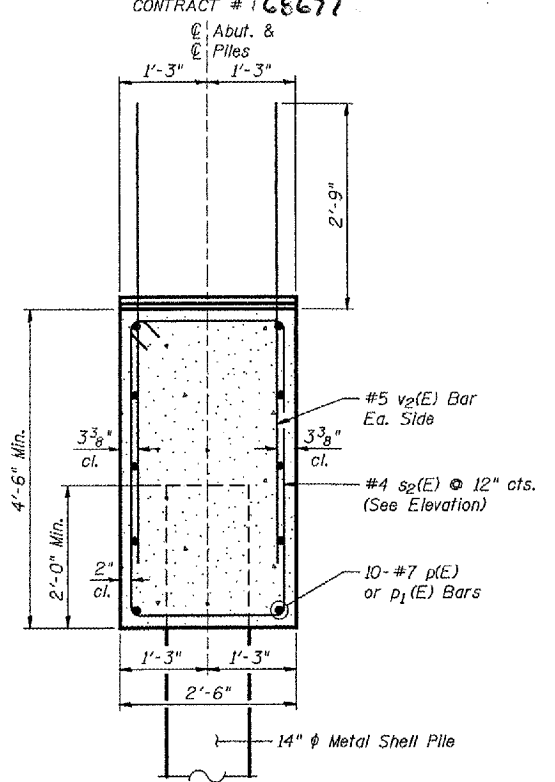
WHA # 1050D03



**ELEVATION**  
(Looking North)



**PLAN**

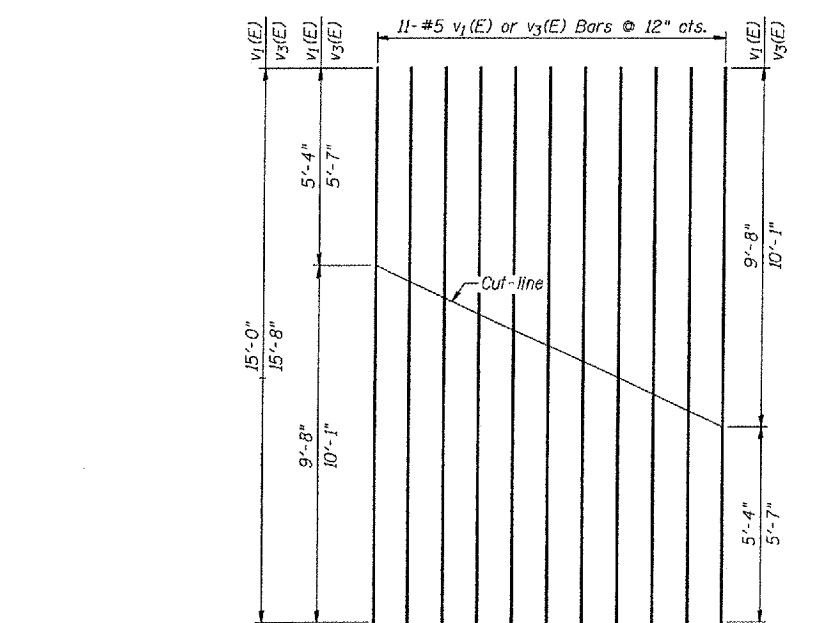


**SECTION THRU ABUT.**  
(@ RT. L's)

**BILL OF MATERIAL - NORTH ABUTMENT**

Bar	No.	Size	Length	Shape
h(E)	32	#8	14'-6"	—
h1(E)	28	#5	13'-6"	—
p(E)	10	#7	18'-3"	—
p1(E)	10	#7	24'-0"	—
s2(E)	28	#4	13'-5"	□
u1(E)	10	#6	9'-5"	└
v1(E)	11	#5	15'-0"	—
v2(E)	79	#5	5'-6"	—
v3(E)	11	#5	15'-8"	—
Concrete Structures		Cu. Yd.	21.6	
Reinforcement Bars (Epoxy Coated)		Pound	3700	
Furnishing Metal Shell Piles, 14"x14"		Foot	540	
Driving Piles		Foot	540	
Bar Splicers		Each	10	
Structure Excavation		Cu. Yd.	192	

**Notes:**  
 Hatched area of wings to be poured after beams are in place and deck slab has been poured. Quantity of concrete for hatched area is included with concrete superstructure on sheet 7 of 14.  
 Reinforcement Bars Designated (E) Shall Be Epoxy Coated.  
 All exposed edges shall have standard 3/4" chamfers. Except as noted.  
 Pour steps monolithically with cap.  
 Fan s2(E) Bars as Required at Stage Line.

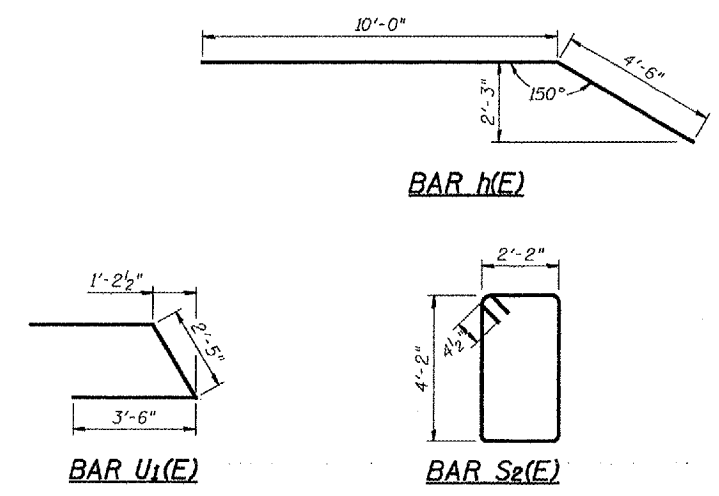


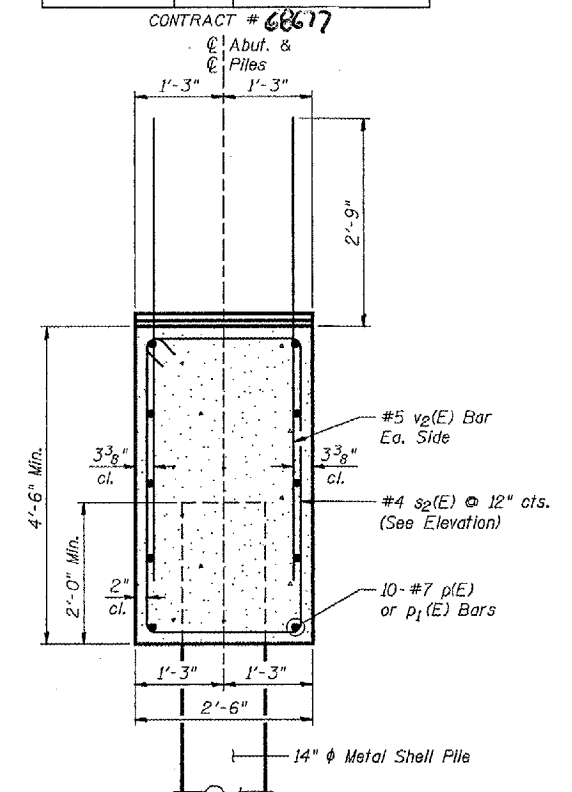
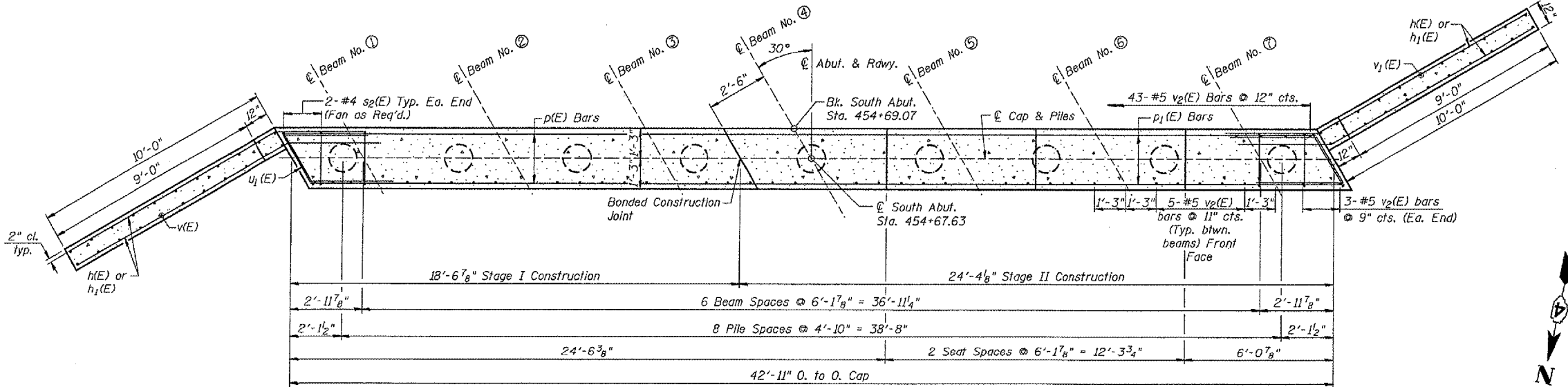
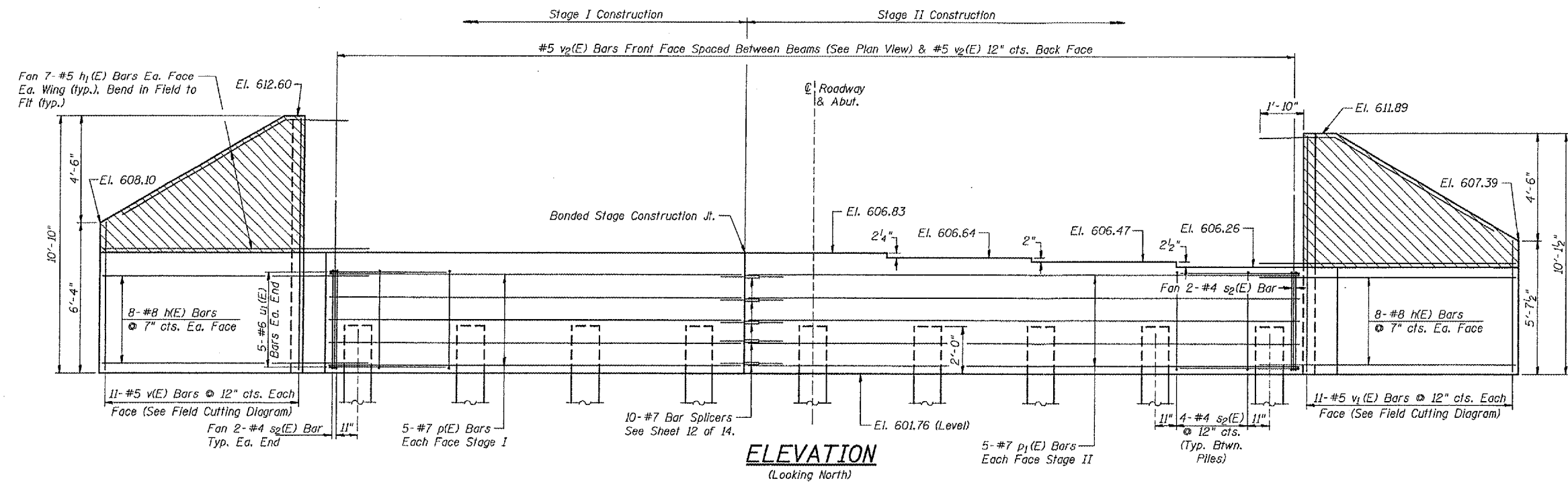
**FIELD CUTTING DIAGRAM v1(E) or v3(E) BARS**

Order v1(E) or v3(E) Bars Full Length. Cut as Shown and Use Remainder of Bars in Opposite Face

**PILE DATA**

Type & Size	Metal Shell - 14" φ x 0.25" Walls
Nominal Required Bearing	330 kips
Allowable Resistance Available	110 kips
Est. Length	60'





SECTION THRU ABUT.  
(at RT. L's)

**BILL OF MATERIAL - SOUTH ABUTMENT**

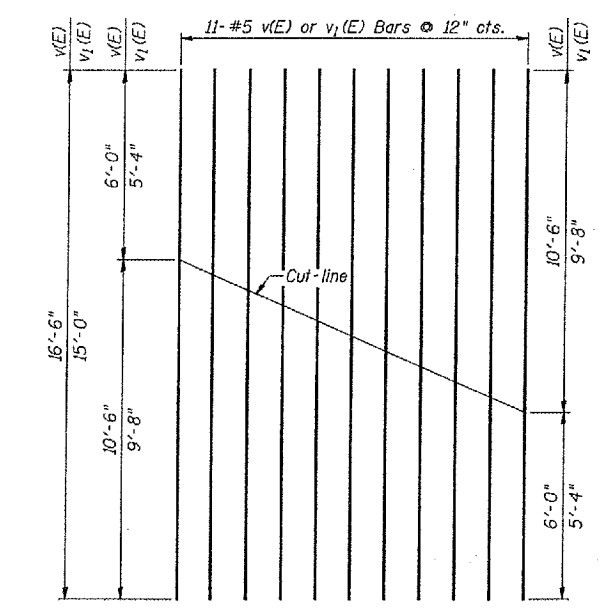
Bar	No.	Size	Length	Shape
h(E)	32	#8	14'-6"	—
h1(E)	28	#5	13'-6"	—
p(E)	10	#7	18'-3"	—
p1(E)	10	#7	24'-0"	—
s2(E)	28	#4	13'-5"	□
u1(E)	10	#6	9'-5"	—
v(E)	11	#5	16'-6"	—
v1(E)	11	#5	15'-0"	—
v2(E)	79	#5	5'-6"	—
Concrete Structures		Cu. Yd.	22.3	
Reinforcement Bars (Epoxy Coated)		Pound	3700	
Furnishing Metal Shell Piles, 14"x14"		Foot	368	
Driving Piles		Foot	368	
Test Pile, Metal Shells		Each	1	
Bar Splicers		Each	10	
Structure Excavation		Cu. Yd.	220	

**Notes:**  
 Hatched area of wings to be poured after beams are in place and deck slab has been poured. Quantity of concrete for hatched area is included with concrete superstructure on sheet 7 of 14.  
 Reinforcement Bars Designated (E) Shall Be Epoxy Coated.  
 All exposed edges shall have standard 3/4" chamfers. Except as noted.  
 Pour steps monolithically with cap.  
 Fan s2(E) Bars as Required at Stage Line.

**PLAN**

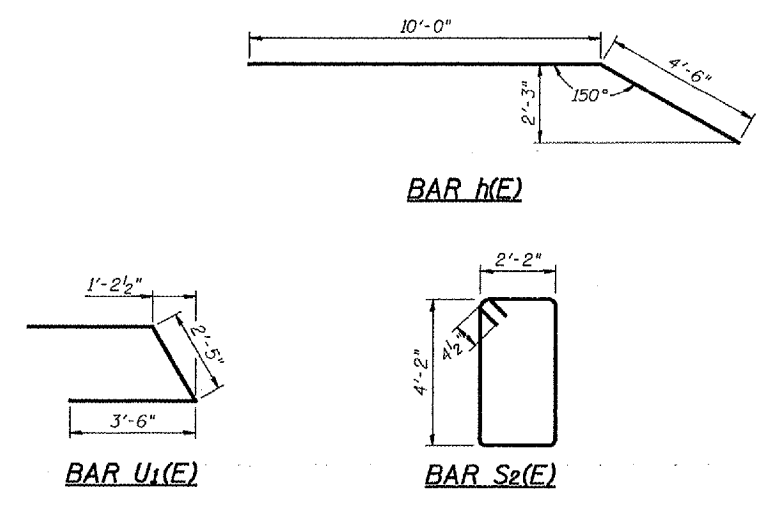
**PILE DATA**

Type & Size ..... Metal Shell - 14" φ x 0.25" Walls  
 Nominal Required Bearing ..... 330 kips  
 Allowable Resistance Available ..... 110 kips  
 Est. Length ..... 46'



**FIELD CUTTING DIAGRAM v(E) or v1(E) BARS**

Order v(E) or v1(E) Bars Full Length. Cut as Shown and Use Remainder of Bars in Opposite Face

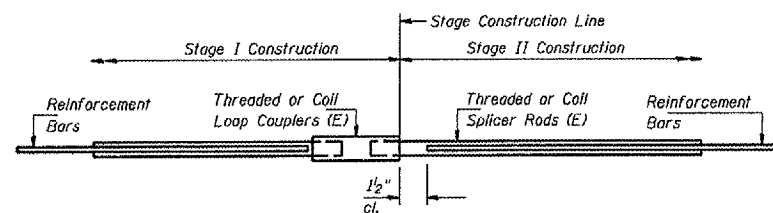


**SOUTH ABUTMENT**  
 F.A.P. 310, SECTION (41A)BR-1  
 U.S. ROUTE 67 OVER GRINDSTONE CREEK  
 McDONOUGH COUNTY  
 STA. 454+20 (S.N. 055-0049)

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 310 U.S. 67	(40BY)BR, (41-A)BR-1	McDonough	66	29
REG. ROAD DIST. NO. 4		FED. AID PROJECT		

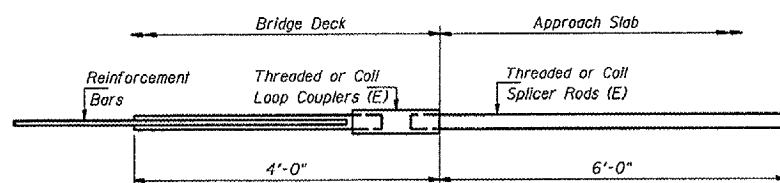
SHEET NO. 12  
14 SHEETS

Contract #68677



**SPLICER DETAIL**

Bar Size	No. Assemblies Required	Location
#5	275	Deck
#6	4	Deck
#7	10	S. Abutment
#7	10	N. Abutment
#6	14	Diaphragm
#5	6	Diaphragm



**INTEGRAL ABUTMENT  
BAR SPLICER ASSEMBLY DETAIL  
FOR #5 BAR**

Min. Capacity = 23.0 kips - tension
Min. Pull-out Strength = 9.2 kips - tension
No. Required = 68

The diameter of this part is the same as the diameter of the bar spliced.

The diameter of this part is equal or larger than the diameter of bar spliced.

**ROLLED THREAD DOWEL BAR**



**\*\* ONE PIECE**

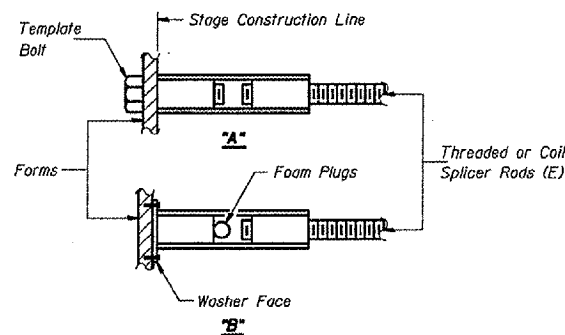
Wire Connector



**WELDED SECTIONS**

**BAR SPLICER ASSEMBLY ALTERNATIVES**

\*\* Heavy Hex Nuts conforming to ASTM A 563, Grade C, D or DH may be used.



**INSTALLATION AND SETTING METHODS**

"A": Set bar splicer assembly by means of a template bolt.  
 "B": Set bar splicer assembly by nailing to wood forms or cementing to steel forms.  
 (E) : Indicates epoxy coating.

**NOTES**

Bar splicer assemblies shall be of an approved type and shall develop in tension at least 125 percent of the yield strength of the lapped reinforcement bars.  
 Splicer rods shall be of minimum 60 ksi yield strength, threaded or coiled full length.  
 All reinforcement bars shall be lapped and tied to the splicer rods or dowel bars.  
 Bar splicer assemblies shall be epoxy coated according to the requirements for reinforcement bars.  
 Other systems of similar design may be submitted to the Engineer for approval. Approval shall be based on certified test results from an approved testing laboratory that the proposed bar splicer assembly satisfies the following requirements:

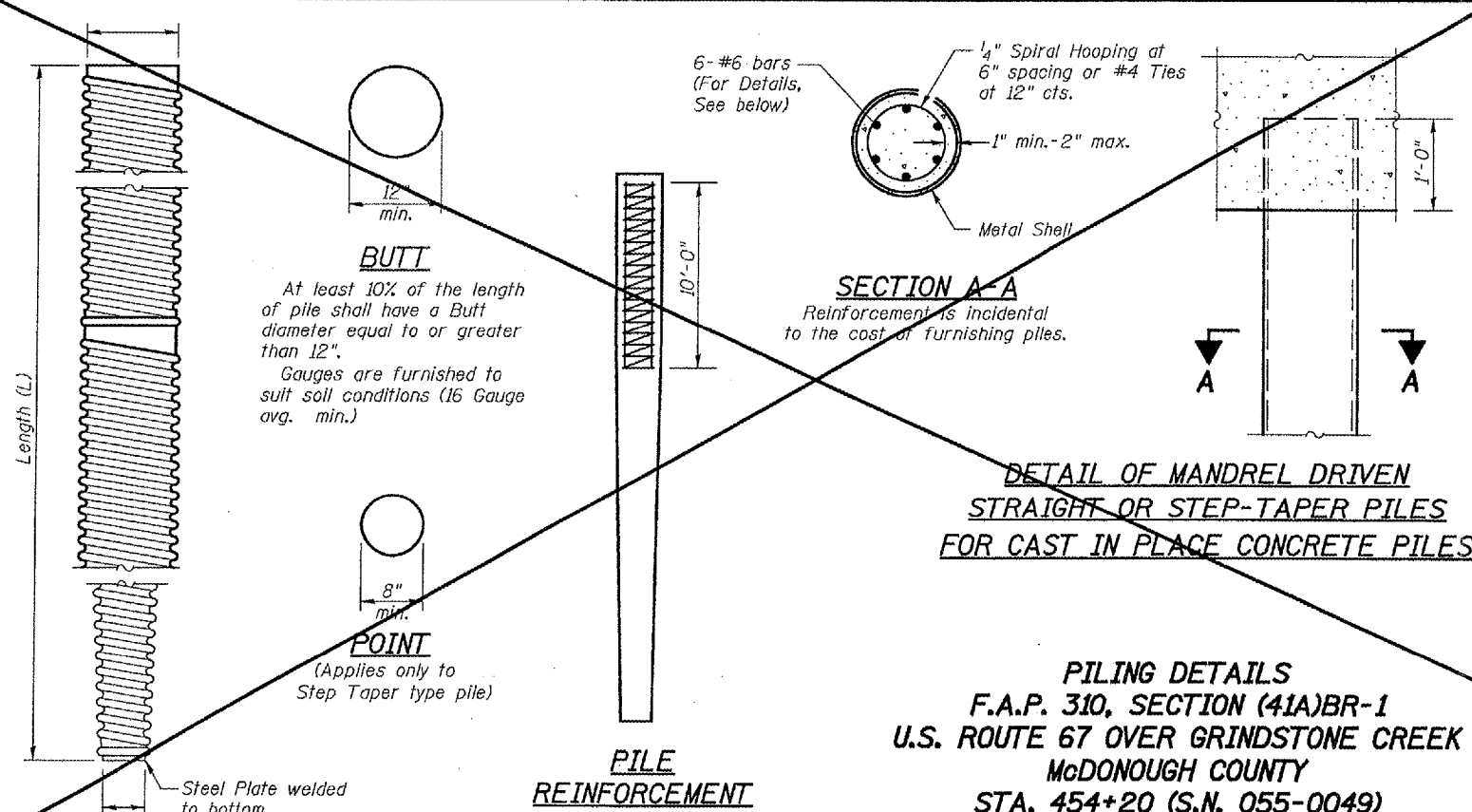
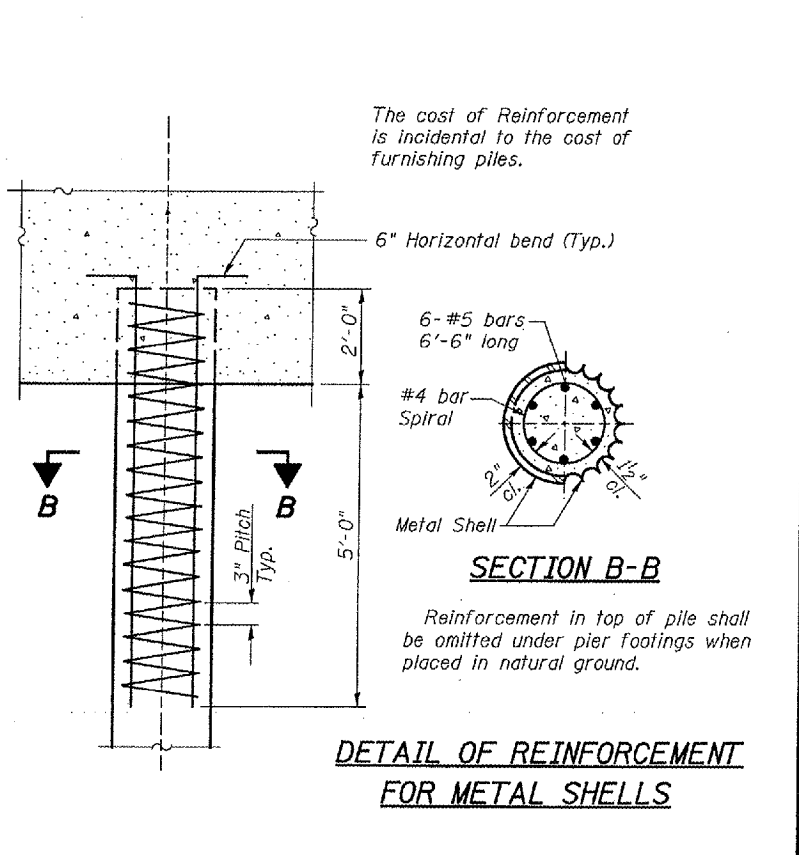
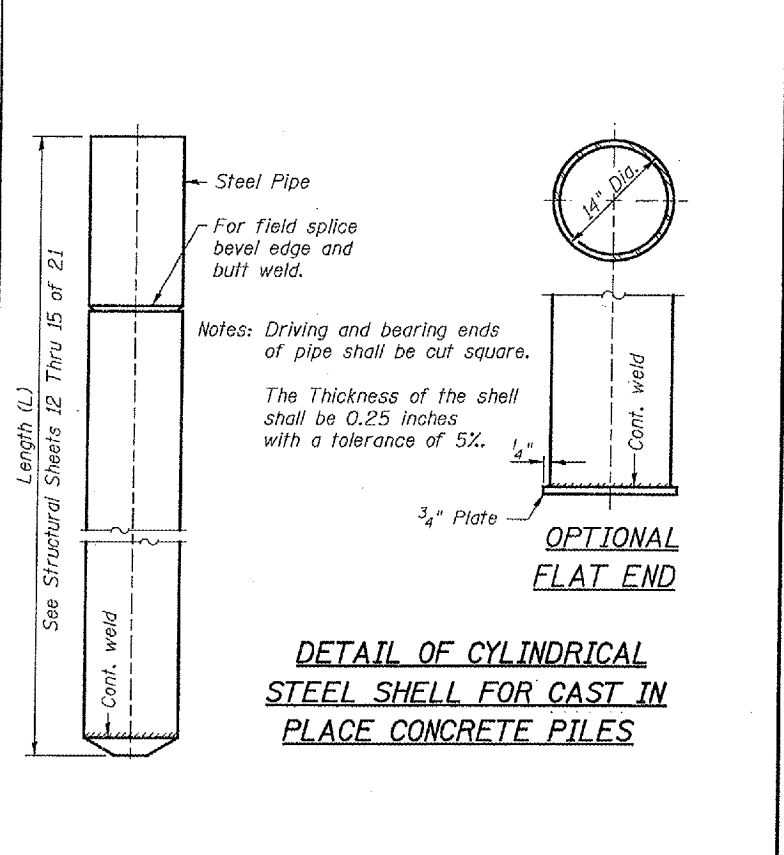
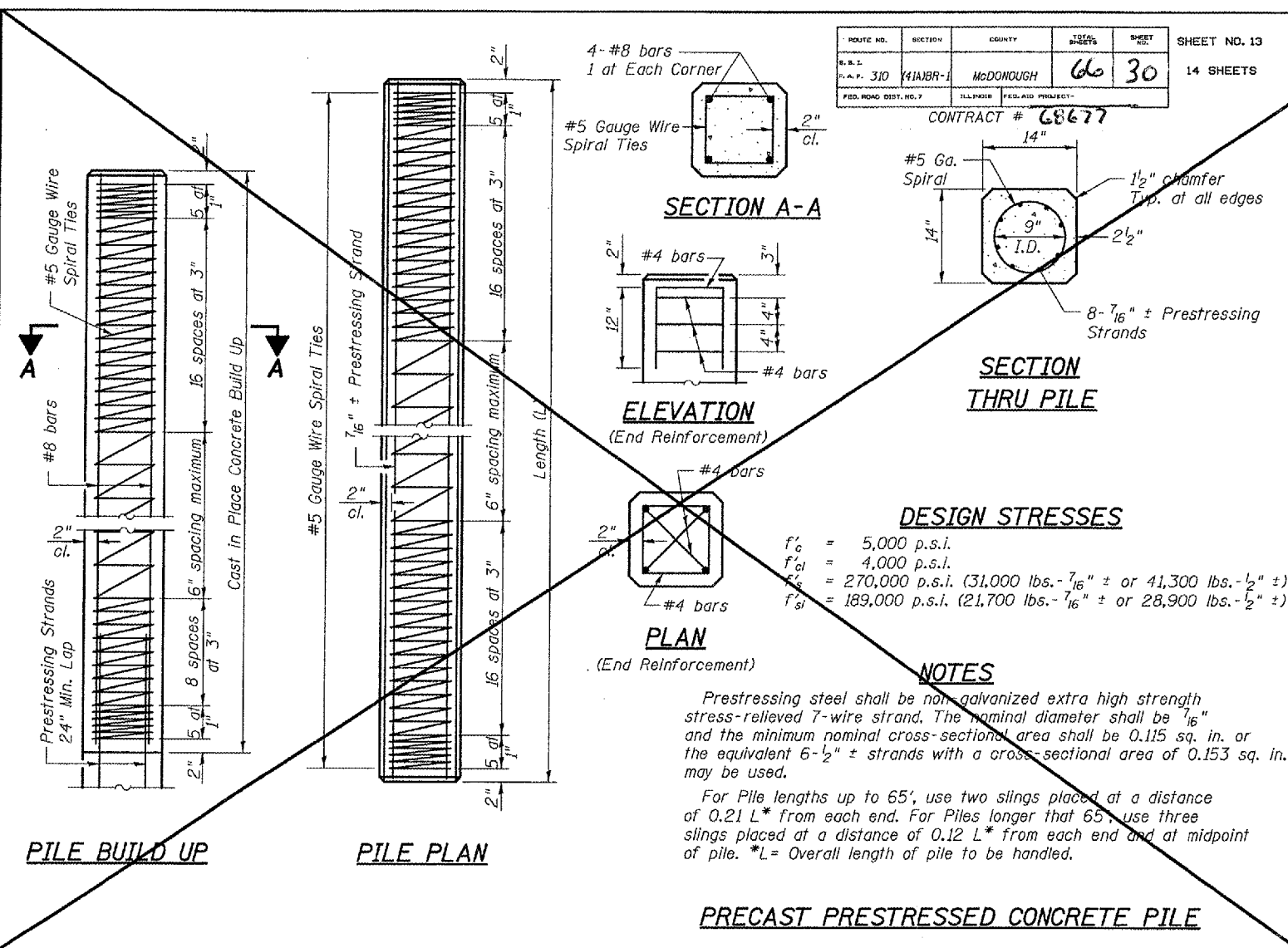
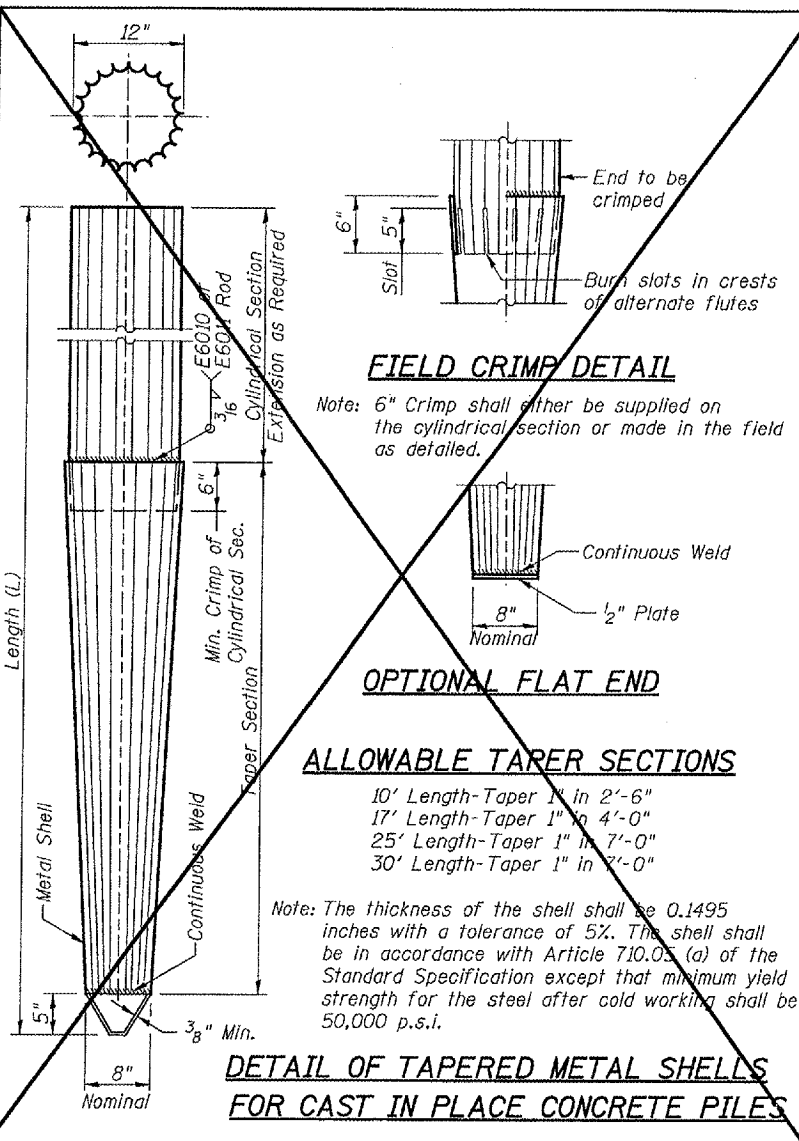
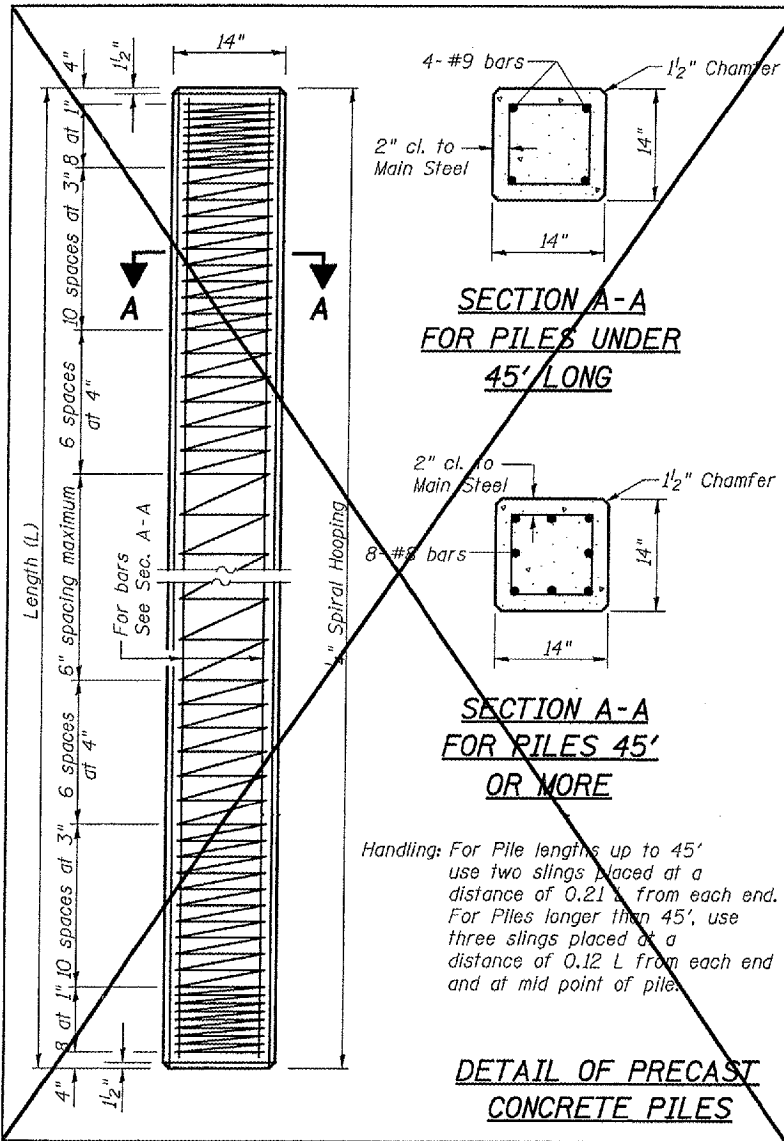
- Minimum Capacity (Tension in kips) =  $1.25 \times f_y \times A_l$
- Minimum Pull-out Strength (Tension in kips) =  $1.25 \times f_{allow} \times A_l$

Where  $f_y$  = Yield strength of lapped reinforcement bars in ksi.  
 $f_{allow}$  = Allowable tensile stress in lapped reinforcement bars in ksi (Service Load)  
 $A_l$  = Tensile stress area of lapped reinforcement bars.  
 \* = 28 day concrete

Bar Size to be Spliced	Splicer Rod or Dowel Bar Length	Strength Requirements	
		Min. Capacity kips - tension	Min. Pull-Out Strength kips - tension
#5	2'-0"	23.0	9.2
#6	2'-7"	33.1	13.3
#7	3'-5"	45.1	18.0
#8	4'-6"	58.9	23.6

Bar splicer assemblies shall be according to Section 508 of the Standard Specifications, except as noted. The furnishing and installation of bar splicer assemblies will be measured and paid for at the contract unit price each for "BAR SPLICERS."

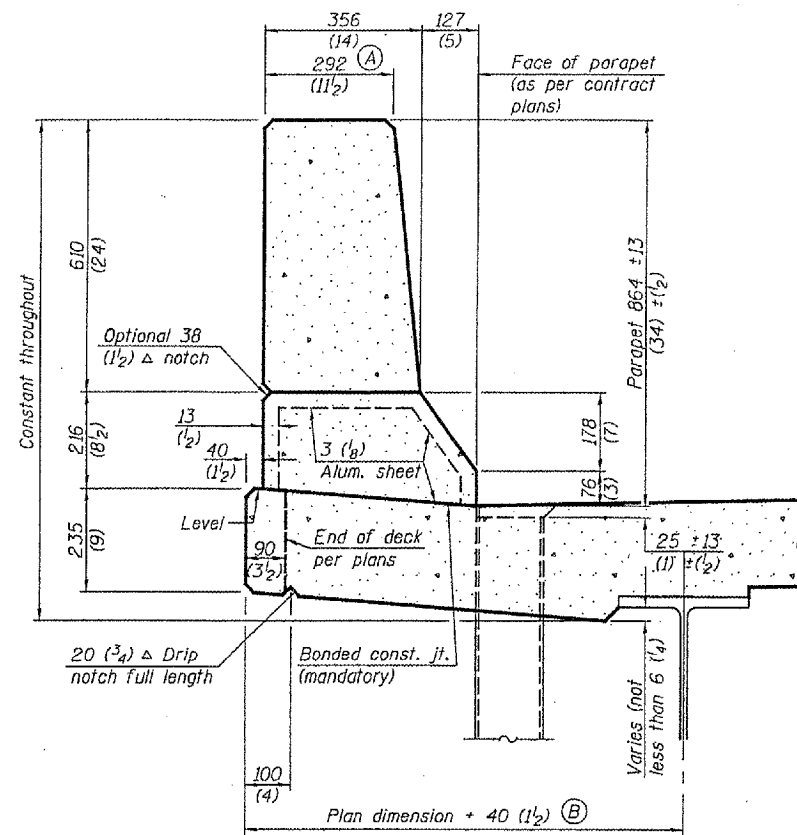
**BAR SPLICER (COUPLER DETAILS)**  
 F.A.P. 310, SECTION (41A)BR-1  
 U.S. ROUTE 67 OVER GRINDSTONE CREEK  
 McDONOUGH COUNTY  
 STA. 454+20 (S.N. 055-0049)  
 WHA # 1050D03



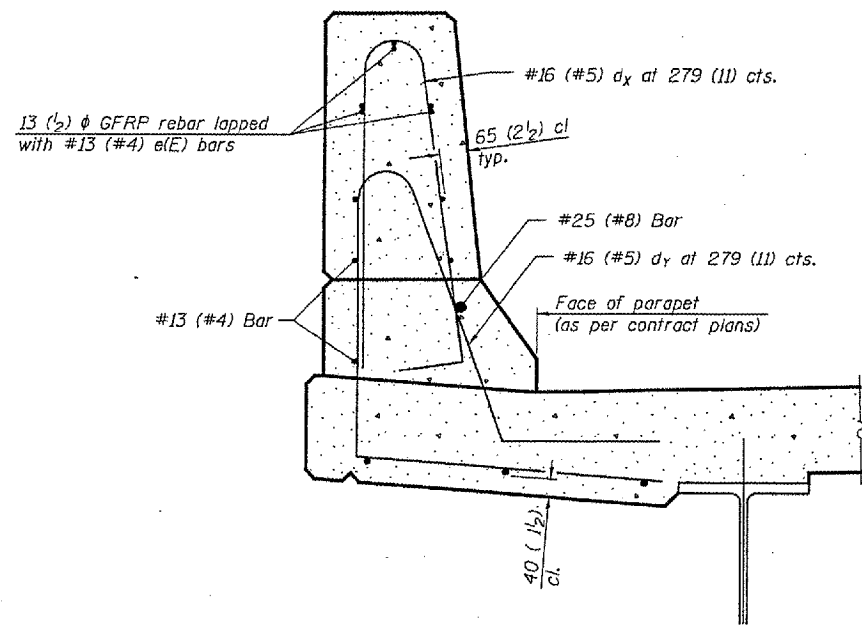
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

FAP	SECTION	DATE	BY	CHECKED	SHEET	SHEET NO.
310	(400) 30A	6/11/07	McDonough	66	30A	
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT			

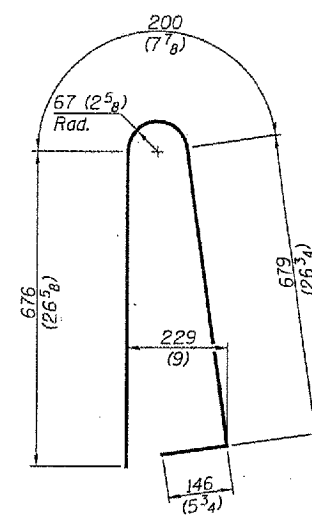
Contract # 68677



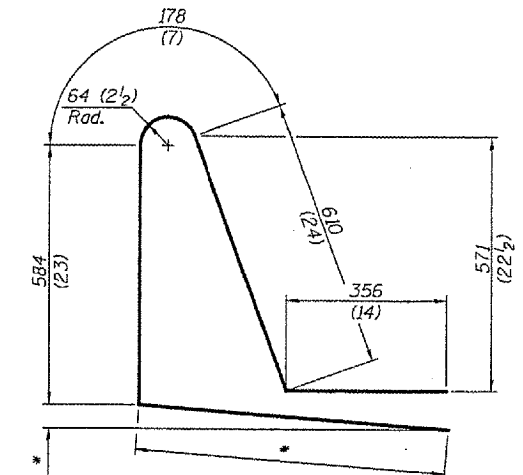
**SECTION**  
(Showing dimensions)



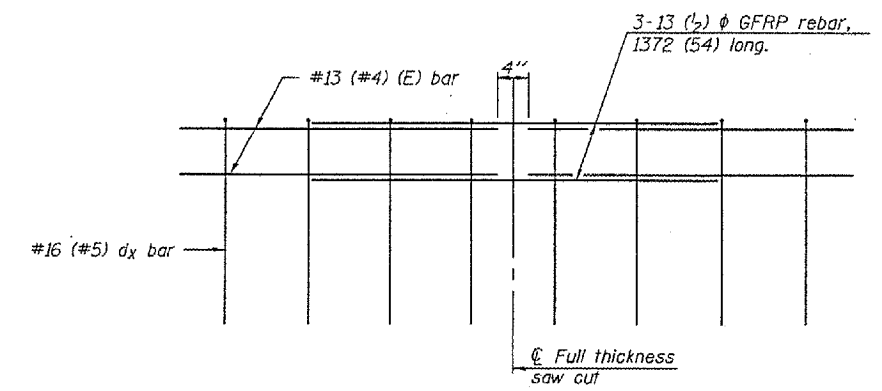
**SECTION**  
(Showing required reinforcement)



**BAR dx(e)**



**BAR dy(e)**  
\* Per contract plans



**GFRP REBAR STIFFENING DETAIL**  
(Place as shown in parapet section)

**GENERAL NOTES**  
All dimensions shall remain the same as shown on contract plans, except dimensions A and B which are to be revised as shown to provide additional clearance. Additional concrete needed to revise dimension A and B= 0.0422 m<sup>3</sup>/m (0.165 cu. yds./ft.) of parapet. Place aluminum sheet in curb portion at and near piers. Full thickness saw cut at all other locations. Adjust/add joint locations to maintain 3 to 6 meter (10 to 20 foot) spacing.

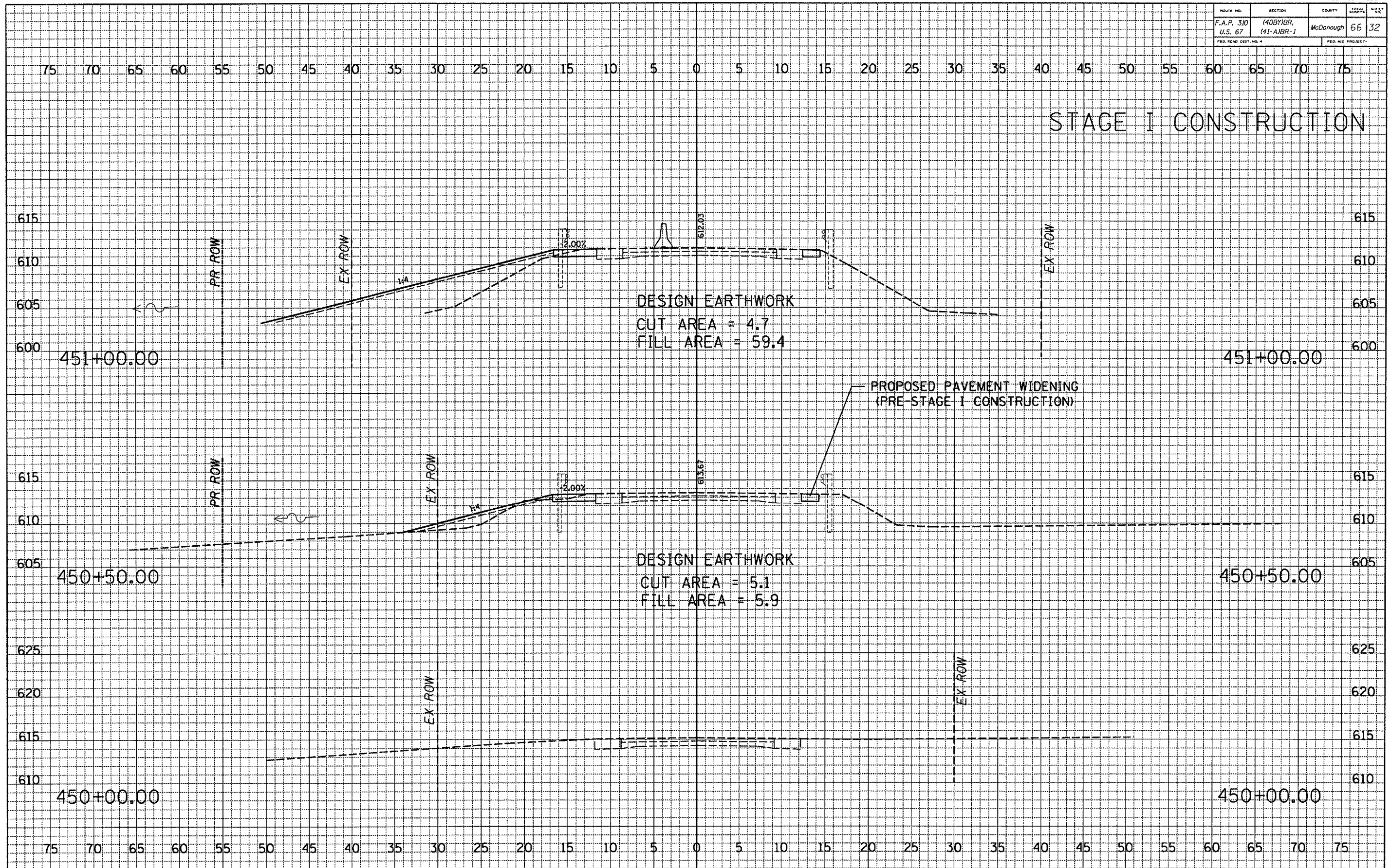
**CONCRETE PARAPET  
SLIPFORMING OPTION**





ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 310 U.S. 67	(40BY)BR, (41-A)BR-1	McDonough	66	32
FED. ROAD DIST. NO. 4		FED. AID PROJECT		

STAGE I CONSTRUCTION



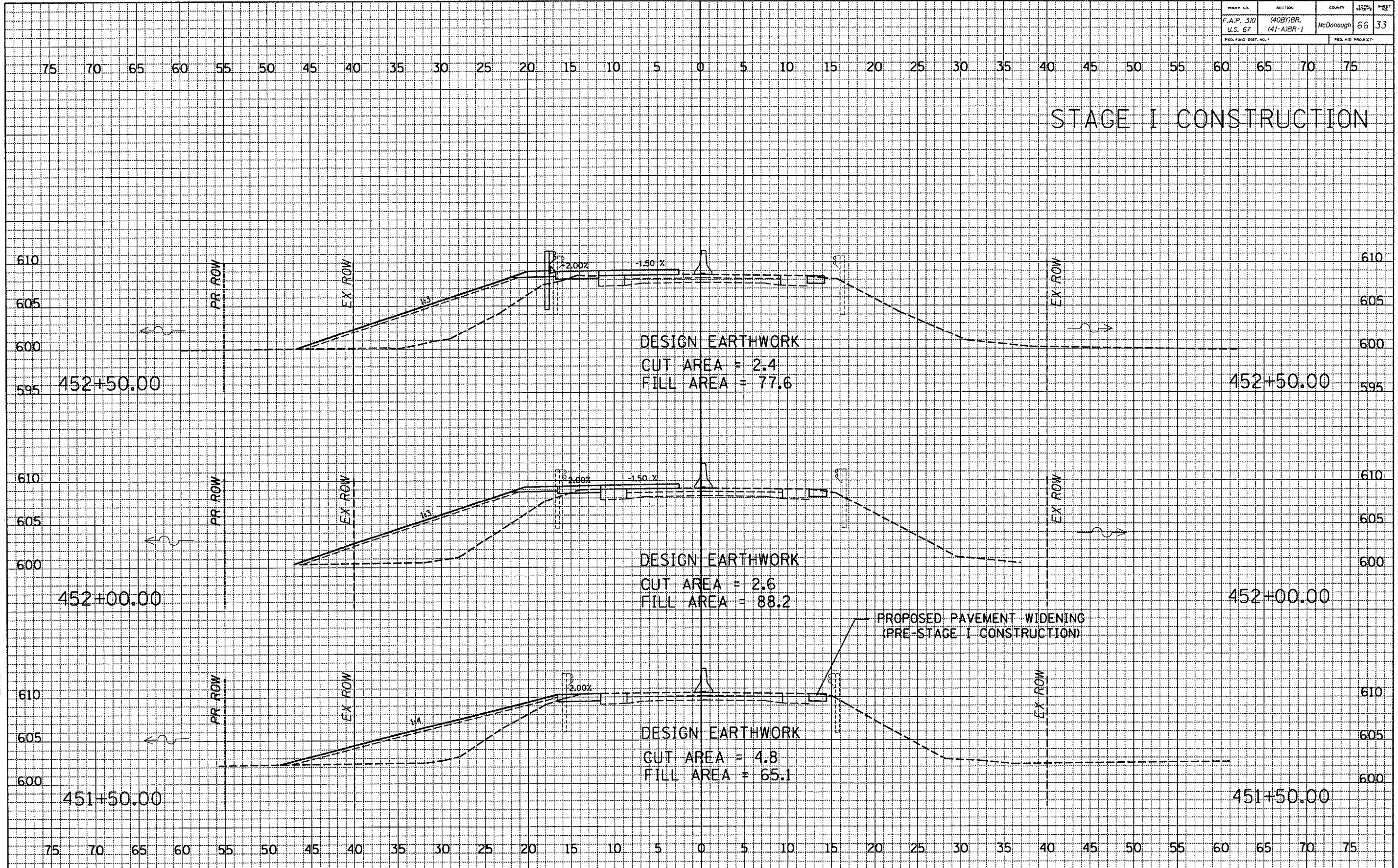
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DATE	BY

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USER NAME : jay

ROUTE NO.	SECTION	COUNTY	SHEET NO.	TOTAL SHEETS
F.A.P. 310 U.S. 67	(40B)BR. (41-A)BR-1	McDonough	66	33
FED. ROAD DIST. NO. 4			FED. AID PROJECT	

### STAGE I CONSTRUCTION



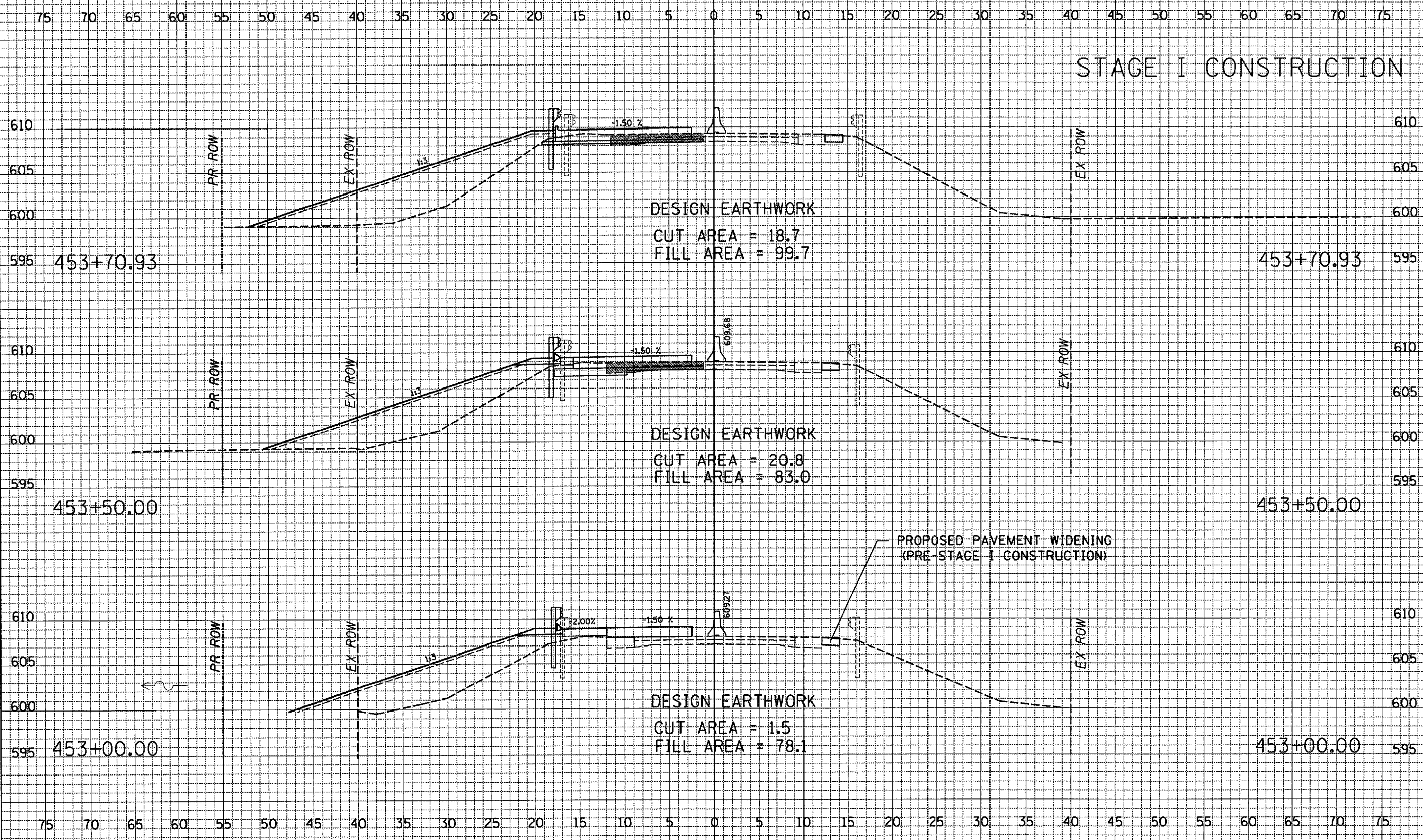
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ROUTE NO.	SECTION	COUNTY	SHEET NO.	TOTAL SHEETS
F.A.P. 310 U.S. 67	(40BY)BR, (41-A)BR-1	McDonough	66	34
FED. ROAD DIST. NO. 4			FED. AID PROJECT-	

# STAGE I CONSTRUCTION



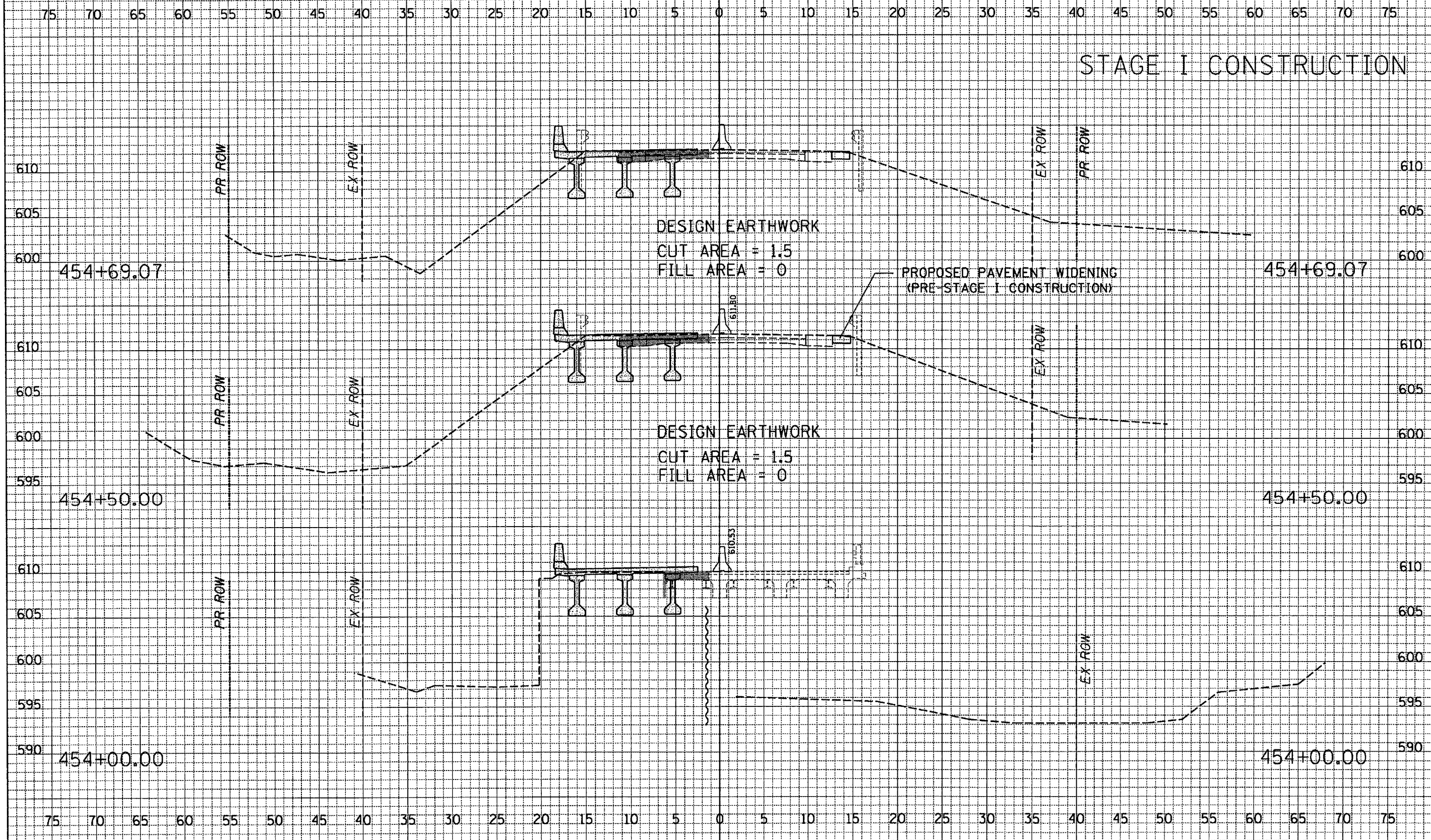
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ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET
F.A.P. 310 U.S. 67	(40B)BR. (41-A)BR-1	McDonough	66	35
FED. ROAD DIST. NO. 4		FED. AID PROJECT		

# STAGE I CONSTRUCTION



DATE	BY
DATE	BY
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ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 310 U.S. 67	(40B)BR. (41-A)BR-1	McDonough	66	36
FED. ROAD DIST. NO. 1			FED. AID PROJECT	

STAGE I CONSTRUCTION

DATE	BY

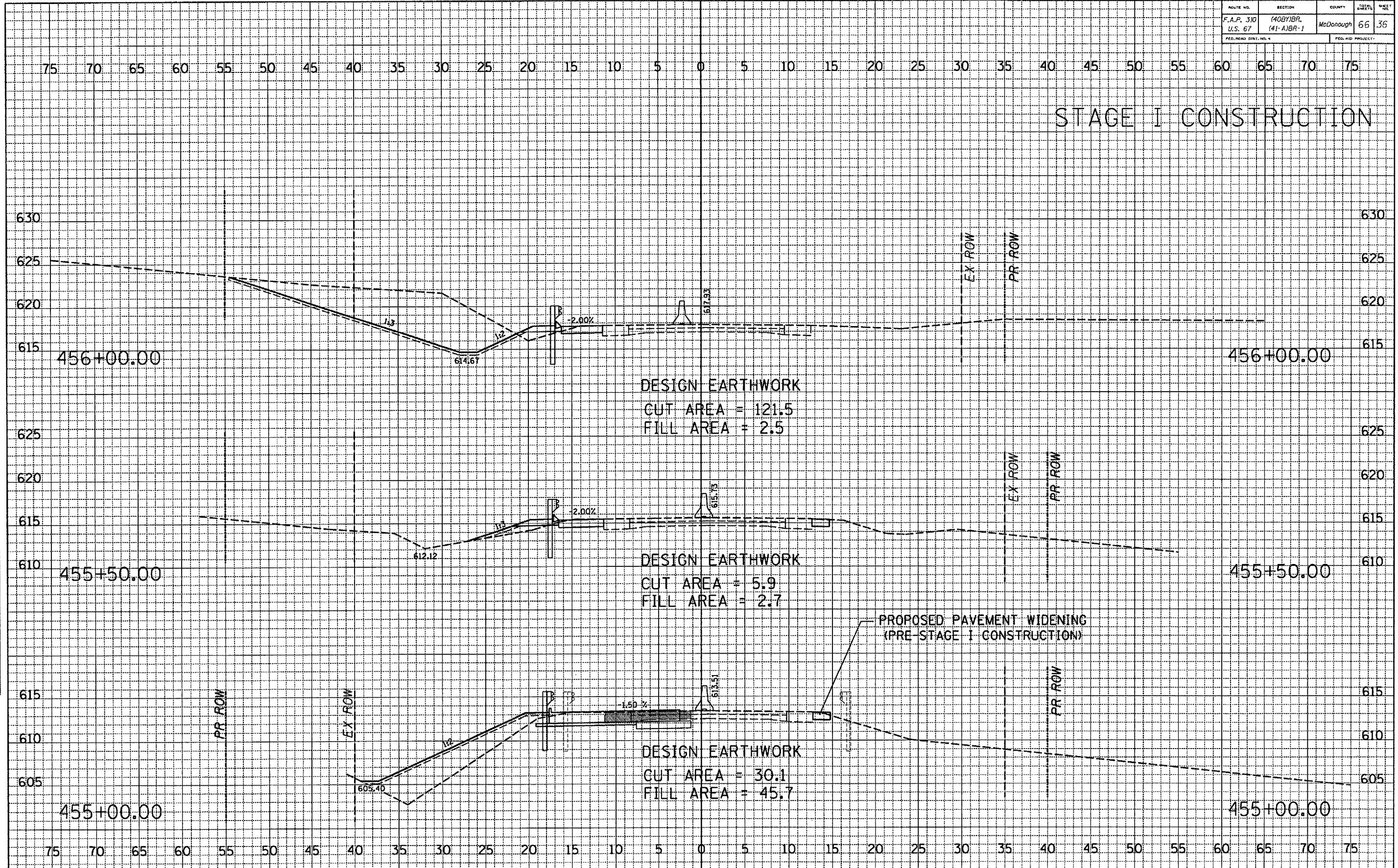
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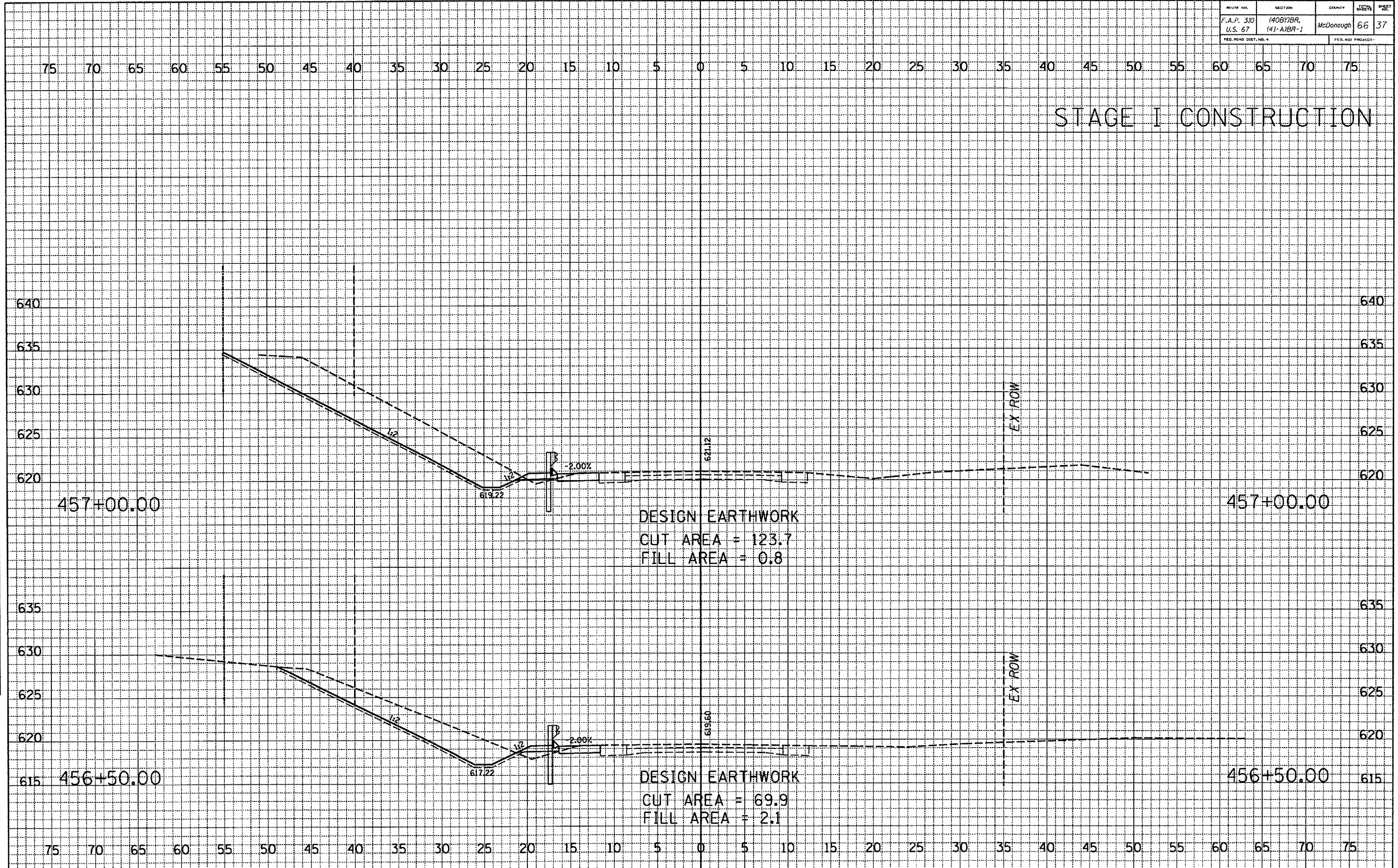
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F.A.P. 310 U.S. 67	(40BY)BR, (41-A)BR-1	McDonough	66	37
FED. ROAD DIST. NO. 4			FED. AID PROJECT	

# STAGE I CONSTRUCTION

DATE	
BY	
REVISIONS	
SURVEYED	
PLOTTED	
TEMP. ATE	
AREAS CHECKED	
AREAS CHECKED	
FINL SURVEY	
NOTE BOOK	
NO.	

DATE	
BY	
REVISIONS	
ORIGINAL SURVEY	
NOTE BOOK	
NO.	

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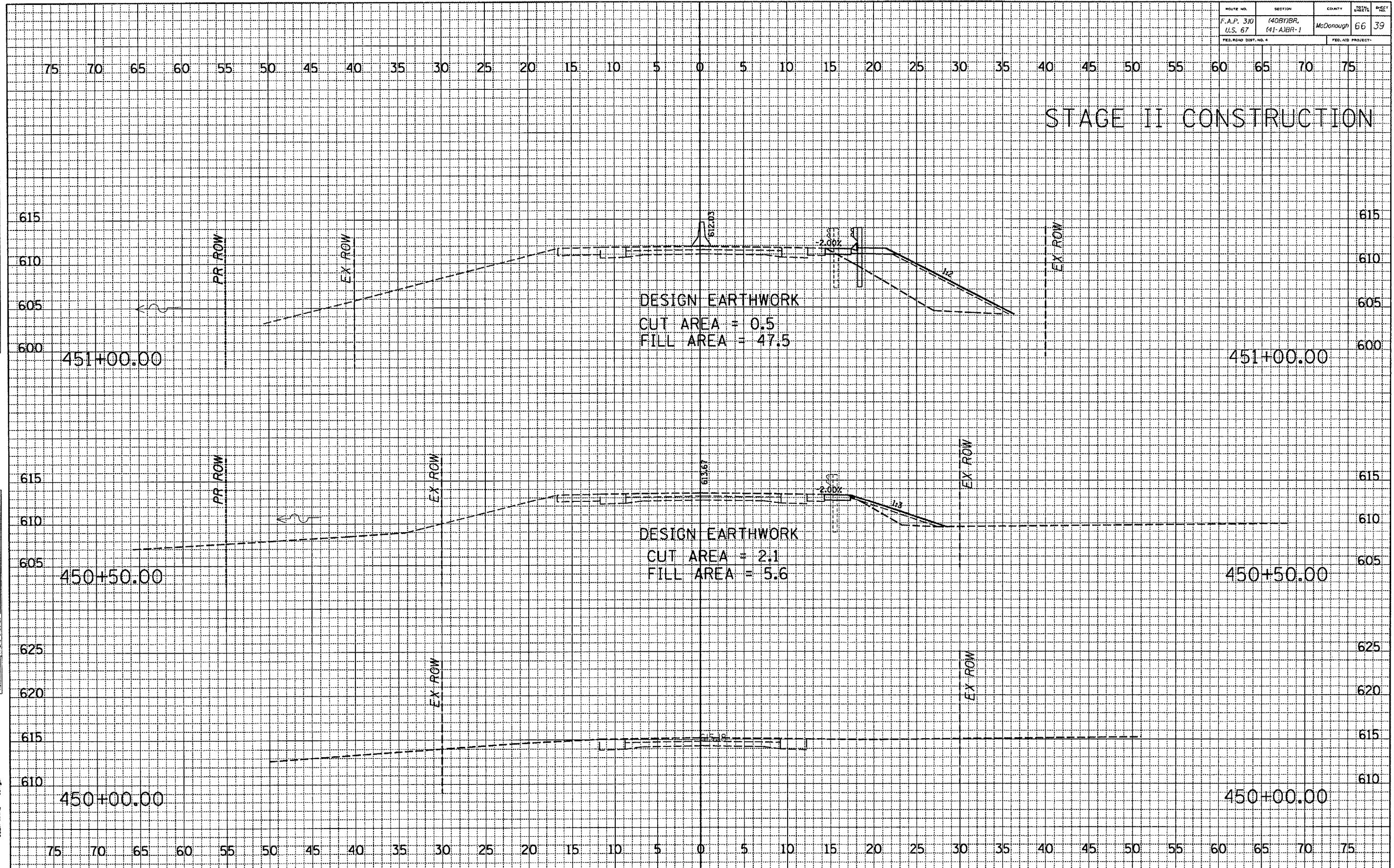


ROUTE NO.	SECTION	COUNTY	SHEET	TOTAL SHEETS
F.A.P. 310 U.S. 67	(40BY)BR, (41-A)BR-1	McDonough	66	39

STAGE II CONSTRUCTION

DATE: \_\_\_\_\_ BY: \_\_\_\_\_

FINAL SURVEYED: \_\_\_\_\_  
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NOTE BOOK AREAS CHECKED: \_\_\_\_\_



DATE: \_\_\_\_\_ BY: \_\_\_\_\_

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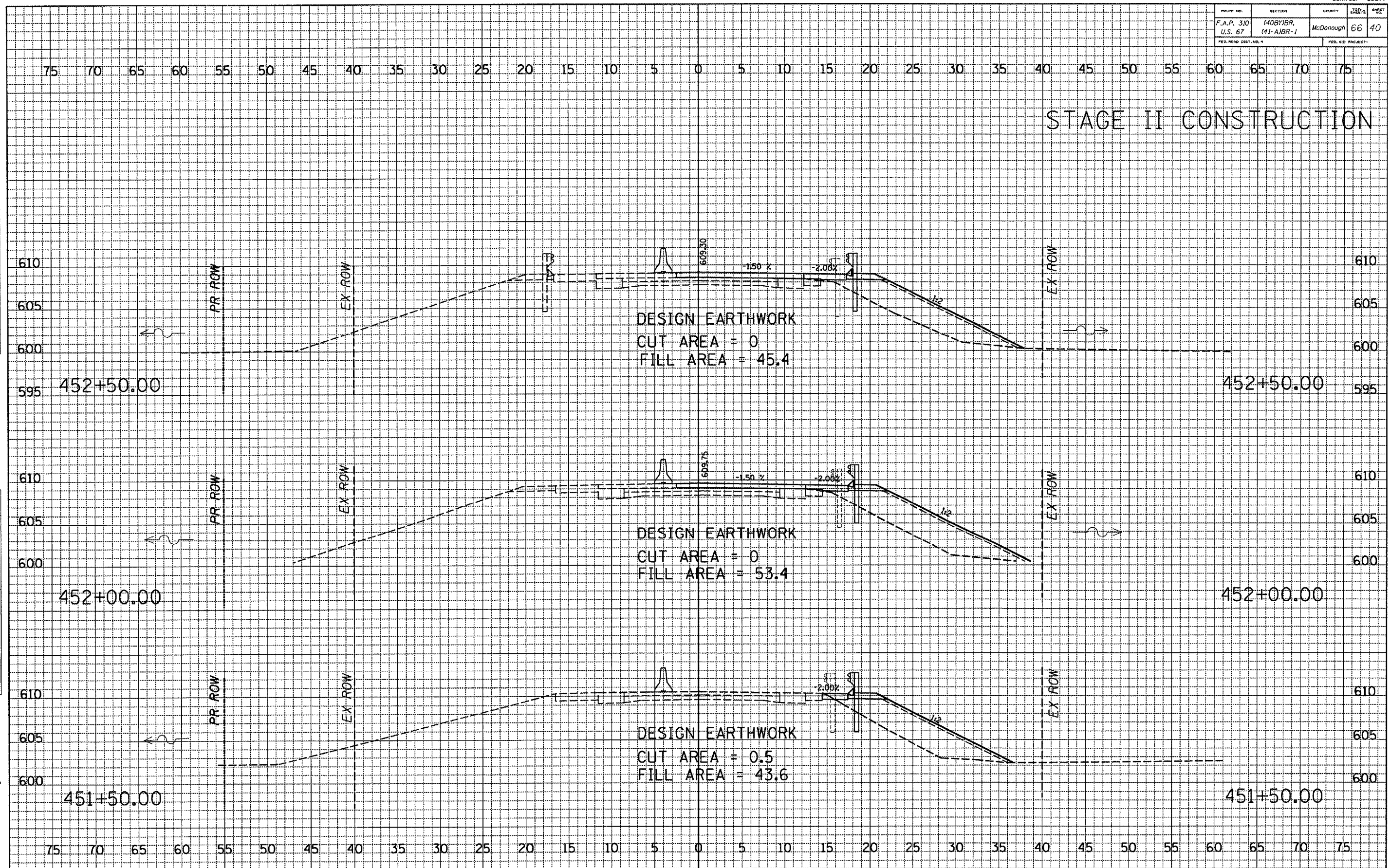
ROUTE NO.	SECTION	COUNTY	SHEET NO.	TOTAL SHEETS
F.A.P. 310 U.S. 67	(408)BR, (41-A)BR-1	McDonough	66	40
FED. ROAD DIST. NO. 4			FED. AID PROJECT	

# STAGE II CONSTRUCTION

DATE	BY
DATE	BY

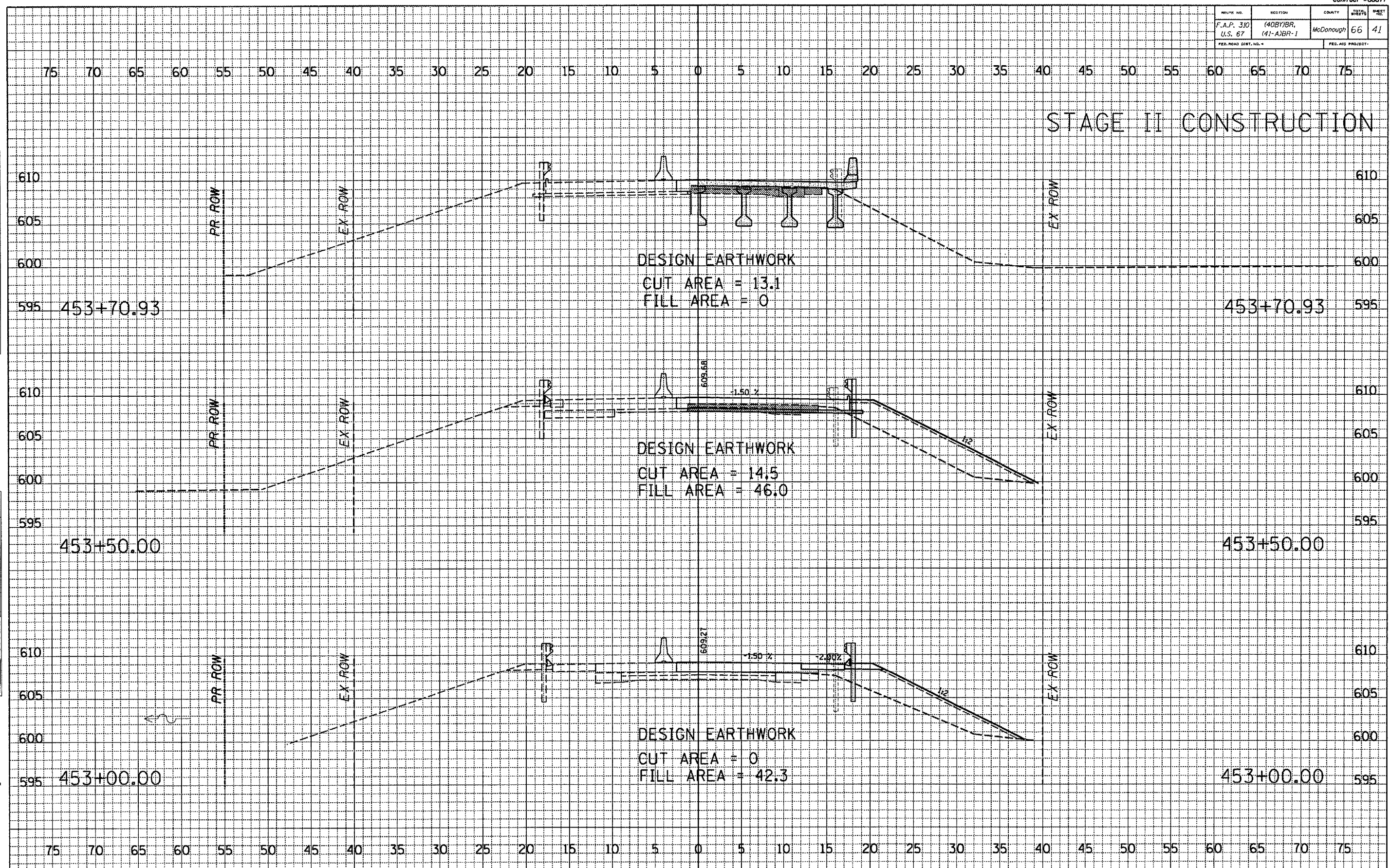
DATE	BY
DATE	BY

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USER NAME = jorgar



ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 310 U.S. 67	(40BY)BR, (41-A)BR-1	McDonough	66	41

# STAGE II CONSTRUCTION



DATE	
BY	
SURVEYED	
TEMPLATE	
AREAS	
CHECKED	
NO.	

DATE	
BY	
ORIGINAL SURVEY	
NOTE BOOK	
AREAS CHECKED	
NO.	

PLOT DATE: 7/12/2007  
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 USER NAME: jorger

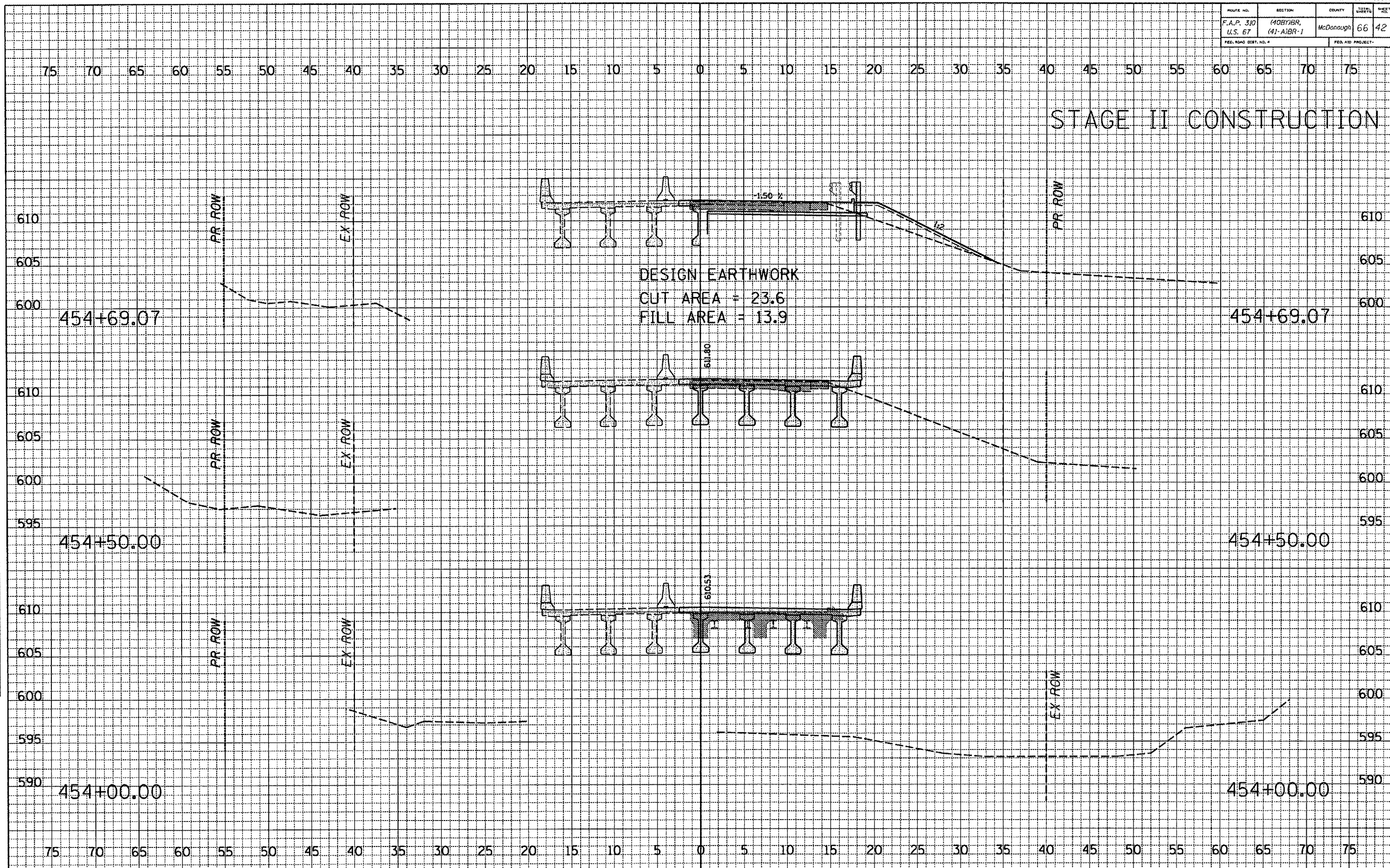
ROUTE NO.	SECTION	COUNTY	SHEET	TOTAL SHEETS
F.A.P. 310 U.S. 67	(40BY)BR, (4) - A)BR-1	McDonough	66	42
FED. ROAD DIST. NO. 4			FED. AID PROJECT	

# STAGE II CONSTRUCTION

DATE	BY

DATE	BY

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 FILE NAME \\p\dms\j\6550818\...  
 PLOT SCALE 1/4" = 10' IN.  
 USER NAME j...





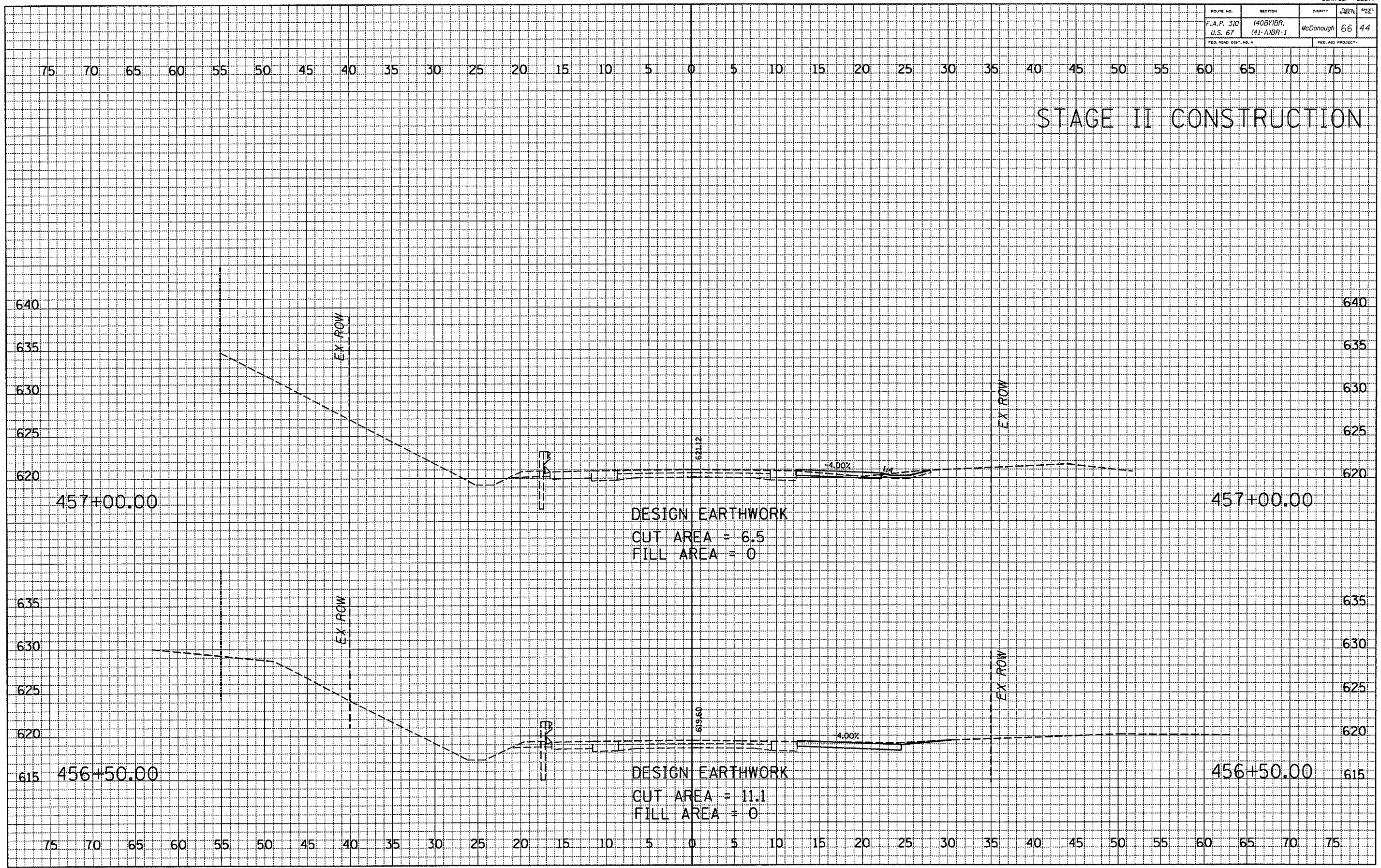
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F.A.P. 310 U.S. 67	(40BY)BR, (41-A)BR-1	McDonough	66	44
FED. ROAD DIST. NO. A			FED. AID PROJECT-	

# STAGE II CONSTRUCTION

DATE	BY

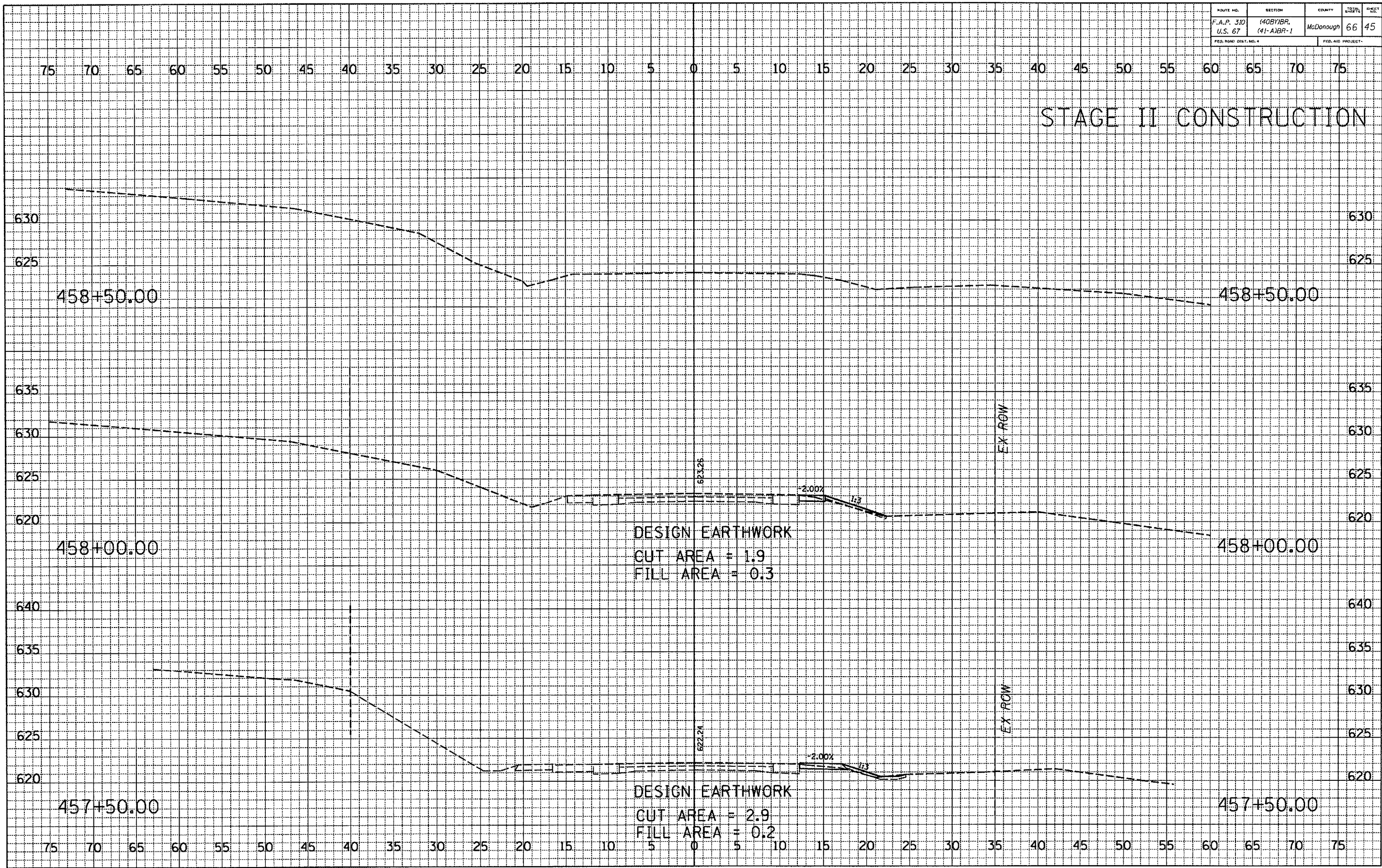
DATE	BY

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USER NAME = borger



ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 310 U.S. 67	(40B)BR. (41-A)BR-1	McDonough	66	45
FED. ROAD DIST. NO.		FED. AID PROJECT		

# STAGE II CONSTRUCTION



DESIGN EARTHWORK  
CUT AREA = 1.9  
FILL AREA = 0.3

DESIGN EARTHWORK  
CUT AREA = 2.9  
FILL AREA = 0.2

DATE: \_\_\_\_\_ BY: \_\_\_\_\_

FINAL SURVEY: \_\_\_\_\_  
 SURVEY: \_\_\_\_\_  
 PLOTTED: \_\_\_\_\_  
 TEMPLATE: \_\_\_\_\_  
 NOTE BOOK: \_\_\_\_\_  
 NO. \_\_\_\_\_  
 AREAS CHECKED: \_\_\_\_\_

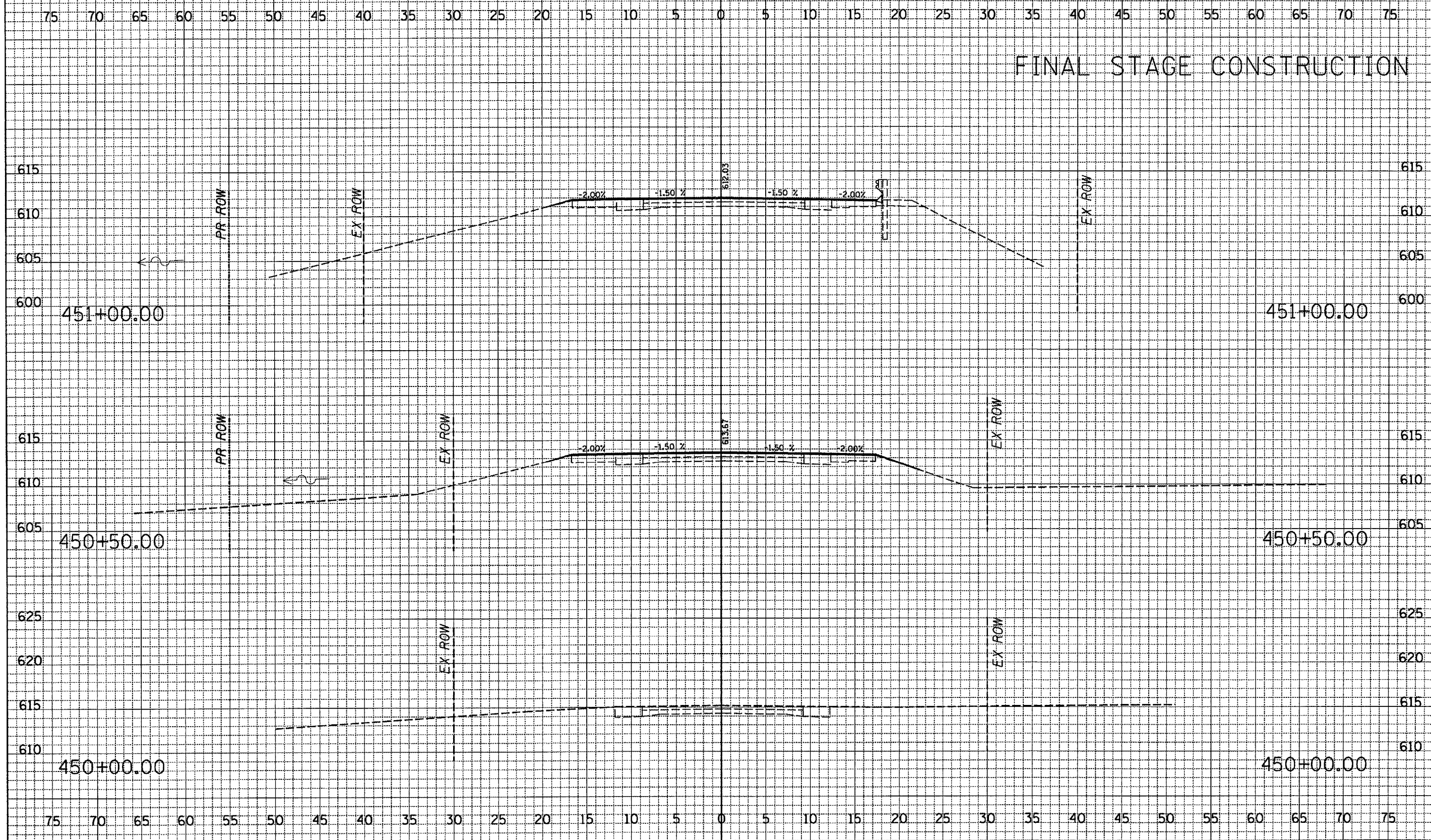
DATE: \_\_\_\_\_ BY: \_\_\_\_\_

ORIGINAL SURVEY: \_\_\_\_\_  
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 PLOTTED: \_\_\_\_\_  
 TEMPLATE: \_\_\_\_\_  
 NOTE BOOK: \_\_\_\_\_  
 NO. \_\_\_\_\_  
 AREAS CHECKED: \_\_\_\_\_

PLOT DATE: 7/17/2007  
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 USER NAME: jlong

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 310 U.S. 67	(40BY)BR. (41-A)BR-1	McDonough	66	46
FED. ROAD DIST. NO. 4			FED. AID PROJECT	

# FINAL STAGE CONSTRUCTION



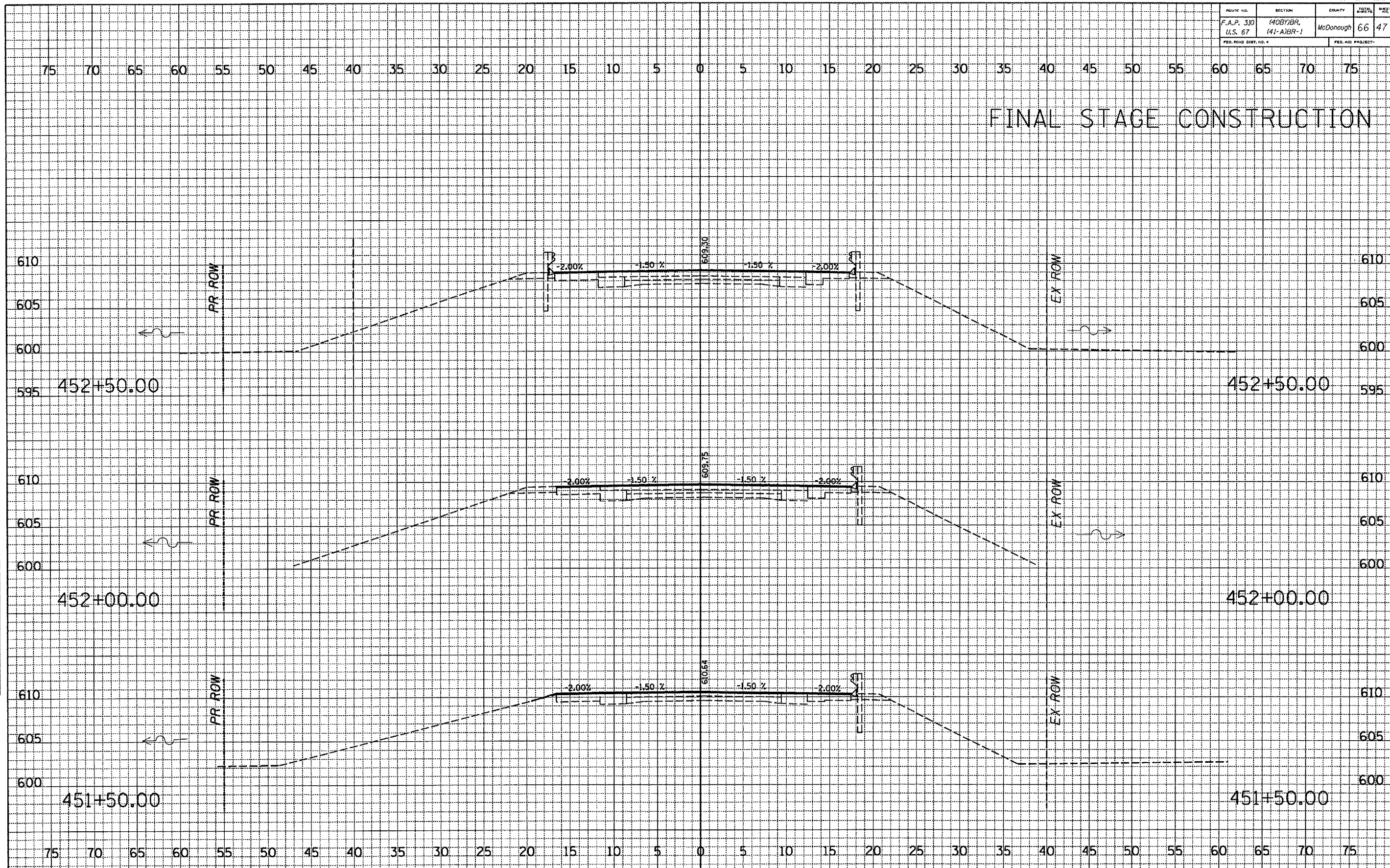
DATE	BY
DATE	BY
DATE	BY

DATE	BY
DATE	BY
DATE	BY

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USER NAME : jlangr

ROUTE NO.	SECTION	COUNTY	SHEET	TOTAL
F.A.P. 310 U.S. 67	(40BY)BR. (41-A)BR-1	McDonough	66	47
FED. ROAD DIST. NO. 4			FED. AID PROJECT	

# FINAL STAGE CONSTRUCTION



DATE	BY

FINAL SURVEY  
SURVEYED  
FLOTTED  
NOTE BOOK  
AREAS CHECKED  
NO.

DATE	BY

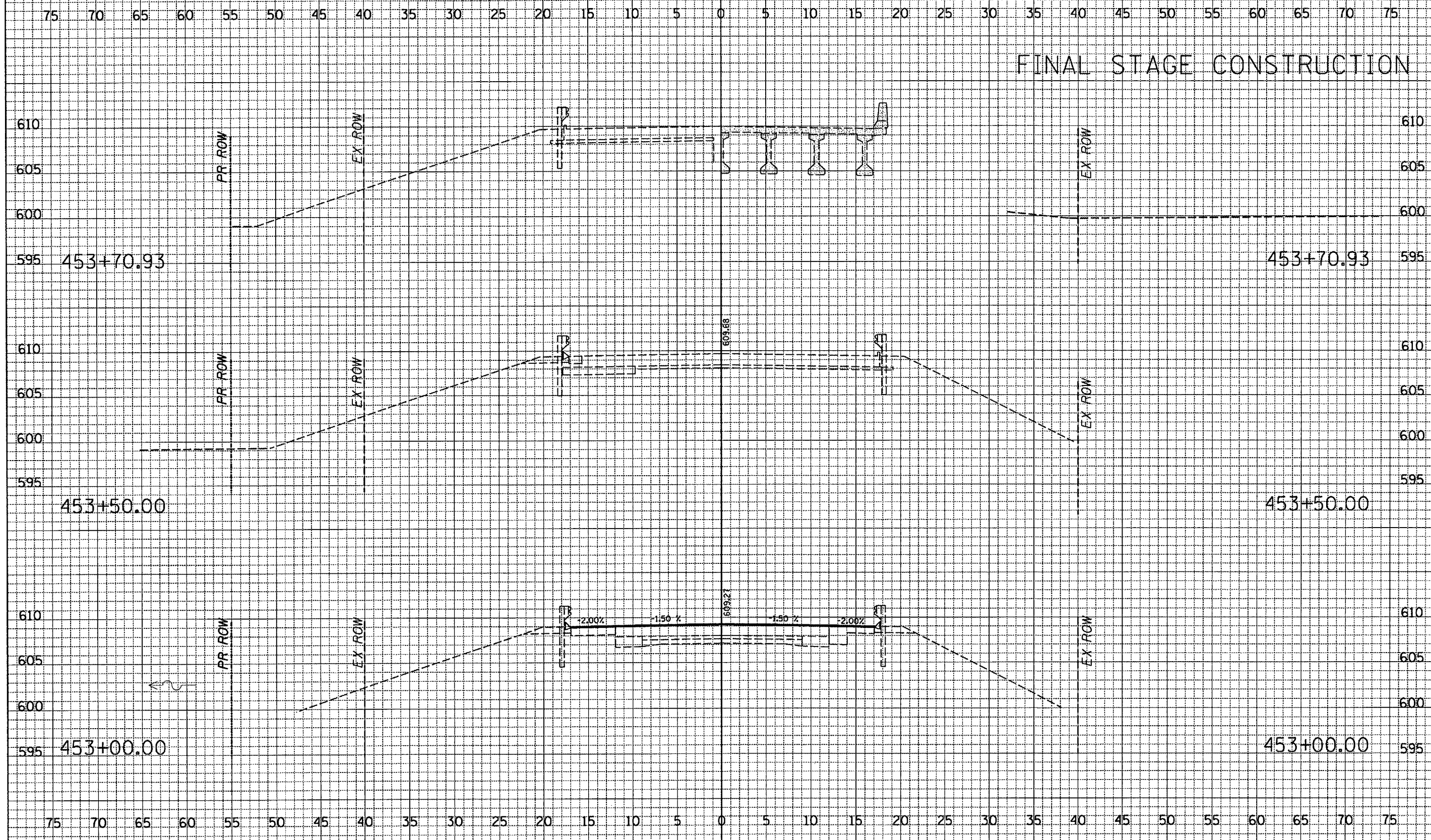
ORIGINAL SURVEY  
SURVEYED  
FLOTTED  
NOTE BOOK  
AREAS CHECKED  
NO.

PLT DATE: 7/12/2007  
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PLT SCALE: 1/4" = 10'-0"  
USER NAME: jberger



ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 310 U.S. 67	(40B)BR, (41-A)BR-1	McDonough	66	48
FED. ROAD DIST. NO. 4		FED. AID PROJECT		

FINAL STAGE CONSTRUCTION



DATE: \_\_\_\_\_ BY: \_\_\_\_\_

PROJECT NO. \_\_\_\_\_

DATE PLOTTED: \_\_\_\_\_

DATE CHECKED: \_\_\_\_\_

DESIGNED BY: \_\_\_\_\_

PLANNED BY: \_\_\_\_\_

NOTED BY: \_\_\_\_\_

APPROVED BY: \_\_\_\_\_

DATE: \_\_\_\_\_ BY: \_\_\_\_\_

PROJECT NO. \_\_\_\_\_

DATE PLOTTED: \_\_\_\_\_

DATE CHECKED: \_\_\_\_\_

DESIGNED BY: \_\_\_\_\_

PLANNED BY: \_\_\_\_\_

NOTED BY: \_\_\_\_\_

APPROVED BY: \_\_\_\_\_

PLOT DATE : 7/12/2007

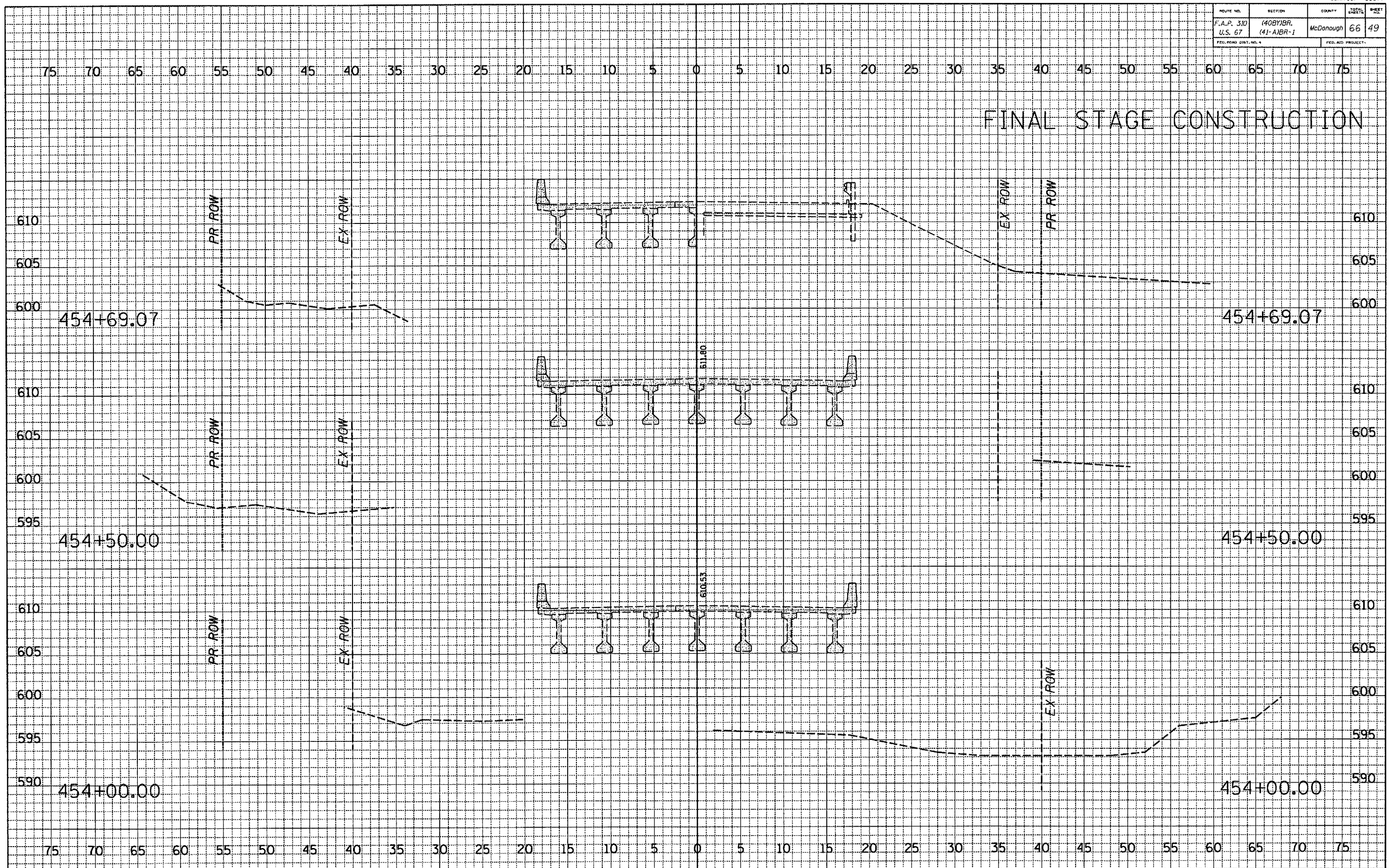
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PLOT SCALE : 1/8" = 1' / 1/4" = 1'

USER NAME : jorge

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 310 U.S. 67	(408Y)BR, (41-A)BR-1	McDonough	66	49
FED. ROAD DIST. NO. 4			FED. AID PROJECT	

# FINAL STAGE CONSTRUCTION



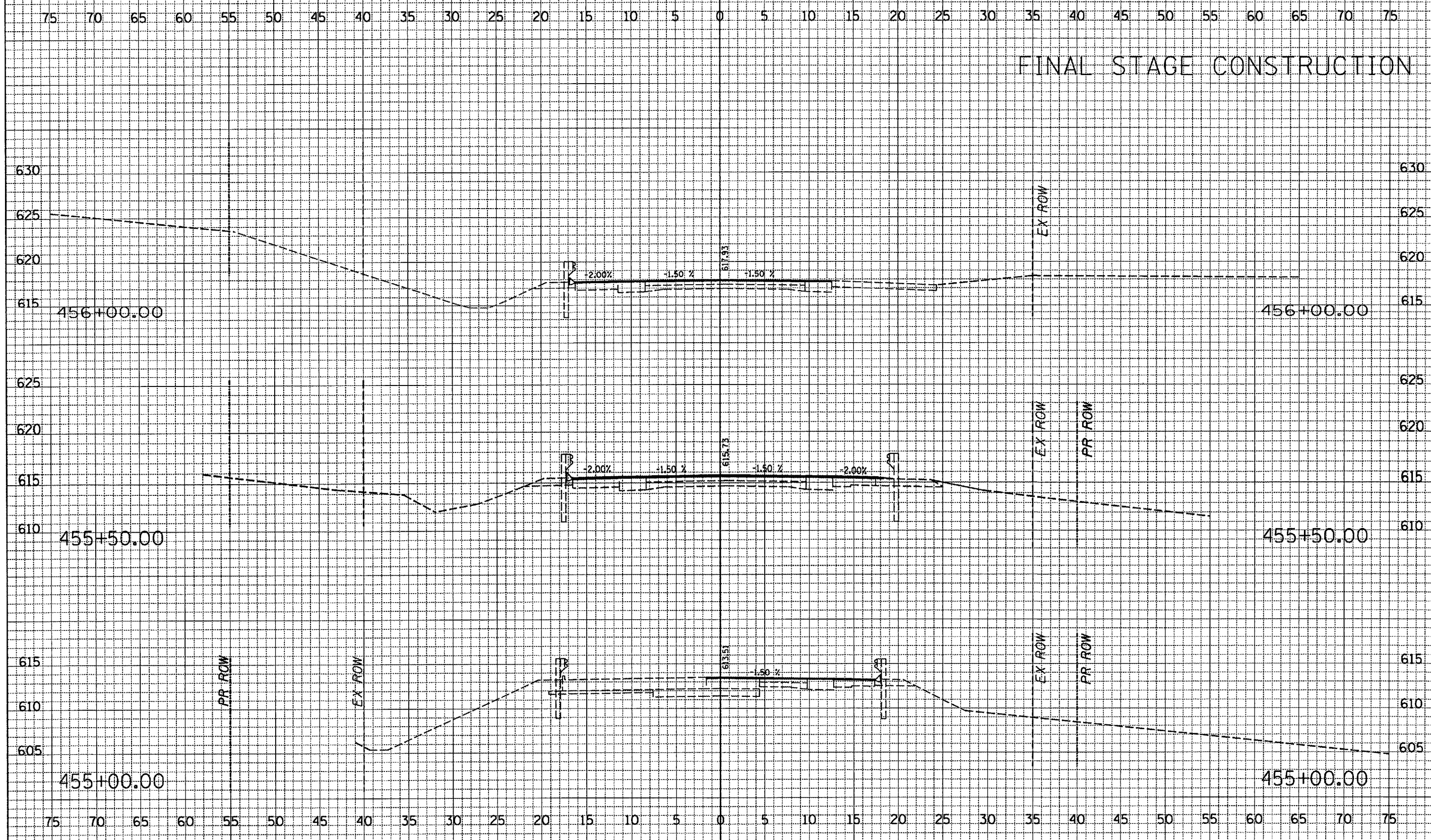
DATE	BY

DATE	BY

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ROUTE NO.	SECTION	COUNTY	SHEET	TOTAL
F.A.P. 310 U.S. 67	(4087)BR. (41-A)BR-1	McDonough	66	50
FED. AID DIST. NO. 4			FED. AID PROJECT	

# FINAL STAGE CONSTRUCTION



DATE	BY
DATE	BY
DATE	BY

DATE	BY
DATE	BY
DATE	BY

PLOT DATE = 7/12/2007  
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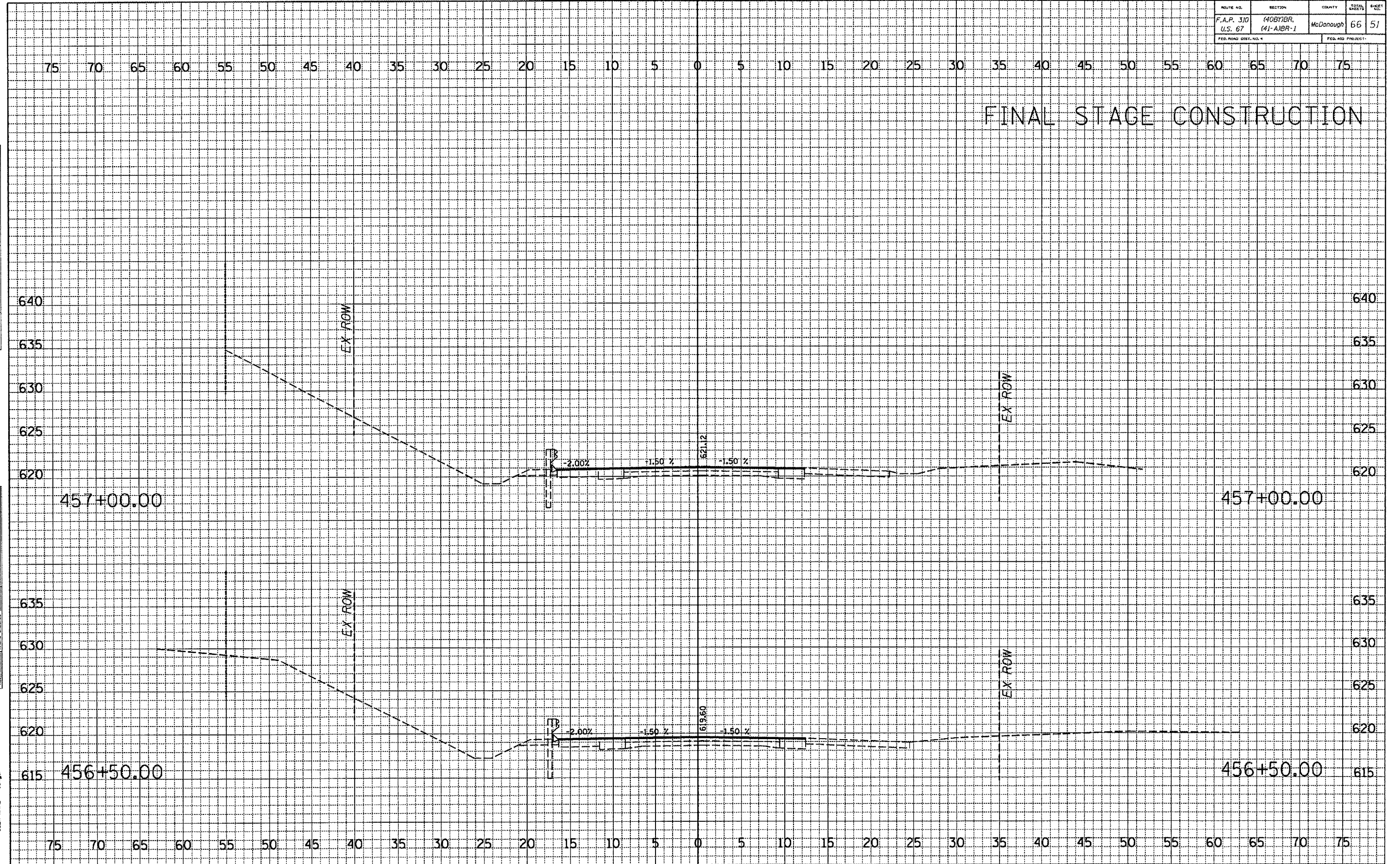
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 310 U.S. 67	(40BY)BR, (41-A)BR-1	McDonough	66	51
FED. ROAD DIST. NO. 4			FED. AID PROJECT	

# FINAL STAGE CONSTRUCTION

DATE	BY

DATE	BY

PLOT DATE: 7/12/2007  
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PLOT SCALE: 1" = 40'  
USER NAME: long



ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 310 U.S. 67	(40B)BR, (41-A)BR-1	McDonough	66	52

FED. ROAD DIST. NO. 1      FED. AID PROJECT-

# FINAL STAGE CONSTRUCTION

DATE	BY

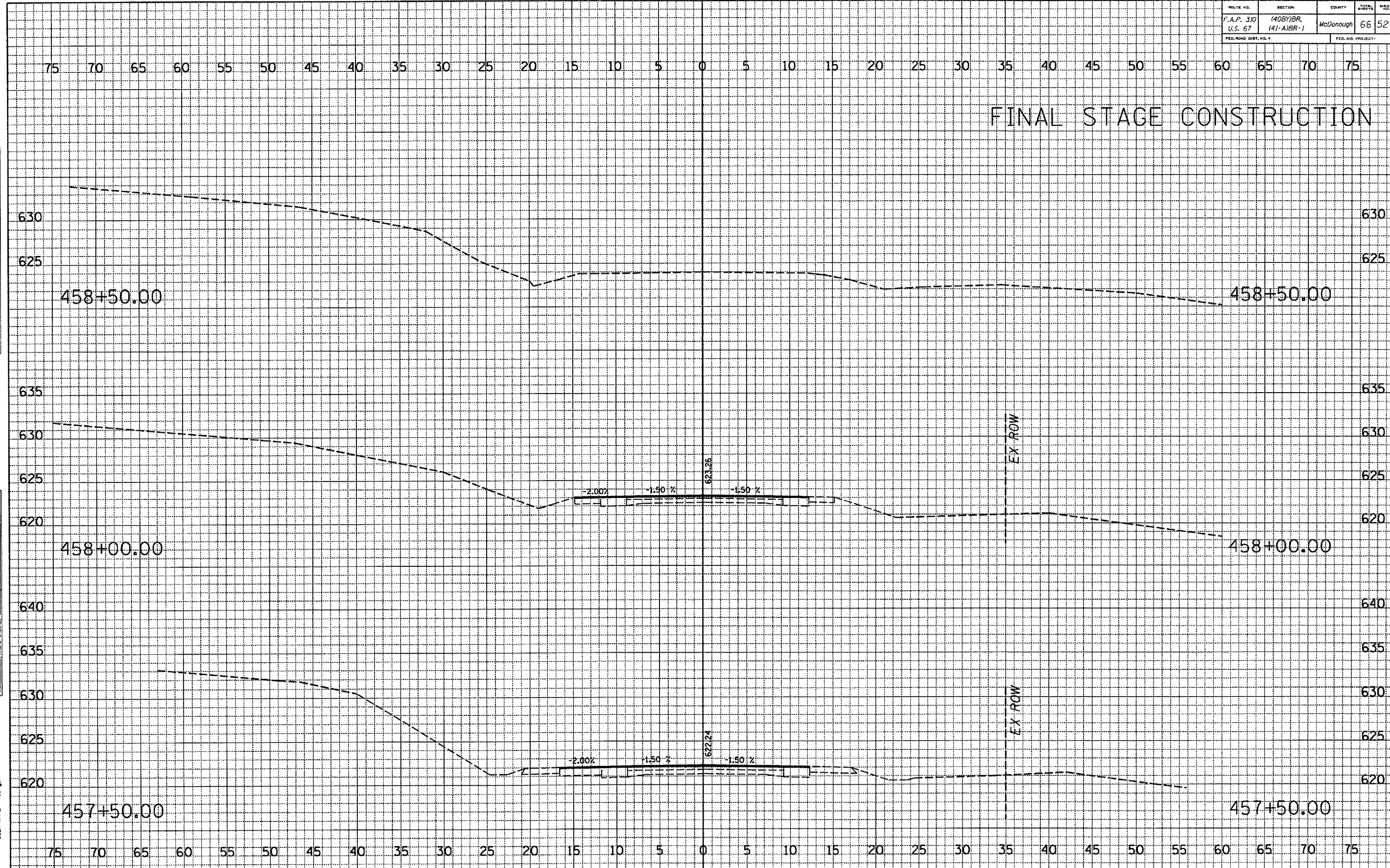
  

DATE	BY

DATE	BY

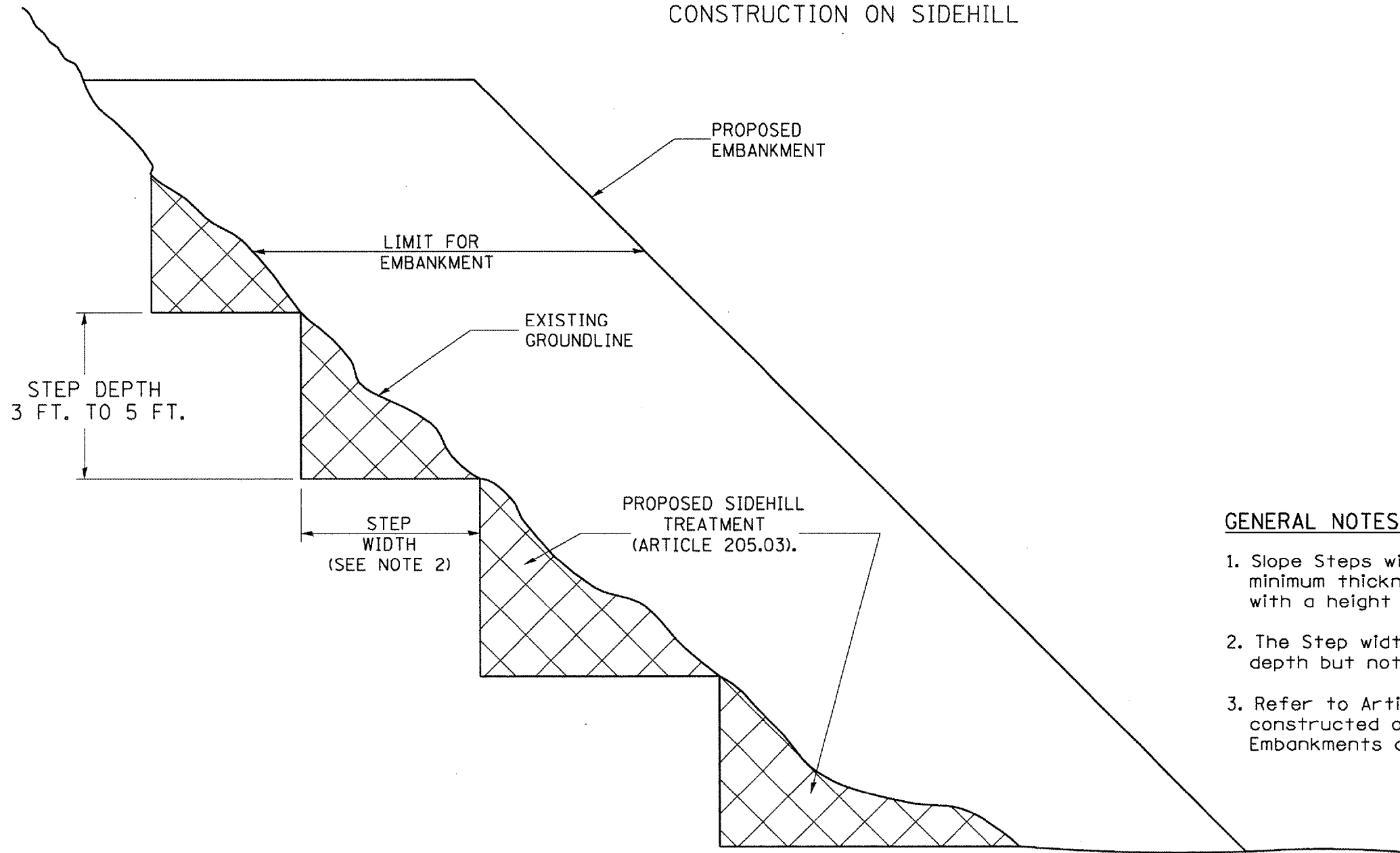
  

DATE	BY



F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
310	141-ABR	McDONOUGH	66	53
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

### SLOPE STEPS DETAIL TYPICAL CROSS-SECTION EMBANKMENT CONSTRUCTION ON SIDEHILL



**GENERAL NOTES:**

1. Slope Steps will be required for all 300(12) minimum thickness "silver fills" and on a fills with a height of 3.0m(10').
2. The Step width shall be twice the Step depth but not less than 6 feet.
3. Refer to Article 205.03 for Embankment to be constructed on Hillside or Slopes, or if existing Embankments are to be widened.

**REPLACEMENT MATERIAL:**



STANDARD EMBANKMENT  
(IN ACCORDANCE WITH  
205 OF THE STANDARD SPECIFACATION).

All dimensions are in millimeters  
(inches) unless otherwise noted.

ILLINOIS DEPARTMENT OF TRANSPORTATION  
DISTRICT CADD STANDARD

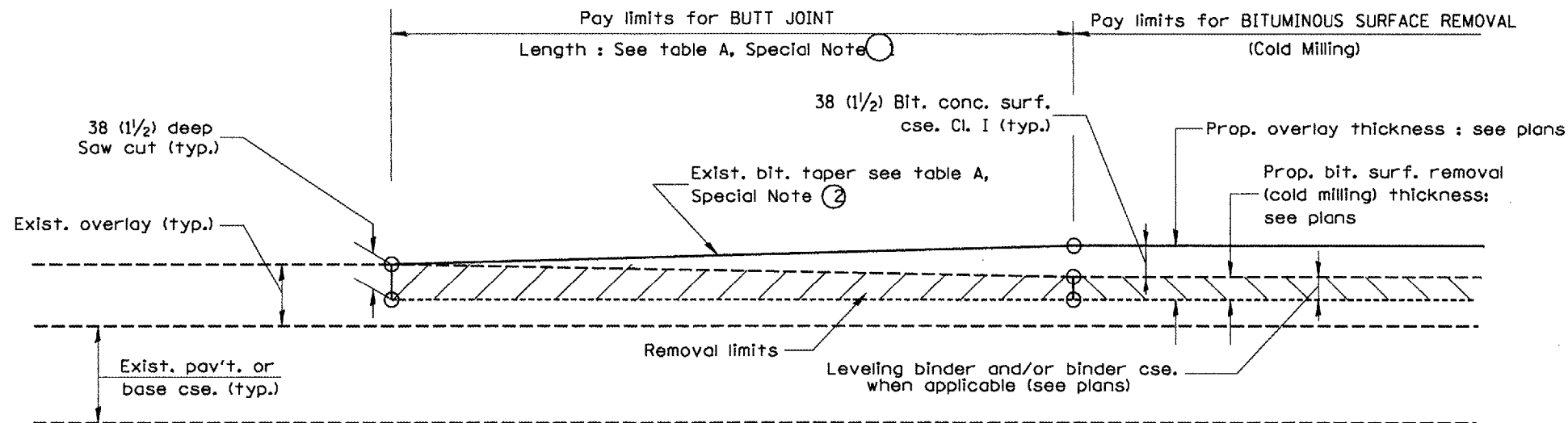
DATE	REVISIONS	BY
1-1-97	RENUM. L-5.03, NEW REVISION BOX, REVISED TITLE BOX, REVISED GENERAL NOTES.	T.P.

### SLOPE STEPS DETAIL

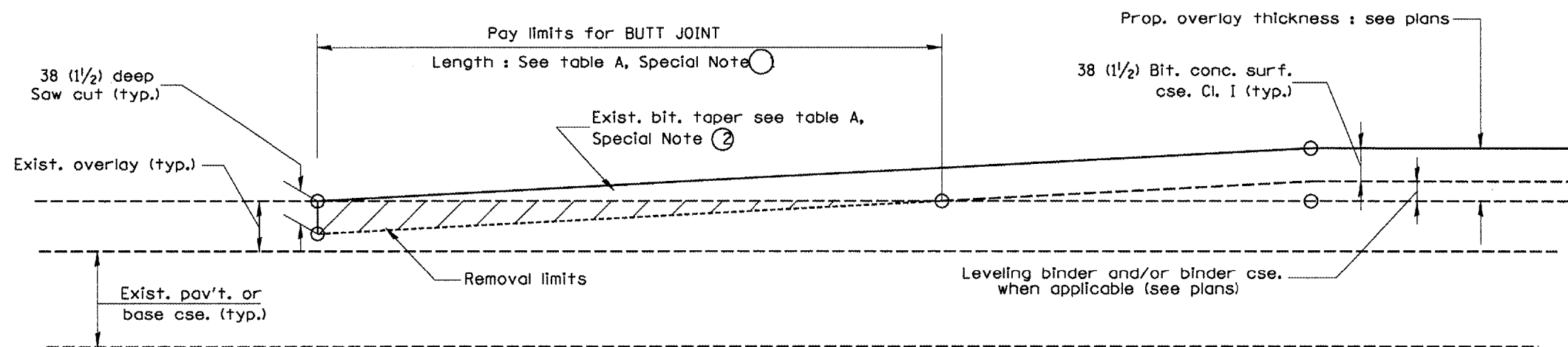
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SCALE: NOT DRAWN TO SCALE  
DRAWN BY CADD  
CHECKED BY

205001-D4

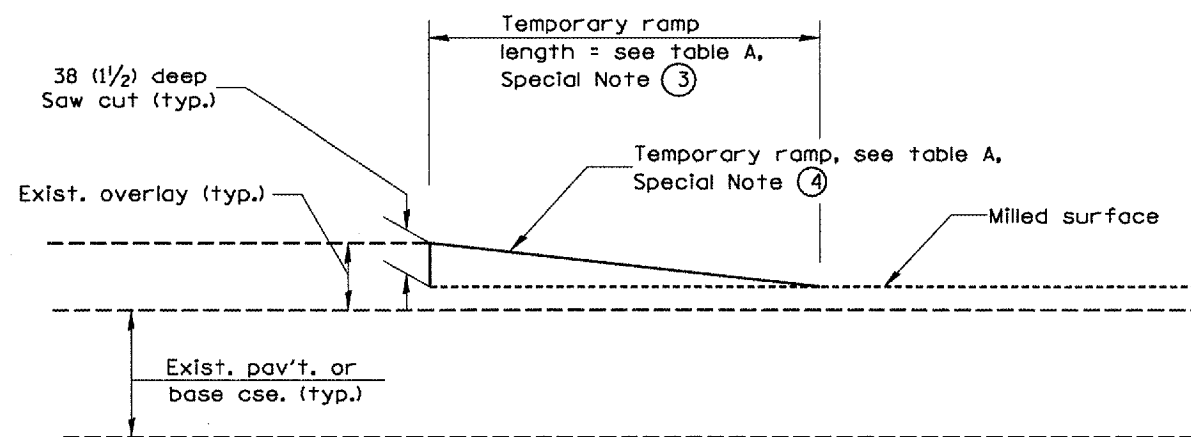
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
310	(41-A)BR	McDONOUGH	66	54
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		



**CASE 3 : WITH BITUMINOUS SURFACE REMOVAL (COLD MILLING)  
TIE-IN TO EXISTING BITUMINOUS TAPER**



**CASE 4 : NO BITUMINOUS SURFACE REMOVAL (COLD MILLING)  
TIE-IN TO EXISTING BITUMINOUS TAPER**



**DETAIL TEMPORARY RAMP**

All dimensions are in millimeters (inches) unless otherwise noted.

ILLINOIS DEPARTMENT OF TRANSPORTATION  
DISTRICT CADD STANDARD

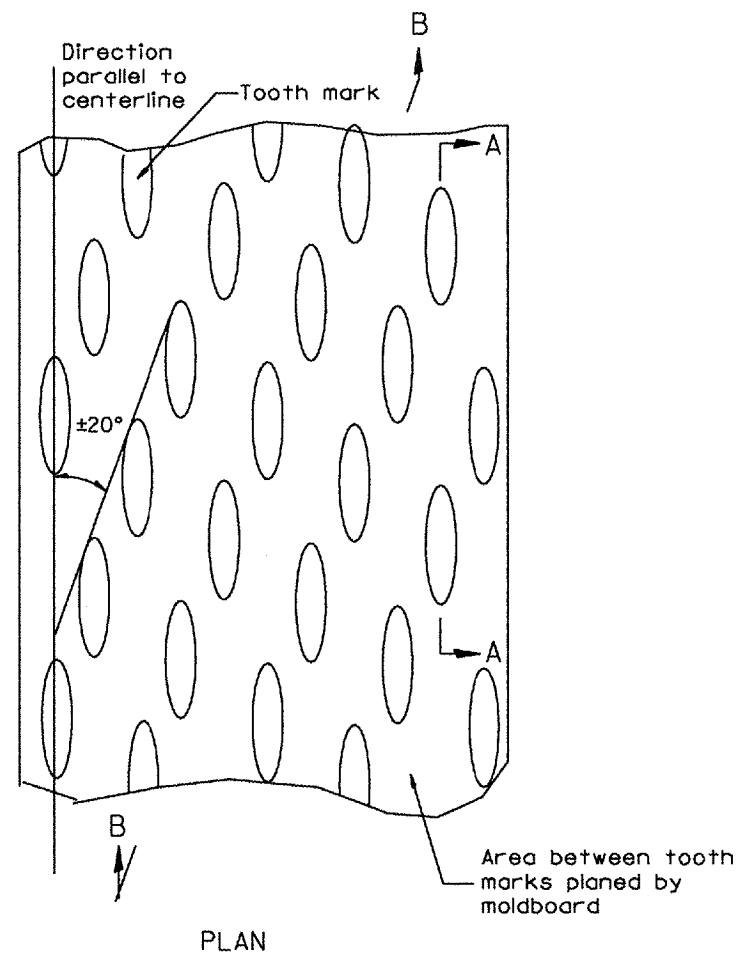
BUTT JOINTS

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DRAWN BY CADD  
CHECKED BY

406101-D4 (2)

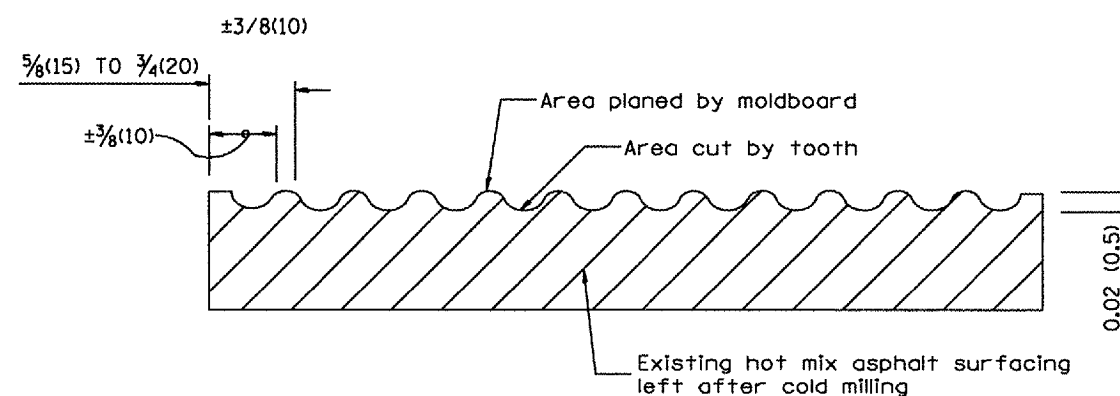
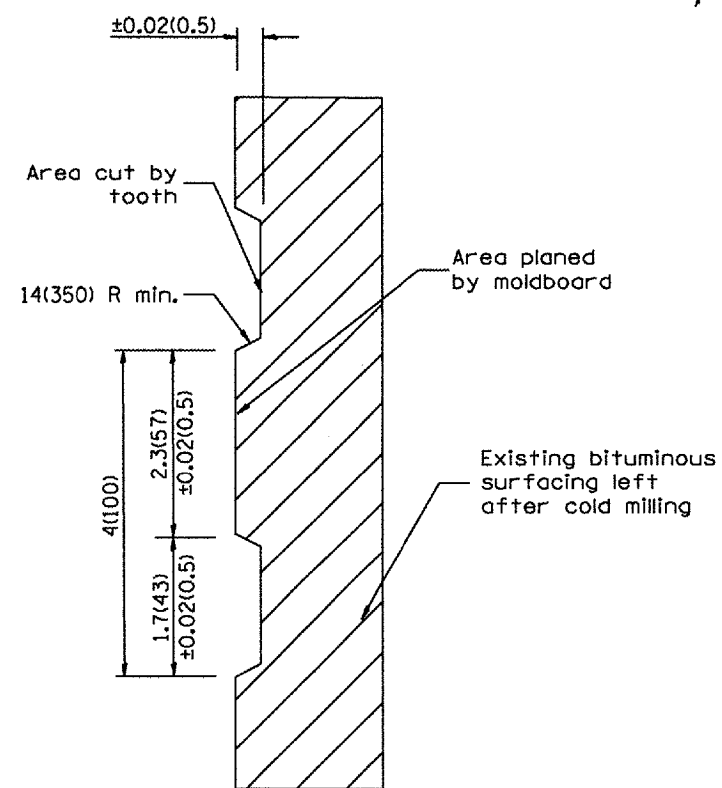
\$\$\$DATE\$\$\$

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
310	(41-A)BR	McDONOUGH	66	55
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		



General notes:

1. Coldmilling shall consist of two processes: Cutting with carbide teeth mounted on a rotating drum, and planing with a moldboard mounted immediately behind the cutting drum.
2. Other similar patterns will be acceptable if they consist of a smooth, flat, planed surface interspersed with a pattern of discontinuous longitudinal striations.



All dimensions are in inches (millimeters) unless otherwise noted.

ILLINOIS DEPARTMENT OF TRANSPORTATION  
DISTRICT CADD STANDARD

DATE	REVISIONS	BY
1-1-97	RENUM. C-104.01, NEW REVISION BOX	T. P.
4-20-98	REMOVED MILLING DETAIL FROM STD.	J. A.
9-08-98	CORRECT NOTE LEADER PLACEMENT	R. W.
10-16-06	REVISED TO 2007 SPEC.	M.A.

HOT MIX ASPHALT  
SURFACE REMOVAL  
(COLD MILLING)

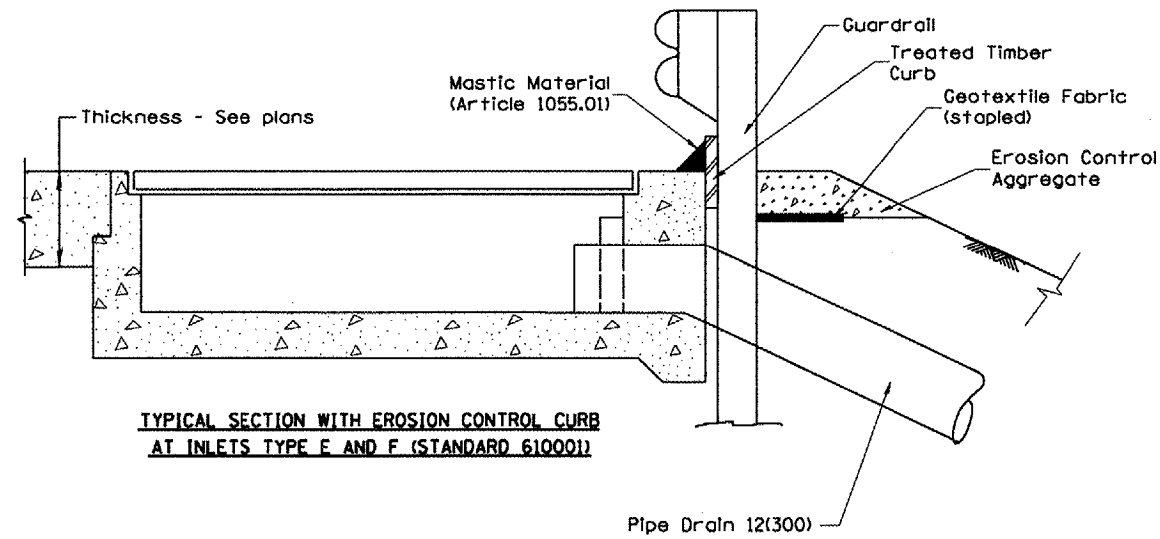
CADD STD NO. 440001-D4

SCALE: NOT DRAWN TO SCALE  
DATE

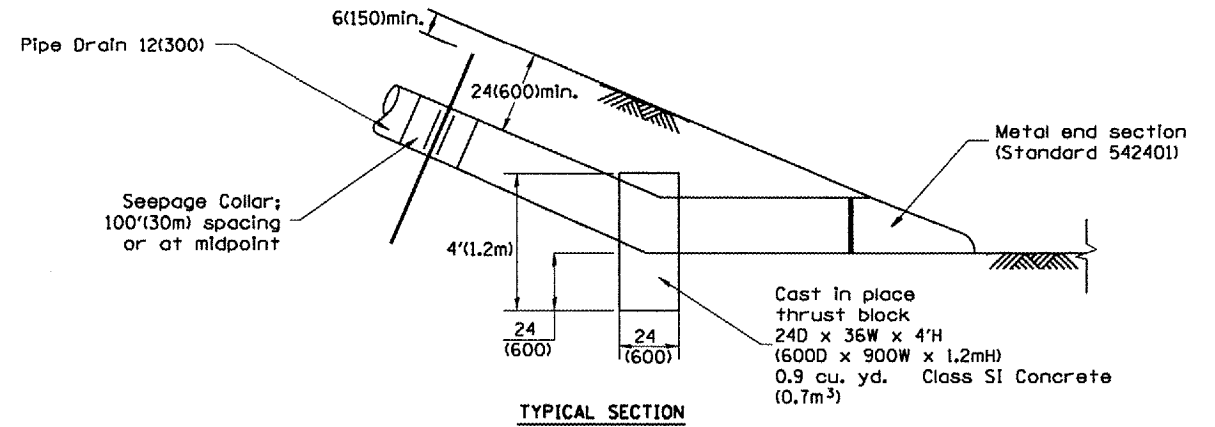
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CHECKED BY



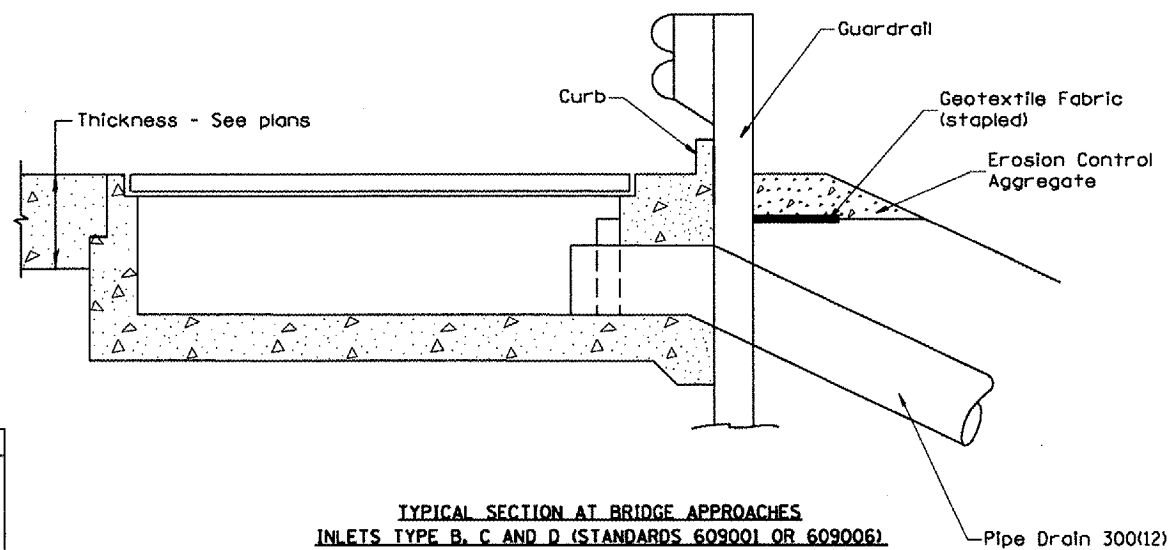
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
310	41-A1BR	McDONOUGH	66	56
STA. TO STA.				
FED. ROAD DIST. NO.			ILLINOIS FED. AID PROJECT	



TYPICAL SECTION WITH EROSION CONTROL CURB AT INLETS TYPE E AND F (STANDARD 610001)



TYPICAL SECTION



TYPICAL SECTION AT BRIDGE APPROACHES INLETS TYPE B, C AND D (STANDARDS 609001 OR 609006)

GENERAL NOTES

1. The material for Pipe Drains shall be bituminous coated galvanized corrugated steel culvert pipe or bituminous coated corrugated aluminum alloy pipe in accordance with Article 601.02(f) or 601.02(i).
2. An approved mastic material (Article 1055.01) shall be applied to the inside of the connecting bands.

All dimensions are in inches (millimeters) unless otherwise noted.

ILLINOIS DEPARTMENT OF TRANSPORTATION  
DISTRICT CADD STANDARD

SLOPE DRAIN DETAILS FOR BURIED PIPES

CADD STD. NO. 601101-04  
NOT DRAWN TO SCALE

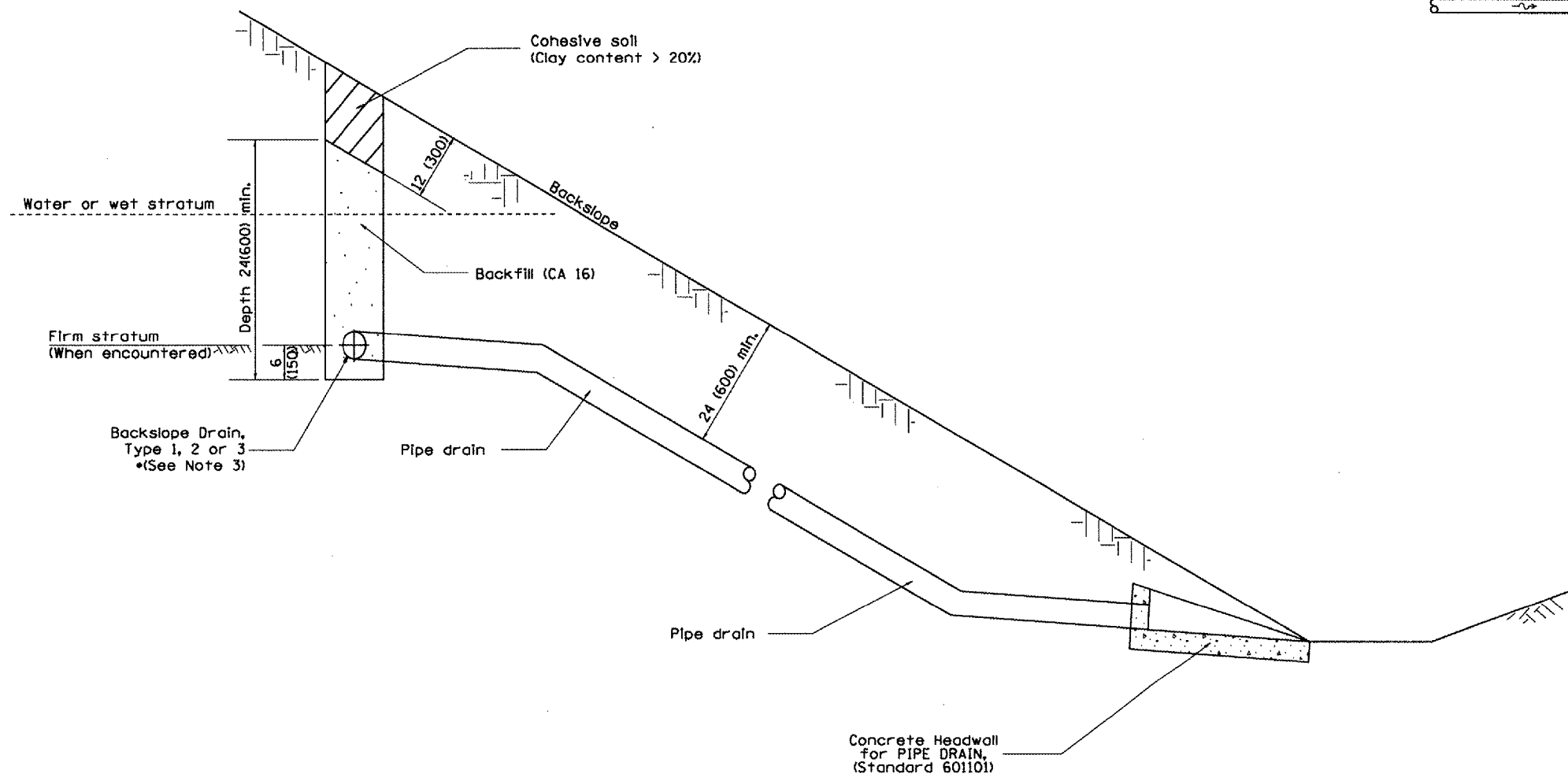
DRAWN BY CADD

DATE	REVISIONS	BY
1-1-97	RENUM. H-1.04, NEW REVISION BOX, REVISED TITLE BOX, REVISED DESIGNER NOTES, ADDED QUANTITY CALCULATION BOX	T.P.
10-16-06	REVISED TO 2007 SPEC.	M.A.

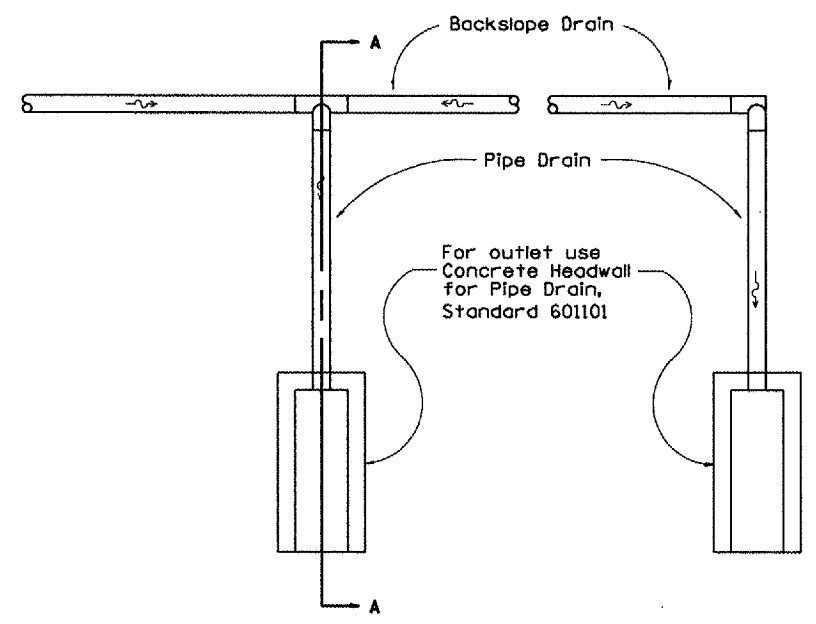
QUANTITIES	
CALC. BY:	DATE:
CHECKED BY:	DATE:
QUANTITY CALCULATIONS ARE ON FILE AT THE DISTRICT 4 OFFICE; BUREAU OF PROJECT IMPLEMENTATION; DOCUMENTATION SECTION	

DATE

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
310	141-A1BR	McDONOUGH	66	57
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT			



SECTION A-A



PLAN

GENERAL NOTES:

1. The District Geotechnical Engineer will determine the Backslope Drain design, after the backslope has been constructed.
2. This work shall be done in accordance with the applicable portion of Articles 601 and 207 of the Standard Specifications.
3. • See plans for "Type".

All dimensions are in Inches (millimeters) unless otherwise noted.

ILLINOIS DEPARTMENT OF TRANSPORTATION  
DISTRICT CADD STANDARD

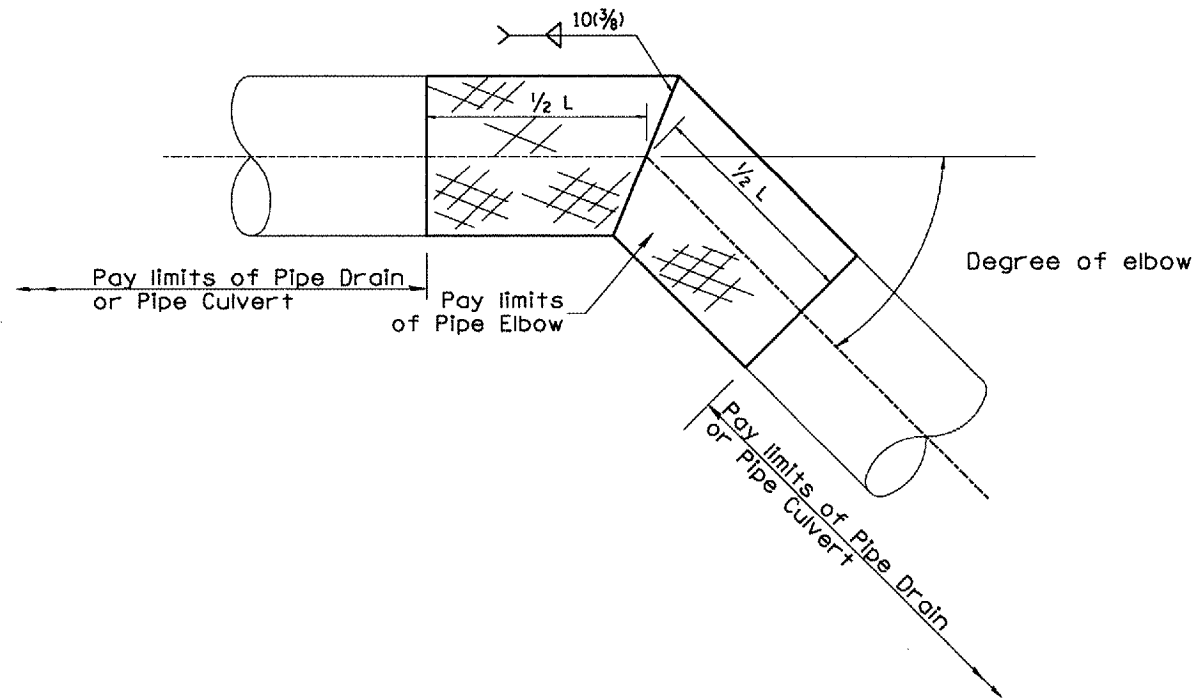
**BACKSLOPE DRAINS**

DATE	REVISIONS	BY
1-1-97	RENUM. J-6.02, NEW REVISION BOX, REVISED TITLE BOX	T.P.
10-16-06	REVISED TO 2007 SPEC.	M.A.

CADD STD. NO. 601201-D4  
SCALE: NOT DRAWN TO SCALE  
DRAWN BY CADD  
CHECKED BY

DATE

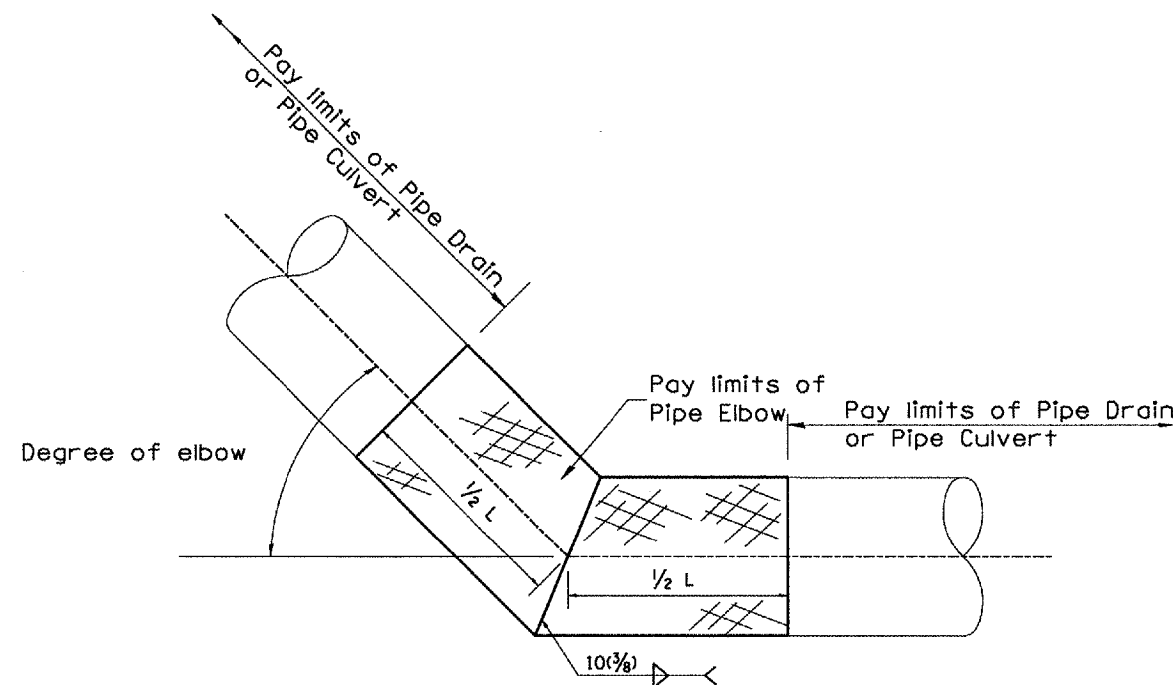
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310	(4)-A1BR	MCDONOUGH	66	58
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		



PIPE DIAMETER	L = Pay limits of Pipe Elbow and minimum length of pipe required for fabrication	
	DEGREE OF ELBOW < 45°	DEGREE OF ELBOW ≥ 46°
300(12)	600(24)	1.22M(4')
375(15)	600(24)	1.22M(4')
450(18)	600(24)	1.22M(4')
525(21)	600(24)	1.22M(4')
600(24)	1.22M(4')	1.22M(4')
750(30)	1.22M(4')	1.83M(6')
900(36)	1.22M(4')	1.83M(6')

EARTH SLOPE (V:H)	DEGREE OF ELBOW •
1:6	9°
1:4	14°
1:3	18°
1:2	26°
1:1/2	33°

• Approximate - based upon 0.5% inlet and outlet flowlines.



All dimensions are in millimeters (inches) unless otherwise noted.

ILLINOIS DEPARTMENT OF TRANSPORTATION  
DISTRICT CADD STANDARD

DATE	REVISIONS	BY
1-1-97	RENUM. J-11.05, NEW REVISION BOX, REVISED TITLE BOX	T.P.

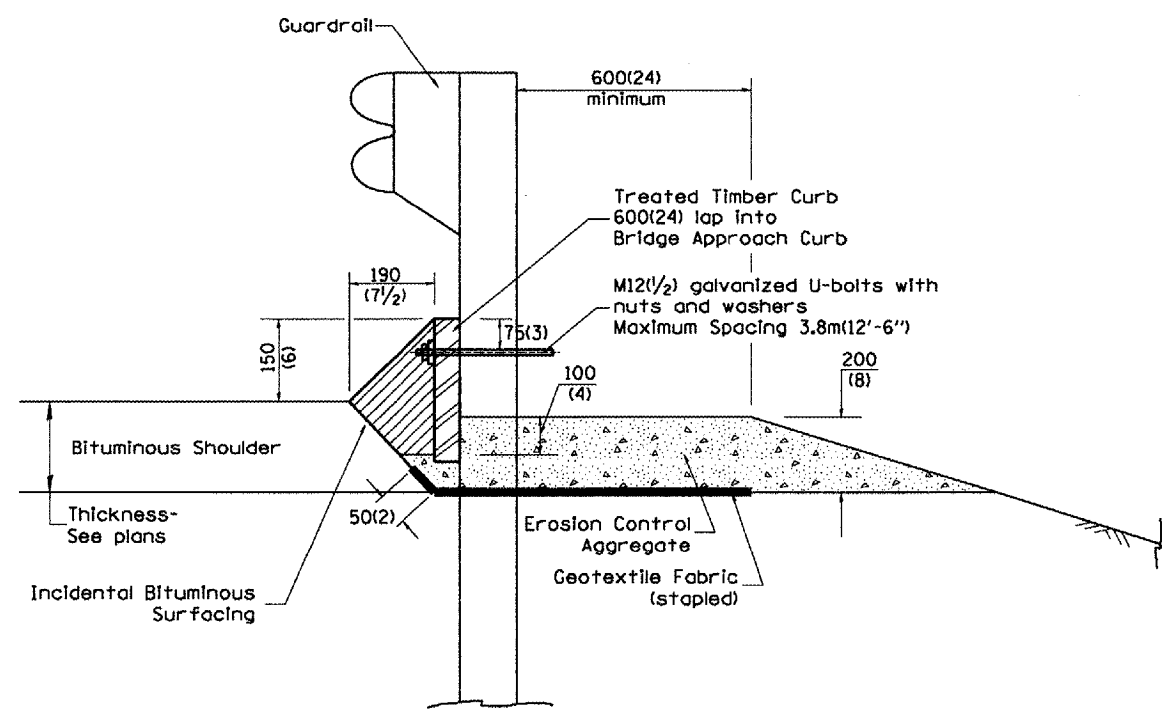
PIPE ELBOW

CADD STD. NO. 601301-04  
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DRAWN BY CADD  
CHECKED BY

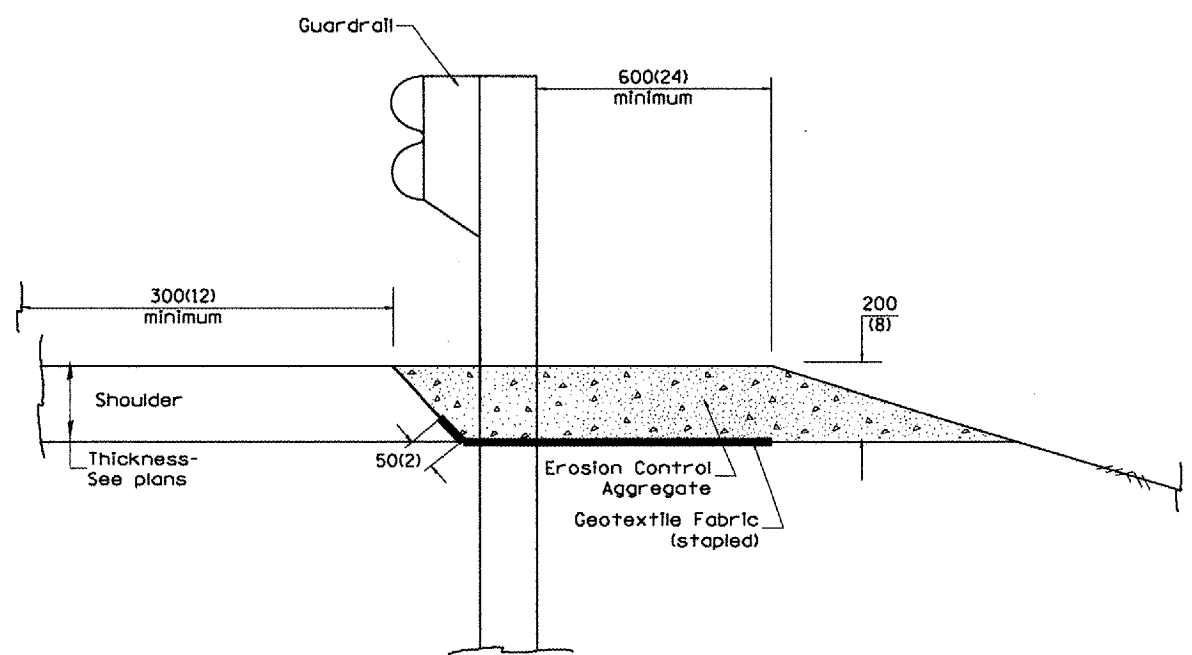
601301-D4

DATE

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
310	41-AJBR	McDONOUGH	66	59
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		



TYPICAL SECTION WITH EROSION CONTROL CURB



TYPICAL SECTION WITHOUT EROSION CONTROL CURB

**GENERAL NOTES: EROSION CONTROL CURB**

1. This work shall consist of grading as needed, installing hardware and treated timber boards, furnishing and placing mastic material and incidental bituminous surfacing in front of Steel Plate Beam Guardrail in accordance with Plan Details.
2. Timber shall be treated in accordance with Article 1007.12. All preservatives specified in the article will be allowed. Waterborne preservatives "asa" and "cca" shall have a minimum retention of 6.4 kg/m<sup>3</sup> (0.40 lbs./cu. ft.)

**GENERAL NOTES: GUARDRAIL AGGREGATE EROSION CONTROL**

1. This work shall consist of grading as needed, furnishing and installing geotextile fabric and staples, and furnishing, placing and shaping crushed aggregate around and behind Steel Plate Beam Guardrail posts in accordance with Plan Details.
2. Before placing the aggregate and the Geotextile Fabric, weeds and grass shall be removed from the area to be covered.
3. After the area has been prepared, and in a dry condition, the Geotextile fabric shall be placed with a 300(12) minimum overlap. A knife cut for guardrail post installation is necessary.
4. The aggregate shall be deposited, compacted and shaped by either mechanical or hand methods, in a manner reasonably true to line and grade.
5. The Contractor shall have the option of placing the guardrail before or after the Geotextile Fabric and Aggregate are in place. If the guardrail is placed after the Geotextile Fabric and Aggregate, then any voids must be filled and the aggregate returned to line and grade.
6. Materials shall meet the following requirements:
  - A. The crushed aggregate shall be CA1 gradation in accordance with Article 1004.01(c) of the Standard Specifications.
  - B. The Geotextile Fabric shall be nonwoven fabric in accordance with Article 1080.02 of the Standard Specifications.

All dimensions are in millimeters (inches) unless otherwise noted.

ILLINOIS DEPARTMENT OF TRANSPORTATION  
DISTRICT CADD STANDARD

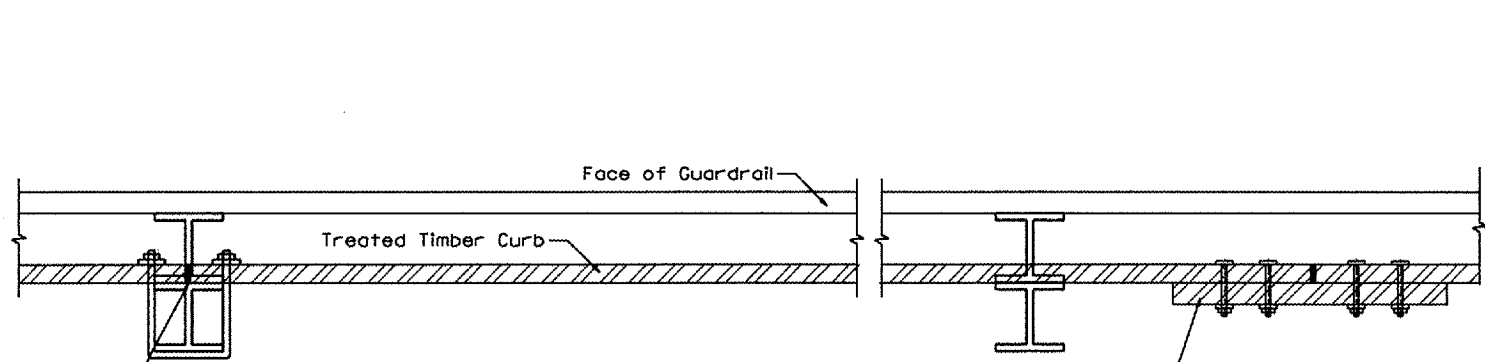
GUARDRAIL EROSION CONTROL TREATMENTS

DATE	REVISIONS	BY
1-1-97	RENUM. C-22.01, NEW REVISION BOX	T.P.
3-1-97	CORRECT STD. NUMBERS IN NOTES PG. 2	J.A.
11-3-00	CORRECTION TO NOTES	M.A.

CADD STD NO. 630101-04(1) SHEET 1 OF 2  
SCALE: NOT DRAWN TO SCALE DRAWN BY CADD CHECKED BY

DATE\$

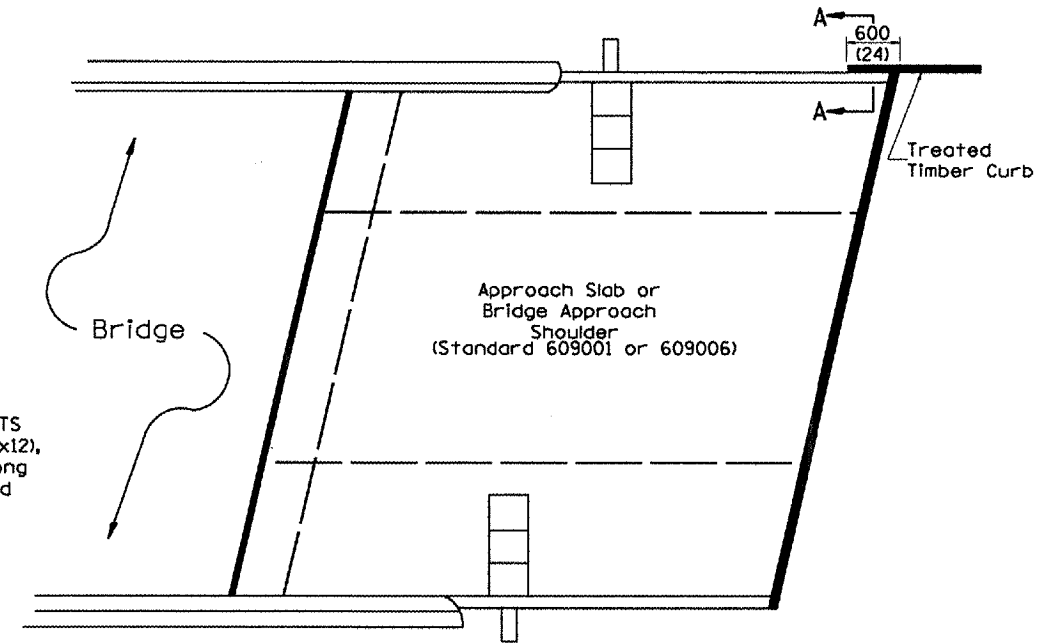
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
310	(41-A)BR	McDONOUGH	66	60
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



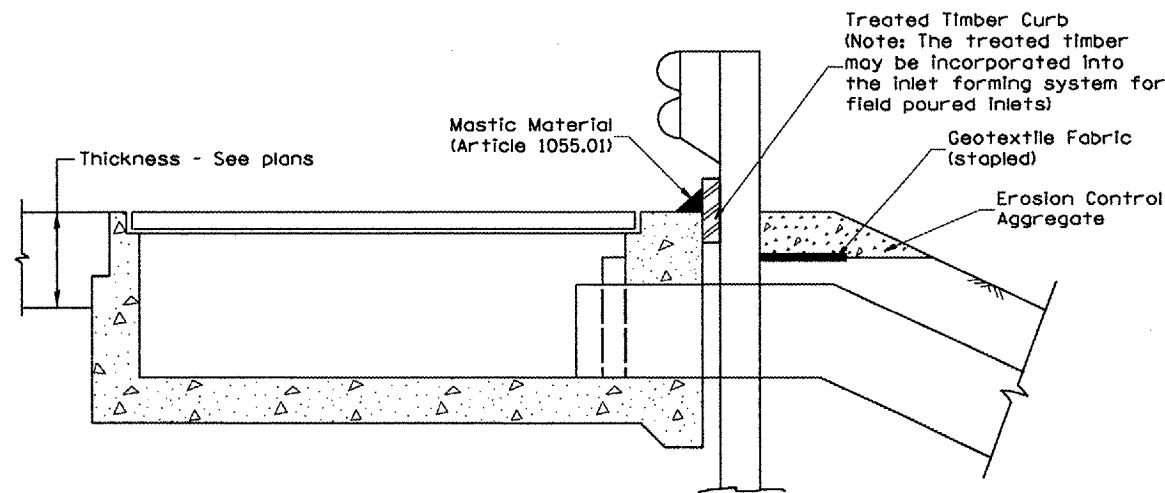
SPLICE LOCATED AT GUARDRAIL POST  
M12(1/2) galvanized U-bolt with  
nut & washer

SPLICE LOCATED BETWEEN GUARDRAIL POSTS  
treated timber splice plate 50x300 (2x12),  
actual size 40x290 (1 1/2 x 1 1/2), 600(24) long  
with 8 evenly spaced M12(1/2) galvanized  
bolts with nuts & washers.

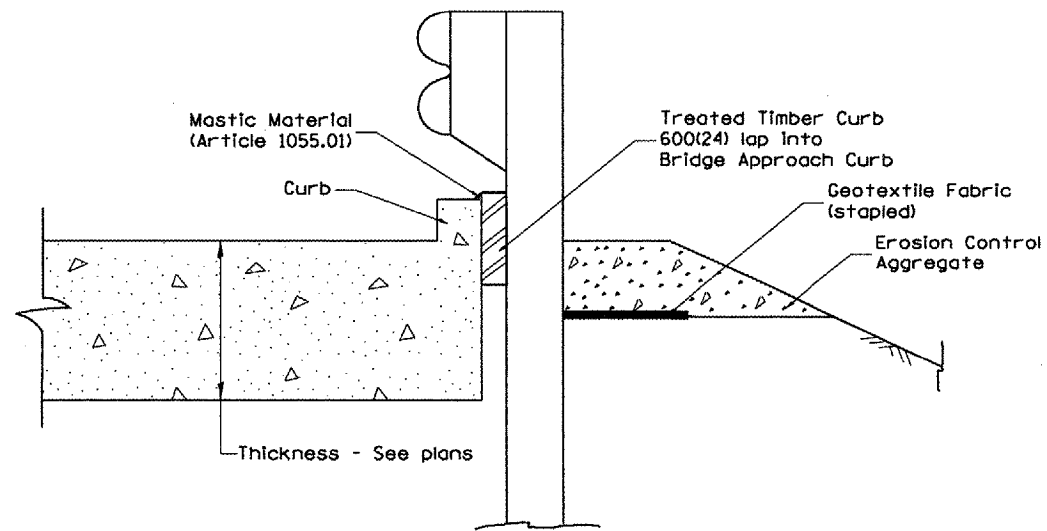
**DETAIL A**  
(Typical Treated Timber Splices)



**PLAN VIEW**  
**APPROACH SLAB OR BRIDGE APPROACH SHOULDER**  
(STANDARD 609001 or 609006)



**TYPICAL SECTION WITH EROSION CONTROL CURB**  
**AT INLETS TYPE E & F (STANDARD 610001)**

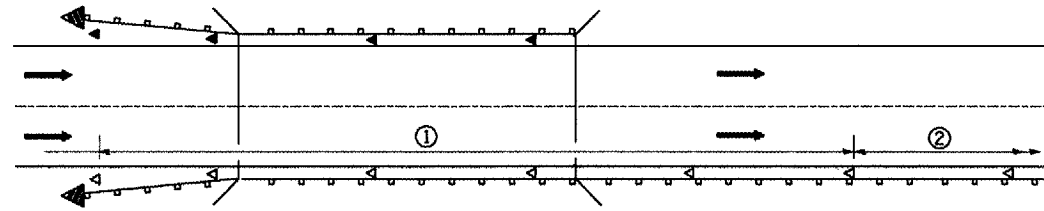


**SECTION A-A**  
**TYPICAL SECTION WITH EROSION CONTROL CURB**  
**AT BRIDGE APPROACH CURB**  
(STANDARD 609001 OR 609006)

All dimensions are in millimeters  
(inches) unless otherwise noted.

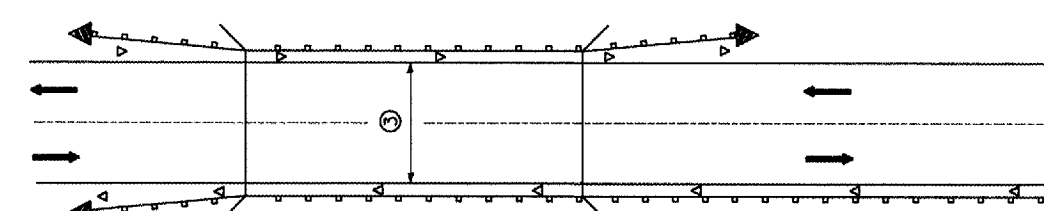
ILLINOIS DEPARTMENT OF TRANSPORTATION	
DISTRICT CADD STANDARD	
GUARDRAIL EROSION CONTROL TREATMENTS	
CADD STD NO. 630101-D4(2)	SHEET 2 OF 2
SCALE: NOT DRAWN TO SCALE	DRAWN BY CADD
	CHECKED BY

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
310	(41-A)BR	McDONOUGH	66	61
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



- ① Spacing 24 m (80 ft.) max. for first 122 m (400 ft.) or curve spacing shown in Standard 635001, whichever is less (min. 4 reflectors regardless of length).
- ② After 122 m (400 ft.), transition to normal delineator spacing shown in Standard 635001, and continue as required.

**ONE-WAY TRAFFIC**



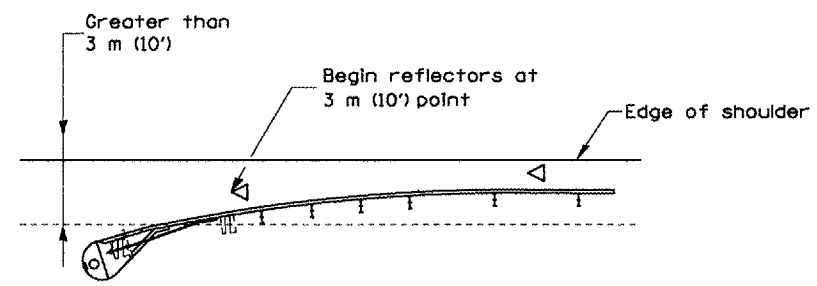
- ③ Bidirectional silver/silver should be used in lieu of monodirectional silver on both sides of two-lane bridges where the bridge pavement is less than 610 (24) wider than the pavement approaching the bridge.

**TWO-WAY TRAFFIC**

**GUARDRAIL / BARRIER WALL / BRIDGE RAIL REFLECTORS**

**LEGEND**

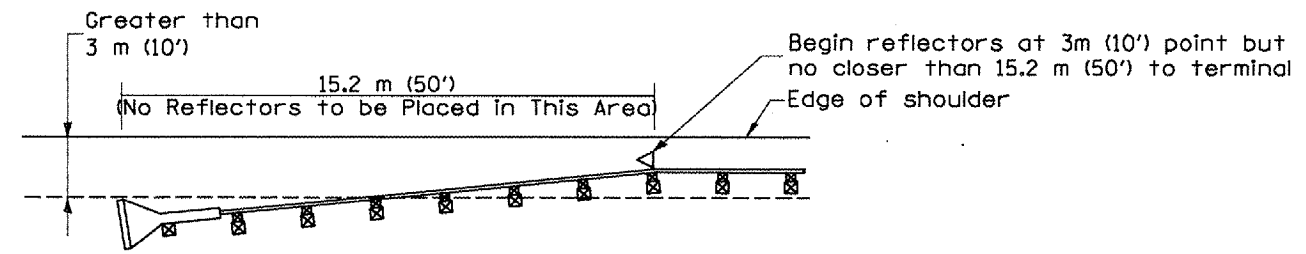
- ◁ Monodirectional silver
- ◄ Monodirectional amber
- ◄ Terminal Marker - Black/Yellow  
Left or Right as appropriate



NOTE: Omit terminal marker when terminal over 3 m (10') from edge of paved shoulder or break point of unpaved shoulder, or when terminal buried in backslope.

**Traffic Barrier Terminal Type(\*) and/or Turned-Down Terminal**

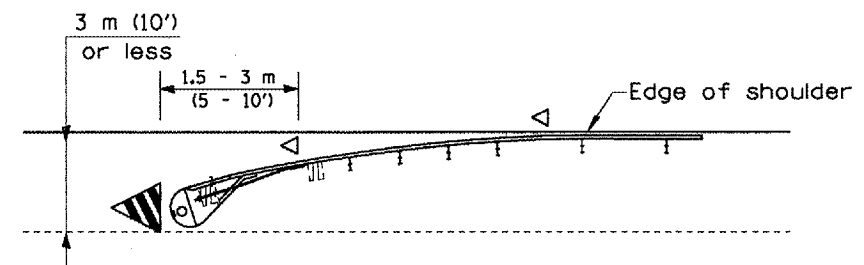
[Terminal over 3 m (10') from edge of shoulder]  
•See Plans for Type



NOTE: Omit terminal marker when terminal over (10') from edge of paved shoulder or break point of unpaved shoulder.

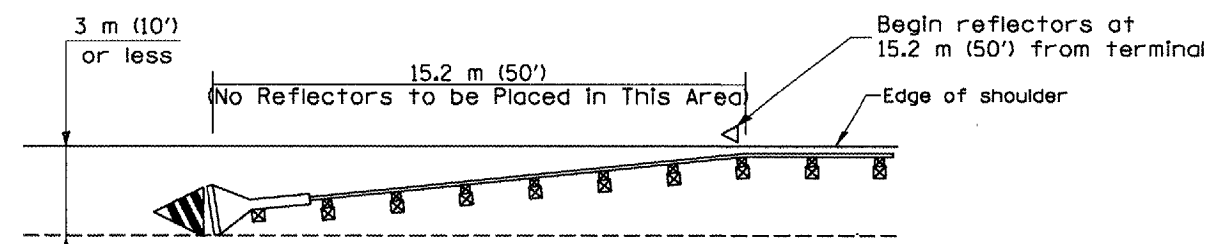
**Traffic Barrier Terminal Type 1 (Special)**

[Terminal over 3 m (10') from edge of shoulder]



**Traffic Barrier Terminal Type(\*) and/or Turned-Down Terminal**

[Terminal over 3 m (10') or less from edge of shoulder]  
•See Plans for Type



**Traffic Barrier Terminal Type 1(Special)**

[Terminal 3 m (10') or less from edge of shoulder]

All dimensions are in millimeters (inches) unless otherwise noted.

**ILLINOIS DEPARTMENT OF TRANSPORTATION  
DISTRICT CADD STANDARD**

**GUARDRAIL AND  
BARRIER WALL DELINEATION**

CADD STD. NO. 635101-D4 SHEET 1 OF 3  
SCALE: NOT DRAWN TO SCALE DRAWN BY CADD  
CHECKED BY

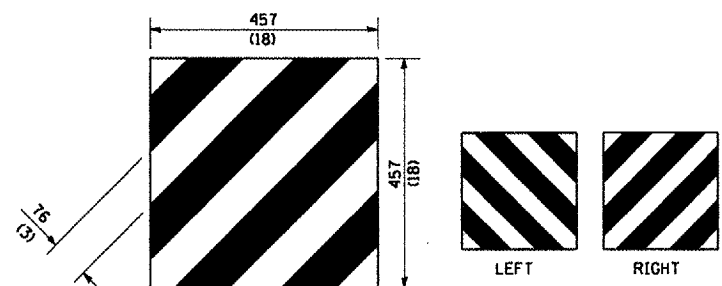
DATE	REVISIONS	BY
1-1-97	RENUM. E-10.02, NEW REVISION BOX	T.P.
3-1-97	CORRECT STD. SPEC. *	J.A.

**TERMINAL MARKER PLACEMENT**

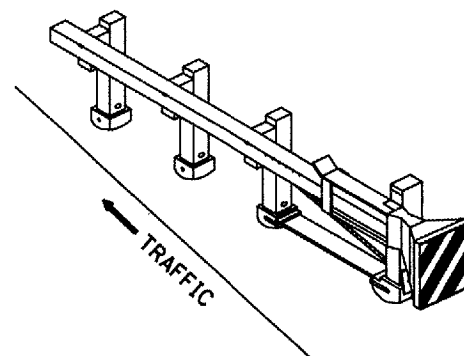
DATE

\*DGN-ONLY\*

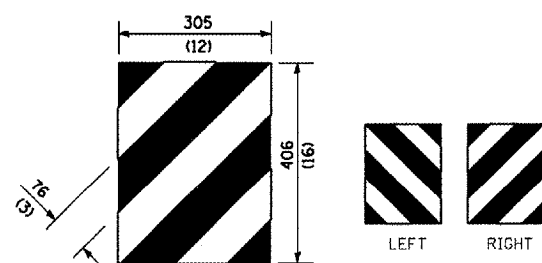
CONTRACT NO. 68677				
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
310	141-ABR	McDONOUGH	66	62
STA. TO STA.		FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT		



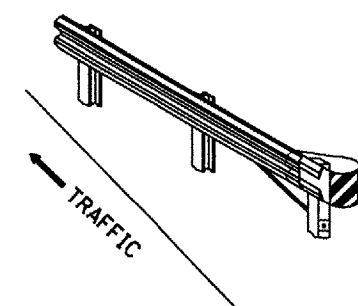
For Traffic Barrier Terminal Type 1 (Special)



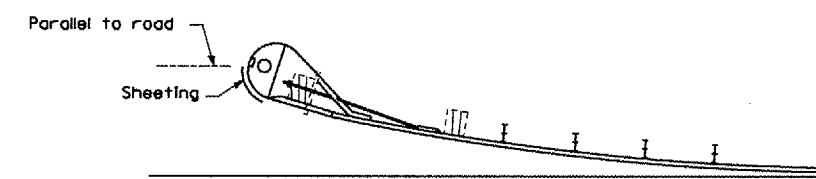
Standard Treatment - Direct Applied Sheeting  
Traffic Barrier Terminal Type 1 (Special)



For Traffic Barrier Terminal Type (\*)  
and Post Mount  
• See Plans for Type



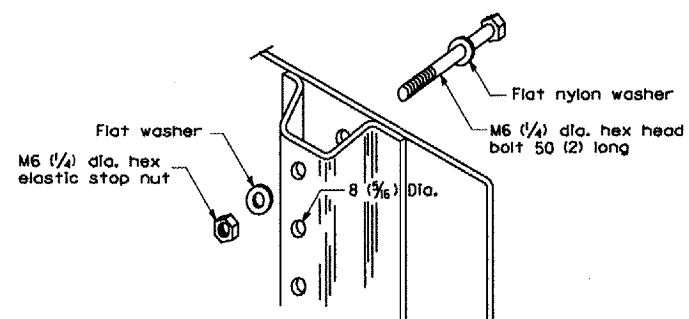
Standard Treatment - Direct Applied Sheeting  
Traffic Barrier Terminal Type (\*)  
• See Plans for Type



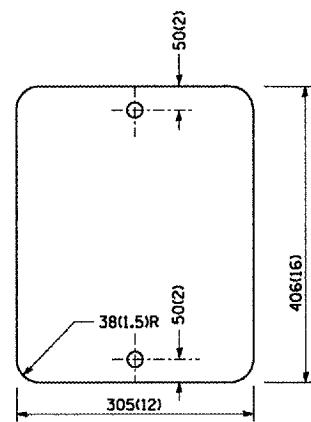
Sheeting Position for  
Traffic Barrier Terminal Type (\*)  
• See Plans for Type

**TERMINAL MARKER DETAILS**

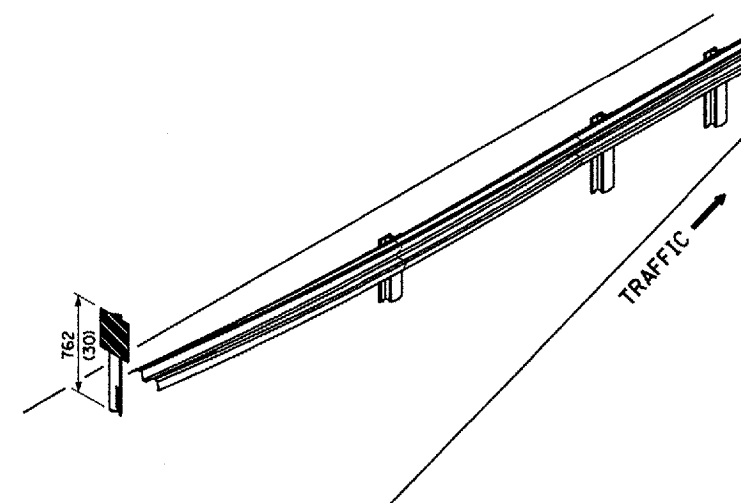
- Color: Black / Yellow reflectorized
- OM - I100 (L or R) Direct applied reflective sheeting
- OM - I200 (L or R) Post mounted



DETAIL OF MOUNTING TERMINAL MARKER TO POST



STANDARD TERMINAL MARKER



ALTERNATE TREATMENT - POST MOUNTED  
(For turned-down terminal where sheeting cannot be direct applied)

**TERMINAL MARKER TREATMENTS**

**GENERAL NOTES**

All dimensions are in millimeters (inches) unless otherwise noted.

ILLINOIS DEPARTMENT OF TRANSPORTATION  
DISTRICT CADD STANDARD

GUARDRAIL AND  
BARRIER WALL DELINEATION

CADD STD. NO. 635101-04 SHEET 2 OF 3  
SCALE: NOT DRAWN TO SCALE DRAWN BY CADD  
CHECKED BY

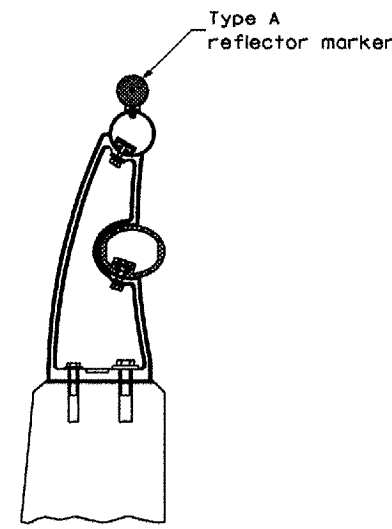
635101-D4 (2)

\$\$\$DATE\$\$\$

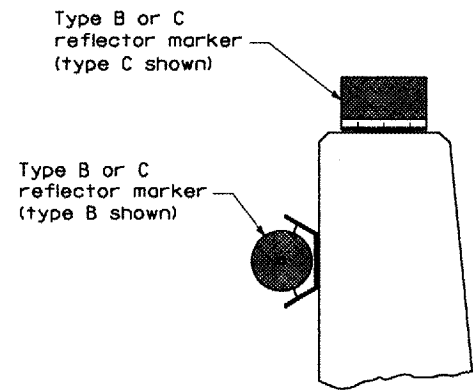
\*DGN-ONLY\*

**POST MOUNTED TERMINAL MARKER ASSEMBLY**

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
310	(41-A)BR	MCDONOUGH	66	63
STAL. TO STA.				
FED. ROAD DIST. NO.			ILLINOIS FED. AID PROJECT	

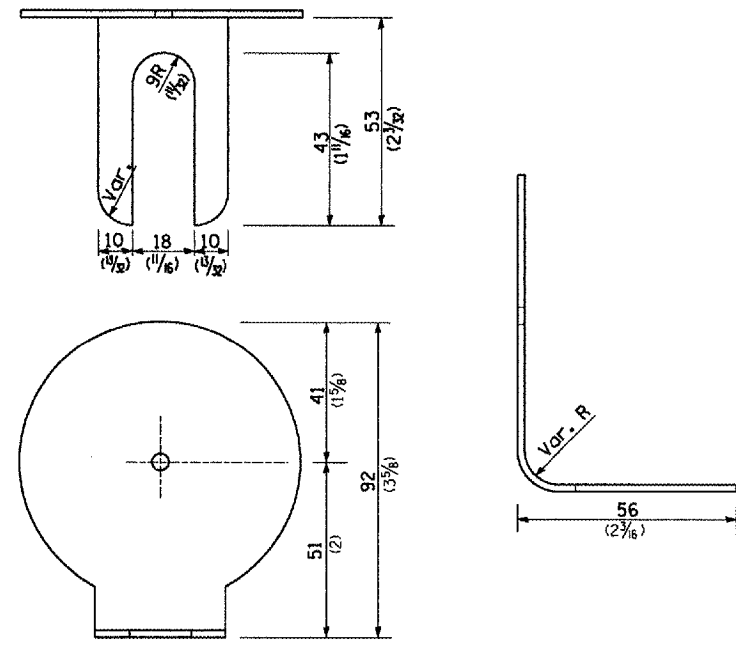


TYPICAL MOUNTING DETAIL FOR BRIDGE RAIL REFLECTOR

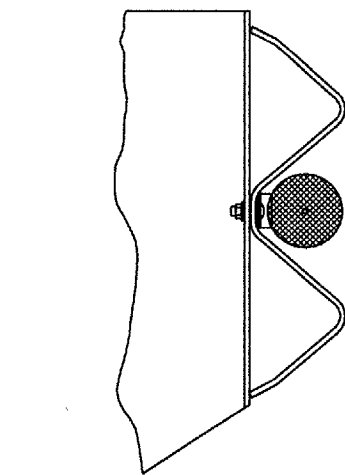


TYPICAL MOUNTING DETAIL FOR BARRIER WALL REFLECTOR

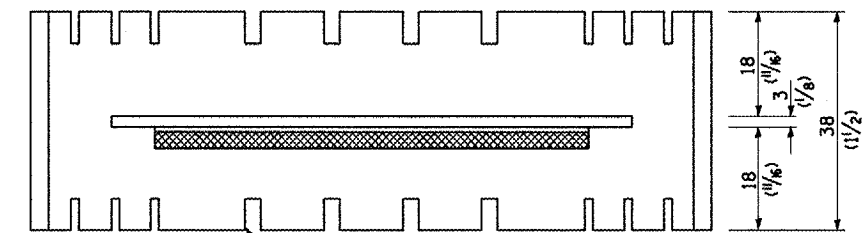
REFLECTOR MOUNTING



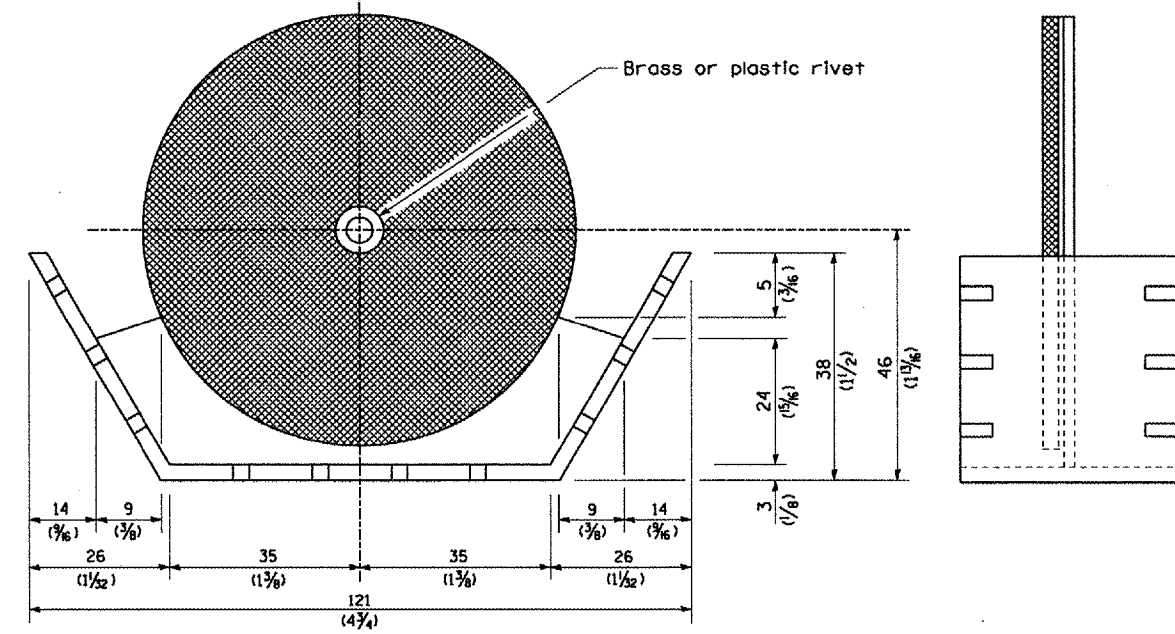
REFLECTOR MARKER TYPE A



TYPICAL GUARDRAIL MOUNTING WITH REFLECTOR MARKER TYPE A

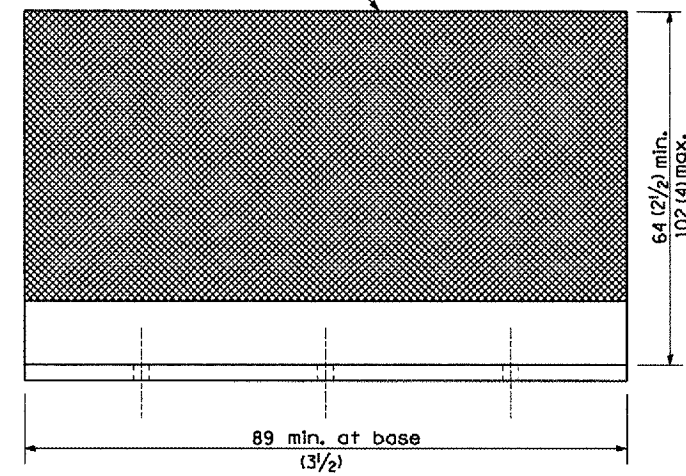


Adhesive weep slots or holes equally spaced on both sides

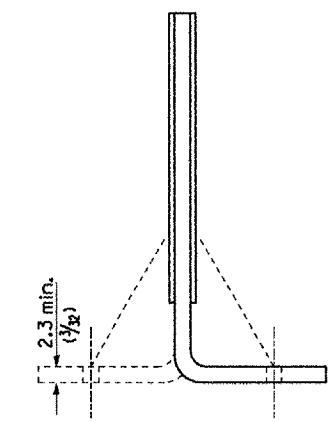


REFLECTOR MARKER TYPE B

Min. reflective area 4,194 mm<sup>2</sup> (6 1/2 Sq. In.) each side. May be rectangular or slight trapezoid.

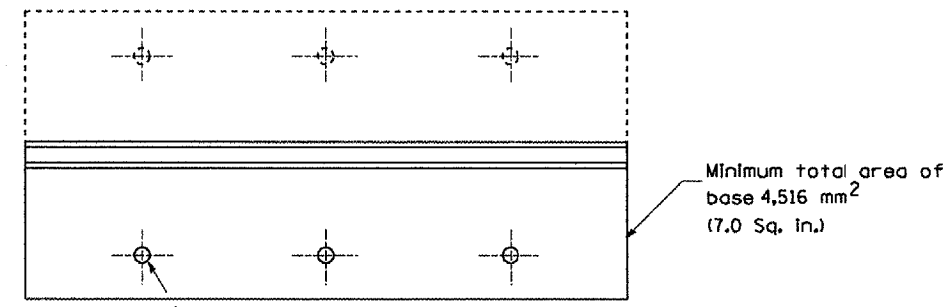


REFLECTOR MARKER TYPE C



Cross section may be "T" or "L" shaped and may have side supports at ends.

REFLECTORS



Minimum total area of base 4,516 mm<sup>2</sup> (7.0 Sq. in.)

3 min. adhesive weep holes or slots each side, variable spacing.

All dimensions are in millimeters (inches) unless otherwise noted.

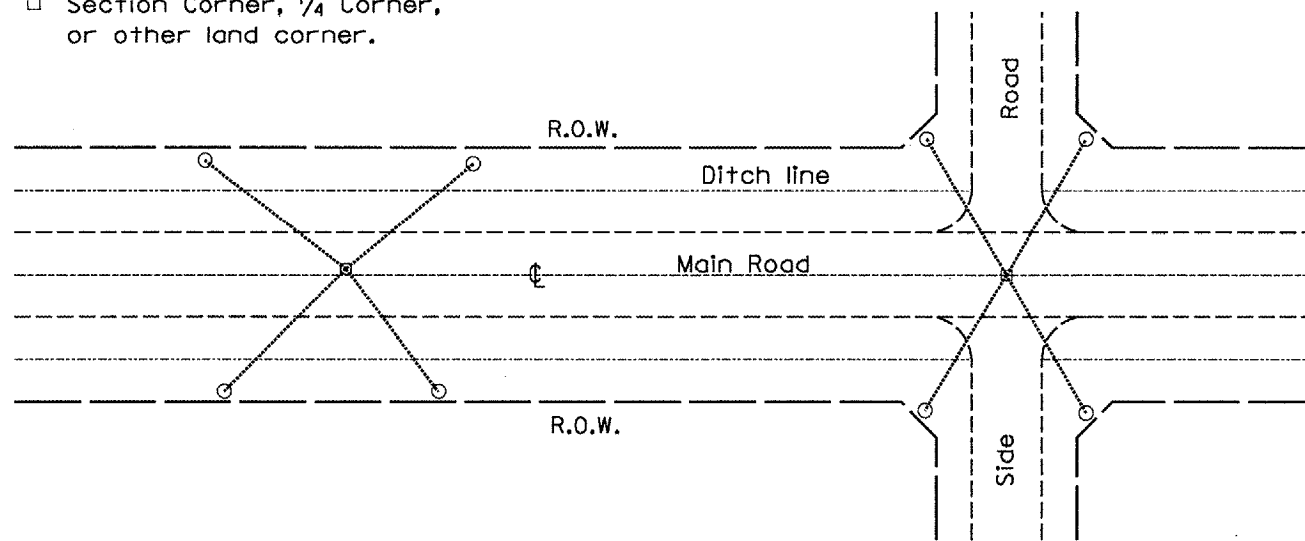
ILLINOIS DEPARTMENT OF TRANSPORTATION	
DISTRICT CADD STANDARD	
GUARDRAIL AND BARRIER WALL DELINEATION	
CADD STD. NO. 635101-D4	SHEET 3 OF 3
SCALE: NOT DRAWN TO SCALE	DRAWN BY CADD
	CHECKED BY



F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
310	141-A1BR	MCDONOUGH	66	64
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

**PERMANENT SURVEY TIES**

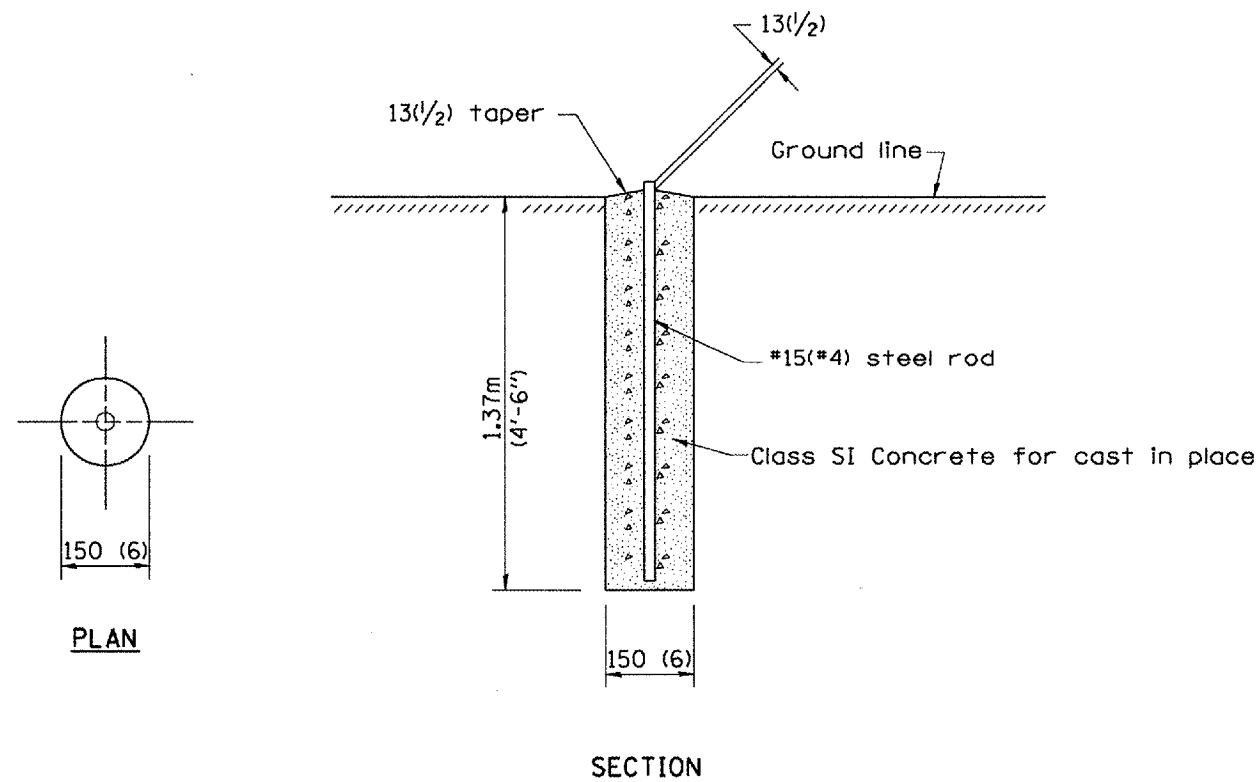
- Permanent Survey Tie
- Section Corner, 1/4 Corner, or other land corner.



**TYPICAL APPLICATION**

**GENERAL NOTES**

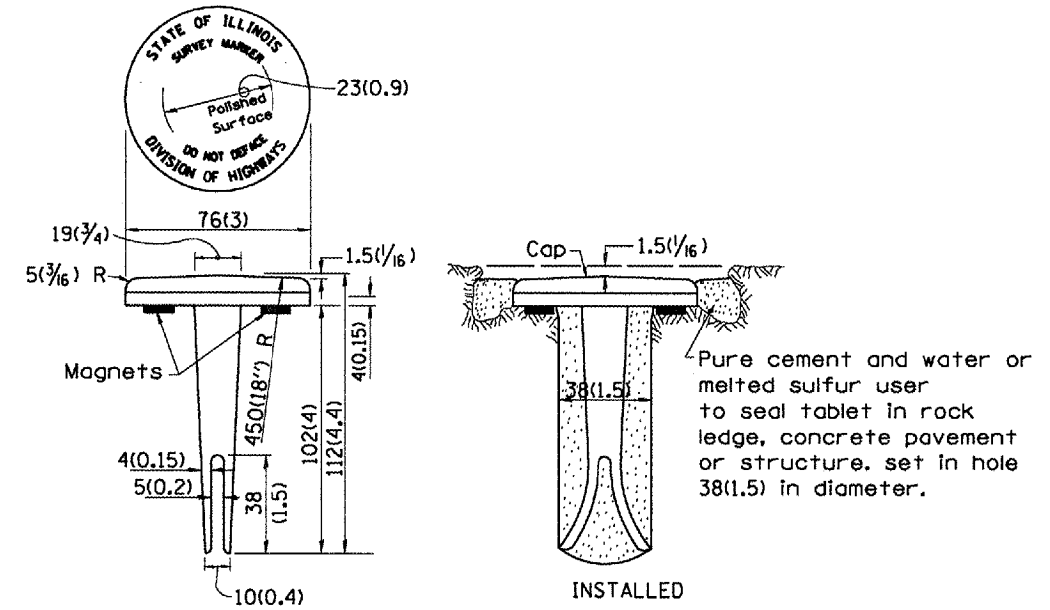
- The marker shall be cast in place of Class SI Concrete.
- Tie marker shall be installed after the final seeding has been completed unless otherwise specified by the Engineer.
- The tie distances to the section corner shall be measured and recorded by the IDOT Chief of Surveys.



**PLAN**

**SECTION**

**PERMANENT SURVEY MARKERS**

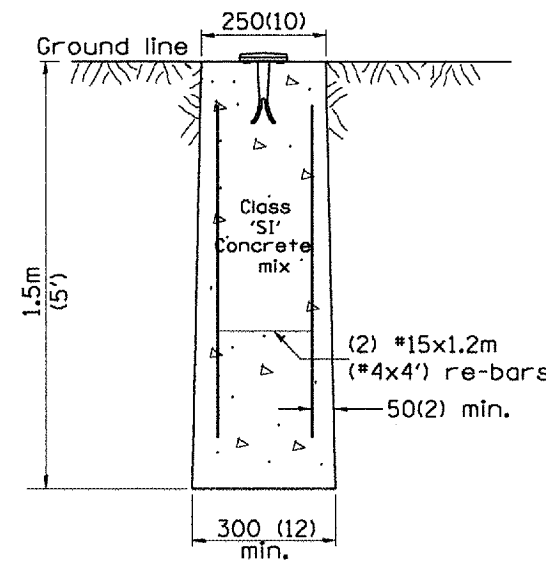


**BRONZE TABLET - No Scale TYPE I**

Pure cement and water or melted sulfur used to seal tablet in rock ledge, concrete pavement or structure. set in hole 38(1.5) in diameter.

**GENERAL NOTES**

- All type II markers shall be cast in place, and precast markers will not be allowed.
- Two permanent magnets, each having a diameter of 19 (3/4) and a thickness of 6 (1/4), or equivalent, shall be attached to the underside of the tablet with an approved epoxy bonding agent.
- The location of the markers shall be in accordance with the plans in general, the markers will be placed at the P.T.'s and P.C.'s of horizontal curves and spaces along the tangents in a way that a minimum of two markers are always inter-visible, and not to exceed 300m(1000').
- The markers shall be placed under the direction of the Engineer and shall be installed in a workmanlike manner in order that there will be no further settlement or horizontal shifting. The monuments shall be placed in a way that the survey point will fall within the portion of the plaque provided for that purpose.
- The project designation, the centerline station, the survey point, and the elevation shall be permanently marked by the use of metal dies after marker has been installed.



**MARKER CAST IN PLACE TYPE II**

All dimensions are in millimeters (Inches) unless otherwise noted.

**ILLINOIS DEPARTMENT OF TRANSPORTATION DISTRICT CADD STANDARD**

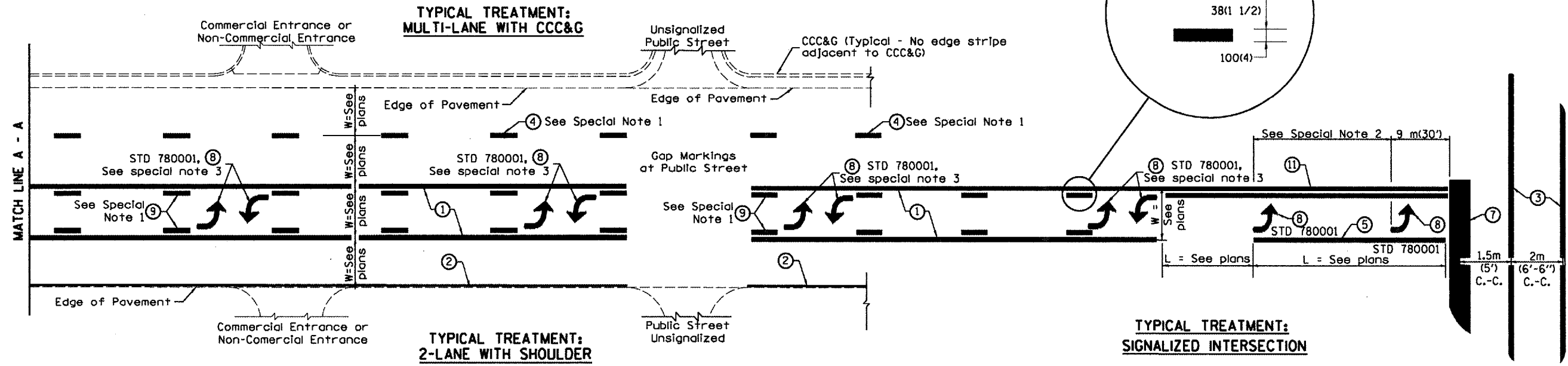
**PERMANENT SURVEY TIE & PERMANENT SURVEY MARKERS TY.I - TY.II**

CADD STD. NO. 667101-D4 SCALE: NOT DRAWN TO SCALE DRAWN BY CADD CHECKED BY

DATE	REVISIONS	BY
1-1-97	RENUM. 0-3.01, NEW REVISION BOX	T.P.
	ADD DESIGNER NOTE, REVISED TITLE BOX	
7-7-98	ADD DESIGNER NOTE	J.A.
5-24-06	REMOVED GEN. NOTE UNDER TIES	M.A.

\$\$\$DATE\$\$\$

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
310	(41-A)BR	MCDONOUGH	66	65
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		



**FLUSH PAVED MEDIAN: TWO-WAY LEFT TURN LANE WITH ONE-WAY LEFT TURN LANE AT SIGNALIZED INTERSECTION**

**TYPICAL PAVEMENT MARKING LEGEND**

(Note: This is a District Standard Legend. Some elements may not apply to specific project.)

- ① 100(4) Solid (Yellow)
- ② 100(4) Solid (White)
- ③ 2-150(6) Crosswalk @ 2m (6'-6")min C.-C. (White)  
2-200(8) Crosswalk @ 2m (6'-6")min C.-C. (White) (When traffic signals are present.)
- ④ 150(6) Skip-Dash (White) (See Special Note 1)
- ⑤ 200(8) Solid (White)
- ⑥ 300(12) Diagonal (White) (Item 6 is shown on Std. 780001)
- ⑦ 600(24) Stop Bar (White)
- ⑧ Letters & Arrows (See Std. 780001 and Special Notes 2 & 3)
- ⑨ 100(4) Skip-Dash (Yellow) (See Special Note 1)
- ⑩ 300(12) Diagonal (Yellow) (See Table A)
- ⑪ 100(4) Double Solid (Yellow)

**SPECIAL NOTES**

1. Skip-Dash markings will be centered between both ends of city blocks and shall be placed in alignment transversely across the pavement.
2. The following shall apply to arrows located in one-way left turn lanes:
  - A. A minimum of two (2) arrows is required.
  - B. The maximum spacing between arrows is 24 m (80').
  - C. Arrows shall be evenly spaced if three (3) or more are required.
3. The following shall apply to arrow pairs located in two-way left turn lanes:
  - A. A minimum of two (2) arrow pairs is required.
  - B. The maximum spacing between arrow pairs is 61 m (200').
  - C. Arrow pairs shall be evenly spaced if three (3) or more are required.
  - D. The spacing between BI Directional Left Turn Arrows is 10 m (33').

**GENERAL NOTES**

1. Refer to State Standard 780001 for additional Pavement Markings including letters & arrows.
2. See Plans for Pavement Markings adjacent to curbed islands and medians, and through lane reductions.

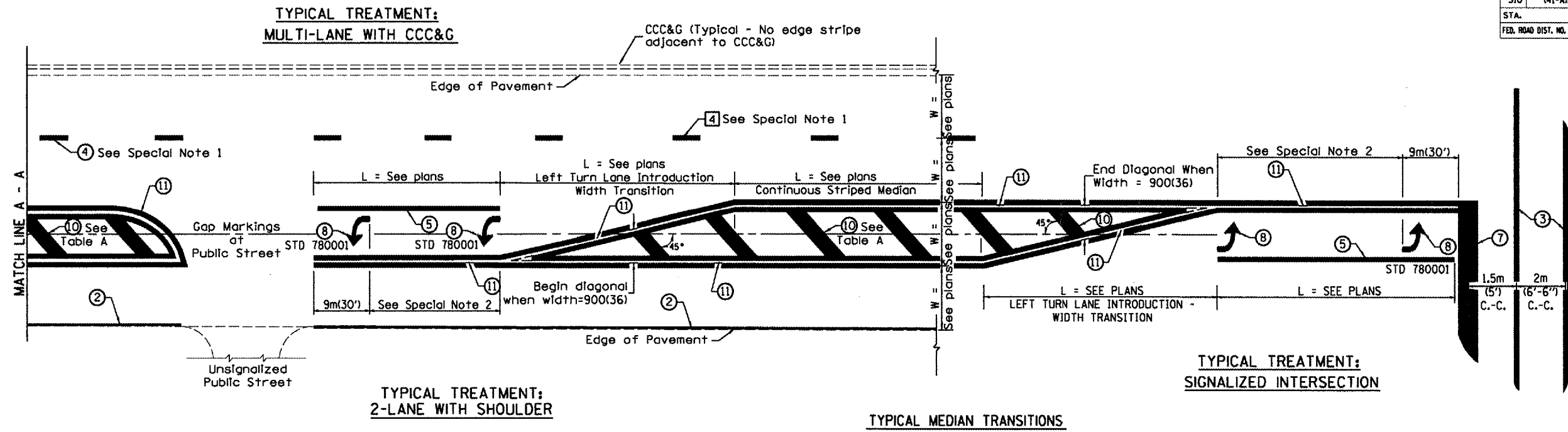
All dimensions are in millimeters (inches) unless otherwise noted.

ILLINOIS DEPARTMENT OF TRANSPORTATION	
DISTRICT CADD STANDARD	
TYPICAL PAVEMENT MARKINGS	
CADD STANDARD 780001-D4	SHEET 1 OF 2
SCALE: NOT DRAWN TO SCALE	DRAWN BY CADD CHECKED BY

DATE	REVISIONS	BY
1-1-97	RENUM. F-8.03. NEW REVISION BOX	T.P.
2-7-97	ADD BI DIRECTIONAL DIMENSION	J.A.
10-97	CORRECT BI DIRECTIONAL DIMENSION	J.A.
8-02	ADD CROSSWALK DMNS. WITH T.S.	M.A.

\$\$\$DATE\$\$\$

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
310	(41-A)BR	MCDONOUGH	66	66
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

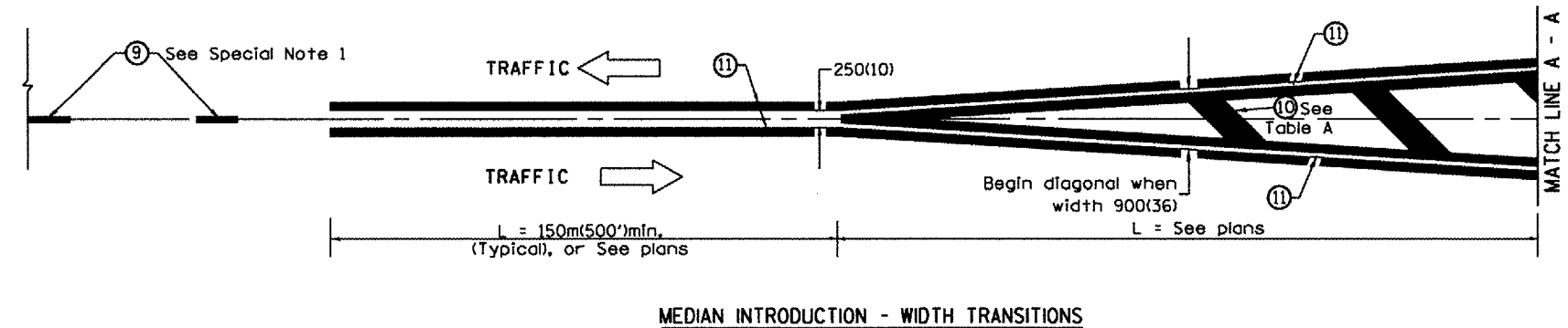


FLUSH PAVED MEDIAN: RESTRICTED LEFT TURN LANE

TABLE A

RECOMMENDED SPACING BETWEEN DIAGONAL LINES

SPEED LIMIT RANGE	CONTINUOUS	INTERSECTION CHANNELIZATION (Includes Width Transitions for Median and Left Turn Lane Introductions)
Less Than 50 km/h (30 mph)	15m (50')	5m (15')
50 - 70 km/h (30 - 45 mph)	23m (75')	6m (20')
Over 70 km/h (45 mph)	46m (150')	9m (30')



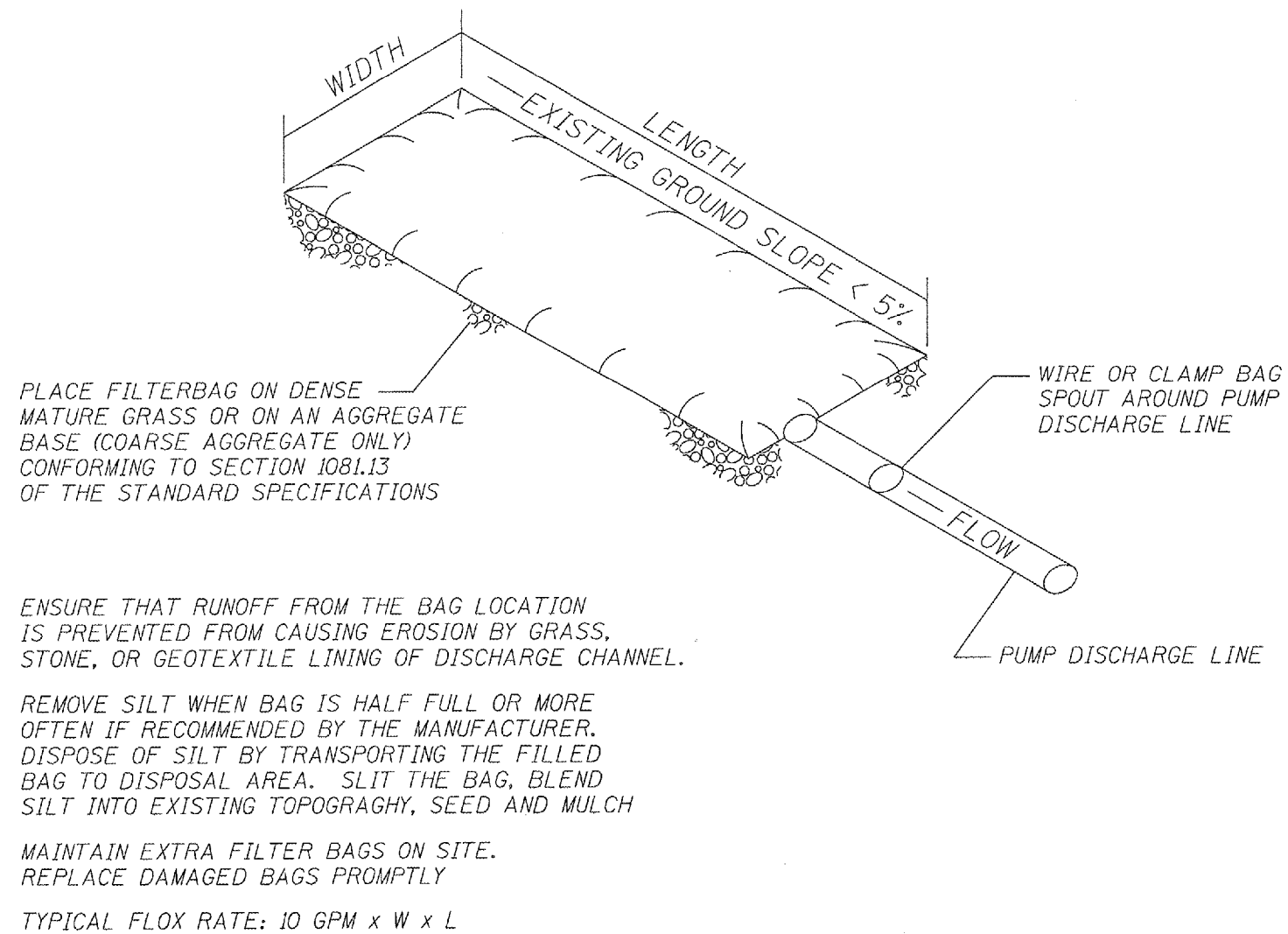
All dimensions are in millimeters (inches) unless otherwise noted.

ILLINOIS DEPARTMENT OF TRANSPORTATION  
**DISTRICT CADD STANDARD**  
**TYPICAL PAVEMENT MARKINGS**  
 CADD STANDARD 780001-D4 SHEET 2 OF 2  
 SCALE: NOT DRAWN TO SCALE DRAWN BY CADD CHECKED BY

\$\$\$DATE\$\$\$

\*DCN-ONLY\*

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
310	(4) A1/B1-1	McDonough	66	66A
STA.	various	TO STA.	various	
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT	D-94-006-07	



**FIGURE S1. SEDIMENT FILTER BAG**

NOTE: DEWATERING SYSTEM DETAILS SHALL BE USED IN CONJUNCTION WITH THE PROJECT SPECIAL PROVISIONS.

ILLINOIS DEPARTMENT OF TRANSPORTATION

DEWATERING SYSTEM DETAILS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
310	(40BY)BR. (41-A)BR-1	McDonough	66	66B
STA.	various	TO STA.	various	
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT	D-94-006-07	

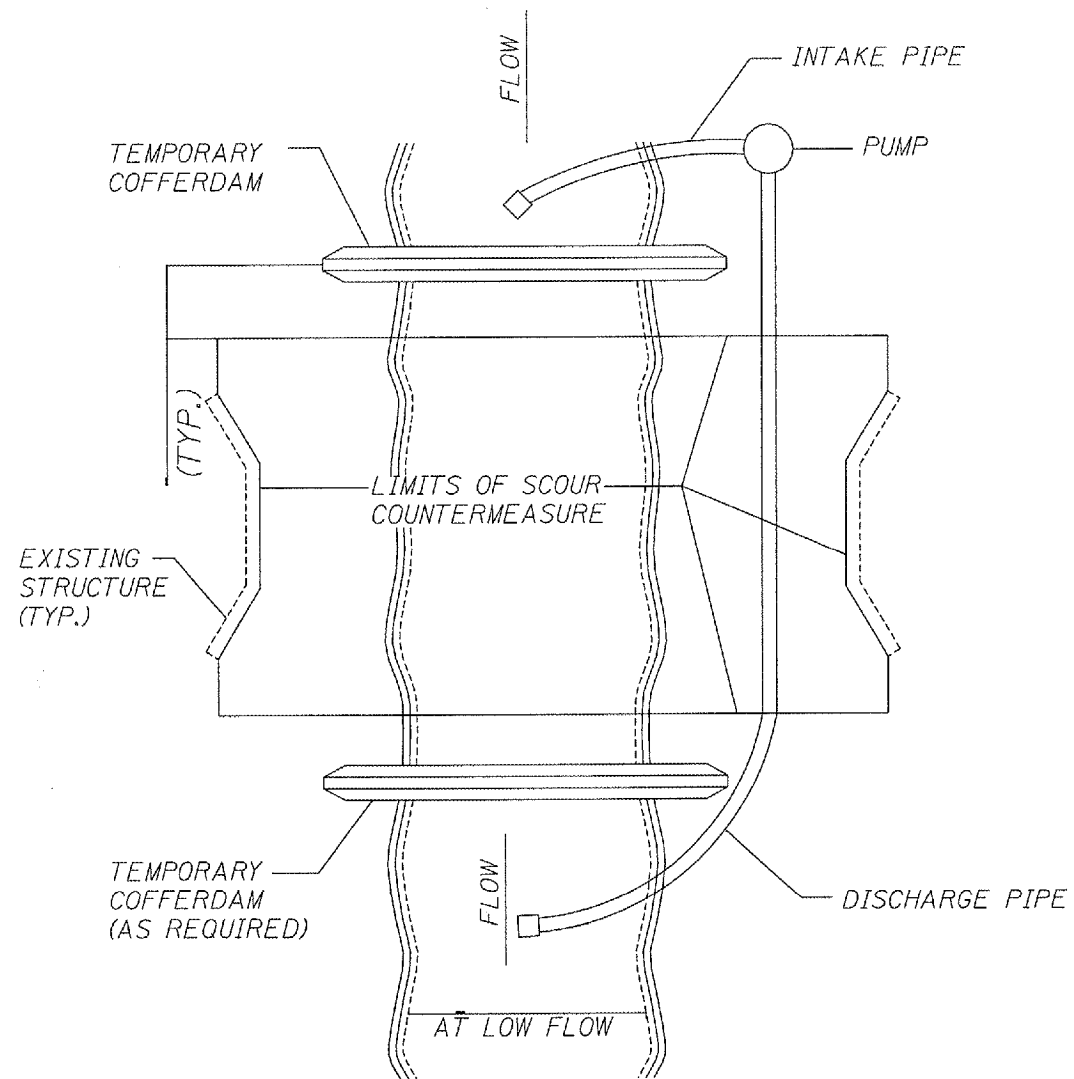


FIGURE D1. TEMPORARY COFFERDAM WITH PUMP BYPASS

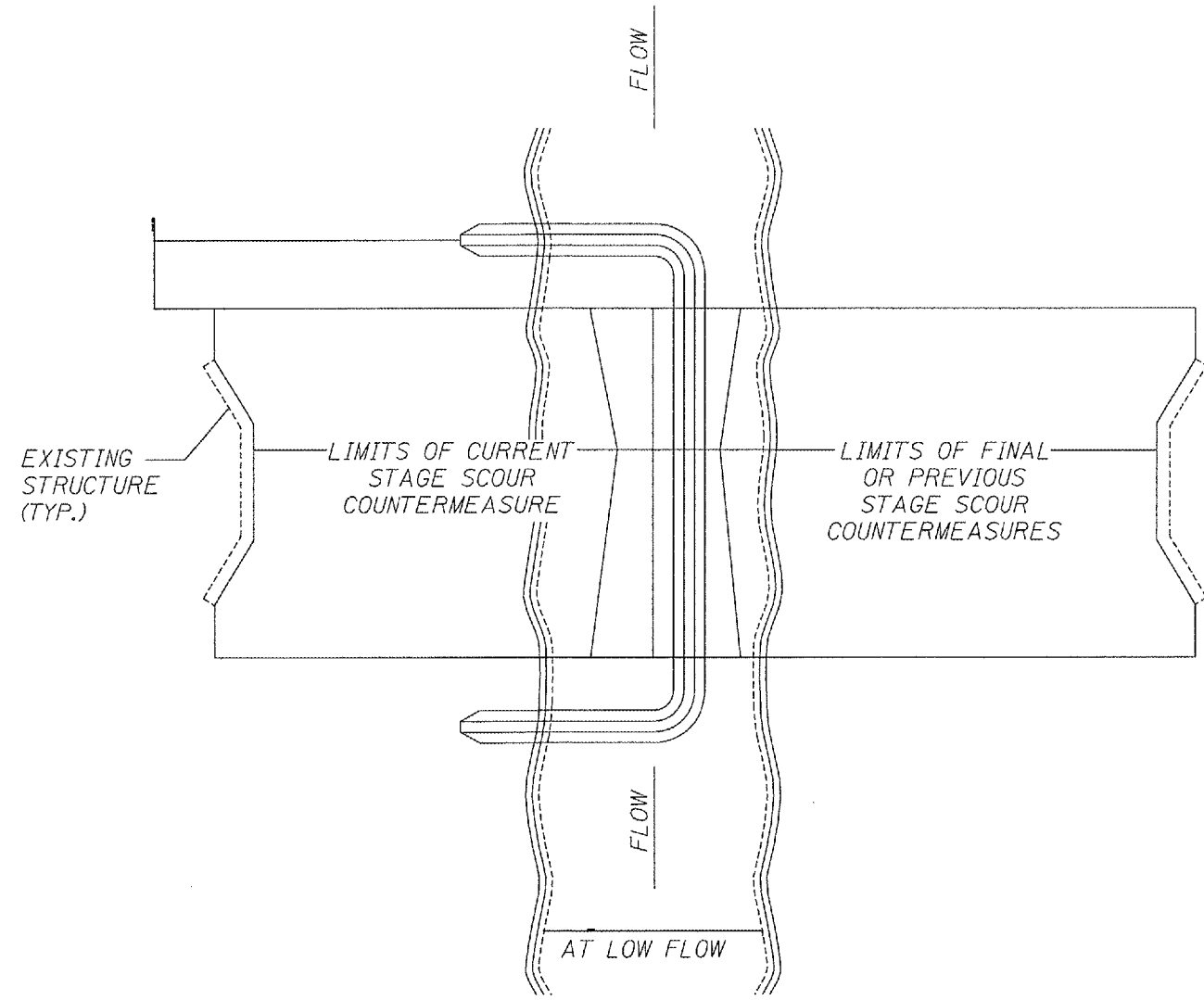


FIGURE D2. STAGED IN-STREAM COFFERDAM DIVISION

NOTE: DEWATERING SYSTEM DETAILS SHALL BE USED IN CONJUNCTION WITH THE PROJECT SPECIAL PROVISIONS.

ILLINOIS DEPARTMENT OF TRANSPORTATION

DEWATERING SYSTEM DETAILS