

F.A.P. R.T.E.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
317	(18B)I	FULTON	50	1
STA. 252+75		TO STA. 262+40		
FED. ROAD DIST. NO. 4 ILLINOIS FED. AID PROJECT				

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
PROPOSED
HIGHWAY PLANS

FAP 317 (US 24)
 SECTION (18B)I
 PROJECT ACNHF-0317(075)
 FULTON COUNTY
 C-94-056-05

LIST OF ILLINOIS DOT HIGHWAY STANDARDS

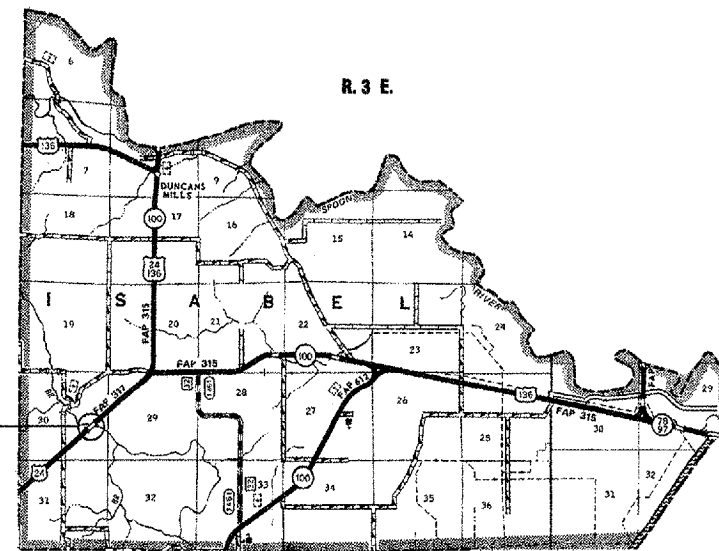
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280001-03	701011-01
353001-03	701201-02
542401	701301-02
609001-03	701311-02
630001-07	701321-08
630301-04	702001-06
631032-03	704001-03
635006-02	780001-01
635011-01	781001-02
515001-02	

**SUPERSTRUCTURE REPLACEMENT
 OVER OTTER CREEK**

**PROPOSED PROJECT ENDS
 -STA. 262 + 40**

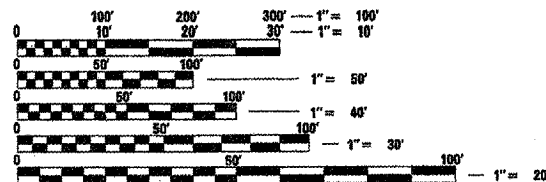
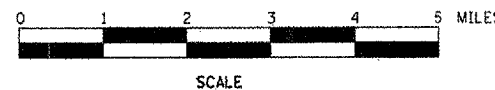
**PROPOSED PRECAST PRESTRESSED
 CONCRETE DECK BEAM SUPERSTRUCTURE
 ON EXISTING FIVE SPAN SUBSTRUCTURE
 32'-3" BK-BK ABUTMENTS,
 33'-0" CLEAR DECK WIDTH WITH
 STEEL BRIDGE RAIL, TYPE SM, 0° SKEW
 S.N. 829-2005
 ± -STA. 257 + 54.33**

**PROPOSED PROJECT BEGINS
 -STA. 252 + 75**



LOCATION MAP

NET LENGTH OF PROJECT = 965.00 FEET = 0.183 MILES



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. 68468
CATALOG NO. 033050-00D

QA/QC CONCRETE

D-94-050-05

51



ADT = 1900 (2006)
 % SU = 8.5 (2006)
 % MU = 8.5 (2006)
 TOWNSHIP: ISABEL
 FUNCTIONAL CLASSIFICATION: MINOR ARTERIAL
 (NON-URBAN)

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION
 DIVISION OF HIGHWAYS

SUBMITTED 8/24/07
[Signature]
 DEPUTY DIRECTOR OF HIGHWAYS REGION THREE

October 12, 2007
Eric E. Hamm
 ENGINEER OF DESIGN AND ENVIRONMENT

October 12, 2007
Milton R. Sees, P.E.
 DIRECTOR, DIVISION OF HIGHWAYS

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

Christopher P. Kohler 8/22/07
 EXPIRATION DATE: 11/30/07

PROJECT ENGINEER: RICH DOTSON (309)-671-3455

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
317	(18B)	FULTON	50	2
STA. 252+75		TO STA. 262+40		
FED. ROAD DIST. NO. 4 ILLINOIS FED. AID PROJECT				

GENERAL NOTES

ENVIRONMENTAL REVIEWS

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.

PROPERTY OWNER ACCESS REQUIREMENT

ACCESS MUST BE MAINTAINED TO ALL EXISTING PROPERTIES DURING CONSTRUCTION PER ARTICLE 107.09 UNLESS ARRANGEMENTS ARE MADE IN WRITING BY THE CONTRACTOR WITH THE PROPERTY OWNERS WITH A COPY TO THE ENGINEER FOR SHORT-TERM CLOSURES.

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.

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.

BUTT JOINT CUTTING TIME RESTRICTION

BUTT JOINTS SHALL NOT BE MILLED MORE THAN THREE (3) DAYS PRIOR TO PLACEMENT OF THE HOT MIX ASPHALT SURFACE COURSE.

NAME PLATE RELOCATION ON METAL PLATE BRIDGE RAIL

NAME PLATES THAT WILL BE REMOVED AS A RESULT OF THIS WORK SHALL BE RELOCATED ON THE METAL PLATE BRIDGE RAIL OR CONCRETE PARAPET WALL AS DIRECTED BY THE ENGINEER. THE COST OF REMOVING AND REPLACING THE NAME PLATES, INCLUDING ALL NECESSARY FASTENERS, WILL NOT BE MEASURED OR PAID FOR SEPARATELY BUT WILL BE CONSIDERED INCLUDED IN THE CONTRACT.

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.

COMMITMENTS:

THE CONTRACTOR AND RESIDENT ENGINEER SHALL CONTACT DAVID HOWE AT 309-547-3612 PRIOR TO ERECTION OF TRAFFIC CONTROL REGARDING ACCESS TO THE EXISTING FIELD ENTRANCE LOCATED AT LT. STA. 259+67. IN THE EVENT ACCESS IS NEEDED DURING STAGE I THE CONTRACTOR SHALL MAKE ARRANGEMENTS TO ALLOW ACCESS TO THE FIELD ENTRANCE.

PROJECT SPECIFIC NOTES

- 1.) THE THICKNESS OF BITUMINOUS MIXTURES SHOWN ON THE PLANS IS THE NOMINAL THICKNESS. DEVIATIONS FROM THE NOMINAL THICKNESS WILL BE PERMITTED WHEN SUCH DEVIATIONS OCCUR DUE TO IRREGULARITIES IN THE EXISTING SURFACE OR BASE ON WHICH THE BITUMINOUS MIXTURE IS PLACED.
- 2.) EXCEPT AS NOTED IN THE PLANS, PAVEMENT GRADES SHOWN ARE AT THE TOP OF PAVEMENT SURFACES.
- 3.) WHERE SECTION OR SUBSECTION MONUMENTS ARE ENCOUNTERED, THE ENGINEER SHALL BE NOTIFIED BEFORE SUCH MONUMENTS ARE REMOVED. THE CONTRACTOR SHALL PROTECT AND CAREFULLY PRESERVE ALL PROPERTY MARKERS AND MONUMENTS UNTIL THE OWNER OR AN AUTHORIZED SURVEYOR OR AGENT HAS WITNESSED OR OTHERWISE REFERENCED THEIR LOCATION. THE CONTRACTOR WILL BE RESPONSIBLE FOR HAVING AN AUTHORIZED SURVEYOR RE-ESTABLISH ANY SECTION OR SUBSECTION MONUMENTS DESTROYED BY HIS OPERATIONS.
- 4.) SEEDING WILL NOT BE PERMITTED AT ANY TIME WHEN THE GROUND IS FROZEN, WET OR IN AN UNTILLABLE CONDITION. AREAS TO BE SEEDED SHALL BE DETERMINED BY THE ENGINEER AND SEEDED AS SOON AS POSSIBLE.
- 5.) ALL SAW CUTS, NECESSARY TO COMPLETE THE WORK DETAILED IN THESE PLANS, SHALL BE INCLUDED IN THE COST FOR THE VARIOUS PAY ITEMS INVOLVED. THE MINIMUM SAW CUT DEPTH IN THE PAVEMENT SHALL BE 1/2" UNLESS UNLESS OTHERWISE SPECIFIED IN A DETAIL SHOWN IN THE PLANS.
- 6.) UNLESS DIRECTED BY THE ENGINEER, PAVEMENT MARKING LINES SHALL NOT BE LAID DIRECTLY OVER A LONGITUDINAL CRACK OR JOINT NOR OVER A TAR OR ASPHALT PAINTED LINE. THE EDGE OF A CENTERLINE OR LANE LINE SHALL BE OFFSET A MINIMUM DISTANCE OF 2" FROM A LONGITUDINAL CRACK OR JOINT. EDGE LINES SHALL BE APPROXIMATELY 2" FROM THE EDGE LINE OF PAVEMENT. SEE SECTION 780 OF THE STANDARD SPECIFICATIONS FOR TRAFFIC CONTROL ITEMS.
- 7.) ABANDONED UNDERGROUND UTILITIES THAT CONFLICT WITH CONSTRUCTION SHALL BE DISPOSED OUTSIDE THE LIMITS OF RIGHT OF WAY ACCORDING TO ARTICLE 202.03 OF THE STANDARD SPECIFICATIONS AND AS DIRECTED BY THE ENGINEER. THIS WORK WILL NOT BE PAID FOR SEPERATELY BUT SHALL BE INCLUDED IN THE COST PER CUBIC YARD FOR EARTH EXCAVATION AND NO ADDITIONAL COMPENSATION WILL BE ALLOWED.
- 8.) ANY REFERENCE TO A STANDARD IN THESE PLANS SHALL BE INTERPRETED TO MEAN THE EDITION AS INDICATED BY THE SUBNUMBER LISTED IN THE INDEX OF SHEETS OR THE COPY OF THE STANDARD INCLUDED IN THESE PLANS.
- 9.) IN ADDITION TO THE FIELD SURVEYS, PLAN DIMENSIONS AND DETAILS RELATIVE TO THE EXISTING FACILITIES HAVE BEEN TAKEN FROM EXISTING PLANS AND ARE SUBJECT TO CONSTRUCTION VARIATIONS. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY SUCH DIMENSIONS AND DETAILS IN THE FIELD. SUCH VARIATIONS SHALL NOT BE A CAUSE FOR ADDITIONAL COMPENSATION DUE TO CHANGE IN THE SCOPE OF WORK. HOWEVER, THE CONTRACTOR WILL BE PAID FOR THE QUANTITY ACTUALLY FURNISHED AT THE UNIT PRICE BID FOR THE WORK.
- 10.) THE EXISTING ROAD SIGNS THAT INTERFERE WITH CONSTRUCTION WILL BE REMOVED OR RELOCATED AS DIRECTED BY THE ENGINEER. AFTER THE CONSTRUCTION IS COMPLETED, THE CONTRACTOR WILL REPLACE THE SIGNS AS DIRECTED BY THE ENGINEER. THIS WORK WILL NOT BE PAID SEPARATELY BUT SHALL BE CONSIDERED INCLUDED IN THE CONTRACT, AND NO COMPENSATION WILL BE ALLOWED.
- 11.) THE LOCATION OF ALL UTILITIES ARE BASED ON INFORMATION PROVIDED BY OTHERS AND IS INTENDED TO BE APPROXIMATE. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO COORDINATE HIS CONSTRUCTION ACTIVITIES WITH THE VARIOUS UTILITY OWNERS. ALL POTENTIAL CONFLICTS SHALL BE INVESTIGATED AND REMEDIAL ACTION TAKEN PRIOR TO INTERRUPTION OF THE CONTRACTOR'S PROGRESS.
- 12.) THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING UTILITY PROPERTY FROM CONSTRUCTION OPERATIONS AS OUTLINED IN ARTICLE 107.31 OF THE STANDARD SPECIFICATIONS. THE J.U.L.I.E. NUMBER IS 800-892-0123, A MINIMUM OF FORTY-EIGHT HOURS ADVANCE NOTICE IS REQUIRED.
- 13.) ALL ELEVATIONS SHOWN ON THE PLANS ARE BASED ON U.S.G.S. MEAN SEA LEVEL DATUM. ALL STATION AND OFFSET REFERENCES ARE TO THE ROADWAY CENTERLINE UNLESS OTHERWISE NOTED. THE STATE PLANE COORDINATE SYSTEM HAS BEEN USED FOR THE HORIZONTAL CONTROL.
- 14.) THE DISTRICT BUREAU OF OPERATIONS SHALL BE NOTIFIED AT LEAST 14 DAYS PRIOR TO PLACEMENT OF FINAL PAVEMENT MARKINGS (PH: 309-671-4460)

MIXTURE REQUIREMENTS

MEASURE USE(S)	POLYMERIZED HOT MIX ASPHALT SURFACE COURSE, MIX "D", NSO	POLYMERIZED LEVELING BINDER (MACHINE METHOD), NSO	HOT MIX ASPHALT BASE COURSE WIDENING 10"	PCC 5" BRIDGE DECK OVERLAY
AC/PG	SBS PG 64-22	SBS PG 70-22	PG 64-22	
MAX. RAP %	15	0	25	
DESIGN AIR VOIDS	4.2% @ N DESIGN = 50	4.0% @ N DESIGN = 50	4.2% @ N DESIGN = 50	
MIXTURE COMPOSITION	IL 9.5 OR 12.5	IL 4.75	IL 19.0	
FRICITION AGGREGATE	MIX D	N/A	N/A	

* IF THE RAP OPTIONS SELECTED THE ASPHALT CEMENT GRADE MAY BE ADJUSTED. THIS WILL BE DETERMINED BY THE ENGINEER.

THE FOLLOWING RATES OF APPLICATION HAVE BEEN USED TO CALCULATE THE PLAN QUANTITIES:

HOT MIX ASPHALT MATERIALS (PRIME COAT)	0.00038 TON/SQ. YD. (ON PAVEMENT)
HOT MIX ASPHALT MATERIALS (PRIME COAT)	0.001425 TON/SQ.YD. (ON AGG)
HOT MIX ASPHALT SURFACE / BINDER	0.056 TON/SQ. YD. PER 1"
AGGREGATE MATERIAL	2.05 TON/CU. YD.
RIPRAP	1.35 TON/CU. YD.
NITROGEN FERTILIZER NUTRIENT	90 LBS./ACRE
PHOSPHOROUS FERTILIZER NUTRIENT	90 LBS./ACRE
POTASSIUM FERTILIZER NUTRIENT	90 LBS./ACRE
AGGREGATE PRIME COAT	0.002 TON/SQ. YD.

CALL I.D.O.T. D-4 MATERIALS FOR EXACT AGGREGATE OPTIMIZED CLASS BD MIX DESIGN. OVERLAY MIX WILL BE CONVENTIONAL BD MIX WITH ADDITIONAL 10% CEMENT MATERIAL.

NOTES, DETAILS AND TYPICAL ROADWAY SECTIONS
US ROUTE 24 OVER OTTER CREEK
F.A.P. RTE. 317 - SECTION (18B)
FULTON COUNTY
STA. 257+54.33
S.N. 029-2005

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
317	(18B)	FULTON	50	3
STA. 252+75		TO STA. 262+40		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

SUMMARY OF QUANTITIES

SUMMARY OF QUANTITIES

CODE NO.	SUMMARY OF QUANTITIES PAY ITEM	UNIT	TOTAL QUANTITY	ROADWAY FAP 317 80% FEDERAL 20% STATE		STRUCTURE S.N. 029-2005 80% FEDERAL 20% STATE	
				CONSTRUCTION 1000-2A	TYPE CODE X080-2A	CONSTRUCTION 1000-2A	TYPE CODE X080-2A
20100500	TREE REMOVAL, ACRES	ACRE	0.3	0.3			
20400800	FURNISHED EXCAVATION	CU. YD.	744	744			
*25000200	SEEDING, CLASS 2	ACRE	0.9	0.9			
*25000400	NITROGEN FERTILIZER NUTRIENT	POUND	81	81			
*25000500	PHOSPHORUS FERTILIZER NUTRIENT	POUND	81	81			
*25000600	POTASSIUM FERTILIZER NUTRIENT	POUND	81	81			
*25100630	EROSION CONTROL BLANKET	SQ. YD.	4356	4356			
28000250	TEMPORARY EROSION CONTROL SEEDING	POUND	90	90			
28000300	TEMPORARY DITCH CHECKS	EACH	8	8			
28000400	PERIMETER EROSION CONTROL BARRIER	FOOT	1240	1240			
31100300	SUB-BASE GRANULAR MATERIAL, TYPE A 4"	SO. YD.	65	65			
35300400	PORTLAND CEMENT CONCRETE BASE COURSE 9"	SO. YD.	58	58			
35600716	HOT-MIX ASPHALT BASE COURSE WIDENING, 10"	SO. YD.	488	488			
40200800	AGGREGATE SURFACE COURSE, TYPE B	TON	8	8			
40600200	BITUMINOUS MATERIALS (PRIME COAT)	TON	0.71	0.71			
40600200	POLYMERIZED LEVELING BINDER (MACHINE METHOD), 1/4" N50	TON	11	11			
40600982	HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT	SO. YD.	174	174			
40600990	TEMPORARY RAMP	SO. YD.	74	74			
40603535	POLYMERIZED HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N50	TON	194	194			
44000100	PAVEMENT REMOVAL	SO. YD.	72	72			
44000920	BITUMINOUS CONCRETE SHOULDER REMOVAL	SO. YD.	386	386			
50101500	REMOVAL OF EXISTING SUPERSTRUCTURES	EACH	1			1	
50102400	CONCRETE REMOVAL	CU. YD.	20.5			20.5	
50300225	CONCRETE STRUCTURES	CU. YD.	20.9			20.9	
50300260	BRIDGE DECK GROOVING	SO. YD.	1103			1103	
50300300	PROTECTIVE COAT	SO. YD.	1174			1174	
50400305	PRECAST PRESTRESSED CONCRETE DECK BEAMS (17" DEPTH)	SO. FT.	1292			1292	
50400505	PRECAST PRESTRESSED CONCRETE DECK BEAMS (27" DEPTH)	SO. FT.	4218			4218	
50400605	PRECAST PRESTRESSED CONCRETE DECK BEAMS (33" DEPTH)	SO. FT.	5042			5042	
50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	16340			16340	
50800515	BAR SPLICERS	EACH	328			328	
*50901050	STEEL RAILING, TYPE SM	FOOT	641			641	
51500100	NAME PLATES	EACH	1			1	
52000110	PREFORMED JOINT STRIP SEAL	FOOT	45			45	
54215547	METAL END SECTIONS 12"	EACH	2	2			
59000200	EPOXY CRACK INJECTION	FOOT	286			286	
60100945	PIPE DRAINS 12"	FOOT	58	58			
60900130	TYPE B INLET BOX, STANDARD 609001 (SPECIAL)	EACH	2	2			

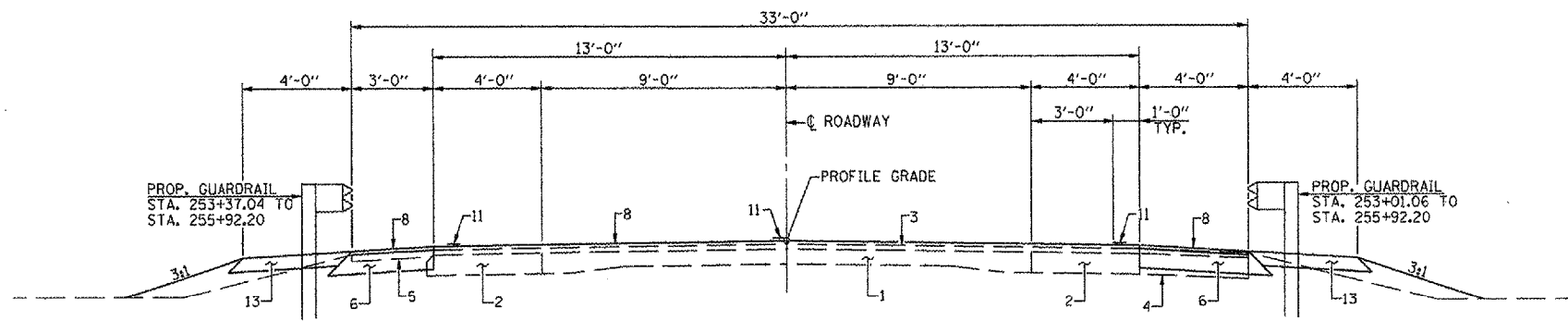
CODE NO.	SUMMARY OF QUANTITIES PAY ITEM	UNIT	TOTAL QUANTITY	ROADWAY FAP 317 80% FEDERAL 20% STATE		STRUCTURE S.N. 029-2005 80% FEDERAL 20% STATE	
				CONSTRUCTION 1000-2A	TYPE CODE X080-2A	CONSTRUCTION 1000-2A	TYPE CODE X080-2A
60900505	CONCRETE THRUST BLOCKS (SPECIAL)	EACH	2	2			
*63000000	STEEL PLATE BEAM GUARDRAIL, TYPE A	FOOT	400	400			
*63000130	STEEL PLATE BEAM GUARDRAIL, TYPE A (SPECIAL)	FOOT	25	25			
*63100087	TRAFFIC BARRIER TERMINAL, TYPE 6A	EACH	4	4			
*63100167	TRAFFIC BARRIER TERMINAL TYPE 1 SPECIAL (TANGENT)	EACH	2	2			
63200310	GUARDRAIL REMOVAL	FOOT	308	308			
*63301000	REMOVE AND RE-ERECT STEEL PLATE BEAM GUARDRAIL	FOOT	487.5	487.5			
*63301300	REMOVE AND RE-ERECT TERMINAL SECTION, SINGLE RAIL	EACH	1	1			
67000400	ENGINEERS FIELD OFFICE, TYPE A	CAL. MO.	9	9			
67100100	MOBILIZATION	L. SUM	1	1			
70100450	TRAFFIC CONTROL AND PROTECTION, STANDARD 701201	L. SUM	1	1			
70101205	TRAFFIC CONTROL AND PROTECTION, STANDARD 701321 (SPECIAL)	EACH	1	1			
70106500	TEMPORARY BRIDGE TRAFFIC SIGNALS	EACH	1	1			
70106700	TEMPORARY RUMBLE STRIP	EACH	3	3			
70300100	SHORT-TERM PAVEMENT MARKING	FOOT	193	193			
70300220	TEMPORARY PAVEMENT MARKING - LINE 4"	FOOT	3860	3860			
70300280	TEMPORARY PAVEMENT MARKING - LINE 24"	FOOT	24	24			
70301000	WORK ZONE PAVEMENT MARKING REMOVAL	SO. FT.	1324	1324			
70400100	TEMPORARY CONCRETE BARRIER	FOOT	625	625			
70400200	RELOCATE TEMPORARY CONCRETE BARRIER	FOOT	625	625			
*78001110	PAINT PAVEMENT MARKING - LINE 4"	FOOT	2180	2180			
*78100100	RAISED REFLECTIVE PAVEMENT MARKER	EACH	12	12			
*78200410	GUARDRAIL MARKERS, TYPE A	EACH	7	7			
*78201000	TERMINAL MARKER-DIRECT APPLIED	EACH	3	3			
78300100	PAVEMENT MARKING REMOVAL	SQ. FT.	592	592			
78300200	RAISED REFLECTIVE PAVEMENT MARKER REMOVAL	EACH	8	8			
*A2002316	TREE, BETULA NIGRA (RIVER BIRCH), 2" CALIPER, BALLED AND BURLAPPED	EACH	4	4			
*A2002914	TREE, CELTIS OCCIDENTALIS (COMMON HACKBERRY), 1 1/4" CALIPER, BALLED AND BURLAPPED	EACH	4	4			
*A2006514	TREE, QUERCUS BICOLOR (SWAMP WHITE OAK), 1 3/4" CALIPER, BALLED AND BURLAPPED	EACH	4	4			
*B2001114	TREE, CERCIS CANADENSIS (EASTERN REDBUD), 1-3/4" CALIPER, TREE FORM, BALLED AND BURLAPPED	EACH	3	3			
X0301512	GUARDRAIL AGGREGATE EROSION CONTROL	TON	284	284			
X0325305	STRUCTURAL REPAIR OF CONCRETE (DEPTH EQUAL TO OR LESS THAN 5 INCHES)	SQ. FT.	106			106	
X5030305	CONCRETE WEARING SURFACE, 5"	SO. YD.	1174			1174	
Z0013798	CONSTRUCTION LAYOUT	L. SUM	1	0.5		0.5	
Z0020800	EROSION CONTROL CURB	FOOT	517	517			
Z0020805	EROSION CONTROL CURB REMOVAL	FOOT	520	520			
Z0030250	IMPACT ATTENUATORS, TEMPORARY (NON-REDIRECTIVE), TEST LEVEL 3	EACH	2	2			
Z0030350	IMPACT ATTENUATORS, RELOCATE (NON-REDIRECTIVE), TEST LEVEL 3	EACH	2	2			

SUMMARY OF QUANTITIES
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FULTON COUNTY
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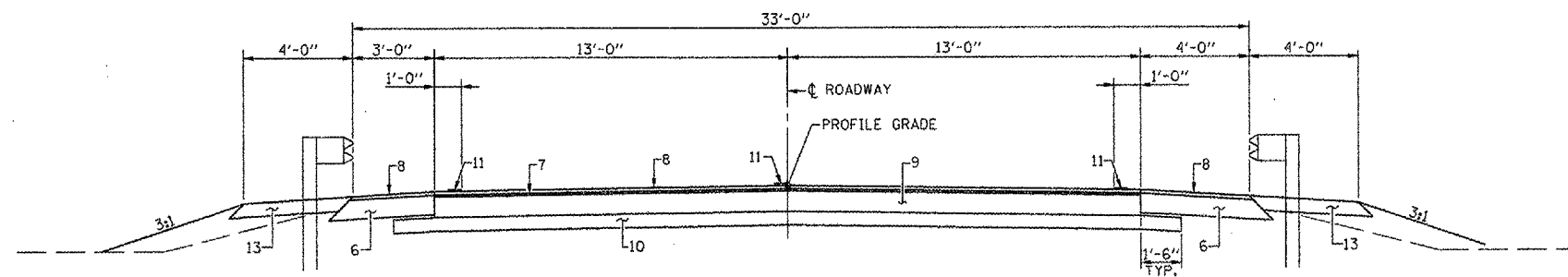
* SPECIALTY ITEMS

PLOT DATE = 08/15/05
 MODEL NAME = MODEL.AWKES

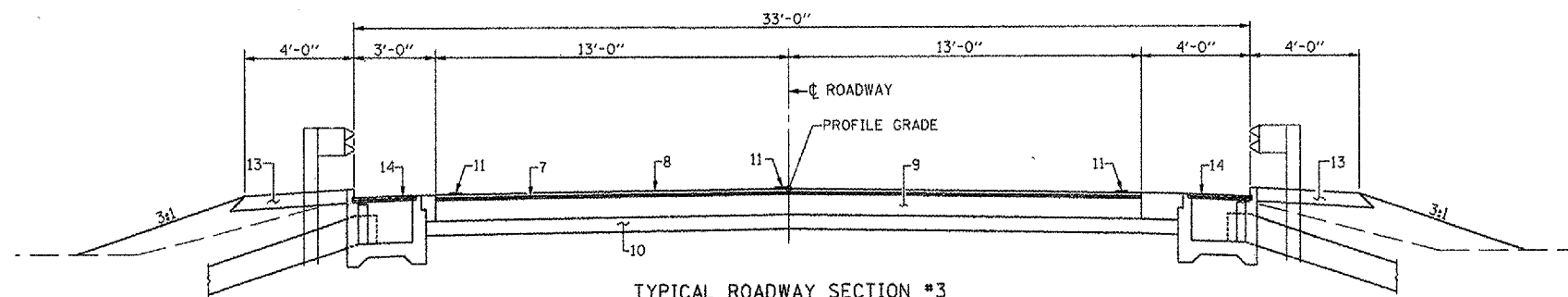
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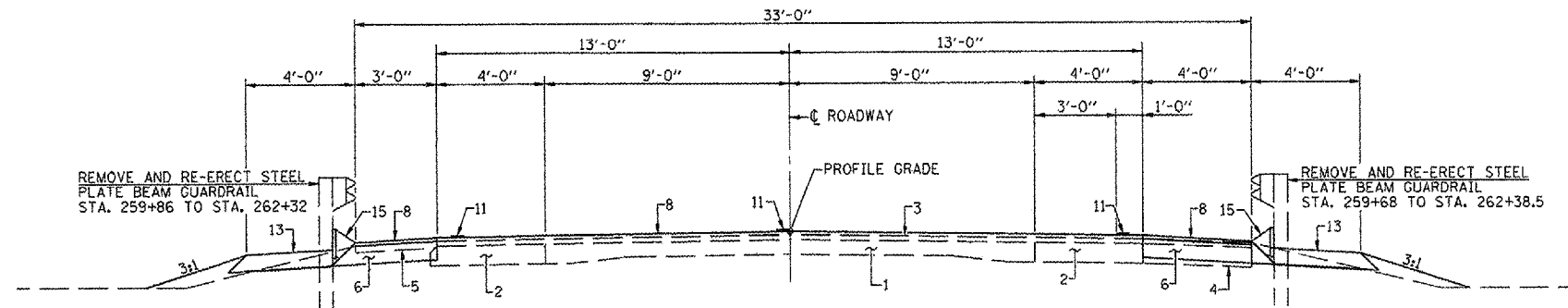
TYPICAL ROADWAY SECTION #1
(STA. 252+75 TO STA. 255+92.20)



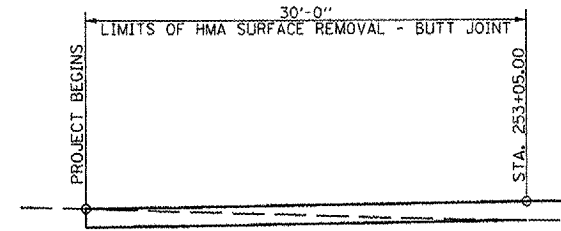
TYPICAL ROADWAY SECTION #2
(STA. 255+92.20 TO STA. 255+94.20)



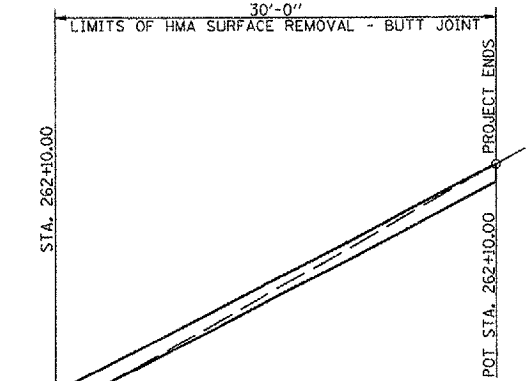
TYPICAL ROADWAY SECTION #3
(STA. 259+14.45 TO STA. 259+32.45)



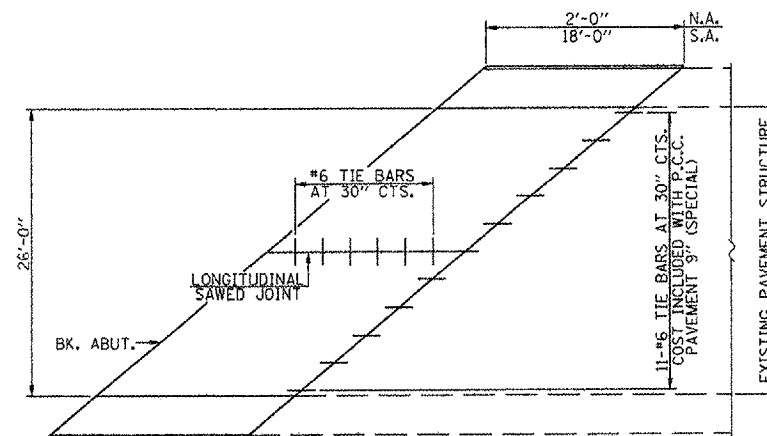
TYPICAL ROADWAY SECTION #4
(STA. 259+32.45 TO STA. 262+40)



BUTT JOINT DETAIL
(STA. 252+75 TO STA. 253+05)



BUTT JOINT DETAIL
(STA. 262+10 TO STA. 262+40)



P.C.C. BASE COURSE 9''(SPECIAL) PLAN

PAVEMENT LEGEND

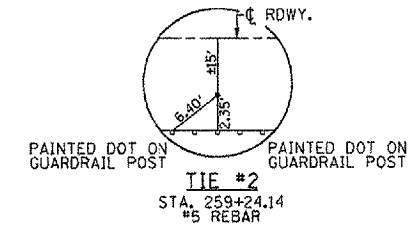
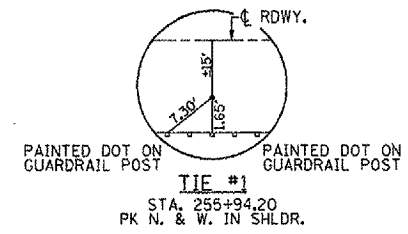
- EXISTING P.C.C. PAVEMENT
- EXISTING P.C.C. BASE COURSE WIDENING 9"
- EXISTING HOT MIX ASPHALT OVERLAY
- EXISTING HOT MIX ASPHALT SHOULDER 6"
- EXISTING AGGREGATE SHOULDER
- PROPOSED HOT MIX ASPHALT BASE COURSE 10"
- PROPOSED LEVELING BINDER (MACHINE METHOD), N50
- PROPOSED HOT MIX ASPHALT SURFACE COURSE, MIX "D", N50 (1 1/2")
- PROPOSED P.C.C. BASE COURSE 9" (SPECIAL)
- PROPOSED SUB-BASE GRANULAR MATERIAL TYPE A 4"
- PROPOSED PAINT PAVEMENT MARKING - LINE 4" (STRIPE FOR 12'-0" LANE)
- PROPOSED TEMPORARY PAVEMENT MARKING LINE - 4"
- PROPOSED AGGREGATE EROSION CONTROL
- PROPOSED TYPE B INLET BOX
- PROPOSED EROSION CONTROL CURB

DETAILS AND
TYPICAL ROADWAY SECTIONS
US ROUTE 24 OVER OTTER CREEK
F.A.P. RTE. 317 - SECTION (18B)
FULTON COUNTY
STA. 257+54.33
S.N. 029-2005

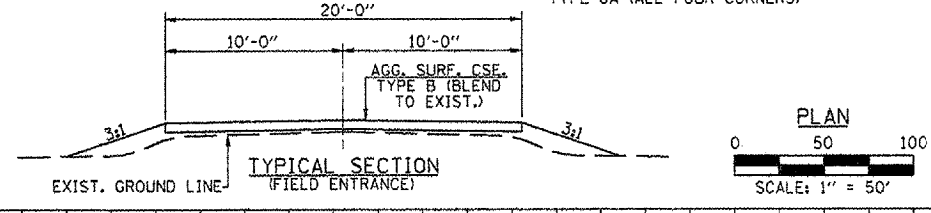
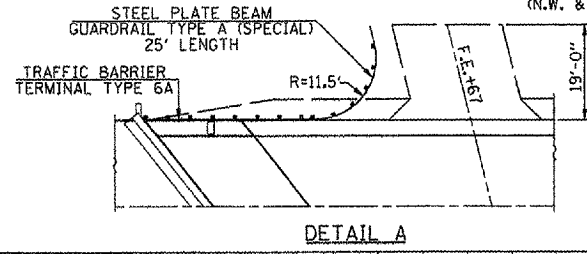
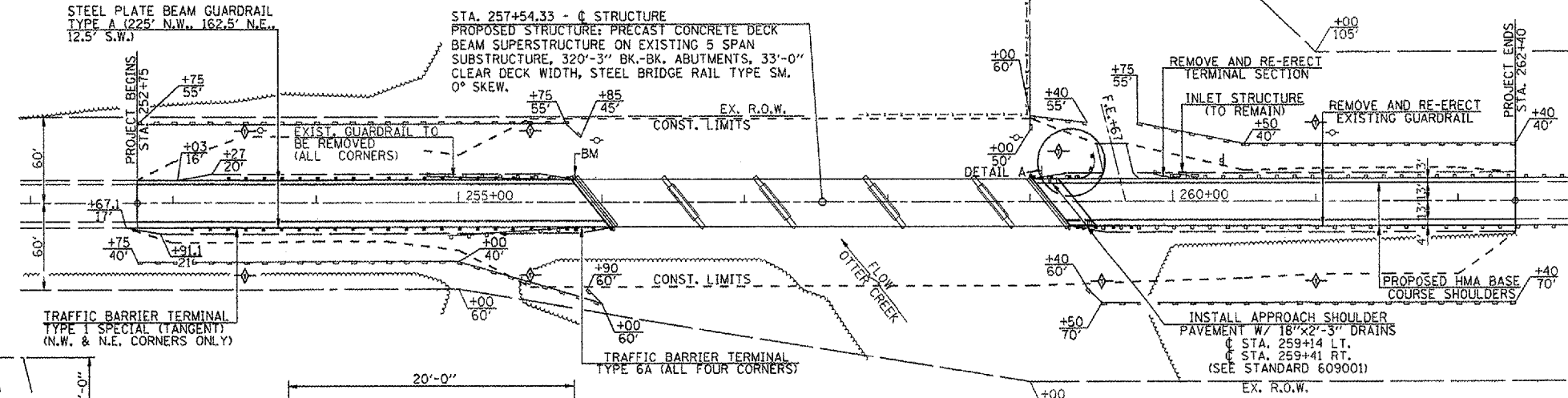
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MODEL NAME = 04MODELNAME

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317	(18B)	FULTON	50	6
STA. 252+75		TO STA. 262+40		
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				

SECTION 30, T. 4 N., R. 3 E., 4th P.M.

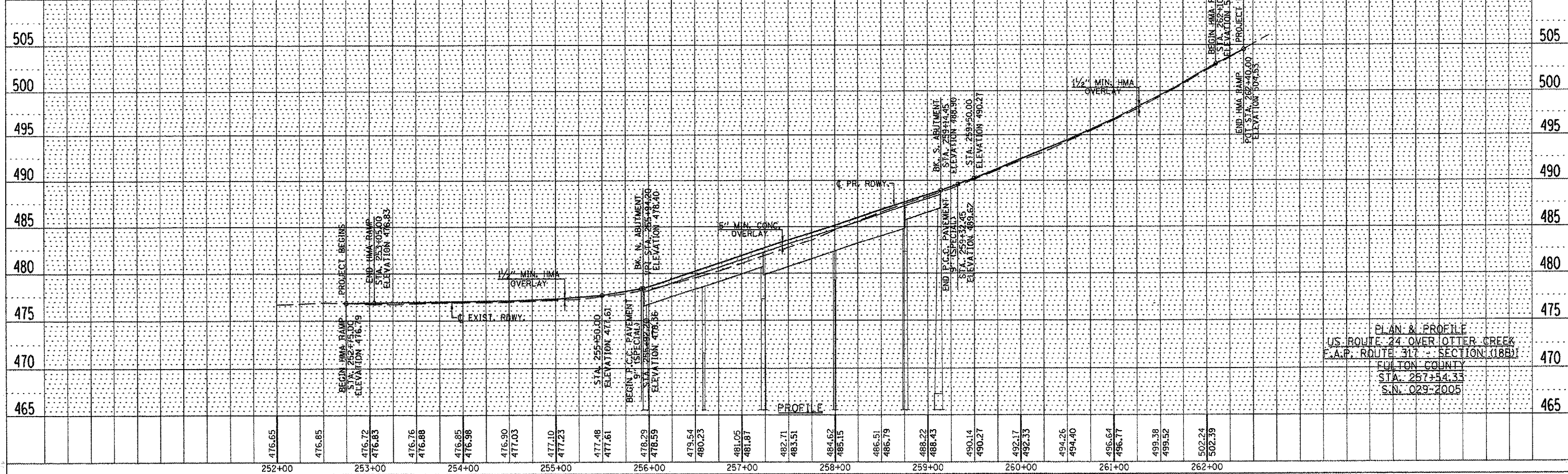


PLAN	DATE	BY
SURVEYED		
PLOTTED		
CHECKED		
DATE		



--- DENOTES PERIMETER EROSION BARRIER
 ◊ DENOTES TEMPORARY DITCH CHECK
 BM: CHISELED "□" ON NORTHEAST WINGWALL OF STRUCTURE EL. 477.56

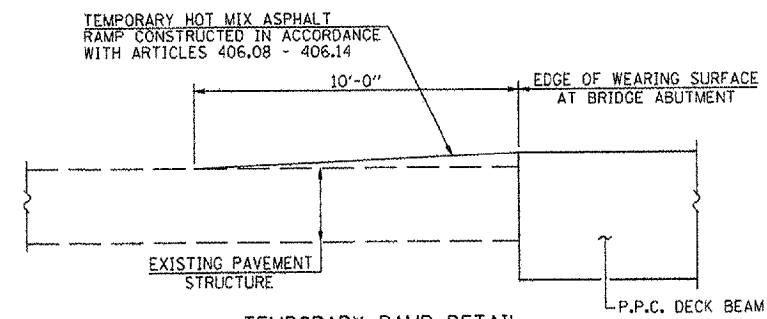
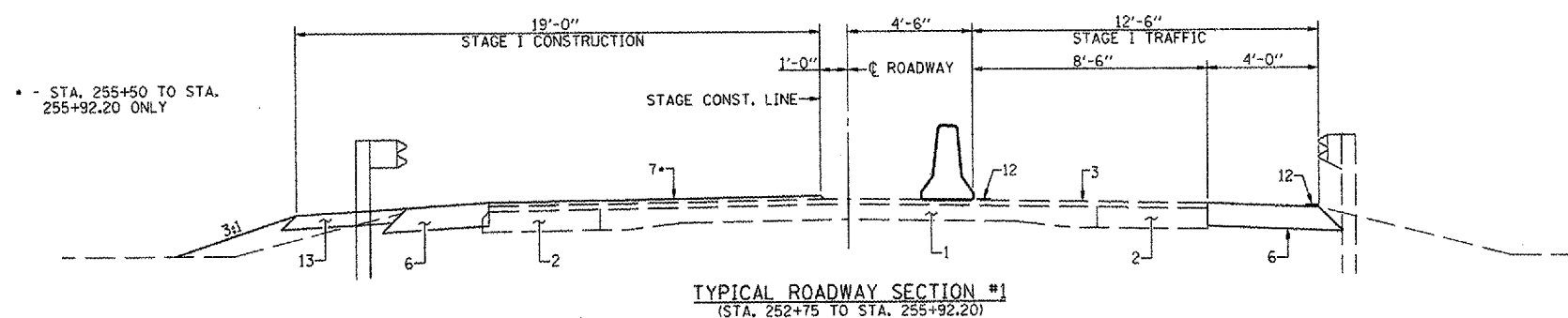
PROFILE	DATE	BY
SURVEYED		
PLOTTED		
CHECKED		
DATE		



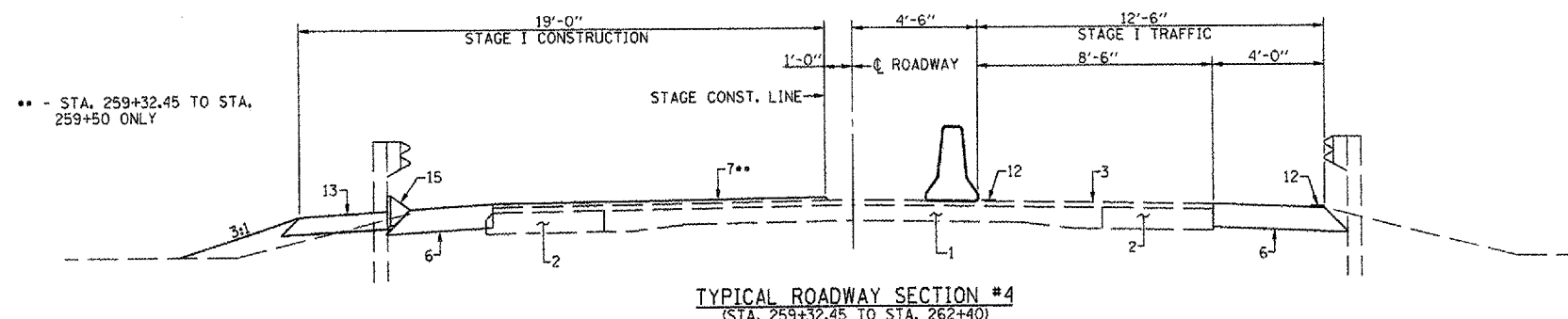
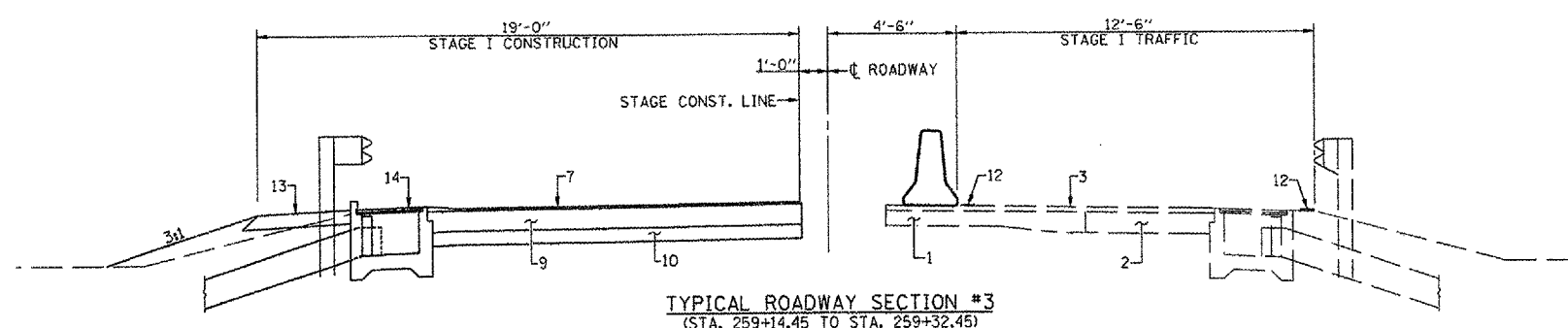
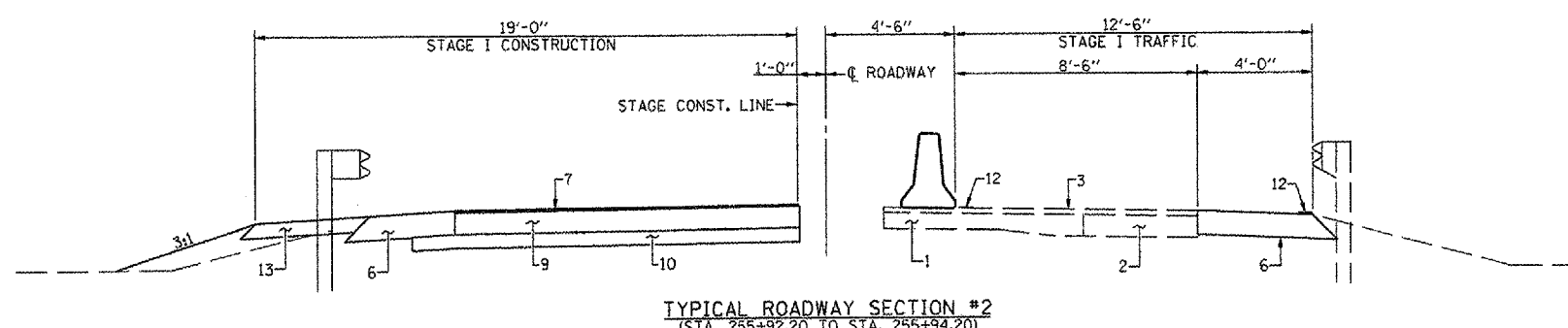
PLAN & PROFILE
 US ROUTE 24 OVER OTTER CREEK
 F.A.P. ROUTE 317 - SECTION (18B)
 FULTON COUNTY
 STA. 257+54.33
 S.N. 029-2005

PLOT DATE = MONTHS
 LABEL NAME = BRIDGE PLAN & PROFILE

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
317	(18B)	FULTON	50	7
STA. 252+75		TO STA. 262+40		
FED. ROAD DIST. NO. 4 ILLINOIS FED. AID PROJECT				



TEMPORARY RAMP DETAIL
(STA. 255+84.20 TO STA. 255+94.20 & STA. 259+14.45 TO STA. 259+24.45)



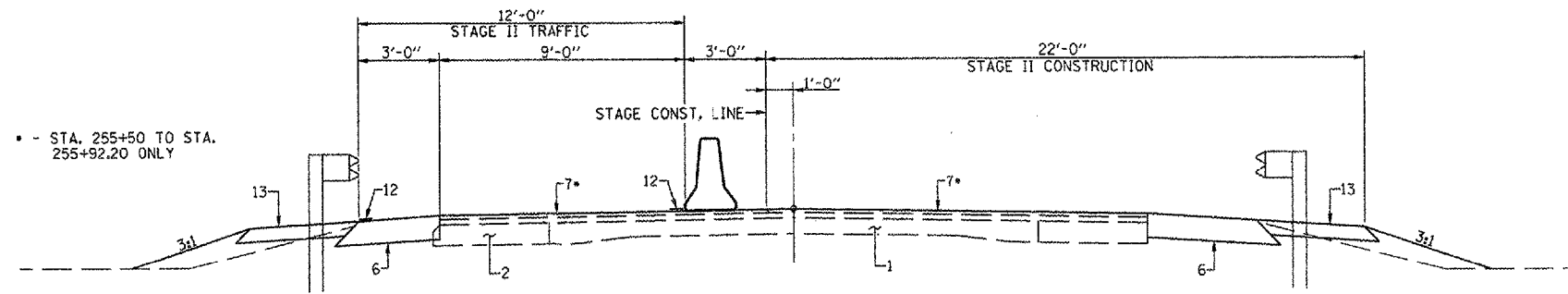
- PAVEMENT LEGEND**
1. EXISTING P.C.C. PAVEMENT
 2. EXISTING P.C.C. BASE COURSE WIDENING 9"
 3. EXISTING HOT MIX ASPHALT OVERLAY
 4. EXISTING HOT MIX ASPHALT SHOULDER 6"
 5. EXISTING AGGREGATE SHOULDER
 6. PROPOSED HOT MIX ASPHALT BASE COURSE 10"
 7. PROPOSED LEVELING BINDER (MACHINE METHOD), N50
 8. PROPOSED HOT MIX ASPHALT SURFACE COURSE, MIX "D", N50 (1 1/2")
 9. PROPOSED P.C.C. BASE COURSE 9" (SPECIAL)
 10. PROPOSED SUB-BASE GRANULAR MATERIAL TYPE A 4"
 11. PROPOSED PAINT PAVEMENT MARKING - LINE 4" (STRIPE FOR 12'-0" LANE)
 12. PROPOSED TEMPORARY PAVEMENT MARKING LINE - 4"
 13. PROPOSED AGGREGATE EROSION CONTROL
 14. PROPOSED TYPE B INLET BOX
 15. PROPOSED EROSION CONTROL CURB

NOTE: WORK THIS SHEET WITH SHEETS 8, 9 & 10.

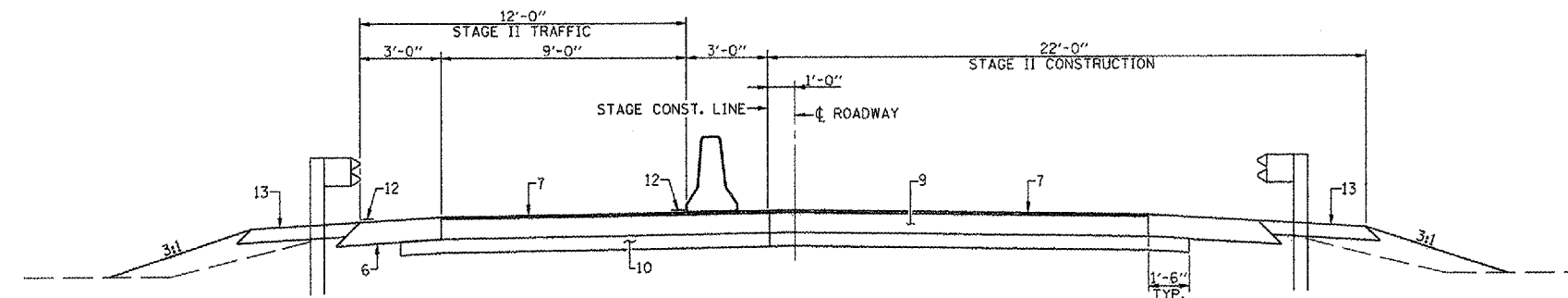
STAGE CONSTRUCTION TRAFFIC DETAILS
US ROUTE 24 OVER OTTER CREEK
F.A.P. RTE. 317 - SECTION (18B)
FULTON COUNTY
STA. 257+54.33
S.N. 029-2005

PLOT DATE = #DAYS
FILE NAME = #FILES
MODEL NAME = #MODEL NAMES

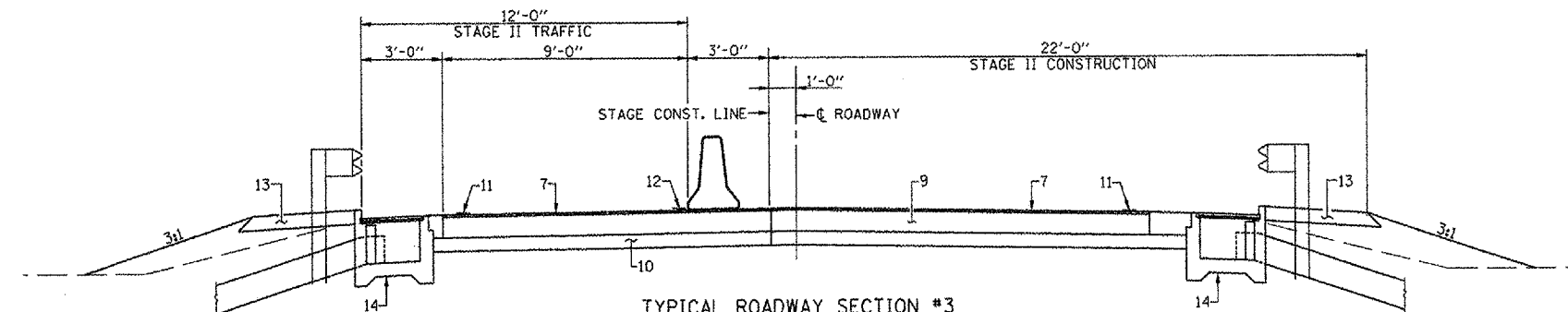
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317	(18B)	FULTON	50	8
STA. 252+75		TO STA. 262+40		
FED. ROAD DIST. NO. 4 ILLINOIS		FED. AID PROJECT		



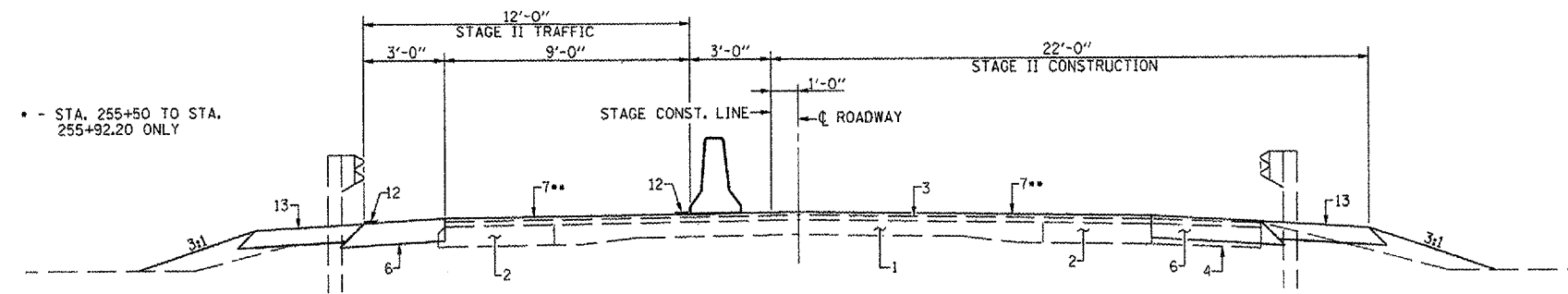
TYPICAL ROADWAY SECTION #1
(STA. 252+75 TO STA. 255+92.20)



TYPICAL ROADWAY SECTION #2
(STA. 255+92.20 TO STA. 255+94.20)



TYPICAL ROADWAY SECTION #3
(STA. 259+14.45 TO STA. 259+32.45)



TYPICAL ROADWAY SECTION #4
(STA. 259+32.45 TO STA. 262+40)

PAVEMENT LEGEND

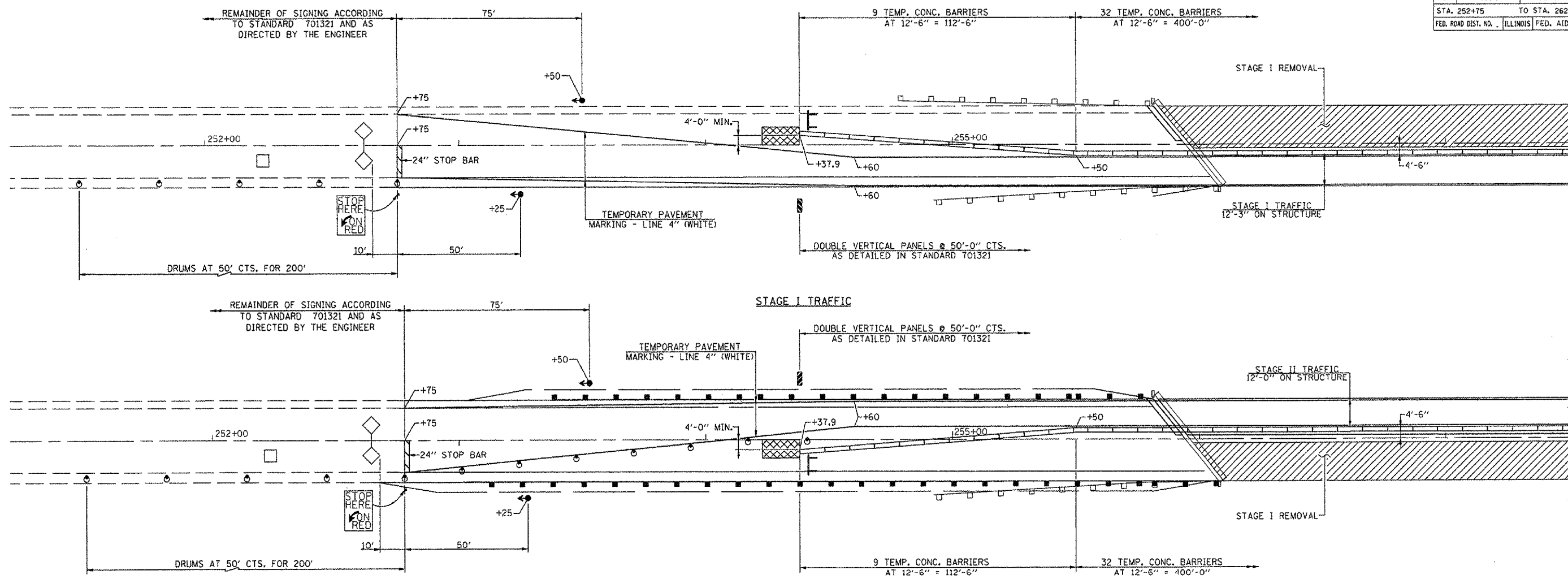
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2. EXISTING P.C.C. BASE COURSE WIDENING 9"
3. EXISTING HOT MIX ASPHALT OVERLAY
4. EXISTING HOT MIX ASPHALT SHOULDER 6"
5. EXISTING AGGREGATE SHOULDER
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13. PROPOSED AGGREGATE EROSION CONTROL
14. PROPOSED TYPE B INLET BOX
15. PROPOSED EROSION CONTROL CURB

NOTE: WORK THIS SHEET WITH SHEETS 7, 9 & 10.

STAGE CONSTRUCTION TRAFFIC DETAILS
US ROUTE 24 OVER OTTER CREEK
F.A.P. RTE. 317 - SECTION (18B)
FULTON COUNTY
STA. 257+54.33
S.N. 029-2005

PLOT DATE = 08/27/05
FILE NAME = 081105
MODEL NAME = 0801105

CONTRACT NO. 68468				
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
317	(188B)	FULTON	50	9
STA. 252+75		TO STA. 262+40		
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				



SUGGESTED STAGE CONSTRUCTION SEQUENCE

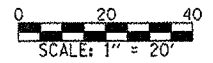
- PRE-STAGE I**
- REMOVE EXISTING AGGREGATE SHOULDER FROM STA. 252+75 TO STA. 256+05.00 RT. AND REMOVE EXISTING H.M.A. SHOULDER FROM STA. 259+42.7 TO STA. 262+40 RT. AND REPLACE WITH H.M.A. BASE COURSE 10".
- STAGE I**
- ERECT TRAFFIC CONTROL FOR STAGE I.
 - REMOVE EXISTING DECK LEFT, @ STA. 257+54.33 AND PAVEMENT BEHIND EACH ABUTMENT.
 - CONSTRUCT PROPOSED STAGE I PRECAST PRESTRESSED DECK @ STA. 257+54.33 CONCRETE PAVEMENT AND TEMPORARY RAMP.
 - CONSTRUCT PROPOSED GUARDRAIL, HMA SHOULDERS & TERMINALS LT, STA. 252+75 TO STA. 259+44.
 - CONSTRUCT PROPOSED TYPE B INLET BOX, HMA SHOULDERS, EROSION CONTROL CURB & REMOVE AND RE-ERECT STEEL PLATE BEAM GUARDRAIL STA. 259+01.50 TO STA. 262+40 LT.
- STAGE II**
- ERECT TRAFFIC CONTROL FOR STAGE II.
 - REMOVE EXISTING STRUCTURE RIGHT, @ STA. 257+54.33 AND PAVEMENT BEHIND EACH ABUTMENT.
 - CONSTRUCT PROPOSED STAGE II PRECAST PRESTRESSED DECK @ STA. 257+54.33 CONCRETE PAVEMENT AND TEMPORARY RAMP.
 - CONSTRUCT PROPOSED GUARDRAIL, HMA SHOULDERS & TERMINALS RT, STA. 252+75 TO STA. 259+71.61.
 - CONSTRUCT PROPOSED TYPE B INLET BOX, HMA SHOULDERS, EROSION CONTROL CURB & REMOVE AND RE-ERECT STEEL PLATE BEAM GUARDRAIL STA. 259+28.11 TO STA. 262+40 RT.
- FINAL**
- REMOVE ALL STAGE TRAFFIC CONTROL AND RE-ESTABLISH NORMAL TRAFFIC PATTERNS.
 - COMPLETE HOT MIX ASPHALT SURFACE COURSE UNDER TRAFFIC WITH FLAGGERS.
 - FINAL STRIPING, SEEDING AND MISCELLANEOUS CLEANUP.

GENERAL NOTES

- THIS TRAFFIC CONTROL DETAIL SHALL BE USED IN CONJUNCTION WITH STANDARD 701321.
- EXISTING PAVEMENT MARKINGS THAT CONFLICT WITH THE REVISED STAGE TRAFFIC PATTERNS DURING ALL PHASES OF STAGE CONSTRUCTION SHALL BE REMOVED AS SPECIFIED IN SECTION 783 OF THE STANDARD SPECIFICATIONS AND PAID FOR AS "PAVEMENT MARKING REMOVAL".
- THE CONTRACTOR SHALL MAINTAIN ACCESS OR HAVE ARRANGEMENTS MADE WITH LANDOWNERS TO ALL PRIVATE AND COMMERCIAL PROPERTIES DURING ALL PHASES OF CONSTRUCTION.
- EACH DETECTOR LOOP SHALL BE CONNECTED TO A SEPERATE DETECTOR AMPLIFIER.
- SIGNING FOR STAGE II SAME AS STAGE I.
- WORK THIS SHEET WITH SHEETS 7, 8 & 10.

SYMBOLS

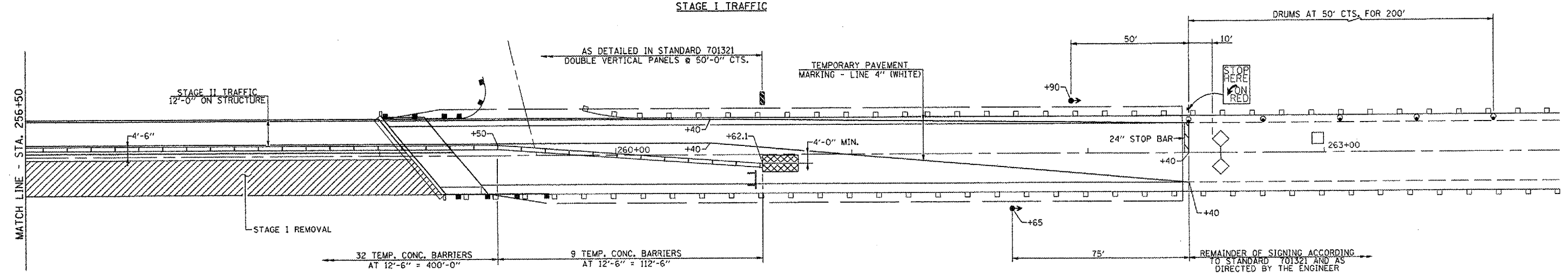
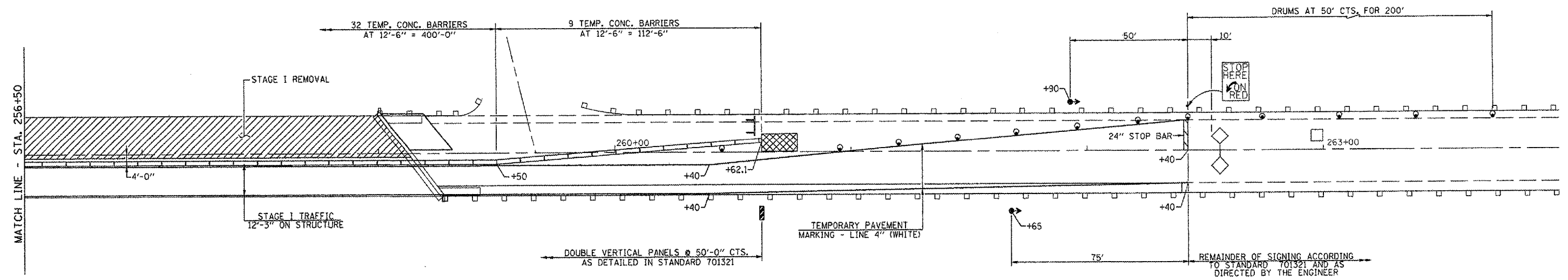
- WORK AREA
- SIGN
- TYPE III BARRICADE
- DRUM WITH STEADY BURNING LIGHT
- TRAFFIC SIGNAL
- TEMPORARY RUMBLE STRIP
- INDUCTION LOOP DETECTOR
- DOUBLE VERTICAL PANEL
- TYPE C BIDIRECTIONAL REFLECTOR
- TEMPORARY CONCRETE BARRIER
- IMPACT ATTENUATOR
- STEADY BURNING LIGHTS AND DOUBLE VERTICAL PANELS



STAGE CONSTRUCTION TRAFFIC DETAILS
 US ROUTE 24 OVER OTTER CREEK
 F.A.P. RTE. 317 - SECTION (188B)
 FULTON COUNTY
 STA. 257+54.33
 S.N. 029-2005

PLOT DATE = 04/27/05
 PLOT NAME = 042705
 MODEL NAME = 042705

CONTRACT NO. 68468				
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
317	(18B)1	FULTON	50	10
STA. 252+75		TO STA. 262+40		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				



SCHEDULE
TEMPORARY PAVEMENT MARKING &
WORK ZONE PAVEMENT MARKING REMOVAL

TRAFFIC CONTROL SCHEDULE

LOCATION STATION TO STATION	TEMP. CONC. BARRIER (FOOT)	RELOCATE TEMP. CONC. BARRIER (FOOT)	IMPACT ATTENUATOR TEMPORARY (EACH)	RELOCATE IMPACT ATTENUATOR (EACH)
STAGE I				
STA. 254+22.9 TO STA. 254+37.9			1	
STA. 254+37.9 TO STA. 260+62.1	625			
STA. 260+62.1 TO STA. 260+77.1			1	
STAGE II				
STA. 254+22.9 TO STA. 254+37.9				1
STA. 254+37.9 TO STA. 260+62.1		625		
STA. 260+62.1 TO STA. 260+77.1				1
TOTAL	625	625	2	2

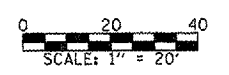
LOCATION STATION TO STATION	TEMP. PAV'T. MARKING LINE - 4" (FOOT)	TEMP. PAV'T. MARKING LINE - 24" (FOOT)	WORK ZONE PAVEMENT MARKING REMOVAL (SQ. FT.)
STAGE I			
STA. 252+75 RT.		12	24
STA. 252+75 TO STA. 262+40 RT.	965		319
STA. 252+75 TO STA. 262+40 C	965		319
STA. 262+40 LT.		12	24
STAGE II			
STA. 252+75 TO STA. 262+40 LT.	965		319
STA. 252+75 TO STA. 262+40 C	965		319
TOTAL	3860	24	1324

SYMBOLS

- WORK AREA
- SIGN
- TYPE III BARRICADE
- DRUM WITH STEADY BURNING LIGHT
- TRAFFIC SIGNAL
- TEMPORARY RUMBLE STRIP
- INDUCTION LOOP DETECTOR
- DOUBLE VERTICAL PANEL
- TYPE C BIDIRECTIONAL REFLECTOR
- TEMPORARY CONCRETE BARRIER
- IMPACT ATTENUATOR
- STEADY BURNING LIGHTS AND DOUBLE VERTICAL PANELS

NOTE: WORK THIS SHEET WITH SHEETS 7, 8 & 9.

STAGE CONSTRUCTION TRAFFIC DETAILS
US ROUTE 24 OVER OTTER CREEK
F.A.P. RTE. 317 - SECTION (18B)1
FULTON COUNTY
STA. 257+54.33
S.N. 029-2005

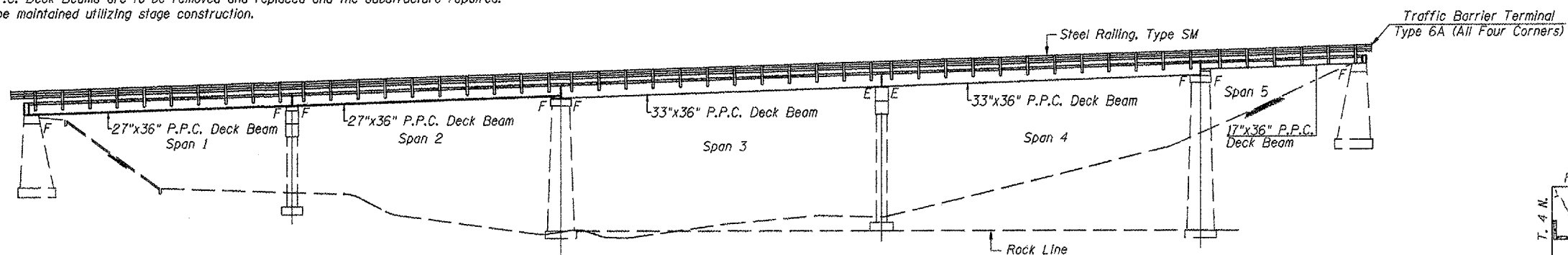


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FILE NAME = 0418B1.DWG
MODEL NAME = 0418B1.DWG

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
317	(18B)1	FULTON	50	11
STA. 252+75		TO STA. 262+40		
FED. ROAD DIST. NO. 4 ILLINOIS FED. AID PROJECT				

Benchmark: Chiseled "C" on Northeast Wingwall of Structure - Elev. 477.56
 Existing Structure: Built as S.B.I. Rte 31 Sec 18B in 1926 Sta. 258+05
 Sec 18-1F in 1939 Sta. 256+77
 Sec 18B-1 in 1964 Sta. 258+05
 Sec 18BRY-2 in 1970 Sta. 256+77
 Sec 18(BRY-2)1 in 1993 Sta. 256+77

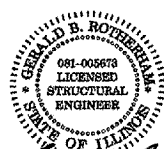
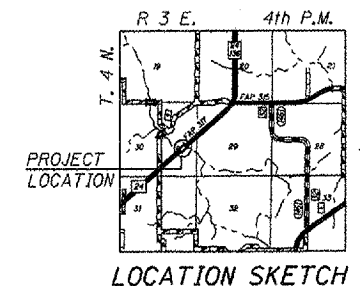
Proposed Improvement: Existing P.P.C. Deck Beams are to be removed and replaced and the substructure repaired.
 Traffic to be maintained utilizing stage construction.
 No Salvage



ELEVATION

INDEX OF SHEETS

1. General Plan and Elevation
2. General Notes and Bill of Material
3. Stage Construction Details
4. Temporary Concrete Barrier For Stage Construction
5. Deck Beam Details - Spans 1 & 2
6. Deck Beam Details - Spans 3 & 4
7. Deck Beam Details - Span 5
8. Superstructure
9. Superstructure Details
10. Steel Railing, Type SM With Concrete Wearing Surface
11. Pier 1 Removal & Repair
12. Pier 2 Removal & Repair
13. Pier 3 Removal & Repair
14. Pier 4 Removal & Repair
15. Substructure Details
16. Bar Splicer Assembly Details



Gerald B. Rothman
 August 22, 2007
 Expires: 11/30/2008

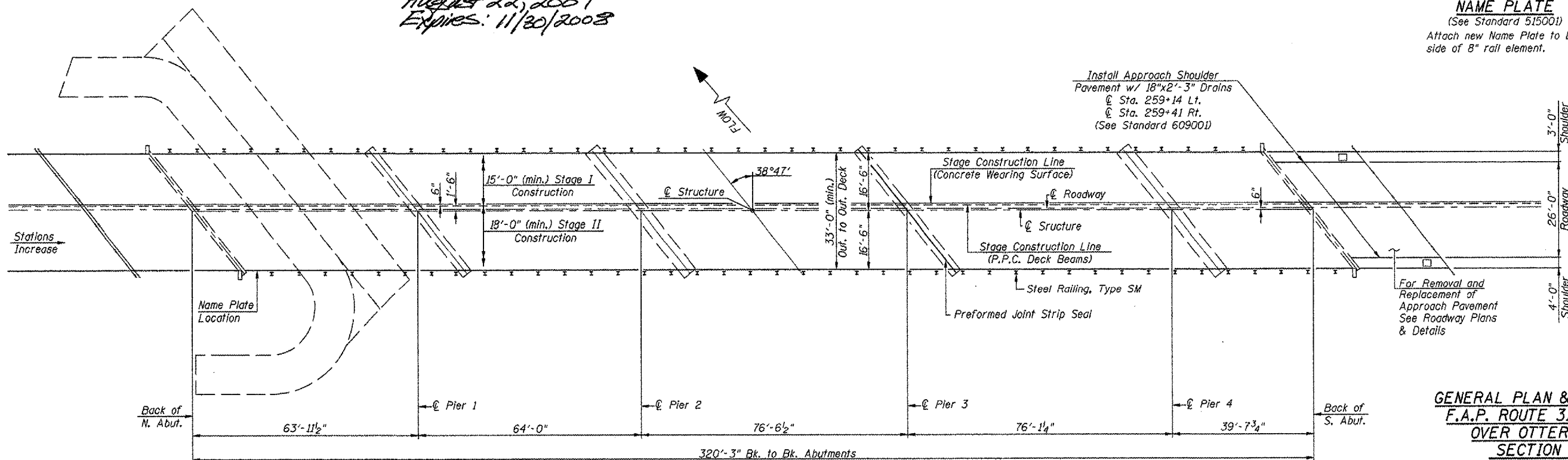
APPROVED
 For Structural Adequacy Only

Ralph E. Anderson (TJD)
 Engineer of Bridges & Structures

STA. 257+54.33
 REBUILT 20 BY
 STATE OF ILLINOIS
 F.A.P. ROUTE 317 SEC. (18B)1
 LOADING HS20-44
 STR. NO. 029-0005

NAME PLATE

(See Standard 515001)
 Attach new Name Plate to back side of 8" rail element.



PLAN

GENERAL PLAN & ELEVATION
 F.A.P. ROUTE 317 (U.S. 24)
 OVER OTTER CREEK
 SECTION (18B)1
 FULTON COUNTY
 STATION 257+54.33
 STRUCTURE NO. 029-0005

Designed: F.L.L.
 Checked: G.B.R.
 Drawn: M.J.S.
 Checked: G.B.R.

PLOT DATE = 8/24/07
 FILE NAME = 18B1.DWG
 MODEL NAME = 18B1.DWG

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
317	(18B)I	FULTON	50	12
STA. 252+75		TO STA. 262+40		
FED. ROAD DIST. NO. 4 ILLINOIS FED. AID PROJECT				

TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	TOTAL
Removal of Existing Superstructures	Each	1		1
Concrete Removal	Cu. Yd.		20.5	20.5
Concrete Structures	Cu. Yd.		20.9	20.9
Bridge Deck Grooving	Sq. Yd.	1103		1103
Protective Coat	Sq. Yd.	1174		1174
P.P.C. Deck Beams (17" Depth)	Sq. Ft.	1292		1292
P.P.C. Deck Beams (27" Depth)	Sq. Ft.	4218		4218
P.P.C. Deck Beams (33" Depth)	Sq. Ft.	5042		5042
Reinforcement Bars, Epoxy Coated	Pound	14720	1620	16340
Bar Splicers	Each	308	20	328
Steel Railing, Type SM	Foot	641		641
Name Plates	Each	1		1
Preformed Joint Strip Seal	Foot	45		45
Epoxy Crack Injection	Foot		286	286
Structural Repair of Concrete (Depth Equal to or Less Than 5")	Sq. Ft.		106	106
Concrete Wearing Surface, 5"	Sq. Yd.	1174		1174

LOADING HS20-44

No allowance for future wearing surface.

DESIGN SPECIFICATIONS

2002 AASHTO Standard Specifications.

DESIGN STRESSES

FIELD UNITS

$f'c = 3500$ psi

$f_y = 60000$ psi (Reinforcement)

$f'c = 5000$ psi (Concrete Wearing Surface)

PRECAST PRESTRESSED UNITS

$f'c = 5000$ psi

$f'ci = 4000$ psi

$f's = 270000$ psi ($\frac{1}{2}$ " ϕ low lax strands)

$f'si = 201960$ psi ($\frac{1}{2}$ " ϕ low lax strands)

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.

The minimum thickness of the Concrete overlay shall be 5" and varies as required to adjust for the new profile grade and beam camber.

Reinforcement bars shall conform to the requirements of ASTM A 706 Grade 60 (IL Modified). See Special Provisions.

The contractor is advised that the existing PPC Deck Beams are in a deteriorated condition with reduced load carrying capacity. It is the Contractor's responsibility to account for the conditions of the beams when developing construction procedures for removal and replacement of the superstructure.

If the Contractor's procedures for existing beam removal or placement of new beams involves placement of heavy equipment on new deck beams, a detailed procedure shall be submitted to the Engineer for approval.

The procedure shall include calculations sealed by an Illinois Licensed Structural Engineer, verifying the structural adequacy of the beams for the proposed loads. Cost included with "Removal of Existing Superstructures".

Reinforcement bars designated (E) shall be epoxy coated. Repair of pier caps shall be completed prior to placement of the new deck beams.

No in-stream work will be allowed on this project.

GENERAL NOTES AND BILL OF MATERIAL

F.A.P. ROUTE 317 (U.S. 24)

OVER OTTER CREEK

SECTION (18B)I

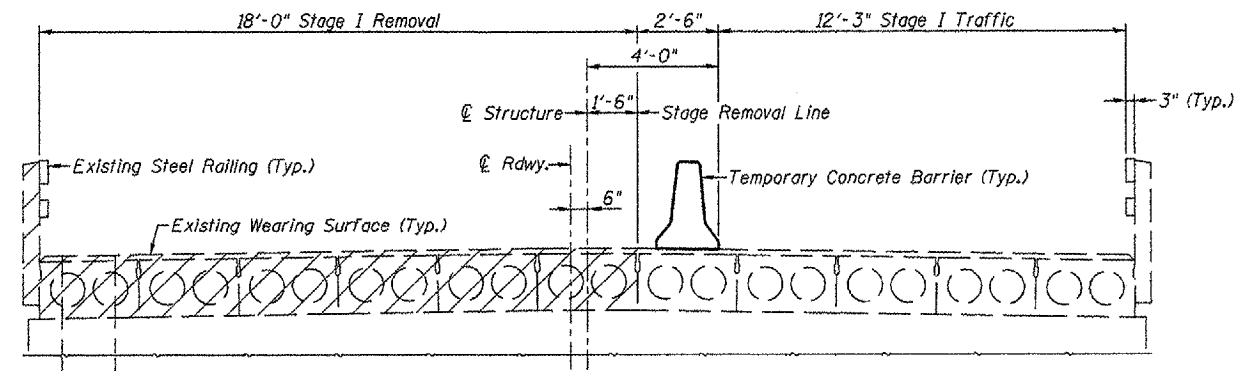
FULTON COUNTY

STATION 257+54.33

STRUCTURE NO. 029-0005

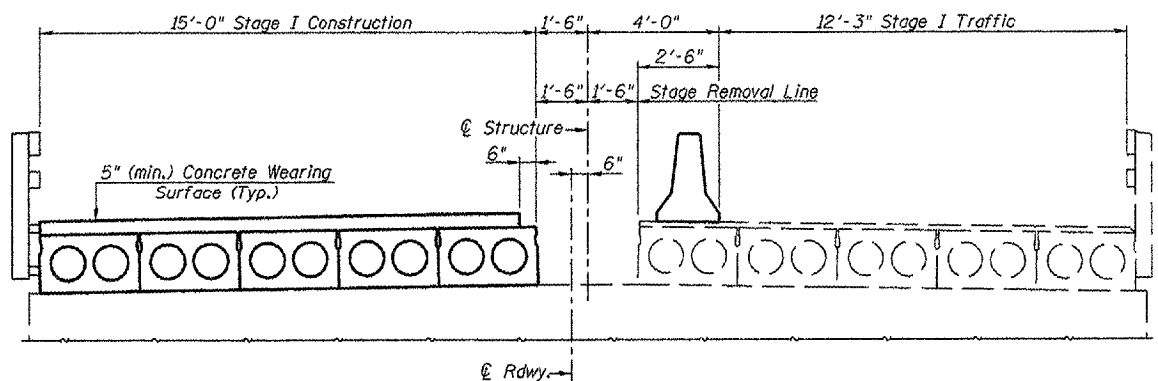
CONTRACT NO. 68468				
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
317	(18B)I	FULTON	50	13
STA. 252+75		TO STA. 262+40		
FED. ROAD DIST. NO. 4		ILLINOIS FED. AID PROJECT		

SHEET NO. 3
OF 16 SHEETS

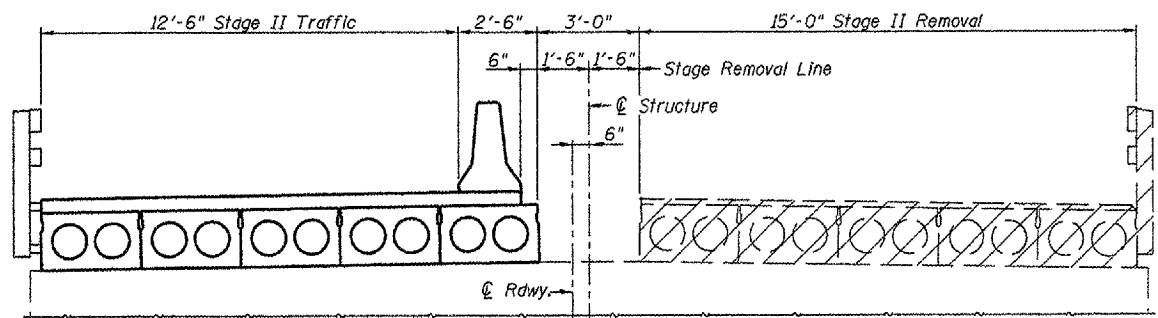


Existing Dowel Rods at the Abutments and Piers shall be burned off flush with the top of the existing concrete, ground smooth, and sealed with epoxy. Cost included with Removal of Existing Superstructures.

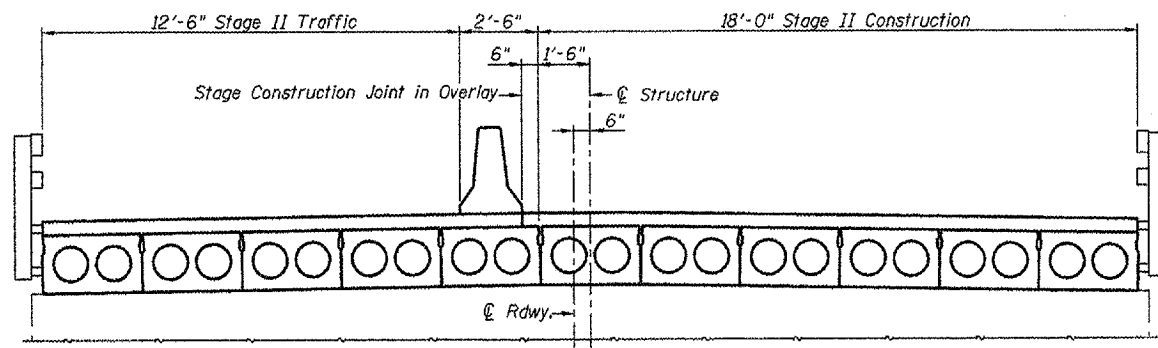
STAGE I REMOVAL



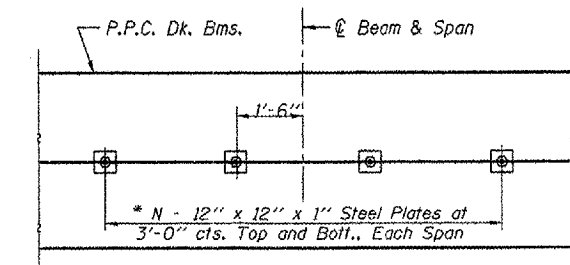
STAGE I CONSTRUCTION



STAGE II REMOVAL

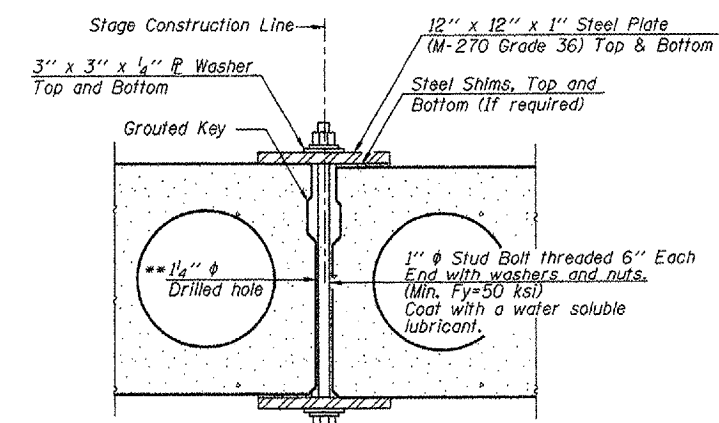


STAGE II CONSTRUCTION

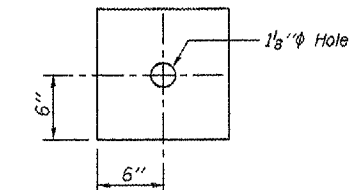


N = 8 For Spans 1 & 2
N = 10 For Spans 3 & 4
N = 6 For Span 5

PLAN AT STAGE CONSTRUCTION LINE



SECTION



CLAMPING PLATE

SHEAR KEY CLAMPING DETAILS AT STAGE CONST. JT.

See Article 504.06(d) of the Standard Specifications for Stage Construction of Precast Prestressed Concrete Deck Beams.
Cost Included with Precast Prestressed Concrete Deck Beams.
See Stage Construction Details for traffic lanes.

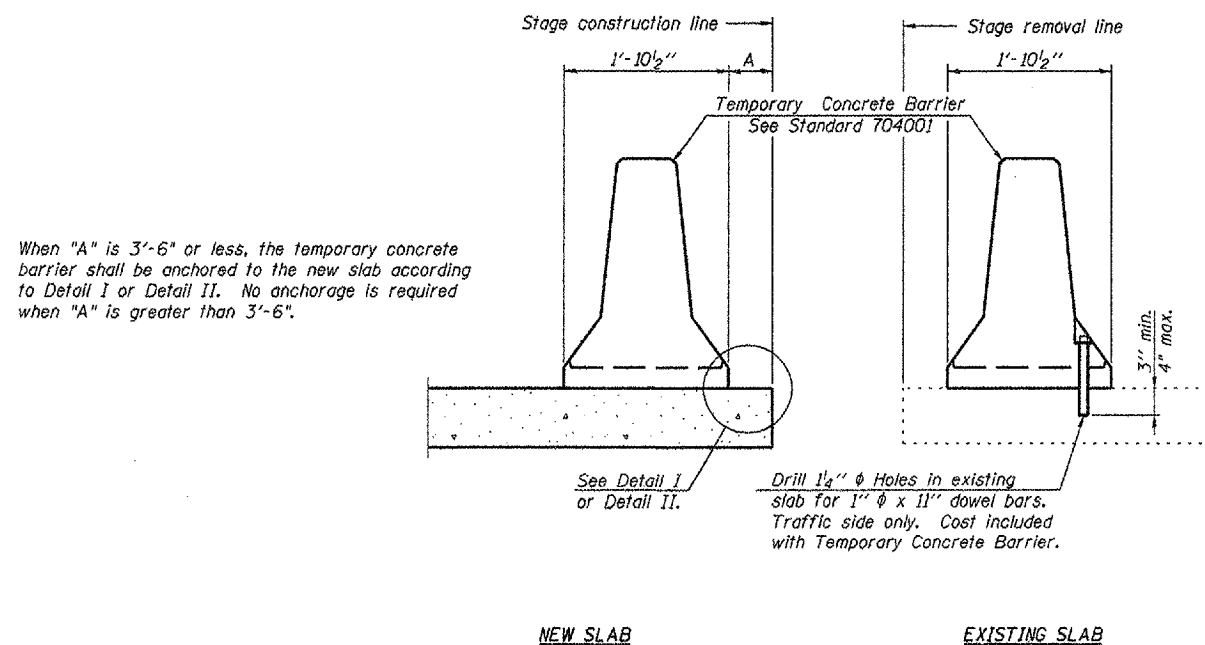
** As an alternate to the drilled holes, the Contractor may request the Fabricator to cast 2" diameter semi-circular recesses in the sides of each beam adjacent to the stage construction line. These recesses should align to form a hole at the appropriate locations for the clamping device bolts. If the Contractor elects to use this alternate, the details shall be identified on the shop drawings.

Notes:
All Cross Sections are looking South.
Hatched area indicates "Removal of Existing Superstructures."
Cost of removal of the existing wearing surface and steel railing is included with "Removal of Existing Superstructures."
For quantity of Temporary Concrete Barrier, see Roadway Plans.
For Temporary Concrete Barrier details, see Sheet 4 of 16.

STAGE CONSTRUCTION DETAILS
F.A.P. ROUTE 317 (U.S. 24)
OVER OTTER CREEK
SECTION (18B)I
FULTON COUNTY
STATION 257+54.33
STRUCTURE NO. 029-0005

PLOT DATE = 8/20/85
FILM NAME = 818L8

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
317	(18B)1	FULTON	50	14
STA. 252+75		TO STA. 262+40		
FED. ROAD DIST. NO. 4		ILLINOIS FED. AID PROJECT		



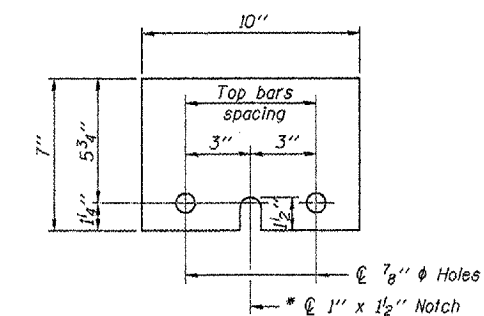
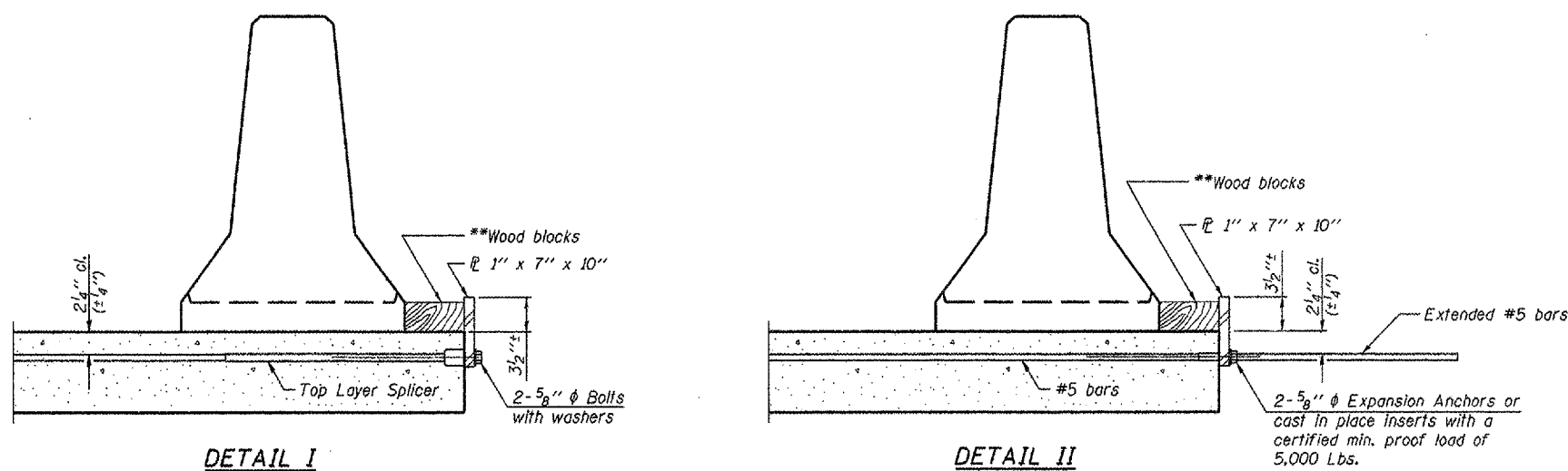
SECTIONS THRU SLAB

NOTES

Detail I - With Bar Splicer or Couplers:
Connect one (1) 1"x7"x10" steel \bar{r} to the top layer of couplers with 2-5/8" ϕ bolts screwed to coupler at approximate \bar{c} of each barrier panel.

Detail II - With Extended Reinforcement Bars:
Connect one (1) 1"x7"x10" steel \bar{r} 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 \bar{c} of each barrier panel.

Cost of anchorage is included with Temporary Concrete Barrier. The 1" x 7" x 10" 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.



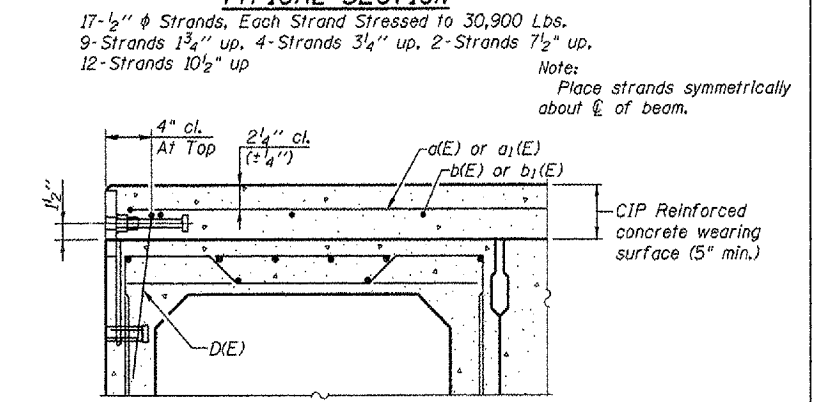
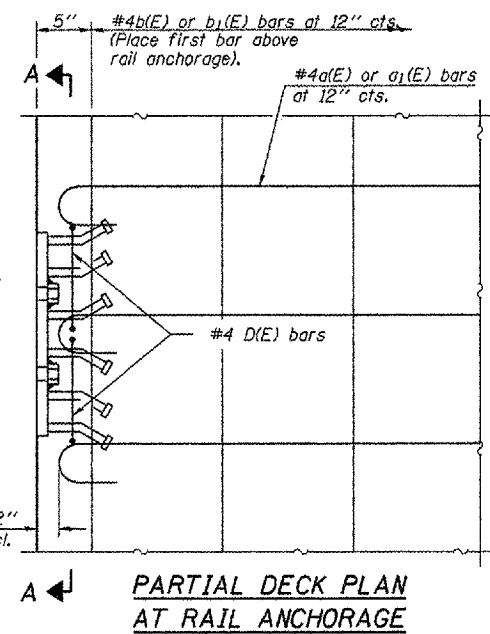
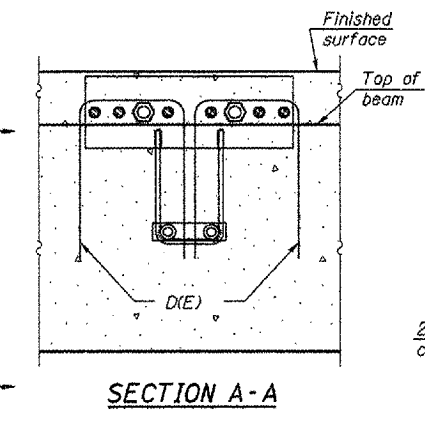
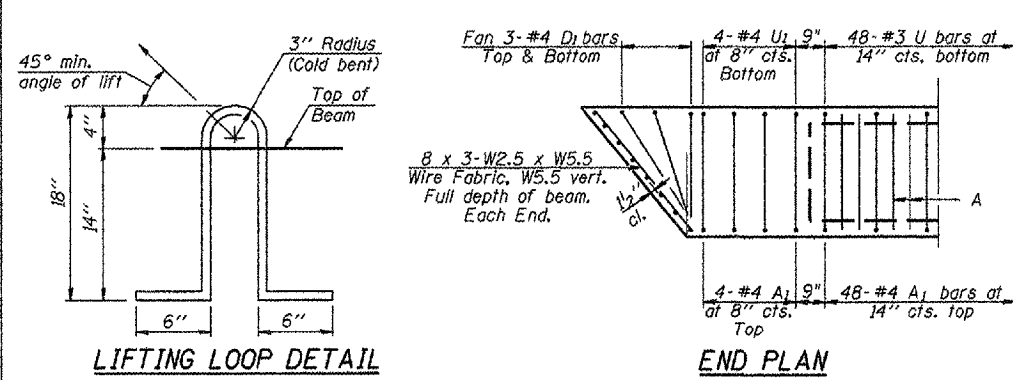
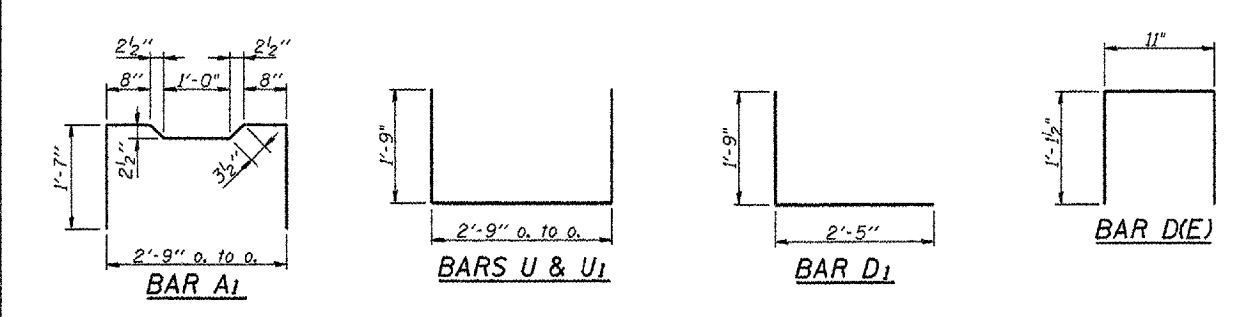
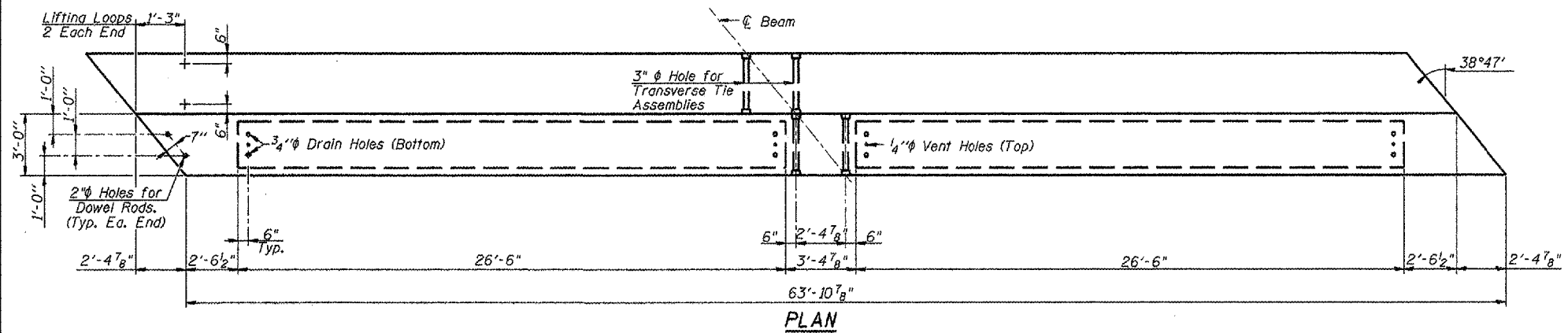
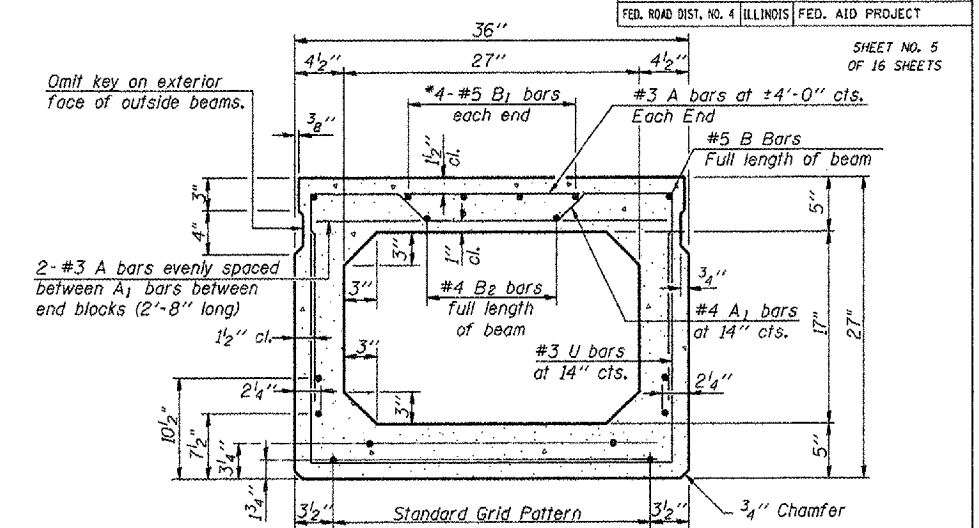
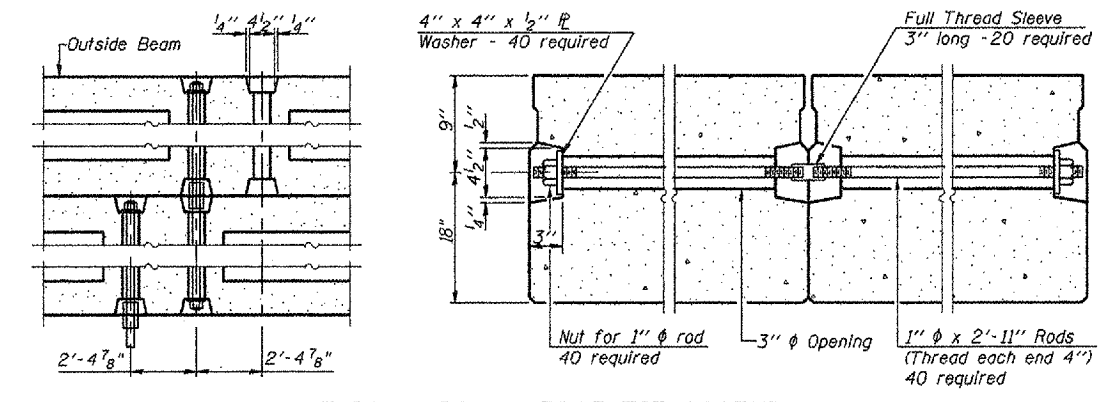
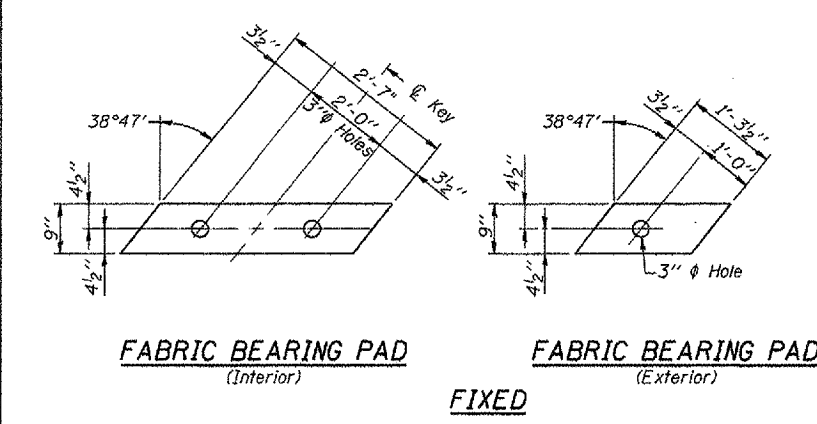
** Wood blocks may be omitted when required to provide minimum stage traffic lane width. When the wood blocks are omitted, the concrete barrier shall be in direct contact with the steel retainer plate.

TEMPORARY CONCRETE BARRIER
FOR STAGE CONSTRUCTION
F.A.P. ROUTE 317 - (U.S. 24)
OVER OTTER CREEK
SECTION (18B)1
FULTON COUNTY
STA. 257+54.33
STRUCTURE NO. 029-0005

CONTRACT NO. 68468				
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
317	(188)	FULTON	50	15
STA. 252+75		TO STA. 262+40		
FED. ROAD DIST. NO. 4 ILLINOIS FED. AID PROJECT				

*0.2 x Length of beam

SHEET NO. 5
OF 16 SHEETS



Notes:
The rail anchorage shall be cast with the beam and the wearing surface shall be cast in the field. Formwork necessary for the wearing surface may be secured utilizing the bottom rail anchorage inserts and or additional inserts cast into the beam. Drilling into the beam will not be permitted.

NOTES
Prestressing steel shall be uncoated high strength, low relaxation 7-wire strand, Grade 270. The nominal diameter shall be 1/2" and the nominal cross-sectional area shall be 0.153 sq. in. Lifting loops shall be 2-1/2" φ-270 ksi strands, as shown. Non prestressing steel shall conform to ASTM A 706 Grade 60. (IL Modified). See Special Provisions. The bearing seat surfaces shall be adjusted by shimming to assure firm and even bearing. Two 1/8" fabric adjusting shims of the dimensions of the Exterior Bearing Pad shall be provided for each bearing. Keyway surfaces shall be cleaned to remove form oil or other bond breaking material prior to shipment of the beams. Cleaning shall be done by sandblasting the keyway areas between top of the beam and the bottom edge of the key. Corrosion Inhibitor, according to Article 1020.05(b)(12) of the Standard Specifications, shall be used in the concrete for precast prestressed concrete deck beams. Required Release Strength, f'ci, shall be 4000 p.s.i. See Sheet 9 of 16 for rail anchorage locations. The 1" φ rods in the transverse tie assembly shall be tightened to a snug fit and the threads set. Pockets that receive transverse tie bar on outside shall be filled with grout after transverse assembly is in place.

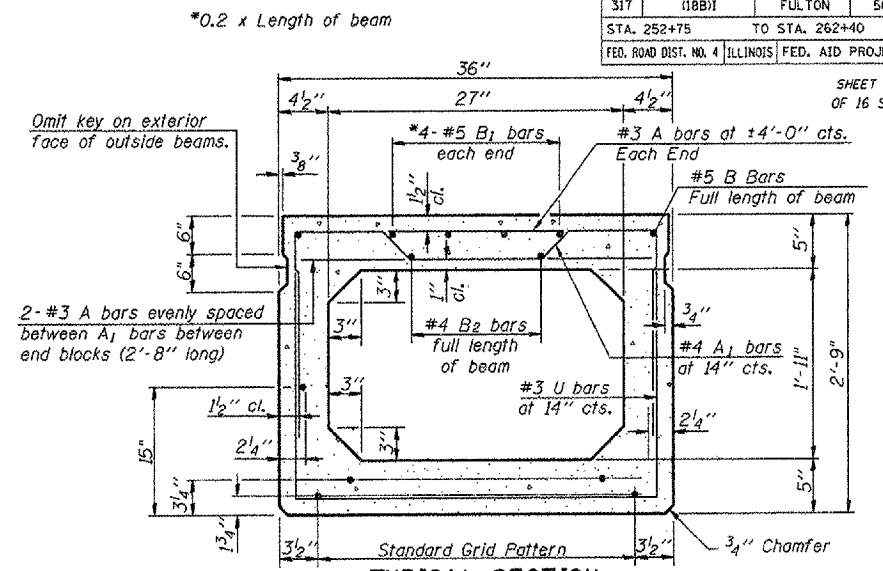
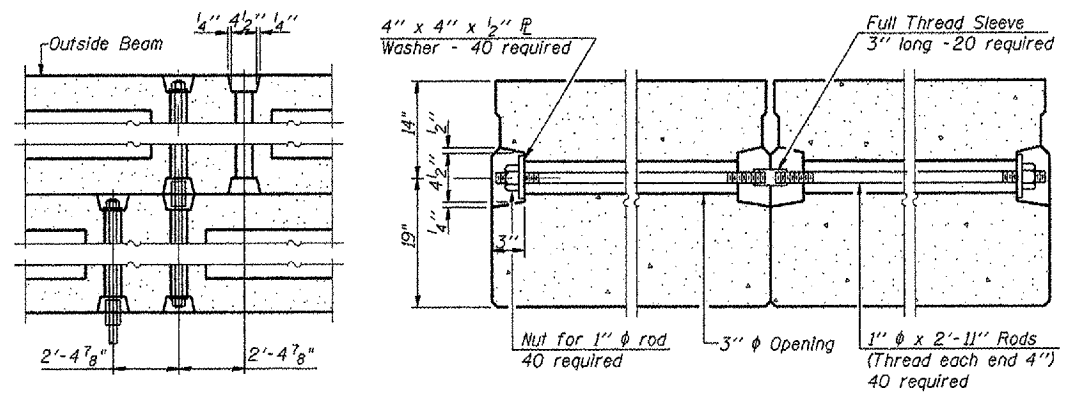
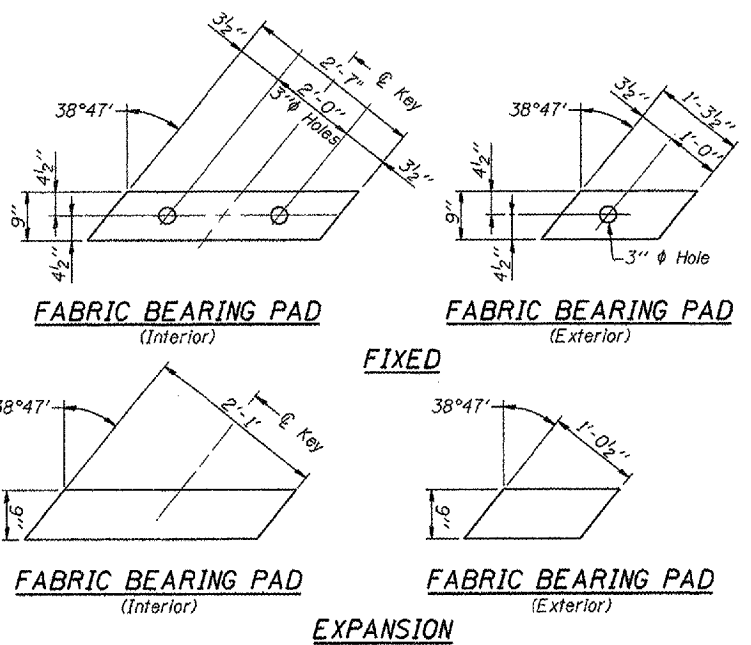
BILL OF MATERIAL

Precast Prestressed Conc. Deck Bms. (27" Depth)	Sq. Ft.	4218
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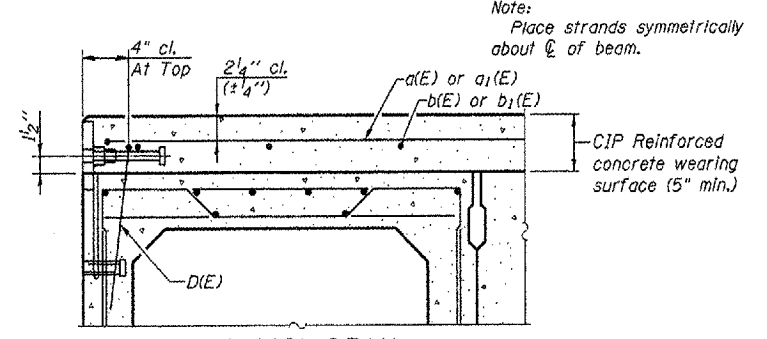
DECK BEAM DETAILS - SPANS 1 & 2
F.A.P. ROUTE 317 (U.S. 24)
OVER OTTER CREEK
SECTION (18B)
FULTON COUNTY
STATION 257+54.33
STRUCTURE NO. 029-0005

PLT DATE = 8/17/87
FILE NO. = 68468-15
MODEL NAME = 18B188.DWG

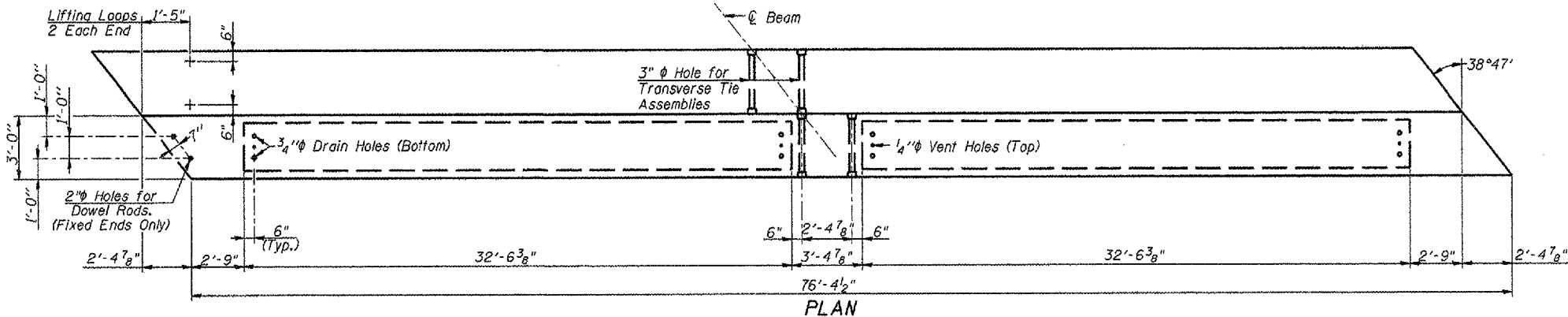
CONTRACT NO. 68468					
F.A.P. R.T.E.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
317	(18B)I	FULTON	50	16	
STA. 252+75 TO STA. 262+40					
FED. ROAD DIST. NO. 4 ILLINOIS FED. AID PROJECT					



18-1/2" ϕ Strands, Each Strand Stressed to 30,900 Lbs.
 10-Strands 1-3/4" up, 6-Strands 3/4" up, 2-Strands 15" up



Notes:
 Place strands symmetrically about ϕ of beam.
 The rail anchorage shall be cast with the beam and the wearing surface shall be cast in the field. Formwork necessary for the wearing surface may be secured utilizing the bottom rail anchorage inserts and/or additional inserts cast into the beam. Drilling into the beam will not be permitted.



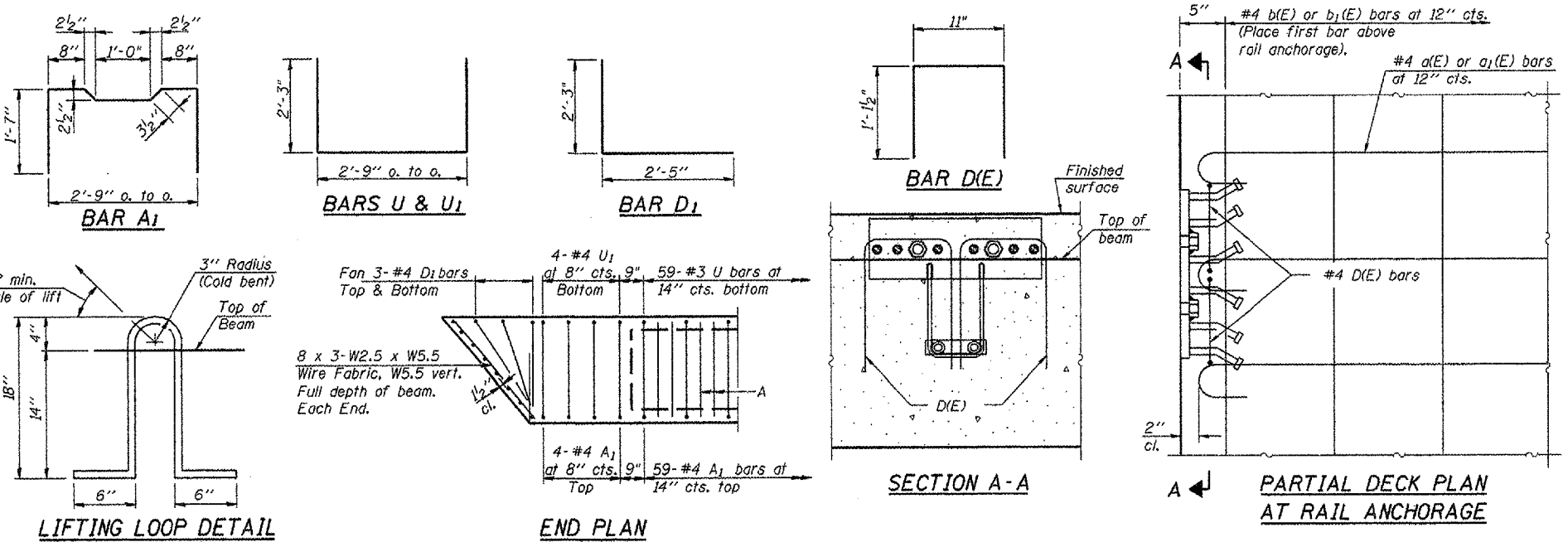
NOTES

Prestressing steel shall be uncoated high strength, low relaxation 7-wire strand, Grade 270. The nominal diameter shall be 1/2" and the nominal cross-sectional area shall be 0.153 sq. in. Lifting loops shall be 3-1/2" ϕ -270 ksi strands, as shown. Non prestressing steel shall conform to ASTM A 706 Grade 60. (IL Modified). See Special Provisions. The bearing seat surfaces shall be adjusted by shimming to assure firm and even bearing. Two 1/2" fabric adjusting shims of the dimensions of the Exterior Bearing Pad shall be provided for each bearing. Keyway surfaces shall be cleaned to remove form oil or other bond breaking material prior to shipment of the beams. Cleaning shall be done by sandblasting the keyway areas between top of the beam and the bottom edge of the key. Corrosion Inhibitor, according to Article 1020.05(b)(12) of the Standard Specifications, shall be used in the concrete for precast prestressed concrete deck beams. Required Release Strength, f'ci, shall be 4000 p.s.i. See Sheet 9 of 16 for rail anchorage locations. The 1" ϕ rods in the transverse tie assembly shall be tightened to a snug fit and the threads set. Pockets that receive transverse tie bar on outside shall be filled with grout after transverse assembly is in place.

DECK BEAM DETAILS - SPANS 3 & 4
F.A.P. ROUTE 317 - (U.S. 24)
OVER OTTER CREEK
SECTION (18B)I
FULTON COUNTY
STA. 257+54.33
STRUCTURE NO. 029-0005

BILL OF MATERIAL

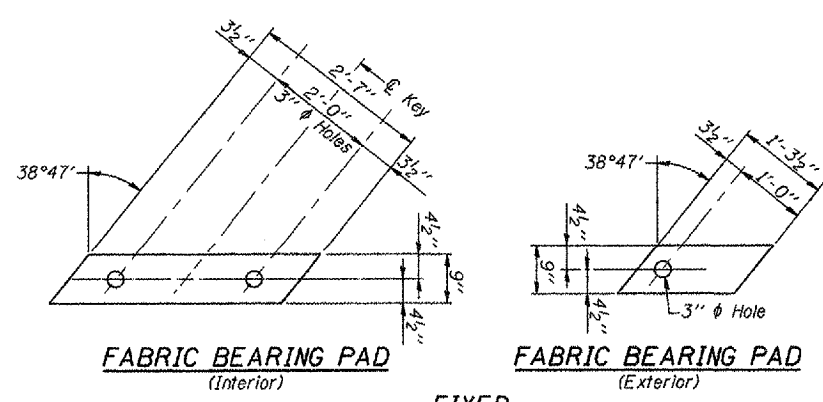
Precast Prestressed Conc. Deck Bms. (33" Depth)	Sq. Ft.	5042
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PLOT DATE = 8/27/65
 FILE NAME = 18B1
 MODEL NAME = 029-0005

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
317	(18B)I	FULTON	50	17
STA. 252+75		TO STA. 262+40		
FED. ROAD DIST. NO. 4 ILLINOIS FED. AID PROJECT				

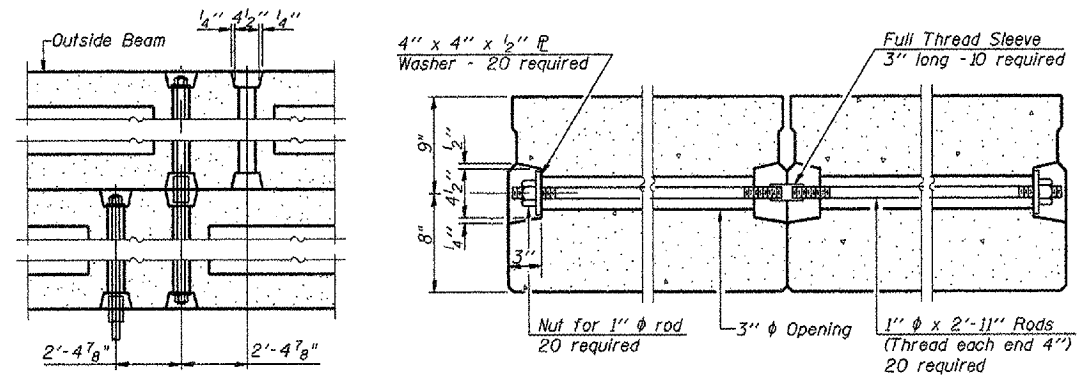
SHEET NO. 7 OF 16 SHEETS



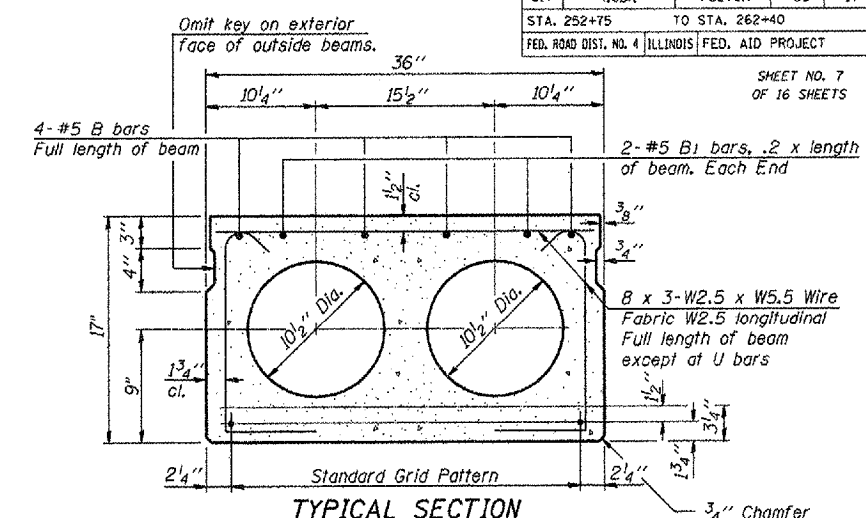
FABRIC BEARING PAD
(Interior)

FABRIC BEARING PAD
(Exterior)

FIXED

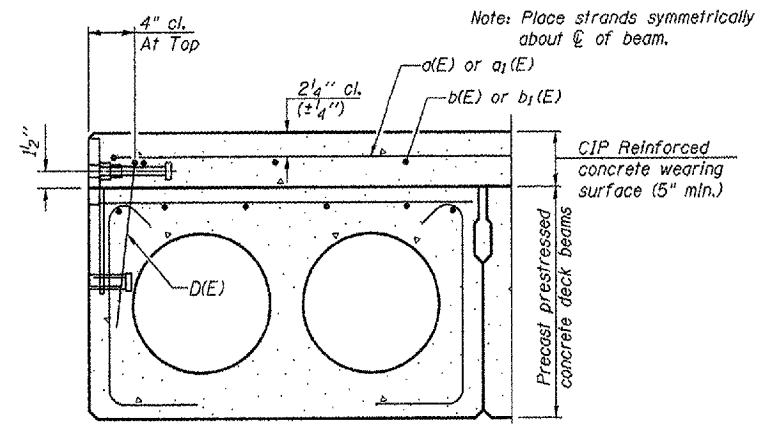


TYPICAL TRANSVERSE TIE ASSEMBLY



TYPICAL SECTION

15 - 1/2" ϕ Strands, Each Strand Stressed to 30,900 Lbs.
9-Strands 1 3/4" up, 4-Strands 3/4" up, 2-Strands 12" up



FASCIA BEAM

Notes:
The rail anchorage shall be cast with the beam and the wearing surface shall be cast in the field. Formwork necessary for the wearing surface may be secured utilizing the bottom rail anchorage inserts and or additional inserts cast into the beam. Drilling into the beam will not be permitted.

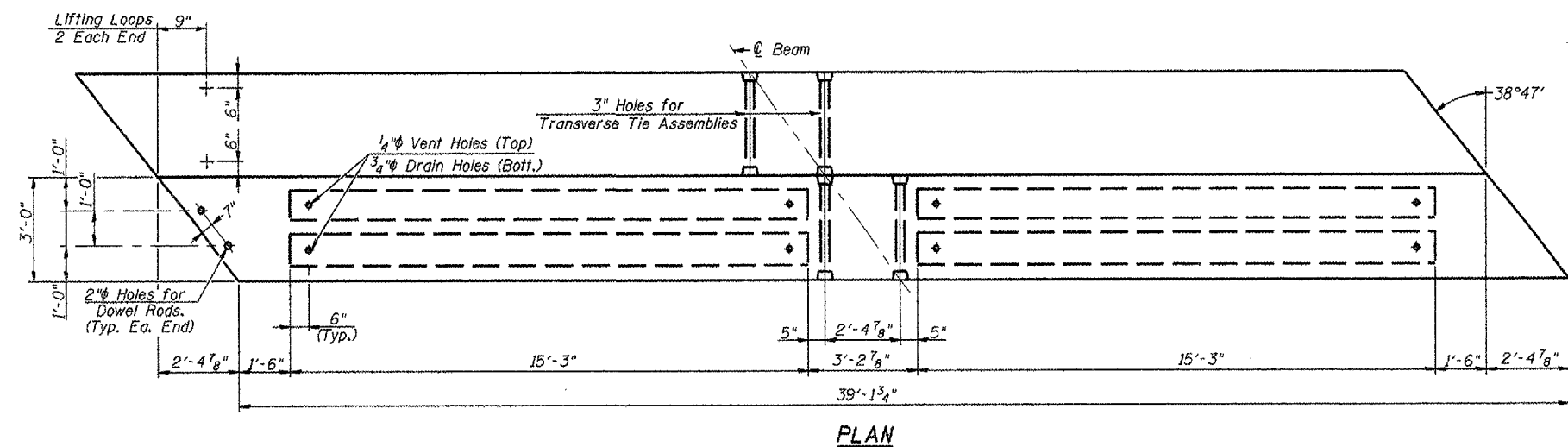
NOTES

Prestressing steel shall be uncoated high strength, low relaxation 7-wire strand, Grade 270. The nominal diameter shall be 1/2" and the nominal cross-sectional area shall be 0.153 sq. in. Lifting loops shall be 2-1/2" ϕ - 270 ksi strands, as shown. Non prestressing steel shall conform to ASTM A 706 Grade 60. (IL Modified). See Special Provisions.
The bearing seat surfaces shall be adjusted by shimming to assure firm and even bearing. Two 1/8" fabric adjusting shims of the dimensions of the Exterior Bearing Pad shall be provided for each bearing.
Keyway surfaces shall be cleaned to remove form oil or other bond breaking material prior to shipment of the beams. Cleaning shall be done by sandblasting the keyway areas between top of the beam and the bottom edge of the key.
Corrosion inhibitor, according to Article 1020.05(b)(12) of the Standard Specifications, shall be used in the concrete for precast prestressed concrete deck beams.
Required Release Strength, f'cl, shall be 4000 p.s.i.
See Sheet 9 of 16 for rail anchorage locations.
The 1" ϕ rods in the transverse tie assembly shall be tightened to a snug fit and the threads set. Pockets that receive transverse tie bar on outside shall be filled with grout after transverse assembly is in place.

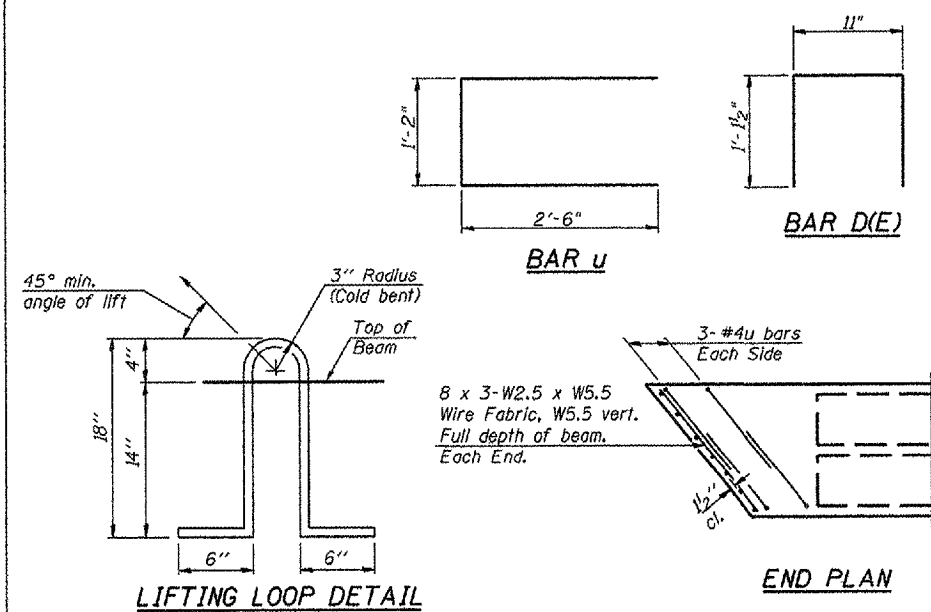
BILL OF MATERIAL

Precast Prestressed Conc. Deck Bms. (17" Depth)	Sq. Ft.	1292
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DECK BEAM DETAILS - SPAN 5
F.A.P. ROUTE 317 - (U.S. 24)
OVER OTTER CREEK
SECTION (18B)I
FULTON COUNTY
STA. 257+54.33
STRUCTURE NO. 029-0005

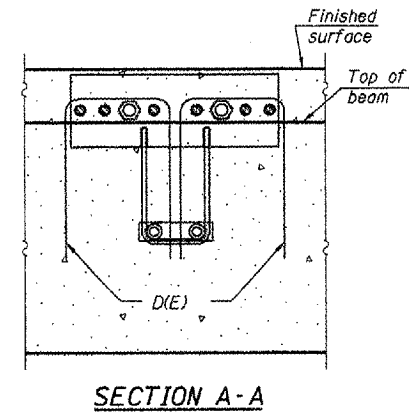


PLAN

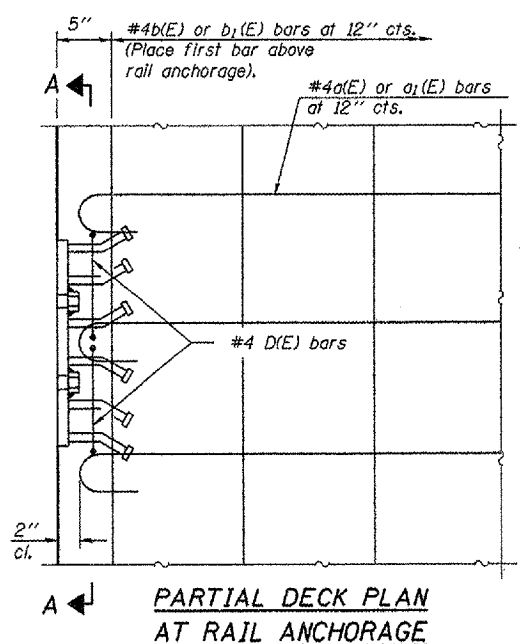


LIFTING LOOP DETAIL

END PLAN



SECTION A-A

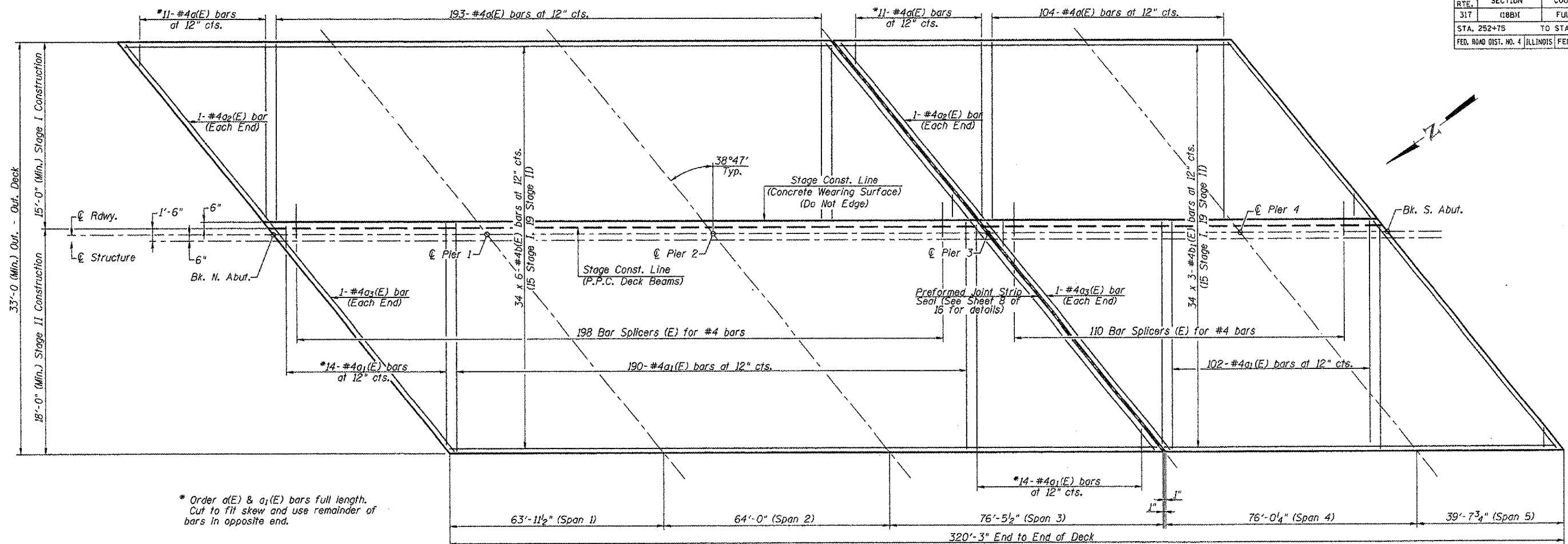


PARTIAL DECK PLAN AT RAIL ANCHORAGE

PLOT DATE: 8/24/88
FILE NAME: 881117.D
MODEL NAME: 88DECK.DWG

CONTRACT NO. 68468				
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
317	188B1	FULTON	50	18
STA. 252+75		TO STA. 262+40		
FED. ROAD DIST. NO. 4 ILLINOIS FED. AID PROJECT				

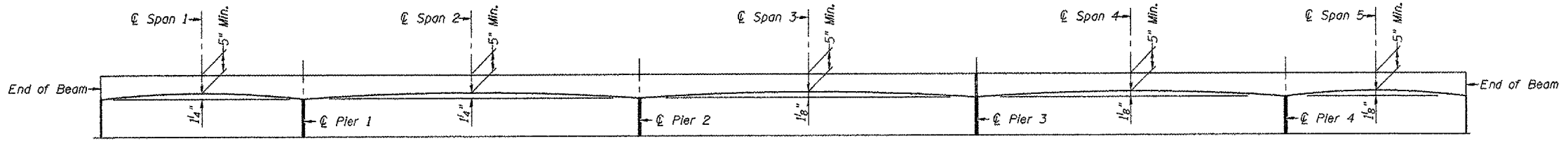
SHEET NO. 8
OF 16 SHEETS



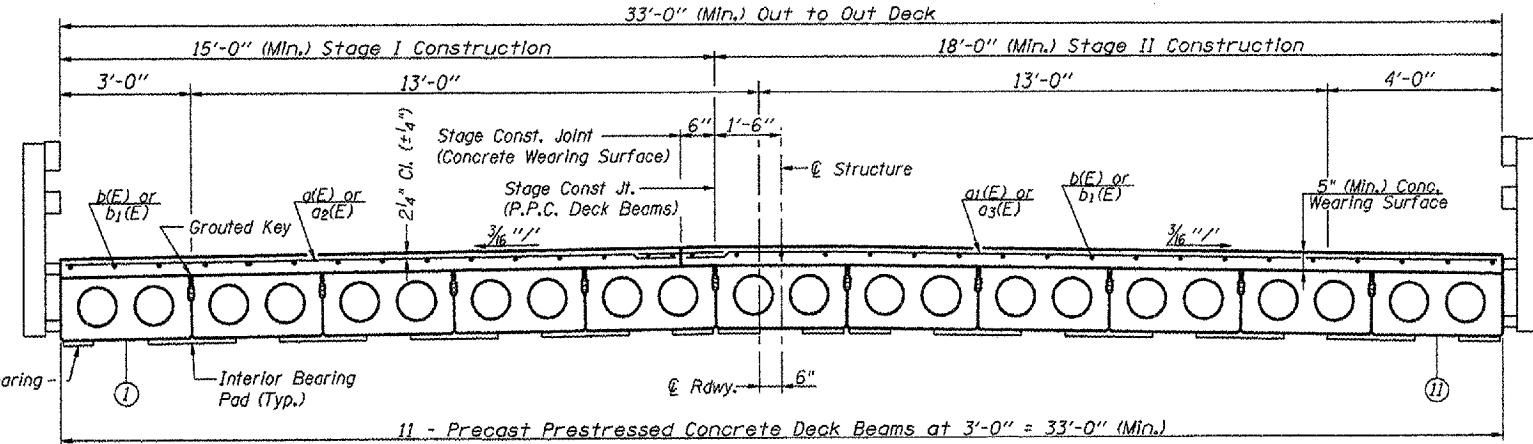
* Order a(E) & a₁(E) bars full length. Cut to fit skew and use remainder of bars in opposite end.

OVERLAY PLAN

Min. Bar Lap
#4 bar = 1'-4"



ANTICIPATED FINAL CAMBER DIAGRAM

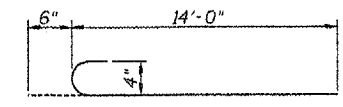


CROSS SECTION
(Looking South)

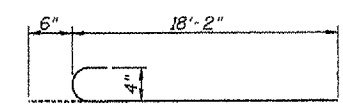
Note: For remainder of Superstructure Details see Sheet 9 of 16.
Bars designated 34 x 6-#4 etc. indicates 34 lines of bars with 6 lengths per line.

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a(E)	319	#4	14'-6"	—
a ₁ (E)	320	#4	18'-8"	—
a ₂ (E)	4	#4	18'-3"	—
a ₃ (E)	4	#4	23'-4"	—
b(E)	204	#4	35'-4"	—
b ₁ (E)	102	#4	39'-9"	—
Reinforcement Bars, Epoxy Coated			Pound	14720
Bar Splicers			Each	308
Concrete Wearing Surface, 5"			Sq. Yd.	1175



BAR a(E)

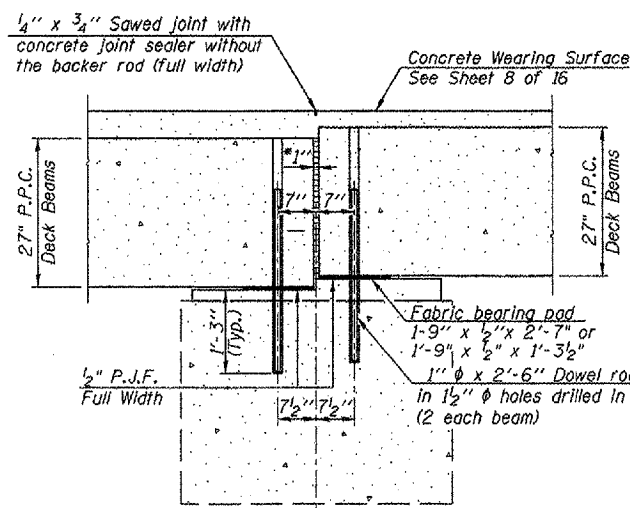


BAR a₁(E)

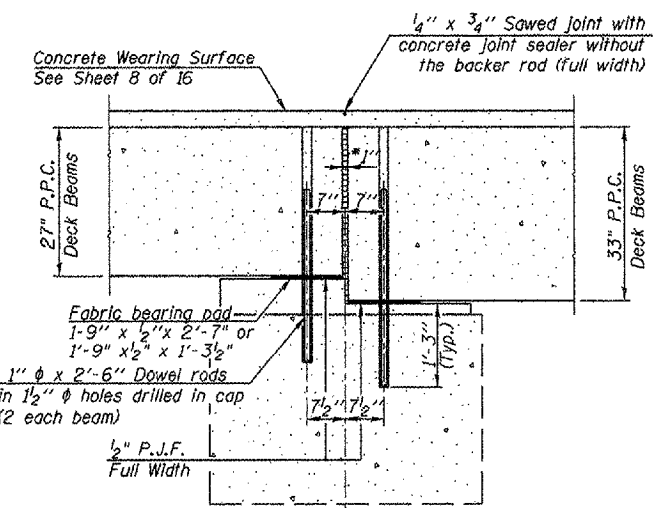
SUPERSTRUCTURE
F.A.P. ROUTE 317 (I.S. 24)
OVER OTTER CREEK
SECTION 188B1
FULTON COUNTY
STATION 257+54.33
STRUCTURE NO. 029-0005

PLOT DATE = 8/24/83
FILE NAME = 188B1.DWG
PLOT TIME = 1:00:00 PM

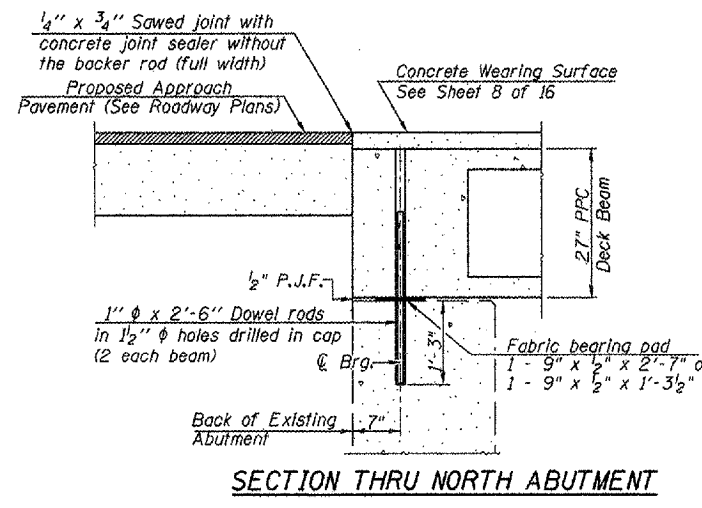
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
317	(18B)	FULTON	50	19
STA. 252+75		TO STA. 262+40		
FED. ROAD DIST. NO. 4 ILLINOIS FED. AID PROJECT				



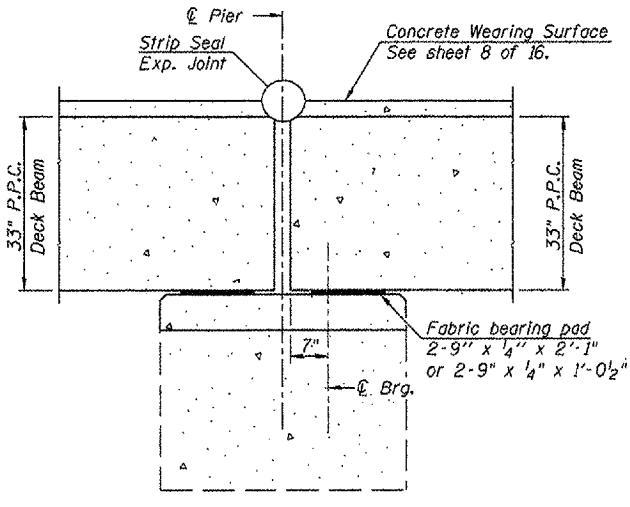
SECTION THRU PIER 1



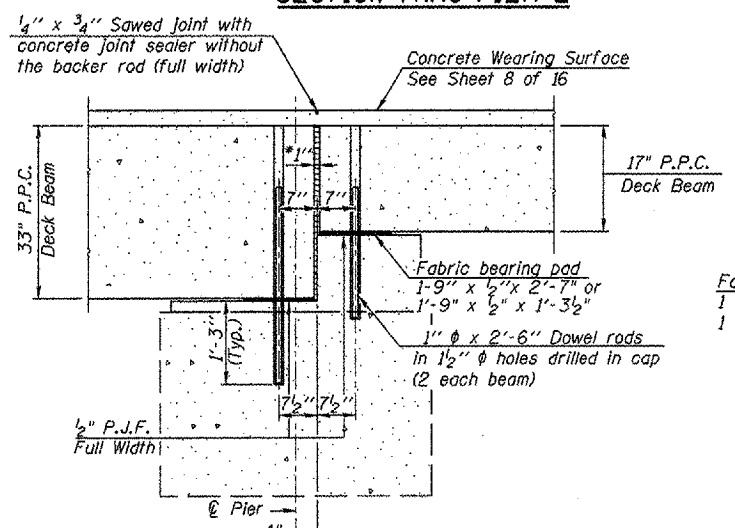
SECTION THRU PIER 2



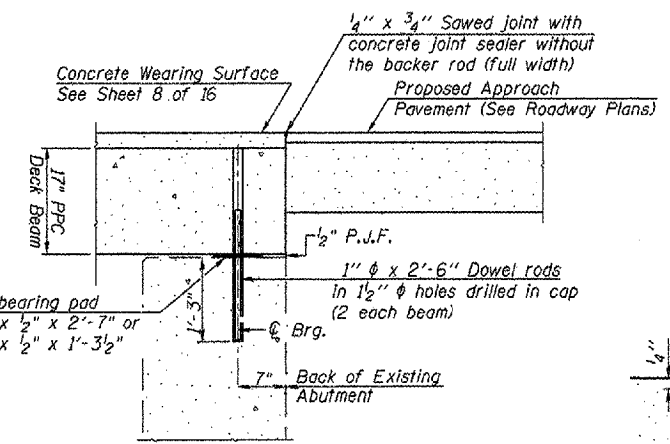
SECTION THRU NORTH ABUTMENT



SECTION THRU EXPANSION PIER 3



SECTION THRU PIER 4



SECTION THRU SOUTH ABUTMENT

Notes:

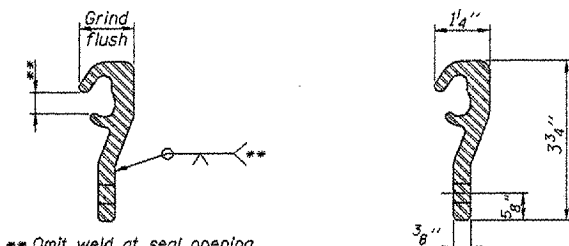
The strip seal shall be made continuous and shall have a minimum thickness of 1/4". The configuration of the strip seal shall match the configuration of the Locking Edge Rails.

The height and thickness of the Locking Edge Rails shown are minimum dimensions. The actual configuration of the Locking Edge Rails and matching strip seal may vary from manufacturer to manufacturer. Flanged edge rails will not be allowed.

The inside of the Locking Edge Rail groove shall be free of weld residue. Locking Edge Rails may be spliced at slope discontinuities and stage construction joints.

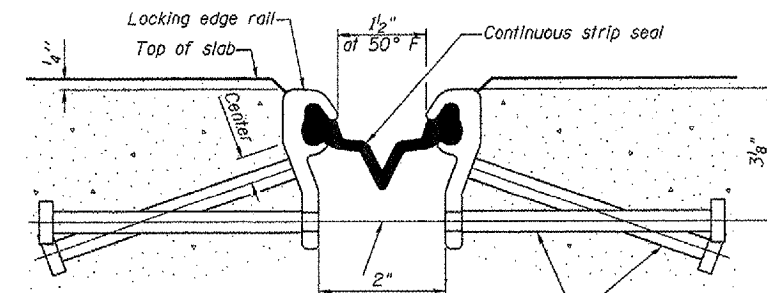
The manufacturer's recommended installation methods shall be followed. All steel components shall be galvanized after fabrication according to Article 520.03 of the Standard Specifications.

Strip Seal to extend 12" beyond edge of deck (both ends).



** Omit weld at seal opening.

LOCKING EDGE RAIL SPLICE LOCKING EDGE RAIL



7/16" ϕ holes at 4'-0" cts. for 3/8" ϕ bolts. All bolts shall be burned, sawed, or chipped off flush with the plates after forms are removed, typ.

Place 1/2" ϕ x 6" granular or solid flux filled headed studs conforming to Article 1006.32 of the Std. Specs., automatically end welded at 1'-0" alt. cts.

SECTION THRU STRIP SEAL JOINT FOR OVERLAY OVER DECK BEAMS (19 Studs Stage I, 24 Studs Stage II)

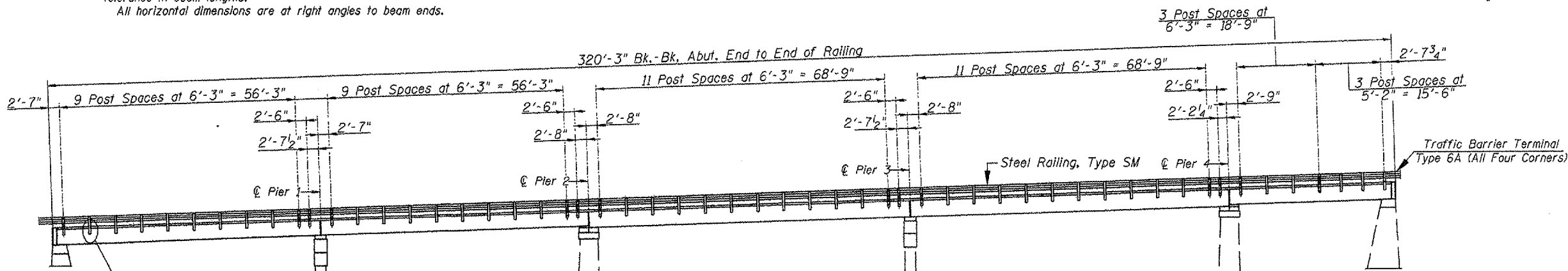
Notes:

After beams have been erected, holes shall be drilled into substructure and anchor dowels placed. Dowel holes shall be filled with non-shrink grout to top of beam and allowed to cure min. 24 hrs. prior to grouting the shear keys.

See sheets 5, 6 and 7 of 16 for bearing pad details.

* 1" Jt. shall be filled with non-shrink grout. 1" dimension may vary to accommodate tolerance in beam lengths.

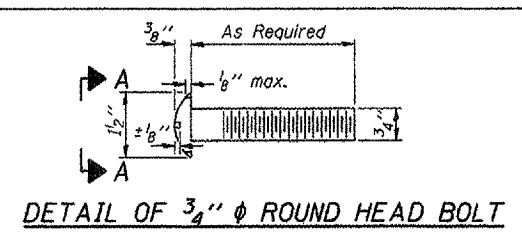
All horizontal dimensions are at right angles to beam ends.



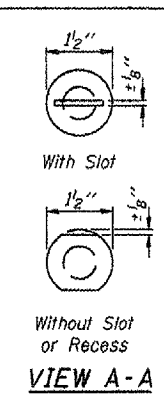
RAIL ELEVATION SHOWING POST SPACING

For Rail Insert Details in the Proposed P.P.C Deck Beams See Sheet 10 of 16.

SUPERSTRUCTURE DETAILS
F.A.P. ROUTE 317 - (U.S. 24)
OVER OTTER CREEK
SECTION (18B)
FULTON COUNTY
STA. 257+54.33
STRUCTURE NO. 029-0005

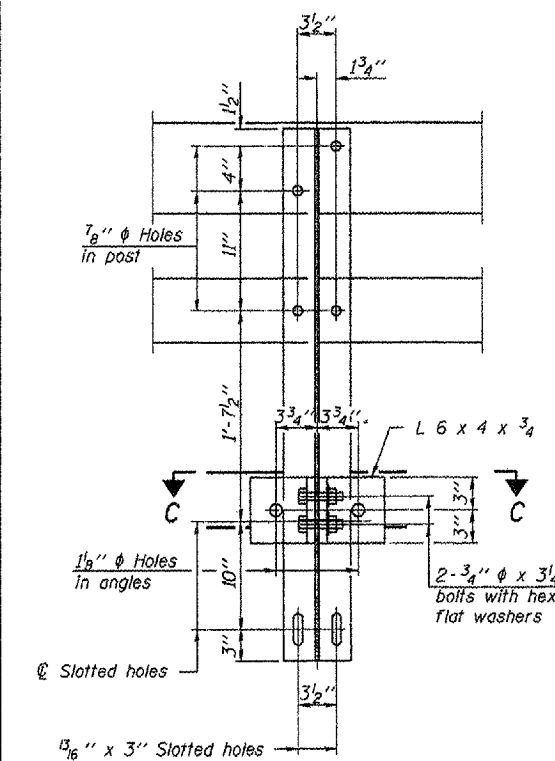


DETAIL OF 3/4" ϕ ROUND HEAD BOLT

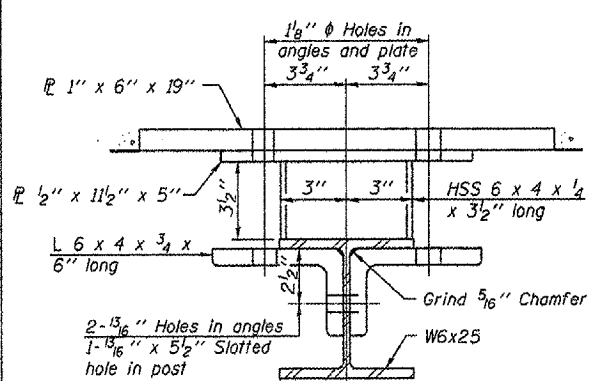


VIEW A-A

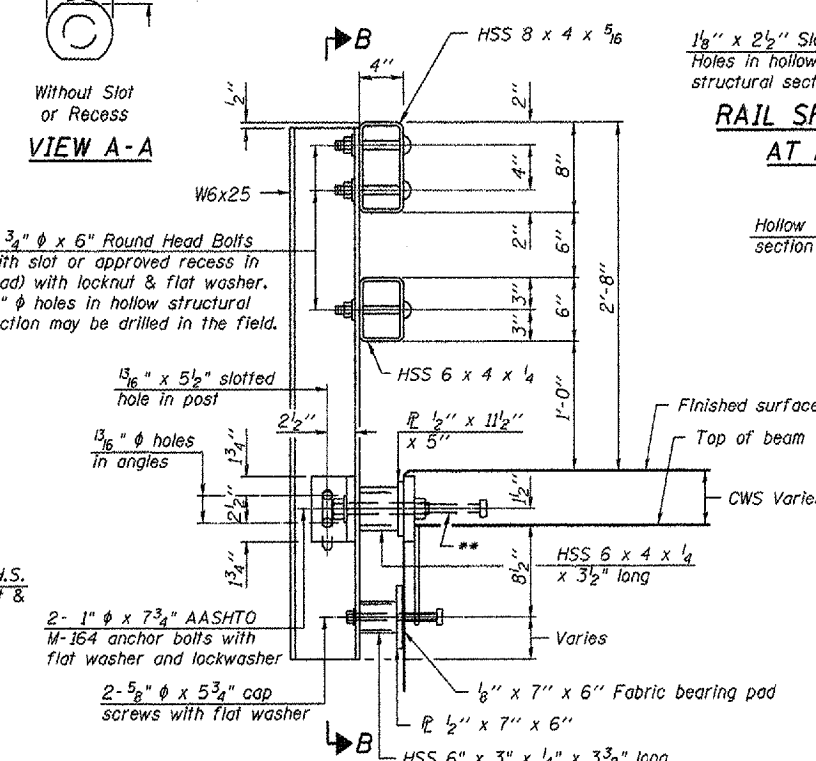
4-3/4" ϕ x 6" Round Head Bolts (With slot or approved recess in head) with locknut & flat washer. 7/8" ϕ holes in hollow structural section may be drilled in the field.



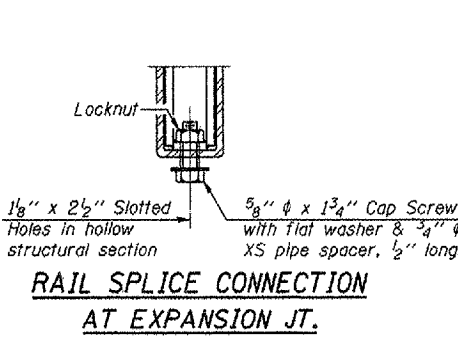
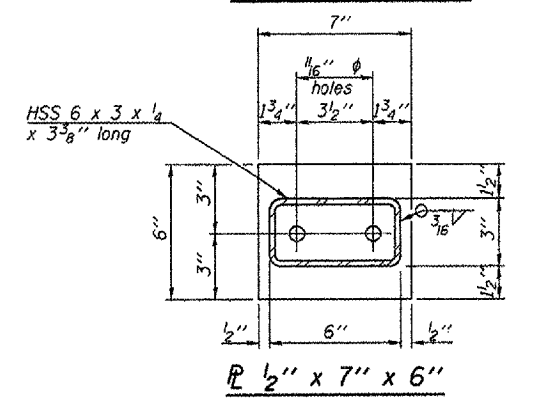
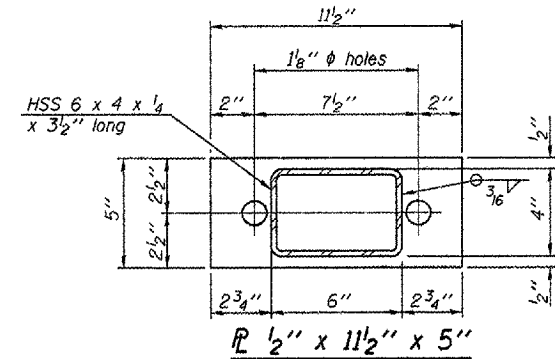
SECTION B-B



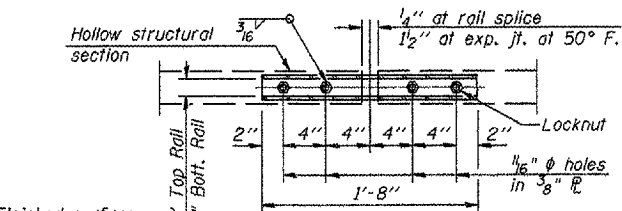
SECTION C-C



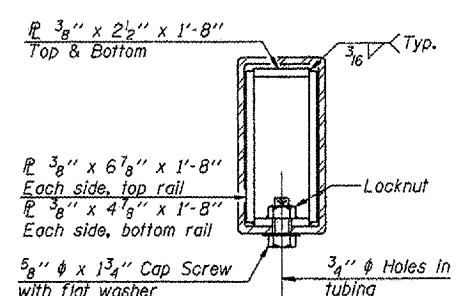
SECTION AT RAIL POST



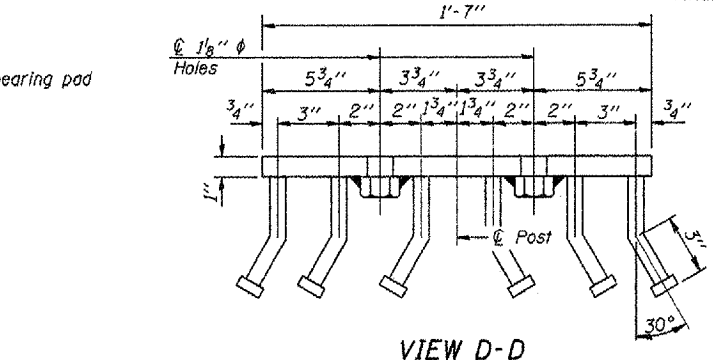
RAIL SPLICE CONNECTION AT EXPANSION JT.



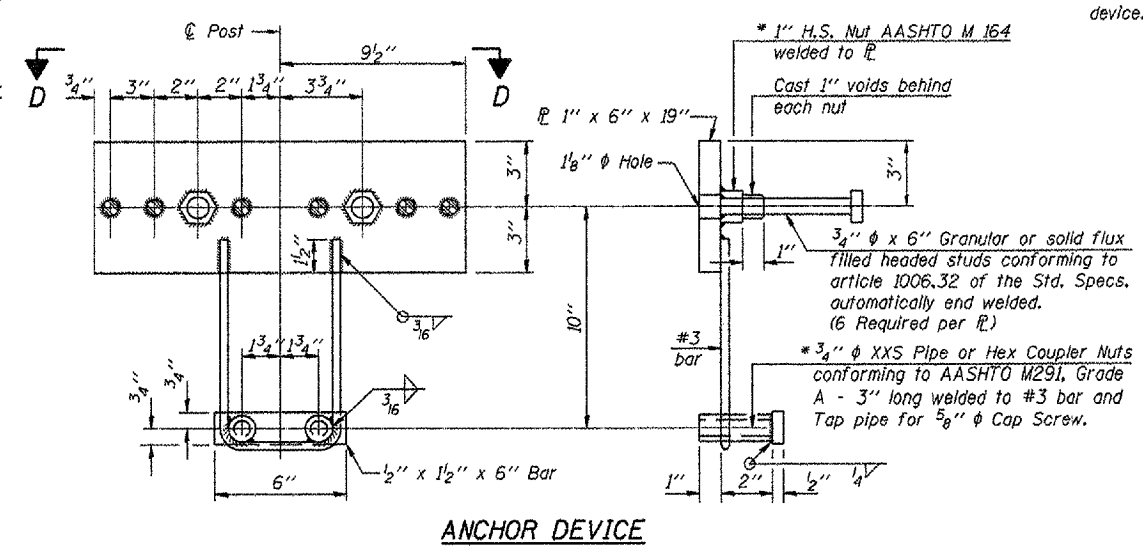
PLAN-BOTT. SPLICE P TYPICAL



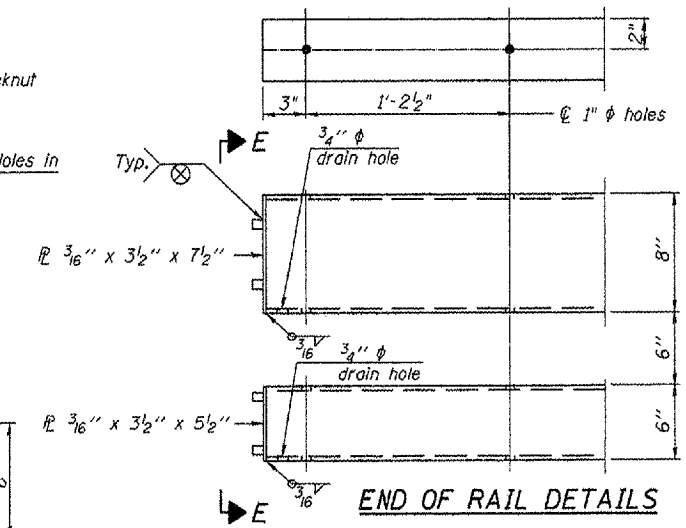
SECTION AT RAIL SPLICE



VIEW D-D



ANCHOR DEVICE



END OF RAIL DETAILS

Notes:
 All field drilled holes shall be coated with an approved zinc rich paint before erection.
 For multi-span bridges, sufficient 1/4" x 6" x 1'-2" galvanized steel shims shall be provided to align rail between adjacent spans. Cost included with Steel Bridge Rail, Type SM.
 Steel rail elements shall be galvanized according to Article 509.05 of the Standard Specifications.
 ** The studs of the anchor devices shall be placed below the top reinforcement bars and the outermost longitudinal reinforcement bar shall be placed directly above the studs of the rail post anchor device.

BILL OF MATERIAL

Item	Unit	Quantity
Steel Railing, Type SM	Foot	641

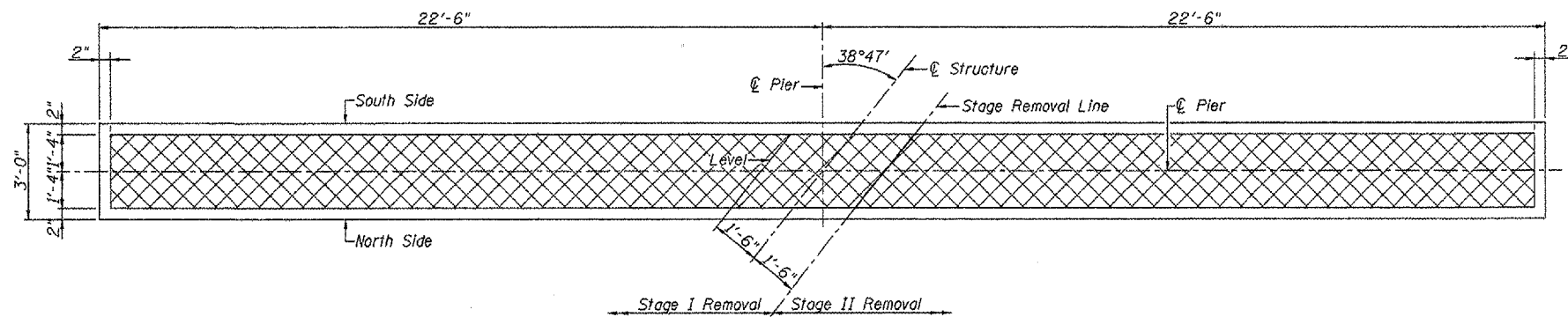
STEEL RAILING, TYPE SM
 WITH CONCRETE WEARING SURFACE
 F.A.P. ROUTE 317 - (U.S. 24)
 OVER OTTER CREEK
 SECTION (18B1)
 FULTON COUNTY
 STA. 257+54.33
 STRUCTURE NO. 029-0005

* Threaded areas shall be plugged or blocked off during casting of beam. Galvanized after fabrication.

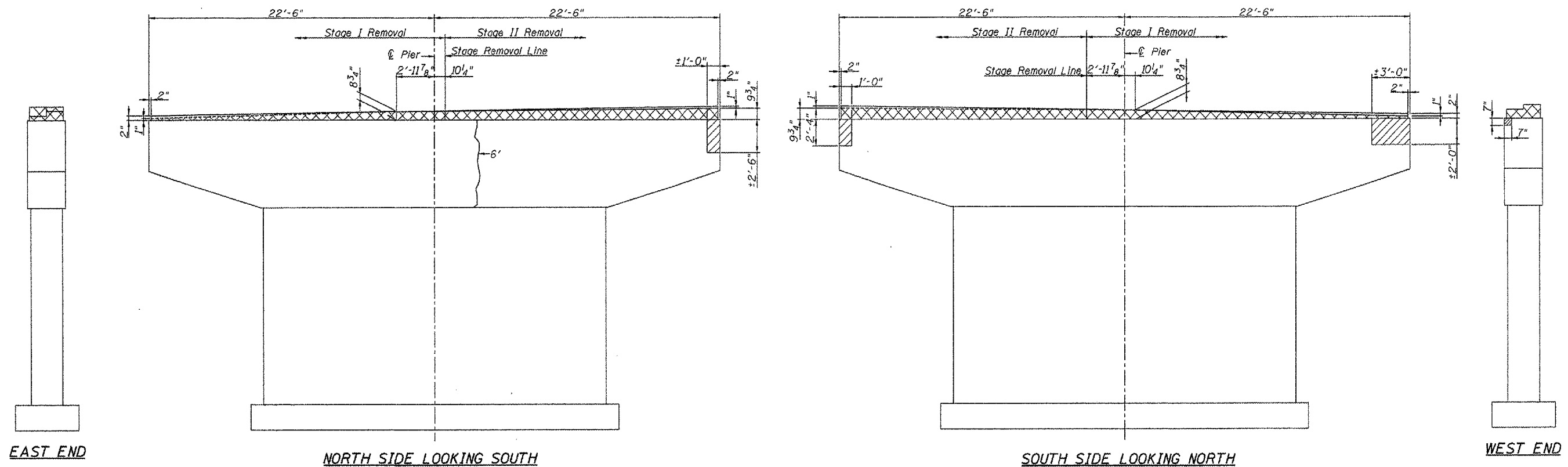
PLT DATE = 8/1/06
 MODEL NAME = MODELNAME

CONTRACT NO. 6846B				
F.A.P. R.T.E.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
317	(18B)I	FULTON	50	21
STA. 252+75 TO STA. 262+40				
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				

SHEET NO. 11
OF 16 SHEETS



TOP PLAN



PIER 1

Note: Existing reinforcement extending into new construction shall be cut off flush. Cost included with Concrete Removal.

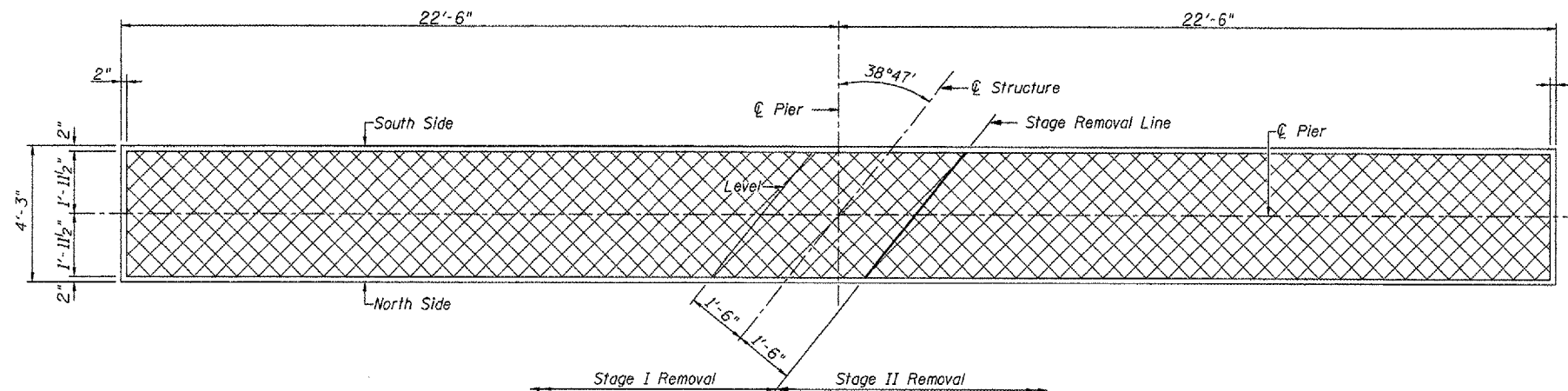
- LEGEND**
- Concrete Removal
 - Structural Repair of Concrete (Depth equal to or less than 5")
 - ±5'- Epoxy Crack Injection
 - H.L.C. Hairline Crack (Not to be Sealed)

BILL OF MATERIAL

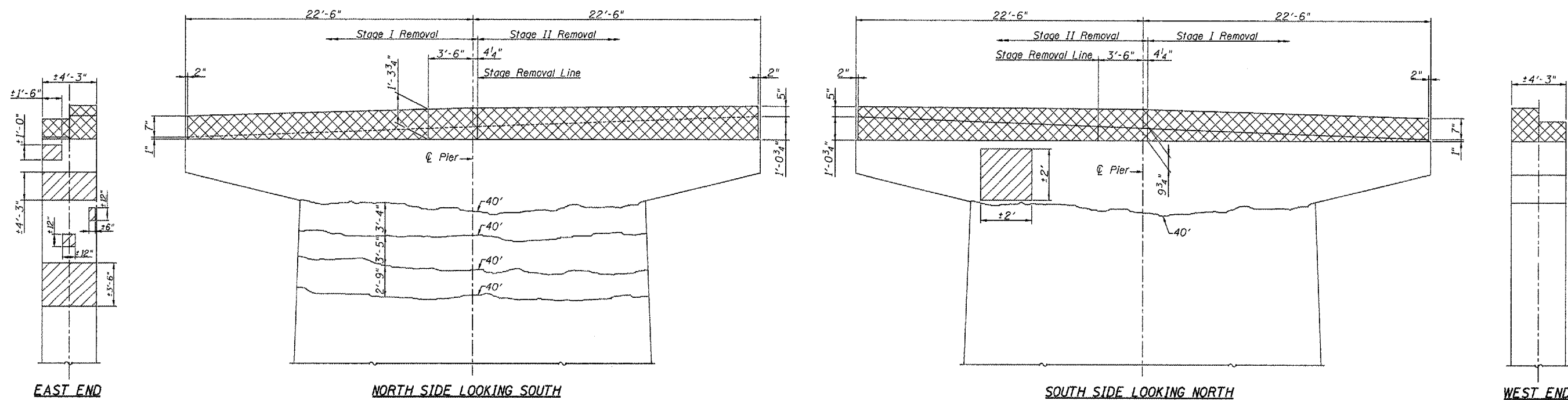
ITEM	UNIT	QUANTITY
Concrete Removal	Cu. Yd.	2.8
Epoxy Crack Injection	Foot	6
Structural Repair of Concrete (Depth Equal To Or Less Than 5")	Sq. Ft.	11.2

PIER 1 REMOVAL AND REPAIR
F.A.P. ROUTE 317 (U.S. 24)
OVER OTTER CREEK
SECTION (18B)I
FULTON COUNTY
STATION 257+54.33
STRUCTURE NO. 029-0005

PLT DATE = #DATE
 DATE = #DATE
 FILE NAME = #MODELNAME



TOP PLAN



PIER 2

Note: Existing reinforcement extending into new construction shall be cut off flush. Cost included with Concrete Removal.

BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Concrete Removal	Cu. Yd.	6.3
Epoxy Crack Injection	Foot	200
Structural Repair of Concrete (Depth Equal To Or Less Than 5")	Sq. Ft.	40

LEGEND

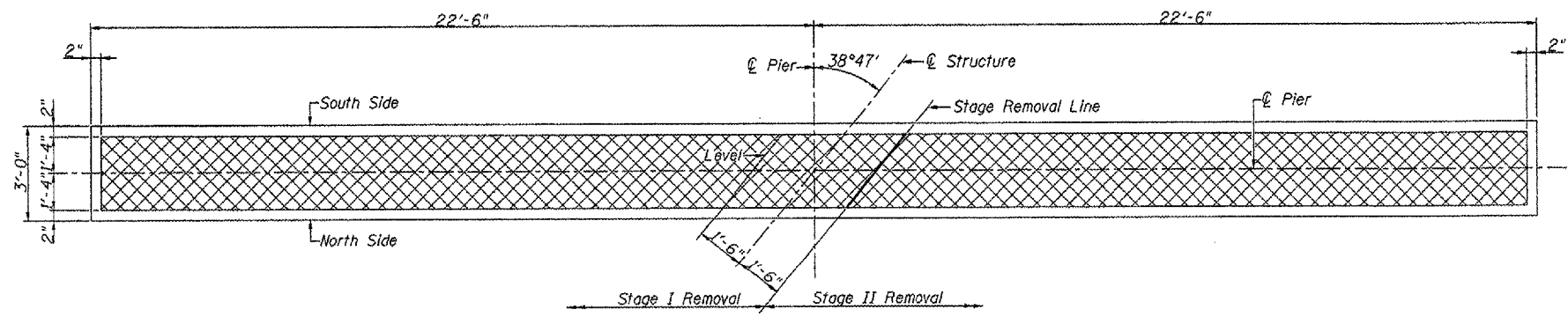
- Concrete Removal
- Structural Repair of Concrete (Depth equal to or less than 5")
- $\pm 5' -$ Epoxy Crack Injection
- H.L.C. Hairline Crack (Not to be Sealed)

PIER 2 REMOVAL AND REPAIR
F.A.P. ROUTE 317 (U.S. 24)
OVER OTTER CREEK
SECTION (18B)
FULTON COUNTY
STATION 257+54.33
STRUCTURE NO. 029-0005

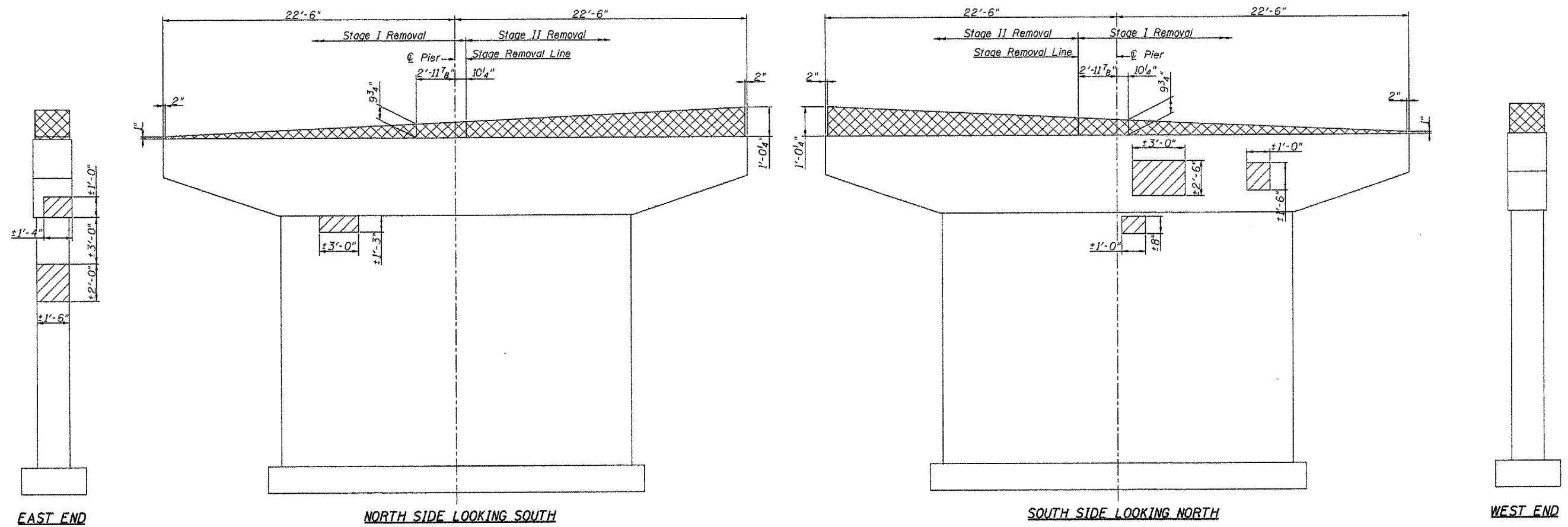
DATE = 10/27/89
 DRAWN BY = M.H.S.
 CHECKED BY = M.H.S.
 MODEL NO. = 100189M2P

CONTRACT NO. 68468				
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
317	(18B)I	FULTON	50	23
STA. 252+75		TO STA. 262+40		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

SHEET NO. 13
OF 16 SHEETS



TOP PLAN



PIER 3

Note: Existing reinforcement extending into new construction shall be cut off flush. Cost included with Concrete Removal.

BILL OF MATERIAL

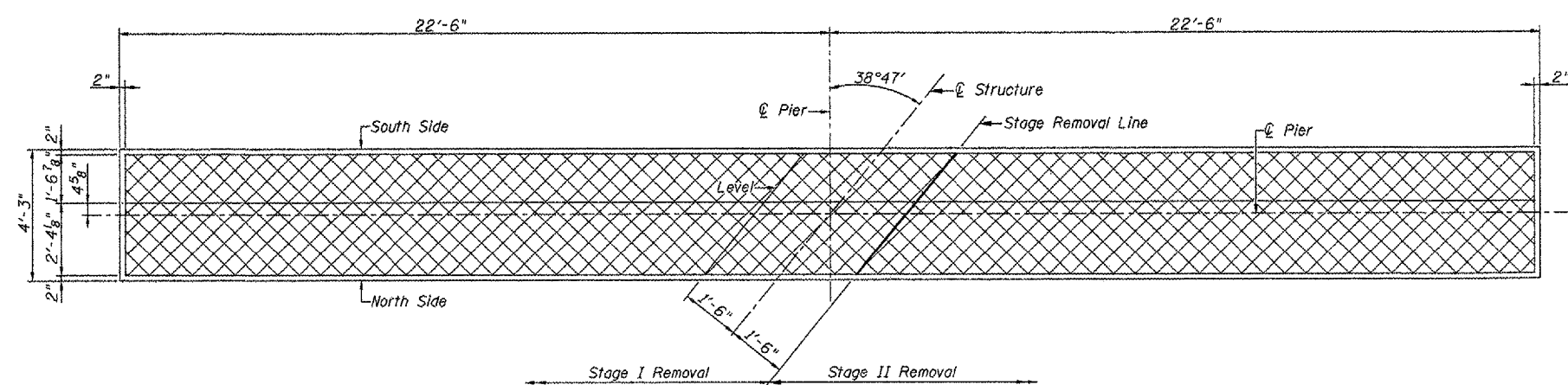
ITEM	UNIT	QUANTITY
Concrete Removal	Cu. Yd.	3.2
Structural Repair of Concrete (Depth Equal To Or Less Than 5")	Sq. Ft.	17.7

- LEGEND**
- Concrete Removal
 - Structural Repair of Concrete (Depth equal to or less than 5")
 - $\pm 5'$ Epoxy Crack Injection (Crack widths shown are approx. 1/16" to 1/8" in width)
 - H.L.C. Hairline Crack (Not to be Sealed)

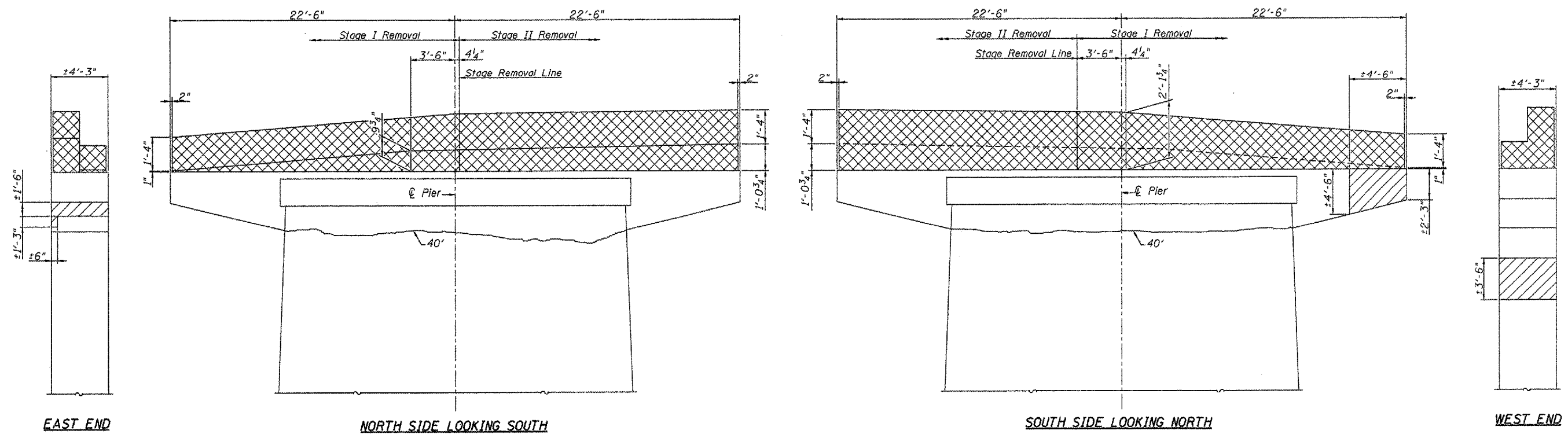
PIER 3 REMOVAL AND REPAIR
F.A.P. ROUTE 317 (U.S. 24)
OVER OTTER CREEK
SECTION (18B)I
FULTON COUNTY
STATION 257+54.33
STRUCTURE NO. 029-0005

PLUT DATE = 8/10/78
 PLOT NAME = 029-0005
 PLOT NO. = 13

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
317	(18B)I	FULTON	50	24
STA. 252+75		TO STA. 262+40		
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				



TOP PLAN



Note: Existing reinforcement extending into new construction shall be cut off flush. Cost included with Concrete Removal.

PIER 4

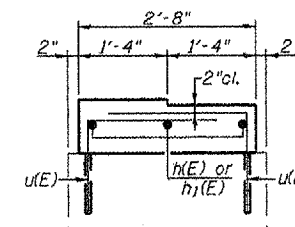
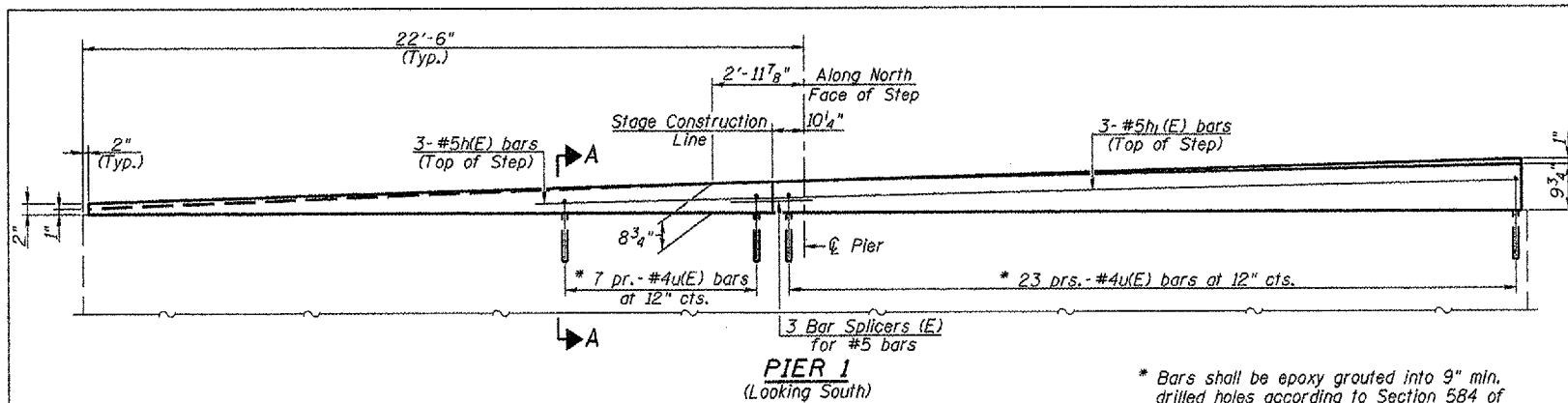
- LEGEND**
- Concrete Removal
 - Structural Repair of Concrete (Depth equal to or less than 5")
 - Epoxy Crack Injection (Crack widths shown are approx. 1/16" to 1/8" in width)
 - Hairline Crack (Not to be Sealed)

BILL OF MATERIAL

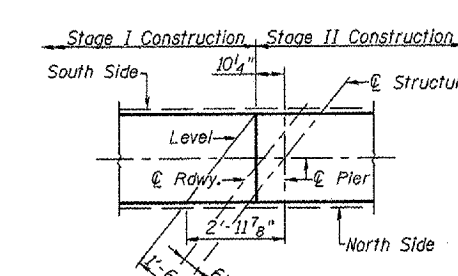
ITEM	UNIT	QUANTITY
Concrete Removal	Cu. Yd.	8.2
Epoxy Crack Injection	Foot	80
Structural Repair of Concrete (Depth Equal To Or Less Than 5")	Sq. Ft.	37.1

PIER 4 REMOVAL AND REPAIR
F.A.P. ROUTE 317 (U.S. 24)
OVER OTTER CREEK
SECTION (18B)I
FULTON COUNTY
STATION 257+54.33
STRUCTURE NO. 029-0005

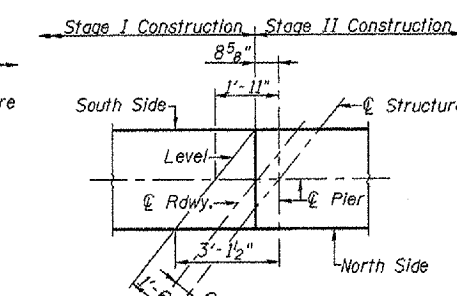
PLOT DATE = 8/24/85
 FILE NAME = 8/FILES
 MODEL NAME = 8/MODEL/PIER4



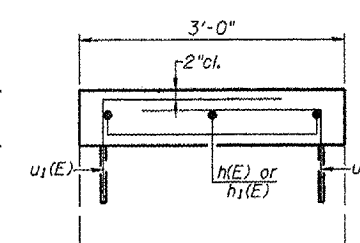
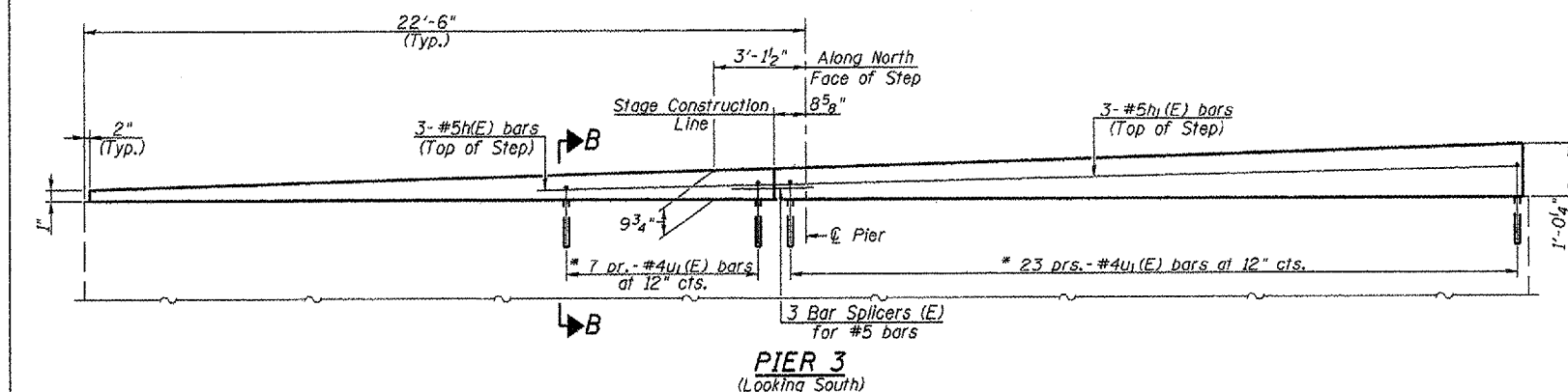
SECTION A-A



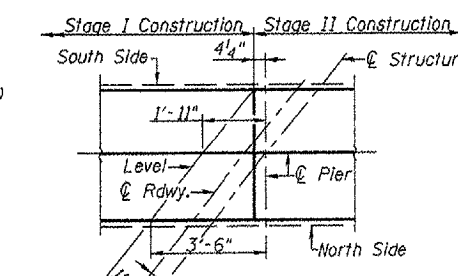
PARTIAL PLAN (Pier 1)



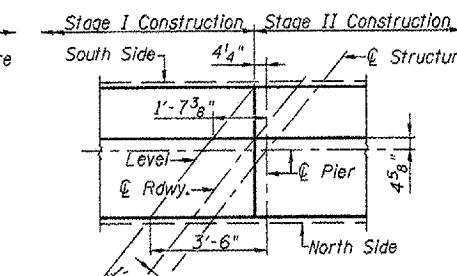
PARTIAL PLAN (Pier 3)



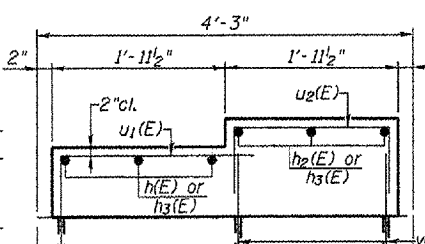
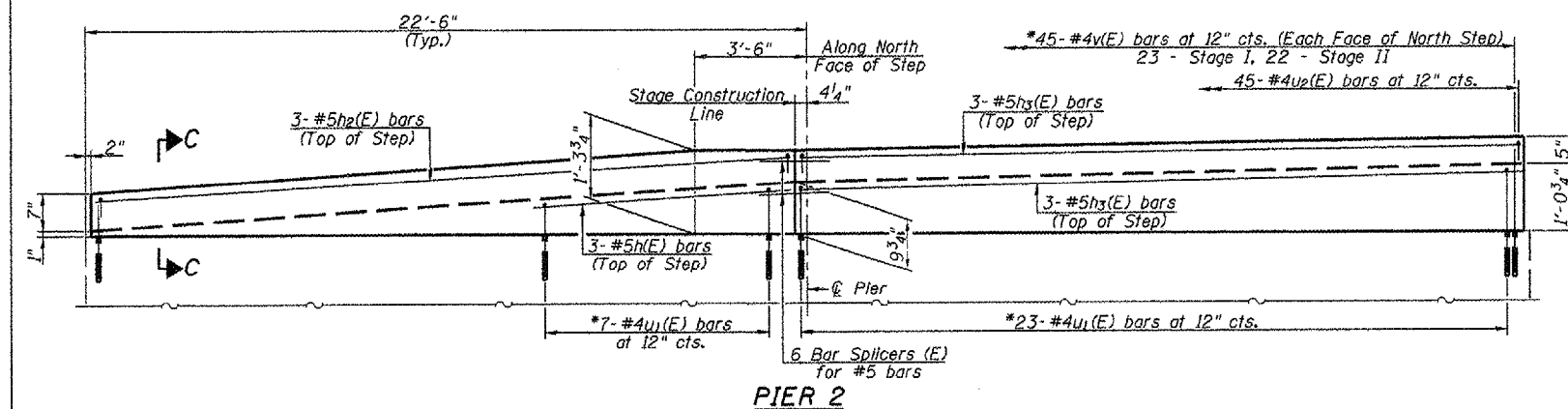
SECTION B-B



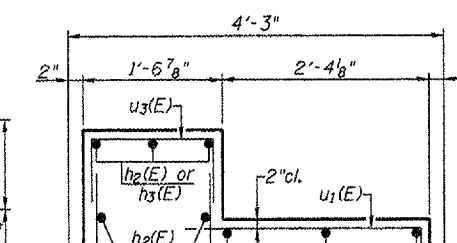
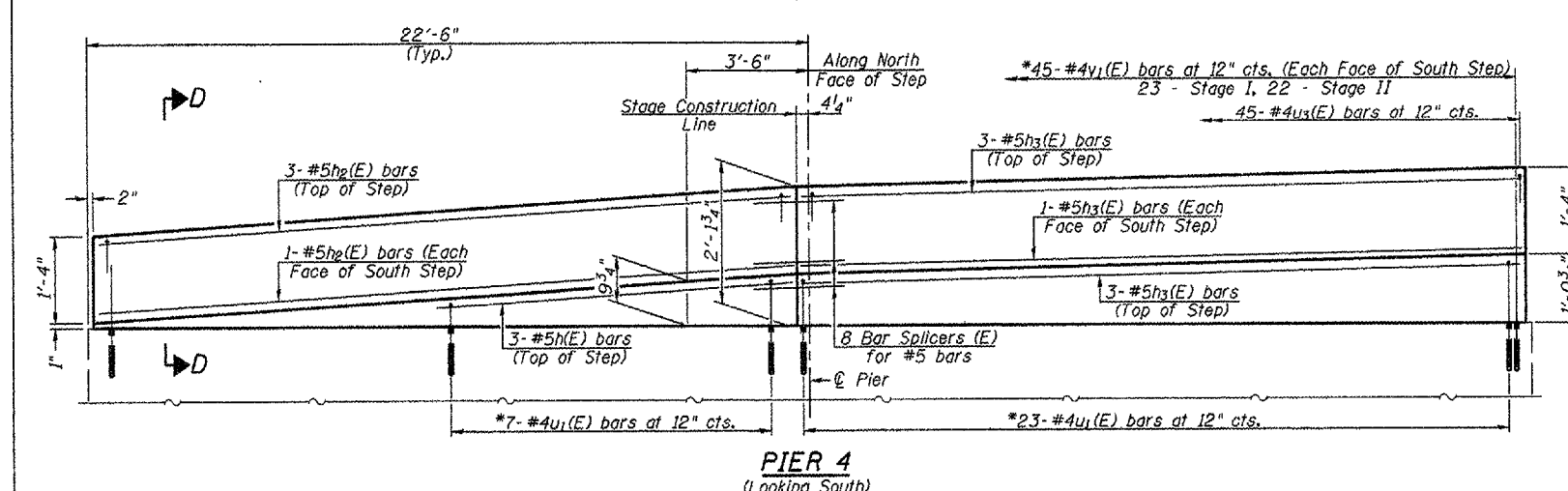
PARTIAL PLAN (Pier 2)



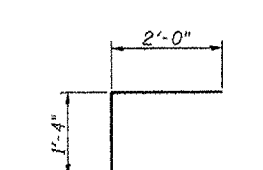
PARTIAL PLAN (Pier 4)



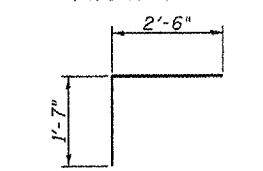
SECTION C-C



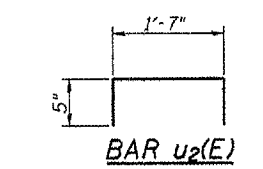
SECTION D-D



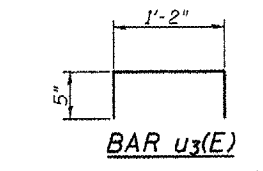
BAR u(E)
(Field cut bars to fit)



BAR u1(E)
(Field cut bars to fit)



BAR u2(E)



BAR u3(E)

Notes: Field cut v(E) & v(E) bars to fit.
 Bridge seat dimensions are taken from the existing plan and assumed to be accurate. Dimensions shall be field verified prior to removal of existing concrete.
 Space reinforcement in cap to miss reinforcement.

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h(E)	12	#5	6'-3"	—
h1(E)	6	#5	22'-8"	—
h2(E)	8	#5	21'-8"	—
h3(E)	14	#5	22'-4"	—
u(E)	60	#4	3'-4"	□
u1(E)	120	#4	4'-1"	□
u2(E)	45	#4	2'-5"	□
u3(E)	45	#4	2'-0"	□
v(E)	90	#4	2'-0"	—
v1(E)	90	#4	2'-11"	—
Reinforcement Bars, Epoxy Coated			Pound	1620
Concrete Structures			Cu. Yd.	20.9
Bar Splicers, Epoxy Coated			Each	20

SUBSTRUCTURE DETAILS
 F.A.P. ROUTE 317 (U.S. 24)
 OVER OTTER CREEK
 SECTION (18B)1
 FULTON COUNTY
 STATION 257+54.33
 STRUCTURE NO. 029-005

PLOT DATE = 8/27/85
 FILE NAME = #FILE13

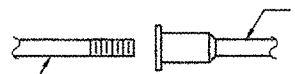
NOTES

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:

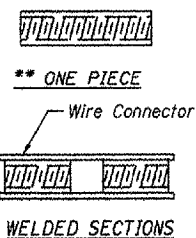
- ① Minimum Capacity = $1.25 \times f_y \times A_1$
(Tension in kips)
 - ② Minimum *Pull-out Strength = $0.66 \times f_y \times A_1$
(Tension in kips)
- Where f_y = Yield strength of lapped reinforcement bars in ksi.
 A_1 = Tensile stress area of lapped reinforcement bars.
 * = 28 day concrete

Bar Size to be Spliced	Splicer Rod or Dowel Bar Length	Strength Requirements	
		Min. Capacity kips - tension	Min. Pull-Out Strength kips - tension
#4	1'-8"	14.7	7.9
#5	2'-0"	23.0	12.3
#6	2'-7"	33.1	17.4
#7	3'-5"	45.1	23.8
#8	4'-6"	58.9	31.3
#9	5'-9"	75.0	39.6
#10	7'-3"	95.0	50.3
#11	9'-0"	117.4	61.8

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

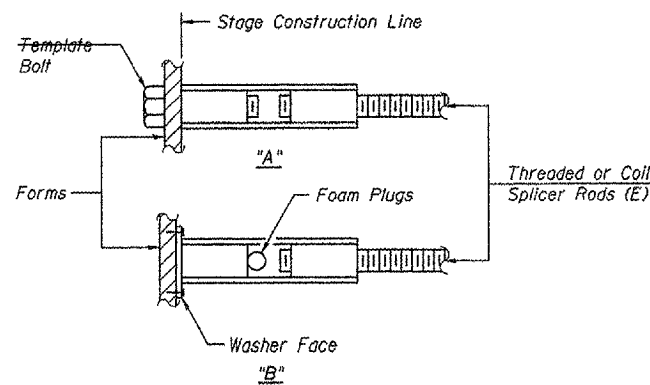


ROLLED THREAD DOWEL BAR



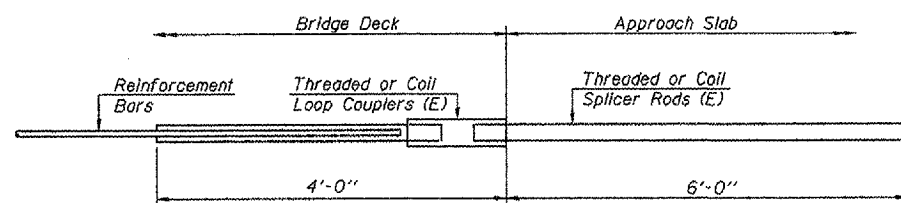
BAR SPLICER ASSEMBLY ALTERNATIVES

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



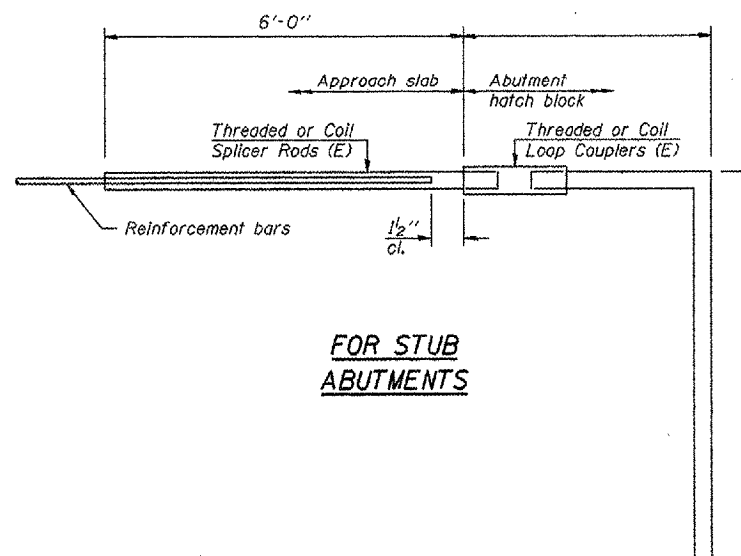
INSTALLATION AND SETTING METHODS

"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.



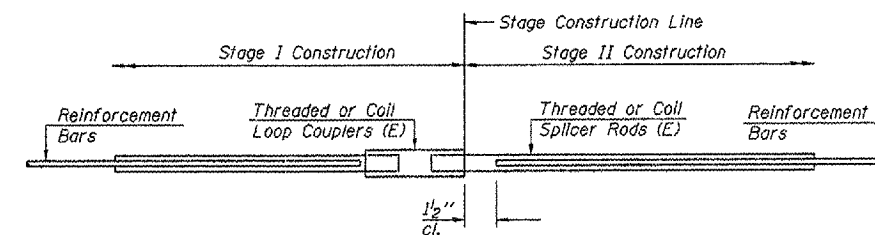
FOR INTEGRAL OR SEMI-INTEGRAL ABUTMENTS

Bar Splicer for #5 bar
Min. Capacity = 23.0 kips - tension
Min. Pull-out Strength = 12.3 kips - tension
No. Required =



FOR STUB ABUTMENTS

Bar Splicer for #5 bar
Min. Capacity = 23.0 kips - tension
Min. Pull-out Strength = 12.3 kips - tension
No. Required =



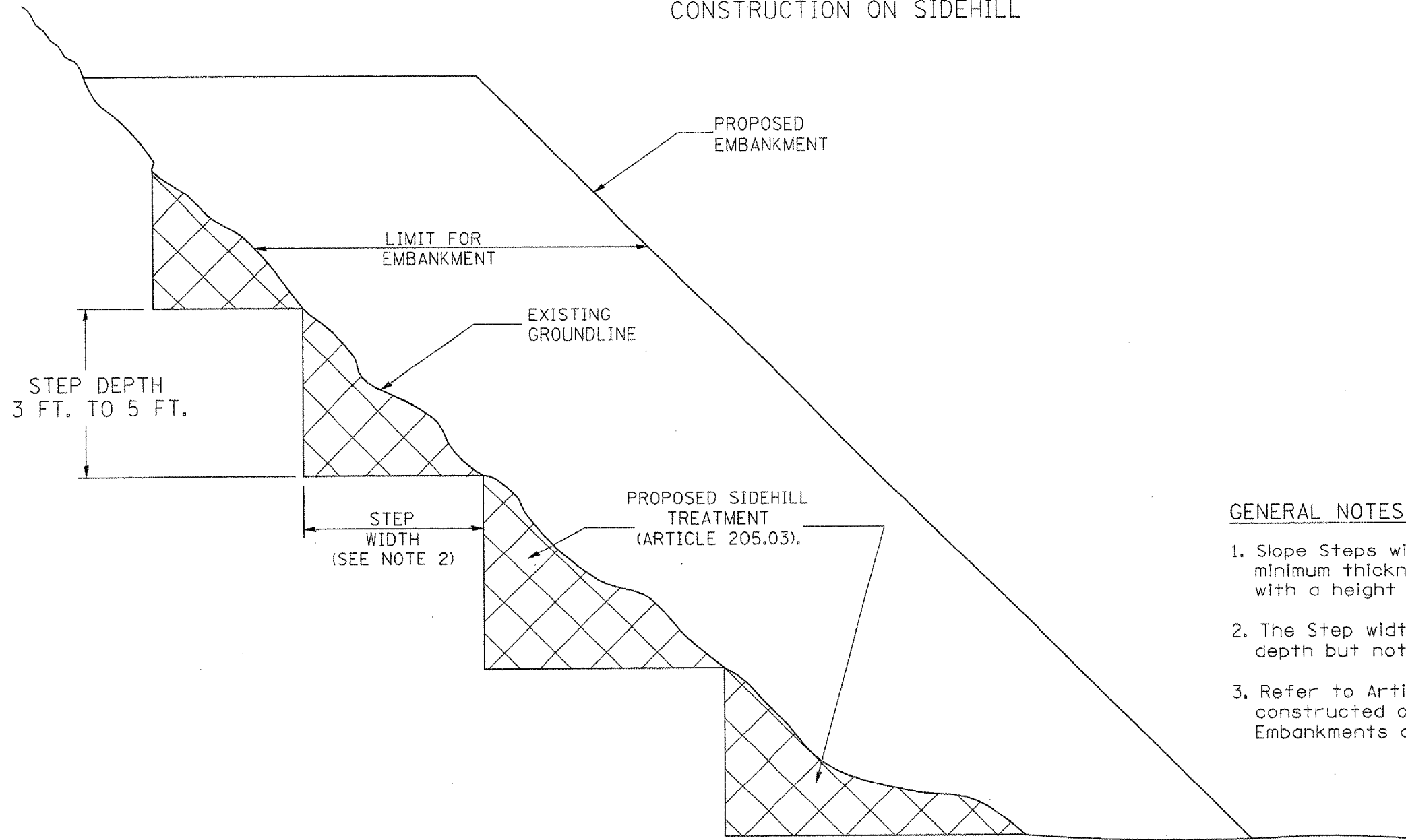
STANDARD

Bar Size	No. Assemblies Required	Location
#4	308	Conc. Wearing Surface
#5	3	Pier 1
#5	6	Pier 2
#5	3	Pier 3
#5	8	Pier 4
Total	328	

BAR SPLICER ASSEMBLY DETAILS
 F.A.P. ROUTE 317 - (U.S. 24)
 OVER OTTER CREEK
 SECTION (18B)
 FULTON COUNTY
 STA. 257+54.33
 STRUCTURE NO. 029-0005

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
317	(18B)1	FULTON	50	27
STA. 252+75		TO STA. 262+40		
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

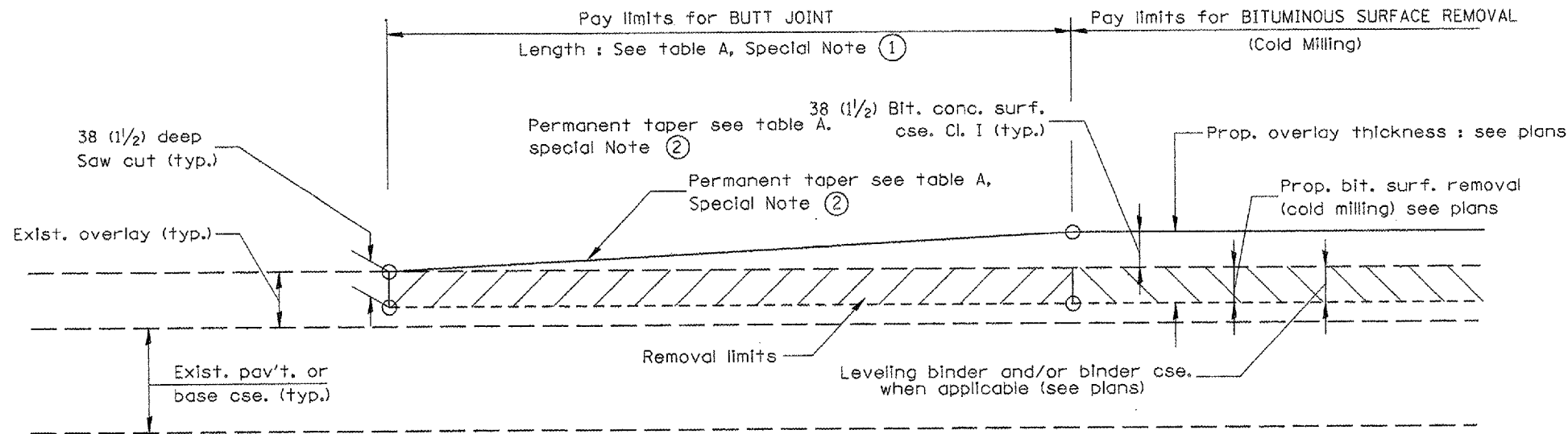
CADD STD. NO. 205001-D4
SCALE: NOT DRAWN TO SCALE
DATE ##DATE##
DRAWN BY CADD
CHECKED BY

DESIGNER NOTE:

1. EACH PROJECT SHOULD BE REVIEWED INDEPENDENTLY FOR TREATMENT REQUIRED.
2. REFER TO THIS DETAIL WITH NOTE ON APPLICABLE TYPICAL SECTIONS.

DATE##

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
317	(18B1)	FULTON	50	28
STA. 252+75		TO STA. 262+40		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		



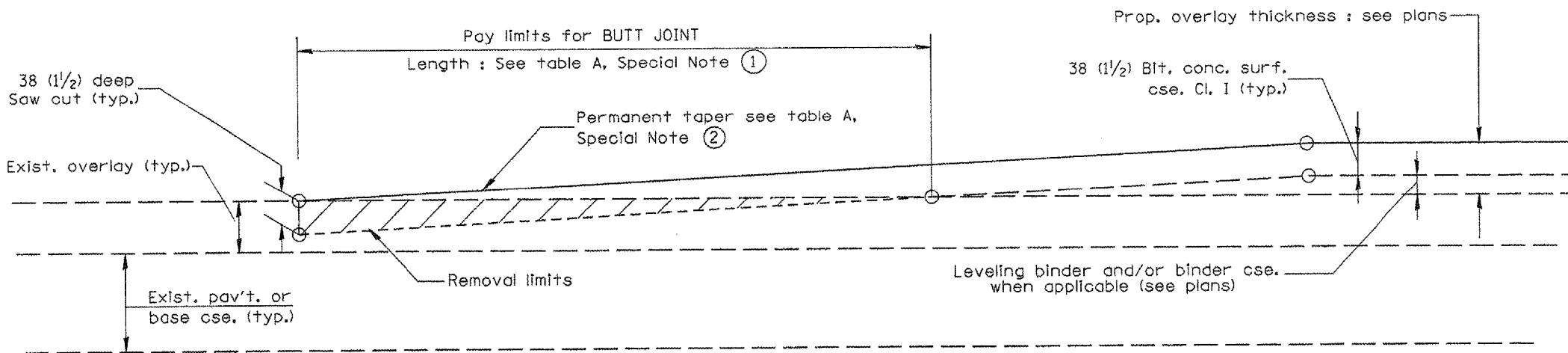
CASE 1 : WITH BITUMINOUS SURFACE REMOVAL (COLD MILLING)

TABLE A
(LENGTHS AND TAPER RATES)

SPECIAL NOTE NUMBER	ELEMENT	MAINLINE INTERSTATES & 4-LANE EXPRESSWAYS	ALL OTHERS
①	LENGTH OF BUTT JOINT	18.0 m(60')	9.0 m(30')
②	PERMANENT TAPER RATE	1:480	1:240
③	TEMPORARY RAMP TAPER RATE	1:80	1:40
④	TEMPORARY RAMP LENGTH	3.0 m(10')	1.5 m(5')
⑤	LENGTH OF BUTT JOINT	3.0 m(10')	3.0 m(10')

GENERAL NOTES

- The work shall be done in accordance with Article 406.18 and the Special Provision for Butt Joints.
- The pavement surface to be removed may be either bituminous or P.C. concrete. The work shall be performed in accordance with Article 440.03 and the Special Provisions for Butt Joints.
- The saw cut joints shall be primed just prior to the placing of bituminous material. The work will be in accordance with the applicable portions of Article 406.06.



CASE 2 : NO BITUMINOUS SURFACE REMOVAL (COLD MILLING)

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

ILLINOIS DEPARTMENT OF TRANSPORTATION
DISTRICT CADD STANDARD

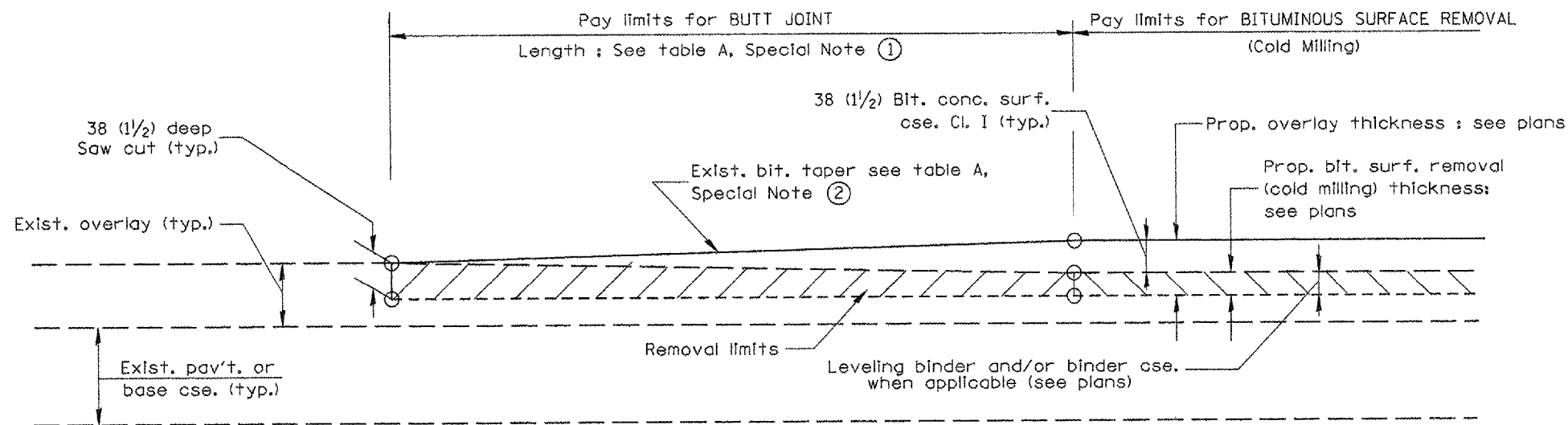
DATE	REVISIONS	BY
1-1-97	RENUM. C-23.01, NEW REVISION BOX	T.P.
4-1-97	CORRECTION TO DEPTH	J.A.
9-15-05	REVISED DESIGNER NOTE	M.M.A.

BUTT JOINTS
CADD STD NO. 406101-D4 SHEET 1 OF 3
SCALE: NOT DRAWN TO SCALE DRAWN BY CADD
DATE **DATE** CHECKED BY

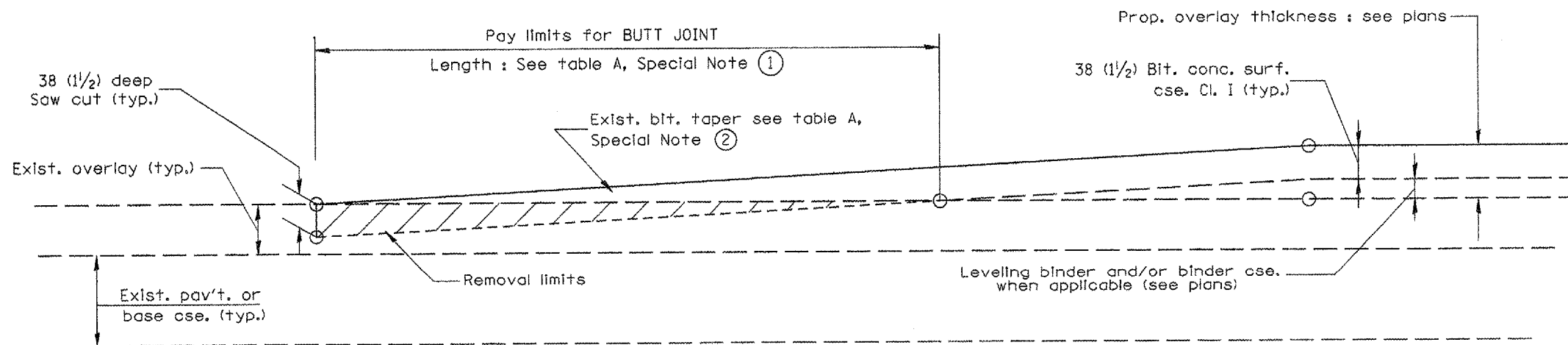
DESIGNER NOTES:
1. Include District Special Provision for Butt Joints & for Bituminous Surface Removal (Cold Milling). Payment for the Butt Joint & temporary ramp. Payment for the Butt Joint & temporary ramp. Payment for the Butt Joint & temporary ramp.
2. The butt joints pay item includes the saw cut & temporary ramp. Payment for the Butt Joint & temporary ramp. Payment for the Butt Joint & temporary ramp.

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

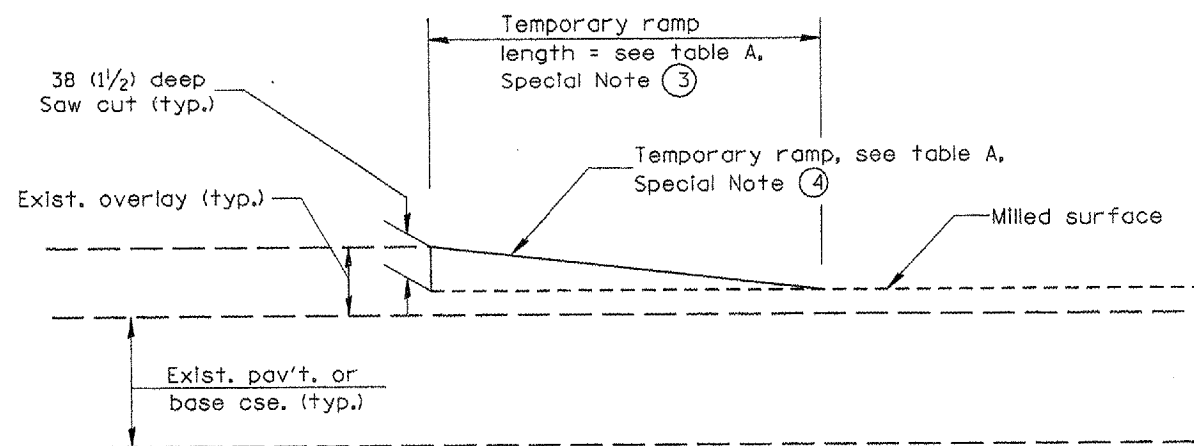
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
317	(18B1)	FULTON	50	29
STA. 252+75		TO STA. 262+40		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		



**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.

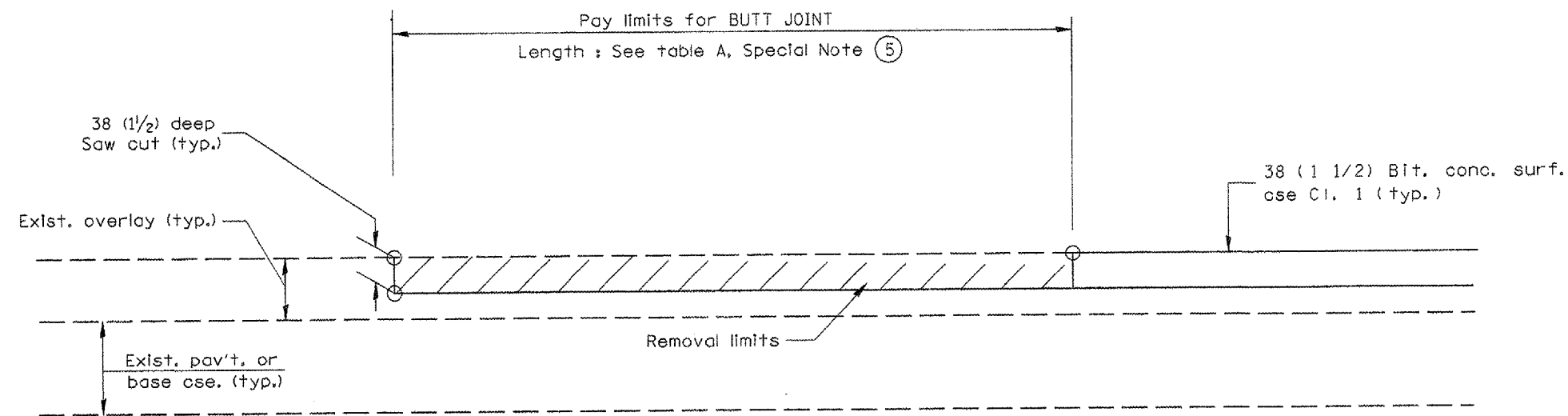
ILLINOIS DEPARTMENT OF TRANSPORTATION
DISTRICT CADD STANDARD

BUTT JOINTS

CADD STD NO. 406101-D4 SHEET 2 OF 3
SCALE: NOT DRAWN TO SCALE DRAWN BY CADD
CHECKED BY

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

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
317	(18B)	FULTON	50	30
STA. 252+75		TO STA. 262+40		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		



CASE 5 : WITH BITUMINOUS SURFACE REMOVAL (COLD MILLING)
TIE-IN TO EXISTING BITUMINOUS TAPER

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

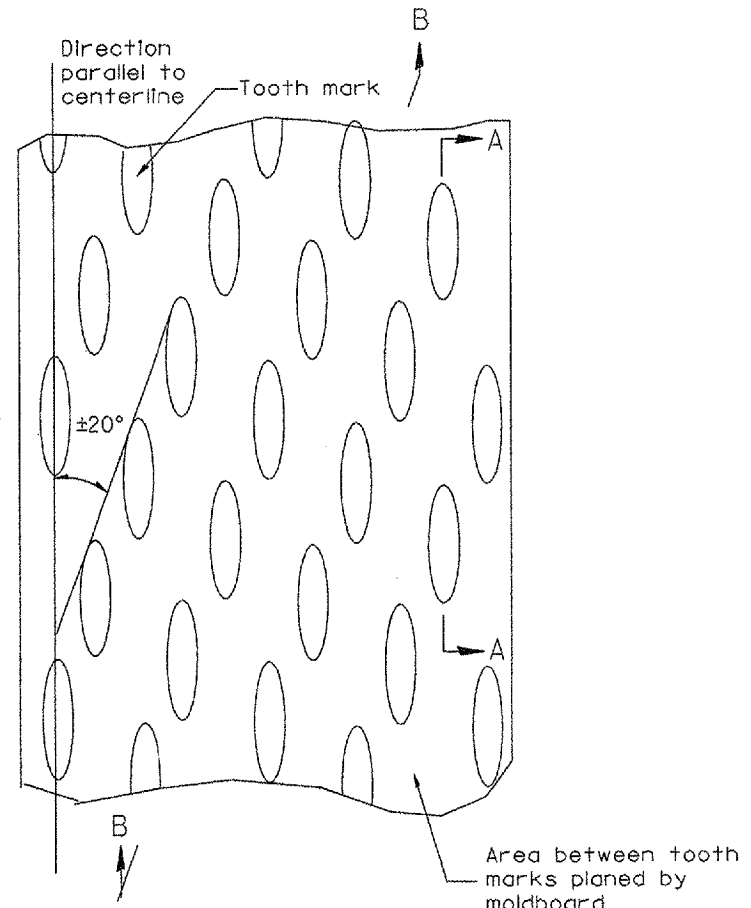
ILLINOIS DEPARTMENT OF TRANSPORTATION
 DISTRICT CADD STANDARD

BUTT JOINTS

CADD STD NO. 406101-D4 SHEET 3 OF 3
 SCALE: NOT DRAWN TO SCALE DRAWN BY CADD
 CHECKED BY

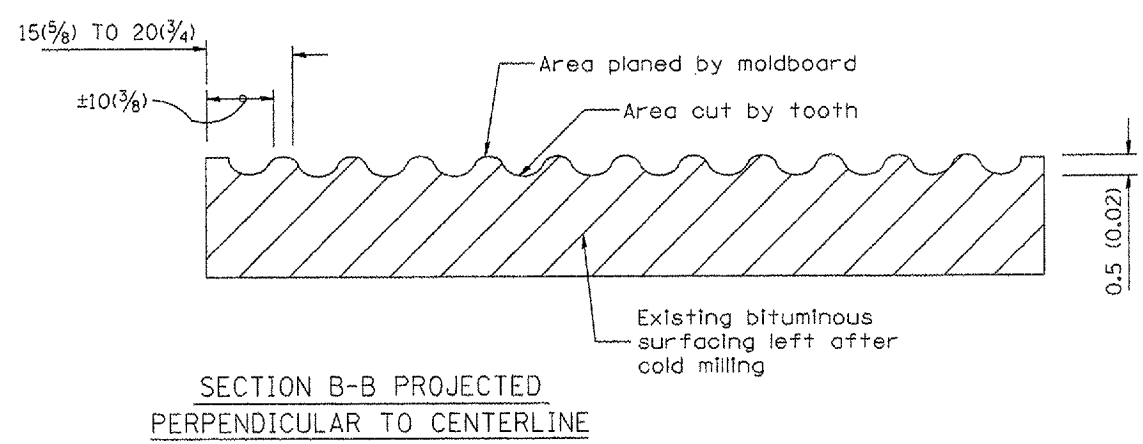
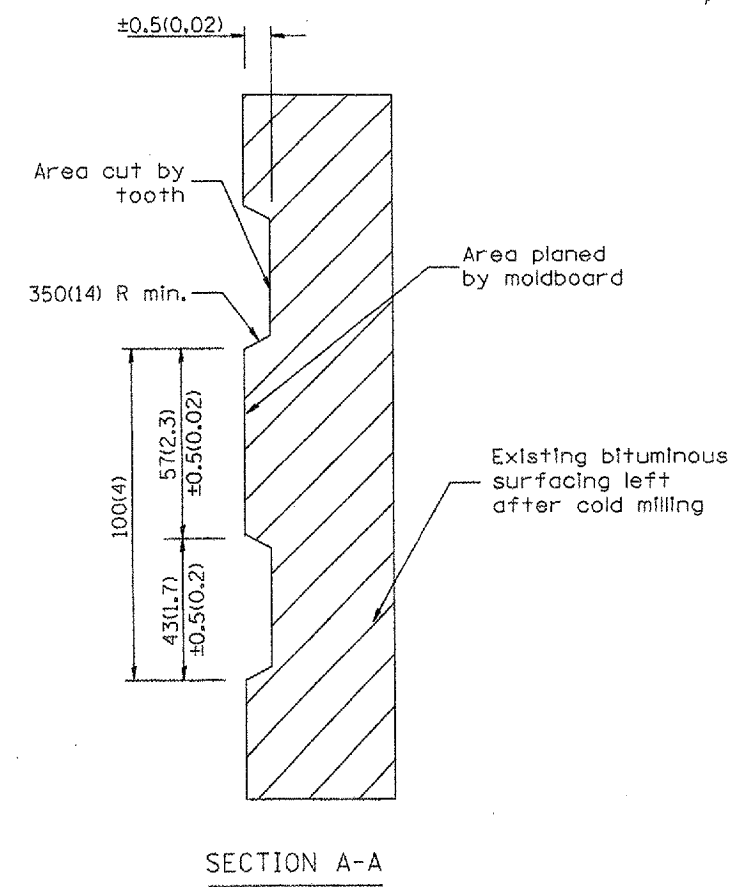
\$\$\$DATE\$\$\$

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
317	(18B)1	FULTON	50	31
STA. 252+75		TO STA. 262+40		
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.



DESIGNER NOTE
1. INCLUDE DISTRICT SPECIAL PROVISION, IF APPLICABLE.

DATE**

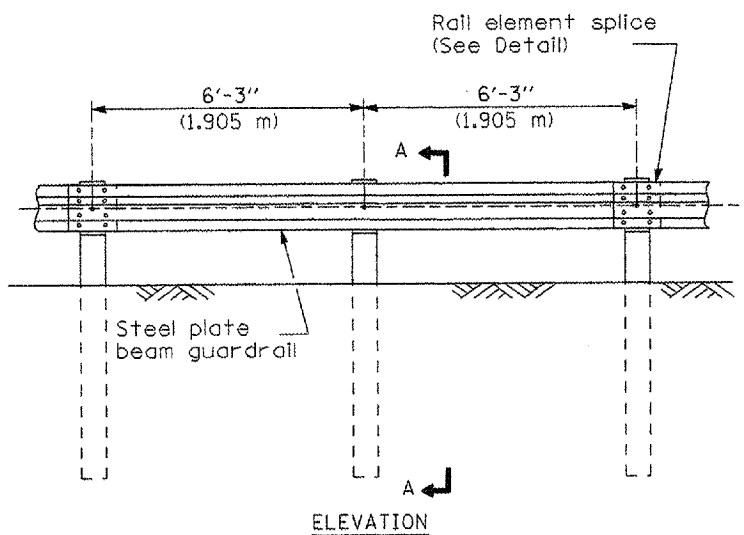
All dimensions are in millimeters (inches) unless otherwise noted.

ILLINOIS DEPARTMENT OF TRANSPORTATION
DISTRICT CADD STANDARD

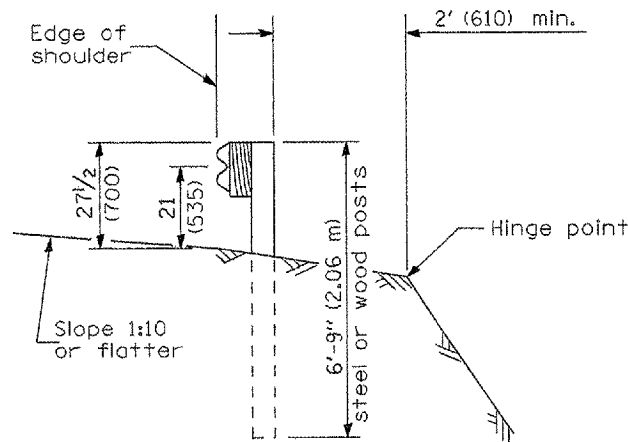
DATE	REVISIONS	BY
1-1-97	RENUM. C-104.01, NEW REVISION BOX	T. P.
4-20-98	REMOVED MILLING DETAIL FROM STD.	J. A.
9-08-98	CORRECT NOTE LEADER PLACEMENT	R. W.

BITUMINOUS SURFACE REMOVAL
(COLD MILLING)
CADD STD NO. 440001-D4
SCALE: NOT DRAWN TO SCALE DRAWN BY CADD
DATE **DATE** CHECKED BY

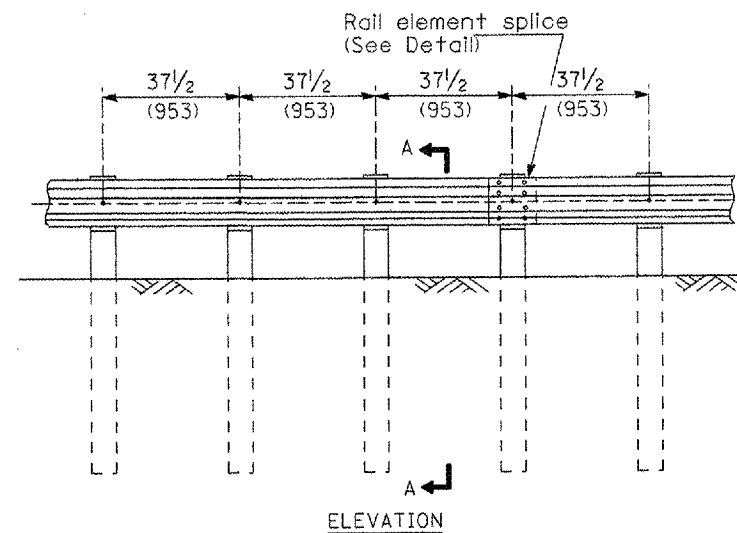
F.A.P. DIST.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
317	(18B)	FULTON	50	32
STA. 252+75		TO STA. 262+40		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		



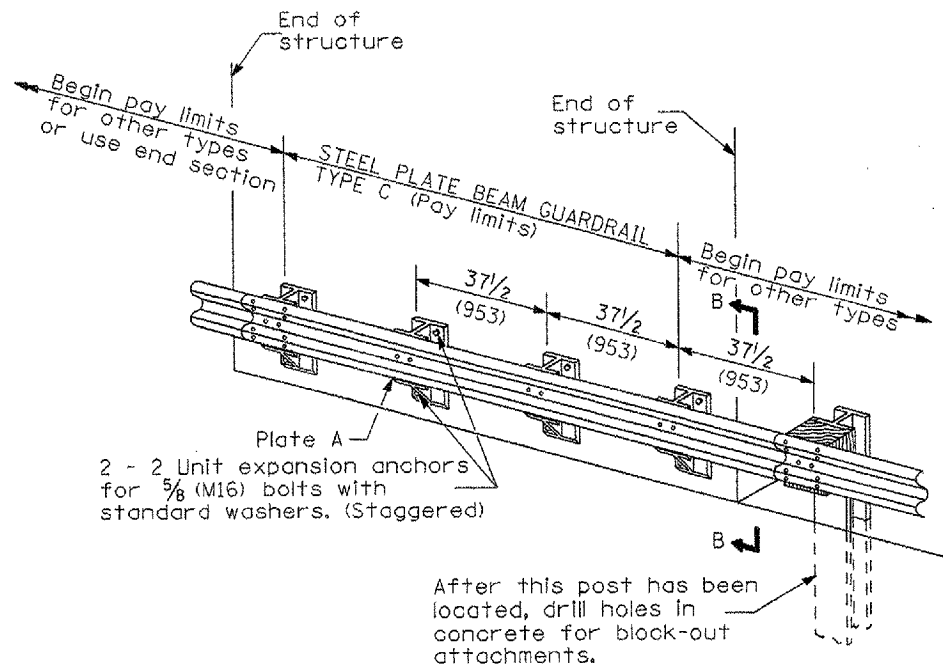
TYPE A
6'-3" (1.905 m) Typical post spacing



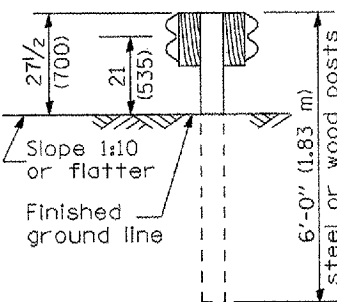
SECTION A-A



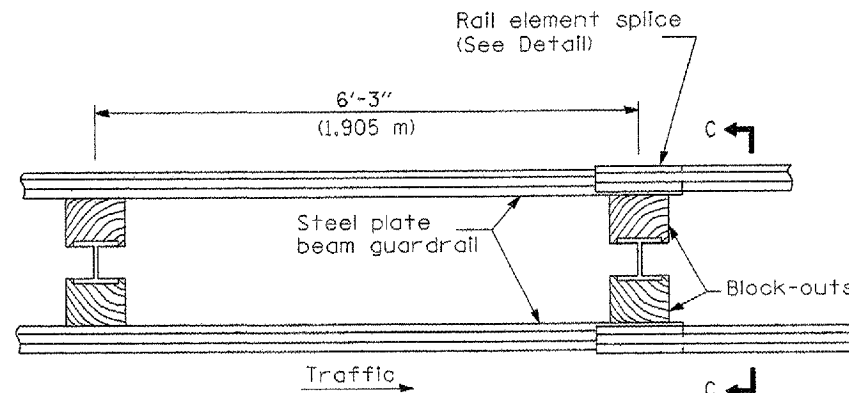
TYPE B
37 1/2 (953) Closed post spacing



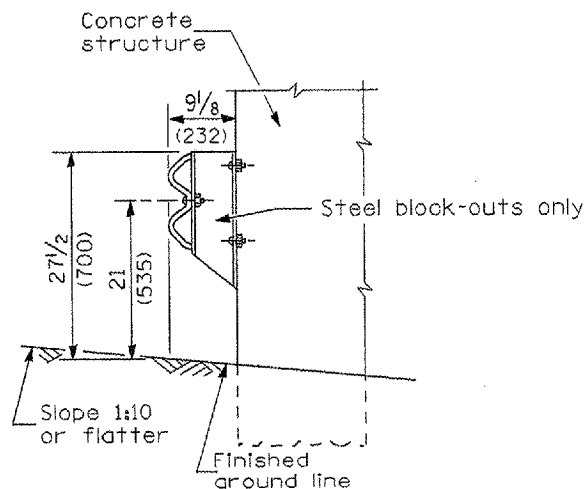
TYPE C
37 1/2 (953) Block-out spacing



SECTION C-C



TYPE D
Double steel plate beam guardrail
6'-3" (1.905 m) typical post spacing



SECTION B-B

GENERAL NOTES

All slope ratios are expressed as units of vertical displacement to units of horizontal displacement (V:H).

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

The existing steel posts may be drilled to match the bolt pattern shown herein for the wood block-out, or a new steel post shall be provided.

This detail is applicable to the guardrail system used prior to January 1, 2007. For details on the Midwest Guardrail System, see Standard 630001.

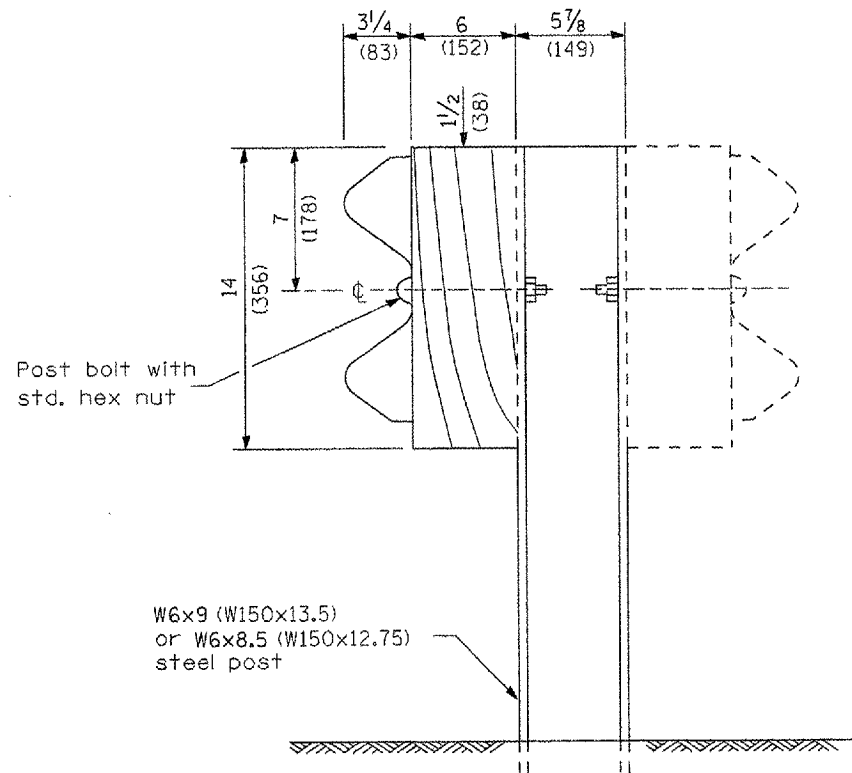
All dimensions are in inches (millimeters) unless otherwise noted.

DATE	REVISIONS	BY
3-1-07	NEW DETAIL	RJD

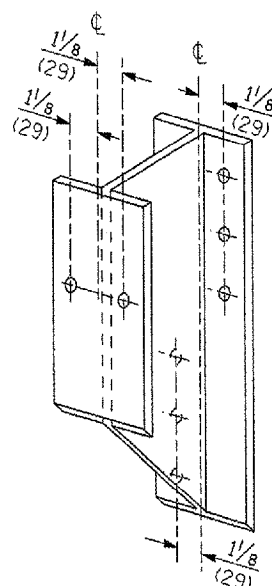
ILLINOIS DEPARTMENT OF TRANSPORTATION	
DISTRICT CADD STANDARD	
REMOVE AND REERECT STEEL PLATE BEAM GUARDRAIL	
CADD STD. 630011-D4(1)	SHEET 1 OF 4
SCALE: NOT DRAWN TO SCALE	DRAWN BY: CADD
DATE	CHECKED BY

DESIGNER NOTE: Use this CADD Standard when removing and re-erecting existing guardrail that was originally installed prior to January 1, 2007. Note this is only for removing and re-erecting so the 27 1/2" height is maintained. If installing new guardrail use the State Standard.

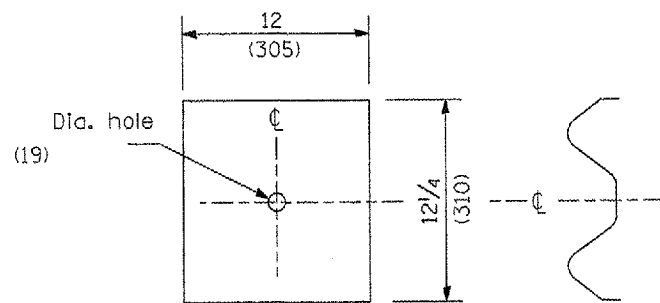
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
317	(188)	FULTON	50	33
STA. 252+75		TO STA. 262+40		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



STEEL POST CONSTRUCTION



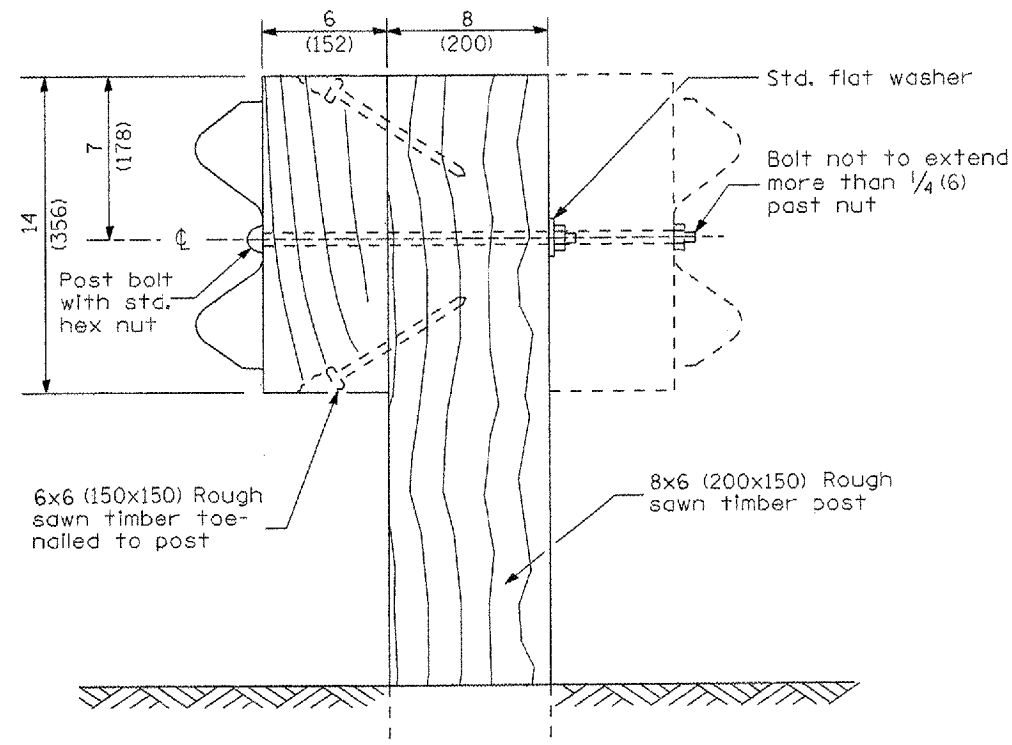
STEEL BLOCK-OUT DETAIL



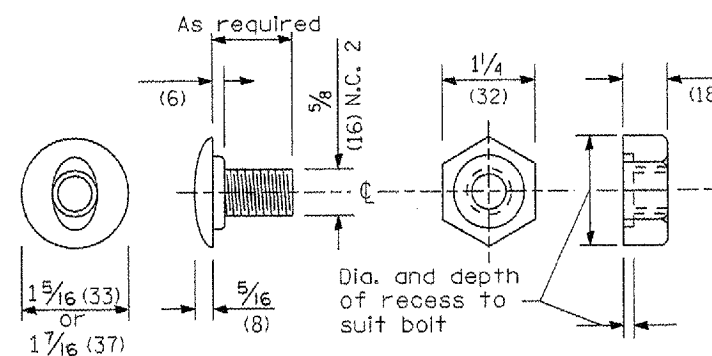
NOTE

Plate A shall be placed between rail element and block-out at non-splice mounting points only when steel block-outs are used.

PLATE A



WOOD POST CONSTRUCTION



POST OR SPLICE BOLT & NUT

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

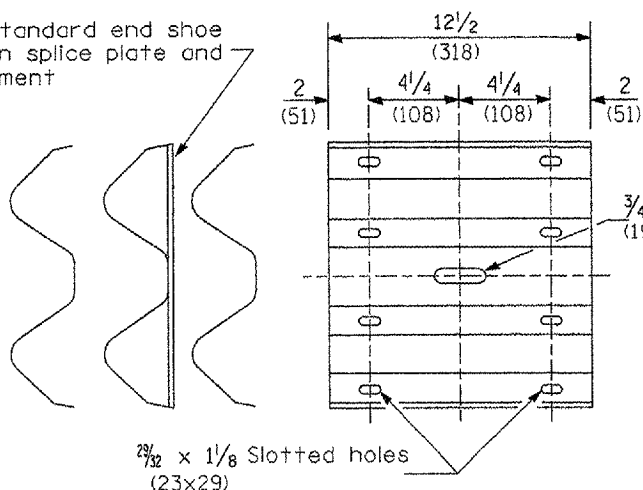
ILLINOIS DEPARTMENT OF TRANSPORTATION
DISTRICT CADD STANDARD

REMOVE AND REERECT
STEEL PLATE BEAM GUARDRAIL

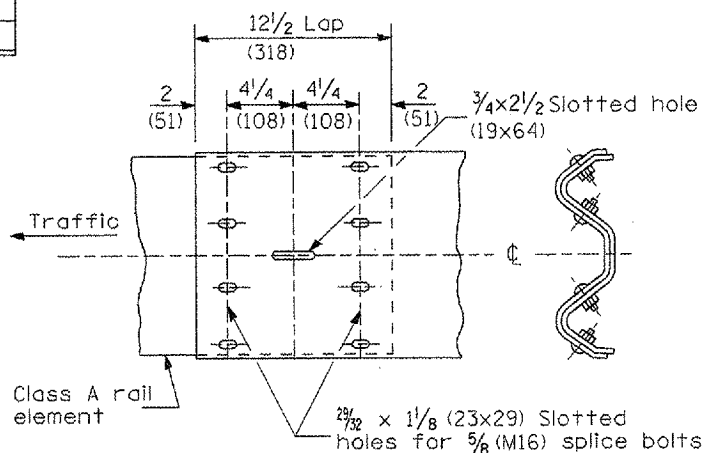
CADD STD. 630011-D4(2) SHEET 2 OF 4
SCALE: NOT DRAWN TO SCALE DRAWN BY: CADD
DATE CHECKED BY:

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
317	(18B)	FULTON	50	34
STA. 252+75		TO STA. 262+40		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

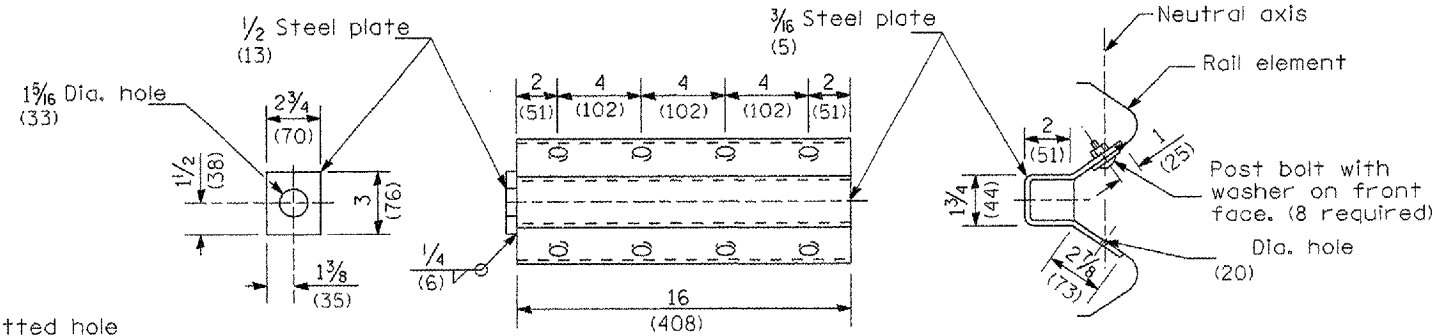
Place standard end shoe between splice plate and rail element



SPLICE PLATE

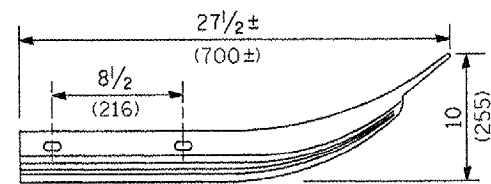


RAIL ELEMENT SPLICE

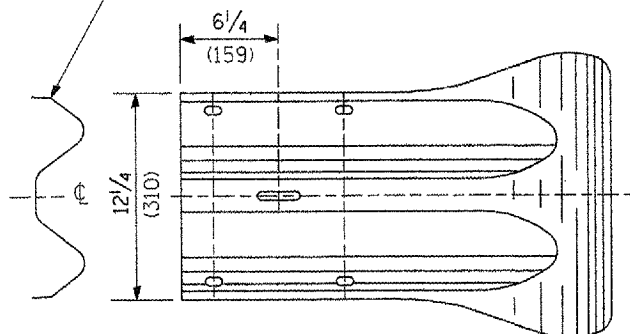


NOTE
Anchor plate T shall be used to attach cable assembly to guardrail when required on traffic barrier terminals.

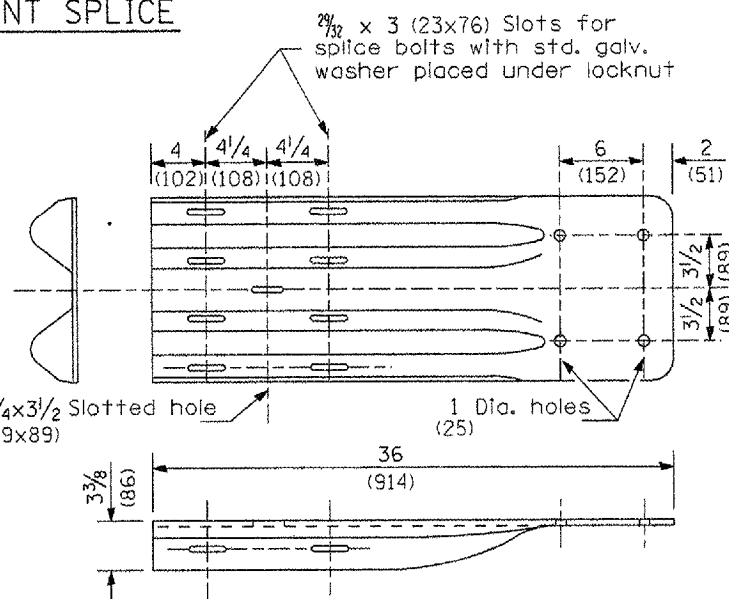
ANCHOR PLATE T DETAILS



Class A rail element



END SECTION



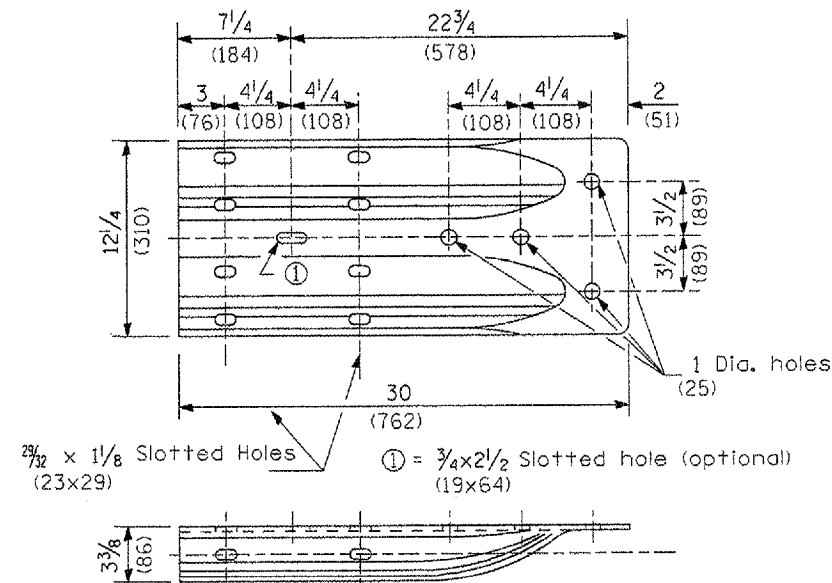
NOTE

When end shoe is attached to a bridge parapet which has an expansion joint, the bolts shall be provided with a locknut or double nut and shall be tightened only to a point that will allow guardrail movement.

The standard end shoe shall be attached to the concrete with pre-drilled or self-drilling anchor bolts. The anchor cone shall be set flush with the surface of the concrete.

Externally threaded studs protruding from the surface of the concrete will not be permitted.

END SHOE



ALTERNATE END SHOE

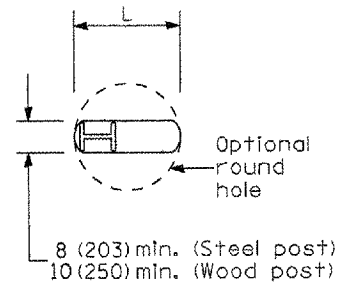
All dimensions are in inches (millimeters) unless otherwise noted.

ILLINOIS DEPARTMENT OF TRANSPORTATION
DISTRICT CADD STANDARD

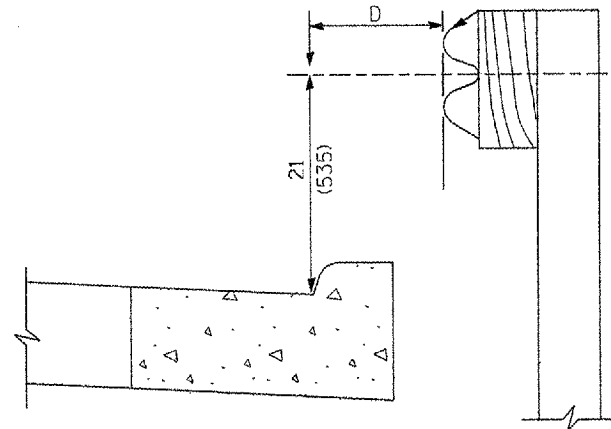
REMOVE AND REERECT
STEEL PLATE BEAM GUARDRAIL

CADD STD. 630011-D4(3) SHEET 3 OF 4
SCALE: NOT DRAWN TO SCALE DRAWN BY: CADD
DATE CHECKED BY:

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
317	(18B)I	FULTON	50	35
STA. 262+75		TO STA. 262+40		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		



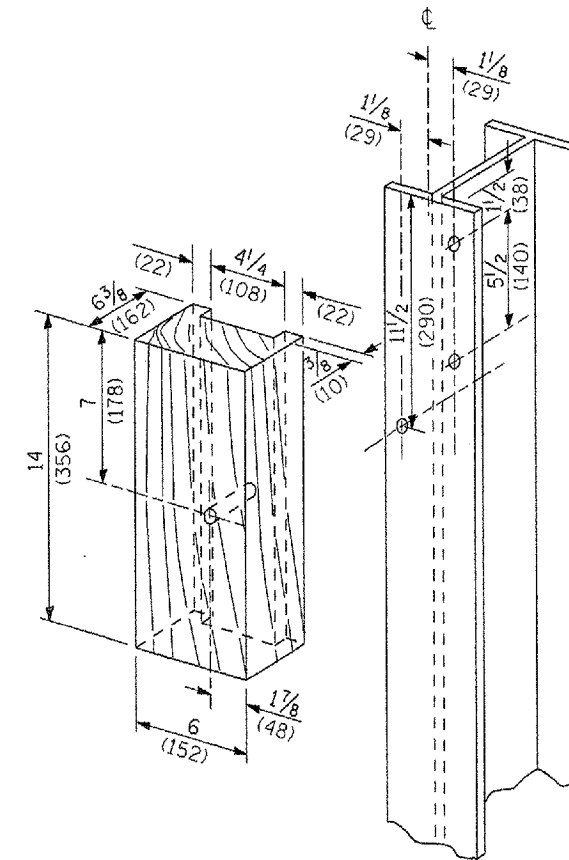
PLAN



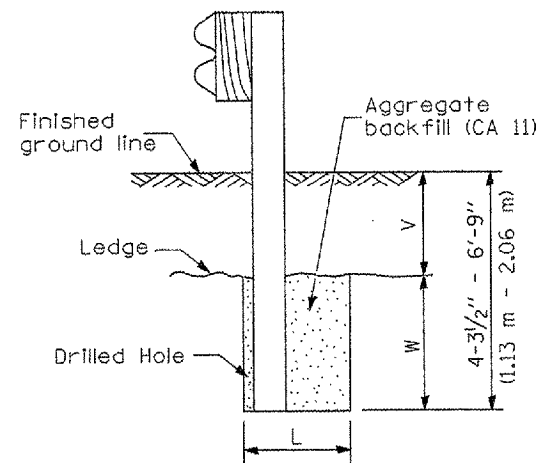
Note:
If it is necessary for D to be more than 12 (300) and less than 10'-0" (3.0 m) type M-2 (M-5) curb and gutter (Std. 60600) shall be used in front of and in advance of the guardrail.

GUARDRAIL PLACED BEHIND CURB

(D = 0 desirable to 12 (300) maximum)



WOOD BLOCK-OUT AND STEEL POST DETAILS

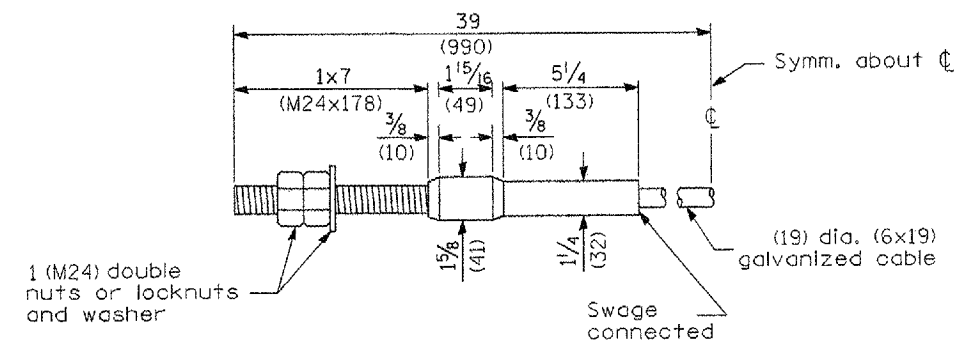


Note:
Ledge line is top of rock ledge or hard slag fill.

ELEVATION

FOOTING FOR POST WHEN IMPERVIOUS MATERIAL IS ENCOUNTERED

V	W	L	
		Steel Post	Wood Post
0 - 18 (0 - 460)	24 (610)	21 (530)	23 (580)
>18 - 41.5 (>460 - 825)	12 (305)	8 (203)	10 (250)
>41.5 - 53.5 (>825 - 1.13 m)	12 - 0 (305 - 0)	8 (203)	10 (250)



CABLE ASSEMBLY

(18,100 kg (40,000 lbs.) min. breaking strength)
Tighten to taut tension.

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

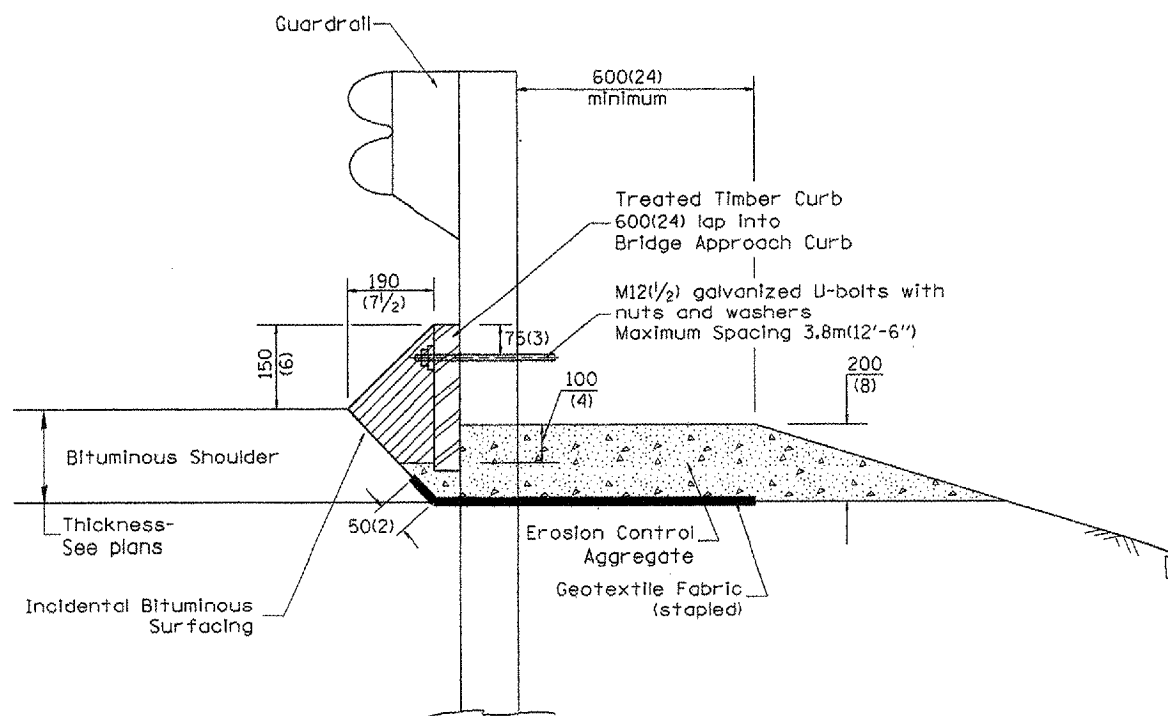
ILLINOIS DEPARTMENT OF TRANSPORTATION
DISTRICT CADD STANDARD

REMOVE AND REERECT
STEEL PLATE BEAM GUARDRAIL

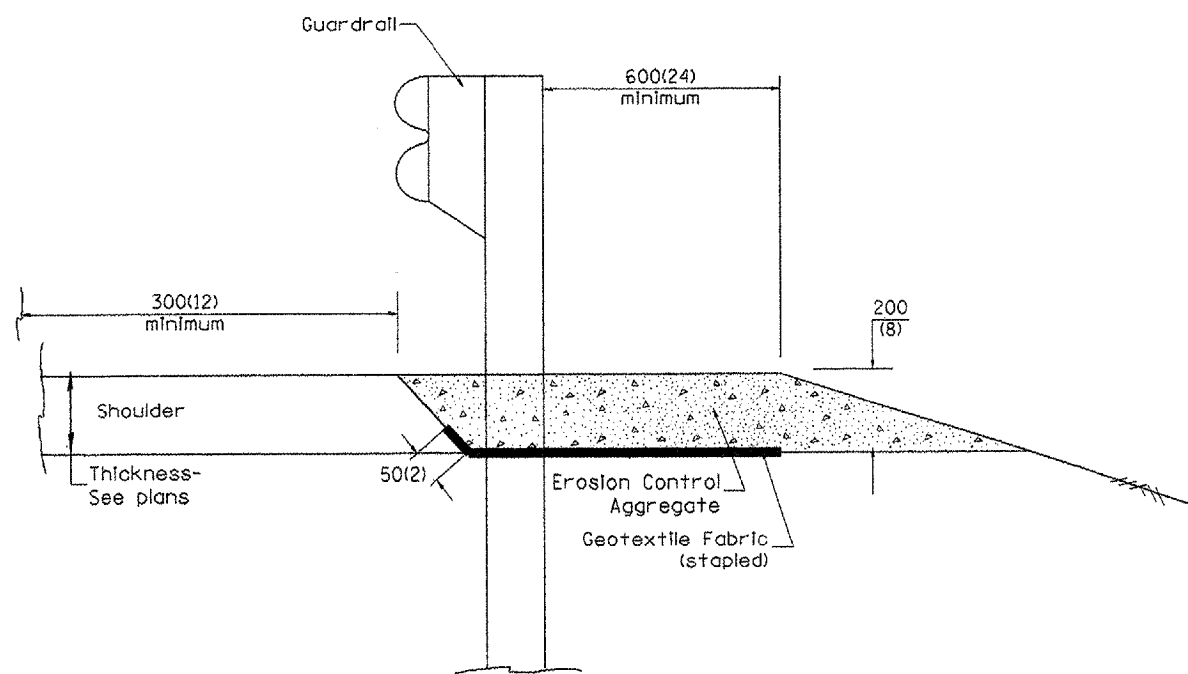
CADD STD. 630011-D4(4) SHEET 4 OF 4
SCALE: NOT DRAWN TO SCALE DRAWN BY: CADD
DATE CHECKED BY:

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
317	08B01	FULTON	50	36
STA. 252+75		TO STA. 262+40		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

DESIGNER NOTE: Use EROSION CONTROL CURB of guardrail installations where grades are equal to or greater than 1% and at inlets. [Include District Special Provision]
 1. Use GUARDRAIL AGGREGATE EROSION CONTROL at guardrail installations where grades are less than 1% (include District Special Provision)
 2. Include State Standards 609001, 609006 or 610001 if applicable.
 3. Include the following District Cadd Standards as needed: Slope Drains for Exposed Pipes; Slope Drains for Buried Pipes; Seepage Collars for Buried Pipes;
 4. Seepage Collars for Exposed Pipes; Concrete Thrust Blocks and Pipe Elbow.
 5. Include District Special Provision - "Aggregate Quality" for projects located in the Western Area of the District - approx. dividing line is IL 97.



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/m³ (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

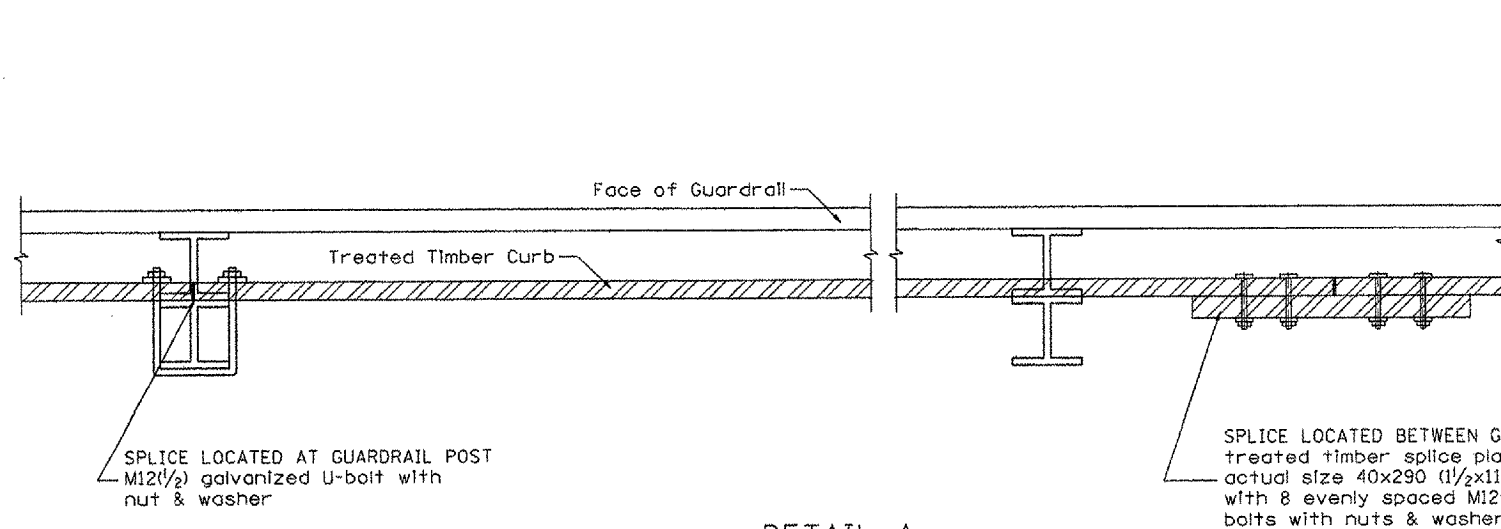
GUARDRAIL EROSION CONTROL TREATMENTS

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.

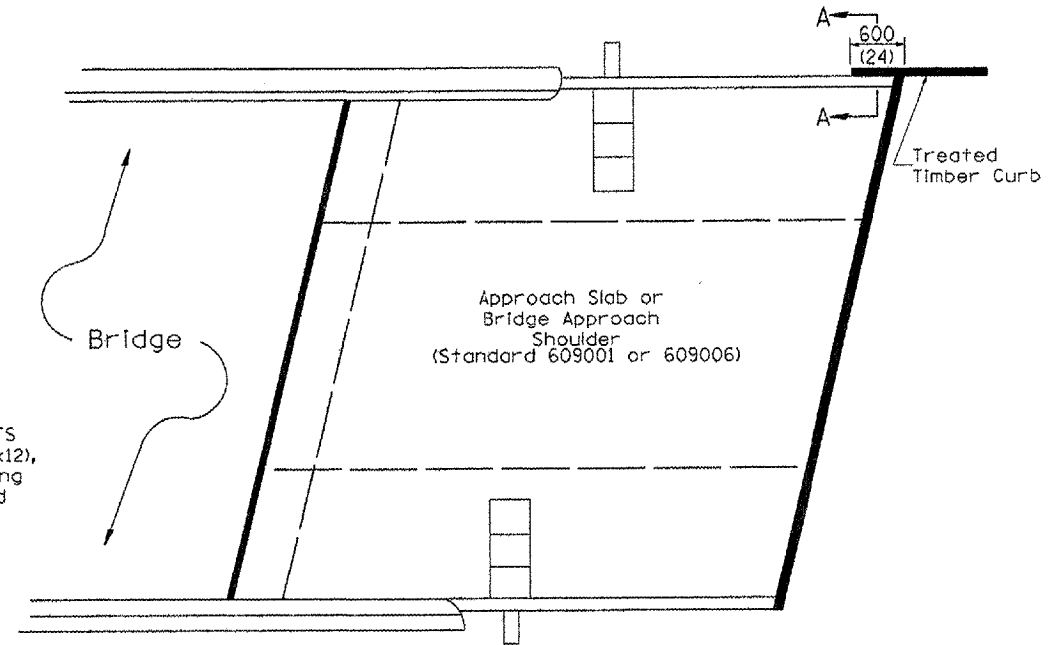
CADD STD NO. 630101-D(1)
 SCALE: NOT DRAWN TO SCALE
 DATE **DATE**

SHEET 1 OF 2
 DRAWN BY CADD
 CHECKED BY

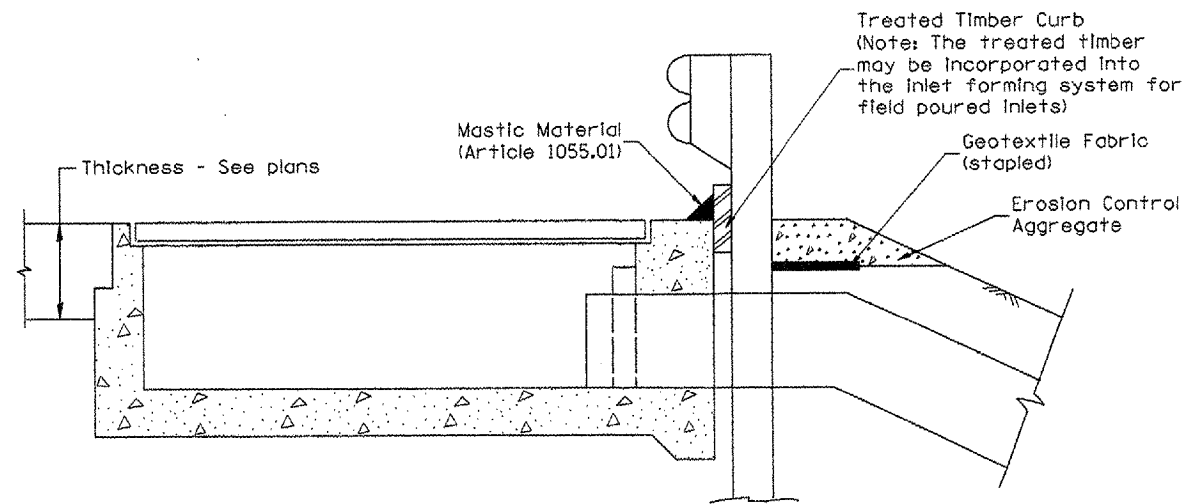
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
317	(18B)	FULTON	50	37
STA. 252+75		TO STA. 262+40		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		



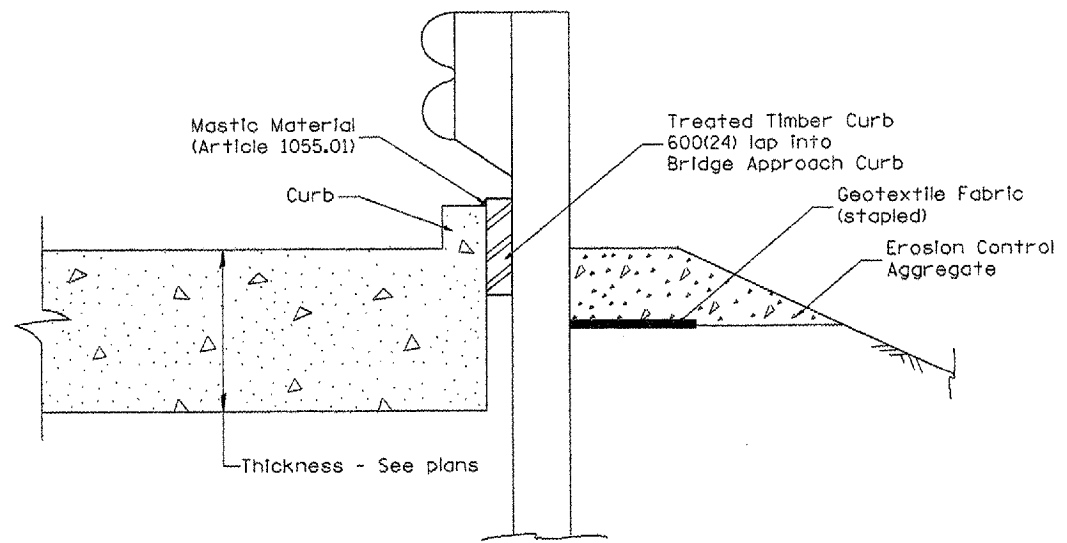
DETAIL A
(Typical Treated Timber Splices)



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)



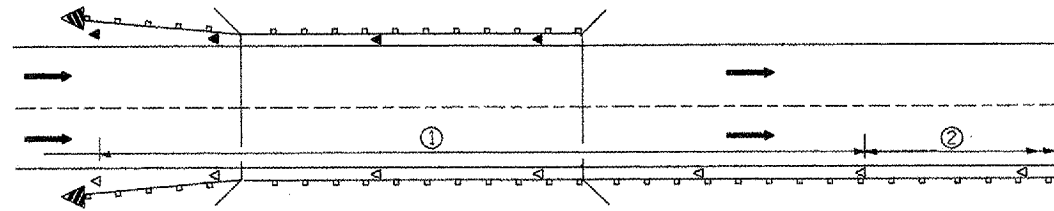
SECTION A-A
TYPICAL SECTION WITH EROSION CONTROL CURB
AT BRIDGE APPROACH CURB
(STANDARD 609001 OR 609006)

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
DATE **DATE**	CHECKED BY

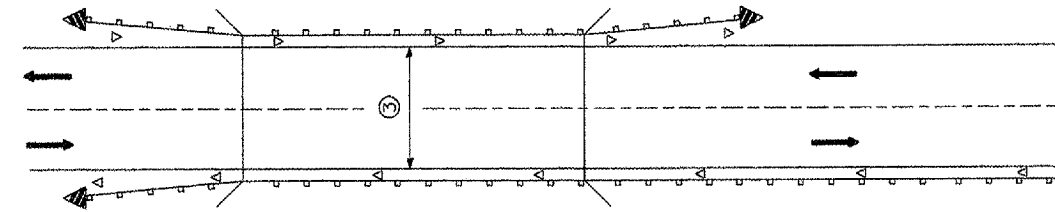
DATE

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
317	(18B)	FULTON	50	38
STA. 252+75		TO STA. 262+40		
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



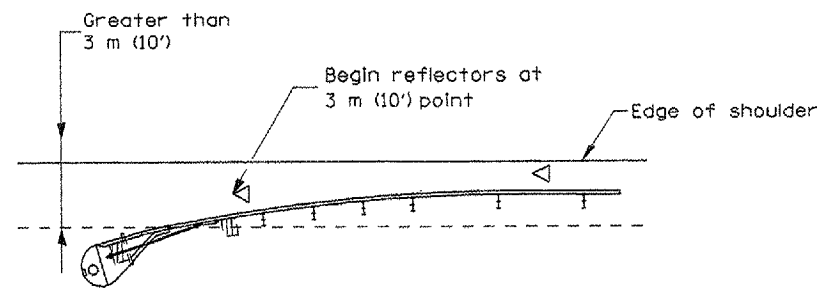
- ③ Bidirectional silver/silver should be used in lieu of monodirectional silver on both sides of two-lane bridges where the bridge pavement is less than 610 (24) wider than the pavement approaching the bridge.

TWO-WAY TRAFFIC

GUARDRAIL / BARRIER WALL / BRIDGE RAIL REFLECTORS

LEGEND

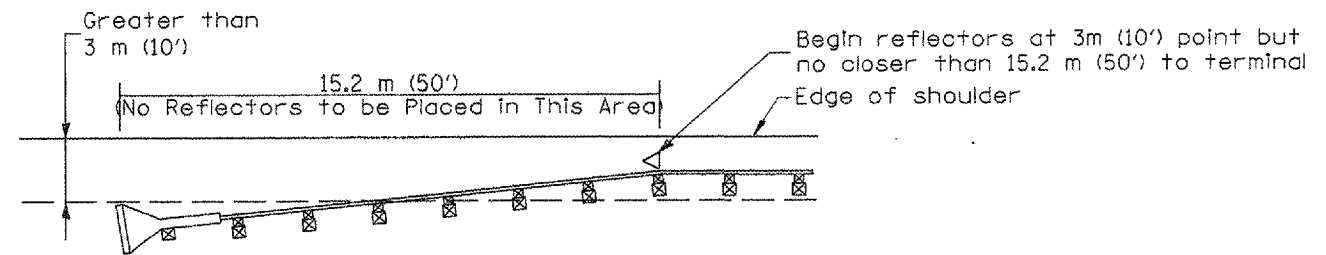
- ◁ Monodirectional silver
- ◄ Monodirectional amber
- ◄ Terminal Marker - Black/Yellow
Left or Right as appropriate



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.

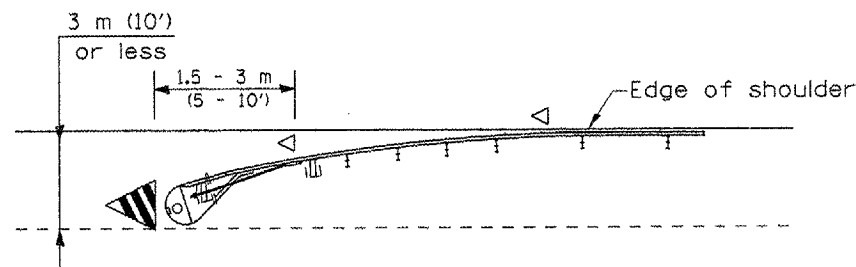
Traffic Barrier Terminal Type(*) and/or Turned-Down Terminal

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



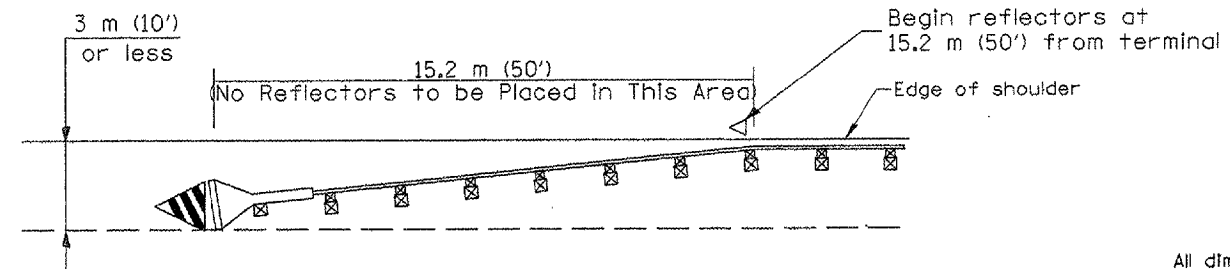
NOTE: Omit terminal marker when terminal over (10') from edge of paved shoulder or break point of unpaved shoulder.

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
DATE **DATE** CHECKED BY

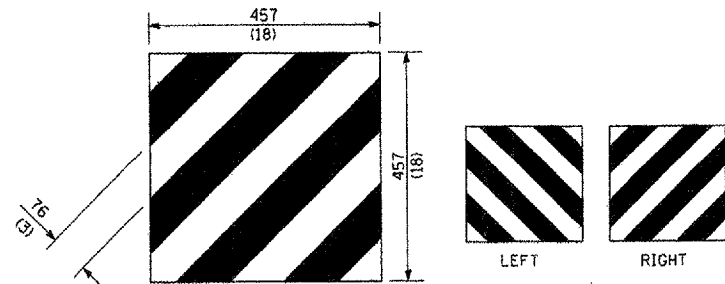
DATE	REVISIONS	BY
1-1-97	RENUM. E-10.02, NEW REVISION BOX	T.P.
3-1-97	CORRECT STD. SPEC. *	J.A.

TERMINAL MARKER PLACEMENT

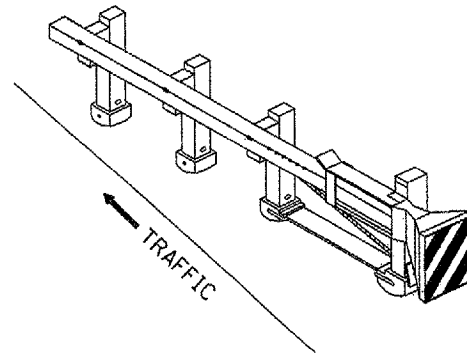
DESIGNER NOTE: 1. INCLUDE APPROPRIATE SPECIAL PROVISIONS FOR "GUARD RAIL DELINEATION POLICY: 1. TERMINAL MARKER, 2. TERMINAL MARK POST, AND 3. GUARDRAIL AND BARRIER WALL MARKERS." FROM INTERIM SPECIAL PROVISIONS 94-74; "GUARDRAIL AND BARRIER WALL DELINEATION." 2. IF POST MOUNT TERMINAL MARKER IS USED, INCLUDE STATE STD. 720011.

DATE

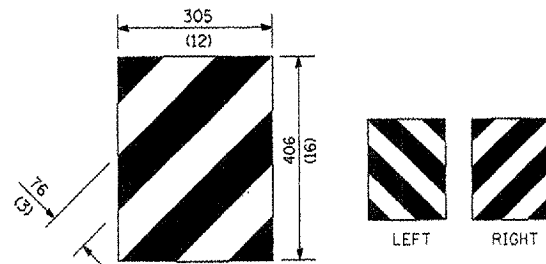
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
317	(18B)	FULTON	50	39
STA. 252+75		TO STA. 262+40		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	



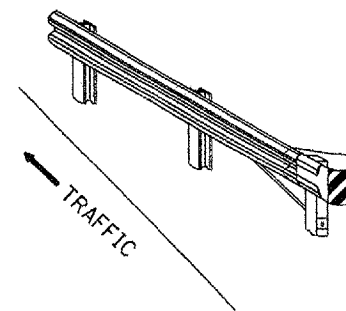
For Traffic Barrier Terminal Type 1 (Special)



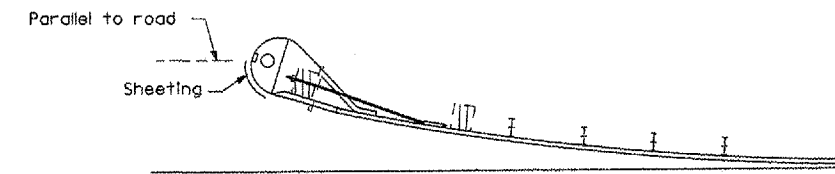
Standard Treatment - Direct Applied Sheeting
Traffic Barrier Terminal Type 1 (Special)



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



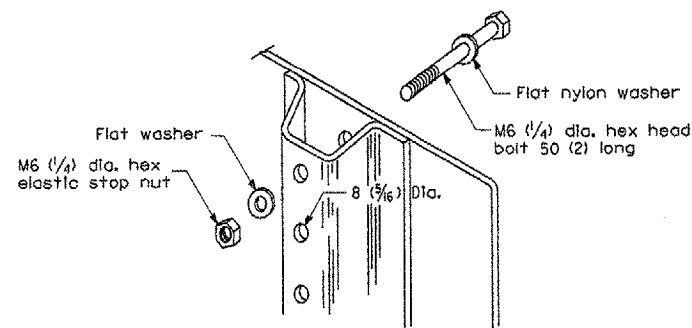
Standard Treatment - Direct Applied Sheeting
Traffic Barrier Terminal Type (*)
* See Plans for Type



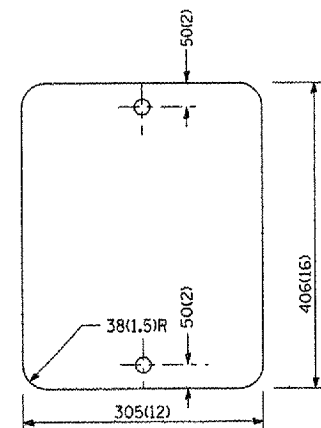
Sheeting Position for
Traffic Barrier Terminal Type (*)
* See Plans for Type

TERMINAL MARKER DETAILS

- Color: Black / Yellow reflectorized
- OM - 1100 (L or R) Direct applied reflective sheeting
- OM - 1200 (L or R) Post mounted

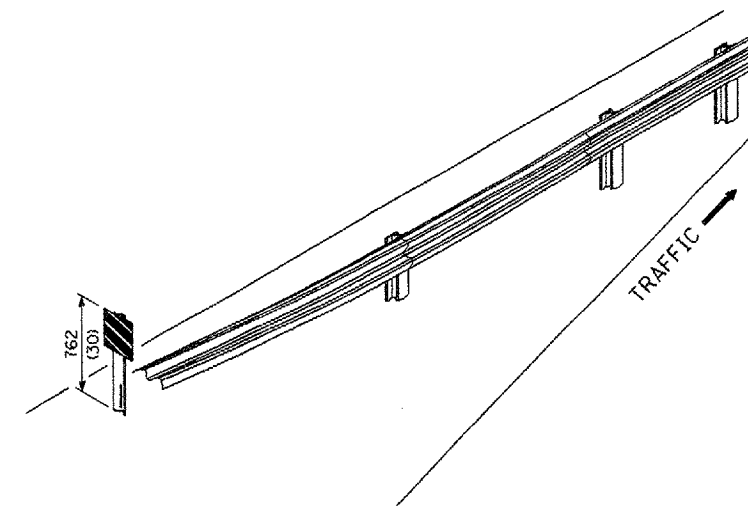


DETAIL OF MOUNTING TERMINAL MARKER TO POST



STANDARD TERMINAL MARKER

POST MOUNTED TERMINAL MARKER ASSEMBLY



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

TERMINAL MARKER TREATMENTS

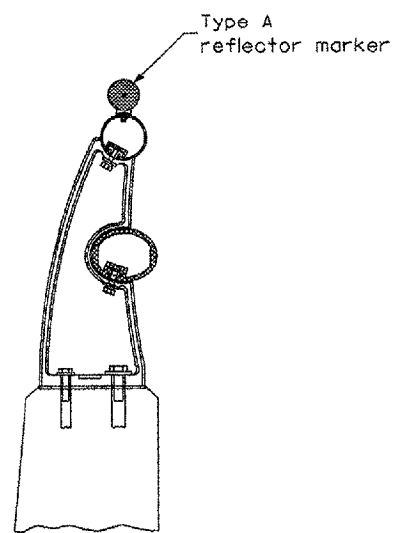
GENERAL NOTES

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

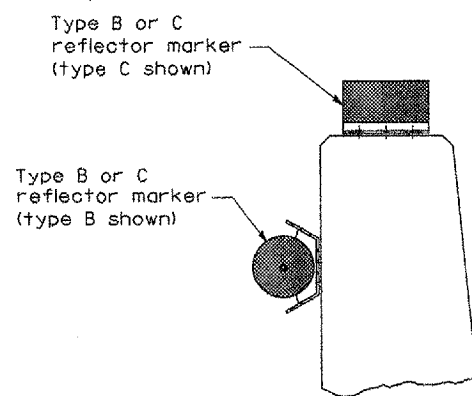
ILLINOIS DEPARTMENT OF TRANSPORTATION	
DISTRICT CADD STANDARD	
GUARDRAIL AND BARRIER WALL DELINEATION	
CADD STD. NO. 635101-D4	SHEET 2 OF 3
SCALE: NOT DRAWN TO SCALE	DRAWN BY CADD
DATE **DATE**	CHECKED BY

DATE

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
317	(18B)	FULTON	50	40
STA. 252+75		TO STA. 262+40		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

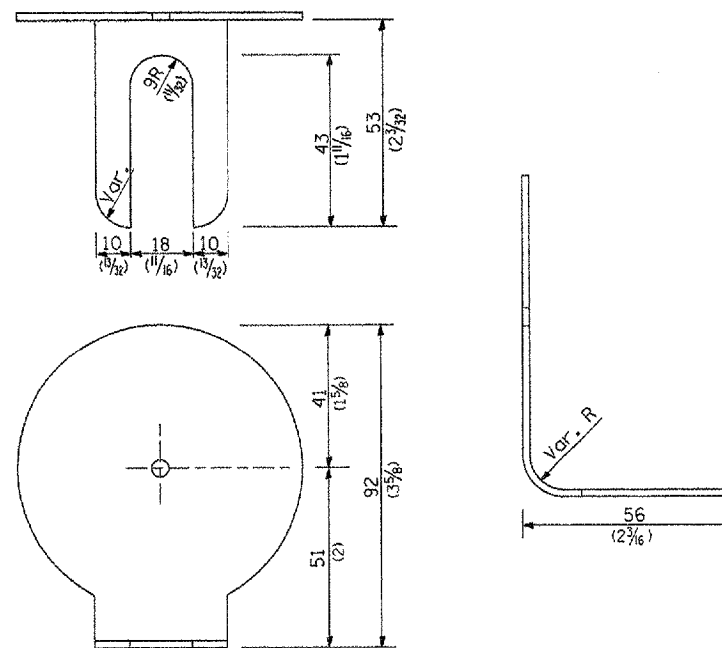


TYPICAL MOUNTING DETAIL FOR BRIDGE RAIL REFLECTOR

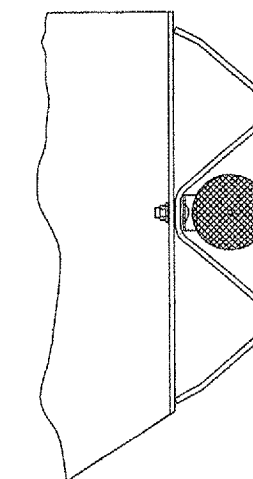


REFLECTOR MOUNTING

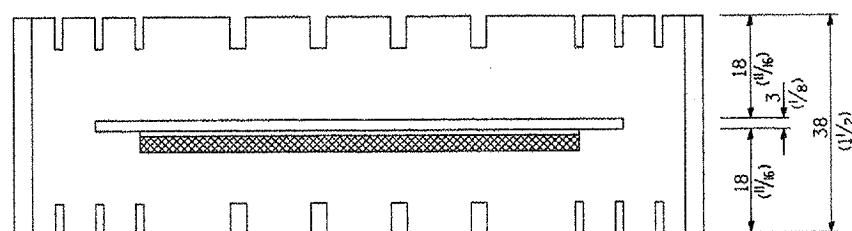
TYPICAL MOUNTING DETAIL FOR BARRIER WALL REFLECTOR



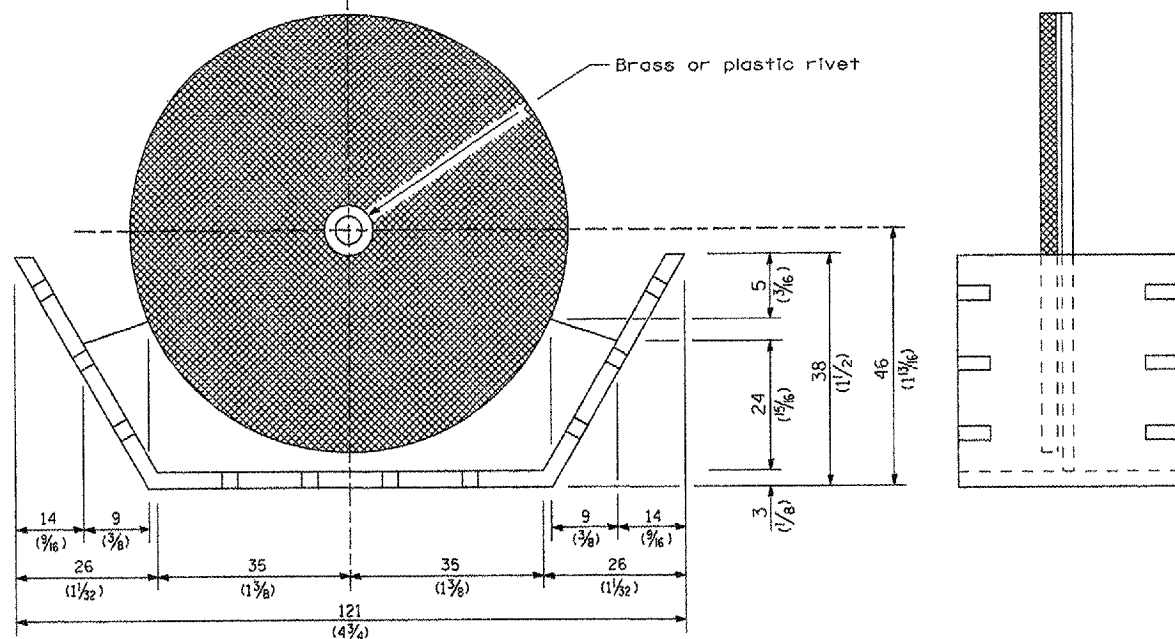
REFLECTOR MARKER TYPE A



TYPICAL GUARDRAIL MOUNTING WITH REFLECTOR MARKER TYPE A

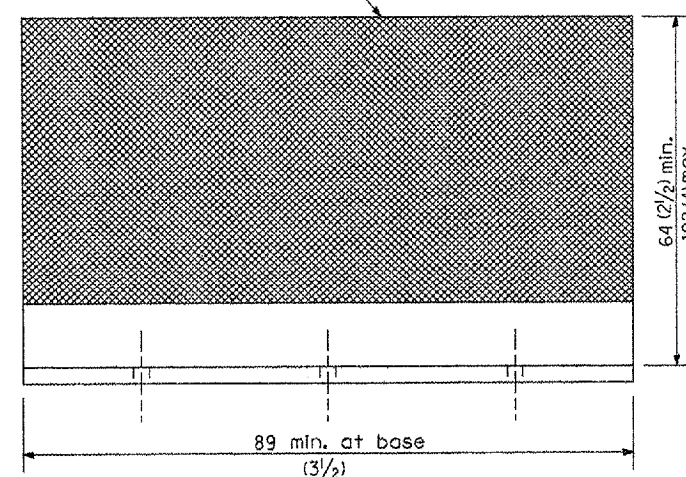


Adhesive weep slots or holes equally spaced on both sides

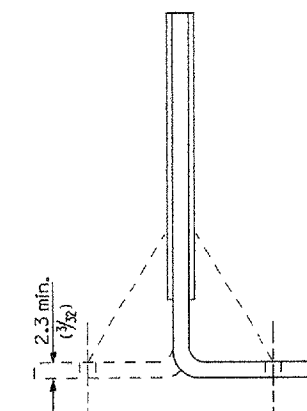


REFLECTOR MARKER TYPE B

Min. reflective area 4,194 mm² (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

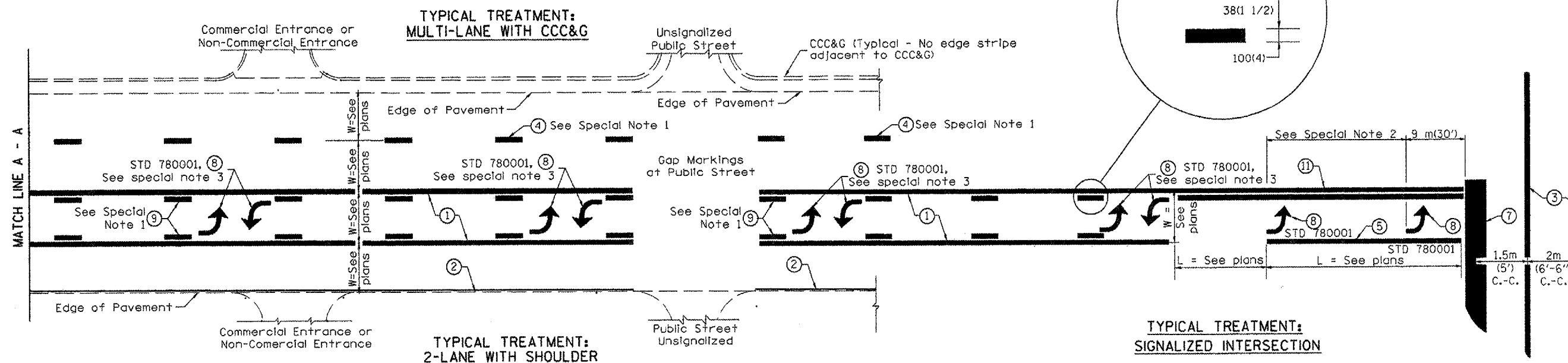
Minimum total area of base 4,516 mm² (7.0 Sq. In.)

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
DATE **DATE**	CHECKED BY

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
317	(18B)1	FULTON	50	41
STA. 252+75		TO STA. 262+40		
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") in C.-C. (White)
2-200(8) Crosswalk @ 2m (6'-6") in 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) (See Table A)
- ⑪ 100(4) Double Solid (Yellow) (See Table A)

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.

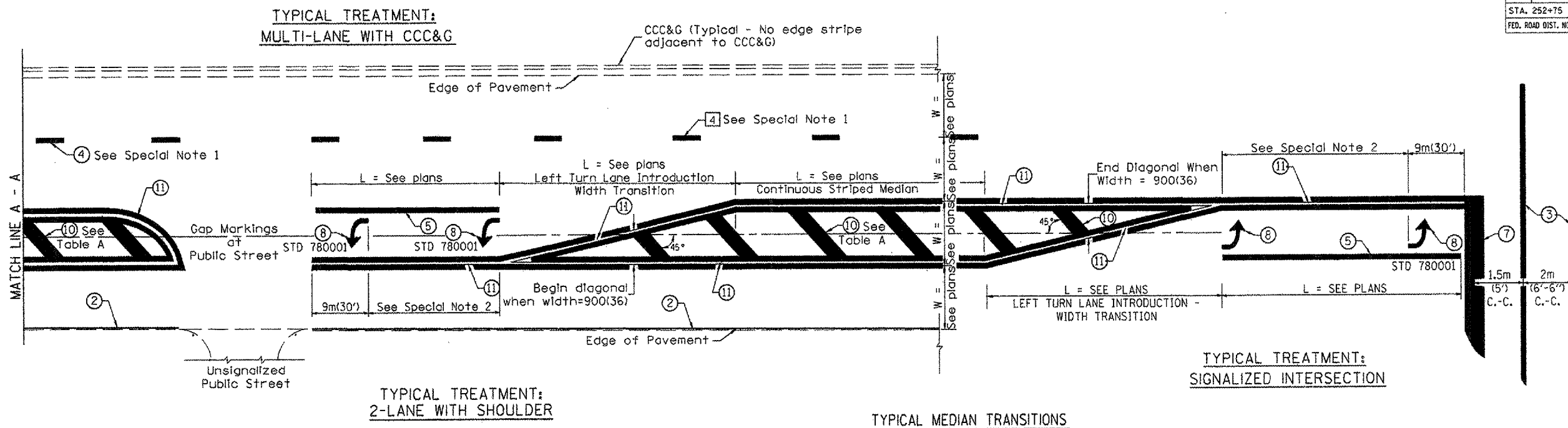
ILLINOIS DEPARTMENT OF TRANSPORTATION	
DISTRICT CADD STANDARD	
TYPICAL PAVEMENT MARKINGS	
CADD STANDARD 780001-D4	SHEET 1 OF 2
SCALE: NOT DRAWN TO SCALE	DRAWN BY CADD CHECKED BY

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

DESIGNER NOTES: 1. Include State Standard 780001 (Typical Pavement Markings)

\$DATE\$\$

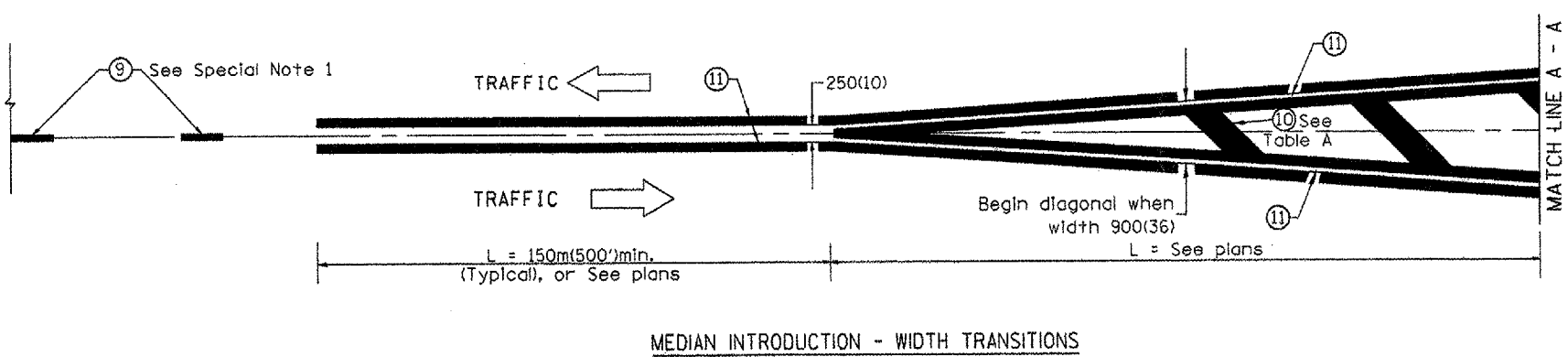
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
317	(188)	FULTON	50	42
STA. 252+75		TO STA. 262+40		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	



FLUSH PAVED MEDIAN: RESTRICTED LEFT TURN LANE

TABLE A
RECOMMENDED SPACING BETWEEN DIAGONAL LINES

SPEED LIMIT RANGE	INTERSECTION CHANNELIZATION (Includes Width Transitions for Median and Left Turn Lane Introductions)	
	CONTINUOUS	
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')

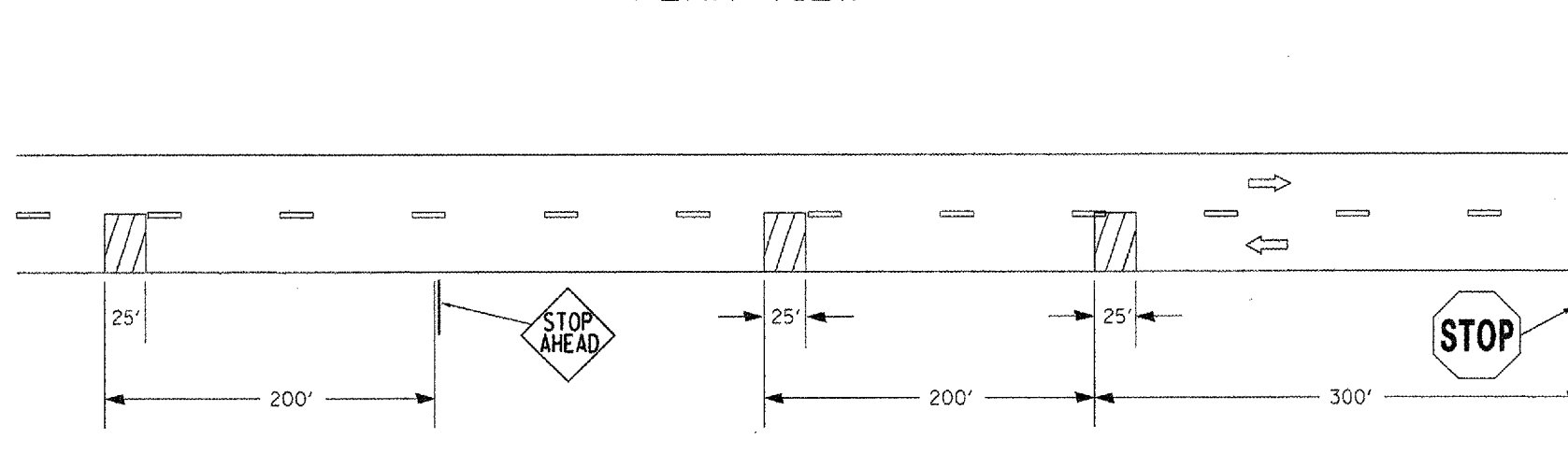


All dimensions are in millimeters (inches) unless otherwise noted.

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

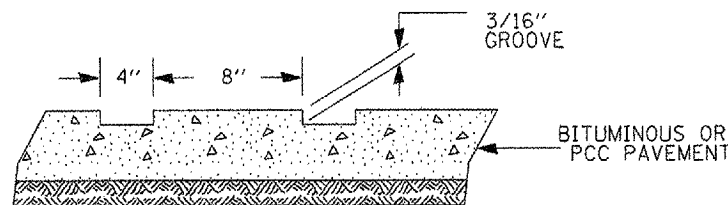
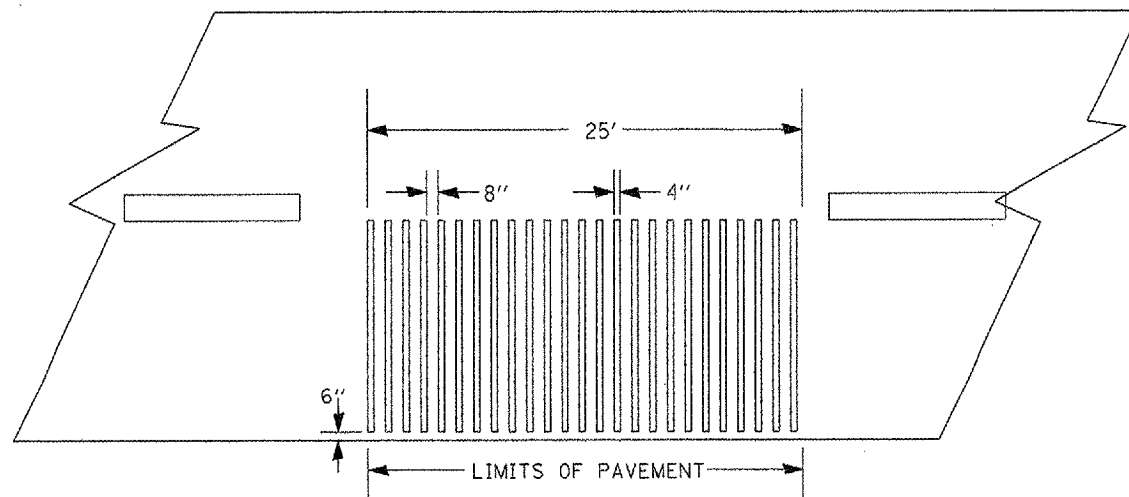
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
317	(1881)	FULTON	90	42A
STA. 252+75		TO STA. 262+40		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

PLAN VIEW



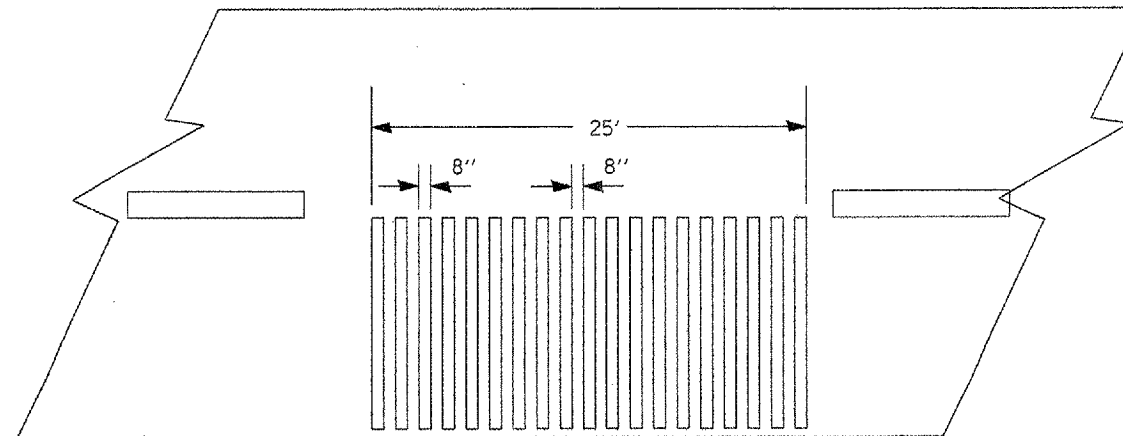
DETAIL 'A'

GROOVED (PERMANENT)



DETAIL 'B'

RAISED (TEMPORARY)



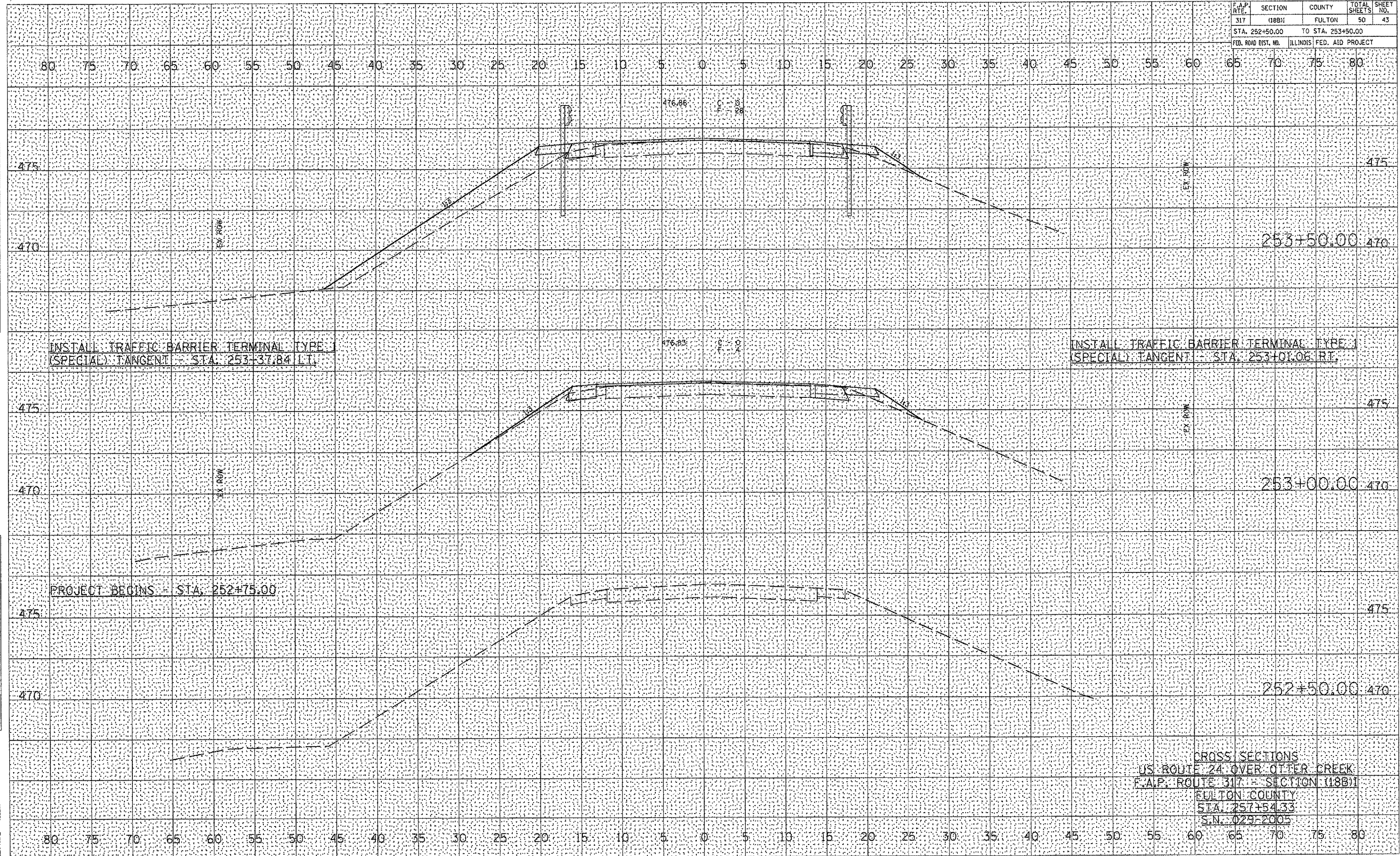
NOTE: THE 25-FOOT RUMBLE AREA HAS 8-INCH LENGTHS OF TREATED SURFACE STRETCHED ACROSS THE WIDTH OF APPROACH LANE, EACH SEPARATED BY 8 INCHES OF EXISTING PAVEMENT.

ILLINOIS DEPARTMENT OF TRANSPORTATION	
DISTRICT CADD STANDARD	
TEMPORARY AND PERMANENT RUMBLE STRIPS	
SCALE: VERT. _____	DRAWN BY _____
HORIZ. _____	CHECKED BY: RJD
DATE _____	

DESIGNER NOTE: MAKE SURE TO USE APPROPRIATE D1 SPECIAL PROVISION WITH THIS DETAIL.

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

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
317	(18B)	FULTON	50	43
STA. 252+50.00		TO STA. 253+50.00		
ILLINOIS FED. AID PROJECT				



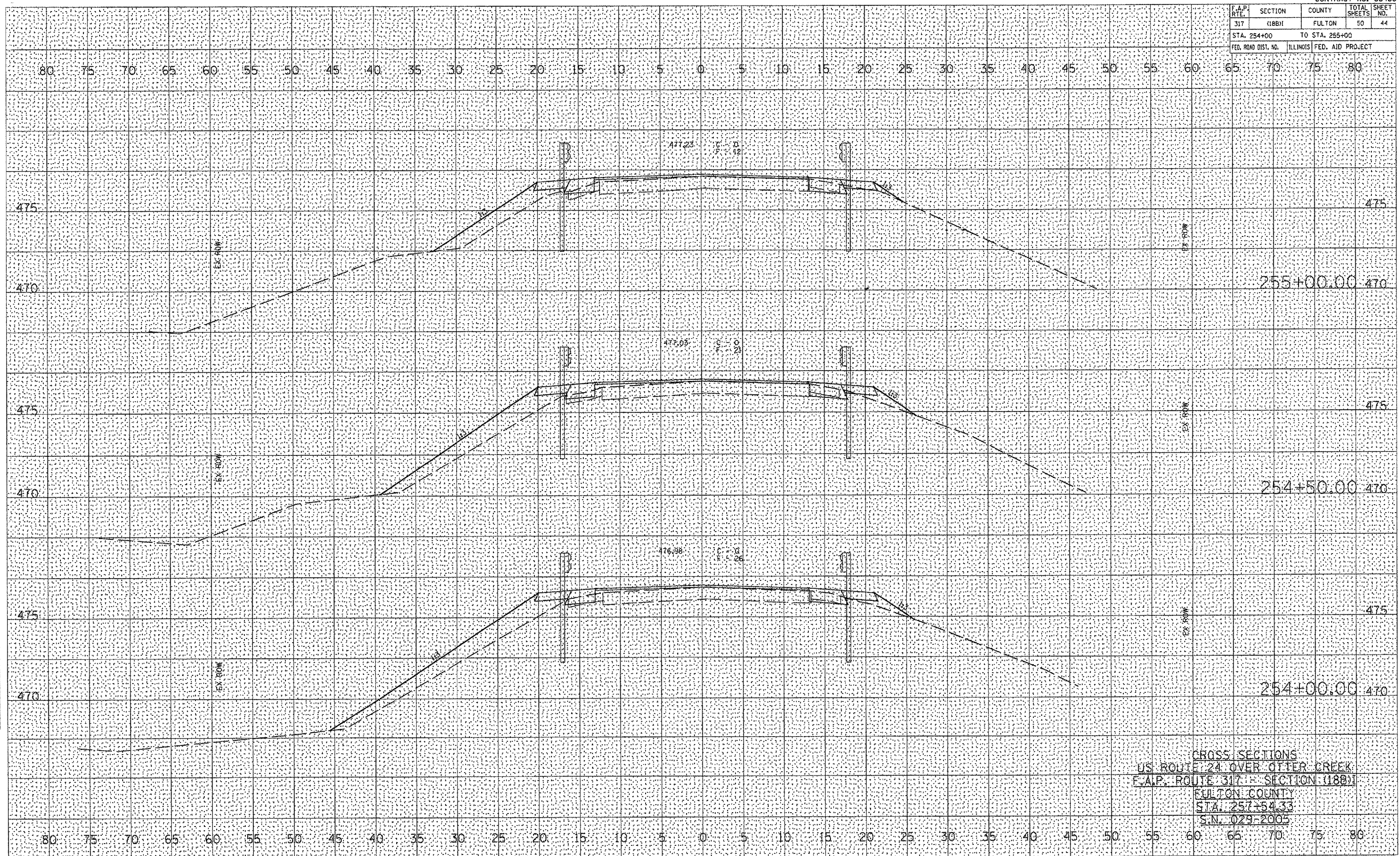
DATE: _____
 BY: _____
 SURVEYED: _____
 PLOTTED: _____
 CHECKED: _____
 NO. _____

DATE: _____
 BY: _____
 SURVEYED: _____
 PLOTTED: _____
 CHECKED: _____
 NO. _____

DATE: _____
 BY: _____
 SURVEYED: _____
 PLOTTED: _____
 CHECKED: _____
 NO. _____

CROSS SECTIONS
 US ROUTE 24 OVER OTTER CREEK
 F.A.P. ROUTE 317 - SECTION (18B)
 FULTON COUNTY
 STA. 257+54.33
 S.N. 029-2005

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
317	(18B)	FULTON	50	44
STA. 254+00		TO STA. 255+00		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	



DATE: _____
 BY: _____
 SURVEYED _____
 PLOTTED _____
 TEMPLATE _____
 NOTE BOOK _____
 AREAS CHECKED _____

DATE: _____
 BY: _____
 SURVEYED _____
 PLOTTED _____
 TEMPLATE _____
 NOTE BOOK _____
 AREAS CHECKED _____

DATE: _____
 FILE NAME: _____
 PLOT SCALE: _____
 USER NAME: _____

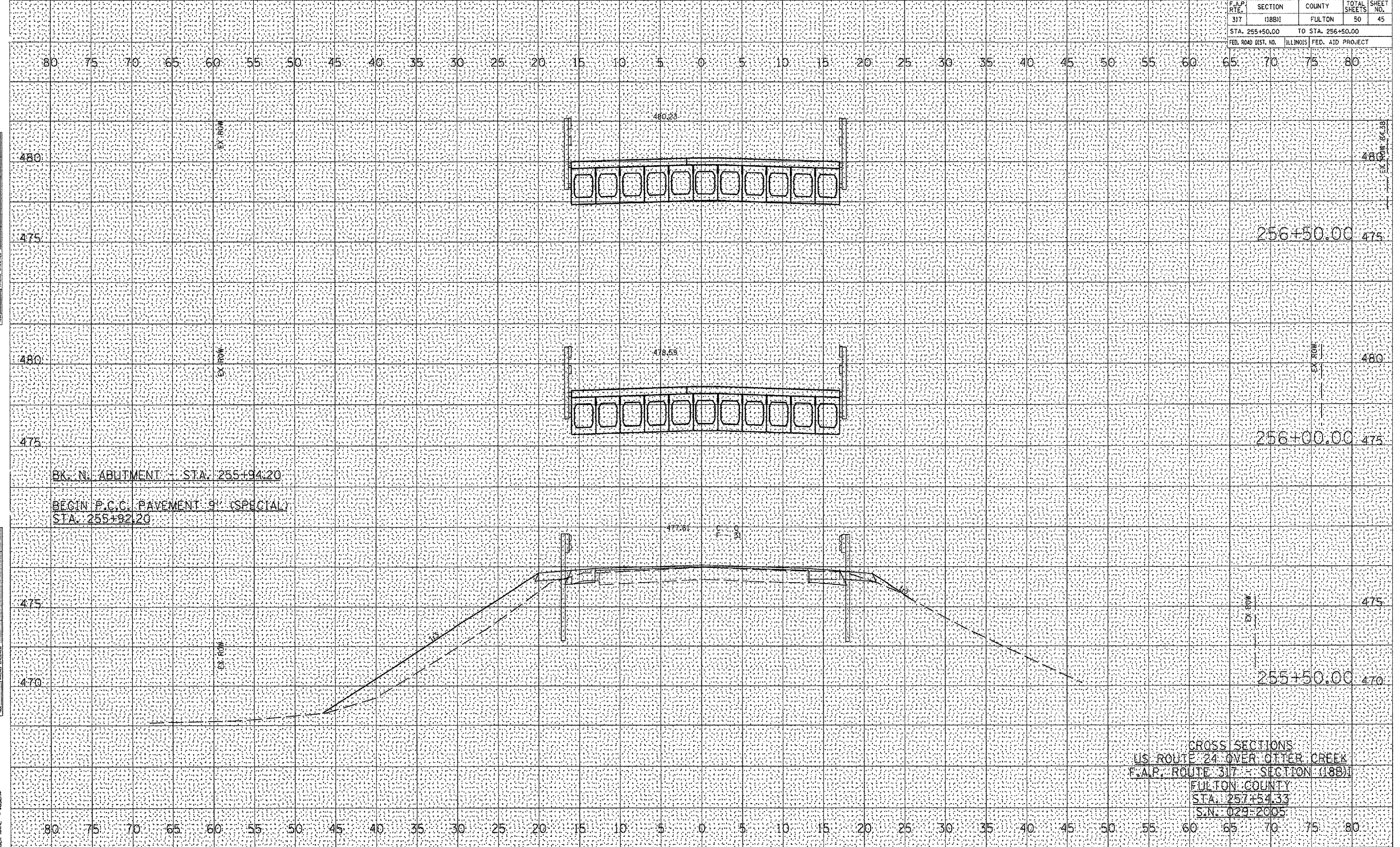
CROSS SECTIONS
 US ROUTE 24 OVER OTTER CREEK
 F.A.P. ROUTE 317 - SECTION (18B)
 FULTON COUNTY
 STA. 257+54.33
 S.N. 029-2005

F.A.P. RTE. 317	SECTION (18B)	COUNTY FULTON	TOTAL SHEETS 50	SHEET NO. 45
STA. 255+50.00		TO STA. 256+50.00		
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				

DATE	
BY	
FINAL SURVEY	
NOTE BOOK NO.	
AREAS CHECKED	

DATE	
BY	
FINAL SURVEY	
NOTE BOOK NO.	
AREAS CHECKED	

DATE =
 PLOT DATE =
 PLOT SCALE =
 USER NAME =



80 75 70 65 60 55 50 45 40 35 30 25 20 15 10 5 0 5 10 15 20 25 30 35 40 45 50 55 60 65 70 75 80

480 475 480 475 475 470

256+50.00

256+00.00

BK. N. ABUTMENT - STA. 255+94.20

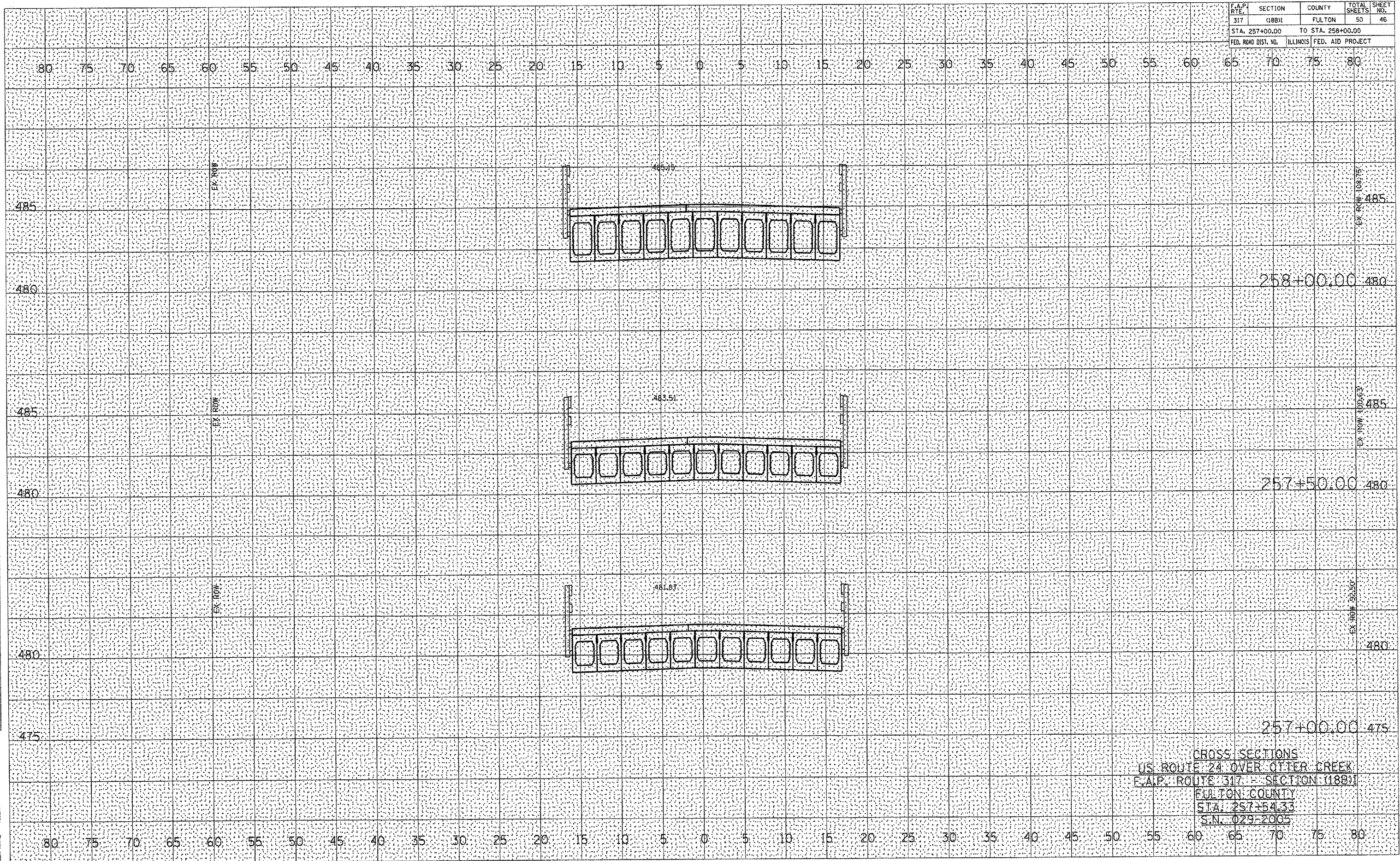
BEGIN P.C.C. PAVEMENT 9% (SPECIAL)
STA. 255+92.20

255+50.00

CROSS SECTIONS
 US ROUTE 24 OVER OTTER CREEK
 F.A.P. ROUTE 317 - SECTION (18B)
 FULTON COUNTY
 STA. 257+54.33
 S.N. 029-2005

80 75 70 65 60 55 50 45 40 35 30 25 20 15 10 5 0 5 10 15 20 25 30 35 40 45 50 55 60 65 70 75 80

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
317	(18B)	FULTON	50	46
STA. 257+00.00 TO STA. 258+00.00				
FED. ROAD DIST. NO. ILLINOIS			FED. AID PROJECT	



DATE: _____ BY: _____

FINAL SURVEY: _____

DESIGNED: _____

PLOTTED: _____

NOTE BOOK: _____

AREAS CHECKED: _____

NO. _____

DATE: _____ BY: _____

ORIGINAL SURVEY: _____

DESIGNED: _____

PLOTTED: _____

NOTE BOOK: _____

AREAS CHECKED: _____

NO. _____

PLOT DATE: * 4/12/05 *

FILE NAME: * 4/12/05 *

PLOT SCALE: * 4/12/05 *

USER NAME: * 4/12/05 *

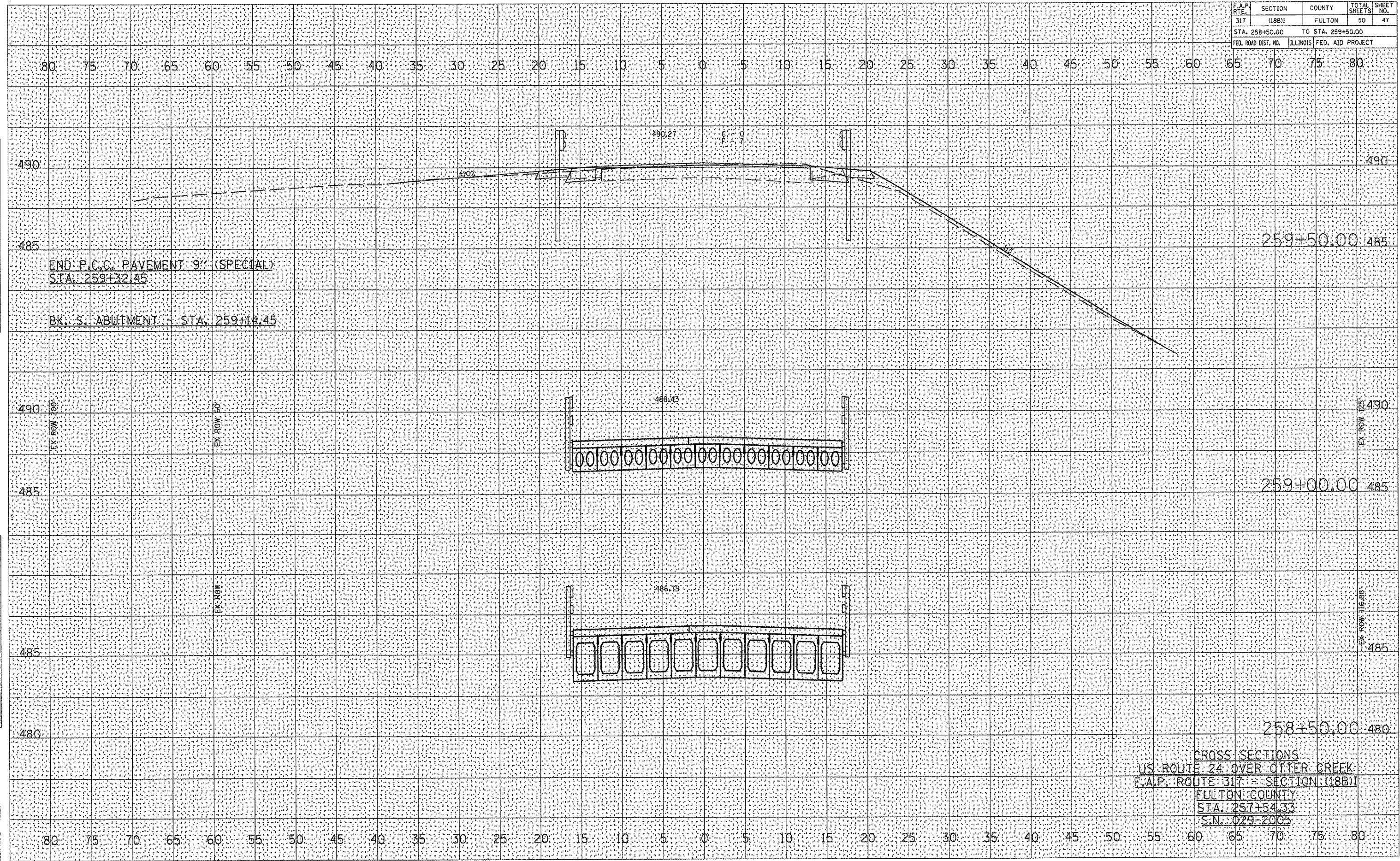
CROSS SECTIONS
 US ROUTE 24 OVER OTTER CREEK
 F.A.P. ROUTE 317 - SECTION (18B)
 FULTON COUNTY
 STA. 257+54.33
 S.N. 029-2005

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
317	(18B)	FULTON	50	47
STA. 258+50.00		TO STA. 259+50.00		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

DATE	
BY	
FINAL SURVEY	
NOTE BOOK NO.	
AREAS CHECKED	

DATE	
BY	
ORIGINAL SURVEY	
NOTE BOOK NO.	
AREAS CHECKED	

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 USER NAME =

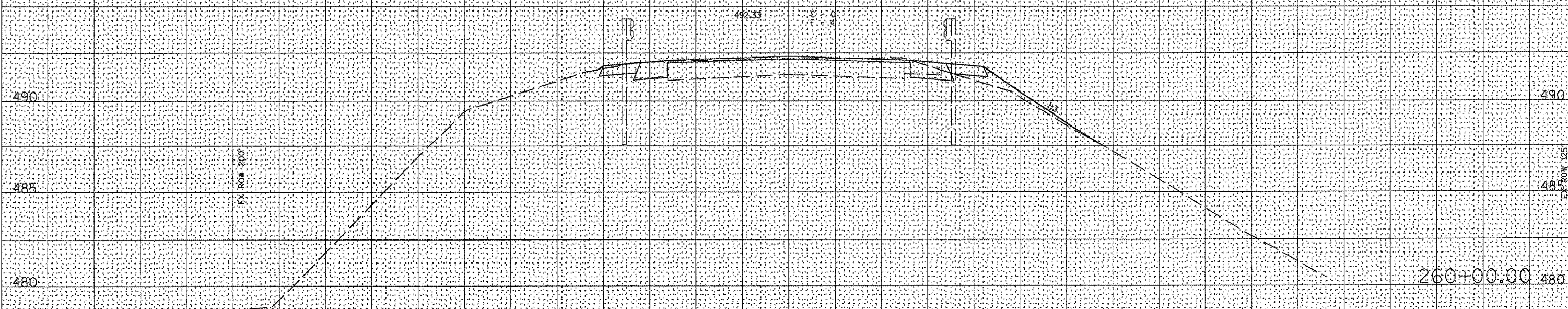


CROSS SECTIONS
 US ROUTE 24 OVER OTTER CREEK
 F.A.P. ROUTE 317 - SECTION (18B)
 FULTON COUNTY
 STA. 257+34.33
 S.N. 029-2005

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
317	(188)	FULTON	50	48
STA. 259+67.00		TO STA. 260+00.00		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

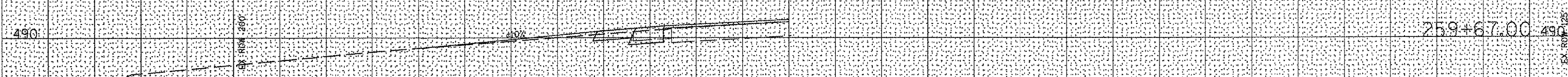
80 75 70 65 60 55 50 45 40 35 30 25 20 15 10 5 0 5 10 15 20 25 30 35 40 45 50 55 60 65 70 75 80

REMOVE AND RE-ERECT STEEL PLATE BEAM GUARDRAIL - STA. 260+11 TO STA. 262+36 LT.



REMOVE AND RE-ERECT STEEL PLATE BEAM GUARDRAIL - STA. 259+68 TO STA. 262+30.3 RT.

FIELD ENTRANCE LT.



CROSS SECTIONS
 US ROUTE 24 OVER OTTER CREEK
 F.A.P. ROUTE 317 - SECTION (188)
 FULTON COUNTY
 STA. 257+54.33
 S.N. 029-2005

80 75 70 65 60 55 50 45 40 35 30 25 20 15 10 5 0 5 10 15 20 25 30 35 40 45 50 55 60 65 70 75 80

DATE	
BY	
FINN SURVEYED	
PLOTTED	
NOTE BOOK	
AREAS CHECKED	

DATE	
BY	
ORIGINAL SURVEYED	
PLOTTED	
NOTE BOOK	
AREAS CHECKED	

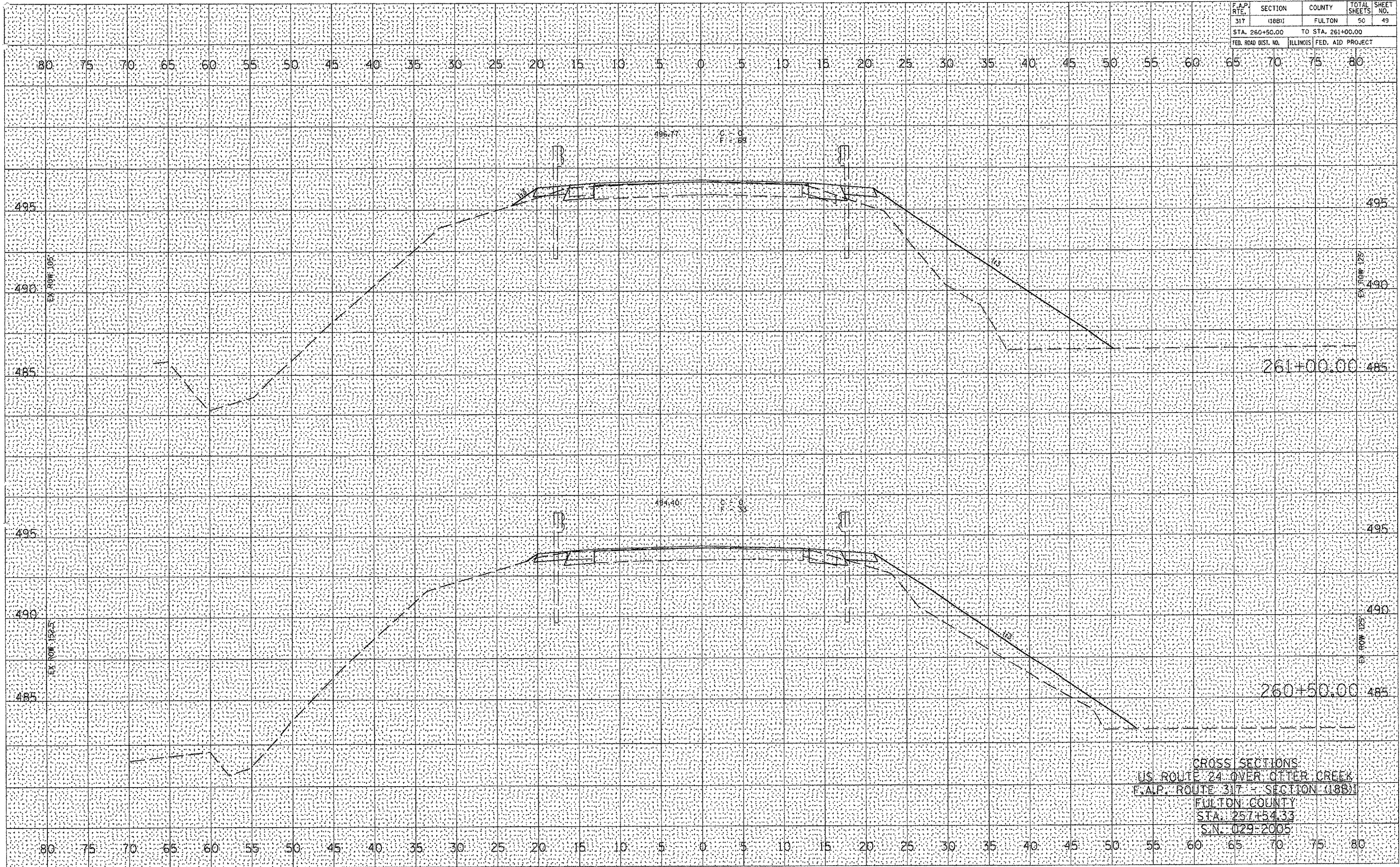
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 USER NAME = *USER*

F.A.P. R.T.E.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
317	(18B)	FULTON	50	49
STA. 260+50.00		TO STA. 261+00.00		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	

DATE	
BY	
NO.	
FINISHED SURVEY	
PLOTTED	
NOTE BOOK	
AREAS CHECKED	

DATE	
BY	
NO.	
ORIGINAL SURVEY	
PLOTTED	
NOTE BOOK	
AREAS CHECKED	

PLOT DATE = 04/15/05
 PLOT SCALE = 1"=40'
 USER NAME = BJS/RSB

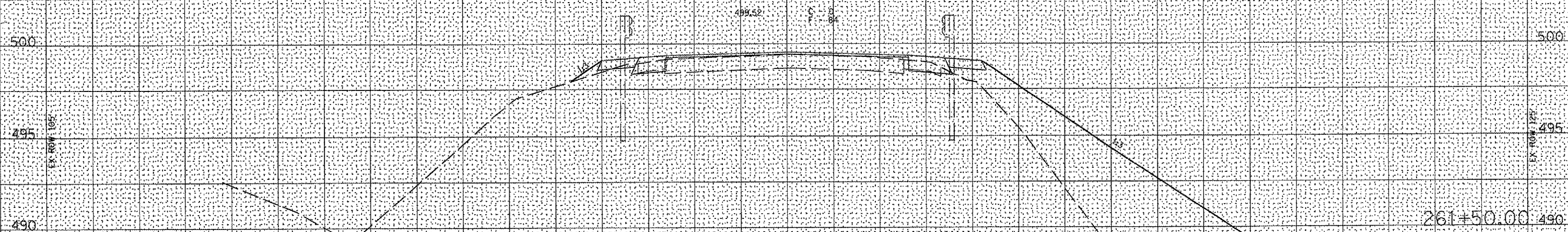
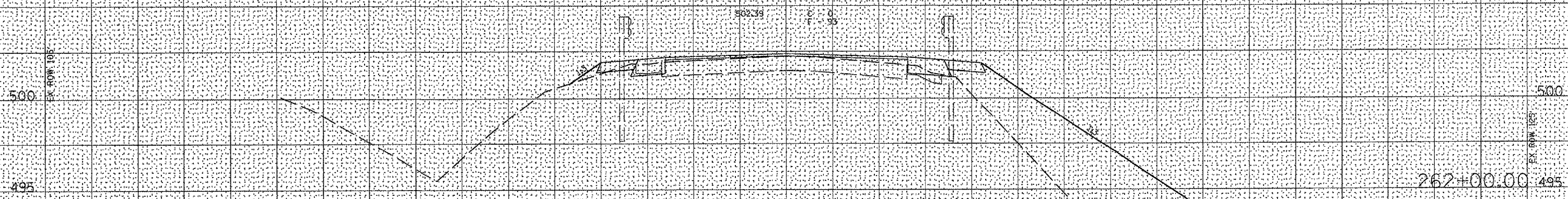


CROSS SECTIONS
 US ROUTE 24 OVER OTTER CREEK
 F.A.P. ROUTE 317 - SECTION (18B)
 FULTON COUNTY
 STA. 257+54.33
 S.N. 029-2005

F.A.P. RTE.	SECTION (188)	COUNTY	TOTAL SHEETS	SHEET NO.
317	(188)	FULTON	50	50
STA. 261+50.00		TO STA. 262+00.00		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

80 75 70 65 60 55 50 45 40 35 30 25 20 15 10 5 0 5 10 15 20 25 30 35 40 45 50 55 60 65 70 75 80

PROJECT ENDS - STA. 262+40



CROSS SECTIONS
 US ROUTE 24 OVER OTTER CREEK
 F.A.P. ROUTE 317 - SECTION (188)
 FULTON COUNTY
 STA. 257+54.33
 S.N. 029-2005

80 75 70 65 60 55 50 45 40 35 30 25 20 15 10 5 0 5 10 15 20 25 30 35 40 45 50 55 60 65 70 75 80

DATE _____
 BY _____
 SURVEYED _____
 SURVEY _____
 NOTE BOOK _____
 TEMPLATE _____
 AREAS _____
 AREAS CHECKED _____

DATE _____
 BY _____
 SURVEYED _____
 SURVEY _____
 NOTE BOOK _____
 TEMPLATE _____
 AREAS _____
 AREAS CHECKED _____

PLOT DATE = 08/05/05
 FILE NAME = 87LE18
 PLOT SCALE = 8/32=0.25
 USER NAME = BLSBPS